TROUBLE SHOOTING MANUAL

HIGHLIGHTS

REVISION NO. 54 May 01/08

Pages which have been revised are outlined below, together with the Highlights of the Revision

CH/SE/SU C PAGES	REASON FOR CHANGE	EFFECTIVITY

CHAPTER 24

	REVISED TO REFLECT THIS REVISION INDICATING NEW, REVISED, AND/OR DELETED PAGES	
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24-CFDS 104, 107	FAULT LIST UPDATED	254-275, 451-475,
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CHAPTER 24

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T. of C.	R	6	May01/08	24-ECAM	R		May01/08	24-0BSV		106	Aug01/07
T. of C.	R	7		24-ECAM	R		May01/08	24-0BSV			Nov01/07
T. of C.	R	8	May01/08	24-ECAM	R	121	May01/08	24-0BSV		108	Feb01/07
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T. of C.	R	11	May01/08	24-ECAM	R	124	May01/08	24-0BSV		111	Nov01/07
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T. of C.		21	Nov01/07	24-ECAM	R		May01/08	24-CFDS	R		May01/08
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T. of C.			Feb01/08	24-ECAM			May01/03	24-CFDS			May01/07
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TROUBLE SHOOTING MANUAL

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24-21-00	R		May01/08	24-21-00			Nov01/03	24-22-00			Nov01/07
24-21-00	R		May01/08	24-21-00			Nov01/03	24-22-00	R		May01/08
24-21-00	R		May01/08	24-21-00			Nov01/03	24-22-00			Feb01/08
24-21-00	R		May01/08	24-21-00			Nov01/03	24-22-00			Nov01/07
24-21-00	R		May01/08	24-21-00			Nov01/06	24-22-00			Nov01/07
24-21-00	R		May01/08	24-21-00			Nov01/05	24-22-00	R		May01/08
24-21-00	R		May01/08	24-21-00			Nov01/06	24-22-00	R		May01/08
24-21-00	R		May01/08	24-21-00		265	Nov01/05	24-22-00	R		May01/08
24-21-00	R		May01/08	24-21-00		266	Nov01/05	24-22-00	R		May01/08
24-21-00	R		May01/08	24-21-00		267	Nov01/05	24-22-00			Nov01/07
24-21-00		217	Nov01/07	24-21-00		268	Nov01/06	24-22-00		224	Nov01/07
24-21-00		218	Aug01/01	24-21-00		269	Nov01/05	24-22-00	R	225	May01/08
24-21-00		219	Nov01/07	24-21-00		270	Nov01/03	24-22-00	R	226	May01/08
24-21-00		220	Aug01/01	24-21-00		271	Nov01/03	24-22-00	R		May01/08
24-21-00			Nov01/02	24-21-00			Nov01/03	24-22-00			Feb01/08
24-21-00	R		May01/08	24-21-00			Nov01/03	24-22-00	R		May01/08
24-21-00			Nov01/02	24-21-00			Nov01/03	24-22-00			Feb01/08
24-21-00			Nov01/02	24-21-00			Nov01/05	24-22-00	R		May01/08
24-21-00	R		May01/08	24-21-00			Nov01/03	24-22-00	R		May01/08
24-21-00			Nov01/02	24-21-00			Nov01/05	24-22-00	R		May01/08
24-21-00			Nov01/02	24-21-00			Nov01/05	24-22-00	R		May01/08
24-21-00			Nov01/02	24-21-00			Nov01/05	24-22-00	_		Nov01/07
24-21-00			Feb01/05	24-21-00			Nov01/05	24-22-00	R		May01/08
24-21-00			Nov01/02	24-21-00	_		Nov01/05	24-22-00			Nov01/07
24-21-00			Nov01/02	24-21-00	R		May01/08	24-22-00	_		Nov01/07
24-21-00			Feb01/05	24-21-00 24-21-00			Nov01/03	24-22-00	R	239	May01/08
24-21-00 24-21-00			Nov01/02 Nov01/02	24-21-00	R		May01/08 Nov01/03	24-22-00 24-22-00	В	240	Nov01/07
24-21-00			Feb01/08	24-21-00			Nov01/03	24-22-00	R R		May01/08 May01/08
24-21-00			Feb01/08	24-21-00	R		May01/08	24-22-00	R		May01/08
24-21-00			Feb01/03	24-21-00	K		Feb01/05	24-22-00	ĸ		Feb01/08
24-21-00			Nov01/02	24-21-00			Feb01/05	24-22-00			Nov01/07
24-21-00	R	239		24-21-00	R		May01/08	24-22-00			Nov01/07
24-21-00			Nov01/03	24-21-00			Feb01/08	24-22-00			Aug01/07
24-21-00			Nov01/02	24-21-00			Aug01/04	24-22-00			Aug01/07
24-21-00			Nov01/02	24-21-00			Feb01/02	24-22-00			Aug01/07
24-21-00	R		May01/08	24-21-00			Feb01/02	24-22-00	R		May01/08
24-21-00			Nov01/03					24-22-00	R		May01/08
24-21-00			Nov01/02	24-22-00	R	201	May01/08	24-22-00			Feb01/08
24-21-00		246	Nov01/03	24-22-00	R		May01/08	24-22-00			Aug01/07
24-21-00		247	Nov01/03	24-22-00	R	203	May01/08	24-22-00		254	Aug01/07
24-21-00		248	Nov01/03	24-22-00	R	204	May01/08	24-22-00	R		May01/08
24-21-00		249	Nov01/03	24-22-00	R	205	May01/08	24-22-00	R		May01/08
24-21-00		250	Nov01/03	24-22-00	R	206	May01/08	24-22-00		257	Feb01/08
24-21-00			Nov01/03	24-22-00	R	207	May01/08	24-22-00			Aug01/07
24-21-00			Nov01/03	24-22-00			Feb01/08	24-22-00	R		May01/08
24-21-00			Nov01/03	24-22-00	R		May01/08	24-22-00	R		May01/08
24-21-00			Nov01/03	24-22-00	R		May01/08	24-22-00	R		May01/08
24-21-00		255	Nov01/03	24-22-00	R	211	May01/08	24-22-00	R	262	May01/08

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TROUBLE SHOOTING MANUAL

CH/SE/SU	С	PAGE	DATE	CH/SE/SU	C PA	GE.	DATE	CH/SE/SU	С	PAGE	DATE
CH/3E/30	L	PAGE	DATE	CH/3E/30	C PA	GE	DATE	CH/3E/3U	L	PAGE	DATE
24-22-00		263	Aug01/07	24-23-00	2	22	Aug01/04	24-24-00		212	Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-24-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-24-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-24-00	ı		May01/08
24-22-00			Aug01/07	24-23-00	2	26	Nov01/05	24-24-00		216	Nov01/07
24-22-00		268	Aug01/07	24-23-00	2	27	Nov01/05	24-24-00		217	May01/03
24-22-00		269	Aug01/07	24-23-00	2	28	Nov01/07	24-24-00		218	May01/03
24-22-00		270	Aug01/07	24-23-00	2	29	Nov01/07	24-24-00		219	May01/03
24-22-00			Aug01/07	24-23-00			Nov01/07	24-24-00		220	May01/03
24-22-00			Aug01/07	24-23-00			Feb01/07				
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-28-00			May01/08
24-22-00			Aug01/07	24-23-00 24-23-00			Nov01/05	24-28-00	,		May01/08
24-22-00 24-22-00			Aug01/07	24-23-00			Nov01/05 Nov01/05	24-28-00 24-28-00			Feb01/03 Feb01/03
24-22-00			Aug01/07 Aug01/07	24-23-00			Nov01/05	24-28-00			Feb01/03
24-22-00			Aug01/07	24-23-00			Nov01/05	24-20-00		211	rebu 1/03
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00		201	Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00			Nov01/07
24-22-00			Aug01/07	24-23-00			Nov01/05	24-30-00	-		May01/08
			- 3 - 7 -	24-23-00			Nov01/05	24-30-00	ı		May01/08
24-23-00	R	201	May01/08	24-23-00	2	52	Nov01/05	24-30-00			Feb01/08
24-23-00	R		May01/08	24-23-00	2	53	Nov01/05	24-30-00		210	Feb01/08
24-23-00	R	203	May01/08	24-23-00	2	54	Nov01/05	24-30-00		211	Feb01/08
24-23-00	R	204	May01/08	24-23-00	2	55	Nov01/05	24-30-00		212	Feb01/08
24-23-00	R	205	May01/08	24-23-00	2	56	Nov01/05	24-30-00		213	Feb01/07
24-23-00	R	206	May01/08	24-23-00			Nov01/05	24-30-00		214	Feb01/07
24-23-00			Nov01/07	24-23-00			Nov01/05	24-30-00		215	Feb01/07
24-23-00	R		May01/08	24-23-00			Nov01/05	24-30-00			Feb01/07
24-23-00	R		May01/08	24-23-00	2	60	Nov01/05	24-30-00			Feb01/07
24-23-00	R		May01/08		_			24-30-00			Feb01/07
24-23-00	_		Feb01/07	24-24-00			Feb01/96	24-30-00			Feb01/07
24-23-00	R		May01/08	24-24-00			Feb01/96	24-30-00			Feb01/07
24-23-00	R		May01/08	24-24-00			Feb01/96	24-30-00			Feb01/07
24-23-00	R		May01/08	24-24-00			Nov01/07	24-30-00			Feb01/07
24-23-00	R		May01/08	24-24-00			Nov01/07	24-30-00			May01/08
24-23-00			Nov01/05	24-24-00			Nov01/07	24-30-00	,		May01/08
24-23-00 24-23-00			Nov01/05 Nov01/05	24-24-00 24-24-00			Nov01/07 Nov01/07	24-30-00 24-30-00			Feb01/07 Feb01/07
24-23-00			Nov01/05	24-24-00			Nov01/07	24-30-00			Feb01/07
24-23-00			Nov01/07	24-24-00			Nov01/07	24-30-00			Feb01/07
24-23-00			Nov01/05	24-24-00			Nov01/07	24-30-00			Feb01/07
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TROUBLE SHOOTING MANUAL

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24-30-00		230	Feb01/07	24-38-00		221	Feb01/05	24-38-00		272	May01/01
24-30-00	R		May01/08	24-38-00			May01/00	24-38-00			May01/01
24-30-00	R		May01/08	24-38-00			May01/00	24-38-00			May01/01
24-30-00	R		May01/08	24-38-00			May01/00	24-38-00			Nov01/07
24 30 00	, n	233	May0 17 00	24-38-00			May01/00	24-38-00			May01/01
24-32-00		201	Aug01/00	24-38-00			May01/00	24-38-00			Nov01/07
24-32-00			Aug01/00 Aug01/00	24-38-00			May01/00	24-38-00			May01/01
24-32-00			Aug01/00 Aug01/00	24-38-00			May01/00	24-38-00			May01/01
24-32-00			Aug01/00 Aug01/00	24-38-00			May01/00	24-38-00			May01/01
24-32-00			Aug01/00 Aug01/00	24-38-00			May01/00	24-38-00			May01/01
24-32-00			Aug01/00 Aug01/00	24-38-00			Nov01/05	24-38-00			May01/01
24-32-00			Aug01/00 Aug01/00	24-38-00			May01/00	24-38-00			Nov01/07
24-32-00			Aug01/00 Aug01/00	24-38-00			Nov01/05	24-38-00			Nov01/07
24-32-00			May01/98	24-38-00			May01/00	24-38-00			Feb01/05
24-32-00				24-38-00			May01/00	24-38-00			Feb01/05
24-32-00			May01/98 May01/98	24-38-00			May01/00	24-38-00			Feb01/05
24-32-00			May01/98	24-38-00			May01/00	24-38-00	R		May01/08
24-32-00		212	May0 17 70	24-38-00			May01/00	24-38-00	ĸ		Feb01/08
24-34-00		201	Aug01/00	24-38-00			May01/00	24-38-00			Aug01/03
24-34-00			Aug01/00 Aug01/00	24-38-00			May01/00	24-36-00		270	Augu 1703
24-34-00			Aug01/00 Aug01/00	24-38-00			Feb01/03	24-40-00	R	201	May01/08
24-34-00			Aug01/00 Aug01/00	24-38-00			May01/03	24-40-00	R		May01/08
24-34-00		204	Augu 1700	24-38-00			Nov01/01	24-40-00	R		May01/08
24-35-00		201	Feb01/08	24-38-00			Feb01/03	24-40-00	R		May01/08
24-35-00			Feb01/08	24-38-00			May01/03	24-40-00	R		May01/08
24-35-00			Feb01/08	24-38-00			Nov01/01	24-40-00	R		May01/08
24-35-00			Feb01/08	24-38-00			May01/03	24-40-00	R		May01/08
24-35-00			Feb01/08	24-38-00			Aug01/00	24-40-00	R		May01/08
24-35-00			Feb01/08	24-38-00	R		May01/08	24-40-00	R		May01/08
24-35-00			Feb01/08	24-38-00			Aug01/00	24-40-00	R		May01/08
2. 33 00			. 650 1, 66	24-38-00			May01/03	24-40-00	R		May01/08
24-38-00		201	Feb01/96	24-38-00			May01/03	24-40-00	R		May01/08
24-38-00			Feb01/96	24-38-00			Aug01/00	24-40-00	R		May01/08
24-38-00			Feb01/96	24-38-00	R		May01/08	24-40-00	R		May01/08
24-38-00			Feb01/96	24-38-00			Aug01/00	24-40-00	R		May01/08
24-38-00			Feb01/96	24-38-00			May01/03	24-40-00	R		May01/08
24-38-00			Feb01/96	24-38-00			Aug01/00	24-40-00	R		May01/08
24-38-00			Nov01/06	24-38-00			Aug01/00	24-40-00	R		May01/08
24-38-00			Nov01/06	24-38-00			May01/01	24-40-00	R		May01/08
24-38-00			Feb01/96	24-38-00			Nov01/07	24-40-00	R		May01/08
24-38-00		210	Aug01/00	24-38-00		261	May01/01	24-40-00	R	221	May01/08
24-38-00		211	Feb01/96	24-38-00		262	Nov01/07	24-40-00	R	222	May01/08
24-38-00		212	Feb01/96	24-38-00		263	Nov01/07	24-40-00	R		May01/08
24-38-00		213	Feb01/96	24-38-00		264	Nov01/07	24-40-00	R	224	May01/08
24-38-00		214	Feb01/96	24-38-00		265	Nov01/07	24-40-00	R		May01/08
24-38-00		215	Feb01/96	24-38-00		266	Nov01/07	24-40-00	R		May01/08
24-38-00		216	Nov01/06	24-38-00		267	Feb01/07	24-40-00	R	227	May01/08
24-38-00		217	Nov01/06	24-38-00		268	Feb01/07	24-40-00	R	228	May01/08
24-38-00		218	May01/00	24-38-00		269	Feb01/07	24-40-00	R	229	May01/08
24-38-00		219	May01/00	24-38-00		270	Feb01/07	24-40-00	N	230	May01/08
24-38-00		220	Feb01/05	24-38-00		271	May01/01				

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TROUBLE SHOOTING MANUAL

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CH/SE/SU	С	PAGE	DATE	CH/SE/SU	С	PAGE	DATE	CH/SE/SU	С	PAGE	DATE
24-41-00		204	May 04/09	2/ /1 00		252	Nov01/03	24-50-00		222	No. 01/07
24-41-00	R		May01/08	24-41-00 24-41-00			Nov01/03	24-50-00			Nov01/07 Nov01/07
24-41-00	R R		May01/08 May01/08	24-41-00			Nov01/03	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/07	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/07	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/03	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/03	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/03	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/03	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/03	24-50-00			Nov01/07
24-41-00	R		May01/08	24-41-00			Nov01/07	24-50-00			Nov01/07
24-41-00	• • •		Nov01/02	24-41-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Feb01/99					24-50-00			Nov01/07
24-41-00			Nov01/03	24-42-00		201	Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/03	24-42-00	R		May01/08	24-50-00			Nov01/07
24-41-00		216	Nov01/03	24-42-00	R		May01/08	24-50-00		237	Nov01/07
24-41-00		217	Nov01/07	24-42-00		204	Feb01/08	24-50-00		238	Feb01/04
24-41-00		218	Nov01/07	24-42-00		205	Nov01/07	24-50-00		239	Feb01/04
24-41-00		219	Nov01/07	24-42-00	R	206	May01/08	24-50-00		240	Feb01/04
24-41-00		220	Nov01/07	24-42-00	R	207	May01/08	24-50-00		241	Feb01/08
24-41-00		221	Nov01/07	24-42-00		208	Feb01/08	24-50-00	R	242	May01/08
24-41-00			Nov01/07	24-42-00		209	Aug01/00	24-50-00		243	Feb01/08
24-41-00			Nov01/07	24-42-00		210	Aug01/00	24-50-00		244	Feb01/08
24-41-00			Nov01/07	24-42-00		211	Aug01/00	24-50-00			Feb01/04
24-41-00			Nov01/03					24-50-00			Feb01/04
24-41-00			Nov01/05	24-43-00			Feb01/08	24-50-00			Nov01/07
24-41-00			Nov01/03	24-43-00	R		May01/08	24-50-00			Nov01/07
24-41-00			Nov01/03	24-43-00	R		May01/08	24-50-00	R		May01/08
24-41-00		229	-	24-43-00		204	Feb01/08	24-50-00	R		May01/08
24-41-00			Nov01/03	2/ 50 00		204	N 04 (07	24-50-00	R		May01/08
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Feb01/08
24-41-00			Nov01/03 Nov01/03	24-50-00 24-50-00			Nov01/07	24-50-00			Nov01/07 Nov01/07
24-41-00 24-41-00			Nov01/03	24-50-00			May01/03	24-50-00 24-50-00			-
24-41-00			Nov01/03	24-50-00			Nov01/07 Nov01/07	24-50-00			Nov01/07 Nov01/07
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00	R	259	May01/08
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00	R	260	•
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00	R	261	
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00	•		Feb01/08
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/03	24-50-00			Nov01/07	24-50-00			Nov01/07
24-41-00			Nov01/05	24-50-00			Nov01/07				
24-41-00			Nov01/05	24-50-00			Nov01/07	24-56-00		201	Aug01/94
24-41-00		248	Feb01/05	24-50-00		218	Nov01/07	24-56-00		202	Aug01/94
24-41-00			Nov01/03	24-50-00		219	Nov01/07	24-56-00		301	Aug01/94
24-41-00			Nov01/03	24-50-00		220	Nov01/07	24-56-00		302	Aug01/94
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REFUELING ON BATTERY	24-67-00			
FAULT ISOLATION PROCEDURES			201	ALL
Refueling not Possible			201	ALL

TROUBLE SHOOTING MANUAL

ELECTRICAL POWER - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
WARNINGS/ MALI UNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

Upper ECAM DU Warnings

R	ELEC AC BUS 1 FAULT					245000 P 217 T 810 806
R	ELEC AC BUS 1 FAULT associated with AC MAIN DISTR - Loss of AC BUS1 supplied by external power					245000 P 223 T 810 808
R	ELEC AC BUS 1 FAULT associated with AC MAIN DISTR - Loss of AC BUS1 supplied by APU GEN					245000 P 227 T 810 809
	ELEC AC BUS 1 FAULT associated with ELEC AC ESS BUS FAULT and ELEC DC ESS BUS FAULT					245000 P 238 T 810 812
	ELEC AC BUS 1 FAULT associated with AC MAIN DISTR - Loss of AC BUS 1 supplied by GEN 2					245000 P 247 T 810 815
	ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	DELTA CURRENT GEN1 CHANNEL	245000	1	242000 PA251 T 810 862
	ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	DELTA CURRENT GEN1 + GCU1 (1XU1)/BTC1 (11XU1)		1	242000 PA247 T 810 860
	ELEC AC BUS 1 FAULT	AC GEN	GCU1 (1XU1)	242234	1	242000 PA266 T 810 868

EFF :	ALL		
SROS			

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WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!!
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	GCU1 (1XU1)	242234	1	242000 PA270 T 810 870
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	GCU1 (1XU1)/BTC1 (11XU1)	242200	1	242000 PA274 T 810 872
ELEC AC BUS 1 FAULT	AC GEN	GEN1 DELTA CURRENT OTHER	245000	1	242000 PB208 T 810 888
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	GEN1 OVERCURRENT + GCU1 (1XU1)/BTC1 (11XU1)	245000	1	242000 PB214 T 810 890
ELEC AC BUS 1 FAULT	AC GEN	GEN1 OVERCURRENT OTHER CHANNEL	245000	1	242000 PB208 T 810 888
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	GLC1 (9XU1)	242255	1	242000 PB224 T 810 894
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	GLC1 (9XU1)/BTC1 (11XU1) /GCU1 (1XU1)	242255	1	242000 PB228 T 810 896
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	GLC1 AND/OR BTC1	242255	1	242000 P 266 T 810 824
ELEC AC BUS 1 FAULT associated with ELEC GEN 1 FAULT	AC GEN	OVERCURRENT GEN1 CHANNEL	245000	1	242000 PA251 T 810 862
ELEC AC BUS 2 FAULT					245000 P 220 T 810 807
ELEC AC BUS 2 FAULT associated with AC MAIN DISTR - Loss of AC BUS2 supplied by external power					245000 P 231 T 810 810

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION	
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!	
	ELEC AC BUS 2 FAULT associated with AC MAIN DISTR - Loss of AC BUS2 supplied by APU GEN					245000 P 235 T 810 811	
R	ELEC AC BUS 2 FAULT associated with AC MAIN DISTR - Loss of AC BUS 2 supplied by GEN 1					245000 P 257 T 810 816	
	ELEC AC BUS 2 FAULT associated with ELEC GEN 2 FAULT	AC GEN	DELTA CURRENT GEN2 CHANNEL	245000	1	242000 PA254 T 810 863	
	ELEC AC BUS 2 FAULT associated with ELEC GEN 2 FAULT	AC GEN	DELTA CURRENT GEN2 + GCU2 (1XU2)/BTC2 (11XU2)	245000	1	242000 PA249 T 810 861	
	ELEC AC BUS 2 FAULT	AC GEN	GCU2 (1XU2)	242234	1	242000 PA268 T 810 869	
	ELEC AC BUS 2 FAULT associated with ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)	242234	1	242000 PA272 T 810 871	
	ELEC AC BUS 2 FAULT associated with ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)/BTC2 (11XU2)	242200	1	242000 PA277 T 810 873	
	ELEC AC BUS 2 FAULT	AC GEN	GEN2 DELTA CURRENT OTHER CHANNEL	245000	1	242000 PB211 T 810 889	
	ELEC AC BUS 2 FAULT associated with ELEC GEN 2 FAULT	AC GEN	GEN2 OVERCURRENT + GCU2 (1XU2)/BTC2 (11XU2)	245000	1	242000 PB216 T 810 891	
	ELEC AC BUS 2 FAULT	AC GEN	GEN2 OVERCURRENT OTHER CHANNEL	245000	1	242000 PB211 T 810 889	
	ELEC AC BUS 2 FAULT associated with ELEC GEN 2 FAULT	AC GEN	GLC2 (9XU2)	242255	1	242000 PB226 T 810 895	

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HADNINGS	/MALFUNCTIONS	CFDS FAULT MESSAGES			FAULT ISOLATION		
WARNINGS	/ MALFUNCTIONS	SOURCE	MESSAGE		ATA	С	!
ELEC AC B associate ELEC GEN		AC GEN	GLC2 (9XU2)/BTC2 /GCU2 (1XU2)	(11XU2)	242255	1	242000 PB230 T 810 897
ELEC AC B associate ELEC GEN		AC GEN	GLC2 AND/OR BTC2		242255	1	242000 P 289 T 810 832
ELEC AC B associate ELEC GEN		AC GEN	OVERCURRENT GEN2	CHANNEL	245000	1	242000 PA254 T 810 863
associate Lower ECA	M DU Flags-ELEC correct test EMER						242400 P 207 T 810 805
associate	ncorrect test EMER						242400 P 207 T 810 805
ELEC AC E	SS BUS FAULT						245000 P 207 T 810 803
associate ELEC Pnl							245000 P 210 T 810 804
associate ELEC Pnl							245000 P 214 T 810 805
associate ELEC AC B and	SS BUS FAULT d with US 1 FAULT SS BUS FAULT						245000 P 238 T 810 812

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	WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
	WARNINGS/ FIALF UNCTIONS	SOURCE	MESSAGE	ATA	С	!!
	ELEC AC ESS BUS SHED					245000 P 201 T 810 801
	ELEC AC ESS BUS SHED associated with AC ESS DISTR - Loss of equipments supplied by AC ESS BUS SHED 801XP					245000 P 204 T 810 802
R	ELEC APU GEN FAULT	AC GEN	APU CTL RLY (6KD)/ECB (59KD)/GAPCU (24XG)	496100	1	242000 PC252 T 810 947
	ELEC APU GEN FAULT	AC GEN	CHECK CT 42XS GCU APU PIN B11A TO B11D WIRING	242300	1	242000 PA211 T 810 843
	ELEC APU GEN FAULT	AC GEN	CHECK GCU APU PIN A3A APU CTL RLY 6KD CKT	496100	1	242000 P 293 T 810 836
	ELEC APU GEN FAULT	AC GEN	CHECK GCU APU PIN C1,C5 GEN APU PIN A9,A10	242300	1	242000 PA203 T 810 840
	ELEC APU GEN FAULT	AC GEN	CHECK GCU APU PIN C2TOC4 GEN APU PIN A12 TO A14	242300	1	242000 PA209 T 810 842
	ELEC APU GEN FAULT	AC GEN	CHECK GEN APU FEEDER PIN T1,T2,T3 SHORT TO GROUND	242300	1	242000 PA201 T 810 839
	ELEC APU GEN FAULT	AC GEN	CHECK GEN APU PHASE SEQ	242300	1	242000 P 296 T 810 837
	ELEC APU GEN FAULT	AC GEN	CHECK GLC APU AND/OR CONTROL CKT	242355	1	242000 PA219 T 810 846
	ELEC APU GEN FAULT	AC GEN	CHECK GLC APU GCU APU PIN B2D WIRING	242334	1	242000 P 299 T 810 838
	ELEC APU GEN FAULT	AC GEN	CHECK GLC APU PIN D,E,F GCU APU PIN B1A,B2B,B3A	242300	1	242000 PA206 T 810 841
R	ELEC APU GEN FAULT	AC GEN	CTA (42XS)/GAPCU (24XG)	242317	1	242000 PC241 T 810 940
R	ELEC APU GEN FAULT	AC GEN	DELTA CURRENT GEN APU CHANNEL	245000	1	242000 PC243 T 810 941

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
R	ELEC APU GEN FAULT	AC GEN	ECB (59KD)/APU (4005KM)/ GAPCU (24XG)	496134	1	242000 PC254 T 810 948	
	ELEC APU GEN FAULT	AC GEN	GAPCU (24XG)	244134	1	244100 P 214 T 810 810	
	ELEC APU GEN FAULT	AC GEN	GAPCU (24XG) EXC FLD/GEN APU (8XS)	243134	1	242300 P 220 T 810 809	
	ELEC APU GEN FAULT	AC GEN	GAPCU (24XG)/GEN APU (8XS) PMG	242351	1	242300 P 225 T 810 811	
	ELEC APU GEN FAULT	AC GEN	GAPCU (24XG)/GEN APU (8XS) PMG	244134	1	242300 P 216 T 810 807	
	ELEC APU GEN FAULT	AC GEN	GCU APU	242334	1	242000 P 292 T 810 835	
	ELEC APU GEN FAULT	AC GEN	GEN APU (GEN DIODE)	242351	1	242000 PA213 T 810 844	
	ELEC APU GEN FAULT	AC GEN	GEN APU (8XS) EX FLD/ GAPCU (24XG)	242351	1	242300 P 230 T 810 813	
	ELEC APU GEN FAULT	AC GEN	GEN APU (8XS) GEN CT/ GAPCU (24XG)	242351	1	242300 P 233 T 810 814	
	ELEC APU GEN FAULT	AC GEN	GEN APU (8XS) PMG/GAPCU (24XG)	242351	1	242300 P 235 T 810 815	
	ELEC APU GEN FAULT	AC GEN	GEN APU (8XS)/ WRG: GEN APU PMG	242351	1	242300 P 223 T 810 810	
	ELEC APU GEN FAULT	AC GEN	GEN APU (8XS)/GAPCU (24XG)/APU CTL RLY (6KD)		1	242300 P 228 T 810 812	
	ELEC APU GEN FAULT	AC GEN	GEN APU(8XS)/GAPCU(24XG) /WRG: GEN APU FEEDER	242300	1	242300 P 250 T 810 822	
	ELEC APU GEN FAULT	AC GEN	GLC APU	242355	1	242000 PA217 T 810 845	
R	ELEC APU GEN FAULT	AC GEN	GLC APU (3XS)/GAPCU (24XG)	242355	1	242000 PC246 T 810 943	

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	WARNINGS/MALFORCTIONS	SOURCE	MESSAGE	ATA	С	!!!
	ELEC APU GEN FAULT	AC GEN	GLC APU (3XS)/RELAY(4XS)	242355	1	242300 P 258 T 810 826
R	ELEC APU GEN FAULT	AC GEN	OVERCURRENT GEN APU CHANNEL	245000	1	242000 PC243 T 810 941
	ELEC APU GEN FAULT	AC GEN	PB SW ELEC GEN APU (2XS)	242300	1	242300 P 240 T 810 817
	ELEC APU GEN FAULT	AC GEN	PB SW ELEC GEN APU (2XS) /GAPCU (24XG)	242300	1	242300 P 238 T 810 816
	ELEC APU GEN FAULT	AC GEN	RLY (4XS)/GLC APU GEN (3XS)/GAPCU (24XG)	242355	1	242300 P 241 T 810 818
	ELEC APU GEN FAULT	AC GEN	WRG: FEEDER NEUTRAL/ GEN APU (8XS)	242300	1	242300 P 244 T 810 819
R	ELEC APU GEN FAULT	AC GEN	WRG: GEN APU FEEDER	242300	1	242000 PC250 T 810 945
	ELEC APU GEN FAULT	AC GEN	WRG: GEN APU POR/GAPCU (24XG)/WRG: FEEDER	242300	1	242300 P 259 T 810 827
	ELEC APU GEN FAULT	AC GEN	WRG: PIN PROG/GAPCU	244100	1	244100 P 237 T 810 820
	ELEC APU GEN FAULT	AC GEN	WRG: POR NEUTRAL/GAPCU (24XG)	242300	1	242300 P 248 T 810 821
	ELEC APU GEN FAULT	AC GEN	WRG: POR/GAPCU (24XG)	242300	1	242300 P 246 T 810 820
	ELEC APU GEN FAULT	AC GEN	WRG: POR/WRG: GEN APU FEEDER/GAPCU (24XG)	242300	1	244100 P 246 T 810 824
	ELEC APU GEN FAULT	AC GEN	WRG:GEN APU FEEDER PHASE A/ GEN APU (8XS)	242300	1	242300 P 252 T 810 823
	ELEC APU GEN FAULT	AC GEN	WRG:GEN APU FEEDER PHASE B/ GEN APU (8XS)	242300	1	242300 P 254 T 810 824
	ELEC APU GEN FAULT	AC GEN	WRG:GEN APU FEEDER PHASE C/ GEN APU (8XS)	242300	1	242300 P 256 T 810 825

EFF: ALL SROS

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	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	SC		MESSAGE	ATA	С	!!
	ELEC APU GEN OVERLOAD					240000 P 201 T 810 801
	ELEC APU GEN OVERLOAD associated with ELEC - GALLEY pushbutton switch in OFF position					242300 P 207 T 810 805
R	ELEC APU GEN OVERLOAD	AC GEN	OVERLOAD GEN APU	245000	1	242000 PC248 T 810 944
	ELEC BAT 1 FAULT	BCL 1	BATTERY 1	243851	1	243800 P 201 T 810 801
	ELEC BAT 1 OFF					240000 P 201 T 810 801
	ELEC BAT 1 OFF associated with DC GEN - BAT1 pushbutton switch in ON position					243800 P 269 T 810 840
	ELEC BAT 2 FAULT	BCL 2	BATTERY 2	243851	1	243800 P 202 T 810 802
	ELEC BAT 2 OFF					240000 P 201 T 810 801
	ELEC BAT 2 OFF associated with DC GEN - BAT2 pushbutton switch in ON position					243800 P 266 T 810 839
	ELEC BCL 1 FAULT associated with Lower ECAM DU Flags-ELEC BAT1 - voltage below 25.5V					243800 P 241 T 810 832
	ELEC BCL 1 FAULT					243800 P 257 T 810 836

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WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
ELEC BCL 1 FAULT associated with Lower ECAM DU Flags-ELEC DC GEN - BAT1 box: OFF on when BAT1 P/BSW pushed					243800 P 272 T 810 841
ELEC BCL 1 FAULT associated with ELEC STATIC INV FAULT					243800 P 283 T 810 846
ELEC BCL 1 FAULT	BCL 1	BCL1	243834	1	243800 P 203 T 810 803
ELEC BCL 1 FAULT	BCL 1	CHECK CONTACTOR 6PB1/ BCL1 CIRCUIT	243855	1	243800 P 206 T 810 806
ELEC BCL 1 FAULT associated with ELEC BCL 2 FAULT	BCL 1	CHECK CONTACTOR 6PB1/ BCL1 CIRCUIT associated with CHECK CONTACTOR 6PB2/ BCL2 CIRCUIT	243855 243855		243800 P 285 T 810 848
ELEC BCL 1 FAULT	BCL 1	CHECK DC BAT BUS 3PP/BCL1 CIRCUIT	243800	1	243800 P 210 T 810 809
ELEC BCL 1 FAULT	BCL 1	FUSE 4PB1	243800	1	243800 P 207 T 810 807
ELEC BCL 1 FAULT	BCL 1	PUSH BUT 7PB1/BCL1 CIRCUIT	243800	1	243800 P 209 T 810 808
ELEC BCL 1 FAULT	BCL 1	SHUNT 3PB1/BCL1 CIRCUIT	243800	1	243800 P 204 T 810 804
ELEC BCL 1 FAULT	ECAM 1	SDAC1 : NO DATA FROM BCL1	243834	1	243000 P 215 T 810 805
	IDENT:				
ELEC BCL 1 FAULT	ECAM 1	SDAC2 : NO DATA FROM BCL1	243834	1	243000 P 219 T 810 807
	IDENT:	ECAM 1]

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	LIADNINGS / MAI FUNCTIONS	CFDS FAULT MESSAGES ARNINGS/MALFUNCTIONS					
	WARNINGS/ MALFORCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
R	ELEC BCL 1 FAULT	ECAM 2	SDAC1 : NO DATA FROM BCL1	243834	1	243000 P 215 T 810 805	
		IDENT:	ECAM 1				
R	ELEC BCL 1 FAULT	ECAM 2	SDAC2 : NO DATA FROM BCL1	243834	1	243000 P 219 T 810 807	
		IDENT:	ECAM 2			<u> </u>	
	ELEC BCL 2 FAULT associated with Lower ECAM DU Flags-ELEC BAT2 - voltage below 25.5V					243800 P 244 T 810 833	
	ELEC BCL 2 FAULT					243800 P 258 T 810 837	
	ELEC BCL 2 FAULT associated with Lower ECAM DU Flags-ELEC DC GEN - BAT2 box: OFF on when BAT2 P/BSW pushed					243800 P 273 T 810 842	
	ELEC BCL 2 FAULT associated with ELEC STATIC INV FAULT					243800 P 284 T 810 847	
	ELEC BCL 2 FAULT associated with ELEC BCL 1 FAULT	BCL 1	CHECK CONTACTOR 6PB1/ BCL1 CIRCUIT associated with CHECK CONTACTOR 6PB2/	243855 243855		243800 P 285 T 810 848	
			BCL2 CIRCUIT		ļ Ļ—-	 	
	ELEC BCL 2 FAULT	BCL 2	BCL2	243834	1	243800 P 211 T 810 810	
	ELEC BCL 2 FAULT	BCL 2	CHECK CONTACTOR 6PB2/ BCL2 CIRCUIT	243855	1	243800 P 214 T 810 813	
	ELEC BCL 2 FAULT	BCL 2	CHECK DC BAT BUS 3PP/ BCL2 CIRCUIT	243800	1	243800 P 219 T 810 816	

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	ELEC BCL 2 FAULT	BCL 2	FUSE 4PB2	243800	1	243800 P 216 T 810 814	
	ELEC BCL 2 FAULT	BCL 2	PUSH BUT 7PB2/BCL2 CIRCUIT	243800	1	243800 P 218 T 810 815	
	ELEC BCL 2 FAULT	BCL 2	SHUNT 3PB2/BCL2 CIRCUIT	243800	1	243800 P 212 T 810 811	
R	ELEC BCL 2 FAULT	ECAM 1	SDAC1 : NO DATA FROM BCL2	243834	1	243000 P 217 T 810 806	
		IDENT: E	ECAM 2	<u> </u>			
R	ELEC BCL 2 FAULT	ECAM 1	SDAC2 : NO DATA FROM BCL2	243834	1	243000 P 221 T 810 808	
		IDENT: 6	ECAM 2				
R	ELEC BCL 2 FAULT	ECAM 2	SDAC1 : NO DATA FROM BCL2	243834	1	243000 P 217 T 810 806	
		IDENT: E	ECAM 1	·			
R	ELEC BCL 2 FAULT	ECAM 2	SDAC2 : NO DATA FROM BCL2	243834	1	243000 P 221 T 810 808	
		IDENT: 6	ECAM 1				
	ELEC DC BAT BUS FAULT associated with ELEC DC BUS 1+2 FAULT and Lower ECAM DU Flags-ELEC DC 1 and DC 2 boxes - Failure of DC BUS 1 and DC BUS 2 energization					246000 P 203 T 810 803	

EFF :	ALL	
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WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
ELEC DC BAT BUS FAULT associated with ELEC TR 2 FAULT and ELEC DC BUS 2 FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2					246000 P 224 T 810 811
ELEC DC BAT BUS FAULT associated with ELEC TR 1 FAULT and ELEC DC BUS 1 FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2					246000 P 227 T 810 812
ELEC DC BUS 1 FAULT					246000 P 208 T 810 806
ELEC DC BUS 1 FAULT associated with ELEC TR 1 FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of the line between DC BUS 2 and DC BAT BUS					246000 P 218 T 810 809
ELEC DC BUS 1 FAULT associated with ELEC TR 1 FAULT and ELEC DC BAT BUS FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2					246000 P 227 T 810 812

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WARNINGS/MALFUNCTIONS	[CFDS FAULT MESSAGES				
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
ELEC DC BUS 1+2 FAULT associated with ELEC DC BAT BUS FAULT and Lower ECAM DU Flags-ELEC DC 1 and DC 2 boxes - Failure of DC BUS 1 and DC BUS 2 energization					246000 P 203 T 810 803	
ELEC DC BUS 2 FAULT associated with ELEC TR 2 FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of the line between DC BUS 2 and DC BAT BUS					246000 P 206 T 810 804	
ELEC DC BUS 2 FAULT					246000 P 211 T 810 807	
ELEC DC BUS 2 FAULT associated with ELEC TR 2 FAULT and ELEC DC BAT BUS FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2					246000 P 224 T 810 811	
ELEC DC EMER CONFIG					240000 P 201 T 810 801	
ELEC DC EMER CONFIG associated with Lower ECAM DU Flags-ELEC DC GEN - Loss of DC generation and distribution					246000 P 230 T 810 813	

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
	ELEC DC ESS BUS FAULT associated with ELEC AC BUS 1 FAULT and ELEC AC ESS BUS FAULT					245000 P 238 T 810 812
	ELEC DC ESS BUS FAULT associated with STS-Maintenance DC BUS TIE					246000 P 232 T 810 814
R	ELEC DC ESS BUS FAULT associated with ELEC TR 1 FAULT and ELEC TR 2 FAULT					246000 P 237 T 810 815
R	ELEC DC ESS BUS FAULT					246000 P 242 T 810 816
	ELEC DC ESS BUS FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC TR 2 FAULT and ELEC ESS TR FAULT					246000 P 245 T 810 817
	ELEC DC ESS BUS FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC TR 2 FAULT					246000 P 245 T 810 817
	ELEC DC ESS BUS SHED					246000 P 201 T 810 801

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			FAULT ISOLATION	
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!	
	ELEC DC ESS BUS SHED associated with ELEC - Loss of the equipments supplied by the DC ESS BUS SHED					246000 P 220 T 810 810	
	ELEC EMER CONFIG					240000 P 201 T 810 801	
	ELEC EMER GEN 1 LINE OFF					240000 P 201 T 810 801	
R	ELEC EMER GEN 1 LINE OFF associated with ELEC-EMER PWR/GEN1 LINE pushbutton switch in ON position					242200 P 245 T 810 814	
	ELEC ESS BUSES ON BAT					245000 P 245 T 810 814	
	ELEC ESS TR FAULT associated with Lower ECAM DU Flags-ELEC CSMG - Incorrect test result of EMER generation system					242400 P 217 T 810 807	
	ELEC ESS TR FAULT associated with CSM/G - Incorrect test result of EMER generation system					242400 P 217 T 810 807	
	ELEC ESS TR FAULT					243000 P 213 T 810 804	

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	LIADNINGS /MALEUNGITONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	ELEC ESS TR FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC TR 2 FAULT and ELEC DC ESS BUS FAULT					246000 P 245 T 810 817	
R	ELEC GEN 1 FAULT					240000 P 246 T 810 819	
	ELEC GEN 1 FAULT	AC GEN	CHECK BTC1 PIN D,E,F,R, P,N SHORT TO GROUND	242200	1	242000 P 212 T 810 806	
	ELEC GEN 1 FAULT	AC GEN	CHECK CT42XU1 42XU3 GCU1 PIN B11A TO B11D WIRING	242200	1	242000 P 258 T 810 821	
	ELEC GEN 1 FAULT	AC GEN	CHECK FIRE HANDLE 1 RESET GEN1	242200	1	242000 P 253 T 810 819	
	ELEC GEN 1 FAULT	AC GEN	CHECK GCU1 PIN B14A, B14B IDG1 PIN B1,B2	242100	1	242100 P 286 T 810 840	
	ELEC GEN 1 FAULT	AC GEN	CHECK GCU1 PIN C1,C5 IDG1 PIN A9,A10 WIRING	242100	1	242000 P 220 T 810 808	
	ELEC GEN 1 FAULT	AC GEN	CHECK GCU1 PIN C2 TO C4 IDG1 PIN B12 TO B14	242100	1	242000 P 250 T 810 818	
	ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL LO PR	AC GEN	CHECK GCU1 PIN C2 TO C4 IDG1 PIN B12 TO B14 associated with IDG1 LOW OIL PRESSURE	242100 242151		Т 810 847	
	ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL OVHT	AC GEN	CHECK GCU1 PIN C2 TO C4 IDG1 PIN B12 TO B14 associated with IDG1 (OVERTEMP)		1	242000 PA229 T 810 849	
	ELEC GEN 1 FAULT	AC GEN	CHECK GLC1 AND/OR CONTROL CKT	242255	1	242000 P 263 T 810 823	

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	HADNINGS/MALEUNGITONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	<u>elec</u> gen 1 fault	AC GEN	CHECK GLC1 GCU 1 PIN B2D WIRING	242234	1	242000 P 206 T 810 804	
	ELEC GEN 1 FAULT	AC GEN	CHECK GLC1 PIN D,E,F GCU1 PIN B1A,B2B,B3A	242200	1	242000 P 246 T 810 817	
	ELEC GEN 1 FAULT	AC GEN	CHECK IDG1 FEEDER PIN T1,T2,T3 SHORT TO GROUND	242200	1	242000 P 209 T 810 805	
	ELEC GEN 1 FAULT	AC GEN	CHECK IDG1 PHASE SEQ	242200	1	242000 P 203 T 810 803	
	ELEC GEN 1 FAULT	AC GEN	CHECK IDG1 1999VT WIRING	242200	1	242000 P 255 T 810 820	
R	<u>elec</u> gen 1 fault	AC GEN	CTA (51XU1)/GCU1 (1XU1)	242217	1	242200 P 263 T 810 819	
R	<u>elec</u> gen 1 fault	AC GEN	CTA (51XU1)/IDG1 (E1-4000XU)/GCU1 (1XU1)	242217	1	242200 P 263 T 810 819	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	DELTA CURRENT GEN1 CHANNEL	245000	1	242000 PA251 T 810 862	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	DELTA CURRENT GEN1 + GCU1 (1XU1)/BTC1 (11XU1)	!	1	242000 PA247 T 810 860	
	ELEC GEN 1 FAULT	AC GEN	ENG MASTER SW1 (3KC)/ GCU1 (1XU1)	761200	1	242000 PA258 T 810 864	
	<u>elec</u> gen 1 fault	AC GEN	ENG1 FIRE PB SW (1WD)/ GCU1 (1XU1)	261200	1	242000 PA262 T 810 866	
	<u>elec</u> gen 1 fault	AC GEN	GCU1	242234	1	242000 P 201 T 810 801	
	<u>ELEC</u> GEN 1 FAULT	AC GEN	GCU1 (1XU1)	242234	1	242000 PA266 T 810 868	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	GCU1 (1XU1)	242234	1	242000 PA270 T 810 870	

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	LIADNINGS /MALEUNGTIONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFUNCTIONS 	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	<u>elec</u> gen 1 fault	AC GEN	GCU1 (1XU1) EXC FLD/ IDG1 (E1-4000XU)	242234	1	242000 PA296 T 810 884	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	GCU1 (1XU1)/BTC1 (11XU1)	242200	1	242000 PA274 T 810 872	
R	ELEC GEN 1 FAULT	AC GEN	GCU1 (1XU1)/DIODE MODULE (2420VD)	242234	1	242000 PC286 T 810 959	
R	ELEC GEN 1 FAULT	AC GEN	GCU1 (1XU1)/IDG1 (E1-4000XU)	242151	1	242000 PC288 T 810 961	
	<u>elec</u> gen 1 fault	AC GEN	GCU1 (1XU1)/IDG1 (E1-4000XU) PMG	242234	1	242000 PA280 T 810 874	
	<u>elec</u> gen 1 fault	AC GEN	GCU1 (1XU1)/LGCIU1 (5GA1)	242234	1	242000 PA286 T 810 878	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	GEN1 OVERCURRENT + GCU1 (1XU1)/BTC1 (11XU1)	245000	1	242000 PB214 T 810 890	
	ELEC GEN 1 FAULT	AC GEN	GLC AUX RLY (4XU1)/GLC1 (9XU1)/GCU1 (1XU1)	242200	1	242000 PB218 T 810 892	
	<u>elec</u> gen 1 fault	AC GEN	GLC AUX RLY (4XU1)/GLC1 (9XU1)/GCU1 (1XU1)	242255	1	242000 PB218 T 810 892	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	GLC1 (9XU1)	242255	1	242000 PB224 T 810 894	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	GLC1 (9XU1)/BTC1 (11XU1) /GCU1 (1XU1)	242255	1	242000 PB228 T 810 896	
	<u>elec</u> gen 1 fault	AC GEN	GLC1 (9XU1)/GCU1 (1XU1)	242255	1	242200 P 273 T 810 823	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	GLC1 AND/OR BTC1	242255	1	242000 P 266 T 810 824	
R	ELEC GEN 1 FAULT	AC GEN	IDG DISC/IDG1(E1-4000XU) PMG/GCU1 (1XU1)	242151	1	242000 PC256 T 810 949	

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LIADNINGS /MALEUNGTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!!
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU)	242151	1	242100 P 250 T 810 822
ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL LO PR	AC GEN	IDG1 (E1-4000XU)	242151	1	242100 P 256 T 810 824
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) EXC FLD /GCU1 (1XU1)	242151	1	242000 PB240 T 810 900
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) GEN CT/ GCU1 (1XU1)	242151	1	242000 PB246 T 810 902
ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP SENSE/GCU1 (1XU1) associated with	242151	1	240000 P 207 T 810 808
	AC GEN	IDG1 (E1-4000XU) THERMAL DISCONNECT	242151	1	
ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP SENSE/GCU1 (1XU1) associated with	242151	1	240000 P 207 T 810 808
LELO ING TOTE OVIII	AC GEN	l .	242151	1	
ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP SENSE/GCU1 (1XU1) associated with	242151	1	240000 P 207 T 810 808
ELEC ING OIL OVAL	AC GEN	IDG1 (E1-4000XU)/RELAY (3XT)/GCU1 (1XU1)	242151	1	
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) PMG/ GCU1 (1XU1)	242151	1	242000 PB269 T 810 910
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) SERVO VLV/GCU1 (1XU1)	242151	1	242000 PB279 T 810 914
ELEC GEN 1 FAULT associated with ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (E1-4000XU) THERMAL DISCONNECT	242151	1	240000 P 227 T 810 816
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU)/GCU1 (1XU1)	242151	1	242100 P 262 T 810 826
ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU)/GCU1 (1XU1)/WRG: POR	242151	1	242000 PB232 T 810 898

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	ELEC GEN 1 FAULT	AC GEN	IDG1 (GEN DIODE)	242151	1	242000 P 261 T 810 822	
	ELEC GEN 1 FAULT	AC GEN	IDG1 DISCONNECTED	242151	1	242000 P 216 T 810 807	
R	ELEC GEN 1 FAULT	AC GEN	IDG1(E1-4000XU)/SERVO VL	242151	1	242000 PB285 T 810 916	
	ELEC GEN 1 FAULT associated with ELEC AC BUS 1 FAULT	AC GEN	OVERCURRENT GEN1 CHANNEL	245000	1	242000 PA251 T 810 862	
	ELEC GEN 1 FAULT	AC GEN	PB SW ELEC GEN1 (3XU1)/ GCU1 (1XU1)	242200	1	242200 P 281 T 810 827	
R	ELEC GEN 1 FAULT	AC GEN	WRG: FEEDER/WRG: POR/ GCU1 (1XU1)	242200	1	242000 PC262 T 810 951	
R	ELEC GEN 1 FAULT	AC GEN	WRG: GEN1 FEEDER	242200	1	242000 PC213 T 810 926	
R	ELEC GEN 1 FAULT	AC GEN	WRG: GEN1 FEEDER PHASE A /IDG1 (E1-4000XU)	242200	1	242000 PC268 T 810 953	
R	ELEC GEN 1 FAULT	AC GEN	WRG: GEN1 FEEDER PHASE B /IDG1 (E1-4000XU)	242200	1	242000 PC274 T 810 955	
R	ELEC GEN 1 FAULT	AC GEN	WRG: GEN1 FEEDER PHASE C /IDG1 (E1-4000XU)	242200	1	242000 PC280 T 810 957	
R	ELEC GEN 1 FAULT	AC GEN	WRG: GEN1 FEEDER/CTA (41XU1)	242200	1	242000 PC207 T 810 924	
R	ELEC GEN 1 FAULT	AC GEN	WRG: GEN1 NEUTRAL FEEDER /IDG1 (E1-4000XU)	242200	1	242000 PC201 T 810 922	
R	ELEC GEN 1 FAULT	AC GEN	WRG: IDG1 FEEDER/IDG1 (E1-4000XU)	242100	1	242000 PC219 T 810 928	
R	ELEC GEN 1 FAULT	AC GEN	WRG: PIN PROG/GCU1 (1XU1)	242200	1	242000 PC223 T 810 932	
R	ELEC GEN 1 FAULT	AC GEN	WRG: POR NEUTRAL GCU1 (1XU1)	242200	1	242000 PC237 T 810 938	

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	CFDS FAULT MESSAGES WARNINGS/MALFUNCTIONS					FAULT ISOLATION	
	WARNINGS/MALFORCTIONS	SOURCE	MESSAGE	ATA	С	!!!	
R	ELEC GEN 1 FAULT	AC GEN	WRG: POR/GCU1 (1XU1)	242200	1	242000 PC227 T 810 934	
R	ELEC GEN 1 FAULT	AC GEN	WRG: POR/GCU1 (1XU1)/ WRG: FEEDER	242200	1 1 	242000 PC294 T 810 963	
R	ELEC GEN 1 FAULT	AC GEN	WRG: POR/WRG: GEN1 FEEDER/GCU1 (1XU1)	242200	1	242000 PC231 T 810 936	
	ELEC GEN 1 OFF				 	240000 P 201 T 810 801	
	ELEC GEN 1 OFF associated with ELEC - GEN1 pushbutton switch in ON position					242200 P 235 T 810 811	
	ELEC GEN 1 OVERLOAD					240000 P 201 T 810 801	
	ELEC GEN 1 OVERLOAD associated with ELEC - GALLEY pushbutton switch in OFF position					242200 P 249 T 810 815	
	ELEC GEN 1 OVERLOAD associated with DC GEN - In the cabin, ceiling and window lights are off					246000 P 214 T 810 808	
R	ELEC GEN 1 OVERLOAD	AC GEN	GEN1 OVERLOAD	245000	1	242000 PB291 T 810 918	
	ELEC GEN 2 FAULT					240000 P 248 T 810 820	
 	ELEC GEN 2 FAULT	AC GEN	CHECK BTC2 PIN D,E,F,R, P,N SHORT TO GROUND	242200	1	242000 P 234 T 810 814	
	ELEC GEN 2 FAULT	AC GEN	CHECK CT42XU2 42XU4 GCU2 PIN B11A TO B11D WIRING	242200	1	242000 P 281 T 810 829	
	ELEC GEN 2 FAULT	AC GEN	CHECK FIRE HANDLE 2 RESET GEN2	242200	1	242000 P 276 T 810 827	

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WARNINGS (MALIFINGTIONS	 	CFDS FAULT MESSAGES	 S		FAULT
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	ISOLATION PROCEDURE
ELEC GEN 2 FAULT	AC GEN	CHECK GCU2 PIN B14A, B14B IDG2 PIN B1,B2	242100	1	242100 P 290 T 810 841
ELEC GEN 2 FAULT	AC GEN	CHECK GCU2 PIN C1,C5 IDG2 PIN A9,A10 WIRING	242100	1	242000 P 242 T 810 816
ELEC GEN 2 FAULT	AC GEN	CHECK GCU2 PIN C2 TO C4 IDG2 PIN B12 TO B14	242100	1	242000 P 273 T 810 826
ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL LO PR	AC GEN	CHECK GCU2 PIN C2 TO C4 IDG2 PIN B12 TO B14 associated with IDG2 LOW OIL PRESSURE	242100 242151		242000 PA225 T 810 848
ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL OVHT	AC GEN	CHECK GCU2 PIN C2 TO C4 IDG2 PIN B12 TO B14 associated with IDG2 (OVERTEMP)	242100 242151		242000 PA231 T 810 850
ELEC GEN 2 FAULT	AC GEN	CHECK GLC2 AND/OR CONTROL CKT	242255	1	242000 P 286 T 810 831
ELEC GEN 2 FAULT	AC GEN	CHECK GLC2 GCU2 PIN B2D WIRING	242234	1	242000 P 228 T 810 812
ELEC GEN 2 FAULT	AC GEN	CHECK GLC2 PIN D,E,F GCU2 PIN B1A,B2B,B3A	242200	1	242000 P 269 T 810 825
ELEC GEN 2 FAULT	AC GEN	CHECK IDG2 FEEDER PIN T1,T2,T3 SHORT TO GROUND	242200	1	242000 P 231 T 810 813
ELEC GEN 2 FAULT	AC GEN	CHECK IDG2 PHASE SEQ	242200	1	242000 P 225 T 810 811
ELEC GEN 2 FAULT	AC GEN	CHECK IDG2 1998VT WIRING	242200	1	242000 P 278 T 810 828
ELEC GEN 2 FAULT	AC GEN	CTA (51XU2)/GCU2 (1XU2)	242217	1	242200 P 267 T 810 820
ELEC GEN 2 FAULT	AC GEN	CTA (51XU2)/IDG2 (E2-4000XU)/GCU2 (1XU2)	242217	1	242200 P 267 T 810 820
ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	DELTA CURRENT GEN2 CHANNEL	245000	1	242000 PA254 T 810 863

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WARNINGS/MALFUNCTIONS	T	CFDS FAULT MESSAGES	 S		FAULT ISOLATION
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	!
ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	DELTA CURRENT GEN2 + GCU2 (1XU2)/BTC2 (11XU2)	245000	1	242000 PA249 T 810 861
ELEC GEN 2 FAULT	AC GEN	ENG MASTER SW2 (2KC)/ GCU2 (1XU2)	761200	1	242000 PA260 T 810 865
ELEC GEN 2 FAULT	AC GEN	ENG2 FIRE PB SW (1WD)/ GCU2 (1XU2)	261200	1	242000 PA264 T 810 867
ELEC GEN 2 FAULT	AC GEN	GCU2	242234	1	242000 P 223 T 810 809
ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)	242234	1	242000 PA268 T 810 869
ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	GCU2 (1XU2)	242234	1	242000 PA272 T 810 871
ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2) EXC FLD/ IDG2 (E2-4000XU)	242234	1	242000 PA299 T 810 885
ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	GCU2 (1XU2)/BTC2 (11XU2)	242200	1	242000 PA277 T 810 873
ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)/DIODE MODULE (2422VD)	242234	1	242000 PC287 T 810 960
ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)/IDG2 (E2-4000XU)	242151	1	242000 PC291 T 810 962
ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)/IDG2 (E2-4000XU) PMG	242234	1	242000 PA283 T 810 875
ELEC GEN 2 FAULT	AC GEN	GCU2 (1XU2)/LGCIU1 (5GA1)	242234	1	242000 PA288 T 810 879
ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	GEN2 OVERCURRENT + GCU2 (1XU2)/BTC2 (11XU2)	245000	1	242000 PB216 T 810 891
ELEC GEN 2 FAULT	AC GEN	GLC AUX RLY (4XU2)/GLC2 (9XU2)/GCU2 (1XU2)	242200	1	242000 PB221 T 810 893

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	ELEC GEN 2 FAULT	AC GEN	GLC AUX RLY (4XU2)/GLC2 (9XU2)/GCU2 (1XU2)	242255	1	242000 PB221 T 810 893	
	ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	GLC2 (9XU2)	242255	1	242000 PB226 T 810 895	
	ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	GLC2 (9XU2)/BTC2 (11XU2) /GCU2 (1XU2)	242255	1	242000 PB230 T 810 897	
	ELEC GEN 2 FAULT	AC GEN	GLC2 (9XU2)/GCU2 (1XU2)	242255	1	242200 P 275 T 810 824	
	ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	GLC2 AND/OR BTC2	242255	1	242000 P 289 T 810 832	
R	ELEC GEN 2 FAULT	AC GEN	IDG DISC/IDG2(E2-4000XU) PMG/GCU2 (1XU2)	242151	1	242000 PC259 T 810 950	
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU)	242151	1	242100 P 253 T 810 823	
	ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL LO PR	AC GEN	IDG2 (E2-4000XU)	242151	1	242100 P 259 T 810 825	
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) EXC FLD /GCU2 (1XU2)	242151	1	242000 PB243 T 810 901	
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) GEN CT/ GCU2 (1XU2)	242151	1	242000 PB249 T 810 903	
	ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP SENSE/GCU2 (1XU2) associated with	242151	1	240000 P 209 T 810 809	
		AC GEN	IDG2 (E2-4000XU) THERMAL DISCONNECT	242151	1		
	ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP SENSE/GCU2 (1XU2) associated with	242151	1	240000 P 209 T 810 809	
		AC GEN		242151	1		

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TROUBLE SHOOTING MANUAL

	 WARNINGS/MALFUNCTIONS	 	CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
	ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP SENSE/GCU2 (1XU2) associated with	242151	1	240000 P 209 T 810 809
		AC GEN	IDG2 (E2-4000XU)/RELAY (4XT)/GCU2 (1XU2)	242151	1	
R	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) PMG/ GCU2 (1XU2)	242151	1	242000 PB272 T 810 911
R	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) SERVO VLV/GCU2 (1XU2)	242151	1	242000 PB282 T 810 915
	ELEC GEN 2 FAULT associated with ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (E2-4000XU) THERMAL DISCONNECT	242151	1	240000 P 229 T 810 817
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU)/GCU2 (1XU2)	242151	1	242100 P 266 T 810 827
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU)/GCU2 (1XU2)/WRG: POR	242151	1	242000 PB236 T 810 899
	ELEC GEN 2 FAULT	AC GEN	IDG2 (GEN DIODE)	242151	1	242000 P 284 T 810 830
	<u>elec</u> gen 2 fault	AC GEN	IDG2 DISCONNECTED	242151	1	242000 P 238 T 810 815
R	<u>elec</u> gen 2 fault	AC GEN	IDG2(E2-4000XU)/SERVO VL	242151	1	242000 PB288 T 810 917
	ELEC GEN 2 FAULT associated with ELEC AC BUS 2 FAULT	AC GEN	OVERCURRENT GEN2 CHANNEL	245000	1	242000 PA254 T 810 863
	ELEC GEN 2 FAULT	AC GEN	PB SW ELEC GEN2 (3XU2)/ GCU2 (1XU2)	242200	1	242200 P 283 T 810 828
R	ELEC GEN 2 FAULT	AC GEN	WRG: FEEDER/WRG: POR/ GCU2 (1XU2)	242200	1	242000 PC265 T 810 952
R	ELEC GEN 2 FAULT	AC GEN	WRG: GEN2 FEEDER	242200	1	242000 PC216 T 810 927
R	ELEC GEN 2 FAULT	AC GEN	WRG: GEN2 FEEDER PHASE A /IDG2 (E2-4000XU)	242200	1	242000 PC271 T 810 954

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!
R	ELEC GEN 2 FAULT	AC GEN	WRG: GEN2 FEEDER PHASE B /IDG2 (E2-4000XU)	242200	1	242000 PC277 T 810 956
R	ELEC GEN 2 FAULT	AC GEN	WRG: GEN2 FEEDER PHASE C /IDG2 (E2-4000XU)	242200	1	242000 PC283 T 810 958
R	ELEC GEN 2 FAULT	AC GEN	WRG: GEN2 FEEDER/CTA (41XU2)	242200	1	242000 PC210 T 810 925
R	ELEC GEN 2 FAULT	AC GEN	WRG: GEN2 NEUTRAL FEEDER /IDG2 (E2-4000XU)	242200	1	242000 PC204 T 810 923
R	ELEC GEN 2 FAULT	AC GEN	WRG: IDG2 FEEDER/IDG2 (E2-4000XU)	242100	1	242000 PC221 T 810 929
R	ELEC GEN 2 FAULT	AC GEN	WRG: PIN PROG/GCU2 (1XU2)	242200	1	242000 PC225 T 810 933
R	ELEC GEN 2 FAULT	AC GEN	WRG: POR NEUTRAL GCU2 (1XU2)	242200	1	242000 PC239 T 810 939
R	ELEC GEN 2 FAULT	AC GEN	WRG: POR/GCU2 (1XU2)	242200	1	242000 PC229 T 810 935
R	ELEC GEN 2 FAULT	AC GEN	WRG: POR/GCU2 (1XU2)/ WRG: FEEDER	242200	1	242000 PC297 T 810 964
R	ELEC GEN 2 FAULT	AC GEN	WRG: POR/WRG: GEN2 FEEDER/GCU2 (1XU2)	242200	1	242000 PC234 T 810 937
	ELEC GEN 2 OFF					240000 P 201 T 810 801
	ELEC GEN 2 OFF associated with ELEC - GEN2 pushbutton switch in ON position					242200 P 238 T 810 812
	ELEC GEN 2 OVERLOAD					240000 P 201 T 810 801
	ELEC GEN 2 OVERLOAD associated with ELEC - GALLEY pushbutton switch in OFF position					242200 P 254 T 810 816

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	!!
R	ELEC GEN 2 OVERLOAD	AC GEN	GEN2 OVERLOAD	245000	1	242000 PB294 T 810 919
	ELEC IDG 1 OIL LO PR associated with ELEC GEN 1 FAULT	AC GEN	CHECK GCU1 PIN C2 TO C4 IDG1 PIN B12 TO B14 associated with IDG1 LOW OIL PRESSURE	242100 242151		242000 PA221 T 810 847
	ELEC IDG 1 OIL LO PR associated with ELEC IDG 1 OIL OVHT	AC GEN	CHECK IDG1 DISCONNECT CKT	242151	1	242000 PA233 T 810 851
	ELEC IDG 1 OIL LO PR associated with ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU)	242151	1	242100 P 256 T 810 824
	ELEC IDG 1 OIL LO PR	AC GEN	IDG1 (E1-4000XU) LOW OIL PRESSURE	242151	1	242000 PB252 T 810 904
	ELEC IDG 1 OIL LO PR	AC GEN	IDG1 (E1-4000XU) LOW OIL PRESSURE associated with IDG1 (E1-4000XU) MANUAL	242151		т 810 904
		AC GEN	DISCONNECT	242131	' 	
R	ELEC IDG 1 OIL LO PR	AC GEN	IDG1 (E1-4000XU) MANUAL DISCONNECT	242151	1	242000 PB258 T 810 906
	ELEC IDG 1 OIL LO PR	AC GEN	IDG1 LOW OIL PRESSURE	242151	1	242000 PA221 T 810 847
	ELEC IDG 1 OIL OVHT associated with Lower ECAM DU Advisories ELEC FUEL - RECIRC - IDG 1 oil temp shown pulsing green (over limit) and ELEC Pnl (35VU) FUEL - RECIRC - IDG 1 P/BSW FAULT lamp on					281600 P 201 T 810 801
	ELEC IDG 1 OIL OVHT	AC GEN	CHECK GCU1 PIN A8A,A9B IDG 1 PIN B7,B8 WIRING	242100	1	242100 P 205 T 810 803

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	WARNINGS/MALFUNCTIONS	L		FAULT		
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!
	ELEC IDG 1 OIL OVHT associated with ELEC GEN 1 FAULT	AC GEN	CHECK GCU1 PIN C2 TO C4 IDG1 PIN B12 TO B14 associated with	242100	1	242000 PA229 T 810 849
		AC GEN	IDG1 (OVERTEMP)	242151	1	
	ELEC IDG 1 OIL OVHT associated with ELEC IDG 1 OIL LO PR	AC GEN	CHECK IDG1 DISCONNECT CKT	242151	1	242000 PA233 T 810 851
	ELEC IDG 1 OIL OVHT	AC GEN	IDG COOLER 1	731160	1	242000 PA241 T 810 855
R	ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (E1-4000XU) MANUAL DISCONNECT	242151	1	242000 PB258 T 810 906
	ELEC IDG 1 OIL OVHT associated with ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP SENSE/GCU1 (1XU1) associated with	242151	1	240000 P 207 T 810 808
	ELEC GEN I PAGET	AC GEN	IDG1 (E1-4000XU) THERMAL	242151	1	
	ELEC IDG 1 OIL OVHT associated with	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP SENSE/GCU1 (1XU1)	242151	1	240000 P 207 T 810 808
	<u>ELEC</u> GEN 1 FAULT	AC GEN	associated with IDG1 (E1-4000XU) MANUAL DISCONNECT	242151	1	
	ELEC IDG 1 OIL OVHT associated with ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP SENSE/GCU1 (1XU1)	242151	1	240000 P 207 T 810 808
	ELEC GEN I FAULI	AC GEN	associated with IDG1 (E1-4000XU)/RELAY (3XT)/GCU1 (1XU1)	242151	1	
	ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (E1-4000XU) THERMAL DISC FAILED	242151	1	240000 P 227 T 810 816
	ELEC IDG 1 OIL OVHT associated with ELEC GEN 1 FAULT	AC GEN	IDG1 (E1-4000XU) THERMAL DISCONNECT	242151	1	240000 P 227 T 810 816
	ELEC IDG 1 OIL OVHT	AC GEN	IDG1 (OVERTEMP)	242151	1	242000 PA229 T 810 849
	ELEC IDG 1 OIL OVHT	AC GEN	IDG1 BULB TOLERANCE	242151	1	242100 P 213 T 810 807

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT - ISOLATION	
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!	
	ELEC IDG 2 OIL LO PR associated with ELEC GEN 2 FAULT	AC GEN	CHECK GCU2 PIN C2 TO C4 IDG2 PIN B12 TO B14 associated with	242100	1	242000 PA225 T 810 848	
		AC GEN	IDG2 LOW OIL PRESSURE	242151	1		
	ELEC IDG 2 OIL LO PR associated with ELEC IDG 2 OIL OVHT	AC GEN	CHECK IDG2 DISCONNECT CKT	242151	1	242000 PA235 T 810 852	
	ELEC IDG 2 OIL LO PR associated with ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU)	242151	1	242100 P 259 T 810 825	
R	ELEC IDG 2 OIL LO PR	AC GEN	IDG2 (E2-4000XU) LOW OIL PRESSURE	242151	1	242000 PB255 T 810 905	
R	ELEC IDG 2 OIL LO PR	AC GEN	IDG2 (E2-4000XU) LOW OIL PRESSURE associated with	242151	1	242000 PB255 T 810 905	
		AC GEN	IDG2 (E2-4000XU) MANUAL DISCONNECT	242151	1		
R	ELEC IDG 2 OIL LO PR	AC GEN	IDG2 (E2-4000XU) MANUAL DISCONNECT	242151	1	242000 PB262 T 810 907	
	ELEC IDG 2 OIL LO PR	AC GEN	IDG2 LOW OIL PRESSURE	242151	1	242000 PA225 T 810 848	
	ELEC IDG 2 OIL OVHT associated with Lower ECAM DU Advisories ELEC FUEL - RECIRC - IDG 2 oil temp shown pulsing green (over limit) and ELEC Pnl (35VU) FUEL - RECIRC - IDG 2 P/BSW FAULT lamp on					281600 P 201 T 810 801	
	ELEC IDG 2 OIL OVHT	AC GEN	CHECK GCU2 PIN A8A,A9B IDG 2 PIN B7,B8 WIRING	242100	1	242100 P 207 T 810 804	

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT
		SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
	ELEC IDG 2 OIL OVHT associated with ELEC GEN 2 FAULT	AC GEN	CHECK GCU2 PIN C2 TO C4 IDG2 PIN B12 TO B14 associated with	242100	1	242000 PA231 T 810 850
		AC GEN	IDG2 (OVERTEMP)	242151	1	<u></u>
	ELEC IDG 2 OIL OVHT associated with ELEC IDG 2 OIL LO PR	AC GEN	CHECK IDG2 DISCONNECT	242151	1	242000 PA235 T 810 852
	ELEC IDG 2 OIL OVHT	AC GEN	IDG COOLER 2	731160	1	242000 PA243 T 810 856
R	ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (E2-4000XU) MANUAL DISCONNECT	242151	1	242000 PB262 T 810 907
	ELEC IDG 2 OIL OVHT associated with ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP SENSE/GCU2 (1XU2) associated with	242151	1	240000 P 209 T 810 809
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) THERMAL	242151	1	
	ELEC IDG 2 OIL OVHT associated with ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP SENSE/GCU2 (1XU2) associated with	242151	1	240000 P 209 T 810 809
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) MANUAL DISCONNECT	242151	1	
	ELEC IDG 2 OIL OVHT associated with ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP SENSE/GCU2 (1XU2) associated with	242151	1	240000 P 209 T 810 809
	ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU)/RELAY (4XT)/GCU2 (1XU2)	242151	1	
	ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (E2-4000XU) THERMAL DISC FAILED	242151	1	240000 P 229 T 810 817
	ELEC IDG 2 OIL OVHT associated with ELEC GEN 2 FAULT	AC GEN	IDG2 (E2-4000XU) THERMAL DISCONNECT	242151	1	240000 P 229 T 810 817
	ELEC IDG 2 OIL OVHT	AC GEN	IDG2 (OVERTEMP)	242151	1	242000 PA231 T 810 850
	ELEC IDG 2 OIL OVHT	AC GEN	IDG2 BULB TOLERANCE	242151	1	242100 P 215 T 810 808

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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
		SOURCE	MESSAGE	ATA	С	!!
	ELEC STATIC INV FAULT associated with ELEC BCL 1 FAULT					243800 P 283 T 810 846
	ELEC STATIC INV FAULT associated with ELEC BCL 2 FAULT					243800 P 284 T 810 847
R	ELEC STATIC INV FAULT	BCL 1	STATIC INVERTER 3XB	242851	1	243000 P 211 T 810 803
	ELEC TR 1 FAULT					243000 P 201 T 810 801
	ELEC TR 1 FAULT associated with ELEC DC BUS 1 FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of the line between DC BUS 2 and DC BAT BUS					246000 P 218 T 810 809
	ELEC TR 1 FAULT associated with ELEC DC BUS 1 FAULT and ELEC DC BAT BUS FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2					246000 P 227 T 810 812
	ELEC TR 1 FAULT associated with ELEC TR 2 FAULT and ELEC DC ESS BUS FAULT					246000 P 237 T 810 815

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
ELEC TR 1 FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 2 FAULT and ELEC ESS TR FAULT and ELEC DC ESS BUS FAULT					246000 P 245 T 810 817
ELEC TR 1 FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 2 FAULT and ELEC DC ESS BUS FAULT					246000 P 245 T 810 817
ELEC TR 2 FAULT					243000 P 205 T 810 802
ELEC TR 2 FAULT associated with ELEC DC BUS 2 FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of the line between DC BUS 2 and DC BAT BUS					246000 P 206 T 810 804
ELEC TR 2 FAULT associated with ELEC DC BUS 2 FAULT and ELEC DC BAT BUS FAULT and Lower ECAM DU Flags-ELEC DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2	j i				246000 P 224 T 810 811

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGE	:S		FAULT ISOLATION
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	C	PROCEDURE
R	ELEC TR 2 FAULT associated with ELEC TR 1 FAULT and ELEC DC ESS BUS FAULT					246000 P 237 T 810 815
	ELEC TR 2 FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC ESS TR FAULT and ELEC DC ESS BUS FAULT					246000 P 245 T 810 817
	ELEC TR 2 FAULT associated with STS-Maintenance DC BUS TIE and Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC DC ESS BUS FAULT					246000 P 245 T 810 817

STS-Inop System

GALY/CAB			245600 P 201
			Т 810 801

STS-Maintenance

AC GEN	!	ENG MASTER SW1 (3KC)/ GCU1 (1XU1)	761200	242000 PA258 T 810 864
AC GEN	AC GEN	ENG MASTER SW2 (2KC)/ GCU2 (1XU2)	761200	242000 PA260 T 810 865

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	HADNINGS /MALTHNOTTONS		CFDS FAULT MESSAGES				
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	AC GEN	AC GEN	GAPCU (24XG)	244134	2	244100 P 214 T 810 810	
	AC GEN	AC GEN	GCU1 (1XU1)	242234	2	240000 P 205 T 810 804	
	AC GEN	AC GEN	GCU2 (1XU2)	242234	2	240000 P 206 T 810 805	
	AC GEN	AC GEN	GEN APU (8XS) PMG/ GAPCU (24XG)	242351	2	242300 P 235 T 810 815	
	AC GEN	AC GEN	IDG COOLER 1	731160	2	242100 P 270 T 810 828	
	AC GEN	AC GEN	IDG COOLER 2	731160	2	242100 P 272 T 810 829	
	AC GEN	AC GEN	IDG1 (E1-4000XU) OIL DELTA TEMP/GCU1 (1XU1)	242151	2	240000 P 215 T 810 812	
	AC GEN	AC GEN	IDG1 (E1-4000XU) PMG/ GCU1 (1XU1)	242151	2	242000 PB269 T 810 910	
	AC GEN	AC GEN	IDG1 HIGH DELTA TEMP	242151	2	242000 PA237 T 810 853	
	AC GEN	AC GEN	IDG2 (E2-4000XU) OIL DELTA TEMP/GCU2 (1XU2)	242151	2	240000 P 218 T 810 813	
	AC GEN	AC GEN	IDG2 (E2-4000XU) PMG/ GCU2 (1XU2)	242151	2	242000 PB266 T 810 909	
	AC GEN	AC GEN	IDG2 HIGH DELTA TEMP	242151	2	242000 PA239 T 810 854	
	AC GEN	AC GEN	LGCIU1 (5GA1)/GCU1 (1XU1)	242234	2	242000 PA286 T 810 878	
	AC GEN	AC GEN	LGCIU1 (5GA1)/GCU2 (1XU2)	242234	2	242000 PA288 T 810 879	
	AC GEN	AC GEN	WRG: PIN PROG/GAPCU (24XG)	244100	2	244100 P 237 T 810 820	

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	WARNINGS/MALFUNCTIONS		CFD	S FAUL1	S FAULT MESSAGES			FAULT ISOLATION	
	WARNINGS/ MALFONCTIONS	SOURCE	MI	ESSAGE		ATA	С	!	
	DC BUS TIE associated with Lower ECAM DU Flags-ELEC DC ESS box - It is not energized by DC BAT, but energized by ESS TR							243500 P 201 T 810 801	
R	DC BUS TIE associated with Lower ECAM DU Flags-ELEC DC BAT box - It is not energized by DC BUS1 but energized by DC BUS2							243500 P 205 T 810 802	
	DC BUS TIE associated with Upper ECAM DU Warnings ELEC DC ESS BUS FAULT							246000 P 232 T 810 814	
	DC BUS TIE associated with Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC TR 2 FAULT and ELEC ESS TR FAULT and ELEC ESS TR FAULT							246000 P 245 T 810 817	
	DC BUS TIE associated with Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC TR 2 FAULT and ELEC DC ESS BUS FAULT							246000 P 245 T 810 817	
	GALLEY							245600 P 201 T 810 801	
	GPCU	AC GEN	IDG1 HIGH	DELTA	TEMP	242151	2	242000 PA237 T 810 853	

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WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/ MALFORCTIONS	SOURCE	MESSAGE	ATA		PROCEDURE
GPCU	AC GEN	IDG2 HIGH DELTA TEMP	242151	2	242000 PA239 T 810 854

Upper ECAM DU Flags

R	ESS TR fault warning does not appear associated with Lower ECAM DU Flags-ELEC ESS TR current indication shown in amber OA and DC ESS not energized by ESS TR but energized by DC BAT					243000 P 231 T 810 812
R	TR1 fault warning does not appear associated with Lower ECAM DU Flags-ELEC TR1 current indication shown in amber OA and DC1 not energized by TR1 but energized by DC2 through DC BAT	TR 1	TR1	243251	3	243000 P 225 T 810 810
R	TR2 fault warning does not appear associated with Lower ECAM DU Flags-ELEC TR2 current indication shown in amber OA and DC2 not energized by TR2 but energized by DC1 through DC BAT	TR 2	TR2	243251	3	243000 P 228 T 810 811

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LIADNINGS / MAI FUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

Lower ECAM DU Flags-ELEC

	amber DISC IDG2 INDG does not come into view associated with AC GEN - IDG2 cannot be disconnected with the ELEC/IDG2 p/bsw and ELEC Pnl (35VU) IDG 2 p/bsw FAULT stays on	242100 P 219 T 810 810
	amber DISC IDG2 INDG does not come into view	242100 P 284 T 810 835
R	APU GEN - VAC indication shown in amber or replaced by amber XX	242200 P 224 T 810 808
R	APU GEN box - Electrical parameters are incomplete	242200 P 241 T 810 813
R	APU GEN- FREQ indication shown in amber or replaced by amber XX	242200 P 224 T 810 808
R	APU GEN- Load indication shown in amber or replaced by amber XX	242200 P 224 T 810 808
	BAT1 - voltage indication in amber or replaced by amber XX	243800 P 241 T 810 832
	BAT1 - voltage below 25.5V associated with Upper ECAM DU Warnings ELEC BCL 1 FAULT	243800 P 241 T 810 832

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WARNINGS/MALFUNCTIONS		CFDS FAULT MESS	AGES		FAULT ISOLATION
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	C	!!
BAT1 and BAT2 - voltage indication in amber associated with DC GEN - No charging of batteries 1 and 2					243800 P 285 T 810 848
BAT1-Voltage indication discrepancy between ECAM and voltmeter indication					243800 P 241 T 810 832
BAT2 - voltage indication in amber or replaced by amber XX					243800 P 244 T 810 833
BAT2 - voltage below 25.5V associated with Upper ECAM DU Warnings ELEC BCL 2 FAULT					243800 P 244 T 810 833
BAT2-Voltage indication discrepancy between ECAM and voltmeter indication					243800 P 244 T 810 833
CSMG - Incorrect test result of EMER generation system associated with Upper ECAM DU Warnings ELEC AC ESS BUS FAULT					242400 P 207 T 810 805
CSMG - Incorrect test result of EMER generation system					242400 P 210 T 810 806
CSMG - Incorrect test result of EMER generation system associated with Upper ECAM DU Warnings ELEC ESS TR FAULT					242400 P 217 T 810 807

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
R	DC BAT box - It is not energized by DC BUS1 but energized by DC BUS2 associated with STS-Maintenance DC BUS TIE					243500 P 205 T 810 802
	DC ESS box - It is not energized by DC BAT, but energized by ESS TR associated with STS-Maintenance DC BUS TIE					243500 P 201 T 810 801
	DC ESS not energized by ESS TR but energized by DC BAT associated with ESS TR current indication shown in amber OA and Upper ECAM DU Flags ESS TR fault warning does not appear					243000 P 231 T 810 812
	DC GEN - BAT1 box: OFF on when BAT1 P/BSW pushed associated with Upper ECAM DU Warnings ELEC BCL 1 FAULT					243800 P 272 T 810 841
	DC GEN - BAT1 to DC BAT arrow does not come into view					243800 P 274 T 810 843
	DC GEN - BAT2 box: OFF on when BAT2 P/BSW pushed associated with Upper ECAM DU Warnings ELEC BCL 2 FAULT					243800 P 273 T 810 842

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WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGE	S		FAULT ISOLATION
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
DC GEN - BAT2 to DC BAT arrow does not come into view					243800 P 259 T 810 838
DC GEN - Loss of DC generation and distribution associated with Upper ECAM DU Warnings ELEC DC EMER CONFIG					246000 P 230 T 810 813
DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2 associated with Upper ECAM DU Warnings ELEC TR 2 FAULT and ELEC DC BUS 2 FAULT and ELEC DC BAT BUS FAULT					246000 P 224 T 810 811
DC GEN - Loss of lines between the DC BUS 1, DC BAT BUS and DC BUS 2 associated with Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC DC BUS 1 FAULT and ELEC DC BAT BUS FAULT					246000 P 227 T 810 812
DC GEN - Loss of the line between DC BUS 2 and DC BAT BUS associated with Upper ECAM DU Warnings ELEC TR 2 FAULT and ELEC DC BUS 2 FAULT					246000 P 206 T 810 804

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	 WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
	DC GEN - Loss of the line between DC BUS 2 and DC BAT BUS associated with Upper ECAM DU Warnings ELEC TR 1 FAULT and ELEC DC BUS 1 FAULT					246000 P 218 T 810 809
	DC 1 and DC 2 boxes - Failure of DC BUS 1 and DC BUS 2 energization associated with Upper ECAM DU Warnings ELEC DC BUS 1+2 FAULT and ELEC DC BAT BUS FAULT					246000 P 203 T 810 803
R	DC1 not energized by TR1 but energized by DC2 through DC BAT associated with TR1 current indication shown in amber OA and Upper ECAM DU Flags TR1 fault warning does not appear	TR 1	TR1	243251	3	243000 P 225 T 810 810
R	DC2 not energized by TR2 but energized by DC1 through DC BAT associated with TR2 current indication shown in amber OA and Upper ECAM DU Flags TR2 fault warning does not appear	TR 2	TR2	243251	3	243000 P 228 T 810 811

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	LIADNINGS (MALEUNGITONS		CFDS FAULT MESSAGES	 S		FAULT
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
	ELEC - DC GEN - TR1, V, current indications are shown in amber associated with ELEC- On ELEC page, TR1, V, current indications are shown in amber					243200 P 209 T 810 805
	ELEC - DC GEN - TR2, V, current indications are shown in amber associated with ELEC- On ELEC page, TR2, V, current indications are shown in amber					243200 P 211 T 810 806
R	ELEC - No line between the APU GEN box and the AC1 box associated with ELEC - No PWR SPLY of A/C electrical circuits from APU GEN					242300 P 212 T 810 806
	ELEC - On IDG1 box, the frequency parameter comes on in amber					242100 P 221 T 810 811
	ELEC - On IDG2 box, the frequency parameter comes on in amber					242100 P 224 T 810 812
	EMER GEN - Frequency indication shown in amber					242400 P 204 T 810 804
	EMER GEN - Voltage indication shown in amber					242400 P 204 T 810 804
	EMER GEN - Voltage and frequency indications replaced by amber XX					242400 P 204 T 810 804

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WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGE	S		FAULT ISOLATION
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
EMER GEN electrical parameters replaced by	ECAM 1	SDAC1 : GLC EMER CNTOR 2XE	242455	1	242400 P 219 T 810 808
amber 0 	ECAM 1	associated with SDAC2 : GLC EMER CNTOR 2XE	242455	1	
EMER GEN electrical parameters replaced by	ECAM 2	SDAC1 : GLC EMER CNTOR 2XE	242455	1	242400 P 219 T 810 808
amber O 	ECAM 2	associated with SDAC2 : GLC EMER CNTOR 2XE	242455	1	
ESS TR current indication replaced by amber XX					243400 P 203 T 810 802
ESS TR current indication shown in amber OA associated with Upper ECAM DU Flags ESS TR fault warning does not appear and Lower ECAM DU Flags-ELEC DC ESS not energized by ESS TR but energized by DC BAT					243000 P 231 T 810 812
ESS TR voltage indication shown in amber OV					243400 P 201 T 810 801
EXT PWR - VAC indication shown in amber or replaced by amber XX					242200 P 214 T 810 806
EXT PWR- FREQ indication shown in amber or replaced by amber XX					242200 P 214 T 810 806
GEN 1 - Frequency indication replaced by amber XX					242200 P 208 T 810 805

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	WARNINGS/MALFUNCTIONS	L	CFDS FAULT MESSAGES	3		FAULT ISOLATION
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!
	GEN 1 - Load indication shown in amber or replaced by amber XX					242200 P 208 T 810 805
	GEN 1 - VAC indication shown in amber or replaced by amber XX					242200 P 208 T 810 805
	GEN 1 -Voltage, frequency and load indications replaced by amber XX					242200 P 208 T 810 805
R	GEN 2 - Frequency indication replaced by amber XX					242200 P 218 T 810 807
R	GEN 2 - Load indication shown in amber or replaced by amber XX					242200 P 218 T 810 807
R	GEN 2 - VAC indication shown in amber or replaced by amber XX					242200 P 218 T 810 807
R	GEN 2 -Voltage, frequency and load indications replaced by amber XX					242200 P 218 T 810 807
	IDG1 - Amber DISC indication does not come into view associated with AC GEN - IDG1 cannot be disconnected with the ELEC/IDG1 p/bsw and ELEC Pnl (35VU) IDG 1 p/bsw FAULT stays on					242100 P 217 T 810 809
	IDG1 - Amber DISC indication does not come into view					242100 P 282 T 810 834

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	WARNINGS/ MALI ONC 110NS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
	<pre>IDG1 - rise temp - indication replaced by amber XX</pre>	AC GEN	IDG1 (E1-4000XU) OIL IN TEMP/GCU1 (1XU1)	242151	3	242100 P 278 T 810 832	
R	IDG1 - rise temp - indication replaced by amber XX	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP/GCU1 (1XU1)	242151	3	240000 P 211 T 810 810	
R	IDG1 - rise temp - indication replaced by amber XX associated with IDG1 - Temperature - indication replaced by amber XX	AC GEN	IDG1 (E1-4000XU) TEMP SENSE/GCU1 (1XU1)	242151	1	240000 P 221 T 810 814	
	<pre>IDG1 - Temperature - indication replaced by amber XX</pre>					242100 P 238 T 810 818	
R	IDG1 - Temperature - indication replaced by amber XX	AC GEN	IDG1 (E1-4000XU) TEMP SENSE/GCU1 (1XU1)	242151	1	240000 P 221 T 810 814	
R	IDG1 - Temperature - indication replaced by amber XX associated with IDG1 - rise temp - indication replaced by amber XX	AC GEN	IDG1 (E1-4000XU) TEMP SENSE/GCU1 (1XU1)	242151	1	240000 P 221 T 810 814	
	IDG2 - rise temp - indication replaced by amber XX	AC GEN	IDG2 (E2-4000XU) OIL IN TEMP/GCU2 (1XU2)	242151	3	242100 P 280 T 810 833	
R	IDG2 - rise temp - indication replaced by amber XX	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP/GCU2 (1XU2)	242151	3	240000 P 213 T 810 811	

EFF : ALL

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24-ECAM

Aug 01/06

TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS			FAULT		
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
R	IDG2 - rise temp - indication replaced by amber XX associated with IDG2 - Temperature - indication replaced by amber XX	AC GEN	IDG2 (E2-4000XU) TEMP SENSE/GCU2 (1XU2)	242151	1	240000 P 224 T 810 815
	IDG2 - Temperature - indication replaced by amber XX					242100 P 242 T 810 819
R	IDG2 - Temperature - indication replaced by amber XX	AC GEN	IDG2 (E2-4000XU) TEMP SENSE/GCU2 (1XU2)	242151	1	240000 P 224 T 810 815
R	IDG2 - Temperature - indication replaced by amber XX associated with IDG2 - rise temp - indication replaced by amber XX	AC GEN	IDG2 (E2-4000XU) TEMP SENSE/GCU2 (1XU2)	242151	1	240000 P 224 T 810 815
	STATIC INV - frequency indication shown in amber					242800 P 209 T 810 803
	STATIC INV - Incorrect result of its operational test					242800 P 201 T 810 801
	STATIC INV - voltage indication shown in amber					242800 P 209 T 810 803
	STATIC INV - voltage and frequency indications replaced by amber XX					242800 P 209 T 810 803
	TR1 current indication replaced by amber XX					243200 P 205 T 810 803

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	3		FAULT ISOLATION
	WARNINGS/ MALI ONC 110NS	SOURCE	MESSAGE	ATA	С	!
R	TR1 current indication shown in amber OA associated with Upper ECAM DU Flags TR1 fault warning does not appear and Lower ECAM DU Flags-ELEC DC1 not energized by TR1 but energized by DC2 through DC BAT	TR 1	TR1	243251	3	243000 P 225 T 810 810
	TR1 voltage indication shown in amber OV					243200 P 201 T 810 801
	TR2 current indication replaced by amber XX					243200 P 207 T 810 804
R	TR2 current indication shown in amber OA associated with Upper ECAM DU Flags TR2 fault warning does not appear and Lower ECAM DU Flags-ELEC DC2 not energized by TR2 but energized by DC1 through DC BAT	TR 2	TR2	243251	3	243000 P 228 T 810 811
	TR2 voltage indication shown in amber OV					243200 P 203 T 810 802

Lower ECAM DU Advisories ELEC

IDG1 - oil temperature flashes green	AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP/GCU1 (1XU1)	242151	3 240000 P 250 T 810 821
IDG2 - oil temperature flashes green	AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP/GCU2 (1XU2)	242151	3 240000 P 253 T 810 822

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TROUBLE SHOOTING MANUAL

ELECTRICAL POWER - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION	
	WARNINGS/ MALI UNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

ELEC Pnl (35VU)

R	AC ESS FEED p/bsw ALTN lt on associated with Upper ECAM DU Warnings ELEC AC ESS BUS FAULT					245000 P 214 T 810 805
R	AC ESS FEED p/bsw FAULT lt on associated with Upper ECAM DU Warnings ELEC AC ESS BUS FAULT					245000 P 210 T 810 804
	APU GEN P/BSW - FAULT legend on	AC GEN	GAPCU (24XG)	244134	1	244100 P 260 T 810 832
	APU GEN P/BSW - FAULT legend on	AC GEN	GAPCU (24XG)	244134	3	244100 P 214 T 810 810

ELEC pnl (35VU)

ELEC - EXT PWR p/bsw -AVAIL legend on without external power source	!	GAPCU (24XG)	244134		244100 P 214 T 810 810
ELEC - GALLEY CTL p/bsw- FAULT legend on	AC GEN	GAPCU (24XG)	244134	1	244100 P 214 T 810 810
ELEC - GALLEY CTL p/bsw- FAULT legend on	AC GEN	GCU1 (1XU1)	242234	1	242000 PA266 T 810 868
ELEC - GALLEY CTL p/bsw- FAULT legend on	AC GEN	GCU2 (1XU2)	242234	1	242000 PA268 T 810 869

EFF: ALL

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WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

ELEC Pnl (35VU)

R	EXT PWR p/bsw AVAIL stays off					244000 P 212 T 810 806
R	EXT PWR p/bsw AVAIL stays off associated with EXT PWR Pnl (108VU) EXT PWR AVAIL indicator light stays off					244000 P 224 T 810 810
R	EXT PWR p/bsw AVAIL stays off associated with EXT PWR Pnl (108VU) EXT PWR AVAIL indicator light stays off and EXT PWR NOT IN USE indicator light stays off					244000 P 229 T 810 812
	EXT PWR p/bsw AVAIL stays off	AC GEN	CHECK EP PHASE SEQ	244100	1	244000 P 201 T 810 801
	EXT PWR p/bsw AVAIL stays off	AC GEN	CHECK GPCU PIN C2 C/B 4XG,6XG,11XG,12XG WIRING		1	244000 P 203 T 810 802
	EXT PWR p/bsw AVAIL stays off	AC GEN	CHECK GPCU PIN C3,C4 RECEPTACLE 20XG PIN F,E	244100	1	244000 P 205 T 810 803
	EXT PWR p/bsw AVAIL stays off	AC GEN	CHECK GROUND POWER	244100	1	244000 P 207 T 810 804
R	EXT PWR p/bsw AVAIL stays off	AC GEN	GPCU	244134	1	244000 P 210 T 810 805
R	EXT PWR p/bsw AVAIL stays off when pushed					244000 P 226 T 810 811
	EXT PWR p/bsw AVAIL stays off when pushed	AC GEN	WRG: EPC CONTROL/GAPCU (24XG)	244100	1	244100 P 232 T 810 818

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGE	S		FAULT ISOLATION
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	! !
2	EXT PWR p/bsw ON stays					244000 P 216 T 810 807
	IDG 1 p/bsw FAULT stays on associated with AC GEN - IDG1 cannot be disconnected with the ELEC/IDG1 p/bsw and Lower ECAM DU Flags-ELEC IDG1 - Amber DISC indication does not come into view					242100 P 217 T 810 809
	IDG 1 p/bsw FAULT stays	AC GEN	GCU1 (1XU1)	242234	1	242000 PA266 T 810 868
	IDG 2 p/bsw FAULT stays on associated with AC GEN - IDG2 cannot be disconnected with the ELEC/IDG2 p/bsw and Lower ECAM DU Flags-ELEC amber DISC IDG2 INDG does not come into view					242100 P 219 T 810 810
	IDG 2 p/bsw FAULT stays	AC GEN	GCU2 (1XU2)	242234	1	242000 PA268 T 810 869

AVIONICS COMPT (Z125)

CSM/G GCU red led on	 T	242400 P 220
		Т 810 810

ELEC Pnl (35VU)

DC GEN - BAT1 voltage below 25.5V		243800 P 274 T 810 843
Decow 25.5v		1 0 10 0 0 0

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	3		FAULT ISOLATION
WARNINGS/ MALFORCTIONS	SOURCE	MESSAGE	ATA	C	PROCEDURE
DC GEN - BAT2 voltage below 25.5V				†	243800 P 259 T 810 838

ELEC pnl (35VU)

	ELEC - EXT PWR p/bsw -AVAIL legend stays on when p/bsw pushed associated with ELEC - GEN1 p/bsw-FAULT legend stays off and ELEC - GEN2 p/bsw-FAULT legend stays off and ELEC - No PWR SPLY of A/C electrical circuits from the external power					244100 P 212 T 810 809
R	ELEC - GEN1 p/bsw-FAULT legend on	AC GEN	GCU1 (1XU1)	242234	1	242000 PA290 T 810 880
	ELEC - GEN1 p/bsw-FAULT legend stays off associated with ELEC - EXT PWR p/bsw -AVAIL legend stays on when p/bsw pushed and ELEC - GEN2 p/bsw-FAULT legend stays off and ELEC - No PWR SPLY of A/C electrical circuits from the external power					244100 P 212 T 810 809
R	ELEC - GEN2 p/bsw-FAULT legend on	AC GEN	GCU2 (1XU2)	242234	1	242000 PA293 T 810 881

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LIADNINGS (MALEUNGTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	C	
ELEC - GEN2 p/bsw-FAULT legend stays off associated with ELEC - EXT PWR p/bsw -AVAIL legend stays on when p/bsw pushed and ELEC - GEN1 p/bsw-FAULT legend stays off and ELEC - No PWR SPLY of A/C electrical circuits from the external power					244100 P 212 T 810 809

EXT PWR Pnl (108VU)

	ELEC - EXT PWR NOT IN USE indicator light stays on associated with ELEC - No PWR SPLY of A/C ELEC CKTS with AC ground service bus CTL and ELEC - MAINT BUS/ON switch does not stay in ON position			244200 P 209 T 810 803
R	EXT PWR AVAIL indicator light stays off			244000 P 218 T 810 808
R	EXT PWR AVAIL indicator light stays off associated with ELEC Pnl (35VU) EXT PWR p/bsw AVAIL stays off			244000 P 224 T 810 810

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
R	EXT PWR AVAIL indicator light stays off associated with ELEC Pnl (35VU) EXT PWR p/bsw AVAIL stays off and EXT PWR Pnl (108VU) EXT PWR NOT IN USE indicator light stays off					244000 P 229 T 810 812
R	EXT PWR NOT IN USE indicator light stays off					244000 P 220 T 810 809
R	EXT PWR NOT IN USE indicator light stays off associated with ELEC Pnl (35VU) EXT PWR p/bsw AVAIL stays off and EXT PWR Pnl (108VU) EXT PWR AVAIL indicator light stays off					244000 P 229 T 810 812

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TROUBLE SHOOTING MANUAL

ELECTRICAL POWER - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!
AC ESS DISTR - Loss of equipments supplied by AC ESS BUS SHED 801XP associated with Upper ECAM DU Warnings ELEC AC ESS BUS SHED					245000 P 204 T 810 802
AC GEN - IDG1 cannot be disconnected with the ELEC/IDG1 p/bsw associated with ELEC Pnl (35VU) IDG 1 p/bsw FAULT stays on and Lower ECAM DU Flags-ELEC IDG1 - Amber DISC indication does not come into view					242100 P 217 T 810 809
AC GEN - IDG2 cannot be disconnected with the ELEC/IDG2 p/bsw associated with ELEC Pnl (35VU) IDG 2 p/bsw FAULT stays on and Lower ECAM DU Flags-ELEC amber DISC IDG2 INDG does not come into view					242100 P 219 T 810 810
AC MAIN DISTR - Loss of AC BUS 1 supplied by GEN 2 associated with Upper ECAM DU Warnings ELEC AC BUS 1 FAULT					245000 P 247 T 810 815

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES		FAULT ISOLATION		
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
R	AC MAIN DISTR - Loss of AC BUS 2 supplied by GEN 1 associated with Upper ECAM DU Warnings ELEC AC BUS 2 FAULT					245000 P 257 T 810 816
R	AC MAIN DISTR - Loss of AC BUS1 supplied by external power associated with Upper ECAM DU Warnings ELEC AC BUS 1 FAULT					245000 P 223 T 810 808
R	AC MAIN DISTR - Loss of AC BUS1 supplied by APU GEN associated with Upper ECAM DU Warnings ELEC AC BUS 1 FAULT					245000 P 227 T 810 809
R	AC MAIN DISTR - Loss of AC BUS2 supplied by external power associated with Upper ECAM DU Warnings ELEC AC BUS 2 FAULT					245000 P 231 T 810 810
	AC MAIN DISTR - Loss of AC BUS2 supplied by APU GEN associated with Upper ECAM DU Warnings ELEC AC BUS 2 FAULT					245000 P 235 T 810 811
	AC MAIN DISTR - Loss of some equipment supplied by busbar 1XP					242000 P 246 T 810 817
	AC MAIN DISTR - Loss of some equipment supplied by busbar 2XP					242000 P 269 T 810 825

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	<u> </u>	FAULT ISOLATION			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
R	AC SERVICE BUS 2 (212XP) (216XP) not available in flight configuration associated with CEILING FWD and AFT lights (L side) do not come on and WINDOW FWD and AFT lights (R side) do not come on					245000 P 241 T 810 813
	AC SERVICE BUS 2 (212XP) (216XP) not available in ground service CONFIG associated with CEILING FWD and AFT lights (L side) do not come on and WINDOW FWD and AFT lights (R side) do not come on					244200 P 201 T 810 801
	AC SERVICE BUS 2 (214XP) not available in ground service configuration associated with WINDOW FWD and AFT lights (R side) do not come on and CEILING FWD and AFT lights (R side) do not come on					244200 P 205 T 810 802
	CAPT dome lights do not come on associated with DC SERVICE BUS(601PP) (602PP) not available in normal config					246100 P 201 T 810 801

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Feb 01/04

TROUBLE SHOOTING MANUAL

LIADNINGS (MALEUNGITONS		FAULT			
	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
CAPTAIN dome lights do not come on associated with DC SERVICE BUS (601PP) (602PP) not available in ground service CONFIG					244300 P 201 T 810 801
CEILING FWD and AFT lights (L side) do not come on associated with AC SERVICE BUS 2 (212XP) (216XP) not available in ground service CONFIG and WINDOW FWD and AFT lights (R side) do not come on	!!				244200 P 201 T 810 801
CEILING FWD and AFT lights (L side) do not come on associated with WINDOW FWD and AFT lights (R side) do not come on and AC SERVICE BUS 2 (212XP) (216XP) not available in flight configuration					245000 P 241 T 810 813
CEILING FWD and AFT lights (R side) do not come on associated with WINDOW FWD and AFT lights (R side) do not come on and AC SERVICE BUS 2 (214XP) not available in ground service configuration					244200 P 205 T 810 802

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	C	!!
	CSM/G - Incorrect test result of EMER generation system associated with Upper ECAM DU Warnings ELEC AC ESS BUS FAULT					242400 P 207 T 810 805
	CSM/G - Incorrect test result of EMER generation system					242400 P 210 T 810 806
R	CSM/G - Incorrect test result of EMER generation system associated with Upper ECAM DU Warnings ELEC ESS TR FAULT					242400 P 217 T 810 807
	DC GEN - APU start-up from the battery 1 is difficult / not possible					243800 P 274 T 810 843
	DC GEN - APU start-up from the battery 2 is difficult / not possible					243800 P 259 T 810 838
	DC GEN - BAT1 or BAT2 voltage indication shows 888					243800 P 288 T 810 849
	DC GEN - BAT1 pushbutton switch in ON position associated with Upper ECAM DU Warnings ELEC BAT 1 OFF					243800 P 269 T 810 840
	DC GEN - BAT2 pushbutton switch in ON position associated with Upper ECAM DU Warnings ELEC BAT 2 OFF					243800 P 266 T 810 839

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May 01/03

TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	! :
DC GEN - In the cabin, ceiling and window lights are off associated with Upper ECAM DU Warnings ELEC GEN 1 OVERLOAD					246000 P 214 T 810 808
DC GEN - No charging of batteries 1 and 2 associated with Lower ECAM DU Flags-ELEC BAT1 and BAT2 - voltage indication in amber					243800 P 285 T 810 848
DC SERVICE BUS (601PP) (602PP) not available in ground service CONFIG associated with CAPTAIN dome lights do not come on					244300 P 201 T 810 801
DC SERVICE BUS(601PP) (602PP) not available in normal config associated with CAPT dome lights do not come on					246100 P 201 T 810 801
ELEC - GALLEY pushbutton switch in OFF position associated with Upper ECAM DU Warnings ELEC GEN 1 OVERLOAD					242200 P 249 T 810 815
ELEC - GALLEY pushbutton switch in OFF position associated with Upper ECAM DU Warnings ELEC GEN 2 OVERLOAD					242200 P 254 T 810 816
ELEC - GALLEY pushbutton switch in OFF position associated with Upper ECAM DU Warnings ELEC APU GEN OVERLOAD					242300 P 207 T 810 805

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SROS			

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	C	!!
	ELEC - GALLEY SUPPLY - The galley equipment is inoperative					245600 P 201 T 810 801
R	ELEC - GEN1 pushbutton switch in ON position associated with Upper ECAM DU Warnings ELEC GEN 1 OFF					242200 P 235 T 810 811
	ELEC - GEN1 pushbutton switch in ON position					242200 P 259 T 810 817
R	ELEC - GEN2 pushbutton switch in ON position associated with Upper ECAM DU Warnings ELEC GEN 2 OFF					242200 P 238 T 810 812
	ELEC - GEN2 pushbutton switch in ON position					242200 P 261 T 810 818
	ELEC - Loss of the equipments supplied by the DC ESS BUS SHED associated with Upper ECAM DU Warnings ELEC DC ESS BUS SHED					246000 P 220 T 810 810
	ELEC - MAINT BUS/ON switch does not stay in ON position associated with EXT PWR Pnl (108VU) ELEC - EXT PWR NOT IN USE indicator light stays on and ELEC - No PWR SPLY of A/C ELEC CKTS with AC ground service bus CTL					244200 P 209 T 810 803

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
	ELEC - No PWR SPLY of A/C ELEC CKTS with AC ground service bus CTL associated with EXT PWR Pnl (108VU) ELEC - EXT PWR NOT IN USE indicator light stays on and ELEC - MAINT BUS/ON switch does not stay in ON position					244200 P 209 T 810 803
R	ELEC - No PWR SPLY of A/C electrical circuits from APU GEN associated with Lower ECAM DU Flags-ELEC ELEC - No line between the APU GEN box and the AC1 box					242300 P 212 T 810 806
	ELEC - No PWR SPLY of A/C electrical circuits from the external power associated with ELEC pnl (35VU) ELEC - EXT PWR p/bsw -AVAIL legend stays on when p/bsw pushed and ELEC - GEN1 p/bsw-FAULT legend stays off and ELEC - GEN2 p/bsw-FAULT legend stays off					244100 P 212 T 810 809
	ELEC - No PWR SPLY of A/C electrical circuits from the external power		-		 	244100 P 262 T 810 833
	ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXT PWR INTLK/GAPCU (24XG)	244000	 1 	244100 P 215 T 810 811

EFF :	ALL
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TROUBLE SHOOTING MANUAL

LIADNINGS (MALEUNGTIONS	CFDS FAULT MESSAGES			FAULT - ISOLATION	
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	:
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXT PWR PLUG/WRG: EXT PWR INTLK/GAPCU (24XG)	244000	1	244100 P 252 T 810 827
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER	244000	1	244100 P 217 T 810 812
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER + CHECK INTERLOCK	244000	1	244100 P 256 T 810 829
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER + GAPCU (24XG)	244000	1	244100 P 223 T 810 814
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER INTERLOCK /GAPCU (24XG)	244000	1	244100 P 215 T 810 811
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER UNBALANCE	244134	1	244100 P 258 T 810 830
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER/ GAPCU (24XG)	244000	1	244100 P 254 T 810 828
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	EXTERNAL POWER/GAPCU (24XG) + CHECK INTERLOCK	244000	1	244100 P 220 T 810 813
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	GAPCU (24XG)	244134	1	244100 P 214 T 810 810
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	GAPCU (24XG)	244134	3	244100 P 214 T 810 810
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	GAPCU (24XG)/WRG: CB TO GAPCU PR	244100	1	244100 P 250 T 810 826

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	WRG: EXT PWR FEEDER/ WRG: POR + CHECK INTLK	244000	1	244100 P 239 T 810 821
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	WRG: EXT PWR FEEDER/ WRG: POR + GAPCU (24XG)	244000	1	244100 P 244 T 810 823
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	WRG: EXT PWR FEEDER/ WRG: POR/GAPCU (24XG)	244000	1	244100 P 242 T 810 822
ELEC - No PWR SPLY of A/C electrical circuits from the external power	AC GEN	WRG: EXT PWR PIN E INTERLOCK/GAPCU (24XG)	244000	1	244100 P 235 T 810 819
ELEC - Refueling impossible from battery					246700 P 201 T 810 801
ELEC - Refueling inoperative in normal supply configuration					246700 P 201 T 810 801
ELEC C/B Tripped					240000 P 203 T 810 803
ELEC DC-No PWR SPLY from BAT1 and BAT2 with BAT1 and BAT2 P/BSW pushed					243800 P 281 T 810 845
ELEC Electrical burning smell or fumes					240000 P 256 T 810 823
ELEC System loss - Computer reset	 				240000 P 231 T 810 818
ELEC- On ELEC page, TR1, V, current indications are shown in amber associated with Lower ECAM DU Flags-ELEC ELEC - DC GEN - TR1, V, current indications are shown in amber					243200 P 209 T 810 805

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Nov 01/06

TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!	
	ELEC- On ELEC page, TR2, V, current indications are shown in amber associated with Lower ECAM DU Flags-ELEC ELEC - DC GEN - TR2, V, current indications are shown in amber					243200 P 211 T 810 806	
R	ELEC-EMER PWR/GEN1 LINE pushbutton switch in ON position associated with Upper ECAM DU Warnings ELEC EMER GEN 1 LINE OFF					242200 P 245 T 810 814	
	IDG 1 High oil consumption					242100 P 235 T 810 817	
	IDG 1 No automatic connection after engine start					242100 P 286 T 810 840	
	IDG 1 Oil Temperature is higher than IDG 2, but is below high limit.					281600 P 201 T 810 801	
	IDG 2 High oil consumption					242100 P 235 T 810 817	
	IDG 2 No automatic connection after engine start					242100 P 290 T 810 841	
	IDG 2 Oil Temperature is higher than IDG 1, but is below high limit.					281600 P 201 T 810 801	
	IDG1 - Differential Pressure Indicator (DPI) is extended					242100 P 229 T 810 815	
	IDG1 - Sightglass the oil level is in the yellow or red band					242100 P 227 T 810 813	

EFF:	ALL		
SROS			

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	[FAULT ISOLATION		
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!!
IDG2 - Differential Pressure Indicator (DPI) is extended					242100 P 232 T 810 816
IDG2 - Sightglass the oil level is in the yellow or red band					242100 P 228 T 810 814
STATIC INV - Incorrect result of its operational test					242800 P 201 T 810 801
STATIC INV - No STAT INV					242800 P 207 T 810 802
STATIC INV - No STAT INV indication associated with Upper ECAM DU Warnings FWS FWC 1 FAULT					242800 P 207 T 810 802
WINDOW FWD and AFT lights (R side) do not come on associated with AC SERVICE BUS 2 (212XP) (216XP) not available in ground service CONFIG and CEILING FWD and AFT lights (L side) do not come on					244200 P 201 T 810 801
WINDOW FWD and AFT lights (R side) do not come on associated with AC SERVICE BUS 2 (214XP) not available in ground service configuration and CEILING FWD and AFT lights (R side) do not come on					244200 P 205 T 810 802

EFF: ALL SROS **24-OBSV**

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TROUBLE SHOOTING MANUAL

	HARNINGS /MAL FUNCTIONS		FAULT			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	ISOLATION PROCEDURE
R	WINDOW FWD and AFT lights (R side) do not come on associated with CEILING FWD and AFT lights (L side) do not come on and AC SERVICE BUS 2 (212XP) (216XP) not available in flight configuration	!!				245000 P 241 T 810 813

EFF: ALL

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TROUBLE SHOOTING MANUAL

ELECTRICAL POWER - FAULT SYMPTOMS

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
		AC GEN	CHECK GCU APU PIN B11D, B13D	242334	3	242300 P 202 T 810 802	
		AC GEN	CHECK GCU1 PIN A15D IDG 1 PIN CA,CB WIRING	242100	3	242100 P 201 T 810 801	
		AC GEN	CHECK GCU1 PIN A9A,A9B IDG 1 PIN B9,B8 WIRING	242100	3	242100 P 209 T 810 805	
R		AC GEN	CHECK GCU1 PIN B11D, B13D	242234	3	242200 P 203 T 810 802	
		AC GEN	CHECK GCU2 PIN A15D IDG2 PIN CA,CB WIRING	242100	3	242100 P 203 T 810 802	
		AC GEN	CHECK GCU2 PIN A9A,A9B IDG2 PIN B9,B8 WIRING	242100	3	242100 P 211 T 810 806	
R		AC GEN	CHECK GCU2 PIN B11D, B13D	242234	3	242200 P 205 T 810 803	
		AC GEN	CHECK SERIAL LINK GPCU TO GCU APU	244134	3	244100 P 202 T 810 802	
		AC GEN	CHECK SERIAL LINK GPCU TO GCU1	244134	3	244100 P 209 T 810 806	
		AC GEN	CHECK SERIAL LINK GPCU TO GCU2	244134	1	244100 P 210 T 810 807	
		AC GEN	GAPCU (24XG)	244134	1	244100 P 214 T 810 810	
		AC GEN	GAPCU (24XG)	244134	2	244100 P 214 T 810 810	
		AC GEN	GAPCU (24XG)	244134	3	244100 P 214 T 810 810	
		AC GEN	GAPCU (24XG)/ANN LT BOARD (10LP)	243134	3	244100 P 226 T 810 815	
		AC GEN	GAPCU (24XG)/EXT PWR AUX RELAY (5XG)	243134	1	244100 P 228 T 810 816	

EFF: ALL

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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!
		AC GEN	GAPCU (24XG)/GLC APU GEN (3XS)	243134	3	242300 P 218 T 810 808
		AC GEN	GAPCU (24XG)/WRG: CB TO GAPCU PR	244100	1	244100 P 250 T 810 826
		AC GEN	GCU APU	242334	3	242300 P 201 T 810 801
R R		AC GEN	GCU1	242234	3	242200 P 201 T 810 801
		AC GEN	GCU1 (1XU1)	242234	1	242000 PA266 T 810 868
		AC GEN	GCU1 (1XU1)	242234	2	240000 P 205 T 810 804
R		AC GEN	GCU1 (1XU1)	242234	3	242200 P 271 T 810 821
		AC GEN	GCU1 (1XU1) GEN FAULT LT CTL/BOARD (10LP)	242234	1	242000 PB202 T 810 886
R		AC GEN	GCU1 (1XU1) 1553 BUS/ GAPCU (24XG)	242234	3	242200 P 285 T 810 829
R R		AC GEN	GCU2	242234	3	242200 P 207 T 810 804
		AC GEN	GCU2 (1XU2)	242234	1	242000 PA268 T 810 869
		AC GEN	GCU2 (1XU2)	242234	2	240000 P 206 T 810 805
R		AC GEN	GCU2 (1XU2)	242234	3	242200 P 272 T 810 822
		AC GEN	GCU2 (1XU2) GEN FAULT LT CTL/BOARD (10LP)	242234	1	242000 PB205 T 810 887
R		AC GEN	GCU2 (1XU2) 1553 BUS/ GAPCU (24XG)	242234	3	242200 P 287 T 810 830

EFF :	ALL		
SROS			

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TROUBLE SHOOTING MANUAL

	LIADNINGS /MALEUNCTIONS	<u> </u> 	CFDS FAULT MESSAGES			FAULT ISOLATION	
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!!	
R		AC GEN	GLC1 (9XU1)/GCU1 (1XU1)	242255	3	242200 P 277 T 810 825	
R		AC GEN	GLC2 (9XU2)/GCU2 (1XU2)	242255	3	242200 P 279 T 810 826	
		AC GEN	GPCU	244134	3	244100 P 201 T 810 801	
		AC GEN	IDG1 (E1-4000XU) LOP SW/ GCU1 (1XU1)	242151	3	242100 P 274 T 810 830	
		AC GEN	IDG1 (E1-4000XU) OIL IN TEMP/GCU1 (1XU1)	242151	3	242100 P 278 T 810 832	
		AC GEN	IDG1 (E1-4000XU) OIL OUT TEMP/GCU1 (1XU1)	242151	3	240000 P 211 T 810 810	
		AC GEN	IDG1 (E1-4000XU)/RELAY (3XT)/GCU1 (1XU1)	242151	1	242100 P 246 T 810 820	
		AC GEN	IDG1 BULB TOLERANCE	242151	1	242100 P 213 T 810 807	
R		AC GEN	IDG1(E1-4000XU)0IL LEVEL SENSOR/GCU1(1XU1)	242151	2	242200 P 291 T 810 832	
		AC GEN	IDG2 (E2-4000XU) LOP SW/ GCU2 (1XU2)	242151	3	242100 P 276 T 810 831	
		AC GEN	IDG2 (E2-4000XU) OIL IN TEMP/GCU2 (1XU2)	242151	3	242100 P 280 T 810 833	
		AC GEN	IDG2 (E2-4000XU) OIL OUT TEMP/GCU2 (1XU2)	242151	3	240000 P 213 T 810 811	
		AC GEN	IDG2 (E2-4000XU)/RELAY (4XT)/GCU2 (1XU2)	242151	1	242100 P 248 T 810 821	
		AC GEN	IDG2 BULB TOLERANCE	242151	1	242100 P 215 T 810 808	
R	·	AC GEN	IDG2(E2-4000XU)0IL LEVEL SENSOR/GCU2(1XU2)	242151	2	242200 P 291 T 810 832	

EFF : ALL
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TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	
		AC GEN	LGCIU (5GA1)/GAPCU (24XG)	243134	3	244100 P 230 T 810 817
		AC GEN	LGCIU1 (5GA1)/ GCU1 (1XU1)	242234	2	242000 PA286 T 810 878
		AC GEN	LGCIU1 (5GA1)/ GCU2 (1XU2)	242234	2	242000 PA288 T 810 879
		AC GEN	NO DATA FROM GCU APU	244134	3	244100 P 203 T 810 803
		AC GEN	NO DATA FROM GCU1	244134	3	244100 P 205 T 810 804
		AC GEN	NO DATA FROM GCU2	244134	3	244100 P 207 T 810 805
R		AC GEN	PB BUS TIE (10XU)/BTC1 (11XU1)/GCU1 (1XU1)	242234	3	242000 PB297 T 810 920
R		AC GEN	PB BUS TIE (10XU)/BTC2 (11XU2)/GCU2 (1XU2)	242234	3	242000 PB299 T 810 921
		AC GEN	PB SW BUS TIE (10XU)/ GAPCU (1XG) 1553 BUS	242200	3	242200 P 289 T 810 831
		AC GEN	PB SW ELEC GEN APU (2XS) /GAPCU (24XG)	242300	3	242300 P 238 T 810 816
		AC GEN	PB SW ELEC GEN1 (3XU1)/ GCU1 (1XU1)	242200	3	242200 P 281 T 810 827
		AC GEN	PB SW ELEC GEN2 (3XU2)/ GCU2 (1XU2)	242200	3	242200 P 283 T 810 828
		AC GEN	TDC AC SENSOR 50XU1	242218	3	242200 P 231 T 810 809
		AC GEN	TDC AC SENSOR 50XU2	242218	3	242200 P 233 T 810 810
		AC GEN	WRG: PIN PROG/GAPCU (24XG)/CFDIU (1TW)	244000	1	244100 P 237 T 810 820

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TROUBLE SHOOTING MANUAL

LIADNINGS (MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	PROCEDURE	
	ACARSMU	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	ADF 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	ADF 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	ADR 1	AOA SENSOR1 (3FP1) SPLY	240000	3	341100 P 201 T 810 801	
	ADR 2	AOA SENSOR2 (3FP2) SPLY	240000	3	341100 P 203 T 810 802	
	ADR 3	AOA SENSOR3 (3FP3) SPLY	240000	3	341100 P 205 T 810 803	
	APU	A/C BAT NOT SELECTED OR CONT 5KA OR ECB 59KD	243800	1	490000 PB240 Conf.01 T 810 986	
	APU	ACFT BAT NOT SELECTED / CONTACTOR (5KA)	243800	1	490000 PB240 Conf.01 T 810 986	
	APU	GENERATOR (8XS)	242351	3	242300 P 204 T 810 803	
	APU	GENERATOR OIL TEMP SENSOR (8XS)	242351	3	242300 P 206 T 810 804	
	APU	GENERATOR OIL TEMP SNSR P24	242351	3	242300 P 206 T 810 804	
	APU	GENERATOR 8XS	242351	3	242300 P 204 T 810 803	
	ATC 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	ATC 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	ATSU	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	

EFF: ALL

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WARNINGS/MALFUNCTIONS			FAULT		
!	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
	BCL 1	BCL1	243834	3	243800 P 223 T 810 820
	BCL 1	BCL1 : LGCIU/ADIRU1 SIGNAL DISAGREE associated with	243800	3	243800 P 220 T 810 817
	LGCIU 1	LGCIU 1 05GA1	323171	1	
	BCL 1	BCL1 : LGCIU/ADIRU1 SIGNAL DISAGREE associated with	243800	3	243800 P 222 T 810 819
	BCL 2	BCL2 : LGCIU/ADIRU1 SIGNAL DISAGREE	243800	3	
	ADR 1	ADIRU1 (1FP1)	341234	1	
	BCL 1	BCL1 : LGCIU/ADIRU1 SIGNAL DISAGREE	243800	3	243800 P 225 T 810 822
	BCL 1	CHECK CONTACTOR 3PE/BCL1	243455	3	243800 P 205 T 810 805
	BCL 1	CHECK HOT BUS 701 PP/BCL1 CIRCUIT	243800	3	243800 P 229 T 810 824
	BCL 1	CHECK HOT BUS1 POWER CONSUMPTION	243800	3	243800 P 247 T 810 834
	BCL 1	RELAY 31XE/BCL1 CIRCUIT	242400	3	242400 P 201 T 810 801
	BCL 1	RELAY 31XE/BCL1 CIRCUIT associated with			242400 P 203 T 810 803
	BCL 2 	RELAY 31XE/BCL2 CIRCUIT	242400 	3 	
	BCL 1	RELAYS 15XC OR 16XC/ BCL1 CIRCUIT	242500	3	243800 P 237 T 810 830
	BCL 2	BCL2	243834	3	243800 P 224 T 810 821
	BCL 2	BCL2 : LGCIU/ADIRU1 SIGNAL DISAGREE associated with	243800	3	243800 P 221 T 810 818
	LGCIU 1	LGCIU 1 05GA1	323171	1	<u> </u>

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	Ţ	FAULT ISOLATION			
	SOURCE	MESSAGE	АТА	С	!
	BCL 2	BCL2 : LGCIU/ADIRU1 SIGNAL DISAGREE	243800	3	243800 P 222 T 810 819
	BCL 1	associated with BCL1 : LGCIU/ADIRU1 SIGNAL DISAGREE	243800	3	
	ADR 1	ADIRU1 (1FP1)	341234	1	
	BCL 2	BCL2 : LGCIU/ADIRU1 SIGNAL DISAGREE	243800	3	243800 P 227 T 810 823
	BCL 2	CHECK CONTACTOR 3PE/ BCL2 CIRCUIT	243455	3	243800 P 213 T 810 812
	BCL 2	CHECK HOT BUS 702PP/ BCL2 CIRCUIT	243800	3	243800 P 230 T 810 825
	BCL 2	CHECK HOT BUS2 POWER CONSUMPTION	243800	3	243800 P 252 T 810 835
	BCL 2	RELAY 31XE/BCL2 CIRCUIT	242400	3	242400 P 202 T 810 802
	BCL 2	RELAY 31XE/BCL2 CIRCUIT associated with RELAY 31XE/BCL1 CIRCUIT	242400		т 810 803
	BCL 2	RELAYS 15XC OR 16XC/ BCL2 CIRCUIT	242500	3	243800 P 239 T 810 831
	BMC 1	CHECK PRESS REG-V PWR PLY	240000	3	361100 PA241 T 810 853
	BMC 2	CHECK PRESS REG-V PWR PLY	240000	3	361100 PA243 T 810 854
	CFDS	NO BCL1 DATA	243834	2	313200 P 203 T 810 810
	CFDS	NO BCL2 DATA	243834	2	313200 P 205 T 810 811
	CFDS	NO GAPCU DATA	244134	1	313200 PB204 T 810 939

EFF: ALL

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARRENGO, HALL OROTTORS	SOURCE	MESSAGE	АТА	С	PROCEDURE
	CFDS	NO GPCU DATA	244134	2	313200 P 207 T 810 812
	DME 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	DME 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	DMU	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	ECAM 1	SDAC1 : GLC EMER CNTOR 2XE	242455	1	315400 P 273 T 810 869
	IDENT:	ECAM 2	<u></u>		
	ECAM 1	SDAC1 : NO DATA FROM BCL1	243834	1	315400 P 255 T 810 851
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO DATA FROM BCL2	243834	1	315400 P 251 T 810 849
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO DATA FROM EGIU1.1	242233	2	315400 PA203 T 810 901
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO DATA FROM EGIU1.2	242233	2	315400 PA205 T 810 903
	IDENT:				
	ECAM 1	SDAC1 : NO DATA FROM EGIU2.1	242233	2	315400 PA201 T 810 899
	IDENT:				
	ECAM 1	SDAC1 : NO DATA FROM EGIU2.2	242233	2	315400 PA215 T 810 909
	IDENT:	ECAM 2			<u> </u>

EFF: ALL SROS 24-CFDS

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
	ECAM 1	SDAC1 : NO TR ESS CURRENT 1PE	243251	1	315400 P 283 T 810 879
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO TR ESS VOLTAGE 1PE	243251	1	315400 P 285 T 810 881
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO TR1 CURRENT	243251	1	315400 P 279 T 810 875
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO TR1 VOLTAGE	243251	1	315400 P 281 T 810 877
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO TR2 CURRENT 1PU2	243251	1	315400 P 275 T 810 871
	IDENT:	ECAM 2			
	ECAM 1	SDAC1 : NO TR2 VOLTAGE 1PU2	243251	1	315400 P 277 T 810 873
	IDENT:	ECAM 2			
	ECAM 1	SDAC1: NO DATA FROM GAPCU	242233	2	315400 PA269 T 810 950
	ECAM 1	SDAC1: NO DATA FROM GCU1	242233	2	315400 PA265 T 810 946
	ECAM 1	SDAC1: NO DATA FROM GCU2	242233	2	315400 PA267 T 810 948
	ECAM 1	SDAC2 : GLC EMER CNTOR 2XE	242455	1	315400 P 274 T 810 870
-	IDENT:	ECAM 2	-		

EFF: ALL
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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
	ECAM 1	SDAC2 : NO DATA FROM BCL1	243834	1	315400 P 257 T 810 852
	IDENT:	ECAM 2			
	ECAM 1	SDAC2 : NO DATA FROM BCL2	243834	1	315400 P 253 T 810 850
	IDENT:	ECAM 2			
	ECAM 1	SDAC2 : NO DATA FROM EGIU1.1	242233	2	315400 PA204 T 810 902
	IDENT:	ECAM 2			
	ECAM 1	SDAC2 : NO DATA FROM EGIU1.2	242233	2	315400 PA206 T 810 904
<u> </u> 	IDENT:	ECAM 2			<u></u>
	ECAM 1	SDAC2 : NO DATA FROM EGIU2.1	242233	2	315400 PA202 T 810 900
	IDENT:	ECAM 2			
	ECAM 1	SDAC2 : NO DATA FROM EGIU2.2	242233	2	315400 PA216 T 810 910
	IDENT:	ECAM 2			
	ECAM 1	SDAC2 : NO TR ESS CURRENT 1PE	243251	1	315400 P 284 T 810 880
	IDENT:	ECAM 2			
	ECAM 1	SDAC2 : NO TR ESS VOLTAGE 1PE	243251	1	315400 P 286 T 810 882
	IDENT:				
	ECAM 1	SDAC2 : NO TR1 CURRENT	243251	1	315400 P 280 T 810 876
	IDENT:	ECAM 2			<u> </u>

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES					
	SOURCE	MESSAGE	ATA	- ISOLATION C PROCEDURE		
	ECAM 1	SDAC2 : NO TR1 VOLTAGE	243251	1 315400 P 282 T 810 878		
	IDENT:	ECAM 2				
	ECAM 1	SDAC2 : NO TR2 CURRENT 1PU2	243251	1 315400 P 276 T 810 872		
	IDENT:	ECAM 2				
	ECAM 1	SDAC2 : NO TR2 VOLTAGE 1PU2	243251	1 315400 P 278 T 810 874		
	IDENT:	ECAM 2				
	ECAM 1	SDAC2: NO DATA FROM	242233	2 315400 PA271 T 810 951		
	ECAM 1	SDAC2: NO DATA FROM GCU1	242233	2 315400 PA266 T 810 947		
	ECAM 1	SDAC2: NO DATA FROM GCU2	242233	2 315400 PA268 T 810 949		
	ECAM 2	SDAC1 : GLC EMER CNTOR 2XE	242455	1 315400 P 273 T 810 869		
	ECAM 2	SDAC1 : NO DATA FROM BCL1	243834	1 315400 P 255 T 810 851		
	ECAM 2	SDAC1 : NO DATA FROM BCL2	243834	1 315400 P 251 T 810 849		
	ECAM 2	SDAC1 : NO DATA FROM EGIU1.1	242233	2 315400 PA203 T 810 901		
	ECAM 2	SDAC1 : NO DATA FROM EGIU1.2	242233	2 315400 PA205 T 810 903		
	ECAM 2	SDAC1 : NO DATA FROM EGIU2.1	242233	2 315400 PA201 T 810 899		
	ECAM 2	SDAC1 : NO DATA FROM EGIU2.2	242233	2 315400 PA215 T 810 909		

EFF: ALL
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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
	SOURCE	MESSAGE	ATA	С	PROCEDURE
	ECAM 2	SDAC1 : NO TR ESS CURRENT 1PE	243251	1	315400 P 283 T 810 879
	ECAM 2	SDAC1 : NO TR ESS VOLTAGE 1PE	243251	1	315400 P 285 T 810 881
	ECAM 2	SDAC1 : NO TR1 CURRENT	243251	1	315400 P 279 T 810 875
	ECAM 2	SDAC1 : NO TR1 VOLTAGE 1PU1	243251	1	315400 P 281 T 810 877
	ECAM 2	SDAC1 : NO TR2 CURRENT 1PU2	243251	1	315400 P 275 T 810 871
	ECAM 2	SDAC1 : NO TR2 VOLTAGE	243251	1	315400 P 277 T 810 873
	ECAM 2	SDAC1: NO DATA FROM GAPCU	242233	2	315400 PA269 T 810 950
	ECAM 2	SDAC1: NO DATA FROM GCU1	242233	2	315400 PA265 T 810 946
	ECAM 2	SDAC1: NO DATA FROM GCU2	242233	2	315400 PA267 T 810 948
	ECAM 2	SDAC2 : GLC EMER CNTOR 2XE	242455	1	315400 P 274 T 810 870
	ECAM 2	SDAC2 : NO DATA FROM BCL1	243834	1	315400 P 257 T 810 852
	ECAM 2	SDAC2 : NO DATA FROM BCL2	243834	1	315400 P 253 T 810 850
	ECAM 2	SDAC2 : NO DATA FROM EGIU1.1	242233	2	315400 PA204 T 810 902
	ECAM 2	SDAC2 : NO DATA FROM EGIU1.2	242233	2	315400 PA206 T 810 904
	ECAM 2	SDAC2 : NO DATA FROM EGIU2.1	242233	2	315400 PA202 T 810 900

EFF: ALL
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TROUBLE SHOOTING MANUAL

LIADNINGS (MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	PROCEDURE	
	ECAM 2	SDAC2 : NO DATA FROM EGIU2.2	242233	2	315400 PA216 T 810 910	
	ECAM 2	SDAC2 : NO TR ESS CURRENT 1PE	243251	1	315400 P 284 T 810 880	
	ECAM 2	SDAC2 : NO TR ESS VOLTAGE 1PE	243251	1	315400 P 286 T 810 882	
	ECAM 2	SDAC2 : NO TR1 CURRENT	243251	1	315400 P 280 T 810 876	
	ECAM 2	SDAC2 : NO TR1 VOLTAGE 1PU1	243251	1	315400 P 282 T 810 878	
	ECAM 2	SDAC2 : NO TR2 CURRENT 1PU2	243251	1	315400 P 276 T 810 872	
	ECAM 2	SDAC2 : NO TR2 VOLTAGE 1PU2	243251	1	315400 P 278 T 810 874	
	ECAM 2	SDAC2: NO DATA FROM GAPCU	242233	2	315400 PA271 T 810 951	
	ECAM 2	SDAC2: NO DATA FROM GCU1	242233	2	315400 PA266 T 810 947	
	ECAM 2	SDAC2: NO DATA FROM GCU2	242233	2	315400 PA268 T 810 949	
	FDU APU	associated with			261300 P 207 T 810 804	
 	CFDS	NO FDU APU DATA	261334		<u> </u>	
<u></u>	FDU 1 	POWER SUPPLY INTERRUPT 	240000	1	261200 P 285 T 810 838 	
	FDU 2	POWER SUPPLY INTERRUPT	240000	1	261200 P 286 T 810 839	
	IR 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	IR 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
WARRENGO, HALI ONO LIONG	SOURCE	MESSAGE	ATA	С	PROCEDURE	
	IR 3	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	MMR 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	MMR 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	RADAR 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	RADAR 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	RMP 123	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	SDCU	CIDS(10YRH)-SDFY 28VDC1 SPLY	240000	2	261700 P 244 T 810 825	
	SDCU	CIDS(10YRH)-SDFY 28VDC2 SPLY	240000	2	261700 P 244 T 810 825	
	SDU	POWER SUPPLY INTERRUPT	240000	3	240000 P 202 T 810 802	
	TCAS	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802	
	TEMPCTL	TEMP CTL SYS 1 CHAN A 28VDC SUPPLY INTERRUPT	240000	3	216100 PA277 T 810 909	
	TEMPCTL	TEMP CTL SYS 1 CHAN B 28VDC SUPPLY INTERRUPT	240000	3	216100 PA278 T 810 910	
	TEMPCTL	TEMP CTL SYS 2 CHAN A 28VDC SUPPLY INTERRUPT	240000	3	216100 PA279 T 810 911	
	TEMPCTL	TEMP CTL SYS 2 CHAN B 28VDC SUPPLY INTERRUPT	240000	3	216100 PA280 T 810 912	
	TR 1	TR1	243251	3	243000 P 223 T 810 809	

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WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
	TR 2	TR2	243251	3	243000 P 223 T 810 809
	TR 3	ESS TR	243451	3	243000 P 223 T 810 809
	VHF 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	VHF 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	VHF 3	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	VOR 1	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802
	VOR 2	POWER SUPPLY INTERRUPT	240000	1	240000 P 202 T 810 802

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ELECTRICAL POWER - GENERAL - FAULT ISOLATION PROCEDURES

TASK 24-00-00-810-801

Display of an Operational Message on the ECAM

- 1. Possible Causes
- 2. Job Set-up Information
- R Not Applicable
 - 3. Fault Confirmation
 - A. Test
 Not applicable, no confirmation test is necessary.
 - 4. Fault Isolation
 - A. Do a check for a message on the Post Flight Report (PFR)
 - (1) If there is no message, no action is necessary.
- R (2) If there is a message:
 - Do the trouble shooting procedure related to the maintenance message.

NOTE: Some operational warnings are not printed on the PFR.

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TASK 24-00-00-810-802

Power Supply Interruption

- 1. Possible Causes
- 2. Job Set-up Information

Not Applicable

- 3. Fault Confirmation
 - A. Not applicable: this message is intermittent.
- 4. Fault Isolation
 - A. If the POST FLIGHT REPORT gives the maintenance message POWER SUPPLY INTERRUPT:
- R No maintenance action is required necessary.
- R NOTE: A computer gives a POWER SUPPLY INTERRUPT message if the electrical power stops for more than 200ms and then starts again.
- R B. If the system that gives the message POWER SUPPLY INTERRUPT has been also faulty for other system(s), since the start of the flight, do the BITE test of this system.
 - If the system test is OK, no maintenance action is necessary.
- R C. If there is (are) additional message(s) related to the Aircraft R Electrical Power System:
 - Do the related trouble shooting procedure.

R R

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R

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TASK 24-00-00-810-803

Circuit Breaker Tripped and/or C/B TRIPPED Warning

1. Possible Causes

R - wires

- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

R ESPM 205221

R ESPM 205222

R ESPM 205224

R

R

R

R

R

R

R

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- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable.
- 4. Fault Isolation
- R A. If one circuit breaker or more are tripped:
 - NOTE: On ground you must not close a tripped circuit breaker without trouble shooting of the related system.
 - (1) If the fault symptom is identified by an ECAM warning C/B TRIPPED:
 - Do the trouble shooting procedure and use the ECAM warning as an entry point (refer to the TSM ECAM WARNING Chapter 31).
 - (2) If there is no warning, refer to the related ASM/AWM and:
 - Do a test for short circuit (Ref. ESPM 205222) between wires, and between wires and the aircraft.
 - Do an insulation test (Ref. ESPM 205224) on specific electrical installation.
 - Do a continuity test (Ref. ESPM 205221) of the wires between the circuit breaker and the related system.
 - (a) If there is a fault:
 - Repair the wiring between the circuit breaker and the related system.
 - (3) Close the tripped circuit breaker(s).

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- B. If the fault symptom is identified by an ECAM warning C/B TRIPPED but there is no circuit breaker tripped:
 - (1) Do a check for ground on the auxiliary contacts of the circuits breakers (Ref. ASM 31-54/06).

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TASK 24-00-00-810-804

Failure of the Generator Control Unit 1

- 1. Possible Causes
 - GCU-1 (1XU1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. Do the test given in para. 3.

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TASK 24-00-00-810-805

Failure of the Generator Control Unit 2

- 1. Possible Causes
 - GCU-2 (1XU2)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
ΔΜΜ	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
71111	L4 LL 34 400 001	•
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:stop the trouble shooting.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. Do the test given in para. 3.

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TASK 24-00-00-810-808

Failure of the IDG 1 Oil-Out Temperature Bulb or its Wiring

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
АММ	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination
	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM ASM	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the BITE test gives the maintenance message IDG1 (E1-4000XU) OIL OUT TEMP SENSE/ GCU1 (1XU1) and the upper ECAM-DU warnings IDG 1 OIL OVHT and GEN 1 FAULT:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040)
 - do the servicing of the IDG 1 external oil-circuit with new oil after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).
 - (1) If the fault continues:
 - do a check of the wiring of the oil outlet temperature-sensor (Ref. ASM 24-21/01) for a high resistance or an open circuit between:
 - pin B/7 of the IDG 1 and pin A/9C of the GCU 1
 - . pin B/8 of the IDG 1 and pin A/9D of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.

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- (b) If the wiring is correct:
 replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in para. 3.

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TASK 24-00-00-810-809

Failure of the IDG 2 Oil-Out Temperature Bulb or its Wiring

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM ASM	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the BITE test gives the maintenance message IDG2 (E2-4000XU) OIL OUT TEMP SENSE/ GCU2 (1XU2) and the upper ECAM-DU warnings IDG 2 OIL OVHT and GEN 2 FAULT:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040)
 - do the servicing of the IDG 2 external oil-circuit with new oil after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).
 - (1) If the fault continues:
 - do a check of the wiring of the oil outlet temperature-sensor (Ref. ASM 24-21/01) for a high resistance or an open circuit between:
 - pin B/7 of the IDG 2 and pin A/9C of the GCU 2
 - . pin B/8 of the IDG 2 and pin A/9D of the GCU 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.

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- (b) If the wiring is correct:
 replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in para. 3.

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TASK 24-00-00-810-810

Failure of the IDG 1 Oil-Out Temperature Sensor or its Wiring to the GCU 1

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG
		1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM ASM	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).
- 4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the Class 3 Faults gives the maintenance message IDG1 (E1-4000XU) OIL OUT TEMP/ GCU1 (1XU1):
 - do an electrical resistance test of the outlet oil temperature-sensor of the IDG 1 between pins B/7 and B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case) (Ref. ASM 24-21/01).

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- (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the outlet oil temperature-sensor (Ref. ASM 24-21/01) for an open circuit, a short to ground or a short to shield condition between:
 - pin B/7 of the IDG 1 and pin A/9C of the GCU 1
 - pin B/8 of the IDG 1 and pin A/9D of the GCU 1
 - pins A/9C and A/10D of the GCU 1
 - pins A/9D and A/10D of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-00-00-810-811

Failure of the IDG 2 Oil-Out Temperature Sensor or its Wiring to the GCU 2

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
ASM	24-21/01	

3. Fault Confirmation

- A. Test
 - (1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).
- 4. Fault Isolation
 - <u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the Class 3 Faults gives the maintenance message IDG2 (E2-4000XU) OIL OUT TEMP/ GCU2 (1XU2):
 - do an electrical resistance test of the outlet oil temperature-sensor of the IDG 2 between pins B/7 and B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case) (Ref. ASM 24-21/01).

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- (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the outlet oil temperature-sensor (Ref. ASM 24-21/01) for an open circuit, a short to ground or a short to shield condition between:
 - pin B/7 of the IDG 2 and pin A/9C of the GCU 2
 - . pin B/8 of the IDG 2 and pin A/9D of the GCU 2
 - pins A/9C and A/10D of the GCU 2
 - pins A/9D and A/10D of the GCU 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-00-00-810-812

High-Delta Temperature Condition of the IDG 1 Oil Sensors

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>
AMM	24-21-00-210-044	<pre>Inspection of the Filter Element(s)</pre>
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation
AMM	24-21-00-920-040	Drain IDG Oil System, Discard Filter Element(s) and Replenish
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM ASM	24-22-34-400-001 24-21/01	Installation of the GCU-1(2) (1XU1, 1XU2)

3. Fault Confirmation

A. Test

(1) Not applicable, you cannot confirm this fault on the ground.

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) OIL DELTA TEMP/ GCU1 (1XU1):
 - do a check of the Differential Pressure Indicator (DPI) of the IDG 1 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the DPI is not extended:
 - do an inspection of the IDG 1 charge and scavenge filters (Ref. AMM TASK 24-21-00-210-044).
 - (a) If there is contamination of the IDG 1 charge and scavenge filters:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If there is no contamination of the IDG 1 charge and scavenge filters:
 - replace the IDG 1 charge and scavenge filters (Ref. AMM TASK 24-21-00-920-040)
 - add oil (Ref. AMM TASK 12-13-24-612-041)
 - do the operational test of the IDG 1 disconnect and reconnect function (with the engine in operation) (Ref. AMM TASK 24-21-00-720-041).
 - (3) If the fault continues:
 - do a check of the resistance of the oil inlet and outlet temperature-sensors of the IDG 1 (Ref. ASM 24-21/01) between:
 - $\boldsymbol{.}$ pin B/7 and pin B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case)
 - . pin B/8 and pin B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring of the oil inlet and outlet temperature-sensors (Ref. ASM 24-21/01) for an open circuit, a short to ground or a short to shield between:
 - . pin B/7 of the IDG 1 and pin A/9C of the GCU 1
 - pin B/8 of the IDG 1 and pin A/9D of the GCU 1
 - . pin B/9 of the IDG 1 and pin A/10C of the GCU 1
 - ${\tt pins}$ A/9C and A/10D of the GCU 1 (do a check for a short to shield)
 - ${\tt pins}$ A/9D and A/10D of the GCU 1 (do a check for a short to shield)
 - ${\tt pins}$ A/10C and A/10D of the GCU 1 (do a check for a short to shield).

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- 1 If the wiring is not correct: - repair or replace as necessary.
- 2 If the wiring is correct:
 replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001).
- 3 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. After the subsequent flight, make sure that the fault does not continue.

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TASK 24-00-00-810-813

High-Delta Temperature Condition of the IDG 2 Oil Sensors

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>
AMM	24-21-00-210-044	<pre>Inspection of the Filter Element(s)</pre>
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation
AMM	24-21-00-920-040	Drain IDG Oil System, Discard Filter Element(s) and Replenish
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM ASM	24-22-34-400-001 24-21/01	Installation of the GCU-1(2) (1XU1, 1XU2)

3. Fault Confirmation

A. Test

(1) Not applicable, you cannot confirm this fault on the ground.

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) OIL DELTA TEMP/ GCU2 (1XU2):
 - do a check of the Differential Pressure Indicator (DPI) of the IDG 2 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the DPI is not extended:
 - do an inspection of the IDG 2 charge and scavenge filters (Ref. AMM TASK 24-21-00-210-044).
 - (a) If there is contamination of the IDG 2 charge and scavenge filters:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If there is no contamination of the IDG 2 charge and scavenge filters:
 - replace the IDG 2 charge and scavenge filters (Ref. AMM TASK 24-21-00-920-040)
 - add oil (Ref. AMM TASK 12-13-24-612-041)
 - do the operational test of the IDG 1 disconnect and reconnect function (with the engine in operation) (Ref. AMM TASK 24-21-00-720-041).
 - (3) If the fault continues:
 - do a check of the resistance of the oil inlet and outlet temperature-sensors of the IDG 2 (Ref. ASM 24-21/01) between:
 - ${\tt pin}$ B/7 and pin B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case)
 - . pin B/8 and pin B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring of the oil inlet and outlet temperature-sensors (Ref. ASM 24-21/01) for an open circuit, a short to ground or a short to shield condition between:
 - pin B/7 of the IDG 2 and pin A/9C of the GCU 2
 - pin B/8 of the IDG 2 and pin A/9D of the GCU 2
 - pin B/9 of the IDG 2 and pin A/10C of the GCU 2
 - ${\tt pins}$ A/9C and A/10D of the GCU 2 (do a check for a short to shield)
 - ${\tt pins}$ A/9D and A/10D of the GCU 2 (do a check for a short to shield)
 - . pins A/10C and A/10D of the GCU 2 (do a check for a short to shield).

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- 1 If the wiring is not correct: - repair or replace as necessary.
- 2 If the wiring is correct:
 replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001).
- 3 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. After the subsequent flight, make sure that the fault does not continue.

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TASK 24-00-00-810-814

Failure of the Oil Temperature Sensors of the IDG 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) TEMP SENSE/ GCU1 (1XU1):
 - NOTE: The CFDS message IDG1 (E1-4000XU) TEMP SENSE/ GCU1 (1XU1) can come into view if the electrical connector B is disconnected from the IDG and the 28VDC backup power supplies the related GCU. Before you do the trouble shooting procedure for this CFDS message, make sure that the electrical connector B is not disconnected.
 - do an electrical resistance test of the inlet and outlet oil temperature-sensors of the IDG 1 (Ref. ASM 24-21/01) between:
 - . pin B/7 and pin B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case)
 - ${\tt pin}$ B/8 and pin B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the inlet and outlet oil temperature-sensors (Ref. ASM 24-21/01) for an open circuit condition between:
 - . pin B/7 of the IDG 1 and pin A/9C of the GCU 1
 - . pin B/8 of the IDG 1 and pin A/9D of the GCU 1
 - . pin B/9 of the IDG 1 and pin A/10C of the GCU 1.
 - (a) If there is no continuity:
 - repair or replace as necessary.
 - (b) If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-00-00-810-815

Failure of the Oil Temperature Sensors of the IDG 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION		
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG		
		1(2),(4000XU)		
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>		
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power		
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power		
AMM	31-60-00-860-001	EIS Start Procedure		
AMM	31-60-00-860-002	EIS Stop Procedure		
AMM	71-00-00-710-003	Engine Automatic Start		
AMM	71-00-00-710-028	Engine Shutdown		
ASM	24-21/01			

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.
IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) TEMP SENSE/ GCU2 (1XU2):
 - NOTE: The CMS message IDG2 (E2-4000XU) TEMP SENSE/ GCU2 (1XU2) can come into view if the electrical connector B is disconnected from the IDG and the 28VDC backup power supplies the related GCU. Before you do the trouble shooting procedure for this CMS message, make sure that the electrical connector B is not disconnected.
 - do an electrical resistance test of the inlet and outlet oil temperature-sensors of the IDG 2 (Ref. ASM 24-21/01) between:
 - . pin B/7 and pin B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case)
 - ${\tt pin}$ B/8 and pin B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the inlet and outlet oil temperature-sensors (Ref. ASM 24-21/01) for an open circuit condition between:
 - . pin B/7 of the IDG 2 and pin A/9C of the GCU 2
 - . pin B/8 of the IDG 2 and pin A/9D of the GCU 2
 - . pin B/9 of the IDG 2 and pin A/10C of the GCU 2.
 - (a) If there is no continuity:
 - repair or replace as necessary.
 - (b) If there is continuity:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION DESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 2 are shown and the AC2

busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-00-00-810-816

IDG 1 Thermal Disconnection

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination		
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)		
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>		
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power		
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power		
AMM	31-60-00-860-001	EIS Start Procedure		
AMM	31-60-00-860-002	EIS Stop Procedure		
AMM	71-00-00-710-003	Engine Automatic Start		
AMM	71-00-00-710-028	Engine Shutdown		

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message:
 - IDG1 (E1-4000XU) THERMAL DISCONNECT and the upper ECAM-DU warnings IDG 1 OIL OVHT and GEN 1 FAULT or
 - IDG1 (E1-4000XU) THERMAL DISC FAILED and the upper ECAM-DU warning IDG 1 OIL OVHT:

NOTE : Do the trouble shooting procedure for all CFDS messages that come into view with the CFDS messages IDG1 (E1-4000XU) THERMAL DISCONNECT or IDG1 (E1-4000XU) THERMAL DISC FAILED.

- replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040)
- do the servicing of the IDG 1 external oil-circuit with new oil after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-00-00-810-817

IDG 2 Thermal Disconnection

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination		
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)		
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>		
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power		
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power		
AMM	31-60-00-860-001	EIS Start Procedure		
AMM	31-60-00-860-002	EIS Stop Procedure		
AMM	71-00-00-710-003	Engine Automatic Start		
AMM	71-00-00-710-028	Engine Shutdown		

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message:
 - IDG2 (E2-4000XU) THERMAL DISCONNECT and the upper ECAM-DU warnings IDG
 - 2 OIL OVHT and GEN 1 FAULT or
 - IDG2 (E2-4000XU) THERMAL DISC FAILED and the upper ECAM-DU warning IDG 2 OIL OVHT:

NOTE : Do the trouble shooting procedure for all CFDS messages that come into view with the CFDS messages IDG2 (E2-4000XU) THERMAL DISCONNECT or IDG2 (E2-4000XU) THERMAL DISC FAILED.

- replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040)
- do the servicing of the IDG 2 external oil-circuit with new oil after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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**ON A/C ALL

TASK 24-00-00-810-818

Computer Reset

- 1. Possible Causes
- 2. Job Set-up Information

Not Applicable

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

	PANEL	DESIGNATION	IDENT.	LOCATION
	49VU	ENGINE/2/FADEC A/AND EIU 2	2K\$2	A05
	49VU	ENGINE/1/FADEC A/AND EIU 1	2K\$1	A04
	49VU	FLIGHT CONTROLS/ELAC1/NORM/SPLY	15CE1	B11
	49VU	FLIGHT CONTROLS/SEC1/NORM/SPLY	21CE1	B08
	49VU	AUTO FLT/FCU/1	9CA1	B05
	49VU	AUTO FLT/FAC1/28VDC	5CC1	B04
	49VU	AUTO FLT/FAC1/26VAC	14CC1	B03
	49VU	AUTO FLT/FMGC/1	10CA1	B02
	49VU	AUTO FLT/MCDU/1	11CA1	B01
	49VU	L/G/LGCIU/SYS1/NORM	1GA	C09
	49VU	AIR COND/SDCU/CHAN1	11WQ	C06
	49VU	FWS/FWC1/SPLY	3WW	F01
R	**ON A	/C 201-225, 227-227, 229-275, 426-475, 551-599,		
	49VU	COM/CIDS/DIR ESS/2	157RH	G02
R	**ON A	/C 201-225, 227-227, 229-299, 426-499, 503-549, 551-599,		
	49VU	COM/CIDS/DIR ESS/1	150RH	G01

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PANEL DESIGNATION		LOCATION
**ON A/C 276-299, 476-499, 503-549,		
49VU COM DIR ESS/2	157RH	G02
**ON A/C 701-749,		
49VU COM/CIDS/DIR 1 AND 2/ESS	150RH	G02
**ON A/C ALL		
121VU HYDRAULIC/BRAKING AND STEERING/SYS2/SPLY	4GG	
121VU HYDRAULIC/BRAKING AND STEERING/SYS2/CTL	3GG	M35
121VU HYDRAULIC/BRAKING AND STEERING/SYS1/CTL	1GG	
121VU HYDRAULIC/BRAKING AND STEERING/SYS1/IND AND/SPLY 121VU AUTO FLT/FCU/2	2GG 9CA2	M33 M21
121VU AUTO FLT/FCU/2 121VU AUTO FLT/FAC2/28VDC	5CC2	
121VU AUTO FLT/FAC2/26VAC	14002	
121VU AUTO FLT/FMCC/2	10CA2	
121VU AUTO FLT/FMGC/2	11CA2	
121VU ENGINE/ENG2/FADEC B	4K\$2	
121VU HYDRAULIC/LGCIU/SYS2	2GA	
121VU HYDRAULIC/LGCIU/SYS1/GRND SPLY	52GA	
121VU FLIGHT CONTROLS/SEC3/SPLY	21CE3	
121VU FLIGHT CONTROLS/SEC2/SPLY	21CE2	
121VU EIS/FWC2/SPLY	2 TO L 2	
121VU ENGINE/ENG1/FADEC B/AND EIU 1	4KS1	
121VU FLIGHT CONTROLS/ELAC2/NORM/SPLY	15CE2	
**ON A/C 201-225, 227-227, 229-245, 254-299, 426-499, 503-549, 701-749,	551-599	,
121VU COM NAV/TCAS	4SG	K10
**ON A/C 201-225, 227-227, 229-275, 426-475, 551-599,		
121VU COM NAV/CIDS/PROG &/TST PNL	161RH	M07
121VU COM NAV/CIDS/DIR NORM/2	156RH	M06
121VU COM NAV/CIDS/DIR NORM/1	151RH	M05
**ON A/C 201-225, 227-227, 229-249, 426-430, 551-557,		
121VU COM /CIDS/FWD ATTND/PNL	170RH	Q14

EFF: ALL SROS

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PANEL DESIGNATION		LOCATION
**ON A/C 250-275, 431-455, 559-599,		
121VU COM /CIDS/FLT ATTND/PNL	170RH	Q14
**ON A/C 276-299, 476-480, 503-549, 701-749,		
121VU COM NAV/CIDS/FWD ATTND/PNL	170RH	M14
**ON A/C 276-299, 476-499, 503-549,		
121VU COM NAV/CIDS/PROG &/TST PNL 121VU COM NAV/CIDS/DIR NORM/2 121VU COM NAV/CIDS/DIR NORM/1	161RH 156RH 151RH	M07
**ON A/C 456-475,		
121VU COM/FAP1/NORM	170RH	Q14
**ON A/C 481-499,		
121VU COM NAV/CIDS/FWD ATTND/PNL	170RH	Q14
**ON A/C 701-749,		
121VU COM NAV/CIDS/PROG AND TST PNL 121VU COM NAV/CIDS/DIR 1 AND 2/NORM	161RH 151RH	M06 M05
**ON A/C 247-275, 429-475, 481-499, 503-549, 551-555, 559-599,		
Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-555,		
121VU ATSU 1 121VU ATSU 1/SWTG	3TX1 5TX1	L16 L15
**ON A/C ALL		
122VU AIR COND/SDCU/CHAN2 122VU ANTI ICE/WHC/2 122VU ANTI ICE/WHC/1 122VU AIR COND/PACK TEMP CTL SYS2/2/115VAC 122VU AIR COND/PACK TEMP CTL SYS2/1/115VAC	12WQ 5DG2 5DG1 22HH 2HH	T18 W13 X13 Y20 Y18

EFF: ALL

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PANEL DESIGNATION	IDENT.	LOCATION
122VU AIR COND/AVNCS/VENT/MONG	3HQ	Y 17
**ON A/C 201-225, 251-251, 254-299, 426-499, 503-549,		
2000VU PRAM	2RX	E01
**ON A/C 227-227, 229-245, 551-599,		
2000VU PRAM	2RX	F07
**ON A/C 247-250, 252-253, 701-749,		
2000VU PRAM	2RX	D 01
**ON A/C 201-225, 451-475, 551-599,		
2001VU VACU TOIL SYS-VACUUM-SYS	35MG	A06
**ON A/C 227-227, 229-245,		
2001VU VACU TOIL SYS-VACU-SYS	35MG	В06
**ON A/C 247-299, 426-450, 476-499, 503-549, 701-749,		
2001VU VACU TOIL SYS-VACU-SYS	35MG	A06
**ON A/C ALL		

B. Computer reset procedure

 $\underline{{\tt NOTE}}$: The computer reset procedure is only applicable for aircraft on the ground.

NOTE: The computer reset procedure is not a troubleshooting procedure. But, the line maintenance personnel can use it (to prevent technical delay) if the computers do not operate correctly. Then the aircraft can go to a local repair center for maintenance. If there is more than one reset for each flight leg for a given computer, it is necessary to do the specific troubleshooting procedure for the applicable system.

EFF: ALL

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If after the reset, the computer operates correctly, no troubleshooting is necessary.

(1) To do computer reset:

- (a) Set the related normal cockpit control to OFF, or open the related circuit breaker as specified in the reset procedure.
- (b) Wait 3 seconds if a normal cockpit control is used, or 5 seconds if a circuit breaker is used (unless a different time is indicated).
- (c) Set the related normal cockpit control to ON, or close the related circuit breaker.
- (d) Wait 3 seconds for the end of the reset.

C. Air Conditioning

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
21	VENT AVNCS SYS FAULT 	AEVC	On the panel 122VU: - open the C/B 3HQ After 5 seconds, close the C/B
21	AIR PACK 1(2) REGUL FAULT 		For the pack controller 1: - on the panel 122VU, open then close the C/B 2HH. For the pack controller 2: - on the panel 122VU, open then close the C/B 22HH.

EFF: ALL

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D. Auto Flight

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
	AUTO FLT YAW DAMPER 1(2) FAULT	FAC1(2)	Open these C/Bs with the Yellow and Green hydraulic systems pressurized: - for the FAC 1: on the panel 49VU, C/B 5CC1 - for the FAC 2: on the panel 121VU, C/B 5CC2 Then close the C/Bs after 10 seconds.
	WINDSHEAR DET FAULT or REAC W/S DET FAULT 	FAC 1+2	Open then close the C/Bs in this the order: - on the panel 49VU, C/B 5CC1 and C/B 14CC1 - on the panel 121VU, C/B 5CC2 and C/B 14CC2.
22	AUTO FLT FCU 1(2) FAULT	FCU	For the FCU1:

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ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
			references shown, and correct them if necessary (reset successful) If the fault continues, end of procedure (reset unsuccessful).
	One MCDU locked or blank Both MCDUs locked or blank	MCDU FMGC	Open then close the C/B of the defective MCDU after 10 seconds: - For the MCDU1: on the panel 121VU or panel 49VU, C/B 11CA1 For the MCDU2: on the panel 121VU, C/B 11CA2 For the MCDU3: on the panel 121VU, C/B 11CA3.
	FMGC malfunction	FMGC	On the panel 121VU or 49VU: - open the FMGC 1 C/B 10CA1 and close it after 10 seconds. If there is no reset of the FMGC 1, do a reset of the FMGC 2 on the panel 121VU: - open the C/B 10CA2 and close it after 10 seconds

R **ON A/C 201-225, 227-227, 229-275, 426-455, 551-599,

E. Communications

(1) Computer Reset Table

ATA SYSTEM MALFUNCTION	COMPUTER	 RESET PROCEDURE
COM CIDS 1+2 FAULT	CIDS	- Open the C/Bs in this order: on the panel 49VU, C/B 15ORH on the panel 121VU, C/B 151RH on the panel 49VU, C/B 157RH on the panel 121VU, C/B 156RH

EFF: ALL
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 ATA 	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
	 	 	- After 10 seconds, close the C/Bs in this order: 156RH, 157RH, 151RH and 150RH.
 	Uncommanded EVAC horn actuation	CIDS	Press the EVAC/HORN SHUT OFF swith. If unsuccessful: Open the C/Bs in this order: on the panel 49VU, C/B 15ORH on the panel 121VU, C/B 151RH on the panel 49VU, C/B 157RH on the panel 121VU, C/B 156RH After 10 seconds, close the C/Bs in this order: 156RH, 157RH, 151RH and 150RH.
23 	Frozen RMP - - -	RMP 	You must do a reset of all the RMPs, one after the other. On the RMP control panel: - set the ON/OFF switch to OFF - after 5 seconds, set the ON/OFF switch to ON.
 	 Frozen FAP 	FAP or Tape reproducer/ PRAM 	On the panel 121VU, Open the FAP C/B 170RH After 10 seconds, close the C/B 170RH. If unsuccessful: on the panel 2000VU - open the tape reproducer /PRAM C/B 2RX. After 10 seconds, close the C/B.

EFF: 201-225, 227-227, 229-275, 426-455, 551-599, SROS

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**ON A/C 276-299, 476-499, 503-549, 701-749,

E. Communications

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
	COM CIDS 1+2 FAULT - - - - -	CIDS	- Open the C/Bs in this order: on the panel 49VU, C/B 15ORH on the panel 121VU, C/B 151RH - After 10 seconds, close the C/Bs in this order: 151RH, 150RH.
	Uncommanded EVAC horn actuation	CIDS	Press the EVAC/HORN SHUT OFF swith. If unsuccessful: - Open the C/Bs in this order: on the panel 49VU, C/B 15ORH on the panel 121VU, C/B 151RH - After 10 seconds, close the C/Bs in this order: 151RH, 150RH.
23	Frozen RMP 	RMP 	You must do a reset of all the RMPs, one after the other. On the RMP control panel: - set the ON/OFF switch to OFF - after 5 seconds, set the ON/OFF switch to ON.
	Frozen FAP 	Tape reproducer 	On the panel 121VU, open the FAP C/B 170RH After 10 seconds, close the C/B 170RH. If unsuccessful: on the panel 2000VU - open the tape reproducer /PRAM C/B 2RX. After 10 seconds, close the C/B.

EFF: 276-299, 476-499, 503-549, 701-749, SROS

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**ON A/C 456-475,

E. Communications

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
i	' 	' 	
	COM CIDS 1+2 FAULT	CIDS 	- Open the C/Bs in this order: on the panel 49VU, C/B 15ORH on the panel 121VU, C/B 151RH on the panel 49VU, C/B 157RH on the panel 121VU, C/B 156RH - After 10 seconds, close the C/Bs in this order: 156RH, 157RH, 151RH and 150RH.
	Uncommanded EVAC horn actuation	CIDS 	Press the EVAC/HORN SHUT OFF swith. If unsuccessful: Open the C/Bs in this order: on the panel 49VU, C/B 15ORH on the panel 121VU, C/B 151RH on the panel 49VU, C/B 157RH on the panel 121VU, C/B 156RH After 10 seconds, close the C/Bs in this order: 156RH, 157RH, 151RH and 150RH.
23 	Frozen RMP 	RMP 	You must do a reset of all the RMPs, one after the other. On the RMP control panel: - set the ON/OFF switch to OFF - after 5 seconds, set the ON/OFF switch to ON.
	Frozen FAP 	FAP 	Open the C/Bs in this order: On the panel 49VU, CB 171RH On the panel 121VU, CB

EFF: 456-475, SROS 24-00-00

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ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
 		 	170RH
ĺ		Ì	- After 10 seconds, close
ĺ		İ	the C/Bs in this order:
ĺ		İ	170RH, 171RH
		1	If unsuccessful:
			on the panel 2000VU
		1	- open the tape reproducer
			/PRAM C/B 2RX.
		1	After 10 seconds, close the
ĺ			C/B.

R **ON A/C 201-225, 227-227, 229-299, 426-455, 476-499, 503-549, 551-599, R 701-749,

F. Fire Protection

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
 26 	SMOKE LAV + CRG DET FAULT - -	SDCU 	On the panel 49VU: - open the C/B 11WQ On the panel 122VU: - open the C/B 12WQ After 10 seconds, close the two C/B's.

EFF: ALL

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**ON A/C ALL

G. Flight Controls

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
	F/CTL ELAC 1(2) FAULT F/CTL ALTN LAW F/CTL ELAC 1(2) PITCH FAULT	ELAC 	Reset the defective ELAC: - set the ELAC pushbutton switch a OFF then to ON.
27	ELAC or SEC malfunction 	ELAC or SEC 	Open then close the C/B of the defective ELAC or SEC. For the ELAC 1(2): - on the panel 49VU, C/B 15CE1 - on the panel 121VU, C/B 15CE2 For the SEC 1(2)(3): - on the panel 49VU, C/B 21CE1 - on the panel 121VU, C/B 21CE2 or 21CE3

H. Ice and Rain Protection

(1) Computer Reset Table

ATA SYSTEM MALFUNCTION	COMPUTER 	RESET PROCEDURE
ANTI ICE L(R)/WINSHIELD (WINDOW) 30 	WHC 	Open then close the C/B of the defective WHC. For the WHC1: - on the panel 122VU, C/B 5DG1. For the WHC2: - on the panel 122VU, C/B 5DG2.

EFF: ALL
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- J. Indicating/Recording Systems
 - (1) Computer Reset Table

 ATA SYSTEM MALFUNCTION 	COMPUTER	RESET PROCEDURE
FWS FWC 1(2) FAULT 	FWC 	Open then close the C/B of the defective FWC For the FWC1: - on the panel 49VU, C/B 3WW For the FWC2: - on the panel 121VU, C/B 2WW.

- K. Landing Gear
 - (1) Computer Reset Table

ATA	SYSTEM MALFUNCTION 	COMPUTER	RESET PROCEDURE
	Braking malfunction - - -	BSCU 	On the panel 121VU: - open the C/Bs 1GG, 2GG, 3GG and 4GG - after 5 seconds, close the CB's
32	 L/G LGCIU 1(2) FAULT 	LGCIU 1(2) 	For the LGCIU 1: - on the panel 121VU, open the C/B 52GA then on 49VU, C/B 1GA. Then close the C/B 1GA and C/B 52GA For the LGCIU 2: - on the panel 121VU, open then close the C/B 2GA.

| EFF : ALL | SROS 24-00-00

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L. Navigation

(1) Computer Reset Table

ATA SYSTEM MALFUNCTION	COMPUTER	RESET PROCEDURE
NAV TCAS FAULT 34 	TCAS	On the panel 121VU: - open the C/B 4SG - after 5 seconds, close the C/B.

R **ON A/C 201-225, 227-227, 229-299, 426-455, 476-499, 503-549, 551-599, R 701-749,

M. Water/Waste

(1) Computer Reset Table

ATA SYSTEM MALFUNCTION	COMPUTER RESET PROCEDURE
Fault messages on the 38 FAP in the cabin	Vacuum On the panel 2001VU: System - open the C/B 35MG Controller - after 30 seconds, close the C/B.

**ON A/C 247-275, 429-475, 481-499, 503-549, 551-555, 559-599,

Post SB 46-1001 For A/C 503-549, Post SB 46-1005 For A/C 551-555,

N. Information Systems

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION 		COMPUTER	RESET PROCEDURE
46	INVALID DATA on the DCDU No key selection effect on the DCDU or MCDU ATC page 		ATSU	On the panel 121VU: - open the C/Bs 3TX1 and 5TX1 Close the C/Bs after 5 seconds in this order: - 5TX1, 3TX1.

EFF: ALL

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**ON A/C ALL

P. Engine

(1) Computer Reset Table

ATA	SYSTEM MALFUNCTION	COMPUTER 	RESET PROCEDURE
70	ENG IGN A+B FAULT	EIU	On the panels 49VU and 121VU open then close the C/B of the defective FADEC
10	ENG 1(2) FADEC A(B) FAULT		- For the FADEC 1, C/Bs 2KS1 and 4KS1. - For the FADEC 2, C/Bs 2KS2 and 4KS2.

TROUBLE SHOOTING MANUAL

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-00-00-810-819

GEN 1 FAULT Warning without Associated Message on the ECAM

- 1. Possible Causes
 - GCU-1 (1XU1)
 - P/BSW-ELEC/GEN 1 (3XU1)
 - RELAY-GLC 1 AUX CTL (4XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24-22-34-000-001 AMM 24-22-34-400-001 Removal of the GCU-1(2) (1XU1, 1XU2)
Installation of the GCU-1(2) (1XU1, 1XU2)

ASM 24-22/02

- 3. Fault Confirmation
 - A. Test

Not applicable, no confirmation test is necessary.

- 4. Fault Isolation
 - A. If the fault symptom is identified by the upper ECAM DU warning GEN 1
 FAULT:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check of the contacts of the ELEC/GEN 1 pushbutton switch
 (3XU1) for correct operation (Ref. ASM 24-22/02).

 - (b) If the contacts operate correctly:
 - replace the RELAY-GLC 1 AUX CTL (4XU1).
 - 1 If the fault continues:
 - do a check and repair the wiring for an open circuit between pin A/7A of the GCU 1 and the ground (Ref. ASM 24-22/02).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check to make sure that the problem related to this fault symptom is repaired.
 If the upper ECAM DU gives the GEN 1 FAULT warning, continue the trouble shooting.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-00-00-810-820

GEN 2 FAULT Warning without Associated Message on the ECAM

1. Possible Causes

- GCU-2 (1XU2)
- P/BSW-ELEC/GEN 2 (3XU2)
- RELAY-GLC 2 AUX CTL (4XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE DESIGNATION

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2)
ASM 24-22/03

3. Fault Confirmation

A. Test

Not applicable, no confirmation test is necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the upper ECAM DU warning GEN 2 FAULT:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check of the contacts of the ELEC/GEN 2 pushbutton switch (3XU2) for correct operation (Ref. ASM 24-22/03).

 - - 1 If the fault continues:
 - do a check and repair the wiring for an open circuit between pin A/7A of the GCU 2 and the ground (Ref. ASM 24-22/03).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check to make sure that the problem related to this fault symptom is repaired.
 If the upper ECAM DU gives the GEN 2 FAULT warning, continue the trouble shooting.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TROUBLE SHOOTING MANUAL

**ON A/C 254-275, 451-475,

TASK 24-00-00-810-821

Failure of the Oil Temperature Sensors of the IDG 1 without Overtemperature Detection

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
АММ	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a level Check</pre>
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)
AMM	24-21-00-920-040	Drain IDG Oil System, Discard Filter Element(s) and Replenish
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
ASM	24-21/01	

3. Fault Confirmation

A. Test

(1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).

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4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the Class 3 Faults gives the maintenance message IDG1 (E1-4000XU) OIL OUT TEMP/ GCU1 (1XU1):
 - NOTE: This CFDS message can come into view when the temperature of the IDG 1 oil is more than 151 deg.C but less than 185 deg.C.

 If this CFDS message comes into view with other chapter-24 CFDS messages, do the trouble shooting for all these messages.

 If there is no other message, do the trouble shooting that follows:
 - (1) Do the trouble shooting for chapter-73 CFDS messages that come into view with the CFDS message IDG1 (E1-4000XU) OIL OUT TEMP/ GCU1 (1XU1).
 - (2) If there is no chapter-73 CFDS message or if the fault continues after the trouble shooting:
 - do the check of the Differential Pressure Indicator (DPI) of the IDG 1 (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the DPI is extended:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the DPI is not extended:
 - do a check of the IDG 1 oil level (Ref. AMM TASK 24-21-00-210-046).
 - 1 If the oil level is not correct:
 - replace the IDG 1 charge and scavenge filters (Ref. AMM TASK 24-21-00-920-040)
 - add oil (Ref. AMM TASK 12-13-24-612-041).
 - 2 If the oil level is correct:
 - do a check of the resistance of the oil inlet and outlet temperature-sensors of the IDG 1 (Ref. ASM 24-21/01) between:
 - . pins B/7 and B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case)
 - ${\tt .}$ pins B/8 and B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case).

EFF: 254-275, 451-475,

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- <u>a</u> If the resistance values are out of the specified limits: - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- b If the resistance values are in the specified limits:
 - do a check of the wiring of the oil outlet temperature-sensor (Ref. ASM 24-21/01) for an open circuit or a short to ground between:
 - . pin B/7 of the IDG 1 and pin A/9C of the GCU 1
 - . pin B/8 of the IDG 1 and pin A/9D of the GCU 1
 - . pin B/9 of the IDG 1 and pin A/10C of the GCU 1.
 - * If the wiring is not correct:
 - repair or replace as necessary.
 - * If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - ** If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS.
 - If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-00-00-810-822

Failure of the Oil Temperature Sensors of the IDG 2 without Overtemperature Detection

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>	
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)	
AMM	24-21-00-920-040	Drain IDG Oil System, Discard Filter Element(s) and Replenish	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM ASM	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS	

3. Fault Confirmation

A. Test

(1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

EFF: 254-275, 451-475,

24-00-00

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- A. If the Class 3 Faults gives the maintenance message IDG2 (E2-4000XU) OIL OUT TEMP/ GCU2 (1XU2):
 - NOTE: This CFDS message can come into view when the temperature of the IDG 2 oil is more than 151 deg.C but less than 185 deg.C.

 If this CFDS message comes into view with other chapter-24 CFDS messages, do the trouble shooting for all these messages.

 If there is no other message, do the trouble shooting that follows:
 - (1) Do the trouble shooting for chapter-73 CFDS messages that come into view with the CFDS message IDG2 (E2-4000XU) OIL OUT TEMP/ GCU2 (1XU2).
 - (2) If there is no chapter-73 CFDS message or if the fault continues after the trouble shooting:
 - do the check of the Differential Pressure Indicator (DPI) of the IDG 2 (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the DPI is extended:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the DPI is not extended:
 - do a check of the IDG 2 oil level (Ref. AMM TASK 24-21-00-210-046).
 - 1 If the oil level is not correct:
 - replace the IDG 2 charge and scavenge filters (Ref. AMM TASK 24-21-00-920-040)
 - add oil (Ref. AMM TASK 12-13-24-612-041).
 - 2 If the oil level is correct:
 - do a check of the resistance of the oil inlet and outlet temperature-sensors of the IDG 2 (Ref. ASM 24-21/01) between:
 - ${\tt pins}$ B/7 and B/8 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case)
 - \cdot pins B/8 and B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case).
 - a If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - b If the resistance values are in the specified limits:
 - do a check of the wiring of the oil outlet temperature-sensor (Ref. ASM 24-21/01) for an open circuit or a short to ground between:
 - pin B/7 of the IDG 2 and pin A/9C of the GCU 2
 - pin B/8 of the IDG 2 and pin A/9D of the GCU 2
 - . pin B/9 of the IDG 2 and pin A/10C of the GCU 2.

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- * If the wiring is not correct:
- repair or replace as necessary.
- * If the wiring is correct:
- replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- ** If the fault continues:
- replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS.
 - If the test continues to give the fault message, continue the trouble shooting procedure.

24-00-00

EFF:

254-275, 451-475,

TROUBLE SHOOTING MANUAL

**ON A/C ALL

TASK 24-00-00-810-823

Electrical Burning Smell or Fumes Found in the Cabin, Cockpit, Cargo or Avionics Compartment

- 1. Possible Causes
 - electrical circuits
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
21-00-00-810-801	Oil is the Air Conditioning System
24-00-00-810-803	Oil in the Air Conditioning System Circuit Breaker Tripped and/or C/B TRIPPED Warning
26-15-00-810-804	Odours and mist in the cabin and not fire
26-17-00-810-804	
	Lavatory Smoke Warning(s) without Fire
49-00-00-810-846	Fumes in the Cabin/Oil Smoke at the APU Exhaust (GTCP 36-300)
49-00-00-810-921	Fumes in the Cabin/Oil Smoke at the APU Exhaust (APS 3200)
49-00-81-810-874	APU - Oil Smoke in Cabin (131-9(A))
71-00-00-810-802	Smoke and/or Oil Smell in the Cabin
ESPM 205200	
ESPM 205300	

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-250, 252-299, 426-456, 476-499, 503-549, R 551-599, 701-749,
 - A. If there is an electrical burning smell:

NOTE : Try to identify the source of the smell with the flight crew or the cabin crew.

<u>NOTE</u>: Make a first estimate of the electrical damage, and de-energize the applicable electrical power network (commercial/servicing/ galley).

EFF: ALL

24-00-00

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- NOTE: It is not always easy to identify an electrical burning smell or an air conditioning contamination from the engine or the APU.

 Refer to the applicable paragraph of this procedure.
- (1) If a circuit breaker tripped:do this trouble shooting procedure (Ref. TASK 24-00-00-810-803).
- (2) If no circuit breaker tripped:
 - (a) If there is an ECAM warning, message or local observation:refer to the applicable trouble shooting procedure.
 - (b) If there is no ECAM warning, message or local observation:

 do an inspection of the electrical circuits and related mechanical components for arcing, chafing or short circuit (Ref. ESPM 205200).
 - 1 If there is damage:
 repair or replace the damaged components (Ref. ESPM 205300).
 - 2 If there is no damage:
 - <u>a</u> If you smell oil (because of air conditioning contamination):
 - do this trouble shooting procedure (Ref. TASK 21-00-00-810-801).
 - b If you smell oil from the engine:
 - do this trouble shooting procedure (Ref. TASK 71-00-00-810-802).
 - \underline{c} If you smell fumes during the pre-conditioning with the
 - do these trouble shooting procedures (Ref. TASK 26-17-00-810-804) and (Ref. TASK 49-00-00-810-921).
 - d If there is a smell and fumes in the cabin:
 do this trouble shooting procedure (Ref. TASK 26-15-00-810-804).

**ON A/C 251-251,

- A. If there is an electrical burning smell:
 - NOTE: Try to identify the source of the smell with the flight crew or the cabin crew.
 - <u>NOTE</u>: Make a first estimate of the electrical damage, and de-energize the applicable electrical power network (commercial/servicing/galley).

EFF: 201-225, 227-227, 229-299, 426-456, 476-499, 503-549, 551-599, 701-749,

24-00-00

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- NOTE: It is not always easy to identify an electrical burning smell or an air conditioning contamination from the engine or the APU. Refer to the applicable paragraph of this procedure.
- (1) If a circuit breaker tripped: - do this trouble shooting procedure (Ref. TASK 24-00-00-810-803).
- (2) If no circuit breaker tripped:
 - (a) If there is an ECAM warning, message or local observation: refer to the applicable trouble shooting procedure.
 - (b) If there is no ECAM warning, message or local observation: - do an inspection of the electrical circuits and related mechanical components for arcing, chafing or short circuit (Ref. ESPM 205200).
 - If there is damage: - repair or replace the damaged components (Ref. ESPM 205300).
 - 2 If there is no damage:
 - a If you smell oil (because of air conditioning contamination):
 - do this trouble shooting procedure (Ref. TASK 21-00-00-810-801).
 - b If you smell oil from the engine:
 - do this trouble shooting procedure (Ref. TASK 71-00-00-810-802).
 - c If you smell fumes during the pre-conditioning with the
 - do these trouble shooting procedures (Ref. TASK 26-17-00-810-804) and (Ref. TASK 49-00-81-810-874).
 - If there is a smell and fumes in the cabin: - do this trouble shooting procedure (Ref. TASK 26-15-00-810 - 804).

**ON A/C 457-475,

- A. If there is an electrical burning smell:
 - NOTE: Try to identify the source of the smell with the flight crew or the cabin crew.
 - NOTE: Make a first estimate of the electrical damage, and de-energize the applicable electrical power network (commercial/servicing/ galley).

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- <u>NOTE</u>: It is not always easy to identify an electrical burning smell or an air conditioning contamination from the engine or the APU.

 Refer to the applicable paragraph of this procedure.
- (1) If a circuit breaker tripped:do this trouble shooting procedure (Ref. TASK 24-00-00-810-803).
- (2) If no circuit breaker tripped:
 - (a) If there is an ECAM warning, message or local observation:refer to the applicable trouble shooting procedure.
 - (b) If there is no ECAM warning, message or local observation:

 do an inspection of the electrical circuits and related mechanical components for arcing, chafing or short circuit (Ref. ESPM 205200).
 - 1 If there is damage:
 repair or replace the damaged components (Ref. ESPM 205300).
 - 2 If there is no damage:
 - <u>a</u> If you smell oil (because of air conditioning contamination):
 - do this trouble shooting procedure (Ref. TASK 21-00-00-810-801).
 - b If you smell oil from the engine:
 - do this trouble shooting procedure (Ref. TASK 71-00-00-810-802).
 - \underline{c} If you smell fumes during the pre-conditioning with the
 - do these trouble shooting procedures (Ref. TASK 26-17-00-810-804) and (Ref. TASK 49-00-00-810-846).
 - d If there is a smell and fumes in the cabin:
 - do this trouble shooting procedure (Ref. TASK 26-15-00-810-804).

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AC GENERATION - FAULT ISOLATION PROCEDURES

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-20-00-810-801

Failure of the Generator Control Unit 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - sockets of the 400VC1
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific

dynamometer

B. Referenced Information

REFERENCE

DESIGNATION

REFERENCE PESIGNATION

ESPM 204823

AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

- 3. Fault Confirmation
 - A. Test

AWM 24-22-01

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: ALL

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GCU 1 and the upper ECAM DU warning GEN 1 FAULT:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of GEN 1 are shown and AC 1 busbar is supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-20-00-810-803

Loss of the GEN 1 (Failure of the Electrical Wiring between the IDG 1, GLC 1 and GCU 1)

1. Possible Causes

- GCU-1 (1XU1)
- IDG (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK IDG 1 PHASE SEQ and the upper ECAM DU warning GEN 1 FAULT:
 - do a check of the wiring for phase inversion on the feeders between respectively the IDG 1 pins A/T1, B/T2, C/T3 and the GLC 1 pins D, E, F and between respectively the GLC 1 pins D, E, F and the GCU 1 pins B/1A, B/2B, C/3A (Ref. ASM 24-22/01).

 - (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 1 PHASE SEQ and the upper ECAM DU warning GEN 1 FAULT:
 - do a check of the wiring for phase inversion on the feeders between respectively:
 - . the IDG 1 pins A/T1, B/T2, C/T3 and the generator 1 contactor module (30XN1) pins 1, 2, 3.
 - . the generator 1 contactor module (30XN1) pins 1, 2, 3 and the GCU 1 pins B/1A, B/2B, C/3A (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct: - repair it.
 - (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-804

Loss of the GEN 1 (Failure of the Electrical Wiring between the GLC 1 and GCU 1)

1. Possible Causes

- EGIU-1 (22XU1)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/02	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK GLC 1 GCU 1 PIN B2D WIRING and the upper ECAM DU warning GEN 1 FAULT:
 - reset the circuit breaker on the front of the GCU 1.
 - (1) If the circuit breaker trips:
 - Do a check of the wiring for short to ground between:
 - . the GCU 1 pin B/2D and successively the GLC 1 pin B/3, GCU 1 pin A/5B, EGIU 1 pin A/12D, and EGIU 1 pin A/12A
 - . the GCU 1 pin A/12C and the GLC 1 AUX RELAY pin X1
 - . the GCU 1 A/12D and the EGIU 1 pin A/13A (Ref. ASM 24-22/02).
 - (a) If the wiring is not correct:
 repair it.
 - (b) If the wiring is correct:
 - do a check for short to ground of the internal wiring of the EGIU 1 between the pin A/12A and the pin A/13A.
 - 1 If the wiring is shorted:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - 2 If the wiring is not shorted:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

TROUBLE SHOOTING MANUAL

C. Do this test:

ACTION PESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-805

Loss of the GEN 1 (Failure of the IDG 1 Feeder)

- 1. Possible Causes
 - GCU-1 (1XU1)
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	o	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	gc

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK IDG 1 FEEDER PIN T1, T2, T3 SHORT TO GROUND and the upper ECAM DU warning GEN 1 FAULT: do a check of the aircraft wiring for short to ground between respectively the IDG 1 pins A/T1, B/T2, C/T3 and the GLC 1 pins D, E, F (Ref. ASM 24-22/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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(2) If the wiring is correct:

replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 1 FEEDER PIN T1, T2, T3 SHORT TO GROUND and the upper ECAM DU warning GEN 1 FAULT:
 - do a check of the aircraft wiring for short to ground between respectively the IDG 1 pins A/T1, B/T2, C/T3 and the generator 1 contactor module (30XN1) pins 1, 2, 3 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-806

Loss of the Generator 1 (Pins D, E, F, R, P, N of BTC1 shorted to ground)

1. Possible Causes

- feeder
- IDG1 feeders
- IDG1 (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Demoved of the Interested Daive Consenter IDC	
AMM	24-21-31-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/02		

3. Fault Confirmation

A. Test

(1) Read the Class 1 Faults of the GCU or GPCU from the CFDS.

NOTE : As the GEN1 was set to OFF because of a true failure, the test confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the maintenance message CHECK BTC1 PIN D, E, F, R, P, N SHORT TO GROUND and by the warning GEN1 FAULT on the upper ECAM display unit:
 - do a check of the feeder for short to ground between respectively:
 - the pins A/G, A/H, A/J of the GLC1 and the main bus
 - . the pins A/M, A/L, A/K of the GLC1 and the pins A/D, A/E, A/F of the BTC1
 - . the pins A/R, A/P, A/N of the BTC1 and the pins A/N, A/P, A/R of the APU GLC (Ref. ASM 24-22/02)
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - do a check of the IDG1 feeders for intermittent short to ground between respectively the pins A/T1, B/T2, C/T3 of the IDG1 and the pins A/D, A/E, A/F of the GLC1.

 - (4) If the wiring is correct:
 - Replace the engine IDG1 (4000XU) (Ref. AMM TASK 24-21-51-000-040)
 and (Ref. AMM TASK 24-21-51-400-040).
 - (5) If the fault continues:
 - do a check and repair the wiring between respectively the pins A1, A6, A7, A8 of the IDG1 and the pins B/13D, B/13A, B/13B, B/13C of the GCU1.

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the maintenance message CHECK BTC1 PIN D, E, F, R, P, N SHORT TO GROUND and by the warning GEN1 FAULT on the upper ECAM display unit:
 - do a check of the feeder for short to ground between respectively:
 the pins 4, 5, 6 of the generator 1 contactor module (30XN1) and the main bus
 - the pins 10, 11, 12 of the generator 1 contactor module (30XN1) and the pins 10, 11, 12 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-22/02).
 - (1) If the wiring is not correct:
 repair it.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do a check of the IDG1 feeders for intermittent short to ground between respectively the pins A/T1, B/T2, C/T3 of the IDG1 and the pins 1, 2, 3 of the generator 1 contactor module (30XN1).
- (3) If the wiring is not correct: - repair it.
- (4) If the wiring is correct:
 - Replace the engine IDG1 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (5) If the fault continues:
 - do a check and repair the wiring between respectively the pins A1, A6, A7, A8 of the IDG1 and the pins B/13D, B/13A, B/13B, B/13C of the GCU1.

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the panel 35VU: - push, release and push again the GEN1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

._____ ACTION RESULT ______

On the ECAM control panel:

- push the ELEC key to get the ELEC - the correct electrical parameters of page.

On the lower ECAM display unit:

GEN1 are shown and AC1 busbar is supplied by GEN1.

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-807

Accidental Disconnection of the IDG1

- 1. Possible Causes
 - RELAY-IDG1 DISC CTL (3XT)
 - wiring
 - P/BSW-ELEC/IDG1 (5XT)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-21-00-710-040	Operational Test of the IDG Disconnect and Reconnect
,	27 27 00 7 10 0 10	(Reset) Function - Engine Static
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

- 3. Fault Confirmation
 - A. Test
 Not applicable, you cannot confirm this fault on the ground.
- 4. Fault Isolation

**ON A/C 201-225, 233-253, 282-299, 426-450, 478-499, 503-549, 551-599, 701-749,

- A. If the fault symptom is identified by the CFDS message IDG1 DISCONNECTED and the warning ELEC GEN1 FAULT on the upper ECAM display unit:
 - (1) If the IDG1 has been disconnected intentionally, that is if this CFDS message is associated with other CFDS messages such as:
 - . IDG1 LOW OIL PRESSURE
 - . IDG1 (OVERTEMP)
 - . IDG1 HIGH DELTA TEMP
 - . IDG1 BULB TOLERANCE
 - . other messages.
 - no trouble shooting is necessary.

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- (2) If the IDG1 has not been disconnected intentionally:
 - reconnect the IDG1: for this, reset the disconnect system (Ref. AMM TASK 24-21-00-710-040) (the warning ELEC GEN1 FAULT is no longer shown of the upper ECAM display unit and the DISC indication is no longer shown on the lower ECAM display unit).
 - (a) If the IDG1 disconnects again (the warning GEN1 FAULT is shown again on the upper ECAM display unit and the DISC indication is shown again on the lower ECAM display unit):
 - replace the RELAY-IDG1 DISC CTL (3XT).
 - 1 If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/A1 of the relay (3XT) and the pin A/12 of the IDG1 (Ref. ASM 24-21/01).
 - (b) If the IDG1 does not disconnect:
 - on the circuit breaker panel 122VU, open, safety and tag the circuit breaker ELEC/GCU/1 (2XU1).
 - 1 If the IDG1 disconnects (the warning GEN1 FAULT is shown on the upper ECAM display unit and the DISC indication is shown on the lower ECAM display unit).
 - replace the P/BSW-ELEC/IDG1 (5XT).
 - a If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/B1 of the pushbutton switch (5XT) and the pin A/X1 of the relay (3XT) (Ref. ASM 24-21/01).
 - 2 If the IDG1 does not disconnect:
 - stop the trouble shooting and on the circuit breaker panel 122VU, remove the safety clip and tag and close the circuit breaker (2XU1).
- R **ON A/C 227-227, 229-232, 276-281, 476-477,
 - A. If the fault symptom is identified by the CFDS message IDG1 DISCONNECTED and the warning ELEC GEN1 FAULT on the upper ECAM display unit:
 - (1) If the IDG1 has been disconnected intentionally:
 - do a check for other related CFDS messages, such as:
 - . IDG1 LOW OIL PRESSURE
 - . IDG1 (OVERTEMP)
 - . IDG1 HIGH DELTA TEMP
 - . IDG1 BULB TOLERANCE
 - other messages.
 - (a) If there is an other CFDS message:
 - no trouble shooting is necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (b) If there no CFDS message:
 - do a check for CLASS 3 messages and do the related trouble shooting.
- (2) If the IDG1 has not been disconnected intentionally:
 - reconnect the IDG1: for this, reset the disconnect system (Ref. AMM TASK 24-21-00-710-040) (the warning ELEC GEN1 FAULT is no longer shown of the upper ECAM display unit and the DISC indication is no longer shown on the lower ECAM display unit).
 - (a) If the IDG1 disconnects again (the warning GEN1 FAULT is shown again on the upper ECAM display unit and the DISC indication is shown again on the lower ECAM display unit):
 - replace the RELAY-IDG1 DISC CTL (3XT).
 - 1 If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/A1 of the relay (3XT) and the pin A/12 of the IDG1 (Ref. ASM 24-21/01).
 - (b) If the IDG1 does not disconnect:
 - on the circuit breaker panel 122VU, open, safety and tag the circuit breaker ELEC/GCU/1 (2XU1).
 - 1 If the IDG1 disconnects (the warning GEN1 FAULT is shown on the upper ECAM display unit and the DISC indication is shown on the lower ECAM display unit).
 - replace the P/BSW-ELEC/IDG1 (5XT).
 - a If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/B1 of the pushbutton switch (5XT) and the pin A/X1 of the relay (3XT) (Ref. ASM 24-21/01).
 - 2 If the IDG1 does not disconnect:
 - stop the trouble shooting and on the circuit breaker panel 122VU, remove the safety clip and tag and close the circuit breaker (2XU1).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this test to make sure that the system operates correctly:
 - (1) Make sure that the circuit breaker 2XU1 is closed.
 - (2) On the overhead panel, on the ELEC panel 35VU:
 - push, release and push again the ELEC/GEN1 pushbutton switch (3XU1).
 - (3) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(4) Do this test:

ACTION RESULT ______

On the ECAM control panel: page.

On the lower ECAM display unit: - push the ELEC key to get the ELEC - the correct electrical parameters of the GEN1 are shown and the AC1 busbar

is supplied by the GEN1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-808

Loss of the GEN 1 (Failure of the Electrical Wiring between the IDG 1 and the GCU 1, Voltage Regulation Function)

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message CHECK GCU 1 PIN C1, C5/IDG 1 PIN A9 A10 WIRING and the upper ECAM DU warning GEN 1 FAULT: do a check of the wiring for open circuit or short to ground between respectively the GCU 1 pins C/1, C/5 and the IDG 1 pins A/9 and A/10 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - do a resistance check (with an ohmmeter) of the IDG 1 exciter field between the pins A/9 and A/10 (value : 7.5 ohms plus or minus 0.75 ohms at 25°C).
 - (a) If the resistance is out of tolerance:
 replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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C. Do this test:

ACTION PESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-809

Failure of the Generator Control Unit 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - sockets of the 400VC1
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific

dynamometer

B. Referenced Information

REFERENCE DESIGNATION

REFERENCE DES

ESPM 204823

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2) AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2) AMM 24-41-00-740-002 Operational Test of the Ground Power Control Unit (GPCU) AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from Engine 1(2) AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure 71-00-00-710-003 Engine Automatic Start AMM AMM 71-00-00-710-028 Engine Shutdown AWM 24-22-01

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GCU 2 and the upper ECAM DU warning GEN 2 FAULT:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT ______

On the ECAM control panel: get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

201-225, 227-227, 229-253, 276-299,

426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-20-00-810-811

Loss of the GEN 2 (Failure of the Electrical Wiring between the IDG 2, GLC 2 and GCU 2)

1. Possible Causes

- GCU-2 (1XU2)
- IDG (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	-

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK IDG 2 PHASE SEQ and the upper ECAM DU warning GEN 2 FAULT.
 - Do a check of the wiring for phase inversion on the feeders between respectively:
 - . the IDG 2 pins T1, T2, T3 and the GLC 2 pins D, E, F,
 - . the GLC 2 pins D, E, F and the GCU 2 pins B/1A, B/2B, C/3A (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 2 PHASE SEQ and the upper ECAM DU warning GEN 2 FAULT.
 - Do a check of the wiring for phase inversion on the feeders between respectively:
 - . the IDG 2 pins T1, T2, T3 and the generator 2 contactor module (30XN2) pins 1, 2, 3,
 - . the generator 2 contactor module (30XN2) pins 1, 2, 3 and the GCU 2 pins B/1A, B/2B, C/3A (Ref. ASM 24-22/01).

 - (2) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 2 are shown and AC 2 busbar is
supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-812

Loss of the GEN 2 (Failure of the Electrical Wiring between the GLC 2 and GCU 2)

1. Possible Causes

- EGIU-2 (22XU2)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	<pre>Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-028	Engine Shutdown
AMM	71-00-00-710-043	Normal Engine Automatic Start Procedure
ASM	24-22/02	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK GLC 2 GCU 2 PIN B2D WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - reset the circuit breaker on the front of the GCU 2.
 - (1) If the circuit breaker trips:
 - Do a check of the wiring for short to ground between:
 - . the GCU 2 pin B/2D and successively the GLC 2 pin B/3, GCU 2 pin A/5B, EGIU 2 pin A/12D and EGIU 2 pin A/12A
 - . the GCU 2 pin A/12C and the GLC 2 AUX RELAY pin X1
 - . the GCU 2 A/12D and the EGIU 2 pin A/13A (Ref. ASM 24-22/02).
 - (a) If the wiring is not correct:
 repair it.
 - (b) If the wiring is correct:
 - do a check for short to ground of the internal wiring of the EGIU 2 between the pin A/12A and the pin A/13A.
 - 1 If the wiring is shorted:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - 2 If the wiring is not shorted:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-043).

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C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit: - the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-813

Loss of the GEN 2 (Failure of the IDG 2 Feeder)

- 1. Possible Causes
 - GCU-2 (1XU2)
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
A M M	2/ 22 7/ 000 004	Personal of the COU 4/22 (4VIII 4VIII)
AMM AMM	24-22-34-000-001 24-22-34-400-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)
		•
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK IDG 2 FEEDER PIN T1, T2, T3 SHORT TO GROUND and the upper ECAM DU warning GEN 2 FAULT: do a check of the aircraft wiring for short to ground between respectively the IDG 2 pins A/T1, B/T2, C/T3 and the GLC 2 pins D, E, F (Ref. ASM 24-22/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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(2) If the wiring is correct:

replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 2 FEEDER PIN T1, T2, T3 SHORT TO GROUND and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the aircraft wiring for short to ground between respectively the IDG 2 pins A/T1, B/T2, C/T3 and the generator 2 contactor module (30XN2) pins 1, 2, 3 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:

 the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-814

Loss of the Generator 2 (Pins D, E, F, R, P, N of BTC 2 Shorted to Ground)

1. Possible Causes

- feeder
- IDG2 feeders
- IDG2 (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG	
AMM	24-21-51-400-040	<pre>1(2),(4000XU) Installation of the Integrated Drive Generator -IDG</pre>	
AMM	24-41-00-740-002	1(2),(4000XU) Operational Test of the Ground Power Control Unit	
	24-41-00-861-002	(GPCU) Energize the Aircraft Electrical Circuits from Engine	
		1(2)	
	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/02		

3. Fault Confirmation

A. Test

(1) Read the Class 1 Faults of the GCU or GPCU from the CFDS.

<u>NOTE</u>: As the GEN2 was set to OFF because a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the maintenance message CHECK BTC2 PIN D, E, F, R, P,N SHORT TO GROUND and by the upper ECAM DU warning GEN2 FAULT:
 - do a check of the feeder for short to ground between respectively:
 - the pins A/R, A/P, A/N of the GLC2 and the main bus,
 - . the pins A/M, A/L, A/K of the GLC2 and the pins A/D, A/E, A/F of the BTC2,
 - . the pins A/G, A/H, A/J of the BTC2 and the pins A/J, A/H, A/G of the APU GLC (Ref. ASM 24-22/02).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - do a check of the IDG2 feeders for intermittent short to ground between respectively the pins A/T1, B/T2, C/T3 of the IDG2 and the pins A/D, A/E, A/F of the GLC2.

 - (4) If the wiring is correct:
 - replace the engine IDG2 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (5) If the fault continues:
 - do a check and repair the wiring between respectively the pins A1, A6, A7, A8 of the IDG2 and the pins B/13D, B/13A, B/13B, B/13C of the GCU2.

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the maintenance message CHECK BTC2 PIN D, E, F, R, P,N SHORT TO GROUND and by the upper ECAM DU warning GEN2 FAULT:
 - do a check of the feeder for short to ground between respectively:
 the pins 4, 5, 6 of the generator 2 contactor module (30XN2) and the main bus.
 - the pins 10, 11, 12 of the generator 2 contactor module (30XN2) and the pins 10, 11, 12 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-22/02).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do a check of the IDG2 feeders for intermittent short to ground between respectively the pins A/T1, B/T2, C/T3 of the IDG2 and the pins 1, 2, 3 of the generator 2 contactor module (30XN2).
- (4) If the wiring is correct:
 - replace the engine IDG2 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (5) If the fault continues:
 - do a check and repair the wiring between respectively the pins A1, A6, A7, A8 of the IDG2 and the pins B/13D, B/13A, B/13B, B/13C of the GCU2.
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the panel 35VU:
 - push, release and push again the GEN2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:

 the correct electrical parameters of GEN2 are shown and AC2 busbar is supplied by GEN2.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-815

Accidental Disconnection of the IDG2

- 1. Possible Causes
 - RELAY-IDG2 DISC CTL (4XT)
 - wiring
 - P/BSW-ELEC/IDG2 (6XT)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-00-710-040	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine Static
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	71-00-00-710-003	Engine Automatic Start
AMM ASM	71-00-00-710-028 24-21/01	Engine Shutdown

- 3. Fault Confirmation
 - A. Test
 Not applicable, you cannot confirm this fault on the ground.
- 4. Fault Isolation

**ON A/C 201-225, 233-253, 282-299, 426-450, 478-499, 503-549, 551-599, 701-749,

- A. If the fault symptom is identified by the CFDS message IDG2 DISCONNECTED and the warning ELEC GEN2 FAULT on the upper ECAM display unit:
 - (1) If the IDG2 has been disconnected intentionally, that is if this CFDS message is found with other CFDS messages such as:
 - . IDG2 LOW OIL PRESSURE
 - . IDG2 (OVERTEMP)
 - . IDG2 HIGH DELTA TEMP
 - . IDG2 BULB TOLERANCE
 - . other messages.
 - no trouble shooting is necessary.

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- (2) If the IDG2 has not been disconnected intentionally:
 - reconnect the IDG2: for this, reset the disconnect system (Ref. AMM TASK 24-21-00-710-040) (the warning ELEC GEN2 FAULT is no longer shown of the upper ECAM display unit and the DISC indication is no longer shown on the lower ECAM display unit).
 - (a) If the IDG2 disconnects again (the warning GEN2 FAULT is shown again on the upper ECAM display unit and the DISC indication is shown again on the lower ECAM display unit):
 - replace the RELAY-IDG2 DISC CTL (4XT).
 - If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/A1 of the relay (4XT) and the pin A/12 of the IDG2 (Ref. ASM 24-21/01).
 - (b) If the IDG2 does not disconnect:
 - on the circuit breaker panel 122VU, open, safety and tag the circuit breaker ELEC/GCU/2 (2XU2).
 - If the IDG2 disconnects (the warning GEN2 FAULT is shown on the upper ECAM display unit and the DISC indication is shown on the lower ECAM display unit).
 - replace the P/BSW-ELEC/IDG2 (6XT).
 - If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/B1 of the pushbutton switch (6XT) and the pin A/X1 of the relay (4XT) (Ref. ASM 24-21/01).
 - 2 If the IDG2 does not disconnect:
 - stop the trouble shooting and on the circuit breaker panel 122VU, remove the safety clip and tag and close the circuit breaker (2XU2).
- R **ON A/C 227-227, 229-232, 276-281, 476-477,
 - A. If the fault symptom is identified by the CFDS message IDG2 DISCONNECTED and the warning ELEC GEN2 FAULT on the upper ECAM display unit:
 - (1) If the IDG2 has been disconnected intentionally:
 - do a check for other related CFDS messages, such as:
 - . IDG2 LOW OIL PRESSURE
 - . IDG2 (OVERTEMP)
 - . IDG2 HIGH DELTA TEMP
 - . IDG2 BULB TOLERANCE
 - other messages.
 - (a) If there is an other CFDS message:
 - no trouble shooting is necessary.

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (b) If there is no other CFDS message:
 - do a check for CLASS 3 messages and do the related trouble shooting.
- (2) If the IDG2 has not been disconnected intentionally:
 - reconnect the IDG2: for this, reset the disconnect system (Ref. AMM TASK 24-21-00-710-040) (the warning ELEC GEN2 FAULT is no longer shown of the upper ECAM display unit and the DISC indication is no longer shown on the lower ECAM display unit).
 - (a) If the IDG2 disconnects again (the warning GEN2 FAULT is shown again on the upper ECAM display unit and the DISC indication is shown again on the lower ECAM display unit): - replace the RELAY-IDG2 DISC CTL (4XT).
 - 1 If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/A1 of the relay (4XT) and the pin A/12 of the IDG2 (Ref. ASM 24-21/01).
 - (b) If the IDG2 does not disconnect:
 - on the circuit breaker panel 122VU, open, safety and tag the circuit breaker ELEC/GCU/2 (2XU2).
 - 1 If the IDG2 disconnects (the warning GEN2 FAULT is shown on the upper ECAM display unit and the DISC indication is shown on the lower ECAM display unit).
 - replace the P/BSW-ELEC/IDG2 (6XT).
 - a If the fault continues:
 - do a check and repair the wiring for abnormal 28VDC between the pin A/B1 of the pushbutton switch (6XT) and the pin A/X1 of the relay (4XT) (Ref. ASM 24-21/01).
 - 2 If the IDG2 does not disconnect:
 - stop the trouble shooting and on the circuit breaker panel 122VU, remove the safety clip and tag and close the circuit breaker (2XU2).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this test to make sure that the system operates correctly:
 - (1) Make sure that the circuit breaker 2XU2 is closed.
 - (2) On the overhead panel, on the ELEC panel 35VU:push, release and push again the ELEC/GEN2 pushbutton switch (3XU2).
 - (3) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(4) Do this test:

ACTION RESULT

On the ECAM control panel: page.

On the lower ECAM display unit: - push the ELEC key to get the ELEC - the correct electrical parameters of the GEN2 are shown and the AC2 busbar

is supplied by the GEN2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-816

Loss of the GEN 2 (Failure of the Electrical Wiring between the IDG 2 and the GCU 2, Voltage Regulation Function)

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	-

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599,

- A. If the fault symptom is identified by the CFDS message CHECK GCU 2 PIN C1,C5/ IDG 2 PIN A9 A10 WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the wiring for open circuit or short to ground between respectively the GCU 2 pins C/1, C/5 and the IDG 2 pins A/9 and A/10 (Ref. ASM 24-22/01).

 - (2) If the wiring is correct:
 - do a check of the resistance of the IDG 2 exciter field between the pins A/9 and A/10 (value: 7,5 ohms plus or minus 0,75 ohms at 25°C).
 - (a) If the resistance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 701-749,

- A. If the fault symptom is identified by the CFDS message CHECK GCU 2 PIN C1,C5/ IDG 2 PIN A9 A10 WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the wiring for open circuit or short to ground between respectively the GCU 2 pins C/1, C/5 and the IDG 2 pins A/9 and A/10 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 - repair it.

If chafing caused the damage, after the repair, apply protective tape PN ABS 0596 or equivalent at the location of the chafing. Attach the tape at each end with cable ties NSA 935401-03.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do a check of the resistance of the IDG 2 exciter field between the pins A/9 and A/10 (value : 7,5 ohms plus or minus 0,75 ohms at 25°C).
 - (a) If the resistance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 2 are shown and AC 2 busbar is
supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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(3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-20-00-810-817

Loss of the GEN 1 (Failure of the IDG 1 Feeder or GCU 1 POR Wiring)

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
 - sockets of the 400VC1
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific dynamometer

B. Referenced Information

PETENTE DESTGNATION

REFERENCE DESIGNATION

ESPM 204823

AMM 24-21-51-000-040 Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)

AMM 24-21-51-400-040 Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2)

AMM 24-41-00-740-002 Operational Test of the Ground Power Control Unit (GPCU)

AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from Engine 1(2)

AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power

AMM 31-60-00-860-001 EIS Start Procedure
AMM 71-00-00-710-003 Engine Automatic Start

AMM 71-00-00-710-003 Engine Automatic Start

ASM 24-22/01 AWM 24-22-01

TROUBLE SHOOTING MANUAL

3. Fault Confirmation

A. Test Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true fault, the fault confirmation is not necessary.

4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GLC 1 PIN D, E, F GCU 1 PIN B1A, B2A, B3A and upper ECAM DU warning GEN 1 FAULT:

 do a check of the voltage of each phase.
 - (1) If the voltage on each phase is correct:
 - do a check of the wiring between respectively the GCU 1 pins B/1A, B/2B, B/3A and the GLC 1 pins D, E and F (Ref. ASM 24-22/01).
 - (a) If there is no continuity:
 repair the above wiring.
 - (b) If there is continuity:
 - do a check of the wiring between respectively the IDG 1 pins
 A/T1, B/T2, C/T3 and the GLC 1 terminals D, E and F.
 - 1 If there is no continuity:
 repair the above wiring.
 - 2 If there is continuity:
 - do an impedance check between the IDG 1 terminals and the neutral.
 - NOTE: . impedance between each terminal and neutral must be 0.0105 Ohm plus or minus 0.001 Ohm at 25 deg.C.
 . the maximum difference allowed between the values read is 0.03 Ohm.
 - a If the impedance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - b If the impedance is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- (2) If the voltage on one phase is not correct:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK GLC 1 PIN D, E, F GCU 1 PIN B1A, B2A, B3A and upper ECAM DU warning GEN 1 FAULT:

 do a check of the voltage of each phase.
 - (1) If the voltage on each phase is correct:
 - do a check of the wiring between respectively the GCU 1 pins B/1A,
 B/2B, B/3A and the generator 1 contactor module (30XN1) pins 1, 2,
 3 (Ref. ASM 24-22/01).
 - (a) If there is no continuity:repair the above wiring.
 - (b) If there is continuity:
 - do a check of the wiring between respectively the IDG 1 pins A/T1, B/T2, C/T3 and the generator 1 contactor module (30XN1) pins 1, 2, 3.
 - 1 If there is no continuity: - repair the above wiring.
 - 2 If there is continuity:
 - do an impedance check between the IDG 1 terminals and the neutral.
 - NOTE: impedance between each terminal and neutral must be 0.0105 0hm plus or minus 0.001 0hm at 25 deg.C.

 the maximum difference allowed between the values read is 0.03 0hm.
 - a If the impedance is out of tolerance:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - b If the impedance is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the voltage on one phase is not correct:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-561, 563-599, 701-749, SROS

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- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-818

Loss of the GEN 1 (Failure of the IDG 1 PMG)

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	-

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.
IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-20-00

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- A. If the fault symptom is identified by the CFDS message CHECK GCU 1 PIN C2 TO C4 IDG 1 PIN B12 TO B14 and the upper ECAM DU warning GEN 1 FAULT:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 1 pins B/12, B/13, B/14 and the GCU 1 pins C/2, C/3 C/4 (Ref. ASM 24-22/01).

 - (2) If the wiring is correct:
 - do a check of the resistance of the IDG 1 PMG stator between successively 2 pins among the 3.
 - $\underline{\text{NOTE}}$: . the resistance between two pins must be between 1.33 and 1.84 Ohms at 25°C
 - . the maximum permitted difference between the values read is $0.04~\mathrm{Ohm}$.
 - (a) If the resistance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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C. Do this test:

ACTION RESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-819

Failure of the ENG1 FIRE Pushbutton Switch or its Wiring to the GCU1

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/02	

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN1 was set to OFF because of a true failure, the test configuration is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK FIRE HANDLE 1 RESET GEN1 and the upper ECAM DU warning GEN1 FAULT:
 - do a check of the status of the ENG1 FIRE pushbutton switch on the FIRE panel (1WD).
 - (1) If the pushbutton switch has not been pushed:
 - do a check for intermittent +28VDC and repair the wiring between respectively:
 - . the pin A/3A of the GCU1 and the pin A/C of the ENG/APU FIRE PNL (1WD)
 - . the pin A/3A of the GCU1 and the pin A/B3 of the SENSOR-TDC AC1 (Ref. ASM 24-22/02).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the pushbutton switch has been pushed:
 - do the necessary maintenance procedure and then reset the generator 1.
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001)
 - (2) On the panel 35VU:
 - push, release and push again the GEN1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION

RESULT

On the ECAM control panel: get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of GEN1 are shown and AC1 busbar is supplied by GEN1.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-820

Failure of the Generator 1 Feeders

- 1. Possible Causes
 - SENSOR-TDC AC,1
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-18-000-001	Removal of the TDC AC Sensor 1(2) (50XU1, 50XU2)
AMM	24-22-18-400-001	Installation of the TDC AC Sensor 1(2) (50XU1, 50XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 1 1999VT WIRING and the upper ECAM DU warning GEN 1 FAULT:
 - do a check for open circuit on any of the two parallel cables between respectively the IDG 1 pins T/1, then T/2 and T/3 and the GLC 1 pins A/D, A/E, A/F (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the SENSOR-TDC AC,1 (Ref. AMM TASK 24-22-18-000-001) and (Ref. AMM TASK 24-22-18-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 1 1999VT WIRING and the upper ECAM DU warning GEN 1 FAULT:
 - do a check for open circuit on any of the two parallel cables between respectively the IDG 1 pins T/1, then T/2 and T/3 and the generator 1 contactor module (30XN1) pins 1, 2, 3 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the SENSOR-TDC AC,1 (Ref. AMM TASK 24-22-18-000-001) and (Ref. AMM TASK 24-22-18-400-001).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit: - the correct electrical parameters of GEN 1 are shown and AC 1 busbar is supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-821

Loss of the GEN 1 (Failure of the Wiring of the Current Transformers 42XU1 and 42XU3)

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	-

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK CT 42XU1 42XU3 GCU 1 PIN B11A TO B11D WIRING and the upper ECAM DU warning GEN 1 FAULT:
 - Do a check of the wiring for open circuit between respectively:
 - . the pins A/1, A/2, A/3, A/4 of the current transformer 42XU3 and respectively:
 - .. the pins B/11A, B/11B, B/11C, B/11D of the GCU 1,
 - .. the pins A/1, A/2, A/3, A/4 of the current transformer 42XU1,
 - the pins A/1, A/6, A/7, A/8 of the IDG 1 to respectively the pins B/13D, B/13A, B/13B, B/13C of the GCU 1 (Ref. ASM 24-22/01).
 - (1) If there is no continuity:
 repair the above wiring.
 - (2) If the wiring is correct:

Do an impedance check of the coils of the current transformers 42XU1 and 42XU3 between pin A/4 and successively pins A/1, A/2 and A/3.

<u>NOTE</u>: The normal impedance is 10.15 Ohms plus or minus 3.45 Ohms.

- (a) If the impedance is out of tolerance:
 - replace the defective current transformer (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
- (b) If the impedance is correct:
 - Make sure, on current transformers 42XU1 and 42XU3 that the pin A/6 is electrically insulated from pins A/1, A/2, A/3 and A/4.
 - 1 If not insulated:
 - replace the defective current transformer (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - 2 If insulated:
 - Do an impedance check of the coil of the IDG 1 current transformer from the pin A/1 to successively pins A/6, A/7 and A/8.

 $\underline{\underline{\text{NOTE}}}$: The normal impedance is 26 Ohms plus or minus 2 Ohms at 25°C.

- a if the impedance is out of tolerance: . replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- b if the impedance is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-20-00

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-822

Failure of the IDG 1

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	2/ 24 54 000 0/0	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG 1 (GEN DIODE) and the upper ECAM DU warning GEN 1 FAULT:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is

supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-823

Loss of the GEN 1 (Failure of the Electrical Wiring between the GCU 1 and GLC 1)

1. Possible Causes

- GLC-1 (9XU1)
- GCU-1 (1XU1)
- wiring
- EGIU-1
- RELAY-GLC 1 AUX CTL

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
24-20-00-810-804		Loss of the GEN 1 (Failure of the Electrical Wiring between the GLC 1 and GCU 1)
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK GLC 1 AND/OR CONTROL CKT and the upper ECAM DU warning GEN 1 FAULT:
 - do a check of the status of the GCU 1 circuit breaker.
 - (1) If the circuit breaker is open:
 refer to (Ref. TASK 24-20-00-810-804).
 - (2) If the circuit breaker is closed:
 - do a check of the wiring for open circuit:
 - from the GCU1 pin B/2D to the pin A/D2 of the GLC1 AUX CTL relay, then the EGIU1 pin A/12A, then the GCU1 pin A/5B (the ELEC/GEN1 pushbutton switch must be pushed),
 - . from the GCU1 pin A/12D to the EGIU1 pin A/13A,
 - from the GCU1 pin A/12C to the pin A/X1 of the GLC1 AUX CTL relay (the ELEC/GEN1 pushbutton switch must be pushed),
 - . from the pin D1 of the GLC1 AUX CTL relay to the GLC1 pin B/3,
 - . from the pin A/X2 of the GLC1 AUX CTL relay to the ground (Ref. ASM 24-22/02),
 - . from the GLC1 pin B/5 to the ground (Ref. ASM 24-22/02).
 - (3) If there is no continuity:
 - repair the above defective wiring.
 - (4) If there is continuity:
 - do a check of the EGIU 1 wiring for open circuit from pin A/12A to pin A/13A.
 - (a) If there is no continuity:
 - replace the EGIU-1 (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (b) If there is continuity:
 - replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (c) If the fault continues:
 - replace the RELAY-GLC 1 AUX CTL.
 - (d) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is
supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-824

Loss of the GEN 1 (Failure of the GLC 1)

1. Possible Causes

- GLC-1 (9XU1)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/02	5

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN1 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message BTC1 OR/AND GLC1 and the warnings GEN1 FAULT and AC BUS1 FAULT on the upper ECAM DU:
 replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (1) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring:
 - . from the pin B/2D of the GCU1 (1XU1) to the pin B/25 of the GLC1 (9XU1) and to the pin B/10 of the BTC1 (11XU1)
 - . from the pin B/23 of the GLC1 (9XU1) and from the pin B/12 of the BTC1 (11XU1) to the pin B/3 of the GLC1 (9XU1), through the relay (4XU1)
 - . from the pin B/5 of the GLC1 (9XU1) to the ground
 - from the pin B/12C of the GCU1 (1XU1) to the pin X1 of the relay (4XU1), through the relay (20XU)
 - . from the pin X2 of the relay (4XU1) to the ground (Ref. ASM 24-22/02).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION	RESULT

On the ECAM control panel:

push the ELEC key to get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of GEN 1 come into view
- the AC 1 busbar is supplied by the GEN 1.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-825

Loss of the GEN 2 (Failure of the IDG 2 Feeder or GCU 2 POR Wiring)

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
 - sockets of the 400VC1
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

QTY DESIGNATION

REFERENCE

No specific

dynamometer

B. Referenced Information

______ REFERENCE **DESIGNATION**

ESPM 204823

AMM 24-21-51-000-040 Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)

AMM 24-21-51-400-040 Installation of the Integrated Drive Generator -IDG

1(2),(4000XU)

24-22-34-000-001 AMM Removal of the GCU-1(2) (1XU1, 1XU2)

Installation of the GCU-1(2) (1XU1, 1XU2) 24-22-34-400-001 AMM

AMM 24-41-00-740-002 Operational Test of the Ground Power Control Unit

(GPCU) AMM 24-41-00-861-002

Energize the Aircraft Electrical Circuits from Engine

1(2)

24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied AMM

from the External Power EIS Start Procedure

31-60-00-860-001 AMM

AMM 71-00-00-710-003 Engine Automatic Start

AMM 71-00-00-710-028

ASM 24-22/01 AWM 24-22-01 Engine Shutdown

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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3. Fault Confirmation

A. Test Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true fault, the fault confirmation is not necessary.

4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GLC 2 PIN D, E, F GCU 2 PIN B1A, B2A, B3A and the upper ECAM DU warning GEN 2 FAULT:

 do a check of the voltage of each phase.
 - (1) If the voltage on each phase is correct:
 - do a check of the wiring between respectively the GCU 2 pins B/1A, B/2B, B/3A and the GLC 2 pins D, E and F (Ref. ASM 24-22/01).
 - (a) If there is no continuity:repair the above wiring.
 - (b) If there is continuity:
 - do a check of the wiring between respectively the IDG 2 pins
 A/T1, B/T2, C/T3 and GLC 2 terminals D, E and F.
 - 1 If there is no continuity:
 repair the above wiring.
 - 2 If there is continuity:
 - do an impedance check between the IDG 2 terminals and the neutral.
 - NOTE: . impedance between each terminal and neutral must be 0.0105 Ohm plus or minus 0.001 Ohm at 25°C.

 . the maximum difference allowed between the values read is 0.03 Ohm.
 - a If the impedance is out of tolerance:
 replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040)
 and (Ref. AMM TASK 24-21-51-400-040).
 - \underline{b} If the impedance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- (2) If the voltage on one phase is not correct:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK GLC 2 PIN D, E, F GCU 2 PIN B1A, B2A, B3A and the upper ECAM DU warning GEN 2 FAULT:

 do a check of the voltage of each phase.
 - (1) If the voltage on each phase is correct:
 - do a check of the wiring between respectively the GCU 2 pins B/1A, B/2B, B/3A and the generator 2 contactor module (30XN2) pins 1, 2, 3 (Ref. ASM 24-22/01).
 - (a) If there is no continuity:repair the above wiring.
 - (b) If there is continuity:
 - do a check of the wiring between respectively the IDG 2 pins A/T1, B/T2, C/T3 and the generator 2 contactor module (30XN2) pins 1, 2, 3.
 - 1 If there is no continuity: - repair the above wiring.
 - 2 If there is continuity:
 - do an impedance check between the IDG 2 terminals and the neutral.
 - NOTE : . impedance between each terminal and neutral must be 0.0105 Ohm plus or minus 0.001 Ohm at 25°C.
 . the maximum difference allowed between the values read is 0.03 Ohm.
 - a If the impedance is out of tolerance:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - b If the impedance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the voltage on one phase is not correct:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-561, 563-599, 701-749, SROS

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- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 2 are shown and AC 2 busbar is
supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-826

Loss of the GEN 2 (Failure of the IDG 2 PMG)

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION

IN IT.
IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599,

- A. If the fault symptom is identified by the CFDS message CHECK GCU 2 PIN C2 TO C4 IDG 2 PIN B12 TO B14 and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 2 pins B/12, B/13, B/14 and the GCU 2 pins C/2, C/3, C/4 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - do a check of the resistance of the IDG 2 PMG stator between successively 2 pins among the 3.
 - $\underline{\underline{\text{NOTE}}}$: . the resistance between two pins must be between 1.33 and 1.84 Ohms at $25\,^{\circ}\text{C}$
 - . the maximum permitted difference between the values read is $0.04\ Ohm$.
 - (a) If the resistance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 701-749,

- A. If the fault symptom is identified by the CFDS message CHECK GCU 2 PIN C2 TO C4 IDG 2 PIN B12 TO B14 and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 2 pins B/12, B/13, B/14 and the GCU 2 pins C/2, C/3, C/4 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct:
 - repair it.

If chafing caused the damage, after the repair, apply protective tape PN ABS 0596 or equivalent at the location of the chafing. Attach the tape at each end with cable ties NSA 935401-03.

- (2) If the wiring is correct:
 - do a check of the resistance of the IDG 2 PMG stator between successively 2 pins among the 3.
 - $\underline{\text{NOTE}}$: . the resistance between two pins must be between 1.33 and 1.84 Ohms at 25°C
 - . the maximum permitted difference between the values read is $0.04\ \mathrm{Ohm}$.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (a) If the resistance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (b) If the resistance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:

 the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-827

Failure of the ENG2 FIRE Pushbutton Switch or its Wiring to the GCU2

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/03	

3. Fault Confirmation

A. Test

Not applicable.

 $\underline{{\tt NOTE}}$: As the GEN2 was set to OFF because of a true failure, the test configuration is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK FIRE HANDLE 2 RESET GEN2 and the upper ECAM DU warning GEN2 FAULT:
 - do a check of the status of the ENG2 FIRE pushbutton switch on the FIRE panel (1WD).
 - (1) If the pushbutton switch has not been pushed:
 - do a check for intermittent +28VDC and repair the wiring between respectively:
 - . the pin A/3A of the GCU2 and the pin C/V of the ENG/APU FIRE PNL (1WD)
 - . the pin A/3A of the GCU2 and the pin A/B3 of the SENSOR-TDC AC2 (Ref. ASM 24-22/03).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the pushbutton switch has been pushed:
 - do the necessary maintenance procedure and then reset the generator 2.
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001)
 - (2) On the panel 35VU:
 - push, release and push again the GEN2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION

RESULT

On the ECAM control panel: get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of GEN2 are shown and AC2 busbar is supplied by GEN2.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-828

Failure of the Generator 2 Feeders

- 1. Possible Causes
 - SENSOR-TDC AC,2
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM AMM	24-22-18-000-001 24-22-18-400-001	Removal of the TDC AC Sensor 1(2) (50XU1, 50XU2) Installation of the TDC AC Sensor 1(2) (50XU1, 50XU2)	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM ASM	71-00-00-710-028 24-22/01	Engine Shutdown	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 2 1999VT WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - do a check for open circuit on any of the two parallel cables between respectively the IDG 2 pins T/1, then T/2 and T/3 and the GLC 2 pins A/D, A/E, A/F (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct: - repair it.
 - (2) If the wiring is correct:
 - replace the SENSOR-TDC AC,2 (Ref. AMM TASK 24-22-18-000-001) and (Ref. AMM TASK 24-22-18-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK IDG 2 1999VT WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - do a check for open circuit on any of the two parallel cables between respectively the IDG 2 pins T/1, then T/2 and T/3 and the generator 2 contactor module (30XN2) pins 1, 2, 3 (Ref. ASM 24-22/01).
 - (1) If the wiring is not correct: - repair it.
 - (2) If the wiring is correct:
 - replace the SENSOR-TDC AC,2 (Ref. AMM TASK 24-22-18-000-001) and (Ref. AMM TASK 24-22-18-400-001).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit: - the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-829

Loss of GEN 2 (Failure of the Wiring of the Current Transformers 42XU2 and 42XU4)

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM ASM	71-00-00-710-028 24-22/01	Engine Shutdown

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK CT 42XU2 42XU4 GCU 1 PIN B11A TO B11D WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - Do a check of the wiring for open circuit between respectively:
 - . the pins A/1, A/2, A/3, A/4 of the current transformer 42XU4 and:
 - .. the pins B/11A, B/11B, B/11C, B/11D of the GCU 2,
 - .. the pins A/1, A/2, A/3, A/4 of the current transformer 42XU2,
 - . the pins A/1, A/6, A/7, A/8 of the IDG 2 and the pins B/13D, B/13A, B/13B, B/13C of the GCU 2 (Ref. ASM 24-22/01).
 - (1) If there is no continuity:
 - repair the above wiring.
 - (2) If the wiring is correct:
 - Do an impedance check of the coils of the current transformers
 42XU2 and 42XU4 between pin A/4 and successively pins A/1, A/2 and A/3.

NOTE: The normal impedance is 10.15 Ohms plus or minus 3.45 Ohms.

- (a) If the impedance is out of tolerance:
 - replace the defective current transformer (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
- (b) If the impedance is correct:
 - Make sure, on current transformers 42XU2 and 42XU4 that the pin A/6 is electrically insulated from pins A/1, A/2, A/3 and A/4.
 - 1 If not insulated:
 - replace the defective current transformer (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - 2 If insulated:
 - Do an impedance check of the coil of the IDG 2 current transformer from the pin A/1 to successively pins A/6, A/7 and A/8.

 $\underline{\underline{\text{NOTE}}}$: The normal impedance is 26 Ohms plus or minus 2 Ohms at 25°C.

- a if the impedance is out of tolerance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- b If the impedance is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:

 the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-830

Failure of the IDG 2

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	2/ 24 54 000 0/0	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG 2 (GEN DIODE) and the upper ECAM DU warning GEN 2 FAULT:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:
- the correct electrical parameters of
GEN 2 are shown and AC 2 busbar is

supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-831

Loss of the GEN 2 (Failure of the Electrical Wiring between the GCU 2 and GLC 2)

1. Possible Causes

- EGIU-2 (22XU2)
- GLC-2 (9XU2)
- GCU-2 (1XU2)
- wiring
- RELAY-GLC2 AUX CTL (4XU2)

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
24-20-00-810-812		Loss of the GEN 2 (Failure of the Electrical Wiring between the GLC 2 and GCU 2)
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/02	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK GLC 2 AND/OR CONTROL CKT and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the status of the GCU 2 circuit breaker.
 - (1) If the circuit breaker is open:
 refer to (Ref. TASK 24-20-00-810-812).
 - (2) If the circuit breaker is closed:
 - do a check of the wiring for open circuit:
 - from the GCU 2 pin B/2D to successively the GLC 2 pin B/3, EGIU 2 pin A/12A, GCU 2 pin A/5B,
 - . from the GCU 2 pin A/12D to the EGIU 2 pin A/13A,
 - from the GCU 2 pin A/12C to the pin X/1 of the current transformer 4XU2,
 - . from the pin X/2 of the current transformer 4XU2 to the ground,
 - . from the GLC2 pin B/5 to the ground (Ref. ASM 24-22/02).
 - (3) If there is no continuity:
 - repair the above defective wiring.
 - (4) If there is continuity:
 - do a check of the EGIU 2 wiring for open circuit from pin A/12A to pin A/13A.
 - (a) If there is no continuity:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (b) If there is continuity:
 - replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (c) If the fault continues:
 - replace the RELAY-GLC2 AUX CTL (4XU2).
 - (d) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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- (2) On the ELEC panel 35VU: - push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION

RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit: - the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-832

Loss of the GEN2 (Failure of the GLC 2)

1. Possible Causes

- GLC-2 (9XU2)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/03	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN2 was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message BTC2 OR/AND GLC2 and the warnings GEN2 FAULT and AC BUS2 FAULT on the upper ECAM DU:
 replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (1) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring:
 - . from the pin B/2D of the GCU2 (1XU2) to the pin B/25 of the GLC2 (9XU2) and to the pin B/10 of the BTC2 (11XU2)
 - . from the pin B/23 of the GLC2 (9XU2) and from the pin B/12 of the BTC2 (11XU2) to the pin B/3 of the GLC2 (9XU2), through the relay (4XU2)
 - . from the pin B/5 of the GLC2 (9XU2) to the ground
 - from the pin B/12C of the GCU2 (1XU2) to the pin A/X1 of the relay (4XU2)
 - . from the pin A/X2 of the relay (4XU2) to the ground (Ref. ASM 24-22/03).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION	RESULT

On the ECAM control panel:

push the ELEC key to get the ELEC page.

On the lower ECAM display unit:

- the correct electrical parameters of GEN 2 come into view
- the AC 2 busbar is supplied by the GEN 2.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-835

Failure of the APU Generator Control Unit

- 1. Possible Causes
 - GCU-APU (1XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-34-000-001 24-23-34-400-001 24-41-00-861-002	Removal of the GCU-APU (1XS) Installation of the GCU-APU (1XS) Energize the Aircraft Electrical Circuits from the
	24-41-00-862-002	APU De-energize the Aircraft Electrical Circuits Supplied from the APU

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GCU APU and the upper ECAM DU warning APU GEN FAULT:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in **APU** configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-836

Failure of the APU Availability Relay

1. Possible Causes

- GCU-APU (1XS)
- ECB (59KD)
- RELAY-APU AVAIL (6KD)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
		· - · - · - · - · · - · · · · · ·
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	49-61-34-000-001	Removal of the Electronic Control Box (ECB) (59KD) (GTCP 36-300)
AMM	49-61-34-000-002	Removal of the Electronic Control Box (ECB) (59KD) (APS 3200)
AMM	49-61-34-400-001	<pre>Installation of the Electronic Control Box (ECB) (59KD) (GTCP 36-300)</pre>
AMM	49-61-34-400-002	Installation of the Electronic Control Box (ECB) (59KD) (APS 3200)
ASM	24-23/02	
ASM	49-61/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-250, 252-253, 276-299, 426-450, 476-499, R 503-549, 551-599, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GCU APU PIN A6A APU CTL RLY 6KD CKT and the upper ECAM DU warning APU GEN FAULT:

 replace the RELAY-APU AVAIL (6KD).
 - (1) If the fault continues:
 - do a check of the wiring for open circuit:
 - between the APU generator pin B/2B and the APU availability relay pin A/2,
 - then between the APU GCU pin A/6A and the APU availability relay pin A/1,
 - . then between the APU relay pin A/X1 and the ECB pin B/J6 (Ref. ASM 24-23/02) and (Ref. ASM 49-61/01).
 - (a) If the wiring is not correct:
 - repair the above defective wiring.
 - (b) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
 - (c) If the fault continues:
 - replace the ECB (59KD) (Ref. AMM TASK 49-61-34-000-002) and (Ref. AMM TASK 49-61-34-400-002).

**ON A/C 251-251,

- A. If the fault symptom is identified by the CFDS message CHECK GCU APU PIN A6A APU CTL RLY 6KD CKT and the upper ECAM DU warning APU GEN FAULT:

 replace the RELAY-APU AVAIL (6KD).
 - (1) If the fault continues:
 - do a check of the wiring for open circuit:
 - between the APU generator pin B/2B and the APU availability relay pin A/2,
 - then between the APU GCU pin A/6A and the APU availability relay pin A/1,
 - . then between the APU relay pin A/X1 and the ECB pin B/J6 (Ref. ASM 24-23/02) and (Ref. ASM 49-61/01).
 - (a) If the wiring is not correct:
 - repair the above defective wiring.
 - (b) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (c) If the fault continues:
 - replace the ECB (59KD) (Ref. AMM TASK 49-61-34-000-001) and (Ref. AMM TASK 49-61-34-400-001).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - **B.** Make sure that the aircraft electrical circuits operate correctly in **APU** configuration:
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-837

APU Generator Phase Inversion

- 1. Possible Causes
 - GCU-APU (1XS)
 - GEN-APU (8XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMI	M 24-23-34-000-001	Removal of the GCU-APU (1XS)	
AMI	4 24-23-34-400-001	Installation of the GCU-APU (1XS)	
AMI	1 24-23-51-000-001	Removal of the APU Generator 8XS	
AMI	1 24-23-51-400-001	Installation of the APU Generator 8XS	
AMI	1 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMI	1 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
ASI	1 24-23/01		

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549,
- R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GEN APU PHASE SEQ and the upper ECAM DU warning APU GEN FAULT:
 - do a check of the wiring for phase inversion between respectively the APU generator pins T/1, T/2 and T/3 and the APU GLC pins A/F, A/E, A/D (Ref. ASM 24-23/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do a check of the wiring for phase inversion between respectively the APU GCU pins B/1A, B/2B, B/3A and the APU GLC pins A/F, A/E and A/D (Ref. ASM 24-23/01).

 - (b) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

- (3) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK GEN APU PHASE SEQ and the upper ECAM DU warning APU GEN FAULT:
 - do a check of the wiring for phase inversion between respectively the APU generator pins T/1, T/2 and T/3 and the APU/EXT power contactor module (29XN) pins 7, 8, 9 (Ref. ASM 24-23/01).

 - (2) If the wiring is correct:
 - do a check of the wiring for phase inversion between respectively the APU GCU pins B/1A, B/2B, B/3A and the APU/EXT power contactor module (29XN) pins 7, 8, 9 (Ref. ASM 24-23/01).
 - (a) If the wiring is not correct:
 repair it.
 - (b) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

- (3) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-561, 563-599, 701-749, SROS

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- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. Make sure that the aircraft electrical circuits operate correctly.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002)

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-20-00-810-838

Failure of the Internal Circuit Breaker of the APU GCU

- 1. Possible Causes
 - GCU-APU (1XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test Not applicable.

<u>NOTE</u>: As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK GLC APU GCU APU PIN B2D WIRING and the upper ECAM DU warning APU GEN FAULT:

 reset the circuit breaker on the front of the APU GCU.
 - (1) If the circuit breaker trips:
 - Do a check of the wiring for short to ground successively between:
 - . the APU GCU pin B/2D and APU GLC pin B/3,
 - . the APU GCU pin B/2D and APU GCU pins A/5B, A/12D, A/13D, A/6A, A/6C, $\frac{1}{2}$
 - . the APU GCU pin B/2D and EGIU 2 pin B/6D,
 - the APU GCU pin A/12C and APU GLC AUX pin X/1,
 - . the APU availability relay (6KD) pin A/1 and APU GCU pin A/13C and EGIU 2 pin B/7C (Ref. ASM 24-23/02).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (b) If the wiring is correct:
 replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-839

Feeder Short Circuits between the APU Generator and APU GLC

- 1. Possible Causes
 - GCU-APU (1XS)
 - GEN-APU (8XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)	
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
ASM	24-23/01		

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GEN APU FEEDER PIN T1 T2 T3 SHORT TO GROUND and the upper ECAM DU warning APU GEN FAULT.
 - disconnect the feeders from the APU generator terminals T/1, T/2, T/3 and $N_{\scriptscriptstyle -}$
 - remove the wire connected on the GLC APU contactor pin A/D to the circuit breaker APU GEN EGIU2 (23XS).
 - do a check of the wiring for short to ground on the feeders between the APU generator terminals T/1, T/2, T/3 and the APU GLC terminals A/F, A/E, A/D (Ref. ASM 24-23/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (1) If the wiring is not correct:
 - repair the above feeder.
- (2) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- (3) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK GEN APU FEEDER PIN T1 T2 T3 SHORT TO GROUND and the upper ECAM DU warning APU GEN FAULT:
 - disconnect the feeders from the APU generator terminals T/1, T/2, T/3 and N_{\star}
 - remove the wire connected to the APU/EXP power contactor module (29XN) pin 9 to the circuit breaker APU GEN EGIU2 (23XS).
 - do a check of the wiring for short to ground on the feeders between the APU generator terminals T/1, T/2, T/3 and the APU/EXP power contactor module (29XN) pins 7, 8, 9 (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 - repair the above feeder.
 - (2) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
 - (3) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - **B.** Make sure that the aircraft electrical circuit operate correctly in **APU** configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-20-00-810-840

Failure of the Exciter Field of the APU Generator

1. Possible Causes

- GEN-APU (8XS)
- GCU-APU (1XS)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
л м м	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM		
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
AMM	49-91-41-200-002	Remove and Discard Oil Filter Elements (8069KM) and (8076KM) (131-9(A))
AMM	49-91-41-920-001	Discard Pressure Oil Filter Element (APS 3200)
AMM	49-91-41-920-002	Replace AC-Generator Scavenge Filter-Element (8069KM) (APS 3200)
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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R **ON A/C 201-225, 227-227, 229-250, 252-253, 276-299, 426-450, 476-499, R 503-549, 551-599, 701-749,

- A. If the fault symptom is identified by the CFDS message CHECK GCU APU PIN C1 C5 GEN APU PIN A9 A10 and the upper ECAM DU warning APU GEN FAULT:
 - do a check of the wiring for open circuit or short to ground between respectively the APU generator pins A/9, A/10 and the APU GCU pins C/1 and C/5 (Ref. ASM 24-23/01).
 - NOTE : Do the check of the pressure oil filter element and the AC-generator scavenge filter element for metal contamination (Ref. AMM TASK 49-91-41-920-002).
 - (1) If the wiring is not correct: - repair it.
 - (2) If the wiring is correct:
 - do a resistance check of the exciter field of the APU GEN between the pins A/9 and A/10. Normal resistance: 7.67 Ohms plus or minus 0.73 Ohms at 25°C.
 - (a) If the resistance is out of the specified limits: - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (b) If the resistance is in the specified limits:
 - make sure that the pins A/9 and A/10 are electrically insulated from the case.
 - 1 If not insulated:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001)
 and (Ref. AMM TASK 24-23-51-400-001).
 - 2 If insulated:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

<u>NOTE</u>: Do not remove the APU GCU before you do the other steps of the trouble shooting.

**ON A/C 247-253,

Post SB 49-1069 For A/C 247-250,252-253,

- A. If the fault symptom is identified by the CFDS message CHECK GCU APU PIN C1 C5 GEN APU PIN A9 A10 and the upper ECAM DU warning APU GEN FAULT:
 - do a check of the wiring for an open circuit or a short to ground between:
 - . pin A/9 of the APU GEN (8XS) and pin AC/1 of the APU GCU (1XS)
 - . pin A/10 of the APU GEN and pin AC/5 of the APU GCU (Ref. ASM 24-23/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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NOTE : Do the check of the oil filters (Ref. AMM TASK 49-91-41-200-002) for metal contamination.

- (1) If the wiring is not correct:
 repair it.
- (2) If the wiring is correct:
 - do the check of the resistance of the exciter field of the APU GEN between pins A/9 and A/10 (7.67 Ohms plus or minus 0.73 Ohms at 25 deg.C) (Ref. ASM 24-23/01).
 - (a) If the resistance values are out of the specified limits: - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (b) If the resistance values are in the specified limits:
 - make sure there is electrical insulation between the pins A/9 and A/10 of the APU GEN and the case.
 - 1 If there is no insulation:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - 2 If there is insulation:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-841

Failure of the APU Feeder

- 1. Possible Causes
 - GCU-APU (1XS)
 - GEN-APU (8XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
ASM	24-23/01	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GLC APU PIN D, E, F GCU APU PIN B1A, B2B, B3A and the upper ECAM DU warning: APU GEN FAULT:
 - do a check of the wiring:
 - between respectively the APU GCU pins B/1A, B/2B, B/3A and the APU GLC pins F, E, D
 - . then between respectively the APU GEN terminals T/1, T/2, T/3 and the APU GLC pins F, E, D (Ref. ASM 24-23/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do an impedance check of the APU generator stator between terminals
 T/1, T/2, T/3 and terminal N.

NOTE: The normal impedance between each terminal and the neutral is 9.35 m.ohms plus or minus 1.25 m.ohms at 25°C.

- (a) If the impedance is in the specified limits:
 - make sure that the pins T/1, T/2, T/3 are electrically insulated from the case
 - then, after you have removed the neutral lead, do a check of the pins T/1, T/2 or T/3 for short to ground.
 - 1 if insulated:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

<u>NOTE</u>: Do not remove the APU GCU before you do the other steps of the trouble shooting.

- 2 If not insulated:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- (b) If the impedance is out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

**ON A/C 432-450, 481-499, 563-599,

- A. If the fault symptom is identified by the CFDS message CHECK GLC APU PIN D, E, F GCU APU PIN B1A, B2B, B3A and the upper ECAM DU warning APU GEN FAULT:
 - do a check of the wiring between:
 - respectively the APU GCU pins B/1A, B/2B, B/3A and the APU/EXT power contactor module (29XN) pins 7, 8, 9.
 - then respectively the APU GEN terminals T/1, T/2, T/3 and the APU/EXT power contactor module (29XN) pins 7, 8, 9 (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 - repair it.
 - (2) If the wiring is correct:
 - do an impedance check of the APU generator stator between terminals
 T/1, T/2, T/3 and terminal N.

NOTE : The normal impedance between each terminal and the neutral is 9.35 m.ohms plus or minus 1.25 m.ohms at 25°C.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-561, 563-599, 701-749, SROS

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- (a) If the impedance is in the specified limits:
 - make sure that the pins T/1, T/2, T/3 are electrically insulated from the case
 - then, after you have removed the neutral lead, do a check of the pins T/1, T/2 or T/3 for short to ground.
 - 1 If insulated:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

- 2 If not insulated:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- (b) If the impedance is out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-842

Failure of the APU Generator PMG

1. Possible Causes

- GEN-APU (8XS)
- GCU-APU (1XS)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	2/ 27 7/ 200 204	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK GCU APU PIN C2 TO C4 GEN APU PIN A12 TO A14 and the upper ECAM DU warning APU GEN FAULT:
 - Do a check of the wiring for open circuit or short to ground between respectively the APU GEN pins A/12, A/13, A/14 and the APU GCU pins C/2, C/3, C/4 (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 - repair it.

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- (2) If the wiring is correct:
 - Do an impedance check of the APU generator PMG stator, between successively 2 among the 3 pins A/12, A/13 and A/14, then do a check for open circuit between the APU generator pins A/12, A/13, A/14 and the case.
 - $\underline{\text{NOTE}}$: The normal impedance between 2 pins is 0.868 ohms plus or minus 0.156 ohms at 20°C.
 - (a) If the values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (b) If the values are in the specified limits:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-843

Failure of the APU AC Current Transformer or its Wiring

1. Possible Causes

- CT-AC, APU GEN (42XS)
- GEN-APU (8XS)
- GCU-APU (1XS)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-17-000-001	Removal of the AC Current Transformer (42XS)	
AMM	24-23-17-400-001	Installation of the AC Current Transformer (42XS)	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)	
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	<pre>Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>	
ASM	24-23/01	_	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CHECK CT 42XS GCU APU PIN B11A TO B11B WIRING and the upper ECAM DU warning APU GEN FAULT:
 - Do a check of the wiring for open circuit between respectively:
 - . the pins 1 to 4 of the APU generator AC current transformer and the APU GCU pins B/11A to B/11D
 - . the pins B/13A to B/13D of the APU GCU and the pins A/6, A/7, A/8, A/1 of the APU GEN (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 repair it.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - Do an impedance check of the internal wiring of the AC current transformer between pins A/1 and successively pins A/2, A/3 and A/4 then do a check for open circuit between pins A/6 and successively A/1, A/2, A/3, A/4.

NOTE: The normal impedance between pin A/4 and each other pin is 10.15 Ohms plus or minus 3.45 Ohms at 25°C.

- (a) If the values are out of the specified limits:
 - repair the CT-AC, APU GEN (42XS) (Ref. AMM TASK 24-23-17-000-001) and (Ref. AMM TASK 24-23-17-400-001).
- (b) If the values are in the specified limits:
 - Do an impedance check of the internal wiring of the APU generator between pin A/1 and successively pins A/6, A/7 and A/8, then do a check for open circuit between pins A/1, A/6, A/7, A/8 and the case.

NOTE: The normal impedance between pin A/1 and each other pin is 24.1 Ohms plus or minus 2.41 Ohms at 25°C.

- 1 If the values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001) .
- 2 If the values are in the specified limits:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001) .
- B. Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-844

Failure of the APU Generator

- 1. Possible Causes
 - GEN-APU (8XS)
 - GCU-APU (1XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	2/ 27 7/ 202 224	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
AMM	49-91-41-920-001	Discard Pressure Oil Filter Element (APS 3200)
AMM	49-91-41-920-002	Replace AC-Generator Scavenge Filter-Element (8069KM) (APS 3200)
AMM	49-91-45-200-002	Remove and discard Lube Filter and Generator Scavenge Filter Elements (GTCP 36-300)
ASM	24-23/01	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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R **ON A/C 201-225, 227-227, 229-250, 252-253, 276-299, 426-431, 476-480, R 503-549, 551-561, 701-749,

- A. If the fault symptom is identified by the CFDS message GEN APU (GEN DIODE) and the upper ECAM DU warning APU GEN FAULT:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - NOTE : Do the check of the APU alternator and lube-pump oil filters for metal contamination (Ref. AMM TASK 49-91-41-920-001) and (Ref. AMM TASK 49-91-41-920-002).
 - (1) If the fault continues:
 - do a check of the wiring for short to open between respectively the APU GCU pins C/1, C/5 and the APU generator pins A/9, A/10 (Ref. ASM 24-23/01).

 - (b) If the wiring is correct:
 - do a check of the wiring for open or short circuit between: . respectively the APU generator terminals T/1, T/2, T/3 and the APU GLC terminals A/F, A/E, A/D, . then respectively the APU GLC terminals A/D, A/E, A/F and the APU GCU pins B/3A, B/2B, B/1A.
 - 1 If the wiring is not correct: - repair it.
 - 2 If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

**ON A/C 251-251,

- A. If the fault symptom is identified by the CFDS message GEN APU (GEN DIODE) and the upper ECAM DU warning APU GEN FAULT:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - NOTE : Do the check of the APU alternator and lube-pump oil filters for metal contamination (Ref. AMM TASK 49-91-45-200-002).
 - (1) If the fault continues:
 - do a check of the wiring for short to open between respectively the APU GCU pins C/1, C/5 and the APU generator pins A/9, A/10 (Ref. ASM 24-23/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, 551-561, 701-749,

24-20-00

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- (3) If the wiring is correct:
 - do a check of the wiring for open or short circuit between respectively the APU generator terminals T/1, T/2, T/3 and the APU GLC terminals A/F, A/E, A/D, then between respectively the APU GLC terminals A/D, A/E, A/F and the APU GCU pins B/3A, B/2B, B/1A.

 - (b) If the wiring is correct:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

- R **ON A/C 432-450, 481-499, 563-599,
 - A. If the fault symptom is identified by the CFDS message GEN APU (GEN DIODE) and the upper ECAM DU warning APU GEN FAULT:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - NOTE: Do the check of the APU alternator and lube-pump oil filters for metal contamination (Ref. AMM TASK 49-91-41-920-001) and (Ref. AMM TASK 49-91-41-920-002).
 - (1) If the fault continues:
 - do a check of the wiring for short to open between respectively the APU GCU pins C/1, C/5 and the APU generator pins A/9, A/10 (Ref. ASM 24-23/01).
 - (a) If the wiring is not correct:
 repair it.
 - (b) If the wiring is correct:
 - do a check of the wiring for open or short circuit between:
 . respectively the APU generator terminals T/1, T/2, T/3 and
 the APU/EXT power contactor module (29XN) pins 7, 8, 9
 . then respectively the APU/EXT power contactor module (29XN)
 pins 7, 8, 9 and the APU GCU pins B/3A, B/2B, B/1A.
 - 1 If the wiring is not correct: - repair it.
 - 2 If the wiring is correct:
 replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001)
 and (Ref. AMM TASK 24-23-34-400-001).

251-251, 432-450, 481-499, 563-599,

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EFF:

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NOTE : Do not remove the APU GCU before you do the other steps of the trouble shooting.

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-845

Failure of the APU GLC

- 1. Possible Causes
 - GLC-APU (3XS)
 - GCU-APU (1XS)
 - wiring
 - RELAY-APU GLC AUX CTL (4XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GLC APU and the upper ECAM DU warning APU GEN FAULT:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (1) If the fault continues:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the fault continues:
 - do a check of the wiring for open circuit between the APU GLC pin B/3 and the APU GLC auxiliary control relay (4XS) pin B1 through the EPC (3XG), then between the APU GLC auxiliary control relay (4XS) pin B2 and the circuit breaker (5XU) through the 5XG, 9XU1, 9XU2, 11XU1, 11XU2 (Ref. ASM 24-23/02).
 - (a) If the wiring is not correct:
 repair it.
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

SROS

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-846

Failure of the Electrical Wiring between the APU GCU and the APU GLC

1. Possible Causes

- GLC-APU (3XS)
- GCU-APU (1XS)
- wiring
- RELAY-APU GLC AUX CTL (4XS)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
24-20-00-810-838		Failure of the Internal Circuit Breaker of the APU GCU
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
ASM	24-23/02	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN APU was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message: CHECK GLC APU AND/OR CONTROL CKT and the warning APU GEN FAULT on the upper ECAM display unit:
 - do a check of the status of the APU GCU circuit breaker.
 - (1) If the circuit breaker is open:
 refer to (Ref. TASK 24-20-00-810-838).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-20-00

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- (2) If the circuit breaker is closed:
 - do a check of the wiring between respectively:
 - the pin B/2D of the APU GCU and the pin B/3 of the APU GLC, through relays (5XG, 4XS), BTC1, BTC2, GLC1, CLC2, EPC
 - . the pin B/2D and the pins A/12D, A/6A, A/13D of the APU GCU,
 - . the pin A/12C of the APU GCU and the pin X1 of the APU GLC auxiliary control relay (4XS), via the ELEC/APU GEN pushbutton switch (2XS),
 - . the pin X2 of the APU GLC auxiliary control relay and the ground,
 - . the pin B/5 of the APU GLC and the ground, (Ref. ASM 24-23/02).
 - (a) If the wiring is not correct:
 repair it.
 - (b) If the wiring is correct:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (c) If the fault continues:
 - replace the RELAY-APU GLC AUX CTL (4XS).
 - (d) If the fault continues:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energizee the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-847

Low Oil Pressure of the IDG 1

1. Possible Causes

- IDG (4000XU)
- EGIU-1 (22XU1)
- GCU-1 (1XU1)
- oil cooler
- tubings
- wiring

2. Job Set-up Information

A. Referenced Information

		DESIGNATION
24-2	1-00-810-815	The Differential Pressure Indicator (DPI) of the IDG1 Oil Filter is Extended - Alternate Procedure
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>
AMM	12-13-24-680-040	Draining of the Oil from the IDG
AMM	24-21-00-210-044	Inspection of the Filter Element(s)
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter
		Differential-Pressure Indicator (DPI)
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check
		of the Electrical Circuits
AMM	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-000-004	Removal of the IDG Cooling Oil-out Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-004	Installation of the IDG Cooling Oil-out tubes and Hoses
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-000-041	Removal of the IDG Oil Filter(s)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-21-51-400-041	Installation of the IDG Oil Filter(s)
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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REFERENCE		DESIGNATION	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied	
		from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil	
		Cooler Assembly	
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG)	
		Oil Cooler Assembly	
ASM	24-21/01	•	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

A. If the fault symptom is identified by the CFDS message IDG 1 LOW OIL PRESSURE and the upper ECAM DU warning IDG 1 OIL LO PR:

NOTE: You can find this message with other CFDS fault messages. Do this trouble shooting procedure first.

- do a check of the IDG1 oil level (Ref. AMM TASK 24-21-00-210-046).
- (1) If the oil level is low:
 - do a visual inspection of the IDG1 and external system (tubings, cooler) for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - (a) If you find no leak:
 - add oil (Ref. AMM TASK 12-13-24-612-041).
- (2) If the oil level is correct:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG1 (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the DPI is extended:
 - do the alternate procedure (Ref. TASK 24-21-00-810-815).
 - (b) If the DPI is not extended:
 - do an inspection of the IDG1 filter element (Ref. AMM TASK 24-21-00-210-044).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- 1 . If the IDG1 filter element is damaged or,
 - . If the filter element is bypassed (metal particles on the filter element) or,
 - . If you think it was bypassed (filter not installed correctly, or filter 0-ring damaged, or you are not sure that the filter element was bypassed) or,
 - . If you smell a fuel odour from the filter element or the filter cover:
 - replace the IDG1 oil cooler (Ref. AMM TASK 73-11-60-000-002)
 and (Ref. AMM TASK 73-11-60-400-002),
 - clean the tubings of the external system:

NOTE: Clean the tubings in a shop.

- Remove the tubings (Ref. AMM TASK 24-21-49-000-003) (Ref. AMM TASK 24-21-49-000-004), clean them, and install them (Ref. AMM TASK 24-21-49-400-003) (Ref. AMM TASK 24-21-49-400-004).
- 2 If the filter element shows signs of contamination (contains large metallic chips or shows signs of internal damage):
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- 3 If the filter element does not show signs of contamination:
 - drain the oil (Ref. AMM TASK 12-13-24-680-040),
 - replace the IDG1 oil filter (Ref. AMM TASK 24-21-51-000-041) and (Ref. AMM TASK 24-21-51-400-041),
 - fill the IDG1 with oil (Ref. AMM TASK 12-13-24-612-041).
 - a If the fault continues:
 - remove the wiring harness from IDG1 connector C and do a check for ground between the EGIU1 (22XU1) pin AA/5B, the GCU1 (1XU1) pin AA/15D and IDG1 wiring harness pin C/A (Ref. ASM 24-21/01).
 - . If there is ground:
 - remove the EGIU1 and the GCU1 one after the other and do a check for ground:
 - * If there is no ground:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002) or,
 - the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - * If there is ground, repair the wiring.
 - . If there is no ground:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

TROUBLE SHOOTING MANUAL

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

......

On the ECAM control panel:

page.

On the lower ECAM display unit:

- push the ELEC key to get the ELEC - the correct electrical parameters of GEN 1 are shown and the AC 1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-848

Low Oil Pressure of the IDG 2

1. Possible Causes

- IDG (4000XU)
- EGIU-2 (22XU2)
- GCU-2 (1XU2)
- oil cooler
- tubings
- oil filter
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
24-2	1-00-810-816	The Differential Pressure Indicator (DPI) of the IDG2 Oil Filter is Extended - Alternate Procedure
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>
AMM	12-13-24-680-040	Draining of the Oil from the IDG
AMM	24-21-00-210-044	Inspection of the Filter Element(s)
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter
		Differential-Pressure Indicator (DPI)
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits
AMM	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-000-004	Removal of the IDG Cooling Oil-out Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-004	Installation of the IDG Cooling Oil-out tubes and Hoses
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-000-041	Removal of the IDG Oil Filter(s)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-21-51-400-041	Installation of the IDG Oil Filter(s)
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TROUBLE SHOOTING MANUAL

REFERENCE		DESIGNATION	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied	
		from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil	
		Cooler Assembly	
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG)	
		Oil Cooler Assembly	
ASM	24-21/01	•	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

A. If the fault symptom is identified by the CFDS message IDG 2 LOW OIL PRESSURE and the upper ECAM DU warning IDG 2 OIL LO PR:

NOTE: You can find this message with other CFDS fault messages. Do this trouble shooting procedure first.

- do a check of the IDG2 oil level (Ref. AMM TASK 24-21-00-210-046).
- (1) If the oil level is low:
 - do a visual inspection of the IDG2 and external system (tubings, cooler) for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - (a) If you find no leak:
 - add oil (Ref. AMM TASK 12-13-24-612-041).
- (2) If the oil level is correct:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG2 (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the DPI is extended:
 - do the alternate procedure (Ref. TASK 24-21-00-810-816).
 - (b) If the DPI is not extended:
 - do an inspection of the IDG2 filter element (Ref. AMM TASK 24-21-00-210-044).

TROUBLE SHOOTING MANUAL

- 1 . If the IDG2 filter element is damaged or,
 - . If the filter element is bypassed (metal particles on the filter element) or,
 - . If you think it was bypassed (filter not installed correctly, or filter 0-ring damaged, or you are not sure that the filter element was bypassed) or,
 - . If you smell a fuel odour from the filter element or the filter cover:
 - replace the IDG2 oil cooler (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002).
 - clean the tubings of the external system:

NOTE: Clean the tubings in a shop.

- Remove the tubings (Ref. AMM TASK 24-21-49-000-003), (Ref. AMM TASK 24-21-49-000-004), clean them, and install them (Ref. AMM TASK 24-21-49-400-003), (Ref. AMM TASK 24-21-49-400-004).
- 2 If the filter element shows signs of contamination (contains large metallic chips or shows signs of internal damage):
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- 3 If the filter element does not show signs of contamination:
 - drain the oil (Ref. AMM TASK 12-13-24-680-040),
 - replace the IDG2 oil filter (Ref. AMM TASK 24-21-51-000-041)
 and (Ref. AMM TASK 24-21-51-400-041),
 - fill the IDG2 with oil (Ref. AMM TASK 12-13-24-612-041).
 - a If the fault continues:
 - remove the wiring harness from IDG2 connector C and do a check for ground between the EGIU2 (22XU2) pin AA/5B, the GCU2 (1XU2) pin AA/15D and IDG2 wiring harness pin C/A (Ref. ASM 24-21/01).
 - * If there is ground:
 - remove the EGIU2 and the GCU2 one after the other and do a check for ground:
 - . if there is ground:
 - remove the EGIU1 and the GCU1 one after the other and do a check for ground:
 - * if there is no ground:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002) or,
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - * if there is ground, repair the wiring.
 - . If there is no ground:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

______

On the ECAM control panel:

page.

On the lower ECAM display unit:

- push the ELEC key to get the ELEC - the correct electrical parameters of GEN 2 are shown and the AC 2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-849

Overtemperature of the IDG 1

1. Possible Causes

- IDG (4000XU)
- oil cooler

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG	
AMM	24-21-51-400-040	<pre>1(2),(4000XU) Installation of the Integrated Drive Generator -IDG</pre>	
AMM	24-41-00-740-002	<pre>1(2),(4000XU) Operational Test of the Ground Power Control Unit</pre>	
AMM	24-41-00-861-002	(GPCU) Energize the Aircraft Electrical Circuits from the	
AMM	24-41-00-862-002	External Power De-energize the Aircraft Electrical Circuits Supplied	
AMM	31-60-00-860-001	from the External Power EIS Start Procedure	
AMM AMM	71-00-00-710-003 71-00-00-710-028	Engine Automatic Start Engine Shutdown	
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil	
AMM	73-11-60-400-002	Cooler Assembly Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG 1 (OVERTEMP) and the upper ECAM DU warning IDG 1 OIL OVHT:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040)
 - flush the external circuit with new oil.

TROUBLE SHOOTING MANUAL

- (1) If the fault continues:
 - replace the IDG1 oil cooler (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM display unit:

 the correct electrical parameters of GEN 1 are shown and AC 1 busbar is supplied by GEN 1.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-850

Overtemperature of the IDG 2

- 1. Possible Causes
 - IDG (4000XU)
 - oil cooler
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG	
	2. 2. 3. 000 0.0	1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly	
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG 2 (OVERTEMP) and the upper ECAM DU warning IDG 2 OIL OVHT:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040)
 - flush the external circuit with new oil.

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- (1) If the fault continues:
 - replace the IDG oil cooler (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

. _ _ _ _ _ .

On the lower ECAM display unit:
- the correct electrical parameters of
GEN 2 are shown and AC 2 busbar is
supplied by GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-851

Failure of the IDG1 Disconnect Circuit

1. Possible Causes

- GCU-1 (1XU1)
- IDG (4000XU)
- RELAY-IDG1 DISC CTL (3XT)
- RELAY-FUNCTION (7XT)
- IDG1 disconnect wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
ASM	24-21/01		

3. Fault Confirmation

A. Test

Not applicable, you cannot confirm this fault on the ground.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message: CHECK IDG1
 DISCONNECT CKT and by the warnings IDG1 OIL LO PR and IDG1 OIL OVHT on
 the upper ECAM display unit:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - replace the RELAY-IDG1 DISC CTL (3XT).
 - (2) If the fault continues:
 - replace the RELAY-FUNCTION (7XT).

TROUBLE SHOOTING MANUAL

- (3) If the fault continues:
 - do a check of the IDG1 disconnect wiring between: the pin 2 of the circuit breaker (1XT) and the pin B3 of the ELEC/IDG1 pushbutton switch (5XT)

the pin 2 of the circuit breaker (1XT) and the pin A2 of the relay (3XT)

the pin B1 of the ELEC/IDG1 pushbutton switch (5XT) and the pin X1 of the relay (3XT)

the pin A1 of the relay (3XT) and successively the pin A/3B of the GCU1 (1XU1) and the pin A/12 of the IDG2 (4000XU)

the pins B2 and X2 of the relay (3XT) and the ground

the pin A/13 of the IDG1 (4000XU) and the ground

the pin A/14 of the IDG1 (4000XU) and the pin A/6B of the EGIU1 (22XU1)

the pin B1 of the relay (3XT) and the pin A/4B of the EGIU1 (22XU1) (Ref. ASM 24-21/01).

- (4) If the wiring is correct:
 - do a check of the resistance between the IDG1 disconnect solenoid and disconnect switch: between the pins A/12 and A/13 for the solenoid (normal resistance = 5 ohms plus or minus 2.5 ohms at 25°C) between the pins A/14 and A/13 of the switch (open circuit when the IDG is not disconnected, and closed circuit when the IDG is disconnected).
 - (a) If the IDG1 disconnect solenoid and/or switch is(are) defective: replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do the Functional Test of the IDG disconnect system-engine in operation (Ref. AMM TASK 24-21-00-720-041).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-852

Failure of the IDG2 Disconnect Circuit

1. Possible Causes

- GCU-2 (1XU2)
- IDG (4000XU)
- RELAY-IDG2 DISC CTL (4XT)
- RELAY-FUNCTION (8XT)
- IDG2 disconnect wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable, you cannot confirm this fault on the ground.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message: CHECK IDG2 DISCONNECT CKT and by the warnings IDG2 OIL LO PR and IDG2 OIL OVHT on the upper ECAM display unit:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - replace the RELAY-IDG2 DISC CTL (4XT).
 - (2) If the fault continues:
 - replace the RELAY-FUNCTION (8XT).

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- (3) If the fault continues:
 - do a check of the IDG2 disconnect wiring between:
 the pin 2 of the circuit breaker (2XT) and the pin B3 of the ELEC/IDG2 pushbutton switch (6XT)

the pin 2 of the circuit breaker (2XT) and the pin A2 of the relay (4XT)

the pin B1 of the ELEC/IDG2 pushbutton switch (6XT) and the pin X1 of the relay (8XT)

the pin A1 of the relay (4XT) and successively the pin A/3B of the GCU2 (1XU2) and the pin A/12 of the IDG2 (4000XU)

the pins B2 and X2 of the relay (4XT) and the ground

the pin A/13 of the IDG2 (4000XU) and the ground

the pin A/14 of the IDG2 (4000XU) and the pin A/6B of the EGIU2 (22XU2)

the pin B1 of the relay (4XT) and the pin A/4B of the EGIU2 (22XU2) (Ref. ASM 24-21/01).

- (a) If the wiring is not correct:
 repair it.
- (4) If the wiring is correct:
 - do a check of the resistance between the IDG2 disconnect solenoid and disconnect switch: between the pins A/12 and A/13 of the solenoid (normal resistance = 5 ohms plus or minus 2.5 ohms at 25°C) between the pins A/14 and A/13 of the switch (open circuit when the IDG is not disconnected, and closed circuit when the IDG is disconnected).
 - (a) If the IDG2 disconnect solenoid and/or switch is(are) defective: replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do the Functional Test of the IDG disconnect system-engine in operation (Ref. AMM TASK 24-21-00-720-041).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-853

IDG1 Temperature High Delta

1. Possible Causes

- IDG (4000XU)
- oil cooler
- tubings
- oil filter

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>
AMM	12-13-24-680-040	Draining of the Oil from the IDG
AMM	24-21-00-210-044	Inspection of the Filter Element(s)
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter
		Differential-Pressure Indicator (DPI)
AMM	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-000-004	Removal of the IDG Cooling Oil-out Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-004	Installation of the IDG Cooling Oil-out tubes and Hoses
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-000-041	Removal of the IDG Oil Filter(s)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-21-51-400-041	Installation of the IDG Oil Filter(s)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

3. Fault Confirmation

A. Test

(1) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the test gives the maintenance message IDG1 HIGH DELTA TEMP:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG1 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040),
 - do an inspection of the IDG1 filter element to make sure that it is not bypassed (Ref. AMM TASK 24-21-00-210-044).
 - (2) If the DPI is not extended:
 - do an inspection of the IDG1 filter element for metallic contamination (Ref. AMM TASK 24-21-00-210-044).
 - (a) . If the IDG1 filter element is damaged or,
 - If the filter element is bypassed (metal particles on the filter element) or,
 - . If you think it was bypassed (filter not installed correctly, or filter 0-ring damaged, or you are not sure that the filter element was bypassed) or,
 - . If you smell a fuel odour from the filter element or the filter cover:
 - replace the IDG1 oil cooler (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002).
 - clean the tubings of the external system in the overhaul facility:
 - . remove the tubings (Ref. AMM TASK 24-21-49-000-003) (Ref. AMM TASK 24-21-49-000-004), clean them, and install them (Ref. AMM TASK 24-21-49-400-003) (Ref. AMM TASK 24-21-49-400-004).
 - (b) If the IDG1 filter is in good condition and oil is abnormally cold:
 - drain the oil (Ref. AMM TASK 12-13-24-680-040),
 - replace the IDG1 oil filter (Ref. AMM TASK 24-21-51-000-041) and (Ref. AMM TASK 24-21-51-400-041),
 - fill the IDG1 with oil (Ref. AMM TASK 12-13-24-612-041),
 - do a run up,
 - drain again,
 - replace the IDG1 oil filter (Ref. AMM TASK 24-21-51-000-041) and (Ref. AMM TASK 24-21-51-400-041),
 - fill the IDG1 with oil again (Ref. AMM TASK 12-13-24-612-041).
 - 1 If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. After the subsequent flight, make sure that the fault does not continue.

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-854

IDG2 temperature IDG2 High Delta

1. Possible Causes

- IDG (4000XU)
- oil cooler
- tubings
- oil filter

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check
AMM	12-13-24-680-040	Draining of the Oil from the IDG
AMM	24-21-00-210-044	Inspection of the Filter Element(s)
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter
		Differential-Pressure Indicator (DPI)
AMM	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-000-004	Removal of the IDG Cooling Oil-out Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-004	Installation of the IDG Cooling Oil-out tubes and Hoses
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-000-041	Removal of the IDG Oil Filter(s)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-21-51-400-041	Installation of the IDG Oil Filter(s)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

3. Fault Confirmation

A. Test

(1) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

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4. Fault Isolation

- A. If the test gives the maintenance message IDG2 HIGH DELTA TEMP:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG2 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040),
 - do an inspection of the IDG2 filter element to make sure that it is not bypassed (Ref. AMM TASK 24-21-00-210-044).
 - (2) If the DPI is not extended:
 - do an inspection of the IDG2 filter element for metallic contamination (Ref. AMM TASK 24-21-00-210-044).
 - (a) . If the IDG2 filter element is damaged or,
 - If the filter element is bypassed (metal particles on the filter element) or,
 - . If you think it was bypassed (filter not installed correctly, or filter 0-ring damaged, or you are not sure that the filter element was bypassed) or,
 - . If you smell a fuel odour from the filter element or the filter cover:
 - replace the IDG2 oil cooler (Ref. AMM TASK 73-11-60-000-002)
 and (Ref. AMM TASK 73-11-60-400-002).
 - clean the tubings of the external system in the overhaul facility:
 - . remove the tubings (Ref. AMM TASK 24-21-49-000-003) (Ref. AMM TASK 24-21-49-000-004), clean them, and install them (Ref. AMM TASK 24-21-49-400-003) (Ref. AMM TASK 24-21-49-400-004).
 - (b) If the IDG2 filter is in good condition and the oil is abnormally cold:
 - drain the oil (Ref. AMM TASK 12-13-24-680-040),
 - replace the IDG2 oil filter (Ref. AMM TASK 24-21-51-000-041) and (Ref. AMM TASK 24-21-51-400-041),
 - fill the IDG2 with oil (Ref. AMM TASK 12-13-24-612-041),
 - do a run up,
 - drain again,
 - replace the IDG2 oil filter again (Ref. AMM TASK 24-21-51-000-041) and (Ref. AMM TASK 24-21-51-400-041),
 - fill the IDG2 with oil again (Ref. AMM TASK 12-13-24-612-041).
 - 1 If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. After the subsequent flight make sure that the fault does not continue.

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-855

Failure of the IDG1 Cooler

1. Possible Causes

- IDG1 oil cooler
- IDG1 oil cooling tubing

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-000-004	Removal of the IDG Cooling Oil-out Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-004	Installation of the IDG Cooling Oil-out tubes and Hoses
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG COOLER 1 and the warning IDG1 OIL OVHT on the upper ECAM DU:
 - replace the IDG1 oil cooler (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002).
 - (1) If the fault continues:
 - do a check for cooler tubing blockage and replace the IDG1 oil cooling tubing which is blocked (Ref. AMM TASK 24-21-49-000-003) (Ref. AMM TASK 24-21-49-000-004) and (Ref. AMM TASK 24-21-49-400-003) (Ref. AMM TASK 24-21-49-400-004).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: push, release and push again the GEN1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT ______

1. On the ECAM control panel: On the lower ECAM display unit: get the ELEC page.

- the correct electrical parameters of GEN1 are shown and AC1 busbar is supplied by GEN1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-856

Failure of the IDG2 Cooler

1. Possible Causes

- IDG2 oil cooler
- IDG2 oil cooling tubing

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-000-004	Removal of the IDG Cooling Oil-out Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-004	Installation of the IDG Cooling Oil-out tubes and Hoses
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN2 was set to OFF because of a true failure, the fault confirmation is not necessary.

TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG COOLER 2 and the warning IDG2 OIL OVHT on the upper ECAM DU:
 - replace the IDG2 oil cooler (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002).
 - (1) If the fault continues:
 - do a check for cooler tubing blockage and replace the IDG2 oil cooling tubing which is blocked (Ref. AMM TASK 24-21-49-000-003) (Ref. AMM TASK 24-21-49-000-004) and (Ref. AMM TASK 24-21-49-400-003) (Ref. AMM TASK 24-21-49-400-004).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: push, release and push again the GEN2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- C. Do this test:

ACTION RESULT ______

1. On the ECAM control panel:

On the lower ECAM display unit: get the ELEC page.

- the correct electrical parameters of GEN2 are shown and AC2 busbar is supplied by GEN2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-858

Loss of the ECAM and EFIS Displays during Engine Start at IDG 1 Connection

- 1. Possible Causes
 - IDG 1 (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM 24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM 71-00-00-710-003	Engine Automatic Start

3. Fault Confirmation

- A. Test
 - (1) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (2) The fault is confirmed if during the engine start:
 - the ECAM and EFIS display units go blank with a diagonal line for more than one second,
 - and the IDG 1 is connected below 55% N2.

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the resistance of the IDG 1 MPU coil between pin B/1 and pin B/2 (17.5 ohms plus or minus 3.5 ohms at 25 deg.C (77 deg.F)).
 - (1) If the resistance value is out of the specified limits:
 - replace the IDG 1 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do the test given in Para. 3.A.

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TASK 24-20-00-810-859

Loss of the ECAM and EFIS Displays during Engine Start at IDG 2 Connection

- 1. Possible Causes
 - IDG 2 (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM 24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM 71-00-00-710-003	Engine Automatic Start

3. Fault Confirmation

- A. Test
 - (1) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (2) The fault is confirmed if during the engine start:
 - the ECAM and EFIS display units go blank with a diagonal line for more than one second,
 - and the IDG 2 is connected below 55% N2.

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the resistance of the IDG 2 MPU coil between pin B/1 and pin B/2 (17.5 ohms plus or minus 3.5 ohms at 25 deg.C (77 deg.F)).
 - (1) If the resistance value is out of the specified limits:
 - replace the IDG 2 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do the test given in Para. 3.A.

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**ON A/C 254-275, 451-475,

TASK 24-20-00-810-860

Overcurrent of the GEN 1 Because of a Failure of the BTC 1 Control Circuit

- 1. Possible Causes
 - GCU-1 (1XU1)
 - BTC-1 (11XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-20-00-810-888	Failure of an Opposite Channel of the Generator 1 Channel
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-22-55-000-001 AMM 24-22-55-400-002	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2) Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM 24-41-00-740-002 ASM 24-22/02	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.

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- B. If the BITE test gives the message TEST PASSED:
 - (1) Do the trouble shooting for a delta current condition of the IDG 1 (Ref. TASK 24-20-00-810-888).
 - (2) If the fault continues:
 - do a check of the coil return wiring for a short circuit or a short to ground between pin B/5 of the BTC 1 and pin A/9A of the GCU 1 (Ref. ASM 24-22/02).
 - (a) If the wiring is not correct:repair or replace as necessary.
 - (b) If the wiring is correct:
 - do a check of the auxiliary contact for correct operation between pin B/29 and pin B/27 of the BTC 1 (Ref. ASM 24-22/02).
 - 1 If there is no continuity:
 - replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 2 If there is continuity:
 - do a check of the wiring for an open circuit condition between pin B/29 of the BTC 1 and pin A/4C of the GCU 1 (Ref. ASM 24-22/02).
 - <u>a</u> If the wiring is not correct:repair or replace as necessary.
 - \underline{b} If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-861

Overcurrent of the GEN 2 Because of a Failure of the BTC 2 Control Circuit

- 1. Possible Causes
 - GCU-2 (1XU2)
 - BTC-2 (11XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFER	RENCE	DESIGNATION
24 26		
24-20	0-00-810-889	Failure of an Opposite Channel of the Generator 2 Channel
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
	24-41-00-740-002 24-22/03	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.

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- B. If the BITE test gives the message TEST PASSED:
 - (1) Do the trouble shooting for a delta current condition of the IDG 2 (Ref. TASK 24-20-00-810-889).
 - (2) If the fault continues:
 - do a check of the coil return wiring for a short circuit or a short to ground between pin B/5 of the BTC 2 and pin A/9A of the GCU 2 (Ref. ASM 24-22/03).
 - (a) If the wiring is not correct:repair or replace as necessary.
 - (b) If the wiring is correct:
 - do a check of the auxiliary contacts for correct operation between pin B/29 and pin B/27 of the BTC 2 (Ref. ASM 24-22/03).
 - 1 If there is no continuity:
 - replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001)
 and (Ref. AMM TASK 24-22-55-400-002).
 - 2 If there is continuity:
 - do a check of the wiring for an open circuit condition between pin B/29 of the BTC 2 and pin A/4C of the GCU 2 (Ref. ASM 24-22/03).
 - <u>a</u> If the wiring is not correct:repair or replace as necessary.
 - b If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-862

Failure of the Generator 1 Channel

- 1. Possible Causes
 - GLC-1 (9XU1)
 - BTC-1 (11XU1)
 - feeders
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

circuit breaker(s) safety clip(s)

B. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		
ASM	24-22/02		

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Make sure that the aircraft electrical circuits are de-energized.
 - (2) Do not start the engines.

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B. Open, safety and tag this(these) circuit breaker(s):

PANEL	DESIGNATION	IDENT.	LOCATION
12 3 VU	BUS 1/131XP-A/SPLY	5XN1	AB12
123VU	BUS 1/103XP/SPLY	3XN1	AB11
123VU	TR1/SPLY	2PU1	AB10
123VU	AC ESS/BUS ON/BUS 1	1XC	AC 12
123VU	BUS 1/101XP/SPLY	1XN1	AD11
123VU	AVNCS VENT/BLOWER/FAN	1HQ	AD 10
123VU	BUS 1/110XP/SPLY	7XN1	AF11
123VU	ANTI ICE/L/WHSLD	1DG1	AF 10

C. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message DELTA CURRENT GEN1 CHANNEL or OVERCURRENT GEN1 CHANNEL and the upper ECAM-DU warnings GEN 1 FAULT and AC BUS 1 FAULT:
 - Do a check of the feeders (Ref. ASM 24-22/01) for a short circuit or a short to ground between:
 - Pin L1 of the Current Transformer Assembly (CTA) (51XU1) and pin 1 of the generator 1 contactor module (30XN1)
 - . Pin L2 of the CTA and pin 2 of the generator 1 contactor module
 - . Pin L3 of the CTA and pin 3 of the generator 1 contactor module.
 - (1) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
 - (2) If the feeders are correct:
 - Do a check of the power distribution feeders (Ref. ASM 24-22/02) for a short circuit or a short to ground between:
 - Pins 4, 5 and 6 of the generator 1 contactor module (30XN1) and the primary circuit breakers of bus 1XP
 - . Pin 4 and pin 7 of the generator 1 contactor module
 - . Pin 5 and pin 8 of the generator 1 contactor module
 - . Pin 6 and pin 9 of the generator 1 contactor module
 - . Pins 7, 8 and 9 of the generator 1 contactor module and the lightning strike protection module (19XU1).
 - (a) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
 - (b) If the feeders are correct:
 - Replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).

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- 1 If the fault continues:
 - Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Remove the safety clip(s) and the tag(s) and close this(these) circuit
 breaker(s):
 - 1XN1, 7XN1, 3XN1, 5XN1, 1XC, 1DG1, 1HQ, 2PU1
- C. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-863

Failure of the Generator 2 Channel

- 1. Possible Causes
 - GLC-2 (9XU2)
 - BTC-2 (11XU2)
 - feeders
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

circuit breaker(s) safety clip(s)

B. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		
ASM	24-22/03		

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Make sure that the aircraft electrical circuits are de-energized.
 - (2) Do not start the engines.

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B. Open, safety and tag this(these) circuit breaker(s):

PANEL	DESIGNATION	IDENT.	LOCATION
12 3 VU	TR2/214XP/SPLY	2PU2	AB04
12 3 VU	BUS 2/204XP/SPLY	3XN2	AB02
12 3 VU	BUS 2/231XP-A/SPLY	5XN2	AB01
123VU	AC ESS/BUS ON/BUS 2	2XC	ACO1
123VU	BUS 2/212XP/SPLY	10XN	AD03
123VU	BUS 2/202XP/SPLY	1XN2	ADO2
123VU	AVNCS VENT/EXTC/FAN	2HQ	AEO2
123VU	ANTI ICE/R/WHSLD	1DG2	AF03
12 3 VU	BUS 2/210XP/SPLY	7XN2	AFO2

C. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message DELTA CURRENT GEN2 CHANNEL or OVERCURRENT GEN2 CHANNEL and the upper ECAM-DU warnings GEN 2 FAULT and AC BUS 2 FAULT:
 - Do a check of the feeders (Ref. ASM 24-22/01) for a short circuit or a short to ground between:
 - Pin L1 of the Current Transformer Assembly (CTA) (51XU2) and pin 1 of the generator 2 contactor module (30XN2)
 - . Pin L2 of the CTA and pin 2 of the generator 2 contactor module
 - . Pin L3 of the CTA and pin 3 of the generator 2 contactor module.
 - (1) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
 - (2) If the feeders are correct:
 - Do a check of the power distribution feeders (Ref. ASM 24-22/03)
 for a short circuit or a short to ground between:
 - Pins 4, 5 and 6 of the generator 2 contactor module (30XN2) and the primary circuit breakers of bus 2XP
 - . Pin 4 and pin 7 of the generator 2 contactor module
 - . Pin 5 and pin 8 of the generator 2 contactor module
 - . Pin 6 and pin 9 of the generator 2 contactor module
 - . Pins 7, 8 and 9 of the generator 2 contactor module and the lightning strike protection module (19XU2).
 - (a) If the feeders are not correct:
 - Repair or replace the feeders as necessary.

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- (b) If the feeders are correct:
 - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 1 If the fault continues:
 - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Remove the safety clip(s) and the tag(s) and close this(these) circuit
 breaker(s):

1XN2, 7XN2, 3XN2, 5XN2, 2XC, 1DG2, 2HQ, 2PU2, 10XN

- C. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel:
- get the ELEC page.

On the lower ECAM DU:

- the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-864

Failure of the ENG MASTER SW 1 Signal to the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - CTL SW-ENG/MASTER 1 (3KC)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
ASM	24-22/02		
ASM	76-12/01		

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. If the BITE test gives the message TEST PASSED:
 - do a check of the contact of the ENG/MASTER 1 control switch (3KC) for correct operation between pins 3A and 1A (Ref. ASM 76-12/01).
 - (1) If the contact do not operate correctly:
 - replace the CTL SW-ENG/MASTER 1 (3KC) on the ENG panel 115VU.

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- (2) If the contact operate correctly:
 - do a check of the fuel-cutoff status wiring (Ref. ASM 24-22/02) for an open circuit between pin 3A of the ENG/MASTER 1 control switch and pin A/8C of the GCU 1.
 - (a) If there is no continuity:
 - repair or replace as necessary.
 - (b) If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-865

Failure of the ENG MASTER SW 2 Signal to the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - CTL SW-ENG/MASTER 2 (2KC)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002 ASM 24-22/03 ASM 76-12/01	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. If the BITE test gives the message TEST PASSED:
 - do a check of the contact of the ENG/MASTER 2 control switch (2KC) for correct operation between pins 3A and 1A (Ref. ASM 76-12/01).
 - (1) If the contact do not operate correctly:
 - replace the CTL SW-ENG/MASTER 2 (2KC) on the ENG panel 115VU.

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- (2) If the contact operate correctly:
 - do a check of the fuel-cutoff status wiring (Ref. ASM 24-22/03) for an open circuit between pin 3A of the ENG/MASTER 2 control switch and pin A/8C of the GCU 2.
 - (a) If there is no continuity:
 - repair or replace as necessary.
 - (b) If there is continuity:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-866

Failure of the ENG/APU FIRE Panel or its Wiring to the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - ENG/APU FIRE PNL (1WD)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
		24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
		24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
		24-41-00-740-002 26-12-12-000-001	Operational Check of GAPCU via CFDS Removal of the ENG/APU Fire Panel (1WD)
	AMM	26-12-12-400-001 24-22/02	Installation of the ENG/APU Fire Panel (1WD)

3. Fault Confirmation

- A. Test
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: It is not necessary to do the trouble shooting for the CFDS message ENG1 FIRE PB SW (1WD)/ GCU1 (1XU1) if the flight or maintenance log books show that the flight crew or the maintenance personnel pushed the ENG 1 FIRE pushbutton switch on the ENG/APU FIRE panel after an engine-fire condition or to do a test of the engine fire loop.

To remove this CFDS message at the start of the subsequent flight, release and push the ELEC/GEN 1 pushbutton switch (2XU1) before the subsequent engine start sequence.

If the flight or maintenance crew did not push the ENG 1 FIRE pushbutton switch, the trip was accidental and you must do the trouble shooting procedure that follows:

- (1) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
- (2) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the contact of the ENG/APU FIRE panel (1WD) for a correct operation between pin A/b and pin A/c (Ref. ASM 24-22/02).
 - (1) If the contact does not operate correctly:
 - replace the ENG/APU FIRE PNL (1WD) (Ref. AMM TASK 26-12-12-000-001) and (Ref. AMM TASK 26-12-12-400-001).
 - (2) If the contact operates correctly:
 - do a check of the wiring for an open circuit or a short to ground between pin A/c of the ENG/APU FIRE panel and pin A/3J of the GCU 1 (Ref. ASM 24-22/02).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the ENG/APU FIRE PNL (1WD) (Ref. AMM TASK 26-12-12-000-001) and (Ref. AMM TASK 26-12-12-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-867

Failure of the ENG/APU FIRE Panel or its Wiring to the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - ENG/APU FIRE PNL (1WD)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM AMM AMM	24-22-34-000-001 24-22-34-400-001 24-41-00-740-002 26-12-12-000-001 26-12-12-400-001 24-22/03	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS Removal of the ENG/APU Fire Panel (1WD) Installation of the ENG/APU Fire Panel (1WD)
	_ :,	

3. Fault Confirmation

- A. Test
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: It is not necessary to do the trouble shooting for the CFDS message ENG2 FIRE PB SW (1WD)/ GCU2 (1XU2) if the flight or maintenance log books show that the flight crew or the maintenance personnel pushed the ENG 2 FIRE pushbutton switch on the ENG/APU FIRE panel after an engine-fire condition or to do a test of the engine fire loop.

To remove this CFDS message at the start of the subsequent flight, release and push the ELEC/GEN 2 pushbutton switch (2XU2) before the subsequent engine start sequence.

If the flight or maintenance crew did not push the ENG 2 FIRE pushbutton switch, the trip was accidental and you must do the trouble shooting procedure that follows:

- (1) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
- (2) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (F
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the contact of the ENG/APU FIRE panel (1WD) for a correct operation between pin C/U and pin C/V (Ref. ASM 24-22/03).
 - (1) If the contact operation is not correct:
 - replace the ENG/APU FIRE PNL (1WD) (Ref. AMM TASK 26-12-12-000-001) and (Ref. AMM TASK 26-12-12-400-001).
 - (2) If the contact operation is correct:
 - do a check of the wiring for open circuit or short to ground between pin C/V of the ENG/APU FIRE panel and pin A/3J of the GCU 2 (Ref. ASM 24-22/03).
 - (a) If the wiring is not correct:repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the ENG/APU FIRE PNL (1WD) (Ref. AMM TASK 26-12-12-000-001) and (Ref. AMM TASK 26-12-12-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-868

Failure of the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view associated with the fault code 121 (SRD FLD (+) FAIL keyword) or 188 (EX FLD (+) SENSE keyword):
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

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- (2) If the maintenance message GCU1 (1XU1) comes into view associated with other fault codes:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in para. 3.

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TASK 24-20-00-810-869

Failure of the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM 24-7	21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM 24-2	21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM 24-2	22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-2	22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-	41-00-740-002	Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.

4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view associated with the fault code 121 (SRD FLD (+) FAIL keyword) or 188 (EX FLD (+) SENSE keyword):
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

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- (2) If the maintenance message GCU2 (1XU2) comes into view associated with other fault codes:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in para. 3.

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TASK 24-20-00-810-870

Failure of the Generator Control Unit 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002 ASM 24-22/02	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:stop the trouble shooting.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring between the GCU 1 and the GLC 1 auxiliary control relay (4XU1) (Ref. ASM 24-22/02) for a short to 28VDC between:
 - $\boldsymbol{.}$ pin B/10J of the GCU 1 and pin A/C3 of the ELEC/GEN 1 pushbutton switch (3XU1)
 - ${\tt .}$ pin A/C1 of the ELEC/GEN 1 pushbutton switch and pin A/A of the function relay (20XU)

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 $\boldsymbol{.}$ pin A/1 of the function relay and pin A/X1 of the GLC 1 auxiliary control relay.

B. Do the test given in para. 3.

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TASK 24-20-00-810-871

Failure of the Generator Control Unit 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001 24-22-34-400-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test

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- (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:
 stop the trouble shooting.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring between the GCU 2 and the GLC 2 auxiliary control relay (4XU2) (Ref. ASM 24-22/03) for a short to 28VDC between:
 - ${\tt .}$ pin B/10J of the GCU 2 and pin A/C3 of the ELEC/GEN 2 pushbutton switch (3XU2)
 - . pin A/C1 of the ELEC/GEN 2 pushbutton switch and pin A/X1 of the GLC 2 auxiliary control relay.

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B. Do the test given in para. 3.

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TASK 24-20-00-810-872

Failure of the Auxiliary Status Circuit of the BTC 1

1. Possible Causes

- GCU-1 (1XU1)
- BTC-1 (11XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/02	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GCU1 (1XU1)/ BTC1 (11XU1) and the upper ECAM-DU warnings GEN 1 FAULT and AC BUS 1 FAULT:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check of the wiring (Ref. ASM 24-22/02) for a short to 28VDC between:
 - \cdot pin B/10J of the GCU 1 and pin C/3 of the ELEC/GEN 1 pushbutton switch (3XU1)
 - pin C/1 of the ELEC/GEN 1 pushbutton switch and pin A/A of the function relay (20XU)
 - . pin A/1 of the function relay (20XU) and pin X/1 of the GLC 1 auxiliary control relay (4XU1).
 - (a) If there is a short to 28VDC:
 - repair or replace as necessary.
 - (b) If there is no short to 28VDC:
 - continue the trouble shooting procedure.
 - (2) If the fault continues:
 - do a check of the wiring for a short to ground between pin B/29 of the BTC 1 and pin A/4C of the GCU 1 (Ref. ASM 24-22/02).
 - (a) If there is a short to ground:
 - repair or replace as necessary.
 - (b) If there is no short to ground:
 - do a check of the coil return wiring for a short to ground between pin B/5 of the BTC 1 and pin A/9A of the GCU 1 (Ref. ASM 24-22/02).
 - 1 If there is a short to ground:
 - repair or replace as necessary.
 - 2 If there is no short to ground:
 - do a check of the BTC 1 auxiliary status-contact between pin B/29 and pin B/27 (normally open) (Ref. ASM 24-22/02).
 - a If there is no continuity:
 - replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-873

Failure of the Auxiliary Status Circuit of the BTC 2

1. Possible Causes

- GCU-2 (1XU2)
- BTC-2 (11XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/03	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GCU2 (1XU2)/ BTC2 (11XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check of the wiring (Ref. ASM 24-22/03) for a short to 28VDC between:
 - \cdot pin B/10J of the GCU 2 and pin C/3 of the ELEC/GEN 2 pushbutton switch (3XU2)
 - pin C/1 of the ELEC/GEN 2 pushbutton switch and pin A/A of the function relay (20XU)
 - . pin A/1 of the function relay (20XU) and pin X/1 of the GLC 2 auxiliary control relay (4XU2).
 - (a) If there is a short to 28VDC:
 - repair or replace as necessary.
 - (b) If there is no short to 28VDC:
 - continue the trouble shooting procedure.
 - (2) If the fault continues:
 - do a check of the wiring for a short to ground between pin B/29 of the BTC 2 and pin A/4C of the GCU 2 (Ref. ASM 24-22/03).
 - (a) If there is a short to ground:
 - repair or replace as necessary.
 - (b) If there is no short to ground:
 - do a check of the coil return wiring for a short to ground between pin B/5 of the BTC 2 and pin A/9A of the GCU 2 (Ref. ASM 24-22/03).
 - 1 If there is a short to ground:
 - repair or replace as necessary.
 - 2 If there is no short to ground:
 - do a check of the BTC 2 auxiliary status-contact between pin B/29 and pin B/27 (normally open) (Ref. ASM 24-22/03).
 - a If there is no continuity:
 - replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-874

Failure of the IDG 1 PMG Stator or its Wiring

1. Possible Causes

- GCU-1 (1XU1)
- IDG (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IN 11.
IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GCU1 (1XU1)/ IDG1 (E1-4000XU) PMG and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the wiring (Ref. ASM 24-22/01) for an open circuit or a short to ground between:
 - . pin B/12 of the IDG 1 and pin C/10 of the GCU 1
 - . pin B/13 of the IDG 1 and pin C/11 of the GCU 1
 - . pin B/14 of the IDG 1 and pin C/9 of the GCU 1.
 - (1) If the wiring is not correct:
 repair or replace as necessary.
 - (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (3) If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-875

Failure of the IDG 2 PMG Stator or its Wiring

1. Possible Causes

- GCU-2 (1XU2)
- IDG (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
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3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GCU2 (1XU2)/ IDG2 (E2-4000XU) PMG and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the wiring (Ref. ASM 24-22/01) for an open circuit or a short to ground between:
 - . pin B/12 of the IDG 2 and pin C/10 of the GCU 2
 - . pin B/13 of the IDG 2 and pin C/11 of the GCU 2
 - . pin B/14 of the IDG 2 and pin C/9 of the GCU 2.
 - (1) If the wiring is not correct:
 repair or replace as necessary.
 - (2) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (3) If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-878

Failure of the GCU 1 Air/Ground Status

- 1. Possible Causes
 - GCU-1 (1XU1)
 - LGCIU-1 (5GA1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002 AMM 32-31-71-000-001 AMM 32-31-71-400-001 ASM 24-22/01	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS Removal of the LGCIU (5GA1, 5GA2) Installation of the LGCIU (5GA1, 5GA2)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.

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- B. If the BITE test gives the message TEST PASSED:
 - (1) Do the trouble shooting for chapter-32 CFDS messages related to the LGCIU 1.
 - (2) If there are no CFDS messages related to the LGCIU 1:
 - do a check of the ground/flight status wiring for a short circuit or a short to ground between pin A/2C of the GCU 1 and pin B/9E of the LGCIU 1 (5GA1) (Ref. ASM 24-22/01).
 - (a) If there is no continuity:
 - repair or replace as necessary.
 - (b) If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-879

Failure of the GCU 2 Air/Ground Status

- 1. Possible Causes
 - GCU-2 (1XU2)
 - LGCIU-1 (5GA1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002 AMM 32-31-71-000-001 AMM 32-31-71-400-001 ASM 24-22/01	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS Removal of the LGCIU (5GA1, 5GA2) Installation of the LGCIU (5GA1, 5GA2)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.

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- B. If the BITE test gives the message TEST PASSED:
 - (1) Do the trouble shooting for chapter-32 CFDS messages related to the LGCIU 1.
 - (2) If there are no CFDS messages related to the LGCIU 1:
 - do a check of the ground/flight status wiring for a short circuit or a short to ground between pin A/2C of the GCU 2 and pin B/10H of the LGCIU 1 (5GA1) (Ref. ASM 24-22/01).
 - (a) If there is no continuity:
 - repair or replace as necessary.
 - (b) If there is continuity:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-880

Failure of the Generator Control Unit 1

- 1. Possible Causes
 - GCU-1 (1XU1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

3. Fault Confirmation

A. Test

- (1) Remove all AC and DC power from the GCU 1:
 - de-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002),
 - de-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002),
 - disconnect the batteries or open the GCU 1 circuit breaker (4XU1)
 to remove the 28VDC backup power-supply from the GCU 1.
- (2) Apply power to the GCU 1:
 - energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002),
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

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- (3) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - If the maintenance message GCU1 (1XU1) comes into view:
 do the trouble shooting procedure given in the Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.

4. Fault Isolation

- A. If the BITE test gives the maintenance message GCU1 (1XU1) or if the APU generator or the external power do not energize the aircraft electrical circuits:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-881

Failure of the Generator Control Unit 2

- 1. Possible Causes
 - GCU-2 (1XU2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	

3. Fault Confirmation

A. Test

- (1) Remove all AC and DC power from the GCU 2:
 - de-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002),
 - de-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002),
 - disconnect the batteries or open the GCU 2 circuit breaker (2XU2) to remove the 28VDC backup power-supply from the GCU 2.
- (2) Apply power to the GCU 2:
 - energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002),
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

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- (3) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - 1 If the maintenance message GCU2 (1XU2) comes into view:

 do the trouble shooting procedure given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.

4. Fault Isolation

- A. If the BITE test gives the maintenance message GCU2 (1XU2) or if the APU generator or the external power do not energize the aircraft electrical circuits:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION	RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-884

Failure of the IDG 1 Exciter-Field Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
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3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GCU1 (1XU1) EXC FLD/ IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the exciter field wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or a short to shield between:
 - . pin A/10 of the IDG 1 and pin C/13 of the GCU 1
 - pins C/13 and C/7 of the GCU 1 (short to shield of the exciter field).
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - do a check of the exciter field wiring for a short to the IDG case between pin A/10 of the IDG 1 and the IDG case (Ref. ASM 24-22/01).
 - (a) If the wiring is not correct:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-885

Failure of the IDG 2 Exciter-Field Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GCU2 (1XU2) EXC FLD/ IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the exciter field wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or a short to shield between:
 - pin A/10 of the IDG 2 and pin C/13 of the GCU 2
 - pins C/13 and C/7 of the GCU 2 (short to shield of the exciter field).
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - do a check of the exciter field wiring for a short to the IDG case between pin A/10 of the IDG 2 and the IDG case (Ref. ASM 24-22/01).
 - (a) If the wiring is not correct:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION	RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-886

Failure of the FAULT Light of the ELEC/GEN 1 Pushbutton Switch (3XU1)

- 1. Possible Causes
 - GCU-1 (1XU1)
 - BOARD-ANN LT TEST & INTFC (10LP)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)	
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM ASM	71-00-00-710-028 24-22/02	Engine Shutdown	

3. Fault Confirmation

- A. Job Set-up
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- B. Test
 - (1) If on the ELEC panel 35VU, the AVAIL legend of the ELEC/GEN 1 pushbutton switch (3XU1) is on:

 do the trouble shooting given in Para.4.A.

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- (2) If on the ELEC panel 35VU, the AVAIL legend of the ELEC/GEN 1 pushbutton switch (3XU1) is off:
 - do the trouble shooting given in Para.4.B.

4. Fault Isolation

- A. If the test confirms the fault:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the test confirms the fault:
 - do a check of the wiring (Ref. ASM 24-22/02) for a short to ground between:
 - . pin A/5G of the GCU 1 and pin A/4 of the annunciator light test and interface board (10LP)
 - . pin A/3 of the annunciator light test and interface board (10LP) and pin A/7 of the diode module 2422VD
 - . pin A/22 of the diode module 2422VD and pin A/14 of the diode module 2420VD.
 - (1) If there is a short to ground:
 - repair or replace as necessary.
 - (2) If there is no short to ground:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (3) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).
- C. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-887

Failure of the FAULT Light of the ELEC/GEN 2 Pushbutton Switch (3XU2)

- 1. Possible Causes
 - GCU-2 (1XU2)
 - BOARD-ANN LT TEST & INTFC (10LP)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)	
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM ASM	71-00-00-710-028 24-22/02	Engine Shutdown	

3. Fault Confirmation

- A. Job Set-up
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- B. Test
 - (1) If on the ELEC panel 35VU, the AVAIL legend of the ELEC/GEN 2
 pushbutton switch (3XU2) is on:
 - do the trouble shooting given in Para.4.A.

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- (2) If on the ELEC panel 35VU, the AVAIL legend of the ELEC/GEN 2 pushbutton switch (3XU2) is off:
 - do the trouble shooting given in Para.4.B.

4. Fault Isolation

- A. If the test confirms the fault:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the test confirms the fault:
 - do a check of the wiring (Ref. ASM 24-22/02) for a short to ground between:
 - ${\tt .}$ pin A/5G of the GCU 2 and pin A/25 of the annunciator light test and interface board (10LP)
 - . pin A/24 of the annunciator light test and interface board (10LP) and pin A/5 of the diode module 2422VD
 - . pin A/20 of the diode module 2422VD and pin A/15 of the diode module 2420VD.
 - (1) If there is a short to ground:
 - repair or replace as necessary.
 - (2) If there is no short to ground:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (3) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).
- C. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 2 are shown and the AC2

busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-888

Failure of an Opposite Channel of the Generator 1 Channel

- 1. Possible Causes
 - feeders
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

.____

REFERENCE

QTY DESIGNATION

No specific circuit breaker(s) safety clip(s)

B. Referenced Information

REF	ERE	NCE
-----	-----	-----

DESIGNATION

24-20-00-810-863		Failure of the Generator 2 Channel
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
		from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/02	

- 3. Fault Confirmation
 - A. Test

Not applicable.

<u>NOTE</u>: As the GEN 1 was set to OFF because of a true fault, the fault confirmation is not necessary.

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4. Fault Isolation

A. If the fault symptom is identified by the upper ECAM-DU warning AC BUS 1 FAULT and one of the two CFDS messages:

GEN 1 DELTA CURRENT OTHER CHANNEL or

GEN 1 OVERCURRENT OTHER CHANNEL

NOTE: These CFDS messages can come into view with other CFDS messages related to a delta current or an overcurrent condition of one of the generator channels 1 or 2.

- in the AC/DC main power center 120VU, do a check of the bus tie feeders for short circuits.
- (1) If there are short circuits:
 - repair them.
- (2) If there is no short circuit:
 - do a check of the feeders for a short to ground, a short circuit or an open circuit condition between terminals R, P, N of the BTC 1 and the AC transfer bus (Ref. ASM 24-22/02).
 - (a) If the feeders are not correct:
 - repair or replace the AC transfer busbars as necessary.
 - (b) If the feeders are correct:
 - continues the trouble shooting.
- B. Open, safety and tag this(these) circuit breaker(s):

PANEL DESIGNATION IDENT. LOCATION

122VU ELEC/GCU/1

2XU1 T26

- C. Energize the aircraft electrical circuit from the generator 2 only.
 - (1) Loosen and lower the nuts that attach the GCU 1 and pull it on its rack to disconnect the electrical connectors.
 - (2) On the ELEC panel 35VU, push, release and push again the ELEC/GEN 2 pushbutton switch (3XU2).
 - (3) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- D. Do this procedure:
 - after five minutes, see if there is a trip.
 - (1) If there is a trip:
 - stop the engine 2 (Ref. AMM TASK 71-00-00-710-028)
 - do the trouble shooting of the generator 2 channel (Ref. TASK 24-20-00-810-863).

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- (2) If there is no trip:
 - close the circuit breaker 2XU1 (remove the safety clip and tag).
- E. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-889

Failure of an Opposite Channel of the Generator 2 Channel

- 1. Possible Causes
 - feeders
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific circuit breaker(s) safety clip(s)

B. Referenced Information

REF	ERE	NCE
-----	-----	-----

DESIGNATION

24-20-00-810-862		Failure of the Generator 1 Channel
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/03	

- 3. Fault Confirmation
 - A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true fault, the fault confirmation is not necessary.

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4. Fault Isolation

A. If the fault symptom is identified by the upper ECAM-DU warning AC BUS 2 FAULT and one of the two CFDS messages:

GEN 2 DELTA CURRENT OTHER CHANNEL or

GEN 2 OVERCURRENT OTHER CHANNEL

NOTE: These CFDS messages can come into view with other CFDS messages related to a delta current or an overcurrent condition of one of the generator channels 1 or 2.

- in the AC/DC main power center 120VU, do a check of the bus tie feeders for short circuits.
- (1) If there are short circuits:
 - repair them.
- (2) If there is no short circuit:
 - do a check of the feeders for a short to ground, a short circuit or an open circuit condition between terminals R, P, N of the BTC 2 and the AC transfer bus (Ref. ASM 24-22/03).
 - (a) If the feeders are not correct:
 - repair or replace the AC transfer busbars as necessary.
 - (b) If the feeders are correct:
 - continues the trouble shooting.
- B. Open, safety and tag this(these) circuit breaker(s):

PANEL DESIGNATION IDENT. LOCATION

122VU ELEC/GCU/2

2XII2 T27

- C. Energize the aircraft electrical circuit from the generator 1 only.
 - (1) Loosen and lower the nuts that attach the GCU 2 and pull it on its racks to disconnect the electrical connectors.
 - (2) On the ELEC panel 35VU, push, release and push again the ELEC/GEN 1 pushbutton switch (3XU2).
 - (3) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- D. Do this procedure:
 - after five minutes, see if there is a trip.
 - (1) If there is a trip:
 - stop the engine 1 (Ref. AMM TASK 71-00-00-710-028)
 - do the trouble shooting of the generator 1 channel (Ref. TASK 24-20-00-810-862).

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- (2) If there is no trip:
 - close the circuit breaker 2XU2 (remove the safety clip and tag).
- E. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel:

get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-890

Overcurrent on the GEN 1 Because of a Failure of the BTC 1 Status Circuit

- 1. Possible Causes
 - GCU-1 (1XU1)
 - BTC-1 (11XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-20-00-810-918	Overload on the Electrical Network of the Generator 1
AMM 24-22-34-000-00	
AMM 24-22-34-400-00	1 Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-55-000-00	1 Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM 24-22-55-400-00	Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM 24-41-00-740-00	Operational Check of GAPCU via CFDS
ASM 24-22/02	

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: If the CFDS message GEN1 OVERCURRENT + GCU1 (1XU1)/ BTC1 (11XU1) comes into view, do the trouble shooting for an IDG 1 overcurrent condition with the procedure (Ref. TASK 24-20-00-810-918).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.

(1) If the maintenance message GCU1 (1XU1) comes into view:

- replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the coil return wiring for a short circuit or a short to ground between pin B/5 of the BTC 1 and pin A/9A of the GCU 1 (Ref. ASM 24-22/02).
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - do a check of the BTC 1 auxiliary contact for correct operation between pin B/27 and pin B/29 (Ref. ASM 24-22/02).
 - (a) If there is no continuity:
 - replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (b) If there is continuity:
 - do a check of the wiring for a short circuit or a short to ground between pin B/29 of the BTC 1 and pin A/4C of the GCU 1 (Ref. ASM 24-22/02).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-891

Overcurrent on the GEN 2 Because of a Failure of the BTC 2 Status Circuit

- 1. Possible Causes
 - GCU-2 (1XU2)
 - BTC-2 (11XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-20-00-810-919	Overload on the Electrical Network of the Generator 2
AMM 24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM 24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM 24-41-00-740-002 ASM 24-22/03	Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: If the CFDS message GEN2 OVERCURRENT + GCU2 (1XU2)/ BTC2 (11XU2) comes into view, do the trouble shooting for an IDG 2 overcurrent condition with the procedure (Ref. TASK 24-20-00-810-919).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the coil return wiring for a short circuit or a short to ground between pin B/5 of the BTC 2 and pin A/9A of the GCU 2 (Ref. ASM 24-22/03).
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - do a check of the BTC 2 auxiliary contact for correct operation between pin B/27 and pin B/29 (Ref. ASM 24-22/03).
 - (a) If there is no continuity:
 - replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (b) If there is continuity:
 - do a check of the wiring for a short circuit or a short to ground between pin B/29 of the BTC 2 and pin A/4C of the GCU 2 (Ref. ASM 24-22/03).
 - $\underline{1}$ If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-892

Failure of the GLC 1 Control Circuit

1. Possible Causes

- GCU-1 (1XU1)
- RELAY-GLC 1 AUX CTL (4XU1)
- GLC-1 (9XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
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3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GLC AUX RLY (4XU1)/ GLC1 (9XU1)/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - (1) If the CFDS message comes into view associated with the fault code 19 (GLC CONTROL CKT keyword):
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the CFDS message comes into view associated with the fault codes 180 (PR SSR OC ACTIVE keyword) or 183 (GLC CONTROL CKT keyword):
 - do a check of the wiring of the GLC 1 control circuit (Ref. ASM 24-22/02) for a short to ground or a short circuit condition between:
 pin B/10J of the GCU 1 and pin A/C3 of the ELEC/GEN 1 pushbutton
 - . pin A/C1 of the ELEC/GEN 1 pushbutton switch and pin A/A of the function relay (20XU)
 - pin A/1 of the function relay (20XU) and pin A/X1 of the GLC 1 auxiliary control relay (4XU1)
 - pin B/10J of the GCU 1 and pin A/34 of the diode module 2420VD
 - . pin A/33 of the diode module 2420VD and pin B/25 of the GLC 1
 - . pin A/33 of the diode module 2420VD and pin B/10 of the BTC 1
 (11XU1)
 - . pin B/23 of the GLC 1 and pin A/D2 of the GLC 1 auxiliary control
 relay
 - pin B/12 of the BTC 1 and pin A/D2 of the GLC 1 auxiliary control
 relay
 - . pin A/D1 of the GLC 1 auxiliary control relay and pin B/3 of the GLC 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:

switch (3XU1)

- replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- 1 If the fault continues:
 - replace the RELAY-GLC 1 AUX CTL (4XU1).
 - a If the fault continues:
 - replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-893

Failure of the GLC 2 Control Circuit

1. Possible Causes

- GCU-2 (1XU2)
- RELAY-GLC 2 AUX CTL (4XU2)
- GLC-2 (9XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM ASM	71-00-00-710-028 24-22/03	Engine Shutdown

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GLC AUX RLY (4XU2)/ GLC2 (9XU2)/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - (1) If the CFDS message comes into view associated with the fault code 19 (GLC CONTROL CKT keyword):
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the CFDS message comes into view associated with the fault codes 180 (PR SSR OC ACTIVE keyword) or 183 (GLC CONTROL CKT keyword):
 - do a check of the wiring of the GLC 2 control circuit (Ref. ASM 24-22/03) for a short to ground or a short circuit condition between:
 pin B/10J of the GCU 2 and pin A/C3 of the ELEC/GEN 2 pushbutton
 - pin A/C1 of the ELEC/GEN 2 pushbutton switch and pin A/X1 of the GLC 2 auxiliary control relay (4XU2)
 - . pin B/10J of the GCU 2 and pin A/23 of the diode module 2422VD
 - . pin A/8 of the diode module 2422VD and pin B/25 of the GLC 2
 - ${\tt pin}$ A/8 of the diode module 2422VD and pin B/10 of the BTC 2 (11XU2)
 - ${\tt pin}$ B/23 of the GLC 2 and pin A/D2 of the GLC 2 auxiliary control relay
 - pin B/12 of the BTC 2 and pin A/D2 of the GLC 2 auxiliary control relay
 - . pin A/D1 of the GLC 2 auxiliary control relay and pin B/3 of the GLC 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:

switch (3XU2)

- replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- 1 If the fault continues:
 - replace the RELAY-GLC 2 AUX CTL (4XU2).
 - a If the fault continues:
 - replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-894

Failure of the GLC 1 Contacts in the Closed Position

- 1. Possible Causes
 - GLC-1 (9XU1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	a	
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
		from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GLC1 (9XU1) and the upper ECAM-DU warnings GEN 1 FAULT and AC BUS 1 FAULT:
 - replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-895

Failure of the GLC 2 Contacts in the Closed Position

- 1. Possible Causes
 - GLC-2 (9XU2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	a	
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
		from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

- 3. Fault Confirmation
 - A. Test
 Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GLC2 (9XU2) and the upper ECAM-DU warnings GEN 2 FAULT and AC BUS 2 FAULT:
 - replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-896

Failure of the BTC 1 or its Status Contact or Wiring

- 1. Possible Causes
 - GCU-1 (1XU1)
 - BTC-1 (11XU1)
 - GLC-1 (9XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	24-22-34-000-001 24-22-34-400-001 24-22-55-000-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM ASM	24-41-00-740-002 24-22/02	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring for a short to ground between pin B/29 of the BTC 1 and pin A/4C of the GCU 1 (Ref. ASM 24-22/02).
 - (1) If there is a short to ground:
 - repair or replace as necessary.
 - (2) If there is no short to ground:
 - do a check of the coil return wiring for a short to ground between pin B/5 of the BTC 1 and pin A/9A of the GCU 1 (Ref. ASM 24-22/02).
 - (a) If there is a short to ground:
 - repair or replace as necessary.
 - (b) If there is no short to ground:
 - do a check of the status auxiliary contact for correct operation between pin B/27 and pin B/29 of the BTC 1 (normally open) (Ref. ASM 24-22/02).
 - 1 If there is no continuity:
 - replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 2 If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 3 If the fault continues:
 - replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-897

Failure of the BTC 2 or its Status Contact or Wiring

- 1. Possible Causes
 - GCU-2 (1XU2)
 - BTC-2 (11XU2)
 - GLC-2 (9XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM AMM	24-22-34-000-001 24-22-34-400-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001 24-22-55-400-002	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2) Installation of the Contactors (9XU1, 9XU2, 11XU1,
	24-41-00-740-002 24-22/03	11XU2) Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring for a short to ground between pin B/29 of the BTC 2 and pin A/4C of the GCU 2 (Ref. ASM 24-22/03).
 - (1) If there is a short to ground:
 - repair or replace as necessary.
 - (2) If there is no short to ground:
 - do a check of the coil return wiring for a short to ground between pin B/5 of the BTC 2 and pin A/9A of the GCU 2 (Ref. ASM 24-22/03).
 - (a) If there is a short to ground:
 - repair or replace as necessary.
 - (b) If there is no short to ground:
 - do a check of the status auxiliary contact for correct operation between pin B/27 and pin B/29 of the BTC 2 (normally open) (Ref. ASM 24-22/03).
 - 1 If there is no continuity:
 - replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 2 If there is continuity:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 3 If the fault continues:
 - replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-898

IDG 1 Phase Reversal

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
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3. Fault Confirmation

A. Test R

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU)/GCU1 (1XU1)/WRG: POR and the upper ECAM-DU warning GEN 1 FAULT:
 - Do a check of the resistance of the IDG 1 exciter field between pins
 A/9 and A/10 (8.4 ohms plus or minus 0.84 ohms) (Ref. ASM 24-22/01).
 - (1) If the resistance values are out of the specified limits:
 - Replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - Do a check of the resistance of the IDG 1 PMG stator (Ref. ASM 24-22/01) between:
 - \cdot Pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \blacksquare Pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - . Pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - (a) If the resistance values are out of the specified limits:
 - Replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - Do a check of the wiring of the PMG and exciter field (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . Pin B/12 of the IDG 1 and pin C/10 of the GCU 1
 - . Pin B/13 of the IDG 1 and pin C/11 of the GCU 1
 - . Pin B/14 of the IDG 1 and pin C/9 of the GCU 1
 - Pins C/10, C/11, C/9 and C/7 of the GCU 1 (short to shield of the PMG wiring)
 - . Pin A/9 of the IDG 1 and pin C/12 of the GCU 1
 - . Pin A/10 of the IDG 1 and pin C/13 of the GCU 1
 - Pins C/12, C/13 and pin C/7 of the GCU 1 (short to shield of the exciter field).
 - 1 If the wiring is not correct:
 - Repair or replace as necessary.
 - 2 If the wiring is correct:
 - Do a check of the Point-Of-Regulation sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . Pin 3 of the generator 1 contactor module (30XN1) and pin A/15G of the GCU 1 $\,$
 - Pin 2 of the generator 1 contactor module and pin A/15H of the GCU 1
 - . Pin 1 of the generator 1 contactor module and pin A/14G of the GCU 1
 - . Pin A/14H and ground.
 - a If the wiring is not correct:
 - Repair or replace as necessary.

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- b If the wiring is correct:
 - Do a check of the IDG 1 feeders for a phase-neutral reversal condition (Ref. ASM 24-22/01).
 - * If there is a reversal:
 - Remove and correctly install the feeders.
 - * If the feeders are correctly installed:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - ** If the fault continues:
 - -- Replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-899

IDG 2 Phase Reversal

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
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3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU)/GCU2 (1XU2)/WRG: POR and the upper ECAM-DU warning GEN 2 FAULT:
 - Do a check of the resistance of the IDG 2 exciter field between pins A/9 and A/10 (8.4 ohms plus or minus 0.84 ohms) (Ref. ASM 24-22/01).
 - (1) If the resistance values are out of the specified limits:
 - Replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - Do a check of the resistance of the IDG 2 PMG stator (Ref. ASM 24-22/01) between:
 - \cdot Pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \blacksquare Pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - \cdot Pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - (a) If the resistance values are out of the specified limits:
 - Replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - Do a check of the wiring of the PMG and exciter field (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . Pin B/12 of the IDG 2 and pin C/10 of the GCU 2
 - . Pin B/13 of the IDG 2 and pin C/11 of the GCU 2
 - . Pin B/14 of the IDG 2 and pin C/9 of the GCU 2
 - Pins C/10, C/11, C/9 and C/7 of the GCU 2 (short to shield of the PMG wiring)
 - . Pin A/9 of the IDG 2 and pin C/12 of the GCU 2
 - . Pin A/10 of the IDG 2 and pin C/13 of the GCU 2
 - . Pins C/12, C/13 and pin C/7 of the GCU 2 (short to shield of the exciter field).
 - 1 If the wiring is not correct:
 - Repair or replace as necessary.
 - 2 If the wiring is correct:
 - Do a check of the Point-Of-Regulation sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . Pin 9 of the generator 2 contactor module (30XN2) and pin A/15G of the GCU 2 $\,$
 - Pin 8 of the generator 2 contactor module and pin A/15H of the GCU 2
 - . Pin 7 of the generator 2 contactor module and pin A/14G of the GCU 2 $\,$
 - . Pin A/14H and ground.
 - a If the wiring is not correct:
 - Repair or replace as necessary.

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- b If the wiring is correct:
 - Do a check of the IDG 2 feeders for a phase-neutral reversal condition (Ref. ASM 24-22/01).
 - * If there is a reversal:
 - Remove and correctly install the generator feeders.
 - * If the feeders are correctly installed:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - ** If the fault continues:
 - -- Replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-900

Failure of the IDG 1 Exciter Field

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) EXC FLD/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the resistance of the IDG 1 exciter field (Ref. ASM 24-22/01) between:
 - \cdot pins A/9 and A/10 (8.4 ohms plus or minus 0.84 ohms)
 - pin A/9 and IDG case (short circuit of the exciter field to the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 1 exciter field (Ref. ASM 24-22/01) for a short to ground, a short circuit or a short to shield between:
 - . pin A/9 of the IDG 1 and pin C/12 of the GCU 1
 - . pin A/10 of the IDG 1 and pin C/13 of the GCU 1
 - pins C/12, C/13 and C/7 of the GCU 1 (short to shield of the exciter field).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-901

Failure of the IDG 2 Exciter Field

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) EXC FLD/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the resistance of the IDG 2 exciter field (Ref. ASM 24-22/01) between:
 - \cdot pins A/9 and A/10 (8.4 ohms plus or minus 0.84 ohms)
 - pin A/9 and IDG case (short circuit of the exciter field to the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 2 exciter field (Ref. ASM 24-22/01) for a short to ground, a short circuit or a short to shield between:
 - . pin A/9 of the IDG 2 and pin C/12 of the GCU 2
 - . pin A/10 of the IDG 2 and pin C/13 of the GCU 2
 - pins C/12, C/13 and C/7 of the GCU 2 (short to shield of the exciter field).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION DESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 2 are shown and the AC2
busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-902

Failure of the AC Current Transformer of the IDG 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.
IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOUTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) GEN CT/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - do an electrical resistance test of the IDG 1 current transformer (Ref. ASM 24-22/01) between:
 - pins A/6 and A/1 (12 ohms plus or minus 2 ohms)
 - pins A/7 and A/1 (12 ohms plus or minus 2 ohms)
 - . pins A/8 and A/1 (12 ohms plus or minus 2 ohms).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 1 current transformer (Ref. ASM 24-22/01) for an open circuit, a short to ground or a short circuit between:
 - . pin A/1 of the IDG 1 and pin A/14E of the GCU 1
 - . pin A/6 of the IDG 1 and pin A/14D of the GCU 1
 - pin A/7 of the IDG 1 and pin A/15E of the GCU 1
 - . pin A/8 of the IDG 1 and pin A/15D of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION DESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 1 are shown and the AC1
busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-903

Failure of the AC Current Transformer of the IDG 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) GEN CT/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - do an electrical resistance test of the IDG 1 current transformer (Ref. ASM 24-22/01) between:
 - pins A/6 and A/1 (12 ohms plus or minus 2 ohms)
 - pins A/7 and A/1 (12 ohms plus or minus 2 ohms)
 - . pins A/8 and A/1 (12 ohms plus or minus 2 ohms).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 2 current transformer (Ref. ASM 24-22/01) for an open circuit, a short to ground or a short circuit between:
 - . pin A/1 of the IDG 2 and pin A/14E of the GCU 2
 - . pin A/6 of the IDG 2 and pin A/14D of the GCU 2
 - . pin A/7 of the IDG 2 and pin A/15E of the GCU 2
 - . pin A/8 of the IDG 2 and pin A/15D of the GCU 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-904

Low Oil Pressure of the Integrated Drive Generator 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	-

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) LOW OIL PRESSURE and the upper ECAM-DU warning IDG 1 OIL LO PR:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG 1 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the DPI is not extended:
 - do a check of the IDG 1 oil level (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the oil level is not correct:
 - do a visual inspection of the IDG 1, the external oil-circuit tubing and the fuel/oil heat exchanger for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - 1 If you find leaks:
 - repair or replace the components as necessary to remove the oil leaks.
 - 2 If you find no leaks:
 - add oil (Ref. AMM TASK 12-13-24-612-041)
 - connect the IDG 1 (if disconnected)
 - do a dynamic disconnect test of the IDG 1 (Ref. AMM TASK 24-21-00-720-041).
 - <u>a</u> If the oil pressure is correct:- stop the trouble shooting.
 - otop the troubte shoctin
 - (3) If the fault continues:
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - 1 If the maintenance message GCU1 (1XU1) comes into view:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the BITE test gives the message TEST PASSED:
 - do a check of the low-oil pressure wiring for a short to ground between pin C/A of the IDG 1 and pin A/4A of the GCU 1 (Ref. ASM 24-21/01).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- 2 If the wiring is correct:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - a If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-905

Low Oil Pressure of the Integrated Drive Generator 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>	
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)	
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits	
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
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3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) LOW OIL PRESSURE and the upper ECAM-DU warning IDG 2 OIL LO PR:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG 2 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the DPI is not extended:
 - do a check of the IDG 2 oil level (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the oil level is not correct:
 - do a visual inspection of the IDG 2, the external oil-circuit tubing and the fuel/oil heat exchanger for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - 1 If you find leaks:
 - repair or replace the components as necessary to remove the oil leaks.
 - 2 If you find no leaks:
 - add oil (Ref. AMM TASK 12-13-24-612-041)
 - connect the IDG 2 (if disconnected)
 - do a dynamic disconnect test of the IDG 2 (Ref. AMM TASK 24-21-00-720-041).
 - <u>a</u> If the oil pressure is correct:- stop the trouble shooting.
 - (3) If the fault continues:
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - 1 If the maintenance message GCU2 (1XU2) comes into view:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the BITE test gives the message TEST PASSED:
 - do a check of the low-oil pressure wiring for a short to ground between pin C/A of the IDG 2 and pin A/4A of the GCU 2 (Ref. ASM 24-21/01).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- 2 If the wiring is correct:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - a If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-906

IDG 1 Manual Disconnect

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- P/BSW-ELEC/IDG 1 (5XT)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
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3. Fault Confirmation

A. Test

Not applicable.

 $\underline{{\tt NOTE}}$: As the GEN 1 was set to off because of a true fault, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message IDG1 (E1-4000XU) MANUAL DISCONNECT and by the upper ECAM-DU warnings IDG 1 OIL LO PR or IDG 1 OIL OVHT:
 - NOTE: You can find this message with other CFDS fault messages. First, do the trouble shooting for all the other CFDS fault message.
 - (1) Read the flight log book and the maintenance log book to identify the cause of the IDG disconnect.
 - (2) If there is no cause or if the cause is unknown:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG
 1 (Ref. AMM TASK 24-21-00-210-046),
 - do a check of the scavenge filter and charge filter (if installed).
 - (a) If the DPI is extended:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the DPI is not extended:
 - do a visual check of the IDG 1 oil level (Ref. AMM TASK 24-21-00-210-046).
 - 1 If the oil level is not correct:
 - do a visual inspection of the IDG 1 for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - a If you find leaks:
 - repair or replace the components as necessary to remove the oil leaks.
 - b If you find no leaks:
 - add oil (Ref. AMM TASK 12-13-24-612-041)
 - connect the IDG 1 (if disconnected)
 - do a dynamic disconnect test of the IDG 1 (Ref. AMM TASK 24-21-00-720-041).
 - . If the oil pressure is correct:
 - stop the trouble shooting.
 - (3) If the fault continues:
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - 1 If the maintenance message GCU1 (1XU1) comes into view:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- (b) If the BITE test gives the message TEST PASSED:
 - do a check and repair the wiring of the IDG 1 disconnect circuit (Ref. ASM 24-21/01) for a short to 28VDC between:
 pin B1 of the ELEC/IDG1 pushbutton switch (5XT) and pin B3 of the relay (7XT)
 - pin B2 of the relay (7XT) and pin X1 of the IDG 1 DISC CTL relay (3XT)
 - . pin B1 of the IDG 1 DISC CTL relay and pin A/2J of the GCU 1.
 - do a check and repair the contact of the P/BSW-ELEC/IDG 1 (5XT) for correct operation between pin B1 and pin B3 (normally open) (Ref. ASM 24-21/01).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-907

IDG 2 Manual Disconnect

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- P/BSW-ELEC/IDG 2 (6XT)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable.

 $\underline{{\tt NOTE}}$: As the GEN 2 was set to off because of a true fault, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message IDG2 (E2-4000XU) MANUAL DISCONNECT and by the upper ECAM-DU warnings IDG 2 OIL LO PR or IDG 2 OIL OVHT:
 - NOTE: You can find this message with other CFDS fault messages. First, do the trouble shooting for all the other CFDS fault messages.
 - (1) Read the flight log book and the maintenance log book to identify the cause of the IDG disconnect.
 - (2) If there is no cause or if the cause is unknown:
 - do a check of the Differential Pressure Indicator (DPI) of the IDG
 2 (Ref. AMM TASK 24-21-00-210-046),
 - do a check of the scavenge filter and charge filter (if installed).
 - (a) If the DPI is extended:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the DPI is not extended:
 - do a visual check of the IDG 2 oil level (Ref. AMM TASK 24-21-00-210-046).
 - 1 If the oil level is not correct:
 - do a visual inspection of the IDG 2 for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - a If you find leaks:
 - repair or replace the components as necessary to remove the oil leaks.
 - b If you find no leaks:
 - add oil (Ref. AMM TASK 12-13-24-612-041)
 - connect the IDG 2 (if disconnected)
 - do a dynamic disconnect test of the IDG 2 (Ref. AMM TASK 24-21-00-720-041).
 - . If the oil pressure is correct:
 - stop the trouble shooting.
 - (3) If the fault continues:
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - 1 If the maintenance message GCU2 (1XU2) comes into view:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- (b) If the BITE test gives the message TEST PASSED:
 - do a check and repair the wiring of the IDG 2 disconnect circuit (Ref. ASM 24-21/01) for a short to 28VDC between:
 pin B1 of the ELEC/IDG2 pushbutton switch (6XT) and pin B3 of the relay (8XT)
 - ${\tt pin~B2}$ of the relay (8XT) and pin X1 of the IDG 2 disconnect control relay (4XT)
 - pin B1 of the IDG 2 disconnect control relay and pin A/2J of the GCU 2.
 - do a check and repair the contact of the P/BSW-ELEC/IDG 2 (6XT) for correct operation between pin B1 and pin B3 (normally open) (Ref. ASM 24-21/01).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).

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- (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
- (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-909

Failure of the IDG 2 PMG Stator

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) PMG/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (1) If the fault continues:
 - do a check of the wiring of the IDG 2 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - . pin B/12 of the IDG 2 and pin C/10 of the GCU 2
 - . pin B/13 of the IDG 2 and pin C/11 of the GCU 2
 - . pin B/14 of the IDG 2 and pin C/9 of the GCU 2
 - pins C/10, C/11, C/9 and pin C/7 of the GCU 2 (short to shield of the PMG wiring).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-910

Failure of the IDG 1 PMG Stator or its Wiring to the GCU 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) PMG/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - (1) If the CFDS message comes into view with the fault codes 104 (UV TRIP / SOPMG keyword), 187 (PMG OPEN / SHORT keyword) or 260 (UF TRIP / SOPMG keyword):
 - do a check of the resistance of the IDG 1 PMG stator (Ref. ASM 24-22/01) between:
 - \cdot pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \blacksquare pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 1 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - . pin B/12 of the IDG 1 and pin C/10 of the GCU 1
 - . pin B/13 of the IDG 1 and pin C/11 of the GCU 1
 - . pin B/14 of the IDG 1 and pin C/9 of the GCU 1
 - . pins C/10, C/11, C/9 and pin C/7 of the GCU 1 (short to shield of the PMG wiring).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the CFDS message comes into view with the fault code 189 (PMG SHT TO CHAS keyword):
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check of the wiring of the IDG 1 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - . pins C/10 and C/7 of the GCU 1
 - . pins C/11 and C/7 of the GCU 1
 - . pins C/9 and C/7 of the GCU 1.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-911

Failure of the IDG 2 PMG Stator or its Wiring to the GCU 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) PMG/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - (1) If the CFDS message comes into view with the fault codes 104 (UV TRIP / SOPMG keyword), 187 (PMG OPEN / SHORT keyword) or 260 (UF TRIP / SOPMG keyword):
 - do a check of the resistance of the IDG 2 PMG stator (Ref. ASM 24-22/01) between:
 - \cdot pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \blacksquare pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 2 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - . pin B/12 of the IDG 2 and pin C/10 of the GCU 2
 - . pin B/13 of the IDG 2 and pin C/11 of the GCU 2
 - . pin B/14 of the IDG 2 and pin C/9 of the GCU 2
 - . pins C/10, C/11, C/9 and pin C/7 of the GCU 2 (short to shield of the PMG wiring).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the CFDS message comes into view with the fault code 189 (PMG SHT TO CHAS keyword):
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check of the wiring of the IDG 2 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - . pins C/10 and C/7 of the GCU 2
 - . pins C/11 and C/7 of the GCU 2
 - . pins C/9 and C/7 of the GCU 2.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-912

Failure of the Bus between the ECU 1 and the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
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- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. If the fault symptom is identified by the maintenance message ECU (E1-4000KS)/ GCU1 (1XU1) and by the upper ECAM-DU warning GEN 1 FAULT:

NOTE : You can find this message with other CFDS fault messages. First, do the trouble shooting for all the other CFDS fault messages.

- replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- (1) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-22/01) for an open circuit, a short to ground or a short to shield between:
 - . pin A/7E of the GCU 1 and pin J3/11 of the ECU (E1-4000KS)
 - . pin A/8E of the GCU 1 and pin J3/24 of the ECU (E1-4000KS)

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- pin A/7E and pin A/9E of the GCU 1 (short to shield of the wiring)
- pin A/8E and pin A/9E of the GCU 1 (short to shield of the wiring).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-913

Failure of the Bus between the ECU 2 and the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
АММ	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-043	Normal Engine Automatic Start Procedure	
ASM	24-22/01	_	

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. If the fault symptom is identified by the maintenance message ECU (E2-4000KS)/ GCU2 (1XU2) and by the upper ECAM-DU warning GEN 2 FAULT:
 - NOTE : You can find this message with other CFDS fault messages. First, do the trouble shooting for all the other CFDS fault messages.
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-22/01) for an open circuit, a short to ground or a short to shield between:
 - . pin A/7E of the GCU 2 and pin J3/11 of the ECU (E2-4000KS)
 - . pin A/8E of the GCU 2 and pin J3/24 of the ECU (E2-4000KS)

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EFF:

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- pin A/7E and pin A/9E of the GCU 2 (short to shield of the wiring)
- pin A/8E and pin A/9E of the GCU 2 (short to shield of the wiring).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-043).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-914

Failure of the IDG 1 Servo Valve or its Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-21/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.
IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOUTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) SERVO VLV/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - do an electrical resistance test of the IDG 1 servo valve (Ref. ASM 24-21/01) between:
 - pins B/1 and B/2 (75 ohms plus or minus 6 ohms)
 - pin B/1 and IDG case (do a check for a short circuit of the servo-valve supply wiring to the IDG case)
 - pin B/2 and IDG case (do a check for a short circuit of the servo-valve return wiring to the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the servo valve wiring (Ref. ASM 24-21/01) for a short to ground or a short to shield between:
 - . pin B/1 of the IDG 1 and pin B/11J of the GCU 1
 - . pin B/2 of the IDG 1 and pin B/11H of the GCU 1
 - pins B/11J and B/10H of the GCU 1
 - . pins B/11H and B/10H of the GCU 1.
 - (a) If the wiring is not correct:repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION DESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 1 are shown and the AC1
busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-915

Failure of the IDG 2 Servo Valve or its Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) SERVO VLV/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - do an electrical resistance test of the IDG 2 servo valve (Ref. ASM 24-21/01) between:
 - . pins B/1 and B/2 (75 ohms plus or minus 6 ohms)
 - pin B/1 and IDG case (do a check for a short circuit of the servo-valve supply wiring to the IDG case)
 - pin B/2 and IDG case (do a check for a short circuit of the servo-valve return wiring to the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the servo valve wiring (Ref. ASM 24-21/01) for a short to ground or a short to shield between:
 - . pin B/1 of the IDG 2 and pin B/11J of the GCU 2
 - . pin B/2 of the IDG 2 and pin B/11H of the GCU 2
 - pins B/11J and B/10H of the GCU 2
 - . pins B/11H and B/10H of the GCU 2.
 - (a) If the wiring is not correct:repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-916

Failure of the IDG 1 Servo Valve or the Return Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG1(E1-4000XU)/SERVO VL and the upper ECAM-DU warning GEN 1 FAULT:
 - do an electrical resistance test of the IDG 1 servo valve (Ref. ASM 24-21/01) between:
 - pins B/1 and B/2 (75 ohms plus or minus 6 ohms)
 - pin B/2 and IDG case (do a check for a short circuit of the servo-valve return wiring to the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the servo-valve return wiring (Ref. ASM 24-21/01) for a short to ground or a short to shield between:
 - . pin B/2 of the IDG 1 and pin B/11H of the GCU 1
 - . pins B/11H and B/10H of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION DESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 1 are shown and the AC1
busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-917

Failure of the IDG 2 Servo Valve or the Return Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-21/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.
IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message IDG2(E2-4000XU)/SERVO VL and the upper ECAM-DU warning GEN 2 FAULT:
 - do an electrical resistance test of the IDG 2 servo valve (Ref. ASM 24-21/01) between:
 - . pins B/1 and B/2 (75 ohms plus or minus 6 ohms)
 - pins B/2 and IDG case (do a check for a short circuit of the servo-valve return wiring to the IDG case).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - do a check of the servo- valve return wiring (Ref. ASM 24-21/01) for a short to ground or a short to shield between:
 - pin B/2 of the IDG 2 and pin B/11H of the GCU 2
 - . pin B/11H and pin B/10H of the GCU 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION DESILIT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 2 are shown and the AC2
busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-918

Overload on the Electrical Network of the Generator 1

1. Possible Causes

- MAIN/GALLEY C/PWR/SPLY (1MC)
- AFTER GALLEY FEEDER B (12MC)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
AMM ASM	71-00-00-710-043 24-51/02	Normal Engine Automatic Start Procedure	

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) On the ELEC panel 35VU, make sure that the ELEC/GEN 1 pushbutton switch (3XU1) is pushed.
 - (3) On the ELEC panel 35VU, make sure that the ELEC/GALLEY pushbutton switch (2XA) is pushed (the OFF legend is off).
- B. Test
 - (1) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (2) On the upper ECAM DU, the warning GEN 1 OVERLOAD is shown.

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4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
12 3 VU	BUS 1/131XP-A/SPLY	5XN1	AB12
12 3 VU	BUS 1/103XP/SPLY	3XN1	AB11
12 3 VU	TR1/SPLY	2PU1	AB10
12 3 VU	B HYD/ELEC PUMP	2701GJ	AB09
12 3 VU	AC ESS/BUS ON/BUS 1	1XC	AC 12
12 3 VU	BUS 1/101XP/SPLY	1XN1	AD11
12 3 VU	AVNCS VENT/BLOWER/FAN	1HQ	AD 10
12 3 VU	BUS 1/110XP/SPLY	7XN1	AF11
12 3 VU	ANTI ICE/L/WHSLD	1DG1	AF 10

- B. If the test confirms the fault:
 - in the AC power center panel 123VU, do a check of the circuit breakers
 1MC and 12MC.
 - (1) If the circuit breakers 1MC and/or 12MC are open:
 - replace the MAIN/GALLEY C/PWR/SPLY (1MC) and/or the AFTER GALLEY FEEDER B (12MC).
 - (2) If the circuit breakers 1MC and 12MC are closed:
 - on the AC power center panel 123VU, do a check of the status of the circuit breakers 5XN1, 3XN1, 7XN1, 1DG1, 1XC, 2701GJ, 1HQ, 1XN1 and 2PU1.
 - (a) If one or more circuit breaker(s) is(are) open:
 - do a check of the loads downstream of the open circuit breaker(s) for a short to ground or a defective component.
 - (b) If all the circuit breakers are closed:
 - stop the engine 1 (Ref. AMM TASK 71-00-00-710-003)
 - de-energize the aircraft electrical network from the external power (Ref. AMM TASK 24-41-00-862-002) and do the procedure that follows.
- C. Do a check of the AC/DC main power center 120VU:
 - Open the AC/DC main power center 120VU and do a check of the wiring for a short circuit or a short to ground between downstream of the GLC 1 (load side) and the loads (Ref. ASM 24-51/02).
 - (1) If the wiring is not correct:
 - Repair or replace as necessary.

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- (2) If the wiring is correct:
 - Do a check of the feeders for a short to ground, a short circuit or a related defective equipement between the pins 4, 5 and 6 of the generator 1 contactor module (30XN1) and the load side (Ref. ASM 24-51/02).
 - (a) If there is a short to ground:
 - Repair or replace as necessary.
 - (b) If there is no short to ground:
 - Energize the aircraft electrical network from the external power (Ref. AMM TASK 24-41-00-861-002).
 - Start the engine 1 only (Ref. AMM TASK 71-00-00-710-043) and close one by one the circuit breakers until the warning GEN 1 OVERLOAD is shown. Repair the wiring or the component of the defective circuit.
- D. Do this test to make sure that the failure is repaired:
 - (1) Make sure that the circuit breakers are closed (if the circuit breakers are not closed, close them).
 - (2) Energize the aircraft electrical circuit from the external power A (Ref. AMM TASK 24-41-00-861-002).
 - (3) On the ELEC panel 35VU, make sure that the ELEC/GALLEY pushbutton switch is pushed.
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) After five minutes, make sure that, on the upper ECAM DU, the warning GEN 1 OVERLOAD is not shown.
 - (6) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-919

Overload on the Electrical Network of the Generator 2

1. Possible Causes

- MAIN-GALLEY A/PWR/SPLY (3MC)
- GALLEY D (2MC)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
AMM ASM	71-00-00-710-043 24-51/03	Normal Engine Automatic Start Procedure	

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) On the ELEC panel 35VU, make sure that the ELEC/GEN 2 pushbutton switch (3XU2) is pushed.
 - (3) On the ELEC panel 35VU, make sure that the ELEC/GALLEY pushbutton switch (2XA) is pushed (the OFF legend is off).
- B. Test
 - (1) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (2) On the upper ECAM DU, the warning GEN 2 OVERLOAD is shown.

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4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
12 3 VU	TR2/214XP/SPLY	2PU2	ABO4
123VU	Y HYD/ELEC/ELEC PUMP/NORM	3801GX	AB03
12 3 VU	BUS 2/204XP/SPLY	3XN2	AB02
12 3 VU	BUS 2/231XP-A/SPLY	5XN2	AB01
12 3 VU	AC ESS/BUS ON/BUS 2	2XC	ACO1
12 3 VU	BUS 2/212XP/SPLY	10xn	AD03
123VU	BUS 2/202XP/SPLY	1XN2	AD02
123VU	AVNCS VENT/EXTC/FAN	2HQ	AEO2
12 3 VU	ANTI ICE/R/WHSLD	1DG2	AF03
123VU	BUS 2/210XP/SPLY	7XN2	AFO2

- B. If the test confirms the fault:
 - in the AC power center panel 123VU, do a check of the circuit breakers
 3MC and 2MC.
 - (1) If the circuit breakers 3MC and/or 2MC are open:
 - replace the MAIN-GALLEY A/PWR/SPLY (3MC) and/or the GALLEY D (2MC).
 - (2) If the circuit breakers 3MC and 2MC are closed:
 - on the AC power center panel 123VU, do a check of the status of the circuit breakers 5XN2, 3XN2, 7XN2, 1DG2, 2XC, 2HQ, 1XN2, 2PU2, 10XN and 3801GX.
 - (a) If one or more circuit breaker(s) is(are) open:
 - do a check of the loads downstream of the open circuit breaker(s) for a short to ground or a defective component.
 - (b) If all the circuit breakers are closed:
 - stop the engine 2 (Ref. AMM TASK 71-00-00-710-043)
 - de-energize the aircraft electrical network from the external power (Ref. AMM TASK 24-41-00-862-002) and do the procedure that follows.
- C. Do a check of the AC/DC main power center 120VU:
 - Open the AC/DC main power center 120VU and do a check of the wiring for a short circuit or a short to ground between downstream of the GLC 2 (load side) and the loads (Ref. ASM 24-51/03).
 - (1) If the wiring is not correct:
 - Repair or replace as necessary.

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- (2) If the wiring is correct:
 - Do a check of the feeders for a short to ground, a short circuit or a related defective equipement between the pins 4, 5 and 6 of the generator 2 contactor module (30XN2) and the load side (Ref. ASM 24-51/03).
 - (a) If there is a short to ground:
 - Repair or replace as necessary.
 - (b) If there is no short to ground:
 - Energize the aircraft electrical network from the external power (Ref. AMM TASK 24-41-00-861-002)
 - Start the engine 2 only (Ref. AMM TASK 71-00-00-710-043) and close one by one the circuit breakers until the warning GEN 2 OVERLOAD is shown. Repair the wiring or the component of the defective circuit.
- D. Do this test to make sure that the failure is repaired:
 - (1) Make sure that the circuit breakers are closed (if the circuit breakers are not closed, close them).
 - (2) Energize the aircraft electrical circuit from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (3) On the ELEC panel 35VU, make sure that the ELEC/GALLEY pushbutton switch is pushed.
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) After five minutes, make sure that, on the upper ECAM DU, the warning GEN 2 OVERLOAD is not shown.
 - (6) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-920

Failure of the BTC 1 Status Sense-Circuit

- 1. Possible Causes
 - GCU-1 (1XU1)
 - BTC-1 (11XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Paraval of the CCU 4/3) /4704 4703)
	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)
		•
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
ASM	24-22/02	

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: If the CFDS message PB BUS TIE (10XU) / BTC1 (11XU1) / GCU1 (1XU1) comes into view when the flight crew or the maintenance personnel puts the BUS TIE pushbutton switch (10XU) in the released or OFF position the trouble shooting is not necessary. This can occur during an electrical system test or during trouble shooting.

 If the flight crew or the maintenance personnel did not operate the BUS TIE pushbutton switch and this CFDS message comes into view, do the trouble shooting procedure that follows.
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (1) If the fault continues:
 - do a check of the status sense wiring for an open circuit or high resistance condition between pin A/4C of the GCU 1 and pin B/29 of the BTC 1 (Ref. ASM 24-22/02).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-20-00-810-921

Failure of the BTC 2 Status Sense-Circuit

- 1. Possible Causes
 - GCU-2 (1XU2)
 - BTC-2 (11XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM ASM	24-41-00-740-002 24-22/03	Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: If the CFDS message PB BUS TIE (10XU) / BTC2 (11XU2) / GCU2 (1XU2) comes into view when the flight crew or the maintenance personnel puts the BUS TIE pushbutton switch (10XU) in the released or OFF position the trouble shooting is not necessary. This can occur during an electrical system test or during trouble shooting.

 If the flight crew or the maintenance personnel did not operate the BUS TIE pushbutton switch and this CFDS message comes into view, do the trouble shooting procedure that follows.
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (1) If the fault continues:
 - do a check of the status sense wiring for an open circuit or high resistance condition between pin A/4C of the GCU 2 and pin B/29 of the BTC 2 (Ref. ASM 24-22/03).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.
 - If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-20-00-810-922

Failure of the IDG 1 Neutral Feeder

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- neutral feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message WRG: GEN1 NEUTRAL FEEDER/ IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the neutral feeder for an open circuit or a high resistance between terminal N of the IDG 1 and the airframe ground (all connection points) (Ref. ASM 24-22/01).
 - (1) If the feeder is not correct:
 - repair or replace the neutral feeder as necessary.
 - (2) If the feeder is correct:
 - do a check of the resistance of the main stator windings of the IDG
 1 (Ref. ASM 24-22/01) between:
 - terminals T1 and N (7 milliohms plus or minus 1 milliohm)
 - . terminals T2 and N (7 milliohms plus or minus 1 milliohm)
 - . terminals T3 and N (7 milliohms plus or minus 1 milliohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 1 are shown and the AC1
busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-923

Failure of the IDG 2 Neutral Feeder

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- neutral feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message WRG: GEN2 NEUTRAL FEEDER/ IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the neutral feeder for an open circuit or a high resistance between terminal N of the IDG 2 and the airframe ground (all connection points) (Ref. ASM 24-22/01).
 - (1) If the feeder is not correct:
 - repair or replace the neutral feeder as necessary.
 - (2) If the feeder is correct:
 - do a check of the resistance of the main stator windings of the IDG
 2 (Ref. ASM 24-22/01) between:
 - . terminals T1 and N (7 milliohms plus or minus 1 milliohm)
 - . terminals T2 and N (7 milliohms plus or minus 1 milliohm)
 - . terminals T3 and N (7 milliohms plus or minus 1 milliohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 2 are shown and the AC2
busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-924

Failure of the GEN 1 Feeders or the Current Transformer Assembly

1. Possible Causes

- CT-AC, 1 (41XU1)
- GCU-1 (1XU1)
- feeders
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 51XU1, 51XU2)
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 51XU1, 51XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN1 FEEDER/CTA (41XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the feeders (Ref. ASM 24-22/01) for an open circuit between:
 - . terminal block T1 of the IDG 1 and terminal 1 of the 1999VT
 - . terminal block T2 of the IDG 1 and terminal 2 of the 1999VT

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- . terminal block T3 of the IDG 1 and terminal 3 of the 1999VT.
- (1) If the feeders are not correct:
 repair or replace the feeders as necessary.
- (2) If the feeders are correct:
 - do an electrical resistance test of the Current Transformer Assembly (CTA) (41XU1) between:
 - pins A and G (6.725 ohms plus or minus 2.075 ohms)
 - pins B and G (6.725 ohms plus or minus 2.075 ohms)
 - pins C and G (6.725 ohms plus or minus 2.075 ohms).
 - (a) If the resistance values are out of the specified limits: - replace the CT-AC, 1 (41XU1) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-22/01) for a short circuit between:
 - . pins A, B and C of the CTA and pin A/15B of the GCU 1
 - . pin G of the CTA and pin A/14B of the GCU 1.
 - 1 If the wiring is not correct: - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION PESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 1 are shown and the AC1
busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-925

Failure of the GEN 2 Feeders or the Current Transformer Assembly

1. Possible Causes

- CT-AC, 2 (41XU2)
- GCU-2 (1XU2)
- feeders
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 51XU1, 51XU2)	
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 51XU1, 51XU2)	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN2 FEEDER/CTA (41XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the feeders (Ref. ASM 24-22/01) for an open circuit between:
 - . terminal block T1 of the IDG 2 and terminal 1 of the 1998VT
 - . terminal block T2 of the IDG 2 and terminal 2 of the 1998VT

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- . terminal block T3 of the IDG 2 and terminal 3 of the 1998VT.
- (1) If the feeders are not correct:
 repair or replace the feeders as necessary.
- (2) If the feeders are correct:
 - do an electrical resistance test of the Current Transformer Assembly (CTA) (41XU2) between:
 - . pins A and G (6.725 ohms plus or minus 2.075 ohms)
 - pins B and G (6.725 ohms plus or minus 2.075 ohms)
 - pins C and G (6.725 ohms plus or minus 2.075 ohms).
 - (a) If the resistance values are out of the specified limits: - replace the CT-AC, 2 (41XU2) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-22/01) for a short circuit between:
 - pins A, B and C of the CTA and pin A/15B of the GCU 2
 - . pin G of the CTA and pin A/14B of the GCU 2.
 - 1 If the wiring is not correct: - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION PESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 2 are shown and the AC2
busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-926

Failure of the Feeders Between the IDG 1 and the GLC 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN1 FEEDER and the upper ECAM-DU warning GEN 1 FAULT:
 - Do a check of the feeders (Ref. ASM 24-22/01) for an open circuit or a short to airframe between:
 - . Terminal T1 of the IDG 1 and pin 1 of the generator 1 contactor module (30XN1)

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- . Terminal T2 of the IDG 1 and pin 2 of the generator 1 contactor module
- . Terminal T3 of the IDG 1 and pin 3 of the generator 1 contactor module.
- (1) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
- (2) If the feeders are correct:
 - Replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (a) If the fault continues:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-927

Failure of the Feeders Between the IDG 2 and the GLC 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN2 FEEDER and the upper ECAM-DU warning GEN 2 FAULT:
 - Do a check of the feeders (Ref. ASM 24-22/01) for an open circuit or a short to airframe between:
 - . Terminal T1 of the IDG 2 and pin 1 of the generator 2 contactor module (30XN2)

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- . Terminal T2 of the IDG 2 and pin 2 of the generator 2 contactor module
- . Terminal T3 of the IDG 2 and pin 3 of the generator 2 contactor module.
- (1) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
- (2) If the feeders are correct:
 - Replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (a) If the fault continues:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-928

Failure of the Feeders Between the IDG 1 and the GLC 1

1. Possible Causes

- IDG (4000XU)
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: IDG1 FEEDER/IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - Do a check of the feeders (Ref. ASM 24-22/01) for an open circuit condition or a high resistance between:
 - . Terminal T1 of the IDG 1 and pin 1 of the generator 1 contactor module (30XN1)
 - . Terminal T2 of the IDG 1 and pin 2 of the generator 1 contactor module $\boldsymbol{\theta}$
 - . Terminal T3 of the IDG 1 and pin 3 of the generator 1 contactor module

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- . Terminal N of the IDG 1 and the airframe ground.
- (1) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
- (2) If the feeders are correct:
 - Replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-929

Failure of the Feeders Between the IDG 2 and the GLC 2

1. Possible Causes

- IDG (4000XU)
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM ASM	71-00-00-710-028 24-22/01	Engine Shutdown	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: IDG2 FEEDER/IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - Do a check of the feeders (Ref. ASM 24-22/01) for an open circuit condition or a high resistance between:
 - . Terminal T1 of the IDG 2 and pin 1 of the generator 2 contactor module (30XN2)
 - . Terminal T2 of the IDG 2 and pin 2 of the generator 2 contactor module
 - . Terminal T3 of the IDG 2 and pin $\bf 3$ of the generator 2 contactor module

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- . Terminal N of the IDG 2 and the airframe ground.
- (1) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
- (2) If the feeders are correct:
 - Replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-932

Failure of the GCU 1 Pin Programming

- 1. Possible Causes
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION			

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-41-00-740-002 Operational Check of GAPCU via CFDS
ASM 24-22/02

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. If the BITE test gives the message TEST PASSED:
 - do a check of the pin programming wiring (Ref. ASM 24-22/02) of the GCU
 1:
 - pin A/5A connected to ground
 - pin A/3E connected to ground
 - . pin A/4G connected to ground
 - pins A/7C, A/8A, A/2E and A/5E not connected.

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- <u>NOTE</u>: The wiring diagram of the aircraft interface with the pin programming connections is necessary to do the trouble shooting procedure.
- (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-933

Failure of the GCU 2 Pin Programming

- 1. Possible Causes
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)

Operational Check of GAPCU via CFDS

3. Fault Confirmation

AMM 24-41-00-740-002

A. Test

ASM 24-22/03

- (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED: - do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED: do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED: - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. If the BITE test gives the message TEST PASSED:
 - do a check of the pin programming wiring (Ref. ASM 24-22/03) of the GCU
 - pin A/5A connected to ground
 - pin A/3E connected to ground
 - pin A/5E connected to ground
 - . pins A/7C, A/8A, A/2E and A/4G not connected.

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- NOTE : The wiring diagram of the aircraft interface with the pin programming connections is necessary to do the trouble shooting procedure.
- (2) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-934

Failure of the GCU 1 POR Wiring

- 1. Possible Causes
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	-

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - Pin 1 of the generator 1 contactor module (30XN1) and pin A/14G of the GCU 1 (phase A)
 - Pin 2 of the generator 1 contactor module and pin A/15H of the GCU 1
 (phase B)
 - . Pin 3 of the generator 1 contactor module and pin A/15G of the GCU 1 (phase C)
 - . pin A/14H of the GCU 1 and ground.

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- (1) If the wiring is not correct:
 - Repair or replace as necessary.
- (2) If the wiring is correct:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-935

Failure of the GCU 2 POR Wiring

- 1. Possible Causes
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
A MM	2/ 22 7/ 000 004	Damarial of the COU 4/23 (4VII4 4VII2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	=11g 111c - 011d 0d0#11
ASM	24-22/UI	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - ${\tt Pin 1}$ of the generator 2 contactor module (30XN2) and pin A/14G of the GCU 2 (phase A)
 - Pin 2 of the generator 2 contactor module and pin A/15H of the GCU 2
 (phase B)
 - . Pin 3 of the generator 2 contactor module and pin A/15G of the GCU 2 (phase C) $\,$
 - . Pin A/14H of the GCU 2 and ground.

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- (1) If the wiring is not correct:
 - Repair or replace as necessary.
- (2) If the wiring is correct:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-936

Failure of the IDG 1 Feeder or GCU 1 POR Wiring

1. Possible Causes

- GCU-1 (1XU1)
- wiring
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	27, 22, 77, 202, 204	D
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
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3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ WRG: GEN1 FEEDER/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a correct phase connection between:
 - . Pin 1 of the generator 1 contactor module (30XN1) and pin A/14G of the GCU 1 (phase A)
 - Pin 2 of the generator 1 contactor module and pin A/15H of the GCU 1
 (phase B)
 - . Pin 3 of the generator 1 contactor module and pin A/15G of the GCU 1 (phase C).

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- (1) If the wiring is not correct:
 - Connect the wiring as necessary to get the correct phase connection.
- (2) If the wiring is correct:
 - Do a check of the feeders (Ref. ASM 24-22/01) for a correct phase connection between:
 - . Terminal T1 of the IDG 1 and pin 1 of the generator 1 contactor module (30XN1)
 - . Terminal T2 of the IDG 1 and pin 1 of the generator 1 contactor module $\boldsymbol{\theta}$
 - . Terminal T3 of the IDG 1 and pin 1 of the generator 1 contactor module.
 - (a) If the feeders are not correct:
 - Connect the feeders as necessary to get the correct phase connection.
 - (b) If the feeders are correct:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-937

Failure of the IDG 2 Feeder or GCU 2 POR Wiring

1. Possible Causes

- GCU-2 (1XU2)
- wiring
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ WRG: GEN2 FEEDER/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a correct phase connection between:
 - Pin 1 of the generator 2 contactor module (30XN2) and pin A/14G of the GCU 2 (phase A)
 - Pin 2 of the generator 2 contactor module and pin A/15H of the GCU 2
 (phase B)
 - . Pin 3 of the generator 2 contactor module and pin A/15G of the GCU 2 (phase C).

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- (1) If the wiring is not correct:
 - Connect the wiring as necessary to get the correct phase connection.
- (2) If the wiring is correct:
 - Do a check of the feeders (Ref. ASM 24-22/01) for a correct phase connection between:
 - . Terminal T1 of the IDG 2 and pin 1 of the generator 2 contactor module (30XN2)
 - . Terminal T2 of the IDG 2 and pin 2 of the generator 2 contactor module $\ensuremath{\mathsf{T}}$
 - . Terminal T3 of the IDG 2 and pin 3 of the generator 2 contactor module.
 - (a) If the feeders are not correct:
 - Connect the feeders as necessary to get the correct phase connection.
 - (b) If the feeders are correct:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-938

Failure of the POR neutral wiring of the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR NEUTRAL/GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the Point-Of-Regulation neutral wiring for an open circuit between pin A/14H of the GCU 1 and neutral aircraft connection (Ref. ASM 24-22/01).
 - (1) If there is no continuity:
 - repair or replace as necessary.
 - (2) If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-939

Failure of the POR neutral wiring of the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR NEUTRAL/GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the Point-Of-Regulation neutral wiring for an open circuit between pin A/14H of the GCU 2 and neutral aircraft connection (Ref. ASM 24-22/01).
 - (1) If there is no continuity:
 - repair or replace as necessary.
 - (2) If there is continuity:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-940

Failure of the APU generator AC Current Transformer or its Wiring

1. Possible Causes

- CT-AC, APU GEN (42XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-17-000-001	Removal of the AC Current Transformer (42XS)
AMM	24-23-17-400-001	Installation of the AC Current Transformer (42XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message CTA (42XS)/GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - do an electrical resistance test of the APU generator AC current transformer (42XS) (Ref. ASM 24-23/01) between:
 - pin 1 and pin 4 (10.15 ohms plus or minus 3.45 ohms)
 - pin 2 and pin 4 (10.15 ohms plus or minus 3.45 ohms)
 - . pin 3 and pin 4 (10.15 ohms plus or minus 3.45 ohms).
 - (1) If the resistance values are out of the specified limits:
 - replace the CT-AC, APU GEN (42XS) (Ref. AMM TASK 24-23-17-000-001) and (Ref. AMM TASK 24-23-17-400-001).

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- (2) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-23/01) for a short to ground, a short circuit, or an open circuit between:
 - pin 1 of the APU generator AC current transformer and pin A/12B of the GAPCU
 - pin 2 of the APU generator AC current transformer and pin A/12A
 of the GAPCU
 - pin 3 of the APU generator AC current transformer and pin A/11A of the GAPCU
 - . pin 4 of the APU generator AC current transformer and pin A/11B of the GAPCU.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-941

Failure of the APU Generator Channel

- 1. Possible Causes
 - feeders
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific

circuit breaker(s) safety clip(s)

B. Referenced Information

REFERENCE

DESIGNATION

24-20-00-810-862 24-20-00-810-863 AMM 24-41-00-861-002 Failure of the Generator 1 Channel Failure of the Generator 2 Channel

1-002 Energize the Aircraft Electrical Circuits from the APU

AMM 24-41-00-862-002

De-energize the Aircraft Electrical Circuits Supplied from the APU

ASM 24-22/02

ASM 24-22/03

ASM 24-23/01

ASM 24-41/01

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

A. If the fault symptom is identified by the upper ECAM-DU warning APU GEN FAULT and one of these two CMS messages:
DELTA CURRENT GEN APU CHANNEL or
OVERCURRENT GEN APU CHANNEL

NOTE: This CFDS messages can come into view with other CFDS messages related to a delta current or an overcurrent condition of one of the generator channels 1 or 2.

- Do the trouble shooting procedure related to the delta current or the overcurrent condition messages.
- NOTE: When you do the trouble shooting for the CFDS message DELTA CURRENT GEN APU CHANNEL or OVERCURRENT GEN APU CHANNEL, you can remove one after the other the GCU 1 and the GCU 2 from their position in the forward avionics rack 90VU to isolate the main AC buses 1XP and 2XP.
- (1) If the fault continues:
 - Do a check of the feeders (Ref. ASM 24-23/01) for a short circuit or a short to ground between:
 - Feeder A pin L1 of the APU generator AC current transformer (42XS) and pin 7 of the APU/EXT power contactor module (29XN)
 - Feeder B pin L2 of the APU generator AC current transformer and pin 8 of the APU/EXT power contactor module
 - Feeder C pin L3 of the APU generator AC current transformer and pin 9 of the APU/EXT power contactor module.
 - (a) If the feeders are not correct:
 - Repair or replace the feeders as necessary.
 - (b) If the feeders are correct:
 - Do a check and repair the feeders between the APU/EXT power contactor module (29XN), the generator 1 contactor module (30XN1) and the generator 2 contactor module (30XN2) (Ref. ASM 24-22/02), (Ref. ASM 24-22/03) and (Ref. ASM 24-41/01).
- B. Open, safety and tag this(these) circuit breaker(s):

PANEL DESIGNATION IDENT. LOCATION
122VU ELEC/GCU/2 2XU2 T27

- C. If the feeders are correct:
 - loosen and lower the nuts that attach the GCU 2 and pull it from the forward electronics rack 90VU to disconnect the electrical connectors
 - energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002)
 - after five minutes, see if there is a trip.

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- (1) If there is a trip:
 - de-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002)
 - do the trouble shooting of the generator 1 channel (Ref. TASK 24-20-00-810-862).
- (2) If there is no trip:
 - push the GCU 2 on its rack to connect the electrical connectors and engage the nuts on the lugs and tighten. Then on the rear circuit breaker panel 122VU, remove the safety clip and tag and close the circuit breaker 2XU2
 - after five minutes, see if there is a trip.
 - (a) If there is a trip:
 - de-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002)
 - do the trouble shooting of the generator 2 channel (Ref. TASK 24-20-00-810-863).
- D. Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Make sure that the GCU 1 and the GCU 2 are correctly installed on their forward electronics rack 90VU.
 - (2) On the rear circuit breaker panel 122VU, make sure that the circuit breakers 2XU1 and 2XU2 are closed (if the circuit breakers are not closed, remove the safety clips and tags and close them).
 - (3) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (4) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (5) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-943

Failure of the Status Circuit of the APU GLC

- 1. Possible Causes
 - GAPCU (24XG)
 - GLC-APU (3XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (1) If the fault continues:
 - do a check of the wiring for a short to 28VDC between pin B/18 of the APU GLC contactor (3XS) and pin A/6A of the GAPCU (24XG) (Ref. ASM 24-23/02).
 - (a) If the wiring is not correct:repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-20-00-810-944

APU Generator Overload

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
 - feeders
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	

3. Fault Confirmation

A. Test

- NOTE: Make sure that the cause of the overload is not a load added to the normal load because then, the total load will be more than the maximum permitted load. If this occurs, no trouble shooting is necessary.
- (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (a) On the upper ECAM DU, the warning GEN APU OVERLOAD is shown and the APU generator or the external power trips.

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the circuit breakers related to the loads from the APU generator.
 - (1) If the circuit breakers are open:
 - do a check and repair the wiring and the related equipment for a short circuit or a short to ground.

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- (2) If the circuit breakers are closed:
 - do a check and repair the feeders of the AC 1 (1XP) and AC 2 (2XP) bus bar for a short to ground, or a short circuit.
 - (a) If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. Do this procedure to make sure that the system operates correctly:
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002). On the upper ECAM DU, the warning APU GEN OVERLOAD is not shown and there is no trip.
 - (2) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-945

Short Circuits of the Feeders between the APU Generator and the APU GLC

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	2/ 27 54 000 004	Daniel of the ADU Consister OVO
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN APU FEEDER and the upper ECAM-DU warning APU GEN FAULT:
 - Do a check of the feeders (Ref. ASM 24-23/01) for a short circuit or a short to airframe between:
 - Terminal T1 of the APU generator and pin 7 of the APU/EXT power contactor module (29XN)
 - Terminal T2 of the APU generator and pin 8 of the APU/EXT power contactor module
 - . Terminal T3 of the APU generator and pin 8 of the APU/EXT power contactor module.

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- (1) If the wiring is not correct:
 - Repair or replace the feeders as necessary.
- (2) If the wiring is correct:
 - Replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (a) If the fault continues:
 - Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-947

Failure of the Signal from the APU Control Relay to the GAPCU

1. Possible Causes

- GAPCU (24XG)
- RELAY-APU AVAIL (6KD)
- wiring
- DIODE MODULE (1162VD)
- ELEC/GEN1/OFF/BTC1 SPLY (5XU)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	24 44 00 740 002	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-22/02	
_	24-23/02 49-61/01	

3. Fault Confirmation

A. Test

- (1) If the CFDS message APU CTL RLY (6KD)/ECB (59KD)/GAPCU (24XG) comes into view with CFDS messages related to the chapter 49 or to the ECB:
 - do the trouble shooting procedure related to the chapter 49 or ECB messages.
- (2) IF there are no chapter 49 or ECB messages, or if the fault continues after the trouble shooting:
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ELEC/GEN1/OFF/BTC1 SPLY

5XU T28

- C. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring of the APU ready circuit (Ref. ASM 49-61/01),
 (Ref. ASM 24-23/02) and (Ref. ASM 24-22/02) between:
 - . pin B/6J of the ECB (59KD) and pin X1 of the APU AVAIL relay (6KD)
 - . pin X2 of the APU AVAIL relay and ground
 - . pin A/7C of the GAPCU and pin A1 of the APU AVAIL relay
 - . pin A2 of the APU AVAIL relay and pin 37 of the diode module 1162VD
 - . pin 38 of the diode module 1162VD and pin 2 of the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU).
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - replace the RELAY-APU AVAIL (6KD).
 - (a) If the fault continues:
 - replace the DIODE MODULE (1162VD).
 - 1 If the fault continues:
 - replace the ELEC/GEN1/OFF/BTC1 SPLY (5XU).
 - a If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- D. Do the test given in para. 3.

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TASK 24-20-00-810-948

Failure of the Auxiliary Power Unit Generator

- 1. Possible Causes
 - GAPCU (24XG)
 - GEN-APU (8XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)

3. Fault Confirmation

- A. Test
 - NOTE: This CFDS message comes into view when there is an overfrequency trip condition of the APU generator related to an overspeed condition of the turbine. The CFDS message ECB (59KD)/APU (4005KM)/GAPCU (24XG) can come into view with CMS messages related to the chapter 49 or to the ECB. Do the trouble shooting procedure related to the chapter 49 or to the ECB messages before you do the trouble shooting for the CFDS message ECB (59KD)/APU (4005KM)/GAPCU (24XG).
 - (1) If the CFDS message ECB (59KD)APU (4005KM)/GAPCU (24XG) comes into view with CFDS messages related to the chapter 49 or to the ECB:
 - do the trouble shooting procedure related to the chapter 49 or ECB messages.
 - (2) If there are no chapter 49 or ECB messages, or if the fault continues after the trouble shooting:
 - do the trouble shooting given in Para 4.A.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message ECB (59KD)/APU (4005KM)/GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (1) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-949

Failure of the IDG 1 Disconnection Function or the IDG 1 PMG Stator or its Wiring to the GCU 1 $\,$

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,

EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG DISC/ IDG1 (E1-4000XU) PMG/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - NOTE : Before you do the trouble shooting for this fault, do a check of the log book and the CFDS for messages related to IDG 1 thermal or manual disconnection messages.
 - (1) If there was a thermal or manual disconnection of the IDG 1:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If there is no sign of thermal or manual disconnection of the IDG:
 - do a check of the CFDS for messages related to the ECU engine-speed sense-function. Do the trouble shooting for CFDS messages related to the ECU.
 - (3) If there is no message or no disconnection:
 - do a check of the resistance of the IDG 1 PMG stator (Ref. ASM 24-22/01) between:
 - \cdot pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 1 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - . pin B/12 of the IDG 1 and pin C/10 of the GCU 1
 - pin B/13 of the IDG 1 and pin C/11 of the GCU 1
 - . pin B/14 of the IDG 1 and pin C/9 of the GCU 1
 - pins C/10, C/11, C/9 and pin C/7 of the GCU 1 (short to shield of the PMG wiring).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-950

Failure of the IDG 2 Disconnection Function or the IDG 2 PMG Stator or its Wiring to the GCU 2 $\,$

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG DISC/ IDG2 (E2-4000XU) PMG/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - NOTE : Before you do the trouble shooting for this fault, do a check of the log book and the CFDS for messages related to IDG 2 thermal or manual disconnection messages.
 - (1) If there was a thermal or manual disconnection of the IDG 2:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If there is no sign of thermal or manual disconnection of the IDG:
 - do a check of the CFDS for messages related to the ECU engine-speed sense-function. Do the trouble shooting for CFDS messages related to the ECU.
 - (3) If there is no message or no disconnection:
 - do a check of the resistance of the IDG 2 PMG stator (Ref. ASM 24-22/01) between:
 - \cdot pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring of the IDG 2 PMG stator (Ref. ASM 24-22/01) for a short circuit, an open circuit, a short to ground or a short to shield between:
 - pin B/12 of the IDG 2 and pin C/10 of the GCU 2
 - pin B/13 of the IDG 2 and pin C/11 of the GCU 2
 - . pin B/14 of the IDG 2 and pin C/9 of the GCU 2
 - . pins C/10, C/11, C/9 and pin C/7 of the GCU 2 (short to shield of the PMG wiring).
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-951

Failure of the Feeders or the POR Sense Wiring of the IDG 1

1. Possible Causes

- GCU-1 (1XU1)
- feeders
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: FEEDER/WRG: POR/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the feeders (Ref. ASM 24-22/01) for an open circuit or a high resistance between:
 - terminal T1 of the IDG 1 and pin 1 of the generator 1 contactor module (30XN1)
 - terminal T2 of the IDG 1 and pin 2 of the generator 1 contactor module
 - . terminal ${\bf T3}$ of the ${\bf IDG}$ 1 and pin 3 of the generator 1 contactor module
 - . terminal N of the IDG 1 and the airframe ground.

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- (1) If the feeders are not correct:
 repair or replace as necessary.
- (2) If the feeders are correct:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - pin 1 of the generator 1 contactor module (30XN1) and pin A/14G
 of the GCU 1 (phase A)
 - pin 2 of the generator 1 contactor module and pin A/15H of the GCU 1 (phase B)
 - . pin 3 of the generator 1 contactor module and pin A/15G of the GCU 1 (phase C).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

		· – –
ACTION	RESULT	
		· – –

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-952

Failure of the Feeders or the POR Sense Wiring of the IDG 2

1. Possible Causes

- GCU-2 (1XU2)
- feeders
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: FEEDER/WRG: POR/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the feeders (Ref. ASM 24-22/01) for an open circuit or a high resistance between:
 - terminal T1 of the IDG 2 and pin 1 of the generator 2 contactor module (30XN2)
 - . terminal T2 of the IDG 2 and pin 2 of the generator 2 contactor module $\,$
 - . terminal ${\bf T3}$ of the ${\bf IDG}$ 2 and pin ${\bf 3}$ of the generator 2 contactor module
 - . terminal N of the IDG 2 and the airframe ground.

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- (1) If the feeders are not correct:
 repair or replace as necessary.
- (2) If the feeders are correct:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - ${\tt pin}$ 1 of the generator 2 contactor module (30XN2) and pin A/14G of the GCU 2 (phase A)
 - pin 2 of the generator 2 contactor module and pin A/15H of the GCU 2 (phase B)
 - . pin 3 of the generator 2 contactor module and pin A/15G of the GCU 2 (phase C).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION	RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-953

Failure of the Phase A of the IDG 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

A. If the fault symptom is identified by the CFDS message WRG: GEN1 FEEDER PHASE A/ IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:

 do a check of the resistance of the main stator windings of the IDG 1 (Ref. ASM 24-22/01) between terminals T1 and N (7 milliohms plus or minus 1 milliohm).

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- (1) If the resistance values are out of the specified limits: - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040)
 - and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the feeder (Ref. ASM 24-22/01) for an open circuit or a high resistance between terminal T1 of the IDG 1 and pin 1 of the generator 1 contactor module (30XN1).
 - (a) If the feeder is not correct:
 - repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel:
- get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-954

Failure of the Phase A of the IDG 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN2 FEEDER PHASE A/ IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the resistance of the main stator windings of the IDG 2 (Ref. ASM 24-22/01) between terminals T1 and N (7 milliohms plus or minus 1 milliohm).

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- (1) If the resistance values are out of the specified limits: - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the feeder (Ref. ASM 24-22/01) for an open circuit or a high resistance between terminal T1 of the IDG 2 and pin 1 of the generator 2 contactor module (30XN2).
 - (a) If the feeder is not correct:
 - repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-955

Failure of the Phase B of the IDG 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN1 FEEDER PHASE B/ IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the resistance of the main stator windings of the IDG 1 (Ref. ASM 24-22/01) between terminals T2 and N (7 milliohms plus or minus 1 milliohm).

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- (1) If the resistance values are out of the specified limits: - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the feeder (Ref. ASM 24-22/01) for an open circuit condition or a high resistance between terminal T2 of the IDG 1 and pin 2 of the generator 1 contactor module (30XN1).
 - (a) If the feeder is not correct:
 - repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-956

Failure of the Phase B of the IDG 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN2 FEEDER PHASE B/ IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the resistance of the main stator windings of the IDG 2 (Ref. ASM 24-22/01) between terminals T2 and N (7 milliohms plus or minus 1 milliohm).

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- (1) If the resistance values are out of the specified limits: - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the feeder (Ref. ASM 24-22/01) for an open circuit condition or a high resistance between terminal T2 of the IDG 2 and pin 2 of the generator 2 contactor module (30XN2).
 - (a) If the feeder is not correct:repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-957

Failure of the Phase C of the IDG 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN1 FEEDER PHASE C/ IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the resistance of the main stator windings of the IDG 1 (Ref. ASM 24-22/01) between terminals T3 and N (7 milliohms plus or minus 1 milliohm).

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- (1) If the resistance values are out of the specified limits: - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the feeder (Ref. ASM 24-22/01) for an open circuit condition or a high resistance between terminal T3 of the IDG 1 and pin 3 of the generator 1 contactor module (30XN1).
 - (a) If the feeder is not correct:repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel:
- get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-958

Failure of the Phase C of the IDG 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN2 FEEDER PHASE C/ IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the resistance of the main stator windings of the IDG 2 (Ref. ASM 24-22/01) between terminals T3 and N (7 milliohms plus or minus 1 milliohm).

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- (1) If the resistance values are out of the specified limits: - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the feeder (Ref. ASM 24-22/01) for an open circuit condition or a high resistance between terminal T3 of the IDG 2 and pin 3 of the generator 2 contactor module (30XN2).
 - (a) If the feeder is not correct:repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-959

Failure of the Diode Module Related to the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - DIODE MODULE (2420VD)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 24-22-34-000-001 AMM 24-22-34-400-001	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)	

Operational Check of GAPCU via CFDS

3. Fault Confirmation

AMM 24-41-00-740-002

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - B. If the BITE test gives the message TEST PASSED: - replace the DIODE MODULE (2420VD).
 - C. Do the test given in para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-20-00-810-960

Failure of the Diode Module Related to the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - DIODE MODULE (2422VD)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 2/-22-3/-000-001	Percyal of the $C(II-1/2)$ (1)11	191121

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-41-00-740-002 Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - B. If the BITE test gives the message TEST PASSED:
 replace the DIODE MODULE (2422VD).
 - C. Do the test given in para. 3.

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TASK 24-20-00-810-961

Failure of the IDG 1 Servo-Valve Wiring to the GCU 1

1. Possible Causes

- GCU-1 (1XU1)
- IDG (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION : BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GCU1 (1XU1)/ IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check of the servo valve wiring (Ref. ASM 24-21/01) for an open circuit, a short to ground, a short circuit or a short to shield between:
 - . pin B/1 of the IDG 1 and pin B/11J of the GCU 1
 - . pin B/2 of the IDG 1 and pin B/11H of the GCU 1
 - . pins B/11J and B/10H of the GCU 1
 - . pins B/11H and B/10H of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Test
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-962

Failure of the IDG 2 Servo-Valve Wiring to the GCU 2

1. Possible Causes

- GCU-2 (1XU2)
- IDG (4000XU)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GCU2 (1XU2)/ IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check of the servo valve wiring (Ref. ASM 24-21/01) for an open circuit, a short to ground, a short circuit or a short to shield between:
 - . pin B/1 of the IDG 2 and pin B/11J of the GCU 2
 - . pin B/2 of the IDG 2 and pin B/11H of the GCU 2
 - . pins B/11J and B/10H of the GCU 2
 - . pins B/11H and B/10H of the GCU 2.
 - (2) If the wiring is not correct:
 - repair or replace as necessary.
 - (3) If the wiring is correct:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Test
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-963

Failure of the POR Sense Wiring or the Feeders of the IDG 1

1. Possible Causes

- GCU-1 (1XU1)
- wiring
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ GCU1 (1XU1)/ WRG: FEEDER and the upper ECAM-DU warning GEN 1 FAULT:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - ${\tt pin}$ 1 of the generator 1 contactor module (30XN1) and pin A/14G of the GCU 1 (phase A)
 - pin 2 of the generator 1 contactor module and pin A/15H of the GCU 1 (phase B)
 - pin 3 of the generator 1 contactor module and pin A/15G of the GCU 1
 (phase C)

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- . pin A/14H of the GCU 1 and ground.
- (1) If the wiring is not correct:
 repair or replace as necessary.
- (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- (3) If the fault continues:
 - do a check and repair the feeders (Ref. ASM 24-22/01) for an open circuit or a high resistance between:
 - . terminal T1 of the IDG 1 and pin 1 of the generator 1 contactor module (30XN1)
 - . terminal T2 of the IDG 1 and pin 2 of the generator 1 contactor module $\,$
 - . terminal T3 of the IDG 1 and pin 3 of the generator 1 contactor module
 - . terminal N of the IDG 1 and airframe ground.

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-20-00-810-964

Failure of the POR Sense Wiring or the Feeders of the IDG 2

1. Possible Causes

- GCU-2 (1XU2)
- wiring
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ GCU2 (1XU2)/ WRG: FEEDER and the upper ECAM-DU warning GEN 2 FAULT:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - ${\tt .}$ pin 1 of the generator 2 contactor module (30XN2) and pin A/14G of the GCU 2 (phase A)
 - . pin 2 of the generator 2 contactor module and pin A/15H of the GCU 2 (phase B)
 - . pin 3 of the generator 2 contactor module and pin A/15G of the GCU 2 (phase C) $\,$

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- . pin A/14H of the GCU 2 and ground.
- (1) If the wiring is not correct:
 repair or replace as necessary.
- (2) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- (3) If the fault continues:
 - do a check and repair the feeders (Ref. ASM 24-22/01) for an open circuit or a high resistance between:
 - . terminal T1 of the IDG 2 and pin 1 of the generator 2 contactor module (30XN2)
 - . terminal T2 of the IDG 2 and pin 2 of the generator 2 contactor module $\,$
 - . terminal ${\bf T3}$ of the ${\bf IDG}$ 2 and pin ${\bf 3}$ of the generator 2 contactor module
 - . terminal N of the IDG 2 and airframe ground.

B. Test

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
- (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
- (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

INTEGRATED DRIVE GENERATOR SYSTEM (IDG, GCU) - FAULT ISOLATION PROCEDURES

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-21-00-810-801

Failure of the IDG 1 Low-Oil Pressure-Switch or its Wiring

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
 - IDG 1 internal wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	2/ 24 54 000 0/0	Paris all of the Tatas at all Dails a Consistent TDC
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
ASM	24-21/01	

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
 EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
 IN IT.
 IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the check of the class 3 faults of the GPCU from the CFDS gives the maintenance message CHECK GCU1 PIN A15D IDG1 PIN CA, CB WIRING:
 - do a check of the wiring for open circuit:
 - between the GCU 1 pin A/15D and the IDG 1 pin C/A
 - . then between the IDG 1 pin C/B and the ground (Ref. ASM 24-21/01).

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- (1) If the wiring is not correct:
 - repair it.
- (2) If the wiring is correct:
 - do a check of the IDG 1 internal wiring for open circuit between the pin C/A and the pin C/B, while the engine is shut down.
 - (a) If there is no continuity:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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TASK 24-21-00-810-802

Failure of the IDG 2 Low-Oil Pressure Switch or its Wiring

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
 - IDG 2 internal wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
	24-22-34-400-001 24-21/01	Installation of the GCU-1(2) (1XU1, 1XU2)

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

 IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

 IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
 - A. If the check of the class 3 faults of the GPCU from the CFDS gives the

maintenance message CHECK GCU2 PIN A15D IDG2 PIN CA, CB WIRING:

- do a check of the wiring for open circuit:
 - between the GCU 2 pin A/15D and the IDG 2 pin C/A
 - . then between the IDG 2 pin C/B and the ground (Ref. ASM 24-21/01).
- (1) If the wiring is not correct:
 repair it.

GIVEN BELOW.

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TROUBLE SHOOTING MANUAL

- (2) If the wiring is correct:
 - do a check of the IDG 2 internal wiring for open circuit between the pin C/A and the pin C/B, while the engine is shut down.
 - (a) If there is no continuity:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If there is continuity:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-803

Failure of the IDG 1 Oil-Out Temperature Bulb or its Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	2/ 24 54 000 0/0	Donald of the Tetropoted Delice Consists at TDC
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
ASM	24-21/01	

3. Fault Confirmation

A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the test gives the maintenance message CHECK GCU1 PIN A8A, A9B IDG1 B7, B8 WIRING:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 1 pins B/7, B/8 and the GCU 1 pins A/8A, A/9B (Ref. ASM 24-21/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do a check of the resistance between the pins B/7 and B/8 of the IDG 1.

NOTE: The normal value is 99.1 Ohms plus or minus 5 Ohms at 25°C.

- (a) If the resistance value is out of the specified limits: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (b) If the resistance value is in the specified limits: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-804

Failure of the IDG 2 Oil-Out Temperature Bulb or its Wiring

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	2/ 24 54 000 0/0	Donald of the Tetropoted Delice Consists at TDC
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
ASM	24-21/01	

- 3. Fault Confirmation
 - A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

- 4. Fault Isolation
 - <u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the test gives the maintenance message CHECK GCU2 PIN A8A, A9B; IDG2 B7, B8 WIRING:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 2 pins B/7, B/8 and the GCU 2 pins A/8A, A/9B (Ref. ASM 24-21/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-21-00

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TROUBLE SHOOTING MANUAL

- (2) If the wiring is correct:
 - do a check of the resistance between the pins B/7 and B/8 of the IDG 2.

NOTE: The normal value is 99.1 Ohms plus or minus 5 Ohms at 25°C.

- (a) If the resistance value is out of the specified limits: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (b) If the resistance value is in the specified limits: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-805

Failure of the IDG 1 Oil-In Temperature Bulb or its Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
ASM	24-21/01	

3. Fault Confirmation

A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the test gives the maintenance message CHECK GCU1 PIN A9A, A9B; IDG1 PIN B9, B8 WIRING:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 1 pins B/9, B/8 and the GCU 1 pins A/9A, A/9B (Ref. ASM 24-21/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (2) If the wiring is correct:
 - do a check of the resistance between the pins B/8 and B/9 of the IDG 1.

NOTE: The normal value is 99.1 Ohms plus or minus 5 Ohms at 25°C.

- (a) If the resistance value is out of the specified limits: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (b) If the resistance value is in the specified limits: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-806

Failure of the IDG 2 Oil-In Temperature Bulb or its Wiring

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	2/ 24 54 000 0/0	Donald of the Tetropoted Delice Consists at TDC
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
ASM	24-21/01	

3. Fault Confirmation

A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the test gives the maintenance message CHECK GCU2 PIN A9A, A9B IDG2 PIN B9, B8 WIRING:
 - do a check of the wiring for open circuit or short to ground between respectively the IDG 2 pins B/9, B/8 and the GCU 2 pins A/9A, A/9B (Ref. ASM 24-21/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-21-00

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- (2) If the wiring is correct:
 - do a check of the resistance between the pins B/8 and B/9 of the IDG 2.

NOTE: The normal value is 99.1 Ohms plus or minus 5 Ohms at 25°C.

- (a) If the resistance value is out of the specified limits:
 replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-807

Difference in IDG 1 Oil-In/Oil-Out Bulb Tolerances

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-21-51-000-0	
AMM 24-21-51-400-0	1(2),(4000XU) 140 Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM 24-22-34-000-0 AMM 24-22-34-400-0 ASM 24-21/01	01 Removal of the GCU-1(2) (1XU1, 1XU2)
• -	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE: The BITE test permits to do a check of the GCU only. The fault confirmation related to IDG 1 BULB TOLERANCE is not possible on ground.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG 1 BULB TOLERANCE and the upper ECAM DU warning IDG 1 OIL OVHT:
 - do a check of the wiring:
 - . for open circuit between the GCU 1 pin A/9A and the IDG 1 pin B/9
 - . for short to ground between the GCU 1 pin A/8A and the IDG 1 pin B/7
 - for wire cross-connection between respectively the GCU 1 pins A/8A,

A/9A, A/9B and the IDG 1 pins B/7, B/9, B/8 (Ref. ASM 24-21/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-21-00

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- (1) If the wiring is not correct: - repair it.
- (2) If the wiring is correct:
 - do a check of the resistance between the pins B/7 and B/8, then between the pins B/8 and B/9 of the IDG 1.

NOTE: The normal value is 99.1 Ohms plus or minus 5 Ohms at 25°C.

- (a) If the oil-out bulb resistance is less than the oil-in bulb resistance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (b) If the oil-out bulb resistance is not less than the oil-in bulb resistance:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

EFF:

TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-808

Difference in IDG 2 Oil-In/Oil-Out Bulb Tolerances

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-21-51-000-0	
AMM 24-21-51-400-0	1(2),(4000XU) 140 Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM 24-22-34-000-0 AMM 24-22-34-400-0 ASM 24-21/01	01 Removal of the GCU-1(2) (1XU1, 1XU2)
• -	

3. Fault Confirmation

A. Test

Not applicable.

NOTE: The BITE test permits to do a check of the GCU only. The fault confirmation related to IDG 2 BULB TOLERANCE is not possible on ground.

4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG 2 BULB TOLERANCE and the upper ECAM DU warning IDG 1 OIL OVHT:
 - do a check of the wiring:
 - . for open circuit between the GCU 2 pin A/9A and the IDG 2 pin B/9
 - . for short to ground between the GCU 2 pin A/8A and the IDG 2 pin B/7
 - . for wire cross-connection between respectively the GCU 2 pins A/8A,

A/9A, A/9B and the IDG 2 pins B/7, B/9, B/8 (Ref. ASM 24-21/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-21-00

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TROUBLE SHOOTING MANUAL

- (1) If the wiring is not correct: - repair it.
- (2) If the wiring is correct:
 - do a check of the resistance between the pins B/7 and B/8, then between the pins B/8 and B/9 of the IDG 2.

NOTE: The normal value is 99.1 Ohms plus or minus 5 Ohms at 25°C.

- (a) If the oil-out bulb resistance is less than the oil-in bulb resistance:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (b) If the oil-out bulb resistance is not less than the oil-in bulb resistance:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

TROUBLE SHOOTING MANUAL

**ON A/C ALL

TASK 24-21-00-810-809

The IDG1 Cannot be Disconnected Intentionnally

- 1. Possible Causes
 - P/BSW-ELEC/IDG 1 (5XT)
 - RELAY-IDG1 DISC CTL (3XT)
 - RELAY-FUNCTION (7XT)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24-21-00-720-041

Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation

ASM 24-21/01

- 3. Fault Confirmation
 - A. Test

Do the functional test of the IDG Disconnect System - Engine in Operation (Ref. AMM TASK 24-21-00-720-041). If the test at step 1 (Para. 4.A.(1)) is not OK, do the trouble shooting as follows.

- 4. Fault Isolation
 - A. If the test confirms the fault:
 - replace the P/BSW-ELEC/IDG 1 (5XT).
 - (1) If the fault continues:
 - replace the RELAY-IDG1 DISC CTL (3XT) and RELAY-FUNCTION (7XT).
 - (a) If the fault continues:
 - do a check and repair the wiring between respectively:
 - . the pin B3 of the pushbutton switch (5XT) and the first branch point
 - the pin B1 of the pushbutton switch (5XT) and the pin B3 of the relay (7XT)
 - the pin B2 of the relay (7XT) and the pin X1 of the relay (3XT)
 - the pin X2 of the relay (3XT) and the ground
 - . the pin A13 of the IDG (4000XU) and the ground (Ref. ASM 24-21/01).

EFF:

R

ALL

24-21-00

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TROUBLE SHOOTING MANUAL

B. Do this test to make sure that the system operates correctly. Do the test given in Para. 3. and make sure that the FAULT legend of the ELEC/IDG1 pushbutton switch goes off when the pushbutton switch is pushed.

EFF: ALL
SROS

24-21-00

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TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-810

The IDG2 Cannot be Disconnected Intentionnally

- 1. Possible Causes
 - P/BSW-ELEC/IDG 2 (6XT)
 - RELAY-IDG2 DISC CTL (4XT)
 - RELAY-FUNCTION (8XT)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

AMM 24-21-00-720-041

Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation

ASM 24-21/01

- 3. Fault Confirmation
 - A. Test

Do the functional test of the IDG Disconnect System - Engine in Operation (Ref. AMM TASK 24-21-00-720-041). If the test at step 1 (Para. 4.A.(1)) is not OK, do the trouble shooting as follows.

- 4. Fault Isolation
 - A. If the test confirms the fault:
 - replace the P/BSW-ELEC/IDG 2 (6XT).
 - (1) If the fault continues:
 - replace the RELAY-IDG2 DISC CTL (4XT) and RELAY-FUNCTION (8XT).
 - (a) If the fault continues:
 - do a check and repair the wiring between respectively:
 - . the pin ${\bf B3}$ of the pushbutton switch (6XT) and the first branch point
 - . the pin B1 of the pushbutton switch (6XT) and the pin B3 of the relay (8XT)
 - . the pin B2 of the relay (8XT) and the pin X1 of the relay (4XT)
 - . the pin X2 of the relay (4XT) and the ground
 - . the pin A13 of the IDG (4000XU) and the ground (Ref. ASM 24-21/01).

EFF: ALL

24-21-00

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SROS

R

TROUBLE SHOOTING MANUAL

B. Do this test to make sure that the system operates correctly: Do the test given in Para. 3. and make sure that the FAULT legend of the ELEC/IDG2 pushbutton switch goes off when the pushbutton switch is pushed.

EFF: ALL
SROS

24-21-00

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TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-811

The steady-state Operating Frequency of the Integrated Drive Generator (IDG1) is out of the 390Hz-410Hz range

- 1. Possible Causes
 - EGIU-1 (22XU1)
 - IDG (4000XU)
- GCU-1 (1XU1)
 - 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-00-730-040	System Test of the IDG Frequency (P/N 740119)
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-861-002	<pre>Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-027	Engine Shutdown

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

EFF: ALL **SROS**

24-21-00

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B. Test

ACTION ______

RESULT

- 1. On the ECAM control panel:
 - ELEC page.
- On the lower ECAM DU:
- push the ELEC key to get the the frequency parameter of the IDG1 is amber.

NOTE: In normal operation, the color of the IDG frequency parameter is green.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the IDG1 frequency parameter stays amber:
 - (a) The frequency parameter value is out of the 390Hz-410Hz range: adjust the IDG1 frequency (Ref. AMM TASK 24-21-00-730-040).
 - 1 If the IDG1 frequency parameter stays amber: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) The frequency parameter value is out of the 363Hz-433Hz range: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) The frequency parameter value stays amber:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL 24-21-00

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-027).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

24-21-00

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TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-812

The steady-state Operating Frequency of the Integrated Drive Generator (IDG2) is out of the 390Hz-410Hz range

- 1. Possible Causes
 - EGIU-2 (22XU2)
 - IDG (4000XU)
- GCU-2 (1XU2)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
	л м м	24-21-00-730-040	System Test of the IDG Frequency (P/N 740119)
		24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
	AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
	AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
	AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
₹	AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
₹	AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	AMM	24-41-00-861-002	<pre>Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>
	AMM	31-60-00-860-001	EIS Start Procedure
	AMM	31-60-00-860-002	EIS Stop Procedure
	AMM	71-00-00-710-003	Engine Automatic Start
	AMM	71-00-00-710-027	Engine Shutdown

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

EFF: ALL **SROS**

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B. Test

ACTION

RESULT

- 1. On the ECAM control panel:
 - ELEC page.

On the lower ECAM DU:

- push the ELEC key to get the - the frequency parameter of the IDG2 is amber.

> NOTE: In normal operation, the color of the IDG frequency parameter is green.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the IDG2 frequency parameter stays amber:
 - (a) The frequency parameter value is out of the 390Hz-410Hz range: adjust the IDG2 frequency (Ref. AMM TASK 24-21-00-730-040).
 - 1 If the IDG2 frequency parameter stays amber: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) The frequency parameter value is out of the 363Hz-433Hz range: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the IDG2 frequency parameter stays amber:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C ALL

B. Do the test given in para. 3.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-027).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

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TASK 24-21-00-810-813

Too High Oil Level of the IDG1

- 1. Possible Causes
 - IDG1 OIL COOLER
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a level Check</pre>
AMM	24-21-00-210-044	Inspection of the Filter Element(s)
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
 - A. Do the inspection of the filter(s) (Ref. AMM TASK 24-21-00-210-044).
 - (1) If during this inspection, you smell a fuel odour from the filter element(s) or filter cover(s):
 - replace the IDG1 OIL COOLER (Ref. AMM TASK 73-11-60-000-002) (Ref. AMM TASK 73-11-60-400-002)
 - do the servicing of the IDG1 after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).
 - (2) If the inspection shows nothing incorrect:
 - do the oil servicing of the IDG1 (Ref. AMM TASK 12-13-24-612-041).

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TASK 24-21-00-810-814

Too High Oil Level of the IDG2

- 1. Possible Causes
 - IDG2 OIL COOLER
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a level Check</pre>
AMM	24-21-00-210-044	<pre>Inspection of the Filter Element(s)</pre>
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	<pre>Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly</pre>

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
 - A. Do the inspection of the filter(s) (Ref. AMM TASK 24-21-00-210-044).
 - (1) If during this inspection, you smell a fuel odour from the filter element(s) or filter cover(s):
 - replace the IDG2 OIL COOLER (Ref. AMM TASK 73-11-60-000-002) (Ref. AMM TASK 73-11-60-400-002)
 - do the servicing of the IDG2 after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).
 - (2) If the inspection shows nothing incorrect:
 - do the oil servicing of the IDG2 (Ref. AMM TASK 12-13-24-612-041).

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TASK 24-21-00-810-815

The Differential Pressure Indicator (DPI) of the IDG1 Oil Filter is Extended - Alternate Procedure

- 1. Possible Causes
 - IDG (4000XU)
 - oil filter(s)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION
	AMM	24-21-00-210-044	<pre>Inspection of the Filter Element(s)</pre>
R	AMM	24-21-00-920-040	Drain IDG Oil System, Discard Filter Element(s) and Replenish
	AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
	AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
	TSM	24-21-00 P.Block 301	INTEGRATED DRIVE GENERATOR SYSTEM (IDG, GCU)

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. Do this trouble shooting procedure
 - NOTE: You can find the DPI extended with CFDS fault messages.

 First, do the trouble shooting for each CFDS fault messages.

 For this, refer to the CFDS index list.
 - (1) If no message is found:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040),
 - or do the alternate procedure (IDG DPI reset).
 - B. Alternate Procedure (IDG DPI Reset)
 - NOTE: The alternate procedure lets you do a reset of the DPI as an alternative to the replacement of the IDG.

 There are conditions related to this procedure:
 - A maximum of three resets is permitted.
 - After a DPI reset, the DPI check interval becomes:

EFF: ALL 24-21-00

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- For normal operations: weekly or 100 FH (the one that comes first).
- For Extended Range Twin-Engined Aircraft Operations (ETOPS):
 before each flight.
- If, after a DPI reset, the DPI does not extend again between two scheduled oil/filter changes, you can cancel the conditions related to this procedure:
- The DPI reset status goes back to zero (a maximum of three more resets is permitted).
- The DPI check interval goes back to the interval specified in the MPD.

(Ref. TSM 24-21-00 P.Block 301)

- (1) If this is the first reset:
 - (a) Do a check of the IDG1 oil filter(s) and the cover(s) for metal particles (Ref. AMM TASK 24-21-00-210-044):
 - 1 If you find metal particles:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If you do not find metal particles:
 - <u>a</u> Drain the oil, replace the oil filter(s) and fill the IDG1 with oil (Ref. AMM TASK 24-21-00-920-040).
 - b Do a reset of the DPI.
 - <u>c</u> Use a sticker, tag or other method to write on the IDG that you did the first reset of the DPI.
- (2) If this is not the first reset:
 - (a) Do a check of the number of reset:
 - if you did three resets:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - if you did less than three resets:
 - do a check of the IDG1 oil filter(s) and the cover(s) for metal particles (Ref. AMM TASK 24-21-00-210-044).
 - 1 If you find metal particles:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If you do not find metal particles:
 - a Drain the oil, replace the oil filter(s) and fill the IDG1
 with oil (Ref. AMM TASK 24-21-00-920-040).
 - b Do a reset of the DPI.

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 \underline{c} Use a sticker, tag or other method to write on the IDG that you did the second or third reset of the DPI.

EFF: ALL
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TASK 24-21-00-810-816

The Differential Pressure Indicator (DPI) of the IDG2 Oil Filter is Extended - Alternate Procedure

- 1. Possible Causes
 - IDG (4000XU)
 - oil filter(s)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION
	AMM	24-21-00-210-044	<pre>Inspection of the Filter Element(s)</pre>
R	AMM	24-21-00-920-040	Drain IDG Oil System, Discard Filter Element(s) and Replenish
	AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
	AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
	TSM	24-21-00 P.Block 301	INTEGRATED DRIVE GENERATOR SYSTEM (IDG, GCU)

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. Do this trouble shooting procedure
 - NOTE: You can find the DPI extended with CFDS fault messages.

 First, do the trouble shooting for each CFDS fault messages.

 For this, refer to the CFDS index list.
 - (1) If no message is found:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040),
 - or do the alternate procedure (IDG DPI reset).
 - B. Alternate Procedure (IDG DPI Reset)
 - NOTE: The alternate procedure lets you do a reset of a DPI as an alternative to the replacement of the IDG.
 There are conditions related to this procedure:
 - A maximum of three resets is permitted.
 - After a DPI reset, the DPI check interval becomes:

EFF: ALL 24-21-00

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- For normal operations: weekly or 100 FH (the one that comes first).
- For Extended Range Twin-Engined Aircraft Operations (ETOPS):
 before each flight.
- If, after a DPI reset, the DPI does not extend again between two scheduled oil/filter changes, you can cancel the conditions related to this procedure:
- The DPI reset status goes back to zero (a maximum of three more resets is permitted).
- The DPI check interval goes back to the interval specified in the MPD.

(Ref. TSM 24-21-00 P.Block 301)

- (1) If this is the first reset:
 - (a) Do a check of the IDG2 oil filter(s) and the cover(s) for metal particles (Ref. AMM TASK 24-21-00-210-044):
 - 1 If you find metal particles:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If yo do not find metal particles:
 - <u>a</u> Drain the oil, replace the oil filter(s) and fill the IDG2 with oil (Ref. AMM TASK 24-21-00-920-040).
 - b Do a reset the DPI.
 - <u>c</u> Use a sticker, tag or other method to write on the IDG that you did the first reset of the DPI.
- (2) If this is not the first reset:
 - (a) Do a check of the number of reset:
 - if you did three resets:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - if you did less than three resets done:
 - do a check of the IDG2 oil filter(s) and the cover(s) for metal particles (Ref. AMM TASK 24-21-00-210-044).
 - 1 If you find metal particles:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If you do not find metal particles:
 - a Drain the oil, replace the oil filter(s) and fill the IDG2
 with oil (Ref. AMM TASK 24-21-00-920-040).
 - **b** Do a reset of the DPI.

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 \underline{c} Use a sticker, tag or other method to write on the IDG that you did the second or third reset of the DPI.

EFF: ALL
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TASK 24-21-00-810-817

Abnormal Oil Consumption of the IDG1 (2)

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

QTY DESIGNATION

No specific tube

No specific plastic container 1 l (0.2641 USgal)

B. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
AMM	71-73-49-000-004	Removal of the IDG Oil Drain Tube	
AMM	71-73-49-400-004	Installation of the IDG Oil Drain Tube	
AMM	78-30-00-481-041	Make the Thrust Reverser Unserviceable for Maintenance	
AMM	78-36-00-010-040	Opening of the Thrust Reverser Doors	
AMM	78-36-00-410-040	Closing of the Thrust Reverser Doors	
3. <u>F</u>	ault Confirmation		

A. Test Not applicable

ALL

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EFF:

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4. Fault Isolation

- A. Inspection
 - (1) Do a visual inspection of the IDG1 (2) and external system (tubings, cooler) for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - (2) If you find no leak continue the trouble shooting procedure as follows.
- B. Aircraft Maintenance configuration
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Do the EIS start procedure (Ref. AMM TASK 31-60-00-860-001).
- C. Check of the IDG Drain Mast for Leakage
 - NOTE : An internal oil consumption of 1 cc is permitted for each flight hour or when the engines operate.
 - (1) Preparation for the test
 - (a) Make the thrust reverser unserviceable for maintenance (Ref. AMM TASK 78-30-00-481-041).
 - (b) Open the thrust reverser doors (Ref. AMM TASK 78-36-00-010-040).
 - (c) On the engine drain collector assembly, put a plastic container and a tube on the IDG oil drain (Ref. AMM TASK 71-73-49-000-004) (Ref. AMM TASK 71-73-49-400-004).
 - (d) Close the thrust reverser doors (Ref. AMM TASK 78-36-00-410-040).
 - (2) Engine operation
 - <u>WARNING</u>: ENGINE OPERATION MUST NOT EXCEED MINIMUM IDLE WHEN PERSONNEL ARE IN ENTRY/EXIT CORRIDOR.
 - POSITIVE COMMUNICATION BETWEEN THE FLIGHT COMPARTMENT AND PERSONNEL IN ENTRY EXIT CORRIDOR IS NECESSARY.
 - INLET AND EXHAUST HAZARD AREAS MUST BE STRICTLY OBSERVED BY PERSONNEL IN ENTRY/EXIT CORRIDOR.
 - (a) Start the engine (Ref. AMM TASK 71-00-00-710-003) and let it become stable at minimum idle for 5 minutes.
 - (b) Operate the engine at 70 percent N1 and let it become stable for 5 minutes.
 - (c) Operate the engine at minimum idle and let it become stable for 5 minutes.

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R

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R (d) Stop the engine (Ref. AMM TASK 71-00-00-710-028).

R (e) If you find an oil leakage from the IDG drain, change the IDG R (4000XU) (Ref. AMM TASK 24-21-51-000-040) (Ref. AMM TASK 24-21- 51-400-040).

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-818

Loss of the IDG1 Temperature Indication

- 1. Possible Causes
 - EGIU-1 (22XU1)
 - GCU-1 (1XU1)
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)	
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
ASM	24-21/01		
ASM	24-22/02		
ASM	31-54/03		

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-21-00

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B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - ELEC page.
- If on the lower ECAM DU:
- push the ELEC key to get the amber crosses replace the oil temperature indication of the IDG1, do the trouble shooting given in Para. 4.A.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring between (Ref. ASM 24-21/01):
 - the pin AB/7 of the IDG1 (4000XU) and the pin AA/8A of the GCU1 (1XU1)
 - . the pin AB/8 of the IDG1 (4000XU) and the pin AA/9B of the GCU1 (1XU1)
 - . the pin AB/9 of the IDG1 (4000XU) and the pin AA/9A of the GCU1 (1XU1)
 - do a check and repair the wiring between (Ref. ASM 24-22/02):
 - . the pin AB/9A of the GCU1 (1XU1) and the pin AA/4C of the EGIU1 (22XU1)
 - . the pin AB/9B of the GCU1 (1XU1) and the pin AA/4D of the EGIU1 (22XU1)
 - . the pin AB/9C of the GCU1 (1XU1) and the pin AA/5A of the EGIU1 (22XU1). Then make sure that the ground wire is correctly connected to the pin AA/5C of the EGIU1 (22XU1).
 - do a check and repair the wiring between (Ref. ASM 31-54/03): . the pin AA/1A of the EGIU1 (22XU1) and the pin AB/10G of the SADC1 (1WV1)
 - . the pin AA/1B of the EGIU1 (22XU1) and the pin AB/10H of the SADC1 (1WV1)
 - . the pin AA/1C of the EGIU1 (22XU1) and the pin AB/1OG of the SADC2 (1WV2)
 - . the pin AA/1D of the EGIU1 (22XU1) and the pin AB/10H of the SADC2 (1WV2)

EFF: ALL **24-21-00**

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- (3) If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- R **ON A/C 254-275, 451-475,
 - A. If the test confirms the fault:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring between (Ref. ASM 24-21/01):
 - . the pin AB/7 of the IDG1 (4000XU) and the pin AA/9C of the GCU1 (1XU1)
 - . the pin AB/8 of the IDG1 (4000XU) and the pin AA/9D of the GCU1
 - . the pin AB/9 of the IDG1 (4000XU) and the pin AA/10C of the GCU1 (1XU1)
 - do a check and repair the wiring between (Ref. ASM 31-54/03):
 - . the pin AA/8F of the GCU1 (1XU1) and the pin AB/10G of the SADC1 (1WV1)
 - . the pin AA/7F of the GCU1 (1XU1) and the pin AB/10H of the SADC1
 - . the pin AA/8J of the GCU1 (1XU1) and the pin AB/10G of the SADC2 (1WV2)
 - . the pin AA/8H of the GCU1 (1XU1) and the pin AB/10H of the SADC2 (1WV2)
 - (2) If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C ALL

B. Do this test to make sure that the system operates correctly:

______ RESULT ACTION

- - ELEC page.
- 1. On the ECAM control panel: On the lower ECAM DU: push the ELEC key to get the the oil temperature indication of the IDG1 comes into view.

24-21-00 EFF: ALL

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL
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TASK 24-21-00-810-819

Loss of the IDG2 Temperature Indication

- 1. Possible Causes
 - EGIU-2 (22XU2)
 - GCU-2 (1XU2)
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG
		1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG
		1(2),(4000XU)
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine
		1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
		from the Engine 1(2)
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-21/01	
ASM		
ASM	31-54/03	
	· · · · · · · · · · · · · · · · · · ·	

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - ELEC page.
- If on the lower ECAM DU:
- push the ELEC key to get the amber crosses replace the oil temperature indication of the IDG2, do the trouble shooting given in Para. 4.A.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring between (Ref. ASM 24-21/01):
 - the pin AB/7 of the IDG2 (4000XU) and the pin AA/8A of the GCU2 (1XU2)
 - the pin AB/8 of the IDG2 (4000XU) and the pin AA/9B of the GCU2 (1XU2)
 - . the pin AB/9 of the IDG2 (4000XU) and the pin AA/9A of the GCU2 (1XU2)
 - do a check and repair the wiring between (Ref. ASM 24-22/03): . the pin AB/9A of the GCU2 (1XU2) and the pin AA/4C of the EGIU2 (22XU2)
 - . the pin AB/9B of the GCU2 (1XU2) and the pin AA/4D of the EGIU2 (22XU2)
 - . the pin AB/9C of the GCU2 (1XU2) and the pin AA/5A of the EGIU2 (22XU2). Then make sure that the ground wire is correctly connected to the pin AA/5C of the EGIU2 (22XU2).
 - do a check and repair the wiring between (Ref. ASM 31-54/03): . the pin AA/1A of the EGIU2 (22XU2) and the pin AE/10C of the SADC1 (1WV1)
 - . the pin AA/1B of the EGIU2 (22XU2) and the pin AE/10D of the SADC1 (1WV1)
 - . the pin AA/1C of the EGIU2 (22XU2) and the pin AE/10C of the SADC2 (1WV2)
 - . the pin AA/1D of the EGIU2 (22XU2) and the pin AE/10D of the SADC2 (1WV2)

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- (3) If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- R **ON A/C 254-275, 451-475,
 - A. If the test confirms the fault:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring between (Ref. ASM 24-21/01):
 - . the pin AB/7 of the IDG2 (4000XU) and the pin AA/9C of the GCU2 (1XU2)
 - . the pin AB/8 of the IDG2 (4000XU) and the pin AA/9D of the GCU2
 - . the pin AB/9 of the IDG2 (4000XU) and the pin AA/10C of the GCU2 (1XU2)
 - do a check and repair the wiring between (Ref. ASM 31-54/03):
 - . the pin AA/8F of the GCU2 (1XU2) and the pin AE/10C of the SADC1 (1WV1)
 - . the pin AA/7F of the GCU2 (1XU2) and the pin AE/10D of the SADC1
 - . the pin AA/8J of the GCU2 (1XU2) and the pin AE/10C of the SADC2
 - . the pin AA/8H of the GCU2 (1XU2) and the pin AE/10D of the SADC2 (1WV2)
 - (2) If the fault continues:
 - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

**ON A/C ALL

B. Do this test to make sure that the system operates correctly:

______ RESULT ACTION

- - ELEC page.
- 1. On the ECAM control panel: On the lower ECAM DU: push the ELEC key to get the the oil temperature indication of the IDG2 comes into view.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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R **ON A/C 254-275, 451-475,

TASK 24-21-00-810-820

Failure of the Disconnect Solenoid System of the IDG 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - IDG (4000XU)
 - RELAY-IDG 1 DISC CTL (3XT)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM ASM	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS	

- 3. Fault Confirmation
 - A. Test

R

(1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).

NOTE: Do the trouble shooting for all the other CFDS messages related to the IDG 1 that come into view with the message IDG1 (E1-4000XU)/ RELAY (3XT)/GCU1 (1XU1).

- (a) If the BITE test gives the message TEST FAILED: - do the trouble shooting given in Para 4.A.
- (b) If the BITE test gives the message TEST PASSED: - do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref.
 - AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do an electrical resistance test of the IDG 1 disconnect solenoid for an open circuit or a high resistance condition between pin A/12 and pin A/13 of the IDG 1 (3 ohms plus or minus 1 ohm) (Ref. ASM 24-21/01).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - replace the RELAY-IDG 1 DISC CTL (3XT)
 - do a dynamic disconnect test of the IDG 1 (Ref. AMM TASK 24-21-00-720-041).
 - (a) If the test is OK:
 - stop the trouble shooting.
 - (b) If the test is not OK:
 - do a check of the wiring for an open circuit or a short to ground between pin A1 of the IDG 1 disconnect control relay (3XT) and pin A/12 of the IDG 1 (Ref. ASM 24-21/01).
 - 1 If the wiring is not correct:
 repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- C. Do the test given in para. 3.

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TASK 24-21-00-810-821

Failure of the Disconnect Solenoid System of the IDG 2

1. Possible Causes

- GCU-2 (1XU2)
- IDG (4000XU)
- RELAY-IDG 2 DISC CTL (4XT)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM ASM	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS	

3. Fault Confirmation

A. Test

(1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).

NOTE: Do the trouble shooting for all the other CFDS messages related to the IDG 2 that come into view with the message IDG2 (E2-4000XU)/ RELAY (4XT)/GCU2 (1XU2).

- (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
- (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do an electrical resistance test of the IDG 2 disconnect solenoid for an open circuit or a high resistance condition between pin A/12 and pin A/13 of the IDG 2 (3 ohms plus or minus 1 ohm) (Ref. ASM 24-21/01).
 - (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the resistance values are in the specified limits:
 - replace the RELAY-IDG 2 DISC CTL (4XT)
 - do a dynamic disconnect test of the IDG 2 (Ref. AMM TASK 24-21-00-720-041).
 - (a) If the test is OK:
 - stop the trouble shooting.
 - (b) If the test is not OK:
 - do a check of the wiring for an open circuit or a short to ground between pin A1 of the IDG 2 disconnect control relay (4XT) and pin A/12 of the IDG 2 (Ref. ASM 24-21/01).
 - 1 If the wiring is not correct: - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- C. Do the test given in para. 3.

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TASK 24-21-00-810-822

Failure of the Integrated Drive Generator 1

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
	24-0	0-00-810-808	Failure of the IDG 1 Oil-Out Temperature Bulb or its Wiring
	24-2	0-00-810-904	Low Oil Pressure of the Integrated Drive Generator 1
	AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
	AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
R	AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	31-60-00-860-001	EIS Start Procedure
	AMM	31-60-00-860-002	EIS Stop Procedure
	AMM	71-00-00-710-003	Engine Automatic Start
	AMM	71-00-00-710-028	Engine Shutdown

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - (1) If one of these CFDS messages:
 - IDG1 (E1-4000XU) OIL OUT TEMP/ GCU1 (1XU1)
 - IDG1 (E1-4000XU) LOW OIL PRESSURE

comes into view with IDG1 (E1-4000XU), do the trouble shooting for these messages first:

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- (a) Do the procedure for an overtemperature (Ref. TASK 24-00-00-810-808).
- (b) Do the procedure for a low oil pressure (Ref. TASK 24-20-00-810-904).
- (2) If the CFDS messages given in step (1) do not come into view:
 replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040)
 and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-823

Failure of the Integrated Drive Generator 2

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
	24-0	0-00-810-809	Failure of the IDG 2 Oil-Out Temperature Bulb or its	
	24-2	0-00-810-905	Wiring Low Oil Pressure of the Integrated Drive Generator 2	
	AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
	AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)	
R	AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
	AMM	31-60-00-860-001	EIS Start Procedure	
	AMM	31-60-00-860-002	EIS Stop Procedure	
	AMM	71-00-00-710-003	Engine Automatic Start	
	AMM	71-00-00-710-028	Engine Shutdown	

- 3. Fault Confirmation
 - A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) and the upper ECAM-DU warning GEN 2 FAULT:
 - (1) If one of these CFDS messages:
 - IDG2 (E2-4000XU) OIL OUT TEMP/ GCU2 (1XU2)
 - IDG2 (E2-4000XU) LOW OIL PRESSURE

comes into view with IDG2 (E2-4000XU), do the trouble shooting for these messages first:

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- (a) Do the procedure for an overtemperature (Ref. TASK 24-00-00-810-809).
- (b) Do the procedure for a low oil pressure (Ref. TASK 24-20-00-810-
- (2) If the CFDS messages given in step (1) do not come into view: - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

______ ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU:

- the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-824

Failure of the Integrated Drive Generator 1 Because of Low Oil Pressure

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>	
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)	
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits	
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	

- 3. Fault Confirmation
 - A. Test Not applicable.

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NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU) and the upper ECAM-DU warning GEN 1 FAULT:
 - <u>NOTE</u>: This CFDS message comes into view when a generator under-frequency trip occurs because of a low oil pressure in the IDG. It usually comes into view with the CFDS message IDG1 (E1-4000XU) LOW OIL PRESSURE.
 - do a check of the Differential Pressure Indicator (DPI) of the IDG 1 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the DPI is not extended:
 - do a check of the IDG 1 oil level (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the oil level is correct:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the oil level is low:
 - do a check of the IDG, the external oil-circuit tubing and the fuel/oil heat exchanger for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - 1 If there is leak:
 - repair the leak or replace the components as necessary
 - add oil (Ref. AMM TASK 12-13-24-612-041) and reconnect the IDG 1 (if disconnected).
 - 2 If there is no leak:
 - add oil (Ref. AMM TASK 12-13-24-612-041) and reconnect the IDG 1 (if disconnected)
 - do a dynamic disconnect test of the IDG 1 (Ref. AMM TASK 24-21-00-720-041).
 - a If the oil pressure is correct:
 - stop the trouble shooting.
 - b If the oil pressure is not correct:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-825

Failure of the Integrated Drive Generator 2 Because of Low Oil Pressure

- 1. Possible Causes
 - IDG (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	12-13-24-612-041	<pre>IDG Servicing - Filling of the IDG with Oil or Addition of Oil after a Level Check</pre>	
AMM	24-21-00-210-046	Check of the Oil Level and Oil-Filter Differential-Pressure Indicator (DPI)	
AMM	24-21-00-210-047	Visual Inspection of the IDG for Oil Leaks and Check of the Electrical Circuits	
AMM	24-21-00-720-041	Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	

- 3. Fault Confirmation
 - A. Test Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU) and the upper ECAM DU warning GEN 2 FAULT:
 - <u>NOTE</u>: This CFDS message comes into view when a generator under-frequency trip occurs because of a low oil pressure in the IDG. It usually comes into view with the CFDS message IDG2 (E2-4000XU) LOW OIL PRESSURE.
 - do a check of the Differential Pressure Indicator (DPI) if the IDG 2 (Ref. AMM TASK 24-21-00-210-046).
 - (1) If the DPI is extended:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the DPI is not extended:
 - do a check of the IDG 2 oil level (Ref. AMM TASK 24-21-00-210-046).
 - (a) If the oil level is correct:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the oil level is low:
 - do a check of the IDG, the external oil-circuit tubing and the fuel/oil heat exchanger for oil leaks (Ref. AMM TASK 24-21-00-210-047).
 - 1 If there is leak:
 - repair the leak or replace the components as necessary
 - add oil (Ref. AMM TASK 12-13-24-612-041) and reconnect the IDG 2 (if disconnected).
 - 2 If there is no leak:
 - add oil (Ref. AMM TASK 12-13-24-612-041) and reconnect the IDG 2 (if disconnected)
 - do a dynamic disconnect test of the IDG 2 (Ref. AMM TASK 24-21-00-720-041).
 - a If the oil pressure is correct:
 - stop the trouble shooting.
 - b If the oil pressure is not correct:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-826

Failure of the IDG 1 Control Circuits or of its Wiring to the GCU 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	
ASM	24-22/01	

3. Fault Confirmation

R A. Test

Not applicable.

<u>NOTE</u>: As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

	CAUTION	: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
R		EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
R		IN IT.
R		IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R		AGAIN.
R		IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R		GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG1 (E1-4000XU)/GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - (1) Do the trouble shooting for all ECU messages that come into view with the CFDS message IDG1 (E1-4000XU)/ GCU1 (1XU1).
 - (a) If there are no ECU messages, or if the fault continues after the trouble shooting for ECU messages:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the BITE test gives the message TEST PASSED:
 - do an electrical resistance test of the IDG 1 servo-valve speed-control between pin B/1 and pin B/2 (75 ohms plus or minus 6 ohms) (Ref. ASM 24-21/01).
 - 1 If the resistance values are out of the specified limits: - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If the resistance values are in the specified limits:
 - do a check of the wiring of the servo-valve speed control (Ref. ASM 24-21/01) for a short to ground, a short circuit, an open circuit or a high resistance condition between:
 - . pin B/1 of the IDG 1 and pin B/11J of the GCU 1
 - . pin B/2 of the IDG 1 and pin B/11H of the GCU 1.
 - <u>a</u> If the wiring is not correct:repair or replace as necessary.

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- b If the wiring is correct:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- c If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- (3) Do an electrical resistance test of the IDG 1 exciter field between pins A/9 and A/10 (8.4 ohms plus or minus 0.84 ohm) (Ref. ASM 24-22/01).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do an electrical resistance test of the IDG 1 PMG stator (Ref. ASM 24-22/01) between:
 - \blacksquare pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \blacksquare pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - \cdot pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - 1 If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If the resistance values are in the specified limits:
 - do a check of the wiring of the PMG stator and exciter field (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . pin B/12 of the IDG 1 and pin C/10 of the GCU 1
 - pin B/13 of the IDG 1 and pin C/11 of the GCU 1
 - pin B/14 of the IDG 1 and pin C/9 of the GCU 1
 - pins C/10, C/11, C/9 and C/7 of the GCU 1 (short to shield of the PMG stator)
 - . pin A/9 of the IDG 1 and pin C/12 of the GCU 1
 - pin A/10 of the IDG 1 and pin C/13 of the GCU 1
 - pins C/12, C/13 and pin C/7 of the GCU 1 (short to shield of the exciter field).
 - a If the wiring is not correct:
 - repair or replace as necessary.
 - b If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-827

Failure of the IDG 2 Control Circuits or of its Wiring to the GCU 2

1. Possible Causes

- IDG (4000XU)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-028	Engine Shutdown	
ASM	24-21/01		
ASM	24-22/01		

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

	CAUTION	:	BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
R			EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
R			IN IT.
R			IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R			AGAIN.
R			IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R			GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message IDG2 (E2-4000XU)/ GCU2 (1XU2) and the upper ECAM DU warning GEN 2 FAULT:
 - (1) Do the trouble shooting for all ECU messages that come into view with the CFDS message IDG2 (E2-4000XU)/ GCU2 (1XU2).
 - (a) If there are no ECU messages, or if the fault continues after the trouble shooting for ECU messages:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the BITE test gives the message TEST PASSED:
 - do an electrical resistance test of the IDG 2 servo-valve speed-control (Ref. ASM 24-21/01) between pin B/1 and pin B/2 (75 ohms plus or minus 6 ohms).
 - If the resistance values are out of the specified limits: - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If the resistance values are in the specified limits:
 - do a check of the wiring of the servo-valve speed control (Ref. ASM 24-21/01) for a short to ground, a short circuit, an open circuit or a high resistance condition between:
 - . pin B/1 of the IDG 2 and pin B/11J of the GCU 2
 - . pin B/2 of the IDG 2 and pin B/11H of the GCU 2.
 - <u>a</u> If the wiring is not correct:repair or replace as necessary.

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- b If the wiring is correct:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- c If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- (3) Do an electrical resistance test of the IDG 2 exciter field between pins A/9 and A/10 (8.4 ohms plus or minus 0.84 ohms) (Ref. ASM 24-22/01).
 - (a) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance values are in the specified limits:
 - do an electrical resistance test of the IDG 2 PMG stator (Ref. ASM 24-22/01) between:
 - \blacksquare pins B/12 and B/13 (1 ohm plus or minus 0.15 ohm)
 - \blacksquare pins B/12 and B/14 (1 ohm plus or minus 0.15 ohm)
 - . pins B/13 and B/14 (1 ohm plus or minus 0.15 ohm).
 - 1 If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - 2 If the resistance values are in the specified limits:
 - do a check of the wiring of the PMG stator and exciter field (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - pin B/12 of the IDG 2 and pin C/10 of the GCU 2
 - pin B/13 of the IDG 2 and pin C/11 of the GCU 2
 - . pin B/14 of the IDG 2 and pin C/9 of the GCU 2
 - pins C/10, C/11, C/9 and C/7 of the GCU 2 (short to shield of the PMG stator)
 - . pin A/9 of the IDG 2 and pin C/12 of the GCU 2
 - pin A/10 of the IDG 2 and pin C/13 of the GCU 2
 - pins C/12, C/13 and pin C/7 of the GCU 2 (short to shield of the exciter field).
 - a If the wiring is not correct:
 - repair or replace as necessary.
 - b If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:

 the correct electrical parameters of the GEN 2 are shown and the AC2 busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-21-00-810-828

Failure of the IDG Cooler 1

- 1. Possible Causes
 - FUEL/OIL HEAT EXCHANGER
 - IDG 1 oil-cooling tubing
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination
AMM AMM	24-21-49-000-003 24-21-49-400-003	Removal of the IDG Cooling Oil-in Tubes and Hoses Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable, you cannot confirm this fault on the ground.
- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message IDG COOLER 1:
 smell to make sure there is no fuel in the oil container.
 - (1) If you smell fuel in the IDG 1 oil container:
 - replace the FUEL/OIL HEAT EXCHANGER of the IDG 1 (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002)
 - do the servicing of the IDG 1 after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).
 - (2) If there is no sign of fuel in the IDG 1 oil container:
 - replace the FUEL/OIL HEAT EXCHANGER of the IDG 1 (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002)
 - replace the IDG 1 oil-cooling tubing (Ref. AMM TASK 24-21-49-000-003) and (Ref. AMM TASK 24-21-49-400-003)
 - do the servicing of the IDG 1 after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).

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- (a) If the fault continues:
 - do a check and repair the fuel supply of the fuel/oil heat exchanger for a flow that is not sufficient or for a blockage.
 - 1 If the fault continues:
 - do the trouble shooting for other CFDS messages related to the fuel control circuit.
- B. After the subsequent flight, make sure that the fault does not continue.

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TASK 24-21-00-810-829

Failure of the IDG Cooler 2

- 1. Possible Causes
 - FUEL/OIL HEAT EXCHANGER
 - IDG 2 oil-cooling tubing
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-00-612-043	Servicing of the IDG after Oil Chemical Contamination
AMM	24-21-49-000-003	Removal of the IDG Cooling Oil-in Tubes and Hoses
AMM	24-21-49-400-003	Installation of the IDG Cooling Oil-in Tubes and Hoses
AMM	73-11-60-000-002	Removal of the Integrated Drive Generator (IDG) Oil Cooler Assembly
AMM	73-11-60-400-002	Installation of the Integrated Drive Generator (IDG) Oil Cooler Assembly

3. Fault Confirmation

- A. Test
 - (1) Not applicable, you cannot confirm this fault on the ground.
- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message IDG COOLER 2:
 smell to make sure there is no fuel in the oil container.
 - (1) If you smell fuel in the IDG 2 oil container:
 - replace the FUEL/OIL HEAT EXCHANGER of the IDG 2 (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002)
 - do the servicing of the IDG 2 after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).
 - (2) If there is no sign of fuel in the IDG 2 oil container:
 - replace the FUEL/OIL HEAT EXCHANGER of the IDG 2 (Ref. AMM TASK 73-11-60-000-002) and (Ref. AMM TASK 73-11-60-400-002)
 - replace the IDG 2 oil-cooling tubing (Ref. AMM TASK 24-21-49-000-003) and (Ref. AMM TASK 24-21-49-400-003)
 - do the servicing of the IDG 2 after oil chemical contamination (Ref. AMM TASK 24-21-00-612-043).

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- (a) If the fault continues:
 - do a check and repair the fuel supply of the fuel/oil heat exchanger for a flow that is not sufficient or for a blockage.
 - 1 If the fault continues:
 - do the trouble shooting for other CFDS messages related to the fuel control circuit.
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: 254-275, 451-475, **24-21-00**

SROS

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TASK 24-21-00-810-830

Failure of IDG 1 Low-Oil Pressure Switch or its Wiring

- 1. Possible Causes
 - GCU-1 (1XU1)
 - IDG (4000XU)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
АММ	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: The CFDS message IDG1 (E1-4000XU) LOP SW/ GCU1 (1XU1) can come into view if the electrical connector C is disconnected from the IDG and the 28VDC backup power supplies the related GCU. Before you do the trouble shooting procedure for this CFDS message, make sure that the electrical connector C is not disconnected.

 This CFDS message can also come into view during engine motoring or "dry cranking", then no trouble shooting is necessary and you can ignore the message.

 In other conditions, do the trouble shooting procedure that
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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254-275, 451-475,

follows:

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EFF:

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4. Fault Isolation

	CAUTION:	BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS
R		EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATIO
R		IN IT.
R		IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R		AGAIN.
R		IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R		GIVEN BELOW.

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the low-oil pressure switch for an open circuit between the pins C/A and C/B (normally closed) of the IDG 1 (Ref. ASM 24-21/01).
 - (1) If there is no continuity:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If there is continuity:
 - do a check of the low-oil pressure wiring (Ref. ASM 24-21/01) for an open circuit between:
 - . pin C/A of the IDG 1 and pin A/4A of the GCU 1
 - . pin C/B of the IDG 1 and ground.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-21-00-810-831

Failure of IDG 2 Low-Oil Pressure Switch or its Wiring

- 1. Possible Causes
 - GCU-2 (1XU2)
 - IDG (4000XU)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - NOTE: The CFDS message IDG2 (E2-4000XU) LOP SW/ GCU2 (1XU2) can come into view if the electrical connector C is disconnected from the IDG and the 28VDC backup power supplies the related GCU. Before you do the trouble shooting procedure for this CFDS message, make sure that the electrical connector C is not disconnected.

 This CFDS message can also come into view during engine motoring, or "dry cranking", then no trouble shooting is necessary and you can ignore the message.

 In other conditions, do the trouble shooting procedure that follows:
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

	CAUTION	: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
R		EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
R		IN IT.
R		IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R		AGAIN.
R		IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R		GIVEN BELOW.

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the low-oil pressure switch for an open circuit between the pins C/A and C/B (normally closed) of the IDG 2 (Ref. ASM 24-21/01).
 - (1) If there is no continuity:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If there is continuity:
 - do a check of the low-oil pressure wiring for an open circuit (Ref. ASM 24-21/01) between:
 - . pin C/A of the IDG 2 and pin A/4A of the GCU 2
 - . pin C/B of the IDG 2 and ground.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-21-00-810-832

Failure of the IDG 1 Oil-In Temperature Bulb or its Wiring to the GCU 1

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

RENCE	DESIGNATION
24-21-51-000-040	Removal of the Integrated Drive Generator -IDG
24-21-51-400-040	1(2),(4000XU) Installation of the Integrated Drive Generator -IDG
24-22-34-000-001 24-22-34-400-001	1(2),(4000XU) Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)
24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS
	24-22-34-400-001 24-41-00-740-002

3. Fault Confirmation

- A. Test
 - (1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).
- 4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,

EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION

IN IT.

R IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

R AGAIN.

R IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

R GIVEN BELOW.

- A. If the Class 3 Faults gives the maintenance message IDG1 (E1-4000XU) OIL IN TEMP/ GCU1 (1XU1):
 - do an electrical resistance test of the inlet oil temperature-sensor of the IDG 1 between pins B/8 and B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case) (Ref. ASM 24-21/01).

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- (1) If the resistance values are out of the specified limits:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-21/01) for an open circuit, a short to ground or a short to shield condition between:
 - . pin B/8 of the IDG 1 and pin A/9D of the GCU 1
 - . pin B/9 of the IDG 1 and pin A/10C of the GCU 1
 - pins A/9D and A/10D of the GCU 1
 - . pins A/10C and A/10D of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

EFF: 254-275, 451-475,

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TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-833

Failure of the IDG 2 Oil-In Temperature Bulb or its Wiring to the GCU 2

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

RENCE	DESIGNATION
24-21-51-000-040	Removal of the Integrated Drive Generator -IDG
24-21-51-400-040	1(2),(4000XU) Installation of the Integrated Drive Generator -IDG
24-22-34-000-001 24-22-34-400-001	1(2),(4000XU) Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2)
24-41-00-740-002 24-21/01	Operational Check of GAPCU via CFDS
	24-22-34-400-001 24-41-00-740-002

3. Fault Confirmation

- A. Test
 - (1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).
- 4. Fault Isolation

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,

EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION

IN IT.

R IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

R AGAIN.

R IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS

R GIVEN BELOW.

- A. If the Class 3 Faults gives the maintenance message IDG2 (E2-4000XU) OIL IN TEMP/ GCU2 (1XU2):
 - do an electrical resistance test of the inlet oil temperature-sensor of the IDG 2 between pins B/8 and B/9 (100 ohms plus or minus 10 ohms at the ambient temperature of the IDG case) (Ref. ASM 24-21/01).

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- (1) If the resistance values are out of the specified limits:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-21/01) for an open circuit, a short to ground or a short to shield condition between:
 - . pin B/8 of the IDG 2 and pin A/9D of the GCU 2
 - . pin B/9 of the IDG 2 and pin A/10C of the GCU 2
 - . pins A/9D and A/10D of the GCU 2
 - . pins A/10C and A/10D of the GCU 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 1 If the fault continues:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

EFF: 254-275, 451-475,

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**ON A/C ALL

TASK 24-21-00-810-834

Loss of the Amber DISC Indication for the IDG 1

- 1. Possible Causes
 - wiring
 - relay (3XT)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24-21-00-720-041

Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation

ASM 24-21/01

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the IDG disconnect and reconnect (reset) function Engine in operation (Ref. AMM TASK 24-21-00-720-041)
 - (2) If the IDG does not disconnect or the DISC indication does not come into view on the ELEC page on the lower ECAM display unit: - do the trouble shooting given in para 4.A.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - (1) Do a check and repair the wiring (Ref. ASM 24-21/01):
 - between the pin A/3B of the GCU 1 (1XU1) and the pin 2 of the circuit breaker (1XT)
 - the pin A/10D of the GCU 1 (1XU1) and the pin A/4A of the EGIU 1 (22XU1).
 - (2) If the fault continues:
 - replace the relay (3XT).

EFF: ALL

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R **ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - (1) Do a check and repair the wiring between the pin A/2J of the GCU 1 (1XU1) and the pin 2 of the circuit breaker (1XT) (Ref. ASM 24-21/01).
 - (2) If the fault continues:
 replace the relay (3XT).

**ON A/C ALL

- B. Test
 - (1) Do the operational test of the IDG disconnect and reconnect (reset) function Engine in operation (Ref. AMM TASK 24-21-00-720-041).

EFF: ALL
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TASK 24-21-00-810-835

Loss of the Amber DISC Indication for the IDG 2

- 1. Possible Causes
 - wiring
 - relay (4XT)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24-21-00-720-041

Operational Test of the IDG Disconnect and Reconnect (Reset) Function - Engine in Operation

ASM 24-21/01

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the IDG disconnect and reconnect (reset) function - Engine in operation (Ref. AMM TASK 24-21-00-720-041)
 - (2) If the IDG does not disconnect or the DISC indication does not come into view on the ELEC page on the lower ECAM display unit: - do the trouble shooting given in para 4.A.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - (1) Do a check and repair the wiring (Ref. ASM 24-21/01):
 - between the pin A/3B of the GCU 2 (1XU2) and the pin 2 of the circuit breaker (2XT)
 - the pin A/10D of the GCU 2 (1XU2) and the pin A/4A of the EGIU 2 (22XU2).
 - (2) If the fault continues:
 - replace the relay (4XT).

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R **ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - (1) Do a check and repair the wiring between the pin A/2J of the GCU 2 (1XU2) and the pin 2 of the circuit breaker (2XT) (Ref. ASM 24-21/01).
 - (2) If the fault continues:
 replace the relay (4XT).

**ON A/C ALL

- B. Test
 - (1) Do the operational test of the IDG disconnect and reconnect (reset) function Engine in operation (Ref. AMM TASK 24-21-00-720-041).

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TASK 24-21-00-810-840

No Automatic Connection of the IDG 1 or Loss of the GEN 1

1. Possible Causes

- IDG (4000XU)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	-

3. Fault Confirmation

A. Test

(1) Not applicable

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- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GCU 1 PIN B 14A, B14B IDG 1 PIN B1, B2 WIRING and the upper ECAM DU warning GEN 1 FAULT or if there is no connection of IDG 1 after engine start:
 - NOTE: After an automatic or manual disconnection of the IDG 1, do a GCU1 reset at first engine start. In this case, this trouble shooting procedure is not applicable
 - do a check of the wiring between the GCU 1 pins B/14A, B/14B and the IDG 1 pins B/1 and B/2 (Ref. ASM 24-21/01).

 - (2) If the wiring is correct:
 - do a check of the resistance of the IDG 1 MPU coil between pin B/1 and pin B/2 (17.5 Ohms plus or minus 3.5 Ohms at 25 deg.C).
 - (a) If the resistance is out of the specified limits: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is in the specified limits: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

NOTE : Do not remove the GCU 1 before you do the other steps of the trouble shooting.

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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**ON A/C 254-275, 451-475,

R A. If t	there is	no	connection	οt	the	IDG '	1 after	enaine	start:
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R NOTE: After an automatic or manual disconnection of the IDG 1, do a GCU1 reset at first engine start. In this case, this trouble shooting procedure is not applicable

- R (1) Replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. R AMM TASK 24-21-51-400-040).
 - B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

**ON A/C ALL

C. Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM display unit:
- the correct electrical parameters of
GEN 1 are shown and AC 1 busbar is

supplied by GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).

EFF: ALL 24-21-00

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(3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL
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TROUBLE SHOOTING MANUAL

TASK 24-21-00-810-841

No Automatic Connection of the IDG 2 or Loss of the GEN 2

- 1. Possible Causes
 - IDG (4000XU)
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-21/01	

- 3. Fault Confirmation
 - A. Test

SROS

- (1) Not applicable
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the fault symptom is identified by the CFDS message CHECK GCU 2 PIN B14A, B14B IDG 2 PIN B1, B2 WIRING and the upper ECAM DU warning GEN 2 FAULT:
 - do a check of the wiring between the GCU 2 pins B/14A, B/14B and the IDG 2 pins B/1 and B/2 (Ref. ASM 24-21/01).

EFF: ALL

24-21-00

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TROUBLE SHOOTING MANUAL

- (1) If the wiring is not correct: - repair it.
- (2) If the wiring is correct:
 - do a check of the resistance of the IDG 2 MPU coil between pin B/1 and pin B/2 (17.5 Ohms plus or minus 3.5 Ohms at 25°C).
 - (a) If the resistance is out of the specified limits: - replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (b) If the resistance is in the specified limits: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

NOTE: Do not remove the GCU 2 before you do the other steps of the trouble shooting.

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU: - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

**ON A/C 254-275, 451-475,

- A. If there is no connection of the IDG 2 after engine start:
 - NOTE: After an automatic or manual disconnection of the IDG 2, do a GCU2 reset at the first engine start. In this case, this trouble shooting procedure is not applicable.
 - (1) Replace the IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).

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EFF: ALL

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R	B. Do this operational test to make sure that the system operates correctly.
R	(1) Aircraft Maintenance Configuration
R R	(a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
R R	(b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
R R	(2) On the ELEC panel 35VU:push, release and push again the GEN 2 pushbutton switch (3XU2).
R R	(3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
R	(4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
R	**ON A/C ALL
R	C. Do this test:
R R	
R	
R R R R	ACTION RESULT On the ECAM control panel: On the lower ECAM display unit: - get the ELEC page the correct electrical parameters of GEN 2 are shown and AC 2 busbar is
R R R R R	ACTION RESULT On the ECAM control panel: - get the ELEC page. - the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2.
R R R R R R R R	ACTION RESULT On the ECAM control panel: - get the ELEC page. - the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2. 5. Close-up
R R R R R R R R	ACTION RESULT On the ECAM control panel: - get the ELEC page the correct electrical parameters of GEN 2 are shown and AC 2 busbar is supplied by GEN 2. 5. Close-up A. Put the aircraft back to its initial configuration.

EFF: ALL 24-21-00

SROS

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@A319/A320/A321

TROUBLE SHOOTING MANUAL

INTEGRATED DRIVE GENERATOR SYSTEM (IDG, GCU) - TASK SUPPORTING DATA

Interval DPI Check and Filter Replacement after DPI Reset
 This figure is not valable for the Extended Range Twin-Engined Aircraft Operations (ETOPS)
 (Ref. Fig. 301)

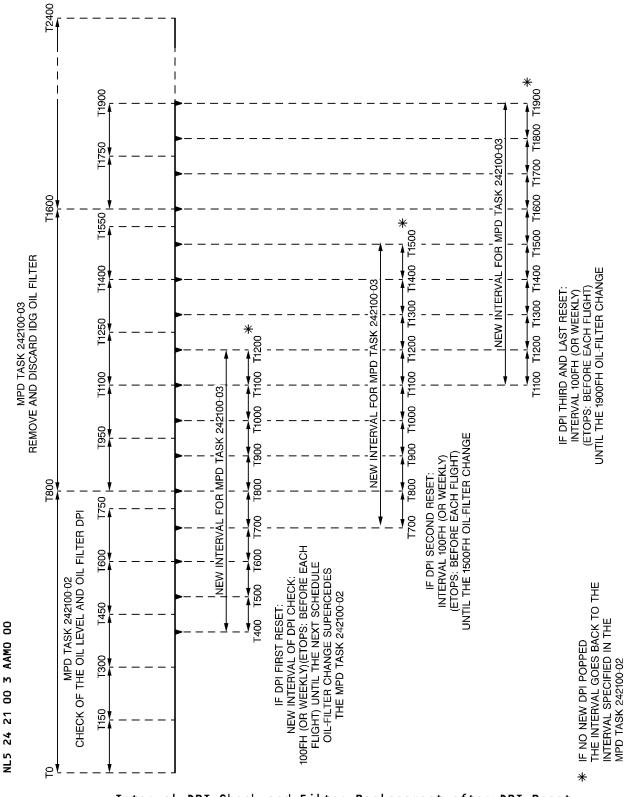
EFF: ALL

24-21-00

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319/A320/A321

TROUBLE SHOOTING MANUAL



Interval DPI Check and Filter Replacement after DPI Reset Figure 301

ALL EFF SROS

24-21-00

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TROUBLE SHOOTING MANUAL

AC MAIN GENERATION - FAULT ISOLATION PROCEDURES

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-22-00-810-801

Failure of the GCU 1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - sockets of the 400VC1
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific

dynamometer

B. Referenced Information

REFERENCE

DESIGNATION

ESPM 204823

AMM 24-22-34-000-001

Removal of the GCU-1(2) (1XU1, 1XU2)

AMM 24-22-34-400-001

Installation of the GCU-1(2) (1XU1, 1XU2)

AMM 24-41-00-740-002

Operational Test of the Ground Power Control Unit

(GPCU)

AWM 24-22-01

- 3. Fault Confirmation
 - A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

- 4. Fault Isolation
 - A. If the test gives the maintenance message GCU1:
 - do a check of the voltage of each phase.
 - (1) If the voltage on each phase is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

EFF: ALL

24-22-00

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TROUBLE SHOOTING MANUAL

- (2) If the voltage on one phase is not correct:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-22-00

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TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-802

Difference in Current between the IDG 1 Current Transformer and the AC Current Transformer 1

1. Possible Causes

- CT-AC, 1 (42XU1)
- CT-AC, 1 (42XU3)
- GCU-1 (1XU1)
- wiring
- 4000XU

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
ASM	24-22/01	

3. Fault Confirmation

A. Test

Do the operational test of the GPCU and do the check of class 3 faults of the GPCU from the CFDS (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK GCU1 PIN B11D, B13D:
 - do a check of the wiring for short to ground or open circuit between respectively:
 - . the pin B/11D of the GCU 1 and the pin A/4 of each AC1 current transformer 42XU1 and 42XU3
 - . the pin B/13D of the GCU 1 and the pin A/1 of the IDG 1 (Ref. ASM 24-22/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-22-00

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- (1) If the wiring is not correct:
 repair it.
- (2) If the wiring is correct:
 - do an impedance check of the internal wiring of the current transformers (42XU1 and 42XU3) between the pin A/4 and successively the pins A/1, A/2, A/3.
 - NOTE: The normal impedance is 10.15 Ohms plus or minus 3.45 Ohms.
 - then do a check for insulation between the pin A/6 and successively the pins A/1, A/2, A/3, A/4.
 - (a) If the values are out of the specified tolerances:
 - replace the CT-AC, 1 (42XU1) and CT-AC, 1 (42XU3) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the values are in the specified tolerances:
 - do an impedance check of the IDG 1 current-transformer wiring between the pin A/1 and successively the pins A/6, A/7, A/8.

NOTE: The normal impedance is 26 Ohms plus or minus 2 Ohms.

- If the values are out of the specified tolerances: - replace the 4000XU (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- 2 If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the test given in Para. 3. to make sure that the system operates correctly.
 If the test continues to give the fault message, continue the trouble shooting procedure.

TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-803

Difference in Current between the IDG 2 Current Transformer and the AC Current Transformer 2

1. Possible Causes

- CT-AC, 2 (42XU2)
- CT-AC, 2 (42XU4)
- GCU-2 (1XU2)
- wiring
- 4000XU

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)	
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 42XU1, 42XU2, 42XU3 and 42XU4)	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
ASM	24-22/01		

3. Fault Confirmation

A. Test

Do the operational test of the GPCU and do the check of class 3 faults of the GPCU from the CFDS (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK GCU2 PIN B11D, B13D:
 - do a check of the wiring for short to ground or open circuit between respectively:
 - . the pin B/11D of the GCU 2 and the pin A/4 of each AC 2 current transformer 42XU2 and 42XU4
 - . the pin B/13D of the GCU 2 and the pin A/1 of the IDG 2 (Ref. ASM 24-22/01).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

24-22-00

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TROUBLE SHOOTING MANUAL

- (1) If the wiring is not correct:
 - repair it.
- (2) If the wiring is correct:
 - do an impedance check of the internal wiring of the current transformers (42XU2 and 42XU4) between the pin A/4 and successively the pins A/1, A/2, A/3.
 - NOTE: The normal impedance is 10.15 Ohms plus or minus 3.45 Ohms.
 - then do a check for insulation between the pin A/6 and successively the pins A/1, A/2, A/3, A/4.
 - (a) If the values are out of the specified tolerances:
 - replace the CT-AC, 2 (42XU2) and CT-AC, 2 (42XU4) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the values are in the specified tolerances:
 - do an impedance check of the IDG 2 current-transformer wiring between the pin A/1 and successively the pins A/6, A/7, A/8.

NOTE: The normal impedance is 26 Ohms plus or minus 2 Ohms.

- 1 If the values are out of the specified tolerances: - replace the 4000XU (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- 2 If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the test given in Para. 3. to make sure that the system operates correctly. If the test continues to give the fault message, continue the trouble shooting procedure.

TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-804

Failure of the GCU 2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - sockets of the 400VC1
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

.-----

REFERENCE

QTY DESIGNATION

No specific

dynamometer

B. Referenced Information

REFERENCE

DESIGNATION

ESPM 204823

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2)

AMM 24-41-00-740-002 Operational Test of the Ground Power Control Unit

(GPCU)

AWM 24-22-01

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the test gives the maintenance message GEN2 FAULT:
 - do a check of the voltage of each phase.
 - (1) If the voltage on each phase is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (2) If the voltage on one phase is not correct:
 - do a pin retention check (Ref. ESPM 204823) of the sockets of the 400VC1 (Ref. AWM 24-22-01). Use a dynamometer, the CANNON value is 1.2 daN (2.7 lbf) minimum and the SOURIAU value is 2.8 daN (6.3 lbf) minimum, in relation to pin/socket type used.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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**ON A/C ALL

TASK 24-22-00-810-805

GEN 1 Voltage, Frequency and Load Indication Lost or Incorrect

1. Possible Causes

- EGIU-1 (22XU1)
- GCU-1 (1XU1)
- IDG (4000XU)
- C/B-GEN1/EGIU1/115VAC (23XU1)
- wiring
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-22/01	·
ASM	24-22/02	
ASM	31-54/03	

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

EFF: ALL 24-22-00

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(b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the lower ECAM DU:

 if amber crosses replace the voltage indication or the frequency indication of the GEN 1 or if the voltage indication shows amber, do the trouble shooting given in Para.
 4.B.

On the lower ECAM DU:

 if amber crosses replace the load indication of the GEN 1 or if the load indication shows amber, do the trouble shooting given in Para. 4.C.

On the lower ECAM DU:

 if amber crosses replace voltage, frequency and load indications, do the trouble shooting given in Para. 4.D.

**ON A/C 254-275, 451-475,

B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the lower ECAM DU:

- if amber crosses replace the voltage indication or the frequency indication of the GEN 1 or if the voltage indication or the frequency indication shows amber, do the trouble shooting given in Para. 4.B.

On the lower ECAM DU:

 if amber crosses replace the voltage indication or the frequency

EFF: ALL

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TROUBLE SHOOTING MANUAL

._____

ACTION RESULT

indication of the GEN 1, or if the load indication is shown in amber or if the load indication is replaced by amber crosses, do the trouble shooting given in Para. 4.C.

On the lower ECAM DU:

 if amber crosses replace voltage, frequency and load indications, do the trouble shooting given in Para. 4.D.

**ON A/C ALL

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION

IDENT. LOCATION

123VU GEN1/EGIU1/115VAC

23XU1 AF12

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- B. If the test confirms the fault:
 - Replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker (23XU1).
 - (a) If the circuit breaker (23XU1) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-GEN1/EGIU1/115VAC (23XU1).
 - (b) If the circuit breaker (23XU1) is closed:
 - Do a check of the wiring (Ref. ASM 24-22/01) between:
 - . The pin 2 of the circuit breaker GEN1/EGIU1/115VAC (23XU1) and the pin AA/15D of the EGIU1 (22XU1)
 - . The pin 1 of the circuit breaker GEN1/EGIU1/115VAC (23XU1) and the pin A/D of the GLC1 (9XU1).

EFF: ALL

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- 1 If the wiring is not correct:
 - Repair the wiring.
- 2 If the wiring is correct:
 - Do a check and repair the feeder (Ref. ASM 24-22/01) between:
 - . The terminal T1 of the engine 1 IDG (4000XU) and the pin A/D of the GLC1 (9XU1)
 - . The terminal T2 of the engine 1 IDG (4000XU) and the pin A/E of the GLC1 (9XU1)
 - . The terminal T3 of the engine 1 IDG (4000XU) and the pin A/F of the GLC1 (9XU1).

**ON A/C 254-275, 451-475,

- B. If the test confirms the fault:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (a) If the fault continues:
 - do a check and repair the wiring between the pins A/9, A/10 of the engine 1 IDG (4000XU) and the pins C/12, C/13 of the GCU 1 (1XU1) (Ref. ASM 24-22/01).

**ON A/C 432-450, 481-499, 563-599,

- B. If the test confirms the fault:
 - Replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker (23XU1).
 - (a) If the circuit breaker (23XU1) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-GEN1/EGIU1/115VAC (23XU1).
 - (b) If the circuit breaker (23XU1) is closed:
 - Do a check of the wiring (Ref. ASM 24-22/01) between:
 - The pin 2 of the circuit breaker GEN1/EGIU1/115VAC (23XU1) and the pin AA/15D of the EGIU1 (22XU1)
 - . The pin 1 of the circuit breaker GEN1/EGIU1/115VAC (23XU1) and the pin 1 of the generator 1 contactor module (30XN1).

EFF: 201-225, 227-227, 229-299, 426-499, 503-549, 551-561, 563-599, 701-749,

24-22-00

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TROUBLE SHOOTING MANUAL

- 1 If the wiring is not correct:
 - Repair the wiring.
- 2 If the wiring is correct:
 - Do a check and repair the feeder (Ref. ASM 24-22/01) between:
 - . The terminal T1 of the engine 1 IDG (4000XU) and the pin 1 of the generator 1 contactor module (30XN1) $\,$
 - . The terminal T2 of the engine 1 IDG (4000XU) and the pin 2 of the generator 1 contactor module (30XN1)
 - . The terminal T3 of the engine 1 IDG (4000XU) and the pin 3 of the generator 1 contactor module (30XN1).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - C. If the test confirms the fault:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - do a check of the wiring between:
 - .the pin A/2B of the GCU1 (1XU1) and the pin A/7D of the EGIU1 (22XU1)
 - the pin A/2C of the GCU1 (1XU1) and the pin A/7C of the EGIU1 (22XU1).
 - Then make sure that the ground wire is correctly connected to the pin A/6C of the EGIU1 (22XU1) (Ref. ASM 24-22/02).
 - (2) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001)
 - D. If the test confirms the fault:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin A/1A of the EGIU1 (22XU1) and the pin B/10G of the SDAC1 (1WV1)
 - . the pin A/1B of the EGIU1 (22XU1) and the pin B/10H of the SDAC1 (1WV1) $^{\circ}$
 - . the pin A/1C of the EGIU1 (22XU1) and the pin B/10G of the SDAC2 (1WV2) $^{\circ}$
 - . the pin A/1D of the EGIU1 (22XU1) and the pin B/10H of the SDAC2 (1WV2) $^{\circ}$

24-22-00

TROUBLE SHOOTING MANUAL

**ON A/C 254-275, 451-475,

- C. If the test confirms the fault:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- D. If the test confirms the fault:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin A/8F of the GCU 1 (1XU1) and the pin B/10G of the SDAC 1 (1WV1)
 - . the pin A/7F of the GCU 1 (1XU1) and the pin B/10H of the SDAC 1 (1WV1)
 - . the pin A/8J of the GCU 1 (1XU1) and the pin B/10G of the SDAC 2 (1WV2)
 - . the pin A/8H of the GCU 1 (1XU1) and the pin B/10H of the SDAC 2 $(1WV2)_{-}$

**ON A/C ALL

E. Do this test to make sure that the system operates correctly:

ACTION RESULT

On the ECAM control panel: - push the ELEC key to get the ELEC - the ELEC page comes into view. page.

On the lower ECAM DU:

- In the GEN 1 box:
- the normal electrical parameters come into view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

24-22-00

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EFF:

ALL

GA319/A320/A321

TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-806

External Power Voltage Incorrect or Lost and Frequency Lost

- 1. Possible Causes
 - EGIU-1 (22XU1)
 - GAPCU (24XG)
- R C/B-EXT PWR/EGIU1/115VAC (23XG)
 - wiring
 - 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
24-0	00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-41/01	·
ASM	31-54/03	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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EFF: ALL **24-22-00**SROS

TROUBLE SHOOTING MANUAL

B. Test

ACTION ______

RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the amber crosses replace the VAC ELEC page.
- On the lower ECAM DU:
 - indication or the indication shows amber or amber crosses replace the frequency indication.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION

IDENT. LOCATION

-----123VU EXT PWR/EGIU1/115VAC

23XG **AA07**

- B. If the test confirms the fault:
 - Replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker (23XG).

- (a) If the circuit breaker (23XG) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-EXT PWR/EGIU1/115VAC (23XG).
- (b) If the circuit breaker (23XG) is closed:
 - Do a check of the wiring between the circuit breaker EXT PWR/EGIU1/115VAC (23XG) and the pin AB/1D of the EGIU1 (22XU1) (Ref. ASM 24-41/01).
 - 1 If the wiring is not correct:
 - Repair the wiring.
 - 2 If the wiring is correct:
 - Do a check of the wiring between the circuit breaker EXT PWR/EGIU1/115VAC (23XG) and the first branch point (Ref. ASM 24-41/01).

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- (2) If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin B/13A of the EGIU1 (22XU1) and the pin E/10A of the SDAC1 (1WV1)
 - . the pin B/13B of the EGIU1 (22XU1) and the pin E/10B of the SDAC1 (1WV1)
 - . the pin B/13C of the EGIU1 (22XU1) and the pin E/10A of the SDAC2 (1WV2)
 - . the pin B/13D of the EGIU1 (22XU1) and the pin E/10B of the SDAC2 (1WV2).

**ON A/C 254-275, 451-475,

- B. If the test confirms the fault:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin A/8J of the GAPCU (24XG) and the pins B/10J, E/10A of the **SDAC 1 (1WV1)**
 - . the pin A/8H of the GAPCU (24XG) and the pins B/10K, E/10B of the SDAC 1 (1WV1)
 - . the pin A/8F of the GAPCU (24XG) and the pins B/10J, E/10A of the SDAC 2 (1WV2)
 - . the pin A/7F of the GAPCU (24XG) and the pins B/10K, E/10B of the SDAC 2 (1WV2).

**ON A/C ALL

C.	Dο	this	test	to m	nake	sure	that	the	system	operates	correct	у:

RESULT ACTION

On the ECAM control panel:

- push the ELEC key to get the ELEC - the ELEC page comes into view. page.

On the lower ECAM DU:

- In the EXT PWR box:
- the normal electrical parameters come into view.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL SROS 24-22-00

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TASK 24-22-00-810-807

GEN 2 Voltage, Frequency and Load Indication Lost or Incorrect

- 1. Possible Causes
 - EGIU-2 (22XU2)
 - GCU-2 (1XU2)
 - IDG (4000XU)

R

- C/B-GEN2/EGIU2/115VAC (23XU2)
- R - wiring
 - feeder
- C/B-GEN2/EGIU2/115VAC(23XU2)
 - 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
24-0	00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-22/01	·
ASM	24-22/02	
ASM	31-54/03	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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(b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the lower ECAM DU:

 if amber crosses replace the voltage indication or the frequency indication of the GEN 2 or if the voltage indication shows amber, do the trouble shooting given in Para.
 4.B.

On the lower ECAM DU:

 if amber crosses replace the load indication of the GEN 2 or if the load indication shows amber, do the trouble shooting given in Para. 4.C.

On the lower ECAM DU:

 if amber crosses replace voltage, frequency and load indications, do the trouble shooting given in Para. 4.D.

**ON A/C 254-275, 451-475,

B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the lower ECAM DU:

- if amber crosses replace the voltage indication or the frequency indication of the GEN 2 or if the voltage indication or the frequency indication shows amber, do the trouble shooting given in Para. 4.B.

On the lower ECAM DU:

 if amber crosses replace the voltage indication or the frequency

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ACTION RESULT

indication of the GEN 2, or if the load indication is shown in amber or if the load indication is replaced by amber crosses, do the trouble shooting given in Para. 4.C.

On the lower ECAM DU:

 if amber crosses replace voltage, frequency and load indications, do the trouble shooting given in Para. 4.D.

**ON A/C ALL

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION

IDENT. LOCATION

123VU GEN2/EGIU2/115VAC

23XU2 AF01

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- B. If the test confirms the fault:
 - Replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker (23XU2).
 - (a) If the circuit breaker (23XU2) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-GEN2/EGIU2/115VAC (23XU2).
 - (b) If the circuit breaker (23XU2) is closed:
 - Do a check of the wiring (Ref. ASM 24-22/01) between:
 - . The pin 2 of the circuit breaker GEN2/EGIU2/115VAC (23XU2) and the pin AA/15D of the EGIU2 (22XU2)
 - . The pin 1 of the circuit breaker GEN2/EGIU2/115VAC (23XU2) and the pin A/D of the GLC2 (9XU2).

EFF: ALL

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- 1 If the wiring is not correct:
 - Repair the wiring.
- 2 If the wiring is correct:
 - Do a check and repair the feeder (Ref. ASM 24-22/01) between:
 - . The terminal T1 of the engine 2 IDG (4000XU) and the pin A/D of the GLC2 (9XU2)
 - . The terminal T2 of the engine 2 IDG (4000XU) and the pin A/E of the GLC2 (9XU2)
 - . The terminal T3 of the engine 2 IDG (4000XU) and the pin A/F of the GLC2 (9XU2).

**ON A/C 254-275, 451-475,

- B. If the test confirms the fault:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - Replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If the fault continues:
 - Do a check and repair the wiring between the pins A/9, A/10 of the engine 2 IDG (4000XU) and the pins C/12, C/13 of the GCU 2 (1XU2) (Ref. ASM 24-22/01).

**ON A/C 432-450, 481-499, 563-599,

- B. If the test confirms the fault:
 - Replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker (23XU2).
 - (a) If the circuit breaker (23XU2) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-GEN2/EGIU2/115VAC(23XU2).
 - (b) If the circuit breaker (23XU2) is closed:
 - Do a check of the wiring (Ref. ASM 24-22/01) between:
 - . The pin 2 of the circuit breaker GEN2/EGIU2/115VAC (23XU2) and the pin AA/15D of the EGIU2 (22XU2)
 - . The pin 1 of the circuit breaker GEN2/EGIU2/115VAC (23XU2) and the pin 1 of the generator 2 contactor module (30XN2).

EFF: 201-225, 227-227, 229-299, 426-499, 503-549, 551-561, 563-599, 701-749,

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) *A 3 19 / A 3 2 O / A 3 2 1*

TROUBLE SHOOTING MANUAL

- 1 If the wiring is not correct:
 - Repair the wiring.
- 2 If the wiring is correct:
 - Do a check and repair the feeder (Ref. ASM 24-22/01) between:
 - . The terminal T1 of the engine 2 IDG (4000XU) and the pin 1 of the generator 2 contactor module (30XN2)
 - . The terminal T2 of the engine 2 IDG (4000XU) and the pin 2 of the generator 2 contactor module (30XN2)
 - . The terminal T3 of the engine 2 IDG (4000XU) and the pin 3 of the generator 2 contactor module (30XN2).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - C. If the test confirms the fault:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - do a check of the wiring between:
 - the pin A/2B of the GCU2 (1XU2) and the pin A/7D of the EGIU2
 - .the pin A/2C of the GCU2 (1XU2) and the pin A/7C of the EGIU2 (22XU2).
 - Then make sure that the ground wire is correctly connected to the pin A/6C of the EGIU2 (22XU2) (Ref. ASM 24-22/02).
 - (2) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001)
 - D. If the test confirms the fault:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin A/1A of the EGIU2 (22XU2) and the pin B/10G of the SDAC1 (1WV1)
 - . the pin A/1B of the EGIU2 (22XU2) and the pin B/10H of the SDAC1 (1WV1)
 - . the pin A/1C of the EGIU2 (22XU2) and the pin B/1OG of the SDAC2 (1WV2)
 - . the pin A/1D of the EGIU2 (22XU2) and the pin B/10H of the SDAC2 (1WV2)

201-225, 227-227, 229-253, 276-299,

426-450, 476-499, 503-549, 551-599, 701-749,

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**ON A/C 254-275, 451-475,

- C. If the test confirms the fault:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- D. If the test confirms the fault:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin A/8F of the GCU 2 (1XU2) and the pin E/10C of the SDAC 1 (1WV1)
 - . the pin A/7F of the GCU 2 (1XU2) and the pin E/10D of the SDAC 1 (1WV1)
 - . the pin A/8J of the GCU 2 (1XU2) and the pin E/10C of the SDAC 2 (1WV2)
 - . the pin A/8H of the GCU 2 (1XU2) and the pin E/10D of the SDAC 2 $(1WV2)_{-}$

**ON A/C ALL

E. Do this test to make sure that the system operates correctly:

ACTION RESULT

On the ECAM control panel:

- push the ELEC key to get the ELEC - the ELEC page comes into view. page.

On the lower ECAM DU:

- In the GEN 2 box:
- the normal electrical parameters come into view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF:

ALL

TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-808

APU GEN Voltage, Frequency and Load Indication Lost or Incorrect

- 1. Possible Causes
 - EGIU-2 (22XU2)
 - GEN-APU (8XS)
 - GAPCU (24XG)
 - GCU-APU (1XS)
- R C/B-APU GEN/EGIU2/115VAC (23XS)
 - wiring
- R C/B-APU GEN/EGIU2/115VAC(23XS)
 - 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplice from the APU
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-23/01	
ASM	24-23/02	
ASM	31-54/03	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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SROS

24-22-00

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(b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

B. Test

ACTION RESULT

1. On the ECAM control panel:

 push the ELEC key to get the ELEC page. On the lower ECAM DU:

 if the frequency indication is shown in amber, do the trouble shooting given in Para. 4.B.

On the lower ECAM DU:

- if the frequency or the voltage indication is replaced by amber crosses or the voltage indication is shown in amber, do the trouble shooting given in Para. 4.C.

On the lower ECAM DU:

 if the load indication is shown in amber or replaced by amber crosses, do the trouble shooting given in Para. 4.D.

**ON A/C 254-275, 451-475,

B. Test

ACTION RESULT

1. On the ECAM control panel:

 push the ELEC key to get the ELEC page. On the lower ECAM DU:

- if amber crosses replace the voltage indication or the frequency indication of the APU GEN, or if the load indication is shown in amber or if the load indication is replaced by amber crosses, do the trouble shooting given in Para. 4.B.

On the lower ECAM DU:

 if amber crosses replace the voltage indication or the frequency indication of the APU GEN or if the

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ACTION RESULT

voltage indication or the frequency indication shows amber, do the trouble shooting given in Para. 4.C.

On the lower ECAM DU:

 if amber crosses replace voltage, frequency and load indications, do the trouble shooting given in Para. 4.D.

**ON A/C ALL

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION

IDENT. LOCATION

123VU APU GEN/EGIU2/115VAC

23XS AA08

- B. If the test confirms the fault:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

**ON A/C 254-275, 451-475,

- B. If the test confirms the fault:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (1) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

EFF: ALL

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- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - C. If the test confirms the fault:
 - Replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker APU GEN/EGIU2/115VAC (23XS).
 - (a) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC (23XS).
 - (b) If the circuit breaker is closed:
 - Do a check of the wiring between the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin AB/1D of the EGIU2 (22XU2) (Ref. ASM 24-23/01).
 - 1 If the wiring is not correct:
 - Repair the wiring.
 - 2 If the wiring is correct:
 - Do a check and repair the wiring between the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin A/D of the APU GLC (3XS) (Ref. ASM 24-23/01).
 - (2) If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin B/13A of the EGIU2 (22XU2) and the pin B/10J of the SDAC1 (1WV1)
 - the pin B/13B of the EGIU2 (22XU2) and the pin B/10K of the SDAC1 (1WV1)
 - . the pin B/13C of the EGIU2 (22XU2) and the pin B/10J of the SDAC2 (1WV2)
 - . the pin B/13D of the EGIU2 (22XU2) and the pin B/10K of the SDAC2 (1WV2).

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TROUBLE SHOOTING MANUAL

**ON A/C 254-275, 451-475,

- C. If the test confirms the fault:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (1) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between: . the pin A/8J of the GAPCU (24XG) and the pins B/10J, E/10A of the SDAC 1 (1WV1)
 - . the pin A/8H of the GAPCU (24XG) and the pins B/10K, E/10B of the SDAC 1 (1WV1)
 - . the pin A/8F of the GAPCU (24XG) and the pins B/10J, E/10A of the SDAC 2 (1WV2)
 - . the pin A/7F of the GAPCU (24XG) and the pins B/10K, E/10B of the SDAC 2 (1WV2).

R **ON A/C 432-450, 481-499, 563-599,

- C. If the test confirms the fault:
 - Replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - Do a check of the position of the circuit breaker APU GEN/EGIU2/115VAC (23XS).
 - (a) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC(23XS).
 - (b) If the circuit breaker is closed:
 - Do a check of the wiring between the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin AB/1D of the EGIU2 (22XU2) (Ref. ASM 24-23/01).
 - 1 If the check is not correct:
 - Repair the wiring.
 - 2 If the check is correct:
 - Do a check and repair the wiring between the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin 9 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-23/01).

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- (2) If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . The pin B/13A of the EGIU2 (22XU2) and the pin B/10J of the SDAC1 (1WV1)
 - . The pin B/13B of the EGIU2 (22XU2) and the pin B/10K of the SDAC1 (1WV1)
 - . The pin B/13C of the EGIU2 (22XU2) and the pin B/10J of the SDAC2 (1WV2)
 - . The pin B/13D of the EGIU2 (22XU2) and the pin B/10K of the SDAC2 (1WV2).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- D. If the test confirms the fault:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (1) If the fault continues:
 - do a check of the wiring between:
 - the pin A/2B of the APU GCU (1XS) and the pin B/9D of the EGIU2 (22XU2),
 - . the pin A/2C of the APU GCU (1XS) and the pin B/9C of the EGIU2 (22XU2).

Then make sure that the ground wire is correctly connected to the pin B/10D of the EGIU2 (22XU2) (Ref. ASM 24-23/02).

- (2) If the fault continues:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- (3) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin B/13A of the EGIU2 (22XU2) and the pin B/10J of the SDAC1 (1WV1)
 - . the pin B/13B of the EGIU2 (22XU2) and the pin B/10K of the SDAC1 (1WV1)
 - . the pin B/13C of the EGIU2 (22XU2) and the pin B/10J of the SDAC2 (1 μ V2)
 - . the pin B/13D of the EGIU2 (22XU2) and the pin B/10K of the SDAC2 (1WV2)

**ON A/C 254-275, 451-475,

- D. If the test confirms the fault:
 - do a check and repair the wiring (Ref. ASM 31-54/03) between:
 - . the pin A/8J of the GAPCU (24XG) and the pins B/10J, E/10A of the SDAC 1 (1WV1)
 - . the pin A/8H of the GAPCU (24XG) and the pins B/10K, E/10B of the SDAC 1 (1WV1)

EFF: ALL

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- . the pin A/8F of the GAPCU (24XG) and the pins B/10J, E/10A of the SDAC 2 (1WV2)
- . the pin A/7F of the GAPCU (24XG) and the pins B/10K, E/10B of the SDAC 2 (1WV2).

**ON A/C ALL

Ε.	Do	this	test	to	make	sure	that	the	system	operates	correctly:	
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ACTION RESULT _____

On the ECAM control panel: - push the ELEC key to get the ELEC - the ELEC page comes into view. page.

On the lower ECAM DU: In the APU GEN box:

- the normal electrical parameters come into view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF:

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-22-00-810-809

Failure of the TDC AC1 Sensor

1. Possible Causes

- GCU-1 (1XU1)
- GPCU (1XG)
- SENSOR-TDC AC, 1
- wiring
- ENG1 LO OIL PRESS RELAY (7XT)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION		
AMM AMM AMM	24-22-18-000-001 24-22-18-400-001 24-22-34-000-001	Removal of the TDC AC Sensor 1(2) (50XU1, 50XU2) Installation of the TDC AC Sensor 1(2) (50XU1, 50XU2) Removal of the GCU-1(2) (1XU1, 1XU2)		
AMM AMM	24-22-34-400-001 24-41-00-740-002	<pre>Installation of the GCU-1(2) (1XU1, 1XU2) Operational Test of the Ground Power Control Unit (GPCU)</pre>		
AMM AMM	24-41-34-000-001 24-41-34-400-001	Removal of the Ground Power Control Unit (GPCU) (1XG) Installation of the Ground Power Control Unit (GPCU) (1XG)		
ASM ASM	24-22/02 24-41/02			

3. Fault Confirmation

A. Test

(1) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the test gives the maintenance message TDC AC SENSOR 50XU1:
 - replace the SENSOR-TDC AC, 1 (Ref. AMM TASK 24-22-18-000-001) and (Ref. AMM TASK 24-22-18-400-001).
 - (1) If the fault continues:
 - do a check of the wiring:
 - . from the pin AB/12A of the GPCU (1XG) to the pin A/A1 of the ENG1 LO OIL PRESS RELAY (7XT)
 - from the pin A/A2 of the ENG1 LO OIL PRESS RELAY (7XT) to the pin A/B1 of the TDC AC1 SENSOR (50XU1)
 - . from the pin A/B3 of the TDC AC1 sensor to the pin AB/10A of the GPCU
 - from the pin A/B3 of the TDC AC1 sensor to the pin AA/3A of the GCU1 (1XU1) (Ref. ASM 24-22/02).
 - (a) If there is no continuity:
 - repair the wiring.
 - (b) If there is continuity:
 replace the ENG1 LO OIL PRESS RELAY (7XT).
 - (c) If the fault continues:
 - do a check of the wiring . from the pins AA/13C, AA/14C and AA/11D of the GPCU to the pins AB/14C, AB/14D and AB/15C of the GCU1 (Ref. ASM 24-41/02).
 - 1 If there is no continuity: - repair the wiring.
 - 2 If there is continuity:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001)
 and (Ref. AMM TASK 24-41-34-400-001).
- B. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-810

Failure of the TDC AC2 Sensor

1. Possible Causes

- GCU-2 (1XU2)
- GPCU (1XG)
- SENSOR-TDC AC, 2
- wiring
- ENG2 LO OIL PRESS RELAY (8XT)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION		
AMM	24-22-18-000-001	Removal of the TDC AC Sensor 1(2) (50XU1, 50XU2)		
AMM	24-22-18-400-001	Installation of the TDC AC Sensor 1(2) (50XU1, 50XU2)		
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)		
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)		
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>		
ASM	24-22/02			
ASM	24-41/02			

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message TDC AC SENSOR 50XU2:
 - replace the SENSOR-TDC AC, 2 (Ref. AMM TASK 24-22-18-000-001) and (Ref. AMM TASK 24-22-18-400-001).
 - (1) If the fault continues:
 - do a check of the wiring:
 - from the pin AB/12D of the GPCU (1XG) to the pin A/A1 of the ENG2 LO OIL PRESS RELAY (8XT)
 - from the pin A/A2 of the ENG2 LO OIL PRESS RELAY (8XT) to the pin A/B1 of the TDC AC2 SENSOR (50XU2)
 - . from the pin A/B3 of the TDC AC2 sensor to the pin AB/10D of the $\ensuremath{\mathsf{GPCU}}$

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- . from the pin A/B3 of the TDC AC2 sensor to the pin AA/3A of the GCU2 (1XU2) (Ref. ASM 24-22/02).
- (a) If there is no continuity:
 repair the wiring.
- (c) If the fault continues:
 - do a check of the wiring . from the pins AA/12D, AA/13D and AA/11D of the GPCU to the pins AB/14C, AB/14D and AB/15C of the GCU2 (Ref. ASM 24-41/02).
 - 1 If there is no continuity: - repair the wiring.
 - 2 If there is continuity:
 replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001).
 - a If the fault continues:
 replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001)
 and (Ref. AMM TASK 24-41-34-400-001).
- B. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

**ON A/C ALL

TASK 24-22-00-810-811

Unwanted Warning from the GEN1

- 1. Possible Causes
 - GCU-1 (1XU1)
 - P/BSW-ELEC/GEN 1 (3XU1)
 - ELEC/GEN 1/P/BSW (3XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
АММ	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)		
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>		
AMM	31-60-00-860-001	EIS Start Procedure		
AMM	71-00-00-710-003	Engine Automatic Start		
AMM	71-00-00-710-028	Engine Shutdown		
ASM	24-22/02			

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Push the GEN 1 pushbutton switch (3XU1).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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R

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EFF :

ALL

TROUBLE SHOOTING MANUAL

B. Test

ACTION RESULT

1. On the ECAM control panel:

- push the ELEC key to get the ELEC page.
- 2. On the ELEC panel 35VU:
 - release and push the GEN 1 pushbutton switch (3XU1).

On the upper ECAM DU:

the GEN 1 OFF message comes into view.

If on the upper ECAM DU:

- the GEN 1 OFF message goes out of new, stop the trouble shooting. If on the upper ECAM DU:
- the GEN 1 OFF message remains on, continue the trouble shooting (refer to the fault isolation which follows).

4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - replace the ELEC/GEN 1/P/BSW (3XU1).
 - (1) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring between respectively:
 - . the pin AB/2D of the GCU 1 and the pin D3 of the GEN 1 pushbutton switch (3XU1)
 - the pins AA/5B and AA/6C of the GCU 1 and respectively the pins D1 and D2 of the GEN 1 pushbutton switch (3XU1)
 - the pin AA/12C of the GCU 1 and the pin C3 of the GEN 1 pushbutton switch (3XU1)
 - . the pin C1 of the GEN 1 pushbutton switch (3XU1) and the ground, through the EMER ELEC PWR/GEN 1 LINE pushbutton switch (13XU) and the relay (20XU) (Ref. ASM 24-22/02).

EFF: ALL

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**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 replace the P/BSW-ELEC/GEN 1 (3XU1).
 - (1) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring between:
 - the pin AA/1C of the GCU 1 and the pin D3 of the ELEC/GEN 1 pushbutton switch (3XU1)
 - the pins AA/2G and AA/4E of the GCU 1 and the pins D1 and D2 of the ELEC/GEN 1 pushbutton switch
 - . the pin AB/10J of the GCU 1 and the pin C3 of the ELEC/GEN 1 pushbutton switch
 - the pin C1 of the ELEC/GEN 1 pushbutton switch and the ground, through the EMER ELEC PWR/GEN 1 LINE pushbutton switch (13XU) and the relay (20XU) (Ref. ASM 24-22/02).

**ON A/C ALL

B. Do the test given in Para. 3.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

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TASK 24-22-00-810-812

Unwanted Warning from the GEN2

- 1. Possible Causes
 - GCU-2 (1XU2)
 - P/BSW-ELEC/GEN 2 (3XU2)
 - ELEC/GEN 2/P/BSW (3XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
АММ	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)		
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>		
AMM	31-60-00-860-001	EIS Start Procedure		
AMM	71-00-00-710-003	Engine Automatic Start		
AMM ASM	71-00-00-710-028 24-22/03	Engine Shutdown		

3. Fault Confirmation

- A. Job Set-up
 - (1) Push the GEN 2 pushbutton switch (3XU2).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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B. Test

ACTION RESULT

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- 2. On the ELEC panel 35VU:
 - release and push the GEN 2 pushbutton switch (3XU2).

On the upper ECAM DU:

the GEN 2 OFF message comes into view.

If on the upper ECAM DU:

- the GEN 2 OFF message goes out of new, stop the trouble shooting. If on the upper ECAM DU:
- the GEN 2 OFF message remains on, continue the trouble shooting (refer to the fault isolation which follows).

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 replace the ELEC/GEN 2/P/BSW (3XU2).
 - (1) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring between respectively:
 - . the pin AB/2D of the GCU 2 and the pin D3 of the GEN 2 pushbutton switch (3XU1)
 - the pins AA/5B and AA/6C of the GCU 2 and respectively the pins D1 and D2 of the GEN 2 pushbutton switch (3XU2)
 - the pin AA/12C of the GCU 2 and the pin C3 of the GEN 2 pushbutton switch (3XU2)
 - the pin C1 of the GEN 2 pushbutton switch (3XU2) and the ground (Ref. ASM 24-22/03).

EFF: ALL

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**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 replace the P/BSW-ELEC/GEN 2 (3XU2).
 - (1) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring between:
 - the pin AA/1C of the GCU 2 and the pin D3 of the ELEC/GEN 2 pushbutton switch (3XU2)
 - the pins AA/2G and AA/4E of the GCU 2 and the pins D1 and D2 of the ELEC/GEN 2 pushbutton switch
 - . the pin AB/10J of the GCU 2 and the pin C3 of the ELEC/GEN 2 pushbutton switch
 - the pin C1 of the ELEC/GEN 2 pushbutton switch and the ground (Ref. ASM 24-22/03).

**ON A/C ALL

- B. Do the test given in Para. 3.
- 5. Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-22-00-810-813

Failure of the Connection between the EGIU2 and the APU Generator Line Contactor (GLC)

- 1. Possible Causes
 - EGIU-2 (22XU2)
 - C/B-APU GEN/EGIU2/115VAC (23XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION			
2/ 0	0 00 940 907	Circuit Becker Tripped and/or C/B IDIDDED Harries			
	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning			
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)			
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)			
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU			
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU			
AMM	31-60-00-860-001	EIS Start Procedure			
ASM	24-23/01				

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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B. Test

RESULT

ACTION ______

- 1. On the ECAM control panel:
 - ELEC page.
- On the lower ECAM display unit:
- push the ELEC key to get the in the APU GEN box, the electrical parameters come into view as follows:
 - . normal AC load,
 - no voltage,
 - no frequency.

- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker APU GEN/EGIU2/115VAC (23XS).
 - (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC (23XS).
 - (2) If the circuit breaker is closed:
 - Do a check of the wiring between:
 - . the circuit breaker (23XS) and the pin A/D of the APU GLC (3XS)
 - . the circuit breaker (23XS) and the pin AB/1D of the EGIU2 (22XU2) (Ref. ASM 24-23/01).
 - (a) If the wiring is not correct:
 - Repair the wiring.
 - (b) If the wiring is correct:
 - Replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).

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**ON A/C 432-450, 481-499, 563-599,

- A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker APU GEN/EGIU2/115VAC (23XS).
 - (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC (23XS).
 - (2) If the circuit breaker is closed:
 - Do a check of the wiring between :
 - . the circuit breaker (23XS) and the pin 9 of the APU/EXT contactor module (29XN)
 - . the circuit breaker (23XS) and the pin AB/1D of the EGIU2 (22XU2) (Ref. ASM 24-23/01).
 - (a) If the wiring is not correct:
 - Repair the wiring.
 - (b) If the wiring is correct:
 - Replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

B. Do this test to make sure that the systems operates correctly:

ACTION RESULT ______

On the ECAM control panel:

- push the ELEC key to get the ELEC - the ELEC page comes into view. page.

On the lower ECAM display unit:

- In the APU GEN box:
- the normal electrical parameters come into view.

- 5. Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the electrical circuits supplied from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-22-00-810-814

Failure of the EMER ELEC PWR/GEN1 LINE Pushbutton Switch Circuit

- 1. Possible Causes
 - P/BSW-EMER ELEC PWR/SMOKE DRILL (13XU)
 - RELAY (20XU)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNAT	DESIGNATION			
ESPM 204511					
AMM 24-41-00-86	1-002 Energize 1(2)	e the Aircraft Electrical Circuits from Engine			
AMM 24-41-00-86		gize the Aircraft Electrical Circuits Supplied Engine 1(2)			
AMM 31-60-00-86	0-001 EIS Star	t Procedure			
AMM 71-00-00-71		Automatic Start			
AMM 71-00-00-71					
	U-UZO Engine s	onu tuown			
ASM 24-22/02					

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Push the ELEC/GEN 1 pushbutton switch (3XU1).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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B. Test

ACTION RESULT

1. On the ECAM control panel:

- push the ELEC key to get the ELEC page.
- 2. On the EMER ELEC PWR section of overhead panel 21VU:
 - release and push the GEN 1 LINE pushbutton switch (13XU).

On the upper ECAM DU:

- the EMER GEN 1 LINE OFF message comes into view.

If on the upper ECAM DU:

- the EMER GEN 1 LINE OFF message goes out of view, stop the trouble shooting.

If on the upper ECAM DU:

- the EMER GEN 1 LINE OFF message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION	IDENT.	LOCATION
49VU AIR COND/AVNCS VENT/CTL	6HQ	D06
49VU AIR COND/AVNCS VENT/CTL	5HQ	D05
49VU FWS/FWC1/SPLY	3WW	F01
121VU EIS/FWC2/SPLY	2WW	Q 07
122VU LIGHTING/TST/BOARD/SPLY	30LP	X06

- B. If the test confirms the fault:
 - open the circuit breakers 5HQ, 6HQ, 30LP
 - replace the P/BSW-EMER ELEC PWR/SMOKE DRILL (13XU) (Ref. ESPM 204511)
 - close the circuit breakers 5HQ, 6HQ, 30LP.
 - (1) If the fault continues:
 - open the circuit breakers 5HQ, 6HQ, 3OLP, 2WW and 3WW
 - replace the RELAY (20XU) (Ref. ASM 24-22/02)
 - close the circuit breakers 5HQ, 6HQ, 30LP, 2WW and 3WW.
 - (a) If the fault continues:
 - open the circuit breakers 5HQ, 6HQ, 3OLP, 2WW and 3WW
 - do a check and repair the wiring between:
 - . the pin AD/8B of the FWC 1 (1WW1) and the pin A/2 of the relay (20XU)
 - the pin AD/8B of the FWC 2 (1WW2) and the pin A/2 of the relay (20XU)
 - . the pin A/X of the relay (20XU) and the pin A/B2 of the EMER ELEC PWR/GEN 1 LINE pushbutton switch (13XU)

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- close the circuit breakers 5HQ, 6HQ, 3OLP, 2WW and 3WW.

C. Do the test given in Para. 3.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-22-00-810-815

Failure of the ELEC/GALLEY Pushbutton Switch Circuit after GEN1 Load Shedding

1. Possible Causes

- P/BSW-ELEC/GALLEY (2XA)
- GCU-1 (1XU1)
- EGIU-1 (22XU1)
- diode module 1162VD
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
ESPM 204511	
IPC 25710104	
AMM 24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM 24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM 24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-41-00-861-002	<pre>Property Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>
AMM 24-41-00-862-002	Pe-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	B Engine Shutdown

3. Fault Confirmation

- A. Job Set-up
 - (1) Push the ELEC/GEN 1 pushbutton switch (3XU1).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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(3) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480,

B. Test

______ ACTION RESULT

- 1. On the ECAM control panel: - push the ELEC key to get the
 - ELEC page.
- 2. On the ELEC panel 35VU:
 - release the GALLEY pushbutton switch (2XA).

On the upper ECAM DU:

 the GEN 1 OVERLOAD message comes into view.

If on the upper ECAM DU:

- the GEN 1 OVERLOAD message goes out of view, stop the trouble shooting. If on the upper ECAM DU:
- the GEN 1 OVERLOAD message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 247-275, R 278-279, 281-281, 283-283, 286-299, 426-499, 503-549, 551-599, 701-749, Post SB 24-1100 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, R 278-279,281-281,283-283,286-286,426-428,476-480,

B. Test

ACTION

RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- 2. On the ELEC panel 35VU:
 - release the GALY & CAB pushbutton switch (2XA).

On the upper ECAM DU:

- the GEN 1 OVERLOAD message comes into view.

If on the upper ECAM DU:

- the GEN 1 OVERLOAD message goes out of view, stop the trouble shooting.
- If on the upper ECAM DU:
- the GEN 1 OVERLOAD message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

201-225, 227-227, 229-245, 247-299, 426-499, 503-549, 551-599, 701-749,

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**ON A/C ALL

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION 122VU ELEC/GCU/1 2XU1 R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480, 122VU ELEC/GALLEY/CTL 1XA **S26** 122VU ELEC/GALLEY/FAULT/LT CTL 8XA **S25** R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 247-275, 278-279, 281-281, 283-283, 286-299, 426-499, 503-549, 551-599, 701-749, Post SB 24-1100 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, 278-279,281-281,283-283,286-286,426-428,476-480, 122VU ELEC/GALY & CAB/CTL 1XA **S26** 122VU ELEC/GALY & CAB/FAULT/LT CTL AX8 **S25**

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. If the test confirms the fault:
 - open the circuit breakers 8XA and 1XA
 - replace the P/BSW-ELEC/GALLEY (2XA) (Ref. ESPM 204511)
 - close the circuit breakers 8XA and 1XA.
 - (1) If the fault continues:
 - remove the GCU1 (1XU1) (Ref. AMM TASK 24-22-34-000-001)
 - close the circuit breaker 2XU1.
 - (a) If the fault does not continue:
 - install a new GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - disconnect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - close the circuit breakers 8XA and 1XA.
 - 1 If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - replace the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU1 (1XU1) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

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- 2 If the fault continues:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - a If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU1 (1XU1) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.
 - b If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - do a check and repair the wiring between:
 - . the pin A/14 of the diode module 1162VD and the pin AA/13B of the GCU1 (1XU1)
 - the pin A/14 of the diode module 1162VD and the pin AA/6A of the EGIU1 (22XU1)
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU1 (1XU1) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

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- B. If the test confirms the fault:
 - open the circuit breakers 8XA and 1XA
 - replace the P/BSW-ELEC/GALLEY (2XA)
 - close the circuit breakers 8XA and 1XA.
 - (1) If the fault continues:
 - remove the GCU 1 (1XU1) (Ref. AMM TASK 24-22-34-000-001)
 - close the circuit breaker 2XU1.
 - (a) If the fault does not continue:
 - install a new GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - disconnect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - close the circuit breakers 8XA and 1XA.
 - 1 If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - replace the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU 1 (1XU1) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

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- 2 If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - do a check and repair the wiring between the pin A/14 of the diode module 1162VD and the pin AA/6G of the GCU 1 (1XU1)
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU 1 (1XU1) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

**ON A/C ALL

C. Do the test given in Para. 3.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

TASK 24-22-00-810-816

Failure of the ELEC/GALLEY Pushbutton Switch Circuit after GEN2 Load Shedding

1. Possible Causes

- P/BSW-ELEC/GALLEY (2XA)
- GCU-2 (1XU2)
- EGIU-2 (22XU2)
- diode module 1162VD
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
ESPM 204511	
IPC 25710104	
AMM 24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM 24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM 24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM 24-41-00-861-002	<pre>Property Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>
AMM 24-41-00-862-002	Pe-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)
AMM 31-60-00-860-001	EIS Start Procedure
AMM 71-00-00-710-003	Engine Automatic Start
AMM 71-00-00-710-028	B Engine Shutdown

3. Fault Confirmation

- A. Job Set-up
 - (1) Push the ELEC/GEN 1 pushbutton switch (3XU1).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480,

B. Test

______ ACTION RESULT

- 1. On the ECAM control panel: - push the ELEC key to get the
 - ELEC page.
- 2. On the ELEC panel 35VU:
 - release the GALLEY pushbutton switch (2XA).

On the upper ECAM DU:

 the GEN 2 OVERLOAD message comes into view.

If on the upper ECAM DU:

- the GEN 2 OVERLOAD message goes out of view, stop the trouble shooting. If on the upper ECAM DU:
- the GEN 2 OVERLOAD message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 247-275, R 278-279, 281-281, 283-283, 286-299, 426-499, 503-549, 551-599, 701-749, Post SB 24-1100 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, R 278-279,281-281,283-283,286-286,426-428,476-480,

B. Test

ACTION

RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- 2. On the ELEC panel 35VU:
 - release the GALY & CAB pushbutton switch (2XA).

On the upper ECAM DU:

- the GEN 2 OVERLOAD message comes into view.

If on the upper ECAM DU:

- the GEN 2 OVERLOAD message goes out of view, stop the trouble shooting.
- If on the upper ECAM DU:
- the GEN 2 OVERLOAD message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

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**ON A/C ALL

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION 122VU ELEC/GCU/1 2XU1 R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480, 122VU ELEC/GALLEY/CTL 1XA **S26** 122VU ELEC/GALLEY/FAULT/LT CTL 8XA **S25** R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 247-275, 278-279, 281-281, 283-283, 286-299, 426-499, 503-549, 551-599, 701-749, Post SB 24-1100 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, 278-279,281-281,283-283,286-286,426-428,476-480, 122VU ELEC/GALY & CAB/CTL 1XA **S26** 122VU ELEC/GALY & CAB/FAULT/LT CTL AX8 **S25**

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - B. If the test confirms the fault:
 - open the circuit breakers 8XA and 1XA
 - replace the P/BSW-ELEC/GALLEY (2XA) (Ref. ESPM 204511)
 - close the circuit breakers 8XA and 1XA.
 - (1) If the fault continues:
 - remove the GCU2 (1XU2) (Ref. AMM TASK 24-22-34-000-001)
 - close the circuit breaker 2XU1.
 - (a) If the fault does not continue:
 - install a new GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - disconnect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - close the circuit breakers 8XA and 1XA.
 - 1 If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - replace the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU2 (1XU2) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

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- 2 If the fault continues:
 - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001)
 and (Ref. AMM TASK 24-22-33-400-002).
 - a If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU2 (1XU2) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.
 - b If the fault continues:
 - open the circuit breakers 8XA and 1XA.
 - do a check and repair the wiring between:
 - . the pin A/13 of the diode module 1162VD and the pin AA/13B of the GCU2 (1XU2)
 - the pin A/13 of the diode module 1162VD and the pin AA/6A of the EGIU2 (22XU2)
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU2 (1XU2) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

**ON A/C 254-275, 451-475,

- B. If the test confirms the fault:
 - open the circuit breakers 8XA and 1XA
 - replace the P/BSW-ELEC/GALLEY (2XA)
 - close the circuit breakers 8XA and 1XA.
 - (1) If the fault continues:
 - remove the GCU 2 (1XU2) (Ref. AMM TASK 24-22-34-000-001)
 - close the circuit breaker 2XU1.
 - (a) If the fault does not continue:
 - install a new GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - disconnect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - close the circuit breakers 8XA and 1XA.
 - 1 If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - replace the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU 2 (1XU2) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

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- 2 If the fault continues:
 - open the circuit breakers 8XA and 1XA.
 - do a check and repair the wiring between the pin A/13 of the diode module 1162VD and the pin AA/6G of the GCU 2 (1XU2)
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GCU 2 (1XU2) (Ref. AMM TASK 24-22-34-400-001)
 - close the circuit breakers 8XA and 1XA.

**ON A/C ALL

C. Do the test given in Para. 3.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF :

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-22-00-810-817

GEN1 does not come on line

- 1. Possible Causes
 - IDG1 (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>
AMM	31-60-00-860-001	EIS Start Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown

- 3. Fault Confirmation
 - A. Job Set up
 - (1) On the ELEC panel 35VU, push the GEN1 pushbutton switch (3XU1).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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B. Test

ACTION RESULT

 On the ECAM control panel, push the ELEC key (on the lower ECAM DU, the ELEC page comes into view).

On the lower ECAM DU:

- the GEN1 does not supply the AC1 busbar.
 - On the upper ECAM DU:
- GEN1 OFF message does not come into view with the GEN1 pushbutton switch pushed (ON configuration).

4. Fault Isolation

- A. If the test confirms the fault:
 - (1) Do a check of the resistance of the IDG1 MPU coil between pin B/1 and pin B/2 (17.5 Ohms plus or minus 3.5 Ohms at 25 deg.C 77 deg. F⁵).
 - (2) If the resistance values are out of the specified limits:
 replace the IDG1 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and
 (Ref. AMM TASK 24-21-51-400-040).
- B. Do the test given in para. 3.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-22-00-810-818

GEN2 does not come on line

- 1. Possible Causes
 - IDG2 (4000XU)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	71-00-00-710-003	Engine Automatic Start	
AMM	71-00-00-710-043	Normal Engine Automatic Start Procedure	

3. Fault Confirmation

- A. Job Set up
 - (1) On the ELEC panel 35VU, push the GEN2 pushbutton switch (3XU2).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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B. Test

ACTION RESULT

 On the ECAM control panel, push the ELEC key (on the lower ECAM DU, the ELEC page comes into view).

On the lower ECAM DU:

- the GEN2 does not supply the AC2 busbar.
 - On the upper ECAM DU:
- GEN2 OFF message does not come into view with the GEN2 pushbutton switch pushed (ON configuration).

4. Fault Isolation

- A. If the test confirms the fault:
 - (1) Do a check of the resistance of the IDG2 MPU coil between pin B/1 and pin B/2 (17.5 Ohms plus or minus 3.5 Ohms at 25 deg.C 77 deg.F⁵).
 - (2) If the resistance values are out of the specified limits:
 replace the IDG2 (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- B. Do the test given in para. 3.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-043).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

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**ON A/C 254-275, 451-475,

TASK 24-22-00-810-819

Failure of the Current Transformer 1

1. Possible Causes

- IDG (4000XU)
- CT (51XU1)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2, 51XU1, 51XU2)
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1, 41XU2, 51XU1, 51XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM	24-22/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 1 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

**ON A/C 254-254,

- A. If the fault symptom is identified by the CFDS message CTA (51XU1)/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - read the EPGS GROUND REPORT or POST FLIGHT REPORT to see if there is one or two of the CFDS messages that follow:
 - . IDG1 (E1-4000XU) LOW OIL PRESSURE
 - . IDG1 (E1-4000XU) OIL OUT TEMP SENSE / GCU1 (1XU1)
 - (1) If one or two of the CFDS messages are given:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If these CFDS messages are not given:
 - do a check of the resistance of the Current Transformer (CT)
 (51XU1) (Ref. ASM 24-22/01) between:
 - pins 1 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - pins 2 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - . pins 3 and 4 (10.15 ohms plus or minus 3.45 ohms).
 - (a) If the resistance values are out of the specified limits:
 - replace the CT (51XU1) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit condition between:
 - . pin 1 of the CT and pin A/12B of the GCU 1
 - . pin 2 of the CT and pin A/12A of the GCU 1
 - . pin 3 of the CT and pin A/11A of the GCU 1
 - . pin 4 of the CT and pin A/11B of the GCU 1.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 254-275, 451-475,

Post SB 24-1108 For A/C 254-254,

- A. If the fault symptom is identified by the CFDS message CTA (51XU1)/ IDG1 (E1-4000XU)/ GCU1 (1XU1) and the upper ECAM-DU warning GEN 1 FAULT:
 - read the EPGS GROUND REPORT or POST FLIGHT REPORT to see if there is one or two of the CFDS messages that follow:
 - . IDG1 (E1-4000XU) LOW OIL PRESSURE
 - . IDG1 (E1-4000XU) OIL OUT TEMP SENSE / GCU1 (1XU1)

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- (1) If one or two of the CFDS messages are given:
 - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If these CFDS messages are not given:
 - do a check of the resistance of the Current Transformer (CT)
 (51XU1) (Ref. ASM 24-22/01) between:
 - pins 1 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - pins 2 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - . pins 3 and 4 (10.15 ohms plus or minus 3.45 ohms).
 - (a) If the resistance values are out of the specified limits:
 - replace the CT (51XU1) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . pin 1 of the CT and pin A/12B of the GCU 1
 - pin 2 of the CT and pin A/12A of the GCU 1
 - . pin 3 of the CT and pin A/11A of the GCU 1
 - . pin 4 of the CT and pin A/11B of the GCU 1.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 254-275, 451-475,

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 1 pushbutton switch (3XU1).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

On the ECAM control panel: - get the ELEC page.

On the lower ECAM DU: - the correct electrical parameters of the GEN 1 are shown and the AC1 busbar is supplied by the GEN 1.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-22-00-810-820

Failure of the Current Transformer 2

1. Possible Causes

- IDG (4000XU)
- CT (51XU2)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG
		1(2),(4000XU)
AMM	24-21-51-400-040	Installation of the Integrated Drive Generator -IDG
		1(2),(4000XU)
AMM	24-22-17-000-001	Removal of the AC Current Transformers (41XU1, 41XU2,
		51XU1, 51XU2)
AMM	24-22-17-400-001	Installation of the AC Current Transformers (41XU1,
		41XU2, 51XU1, 51XU2)
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
		from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	71-00-00-710-003	Engine Automatic Start
AMM	71-00-00-710-028	Engine Shutdown
ASM		.
	-, - ·	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the GEN 2 was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

**ON A/C 254-254,

- A. If the fault symptom is identified by the CFDS message CTA (51XU2)/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - read the EPGS GROUND REPORT or POST FLIGHT REPORT to see if there is one or two of the CFDS messages that follow:
 - . IDG2 (E2-4000XU) LOW OIL PRESSURE
 - . IDG2 (E2-4000XU) OIL OUT TEMP SENSE / GCU2 (1XU2)
 - (1) If one or two of the CFDS messages are given:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
 - (2) If these CFDS messages are not given:
 - do a check of the resistance of the Current Transformer (CT)
 (51XU2) (Ref. ASM 24-22/01) between:
 - pins 1 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - pins 2 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - . pins 3 and 4 (10.15 ohms plus or minus 3.45 ohms).
 - (a) If the resistance values are out of the specified limits:
 - replace the CT (51XU2) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit condition between:
 - pin 1 of the CT and pin A/12B of the GCU 2
 - . pin 2 of the CT and pin A/12A of the GCU 2
 - . pin 3 of the CT and pin A/11A of the GCU 2
 - . pin 4 of the CT and pin A/11B of the GCU 2.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 254-275, 451-475,

Post SB 24-1108 For A/C 254-254,

- A. If the fault symptom is identified by the CFDS message CTA (51XU2)/ IDG2 (E2-4000XU)/ GCU2 (1XU2) and the upper ECAM-DU warning GEN 2 FAULT:
 - read the EPGS GROUND REPORT or POST FLIGHT REPORT to see if there is one or two of the CFDS messages that follow:
 - . IDG2 (E2-4000XU) LOW OIL PRESSURE
 - . IDG2 (E2-4000XU) OIL OUT TEMP SENSE / GCU2 (1XU2)

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- (1) If one or two of the CFDS messages are given:
 - replace the engine 2 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040).
- (2) If these CFDS messages are not given:
 - do a check of the resistance of the Current Transformer (CT) (51XU2) (Ref. ASM 24-22/01) between:
 - pins 1 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - . pins 2 and 4 (10.15 ohms plus or minus 3.45 ohms)
 - pins 3 and 4 (10.15 ohms plus or minus 3.45 ohms).
 - (a) If the resistance values are out of the specified limits:
 - replace the CT (51XU2) (Ref. AMM TASK 24-22-17-000-001) and (Ref. AMM TASK 24-22-17-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-22/01) for a short to ground, a short circuit or an open circuit between:
 - . pin 1 of the CT and pin A/12B of the GCU 2
 - pin 2 of the CT and pin A/12A of the GCU 2
 - . pin 3 of the CT and pin A/11A of the GCU 2
 - . pin 4 of the CT and pin A/11B of the GCU 2.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

**ON A/C 254-275, 451-475,

- B. Do this operational test to make sure that the system operates correctly.
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (2) On the ELEC panel 35VU:
 - push, release and push again the GEN 2 pushbutton switch (3XU2).
 - (3) Do the operational test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (4) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).

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(5) Do this test:

ACTION RESULT

ACTION RESULT

On the ECAM control panel: - get the ELEC page. On the lower ECAM DU:
- the correct electrical parameters of
the GEN 2 are shown and the AC2

busbar is supplied by the GEN 2.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-22-00-810-821

Failure of the Generator Control Unit 1

- 1. Possible Causes
 - GCU-1 (1XU1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).
- 4. Fault Isolation
 - A. If the Class 3 Faults gives the maintenance message GCU1 (1XU1):
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-22-00-810-822

Failure of the Generator Control Unit 2

- 1. Possible Causes
 - GCU-2 (1XU2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Read the Class 3 Faults of the GAPCU from the CFDS (Ref. AMM TASK 24- 41-00-740-002).
- 4. Fault Isolation
 - A. If the Class 3 Faults gives the maintenance message GCU2 (1XU2):
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-22-00-810-823

Failure of the GLC 1 or Loss of its Status Indication

1. Possible Causes

- GCU-1 (1XU1)
- RELAY (20XU)
- GLC-1 (9XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-22-34-000-001 24-22-34-400-001 24-22-55-000-001 24-22-55-400-002	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2) Installation of the Contactors (9XU1, 9XU2, 11XU1,
	24-41-00-740-002 24-22/02	11XU2) Operational Check of GAPCU via CFDS

3. Fault Confirmation

- A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring (Ref. ASM 24-22/02) for an open circuit between:
 - pin 2 of the ELEC/GCU1 circuit breaker (2XU1) and pin A/B of the function relay (20XU)
 - . pin A/3 of the function relay and pin B/18 of the GLC 1 (9XU1)
 - . pin B/20 of the GLC 1 and pin A/29 of the diode module module 2420VD
 - . pin A/14 of the diode module 2420VD and pin A/6A of the GCU 1.
 - do a check of the contacts for correct operation of the function relay (20XU) and the GLC 1 (9XU1) (Ref. ASM 24-22/02) between:
 - pins A/B and A/3 of the function relay (normally closed)
 - . pins B/18 and B/20 of the GLC 1 (normally closed).
 - (1) If the wiring or the contacts are not correct:
 - repair or replace the wiring as necessary
 - replace the RELAY (20XU) as necessary
 - replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002) as necessary.
 - (2) If the wiring or the contacts are correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-22-00-810-824

Failure of the GLC 2 or Loss of its Status Indication

- 1. Possible Causes
 - GCU-2 (1XU2)
 - GLC-2 (9XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	24-22-55-000-001 24-22-55-400-002	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2) Installation of the Contactors (9XU1, 9XU2, 11XU1,
		11XU2)
AMM ASM	24-41-00-740-002 24-22/03	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring (Ref. ASM 24-22/03) for an open circuit between:
 - pin 2 of the ELEC/GCU2 circuit breaker (2XU2) and pin B/18 of the GLC
 2 (9XU1)
 - pin B/20 of the GLC 2 and pin A/30 of the diode module 2420VD
 - . pin A/15 of the diode module 2420VD and pin A/6A of the GCU 2.
 - do a check of the contact of the GLC 2 (9XU2) for correct operation between pins B/18 and B/20 (Ref. ASM 24-22/03).
 - (1) If the wiring or the contact are not correct:
 - repair or replace the wiring as necessary
 - replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002) as necessary.
 - (2) If the wiring or the contact are correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-22-00-810-825

Failure of the GLC 1 Status Indication

- 1. Possible Causes
 - GCU-1 (1XU1)
 - GLC-1 (9XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
A MM	2/ 22 7/ 000 004	Paraval of the CCU 4/2> /4VU4 4VU2>
	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
	24-41-00-740-002 24-22/02	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU1 (1XU1) comes into view: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the contact for correct operation of the GLC 1 (9XU1) between pins B/18 and B/20 of the GLC 1 (Ref. ASM 24-22/02).
 - (1) If the contact does not operate correctly:
 - replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002) as necessary.
 - (2) If the contact operates correctly:
 - do a check of the wiring of the GLC 1 sense circuit (Ref. ASM 24-22/02) for an open circuit between:
 - pin 2 of the ELEC/GCU1 circuit breaker (2XU1) and pin A/B of the function relay (20XU)
 - pin A/3 of the function relay and pin B/18 of the GLC 1 (9XU1)
 - . pin B/20 of the GLC 1 and pin A/29 of the diode module 2420VD
 - . pin A/14 of the diode module 2420VD and pin A/6A of the GCU 1.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-22-00-810-826

Failure of the GLC 2 Status Indication

- 1. Possible Causes
 - GCU-2 (1XU2)
 - GLC-2 (9XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-000-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
AMM ASM	24-41-00-740-002 24-22/03	Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GCU2 (1XU2) comes into view: - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the contact for correct operation of the GLC 2 (9XU2) between pins B/18 and B/20 (Ref. ASM 24-22/03).
 - (1) If the contact does not operate correctly:
 - replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002) as necessary.
 - (2) If the contact operates correctly:
 - do a check of the wiring of the GLC 2 sence circuit (Ref. ASM 24-22/03) for an open circuit between:
 - pin 2 of the ELEC/GCU2 circuit breaker (2XU2) and pin B/18 of the GLC 2 (9XU1)
 - . pin B/20 of the GLC 2 and pin A/30 of the diode module 2420VD
 - . pin A/15 of the diode module 2420VD and pin A/6A of the GCU 2.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-22-00-810-827

Failure of the ELEC/GEN 1 Pushbutton Switch

- 1. Possible Causes
 - P/BSW-ELEC/GEN 1 (3XU1)
 - GCU-1 (1XU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002 ASM 24-22/02	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

DANEL	DECICNATION	TDENT	
PANEL	DESIGNATION 	TDENI.	LOCATION
122VU	ELEC/GCU/1	2XU1	T26

- B. If the BITE test gives the maintenance message PB SW ELEC GEN1 (3XU1)/ GCU1 (1XU1):
 - NOTE: After you do the trouble shooting for this fault, open and close the ELEC/GCU1 circuit breaker (2XU1) to remove all 28VDC power supply from the GCU 1.
 - do a check of the wiring of the ELEC/GEN 1 pushbutton switch (3XU1) (Ref. ASM 24-22/02) for an open circuit or a short to ground between:
 pin A/1C of the GCU 1 and pin A/D3 of the ELEC/GEN 1 pushbutton switch
 - . pin A/4E of the GCU 1 and pin A/D2 of the ELEC/GEN 1 pushbutton switch

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- . pin A/2G of the GCU 1 and pin A/D1 of the ELEC/GEN 1 pushbutton switch.
- (1) If the wiring is not correct:
 - repair or replace as necessary.
- (2) If the wiring is correct:
 - do a test of the contacts of the ELEC/GEN 1 pushbutton switch (Ref. ASM 24-22/02) for correct operation between:
 - . pins A/D3 and A/D2 (normally closed)
 - . pins A/D3 and A/D1 (normally open).
 - (a) If the test is not OK:
 - replace the P/BSW-ELEC/GEN 1 (3XU1) on the ELEC panel 35VU.
 - (b) If the test is OK:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-22-00-810-828

Failure of the ELEC/GEN 2 Pushbutton Switch

- 1. Possible Causes
 - P/BSW-ELEC/GEN 2 (3XU2)
 - GCU-2 (1XU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-22-34-000-001 AMM 24-22-34-400-001 AMM 24-41-00-740-002 ASM 24-22/03	Removal of the GCU-1(2) (1XU1, 1XU2) Installation of the GCU-1(2) (1XU1, 1XU2) Operational Check of GAPCU via CFDS

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ELEC/GCU/2 2XU2 T27

- B. If the BITE test gives the maintenance message PB SW ELEC GEN2 (3XU2)/ GCU2 (1XU2):
 - NOTE: After you do the trouble shooting for this fault, open and close the ELEC/GCU2 circuit breaker (2XU2) to remove all 28VDC power supply from the GCU 2.
 - do a check of the wiring of the ELEC/GEN 2 pushbutton switch (3XU2) (Ref. ASM 24-22/03) for an open circuit or a short to ground between:
 pin A/1C of the GCU 2 and pin A/D3 of the ELEC/GEN 2 pushbutton switch
 - . pin A/4E of the GCU 2 and pin A/D2 of the ELEC/GEN 2 pushbutton switch

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- . pin A/2G of the GCU 2 and pin A/D1 of the ELEC/GEN 2 pushbutton switch.
- (1) If the wiring is not correct:
 - repair or replace as necessary.
- (2) If the wiring is correct:
 - do a test of the contacts of the ELEC/GEN 2 pushbutton switch (Ref. ASM 24-22/03) for correct operation between:
 - . pins A/D3 and A/D2 (normally closed)
 - . pins A/D3 and A/D1 (normally open).
 - (a) If the test is not OK:
 - replace the P/BSW-ELEC/GEN 2 (3XU2) on the ELEC panel 35VU.
 - (b) If the test is OK:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-22-00-810-829

Failure of the 1553 Data Bus between GCU 1 and GAPCU

- 1. Possible Causes
 - GCU-1 (1XU1)
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the BITE test gives the maintenance message GCU1 (1XU1) 1553 BUS/GAPCU (24XG):
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring of the 1553 data bus (Ref. ASM 24-23/02) for an open circuit, a short to ground, a short to shield or a short circuit between:
 - . pin A/6J of the GCU 1 and pin A/11E of the GAPCU
 - . pin A/6H of the GCU 1 and pin A/12E of the GAPCU
 - . pins A/11E and A/10E of the GAPCU (short to shield)
 - . pins A/12E and A/10E of the GAPCU (short to shield).

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B. Do the test given in para. 3.

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TASK 24-22-00-810-830

Failure of the 1553 Data Bus between GCU 2 and GAPCU

- 1. Possible Causes
 - GCU-2 (1XU2)
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the BITE test gives the maintenance message GCU2 (1XU2) 1553 BUS/GAPCU (24XG):
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (1) If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring of the 1553 data bus (Ref. ASM 24-23/02) for an open circuit, a short to ground, a short to shield or a short circuit between:
 - . pin A/6J of the GCU 2 and pin A/11F of the GAPCU
 - . pin A/6H of the GCU 2 and pin A/12F of the GAPCU
 - . pins A/11F and A/13F of the GAPCU (short to shield)
 - . pins A/12F and A/13F of the GAPCU (short to shield).

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B. Do the test given in para. 3.

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TASK 24-22-00-810-831

Failure of the 1553 Data Bus between the GAPCU and the GCU 1 and GCU 2

1. Possible Causes

- GAPCU (24XG)
- GCU-1 (1XU1)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/02		

3. Fault Confirmation

A. Test

- (1) On the ELEC panel 35VU, do a check of the position of the BUS TIE pushbutton switch (10XU) when the CFDS message PB SW BUS TIE (10XU)/ GAPCU (24XG) comes into view.
 - (a) If the BUS TIE pushbutton switch (10XU) is released:stop the trouble shooting.
 - (b) If the BUS TIE pushbutton switch (10XU) is pushed:do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - 1 If the BITE test gives the message TEST FAILED:

 do the trouble shooting given in Para 4.A.
 - If the BITE test gives the message TEST PASSED:
 do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring of the 1553 data bus (Ref. ASM 24-23/02) for an open circuit, a short to ground, a short to shield or a short circuit between:
 - . pin A/6J of the GCU 1 and pin A/11E of the GAPCU
 - pin A/6H of the GCU 1 and pin A/12E of the GAPCU
 - pin A/6J of the GCU 2 and pin A/11F of the GAPCU
 - . pin A/6H of the GCU 2 and pin A/12F of the GAPCU.
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - replace the GCU-1 (1XU1) and the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-22-00-810-832

Failure of the IDG Oil Level Sensor

- 1. Possible Causes
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

AMM 24-22-34-000-001 Removal of the GCU-1(2) (1XU1, 1XU2)
AMM 24-22-34-400-001 Installation of the GCU-1(2) (1XU1, 1XU2)
AWM 24-22-08

- 3. Fault Confirmation
 - A. Not Applicable
- 4. Fault Isolation
 - A. If the CFDS POST FLIGHT REPORT or the EPGS GROUND REPORT gives the maintenance message IDGx(Ex-4000XU)0IL LEVEL SENSOR/GCUx(1XUx):
 - replace the GCUx (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001) and send the faulty GCU to Hamilton Sundstrand for investigation.
 - (1) If the fault continues:
 - do a check of the wiring and make sure that the pin AA/5E of the GCU is NOT connected to ground (Ref. AWM 24-22-08).

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AC AUXILIARY GENERATION (APU GENERATOR, GCU OR GAPCU) FAULT ISOLATION PROCEDURES

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-23-00-810-801

Failure of the APU Generator Control Unit

- 1. Possible Causes
 - GCU-APU (1XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-23-34-000-001 AMM 24-23-34-400-001 AMM 24-41-00-740-002	Removal of the GCU-APU (1XS) Installation of the GCU-APU (1XS) Operational Test of the Ground Power Control Unit (GPCU)

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the test gives the maintenance message GCU APU:
 replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

EFF: ALL **24-23-00**

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TASK 24-23-00-810-802

Difference in Current between the APU GEN Current Transformer and the APU AC Current Transformer

- 1. Possible Causes
 - GCU-APU (1XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-34-000-001 24-23-34-400-001 24-41-00-740-002	Removal of the GCU-APU (1XS) Installation of the GCU-APU (1XS) Operational Test of the Ground Power Control Unit (GPCU)
ASM	24-23/01	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

 IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

 IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.
 - A. If this test gives the maintenance message CHECK GCU APU PIN B11D, B13D:

 do a check of the wiring for open or short circuit between the pin
 B/11D of the APU GCU and the pin A/4 of the AC APU generator current
 transformer, then between the pin B/13D of the APU GCU and the pin A/1
 of the APU generator (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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B. After the subsequent flight, make sure that the fault does not continue.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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TASK 24-23-00-810-803

Failure of the APU GEN found by the ECB

- 1. Possible Causes
 - C/B-APU GEN/EGIU2/115VAC (23XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

24-00-00-810-803 Circuit Breaker Tripped and/or C/B TRIPPED Warning

AMM 49-00-00-710-001 Self-Test of the ECB (59KD) (GTCP 36-300)
AMM 49-00-00-710-005 Self-Test of the ECB (APS 3200)

ASM 24-23/01 ASM 49-61/01

- 3. Fault Confirmation
 - A. Test
 - (1) Do the self test of the ECB:
 - GTCP 36-300 (Ref. AMM TASK 49-00-00-710-001)
 - APS 3200 (Ref. AMM TASK 49-00-00-710-005).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION ------

IDENT. LOCATION

123VU APU GEN/EGIU2/115VAC

23XS **80AA**

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - B. If the test gives the CLASS 3 maintenance message GENERATOR 8XS or the CLASS 2 maintenance message ECB (59KD):
 - Do a check of the status of the circuit breaker APU GEN/EGIU2/115VAC (23XS).

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC (23XS).
- (2) If the circuit breaker is closed:
 - Do a check and repair the wiring between:
 - . the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin AC/8 of the ECB (59KD) (Ref. ASM 49-61/01).
 - the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin A/D of the APU GLC (3XS) (Ref. ASM 24-23/01).

**ON A/C 432-450, 481-499, 563-599,

- B. If the test gives the CLASS 3 maintenance message GENERATOR 8XS or the CLASS 2 maintenance message ECB (59KD):
 - Do a check of the status of the circuit breaker APU GEN/EGIU2/115VAC (23XS).
 - (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC (23XS).
 - (2) If the circuit breaker is closed:
 - Do a check and repair the wiring between:
 - the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin AC/8 of the ECB (59KD) (Ref. ASM 49-61/01)
 - . the circuit breaker APU GEN/EGIU2/115VAC (23XS) and the pin 9 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-23/01).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - C. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

TASK 24-23-00-810-804

Failure of the Link between the APU GEN and the ECB

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

DESIGNATION

ASM 24-23/01

AMM 49-00-00-710-001 Self-Test of the ECB (59KD) (GTCP 36-300)

3. Fault Confirmation

A. Test

Do the self test of the ECB (Ref. AMM TASK 49-00-00-710-001).

- 4. Fault Isolation
 - A. If the test gives the CLASS 3 maintenance message GENERATOR OIL TEMP SNSR
 - do a check and repair the wiring between the pins A/3, A/4 of the APU GEN (8XS) and the pins AB/C3, AB/C4 of the ECB (59KD) (Ref. ASM 24-23/01).
 - B. Do the test given in Para. 3.

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TROUBLE SHOOTING MANUAL

**ON A/C ALL

TASK 24-23-00-810-805

Failure of the ELEC/GALLEY Pushbutton Switch Circuit after APU GEN Load Shedding

1. Possible Causes

- P/BSW-ELEC/GALLEY (2XA)
- GCU-APU (1XS)
- EGIU-2 (22XU2)
- GAPCU (24XG)
- diode module 1162VD
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
ESPM	204511		
	25710104		
	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)	
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)	
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	49-00-00-860-003	APU Start by External Power (GTCP 36-300)	
AMM	49-00-00-860-004	APU Shutdown by External Power (GTCP 36-300)	
AMM	49-00-00-860-005	APU Start by External Power (APS 3200)	
AMM	49-00-00-860-006	APU Shutdown by External Power (APS 3200)	
AMM	49-00-00-860-008	APU Start by External Power (131-9(A))	
AMM ASM	49-00-00-860-009 24-26/01	APU Shutdown by External Power (131-9(A))	

EFF: ALL

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3. Fault Confirmation

- A. Job Set-up
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (3) Start the APU:
 - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-003)

- APS 3200 (Ref. AMM TASK 49-00-00-860-005)

- 131-9(A) (Ref. AMM TASK 49-00-00-860-008).
- B. Test

______ RESULT ______

- 1. On the ECAM control panel:
 - ELEC page.
- 2. On the ELEC panel 35VU:
 - release the GALLEY pushbutton switch (2XA).

On the ECAM control panel:

- push the ELEC key to get the

- the APU GEN OVERLOAD message comes into view.

If on the upper ECAM DU:

- the APU GEN OVERLOAD message goes out of view, stop the trouble shooting.
 - If on the upper ECAM DU:
 - the APU GEN OVERLOAD message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

4. Fault Isolation

122VU ELEC/GCU/1

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480,

122VU ELEC/GALLEY/CTL 1XA S26 122VU ELEC/GALLEY/FAULT/LT CTL 8XA S25

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2XU1 T26

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______ PANEL DESIGNATION IDENT. LOCATION ______ **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 247-275, 278-279, 281-281, 283-283, 286-299, 426-499, 503-549, 551-599, 701-749, Post SB 24-1100 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, 278-279,281-281,283-283,286-286,426-428,476-480, 122VU ELEC/GALY & CAB/CTL 1XA **S26** 122VU ELEC/GALY & CAB/FAULT/LT CTL 8XA **S25** R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749, B. If the test confirms the fault: open the circuit breakers 8XA and 1XA - replace the P/BSW-ELEC/GALLEY (2XA) (Ref. ESPM 204511) - close the circuit breakers 8XA and 1XA. (1) If the fault continues: - remove the APU GCU (1XS) (Ref. AMM TASK 24-23-34-000-001) - close the circuit breaker 2XU1. (a) If the fault does not continue: - install a new GCU-APU (1XS) (Ref. AMM TASK 24-23-34-400-001). (b) If the fault continues: open the circuit breakers 8XA and 1XA - disconnect the connector of the diode module 1162VD (Ref. IPC 25710104) - close the circuit breakers 8XA and 1XA. If the fault does not continue: - open the circuit breakers 8XA and 1XA - replace the diode module 1162VD (Ref. IPC 25710104) - install the APU GCU (1XS) (Ref. AMM TASK 24-23-34-400-001) - close the circuit breakers 8XA and 1XA If the fault continues: - replace the EGIU-2 (22XU2) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002). a If the fault does not continue: - open the circuit breakers 8XA and 1XA - connect the connector of the diode module 1162VD (Ref. IPC 25710104) - install the APU GCU (1XS) (Ref. AMM TASK 24-23-34-400-- close the circuit breakers 8XA and 1XA. If the fault continues: - open the circuit breakers 8XA and 1XA

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- do a check and repair the wiring between:
 - . the pin A/11 of the diode module 1162VD and the pin AA/13B of the APU GCU (1XS)
 - . the pin A/11 of the diode module 1162VD and the pin AB/10A of the EGIU2 (22XU2)
 - . the pin A/11 and the pin A/10 of the diode module 1162VD
- connect the connector of the diode module 1162VD (Ref. IPC 25710104)
- install the APU GCU (1XS) (Ref. AMM TASK 24-23-34-400-001)
- close the circuit breakers 8XA and 1XA.

**ON A/C 254-275, 451-475,

- B. If the test confirms the fault:
 - open the circuit breakers 8XA and 1XA
 - replace the P/BSW-ELEC/GALLEY (2XA)
 - close the circuit breakers 8XA and 1XA.
 - (1) If the fault continues:
 - remove the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001)
 - close the circuit breaker 2XU1.
 - (a) If the fault does not continue:
 - install a new GAPCU (24XG) (Ref. AMM TASK 24-41-34-400-001).
 - (b) If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - disconnect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - close the circuit breakers 8XA and 1XA.
 - 1 If the fault does not continue:
 - open the circuit breakers 8XA and 1XA
 - replace the diode module 1162VD (Ref. IPC 25710104)
 - install the GAPCU (24XG) (Ref. AMM TASK 24-41-34-400-001)
 - close the circuit breakers 8XA and 1XA.
 - 2 If the fault continues:
 - open the circuit breakers 8XA and 1XA
 - do a check and repair the wiring between:
 - . the pin A/11 of the diode module 1162VD and the pin AA/6G of the GAPCU (24XG)
 - . the pin A/11 and the pin A/10 of the diode module 1162VD (Ref. ASM 24-26/01)
 - connect the connector of the diode module 1162VD (Ref. IPC 25710104)
 - install the GAPCU (24XG) (Ref. AMM TASK 24-41-34-400-001)
 - close the circuit breakers 8XA and 1XA.

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**ON A/C ALL

C. Do the test given in Para. 3.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Stop the APU:
 - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-004)
 - APS 3200 (Ref. AMM TASK 49-00-00-860-006)
 - 131-9(A) (Ref. AMM TASK 49-00-00-860-009).
 - (2) Put the aircraft back to its initial configuration.
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF :

ALL

TROUBLE SHOOTING MANUAL

TASK 24-23-00-810-806

Aircraft Electrical Circuits cannot be supplied from the APU GEN

1. Possible Causes

- GLC-APU (3XS)
- P/BSW-ELEC/APU GEN (2XS)
- GCU-APU (1XS)
- GLC-1 (9XU1)
- GLC-2 (9XU2)
- GAPCU (24XG)
- wiring
- R diode module (1164VD)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)	
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)	
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)	
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/02		

3. Fault Confirmation

A. Test

(1) Energize the Aircraft Electrical Circuits from the APU (Ref. AMM TASK 24-41-00-861-002).

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4. Fault Isolation

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SROS

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- A. If the test confirms the results below when the APU is started and the APU GEN pushbutton switch is pushed on the ELEC panel 35VU:
 - . on the lower ECAM display unit, on the ELEC page, in the APU GEN box, the voltage is 115VAC and the frequency is 400Hz,
 - . the OFF legend of the APU GEN pushbutton switch goes off.
 - Do a check for 28VDC between pins B/3 and B/5 of the APU GLC (3XS) (Ref. ASM 24-23/02).
 - (1) If there is 28VDC:
 - Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (2) If there is no 28VDC:
 - Do a check for 28VDC between pins X1 and X2 of the APU GLC auxiliary control relay (4XS) (Ref. ASM 24-23/02).
 - (a) If there is no 28VDC:
 - Replace the P/BSW-ELEC/APU GEN (2XS).
 - 1 If the fault continues:
 - Do a check of the wiring between pin X1 of the APU GLC auxiliary control relay (4XS) and pin AA/12C of the APU GCU (1XS) (Ref. ASM 24-23/02).
 - a If the fault continues:
 - Replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) (Ref. AMM TASK 24-23-34-400-001).
 - (b) If there is 28VDC:
 - Do a check of the wiring between pins B/10 and B/12 of the GLC1 (9XU1) and of the GLC2 (9XU2) (Ref. ASM 24-23/02).
 - 1 If there is no continuity:
 - Replace the GLC-1 (9XU1) and/or GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 2 If there is continuity:
 - Do a check and repair the wiring from pin B/3 of the APU GLC (3XS) to pin AA/2D of the APU GCU (1XS) (Ref. ASM 24-23/02).

EFF: ALL

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**ON A/C 254-275, 451-475,

	Α.	If the test confirms the results that follow when the APU is started and the ELEC/APU GEN pushbutton switch (2XS) is pushed on the ELEC panel 35VU:
		on the lower ECAM DU, on the ELEC page, in the APU GEN box, the voltage is 115VAC and the frequency is 400Hz, the OFF legend of the ELEC/APU GEN pushbutton switch goes off.
R R		- Do a check for 28VDC between pins B/3 and B/5 of the APU GLC (3XS) (Ref. ASM 24-23/02).
R R		(1) If there is 28VDC:Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
R R		 (2) If there is no 28VDC: Do a check of the diode module (1164VD) between pins A/44 and A/43 (Ref. ASM 24-23/02).
R R		(a) If the diode module is not correct:Replace the diode module (1164VD).
R R R		 (b) If the diode module is correct: Do a check for 28VDC between pins X1 and X2 of the APU GLC auxiliary control relay (4XS) (Ref. ASM 24-23/02).
R R R		1 If there is no 28VDC:- Replace the P/BSW-ELEC/APU GEN (2XS).
R R R R R R R R R		<pre>a If the fault continues: - Do a check of the wiring between pin X1 of the APU GLC auxiliary control relay (4XS) and pin AB/10J of the GAPCU (24XG) (Ref. ASM 24-23/02). * If the wiring is not correct: * - Repair the wiring. * If the wiring is correct: * - Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).</pre>
R R R		 If there is 28VDC: Do a check of the wiring between pins B/10 and B/12 of the GLC 1 (9XU1) and of the GLC 2 (9XU2) (Ref. ASM 24-23/02).
R R R		 If there is no continuity: Replace the GLC-1 (9XU1) and/or GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).

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R R

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b If there is continuity:

- Do a check and repair the wiring from pin B/3 of the APU GLC (3XS) to pin AB/10J of the GAPCU (24XG) (Ref. ASM 24-23/02).

**ON A/C ALL

B. Do the test given in para. 3.

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**ON A/C 254-275, 451-475,

TASK 24-23-00-810-807

Failure of the APU Generator PMG-Stator

- 1. Possible Causes
 - GAPCU (24XG)
 - GEN-APU (8XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
4 14 14	2/ 27 54 000 004	Daniel of the ADU Consister OVO	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	

- 3. Fault Confirmation
 - A. Test Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GAPCU (24XG)/ GEN APU (8XS) PMG and the upper ECAM-DU warning APU GEN FAULT:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (1) If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

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- **B.** Make sure that the aircraft electrical circuits operate correctly in **APU** configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-808

Failure of the Status Circuit of the APU GLC

- 1. Possible Causes
 - GAPCU (24XG)
 - RELAY-APU AVAIL (6KD)
 - EPC (3XG)
 - GLC-APU (3XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)
AMM	24-41-55-400-001	Installation of the External Power Contactor (EPC)
ASM	24-22/02	
ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring (Ref. ASM 24-22/02) and (Ref. ASM 24-23/02) for an open circuit or a short to ground between:
 - pin 2 of the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU) and pin 38
 of the diode module 1162VD
 - ${\tt pin}$ 37 of the diode module 1162VD and pin A/2 of the APU AVAIL relay (6KD)
 - . pin A/1 of the APU AVAIL relay and pin 28 of the EPC (3XG)
 - . pin 26 of the EPC and pin 20 of the APU GLC (3XS)
 - . pin 18 of the APU GLC and pin A/6A of the GAPCU.
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - do a check of the auxiliary contacts for correct operation (Ref. ASM 24-23/02) between:
 - pins A/1 and A/2 of the APU AVAIL relay (6KD) (normally open)
 - pins 26 and 28 of the EPC (3XG) (normally closed)
 - . pins 18 and 20 of the APU GLC (3XS) (normally closed).
 - (a) If the auxiliary contacts are not correct:
 - replace the RELAY-APU AVAIL (6KD) or the contactors as necessary:
 - . for the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001)
 - for the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (b) If the auxiliary contacts are correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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GA319/A320/A321

TROUBLE SHOOTING MANUAL

TASK 24-23-00-810-809

Failure of the APU Generator Exciter-Field or its Wiring

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	49-91-41-200-001	Remove and discard Alternator Scavenge Filter Element (8069KM) (GTCP 36-300)
AMM	49-91-41-200-002	Remove and Discard Oil Filter Elements (8069KM) and (8076KM) (131-9(A))
AMM	49-91-41-920-001	Discard Pressure Oil Filter Element (APS 3200)
AMM	49-91-41-920-002	Replace AC-Generator Scavenge Filter-Element (8069KM) (APS 3200)
AMM	49-91-45-200-002	Remove and discard Lube Filter and Generator Scavenge Filter Elements (GTCP 36-300)
ASM	24-23/01	

3. Fault Confirmation

A. Test

R

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

R R R

R

CAUTION: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT.

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT AGAIN.

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message GAPCU (24XG) EXC FLD/ GEN APU (8XS) and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the resistance of the APU generator exciter-field between pins A/9 and A/10 of the APU generator (7.67 ohms plus or minus 0.73 ohms) (Ref. ASM 24-23/01)
 - do a check of the wiring for a short-circuit between:
 - . pin A/9 of the APU generator and APU generator case
 - . pin A/10 of the APU generator and APU generator case.

NOTE: Do the check:

- GTCP 36-300: for metal contamination of the lube filter element (Ref. AMM TASK 49-91-45-200-002) and the alternator scavenge filter element (Ref. AMM TASK 49-91-41-200-001).
- APS 3200: for metal contamination of the pressure oil filter element (Ref. AMM TASK 49-91-41-920-001) and the AC-generator scavenge filter element (Ref. AMM TASK 49-91-41-920-002).
- 131-9(A): for metal contamination of the oil filters (Ref. AMM TASK 49-91-41-200-002).
- (1) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- (2) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-23/01) for a short to ground,
 a short circuit or an open circuit between:
 - pin A/9 of the APU generator and pin C/12 of the GAPCU
 - pin A/10 of the APU generator and pin C/13 of the GAPCU
 - . pin C/7 and pins C/12 and C/13 of the GAPCU.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-810

Failure of the APU Generator

- 1. Possible Causes
 - GEN-APU (8XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
ASM	24-23/01	

- 3. Fault Confirmation
 - A. Test
 Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GEN APU (8XS) /WRG: GEN APU PMG and the upper ECAM-DU warning APU GEN FAULT:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-23/01) for a short to shield, a short to ground, a short circuit or an open circuit between:
 - pin A/12 of the APU generator and pin C/10 of the GAPCU
 - . pin A/13 of the APU generator and pin C/11 of the GAPCU
 - . pin A/14 of the APU generator and pin C/9 of the GAPCU
 - pins C/9, C/10, C/11 and pin C/7 of the GAPCU.

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- **B.** Make sure that the aircraft electrical circuits operate correctly in **APU** configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-811

Failure of the APU Generator PMG-Stator or the Exciter Field or its Wiring to the GAPCU

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

	CAUTION :	BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
R		EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
R		IN IT.
R		IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R		AGAIN.
R		IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R		GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GAPCU (24XG)/GEN APU (8XS) PMG and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the resistance of the APU generator exciter-field between pins A/9 and A/10 of the APU generator (7.67 ohms plus or minus 0.73 ohms) (Ref. ASM 24-23/01).
 - (1) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (2) If the resistance values are in the specified limits:
 - do a check of the resistance of the APU generator PMG-stator (Ref. ASM 24-23/01) between:
 - . pins A/12 and A/13 of the APU generator (0.868 ohm plus or minus 0.156 ohm)
 - $_{\text{-}}$ pins A/12 and A/14 of the APU generator (0.868 ohm plus or minus 0.156 ohm)
 - . pins A/13 and A/14 of the APU generator (0.868 ohm plus or minus 0.156 ohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring for a short to ground, a short circuit or an open circuit between:
 - pin A/12 of the APU generator and pin C/10 of the GAPCU
 - pin A/13 of the APU generator and pin C/11 of the GAPCU
 - pin A/14 of the APU generator and pin C/9 of the GAPCU
 - pin C/7 and pins C/10, C/11 and C/9 of the GAPCU
 - pin A/9 of the APU generator and pin C/12 of the GAPCU
 - . pin A/10 of the APU generator and pin C/13 of the GAPCU
 - . pin C/7 and pins C/12, C/13 of the GAPCU.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.

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(3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-812

Failure of the APU Ready Circuit

- 1. Possible Causes
 - GAPCU (24XG)
 - GEN-APU (8XS)
 - RELAY-APU AVAIL (6KD)
 - C/B-APU GEN/EGIU2/115VAC (23XS)
 - wiring

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- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE 		DESIGNATION	
R			Circuit Breaker Tripped and/or C/B TRIPPED Warning	
•	AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
		24-23-51-400-001	Installation of the APU Generator 8XS	
	AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	ASM	24-23/02		
	ASM	49-61/01		

3. Fault Confirmation

A. Test

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- (1) Do the trouble shooting for all CFDS messages related to the Chapter 49 or to the ECB that can come into view with the CFDS message GEN APU (8XS)/ GAPCU (24XG)/ APU CTL RLY (6KD) (fault code 117, AGEN UF TRIP keyword).
- (2) If no Chapter 49 or ECB-related CFDS messages come into view, or if the fault continues after the troubleshooting: - do a BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:
 do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

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- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - Replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (1) If the fault continues:
 - Do a check of the status of the circuit breaker (23XS).
- R (a) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-APU GEN/EGIU2/115VAC (23XS).
 - (b) If the circuit breaker is closed:
 - Do a check of the wiring and the contact of the APU ready circuit (Ref. ASM 49-61/01) and (Ref. ASM 24-23/02) for a short to 28VDC between:
 - ${\tt .}$ pin B/6J of the ECB (59KD) and pin A/X1 of the APU AVAIL relay (6KD)
 - pin A/7C of the GAPCU and pin A/A1 of the APU AVAIL relay
 - . pins A/A1 and A/A2 of the APU AVAIL relay (normally open).
 - (c) If the wiring or contact are not correct:
 - Repair or replace the wiring as necessary
 - Replace the RELAY-APU AVAIL (6KD) as necessary.
 - (d) If the wiring or contact are correct:
 - Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - C. Do the test given in para. 3.

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TASK 24-23-00-810-813

Failure of the APU Generator Exciter-Field or its Wiring

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	49-91-41-200-002	Remove and Discard Oil Filter Elements (8069KM) and (8076KM) (131-9(A))	
AMM	49-91-41-920-001	Discard Pressure Oil Filter Element (APS 3200)	
AMM	49-91-45-200-002	Remove and discard Lube Filter and Generator Scavenge Filter Elements (GTCP 36-300)	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

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4. Fault Isolation

<u>CAUTION</u>: BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS, EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION IN IT

IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT

IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS GIVEN BELOW.

- A. If the fault symptom is identified by the CFDS message GEN APU (8XS) EX FLD/ GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - do the check of the resistance of the APU generator exciter-field (Ref. ASM 24-23/01) between:
 - . pins A/9 and A/10 of the APU generator (7.67 ohms plus or minus 0.73 ohms)
 - do a check of the wiring for a short-circuit between:
 - pin A/9 of the APU generator and APU generator case
 - . pin A/10 of the APU generator and APU generator case.

NOTE : Do the check:

- GTCP 36-300: for metal contamination of the lube filter element and the alternator scavenge filter element (Ref. AMM TASK 49-91-45-200-002).
- APS 3200: for metal contamination of the pressure oil filter element (Ref. AMM TASK 49-91-41-920-001) and the AC-generator scavenge filter element (Ref. AMM TASK 49-91-41-200-002).
- 131-9(A): for metal contamination of the oil filters (Ref. AMM TASK 49-91-41-200-002).
- (1) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- (2) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-23/01) for a short to ground, a short circuit or an open circuit between:
 - pin A/9 of the APU generator and pin C/12 of the GAPCU
 - pin A/10 of the APU generator and pin C/13 of the GAPCU
 - . pin C/7 and pins C/12, C/13 of the GAPCU.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- 1 If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001)
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-814

Failure of the AC Current Transformer of the APU Generator or its Wiring

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

	CAUTION	:	BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
R			EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
R			IN IT.
R			IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R			AGAIN.
R			IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R			GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GEN APU (8XS) GEN CT/ GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - do an electrical resistance test of the APU generator AC current transformer (Ref. ASM 24-23/01) between:
 - . pins A/6 and A/1 of the APU generator (24.10 ohms plus or minus 2.41 ohms)
 - . pins A/7 and A/1 of the APU generator (24.10 ohms plus or minus 2.41 ohms)
 - . pins A/8 and A/1 of the APU generator (24.10 ohms plus or minus 2.41 ohms)
 - . pins A/6, A/7 and A/8 of the APU generator and APU generator case.
 - (1) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (2) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-23/01) for a short to ground,
 a short circuit or an open circuit between:
 - . pin A/1 of the APU generator and pin A/14E of the GAPCU
 - . pin A/6 of the APU generator and pin A/14D of the GAPCU
 - . pin A/7 of the APU generator and pin A/15E of the GAPCU
 - . pin A/8 of the APU generator and pin A/15D of the GAPCU.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 1 If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- B. Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-815

Failure of the APU Generator PMG-Stator or its Wiring to the GAPCU

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

	CAUTION	:	BEFORE YOU START THE CHECK OF IDG WIRING THAT INCLUDES CONNECTORS,
R			EXAMINE EACH CONNECTOR TO MAKE SURE THAT THERE IS NO CONTAMINATION
R			IN IT.
R			IF YOU FIND CONTAMINATION, CLEAN THE CONNECTOR AND CONNECT IT
R			AGAIN.
R			IF THE FAILURE CONTINUES, DO THE TROUBLE SHOOTING PROCEDURE AS
R			GIVEN BELOW.

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- A. If the fault symptom is identified by the CFDS message GEN APU (8XS) PMG/GAPCU (24XG):
 - (1) If the CFDS message comes into view with the fault codes 122, 182, 197 or 199:
 - do a check of the resistance of the APU generator PMG-stator (Ref. ASM 24-23/01) between:
 - . pins A/12 and A/13 of the APU generator (0.868 ohm plus or minus 0.156 ohm)
 - . pins A/12 and A/14 of the APU generator (0.868 ohm plus or minus 0.156 ohm)
 - . pins A/13 and A/14 of the APU generator (0.868 ohm plus or minus 0.156 ohm).
 - (a) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (b) If the resistance values are in the specified limits:
 - do a check of the wiring (Ref. ASM 24-23/01) for a short to ground, a short circuit or an open circuit between:
 - pin A/12 of the APU generator and pin C/10 of the GAPCU
 - pin A/13 of the APU generator and pin C/11 of the GAPCU
 - pin A/14 of the APU generator and pin C/9 of the GAPCU
 - . pins C/9, C/10, C/11 and pin C/7 of the GAPCU.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.
 - 2 If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - a If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (2) If the CFDS message comes into view with the fault code 67:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
 - (a) If the fault continues:
 - do a check of the wiring (Ref. ASM 24-23/01) for a short to ground, a short circuit or an open circuit between:
 - . pin A/12 of the APU generator and pin C/10 of the GAPCU
 - pin A/13 of the APU generator and pin C/11 of the GAPCU
 - pin A/14 of the APU generator and pin C/9 of the GAPCU
 - pins C/9, C/10, C/11 and pin C/7 of the GAPCU.
 - 1 If the wiring is not correct:
 - repair or replace as necessary.

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- 2 If the wiring is correct:
 replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001)
 and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-816

Failure of the Status Circuit of the ELEC/APU GEN Pushbutton Switch

- 1. Possible Causes
 - P/BSW-ELEC/APU GEN (2XS)
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	FLFC/GAPCH	17XG	W24

- B. If the BITE test gives the maintenance message PB SW ELEC GEN APU (2XS)/ GAPCU (24XG):
 - NOTE: After you do the trouble shooting for this fault, open and close the circuit breaker 17XG to remove all 28VDC power supply from the GAPCU.
 - do a check of the wiring (Ref. ASM 24-23/02) for an open circuit or a short to ground between:
 - $\boldsymbol{.}$ pin A/1C of the GAPCU and pin A/D3 of the ELEC/APU GEN pushbutton switch

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- . pin A/4E of the GAPCU and pin A/D2 of the ELEC/APU GEN pushbutton switch
- . pin A/2G of the GAPCU and pin A/D1 of the ELEC/APU GEN pushbutton switch.
- (1) If the wiring is not correct:
 - repair or replace as necessary.
- (2) If the wiring is correct:
 - do a check of the contact of the ELEC/APU GEN pushbutton switch (2XS) (Ref. ASM 24-23/02) for correct operation between:
 - . pins A/D3 and A/D2 (normally closed)
 - . pins A/D3 and A/D1 (normally open).
 - (a) If the test is not OK:
 - replace the P/BSW-ELEC/APU GEN (2XS) on the ELEC panel 35VU.
 - (b) If the test is OK:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-23-00-810-817

Failure of the ELEC/APU GEN Pushbutton Switch

- 1. Possible Causes
 - P/BSW-ELEC/APU GEN (2XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU

3. Fault Confirmation

A. Test Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message PB SW ELEC GEN APU (2XS) and the upper ECAM-DU warning APU GEN FAULT:
 replace the P/BSW-ELEC/APU GEN (2XS) on the ELEC panel 35VU.
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-818

Failure of the Control Circuit of the APU GLC

1. Possible Causes

- GAPCU (24XG)
- RELAY-APU GLC AUX CTL (4XS)
- GLC-APU (3XS)
- RELAY-EPC AUX CTL (5XG)
- GLC-1 (9XU1)
- GLC-2 (9XU2)
- BTC-1 (11XU1)
- BTC-2 (11XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>	
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)	
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/02		

3. Fault Confirmation

A. Test

- (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the coil of the APU GLC auxiliary control relay (4XS) for correct electrical continuity between pin X1 and pin X2 (Ref. ASM 24-23/02).
 - (1) If there is no continuity:
 - replace the RELAY-APU GLC AUX CTL (4XS).
 - (2) If there is continuity:
 - do a check of the coil of the APU GLC (3XS) for correct electrical continuity between pin B3 and pin B5 (Ref. ASM 24-23/02).
 - (a) If there is no continuity:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (b) If there is continuity:
 - do a check of the wiring of the APU GLC control-circuit (Ref. ASM 24-23/02) for an open circuit between:
 - pin B/10J of the GAPCU and pin C/3 of the ELEC/APU GEN pushbutton switch (2XS)
 - pin C/1 of the ELEC/APU GEN pushbutton switch and pin X/1 of the APU GLC auxiliary control relay (4XS)
 - . pin X/2 of the APU GLC auxiliary control relay and the ground
 - p pin B/10J of the GAPCU and pin A/44 of the diode module
 1164VD
 - pin A/43 of the diode module 1164VD and pin A/D3 of the EPC auxiliary control relay (5XG)
 - p pin A/D2 of the EPC auxiliary control relay and pin B/10 of the GLC 1
 - $\boldsymbol{.}$ pin A/D2 of the EPC auxiliary control relay and pin B/8 of the BTC 1
 - . pin B/12 of the GLC 1, pin B/6 of the BTC 1, pin B/12 of the GLC 2 and pin B/18 of the BTC 2
 - ${\tt .}$ pin B/10 of the GLC 2 and pin A/C2 of the EPC auxiliary control relay
 - pin B/20 of the BTC 2 and pin A/C2 of the EPC auxiliary control relay
 - pin A/C3 of the EPC auxiliary control relay and pin A/B2 of the APU GLC auxiliary control relay (4XS)
 - . pin A/B1 of the APU GLC auxiliary control relay and pin B/24
 of the EPC (3XG)
 - . pin B/22 of the EPC and pin B/3 of the APU GLC (3XS)

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- . pin B/5 of the APU GLC and ground.
- do a check of the contacts of the contactors and relays of the APU GLC control circuit (Ref. ASM 24-23/02) for correct operation.
- $\underline{1}$ If the wiring or the contacts do not operate correctly:
 - repair or replace the wiring as necessary
 - replace the RELAY-APU GLC AUX CTL (4XS) as necessary
 - replace the RELAY-EPC AUX CTL (5XG) as necessary
 - replace the GLC-1 (9XU1), the GLC-2 (9XU2), the BTC-1
 (11XU1) or the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000001) and (Ref. AMM TASK 24-22-55-400-002) as necessary.
- 2 If the wiring or the contacts operate correctly:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-23-00-810-819

Failure of the Neutral-To-Phase System of the APU Generator or the Neutral Feeder

- 1. Possible Causes
 - GEN-APU (8XS)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM AMM	24-23-51-000-001 24-23-51-400-001	Removal of the APU Generator 8XS Installation of the APU Generator 8XS	
	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
ASM	24-23/01		

- 3. Fault Confirmation
 - A. Test

Not applicable.

<u>NOTE</u>: As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

- 4. Fault Isolation
 - A. If the fault symptom is identified by the CFDS message WRG: FEEDER NEUTRAL/ GEN APU (8XS) and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the wiring of the APU generator neutral-feeder for an open circuit or a high resistance condition between the terminal N of the APU generator and the airframe ground (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 - repair or replace the neutral feeder as necessary.
 - (2) If the wiring is correct:
 - do a check of the resistance of the neutral-to-phase connections (Ref. ASM 24-23/01) of the APU generator between:
 - terminal T1 and N (9.35 milliohms plus or minus 1.25 milliohms)
 - terminal T2 and N (9.35 milliohms plus or minus 1.25 milliohms)
 - . terminal T3 and N (9.35 milliohms plus or minus 1.25 milliohms).

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- (a) If the resistance values are out of the specified limits:replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- (b) If the resistance values are in the specified limits and the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- B. Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-820

Failure of the GAPCU Point-Of-Regulation Wiring

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE			DESIGNATION	
		27 74 00 074 002	Francis and he discussed Florestant of the Samuella	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
	AMM	24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the APU</pre>	
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	ASM	24-23/01		

3. Fault Confirmation

A. Test Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

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- A. If the fault symptom is identified by the CFDS message WRG: POR/ GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-23/01) for a short to ground, a short circuit or an open circuit between:
 - . Pin 9 of the APU/EXT power contactor module (29XN) and pin A/15G of the GAPCU
 - . Pin 8 of the APU/EXT power contactor module and pin A/15H of the GAPCU
 - . Pin 7 of the APU/EXT power contactor module and pin A/14G of the GAPCU
 - . POR neutral connection and pin A/14H of the GAPCU.
 - (1) If the wiring is not correct:
 - Repair or replace as necessary.

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R (2) If the wiring is correct:
R - Replace the GAPCU (24XG

R

- Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-821

Failure of the Neutral Point-Of-Regulation Wiring of the GAPCU

1. Possible Causes

- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION	
	0/ // 00 0// 000		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

<u>NOTE</u>: As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN NEUTRAL/GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the Point-Of-Regulation (POR) neutral wiring for an open circuit between the POR neutral connection and pin A/14H of the GAPCU (Ref. ASM 24-23/01).
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- **B.** Make sure that the aircraft electrical circuits operate correctly in **APU** configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-822

Failure of the Neutral-To-Phase System of the APU Generator or the GAPCU

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	2/ 27 54 000 004	Demond of the ADU Consenter OVC
AMM	24-23-51-000-001	Removal of the APU Generator 8XS
AMM	24-23-51-400-001	Installation of the APU Generator 8XS
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GEN APU (8XS)/ GAPCU (24XG)/ WRG: GEN APU FEEDER and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the resistance of the neutral-to-phase connections (Ref. ASM 24-23/01) of the APU generator between:
 - . terminal T1 and N (9.35 milliohms plus or minus 1.25 milliohms)
 - . terminal T2 and N (9.35 milliohms plus or minus 1.25 milliohms)
 - . terminal T3 and N (9.35 milliohms plus or minus 1.25 milliohms).
 - (1) If the resistance values are out of the specified limits:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

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- (2) If the resistance values are in the specified limits:
 - do a check of the wiring of the APU generator neutral-feeder for an open circuit or a high resistance between the terminal N of the APU generator and the airframe ground (Ref. ASM 24-23/01).
 - (a) If the wiring is not correct:
 - repair or replace the neutral feeder as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 1 If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-823

Failure of the Phase A of the APU Generator

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN APU FEEDER PHASE A/ GEN APU (8XS) and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the resistance of the phase A of the APU generator between terminal T1 and N (9.35 milliohms plus or minus 1.25 milliohm) (Ref. ASM 24-23/01).
 - (1) If the resistance values are out of the specified limits:
 replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and
 (Ref. AMM TASK 24-23-51-400-001).

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- (2) If the resistance values are in the specified limits:
 - do a check of the feeder for an open circuit or a high resistance condition between the terminal T1 of the APU generator and the pin 7 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-23/01).
 - (a) If the feeder is not correct:
 - repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 1 If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-824

Failure of the Phase B of the APU Generator

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN APU FEEDER PHASE B/ GEN APU (8XS) and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the resistance of the phase B of the APU generator between terminal T2 and N (9.35 milliohms plus or minus 1.25 milliohm) (Ref. ASM 24-23/01).
 - (1) If the resistance values are out of the specified limits: - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).

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- (2) If the resistance values are in the specified limits:
 - do a check of the feeder for an open circuit or a high resistance condition between the terminal T2 of the APU generator and the pin 8 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-23/01).
 - (a) If the feeder is not correct:
 - repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 1 If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-825

Failure of the Phase C of the APU Generator

1. Possible Causes

- GEN-APU (8XS)
- GAPCU (24XG)
- feeder

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-51-000-001	Removal of the APU Generator 8XS	
AMM	24-23-51-400-001	Installation of the APU Generator 8XS	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-23/01		

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN APU FEEDER PHASE C/ GEN APU (8XS) and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the resistance of the phase C of the APU generator between terminal T3 and N (9.35 milliohms plus or minus 1.25 milliohm) (Ref. ASM 24-23/01).
 - (1) If the resistance values are out of the specified limits:
 replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and
 (Ref. AMM TASK 24-23-51-400-001).

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- (2) If the resistance values are in the specified limits:
 - do a check of the feeder for an open circuit or a high resistance condition between the terminal T3 of the APU generator and the pin 9 of the APU/EXT power contactor module (29XN) (Ref. ASM 24-23/01).
 - (a) If the feeder is not correct:
 - repair or replace the feeder as necessary.
 - (b) If the feeder is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 1 If the fault continues:
 - replace the GEN-APU (8XS) (Ref. AMM TASK 24-23-51-000-001) and (Ref. AMM TASK 24-23-51-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-826

Failure of the APU GLC Contactor in Closed Position

- 1. Possible Causes
 - GLC-APU (3XS)
 - RELAY-APU GLC AUX CTL (4XS)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message GLC APU (3XS)/ RELAY (4XS) and the upper ECAM-DU warning APU GEN FAULT:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - (1) If the fault continues:
 - replace the RELAY-APU GLC AUX CTL (4XS).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-23-00-810-827

Failure of the GAPCU Point-Of-Regulation Wiring or the Feeders to the APU GLC Contactor

1. Possible Causes

- GAPCU (24XG)
- wiring
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: GEN APU POR/GAPCU (24XG)/WRG: FEEDER and the upper ECAM-DU warning APU GEN FAULT:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-23/01) for a short to ground, a short circuit or an open circuit between:
 - pin 9 of the APU/EXT power contactor module (29XN) and pin A/15G of the GAPCU
 - pin 8 of the APU/EXT power contactor module and pin A/15H of the GAPCU
 - . pin 7 of the APU/EXT power contactor module and pin A/14G of the ${\tt GAPCU}$
 - . POR neutral connection and pin A/14H of the GAPCU.

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- (1) If the wiring is not correct:
 - repair or replace as necessary.
- (2) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- (3) If the fault continues:
 - do a check and repair the feeders (Ref. ASM 24-23/01) for an open circuit or a high resistance condition between:
 - terminal T1 of the APU generator and pin 7 of the APU/EXT power contactor module (29XN)
 - terminal T2 of the APU generator and pin 8 of the APU/EXT power contactor module
 - terminal T3 of the APU generator and pin 9 of the APU/EXT power contactor module
 - . terminal N of the APU generator and airframe.
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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AC EMERGENCY GENERATION (CSM/G,GCU) - FAULT ISOLATION PROCEDURES

TASK 24-24-00-810-801

Failure of the RAT/EMER GEN/FAULT Indication Circuit (Linked to the BCL1)

- 1. Possible Causes
 - BCL-1 (1PB1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
	ASM	24-24/02	

- 3. Fault Confirmation
 - A. Test
 Do the Operational Test of the BCL (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message RELAY 31XE/BCL1 CIRCUIT:
 - NOTE: This CFDS message can be found with the subsequent CFDS message: RELAY 31XE/BCL2 CIRCUIT. In this case, refer to the related trouble shooting.
 - If not, do the trouble shooting given below.
 - do a check of the wiring from the pin A/t of the BCL1 to the first branch point (Ref. ASM 24-24/02).
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-24-00-810-802

Failure of the RAT/EMER GEN/FAULT Indication Circuit (Linked to the BCL2)

- 1. Possible Causes
 - BCL-2 (1PB2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
	ASM	24-24/02		

- 3. Fault Confirmation
 - A. Test
 Do the Operational Test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message RELAY 31XE/BCL2 CIRCUIT:
 - NOTE: This CFDS message can be found with the subsequent CFDS message:
 RELAY 31XE/BCL1 CIRCUIT. In this case, refer to the related
 trouble shooting.
 - If not, do the trouble shooting given below.
 - do a check of the wiring from the pin A/t of the BCL2 to the first branch point (Ref. ASM 24-24/02).
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-24-00-810-803

Failure of the RAT/EMER GEN/FAULT Indication Circuit

- 1. Possible Causes
 - wiring
 - RELAY-ANN 14XE SPLY (31XE)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

AMM 24-38-00-710-001

Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)

ASM 24-24/02 ASM 24-62/01

- 3. Fault Confirmation
 - A. Test
 Do the Operational Test of the BCL (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the tests give the maintenance messages RELAY 31XE/BCL1 CIRCUIT, and RELAY 31XE/BCL2 CIRCUIT:
 - do a check of the wiring:
 - . from the circuit breaker (1PH) to the pin A/Z of the relay (31XE), and
 - . from the pin A/Z of the relay (31XE) to the first branch point (Ref. ASM 24-62/01) and (Ref. ASM 24-24/02).
 - (1) If the wiring is not correct:
 - repair it.
 - (2) If the wiring is correct:
 - replace the RELAY-ANN 14XE SPLY (31XE).
 - B. Do the test given in Para. 3.

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TASK 24-24-00-810-804

EMER GEN Voltage and Frequency Indications Lost or Incorrect

- 1. Possible Causes
 - CONTROL UNIT-CSM/G (1XE)
 - CSM/G (8XE)
 - wiring
- C/B-EMER/GEN/REF (27WV)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-24-00-710-001	Operational Test of the Emergency Generation System
	AMM	24-24-34-000-001	Removal of the CSM/G Control Unit (1XE)
	AMM	24-24-34-400-001	Installation of the CSM/G Control Unit (1XE)
	AMM	24-24-51-000-001	Removal of the Constant Speed Motor/Generator (CSM/G) (8XE)
	AMM	24-24-51-400-001	<pre>Installation of the Constant Speed Motor/Generator (CSM/G) (8XE)</pre>
	ASM	24-24/01	
	ASM	24-35/01	

- 3. Fault Confirmation
 - A. Job Set-up Do the operational test of the emergency generation system (Ref. AMM TASK 24-24-00-710-001).
 - B. Test

ACTION RESULT

- - ELEC page.

1. On the ECAM control panel: If on the lower ECAM DU, the voltage - push the ELEC key to get the indication or the frequency indication shows in amber:

> - do the trouble shooting given in Para. 4.B.

If on the lower ECAM DU, amber crosses replace the voltage and the frequency indications:

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ACTION RESULT

 do the trouble shooting given in Para. 4.C.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

106VU EMER/GEN/REF 27WV B05
106VU AC ESS/BUS/EMER/CNTOR/SPLY 15PC C08

- B. If the test confirms the fault:
 - replace the CONTROL UNIT-CSM/G (1XE) (Ref. AMM TASK 24-24-34-000-001) and (Ref. AMM TASK 24-24-34-400-001).
 - (1) If the fault continues:
 - replace the CSM/G (8XE) (Ref. AMM TASK 24-24-51-000-001) and (Ref. AMM TASK 24-24-51-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-24/01) between:
 - . the pin 2/D of the CSM/G (8XE) and the pin A/D of the CSM/G control unit (1XE)
 - the pin 2/E of the CSM/G (8XE) and the pin A/E of the CSM/G control unit (1XE)
 - . the pin 2/F of the CSM/G (8XE) and the pin A/G of the CSM/G control unit (1XE) $^{\circ}$
 - . the pin 2/G of the CSM/G (8XE) and the pin A/H of the CSM/G control unit (1XE)
 - . the pin 2/H of the CSM/G (8XE) and the pin A/J of the CSM/G control unit (1XE)
 - (3) If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-24/01) between:
 - . the pin A/S of the CSM/G control unit (1XE) and the pin T1 of the GLC EMER (2XE)
 - the pin A/R of the CSM/G control unit (1XE) and the pin T2 of the GLC EMER (2XE)
 - the pin A/P of the CSM/G control unit (1XE) and the pin T3 of the GLC EMER (2XE).

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- C. If the test confirms the fault: R - Do a check of the position of the circuit breaker (27WV). R (1) If the circuit breaker is closed: - Do a check for 115VAC at the pin 2 of the circuit breaker (27WV). R (a) If there is 115VAC: R - Do a check and repair the wiring between (Ref. ASM 24-35/01): . the pin 2 of the circuit breaker (27WV) and the first branch point . the branch point and the pin AE/8B of the SDAC1 (1WV1) and the pin AE/8B of the SDAC2 (1WV2). (b) If there is no 115VAC: - Do a check and repair the wiring between the pin 1 of the R R circuit breaker (27WV) and the pin 1 of the circuit breaker (15PC) (Ref. ASM 24-35/01). R (2) If the circuit breaker is open: - Do the procedure (Ref. TASK 24-00-00-810-803). R (a) If the fault continues: R R - Replace the C/B-EMER/GEN/REF (27WV). R
 - D. Do the test given in para. 3.

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TASK 24-24-00-810-805

Result of the EMER GEN Test Incorrect (Loss of the AC ESS Busbar)

1. Possible Causes

- CNTOR-AC ESS BUS SWITCHING (15XE)
- wiring
- TIMER (33XE)
- C/B-AC ESS BUS/EMER/CNTOR/SPLY (5XE)
- C/B-AC ESS/BUS/EMER/CNTOR/SPLY (15PC)
- GLC-EMER (2XE)

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
_	27 00 00 040 007		0' '' D 7 ' 1/ 0/D TDTDDD !
R		0-00-810-803 24-24-00-710-001	Circuit Breaker Tripped and/or C/B TRIPPED Warning Operational Test of the Emergency Generation System
		24-24-55-000-001	
	AMM	24-24-33-000-001	Removal of the Emergency Generator Line Contactor (EMER GLC) (2XE)
	AMM	24-24-55-000-002	Removal of the AC ESS BUS Contactor (15XE)
	AMM	24-24-55-400-001	<pre>Installation of the Emergency Generator Line Contactor (EMER GLC) (2XE)</pre>
	AMM	24-24-55-400-002	Installation of the AC ESS BUS Contactor (15XE)
	ASM	24-24/02	
	ASM	24-35/01	

3. Fault Confirmation

A. Test

Do the operational test of the emergency generation system (Ref. AMM TASK 24-24-00-710-001).

- (1) If during the test:
 - on the upper ECAM display unit:
 - the ELEC AC ESS BUS FAULT warning comes into view
 - on the lower ECAM display unit:
 - the ESS TR voltage is 28VDC
 - the line between the EMER GEN and ESS TR boxes comes on green. do the trouble shooting given in Para. 4.B.
- (2) If during the test:
 - on the upper ECAM display unit:
 - the ELEC AC ESS BUS FAULT warning comes into view on the lower ECAM display unit:
 - the ESS TR voltage is OVDC
 - the EMER GEN voltage and frequency are correct

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- the line between the EMER GEN and ESS TR boxes goes off
- the line between the EMER GEN and the AC ESS bus goes off do the trouble shooting given in Para. 4.C.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

	PANEL DESIGNATION	IDENT.	LOCATION
	106VU AC ESS BUS/EMER/CNTOR/CTL	5XE	B07
	106VU AC ESS/BUS/EMER/CNTOR/SPLY	15PC	C08
R R	B. If the test confirms the fault:		
R	- Do a check of the status of the circuit breakers (5XE)	and (15)	PC).
R R	(1) If these circuit breakers are closed:Replace the CNTOR-AC ESS BUS SWITCHING (15XE) (Ref 55-000-002) and (Ref. AMM TASK 24-24-55-400-002).	_ AMM TAS	SK 24-24-
R	(a) If the fault continues:		
RRR	 Do a check of the wiring between respectively: the pins L3 and B/K of the AC ESS BUS SWITCH (15XE) the pin K1 of the contactor (15XE) and the p of the AC ESS BUS switching contactor (3XC) th BUS supply contactor (4PC) and the relay (17PC the pin B/D of the contactor (3XC) and the p timer (33XE) the pin A/D of the contactor (3XC) and the p timer (33XE) the pin K1 of the contactor (15XE) and the p relay (17PC), through the TR1 and TR2 contactor (5PU2) the pin B/K of the contactor (15XE) and the timer (33XE) the pin B/L of the contactor (15XE) and the the timer (33XE) (Ref. ASM 24-24/02) and (Ref. If the wiring is correct: 	ins A/B rough the lin A/A3 of in A/A3 of rs (5PU1 pin A/C3	then B/B e DC ESS of the of the the of the the the through
R	 Replace the TIMER (33XE). 		
R	(2) If the circuit breaker (5XE) is open:Do the procedure (Ref. TASK 24-00-00-810-803).		
R R R	(a) If the fault continues:Replace the C/B-AC ESS BUS/EMER/CNTOR/SPLY (5X)	E).	

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- (3) If the circuit breaker (15PC) is open:

 R Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-AC ESS/BUS/EMER/CNTOR/SPLY (15PC).
 - C. If the test confirms the fault:

R R R

- replace the GLC-EMER (2XE) (Ref. AMM TASK 24-24-55-000-001) and (Ref. AMM TASK 24-24-55-400-001).
- (1) If the fault continues:
 - do a check and repair the wiring between the pin A/X of the CSM/G control unit (1XE) and the pin X of the EMER GLC (2XE) then between the pin Z of the EMER GLC (2XE) and the ground (Ref. ASM 24-24/02).
- D. Do the operational test given in Para. 3.

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TASK 24-24-00-810-806

Result of the EMER GEN Test Incorrect (Failure of the Switching)

1. Possible Causes

- ELEC PUMP-B (2075GJ)
- CONTROL UNIT-CSM/G (1XE)
- CSM/G (8XE)
- CNTOR-ESS TR (3PE)
- RELAY-SPEED CONDITION, 2 (3PH)
- LGCIU-1 (5GA1)
- RELAY-EMER CONDITION (12XE)
- wiring
- RELAY-EMER GEN TEST CONDITION (16XE)
- RELAY-EMER AUTO LOG CONDITION (17XE)
- RELAY-EMER AUTO LOG CONDITION (18XE)
- RELAY-RAT EXTN INHIB CONDITION (20XE)
- RELAY-CSM/G EV SPLY MONG (22XE)
- RELAY (3PH)
- RELAY-BUS 1XP CTL (15XC)
- RELAY-BUS 2XP CTL (16XC)
- P/BSW-EMER ELEC PWR/EMER GEN TEST (23XE)
- R C/B-CSM/G /EV/MAN/SPLY (6XE)
 - C/B-ELEC/CSM/G /EV AUTO/SPLY (7XE)
 - C/B-ESS TR/CNTOR/CTL (5PE)

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2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R		0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	24-2	4-00-810-805	Result of the EMER GEN Test Incorrect (Loss of the AC ESS Busbar)
R			
	AMM	24-24-00-710-001	Operational Test of the Emergency Generation System
	AMM	24-24-34-000-001	Removal of the CSM/G Control Unit (1XE)
	AMM	24-24-34-400-001	Installation of the CSM/G Control Unit (1XE)
	AMM	24-24-51-000-001	Removal of the Constant Speed Motor/Generator (CSM/G) (8XE)
	AMM	24-24-51-400-001	<pre>Installation of the Constant Speed Motor/Generator (CSM/G) (8XE)</pre>
	AMM	24-34-55-000-001	Removal of the Essential TR Contactor (3PE)
	AMM	24-34-55-400-001	Installation of the Essential TR Contactor (3PE)
	AMM	29-00-00-280-002	Check of the Internal Leakage of the Blue Hydraulic System

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	REFERENCE		DESIGNATION
	AMM	29-12-00-710-001	Functional Check of Blue Electrical Pump Pressure by Reading ECAM Indication
	AMM	29-12-51-000-001	Removal of the Electric Pump (2075GJ)
	AMM	29-12-51-400-001	Installation of the Electric Pump (2075GJ)
	ASM	24-24/01	
	ASM	24-24/02	
	ASM	24-24/02	
	ASM	24-34/01	
₹	ASM	24-38/01	
	ASM	24-62/01	

3. Fault Confirmation

R

- A. Hydraulic Test
 - (1) Do the operational test of the Emergency generation system (CSM/G test) (Ref. AMM TASK 24-24-00-710-001).
 - (a) If the operational test of the Emergency system with the Blue electric pump is not correct:
 - do the operational test of the Blue auxiliary hydraulic system (Ref. AMM TASK 29-12-00-710-001).
 - 1 If the test is correct:
 - do the trouble shooting given in Para 3.B.
 - 2 If the test is not correct:
 - replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001).
 - a If the fault continues:
 - do the check of the internal leak rate (Ref. AMM TASK 29-00-00-280-002),
 - replace the defective unit.
- B. Electric Test
 - (1) Do the operational test of the Emergency generation system (Ref. AMM TASK 24-24-00-710-001).
 - (a) Do the trouble shooting given in Para. 4.B. when, during the operational test:
 - 1 on the lower ECAM display unit:
 - the line between AC 1 bus and AC ESS bus comes on,
 - the line between DC 1 bus and DC ESS bus comes on,
 - the line between EMER GEN and AC ESS bus goes off,
 - the line between EMER GEN and ESS TR goes off,

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- the EMER GEN voltage and frequency come on green.
- (b) Do the trouble shooting given in Para. 4.C. when, during the operational test:
 - 1 on the lower ECAM display unit:
 - the line between AC 1 bus and AC ESS bus comes on,
 - the line between DC 1 bus and DC ESS bus comes on,
 - the EMER GEN voltage and frequency are shown in amber.
- (c) Do the trouble shooting given in Para. 4.D. when, during the operational test:
 - 1 on the lower ECAM display unit:
 - the line between DC 1 bus and DC ESS bus comes on,
 - the line between ESS TR and DC ESS bus goes off.
- (d) Do the trouble shooting given in Para. 4.E. when, at the end of the operational test:
 - 1 on the EMER ELEC PWR section of the panel 21VU:
 - when the EMER GEN TEST pushbutton switch is released, the CSM/G and the Blue electric pump do not stop automatically.
- (e) Do the trouble shooting given in Para. 4.F. when, during the operational test:
 - 1 On the EMER ELEC PWR section of the panel 21VU:
 - when you push the EMER GEN TEST pushbutton switch (23XE) and also when you keep it pushed, the CSM/G (8XE) and the blue electrical pump (2075GJ) start and stop after 10 seconds.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION	IDENT.	LOCATION
105VU ELEC/CSM/G /EV AUTO/SPLY	7XE	CO1
106VU CSM/G /EV/MAN/SPLY	6XE	B04
106VU ESS TR/CNTOR/CTL	5PE	C02

- B. If the test confirms the fault:
 - replace the RELAY-EMER CONDITION (12XE).
 - (1) If the fault continues:
 - do a check and repair the wiring between respectively:
 - the pin X of the CSM/G control unit (1XE) and the pin A/X of the EMER CONDITION relay (12XE)
 - . the pin A/Z of this relay (12XE) and the ground (Ref. ASM 24-24/02).

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C. If the test confirms the fault: R R - On the EMER ELEC PWR panel 21VU, open the guard, push and hold the EMER R GEN TEST pushbutton switch and at the same time R do a check for 28VDC on the pin A/b of the CSM/G control unit (1XE) (Ref. ASM 24-24/02) R NOTE: There is 28VDC during 6 s only. (1) If there is 28VDC: Replace the CONTROL UNIT-CSM/G (1XE) (Ref. AMM TASK 24-24-34-000-R R 001) and (Ref. AMM TASK 24-24-34-400-001). (a) If the fault continues: R R - Do a check and repair the wiring between: . The pin A/N of the CSM/G control unit (1XE) and the pin 4/A of the CSM/G (8XE) . The pin 4/B of the CSM/G (8XE) and the ground. (b) If the fault continues: R - Replace the CSM/G (8XE) (Ref. AMM TASK 24-24-51-000-001) and R R (Ref. AMM TASK 24-24-51-400-001). (c) If the fault continues with the Blue electric pump in operation: R - Replace the ELEC PUMP-B (2075GJ) (Ref. AMM TASK 29-12-51-000-001) and (Ref. AMM TASK 29-12-51-400-001). R (2) If there is not 28VDC: - Replace the RELAY-EMER GEN TEST CONDITION (16XE), RELAY-EMER AUTO R R LOG CONDITION (17XE), RELAY-EMER AUTO LOG CONDITION (18XE), RELAY-RAT EXTN INHIB CONDITION (20XE), RELAY-CSM/G EV SPLY MONG R (22XE), RELAY (3PH), RELAY-BUS 1XP CTL (15XC), RELAY-BUS 2XP CTL R (16XC) and P/BSW-EMER ELEC PWR/EMER GEN TEST (23XE). R R (3) If the fault continues: R - Do a check of the status of the circuit breakers (6XE) and (7XE). R (a) If they are closed: R - Do a check and repair the wiring between respectively: . the circuit breaker (6XE) and the pin 7 of the pushbutton . the pin 8 of the pushbutton (23XE) and the pin A/X of the relay (16XE) through the relays (15XC) and (16XC) . the circuit breaker (7XE) and the pins A/X1 and A/B2 of the relay (20XE), through the relays (17XE) and (18XE) . the pin A/X2 of the relay (20XE) and the ground, through the relay (16XE) . the pin A/B1 of the relay (20XE) and the pin A/X1 of the relay (22XE)

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- the pin A/X2 of the relay (22XE) and the ground

control unit (1XE), through the relays (22XE) and (3PH)

. the pin A/B1 of the relay (20XE) and the pin A/b of the CSM/G

(Ref. ASM 24-24/02). (b) If the circuit breaker (6XE) is open: - Do the procedure (Ref. TASK 24-00-00-810-803). R 1 If the fault continues: R R R - Replace the C/B-CSM/G /EV/MAN/SPLY (6XE). (c) If the circuit breaker (7XE) is open: - Do the procedure (Ref. TASK 24-00-00-810-803). R R 1 If the fault continues: R - Replace the C/B-ELEC/CSM/G /EV AUTO/SPLY (7XE). R (4) If the fault continues: - Do a check of the wiring of the timer (33XE) electrical circuit R R (Ref. TASK 24-24-00-810-805). R D. If the test confirms the fault: R - Replace the CNTOR-ESS TR (3PE) (Ref. AMM TASK 24-34-55-000-001) and R (Ref. AMM TASK 24-34-55-400-001). R R (1) If the fault continues: R - Do a check of the status of the ESS TR CTL SPLY circuit breaker R R (5PE). (a) If the circuit breaker is closed: R - Do a check and repair the wiring between: . the pin A/G of the ESS TR contactor (3PE) and the pin B/F of the ESS TR (1PE) . the pin A/E of the contactor (3PE) and the pin A/G of the contactor (4PC) . the pins A/G and B/3 of the ESS TR contactor (3PE) (Ref. ASM R 24-34/01) and (Ref. ASM 24-62/01). R R (b) If the circuit breaker is open: - Do the procedure (Ref. TASK 24-00-00-810-803). R R 1 If the fault continues: R

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- Replace the C/B-ESS TR/CNTOR/CTL (5PE).

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**ON A/C 201-225, 248-299, 430-499, 503-549, 551-599,

- E. If the test confirms the fault:
 - do a check for ground at the pin A/Z of the CSM/G control unit (1XE) (Ref. ASM 24-24/02).
 - (1) If there is a ground:
 - replace the CONTROL UNIT-CSM/G (1XE) (Ref. AMM TASK 24-24-34-000-001) and (Ref. AMM TASK 24-24-34-400-001).
 - (2) If there is no ground:
 - replace the RELAY-SPEED CONDITION, 2 (3PH).
 - (a) If the fault continues:
 - do a check for ground at the pin AA/2D of the LGCIU-1 (5GA1) (Ref. ASM 24-38/01).
 - 1 If there is no ground:
 - replace the LGCIU-1 (5GA1).
 - 2 If there is a ground:
 - do check and repair the wiring between:
 - the pin AA/2D of the LGCIU-1 (5GA1) and the pin A/B of the relay (3PH),
 - . the pin A/3 of the relay (3PH) and the pin A/Z of the CSM/G control unit (1XE).
- R **ON A/C 227-227, 229-247, 426-429, 701-749,
 - E. If the test confirms the fault:
 - do a check for ground at the pin A/Z of the CSM/G control unit (1XE)
 (Ref. ASM 24-24/02).
 - (1) If there is a ground:
 - replace the CONTROL UNIT-CSM/G (1XE) (Ref. AMM TASK 24-24-34-000-001) and (Ref. AMM TASK 24-24-34-400-001).
 - (2) If there is no ground:
 - replace the RELAY-SPEED CONDITION, 2 (3PH).
 - (a) If the fault continues:
 - do a check and repair the wiring between:
 - . the ground and the pin A/4 of the relay (3PH),
 - the pin A/B of the relay (3PH) and the pin A/Z of the CSM/G control unit (1XE).

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**ON A/C ALL

- F. If the test confirms the fault:
 - do a check and repair the wiring (Ref. ASM 24-24/01) between:
 - pin 2/F of the CSM/G (8XE) and pin A/G of the CSM/G control unit
 (1XE)
 - . pin 2/G of the CSM/G and pin A/H of the CSM/G control unit
 - . pin 2/H of the CSM/G and pin A/J of the CSM/G control unit.
- G. Do the test given in para. 3.

EFF: ALL SROS 24-24-00

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TASK 24-24-00-810-807

Result of the EMER GEN Test Incorrect (Loss of the ESS TR)

- 1. Possible Causes
 - TR-ESS (1PE)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-24-00-710-001 AMM 24-34-51-000-001 AMM 24-34-51-400-001	Operational Test of the Emergency Generation System Removal of the Essential Transformer Rectifier (1PE) Installation of the Essential Transformer Rectifier (1PE)

3. Fault Confirmation

A. Test

Do the operational test of the emergency generator system (Ref. AMM TASK 24-24-00-710-001).

- (1) If during the test:
 - on the upper ECAM display unit:
 - the ELEC ESS TR FAULT warning comes into view.
 - on the lower ECAM display unit:
 - the line between DC 1 bus and DC ESS bus comes on
 - the line between ESS TR and DC ESS bus goes off
 - do the trouble shooting given in Para. 4.

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the status of the ESS TR voltage.
 - (1) If the ESS TR voltage is 28VDC:

On the MCDU, on the SYSTEM REPORT/TEST page of the ELEC system :

- reset the ESS TR
 - or (if the CFDS is not available) in the relay box 103VU:
- push the TR RESET pushbutton switch (15PU).

NOTE: To reset the ESS TR correctly, you must energize it.

When you de-energize TR1 or TR2, the ESS TR becomes energized.

- (a) If the fault continues:
 - replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).

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- (2) If the ESS TR voltage is OVDC:
 replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
- B. Do the test given in para. 3.

EFF: ALL | | SROS 24-24-00

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TASK 24-24-00-810-808

Unwanted Warning from the EMER GLC

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24-24-00-710-001 Operational Test of the Emergency Generation System

AWM 24-24-06

AWM 31-54-25

- 3. Fault Confirmation
 - A. Test

Do the operational test of the emergency generation system (Ref. AMM TASK 24-24-00-710-001).

- 4. Fault Isolation
 - A. If the test confirms the fault:
 - do a check and repair the wiring between successively:
 - . the pin A/X of the CSM/G control unit (1XE) and the pin E of the terminal block 1159VT5 (Ref. AWM 24-24-06)
 - . the pin N of the terminal block 1159VT5 and the pin D of the terminal block 1853VT71 (Ref. AWM 31-54-25).
 - B. Do the test given in Para. 3.

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TASK 24-24-00-810-810

Failure of the GCU CSM/G

- 1. Possible Causes
 - CONTROL UNIT-CSM/G (1XE)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24-24-34-000-001 AMM 24-24-34-400-001 Removal of the CSM/G Control Unit (1XE)
Installation of the CSM/G Control Unit (1XE)

- 3. Fault Confirmation
 - A. Test

Not applicable

NOTE: The fault confirmation is not necessary.

- 4. Fault Isolation
 - A. If the red LED of the CSM/G control unit stays on permanently:
 replace the CONTROL UNIT-CSM/G (1XE) (Ref. AMM TASK 24-24-34-000-001)

and (Ref. AMM TASK 24-24-34-400-001).

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STATIC INVERTER (GENERATION) - FAULT ISOLATION PROCEDURES

TASK 24-28-00-810-801

Result of the Static Inverter Test Incorrect

1. Possible Causes

- CNTOR-AC ESS BUS SWITCHING (15XE)
- STAT INV (3XB)
- BAT-1 (2PB1)
- BAT-2 (2PB2)
- CNTOR-STAT INV (2XB)
- R C/B-AC ESS BUS/EMER/STBY/CNTOR/SPLY (10XE)

R

- RELAY (7XB)
- RELAY CNTOR 3XC MONG, 1 (13XC)
- RELAY CNTOR 3XC MONG, 2 (14XC)
- R wiring
- R C/B-ELEC/STAT INV/CNTOR/CTL (14XB)
 - P/BSW EMER ELEC PWR/EMER GEN TEST
 - diode module (1802VD)
 - RELAY (6XB)
 - RELAY BUS 1XP CTL (15XC)
 - RELAY BUS 2XP CTL (16XC)
 - RELAY EMER CONDITION (12XE)
 - P/BSW ELEC/BUS TIE (10XU)
 - RELAY BUS TIE (30XU1)
 - RELAY SMOKE (30XU2)
- R C/B-EMER/GEN/REF (24WV)

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-24-55-000-002	Removal of the AC ESS BUS Contactor (15XE)
	AMM	24-24-55-400-002	Installation of the AC ESS BUS Contactor (15XE)
	AMM	24-28-00-710-001	Operational Test of the Static Inverter (3XB) when the Aircraft Electrical Circuits are Energized from the External Power
	AMM	24-28-51-000-001	Removal of the Static Inverter (3XB)
	AMM	24-28-51-400-001	Installation of the Static Inverter (3XB)
	AMM	24-28-55-000-001	Removal of the Static Inverter Contactor (2XB)
	AMM	24-28-55-400-001	Installation of the Static Inverter Contactor (2XB)
	AMM	24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
	AMM	24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
	ASM	24-22/02	

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EFERENCE DESIGNATION

ASM 24-22/03

ASM 24-23/02

ASM 24-24/02

ASM 24-28/01

3. Fault Confirmation

A. Test

Do the operational test of the static inverter (Ref. AMM TASK 24-28-00-710-001).

- (1) If during the test:
 - no lights in the cockpit come on,
 - the static inverter does not start, do the trouble shooting given in Para. 4.C.
- (2) If during the test:
 - the FAULT legend of the FAC 1 pushbutton switch comes on
 - the upper **ECAM DU** is blank
 - with the INT LT/DOME switch (25VU) in the BRT position, the F/O DOME lights (452VU) are on,
 - do the trouble shooting given in Para. 4.A.
- (3) If during the test:
 - the upper ECAM DU is blank
 - the FAULT legend of the FAC 1 pushbutton switch goes off
 - with the INT LT/DOME switch (25VU) in the BRT position, the F/O DOME lights (452VU) are on, do the trouble shooting given in Para. 4.B.
- (4) If during the test:
 - the upper ECAM DU is blank
 - the OFF legends of the BAT 1 and BAT 2 pushbutton switches go off
 - with the INT LT/DOME switch (25VU) in the BRT position, the F/O DOME lights (452VU) are not on,
- do the trouble shooting given in Para. 4.C.
- (5) If during the test:
 - when the BUS TIE pushbutton switch is released, the normal electrical configuration stays in view on the lower ECAM DU, do the trouble shooting given in Para. 4.D.
- (6) If during the test:
 - XX is shown as an alternative to the numerical STAT INV voltage and frequency values
 - you think all the systems normally supplied in this configuration are correctly supplied,

do the trouble shooting given in Para. 4.E.

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4. Fault Isolation

R	Α.	If the fault continues:
R R		- Do a check of the status of the circuit breaker 10XE.
R		<pre>(1) If the circuit breaker is open: - Do the procedure (Ref. TASK 24-00-00-810-803).</pre>
R		(a) If the fault continues:
R R R		- Replace the C/B-AC ESS BUS/EMER/STBY/CNTOR/SPLY (10XE).
R		(2) If the circuit breaker is closed:Replace the RELAY (7XB), RELAY - CNTOR 3XC MONG, 1 (13XC), RELAY - CNTOR 3XC MONG, 2 (14XC).
R		(a) If the fault continues:
R R R		- Replace the CNTOR-AC ESS BUS SWITCHING (15XE) (Ref. AMM TASK 24-24-55-000-002) and (Ref. AMM TASK 24-24-55-400-002).
R		(b) If the fault continues:
R R R		 Do a check and repair the wiring from the circuit breaker (10XE) to the contactor (15XE) (Ref. ASM 24-24/02).
	В.	<pre>If the test confirms the fault: - replace the STAT INV (3XB) (Ref. AMM TASK 24-28-51-000-001) and (Ref. AMM TASK 24-28-51-400-001).</pre>
R R	С.	If the test confirms the fault:
		(1) Do a check of the battery 1 (2PB1) and the battery 2 (2PB2) voltage.
R R		 (a) If the voltage is not correct (less than 23 VDC): Replace the BAT-1 (2PB1) or/and the BAT-2 (2PB2) (Ref. AMM TASK 24-38-51-400-001).
		(b) If the voltage is correct (more than 25.5 V), do the step that follows:
		(2) Do a check for 28 VDC at the coil of the relay (7XB).
		(a) Do a check of the status of the circuit breaker (14XB):
R		<pre>1 If the circuit breaker is open: - Do the procedure (Ref. TASK 24-00-00-810-803).</pre>

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R R	<u>a</u> If the fault continues:
R R	- Replace the C/B-ELEC/STAT INV/CNTOR/CTL (14XB).
R R	 If the circuit breaker is closed: Push the EMER ELEC PWR/EMER GEN TEST pushbutton switch (23XE) and do a check for 28 VDC between the pin A/X1 or A/A1 and the pin A/X2 of the relay (7XB).
R R R	<pre>a If there is no 28 VDC: - Replace the P/BSW - EMER ELEC PWR/EMER GEN TEST. * If the fault continues: - Do a check of the diode module (1802VD) between the pin A/33 and A/34 and replace the diode module (1802VD), if necessary. * If the fault continues: - Do a check and repair the wiring between: . the pin 2 of the circuit breaker (14XB) and the pins A/X1 and A/A1 of the relay (7XB), . the pin A/X2 of the relay (7XB) and the ground through</pre>
	the pushbutton switch (23XE). <u>b</u> If there is 28 VDC, do the step that follows:
	(3) Do a check for 28 VDC at the coil of the contactor (2XB) with the EMER GEN TEST pushbutton pushed and the ELEC BUS/TIE pushbutton in the OFF position.
R R	(a) If there is 28 VDC:Replace the CNTOR-STAT INV (2XB) (Ref. AMM TASK 24-28-55-000-001) and (Ref. AMM TASK 24-28-55-400-001).
R R	<pre>1 If the fault continues: - Replace the STAT INV (3XB) (Ref. AMM TASK 24-28-51-000-001) and (Ref. AMM TASK 24-28-51-400-001).</pre>
R	(b) If there is no 28 VDC:Do a check for 28 VDC at the pin A/C2 of the relay (15XC).
R	<pre>1 If there is no 28 VDC: - Replace the RELAY (7XB).</pre>
R	<u>2</u> If the fault continues:- Replace the RELAY (6XB).
R	 <u>a</u> If the fault continues: - Replace the RELAY - BUS 1XP CTL (15XC). * If the fault continues:
R	Replace the RELAY - BUS 2XP CTL (16XC).* If the fault continues:
R	. Replace RELAY - EMER CONDITION (12XE).
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If the fault continues:Do a check and repair the wiring between:

* the pin A/A2 of the relay (7XB) and the pins A/X1 and A/A2 of the relay (6XB) $\,$

- * the pin A/A1 of the relay (6XB) and the ground through the contactor (2XB)
- * the pin A/X2 of the relay (6XB) and the ground (Ref. ASM 24-28/01).
- D. If the fault continues:

- Replace the P/BSW - ELEC/BUS TIE (10XU).

(1) If the fault continues:

- Replace the RELAY - BUS TIE (30XU1), RELAY - SMOKE (30XU2).

(2) If the fault continues:

- Do a check and repair the wiring between respectively:

- the ELEC/BTC1/SPLY circuit breaker (15XU) and the ground through the APU GLC (3XS), the EPC (3XG), the relays (5XG, 4XS, 4XU1, 4XU2, 9XU2, 30XU1) and the BUS TIE pushbutton switch (10XU)
- the pin A/B3 of the relay (30XU1) and the pin A/9C of the GCU 1 through the BTC 1 (11XU1)
- . the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU) and the pin A/X1 of the relay (30XU1) through the relays (5XG, 4XU1) and the GLC 1 (9XU1)
- the ELEC/GEN2/OFF/BTC2 SPLY circuit breaker (8XU) and the ground, through the relays (4XU2, 30XU2) and the BUS TIE pushbutton switch (10XU)
- . the pin A/B3 of the relay (30XU2) and the pin A/9C of the GCU 2 through the BTC 2 (11XU2)
- the ELEC/GEN1/OFF/BTC2 SPLY circuit breaker (14XU) and the pin A/X1 of the relay (30XU2) through the APU GLC (3XS), the EPC (3XG), the relays (5XG, 4XS, 4XU2, 4XU1) and the GLC 1 (9XU1)
- . the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU) and the relay (4XU2) through the relay (5XG), the APU GLC (3XS), the EPC (3XG) and the BTC 1 (11XU1) (Ref. ASM 24-22/02) and (Ref. ASM 24-23/02) and (Ref. ASM 24-22/03).
- E. If the test confirms the fault (amber crosses replace the STAT INV electrical parameters):
- Do a check of the status of the circuit breaker (27WV).
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC at the pin 2 of the circuit breaker (27WV).
 - (a) If there is 115VAC:
- Do a check and repair the wiring between the pin 2 of the circuit breaker (27WV) and the first branch point (Ref. ASM 24-24/02).

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	(b) If there is no 115VAC:
R	 Do a check and repair the wiring between the pin 1 of the
R	circuit breaker (27WV) and the pin A/A of the STAT INV (3XB) (Ref. ASM 24-24/02).
	(2) If the circuit breaker is open:

- Do the procedure (Ref. TASK 24-00-00-810-803). R (a) If the fault continues: R
- Replace the C/B-EMER/GEN/REF (24WV).
 - F. Do the test given in Para. 3.

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-28-00-810-802

No Static Inverter Indication on the Lower ECAM Display Unit

- 1. Possible Causes
 - FWC-1 (1WW1)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-28-00-710-001	Operational Test of the Static Inverter (3XB) when
		the Aircraft Electrical Circuits are Energized from the External Power
AMM	31-50-00-710-001	Ground Scanning of the Central Warning System
AMM	31-53-34-000-001	Removal of the Flight Warning Computer (FWC) (1WW1,1WW2)
AMM	31-53-34-400-001	<pre>Installation of the Flight Warning Computer (FWC) (1WW1,1WW2)</pre>

3. Fault Confirmation

A. Test

Do the operational test of the static inverter (Ref. AMM TASK 24-28-00-710-001).

- (1) If during the test:
 - the correct indication does not appear on the ECAM
 - (a) release the EMERG GEN pushbutton.
 - (b) disconnect the BUS TIE to allow resumption of normal electrical power supplies.
 - (c) do not reset the FWC1.
 - (d) do the Ground Scanning of the FWC2 (Ref. AMM TASK 31-50-00-710-001) and check for any bite information being received from the FWC1.

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4. Fault Isolation

- A. If the Ground Scanning gives the fault codes 0053,0054 or 0055:
 replace the FWC-1 (1WW1) (Ref. AMM TASK 31-53-34-000-001) (Ref. AMM TASK 31-53-34-400-001).
- B. Do the test given in Para. 3.

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R **ON A/C ALL

TASK 24-28-00-810-803

Static Inverter Voltage and Frequency Indications Lost or Incorrect

- 1. Possible Causes
 - STAT INV (3XB)
 - BAT-1 (2PB1)
 - BAT-2 (2PB2)
 - C/B-EMER/GEN/REF (27WV)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-28-00-710-001	Operational Test of the Static Inverter (3XB) when
		the Aircraft Electrical Circuits are Energized from the External Power
AMM	24-28-51-000-001	Removal of the Static Inverter (3XB)
AMM	24-28-51-400-001	Installation of the Static Inverter (3XB)
AMM	24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
AMM	24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
ASM	24-24/02	
ASM	24-35/01	

3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCATION	
49VU	SDAC/1/SPLY	3WV	F04
105VU	ELEC/STAT INV/CNTOR/CTL	14XB	G02
105VU	ELEC/STAT INV/BUS 901XP/SPLY	12XB	H02

B. Test

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 do the operational test of the static inverter and the DC ESS BUS supply (Ref. AMM TASK 24-28-00-710-001).

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4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

106VU EMER/GEN/REF 27WV B05
106VU AC ESS/BUS/EMER/CNTOR/SPLY 15PC C08

- B. If the test shows the voltage in amber and:
 - (1) The voltage is more than 120VAC:
 - replace the STAT INV (3XB) (Ref. AMM TASK 24-28-51-000-001) and (Ref. AMM TASK 24-28-51-400-001).
 - (2) The voltage is less than 110VAC:
 - do a check of the voltage of the batteries during the test.
 - (a) If the voltage is more than 22VDC:
 - replace the STAT INV (3XB) (Ref. AMM TASK 24-28-51-000-001) and (Ref. AMM TASK 24-28-51-400-001).
 - (b) If the voltage is less than 22VDC:
 - replace the BAT-1 (2PB1) and BAT-2 (2PB2) (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
- C. If the test shows the frequency indication in amber:
 - replace the STAT INV (3XB) (Ref. AMM TASK 24-28-51-000-001) and (Ref. AMM TASK 24-28-51-400-001).
- **D.** If the test shows that amber crosses replace the voltage and frequency indications:
 - do a check of the status of the circuit breaker (27WV).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at the pin 2 of the circuit breaker (27WV).
 - (a) If there is 115VAC:
 - do a check and repair the wiring between:
 - the pin 2 of the circuit breaker (27WV) and the first branch point,
 - the branch point and the pins AE/8B of the SDAC 1 (1WV1) and the SDAC 2 (1WV2) (Ref. ASM 24-24/02).
 - (b) If there is no 115VAC:
 - do a check and repair the wiring between the pin 1 of the circuit breaker (27WV) and the pin 1 of the circuit breaker AC ESS/BUS/EMER CNTOR/SPLY (15PC) (Ref. ASM 24-35/01).

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- (2) If the circuit breaker is open:
 close it.
 - (a) Do a check of the wiring for a short to ground between the pin 2 of the circuit breaker (27WV) and the first branch point (Ref. ASM 24-24/02).
 - 1 If the wiring is not correct: - repair it.
 - 2 If the wiring is correct:
 replace the C/B-EMER/GEN/REF (27WV).
- R E. Do the test given in para. 3.

EFF: ALL
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DC GENERATION - FAULT ISOLATION PROCEDURES

TASK 24-30-00-810-801

Failure of the TR1 or TR1 Contactor or Related Wiring

- 1. Possible Causes
 - CNTOR-TR 1 (5PU1)
 - TR-1 (1PU1)
 - wiring
- C/B-TR1 SPLY (2PU1)
- C/B-TR1 CNTOR SPLY (4PU1)

- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION		
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning		
	AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)		
	AMM	24-32-51-400-001	Installation of the Transformer Rectifier (1PU1, 1PU2)		
R R R	AMM	24-32-55-000-001	Removal of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor (14PU)		
R R R	AMM	24-32-55-400-001	Installation of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor (14PU)		
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)		
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)		
	AMM	31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page		
	AMM	31-60-00-860-001	EIS Start Procedure		
	AMM		EIS Stop Procedure		
	ASM	24-32/02	•		

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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- (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- (c) On the MCDU, get the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK 31-32-00-860-004).
- B. Test

NOTE : Before you do the test of the TR1, make sure that the AC BUS 1 supplies its primary winding, in any RESET mode.

ACTION RESULT

- push the ELEC key.

1. On the ECAM control panel:

On the upper ECAM DU:

 the TR1 FAULT message comes into view.

On the lower ECAM DU, on the ELEC page:

- the line connection between the TR1 and the DC1 busbar is not shown,
- the DC BAT busbar energizes the DC1 busbar,
- the TR1 indication is shown in amber, the value is OA and is shown in amber.

- 2. On the MCDU:
 - push the line key adjacent to the TR1 indication,
 - push the line key adjacent to the RESET indication.

NOTE: If the CFDS is not available, you can reset with the TR RESET pushbutton switch (15PU) which is on the relay box 103VU.

If on the TR1 page:

The TR1 page comes into view.

- the NO FAULT indication comes into view, and
 On the lower ECAM DU, on the ELEC page:
- the TR1 supplies the DC1 busbar. On the lower ECAM DU, on the ELEC page, if the TR ESS is in line:
- push and release the ELEC/AC ESS FEED pushbutton switch.
- If the TR ESS is still in line:
- Open and close the circuit breaker
 1XC.

Stop the trouble shooting.

If on the TR1 page:

the TR1 indication comes into view,
 and
 On the ELEC page:

EFF: ALL

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______ ACTION RESULT ._____ - the line connection between the TR1 and the DC1 busbar is not shown, - the DC BAT busbar energizes the DC1 busbar. Continue the trouble shooting (Refer to the fault isolation which follows). 4. Fault Isolation A. Table of the circuit breakers used in this procedure: PANEL DESIGNATION TDENT LOCATION ______ 123VU TR1/SPLY 2PU1 AB10 125VU TR1/CNTOR/SPLY CF01 4PU1 B. If the test confirms the fault: - Do a check of the status of the circuit breakers 4PU1 and 2PU1. (1) If the circuit breakers are closed: Do a check of the TR1 voltage on the lower ECAM DU, on the ELEC page. (a) If the TR1 voltage value is approximately 28VDC: - Replace the CNTOR-TR 1 (5PU1) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001). 1 If the fault continues: - Do a check and repair the wiring between the TR1 28VDC outlet and the TR1 pin B/F (Ref. ASM 24-32/02). (b) If the TR1 voltage value is OVDC and shown in amber: - Do a check of the wiring between the circuit breaker 2PU1 and the TR1. 1 If the wiring is correct: - Replace the TR-1 (1PU1) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).

EFF: ALL

R

R R

R R

R R

R

R

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R R

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- Repair the wiring (Ref. ASM 24-32/02).

2 If the wiring is not correct:

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- (2) If the circuit breaker 2PU1 is open: R - Do the procedure (Ref. TASK 24-00-00-810-803).
- R (a) If the fault continues:

R R

R R R - Replace the C/B-TR1 SPLY (2PU1).

(3) If the circuit breaker 4PU1 is open: R

- Do the procedure (Ref. TASK 24-00-00-810-803).

(a) If the fault continues:

- Replace the C/B-TR1 CNTOR SPLY (4PU1).

C. Do this Test:

ACTION RESULT

1. On the MCDU:

The TR1 page comes into view.

- push the line key adjacent to the TR1 indication,

- push the line key adjacent to the TR1 RESET indication.

The NO FAULT indication comes into view.

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the MCDU, push the line key adjacent to the RETURN indication until the CFDS menu page comes into view.
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL **24-30-00**

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TASK 24-30-00-810-802

Failure of the TR2 or TR2 Contactor or Related Wiring

1. Possible Causes

- CNTOR-TR 2 (5PU2)
- CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU)
- TR-2 (1PU2)
- CNTOR-AC & DC GND SVCE SPLY (14XX)
- wiring
- RELAY GND/FLT SELECT CTL (7XX)
- C/B-TR2 SPLY (2PU2)
 - C/B-TR2 CNTOR SPLY (4PU2)

2. Job Set-up Information

A. Referenced Information

	REFERENCE 		DESIGNATION	
R			Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)	
	AMM	24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>	
R R R	AMM	24-32-55-000-001	Removal of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor (14PU)	
R R R	AMM	24-32-55-400-001	Installation of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor (14PU)	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>	
	AMM	24-42-55-000-001	Removal of the Contactors (12XX, 14XX)	
		24-42-55-400-001	Installation of the Contactors (12XX, 14XX)	
	AMM	31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page	
	AMM	31-60-00-860-001	EIS Start Procedure	
	AMM	31-60-00-860-002	EIS Stop Procedure	
	ASM	24-32/01		
	ASM	24-42/01		

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3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) On the MCDU, get the ELEC menu on the SYSTEM REPORT/TEST page (Ref. AMM TASK 31-32-00-860-004).
- B. Test

NOTE: Before you do the test of the TR2, make sure that the AC BUS 2 supplies its primary winding, in any RESET mode.

ACTION DECLUT

ACTION RESULT

1. On the ECAM control panel:

- push the ELEC key.

On the upper ECAM DU:

 the TR2 FAULT message comes into view.

On the lower ECAM DU, on the ELEC page:

- the line connection between the TR2 and the DC2 busbar is not shown,
- the DC BAT busbar energizes the DC2 busbar,
- the TR2 indication is shown in amber, the value is O A and is shown in amber.

- 2. On the MCDU:
 - push the line key adjacent to the TR2 indication,
 - push the line key adjacent to the RESET indication.

NOTE: If the CFDS is not available, you can reset with the TR RESET pushbutton switch (15PU) which is on the relay box 103VU.

The TR2 page comes into view.

If on the TR2 page:

- the NO FAULT indication comes into view, and
 On the lower ECAM DU, on the ELEC page:
- the TR2 supplies the DC2 busbar. On the lower ECAM DU, on the ELEC page, if the TR ESS is in line:
- push and release the ELEC/AC ESS FEED pushbutton switch.

If the TR ESS is still in line:

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ACTION RESULT

Open and close the circuit breaker
 1XC.

Stop the trouble shooting.

If on the TR2 page:

- the TR2 indication comes into view.On the ELEC page:
- the line connection between the TR2 and the DC2 busbar is not shown,
- the DC2 busbar is not shown.

Continue the trouble shooting (Refer to the fault isolation which follows).

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- B. If the fault continues:
 - Do a check of the status of the circuit breakers 4PU2 and 2PU2.
 - (1) If the circuit breakers are closed:
 - Do a check of the TR2 voltage on the lower ECAM DU, on the ELEC page.
 - (a) If the TR2 voltage value is approximately 28VDC:
 - Replace the CNTOR-TR 2 (5PU2) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - 1 If the fault continues:
 - Do a check and repair the wiring between the TR2 28VDC outlet and the TR2 pin B/F (Ref. ASM 24-32/01).
 - 2 If the fault continues:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).

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- (b) If the TR2 voltage value is OVDC and shown in amber:
 - Do a check for 115VAC on the pins M, L, K of the contactor (14PU).
 - 1 If there is 115VAC:
 - Replace the TR-2 (1PU2) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
 - 2 If there is no 115VAC:
 - Do a check for 115VAC on the pins D, E, F of the contactor (14PU).
 - a If there is 115VAC:
 - Replace the RELAY GND/FLT SELECT CTL (7XX).
 - . If the fault continues:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - . If the fault continues:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - . If the fault continues:
 - Do a check and repair the wiring between:
 - . the ELEC/AC PWR/SVCE/CTL circuit breaker (3XX) and the pin 3 of the contactor (14PU)
 - . the pin 5 of the contactor (14PU) and the ground.
 - b If there is no 115VAC:
 - Do a check and repair the wiring between the circuit breaker (2PU2) and the contactor (14PU) (Ref. ASM 24-42/01).
 - c If the fault continues:
 - Do a check and repair the wiring between pin 5 of the TR2 contactor 5U2 and the circuit breaker 4PU2 (Ref. ASM 24-32/01).
- (2) If the circuit breaker 2PU2 is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-TR2 SPLY (2PU2).
- (3) If the circuit breaker 4PU2 is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-TR2 CNTOR SPLY (4PU2).

EFF: 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, 551-561, 701-749,

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- R **ON A/C 254-275, 432-475, 481-499, 563-599,
 - B. If the fault continues:
 - Do a check of the status of the circuit breakers 4PU2 and 2PU2.
 - (1) If the circuit breakers are closed:
 - Do a check of the TR2 voltage on the lower ECAM DU, on the ELEC page.
 - (a) If the TR2 voltage value is approximately 28VDC:
 - Replace the CNTOR-TR 2 (5PU2) (Ref. AMM TASK 24-32-55-000-001)
 and (Ref. AMM TASK 24-32-55-400-001).
 - 1 If the fault continues:
 - Do a check and repair the wiring between the TR2 28VDC outlet and the TR2 pin B/F (Ref. ASM 24-32/01).
 - 2 If the fault continues:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - (b) If the TR2 voltage value is OVDC and shown in amber:
 - Do a check for 115VAC on the pins 19, 20, 21 of the module 20XX.
 - 1 If there is 115VAC:
 - Replace the TR-2 (1PU2) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
 - 2 If there is no 115VAC:
 - Do a check for 115VAC on the pins 22, 23, 24 of the module 20XX.
 - a If there is 115VAC:
 - Replace the RELAY GND/FLT SELECT CTL (7XX).
 - . If the fault continues:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - . If the fault continues:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - . If the fault continues:
 - Do a check and repair the wiring between:

 the ELEC/AC PWR/SVCE/CTL circuit breaker (3XX) and the pin 3 of the contactor (14PU)

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) *A 319/A 320/A 321*

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- . the pin 5 of the contactor (14PU) and the ground.
- b If there is no 115VAC:
 - Do a check and repair the wiring between the circuit breaker (2PU2) and the module 20XX (Ref. ASM 24-42/01).
- c If the fault continues:
 - Do a check and repair the wiring between pin 5 of the TR2 contactor 5PU2 and the circuit breaker 4PU2 (Ref. ASM 24-32/01).
- (2) If the circuit breaker 2PU2 is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-TR2 SPLY (2PU2).
- (3) If the circuit breaker 4PU2 is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-TR2 CNTOR SPLY (4PU2).

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C. Do the Test:

______ ACTION

RESULT

- 1. On the MCDU:
 - push the line key adjacent to the TR2 indication,
 - the TR2 RESET indication.

The TR2 page comes into view.

- push the line key adjacent to The NO FAULT indication comes into view.

- Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) On the MCDU, push the line key adjacent to the RETURN indication until the CFDS menu page comes into view.
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF: ALL

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TASK 24-30-00-810-803

Internal Failure of the Static Inverter

- 1. Possible Causes
 - STAT INV (3XB)
 - BCL-1 (1PB1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-28-51-000-001	Removal of the Static Inverter (3XB)
AMM	24-28-51-400-001	Installation of the Static Inverter (3XB)
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
ASM	24-28/01	·

- 3. Fault Confirmation
 - A. Test

Do the operational test of the BCL1 (Ref. AMM TASK 24-38-00-710-001).

- 4. Fault Isolation
 - A. If the test gives the maintenance message STATIC INVERTER 3XB:
 - replace the STAT INV (3XB) (Ref. AMM TASK 24-28-51-000-001) and (Ref. AMM TASK 24-28-51-400-001).
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001) .
 - (2) If the fault continues:
 - do a check and repair the wiring between the BCL 1 (1PB1) pin A/<P and the static inverter (3XB) pin A/G (Ref. ASM 24-28/01).
 - B. Do the test given in Para. 3.

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TASK 24-30-00-810-804

Failure of the ESS TR or ESS TR Contactor or its Related Wiring

- 1. Possible Causes
 - TR-ESS (1PE)
 - CNTOR-ESS TR (3PE)
 - wiring from the pin B/E of the ESS TR to pin E of the terminal block 1853VT80
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-24-00-710-001	Operational Test of the Emergency Generation System	
AMM	24-34-51-000-001	Removal of the Essential Transformer Rectifier (1PE)	
AMM	24-34-51-400-001	<pre>Installation of the Essential Transformer Rectifier (1PE)</pre>	
AMM	24-34-55-000-001	Removal of the Essential TR Contactor (3PE)	
AMM	24-34-55-400-001	Installation of the Essential TR Contactor (3PE)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AWM	24-34-02		

3. Fault Confirmation

- A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Initial Configuration of the ESS TR
 - In the AC power center 123VU:Open the circuit breaker 2PU1.
 - $\underline{\mathbf{2}}$ On the MCDU, on the SYSTEM REPORT/TEST page of the ELEC system:
 - reset the ESS TR
 or (if the CFDS is not available)
 In the relay box 103VU:

EFF: ALL 24-

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- push the TR RESET pushbutton switch (15PU).
- In the AC power center 123VU:close the circuit breaker 2PU1.
- B. Test

Do the operational test of the emergency generation system (Ref. AMM TASK 24-24-00-710-001).

4. Fault Isolation

- A. If the test confirms the fault:
 - replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
 - (1) If the fault continues:
 - replace the CNTOR-ESS TR (3PE) (Ref. AMM TASK 24-34-55-000-001) (Ref. AMM TASK 24-34-55-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring from the pin B/E of the ESS TR to pin E of the terminal block 1853VT80 (Ref. AWM 24-34-02).
- B. Do the test given in para. 3.

EFF: ALL 24-30-00

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TASK 24-30-00-810-805

Loss of the BCL1 Detected by the SDAC1

1. Possible Causes

- BAT-1 (2PB1)
- BCL-1 (1PB1)
- SDAC-1 (1WV1)
- FUSE-BAT 1 (4PB11)
- wiring from the SDAC1 (1WV1) to the BCL1 (1PB1)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
AMM	24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
AMM	31-50-00-710-001	Ground Scanning of the Central Warning System
AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
ASM	31-54/03	

3. Fault Confirmation

A. Test

Do the operational test of the central warning systems (Ref. AMM TASK 31-50-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message SDAC1 : NO DATA FROM BCL1:Do a check of the battery 1 voltage.
 - (1) If the voltage is not correct:
 - Replace the BAT-1 (2PB1) (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
 - (2) If the voltage is correct:
 - Replace the FUSE-BAT 1 (4PB11).
 - (a) If the fault continues:
 - Replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL

24-30-00

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- (b) If the fault continues:
 - Replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
- (c) If the fault continues:
 - Do a check and repair the wiring from the SDAC1 (1WV1) to the BCL1 (1PB1), pins AB/11G, 11H to pins A/P, R (Ref. ASM 31-54/03).
- B. Do the test given in Para. 3.

EFF: ALL SROS 24-30-00

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TASK 24-30-00-810-806

Loss of the BCL2 Detected by the SDAC1

1. Possible Causes

- BAT-2 (2PB2)
- BCL-2 (1PB2)
- SDAC-1 (1WV1)
- FUSE-BAT 2 (4PB21)
- wiring from the SDAC1 (1WV1) to the BCL2 (1PB2)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
AMM	24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
AMM	31-50-00-710-001	Ground Scanning of the Central Warning System
AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
ASM	31-54/03	

3. Fault Confirmation

A. Test

Do the operational test of the central warning systems (Ref. AMM TASK 31-50-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message SDAC1: NO DATA FROM BCL2: do a check of the battery 2 voltage.
 - (1) If the voltage is not correct:
 - Replace the BAT-2 (2PB2) (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
 - (2) If the voltage is correct:
 - Replace the FUSE-BAT 2 (4PB21).
 - (a) If the fault continues:
 - Replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL

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- (b) If the fault continues:
 - Replace the SDAC-1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
- (c) If the fault continues:
 - Do a check and repair the wiring from the SDAC1 (1WV1) to the BCL2 (1PB2), pins AE/11C, 11D to pins A/P, R (Ref. ASM 31-54/03).
- B. Do the test given in Para. 3.

EFF: ALL | | SROS 24-30-00

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TASK 24-30-00-810-807

Loss of the BCL1 Detected by the SDAC2

1. Possible Causes

- BAT-1 (2PB1)
- BCL-1 (1PB1)
- SDAC-2 (1WV2)
- FUSE-BAT 1 (4PB11)
- wiring from the SDAC2 (1WV2) to the BCL1 (1PB1)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
AMM	24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
AMM	31-50-00-710-001	Ground Scanning of the Central Warning System
AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
ASM	31-54/03	

3. Fault Confirmation

A. Test

Do the operational test of the central warning systems (Ref. AMM TASK 31-50-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message SDAC2: NO DATA FROM BCL1: do a check of the battery 1 voltage.
 - (1) If the voltage is not correct:
 - Replace the BAT-1 (2PB1) (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
 - (2) If the voltage is correct:
 - Replace the FUSE-BAT 1 (4PB11).
 - (a) If the fault continues:
 - Replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL

24-30-00

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- (b) If the fault continues:
 - Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
- (c) If the fault continues:
 - Do a check and repair the wiring from the SDAC2 (1WV2) to the BCL1 (1PB1), pins AB/11G, 11H to pins A/d, e (Ref. ASM 31-54/03).
- B. Do the test given in Para. 3.

EFF: ALL
SROS

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TASK 24-30-00-810-808

Loss of the BCL2 Detected by the SDAC2

1. Possible Causes

- BAT-2 (2PB2)
- BCL-2 (1PB2)
- SDAC-2 (1WV2)
- FUSE-BAT 2 (4PB21)
- wiring from the SDAC2 (1WV2) to the BCL2 (1PB2)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
AMM	24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
AMM	31-50-00-710-001	Ground Scanning of the Central Warning System
AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
ΔSM	31-54/03	

3. Fault Confirmation

A. Test

Do the operational test of the central warning systems (Ref. AMM TASK 31-50-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message SDAC2: NO DATA FROM BCL2: do a check of the battery 2 voltage.
 - (1) If the voltage is not correct:
 - Replace the BAT-2 (2PB2) (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
 - (2) If the voltage is correct:
 - Replace the FUSE-BAT 2 (4PB21).
 - (a) If the fault continues:
 - Replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL

24-30-00

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- (b) If the fault continues:
 - Replace the SDAC-2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) and (Ref. AMM TASK 31-55-34-400-001).
- (c) If the fault continues:
 - Do a check and repair the wiring from the SDAC2 (1WV2) to the BCL2 (1PB2), pins AE/11C, 11D to pins A/d, e (Ref. ASM 31-54/03).
- B. Do the test given in Para. 3.

EFF: ALL
SROS

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TASK 24-30-00-810-809

Failure of one TR found by the CFDIU

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

AMM 31-32-00-740-002

BITE Test of the Centralized Fault Display Interface Unit (CFDIU)

ASM 24-34/01

ASM 24-35/02

ASM 31-32/06

- 3. Fault Confirmation
 - A. Test
 Do the BITE test of the CFDIU (Ref. AMM TASK 31-32-00-740-002).
- 4. Fault Isolation
- R **ON A/C 201-205, 227-227, 229-240, 276-283, 476-478,
 - A. If the test gives the message TR:
 - do a check for other CFDS messages or warnings related to the DC main generator system (TR) on the upper ECAM display unit.
 - (1) If there are other messages or warnings:
 - do the trouble shooting related to these messages or warnings.
 - (2) If there is no message and no warning:
 - do a check and repair the wiring between:
 - . the pin A/A1 of the relay (8PC1) and the pin AA/1J of the CFDIU (1TW)
 - the pin A/A1 of the relay (8PC2) and the pin AB/5A of the CFDIU (Ref. ASM 24-35/02) and (Ref. ASM 31-32/06)
 - the pin B/E of the ESS TR (1PE) and the pin AA/7K of the CFDIU (Ref. ASM 24-34/01) and (Ref. ASM 31-32/06).

EFF: ALL

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- R **ON A/C 206-225, 227-227, 229-233, 241-277, 279-279, 281-281, 284-299,
- R 426-475, 479-499, 503-549, 551-599, 701-749,
- R Post SB 24-1091 For A/C 227-227,229-233,276-277,279-279,281-281,
 - A. If the test gives the message TR:
 - do a check for other CFDS messages or warnings related to the DC main generator system (TR) on the upper ECAM display unit.
 - (1) If there are other messages or warnings:
 - do the trouble shooting related to these messages or warnings.
 - (2) If there is no message and no warning:
 - do a check and repair the wiring between:
 - . the pin A/A1 of the relay (8PC1) and the pin AA/1J of the CFDIU (1TW).
 - . the pin A/A1 of the relay (8PC2) and the pin AB/5A of the CFDIU (Ref. ASM 24-35/02) and (Ref. ASM 31-32/06).

**ON A/C ALL

B. Do the test given in Para.3.

EFF: ALL 24-30-00

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TASK 24-30-00-810-810

Failure of the Link Between the TR1 Fault Output and the SDAC1 and the SDAC2

1. Possible Causes

- RELAY-SWTG SPLY/TR 1 FAULT (8PC1)
- TR-1 (1PU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
24-32-00-810-801		Failure of the Connection between the TR1 Voltage
		Output and the SDAC1 and SDAC2
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)
AMM	24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-35/02	

3. Fault Confirmation

- A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Do the procedure to get access to the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK 31-32-00-860-004).

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B. Test

ACTION

RESULT

1. On the ECAM control panel: - push the ELEC key to get the ELEC page.

On the lower ECAM DU:

- the line connection between the TR1 and the DC 1 busbar does not come on.
- the DC 2 busbar energizes the DC 1 busbar through the DC BAT busbar
- the TR1 indication is shown in amber and the value of the current is OA.

On the upper ECAM DU:

- the TR1 FAULT message does not come into view.

- 2. On the MCDU, on the ELEC page:
 - push the line key adjacent to the TR indication.
- 3. On the MCDU: - push the line key adjacent to the TR1 indication.
- 4. On the MCDU:
 - push the line key adjacent to the TR1 RESET indication.

On the MCDU:

- the TR page comes into view.

On the MCDU:

- the TR1 page comes into view.

On the MCDU, on the TR1 RESET page:

- if the NO FAULT indication comes into view, and that
- on the lower ECAM DU , ELEC page, the normal configuration comes into view: do the trouble shooting given in Para. 4.A.
- if the TR1 (1PU1) indication comes into view, refer to (Ref. TASK 24-32-00-810-801) for trouble shooting. Then, do the trouble shooting given in Para. 4.A.

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring between:
 - . the pin B/E of the TR1 and the pin A/X2 of the relay 8PC1,
 - . the pin A/X1 of the relay 8PC1 and the first branch point (Ref. ASM 24-35/02).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the RELAY-SWTG SPLY/TR 1 FAULT (8PC1).

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EFF: ALL

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- (3) If the fault continues:
 - replace the TR-1 (1PU1), (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
- B. Do this test to make sure that the system operates correctly:

ACTION RESULT

I I UN KES

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- 2. On the AC power center 123VU:
 - open the TR1 circuit breaker (2PU1).

On the lower ECAM DU, ELEC page:

the normal configuration comes into view.

- On the lower ECAM DU, ELEC page:
- the TR1 and its parameters are shown in amber
- the TR1 does not energize the DC 1 busbar
- the DC 2 busbar energizes the DC 1 busbar through the DC BAT busbar.

On the upper ECAM DU:

- the TR1 FAULT message comes into view.
- 3. On the AC power center 123VU:
 - close the TR1 circuit breaker.
- 4. On the TR1 front face:
 - push the TR1 RESET pushbutton switch.

On the lower ECAM DU, ELEC page:

- the normal configuration is shown.

On the upper ECAM DU:

 the TR1 FAULT message goes out of view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

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TASK 24-30-00-810-811

Failure of the Link Between the TR2 Fault Output and the SDAC1 and the SDAC2

1. Possible Causes

- RELAY-SWTG SPLY/TR 2 FAULT (8PC2)
- TR-2 (1PU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
24-32-00-810-802		Failure of the Connection between the TR2 Voltage Output and the SDAC1 and SDAC2
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)
AMM	24-32-51-400-001	Installation of the Transformer Rectifier (1PU1, 1PU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page
AMM	31-60-00-860-001	EIS Start Procedure
AMM ASM	31-60-00-860-002 24-35/02	EIS Stop Procedure

3. Fault Confirmation

- A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Do the procedure to get access to the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK 31-32-00-860-004).

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B. Test

ACTION RESULT

1. On the ECAM control panel:

 push the ELEC key to get the ELEC page. On the lower ECAM DU, ELEC page:

- the line connection between TR2 and DC 2 does not come on.
- the DC BAT busbar energizes the DC 2 busbar
- the TR2 indication is shown in amber and the value of the current is OA.

On the upper ECAM DU:

 the TR2 FAULT message does not come into view.

2. On the MCDU, on the ELEC page:

 push the line key adjacent to the TR indication. On the MCDU:

- the TR page comes into view.

3. On the MCDU:

 push the line key adjacent to the TR2 indication. On the MCDU:

- the TR2 page comes into view.

4. On the MCDU:

 push the line key adjacent to the TR2 RESET indication. On the MCDU, on the TR2 RESET page:

- if the NO FAULT indication comes into view, and that
- on the lower ECAM DU, ELEC page, the normal configuration comes into view: do the trouble shooting given in Para. 4.A.
- if the TR2 (1PU2) indication comes into view, refer to (Ref. TASK 24-32-00-810-802) for the trouble shooting. Then, do the trouble shooting given in Para. 4.A.

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring between:
 - . the pin B/E of the TR2 and the pin A/X2 of the relay 8PC2,
 - . the pin A/X1 of the relay 8PC2 and the first branch point (Ref. ASM 24-35/02).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the RELAY-SWTG SPLY/TR 2 FAULT (8PC2).

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EFF: ALL

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- (3) If the fault continues:
 - replace the TR-2 (1PU2), (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
- B. Do this test to make sure that the system operates correctly:

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- 2. On the AC power center 123VU:
 - open the TR2 circuit breaker (2PU2).

On the lower ECAM DU, ELEC page:

the normal configuration comes into view.

On the lower ECAM DU, ELEC page:

- the TR2 and its parameters are shown in amber
- the TR2 does not energize the DC 2 busbar
- the DC BAT busbar supplies the DC 2 busbar.

On the upper ECAM DU:

- the TR2 FAULT message comes into view.
- 3. On the AC power center 123VU:
 - close the TR2 circuit breaker.
- 4. On the TR2 front face:
 - push the TR2 RESET pushbutton switch.

On the lower ECAM DU, ELEC page:

- the normal configuration is shown.

On the upper ECAM DU:

 the TR2 FAULT message goes out of view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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R **ON A/C 201-205, 227-227, 229-240, 276-283, 476-478,

TASK 24-30-00-810-812

Failure of the Link Between the ESS TR Fault Output and the SDAC1 and the SDAC2

- 1. Possible Causes
 - TR-ESS (1PE)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
24-30-00-810-804		Failure of the ESS TR or ESS TR Contactor or its Related Wiring
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)
AMM	24-34-51-400-001	Installation of the Essential Transformer Rectifier (1PE)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page
AMM	31-60-00-860-001	EIS Start Procedure
AMM ASM	31-60-00-860-002 24-34/01	EIS Stop Procedure

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Do the procedure to get access to the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK 31-32-00-860-004).

EFF: 201-205, 227-227, 229-240, 276-283, 476-478,

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B. Test

ACTION

RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the lower ECAM DU:

- the line connection between the ESS TR and the DC ESS busbar does not come on-
 - the DC BAT busbar energizes the DC ESS busbar
 - the ESS TR indication is shown in amber and the value of the current is OA.

On the upper ECAM DU:

- the ESS TR FAULT message does not come into view.
- 2. On the MCDU, on the ELEC page:
 - push the line key adjacent to the TR indication.

On the MCDU:

- the TR page comes into view.

3. On the MCDU:

- push the line key adjacent to the ESS TR indication.

On the MCDU:

- the ESS TR page comes into view.

4. On the MCDU:

- push the line key adjacent to the RESET indication.

On the MCDU, on the ESS TR RESET page:

- if the NO FAULT indication comes into view, and that
- on the lower ECAM DU, ELEC page, the normal configuration comes into view: do the trouble shooting given in Para. 4.A.
- if the NO FAULT indication comes into view, and that
- on the lower ECAM DU, ELEC page, the result is the same as in Para. B.(1): refer to (Ref. TASK 24-30-00-810-804) for the trouble shooting. Then, do the trouble shooting given in Para. 4.A.

4. Fault Isolation

- A. Do a check and repair the wiring between the ESS TR (1PE) pin B/E and the first branch point (Ref. ASM 24-34/01).
 - (1) If the fault continues:
 - replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-400-001) and (Ref. AMM TASK 24-32-51-000-001).

201-205, 227-227, 229-240, 276-283, EFF:

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476-478,

TROUBLE SHOOTING MANUAL

B. Do this test to make sure that the system operates correctly.

ACTION ______

RESULT

- 1. On the ECAM control panel:
 - ELEC page.
- On lower ECAM DU, ELEC page:
- On the ECAM control panel:

 On lower ECAM DU, ELEC page:

 push the ELEC key to get the

 the normal configuration comes into view₌
- 2. On the panel 106VU:
 - open the circuit breaker (4PE).
- On the lower ECAM DU, ELEC page:
- ESS TR and its parameters are shown in amber
- the ESS TR does not energize the DC ESS busbar
- the DC BAT busbar energizes the DC ESS busbar.

On the upper ECAM DU:

- the ESS TR FAULT message comes into view.

- 3. On the panel 106VU:
 - close the circuit breaker (4PE).
- 4. On the ESS TR front face:
 - push the ESS TR RESET pushbutton switch.

On the lower ECAM DU, ELEC page:

- the normal configuration is shown.

On the upper ECAM DU:

- the ESS TR FAULT message goes out of

- 5. Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

24-30-00

TROUBLE SHOOTING MANUAL

DC MAIN GENERATION (TR) - FAULT ISOLATION PROCEDURES

TASK 24-32-00-810-801

Failure of the Connection between the TR1 Voltage Output and the SDAC1 and SDAC2

- 1. Possible Causes
 - TR-1 (1PU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AM	M 24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)	
AM	M 24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>	
AM	M 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AM	M 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AM	M 31-60-00-860-001	EIS Start Procedure	
AM	M 31-60-00-860-002	EIS Stop Procedure	
AS	M 24-32/02		

- 3. Fault Confirmation
 - A. Job Set-up
- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Test

R

R

R R

R

______ ACTION RESULT

ELEC page.

1. On the ECAM control panel:
 - push the ELEC key to get the
 On the lower ECAM DU, ELEC page:
 - the TR1 voltage indication is OV.

EFF: ALL 24-32-00

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4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring from the TR1 pin B/A to the first terminal block (Ref. ASM 24-32/02).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the TR-1 (1PU1) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
- B. Do this test to make sure that the system operates correctly:

ACTION RESULT ______

- 1. On the ECAM control panel:- push the ELEC key to get the- the ELEC page comes into view. ELEC page.

In the TR1 box:

- the voltage indication is shown in green.

5. Close-up

R R

R R

R

R

R R A. Put the aircraft back to its initial configuration.

R (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002). R

(2) De-energize the aircraft electrical circuits

(Ref. AMM TASK 24-41-00-862-002).

24-32-00 EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 24-32-00-810-802

Failure of the Connection between the TR2 Voltage Output and the SDAC1 and SDAC2

- 1. Possible Causes
 - TR-2 (1PU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)	
AMM	24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
ASM	24-32/01		
3. Fault Confirmation			

A. Job Set-up

(1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

(2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) R (Ref. AMM TASK 31-60-00-860-001). R

B. Test

R

R R

R

R

ACTION RESULT

ELEC page.

1. On the ECAM control panel:
 - push the ELEC key to get the
 On the lower ECAM DU, ELEC page:
 - the TR2 voltage indication is OV.

EFF: ALL

24-32-00

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TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring from the TR2 pin B/A to the first terminal block (Ref. ASM 24-32/01).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the TR-2 (1PU2) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
- B. Do this test to make sure that the system operates correctly:

______ ACTION RESULT ______

1. On the ECAM control panel:- push the ELEC key to get the- the ELEC page comes into view. ELEC page.

In the TR2 box:

- the voltage indication is shown in green.

5. Close-up

R R

R R

R

R

R R A. Put the aircraft back to its initial configuration.

R (1) Do the EIS stop procedure R

(Ref. AMM TASK 31-60-00-860-002).

(2) De-energize the aircraft electrical circuits

(Ref. AMM TASK 24-41-00-862-002).

24-32-00 EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 24-32-00-810-803

Failure of the Connection between the TR1 Current Output and the SDAC1 and SDAC2

- 1. Possible Causes
 - TR-1 (1PU1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)
	24-32-51-400-001	Installation of the Transformer Rectifier (1PU1, 1PU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-32/02	·

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Test

ACTION RESULT

ELEC page.

1. On the ECAM control panel:

- push the ELEC key to get the

- amber crosses are shown instead of the value of the TR1 current.

EFF: ALL 24-32-00

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SROS

R

R

TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring from the TR1 pins B/B and B/C to the first terminal block (Ref. ASM 24-32/02).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the TR-1 (1PU1) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
- B. Do this test to make sure that the system operates correctly:

ACTION RESULT ______

1. On the ECAM control panel:- push the ELEC key to get the- the ELEC page comes into view. ELEC page.

In the TR1 box:

- the value of the TR1 current is shown in green.

5. Close-up

R R

- A. Put the aircraft back to its initial configuration.
- R (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002). R R
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

24-32-00 ALL

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EFF:

TROUBLE SHOOTING MANUAL

TASK 24-32-00-810-804

Failure of the Connection between the TR2 Current Output and the SDAC1 and SDAC2

- 1. Possible Causes
 - TR-2 (1PU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION		
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)		
AMM	24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power		
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power		
AMM	31-60-00-860-001	EIS Start Procedure		
AMM	31-60-00-860-002	EIS Stop Procedure		
ASM	24-32/01			
3. Fault Confirmation				

A. Job Set-up

(1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

R R R

R

R

R R

> (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

B. Test

ACTION RESULT

ELEC page.

1. On the ECAM control panel:

- push the ELEC key to get the

- amber crosses are shown instead of the value of the TR2 current.

EFF: ALL

24-32-00

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TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring from the TR2 pins B/B and B/C to the first terminal block (Ref. ASM 24-32/01).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the TR-2 (1PU2) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
- B. Do this test to make sure that the system operates correctly:

ACTION RESULT ______

1. On the ECAM control panel:- push the ELEC key to get the- the ELEC page comes into view. ELEC page.

In the TR2 box:

- the value of the TR2 current is shown in green.

5. Close-up

R R

R R

R

R

- A. Put the aircraft back to its initial configuration.
- R (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002). R
- R (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002). R

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R TASK 24-32-00-810-805 TR1 indication and related electrical parameters are shown in amber on the ELEC page R Possible Causes R - wiring 2. Job Set-up Information R A. Referenced Information R REFERENCE DESIGNATION R AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power R AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied R from the External Power R AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure R ASM 24-32/02 3. Fault Confirmation R A. Job Set-up (1) Energize the aircraft electrical circuits R (Ref. AMM TASK 24-41-00-861-002). R (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) R (Ref. AMM TASK 31-60-00-860-001). R B. Test R R R ACTION RESULT ______ R R 1. On the ECAM control panel: On the lower ECAM DU, ELEC page: - push the ELEC key to get the - the TR1 indication, voltage and R R ELEC page. current parameters are shown in amber. R

EFF: ALL **24-32-00**SROS

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R 4. Fault Isolation R A. If the test confirms the fault: - do a check of the connector A of the TR-1 (1PU1) for correct condition. R (1) If the connector is not in the correct condition (burned contacts, R damaged contacts...): R - replace it. R (2) If the connector is in the correct condition: - do a check of the wiring between pins A2, B2 and C2 of the TR-1 R R SPLY circuit breaker (2PU1) and pins A/A, A/B and A/C of the TR-1 R (1PU1). (Ref. ASM 24-32/02) (a) If the fault continues: R - do a check of the connector B of the TR-1 (1PU1) for correct R R condition. 1 If the connector is not in the correct condition (burned R R contacts, damaged contacts...): - replace it. R 2 If the connector is in the correct condition: R - do a check and repair the wiring from the TR-1 pins B/A, B/B R and B/C to the first terminal block (Ref. ASM 24-32/02). R R B. Do this test ______ **RESULT ACTION** R R ______ R 1. On the ECAM control panel: On the lower ECAM DU, ELEC page: - push the ELEC key to get the - the TR1 indication is shown in white, R R ELEC page. - the voltage and current parameters are shown in green. R 5. Close-up R A. Put the aircraft back to its initial configuration. R (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002). R (2) De-energize the aircraft electrical circuits R (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

24-32-00

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R TASK 24-32-00-810-806 TR2 indication and related electrical parameters are shown in amber on the ELEC R page R Possible Causes R - wiring 2. Job Set-up Information R A. Referenced Information R REFERENCE DESIGNATION R AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power R AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied R from the External Power R AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure R ASM 24-32/01 3. Fault Confirmation R A. Job Set-up (1) Energize the aircraft electrical circuits R (Ref. AMM TASK 24-41-00-861-002). R (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) R (Ref. AMM TASK 31-60-00-860-001). R B. Test R R R ACTION RESULT ______ R R 1. On the ECAM control panel: On the lower ECAM DU, ELEC page: On the ECAM control panel:

On the lower ECAM DU, ELEC page:

the TR2 indication, voltage and R R ELEC page. current parameters are shown in amber. R

EFF: ALL

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R	4.	4. Fault Isolation				
R R		A. If the test confirms the fault:do a check of the connector A of the TR-2 (1PU2) for correct condition.				
R R R	(1) If the connector is not in the correct condition (burned contacts, damaged contacts):replace it.					
R R R	 (2) If the connector is in the correct condition: do a check of the wiring between pins A2, B2 and C2 of the TR-2 SPLY circuit breaker (2PU2) and pins A/A, A/B and A/C of the TR-2 (1PU2). (Ref. ASM 24-32/01) 					
R R R	(a) If the fault continues:do a check of the connector B of the TR-2 (1PU2) for correct condition.					
R R	<pre>1 If the connector is not in the correct condition: - replace it.</pre>					
R R R	 If the connector is in the correct condition: do a check and repair the wiring from the TR-2 pins B/A, B/I and B/C to the first terminal block (Ref. ASM 24-32/01). 					
R		B. Do 1	this test			
R R R			ACTION	RESULT		
R R R	1.	- push	ECAM control panel: the ELEC key to get the page.			
R	5.	- <u>Close-up</u>				
R		A. Put the aircraft back to its initial configuration.				
R R		(1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).				
R R	(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).					

EFF: ALL
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DC EMERGENCY GENERATION (TR) - FAULT ISOLATION PROCEDURES

TASK 24-34-00-810-801

Failure of the Connection between the Essential TR Voltage Output and the SDAC1 and SDAC2

- 1. Possible Causes
 - TR-ESS (1PE)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-34-51-000-001	Removal of the Essential Transformer Rectifier (1PE)	
AMM	24-34-51-400-001	Installation of the Essential Transformer Rectifier (1PE)	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the	
		External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied	
		from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
ASM	24-34/01	·	

- 3. Fault Confirmation
 - A. Job Set-Up

(1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

(2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

B. Test

R

R R

> ______ ACTION RESULT

On the ECAM control panel: page.

On the lower ECAM DU, ELEC page: R - push the ELEC key to get the ELEC - the ESS TR voltage indication is OV.

24-34-00

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EFF:

ALL

TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the test confirms the fault:
- R - do a check of the wiring from the ESS TR pin B/A to the first terminal block (Ref. ASM 24-34/01). R
 - (1) If there is no continuity:
- R - repair the wiring.
 - (2) If there is continuity:
 - replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
 - B. Do this test to make sure that the system operates correctly.

______ ______

ACTION RESULT

- 1. On the ECAM control panel:- push the ELEC key to get the- the ELEC page comes into view. ELEC page.

- In the ESS TR box:
- the voltage indication is shown in green.

5. Close-up

R

R R

R

R

- A. Put the aircraft back to its initial configuration. R
- R (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002). R
- R (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002). R R

24-34-00 EFF: ALL

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TASK 24-34-00-810-802

Failure of the Connection between the Essential TR Current Output and the SDAC1 and SDAC2

- 1. Possible Causes
 - TR-ESS (1PE)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-34-51-000-001	Removal of the Essential Transformer Rectifier (1PE)
AMM	24-34-51-400-001	<pre>Installation of the Essential Transformer Rectifier (1PE)</pre>
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-34/01	

- 3. Fault Confirmation
 - A. Job Set-Up

(1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

R

R

R R

> (2) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

R R

R

B. Test

ACTION RESULT

page.

On the ECAM control panel:

- push the ELEC key to get the ELEC

- amber crosses are shown instead of the value of the ESS TR current.

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4. Fault Isolation

- A. If the test confirms the fault:
 - do a check of the wiring from the essential transformer rectifier pins B/B and B/C to the first terminal block (Ref. ASM 24-34/01).
 - (1) If there is no continuity:
 - repair the wiring.
 - (2) If there is continuity:
 - replace the TR-ESS (1PE)> (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
- B. Do this test to make sure that the system operates correctly.

ACTION RESULT ______

1. On the ECAM control panel:- push the ELEC key to get the- the ELEC page comes into view. ELEC page.

In the ESS TR box:

- the value of the ESS TR current is shown in green.

5. Close-up

R

R R

R

R

R

R

- A. Put the aircraft back to its initial configuration. R
- (1) Do the EIS stop procedure R (Ref. AMM TASK 31-60-00-860-002). R
 - (2) De-energize the aircraft electrical circuits

R (Ref. AMM TASK 24-41-00-862-002). R

EFF: ALL **24-34-00**

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TROUBLE SHOOTING MANUAL

DC ESSENTIAL & NORMAL GENERATION SWITCHING - FAULT ISOLATION PROCEDURES

TASK 24-35-00-810-801

Failure of the Contactor (4PC) in Closed Position

- 1. Possible Causes
 - CNTOR-DC ESS BUS SUPPLY (4PC)
 - CNTOR-DC NORM BUS 1 SWITCHING (1PC1)
- CNTOR-DC NORM BUS 2 SWITCHING (1PC2)
 - wiring
- diode module (2420VD)
 - C/B-ELEC/CNTOR/ESS/DC BUS/TIE (3PC)
 - TIMER (33XE)
 - 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM 24-35-55-000-001	Removal of the Contactor (1PC1, 1PC2)
AMM 24-35-55-400-001	Installation of the Contactor (1PC1, 1PC2)
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
	External Power
AMM 24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM 31-60-00-860-001	EIS Start Procedure
AMM 31-60-00-860-002	EIS Stop Procedure
ASM 24-35/01	
ASM 24-35/02	
AWM 24-35-03	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

EFF:

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ALL

(1) Do this test:

ACTION ______ On the ECAM control panel: On the lower ECAM display unit: - Push the ELEC key to get the ELEC - The TR1 and the TR2 supply the DC1 R and DC2 busbars. R page. R - The line between DC BAT BUS and DC R ESS BUS comes into view. - The green line between DC2 and DC BAT R BUS is not shown. R R (2) If the test confirms the fault: - Do the fault isolation procedure given in step B. R R (3) If the green line between DC2 and DC BAT BUS is shown: R - Do the fault isolation procedure given in step C. R (4) If the green line between DC2 and DC BAT BUS is not shown: - Do the fault isolation procedure given in step D. R C. If the test is correct, do this test: ______ ACTION **RESULT** ______ On the panel 125VU(124VU): On the upper ECAM display unit: - Open the circuit breaker 4PU1(2). - The TR1(2) FAULT indication comes into view. R On the lower ECAM display unit: R - The TR1(2) no longer supplies the DC1(2) busbar. R - The DC2(1) busbar supplies the DC1(2) R busbar through the DC BAT busbar. R - The AC ESS busbar supplies the DC ESS R R busbar through the ESS TR. 4. Fault Isolation A. If the test confirms the fault: - Do a check for 28 VDC between pins B/3 and B/5 of the DC ESS BUS SPLY R contactor (4PC). R (1) If there is 28 VDC: R - Replace the CNTOR-DC ESS BUS SUPPLY (4PC) (Ref. AMM TASK 24-35-55-000-001) and (Ref. AMM TASK 24-35-55-400-001).

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(2) If there is no 28 VDC: R - Do a check of the status of the circuit breaker (3PC). (a) If the circuit breaker is closed: - Do a check for 28 VDC between pins B/3 and B/5 of the DC NORM R R BUS 1 switching-contactor (1PC1). R 1 If there is 28 VDC: - Replace the CNTOR-DC NORM BUS 1 SWITCHING (1PC1) (Ref. AMM TASK 24-35-55-000-001) and (Ref. AMM TASK 24-35-55-400-001). a If the fault continues: - Do a check and repair the wiring: - Between the circuit breaker (3PC) and pin B/3 of the R contactor (4PC) R - Between pin B/5 of the contactor (4PC) and the ground R R point or terminal block (Ref. ASM 24-35/01) (Ref. AWM 24-35-03). 2 If there is no 28 VDC: R - Do a check of the wiring: R - Between the circuit breaker (9PC) and pin B/3 of the DC NORM BUS 1 switching-contactor (1PC1) R - Between pin B/5 of the DC NORM BUS 1 switching-contactor R (1PC1) and the ground (Ref. ASM 24-35/02). R a If the wiring is not correct: R R - Repair the wiring. R b If the wiring is correct: - Replace the diode module (2420VD). R R (b) If the circuit breaker is open: - Do the procedure (Ref. TASK 24-00-00-810-803). If the fault continues: - Replace the C/B-ELEC/CNTOR/ESS/DC BUS/TIE (3PC). B. If the TR1, TR2 and ESS TR supply their respective busbars (DC1, DC2, DC ESS): - Replace the TIMER (33XE). C. If the test confirms the fault: R - Replace the diode module (2420VD). R D. If the test confirms the fault: R - Replace the CNTOR-DC NORM BUS 2 SWITCHING (1PC2) (Ref. AMM TASK 24-35-R 55-000-001) (Ref. AMM TASK 24-35-55-400-001). R R E. Do the test given in Para. 3 and make sure that the normal configuration comes into view.

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5. Close-up

R

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-35-00-810-802

Failure of the DC NORM BUS 1 Switching Contactor (1PC1)

- 1. Possible Causes
 - CNTOR-DC NORM BUS 1 SWITCHING (1PC1)
 - wiring
 - C/B-ELEC/CNTOR/DC/BUS/TIE1 (9PC)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
24.0	0.00.040.007	
	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM	24-35-55-000-001	Removal of the Contactor (1PC1, 1PC2)
AMM	24-35-55-400-001	Installation of the Contactor (1PC1, 1PC2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
		from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
ASM	24-35/02	
AWM	24-35-02	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

ACTION RESULT ______

On the ECAM control panel:

page.

On the lower ECAM display unit:

- push the ELEC key to get the ELEC the line between DC 1 and DC BAT buses goes out of view
 - the line between DC 2 and DC BAT buses comes into view
 - the DC ESS bus is supplied by the ESS TR.

4. Fault Isolation

- A. If the test confirms the fault:
 - Do a check for 28VDC between pins B/3 and B/5 of the DC NORM BUS 1 switching contactor (1PC1).
 - (1) If there is 28VDC:
 - Replace the CNTOR-DC NORM BUS 1 SWITCHING (1PC1) (Ref. AMM TASK 24-35-55-000-001) and (Ref. AMM TASK 24-35-55-400-001).
 - (2) If there is no 28VDC:
 - Do a check of the status of the circuit breaker (9PC).
 - (a) If the circuit breaker (9PC) is closed:
 - Do a check and repair the wiring:
 - between the circuit breaker (9PC) and pin B/3 of the DC NORM BUS 1 switching contactor (1PC1)
 - . then between pin B/5 of the contactor (1PC1) and the ground point or terminal block (Ref. ASM 24-35/02) (Ref. AWM 24-35-02).
 - (b) If the circuit breaker (9PC) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ELEC/CNTOR/DC/BUS/TIE1 (9PC).
- B. Do the test given in Para. 3. and make sure that the normal configuration comes into view.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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DC GENERATION - BATTERIES - FAULT ISOLATION PROCEDURES

TASK 24-38-00-810-801

Failure of the Battery 1

- 1. Possible Causes
 - BAT-1 (2PB1)
 - BCL-1 (1PB1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
R R	AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
R R		24-38-51-000-001 24-38-51-400-001	Removal of the Batteries (2PB1, 2PB2) Installation of the Batteries (2PB1, 2PB2)	

- 3. Fault Confirmation
 - A. Test

Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).

- 4. Fault Isolation
 - A. If the test gives the maintenance message BATTERY 1:
 - replace the BAT-1 (2PB1), (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-802

Failure of the Battery 2

- 1. Possible Causes
 - BAT-2 (2PB2)
 - BCL-2 (1PB2)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
R R	AMM AMM	24-38-51-000-001 24-38-51-400-001	Removal of the Batteries (2PB1, 2PB2) Installation of the Batteries (2PB1, 2PB2)

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BATTERY 2:
 - replace the BAT-2 (2PB2), (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001).
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-803

Internal Failure of the BCL 1

- 1. Possible Causes
 - BCL-1 (1PB1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BCL 1, or if you cannot start the test:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-804

Failure of the Current Acquisition Circuit of the BCL 1

- 1. Possible Causes
 - SHUNT-BAT 1 (3PB1)
 - BCL-1 (1PB1)
 - wiring from the battery 1 shunt to the pins A/L, A/M and A/N of the BCL 1
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
	ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation

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- A. If the test gives the maintenance message SHUNT 3PB1/BCL1 CIRCUIT: replace the SHUNT-BAT 1 (3PB1).
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the battery 1 shunt to the pins A/L, A/M and A/N of the BCL 1 (Ref. ASM 24-38/01).
- B. Do the test given in Para. 3.

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TASK 24-38-00-810-805

Failure of the Electrical Wiring between the Essential TR Contactor and the BCL ${\bf 1}$

- 1. Possible Causes
 - CNTOR-ESS TR (3PE)
 - BCL-1 (1PB1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R	AMM	24-34-55-000-001	Removal of the Essential TR Contactor (3PE)	
R	AMM	24-34-55-400-001	Installation of the Essential TR Contactor (3PE)	
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
R R	AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
	ASM	24-38/01		

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK CONTACTOR 3PE/BCL1 CIRCUIT:
 - replace the CNTOR-ESS TR (3PE), (Ref. AMM TASK 24-34-55-000-001) and (Ref. AMM TASK 24-34-55-400-001)
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from BCL 1 pin A/Z to essential TR contactor pin B/15, and from essential TR contactor pin B/17 to the ground (Ref. ASM 24-38/01).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-806

Failure of the Battery 1 Contactor

- 1. Possible Causes
 - CNTOR-LINE, BAT 1 (6PB1)
 - BCL-1 (1PB1)
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R	AMM	24-38-55-000-001	Removal of the Battery Line Contactor (6PB1, 6PB2)
R R	AMM	24-38-55-400-001	Installation of the Battery Line Contactor (6PB1, 6PB2)
	ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK CONTACTOR 6PB1/BCL1 CIRCUIT:
 - replace the CNTOR-LINE, BAT 1 (6PB1), (Ref. AMM TASK 24-38-55-000-001) and (Ref. AMM TASK 24-38-55-400-001).
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the aircraft wiring from battery 1 line contactor pins B/5 and B/15 to BCL 1 pins A/G and A/i, and from the pin B/3 to the pin A/E of the battery 1 line contactor (Ref. ASM 24-38/01).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-807

Battery 1 Fuse Blown

1. Possible Causes

- BAT-1 (2PB1)
- CNTOR-LINE, BAT 1 (6PB1)
- BCL-1 (1PB1)
- FUSE-BAT 1 (4PB11)
 - wiring

R

R

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	24-38-51-280-001	Removal of the Batteries 1 and 2 for Restoration
AMM	24-38-55-000-001	Removal of the Battery Line Contactor (6PB1, 6PB2)
AMM	24-38-55-400-001	Installation of the Battery Line Contactor (6PB1, 6PB2)
ASM	24-38/01	

3. Fault Confirmation

A. Test Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message FUSE 4PB1:
- Replace the FUSE-BAT 1 (4PB11). R
 - (1) If the fault continues:
 - Do the check and the restauration of the BAT-1 (2PB1), (Ref. AMM TASK 24-38-51-280-001).
 - (a) If the fault continues:
- Replace the CNTOR-LINE, BAT 1 (6PB1), (Ref. AMM TASK 24-38-55-R 000-001) and (Ref. AMM TASK 24-38-55-400-001) R

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- If the fault continues
 Replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001)
 and (Ref. AMM TASK 24-38-34-400-001).

 If the fault continues
 Do a check and repair the wiring:
 . for short to ground between the BAT1 shunt 3PB1 and the pin A/L of the BCL1
 . from the pin A/F of the battery 1 line contactor (6PB1) to the busbar 3PP
 (Ref. ASM 24-38/01)
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-808

Failure of the BAT 1 Pushbutton Switch Circuit

- 1. Possible Causes
 - BCL-1 (1PB1)
 - P/BSW-ELEC/BAT 1
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
	ASM	24-38/01	•

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PUSH BUT 7PB1/BCL1 CIRCUIT: replace the P/BSW-ELEC/BAT 1.
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the ELEC/BAT 1 pushbutton switch pin A/A1 to the BLC 1 pin A/F and from the ELEC/BAT 1 pushbutton switch pin A/A3 to the ground (Ref. ASM 24-38/01).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-809

Failure of the Electrical Wiring between the BCL 1 and Bus 3PP

- 1. Possible Causes
 - P/BSW-ELEC/BAT1
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL),
ASM 24-38/01	(with the CFDS)

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation

R

R R

R

R

R

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- R A. If the test gives the maintenance message CHECK DC BAT BUS 3PP/BCL 1 R CIRCUIT:
 - do a check of the status of the circuit breaker 8PB1.
- R (1) If the circuit breaker is closed:
 R replace the P/BSW-ELEC/BAT1 (Ref. ASM 24-38/01).
 - (a) If the fault continues:
 - do a check and repair the aircraft wiring from the battery 1 line contactor pin A/F to the BCL 1 pin A/A, ELEC/BAT 1 pushbutton switch and circuit breaker (8PB1) included, (Ref. ASM 24-38/01).
- R (2) If the circuit breaker is open: R - close it.
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-810

Internal Failure of the BCL 2

- 1. Possible Causes
 - BCL-2 (1PB2)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE 	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BCL 2, or if you cannot start the test:
 - remove the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-811

Failure of Current Acquisition Circuit of the BCL 2

- 1. Possible Causes
 - SHUNT-BAT 2 (3PB2)
 - BCL-2 (1PB2)
 - wiring from the battery 2 shunt to the pins A/L, A/M and A/N of the BCL 2
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
	ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation

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- A. If the test gives the maintenance message SHUNT 3PB2/BCL2 CIRCUIT: replace the SHUNT-BAT 2 (3PB2).
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the battery 2 shunt to the pins A/L, A/M and A/N of the BCL 2 (Ref. ASM 24-38/01).
- B. Do the test given in Para. 3.

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-812

Failure of Electrical Wiring between the Essential TR Contactor and the BCL 2

- 1. Possible Causes
 - CNTOR-ESS TR (3PE)
 - BCL-2 (1PB2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
P	ΔΜΜ	24-34-55-000-001	Removal of the Essential TR Contactor (3PE)
R		24-34-55-400-001	Installation of the Essential TR Contactor (3PE)
R R		24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
	ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test

Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).

- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK CONTACTOR 3PE/BCL 2 CIRCUIT:
 - replace the CNTOR-ESS TR (3PE), (Ref. AMM TASK 24-34-55-000-001) and (Ref. AMM TASK 24-34-55-400-001).
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the BCL 2 pin A/Z to the essential TR contactor pin B/15, and from the contactor pin B/17 to the ground, (Ref. ASM 24-38/01).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-813

Failure of the Battery 2 Contactor

- 1. Possible Causes
 - CNTOR-LINE, BAT 2 (6PB2)
 - BCL-2 (1PB2)
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE 	DESIGNATION
R R	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
R R	AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R R	AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
R	AMM	24-38-55-000-001	Removal of the Battery Line Contactor (6PB1, 6PB2)
R R	AMM	24-38-55-400-001	Installation of the Battery Line Contactor (6PB1, 6PB2)
	ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK CONTACTOR 6PB2/BCL 2 CIRCUIT:
 - replace the CNTOR-LINE, BAT 2 (6PB2), (Ref. AMM TASK 24-38-55-000-001) and (Ref. AMM TASK 24-38-55-400-001).
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - Do a check and repair the aircraft wiring:
 - . from the battery 2 line contactor pins B/5 and B/15 to the $BCL\ 2$ pins A/G and A/i
 - . from the pin B/3 to the pin A/E of the battery 2 line contactor (Ref. ASM 24-38/01).

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B. Do the test given in Para. 3.

EFF: ALL
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TASK 24-38-00-810-814

Battery 2 Fuse Blown

- 1. Possible Causes
 - BAT-2 (2PB2)
 - CNTOR-LINE, BAT 2 (6PB2)
 - BCL-2 (1PB2)
 - FUSE-BAT 2 (4PB21)
 - wiring

R

R

- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	24-38-51-280-001	Removal of the Batteries 1 and 2 for Restoration
AMM	24-38-55-000-001	Removal of the Battery Line Contactor (6PB1, 6PB2)
AMM	24-38-55-400-001	Installation of the Battery Line Contactor (6PB1, 6PB2)
ASM	24-38/01	

3. Fault Confirmation

- A. Test Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message FUSE 4PB2:
- Replace the FUSE-BAT 2 (4PB21). R
 - (1) If the fault continues:
 - Do the check and the restauration of the BAT-2 (2PB2), (Ref. AMM TASK 24-38-51-280-001).
 - (a) If the fault continues:
- Replace the CNTOR-LINE, BAT 2 (6PB2), (Ref. AMM TASK 24-38-55-R 000-001) and (Ref. AMM TASK 24-38-55-400-001) R

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- If the fault continues:
 Replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001)

 R and (Ref. AMM TASK 24-38-34-400-001).

 If the fault continues:
 Do a check and repair the wiring:
 for short to ground between the BAT2 shunt (3PB2) and the pin A/L of the BCL2
 from the pin A/F of the battery 2 line contactor (6PB2) to the busbar 3PP (Ref. ASM 24-38/01)
 - B. Do the test given in Para. 3.

EFF: ALL
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TASK 24-38-00-810-815

Failure of the BAT 2 Pushbutton Switch Circuit

- 1. Possible Causes
 - BCL-2 (1PB2)
 - P/BSW-ELEC/BAT 2
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PUSH BUT 7PB2/BCL 2 CIRCUIT: replace the P/BSW-ELEC/BAT 2.
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the ELEC/BAT 2 pushbutton switch pin A/A1 to the BCL 2 pin A/F and from the ELEC/BAT 2 pushbutton switch pin A/A3 to the ground (Ref. ASM 24-38/01).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-816

Failure of the Electrical Wiring between the BCL 2 and the Bus 3PP

- 1. Possible Causes
 - P/BSW-ELEC/BAT 2
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)

ASM 24-38/01

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK DC BAT BUS 3PP/BCL 2 CIRCUIT:
 - do a check of the status of the circuit breaker 8PB2.
 - - (a) If the fault continues:
 - do a check and repair the aircraft wiring from the pin A/F of the battery 2 line contactor (6PB2) to the pin A/A of the BCL 2 (1PB2), circuit breakers 7PB2 and 8PB2 included, (Ref. ASM 24-38/01).
 - (2) If the circuit breaker is open:
 close it.
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-817

Failure of the LGCIU Signal to the BCL1

- 1. Possible Causes
 - LGCIU-1 (5GA1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
	AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
	AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
R R	AMM	32-69-00-740-001	BITE Check Landing Gear Control Interface Unit (LGCIU) using MCDU to Ensure that Continuous BITE is
R			Operative

3. Fault Confirmation

A. Test

Do the operational test of the BCL1 (Ref. AMM TASK 24-38-00-710-001).

- (1) If the test gives the message BCL1: LGCIU/ADIRU1 SIGNAL DISAGREE: - do the BITE test of the landing gear (Ref. AMM TASK 32-69-00-740-001).
 - (a) If the test gives the maintenance message LGCIU1:- do the trouble shooting given in the fault isolation.
 - (b) If the test gives another maintenance message:do the related trouble shooting.

4. Fault Isolation

- A. Procedure
 - (1) If the test confirms the fault:
 - swap the LGCIU1 and the LGCIU2 (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (2) If the fault moves to the other LGCIU position:
 - swap back the LGCIU1 and the LGCIU2 and replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).

EFF: ALL

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TASK 24-38-00-810-818

Failure of the LGCIU Signal to the BCL2

- 1. Possible Causes
 - LGCIU-1 (5GA1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION
	AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
	AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
	AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
R R R	AMM	32-69-00-740-001	BITE Check Landing Gear Control Interface Unit (LGCIU) using MCDU to Ensure that Continuous BITE is Operative

3. Fault Confirmation

A. Test

Do the operational test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).

- (1) If the test gives the message BCL2: LGCIU/ADIRU1 SIGNAL DISAGREE: - do the BITE test of the landing gear (Ref. AMM TASK 32-69-00-740-001).
 - (a) If the test gives the maintenance message LGCIU1:- do the trouble shooting given in the fault confirmation.
 - (b) If the test gives another maintenance message:do the related trouble shooting.

4. Fault Isolation

- A. Procedure
 - (1) If the test confirms the fault:
 - swap the LGCIU1 and the LGCIU2 (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (2) If the fault moves to the other LGCIU position:
 - swap back the LGCIU1 and the LGCIU2 and replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).

EFF: ALL

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TASK 24-38-00-810-819

Failure of the ADIRU Signal to the BCL1 and the BCL2

- 1. Possible Causes
 - ADIRU-1 (1FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	34-12-34-000-001	Removal of the ADIRU (1FP1, 1FP2, 1FP3)
AMM	34-12-34-400-001	Installation of the ADIRU (1FP1, 1FP2, 1FP3)
AMM	34-13-00-740-002	INTERFACE TEST of the ADR

3. Fault Confirmation

A. Test

Do the operational test of the BCL1 and BCL2 (Ref. AMM TASK 24-38-00-710-001).

- (1) If the test gives the maintenance messages BCL1: LGCIU/ADIRU1 SIGNAL DISAGREE and BCL2: LGCIU/ADIRU1 SIGNAL DISAGREE:
 - do the Interface test of the ADR system (system 1) (Ref. AMM TASK 34-13-00-740-002).
 - (a) If the test gives the maintenance message ADIRU1:
 - do the trouble shooting given in Para. 4.A.
 - (b) If the test gives another maintenance message:
 - do the related trouble shooting.

4. Fault Isolation

- A. If the test confirms the failure:
 - replace the ADIRU-1 (1FP1) (Ref. AMM TASK 34-12-34-000-001) and (Ref. AMM TASK 34-12-34-400-001).

EFF: ALL 24-38-00

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TASK 24-38-00-810-820

Internal Passive Failure of the BCL1

- 1. Possible Causes
 - BCL-1 (1PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

3. Fault Confirmation

A. Test

Do the operational test of the BCL (Ref. AMM TASK 24-38-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message BCL1:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL 24-38-00

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TASK 24-38-00-810-821

Internal Passive Failure of the BCL2

- 1. Possible Causes
 - BCL-2 (1PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
АММ	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

3. Fault Confirmation

A. Test

Do the operational test of the BCL (Ref. AMM TASK 24-38-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message BCL2:
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL

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TASK 24-38-00-810-822

Failure of the Electrical Wiring between the BCL1 and the ADIRU1 or the LGCIU

- 1. Possible Causes
 - BCL-1 (1PB1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
ASM	24-24/02	·
ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test Do the operational test of the BCL1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BCL1 : LGCIU/ADIRU1 SIGNAL DISAGREE:

NOTE: This CFDS message can be found with these CFDS messages:

- . LGCIU1 or
- . ADIRU1 and

BCL2 : LGCIU/ADIRU1 SIGNAL DISAGREE.

In this case, refer to the related trouble shooting.

If not do the trouble shooting given below:

- do a check of the wiring for open circuit or short to ground:
 - from the pin A/g of the BCL1 to the first branch point
 - between the pin A/K of the BCL1 and the pin B/2D of the LGCIU1 (Ref. ASM 24-24/02) and (Ref. ASM 24-38/01).
- (1) If the wiring is not correct: - repair it.

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- (2) If the wiring is correct:
 replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- B. Do the test given in Para. 3.

EFF: ALL
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TASK 24-38-00-810-823

Failure of the Electrical Wiring between the BCL2 and the ADIRU1 or the LGCIU

- 1. Possible Causes
 - BCL-2 (1PB2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
ASM	24-24/02	
ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BCL2: LGCIU/ADIRU1 SIGNAL DISAGREE:

NOTE: This CFDS message can be found with these CFDS messages:

- . LGCIU1 or
- . ADIRU1 and

BCL1: LGCIU/ADIRU1 SIGNAL DISAGREE.

In this case, do the related trouble shooting. If not, do the trouble shooting given below:

- do a check of the wiring for open circuit or short to ground:
 - . from the pin A/g of the BCL2 to the first branch point.
 - . between the pin A/K of the BCL2 and the pin B/4C of the LGCIU1 (Ref. ASM 24-24/02) and (Ref. ASM 24-38/01).
- (1) If the wiring is not correct:
 - repair it.

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- (2) If the wiring is correct:
 replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- B. Do the test given in Para. 3.A.

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TASK 24-38-00-810-824

Failure of the Supply from the 28VDC HOT BUS (701PP)

- 1. Possible Causes
 - BCL-1 (1PB1)
 - wiring
 - P/BSW-ELEC/BAT1 (7PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK HOT BUS 701PP/BCL1
 - do a check of the wiring for open circuit between the BAT REF/BCL1 circuit breaker (9PB1) and the pin A/C of the BCL1 (Ref. ASM 24-38/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the P/BSW-ELEC/BAT1 (7PB1).
 - (3) If the fault continues:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-825

Failure of the Supply from the HOT BUS (702PP)

- 1. Possible Causes
 - BCL-2 (1PB2)
 - wiring
 - P/BSW-ELEC/BAT2 (7PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
ASM	24-38/02		

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK HOT BUS 702PP/BCL2
 - do a check of the wiring for open circuit between the circuit breaker BAT REF/BCL2 (9PB2) and the pin A/C of the BCL2 (Ref. ASM 24-38/02).

 - (3) If the fault continues:
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in Para. 3.

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TASK 24-38-00-810-826

Failure of the BAT1 FAULT Indication Circuit

- 1. Possible Causes
 - BCL-1 (1PB1)
 - BOARD-ANN LT TEST & INTFC (5LP)
 - wiring
 - P/BSW-ELEC/BAT1 (7PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM	24-38/01	olr, 7Lr, lulr, lilr, 12Lr, 10Lr, 17Lr, 2ULr)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BOARD 5LP/BCL1 CIRCUIT:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (1) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (5LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

EFF: ALL 24-38-00

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- (2) If the fault continues:
 - do a check of the wiring from the circuit breaker (9PB2) to the pin A/H of the BCL1 (1PB1) (Ref. ASM 24-38/01).
 - (a) If there is no continuity:
 repair the wiring.
- B. Do the test given in Para. 3.

EFF: ALL 24-38-00

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TASK 24-38-00-810-827

Failure of the BAT2 FAULT Indication Circuit

- 1. Possible Causes
 - BCL-2 (1PB2)
 - BOARD-ANN LT TEST & INTFC (5LP)
 - wiring
 - P/BSW-ELEC/BAT2 (7PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM	24-38/02	OLF, 7LF, 10LF, 11LF, 12LF, 10LF, 17LF, 2ULF)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message BOARD 5LP/BCL2 CIRCUIT:
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (1) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (5LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

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- (2) If the fault continues:
 - do a check of the wiring from the circuit breaker (9PB1) to the pin A/H of the BCL2 (1PB2) (Ref. ASM 24-38/02).
 - (a) If there is no continuity:
 repair the wiring.
 - repair the wiring.
- B. Do the test given in Para. 3.

EFF: ALL 24-38-00

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-828

Loss of the NOSE L/G LOCKED-UP Signal to the BCL1

- 1. Possible Causes
 - BCL-1 (1PB1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
ASM	24-38/01		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK LGCIU1/BCL1 CIRCUIT:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring from the pin A/s of the BCL1 to the first terminal block (Ref. ASM 24-38/01).
 - B. Do the test given in Para. 3.

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-829

Loss of the NOSE L/G LOCKED-UP Signal to the BCL2

- 1. Possible Causes
 - BCL-2 (1PB2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM 24-38	8-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM 24-38	8-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM 24-38	8-34-400-001	Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
ASM 24-38	8/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK LGCIU1/BCL2 CIRCUIT replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring from the pin A/s of the BCL2 to the first terminal block (Ref. ASM 24-38/02).
 - B. Do the test given in Para. 3.

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-830

Loss of the EMERGENCY CONFIGURATION Signal to the BCL1

- 1. Possible Causes
 - BCL-1 (1PB1)
 - wiring
 - RELAY-BUS 1XP CTL (15XC)
 - RELAY-BUS 2XP CTL (16XC)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
ASM	24-38/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL1 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message RELAYS 15XC or 16XC/BCL1 CIRCUIT
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (1) If the fault continues:
 - do a check of the wiring from the pin A/Y of the BCL1 to the pin A/A3 of the relay (15XC) and from the pin A/A2 of this relay to the pin A/A3 of the relay (16XC) (Ref. ASM 24-38/01).
 - (a) If there is no continuity:
 - repair the wiring.
 - (b) If there is continuity:
 - do a check of the wiring from the pin A/A2 of the relay (16XC) to the first terminal block (Ref. ASM 24-38/01).

EFF: ALL

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- 1 If there is no continuity: - repair the wiring.
- 2 If there is continuity:
 replace the RELAY-BUS 1XP CTL (15XC)
 - a If the fault continues:
 replace the RELAY-BUS 2XP CTL (16XC).
- B. Do the test given in Para. 3.

EFF: ALL SROS 24-38-00

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-831

Loss of the EMERGENCY CONFIGURATION Signal to the BCL2

- 1. Possible Causes
 - BCL-2 (1PB2)
 - wiring
 - RELAY-BUS 1XP CTL (15XC)
 - RELAY-BUS 2XP CTL (16XC)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
ASM ASM	24-38/01 24-38/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the BCL2 (Ref. AMM TASK 24-38-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message RELAYS 15XC or 16XC/BCL2 CIRCUIT
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (1) If the fault continues:
 - do a check of the wiring from the pin A/Y of the BCL2 to the pin A/A3 of the relay (15XC) and from the pin A/A2 of this relay to the pin A/A3 of the relay (16XC) (Ref. ASM 24-38/01) and (Ref. ASM 24-38/02).
 - (a) If there is no continuity:
 repair the wiring.

EFF: ALL

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- (b) If there is continuity:
 - do a check of the wiring from the pin A/A2 of the relay (16XC) to the first terminal block (Ref. ASM 24-38/01).
 - 1 If there is no continuity: - repair the wiring.
 - 2 If there is continuity:
 replace the RELAY-BUS 1XP CTL (15XC)
 - <u>a</u> If the fault continues:replace the RELAY-BUS 2XP CTL (16XC).
- B. Do the test given in Para. 3.

EFF: ALL 24-38-00

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-832

- R Loss of the Battery 1 because of an Undervoltage or a Failure of the Voltage
- R Sensing Circuit
 - 1. Possible Causes
 - BCL-1 (1PB1)
 - P/BSW-ELEC/BAT 1 (7PB1)
 - wiring
 - C/B-ELEC/BAT BUS/REF/BCL1 (8PB1)
 - C/B-ELEC/BAT REF/BCL1 (9PB1)
 - 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-38-00-810-834	Abnormal Power Consumption on the 28VDC HOT BUS (701PP)
AMM 24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM 24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM 24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM 24-38-51-280-001 ASM 24-38/01 AWM 24-38-01	Removal of the Batteries 1 and 2 for Restoration
3. Fault Confirmation	

- - A. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- On the lower ECAM DU:
- if the voltage indication is shown in amber, do the trouble shooting given in Para. 4.B.
 - if amber crosses replace the voltage indication, do the trouble shooting given in Para. 4.C.

EFF: ALL 24-38-00

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4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION

IDENT. LOCATION

105VU ELEC/BAT REF/BCL1

9PB1 F01

R R

- B. If the test confirms the fault:
 - (1) If the voltage read on the lower ECAM DU is equal to the voltage read on the voltmeter of the ELEC panel 35VU:
 - (a) Do the operational test of the BCL (Ref. AMM TASK 24-38-00-710-001).
 - 1 If the test gives the maintenance message CHECK HOT BUS 1 POWER CONSUMPTION:
 - do the procedure given in (Ref. TASK 24-38-00-810-834).
 - 2 If the test result is TEST OK:
 - do a check and repair the wiring (Ref. AWM 24-38-01) between:
 - the pin A/a of the BCL1 (1PB1) and the first terminal block,
 - . the pin A/Y of the BCL1 (1PB1) and the first terminal block.
 - do the removal and the restoration of the BAT1 (2PB1) (Ref. AMM TASK 24-38-51-280-001).
 - (2) If the voltage read on the lower ECAM DU is different from the voltage read on the voltmeter of the ELEC panel 35VU:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (a) If the fault continues:
 - replace the P/BSW-ELEC/BAT 1 (7PB1).
 - 1 If the fault continues:
 - do a check of the wiring (Ref. ASM 24-38/01) between:
 - the pin 2 of the circuit breaker (8PB1) and the pin A/D3 of the ELEC/BAT 1 pushbutton switch (7PB1)
 - . the pin A/D1 of the ELEC/BAT 1 pushbutton switch (7PB1) and the pin A/A of the BCL 1 (1PB1).
 - a If the wiring is not correct:
 - repair or replace as necessary.
 - b If the wiring is correct:
 - replace the C/B-ELEC/BAT BUS/REF/BCL1 (8PB1).

EFF: ALL

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- C. If the test confirms the fault:
 - do a check of the position of the circuit breaker (9PB1).
 - (1) If the circuit breaker is closed:
 - do a check for 28VDC at pin 2 of the circuit breaker (9PB1).
 - (a) If there is 28VDC:
 - do a check and repair the wiring (Ref. ASM 24-38/01) between:

 the pin 2 of the circuit breaker (9PB1) and the pin A/C3 of the ELEC/BAT 1 pushbutton switch (7PB1)
 the pin A/C1 of the ELEC/BAT 1 pushbutton switch (7PB1) and the pin A/C of the BCL1 (1PB1).
 - (b) If there is no 28VDC:
 - do a check and repair the wiring (Ref. ASM 24-38/01) between:
 the pin 1 of the circuit breaker (9PB1) and the 28VDC HOT BUS 703PP.
 - (2) If the circuit breaker is open:
 - close it.
 - (a) Do a check of the wiring for a short to ground between the pin 2 of the circuit breaker (9PB1) and the pin A/C3 of the ELEC/BAT 1 pushbutton switch (7PB1) (Ref. ASM 24-38/01).
 - 1 If the wiring is not correct: - repair it.
 - 2 If the wiring is correct:
 replace the C/B-ELEC/BAT REF/BCL1 (9PB1).
- D. Do the test given in para. 3.

EFF: ALL 24-38-00

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-833

- R Loss of the Battery 2 because of an Undervoltage or a Failure of the Voltage
- R Sensing Circuit
 - 1. Possible Causes
 - BCL-2 (1PB2)
 - P/BSW-ELEC/BAT 2 (7PB2)
 - wiring
 - C/B-ELEC/BAT BUS/REF/BCL2 (8PB2)
 - C/B-ELEC/BAT REF/BCL2 (9PB2)
 - 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
24-3	8-00-810-835	Abnormal Power Consumption on the 28VDC HOT BUS	
24-36-00-610-633		(702PP)	
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
AMM	24-38-51-280-001	Removal of the Batteries 1 and 2 for Restoration	
ASM	24-38/02		
AWM	24-38-02		
3. <u>F</u>	3. Fault Confirmation		

A. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.
- On the lower ECAM DU:
- if the voltage indication is shown in amber, do the trouble shooting given in Para. 4.B.
 - if amber crosses replace the voltage indication, do the trouble shooting given in Para. 4.C.

EFF: ALL

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4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION

IDENT. LOCATION

105VU ELEC/BAT REF/BCL2

9PB2 F02

R R

- B. If the test confirms the fault:
 - (1) If the voltage read on the lower ECAM DU is equal to the voltage read on the voltmeter of the ELEC panel 35VU:
 - (a) Do the operational test of the BCL (Ref. AMM TASK 24-38-00-710-001).
 - 1 If the test gives the maintenance message CHECK HOT BUS 2 POWER CONSUMPTION:
 - do the procedure given in (Ref. TASK 24-38-00-810-835).
 - 2 If the test result is TEST OK:
 - do a check and repair the wiring (Ref. AWM 24-38-02) between:
 - the pin A/a of the BCL2 (1PB2) and the first terminal block,
 - . the pin A/Y of the BCL2 (1PB2) and the first terminal block.
 - do the removal and the restoration of the BAT2 (2PB2) (Ref. AMM TASK 24-38-51-280-001).
 - (2) If the voltage read on the lower ECAM DU is different from the voltage read on the voltmeter of the ELEC panel 35VU:

of the ELEC/BAT 2 pushbutton switch (7PB2)

- replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- (a) If the fault continues:
 - replace the P/BSW-ELEC/BAT 2 (7PB2).
 - 1 If the fault continues:
 - do a check of the wiring (Ref. ASM 24-38/02) between:
 the pin 2 of the circuit breaker (8PB2) and the pin A/D3
 - . the pin A/D1 of the ELEC/BAT 2 pushbutton switch (7PB2) and the pin A/A of the BCL 2 (1PB2).
 - \underline{a} If the wiring is not correct:
 - repair or replace as necessary.
 - b If the wiring is correct:
 - replace the C/B-ELEC/BAT BUS/REF/BCL2 (8PB2).

EFF: ALL

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- C. If the test confirms the fault:
 - do a check of the position of the circuit breaker (9PB2).
 - (1) If the circuit breaker is closed:
 - do a check for 28VDC at pin 2 of the circuit breaker (9PB2).
 - (a) If there is 28VDC:
 - do a check and repair the wiring (Ref. ASM 24-38/02) between:
 . the pin 2 of the circuit breaker (9PB2) and the pin A/C3 of the ELEC/BAT 2 pushbutton switch (7PB2)
 . the pin A/C1 of the ELEC/BAT 2 pushbutton switch (7PB2) and the pin A/C of the BCL2 (1PB2).
 - (b) If there is no 28VDC:
 - do a check and repair the wiring (Ref. ASM 24-38/02) between:
 the pin 1 of the circuit breaker (9PB2) and the 28VDC HOT BUS 704PP.
 - (2) If the circuit breaker is open:
 - close it.
 - (a) Do a check of the wiring for a short to ground between the pin 2 of the circuit breaker (9PB2) and the pin A/C3 of the ELEC/BAT 2 pushbutton switch (7PB2) (Ref. ASM 24-38/02).
 - 1 If the wiring is not correct: - repair it.
 - 2 If the wiring is correct:
 replace the C/B-ELEC/BAT REF/BCL2 (9PB2).
- D. Do the test given in para. 3.

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TASK 24-38-00-810-834

Abnormal Power Consumption on the 28VDC HOT BUS (701PP)

- 1. Possible Causes
 - BAT-1 (2PB1)
 - BCL-1 (1PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-38-00-810-843	Incorrect Discharge of the Battery 1
AMM 24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM 24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>
AMM 24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)
AMM 24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM 31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page
24-38-00-991-001	Fig. 201

3. Fault Confirmation

(Ref. Fig. 201/TASK 24-38-00-991-001)

A. Job Set-Up

R

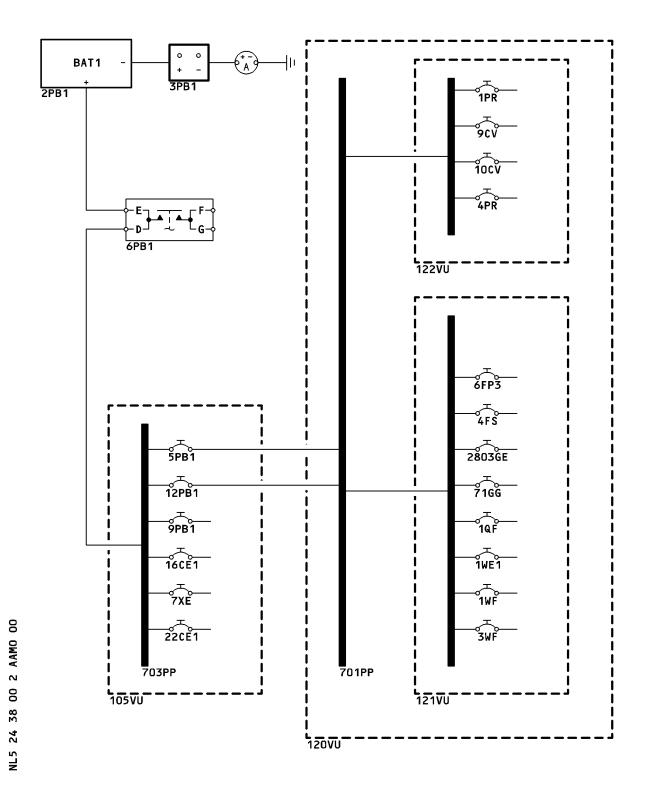
- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) On the overhead panel, on the ELEC panel 35VU, make sure that the BAT1 pushbutton switch is pushed (the OFF legend is off).
- (c) Adjust the brightness of the MCDU screen.
- (d) On the MCDU, get the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK R 31-32-00-860-004).

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BAT1 - Ammeter Installation Figure 201/TASK 24-38-00-991-001

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B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION		_	LOCATIO
121VU APU/FIRE/EXTIG/SQUIB/A 121VU APU/FIRE/LP VALVE/STBY				 L38
		3WF	M41	
12 1VU	APU/FUEL/LP VALVE/CTL		1QF	M40
12 1VU	HYDRAULIC/PARK BRK/CTL/STBY		71GG	N37
12 1VU	HYDRAULIC/RAT/SPLY/EXTN/SOL1		2803GE	P33
	ENGINE/ENG1 AND 2 FIRE EXTIG/E	BTL1/SQUIB/A	1WE 1	Q43
	/C 201-225, 227-227, 229-249, 2 7, 701-749,	276-299, 426-430, 476-48	0, 503-549	,
12 1VU	ADIRS/ADIRU/3/28VDC		6FP3	N04
12 1VU	CLOCK/STBY/SPLY		4FS	N03
**ON A	/C 250-275, 431-475, 481-499, 5	559-599,		
12 1VU	ADIRS/ADIRU/3/28VDC		6FP3	N03
	CLOCK/STBY/SPLY		4FS	
**ON A	C ALL			
122VU	FLIGHT CONTROLS/WTB/FLP/SYS1		10CV	S07
122VU FLIGHT CONTROLS/WTB/SLT/SYS1 122VU ELEC/RFL/SPLY/LOGIC			9CV	
			4PR	U29
	ELEC/REFLNG/ON/BAT		1PR	
C.	Do this test			
<u>!</u>	NOTE : Wait at least 15 minutes	s and do this BITE test	of the BC L	1.
	ACTION	RESULT		
1. On MCDI	the center pedestal, on the	On the MCDU: - the BCL page comes into view.		
- p	the MCDU: ush the line key adjacent to he TEST indication.	On the MCDU, on the BCL/TEST page: - if the TEST OK message comes into view, stop the trouble shooting, - if the CHECK HOT BUS 1 POWER CONSUMPTION message comes into view, continue the trouble shooting (refer to the paragraph that follows).		

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EFF:

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- D. Preparation of the Fault Isolation
 - (1) Make sure that OFF/NAV/ATT selector switches on the ADIRS CDU are in the OFF position.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).
 - (3) Release BAT1 and BAT2 pushbutton switches.
 - (4) Make sure that the refuel/defuel control panel is closed.
 - (5) Make sure that the circuit breakers shown in the figure are closed.
 - (6) In the battery power center 105VU, install an ammeter as shown in the figure.

4. Fault Isolation

- A. If the test gives the maintenance message CHECK HOT BUS 1 POWER CONSUMPTION:
 - read the value of the discharge current in the BAT 1 box on the ELEC page of the lower ECAM display unit.
 - NOTE: When you read the value of the discharge current, make sure that the BAT1 contactor is open (on the ELEC page of the lower ECAM display unit).
 - (1) If the value of the discharge current is more than or equal to 1 ampere:
 - do a check of the current value with an ammeter (Ref. TASK 24-38-00-810-843).
 - (2) If the value of the discharge current is less than 1 ampere:
 - replace the BAT-1 (2PB1), (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001)
 - wait at least 15 minutes and do the BITE test of the BCL1 given in Para. 4.C.
 - (a) If the BITE test gives the maintenance message CHECK HOT BUS 1 POWER CONSUMPTION:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (b) If the BITE test gives the maintenance message TEST OK:
 - make sure that after the subsequent flight, the maintenance message CHECK HOT BUS 1 POWER COSUMPTION does not appear.
 - 1 If the maintenance message CHECK HOT BUS 1 POWER CONSUMPTION appear:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

EFF: ALL

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- B. Preparation for the test
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- C. Do this test to make sure that the system operates correctly

NOTE: Wait at least 15 minutes and do this BITE test of the BCL1.

ACTION RESULT

On the ELEC panel 35VU:

- push the BAT 1 pushbutton switch. - the OFF legend of the BAT 1

On the ELEC panel 35VU:

- the OFF legend of the BAT 1 pushbutton switch goes off.
- On the center pedestal, on the MCDU:
 - push the line key adjacent to the BCL indication.

On the MCDU:

- the BCL page comes into view.

- 2. On the MCDU:
 - push the line key adjacent to the TEST indication.

On the MCDU, on the BCL/TEST page:

- the TEST OK message comes into view.

5. Close-up

R

R

- A. Put the aircraft back to its initial configuration.
 - (1) On the MCDU, push the line key adjacent to the RETURN indication until the MCDU MENU comes into view.
 - (2) Fully decrease the brightness of the MCDU screen (display off).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF: ALL

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TASK 24-38-00-810-835

Abnormal Power Consumption on the 28VDC HOT BUS (702PP)

- 1. Possible Causes
 - BAT-2 (2PB2)
 - BCL-2 (1PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
24-38-00-810-838	Incorrect Discharge of the Battery 2	
AMM 24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM 24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	
AMM 24-38-51-000-001	Removal of the Batteries (2PB1, 2PB2)	
AMM 24-38-51-400-001	Installation of the Batteries (2PB1, 2PB2)	
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM 24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM 31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page	
24-38-00-991-002	Fig. 202	

3. Fault Confirmation

(Ref. Fig. 202/TASK 24-38-00-991-002)

A. Job Set-Up

R

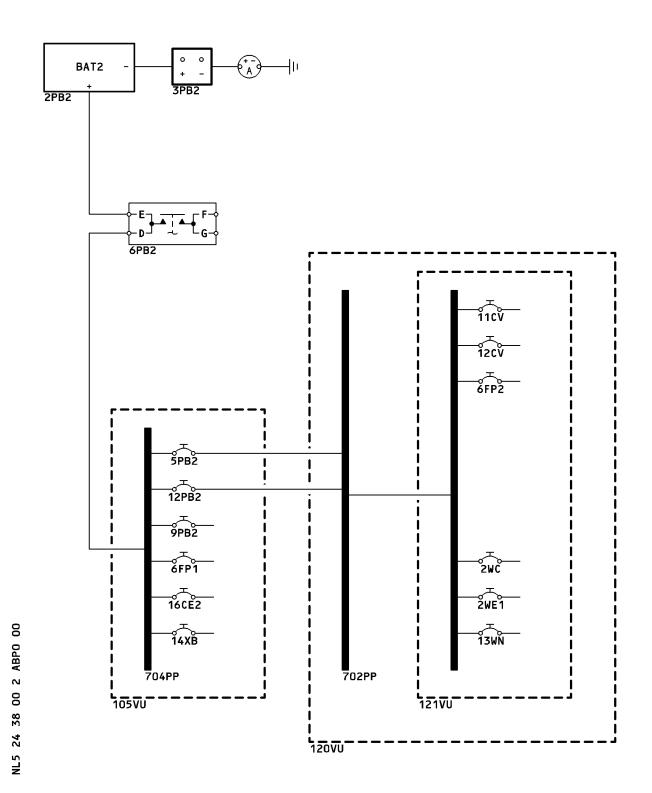
- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) On the overhead panel, on the ELEC panel 35VU, make sure that the BAT2 pushbutton switch is pushed (the OFF legend is off).
- (c) Adjust the brightness of the MCDU screen.
- R (d) On the MCDU, get the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK 31-32-00-860-004).

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BAT2 - Ammeter Installation Figure 202/TASK 24-38-00-991-002

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B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION IDENT. LOCATION 121VU FLIGHT CONTROLS/WTB/FLP/SYS2 12CV 121VU FLIGHT CONTROLS/WTB/SLT/SYS2 11CV P19 121VU EIS/SLIDES/ARM AND WARN/GND 13WN P10 P09 121VU EIS/HORN/SPLY 2WC 121VU ENGINE/ENG1 AND 2 FIRE EXTIG/BTL1/SQUIB/B 2WE1 **Q44** R **ON A/C 201-225, 227-227, 229-249, 276-299, 426-430, 476-480, 503-549, R 551-557, 701-749, 121VU ADIRS/ADIRU/2/28VDC 6FP2 N₀5 **ON A/C 250-275, 431-475, 481-499, 559-599, 121VU ADIRS/ADIRU/2/28VDC 6FP2 N04

**ON A/C ALL

C. Do this test

NOTE: Wait at least 15 minutes and do this BITE test of the BCL2.

AOTTON

ACTION RESULT

1. On the center pedestal, on the MCDU:

 push the line key adjacent to the BCL indication.

estal, on the On the MCDU:

- the BCL page comes into view.

- 2. On the MCDU:
 - push the line key adjacent to the TEST indication.

On the MCDU, on the BCL/TEST page:

- if the TEST OK message comes into view, stop the trouble shooting,
- if the CHECK HOT BUS 2 POWER CONSUMPTION message comes into view, continue the trouble shooting (refer to the paragraph that follows).
- D. Preparation of the Fault Isolation
 - (1) Make sure that OFF/NAV/ATT selector switches on the ADIRS CDU are in the OFF position.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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- (3) Release BAT1 and BAT2 pushbutton switches.
- (4) Make sure that the refuel/defuel control panel is closed.
- (5) Make sure that the circuit breakers shown in the figure are closed.
- (6) In the battery power center 105VU, install an ammeter as shown in the figure.

4. Fault Isolation

- A. If the test gives the maintenance message CHECK HOT BUS 2 POWER CONSUMPTION:
 - read the value of the discharge current in the BAT 2 box on the ELEC page of the lower ECAM display unit:
 - NOTE: When you read the value of the discharge current, make sure that the BAT 2 contactor is open (on the ELEC page of the lower ECAM display unit).
 - (1) If the value of the discharge current is more than or equal to 1 ampere:
 - do a check of the current value with an ammeter (Ref. TASK 24-38-00-810-838).
 - (2) If the value of the discharge current is less than 1 ampere:
 - replace the BAT-2 (2PB2), (Ref. AMM TASK 24-38-51-000-001) and (Ref. AMM TASK 24-38-51-400-001),
 - wait at least 15 minutes and do the BITE test of the BCL2 as given in Para. 4C.
 - (a) If the BITE test gives the maintenance message CHECK HOT BUS 2 POWER CONSUMPTION:
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - (b) If the BITE test gives the maintenance message TEST OK:
 - make sure that after the subsequent flight, the maintenance message CHECK HOT BUS 1 POWER CONSUMPTION does not appear.
 - 1 If the maintenance message CHECK HOT BUS 2 POWER CONSUMPTION
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- B. Preparation for the test
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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C. Do this test to make sure that the system operates correctly

NOTE: Wait at least 15 minutes and do this BITE test of the BCL2.

ACTION RESULT

- 1. On the ELEC panel 35VU:
 - push the BAT 2 pushbutton switch.
- 2. On the center pedestal, on the MCDU:
 - push the line key adjacent to the BCL indication.
- 3. On the MCDU:
 - the TEST indication.

On the ELEC panel 35VU:

- the OFF legend of the BAT 2 pushbutton switch goes off.

On the MCDU:

- the BCL page comes into view.

On the MCDU, on the BCL/TEST page:

push the line key adjacent to
 the TEST OK message comes into view.

5. Close-up

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- A. Put the aircraft back to its initial configuration.
- (1) On the MCDU, push the line key adjacent to the RETURN indication until the MCDU MENU comes into view.
 - (2) Fully decrease the brightness of the MCDU screen (display off).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-38-00-810-836

Intermittent Warning because of an Internal Failure of the BCL1

- 1. Possible Causes
 - BCL-1 (1PB1)
 - ELEC BAT1 pushbutton switch (7PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (without the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

- 3. Fault Confirmation
 - A. Test

Not applicable, the failure is intermittent.

- 4. Fault Isolation
 - A. If the fault symptom is identified by the warning BCL1 FAULT without CFDS message:
 - release, and push again the ELEC BAT1 pushbutton switch (7PB1).
 - (1) If the fault continues:
 - replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the Operational Test of the BCL (without CFDS) (Ref. AMM TASK 24-38-00-710-001).

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TASK 24-38-00-810-837

Intermittent Warning because of an Internal Failure of the BCL2

- 1. Possible Causes
 - BCL-2 (1PB2)
 - ELEC BAT2 pushbutton switch (7PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (without the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

3. Fault Confirmation

A. Test

Not applicable, the failure is intermittent.

4. Fault Isolation

- A. If the fault symptom is identified by the warning BCL2 FAULT without CFDS message:
 - release, and push again the ELEC BAT2 pushbutton switch (7PB2).
 - (1) If the fault continues:
 - replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- B. Do the Operational Test of the BCL (without CFDS) (Ref. AMM TASK 24-38-00-710-001).

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TASK 24-38-00-810-838

Incorrect Discharge of the Battery 2

1. Possible Causes

- SEC-1 (1CE1)
- R - SEC-2 (1CE2)
- SEC-3 (1CE3)
 - PRESS SW-B HYD, FLT CTL (10CE1)
 - PRESS SW-G HYD, FLT CTL (10CE2)
 - PRESS SW-Y HYD, FLT CTL (10CE3)
 - ELAC-2 (2CE2)
 - BCL-2 (1PB2)
 - BAT-2 (2PB2)
 - PRESS SW-FLT CTL, G (1151GN)
 - PRESS SW-FLT CTL, B (2151GN)
 - PRESS SW-FLT CTL, Y (3151GN)
 - RELAY-ELAC2 EMER SPLY (48CE)
 - RELAY-ELAC1 BATT SPLY BREAKING (35CE)
 - RELAY-SEC1 BATT SPLY BREAKING

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

QTY DESIGNATION

No specific ammeter

No specific warning notice(s)

B. Referenced Information

REFERENCE **DESIGNATION**

IPC 27920803

AMM 24-38-34-000-001 Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)

AMM 24-38-34-400-001 Installation of the Battery Charge Limiter (BCL)

(1PB1, 1PB2) 24-38-51-000-001 AMM Removal of the Batteries (2PB1, 2PB2)

AMM 24-38-51-400-001 Installation of the Batteries (2PB1, 2PB2)

AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the

External Power

AMM 27-92-17-000-001 Removal of the Flight Control Pressure Switch (10CE2) Removal of the Flight Control Pressure Switch (10CE3) AMM 27-92-17-000-002

AMM 27-92-17-000-003 Removal of the Flight Control Pressure Switch (10CE1)

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REFE	RENCE	DESIGNATION
AMM	27-92-17-400-001	<pre>Installation of the Flight Control Pressure Switch (10CE2)</pre>
AMM	27-92-17-400-002	Installation of the Flight Control Pressure Switch (10CE3)
AMM	27-92-17-400-003	<pre>Installation of the Flight Control Pressure Switch (10CE1)</pre>
AMM	27-93-34-000-001	Removal of the ELAC (2CE1,2CE2)
AMM	27-93-34-400-001	Installation of the ELAC (2CE1,2CE2)
AMM	27-94-34-000-001	Removal of the SEC (1CE1,1CE2,1CE3)
AMM	27-94-34-400-001	Installation of the SEC (1CE1,1CE2,1CE3)
AMM	27-96-00-740-001	BITE Test of the EFCS (Ground Scanning)
AMM	29-10-00-864-001	Depressurize the Green Hydraulic System
AMM	29-10-00-864-002	Depressurize the Yellow Hydraulic System
AMM	29-10-00-864-003	Depressurize the Blue Hydraulic System
AMM	29-32-12-000-001	Removal of the System Pressure Switch (1151GN)
AMM	29-32-12-000-002	Removal of the System Pressure Switch (2151GN)
AMM	29-32-12-000-003	Removal of the System Pressure Switch (3151GN)
AMM	29-32-12-400-001	Installation of the System Pressure Switch (1151GN)
AMM	29-32-12-400-002	Installation of the System Pressure Switch (2151GN)
AMM	29-32-12-400-003	Installation of the System Pressure Switch (3151GN)
ASM	24-38/02	
ASM	27-92/01	
ASM	27-92/02	
ASM	27-92/27	

3. Fault Confirmation

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A. In the cockpit, on the overhead ELEC panel 35VU, do a check of the battery voltage on the BAT2 voltmeter.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
105VU	FLIGHT CONTROLS/ELAC2/STBY SPLY	16CE2	A02
105VU	ADIRS/ADIRU1/28VDC	6FP1	C02
105VU	ELEC/HOT BUS/702PP SPLY	5PB2	D02
105VU	ELEC/HOT BUS/702PP SPLY	12PB2	E02
105VU	ELEC/BAT REF/BCL2	9PB2	F02
105VU	ELEC/STAT INV/CNTOR/CTL	14XB	G02
12 1VU	FLIGHT CONTROLS/ELAC2/NORM/SPLY	15CE2	R20

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R R	B. If the voltage is less than 25.5 V, do a check to find if the problem comes from the Spoiler Elevator Computers (SEC).	
R R R	(1) Make sure that the three hydraulic systems are not pressurized (Ref. AMM TASK 29-10-00-864-001), (Ref. AMM TASK 29-10-00-864-002) and (Ref. AMM TASK 29-10-00-864-003).	
R R	(2) Make sure that the ELAC 1 (2CE1), ELAC 2 (2CE2), SEC 1 (1CE1), SEC 2 (1CE2) and SEC 3 (1CE3) are correctly racked and powered.	<u>></u>
R	(3) Open the circuit breaker ELAC 2 NORM SPLY (15CE2).	
R R	(4) After 30 seconds, on the FLT control panel 24VU, do a check of the FAULT legend of the FLT CTL/ELAC 2 pushbutton switch (6CE2).	
R R R	 (a) If the FAULT legend is off: remove the SEC 1 (1CE1) after 30 seconds, on the FLT control panel 24VU, do a check of the FAULT legend of the FLT CTL/ELAC 2 pushbutton switch. 	f
R R R	1 If the FAULT legend comes on: - replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).	
R R R	2 If the FAULT legend is off:	
R R R	<pre>a If the FAULT legend comes on:</pre>	1)
R R R R R R	 b If the FAULT legend is off: remove the SEC 3 (1CE3) after 30 seconds, on the FLT control panel 24VU, do a check of the FAULT legend of the FLT CTL/ELAC 2 pushbutton switch. If the FAULT legend comes on:	
R	(5) Install all the removed SEC's.	
R	(6) Close the circuit breaker ELAC 2 NORM SPLY (15CE2).	
R R	C. If the voltage is less than 25.5 V, do a check to find if the problem comes from the ELAC 2 hydraulic discrete-inputs.	
R R R	(1) Make sure that the three hydraulic systems are not pressurized (Ref. AMM TASK 29-10-00-864-001), (Ref. AMM TASK 29-10-00-864-002) and (Ref. AMM TASK 29-10-00-864-003).	•
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- (2) Remove the ELAC 1 (2CE1), ELAC 2 (2CE2), SEC 1 (1CE1), SEC 2 (1CE2) and SEC 3 (1CE3) from their rack.
- (3) Do a check of a ground signal or an open circuit at the discrete inputs DSI 40, 42 and 32 of the ELAC 2 rack when the hydraulic pressure state is low (Ref. ASM 27-92/27).
 - (a) If a ground signal or an open circuit is found at one discrete input:
 - repair the related wiring between the ELAC 2 and the first terminal block.
- (4) Install all the removed ELAC's and SEC's.
- D. If the voltage is less than 25.5 V and the problem does not come from the Spoiler Elevator Computers (SEC) and from the ELAC 2 hydraulic discrete-inputs:
 - do the BITE test of the EFCS (Ground scanning) (Ref. AMM TASK 27-96-00-740-001).

NOTE: Do this test procedure with the hydraulic systems not pressurized.

- (1) If there is a maintenance message related to these pressure switches:
 - PRESS SW-B HYD, FLT CTL (10CE1),
 - PRESS SW-G HYD, FLT CTL (10CE2),
 - PRESS SW-Y HYD, FLT CTL (10CE3),
 - PRESS SW-FLT CTL, G (1151GN),
 - PRESS SW-FLT CTL, B (2151GN),
 - PRESS SW-FLT CTL, Y (3151GN),
 - Do the trouble shooting procedure related to the maintenance message.
- (2) If there is no maintenance message related to the hydraulic pressure switches:
 - in the cockpit, on the ELEC panel 35VU, release the BAT2 pushbutton switch and put a warning notice(s) to tell persons not to operate the battery 2,
 - in the battery power center 105VU, disconnect the cable between the BAT2 shunt (3PB2) and the ground: for this, remove the bolt and washer from the shunt (Ref. ASM 24-38/02),
 - connect an ammeter to the disconnected cable and the disconnected terminal of the shunt: make sure that the polarities of the tool are correct,
 - in the cockpit, in the ELEC panel 35VU, push the BAT2 pushbutton switch and remove the warning notice(s),
 - do a check of the current value.
 - (a) If the current is more than 400 mA:
 - open the circuit breaker 16CE2 while you monitor the current value (Ref. ASM 27-92/01).

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- 1 If the current value suddenly falls below 400mA when you open the circuit breaker:
 - disconnect one by one the electrical connectors from these pressure switches (Ref. ASM 27-92/27):
 - PRESS SW-FLT CTL, B (2151GN) (Ref. AMM TASK 29-32-12-000-002),
 - PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-32-12-000-003),
 - PRESS SW-FLT CTL, G (1151GN) (Ref. AMM TASK 29-32-12-000-001),
 - PRESS SW-B HYD, FLT CTL (10CE1) (Ref. AMM TASK 27-92-17-000-003),
 - PRESS SW-Y HYD, FLT CTL (10CE3) (Ref. AMM TASK 27-92-17-000-002),
 - PRESS SW-G HYD, FLT CTL (10CE2) (Ref. AMM TASK 27-92-17-000-001),

while you monitor the current value after you closed the circuit breaker 16CE2.

- <u>a</u> If after you disconnected the PRESS SW-FLT CTL, B (2151GN) the current value is less than 400mA:
 - replace the PRESS SW-FLT CTL, B (2151GN),
 (Ref. AMM TASK 29-32-12-000-002) (Ref. AMM TASK 29-32-12-400-002) and connect all the electrical connectors that you disconnected.
- b If after you disconnected the PRESS SW-FLT CTL, Y (3151GN), the current value is less than 400mA:
 - replace the PRESS SW-FLT CTL, Y (3151GN),
 (Ref. AMM TASK 29-32-12-000-003) (Ref. AMM TASK 29-32-12-400-003) and connect all the electrical connectors that you disconnected.
- <u>c</u> If after you disconnected PRESS SW-FLT CTL, G (1151GN), the current value is less than 400mA:
 - replace the PRESS SW-FLT CTL, G (1151GN),
 (Ref. AMM TASK 29-32-12-000-001) (Ref. AMM TASK 29-32-12-400-001) and connect all the electrical connectors that you disconnected.
- d If after you disconnected the PRESS SW-B HYD, FLT CTL (10CE1), the current value is less than 400mA:
 - replace the PRESS SW-B HYD, FLT CTL (10CE1),
 (Ref. AMM TASK 27-92-17-000-003) (Ref. AMM TASK 27-92-17-400-003) and connect all the electrical connectors that you disconnected.
- e If after you disconnected the PRESS SW-Y HYD, FLT CTL (10CE3), the current value is less than 400mA:
 replace the PRESS SW-Y HYD, FLT CTL (10CE3),

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(Ref. AMM TASK 27-92-17-000-002) (Ref. AMM TASK 27-92-17-400-002) and connect all the electrical connectors that you disconnected.

- \underline{f} If after you disconnected the PRESS SW-G HYD, FLT CTL (10CE2), the current value is less than 400mA:
 - replace the PRESS SW-G HYD, FLT CTL (10CE2), (Ref. AMM TASK 27-92-17-000-001) (Ref. AMM TASK 27-92-17-400-001) and connect all the electrical connectors that you disconnected.
- g If the current value is more than 400mA:
 - open the circuit breaker 16CE2,
 - connect the electrical connector to these pressure switches:
 - PRESS SW-FLT CTL, B (2151GN) (Ref. AMM TASK 29-32-12-400-002),
 - PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-32-12-400-003),
 - PRESS SW-FLT CTL, G (1151GN) (Ref. AMM TASK 29-32-12-400-001),
 - PRESS SW-B HYD, FLT CTL (10CE1) (Ref. AMM TASK 27-92-17-400-003),
 - PRESS SW-Y HYD, FLT CTL (10CE3) (Ref. AMM TASK 27-92-17-400-002),
 - PRESS SW-G HYD, FLT CTL (10CE2) (Ref. AMM TASK 27-92-17-400-001),
 - disconnect the RELAY (48CE) (Ref. IPC 27920803), (Ref. ASM 27-92/02),
 - close the circuit breaker 16CE2,
 - do a check of the current value:
 - . If the current value is less than 400mA:
 - open the circuit breaker 16CE2,
 - replace the RELAY-ELAC2 EMER SPLY (48CE), (Ref. IPC 27920803)
 - close the circuit breaker 16CE2,
 - do a check of the current value:
 - . If the current value is more than 400mA:
 - open the circuit breaker 16CE2,
 - disconnect the relay (35CE) (Ref. IPC 27920803).
 - close the circuit breaker 16CE2,
 - do a check of the current value:
 - * If the current value is less than 400mA:
 - open the circuit breaker 16CE2,
 - replace the RELAY-ELAC1 BATT SPLY BREAKING (35CE) and install the relay 48CE (Ref. IPC 27920803)
 - close the circuit breaker 16CE2,
 - do a check of the current value:
 - * If the current value is more than 400mA:
 - open the circuit breaker 16CE2,
 - replace the RELAY-SEC1 BATT SPLY BREAKING and install the relay (48CE) and relay (35CE) (Ref. IPC 27920803).

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- 2 If the current value stays more than 400mA:
 - open other circuit breakers (5PB2, 12PB2, 9PB2, 6FP1 and 14XB) one by one while you monitor the current value.
 - <u>a</u> If the current value suddenly falls below 400mA when you open a circuit breaker:
 - do a check of the system related to this circuit breaker to find the cause of this overconsumption.
 - \underline{b} If the current value is more than 400mA when all circuit breakers are open
 - replace the ELAC-2 (2CE2), (Ref. AMM TASK 27-93-34-000-001) (Ref. AMM TASK 27-93-34-400-001).
- (b) If the current is less than 400mA:
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - 1 If the fault continues:
 - replace the BAT-2 (2PB2), (Ref. AMM TASK 24-38-51-000-001)
 (Ref. AMM TASK 24-38-51-400-001) (Ref. ASM 24-38/02).
- E. Put the aircraft back to the serviceable condition.
 - (1) In the cockpit, on the ELEC panel 35VU, release the BAT2 pushbutton switch and put a warning notice(s) to tell persons not to operate the battery 2.
 - (2) In the battery power center 105VU, remove the ammeter between the shunt and ground cable.
 - (3) Connect the ground cable to the shunt and attach it with the washer and bolt.
 - (4) In the cockpit, on the ELEC panel 35VU, push the BAT2 pushbutton switch and remove the warning notice(s).
 - NOTE : After you have isolated the fault, it is necessary to charge the BAT2.
 - (5) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- F. Do the test given in para. 3.

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TASK 24-38-00-810-839

Failure of the ELEC/BAT2 Pushbutton Switch Circuit

- 1. Possible Causes
 - P/BSW-ELEC/BAT 2 (7PB2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
ESPM 204511	
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)
AMM 31-60-00-860-001	EIS Start Procedure
ASM 24-38/02	
AWM 24-38-06	
AWM 24-91-06	
AWM 31-54-28	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Push the ELEC/BAT 2 pushbutton switch (7PB2).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

ACTION RESULT

1. On the ECAM control panel:

- push the ELEC key to get the ELEC page.
- 2. On the ELEC panel 35VU:
 - release and push the BAT 2 pushbutton switch (7PB2).

On the upper ECAM DU:

the BAT 2 OFF message comes into view.

If on the upper ECAM DU:

- the BAT 2 OFF message goes out of view, stop the trouble shooting.
- If on the upper ECAM DU:
- the BAT 2 OFF message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

105VU ELEC/BAT REF/BCL2 9PB2 F02
105VU ELEC/BAT BUS/REF/BCL2 8PB2 J02
122VU LIGHTING/TST/BOARD/SPLY 30LP X06

- B. If the test confirms the fault:
 - open the circuit breakers 30LP, 8PB2 and 9PB2
 - replace the P/BSW-ELEC/BAT 2 (7PB2) (Ref. ESPM 204511)
 - close the circuit breakers 30LP, 8PB2 and 9PB2.
 - (1) If the fault continues:
 - do a check of the wiring:
 - . from the pin A/A3 of the ELEC/BAT 2 pushbutton switch (7PB2) to the DC1 ground (Ref. ASM 24-38/02), (Ref. AWM 24-38-06) and (Ref. AWM 24-91-06)
 - . from the pin A/A2 of the ELEC/BAT 2 pushbutton switch (7PB2) to the pin 11Y of the first terminal block 2407VT (Ref. ASM 24-38/02) and (Ref. AWM 24-38-06)
 - . from the pin 11P of the first terminal block 2407VT to the pin 25M of the second terminal block 1862VT (Ref. ASM 24-38/02) and (Ref. AWM 31-54-28)
 - . from the pin 25E of the second terminal block 1862VT to the pin AD/7H of the SDAC1 (1WV1) (Ref. ASM 24-38/02) and (Ref. AWM 31-54-28)
 - . from the pin 25V of the second terminal block 1862VT to the pin AD/7H of the SDAC2 (1WV2) (Ref. ASM 24-38/02) and (Ref. AWM 31-54-28).

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- (a) If there is no continuity:
 repair the wiring.
- C. Do the test given in Para. 3.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-38-00-810-840

Failure of the ELEC/BAT1 Pushbutton Switch Circuit

- 1. Possible Causes
 - P/BSW-ELEC/BAT 1 (7PB1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	CCDM	204511	
K			
	AMM	24-41-00-861-002	<pre>Energize the Aircraft Electrical Circuits from Engine 1(2)</pre>
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>
_	AMM	31-60-00-860-001	EIS Start Procedure
R			
	ASM	24-38/01	
	AWM	24-38-05	
	AWM	24-91-06	
	AWM	31-54-28	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Push the ELEC/BAT 1 pushbutton switch (7PB1).
 - (2) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

ACTION RESULT

1. On the ECAM control panel:

- push the ELEC key to get the ELEC page.
- 2. On the ELEC panel 35VU:
 - release and push the BAT 1 pushbutton switch (7PB1).

On the upper ECAM DU:

the BAT 1 OFF message comes into view.

If on the upper ECAM DU:

- the BAT 1 OFF message goes out of view, stop the trouble shooting.
- If on the upper ECAM DU:
- the BAT 1 OFF message stays in view, continue the trouble shooting (refer to the fault isolation which follows).

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

105VU ELEC/BAT REF/BCL1 9PB1 F01
105VU ELEC/BAT BUS/REF/BCL1 8PB1 G01
122VU LIGHTING/TST/BOARD/SPLY 30LP X06

- B. If the test confirms the fault:
 - open the circuit breakers 30LP, 8PB1 and 9PB1
 - replace the P/BSW-ELEC/BAT 1 (7PB1) (Ref. ESPM 204511)
 - close the circuit breakers 30LP, 8PB1 and 9PB1.
 - (1) If the fault continues:
 - Do a check of the wiring:
 - . from the pin A/A3 of the ELEC/BAT 1 pushbutton switch (7PB1) to the DC1 ground (Ref. ASM 24-38/01), (Ref. AWM 24-38-05) and (Ref. AWM 24-91-06)
 - . from the pin A/A2 of the ELEC/BAT 1 pushbutton switch (7PB1) to the pin 8M of the first terminal block 2407VT (Ref. ASM 24-38/01) and (Ref. AWM 24-38-05)
 - from the pin 8F of the first terminal block 2407VT to the pin 25F of the second terminal block 1862VT (Ref. ASM 24-38/01) and (Ref. AWM 31-54-28)
 - . from the pin 25N of the second terminal block 1862VT to the pin AA/7B of the SDAC1 (1WV1) (Ref. ASM 24-38/01) and (Ref. AWM 31-54-28)

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- . from the pin 25X of the second terminal block 1862VT to the pin AA/7B of the SDAC2 (1WV2) (Ref. ASM 24-38/01) and (Ref. AWM 31-54-28).
- (a) If there is no continuity:
 repair the wiring.
- C. Do the test given in Para. 3.
- 5. Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-38-00-810-841

No Electrical Parameters of the BAT1 are shown on the ELEC Page

- 1. Possible Causes
 - BCL-1 (1PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (without the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

3. Fault Confirmation

A. Test

Do the operational test of the Battery charge Limiter (BCL) (with the CFDS) (Ref. AMM TASK 24-38-00-710-001).

4. Fault Isolation

- A. If the test of the BCL is correct and if the battery voltage on the applicable voltmeter has the specified value (28VDC):
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- B. Do the operational test of the Battery Charge Limiter (BCL) (without the CFDS) to make sure that the system operates correctly (Ref. AMM TASK 24-38-00-710-001).

EFF: ALL 24-38-00

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TASK 24-38-00-810-842

No Electrical Parameters of the BAT2 are shown on the ELEC Page

- 1. Possible Causes
 - BCL-2 (1PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (without the CFDS)
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>

3. Fault Confirmation

A. TEST

Do the operational test of the Battery Charge Limiter (BCL) (with the CFDS) (Ref. AMM TASK 24-38-00-710-001).

4. Fault Isolation

- A. If the test of the BCL is correct and if the battery voltage on the applicable voltmeter has the specified value (28VDC):
 - replace the BCL-2 (1PB2), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
- B. Do the operational test of the Battery Charge Limiter (BCL) (without the CFDS) to make sure that the system operates correctly (Ref. AMM TASK 24-38-00-710-001).

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TASK 24-38-00-810-843

Incorrect Discharge of the Battery 1

1. Possible Causes

- SEC-1 (1CE1)

R - SEC-2 (1CE2)

- SEC-3 (1CE3)

- PRESS SW-B HYD, FLT CTL (10CE1)
- PRESS SW-G HYD, FLT CTL (10CE2)
- PRESS SW-Y HYD, FLT CTL (10CE3)
- ELAC-1 (2CE1)
- BCL-1 (1PB1)
- BAT-1 (2PB1)
- PRESS SW-FLT CTL, G (1151GN)
- PRESS SW-FLT CTL, B (2151GN)
- PRESS SW-FLT CTL, Y (3151GN)

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific ammeter

No specific warning notice(s)

B. Referenced Information

REFERENCE **DESIGNATION**

IPC 27920803

AMM 24-38-34-000-001 Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)

AMM 24-38-34-400-001 Installation of the Battery Charge Limiter (BCL)

(1PB1, 1PB2)

AMM 24-38-51-000-001 Removal of the Batteries (2PB1, 2PB2) AMM 24-38-51-400-001 Installation of the Batteries (2PB1, 2PB2)

AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the

External Power AMM 27-92-17-000-001 Removal of the Flight Control Pressure Switch (10CE2)

27-92-17-000-002 AMM Removal of the Flight Control Pressure Switch (10CE3)

27-92-17-000-003 Removal of the Flight Control Pressure Switch (10CE1) AMM

AMM 27-92-17-400-001 Installation of the Flight Control Pressure Switch

(10CE2)

AMM 27-92-17-400-002 Installation of the Flight Control Pressure Switch

(10CE3)

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REFERENCE		DESIGNATION	
AMM	27-92-17-400-003	<pre>Installation of the Flight Control Pressure Switch (10CE1)</pre>	
AMM	27-93-34-000-001	Removal of the ELAC (2CE1,2CE2)	
AMM	27-93-34-400-001	Installation of the ELAC (2CE1,2CE2)	
AMM	27-94-34-000-001	Removal of the SEC (1CE1,1CE2,1CE3)	
AMM	27-94-34-400-001	Installation of the SEC (1CE1,1CE2,1CE3)	
AMM	27-96-00-740-001	BITE Test of the EFCS (Ground Scanning)	
AMM	29-10-00-864-001	Depressurize the Green Hydraulic System	
AMM	29-10-00-864-002	Depressurize the Yellow Hydraulic System	
AMM	29-10-00-864-003	Depressurize the Blue Hydraulic System	
AMM	29-32-12-000-001	Removal of the System Pressure Switch (1151GN)	
AMM	29-32-12-000-002	Removal of the System Pressure Switch (2151GN)	
AMM	29-32-12-000-003	Removal of the System Pressure Switch (3151GN)	
AMM	29-32-12-400-001	Installation of the System Pressure Switch (1151GN)	
AMM	29-32-12-400-002	Installation of the System Pressure Switch (2151GN)	
AMM	29-32-12-400-003	Installation of the System Pressure Switch (3151GN)	
ASM	24-38/01		
ASM	27-92/02		
ASM	27-92/02		
ASM	27-92/27		

3. Fault Confirmation

R

A. In the cockpit, on the ELEC panel 35VU, do a check of the battery voltage on the battery 1 voltmeter.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	FLIGHT CONTROLS/ELAC1/NORM/SPLY	15CE1	B11
105VU	FLT CTL/SEC1/STBY SPLY	22CE	B01
105VU	ELEC/CSM/G /EV AUTO/SPLY	7XE	CO1
105VU	ELEC/HOT BUS/701PP SPLY	5PB1	DO1
105VU	ELEC/HOT BUS/701PP SPLY	12PB1	E01
105VU	ELEC/BAT REF/BCL1	9PB1	F01

- B. If the voltage is less than 25.5 V, do a check to find if the problem comes from the Spoiler Elevator Computers (SEC).
 - (1) Make sure that the three hydraulic systems are not pressurized (Ref. AMM TASK 29-10-00-864-001), (Ref. AMM TASK 29-10-00-864-002) and (Ref. AMM TASK 29-10-00-864-003).

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R R	(2) Make sure that the ELAC 1 (2CE1), ELAC 2 (2CE2), SEC 1 (1CE1), SEC 2 (1CE2) and SEC 3 (1CE3) are correctly racked and powered.
R	(3) Open the circuit breaker ELAC 1 NORM SPLY (15CE1).
R R	(4) After 30 seconds, on the FLT control panel 23VU, do a check of the FAULT legend of the FLT CTL/ELAC 1 pushbutton switch (6CE1).
R R R	 (a) If the FAULT legend is off: remove the SEC 1 (1CE1) after 30 seconds, on the FLT control panel 23VU, do a check of the FAULT legend of the FLT CTL/ELAC 1 pushbutton switch.
R R R	1 If the FAULT legend comes on: - replace the SEC-1 (1CE1) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001).
R R R	 If the FAULT legend is off: remove the SEC 2 (1CE2) after 30 seconds, on the FLT control panel 23VU, do a check of the FAULT legend of the FLT CTL/ELAC 1 pushbutton switch.
R R R	<pre>a If the FAULT legend comes on:</pre>
R R R R R R	<pre>b If the FAULT legend is off: - remove the SEC 3 (1CE3) - after 30 seconds, on the FLT control panel 23VU, do a check of the FAULT legend of the FLT CTL/ELAC 1 pushbutton switch. . If the FAULT legend comes on: - replace the SEC-3 (1CE3) (Ref. AMM TASK 27-94-34-000-001) and (Ref. AMM TASK 27-94-34-400-001)</pre>
R	(5) Install all the removed SEC's.
R	(6) Close the circuit breaker ELAC 1 NORM SPLY (15CE1).
R R	C. If the voltage is less than 25.5 V, do a check to find if the problem comes from the ELAC 1 hydraulic discrete-inputs.
R R R	(1) Make sure that the three hydraulic systems are not pressurized (Ref. AMM TASK 29-10-00-864-001), (Ref. AMM TASK 29-10-00-864-002) and (Ref. AMM TASK 29-10-00-864-003).
R R	(2) Remove the ELAC 1 (2CE1), ELAC 2 (2CE2), SEC 1 (1CE1), SEC 2 (1CE2) and SEC 3 (1CE3) from their rack.

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- (3) Do a check of a ground signal or an open circuit at the discrete inputs DSI 40, 42 and 32 of the ELAC 1 rack when the hydraulic pressure state is low (Ref. ASM 27-92/27).
 - (a) If a ground signal or an open circuit is found at one discrete input:
 - repair the related wiring between the ELAC 1 and the first terminal block.
- (4) Install all the removed ELAC's and SEC's.
- D. If the voltage is less than 25.5 V and the problem does not come from the Spoiler Elevator Computers (SEC) and from the ELAC 1 hydraulic discrete-inputs:
 - do the BITE test of the EFCS (Ground scanning) (Ref. AMM TASK 27-96-00-740-001).

NOTE: Do this test procedure with the hydraulic systems not pressurized.

- (1) If there is a maintenance message related to these pressure switches:
 - PRESS SW-B HYD, FLT CTL (10CE1),
 - PRESS SW-G HYD, FLT CTL (10CE2),
 - PRESS SW-Y HYD, FLT CTL (10CE3),
 - PRESS SW-FLT CTL, G (1151GN),
 - PRESS SW-FLT CTL, B (2151GN),
 - PRESS SW-FLT CTL, Y (3151GN).
 - Do the trouble shooting procedure related to the maintenance message.
- (2) If there is no maintenance message related to the hydraulic pressure switches:
 - in the cockpit, on the ELEC panel 35VU, release the BAT1 pushbutton switch and put a warning notice(s) to tell persons not to operate the battery 1,
 - in the battery power center 105VU, disconnect the cable between the BAT1 shunt (3PB1) and the ground: for this, remove the bolt and washer from the shunt (Ref. ASM 24-38/01),
 - connect an ammeter to the disconnected cable and the disconnected terminal of the shunt: make sure that the polarities of the tool are correct,
 - do a check of the current value.
 - (a) If the current is more than 400 mA:
 - open the circuit breaker 16CE1 while you monitor the current value (Ref. ASM 27-92/02).
 - 1 If the current value suddenly falls below 400mA when you open the circuit breaker:
 - disconnect one by one the electrical connectors from these pressure switches (Ref. ASM 27-92/27):
 - PRESS SW-FLT CTL, B (2151GN) (Ref. AMM TASK 29-32-12-000-002),

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- PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-32-12-000-003).
- PRESS SW-FLT CTL, G (1151GN) (Ref. AMM TASK 29-32-12-000-001),
- PRESS SW-B HYD, FLT CTL (10CE1) (Ref. AMM TASK 27-92-17-000-003),
- PRESS SW-Y HYD, FLT CTL (10CE3) (Ref. AMM TASK 27-92-17-000-002),
- PRESS SW-G HYD, FLT CTL (10CE2) (Ref. AMM TASK 27-92-17-000-001),

while you monitor the current value after you closed the circuit breaker 16CE1.

- <u>a</u> If after you disconnected the PRESS SW-FLT CTL, B (2151GN) the current value is less than 400mA:
 - replace the PRESS SW-FLT CTL, B (2151GN),
 (Ref. AMM TASK 29-32-12-000-002) (Ref. AMM TASK 29-32-12-400-002) and connect all the electrical connectors that you disconnected.
- b If after you disconnected the PRESS SW-FLT CTL, Y (3151GN), the current value is less than 400mA:
 - replace the PRESS SW-FLT CTL, Y (3151GN),
 (Ref. AMM TASK 29-32-12-000-003) (Ref. AMM TASK 29-32-12-400-003) and connect all the electrical connectors that you disconnected.
- <u>c</u> If after you disconnected PRESS SW-FLT CTL, G (1151GN), the current value is less than 400mA:
 - replace the PRESS SW-FLT CTL, G (1151GN),
 (Ref. AMM TASK 29-32-12-000-001) (Ref. AMM TASK 29-32-12-400-001) and connect all the electrical connectors that you disconnected.
- d If after you disconnected the PRESS SW-B HYD, FLT CTL (10CE1), the current value is less than 400mA:
 - replace the PRESS SW-B HYD, FLT CTL (10CE1), (Ref. AMM TASK 27-92-17-000-003) (Ref. AMM TASK 27-92-17-400-003) and connect all the electrical connectors that you disconnected.
- <u>e</u> If after you disconnected the PRESS SW-Y HYD, FLT CTL (10CE3), the current value is less than 400mA:
 - replace the PRESS SW-Y HYD, FLT CTL (10CE3),
 (Ref. AMM TASK 27-92-17-000-002) (Ref. AMM TASK 27-92-17-400-002) and connect all the electrical connectors that you disconnected.
- f If after you disconnected the PRESS SW-G HYD, FLT CTL (10CE2), the current value is less than 400mA: replace the PRESS SW-G HYD, FLT CTL (10CE2),

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(Ref. AMM TASK 27-92-17-000-001) (Ref. AMM TASK 27-92-17-400-001) and connect all the electrical connectors that you disconnected.

- g If the current value is more than 400mA:
 - open the circuit breaker 16CE1,
 - connect the electrical connector to these pressure switches:
 - PRESS SW-FLT CTL, B (2151GN) (Ref. AMM TASK 29-32-12-400-002),
 - PRESS SW-FLT CTL, Y (3151GN) (Ref. AMM TASK 29-32-12-400-003),
 - PRESS SW-FLT CTL, G (1151GN) (Ref. AMM TASK 29-32-12-400-001),
 - PRESS SW-B HYD, FLT CTL (10CE1) (Ref. AMM TASK 27-92-17-400-003),
 - PRESS SW-Y HYD, FLT CTL (10CE3) (Ref. AMM TASK 27-92-17-400-002),
 - PRESS SW-G HYD, FLT CTL (10CE2) (Ref. AMM TASK 27-92-17-400-001),
 - disconnect the RELAY (35CE) (Ref. IPC 27920803) (Ref. ASM 27-92/02),
 - close the circuit breaker 16CE1.
- 2 If the current value stays more than 400mA:
 - open other circuit breakers (5PB1, 12PB1, 9PB1, 7XE and 22CE) one by one while you monitor the current value.
 - <u>a</u> If the current value suddenly falls below 400mA when you open a circuit breaker:
 - do a check of the system related to this circuit breaker to find the cause of this overconsumption.
 - <u>b</u> If the current value is more than 400mA when all circuit breakers are open
 - replace the ELAC-1 (2CE1), (Ref. AMM TASK 27-93-34-000-001) (Ref. AMM TASK 27-93-34-400-001).
- (b) If the current is less than 400mA:
 - replace the BCL-1 (1PB1), (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - 1 If the fault continues:
 - replace the BAT-1 (2PB1), (Ref. AMM TASK 24-38-51-000-001)
 (Ref. AMM TASK 24-38-51-400-001).
- R E. Put the aircraft back to the serviceable condition.
 - (1) In the cockpit, on the ELEC panel 35VU, release the BAT1 pushbutton switch and put a warning notice(s) to tell persons not to operate the battery 1.

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- (2) In the battery power center 105VU, remove the ammeter between the shunt and ground cable.
- (3) Connect the ground cable to the shunt and attach it with the washer and bolt.
- (4) In the cockpit, on the ELEC panel 35VU, push the BAT1 pushbutton switch and remove the warning notice(s).

NOTE : After you have isolated the fault, it is necessary to charge the battery 1

- (5) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
- R F. Do the test given in para. 3.

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TASK 24-38-00-810-845

BAT1 and BAT2 disconnected some seconds after the BAT1 and BAT2 Pushbutton Switches are pushed

- 1. Possible Causes
 - RELAY-BUS 1XP CTL (15XC)
 - RELAY-BUS 2XP CTL (16XC)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

AMM 24-38-00-710-001

Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)

ASM 24-38/01

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
- R A. If the FAULT legend of the BAT1 and BAT2 pushbutton switches does not come on when:
 - . the aircraft electrical circuits are energized by the batteries only,
 - . the voltage of the batteries is more than 25V.
 - do a check for a ground signal at pin A/Y of the BCL1 (2) (Ref. ASM 24-38/01).
 - (1) If there is no ground signal:
 - replace the RELAY-BUS 1XP CTL (15XC).
 - (a) If the fault continues:
 - replace the RELAY-BUS 2XP CTL (16XC).
 - 1 If the fault continues:
 - do a check and repair the wiring between:
 - . pin A2 of BUS 2XP control relay (16XC) and the ground,
 - pin A3 of BUS 2XP control relay (16XC) and pin A2 of BUS
 1XP control relay (15XC),
 - pin A3 of BUS 1XP control relay (15XC) and pin A/Y of the BCL1 (2).

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B. Do the operational test of the Battery Charge Limiter (BCL) (Ref. AMM TASK 24-38-00-710-001).

5. Close-up

A. Put the aircraft back to its initial configuration.

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TASK 24-38-00-810-846

Incorrect ARINC Coding of BCL 1

- 1. Possible Causes
 - BCL-1 (1PB1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
AMM	24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM	24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	

3. Fault Confirmation

A. Test

R

R

Do the operational test of the BCL 1 (Ref. AMM TASK 24-38-00-710-001).

- 4. Fault Isolation
 - A. If the test gives a message:
 - Do the trouble shooting procedure related to the maintenance message. If there is no message, replace the BCL-1 (1PB1) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).
 - B. Do the test given in para. 3.

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TASK 24-38-00-810-847

Incorrect ARINC Coding of BCL 2

- 1. Possible Causes
 - BCL-2 (1PB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 24-38-00-710-001	Operational Test of the Battery Charge Limiter (BCL), (with the CFDS)	
AMM 24-38-34-000-001	Removal of the Battery Charge Limiter (BCL) (1PB1, 1PB2)	
AMM 24-38-34-400-001	<pre>Installation of the Battery Charge Limiter (BCL) (1PB1, 1PB2)</pre>	

3. Fault Confirmation

A. Test

R

R

R R Do the operational test of the BCL 2 (Ref. AMM TASK 24-38-00-710-001).

- 4. Fault Isolation
 - A. If the test gives a message:
 - Do the trouble shooting procedure related to the maintenance message.

If there is no message, replace the BCL-2 (1PB2) (Ref. AMM TASK 24-38-34-000-001) and (Ref. AMM TASK 24-38-34-400-001).

B. Do the test given in para. 3.

EFF: ALL 24-38-00

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TROUBLE SHOOTING MANUAL

TASK 24-38-00-810-848

Loss of the BAT1 and BAT2 because of Undervoltage

1. Possible Causes

R

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- P/BSW-APU/MASTER SW (14KD)
- RELAY-BUS 1XP CTL (15XC)
- RELAY-BUS 2XP CTL (16XC)
- ADIRU-1 (1FP1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
R R	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
R	ASM ASM	24-24/02 24-38/01	
R	ASM Awm	24-38/02 24-38-01	
	7 -		

- 3. Fault Confirmation
- A. Aircraft Maintenance Configuration
- (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002). R
- R B. Test

ACTION RESULT ______

- 1. On the ECAM control panel:
 - ELEC page.
- On the ECAM control panel:
 push the ELEC key to get the
 if the voltage indication is shown in amber, do the trouble shooting given in Para. 4.A.

EFF: ALL **24-38-00**

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4. Fault Isolation

R A. Table of the circuit breakers used in this procedure:		
R R R R	PANEL DESIGNATION IDENT. LOCATION	
	122VU ELEC/BUS/2XP/CTL 17XN2 V27 122VU ELEC/AC/BUS1/CTL 17XN1 V25	
R R R R	 B. If the test confirms the fault: On the overhead panel 25VU, push and release the APU/MASTER SW pushbutton switch (14KD) (the ON legend comes on). Do a check for a ground signal at pin A/a of the BCL1 (1PB1) (Ref. ASM 24-38/01) and at pin A/a of the BCL2 (1PB2) (Ref. ASM 24-38/02). 	
R R	(1) If there is a ground signal:	
R	- Replace the P/BSW-APU/MASTER SW (14KD).	
R R	(a) If the fault continues:Do a check and repair the wiring.	
R R R R	 (2) If there is no ground signal: On the rear circuit breaker panel 122VU, open the circuit breakers 17XN1 and 17XN2. Do a check for a ground signal at pin A/Y of the BLC1 (1PB1) (Ref. ASM 24-38/01) and pin A/Y of the BCL2 (1PB2) (Ref. ASM 24-38/02). 	
R R R	(a) If there is no ground signal:Do a check for a ground signal at pin A/A3 (Ref. ASM 24-38/01) of the relay (15XC).	
R R	 If there is a ground signal: Repair the wiring (Ref. AWM 24-38-01) between the relay (15XC) and the first terminal block. 	
R R	 If there is no ground signal: Do a check for a ground signal at the relay (15XC) pin A/A2 (Ref. ASM 24-38/01). 	
R	<u>a</u> If there is a ground signal:Replace the RELAY-BUS 1XP CTL (15XC).	
R R	 <u>b</u> If there is no ground signal: Do a check for a ground signal at pin A/A3 (Ref. ASM 24-38/01) of the relay (16XC). 	
R R R	 * If there is a ground signal: * - Repair the wiring (Ref. ASM 24-38/01) between the pin A/A2 of the relay (15XC) and the pin A/A3 of the relay (16XC). 	

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- * If there is no ground signal: R * - Do a check for a ground signal at the pin A/A2 (Ref. ASM 24-38/01) of the relay (16XC). R ** If there is a ground signal: ** - Replace the RELAY-BUS 2XP CTL (16XC). R ** If there is no ground signal: ** - Repair the wiring (Ref. ASM 24-38/01) between the R pin A/A2 of the relay (16XC) and the ground. R R (b) If there is a ground signal: - Do a check for ground signal at pin A/g of the BLC1 (1PB1) R (Ref. ASM 24-38/01) and pin A/g of the BCL2 (1PB2) (Ref. ASM R 24-38/02). R R 1 If there is a ground signal: - Remove the ADIRU-1 (1FP1). R a If there is no ground signal after removal: R - Replace the ADIRU-1 (1FP1). R b If there is a ground signal after removal: R R - Do a check and repair the wiring (Ref. ASM 24-24/02) R between: . Pin A/g of the BCL1 and pin AA/2F of the ADIRU1 R R . Pin A/g of the BCL2 and pin AA/2F of the ADIRU1. C. Do the test given in Para. 3. 5. Close-up A. Put the aircraft back to its initial configuration. R (1) On the rear circuit breaker panel 122VU, close the circuit breakers R 17XN1 and 17XN2. R
 - (2) De-energize the aircraft electrical circuits
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

R

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EFF: ALL

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TASK 24-38-00-810-849

Failure of the Indication of the Battery Voltmeter 1 or 2

1. Possible Causes

- SW-INT LT/ANN LT (33LP)
- VOLTMETER-BAT 1 (3PV1)
- VOLTMETER-BAT 2 (3PV2)
- CLOCK (2FS)
- RMI-VOR/DME (11FN)
- RMI-VOR/ADF/DME (21FN)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM AMM AMM AMM AMM AMM	24-37-21-000-001 24-37-21-400-001 31-21-21-000-001 31-21-21-400-001 34-57-22-000-001 34-57-22-000-002 34-57-22-400-001 34-57-22-400-002	Removal of the Voltmeters (3PV1, 3PV2) Installation of the Voltmeters (3PV1, 3PV2) Removal of the Clock (2FS) Installation of the Clock (2FS) Removal of the VOR/DME RMI (11FN) Removal of the VOR/ADF/DME RMI (21FN) Installation of the VOR/ADF/DME RMI (21FN) Installation of the VOR/ADF/DME RMI (21FN)
ASM	33-14/02	

3. Fault Confirmation

- A. Test
 - (1) On the ELEC panel 35VU, the battery voltmeter 1 or the battery voltmeter 2 shows the indication 888.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-299, 426-499, 701-749,
 - A. If the test confirms the fault:
 - make sure that the INT LT/ANN LT switch (33LP) is in the BRT or DIM position
 - do a check of the status of the auxiliary contact of the INT LT/ANN LT switch (33LP) between pin 3D and pin 1D (normally open) (Ref. ASM 33-14/02).

EFF: ALL

24-38-00

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- (1) If the contact is closed:
 - replace the SW-INT LT/ANN LT (33LP).
- (2) If the contact is open:
 - do a check of the wiring (Ref. ASM 33-14/02) for a short to ground between:
 - . pin 3D of the INT LT/ANN LT switch (33LP) and pin H of the battery voltmeter 1 (3PV1)
 - . pin 3D of the INT LT/ANN LT switch and pin H of the battery voltmeter 2 (3PV2)
 - . pin 3D of the INT LT/ANN LT switch and pin A/J of the clock (2FS) . pin 3D of the INT LT/ANN LT switch and pin A/d of the VOR/DME RMI (11FN).
 - (a) If the wiring is not correct:
 - repair or replace it.
 - (b) If the wiring is correct:
 - replace the VOLTMETER-BAT 1 (3PV1) (Ref. AMM TASK 24-37-21-000-001) and (Ref. AMM TASK 24-37-21-400-001).
 - 1 If the fault continues:
 - replace the VOLTMETER-BAT 2 (3PV2) (Ref. AMM TASK 24-37-21-000-001) and (Ref. AMM TASK 24-37-21-400-001).
 - a If the fault continues:
 - replace the CLOCK (2FS) (Ref. AMM TASK 31-21-21-000-001) and (Ref. AMM TASK 31-21-21-400-001).
 - . If the fault continues:
 - replace the RMI-VOR/DME (11FN) (Ref. AMM TASK 34-57-22-000-001) and (Ref. AMM TASK 34-57-22-400-001).
- R **ON A/C 503-549, 551-599,
 - A. If the test confirms the fault:
 - make sure that the INT LT/ANN LT switch (33LP) is in the BRT or DIM position
 - do a check of the status of the auxiliary contact of the INT LT/ANN LT switch (33LP) between pin 3D and pin 1D (normally open) (Ref. ASM 33-14/02).
 - (1) If the contact is closed:
 - replace the SW-INT LT/ANN LT (33LP).
 - (2) If the contact is open:
 - do a check of the wiring (Ref. ASM 33-14/02) for a short to ground between:
 - . pin 3D of the INT LT/ANN LT switch (33LP) and pin H of the battery voltmeter 1 (3PV1)
 - . pin 3D of the INT LT/ANN LT switch and pin H of the battery voltmeter 2 (3PV2)

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- . pin 3D of the INT LT/ANN LT switch and pin A/J of the clock (2FS). pin 3D of the INT LT/ANN LT switch and pin A/d of the VOR/ADF/DME RMI (21FN).
- (a) If the wiring is not correct:repair or replace it.
- (b) If the wiring is correct:
 - replace the VOLTMETER-BAT 1 (3PV1) (Ref. AMM TASK 24-37-21-000-001) and (Ref. AMM TASK 24-37-21-400-001).
 - 1 If the fault continues:
 - replace the VOLTMETER-BAT 2 (3PV2) (Ref. AMM TASK 24-37-21-000-001) and (Ref. AMM TASK 24-37-21-400-001).
 - a If the fault continues:
 - replace the CLOCK (2FS) (Ref. AMM TASK 31-21-21-000-001)
 and (Ref. AMM TASK 31-21-21-400-001).
 - . If the fault continues:
 - replace the RMI-VOR/ADF/DME (21FN) (Ref. AMM TASK 34-57-22-000-002) and (Ref. AMM TASK 34-57-22-400-002).

**ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL 24-38-00

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TROUBLE SHOOTING MANUAL

EXTERNAL POWER - FAULT ISOLATION PROCEDURES

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-40-00-810-801

Failure of the External Power Phase Sequence

- 1. Possible Causes
 - GPCU (1XG)
 - feeder wires
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM	24-41/01	

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
 - B. Test
 Do the Operational Test of the GPCU (Ref. AMM TASK 24-41-00-740-002)

EFF: ALL 24-40-00

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TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the test gives the maintenance message CHECK EP PHASE SEQ and if on the overhead panel, on the panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch is on:
 - do a check of the external power feeder wires for cross-connection between the pins A, B, C of the external power receptacle (20XG) and the pins A/K, A/L, A/M of the EPC (Ref. ASM 24-41/01).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 replace the external power unit.
 - (3) If the fault continues:
 - do a check of the wiring for wire cross-connection between respectively the pins B/5C, B/6D, B/7C of the GPCU and the pins A/J, A/H, A/G of the EPC, through the GND PWR PROT circuit breaker (2XG) (Ref. ASM 2441/01).
 - (4) If the fault continues:
 - replace the GPCU (1XG), (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in ground configuration.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

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TROUBLE SHOOTING MANUAL

TASK 24-40-00-810-802

Failure of the GPCU (Circuit Breaker Open)

- 1. Possible Causes
 - GPCU (1XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
24-00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning	
AMM 24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
AMM 24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)	
AMM 24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>	
ASM 24-41/01		

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
 - B. Test
 Do the Operational Test of the GPCU (Ref. AMM TASK 24-41-00-740-002)

276-299, 701-769 **24-40-00**

TROUBLE SHOOTING MANUAL

4. Fault Isolation

- A. If the test gives the maintenance message CHECK GPCU PIN C2, C/B 4XG, 6XG, 11XG, 12XG WIRING, and the warning AVAIL LIGHT NOT ILLUMINATED:
 - Do a check of the status of the 7.5 A circuit breaker on the front face of the GPCU.
 - (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (2) If the circuit breaker is closed:
 - Do the check of the wiring for short to ground between the pin AC/2 of the GPCU and successively the circuit breakers (4XG), (6XG), (11XG) and (12XG) (Ref. ASM 24-41/01).
 - (a) If the wiring is not correct:
 - Repair the wiring.
 - (b) If the wiring is correct:
 - Replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

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TASK 24-40-00-810-803

Failure of the External Power Receptacle

- 1. Possible Causes
 - GPCU (1XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM	24-41/01	

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
 - B. Test
 Do the Operational Test of the GPCU (Ref. AMM TASK 24-41-00-740-002)
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK GPCU PINS C3, C4 RECEPTACLE 20XG PINS F, E and on the overhead panel, on the panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch is on:
 - Do a check of the status of the 3A circuit breaker on the front face of the GPCU:

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- (2) If the circuit breaker is closed:
 - Do a check of the wiring for open circuit between the pin AC/4 of the GPCU and the pin F of the external power receptacle (Ref. ASM 24-41/01).
 - (a) If the wiring is not correct:
 - Repair the wiring.
 - (b) If the wiring is correct:
 - Replace the external power unit.
 - (c) If the fault continues:
 - Replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in ground configuration.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De- energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

TROUBLE SHOOTING MANUAL

TASK 24-40-00-810-804

Failure of the External Ground Power Source

1. Possible Causes

- R RCPT-EXT PWR (20XG)
 - GPCU (1XG)
- R external power source
 - feeder wiring
 - wiring

2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION
			PESIGNATION
R R	AMM	24-41-00-040-001	Visual Inspection of the External Power Receptacle (20XG)
	AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
	AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
	AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
R	AMM	24-41-51-000-001	Removal of the External Power Receptacle (20XG)
R	AMM ASM	24-41-51-400-001 24-41/01	Installation of the External Power Receptacle (20XG)

3. Fault Confirmation

- A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
- B. Test
 Do the Operational Test of the GPCU (Ref. AMM TASK 24-41-00-740-002)

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the test gives the maintenance message CHECK GROUND POWER: - Replace the external power source. R (1) If the fault continues: R - Do a visual inspection of the external power receptacle (20XG) R (Ref. AMM TASK 24-41-00-040-001). R R (a) If the external power receptacle (20XG) is damaged: R - Replace the RCPT-EXT PWR (20XG) (Ref. AMM TASK 24-41-51-000-001) and (Ref. AMM TASK 24-41-51-400-001). R (b) If the external power receptacle (20XG) is not damaged: R R - Do a check of the feeder wiring for open circuit or short to R ground between respectively the pins A, B, C of the external power receptacle (20XG) and the pins A/K, A/L, A/M of the EPC R (3XG) (Ref. ASM 24-41/01). R R R 1 If the wiring is not correct: R - Repair it. R 2 If the wiring is correct: R - Do a check of the wiring for open circuit or short to ground R R between respectively the pins B/5C, B/6D, B/7C of the GPCU and the pins A/J, A/H, A/G of the EPC (3XG) (Ref. ASM 24-R 41/01). R a If the wiring is not correct: R - Repair it. R b If the wiring is correct: R R - Replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) R and (Ref. AMM TASK 24-41-34-400-001). R
 - B. Make sure that the aircraft electrical circuits operate correctly in ground configuration.
 - (1) Energize the aircraft electrical circuit from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

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TASK 24-40-00-810-805

Failure of the Ground Power Control Unit

- 1. Possible Causes
 - GPCU (1XG)
 - wiring
 - C/B-ELEC/GPCU (7XG)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
24-00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM 24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM 24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM 24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the APU</pre>
AMM 24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM 24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM 24-41/01	

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
 - B. Test
 Do the Operational Test of the GPCU (Ref. AMM TASK 24-41-00-740-002)

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the test gives the maintenance message GPCU and, on the panel 108VU, the EXT PWR light is not on:
 - Do a check of the status of the ELEC/GPCU circuit breaker (7XG):
 - (1) If the circuit breaker is closed:
 - Do a check for 28VDC at the pin B/15A of the GPCU.
 - (a) If there is not 28VDC:
 - Do a check and repair the wiring between the circuit breaker
 (7XG) and the pin B/15A of the GPCU (Ref. ASM 24-41/01).
 - (b) If there is 28VDC:
 - Replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-ELEC/GPCU (7XG).
- **B.** Make sure that the aircraft electrical circuits operate correctly in ground configuration.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

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**ON A/C ALL

TASK 24-40-00-810-806

The AVAIL Legend of the ELEC/EXT PWR Pushbutton Switch Stays off when the EXT PWR Energizes the Aircraft

1. Possible Causes

- BOARD-ANN LT TEST & INTFC (10LP)
- GAPCU (24XG)
- RELAY (21XG)
- P/BSW-ELEC/EXT PWR (10XG)
- 22XU1
- **RELAY** (21XG)
- wiring
- LAMP
- P/BSW-ELEC/EXT PWR (10XG)

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>Pe-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
AMM	33-14-00-710-001	Operational Test of the Lights
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and
		Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)
ASM	24-41/01	

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3. Fault Confirmation

A. Test

- (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - NOTE: Energization of the aircraft is correct but, during the procedure given at Para. 3.D., make sure that:
 - on the panel 108VU: the EXT PWR/NOT IN USE indicator light and the EXT PWR/AVAIL caution light come on.
 - on the panel 35VU : the AVAIL legend of the EXT PWR pushbutton switch stays off (Ref. AMM TASK 33-14-00-710-001).

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- A. If the test confirms the fault:
 - do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001).
 - (1) If the AVAIL legend of the ELEC/EXT PWR pushbutton switch comes on: - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).
 - (a) If the fault continues:
 - replace the 22XU1 (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - (b) If the fault continues:
 - replace the RELAY (21XG).
 - (c) If the fault continues:
 - do a check and repair the wiring from the EGIU1 (22XU1) to the relay (21XG) (Ref. ASM 24-41/01).
 - (2) If the AVAIL legend of the ELEC/EXT PWR pushbutton switch stays off: - replace the LAMP of the AVAIL legend of the ELEC/EXT PWR pushbutton switch.
 - (a) If the fault continues:
 - replace the P/BSW-ELEC/EXT PWR (10XG).
 - (b) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).

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- (c) If the fault continues:
 - do a check and repair the wiring
 - . between the pin A/7 of the ELEC/EXT PWR pushbutton switch and the relay (21XG) pin A/A2.
 - . between the pin A/8 of the ELEC/EXT PWR pushbutton switch and the pin A/10 of the ANN LT TEST & INTFC board (Ref. ASM 24-41/01).

**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - do the operational test of the annunciator-light test system (Ref. AMM TASK 33-14-00-710-001).
 - (1) If the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) comes on:
 - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).
 - (a) If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (b) If the fault continues:
 - replace the RELAY (21XG).
 - (c) If the fault continues:
 - do a check and repair the wiring between the pin AB/3C of the GAPCU (24XG) and the pin A/A3 of the relay (21XG) (Ref. ASM 24-41/01).
 - (2) If the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) stays off:
 - replace the LAMP of the AVAIL legend of the ELEC/EXT PWR pushbutton switch.
 - (a) If the fault continues:
 - replace the P/BSW-ELEC/EXT PWR (10XG).
 - (b) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).
 - (c) If the fault continues:
 - do a check and repair the wiring between:
 - . the pin A/7 of the ELEC/EXT PWR pushbutton switch and the pin A/A2 of the relay (21XG)
 - the pin A/8 of the ELEC/EXT PWR pushbutton switch and the pin A/10 of the ANN LT TEST & INTFC board (Ref. ASM 24-41/01).

EFF: ALL

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**ON A/C ALL

- B. Do this test to make sure that the system operates correctly.
 - (1) Do this test given in Para. 3. and make sure that:
 - on the panel 108VU, the EXT PWR/NOT IN USE indicator light and EXT PWR/AVAIL caution light come on.
 - on the panel **35VU**, the **AVAIL** legend of the **EXT PWR** pushbutton switch comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-40-00-810-807

The ON legend of the ELEC/EXT Pushbutton Switch Stays off when the EXT PWR Energizes the Aircraft

- 1. Possible Causes
 - EPC (3XG)
 - wiring
 - LAMP
 - P/BSW-ELEC/EXT PWR (10XG)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)	
AMM	24-41-55-400-001	Installation of the External Power Contactor (EPC)	
AMM	33-14-00-710-001	Operational Test of the Lights	
ASM	24-41/01		

3. Fault Confirmation

A. Test

(1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

NOTE : Energization of the aircraft is correct but, during the procedure given at Para. 3.F, make sure that:

 on the panel 35VU, on the EXT PWR pushbutton switch, the AVAIL legend goes off and the ON legend stays off.

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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4. Fault Isolation

- A. If the test confirms the fault:
 - do the operational test of the annunciator light test system (Ref. AMM TASK 33-14-00-710-001).
 - (1) If the ON legend of the ELEC/EXT PWR pushbutton switch comes on: - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring between the pin A/5 of the ELEC/EXT PWR pushbutton switch and the pin A/17 of the EPC (3XG) and between the pin A/15 of the EPC (3XG) and the first terminal block.
 - (2) If the ON legend of the ELEC/EXT PWR pushbutton switch stays off:
 replace the LAMP of the ON legend of this pushbutton switch.
 - (a) If the fault continues:
 - do a check of the wiring from the ELEC/EXT PWR pushbutton switch to the first terminal block (Ref. ASM 24-41/01).
 - 1 If there is no continuity: - repair the wiring.
 - 2 If there is continuity:
 replace the P/BSW-ELEC/EXT PWR (10XG).
- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that:
 on the panel 35VU, on the ELEC/EXT PWR pushbutton switch : the
 AVAIL legend goes off and the ON legend comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-40-00-810-808

The EXT PWR/AVAIL Caution Light Stays off when the EXT PWR Energizes the Aircraft

- 1. Possible Causes
 - wiring
 - CAUT LT-EXT PWR/AVAIL (9XG)
 - lamp
 - IND LT EXT PWR/AVAIL (9XG)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
ASM	24-41/01	

3. Fault Confirmation

- A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002)
 - NOTE: Energization of the aircraft is correct but, during the procedure given at Para. 3.D., make sure that:
 - on the panel 108VU: the EXT PWR/NOT IN USE indicator light comes on and the EXT PWR/AVAIL caution light stays off.
 - on the panel 35VU: the AVAIL legend of the EXT PWR pushbutton switch comes on.

4. Fault Isolation

- A. If the test confirms the fault:
 - on the panel 108VU, push the LIGHT TEST pushbutton switch (34LP) to do a test of the lights of the panel 108VU.
 - (1) If the EXT PWR/AVAIL caution light comes on:
 - do a check of the wiring between the pin 2 of the circuit breaker (4XG) and the first terminal block (Ref. ASM 24-41/01).
 - (a) If there is no continuity: - repair the above wiring.

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- (2) If the EXT PWR/AVAIL caution light stays off:
 replace the lamp of the EXT PWR/AVAIL caution light.
 - (a) If the fault continues:
 - do a check of the wiring:
 - between the pin 23 of the diode module (1191VD) and the first terminal block
 - . between the pin 2 of the caution light and the pin 8 of the diode module (1191VD)
 - between the pins 1 and 4 of the caution light
 - between the pin 5 of the caution light and the first terminal block (Ref. ASM 24-41/01)...
 - 1 If there is no continuity: - repair the above wiring.
 - 2 If there is continuity:
 replace the IND LT EXT PWR/AVAIL (9XG).
- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that:
 - on the panel 108VU, the EXT PWR/NOT IN USE indicator light and EXT PWR/AVAIL caution light come on.
 - on the panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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**ON A/C ALL

TASK 24-40-00-810-809

The EXT PWR/NOT IN USE Indicator Light Stays off when the EXT PWR Energizes the Aircraft

1. Possible Causes

- IND LT-EXT PWR/NOT IN USE (8XG)
- CNTOR-AC GND SVCE SPLY (12XX)
- EPC (3XG)
- EGIU-1 (22XU1)
- P/BSW-ELEC/EXT PWR (10XG)
- GAPCU (24XG)
- wiring
- lamp

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-22-33-000-001	Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)
AMM	24-41-55-400-001	Installation of the External Power Contactor (EPC)
AMM	24-42-55-000-001	Removal of the Contactors (12XX, 14XX)
AMM	24-42-55-400-001	Installation of the Contactors (12XX, 14XX)
ASM	24-41/01	

3. Fault Confirmation

A. Test

(1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002)

NOTE: Energization of the aircraft is correct but, during the procedure given at Para. 3.D., make sure that:

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- on the external power panel 108VU: the EXT PWR/NOT IN USE indicator light stays off and the EXT PWR/AVAIL caution light comes on
- on the ELEC panel 35VU: the AVAIL legend of the EXT PWR pushbutton switch comes on.

4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - on the external power panel 108VU, push the LIGHT TEST pushbutton switch (34LP) to do a test of the lights of the external power panel 108VU.
 - (1) If the EXT PWR/NOT IN USE indicator light comes on:
 - do a check of the wiring between the pin 2 of the circuit breaker (6XG) and the pin 2 of the EXT PWR/NOT IN USE indicator light (8XG) (Ref. ASM 24-41/01).
 - (a) If there is no continuity:
 - repair the wiring.
 - (b) If there is continuity:
 - replace the IND LT-EXT PWR/NOT IN USE (8XG).
 - 1 If the fault continues:
 - replace the CNTOR-AC GND SVCE SPLY (12XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - 2 If the fault continues:
 - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - 3 If the fault continues:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - 4 If the fault continues:
 - replace the P/BSW-ELEC/EXT PWR (10XG).
 - a If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-41/01) between:
 - pin A/X2 of the EPC auxiliary control relay (5XG) and pin AB/3C of the EGIU 1 (22XU1)
 - pin 2 of the circuit breaker (11XG) and pin AB/5C of the EGIU 1 (22XU1)
 - pin AB/5C of the EGIU 1 (22XU1) and pin A/B1 of the ELEC/EXT PWR pushbutton switch (10XG)

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. pin AB/4C of the EGIU 1 (22XU1) and pin A/B3 of the ELEC/EXT PWR pushbutton switch (10XG).

- (2) If the EXT PWR/NOT IN USE indicator light (8XG) stays off: - replace the lamp of the EXT PWR/NOT IN USE indicator light (8XG).
 - (a) If the fault continues:
 - do a check of the wiring (Ref. ASM 24-41/01) between: pins 4 and 1 of the EXT PWR/NOT IN USE indicator light (8XG) . pin 5 of the EXT PWR/NOT IN USE indicator light (8XG) and the first terminal.
 - 1 If there is no continuity: - repair the wiring.
 - 2 If there is continuity: - replace the IND LT-EXT PWR/NOT IN USE (8XG).

**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - on the external power panel 108VU, push the LIGHT TEST pushbutton switch (34LP) to do a test of the lights of the external power panel 108VU.
 - (1) If the EXT PWR/NOT IN USE indicator light comes on:
 - do a check of the wiring between the pin 2 of the circuit breaker (6XG) and the pin 2 of the EXT PWR/NOT IN USE indicator light (8XG) (Ref. ASM 24-41/01).
 - (a) If there is no continuity: - repair the wiring.
 - (b) If there is continuity:
 - replace the IND LT-EXT PWR/NOT IN USE (8XG).
 - 1 If the fault continues:
 - replace the CNTOR-AC GND SVCE SPLY (12XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - If the fault continues:
 - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - 3 If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 4 If the fault continues:
 - replace the P/BSW-ELEC/EXT PWR (10XG).

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- a If the fault continues:
 - do a check and repair the wiring (Ref. ASM 24-41/01) between:
 - pin A/X2 of the EPC auxiliary control relay (5XG) and pin AB/10A of the GAPCU (24XG)
 - pin AA/4A of the GAPCU (24XG) and pin A/B1 of the ELEC/EXT PWR pushbutton switch (10XG)
 - ${\tt .}$ pin A/B3 of the ELEC/EXT PWR pushbutton switch (10XG) and the ground.
- (2) If the EXT PWR/NOT IN USE indicator light (8XG) stays off:
 replace the lamp of the EXT PWR/NOT IN USE indicator light (8XG).
 - (a) If the fault continues:
 - do a check of the wiring (Ref. ASM 24-41/01) between:
 - pins 4 and 1 of the EXT PWR/NOT IN USE indicator light (8XG)
 pin 5 of the EXT PWR/NOT IN USE indicator light (8XG) and the first terminal.
 - 1 If there is no continuity: - repair the wiring.
 - 2 If there is continuity:
 replace the IND LT-EXT PWR/NOT IN USE (8XG).

**ON A/C ALL

- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that:
 - on the external power panel 108VU the EXT PWR/NOT IN USE indicator light and EXT PWR/AVAIL caution light come on.
 - on the ELEC panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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EFF:

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R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-40-00-810-810

The EXT PWR/AVAIL Caution Light and the AVAIL Legend of the ELEC/EXT PWR Pushbutton Switch Stay off when the EXT PWR Energizes the Aircraft

- 1. Possible Causes
 - wiring
 - C/B-ELEC/EXT PWR/LT CTL/AVAIL (4XG)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
ASM	24-41/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002)
 - NOTE: Energization of the aircraft is correct but, during the procedure given at Para. 3.D., make sure that:
 - on the panel 108VU: the EXT PWR/NOT IN USE indicator light comes on and the EXT PWR/AVAIL caution light stays off.
 - on the panel 35VU: the AVAIL legend of the EXT PWR pushbutton switch stays off.

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4. Fault Isolation

- A. If the test confirms the fault:
 - on the circuit breaker panel 122VU, do a check of the status of the circuit breaker (4XG).
 - (1) If the circuit breaker is closed:
 - do a check of the wiring between the pin 2 of the circuit breaker (4XG) and the first terminal block (Ref. ASM 24-41/01).
 - (a) If there is no continuity: - repair the above wiring.
 - (b) If there is continuity: - replace the C/B-ELEC/EXT PWR/LT CTL/AVAIL (4XG).
 - (2) If the circuit breaker is open: - close it.
 - (a) If the circuit breaker trips:
 - do a check for a short to ground of the wiring which gets electrical power from the circuit breaker (4XG) (Ref. ASM 24-41/01).
 - 1 If the wiring is not correct: - repair it.
 - 2 If the wiring is correct: - replace the C/B-ELEC/EXT PWR/LT CTL/AVAIL (4XG).
- B. Do this test to make sure that the system operates correctly:
 - (1) Do the test given in Para. 3. and make sure that:
 - on the panel 108VU, the EXT PWR/NOT IN USE indicator light and EXT PWR/AVAIL caution light come on
 - on the panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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**ON A/C ALL

TASK 24-40-00-810-811

The AVAIL Legend of the EXT PWR Pushbutton Switch Stays on when the Switch is Pushed

1. Possible Causes

- EPC (3XG)
- GLC-APU (3XS)
- EGIU-1 (22XU1)
- RELAY-EPC AUX CTL (5XG)
- GAPCU (24XG)
- RELAY-EPC AUX CTL (5XG)
- wiring

2. Job Set-up Information

A. Referenced Information

RFFF	RENCE	DESIGNATION
АММ	24-22-33-000-001	Demoved of the ECTH 4/23 /22VH4 22VH23
		Removal of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-22-33-400-002	Installation of the EGIU-1(2) (22XU1, 22XU2)
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)
AMM	24-41-55-400-001	Installation of the External Power Contactor (EPC)
ASM		Induction of the External Tower Confederal (Erc)
	- · -	
ASM	24-41/01	

3. Fault Confirmation

A. Test

(1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

NOTE : Energization of the aircraft is correct but, during the procedure given at Para. 3.E. and 3.F., make sure that:

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- on the ELEC panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch stays on.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - do a check for 28VDC at pins B/3, B/5 of the EPC (3XG) (Ref. ASM 24-41/01).
 - (1) If there is 28VDC:
 - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - (2) If there is not 28VDC:
 - do a check for ground signal at the pin A/X2 of the EPC AUX CTL relay (Ref. ASM 24-41/01).
 - (a) If there is a ground signal:
 - replace the RELAY-EPC AUX CTL (5XG).
 - 1 If the fault continues:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001)
 and (Ref. AMM TASK 24-23-55-400-001).
 - 2 If the fault continues:
 - do a check and repair the wiring
 - . from the pin B/5 of the EPC to the first terminal block (Ref. ASM 24-41/01).
 - . from the pin B/3 of the EPC to the pin A/C1 of the EPC AUX CTL relay (Ref. ASM 24-41/01).
 - . from the pin A/C2 of the relay to the first terminal block (Ref. ASM 24-23/02).
 - (b) If there is no ground signal:
 - replace the EGIU-1 (22XU1) (Ref. AMM TASK 24-22-33-000-001) and (Ref. AMM TASK 24-22-33-400-002).
 - 1 If the fault continues:
 - do a check and repair the wiring from the pin AB/3C of the EGIU1 (22XU1) to the pin A/X2 of the EPC AUX CTL relay (Ref. ASM 24-41/01).

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EFF: ALL

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**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - do a check for 28VDC at pins B/3 and B/5 of the EPC (3XG) (Ref. ASM 24-41/01).
 - (1) If there is 28VDC:
 - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - (2) If there is not 28VDC:
 - do a check for a ground signal at the pin A/X2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-41/01).
 - (a) If there is a ground signal:
 - replace the RELAY-EPC AUX CTL (5XG).
 - 1 If the fault continues:
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001)
 and (Ref. AMM TASK 24-23-55-400-001).
 - 2 If the fault continues:
 - do a check and repair the wiring between:
 - . the pin B/5 of the EPC (3XG) and the first terminal block (Ref. ASM 24-41/01)
 - the pin B/3 of the EPC and the pin A/C1 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-41/01)
 - the pin A/C2 of the EPC auxiliary control relay and the first terminal block (Ref. ASM 24-23/02).
 - (b) If there is no ground signal:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - 1 If the fault continues:
 - do a check and repair the wiring between the pin AB/10A of the GAPCU (24XG) and the pin A/X2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-41/01).

**ON A/C ALL

- B. Do this test to make sure that the system operates correctly:
 - (1) Do the test given in Para. 3. and make sure that:
 - on the panel 35VU, when you push the EXT PWR pushbutton switch:
 - the AVAIL legend goes off
 - the ON legend comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-40-00-810-812

External Power not Available although the External Power Energizes the Aircraft

- 1. Possible Causes
 - GPCU (1XG)
 - GAPCU (24XG)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	

3. Fault Confirmation

- A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - NOTE: Energization of the aircraft is correct but, during the procedure given at Para. 3.D, make sure that:
 - on the panel 108VU: the EXT PWR/NOT IN USE indicator light stays off and the EXT PWR/AVAIL caution light stays off
 - on the ELEC panel 35VU: the AVAIL legend of the EXT PWR pushbutton switch stays off.
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

**ON A/C ALL

- B. Do this test to make sure that the system operates correctly:
 - (1) Do the test given in Para. 3. and make sure that:
 - on the panel 108VU, the EXT PWR/NOT IN USE indicator light and EXT PWR/ AVAIL caution light come on.
 - on the ELEC panel 35VU, the AVAIL legend of the EXT PWR pushbutton switch comes on.
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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AC EXTERNAL POWER CONTROL (GPCU OR GAPCU) - FAULT ISOLATION PROCEDURES

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

TASK 24-41-00-810-801

Failure of the Ground Power Control Unit

- 1. Possible Causes
 - GPCU (1XG)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 24-41-00-740-0	Operational Test of the Ground Power Control Unit
AMM 24-41-34-000-0	

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the test gives the maintenance message GPCU:
 replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - B. Do the test given in Para. 3.A.

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TASK 24-41-00-810-802

Failure of the Connection between the GPCU and the APU GCU

1. Possible Causes

- GPCU (1XG)
- GCU-APU (1XS)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM	24-41/02	

3. Fault Confirmation

A. Test
Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK SERIAL LINK GPCU TO GCU APU:
 - do a check of the wiring for open circuit or short to ground between respectively the APU GCU pins B/14C, B/14D and the GPCU pins A/14B, A/15B (Ref. ASM 24-41/02).

 - (2) If the wiring is correct:
 - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (3) If the fault continues:
 - replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001) and (Ref. AMM TASK 24-23-34-400-001).
- B. Do the test given in Para. 3.

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TASK 24-41-00-810-803

Failure of the RS422 Electrical Connection between the GPCU and the APU GCU

1. Possible Causes

- GCU-APU (1XS)
- GPCU (1XG)
- wiring between the circuit breaker (6XS) and the APU GCU
- C/B-ELEC/APU/GCU (6XS)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-23-34-000-001	Removal of the GCU-APU (1XS)	
AMM	24-23-34-400-001	Installation of the GCU-APU (1XS)	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>	
ASM	24-23/02		
ASM	24-41/02		

3. Fault Confirmation

A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message NO DATA FROM GCU APU:
 - on the circuit breaker panel 122VU, do a check of the status of the circuit breaker (6XS).
 - (1) If the circuit breaker is open:
 - close it.
 - (2) If the circuit breaker is closed:
 - do a check for 28VDC on the pin A/1D of the APU GCU.
 - (a) If there is no 28VDC:
 - do a check of the wiring between the circuit breaker (6XS) and the APU GCU (Ref. ASM 24-23/02).

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- 1 If there is no continuity: - repair the above wiring.
- 2 If there is continuity:
 replace the C/B-ELEC/APU/GCU (6XS).
- (b) If there is 28VDC:
 - do a check of the wiring between respectively the APU GCU pins B/14C, B/14D and the GPCU pins A/14B, A/15B (Ref. ASM 24-41/02).
 - 1 If there is no continuity:
 repair the above wiring.
 - 2 If there is continuity:
 replace the GCU-APU (1XS) (Ref. AMM TASK 24-23-34-000-001)
 and (Ref. AMM TASK 24-23-34-400-001).
- B. Do the test given in Para. 3.

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TASK 24-41-00-810-804

Failure of the RS422 Electrical Connection between the GPCU and the GCU 1

1. Possible Causes

- GCU-1 (1XU1)
- GPCU (1XG)
- wiring between the circuit breaker (2XU1) and the GCU 1
- C/B-ELEC/GCU/1 (2XU1)
- wiring of the RS422 bus

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)	
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)	
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>	
ASM	24-22/02		
ASM	24-41/02		

3. Fault Confirmation

A. Test

Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message NO DATA FROM GCU 1:
 - on the circuit breaker panel 122VU, do a check of the status of the circuit breaker (2XU1).
 - (1) If the circuit breaker is open:
 - close it.
 - (2) If the circuit breaker is closed:
 - do a check for 28VDC on the pin A/1D of the GCU 1.
 - (a) If there is no 28VDC:
 - do a check of the wiring between the circuit breaker (2XU1) and the GCU 1 (Ref. ASM 24-22/02).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- 1 If there is no continuity: - repair the wiring.
- 2 If there is continuity: - replace the C/B-ELEC/GCU/1 (2XU1).
- (b) If there is 28VDC:
 - do a check of the wiring of the RS422 bus between respectively the GCU 1 pins B/14C, B/14D and the GPCU pins A/13C, A/14C (Ref. ASM 24-41/02).
 - 1 If there is no continuity: - repair the above wiring.
 - 2 If there is continuity: - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001) .
 - 3 If the fault continues: - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. Do the test given in Para. 3.

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TASK 24-41-00-810-805

Failure of the RS422 Electrical Connection between the GPCU and the GCU 2

1. Possible Causes

- GCU-2 (1XU2)
- GPCU (1XG)
- wiring between the circuit breaker (2XU2) and the GCU 2
- C/B-ELEC/GCU 2 (2XU2)
- wiring of the RS422 bus

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM	24-22/02	
ASM	24-41/02	

3. Fault Confirmation

A. Test

Do the operational test of the GPCU, (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message NO DATA FROM GCU 2:
 - on the circuit breaker panel 122VU, do a check of the status of the circuit breaker (2XU2).
 - (1) If the circuit breaker is open:
 - close it.
 - (2) If the circuit breaker is closed:
 - do a check for 28VDC on the pin A/1D of the GCU 2.
 - (a) If there is no 28VDC:
 - do a check of the wiring between the circuit breaker (2XU2) and the GCU 2 (Ref. ASM 24-22/02).

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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- 1 If there is no continuity: - repair the above wiring.
- 2 If there is continuity:
 replace the C/B-ELEC/GCU 2 (2XU2).
- (b) If there is 28VDC:
 - do a check of the wiring of the RS422 bus between respectively the GCU 2 pins B/14C, B/14D and the GPCU pins A/12D, A/13D (Ref. ASM 24-41/02).
 - 1 If there is no continuity: - repair the above wiring.
 - 2 If there is continuity:
 replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001)
 and (Ref. AMM TASK 24-22-34-400-001) .
- B. Do the test given in Para. 3.

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TASK 24-41-00-810-806

Failure of the RS422 Electrical Connection between the GPCU and the GCU 1

1. Possible Causes

- GPCU (1XG)
- GCU-1 (1XU1)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM	24-41/02	

3. Fault Confirmation

A. Test
Do the operational test of the GPCU, (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK SERIAL LINK GPCU TO GCU 1:
 - do a check of the wiring for short to ground or open circuit between respectively the GPCU pins A/13C, A/14C and the GCU 1 pins B/14C, B/14D (Ref. ASM 24-41/02).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (3) If the fault continues:
 - replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in Para. 3.

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TASK 24-41-00-810-807

Failure of the RS422 Electrical Connection between the GPCU and the GCU 2

1. Possible Causes

- GPCU (1XG)
- GCU-2 (1XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM	24-41-34-000-001	Removal of the Ground Power Control Unit (GPCU) (1XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Power Control Unit (GPCU) (1XG)</pre>
ASM	24-41/02	

3. Fault Confirmation

A. Test
Do the operational test of the GPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK SERIAL LINK GPCU TO GCU 2:
 - do a check of the wiring for short to ground or open circuit between respectively the GPCU pins A/12D, A/13D and the GCU 2 pins B/14C, B/14D (Ref. ASM 24-41/02).
 - (1) If the wiring is not correct:
 repair it.
 - (2) If the wiring is correct:
 - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (3) If the fault continues:
 - replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- B. Do the test given in Para. 3.

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TASK 24-41-00-810-808

Loss of the CFDIU Discrete Signal to the GPCU

- 1. Possible Causes
 - GPCU (1XG)
 - CFDIU (1TW)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-740-002	Operational Test of the Ground Power Control Unit (GPCU)
AMM AMM	24-41-34-000-001 24-41-34-400-001	Removal of the Ground Power Control Unit (GPCU) (1XG) Installation of the Ground Power Control Unit (GPCU) (1XG)
AMM AMM ASM	31-32-34-000-001 31-32-34-400-001 31-32/06	Removal of the CFDIU (1TW) Installation of the CFDIU (1TW)

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the ground power control unit (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK GPCU PIN A4B CFDIU 1TW PIN A9K WIRING:
 - replace the GPCU (1XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (1) If the fault continues:
 - replace the CFDIU (1TW) (Ref. AMM TASK 31-32-34-000-001) and (Ref. AMM TASK 31-32-34-400-001).
 - (2) If the fault continues:
 - do a check and repair the wiring from the pin AA/4B of the GPCU (1XG) to the pin AA/9K of the CFDIU (1TW) (Ref. ASM 31-32/06).
 - B. Do the test given in Para. 3.

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R **ON A/C ALL

TASK 24-41-00-810-809

Aircraft Electrical Circuits cannot be supplied from the External Power

1. Possible Causes

- RCPT-EXT PWR (20XG)
- EPC (3XG)
- GLC-APU (3XS)
- RELAY-EPC AUX CTL (5XG)
- GLC-1 (9XU1)
- GLC-2 (9XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-22-55-400-002	Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-51-000-001	Removal of the External Power Receptacle (20XG)
AMM	24-41-51-400-001	Installation of the External Power Receptacle (20XG)
AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)
AMM ASM	24-41-55-400-001 24-41/01	Installation of the External Power Contactor (EPC)

3. Fault Confirmation

A. Energize the Aircraft Electrical Circuits from the External Power (Ref. AMM TASK 24-41-00-861-002).

NOTE: Examine the external power supply-cable and the external power receptacle before you do the connection.

If you find corrosion or damage, or if the pins are not aligned correctly, replace the RCPT-EXT PWR (20XG) (Ref. AMM TASK 24-41-51-000-001).

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4. Fault Isolation

- A. If the above procedure confirms the results below when the EXT PWR pushbutton switch is pushed:
 - . the AVAIL legend of the EXT PWR pushbutton switch stays on,
 - . the ON legend of the EXT PWR pushbutton switch does not come on,
 - . the FAULT legend of the GEN1 and the GEN2 pushbutton switches stays off.
 - Do a check for 28VDC between pins B/3 and B/5 of the EPC (3XG) (Ref. ASM 24-41/01).
 - (1) If there is 28VDC:
 - Replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - (2) If there is no 28VDC:
 - Do a check for 28VDC at pins A/D1 then A/X1 of the EPC auxiliary control relay (5XG).
 - (a) If there is 28VDC:
 - Do a check for 28VDC at pin B/24 of the APU GLC (3XS) (Ref. ASM 24-41/01).
 - 1 If there is 28VDC:
 - Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - 2 If there is no 28VDC:
 - Replace the RELAY-EPC AUX CTL (5XG).
 - 3 If the fault continues:
 - Do a check of the wiring between pins B/10 and B/12 of the GLC1 and of the GLC2.
 - a If there is no continuity:
 - Replace the GLC-1 (9XU1) and/or GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - b If there is continuity:
 - Do a check and repair the wiring between pin B/3 of the EPC (3XG) and pin A/D2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-41/01).
 - (b) If there is no 28VDC:
 - Do a check and repair the wiring between pins A/D1 and A/X1 of the EPC auxiliary control relay (5XG) and the circuit breaker (11XG) (Ref. ASM 24-41/01).
- B. Do the procedure given in Para 3.A.

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TASK 24-41-00-810-810

Failure of the Ground Auxiliary Power Control Unit

- 1. Possible Causes
 - GAPCU (24XG)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R		24-41-00-740-002 24-41-34-000-001	Operational Check of GAPCU via CFDS Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - B. Do the test given in para. 3.

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TASK 24-41-00-810-811

Failure of the Interlock Circuit (External Power / GAPCU)

1. Possible Causes

- GAPCU (24XG)
- external power-source cable
- external power source
- wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-41/01	

3. Fault Confirmation

A. Test Not applicable.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS messages EXT PWR INTLK/ GAPCU (24XG) or EXTERNAL POWER INTERLOCK/ GAPCU (24XG):
 - do a check of the DC voltage between pin E and pin F of the external power-source plug to make sure that it is not out of the limits,
 - do a check for a short circuit between the wiring of pins E or F and the external power-source cables.
 - (1) If the DC voltage is out of the limits:
 - repair or replace the external power-source cable or the external power source as necessary.
 - (2) If the DC voltage is not out of the limits:
 - do a check of the wiring (Ref. ASM 24-41/01) for an out-of-limit AC or DC voltage between:
 - $\boldsymbol{.}$ pin E of the external power receptacle (20XG) and pin B/11E of the GAPCU

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- . pin F of the external power receptacle and pin B/12E of the GAPCU.
- (a) If the AC or DC voltage is out of the limits:repair or replace as necessary.
- (b) If the AC or DC voltage is not out of the limits: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. Do this procedure to make sure that the system operates correctly.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-812

Failure of the External Power

1. Possible Causes

- GAPCU (24XG)
- Ground Power Unit

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- C/B-GND/PWR/PROT (2XG)
- R wiring
 - feeders

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	ASM	24-41/01	

3. Fault Confirmation

- A. If the external power source is connected to the aircraft electrical circuits while a different source supplies the aircraft electrical circuits (IDG, APU, batteries):
 - on the ELEC panel 35VU, release, push and release again the ELEC/EXT PWR pushbutton switch (10XG) to do a reset of the GAPCU protection function. Then close the interlock on the Ground Power Unit (GPU).
 - (1) If on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) comes on and if on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) comes on:
 stop the trouble shooting.
 - (2) If on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) stays off and if on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) stays off:
 do the trouble shooting given in Para. 4.B.

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- B. If the external power source is connected to the aircraft electrical circuits with no other source(s) connected (IDG, APU, batteries):
 - on the ELEC panel 35VU, push the BAT 1 and BAT 2 pushbutton switches (7PB1 and 7PB2) (on the MCDU menu page, make sure that the CFDS indication comes into view).
 - on the ELEC panel 35VU, release, push and release again the ELEC/EXT PWR pushbutton switch (10XG) to do a reset of the GAPCU protection function. Then close the interlock on the Ground Power Unit (GPU).
 - (1) If on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) comes on and if on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) comes on:
 stop the trouble shooting.
 - (2) If on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) stays off and if on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) stays off:
 do the trouble shooting given in Para. 4B.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

123VU GND/PWR/PROT

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2XG AB07

- B. If the test confirms the fault:
 - On the AC power center panel 123VU, do a check of the status of the GND/PWR/PROT circuit breaker (2XG).
 - Replace the Ground Power Unit.
 - On the ELEC panel 35VU, release, push and release again the ELEC/EXT PWR pushbutton switch (10XG) to do a reset of the GAPCU protection function. Then close the interlock on the GPU.
 - (1) If the circuit breaker (2XG) is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
- R (a) If the fault continues:
 - Replace the C/B-GND/PWR/PROT (2XG).
 - (2) If the circuit breaker (2XG) is closed:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-41/01) for an open or a short circuit between:
 - pin A/J of the EPC (3XG) and pin B/15J of the GAPCU
 - . pin A/H of the EPC and pin B/14J of the GAPCU
 - . pin A/G of the EPC and pin B/13J of the GAPCU.

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- (a) If the wiring is not correct:

 R Repair or replace as necessary.
 - (b) If the wiring is correct:
 - Do a check of the external power feeders (Ref. ASM 24-41/01) for an open circuit, a short circuit or a short to airframe between:
 - $\mbox{-}$ pin A of the external power receptacle (20XG) and pin A/K of the EPC (3XG)
 - pin B of the external power receptacle and pin A/L of the EPC
 pin C of the external power receptacle and pin A/M of the EPC.
 - $\underline{1}$ If the feeders are not correct:
 - Repair or replace as necessary.
 - 2 If the feeders are correct:
 - Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - C. Do this procedure to make sure that the system operates correctly.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-813

Failure of the Interlock Signal of the External Power

1. Possible Causes

- RCPT-EXT PWR (20XG)
- GAPCU (24XG)
- external power
- external power plug
- wiring
- R C/B-GND/PWR/PROT (2XG)
 - feeders

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
2	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
	AMM	24-41-51-000-001	Removal of the External Power Receptacle (20XG)
	AMM	24-41-51-400-001	Installation of the External Power Receptacle (20XG)
	ASM	24-41/01	·

3. Fault Confirmation

A. Test

(1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If the test confirms the fault:
 - stop the external power source,
 - disconnect the plug from the external power receptacle (20XG),
 - make sure that the ELEC/EXT PWR pushbutton switch (10XG) is in the ON position,
 - do a check of the external power plug for a short to 28 VDC of the pin F.

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- (1) If there is a short to 28VDC:
 - repair or replace the external power plug.
- (2) If there is no short to 28VDC:
 - do a check of the wiring of the external-power interlock control (Ref. ASM 24-41/01) for a short to 28VDC or a short circuit between:
 - . pin F and pin E of the external power receptacle (20XG)
 - . pin B/12E of the GAPCU and pin F of the external power receptacle (20XG).
 - (a) If the check is not correct:
 - repair or replace the wiring as necessary
 - replace the RCPT-EXT PWR (20XG) (Ref. AMM TASK 24-41-51-000-001) and (Ref. AMM TASK 24-41-51-400-001) as necessary
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (b) If the check is correct:
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - 1 If the external power energizes the electrical circuits: - stop the trouble shooting.
 - 2 If the external power does not energize the electrical circuits:
 - do the trouble shooting given in Para. 4B.
- B. If the external power does not energize the electrical circuits:Do a check of the status of the GND/PWR/PROT circuit breaker (2XG).
 - (1) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
- R (a) If the fault continues:
 - Replace the C/B-GND/PWR/PROT (2XG).
- R (2) If the circuit breaker is closed:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-41/01) for an open circuit or a short circuit between:
 - . pin A/J of the EPC (3XG) and pin B/15J of the GAPCU
 - pin A/H of the EPC and pin B/14J of the GAPCU
 - . pin A/G of the EPC and pin B/13J of the GAPCU.
 - (a) If the wiring is not correct:
 - Repair or replace as necessary.

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- (b) If the wiring is correct:
 - Do a check of the external power feeders (Ref. ASM 24-41/01) for an open circuit, a short circuit, or a short to airframe between:
 - pin A of the external power receptacle (20XG) and pin A/K of the EPC (3XG)
 - pin B of the external power receptacle and pin A/L of the EPC
 pin C of the external power receptacle and pin A/M of the
 EPC.
 - If the feeders are not correct:- Repair or replace as necessary.
 - 2 If the feeders are correct:
 - Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do this procedure to make sure that the system operates correctly.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-814

Failure of the External Power and of the POR Sense Wiring of the GAPCU

- 1. Possible Causes
 - GAPCU (24XG)
 - external power
- R C/B-GND/PWR/PROT (2XG)
 - wiring
 - feeders
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
D	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
ĸ		24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	ASM	24-41/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- 4. Fault Isolation
 - A. If the test confirms the fault:
 - stop the external power source
 - disconnect the plug from the external power receptacle (20XG)
 - repair or replace the external power source
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (1) If the external power energizes the electrical circuits:
 - stop the trouble shooting.

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(2) If the external power does not energize the electrical circuits:

- replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001). (a) If the fault continues: - do the trouble shooting given in Para. 4.B. B. If the external power does not energize the electrical circuits: - Do a check of the status of the GND/PWR/PROT circuit breaker (2XG). R (1) If the circuit breaker is open: R - Do the procedure (Ref. TASK 24-00-00-810-803). (a) If the fault continues: R R - Replace the C/B-GND/PWR/PROT (2XG). R (2) If the GND/PWR/PROT circuit breaker (2XG) is closed: - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM R 24-41/01) for an open circuit or a short circuit between: R - pin A/J of the EPC (3XG) and pin B/15J of the GAPCU . pin A/H of the EPC and pin B/14J of the GAPCU . pin A/G of the EPC and pin B/13J of the GAPCU. (a) If the wiring is not correct: - Repair or replace as necessary. R (b) If the wiring is correct: - Do a check of the external power feeders (Ref. ASM 24-41/01) R R for an open circuit, a short circuit or a short to airframe between: - pin A of the external power receptacle (20XG) and pin A/K of the EPC (3XG) . pin B of the external power receptacle and pin A/L of the EPC . pin C of the external power receptacle and pin A/M of the EPC. 1 If the feeders are not correct: R - Repair or replace as necessary. 2 If the feeders are correct: - Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- C. Do this procedure to make sure that the system operates correctly.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-815

Failure of the Fault Light Circuit of the APU Generator

- 1. Possible Causes
 - GAPCU (24XG)
 - BOARD-ANN LT TEST & INTFC (10LP)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
AMM	33-14-33-000-001	Removal of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP, 8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)	
AMM	33-14-33-400-001	Installation of the Annunciator-Light Test and Interface-Board (1LP, 2LP, 3LP, 4LP, 5LP, 6LP, 7LP,	
ASM	24-22/02	8LP, 9LP, 10LP, 11LP, 12LP, 18LP, 19LP, 20LP)	
ASM	24-23/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Read the Class 3 Faults of the GAPCU (Ref. AMM TASK 24-41-00-740-002).

4. Fault Isolation

- A. If the Class 3 Faults gives the maintenance message GAPCU (24XG)/ ANN LT BOARD (10LP):
 - do a check of the wiring (Ref. ASM 24-23/02) (Ref. ASM 24-22/02) for a short to ground between:
 - ${\tt pin}$ A/5G of the GAPCU and pin A/28 of the annunciator light test and interface board (10LP)
 - ${\tt .}$ pin A/29 of the annunciator light test and interface board (10LP) and pin 11 of the diode module 2422VD
 - . pin 26 of the diode module 2422VD and pin 18 of the GLC APU (3XS)
 - . pin 20 of the GLC APU and pin 26 of the EPC (3XG)
 - . pin 28 of the EPC and pin A/A1 of the APU AVAIL relay (6KD)

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- pin A/A2 of the APU AVAIL relay and pin 37 of the diode module 1162VD.
- (1) If there is a short to ground:
 - repair or replace the wiring as necessary.
- (2) If there is no short to ground:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- (3) If the fault continues:
 - replace the BOARD-ANN LT TEST & INTFC (10LP) (Ref. AMM TASK 33-14-33-000-001) and (Ref. AMM TASK 33-14-33-400-001).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-41-00-810-816

Failure of the Auxiliary Control Circuit of the External Power

- 1. Possible Causes
 - RELAY-EPC AUX CTL (5XG)
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R		24-41-00-740-002 24-41-34-000-001	Operational Check of GAPCU via CFDS Removal of the Ground Auxiliary Power Control Unit
	Amm	24-41-34-000-001	(GAPCU) (24XG)
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	ASM	24-23/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the BITE test gives the maintenance message GAPCU (24XG)/ EXT PWR AUX RELAY (5XG):
 - do a check of the coil and contacts of the EPC auxiliary control relay (5XG) (Ref. ASM 24-23/02) for correct electrical continuity between:
 - pins X1 and X2 (coil resistance)
 - . pins D2 and D3 (normally closed)
 - pins D2 and D1 (normally open)
 - . pins C2 and C3 (normally closed)
 - . pins C2 and C1 (normally open).
 - (1) If there is no continuity:
 - replace the RELAY-EPC AUX CTL (5XG).
 - (2) If there is continuity:

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do a check of the wiring of the EPC control circuit (Ref. ASM 24-23/02) for an open circuit or a short to ground between:
 pin A/X2 of the EPC auxiliary control relay (5XG) and pin B/10A of the GAPCU

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. pin A/X1 of the EPC auxiliary control relay and pin 2 of the ELEC/EXT PWR/CTL circuit breaker (11XG).

- (a) If the wiring is not correct:repair or replace as necessary.
- (b) If the wiring is correct
 replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and
 (Ref. AMM TASK 24-41-34-400-001).
- B. Do the test given in para. 3.

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TASK 24-41-00-810-817

Failure of the Ground/Flight signal Between the GAPCU and the LGCIU

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	ASM	24-41/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the trouble shooting for all CFDS messages related to the Chapter 32 or to the LGCIU that can come into view with the CFDS message LGCIU (5GA1)/GAPCU (24XG).
 - NOTE: You can ignore this CFDS message if it comes into view when the aircraft is on jacks for maintenance or when you remove the power from the LGCIU 1 when the aircraft is on the ground.
 - (a) If there are no Chapter 32 or LGCIU-related CFDS messages, or if the fault continues after the trouble shooting:
 - do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - 1 If the BITE test gives the message TEST FAILED:

 do the trouble shooting given in Para 4.A.
 - If the BITE test gives the message TEST PASSED:
 do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the wiring of the ground/flight signal (Ref. ASM 24-41/01) between pin B/9E of the LGCIU (5GA1) and pin A/2C of the GAPCU (24XG).
 - (1) If there is no continuity:
 repair or replace as necessary.
 - (2) If there is continuity:
 replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-41-00-810-818

Failure of the EPC Control Circuit

1. Possible Causes

- GAPCU (24XG)
- EPC (3XG)
- RELAY-EPC AUX CTL (5XG)
- GLC-APU (3XS)
- GLC-1 (9XU1)
- GLC-2 (9XU2)
- BTC-1 (11XU1)
- BTC-2 (11XU2)
- wiring

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION	
	AMM AMM	24-22-55-000-001 24-22-55-400-002	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2) Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
	AMM		Removal of the APU GLC (3XS)	
R	AMM AMM	24-23-55-400-001 24-41-00-740-002	Installation of the APU GLC (3XS) Operational Check of GAPCU via CFDS	
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
	AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)	
	AMM ASM ASM		Installation of the External Power Contactor (EPC)	

3. Fault Confirmation

A. Test

- (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.

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4. Fault Isolation

- A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. If the BITE test gives the message TEST PASSED:
 - do a check of the EPC (3XG) coil for correct electrical continuity between pin B/3 and pin B/5 (Ref. ASM 24-41/01).
 - (1) If the coil electrical continuity is not correct:
 - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - (2) If the coil electrical continuity is correct:
 - do a check of the auxiliary contacts of the contactors and relay of the EPC control circuit (Ref. ASM 24-41/01) for correct operation between:
 - pins B/22 and B/24 of the APU GLC (3XS) (normally closed)
 - pins A/C1 and A/C2 of the EPC auxiliary control relay (5XG)
 (normally open)
 - pins A/D1 and A/D2 of the EPC auxiliary control relay (5XG)
 (normally open)
 - pins B/10 and B/12 of the GLC 2 (9XU2) (normally closed)
 - pins B/6 and B/8 of the BTC 2 (11XU2) (normally closed)
 - pins B/10 and B/12 of the GLC 1 (9XU1) (normally closed)
 - . pins B/6 and B/8 of the BTC 1 (11XU1) (normally closed).
 - (a) If the auxiliary contacts are not correct:
 - replace the RELAY-EPC AUX CTL (5XG) as necessary
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001) as necessary
 - replace the GLC-1 (9XU1), the GLC-2 (9XU2), the BTC-1 (11XU1)
 or the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref.
 AMM TASK 24-22-55-400-002) as necessary.
 - (b) If the auxiliary contacts are correct:
 - do a check of the wiring of the EPC control circuit (Ref. ASM 24-41/01) for an open circuit or a short to ground between:
 - . pin B/5 of the EPC (3XG) and ground
 - pin B/3 of the EPC and pin B/22 of the APU GLC (3XS)
 - pin B/24 of the APU GLC and pin A/C1 of the EPC AUX CTL relay
 (5XG)
 - pin A/C2 of the EPC auxiliary control relay and pin B/10 of the GLC 2
 - $\mbox{-}$ pin A/C2 of the EPC auxiliary control relay and pin B/8 of the BTC 2
 - . pin B/12 of the GLC 2, pin B/6 of the BTC 2, pin B/12 of the GLC 1 and pin B/6 of the BTC 1 $\,$

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- pin B/10 of the GLC 1 and pin A/D2 of the EPC auxiliary control relay
- . pin B/8 of the BTC 1 and pin A/D2 of the EPC auxiliary control relay
- pin A/D1 of the EPC auxiliary control relay and pin 2 of the ELEC/EXT/PWR/CTL circuit breaker (11XG).
- 1 If the wiring is not correct:
 - repair or replace the wiring as necessary.
- 2 If the wiring is correct:
 - do a check of the wiring of the APU GLC status-circuit (Ref. ASM 24-23/02) for an open circuit or a short to ground between:
 - pin A/A1 of the APU AVAIL relay (6KD) and pin B/28 of the EPC (3XG)
 - . pin B/26 of the EPC and pin B/20 of the APU GLC contactor (3XS)
 - . pin B/18 of the APU GLC contactor and pin A/6A of the GAPCU.
 - do a check of the auxiliary contacts (Ref. ASM 24-23/02) for correct operation between:
 - pin B/18 and pin B/20 of the APU GLC (3XS) (normally closed)
 - . pin B/26 and pin B/28 of the EPC (3XG) (normally closed).
 - a If the wiring or the auxiliary contacts are not correct:
 - repair or replace the wiring as necessary
 - replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001) as necessary
 - replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001) as necessary.
 - b If the wiring or the auxiliary contacts are correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-41-00-810-819

Failure of the External Power Wiring or Interlock Protection

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the	
		External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
ASM	24-41/01		

3. Fault Confirmation

- A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If it is not possible to connect the external power source to the aircraft electrical network and if the fault symptom is identified by the CFDS message WRG:EXT PWR PIN E INTERLOCK/ GAPCU (24XG):
 - do a check of the wiring of the external power interlock-control for an open circuit or a short circuit between the pin E and the cord plug of the external power source.
 - (1) If the wiring is not correct:
 - repair or replace as necessary.
 - (2) If the wiring is correct:
 - do a check of the wiring of the interlock control (Ref. ASM 24-41/01) for an open circuit, a short circuit or a short to ground between pin E of the external power receptacle (20XG) and pin B/11E of the GAPCU.

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- (a) If the wiring is not correct:repair or replace as necessary.
- (b) If the wiring is correct:
 replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. Do this procedure to make sure that the system operates correctly:
 - (1) Energize the Aircraft Electrical Circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-820

Failure of the Pin Programming of the GAPCU

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	ASM	24-41/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:do the trouble shooting given in Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:do the trouble shooting given in Para 4.B.
- 4. Fault Isolation
 - A. If the BITE test gives the message TEST FAILED:
 - push the line key adjacent to the TEST FAILED message.
 - (1) If the maintenance message GAPCU (24XG) comes into view: - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - B. If the BITE test gives the message TEST PASSED:
 - do a check of the pin programming wiring (Ref. ASM 24-41/01) of the GAPCU:
 - pin A/4G connected to ground
 - . pins A/3E, A/5E and A/5A not connected.

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- <u>NOTE</u>: The wiring diagram of the aircraft interface with the pin programming connections is necessary to do the trouble shooting procedure.
- (2) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- C. Do the test given in para. 3.

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TASK 24-41-00-810-821

Failure of the External Power POR-Wiring or Interlock Protection

1. Possible Causes

- RCPT-EXT PWR (20XG)
- GAPCU (24XG)
- wiring
- feeders
- external power

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION	
	0/ /4 00 0/4 000		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-51-000-001	Removal of the External Power Receptacle (20XG)	
AMM	24-41-51-400-001	Installation of the External Power Receptacle (20XG)	
ASM	24-41/01		

3. Fault Confirmation

- A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If it is not possible to connect the external power source to the aircraft electrical network and if the fault symptom is identified by the CFDS message WRG: EXT PWR FEEDER/WRG: POR + CHECK INTLK:
 - stop the external power source,
 - disconnect the plug from the external power receptacle (20XG),
 - do a check for 28VDC at the pin F of the plug of the external power source.
 - (1) If there is 28VDC:
 - do the trouble shooting of the pin F for a short to 28VDC between the plug and the external power source and repair as necessary.

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- (2) If there is no 28VDC:
 - do a check of the wiring of the external power interlock-control (Ref. ASM 24-41/01) for a short circuit or a short to 28VDC between:
 - pin B/12E of the GAPCU and pin F of the external power receptacle (20XG)
 - . pins F and E of the external power receptacle.
 - (a) If the wiring is not correct:
 - repair or replace the wiring as necessary
 - replace the RCPT-EXT PWR (20XG) (Ref. AMM TASK 24-41-51-000-001) and (Ref. AMM TASK 24-41-51-400-001) as necessary.
 - (b) If the wiring is correct:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-41/01) for a correct phase connection between:
 - ullet terminal J of the EPC (3XG) and pin B/15J of the GAPCU (phase A)
 - . terminal H of the EPC and pin B/14J of the GAPCU (phase B)
 - . terminal G of the EPC and pin B/13J of the GAPCU (phase C).
 - 1 If the wiring is not correct:
 - connect the wiring as necessary to get the correct phase sequence.
 - 2 If the wiring is correct:
 - do a check of the external power feeders (Ref. ASM 24-41/01) for a correct phase connection between:
 - ullet terminal A of the external power receptacle (20XG) and terminal K of the EPC (3XG)
 - terminal B of the external power receptacle and terminal L of the EPC
 - . terminal ${\bf C}$ of the external power receptacle and terminal ${\bf M}$ of the EPC.
 - a If the feeders are not correct:
 - connect the feeders as necessary to get the correct phase sequence.
 - b If the feeders are correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - c If the fault continues:
 - replace the external power source.
- **B.** Make sure that the aircraft electrical circuits operate correctly in external power configuration.
 - (1) Energize the Aircraft Electrical Circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

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(2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-822

Failure of the External Power Feeders or External Power POR-Wiring

1. Possible Causes

- GAPCU (24XG)
- feeders
- wiring
- external power

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
ASM	24-41/01	

3. Fault Confirmation

A. Test

(1) Energize the Aircraft Electrical Circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If it is not possible to connect the external power source to the aircraft electrical network and if the fault symptom is identified by the CFDS message WRG: EXT PWR FEEDER/WRG: POR/GAPCU (24XG):
 - do a check of the external power feeders (Ref. ASM 24-41/01) for a correct phase connection between:
 - . terminal A of the external power receptacle (20XG) and terminal K of the EPC (3XG) $\,$
 - . terminal B of the external power receptacle and terminal L of the EPC
 - . terminal ${\bf C}$ of the external power receptacle and terminal ${\bf M}$ of the ${\bf EPC}$.
 - (1) If the feeders are not correct:
 - connect the feeders as necessary to get the correct phase sequence.

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- (2) If the feeders are correct:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-41/01) for a correct phase connection between:
 - . terminal J of the EPC (3XG) and pin B/15J of the GAPCU (phase A)
 - . terminal H of the EPC and pin B/14J of the GAPCU (phase B)
 - . terminal G of the EPC and pin B/13J of the GAPCU (phase C).
 - (a) If the wiring is not correct:
 - connect the wiring as necessary to get the correct phase sequence.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
 - (c) If the fault continues:
 - replace the external power source.
- B. Make sure that the aircraft electrical circuits operate correctly in external power configuration.
 - (1) Energize the Aircraft Electrical Circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-823

Failure of the External Power Feeders and External Power POR-Wiring

1. Possible Causes

- GAPCU (24XG)
- feeders
- wiring
- external power

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-41/01	

3. Fault Confirmation

A. Test

(1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If it is not possible to connect the external power source to the aircraft electrical network and if the fault symptom is identified by the CFDS message WRG: EXT PWR FEEDER/WRG: POR + GAPCU (24XG):
 - stop the external power source,
 - disconnect the plug from the external power receptacle (20XG),

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- make sure that the APU generator is stopped and all the power sources to the GAPCU (28VDC backup power included) are removed,
- replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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- (1) If the fault continues:
 - do a check of the external power feeders (Ref. ASM 24-41/01) for a correct phase connection between:
 - terminal A of the external power receptacle (20XG) and terminal K of the EPC (3XG)
 - . terminal ${\bf B}$ of the external power receptacle and terminal ${\bf L}$ of the EPC
 - . terminal ${\bf C}$ of the external power receptacle and terminal ${\bf M}$ of the ${\bf EPC}$.
 - (a) If the feeders are not correct:
 - connect the feeders as necessary to get the correct phase sequence.
 - (b) If the feeders are correct:
 - do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-41/01) for a correct phase connection between:
 - terminal J of the EPC (3XG) and pin B/15J of the GAPCU (phase A)
 - terminal H of the EPC and pin B/14J of the GAPCU (phase B)
 - . terminal G of the EPC and pin B/13J of the GAPCU (phase C).
 - 1 If the wiring is not correct:
 - connect the wiring as necessary to get the correct phase sequence.
 - 2 If the wiring is correct and the fault continues:
 - replace the external power source.
- **B.** Make sure that the aircraft electrical circuits operate correctly in external power configuration.
 - (1) Energize the Aircraft Electrical Circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-824

Failure of the APU Generator Feeders or APU Generator POR-Wiring

1. Possible Causes

- GAPCU (24XG)
- wiring
- feeders

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	27 74 00 074 000	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
ASM	24-23/01	

3. Fault Confirmation

A. Test

Not applicable.

NOTE : As the APU GEN was set to OFF because of a true failure, the fault confirmation is not necessary.

4. Fault Isolation

- A. If the fault symptom is identified by the CFDS message WRG: POR/ WRG: APU GEN FEEDER/ GAPCU (24XG) and the upper ECAM-DU warning APU GEN FAULT:
 - Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-23/01) for a correct phase connection between:
 - Pin 7 of the APU/EXT power contactor module (29XN) and pin A/14G of the GAPCU (phase A)
 - . Pin 8 of the APU/EXT power contactor module and pin A/15H of the GAPCU (phase B)
 - . Pin 9 of the APU/EXT power contactor module and pin A/15G of the GAPCU (phase C).
 - (1) If the wiring is not correct:
 - Connect the wiring as necessary to get the correct phase sequence.

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R	(2) If the wiring is correct:
R	- Do a check of the APU generator feeders (Ref. ASM 24-23/01) for a
R	correct phase connection between:
R	. Terminal T1 of the APU generator and pin 7 of the APU/EXT power
R	contactor module (29XN)
R	. Terminal T2 of the APU generator and pin 8 of the APU/EXT power
R	contactor module
R	. Terminal T3 of the APU generator and pin 9 of the APU/EXT power
R	contactor module.
R	(a) If the wiring is not correct:
R	- Connect the wiring as necessary to get the correct phase
R	sequence.
R	(b) If the wiring is correct:
R	- Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and
R	(Ref. AMM TASK 24-41-34-400-001).

- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes to make sure that it operates correctly.
 - (3) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-825

Failure of the ARINC 429 Bus between the GAPCU and the CFDIU

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>	
ASM	24-41/01		

- 3. Fault Confirmation
 - A. Test

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- (1) Read the Class 3 Faults of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
- 4. Fault Isolation
 - A. If the Class 3 Faults gives the maintenance message CFDIU(1TW)/GAPCU (24XG):
 - (1) Do the trouble shooting for chapter 31 or CFDIU messages that come into view with this message.
 - (2) If there are no chapter 31 or CFDIU messages or if the fault continues after the trouble shooting :
 - do a check of the wiring of the ARINC 429 bus (Ref. ASM 24-41/01) for an open circuit, a short circuit, a short to ground or a short to shield between:
 - . pin A/7E of the GAPCU and pin B/11E of the CFDIU (1TW)
 - . pin A/8E of the GAPCU and pin B/11D of the CFDIU
 - . pins A/7E and A/9E of the GAPCU
 - . pins A/8E and A/9E of the GAPCU.
 - (a) If the wiring is not correct:
 - repair or replace as necessary.

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- (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- B. When you replace a component or repair the wiring:
 - do the subsequent flight before you do the check of the Class 3 Faults of the GAPCU from the CFDS to make sure that the system operates correctly.

If the test continues to give the fault message, continue the trouble shooting procedure.

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TASK 24-41-00-810-826

Impossibility to Connect the External Power on the Aircraft

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-41/01	

3. Fault Confirmation

- A. Job Set-up
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- B. Test
 - (1) If on the POWER CENTER-AC/DC EMERGENCY panel 106VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) is on and the EXT PWR/AVAIL caution light (9XG) is on:
 - do the trouble shooting given in the Para. 4.A.
 - (2) If on the POWER CENTER-AC/DC EMERGENCY panel 106VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) is off and the EXT PWR/AVAIL caution light (9XG) is off:
 - do the trouble shooting given in the Para. 4.C.

4. Fault Isolation

- A. If the test confirms the fault:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

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B. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION

IDENT. LOCATION

C/B NOT APPLICABLE

- C. If the test confirms the fault:
 - do a check of the PTC TRIP LED on the front face of the GAPCU.
 - (1) If the PTC TRIP LED is off:
 - stop the trouble shooting.
 - (2) If the PTC TRIP LED is on:
 - de-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).
 - do a check of the wiring of the power ready signal for a short to ground or a short circuit between pin C/5 of the GAPCU and pin 1 of the ELEC/EXT PWR/COCKPIT/AVAIL/LT circuit breaker (12XG) (Ref. ASM 24-41/01).
 - (a) If the wiring is not correct:
 - repair or replace as necessary.
 - (b) If the wiring is correct:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- D. Do this procedure to make sure that the system operates correctly.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-827

Failure of the External Power Plug or Interlock Wiring

- 1. Possible Causes
 - GAPCU (24XG)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)	
ASM	24-41/01		

3. Fault Confirmation

- A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- 4. Fault Isolation
 - A. If the external power does not energize the electrical circuits:do a check of the external power plug for correct installation.
 - (1) If the plug is not installed correctly:
 - stop the external power source
 - connect the external power plug to the receptacle (20XG)
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (a) If, on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) and the EXT PWR/NOT IN USE indicator light (8XG) are on: - stop the trouble shooting.

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- (b) If, on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) and the EXT PWR/NOT IN USE indicator light (8XG) are off:
 - do a check of the wiring of the external power interlock-control for an open circuit or a short circuit between the pin E and the cord plug of the external power source.
 - 1 If the wiring is not correct: - repair or replace as necessary.
 - 2 If the wiring is correct:
 - do a check of the wiring of the interlock control (Ref. ASM 24-41/01) for an open circuit, a short circuit or a short to ground between pin E of the external power receptacle (20XG) and pin B/11E of the GAPCU.
 - <u>a</u> If the wiring is not correct:repair or replace as necessary.
 - b If the wiring is correct:
 replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001)
 and (Ref. AMM TASK 24-41-34-400-001).

B. Test

- (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-828

Failure of the External Power or the Phase A of the POR Sense Wiring

- 1. Possible Causes
 - GAPCU (24XG)
 - external power
- R C/B-GND/PWR/PROT (2XG)
 - wiring
 - feeders
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	<pre>Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)</pre>
	ASM	24-41/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
123VU	GND/PWR/PROT	2XG	AB07

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R	- Repair or replace the external power.
R	(1) If the fault continues:Do a check of the status of the GND/PWR/PROT circuit breaker (2XG).
R	(a) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R R R	1 If the fault continues:Replace the C/B-GND/PWR/PROT (2XG).
R R	 (b) If the circuit breaker is closed: Do a check of the Point-Of-Regulation (POR) sense wiring (Ref. ASM 24-41/01) for an open circuit or a short circuit between pin A/J of the EPC (3XG) and pin B/15J of the GAPCU.
R	1 If the wiring is not correct:- Repair or replace as necessary.
R R	 If the wiring is correct: Do a check of the external power feeders (Ref. ASM 24-41/01) for an open circuit, a short circuit or a short to airframe between pin A of the external power receptacle (20XG) and pin A/K of the EPC (3XG).
R	<u>a</u> If the feeders are not correct:- Repair or replace as necessary.
R R	 <u>b</u> If the feeders are correct: Replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
	C. Test

- (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-829

Failure of the External Power Interlock-Wiring

1. Possible Causes

- GAPCU (24XG)
- external power
- external power plug
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
	27 74 00 874 002	Formation when Advanced Florential Otto the Association
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
ASM	24-41/01	

3. Fault Confirmation

A. Test

(1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If the test confirms the fault:
 - stop the external power source,
 - disconnect the plug from the external power receptacle (20XG),
 - make sure that the ELEC/EXT PWR pushbutton switch (10XG) is in the ON position,
 - do a check of the external power plug for a short to 28VDC of the pin F.
 - (1) If there is a short to 28VDC:
 - repair or replace the external power plug.

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- (2) If there is no short to 28VDC:
 - do a check and repair the wiring of the external power interlock-control (Ref. ASM 24-41/01) for a short to 28VDC or a short circuit between:
 - pin F and pin E of the external power receptacle (20XG)
 - ${\tt pin}$ B/12E of the GAPCU and pin F of the external power receptacle (20XG).
 - (a) If the fault continues:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).

B. Test

- (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-830

Failure of the External Power Because of an Unbalance

- 1. Possible Causes
 - feeders
 - external power
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
ASM	24-22/02	
ASM	24-22/03	
ASM	24-41/01	

3. Fault Confirmation

- A. Test
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

4. Fault Isolation

- A. If it is not possible to connect the external power source to the aircraft electrical network and if the fault symptom is identified by the CFDS message EXTERNAL POWER UNBALANCE:
 - do a check of the feeders for a short circuit or a short to ground (Ref. ASM 24-41/01), (Ref. ASM 24-22/02) and (Ref. ASM 24-22/03) between:
 - the external power receptacle (20XG) and the EPC (3XG)
 - . the EPC and the primary circuit breakers of the AC main buses 1XP and 2XP through the BTC 1 (11XU1) and the BTC 2 (11XU2)
 - do a check of the status of the primary circuit breakers of the AC main buses 1XP and 2XP.
 - (1) If the feeders are not correct or if the primary circuit breakers are open:
 - repair or replace the feeders as necessary
 - close or do a reset of the primary circuit breakers.

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- (a) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - 1 If it is not possible to connect the external power source to the aircraft electrical network: - replace the external power.
- (2) If the feeders are correct or if the primary circuit breakers are closed:
 - replace the external power.

B. Test

- (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
- (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-832

Failure of the GAPCU in the FAILSAFE Mode

- 1. Possible Causes
 - GAPCU (24XG)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	AMM	24-41-00-740-002	Operational Check of GAPCU via CFDS
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
	AMM	24-41-34-000-001	Removal of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)
	AMM	24-41-34-400-001	Installation of the Ground Auxiliary Power Control Unit (GAPCU) (24XG)

3. Fault Confirmation

A. Test

- (1) Remove all AC and DC power from the GAPCU (24XG):
 - de-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002)
 - de-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002)
 - disconnect the batteries or open the GAPCU circuit breaker (17XG) to remove the 28VDC backup power-supply from the GAPCU.
- (2) Apply power to the GAPCU:
 - energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002)
 - energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).

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- (3) Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives the message TEST FAILED:push the line key adjacent to the TEST FAILED message.
 - If the maintenance message GAPCU (24XG) comes into view:
 do the trouble shooting procedure given in the Para 4.A.
 - (b) If the BITE test gives the message TEST PASSED:- stop the trouble shooting.

4. Fault Isolation

- A. If the BITE test gives the maintenance message GAPCU (24XG) or if the APU generator or the external power does not energize the aircraft electrical circuits:
 - replace the GAPCU (24XG) (Ref. AMM TASK 24-41-34-000-001) and (Ref. AMM TASK 24-41-34-400-001).
- **B.** Make sure that the aircraft electrical circuits operate correctly in APU configuration and in external power configuration.
 - (1) Energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-861-002).
 - (2) Let the APU generator operate for five minutes.
 - (3) Energize the Aircraft Electrical Circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (4) De-energize the aircraft electrical circuits from the APU (Ref. AMM TASK 24-41-00-862-002).
 - (5) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-41-00-810-833

Failure of the Ground Power Unit to Supply the Aircraft Electrical Circuits

- 1. Possible Causes
 - ground power unit
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-740-002 24-41-00-861-002	Operational Check of GAPCU via CFDS Energize the Aircraft Electrical Circuits from the
AMM	24-41-00-001-002	External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>

R

3. Fault Confirmation

- A. If the Ground Power Unit (GPU) is connected to the aircraft electrical circuits while a different source supplies the aircraft electrical circuits (IDG, APU, batteries):
 - Disconnect the GPU from the external power receptacle (20XG).
 - On the ELEC panel 35VU, release, push and release again the ELEC/EXT PWR pushbutton switch (10XG) to do a reset of the GAPCU protection function.
 - Connect the GPU to the external power receptacle.
 - (1) If, on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) comes on and if, on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) comes on:

 Stop the trouble shooting.
 - (2) If, on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) stays off and if, on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) stays off:
 Do the trouble shooting given in Para. 4.A.
- B. If the Ground Power Unit (GPU) is connected to the aircraft electrical circuits with no other source(s) connected (IDG, APU, batteries):
 - Disconnect the GPU from the external power receptacle (20XG).
 - On the ELEC panel 35VU, push the BAT 1 and BAT 2 pushbutton switches (7PB1 and 7PB2) (on the MCDU menu page, make sure that the CFDS indication comes into view).

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- On the ELEC panel 35VU, release, push and release again the ELEC/EXT PWR pushbutton switch (10XG) to do a reset of the GAPCU protection function.
- Connect the GPU to the external power receptacle.
- (1) If, on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) comes on and if, on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) comes on:
 Stop the trouble shooting.
- (2) If, on the EXT PWR panel 108VU, the EXT PWR/AVAIL caution light (9XG) stays off and if, on the ELEC panel 35VU, the AVAIL legend of the ELEC/EXT PWR pushbutton switch (10XG) stays off:
 Do the trouble shooting given in Para. 4.A.

4. Fault Isolation

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- A. If the test confirms the fault:
 - Replace the ground power unit.
 - (1) If the fault continues:
 - Do the BITE test of the GAPCU (Ref. AMM TASK 24-41-00-740-002).
 - (a) If the BITE test gives fault messages:
 - Do the trouble shooting procedures related to the maintenance messages.
- B. Do this procedure to make sure that the system operates correctly.
 - (1) Energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-861-002).
 - (2) De-energize the aircraft electrical circuits from the external power (Ref. AMM TASK 24-41-00-862-002).

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AC GROUND SERVICE BUS CONTROL - FAULT ISOLATION PROCEDURES

TASK 24-42-00-810-801

Loss of the 212XP and 216XP Busbars in Ground Service Configuration

- 1. Possible Causes
 - CNTOR-AC GND SVCE SPLY (12XX)
 - CNTOR-AC SVCE BUS NORM SPLY (12XN)
 - wiring
 - C/B-SVCE/BUS2/212XP SPLY (2XX)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-42-00-861-001	Energize the Ground Service Network from the External Power
	AMM	24-42-00-862-001	<pre>De-energize the Ground Service Network Supplied from the External Power</pre>
	AMM	24-42-55-000-001	Removal of the Contactors (12XX, 14XX)
	AMM	24-42-55-400-001	Installation of the Contactors (12XX, 14XX)
	AMM	24-51-55-000-001	Removal of the AC Service Bus Normal Supply Contactor (12XN)
	AMM	24-51-55-400-001	Installation of the AC Service Bus Normal Supply Contactor (12XN)
	ASM	24-42/01	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Energize the ground service network with the ground power unit (Ref. AMM TASK 24-42-00-861-001).
 - B. Test

ACTION RESULT

- CABIN CLG pushbutton switches.
- 1. On the forward attendant panel the ceiling forward and aft lights (L 120RH, push the CABIN WDO and side) do not come on.
 - the window forward and aft lights (R side) do not come on.

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (2XX)
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC on the pins A/M, A/L and A/K of the contactor (12XX) (Ref. ASM 24-42/01).
 - (a) If there is no 115VAC:
 - Do a check of the wiring between the circuit breaker (2XX) and the contactor (12XX) (Ref. ASM 24-42/01).
 - 1 If there is no continuity: - Repair the wiring.
 - 2 If there is continuity:
 Replace the C/B-SVCE/BUS2/212XP SPLY (2XX).
 - (b) If there is 115VAC:
 - Replace the CNTOR-AC GND SVCE SPLY (12XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pins A/F, A/E and A/D of the contactor (12XX) and the busbars 212XP and 216XP (Ref. ASM 24-42/01).
 - a If the wiring is not correct:
 - Repair the wiring.
 - b If the wiring is correct:
 - Replace the CNTOR-AC SVCE BUS NORM SPLY (12XN) (Ref. AMM TASK 24-51-55-000-001) and (Ref. AMM TASK 24-51-55-400-001).
 - 2 If the fault continues:
 - Do a check and repair the wiring:
 - . between the pin B/3 of the contactor (12XX) and the pin B/10 of the contactor (12XN)
 - between the pin B/5 of the contactor (12XX) and the first terminal block
 - between the pin B/12 of the contactor (12XN) and the first terminal block (Ref. ASM 24-42/01).

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- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-SVCE/BUS2/212XP SPLY (2XX).

**ON A/C 254-275, 432-475, 481-499, 563-599,

- A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (2XX)
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC on the pins 1, 2, 3 of the module 20XX (Ref. ASM 24-42/01).
 - (a) If there is no 115VAC:
 - Do a check of the wiring between the circuit breaker (2XX) and the module 20XX (Ref. ASM 24-42/01).
 - 1 If there is no continuity:
 - Repair the wiring.
 - 2 If there is continuity:
 - Replace the C/B-SVCE/BUS2/212XP SPLY (2XX).
 - (b) If there is 115VAC:
 - Replace the CNTOR-AC GND SVCE SPLY (12XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pins 4, 6 and 8 of the module 20XX and the busbars 212XP and 216XP (Ref. ASM 24-42/01).
 - a If the wiring is not correct:
 - Repair the wiring.
 - b If the wiring is correct:
 - Replace the CNTOR-AC SVCE BUS NORM SPLY (12XN) (Ref. AMM TASK 24-51-55-000-001) and (Ref. AMM TASK 24-51-55-400-001).
 - 2 If the fault continues:
 - Do a check and repair the wiring:
 - Letween the pin B/3 of the contactor (12XX) and the pin B/10 of the contactor (12XN)
 - between the pin B/5 of the contactor (12XX) and the first terminal block
 - . between the pin B/12 of the contactor (12XN) and the first terminal block (Ref. ASM 24-42/01).

EFF: 201-225, 227-227, 229-299, 426-499, 503-549, 551-561, 563-599, 701-749,

24-42-00

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- (2) If the circuit breaker is open:
 Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:Replace the C/B-SVCE/BUS2/212XP SPLY (2XX).

**ON A/C ALL

- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that:
 - the ceiling forward and aft lights (L side) come on.
 - the window forward and aft lights (R side) come on.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the forward attendant panel 120RH release the CABIN WDO and CABIN CLG pushbutton switches.
 - (2) De-energize the ground service network with the ground power unit (Ref. AMM TASK 24-42-00-862-001).

EFF: ALL 24-42-00

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TASK 24-42-00-810-802

Loss of the 214XP Busbar in Ground Service Configuration

- 1. Possible Causes
 - CNTOR-AC & DC GND SVCE SPLY (14XX)
 - CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU)

 - C/B-TR2/SVCE/BUS2/SPLY (1XX)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R R R		0-00-810-803 24-32-55-000-001	Circuit Breaker Tripped and/or C/B TRIPPED Warning Removal of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor
R R R	AMM	24-32-55-400-001	<pre>(14PU) Installation of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor (14PU)</pre>
IX	AMM	24-42-00-861-001	Energize the Ground Service Network from the External Power
	AMM	24-42-00-862-001	De-energize the Ground Service Network Supplied from the External Power
	AMM	24-42-55-000-001	Removal of the Contactors (12XX, 14XX)
	AMM ASM	24-42-55-400-001 24-42/01	Installation of the Contactors (12XX, 14XX)

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Energize the ground service network with the ground power unit (Ref. AMM TASK 24-42-00-861-001).
 - B. Test

ACTION RESULT

- CABIN CLG pushbutton switches.
- 1. On the forward attendant panel The ceiling forward and aft lights (R 120RH, push the CABIN WDO and side) do not come on.
 - The window forward and aft lights (L side) do not come on.

24-42-00 EFF: ALL

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (1XX)
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC on the pins A/M, A/L and A/K of the contactor (14XX) (Ref. ASM 24-42/01).
 - (a) If there is no 115VAC:
 - Do a check of the wiring between the circuit breaker (1XX) and the contactor (14XX) (Ref. ASM 24-42/01).
 - 1 If there is no continuity: - Repair the wiring.
 - 2 If there is continuity:
 Replace the C/B-TR2/SVCE/BUS2/SPLY (1XX).
 - (b) If there is 115VAC:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pins A/D, A/E and A/F of the contactor (14XX) and the busbar 214XP (Ref. ASM 24-42/01).
 - \underline{a} If the wiring is not correct:
 - Repair the wiring.
 - b If the wiring is correct:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - 2 If the fault continues:
 - Do a check and repair the wiring:
 - . between the pin B/3 of the contactor (14XX) and the pin B/6 of the contactor (14PU)
 - . between the pin B/5 of the contactor (14XX) and the first terminal block
 - between the pin B/8 of the contactor (14PU) and the first terminal block (Ref. ASM 24-42/01).

EFF: ALL 24-42-00

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- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-TR2/SVCE/BUS2/SPLY (1XX).

**ON A/C 254-275, 432-475, 481-499, 563-599,

- A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (1XX)
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC on the pins 13, 14, 15 of the module 20XX (Ref. ASM 24-42/01).
 - (a) If there is no 115VAC:
 - Do a check of the wiring between the circuit breaker (1XX) and the module 20XX (Ref. ASM 24-42/01).
 - 1 If there is no continuity:
 - Repair the wiring.
 - 2 If there is continuity:
 - Replace the C/B-TR2/SVCE/BUS2/SPLY (1XX).
 - (b) If there is 115VAC:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pins 16, 20 and 18 of the module (20XX) and the busbar 214XP (Ref. ASM 24-42/01).
 - a If the wiring is not correct:
 - Repair the wiring.
 - b If the wiring is correct:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - c If the fault continues:
 - Do a check and repair the wiring:
 - . between the pin B/3 of the contactor (14XX) and the pin B/6 of the contactor (14PU)
 - ${\tt L}$ between the pin B/5 of the contactor (14XX) and the first terminal block
 - . between the pin B/8 of the contactor (14PU) and the first terminal block (Ref. ASM 24-42/01).

EFF: 201-225, 227-227, 229-299, 426-499, 503-549, 551-561, 563-599, 701-749,

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- (2) If the circuit breaker is open:
 Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 Replace the C/B-TR2/SVCE/BUS2/SPLY (1XX).

**ON A/C ALL

- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that:
 - the ceiling forward and aft lights (R side) come on.
 - the window forward and aft lights (L side) come on.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the forward attendant panel 120RH release the CABIN WDO and CABIN CLG pushbutton switches.
 - (2) De-energize the ground service network with the ground power unit (Ref. AMM TASK 24-42-00-862-001).

EFF: ALL 24-42-00

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TASK 24-42-00-810-803

Ground Service Buses cannot be supplied from the External Power

1. Possible Causes

- RCPT-EXT PWR (20XG)
- SW-MAINT BUS/ON (5XX)
- RELAY-GND/FLT SELECT CTL (7XX)
- CNTOR-AC SVCE BUS NORM SPLY (12XN)
- CNTOR-AC GND SVCE SPLY (12XX)
- RELAY-TR 2 OVHT (6XX)
- TR-2 (1PU2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)
AMM	24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>
AMM	24-41-51-000-001	Removal of the External Power Receptacle (20XG)
AMM	24-41-51-400-001	Installation of the External Power Receptacle (20XG)
AMM	24-42-00-861-001	Energize the Ground Service Network from the External Power
AMM	24-42-55-000-001	Removal of the Contactors (12XX, 14XX)
AMM	24-42-55-400-001	Installation of the Contactors (12XX, 14XX)
AMM	24-51-55-000-001	Removal of the AC Service Bus Normal Supply Contactor (12XN)
AMM	24-51-55-400-001	Installation of the AC Service Bus Normal Supply Contactor (12XN)
ASM	24-42/01	

3. Fault Confirmation

A. Energize the Ground Service Network from the External Power (Ref. AMM TASK 24-42-00-861-001).

NOTE: Examine the external power supply-cable and the external power receptacle before you do the connection.

If you find corrosion or damage, or if the pins are not aligned correctly, replace the RCPT-EXT PWR (20XG) (Ref. AMM TASK 24-41-51-000-001).

EFF: ALL

24-42-00

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4. Fault Isolation

- A. If the above procedure confirms that the EXT PWR/NOT IN USE indicator light stays on:
 - Do a check of the position of the MAINT BUS/ON switch (5XX).
 - (1) If the switch stays in the ON position:
 - is a check for 28VDC at pin A/B2 of the GND/FLT selection control relay (7XX) (Ref. ASM 24-42/01).
 - (a) If there is no 28VDC:
 - Replace the SW-MAINT BUS/ON (5XX).
 - 1 If the fault continues:
 - Do a check and repair the wiring between pin 2A of the MAINT BUS/ON switch (5XX) and pin A/B2 of the GND/FLT selection control relay (7XX) (Ref. ASM 24-42/01).
 - (b) If there is 28VDC:
 - Do a check for 28VDC at pin B/12 of the AC service bus normal supply contactor (12XN).
 - 1 If there is no 28VDC:
 - Replace the RELAY-GND/FLT SELECT CTL (7XX).
 - a If the fault continues:
 - Do a check and repair the wiring between pin B/12 of the AC service bus normal supply contactor (12XN) and pin A/B3 of the GND/FLT selection control relay (7XX).
 - 2 If there is no 28VDC:
 - Do a check for 28VDC at pin B/3 of the AC ground service supply contactor (12XX).
 - a If there is no 28VDC:
 - Replace the CNTOR-AC SVCE BUS NORM SPLY (12XN) (Ref. AMM TASK 24-51-55-000-001) and (Ref. AMM TASK 24-51-55-400-001).
 - b If the fault continues:
 - Do a check and repair the wiring between pin B/3 of the AC ground service supply contactor (12XX) and pin B/10 of the AC service bus normal supply contactor (12XN).
 - c If there is 28VDC:
 - Replace the CNTOR-AC GND SVCE SPLY (12XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).

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EFF: ALL

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- (2) If the switch does not stay in the ON position:
 - Do a check for 28VDC at pin 1A or 1B of the MAINT BUS/ON switch (5XX) (Ref. ASM 24-42/01).
 - (a) If there is 28VDC:
 - Replace the SW-MAINT BUS/ON (5XX).
 - (b) If there is no 28VDC:
 - Do a check for 28VDC between pins A/X2 and A/A2 of the TR 2 overheat relay (6XX).
 - 1 If there is 28VDC:
 - Replace the RELAY-TR 2 OVHT (6XX).
 - 2 If there is no 28VDC:
 - Do a check for 28VDC between pin A/A2 or A/X1 of the TR 2 overheat relay (6XX) and the ground.
 - a If there is no 28VDC:
 - Do a check and repair the wiring between pin 2 of the circuit breaker (6XG) and pins A/A2 and A/X1 of the TR 2 overheat relay (6XX) (Ref. ASM 24-42/01).
 - b If there is 28VDC:
 - Do a check for 28VDC between pin A/X1 of the TR 2 overheat relay (6XX) and pin B/F of the TR 2 (1PU2).
 - c If there is no 28VDC:
 - Replace the TR-2 (1PU2) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
 - d If there is 28VDC:
 - Do a check and repair the wiring between pin A/X2 of the TR 2 overheat relay (6XX) and pin B/F of the TR 2 (1PU2) (Ref. ASM 24-42/01).
- B. Do the procedure given in Para. 3.A.

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EFF:

ALL

TROUBLE SHOOTING MANUAL

DC GROUND SERVICE BUS CONTROL - FAULT ISOLATION PROCEDURES

TASK 24-43-00-810-801

Loss of the 601PP and 602PP Busbars in Ground Service Configuration

- 1. Possible Causes
 - CNTOR-DC SVCE BUS GND SPLY (3PX)
 - CNTOR-AC & DC GND SVCE SPLY (14XX)
 - C/B-SVCE 601PP/602PP SPLY (1PX)
 - wiring
 - C/B-ELEC/DC SVCE/BUS/ON TR2 (5PX)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	24-42-00-861-001	Energize the Ground Service Network from the External
Aiiii	L4 4L 00 001 001	Power
AMM	24-42-00-862-001	De-energize the Ground Service Network Supplied from the External Power
AMM	24-42-55-000-001	Removal of the Contactors (12XX, 14XX)
AMM	24-42-55-400-001	Installation of the Contactors (12XX, 14XX)
AMM	24-43-55-000-001	Removal of the DC Service Bus Ground Supply Contactor (3PX)
ASM	24-43/01	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Energize the ground service network with the ground power unit (Ref. AMM TASK 24-42-00-861-001).
 - B. Test

ACTION RESULT

1. On the overhead panel 25VU, put the INT LT/DOME switch in the BRT position.
The CAPT dome lights do not come on.

EFF: ALL

24-43-00

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (1PX).
 - (1) If the circuit breaker is closed:
 - Do a check for 28VDC on the pin E of the DC SVCE BUS ground supply contactor (3PX) (Ref. ASM 24-43/01).
 - (a) If there is no 28VDC:
 - Do a check of the wiring between the circuit breaker (1PX) and the DC SVCE BUS ground supply contactor (3PX) (Ref. ASM 24-43/01).
 - 1 If there is no continuity: - Repair the wiring.
 - 2 If there is continuity:
 Replace the C/B-SVCE 601PP/602PP SPLY (1PX).
 - (b) If there is 28VDC:
 - Replace the CNTOR-DC SVCE BUS GND SPLY (3PX) (Ref. AMM TASK 24-43-55-000-001) and (Ref. AMM TASK 24-43-55-000-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pin A/F of the DC SVCE BUS ground supply contactor (3PX) and the busbars 601PP and 602PP (Ref. ASM 24-43/01).
 - $\underline{\underline{a}}$ If there is no continuity:
 - Repair the wiring.
 - b If there is continuity:
 - Do a check and repair the wiring:
 - from the pin A/E of the contactor (3PX) to the circuit breaker (5PX)
 - . from the circuit breaker (5PX) to the pin B/3 of the contactor (3PX)
 - . from the pin B/3 of the contactor (3PX) to the terminal block (Ref. ASM 24-43/01).
 - c If the fault continues:
 - Replace the C/B-ELEC/DC SVCE/BUS/ON TR2 (5PX).
 - d If the fault continues:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).

EFF: ALL

24-43-00

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- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-SVCE 601PP/602PP SPLY (1PX).

**ON A/C 254-275, 432-475, 481-499, 563-599,

- A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (1PX).
 - (1) If the circuit breaker is closed:
 - Do a check for 28VDC on the pin 6 of the module 14PN (Ref. ASM 24-43/01).
 - (a) If there is no 28VDC:
 - Do a check of the wiring between the circuit breaker (1PX) and the pin 6 of the module 14PN (Ref. ASM 24-43/01).
 - 1 If there is no continuity:
 - Repair the wiring.
 - 2 If there is continuity:
 - Replace the C/B-SVCE 601PP/602PP SPLY (1PX).
 - (b) If there is 28VDC:
 - Replace the CNTOR-DC SVCE BUS GND SPLY (3PX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-400-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pin 7 of the module 14PN and the busbars 601PP and 602PP (Ref. ASM 24-43/01).
 - a If there is no continuity:
 - Repair the wiring.
 - b If there is continuity:
 - Do a check and repair the wiring:
 - from the pin 6 of the module 14PN to the circuit breaker (5PX)
 - \cdot from the circuit breaker (5PX) to the pin B/3 of the contactor (3PX)
 - . from the pin B/5 of the contactor (3PX) to the terminal block (Ref. ASM 24-43/01).
 - c If the fault continues:
 - Replace the C/B-ELEC/DC SVCE/BUS/ON TR2 (5PX).

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- d If the fault continues:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX) (Ref. AMM TASK 24-42-55-000-001) and (Ref. AMM TASK 24-42-55-000-001).
- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-SVCE 601PP/602PP SPLY (1PX).

**ON A/C ALL

- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that the CAPT dome lights come on.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the overhead panel 25VU, put the INT LT/DOME switch in the OFF position.
 - (2) De-energize the ground service network with the ground power unit (Ref. AMM TASK 24-42-00-862-001).

EFF: ALL

24-43-00

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AC ELECTRICAL LOAD DISTRIBUTION - FAULT ISOLATION PROCEDURES

TASK 24-50-00-810-801

Unwanted Warning from the AC Essential Sheddable Busbar

- 1. Possible Causes
 - RELAY-BUS 801XP CTL (7XH)
 - C/B-ELEC/AC BUS/8XP/MONG (6XH)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	R 24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-52/01	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
49VU	AUTO FLT/MCDU/1	11CA1	B01
49VU	LIGHTING/XFMR/115V.5V/ESS BUS	29LP	н03
122VU	LIGHTING/TST/BOARD/SPLY	30LP	X06

EFF: ALL 24-50-00

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C. Test

(1) Do this test:

ACTION	RESULT
1. On the ECAM control panel: - push the ELEC key to get the ELEC page:	On the lower ECAM display unit: - the normal configuration comes into view with the SHED indication shown in amber on the right of the AC ESS busbar. On the upper ECAM display unit: - the AC ESS BUS SHED indication comes into view.
2. On the panel 11VU, on the MCDU1:Adjust the brightness of the MCDU screen.	
3. On the panel 25VU:set the ANN LT switch to TEST.	<pre>On the overhead panel: - all the annunciators come on with maximum brightness.</pre>
4. Fault Isolation	
A. If the test confirms the fault:	
- Replace the RELAY-BUS 801XP CT	L (7XH).
(1) If the fault continues:	
 Do a check of the status o BUS/8XP/MONG (6XH) 	f the circuit breaker C/B-ELEC/AC
(a) If the circuit breaker i - Do the procedure (Ref.	
1 If the fault continue	s:
- Replace the C/B-ELE	C/AC BUS/8XP/MONG (6XH).
the pin A/B of the r and 2the circuit breaker	s closed: the wiring between (Ref. ASM 24-52/01): elay (7XH) and the pin AD/5D of the SDAC1 (6XH) and the pin A/X of the relay (7XH) elay (7XH) and the ground.

EFF: ALL 24-50-00

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R

R R R

R

R R R

R R R R R

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B. Do this test to make sure that the system operates correctly.

ACTION RESULT

1. On the ECAM control panel: ELEC page.

On the ECAM control panel:

- push the ELEC key to get the

- the normal configuration comes into view.

5. Close-up

R

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
- (2) On the MCDU1, Fully decrease the brightness of the MCDU screen (display off).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

24-50-00 EFF: ALL

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TASK 24-50-00-810-802

Loss of the AC Essential Sheddable Busbar

- 1. Possible Causes
- R CNTOR-AC SHED ESS BUS (8XH)
- R RECTIFIER-AC SHED ESS BUS CNTOR (9XH)

R

- wiring
- R C/B-AC/SHED/ESS BUS/CNTOR/CTL (1XH)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	24-52-55-000-001	Removal of the AC Shed Essential Bus Contactor (8XH)
	AMM	24-52-55-400-001	<pre>Installation of the AC Shed Essential Bus Contactor (8XH)</pre>
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-52/01	

- 3. Fault Confirmation
 - A. Job Set-Up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION	IDENT.	LOCATION
49VU AUTO FLT/MCDU/1	11CA1	B01
49VU LIGHTING/XFMR/115V.5V/ESS BUS	29LP	н03
122VU LIGHTING/TST/BOARD/SPLY	30LP	x06

EFF: ALL 24-50-00

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C. Test

(1) Do this test:

ACTION RESULT. On the lower ECAM display unit: 1. On the ECAM control panel: - the normal configuration comes into - push the ELEC key to get the view with the SHED indication shown ELEC page. in amber on the right of the AC ESS busbar. On the upper ECAM display unit: - the AC ESS BUS SHED indication comes into view. 2. On the panel 11VU, on the MCDU1: On the panel 11VU: - the MCDU1 stays off. - Fully decrease the brightness of the MCDU screen (display off). 3. On the panel 25VU: On the panel 35VU: - set the ANN LT switch to test: - the IDG1, IDG2, GEN1, GEN2, BUS TIE and GALLEY pushbutton switches do not come on. 4. Fault Isolation A. If the test confirms the fault: - Do a check of the status of the circuit breaker (1XH) (1) If the circuit breaker is closed: - Replace the CNTOR-AC SHED ESS BUS (8XH) (Ref. AMM TASK 24-52-55-000-001) and (Ref. AMM TASK 24-52-55-400-001). (a) If the fault continues: - Replace the RECTIFIER-AC SHED ESS BUS CNTOR (9XH). (b) If the fault continues: - Do a check and repair the wiring between: . the circuit breaker (1XH) and the pin A/3 of the rectifier (9XH) through the relay (16XE) and the contactor (2XB) . the pin A/2 of the AC SHED ESS BUS contactor rectifier (9XH) and the ground . the pin A/A of the rectifier (9XH) and the pin A/Z of the AC SHED ESS BUS contactor (8XH) . the pin A/X of the contactor (8XH) and the pin A/Z of the rectifier (9XH)

EFF: ALL

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R R

R

R

R

R R

R

R

R R

R R

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- . the pins A/1, A/5, A/7 of the contactor (8XH) and the first branch point
- the pins A/2, A/6, A/8 of the contactor (8XH) and the first branch point (Ref. ASM 24-52/01).
- (2) If the circuit breaker is open:

- Do the procedure (Ref. TASK 24-00-00-810-803).

(a) If the fault continues: R R

- Replace the C/B-AC/SHED/ESS BUS/CNTOR/CTL (1XH).

B. Do this test to make sure that the system operates correctly:

ACTION RESULT

1. On the ECAM control panel:

ELEC page.

- On the ECAM control panel:

 push the ELEC key to get the

 the normal configuration comes into view.
- 2. On the panel 11VU, on the MCDU1: On the panel 11VU:
 - Adjust the brightness of the MCDU screen.

- the MCDU1 is ON.

- 3. On the panel 25VU:

On the 35VU:

- set the ANN LT switch to TEST. the annunciators come on with maximum brightness.
- 5. Close-up

R

R

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) On the MCDU1, Fully decrease the brightness of the MCDU screen (display off).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

24-50-00

EFF: ALL

TROUBLE SHOOTING MANUAL

TASK 24-50-00-810-803

Unwanted Warning from the AC Essential Busbar

- 1. Possible Causes
 - RELAY-BUS 4XP CTL (3XH)
 - wiring

R

- C/B-AC ESS BUS/MONG/SPLY (2XH)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION	
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the	
			External Power	
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
	AMM	31-60-00-860-001	EIS Start Procedure	
	ASM	24-52/01		

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - B. Test
 - (1) Do the EIS start procedure to make sure that the EIS operates correctly (Ref. AMM TASK 31-60-00-860-001).
 - (2) Do this test:

ACTION RESULT

ELEC page.

 1. On the ECAM control panel:
 - push the ELEC key to get the
 On the upper ECAM display unit:
 - the ELEC AC ESS BUS FAULT warning comes into view.

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4. Fault Isolation

A. If the test gives the ELEC AC ESS BUS FAULT warning on the upper ECAM R display unit even if the EIS operates correctly: - Do a check of the status of the AC ESS BUS/MONG/SPLY circuit breaker R (2XH). R (1) If the circuit breaker is closed: - Replace the RELAY-BUS 4XP CTL (3XH). R (a) If the fault continues: R R R - Do a check and repair the wiring between: . the circuit breaker (2XH) and the pin A/X of the relay (3XH) . the pin A/Z of the relay (3XH) and the ground . the pin A/A of the relay (3XH) and the pins D/5E of the SDAC1 . the pin A/1 of the relay (3XH) and the ground (Ref. ASM 24-52/01). (2) If the circuit breaker is open: R - Do the procedure (Ref. TASK 24-00-00-810-803). (a) If the fault continues: R R - Replace the RELAY-BUS 4XP CTL (3XH). R 1 If the fault continues: R R - Replace the C/B-AC ESS BUS/MONG/SPLY (2XH). R B. Do this test to make sure that the system operates correctly:

1. On the ECAM control panel:

- push the ELEC key to get the ELEC page.

On the lower ECAM display unit:

the normal configuration comes into view.

On the upper ECAM display unit:

- the ELEC AC ESS BUS FAULT warning does not come into view.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL
SROS

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TASK 24-50-00-810-804

Failure of the AC Essential Generation Circuit

1. Possible Causes

- CNTOR-AC ESS BUS SWITCHING (3XC)
- CNTOR-AC ESS BUS SWITCHING (15XE)
- wiring
- GLC-EMER (2XE)
- RELAY-EMER CONDITION (12XE)
- P/BSW-ELEC/AC ESS FEED (11XC)
- C/B-AC ESS/BUS ON/BUS1 (1XC)
- C/B-CNTOR 3XC NORM SUPPLY (4XC)
- RELAY-BUS 4XP CTL (3XH)

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
24-0	00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM	24-24-55-000-001	Removal of the Emergency Generator Line Contactor (EMER GLC) (2XE)
AMM	24-24-55-000-002	Removal of the AC ESS BUS Contactor (15XE)
AMM	24-24-55-400-001	Installation of the Emergency Generator Line Contactor (EMER GLC) (2XE)
AMM	24-24-55-400-002	Installation of the AC ESS BUS Contactor (15XE)
AMM	24-25-55-000-001	Removal of the AC Essential Bus Switching Contactor (3XC)
AMM	24-25-55-400-001	<pre>Installation of the AC Essential Bus Switching Contactor (3XC)</pre>
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
AMM	31-60-00-860-001	EIS Start Procedure
ASM	24-25/01	
ASM	24-52/01	

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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B. Test

R

R

R

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R

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R

R

R

R

R

R

R

R

R

R R

R

Do the EIS start procedure (Ref. AMM TASK 31-60-00-860-001).

(1) If the upper ECAM display unit and the Captain PFD do not operate, do the trouble shooting below:

4. Fault Isolation

R A. If the test confirms the fault:

- Release the ELEC/AC ESS FEED pushbutton switch (11XC).

(1) If the fault disappears:

 Do a check of the status of the CNTOR 3XC NORM SPLY circuit breaker (4XC).

(a) If the circuit breaker (4XC) is closed:

- Push the ELEC/AC ESS FEED pushbutton switch (11XC) and do a check for 115VAC between the pins B/K and B/L of the contactor (3XC) (Ref. ASM 24-25/01).
- 1 If there is 115VAC:
 - Replace the CNTOR-AC ESS BUS SWITCHING (3XC) (Ref. AMM TASK 24-25-55-000-001) and (Ref. AMM TASK 24-25-55-400-001).
- 2 If there is not 115VAC:
 - Do a check for 115VAC at the pin 2 of the circuit breaker (4XC).
 - a If there is 115VAC:
 - Do a check and repair the wiring between:
 - . the pin B/K of the contactor (3XC) and the circuit breaker (4XC) through these components (replace them if necessary):
 - * GLC-EMER (2XE) (Ref. AMM TASK 24-24-55-000-001) and (Ref. AMM TASK 24-24-55-400-001).
 - * RELAY-EMER CONDITION (12XE)
 - * CNTOR-AC ESS BUS SWITCHING (15XE) (Ref. AMM TASK 24-24-55-000-002) and (Ref. AMM TASK 24-24-55-400-002).
 - * CNTOR-AC ESS BUS SWITCHING (3XC) (Ref. AMM TASK 24-25-55-000-001) and (Ref. AMM TASK 24-25-55-400-001).
 - the pin B/L of the contactor (3XC) and the ground, through the P/BSW-ELEC/AC ESS FEED (11XC).
 - b If there is not 115VAC:
 - Do a check of the status of the AC ESS/BUS ON/BUS 1 circuit breaker (1XC).
 - c If the circuit breaker (1XC) is closed:
 - Do a check and repair the wiring between the pins A2, B2,
 C2 of the circuit breaker (1XC) and the pins L1, L2, L3
 of the contactor (3XC), then from the pin L3 of the

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SROS

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contactor (3XC) to the pin 1 of the circuit breaker (4XC) (Ref. ASM 24-25/01).

R R	<u>d</u> If the circuit breaker (1XC) is open:- Do the procedure (Ref. TASK 24-00-00-810-803).
R	\underline{e} If the fault continues:
R R	- Replace the C/B-AC ESS/BUS ON/BUS1 (1XC).
R R	(b) If the circuit breaker (4XC) is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R R R R R R	If the fault continues: - Do a check of the wiring for short to ground between respectively: the pin 2 of the circuit breaker (4XC) and the pin B/R of the contactor (3XC) the pin 2 of the circuit breaker (4XC) and the pin B/K of the contactor (3XC), through all the components given in Para. 4.A.(1)(a)2_a_ (Ref. ASM 24-25/01).
R R	<u>a</u> If the wiring is not correct:Repair the wiring.
R R	\underline{b} If the wiring is correct:
R	- Replace the C/B-CNTOR 3XC NORM SUPPLY (4XC).
R R	(2) If the fault continues:
R	- Replace the RELAY-BUS 4XP CTL (3XH).
R R	(a) If the fault continues:
R	- Replace the RELAY-EMER CONDITION (12XE).
R R	(b) If the fault continues:
R	- Replace the P/BSW-ELEC/AC ESS FEED (11XC).
R R	(c) If the fault continues:
R R	 Do a check of the wiring for short to ground between the C/B (2XH) and the pin A/X of the relay (3XH) (Ref. ASM 24-52/01).
R	1 If the wiring is not correct:- Repair the wiring.

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- 2 If the wiring is correct:
 Do a check and repair the wiring between the pins K1, K2, K3
 of the contactor (3XC) and the first branch point (Ref. ASM 24-25/01).
 - 3 If the fault continues:
 - Replace the CNTOR-AC ESS BUS SWITCHING (3XC) (Ref. AMM TASK 24-25-55-000-001) and (Ref. AMM TASK 24-25-55-400-001).
 - B. Do this test to make sure that the system operates correctly:
 do the EIS start procedure (Ref. AMM TASK 31-60-00-860-001).

5. Close-up

R R R

R

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-50-00-810-805

Failure of the Manual Switching Circuit of the AC Essential Bus

1. Possible Causes

- CNTOR-AC ESS BUS SWITCHING (3XC)
- CNTOR-AC ESS BUS SWITCHING (15XE)
- wiring
- P/BSW-ELEC/AC ESS FEED (11XC)
- RELAY-EMER CONDITION (12XE)
- C/B-AC ESS/BUS ON/BUS 2 (2XC)
- C/B-CNTOR 3XC SW SPLY (5XC)

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE 	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-24-55-000-002	Removal of the AC ESS BUS Contactor (15XE)
	AMM	24-24-55-400-002	Installation of the AC ESS BUS Contactor (15XE)
	AMM	24-25-00-710-001	Operational Test of the AC Essential-Generation Switching
	AMM	24-25-55-000-001	Removal of the AC Essential Bus Switching Contactor (3XC)
	AMM	24-25-55-400-001	<pre>Installation of the AC Essential Bus Switching Contactor (3XC)</pre>
	ASM	24-25/01	

3. Fault Confirmation

A. Test

R

R

R

R

Do the operational test of the AC essential generation switching (Ref. AMM TASK 24-25-00-710-001).

4. Fault Isolation

A. If the test confirms the fault:

- Do a check for 115VAC between the pins A/K and A/L of the AC essential bus switching contactor (3XC) (Ref. ASM 24-25/01).

(1) If there is 115VAC:

- Replace the CNTOR-AC ESS BUS SWITCHING (3XC) (Ref. AMM TASK 24-25-55-000-001) and (Ref. AMM TASK 24-25-55-400-001).

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R	(2)	<pre>If there is no 115VAC: - Do a check of the status of the circuit breaker (5XC).</pre>
R R		(a) If the circuit breaker (5XC) is closed:Do a check for 115VAC at the pin 2 of the circuit breaker (5XC).
R		<pre>1 If there is 115VAC: - Do a check and repair the wiring: . between the pin A/K of the contactor (3XC) and the circuit breaker (5XC) through these components (and replace them if necessary): * P/BSW-ELEC/AC ESS FEED (11XC) * RELAY-EMER CONDITION (12XE) * CNTOR-AC ESS BUS SWITCHING (15XE) (Ref. AMM TASK 24-24-55-000-002) and (Ref. AMM TASK 24-24-55-400-002) * CNTOR-AC ESS BUS SWITCHING (3XC) (Ref. AMM TASK 24-25-55-000-001) and (Ref. AMM TASK 24-25-55-400-001) . between the pin A/L of the contactor (3XC) and the ground (Ref. ASM 24-25/01).</pre>
R		2 If there is no 115VAC:- Do a check of the status of the circuit breaker (2XC).
R		 <u>a</u> If the circuit breaker (2XC) is closed: Do a check and repair the wiring between: the pins A2, B2, C2 of the circuit breaker (2XC) and the pins T1, T2, T3 of the contactor (3XC) the pin T3 of the contactor (3XC) and the pin 1 of the circuit breaker (5XC) (Ref. ASM 24-25/01)
R		 <u>b</u> If the circuit breaker (2XC) is open: - Do the procedure (Ref. TASK 24-00-00-810-803).
R R R		* If the fault continues:
R		* - Replace the C/B-AC ESS/BUS ON/BUS 2 (2XC).
R R		(b) If the circuit breaker (5XC) is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R R R R R R		If the fault continues: - Do a check of the wiring for short to ground between respectively: the pin 2 of the circuit breaker (5XC) and the pin A/N of the contactor (3XC) the pin 2 of the circuit breaker (5XC) and the pin A/K of the contactor (3XC), through all the components given in Para. 4.A.(2)(a)1_ (Ref. ASM 24-25/01).

EFF: ALL

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R R	<u>a</u>	<pre>If the wiring is not correct: - Repair the wiring.</pre>
R R	<u>b</u>	<pre>If the wiring is correct: - Replace the C/B-CNTOR 3XC SW SPLY (5XC).</pre>

B. Do the test given in para. 3.

EFF: ALL

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TASK 24-50-00-810-806

Unwanted Warning from the AC1 Busbar

- 1. Possible Causes
 - SDAC-1 (1WV1)
 - SDAC-2 (1WV2)
 - RELAY-BUS 1XP CTL (15XC)
 - wiring
 - RELAY-BUS 1XP CTL (20XN1)
 - C/B-ELEC/AC/BUS1/CTL (17XN1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
.`		24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
	AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-25/01	
R	ASM	24-51/02	

- 3. Fault Confirmation
 - A. Job Set-up

SROS

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

(1) Do this test:

	ACTION	RESULT
	 On the ECAM control panel: push the ELEC key to get the ELEC page. 	
		<pre>On the upper ECAM display unit: - the ELEC AC BUS 1 FAULT warning comes into view.</pre>
	4. Fault Isolation	
R	A. If the test confirms the faultDo a check of the status of	
R	(1) If the circuit breaker isReplace the RELAY-BUS 1X	
R R	(a) If the fault continues - Replace the SDAC-1 ((Ref. AMM TASK 31-55	1WV1) (Ref. AMM TASK 31-55-34-000-001) and
R R		nues: 2 (1WV2) (Ref. AMM TASK 31-55-34-000-001) 3K 31-55-34-400-001).
R	the pins A/5 of the relay (the wiring between: 5D of the SDAC 1 and SDAC 2 and the pin A/B2 (15XC) S of the relay (15XC) and the ground (Ref.
R	* If there is	no continuity: e above wiring.
R	* - Do a check* . the pin A/breaker (17XN1	and repair the wiring between: (X1 of the relay (15XC) and the circuit
R R	ASM 24-25/01). * . the pin A/ (Ref. ASM 24-5	X1 of the bus 1XP control relay (20XN1)

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- (2) If the circuit breaker is open: R - Do the procedure (Ref. TASK 24-00-00-810-803).
- R (a) If the fault continues:

R R

- Replace the RELAY-BUS 1XP CTL (15XC).

1 If the fault continues:

- Replace the RELAY-BUS 1XP CTL (20XN1).

2 If the fault continues:

R R

R

- Replace the C/B-ELEC/AC/BUS1/CTL (17XN1).

B. Do this test to make sure that the system operates correctly:

ACTION RESULT

1. On the ECAM control panel: ELEC page.

On the lower ECAM display unit: On the ECAM control panel:

On the lower ECAM display unit:

- push the ELEC key to get the

- the normal configuration comes into

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

view.

(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF: ALL

SROS

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TASK 24-50-00-810-807

Unwanted Warning from the AC2 Busbar

- 1. Possible Causes
 - SDAC-2 (1WV2)
 - SDAC-1 (1WV1)
 - RELAY-BUS 2XP CTL (16XC)
 - wiring
 - RELAY-BUS 2XP CTL (20XN2)
 - C/B-ELEC/AC/BUS2/CTL (17XN2)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
D	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
ĸ		24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
	Amm	24-41-00-001-002	External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied
			from the External Power
	AMM	31-55-34-000-001	Removal of the SDAC (1WV1,1WV2)
	AMM	31-55-34-400-001	Installation of the SDAC (1WV1,1WV2)
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-25/01	
R	ASM	24-51/03	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

(1) Do this test:

	ACTION	RESULT
	1. On the ECAM control panel:- push the ELEC key to get the ELEC page.	On the lower ECAM display unit: - the normal configuration comes into view (the AC2 busbar is shown in green).
		<pre>On the upper ECAM display unit: - the ELEC AC BUS2 FAULT warning comes into view.</pre>
	4. Fault Isolation	
R	A. If the test confirms the faultDo a check of the status of	
R	(1) If the circuit breaker isReplace the RELAY-BUS 2X	
R R	(a) If the fault continues - Replace the SDAC-2 ((Ref. AMM TASK 31-55	1WV2) (Ref. AMM TASK 31-55-34-000-001) and
R R		ues: 1 (1WV1) (Ref. AMM TASK 31-55-34-000-001) K 31-55-34-400-001).
R	. the pins D/5 of the relay (the wiring between: K of the SDAC1 and SDAC2 and the pin A/B2 16XC)
	ASM 24-25/01).	of the relay (16XC) and the ground (Ref. no continuity:
R		above wiring.
R	* - Do a check* - the pin A/breaker (17XN2	and repair the wiring between: X1 of the relay (16XC) and the circuit
R R	ASM 24-25/01).	X1 of the bus 2XP control relay (20XN2)

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- (2) If the circuit breaker is open: R - Do the procedure (Ref. TASK 24-00-00-810-803).
- R (a) If the fault continues:

R - Replace the RELAY-BUS 2XP CTL (16XC). R

- 1 If the fault continues: - Replace the RELAY-BUS 2XP CTL (20XN2).
- 2 If the fault continues:

- Replace the C/B-ELEC/AC/BUS2/CTL (17XN2).

B. Do this test to make sure that the system operates correctly:

ACTION RESULT

1. On the ECAM control panel: ELEC page.

On the lower ECAM display unit: On the ECAM control panel:

On the lower ECAM display unit:

- push the ELEC key to get the

- the normal configuration comes into

5. Close-up

R

R R

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

view.

(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 24-50-00-810-808

Failure of the AC BUS 1 with the External Power in Use

1. Possible Causes

- BTC-1 (11XU1)
- RELAY-EPC AUX CTL (5XG)
- RELAY-GLC 1 AUX CTL (4XU1)
- GLC-1 (9XU1)
- RELAY-BUS TIE (30XU1)
- wiring
- C/B-ELEC/EXT PWR/CTL (11XG)

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R		0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
		24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-22/02	
	ASM	24-23/02	
	ASM	24-41/01	

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-50-00

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B. Test

R R

R

R

R

R R

R R

R R

R

R

R R

R

R

R

ACTION RESULT. 1. On the ELEC panel 35VU: On the ELEC panel 35VU: - release the GEN 1 and GEN 2 - the OFF legends of the GEN 1 and GEN pushbutton switches. 2 pushbutton switch come on. On the upper ECAM display unit: - the ELEC AC BUS 1 FAULT and the ELEC AC ESS BUS FAULT warnings come into view. 4. Fault Isolation A. Table of the circuit breakers used in this procedure: PANEL DESIGNATION IDENT. LOCATION ._____ 122VU ELEC/EXT PWR/CTL X29 11XG B. If the test confirms the fault: - Do a check of the status of the circuit breaker (11XG). (1) If the circuit breaker is closed: - Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002). (a) If the fault continues: - Do a check and repair the wiring between the pin B/5 of the BTC1 and the pin A/9C of the GCU1 (Ref. ASM 24-22/02). (b) If the fault continues: - Do a check for 28VDC: 1 If there is no 28VDC at the pin A/D2 of the relay (5XG): - Replace the RELAY-EPC AUX CTL (5XG). a If the fault continues: - Repair the wiring between the circuit breaker ELEC/EXT PWR/CTL (11XG) and the relay (5XG) (Ref. ASM 24-41/01).

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- Replace the RELAY-GLC 1 AUX CTL (4XU1).

If there is no 28VDC at the pin A/A2 of the relay (4XU1):

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_	ACTION RESULT
	C. Do this test to make sure that the system operates correctly:
R	- Replace the C/B-ELEC/EXT PWR/CTL (11XG).
R R	(a) If the fault continues:
R	(2) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R	the BTC1 (11XU1) (Ref. ASM 24-22/02).
R R	relay (30XU1) (Ref. ASM 24-22/02), . the pin A/B3 of the relay (30XU1) and the pin B/3 of
R	. the pin B/6 of the GLC1 (9XU1) and the pin A/B2 of the
R R	- Do a check and repair the wiring between:
R	a If the fault continues:
R	$\underline{4}$ If there is no 28VDC at the pin B/3 of the BTC1 (11XU1): - Replace the RELAY-BUS TIE (30XU1).
R R	 Repair the wiring between the pin A/A2 of the relay (4XU1) and the pin B/8 of the GLC1 (9XU1) (Ref. ASM 24- 22/02).
R R	\underline{a} If the fault continues:
R R	If there is no 28VDC at the pin B/6 of the GLC1 (9XU1): Replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
R R	 Repair the wiring between the pin A/D2 of the relay (5XG and the pin A/A3 of the relay (4XU1) (Ref. ASM 24-22/02) and (Ref. ASM 24-23/02).
R R	<u>a</u> If the fault continues:

ELEC page.

 1. On the ECAM control panel:
 push the ELEC key to get the
 the normal configuration comes into view.

EFF: ALL

24-50-00

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL SROS 24-50-00

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TASK 24-50-00-810-809

Failure of the AC BUS 1 with the APU Generator in Operation

- 1. Possible Causes
 - BTC-1 (11XU1)
 - RELAY-EPC AUX CTL (5XG)
 - RELAY-GLC 1 AUX CTL (4XU1)
 - GLC-1 (9XU1)
 - RELAY-BUS TIE (30XU1)
 - wiring
 - C/B-ELEC/GEN1/OFF/BTC1 SPLY (5XU)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION	
R	24-0	00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
	AMM	24-22-55-400-002	Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU	
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU	
	AMM	31-60-00-860-001	EIS Start Procedure	
	ASM	24-22/02		
	ASM	24-23/02		

- 3. Fault Confirmation
 - A. Job Set-up

SROS

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-50-00

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R B. Test (1) Do this test: ACTION RESULT. ______ 1. On the ELEC panel 35VU: On the ELEC panel 35VU: - release the GEN 1 and GEN 2 - the OFF legends of the GEN 1 and GEN pushbutton switches. 2 pushbutton switches come on. On the upper ECAM display unit: - the ELEC AC BUS 1 FAULT and the ELEC

4. Fault Isolation

R

R

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R R

R R

R R

R

R

R R

R

R

R

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

view.

122VU ELEC/GEN1/OFF/BTC1 SPLY

T28

5XU

B. If the test confirms the fault:

R R

- Do a check of the status of the circuit breaker (5XU).

(1) If the circuit breaker is closed:

- Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).

(a) If the fault continues:

- Do a check and repair the wiring between the pin B/5 of the BTC1 and the pin A/9C of the GCU1 (Ref. ASM 24-22/02).

(b) If the fault continues:

- Do a check for 28VDC:

If there is no 28VDC at the pin A/D2 of the relay (5XG): - Replace the RELAY-EPC AUX CTL (5XG).

a If the fault continues:

- Repair the wiring between the circuit breaker ELEC/GEN1/OFFBTC1 SPLY (5XU) and the pin A/D3 of the relay (5XG) (Ref. ASM 24-22/02) and (Ref. ASM 24-23/02).

EFF: ALL **SROS**

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AC ESS BUS FAULT warnings come into

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R	<u>2</u>		cat the pin A/A2 of together the control of the con	
R R R R			ing between the pin A/ N3 of the relay (4XU1)	D2 of the relay (5XG) (Ref. ASM 24-22/02)
R R	<u>3</u>	- Replace the GLC-1	at the pin B/6 of th (9XU1) (Ref. AMM TASK (24-22-55-400-002).	
R R R			inues: ing between the pin A/ pin B/8 of the GLC1 (
R	<u>4</u>	If there is no 28VD0 - Replace the RELAY-	at the pin B/3 of the BUS TIE (30XU1).	ne BTC1 (11XU1):
R R R		. the pin B/6 (Ref. ASM 24-22) . the relay (30) (Ref. ASM 24-22)	repair the wiring betof the GLC1 (9XU1) and 2/02), 3XU1) and the pin B/3 2/02).	the relay (30XU1)
R		e circuit breaker is of the procedure (Ref. T	open: ASK 24-00-00-810-803).	
R R R		f the fault continues Replace the C/B-ELEC	GEN1/OFF/BTC1 SPLY (5	SXU).
	C. Do this to	est to make sure that	the system operates o	correctly.
-	 , 	ACTION	RESULT	
	n the ECAM cont push the ELEC page.	trol panel: key to get the ELEC	On the lower ECAM of the normal configuration.	

EFF: ALL

24-50-00

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL
SROS

24-50-00

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TASK 24-50-00-810-810

Failure of the AC BUS2 with External Power in Use

- 1. Possible Causes
 - BTC-2 (11XU2)
 - RELAY-EPC AUX CTL (5XG)
 - RELAY-GLC 2 AUX CTL (4XU2)
 - GLC-2 (9XU2)
 - RELAY-SMOKE (30XU2)
 - wiring
- C/B-ELEC/EXT PWR/CTL (11XG)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	AMM	0-00-810-803 24-22-55-000-001 24-22-55-400-002	Circuit Breaker Tripped and/or C/B TRIPPED Warning Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-22-33-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-22/03	
	ASM	24-23/02	
	ASM	24-41/01	

- 3. Fault Confirmation
 - A. Job Set-up

SROS

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-50-00

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B. Test
 Do this test:

ACTION RESULT ______ 1. On the ELEC panel 35VU: On the ELEC panel 35VU: - release the GEN1 and GEN2 - the OFF legends of the GEN1 and GEN2 pushbutton switches. pushbutton switches come on. On the upper ECAM display unit: - the ELEC AC BUS 2 FAULT warning comes into view. 4. Fault Isolation A. Table of the circuit breakers used in this procedure: PANEL DESIGNATION IDENT. LOCATION 11XG 122VU ELEC/EXT PWR/CTL X29 B. If the test confirms the fault: - Do a check of the status of the circuit breaker (11XG) (1) If the circuit breaker is closed: - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002). (a) If the fault continues: - Do a check and repair the wiring between the pin B/5 of the BTC2 and the pin A/9C of the GCU2 (Ref. ASM 24-22/03). (b) If the fault continues: - Do a check for 28VDC: 1 If there is no 28VDC at the pin A/D2 of the relay (5XG): - Replace the RELAY-EPC AUX CTL (5XG). a If the fault continues: - Repair the wiring between the circuit breaker ELEC/EXT PWR CTL (11XG) and the relay (5XG) (Ref. ASM 24-41/01). 2 If there is no 28VDC at the pin A/A2 of the relay (4XU2): - Replace the RELAY-GLC 2 AUX CTL (4XU2).

EFF: ALL

24-50-00

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R

R

R

R

R

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R R

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R R

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R

R

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R Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R 3 If there is no 28VDC at the pin B/6 of the GLC2 (9XU2): R Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-00 and (Ref. AMM TASK 24-22-55-400-002). R a If the fault continues: R R Repair the wiring between the pin A/A2 of the relay (4XU2) and the pin B/8 of the GLC2 (9XU2) (Ref. ASM 22/03). R a If there is no 28VDC at the pin B/3 of the BTC2 (11XU2): R Replace the RELAY-SMOKE (30XU2). A If the fault continues: Do a check and repair the wiring between: the pin B/6 of the GLC2 (9XU2) and the relay (30XU (Ref. ASM 24-22/03)) the relay (30XU2) and the pin B/3 of the BTC2 (11) (Ref. ASM 24-22/03)). (2) If the circuit breaker is open: Do the procedure (Ref. TASK 24-00-00-810-803). R (a) If the fault continues: R R Replace the C/B-ELEC/EXT PWR/CTL (11XG). C. Do this test to make sure that the system operates correctly:		On the ECAM control panel: On the	RESULT lower ECAM display unit: normal configuration comes into .
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R 3 If there is no 28VDC at the pin B/6 of the GLC2 (9XU2):	,		
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R 3 If there is no 28VDC at the pin B/6 of the GLC2 (9XU2):			CTL (11XG).
R Papair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R J If there is no 28VDC at the pin B/6 of the GLC2 (9XU2): R R Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-00 and (Ref. AMM TASK 24-22-55-400-002). R J If the fault continues: R R P Papair the wiring between the pin A/A2 of the relay (4XU2) and the pin B/8 of the GLC2 (9XU2) (Ref. ASM 22/03). R J If there is no 28VDC at the pin B/3 of the BTC2 (11XU2): R P P P Replace the RELAY-SMOKE (30XU2). R J If the fault continues: R J O a check and repair the wiring between: R L L P D a check and repair the wiring between: R L L P D A CHECK ASM 24-22/03) R L L P D A CHECK ASM 24-22/03) R L L P D A CHECK ASM 24-22/03) R L P D A CHECK ASM 24-22/03)		• • • • • • • • • • • • • • • • • • • •	
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R 3 If there is no 28VDC at the pin B/6 of the GLC2 (9XU2): - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-00 and (Ref. AMM TASK 24-22-55-400-002). R 4 If the fault continues: - Repair the wiring between the pin A/A2 of the relay (4XU2) and the pin B/8 of the GLC2 (9XU2) (Ref. ASM 22/03). R 5 If there is no 28VDC at the pin B/3 of the BTC2 (11XU2): - Replace the RELAY-SMOKE (30XU2). R 6 If the fault continues: - Do a check and repair the wiring between: - the pin B/6 of the GLC2 (9XU2) and the relay (30XU2) - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the Relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the Relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2): - Replace the relay (30XU2) and the pin B/3 of the BTC2 (11XU2):	R		-00-810-803).
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R 3 If there is no 28VDC at the pin B/6 of the GLC2 (9XU2): - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-00 and (Ref. AMM TASK 24-22-55-400-002). R a If the fault continues: - Repair the wiring between the pin A/A2 of the relay (4XU2) and the pin B/8 of the GLC2 (9XU2) (Ref. ASM 22/03). R 4 If there is no 28VDC at the pin B/3 of the BTC2 (11XU2):	R R R	R R - Do a check and repair t R L the pin B/6 of the GL R (Ref. ASM 24-22/03) L the relay (30XU2) and	C2 (9XU2) and the relay (30XU2)
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R 3 If there is no 28VDC at the pin B/6 of the GLC2 (9XU2): - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-00 and (Ref. AMM TASK 24-22-55-400-002). R a If the fault continues: R - Repair the wiring between the pin A/A2 of the relay (4XU2) and the pin B/8 of the GLC2 (9XU2) (Ref. ASM			
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22 and (Ref. ASM 24-23/02). R If there is no 28VDC at the pin B/6 of the GLC2 (9XU2): R - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-00	R R	R R - Repair the wiring betwe R (4XU2) and the pin B/8	
R - Repair the wiring between the pin A/D2 of the relay and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22)	R	R - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001)
R <u>a</u> If the fault continues:	R R	R — Repair the wiring betwe R — and the pin A/A3 of the	relay (4XU2) (Ref. ASM 24-22/03)

EFF: ALL

24-50-00

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (a) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL
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24-50-00

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TROUBLE SHOOTING MANUAL

TASK 24-50-00-810-811

Failure of the AC BUS 2 with the APU Generator in Operation

- 1. Possible Causes
 - BTC-2 (11XU2)
 - RELAY-GLC 2 AUX CTL (4XU2)
 - GLC-2 (9XU2)
 - RELAY-SMOKE (30XU2)
 - wiring
- R C/B-ELEC/GEN2/OFF/BTC2 SPLY (8XU)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-22-55-400-002	Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the APU
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the APU
R	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-22/03	

- 3. Fault Confirmation
 - A. Job Set-up

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- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-50-00

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B. Test

(1) Do this test:

ACTION RESULT. ______

1. On the ELEC panel 35VU:

- release the GEN1 and GEN2 pushbutton switches.

On the ELEC panel 35VU:

- the OFF legends of the GEN1 and GEN2 pushbutton switches come on.
 - On the upper ECAM display unit:
 - the ELEC AC BUS 2 FAULT warning comes into view.

4. Fault Isolation

R R R

R

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R R

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R R

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R

R

R R

R

R

A. Table of the circuit breakers used in this procedure:

______ PANEL DESIGNATION IDENT. LOCATION

122VU ELEC/GEN2/OFF/BTC2 SPLY

T31

8XU

B. If the test confirms the fault:

- Do a check of the status of the circuit breaker (8XU).

- (1) If the circuit breaker is closed:
 - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (a) If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC2 and the pin A/9C of the GCU2 (Ref. ASM 24-22/03).
 - (b) If the fault continues:
 - Do a check for 28VDC:
 - 1 If there is no 28VDC at the pin A/A2 of the relay (4XU2): - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - a If the fault continues:
 - Repair the wiring between the circuit breaker ELEC/GEN2/OFF/BTC2 SPLY (8XU) and the pin A/A3 of the relay (4XU2) (Ref. ASM 24-22/03).

24-50-00 EFF: ALL

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R R	- Replace the GLC-2	at the pin B/6 of the GLC2 (9XU2): (9XU2) (Ref. AMM TASK 24-22-55-000-001) 24-22-55-400-002).
R R R		inues: ng between the pin A/A2 of the relay pin B/8 of the GLC2 (9XU2) (Ref. ASM 24-
R	<u>3</u> If there is no 28VDCReplace the RELAY-	at the pin B/3 of the BTC2 (11XU2): SMOKE (30XU2).
R R R R	the pin B/6 o(Ref. ASM 24-22	repair the wiring between: f the GLC2 (9XU2) and the relay (30XU2) /03), XU2) and the pin B/3 of the BTC2 (11XU2)
R	(2) If the circuit breaker is oDo the procedure (Ref. TA	•
R R R	(a) If the fault continues:Replace the C/B-ELEC/	GEN2/OFF/BTC2 SPLY (8XU).
	C. Do this test to make sure that	the system operates correctly:
	ACTION	RESULT
	On the ECAM control panel:	On the lower ECAM display unit: - the normal configuration comes into view.
	A But the signaft back to its in	itial configuration

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.

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(2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-50-00-810-812

Loss of the AC BUS 1

- 1. Possible Causes
- R IDG (4000XU)
- R feeders
 - 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R R	AMM	24-21-51-000-040	Removal of the Integrated Drive Generator -IDG 1(2),(4000XU)	
R R	AMM	24-21-51-400-040	<pre>Installation of the Integrated Drive Generator -IDG 1(2),(4000XU)</pre>	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
	AMM	31-60-00-860-001	EIS Start Procedure	
R	AWM	24-22-01		
	AWM	24-51-05		
	AWM	24-51-07		
	AWM	24-51-09		

- 3. Fault Confirmation
 - A. Job Set-up

SROS

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test Do this test:

ACTION RESULT ______ 1. On the ECAM control panel:- push the ELEC key to get theOn the upper ECAM display unit:- these warnings come into view: ELEC AC BUS 1 FAULT ELEC page. ELEC AC ESS BUS FAULT ELEC DC ESS BUS FAULT On the overhead panel, on panel 35VU: - the FAULT legend of the AC ESS FEED pushbutton switch is on. 4. Fault Isolation A. If the test confirms the fault: - do a check of the feeders between the GLC1 (9XU1) and the busbar 1XP (Ref. AWM 24-51-05), (Ref. AWM 24-51-07) and (Ref. AWM 24-51-09). (1) If the feeders are not correct: - repair them. (2) If the feeders are correct: - do a check of the feeders between the GLC1 (9XU1) and the IDG1 (4000XU) for a short to ground or a short circuit (Ref. AWM 24-22-01). (a) If the feeders are not correct: - repair them. (b) If the feeders are correct: - replace the engine 1 IDG (4000XU) (Ref. AMM TASK 24-21-51-000-040) and (Ref. AMM TASK 24-21-51-400-040). B. Do this test to make sure that the system operates correctly: **RESULT** ACTION ______ On the ECAM control panel: On the lower ECAM display unit: - push the ELEC key to get the ELEC - the normal configuration comes into view.

EFF: ALL

page.

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-50-00-810-813

Failure of the 212XP and 216XP Busbars in Normal Flight Configuration

- 1. Possible Causes
 - BUS 2/212XP/SPLY (10XN)
 - CNTOR-AC SVCE BUS NORM SPLY (12XN)
 - wiring
 - RELAY-GND/FLT SELECT CTL (7XX)
 - C/B-BUS 2/212XP/SPLY (10XN)
 - C/B-BUS2/212XP/SPLY (10XN)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
24-00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning	
AMM 24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
AMM 24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)	
AMM 24-51-55-000-001	Removal of the AC Service Bus Normal Supply Contactor (12XN)	
AMM 24-51-55-400-001	Installation of the AC Service Bus Normal Supply Contactor (12XN)	
ASM 24-42/01 ASM 24-51/03		

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - B. Test

ACTION RESULT ______

- 1. On the forward attendant panel the ceiling forward and aft lights (L 120RH, push the CABIN WDO and CABIN CLG pushbutton switches. the window forward and aft lights (R

 - side) do not come on.

EFF: ALL

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,
 - A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (10XN).
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC on the pins A/D, A/E and A/F of the contactor (12XN) (Ref. ASM 24-51/03).
 - (a) If there is no 115VAC:
 - Do a check of the wiring between the circuit breaker (10XN) and the contactor (12XN) (Ref. ASM 24-51/03).
 - 1 If there is no continuity: - Repair the wiring.
 - 2 If there is continuity:
 Replace the BUS 2/212XP/SPLY (10XN).
 - (b) If there is 115VAC:
 - Replace the CNTOR-AC SVCE BUS NORM SPLY (12XN) (Ref. AMM TASK 24-51-55-000-001) and (Ref. AMM TASK 24-51-55-400-001).
 - 1 If the fault continues:
 - Do a check of the wiring between pins A/N, A/P and A/R of the contactor (12XN) and the busbars 212XP and 216XP (Ref. ASM 24-42/01).
 - <u>a</u> If there is no continuity:
 - Repair the wiring.
 - b If there is continuity:
 - Replace the RELAY-GND/FLT SELECT CTL (7XX).
 - c If the fault continues:
 - Do a check and repair the wiring:
 - . from the circuit breaker (3XX) to the pin B/3 of the contactor (12XN).
 - . from the pin B/5 of the contactor (12XN) to the first terminal block (Ref. ASM 24-51/03).
 - (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-BUS 2/212XP/SPLY (10XN).

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- R **ON A/C 254-275, 432-475, 481-499, 563-599,
 - A. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (10XN).
 - (1) If the circuit breaker is closed:
 - Do a check for 115VAC on the pins 10, 11, 12 of the module 20XX (Ref. ASM 24-51/03).
 - (a) If there is no 115VAC:
 - Do a check of the wiring between the circuit breaker (10XN) and the module 20XX (Ref. ASM 24-51/03).
 - 1 If there is no continuity:
 - Repair the wiring.
 - 2 If there is continuity:
 - Replace the C/B-BUS2/212XP/SPLY (10XN).
 - (b) If there is 115VAC:
 - Replace the CNTOR-AC SVCE BUS NORM SPLY (12XN) (Ref. AMM TASK 24-51-55-000-001) and (Ref. AMM TASK 24-51-55-400-001).
 - 1 If the fault continues:
 - Do the check of the wiring between pins A/N, A/P and A/R of the contactor (12XN) and the busbars 212XP and 216XP (Ref. ASM 24-42/01).
 - a If there is no continuity:
 - Repair the wiring.
 - b If there is continuity:
 - Replace the RELAY-GND/FLT SELECT CTL (7XX).
 - c If the fault continues:
 - Do a check and repair the wiring:
 - from the circuit breaker (3XX) to the pin B/3 of the contactor (12XN).
 - . from the pin B/5 of the contactor (12XN) to the first terminal block (Ref. ASM 24-51/03).
 - (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-BUS2/212XP/SPLY (10XN).

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EFF:

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**ON A/C ALL

- B. Do this test to make sure that the system operates correctly.
 - (1) Do the test given in Para. 3. and make sure that:
 - the ceiling forward and aft lights (L side) come on
 - the window forward and aft lights (R side) come on.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the forward attendant panel 120RH release the CABIN WDO and CABIN CLG pushbutton switches.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL

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TASK 24-50-00-810-814

Unwanted Warning from the AC Busbars

- 1. Possible Causes
 - RELAY-BUS 1XP CTL (15XC)
 - RELAY-BUS 2XP CTL (16XC)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power		
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power		
AMM ASM	31-60-00-860-001 24-25/01	EIS Start Procedure		

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Test
 - (1) Do this test:

ACTION RESULT

1. On the ECAM control panel:
- push the ELEC key to get the
- the ELEC ESS BUSES ON BAT warning ELEC page

comes into view.

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4. Fault Isolation

- A. If the test confirms the fault:
 - replace the RELAY-BUS 1XP CTL (15XC) and RELAY-BUS 2XP CTL (16XC).
 - (1) If the fault continues:
 - do a check and repair the wiring between respectively:
 - . the circuit breaker (17XN1) and the pin A/X1 of the relay (15XC)
 - . the pin A/X2 of this relay and the ground
 - . the circuit breaker (17XN2) and the pin A/X1 of the relay (16XC)
 - . the pin A/X2 of this relay and the ground (Ref. ASM 24-25/01)
- B. Do this test to brake sure that the system operates correctly:

ACTION RESULT ______

1. On the ECAM control panel: On the ECAM control panel:
On the upper ECAM display uni
push the ELEC key to get the
no message comes into view. ELEC page

On the upper ECAM display unit:

Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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GA319/A320/A321

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TASK 24-50-00-810-815

Failure of the AC BUS 1 with the GEN 2 in Operation

1. Possible Causes

- BTC-1 (11XU1)
- GCU-1 (1XU1)
- RELAY-EPC AUX CTL (5XG)
- RELAY-GLC 1 AUX CTL (4XU1)
- GLC-1 (9XU1)
- RELAY-BUS TIE (30XU1)
- BTC-2 (11XU2)
- GCU-2 (1XU2)
- GLC-APU (3XS)
- EPC (3XG)
- RELAY-SMOKE (30XU2)
- DIODE MODULE (1164VD)
- wiring
- C/B-ELEC/GEN1/OFF/BTC1 SPLY (5XU)
- DIODE MODULE (2420VD)
- RELAY-APU GLC AUX CTL (4XS)
- RELAY-GLC 2 AUX CTL (4XU2)
- R C/B-ELEC/GEN1/OFF/BTC2 SPLY (14XU)
 - C/B-ELEC/GEN1/OFF/BTC2 SPLY(14XU)

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
	AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-22-55-400-002	<pre>Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)</pre>
	AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
	AMM	24-23-55-400-001	Installation of the APU GLC (3XS)
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)
	AMM	24-41-55-400-001	Installation of the External Power Contactor (EPC)
	AMM	31-60-00-860-001	EIS Start Procedure
	AMM	31-60-00-860-002	EIS Stop Procedure
	AMM	49-00-00-860-004	APU Shutdown by External Power (GTCP 36-300)
	AMM		APU Shutdown by External Power (APS 3200)

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REFERENCE DESIGNATION

AMM 49-00-00-860-009 AMM 71-00-00-710-003 APU Shutdown by External Power (131-9(A))

AMM 71-00-00-710-028

Engine Automatic Start
Engine Shutdown

ASM 24-22/02

ASM 24-22/03

ASM 24-23/02

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Start the engine 2 (Ref. AMM TASK 71-00-00-710-003).
 - (d) Stop the APU:
 - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-004) or
 - APS 3200 (Ref. AMM TASK 49-00-00-860-006) or
 - 131-9(A) (Ref. AMM TASK 49-00-00-860-009).
 - (e) Push the ELEC/APU GEN pushbutton switch (2XS).
- B. Test
 - (1) Do this test:

ACTION RESULT

- 1. On the ELEC panel 35VU:
 - release the GEN 1 pushbutton switch (3XU1).

On the ELEC panel 35VU:

- the OFF legend of the GEN 1 pushbutton switch (3XU1) comes on.

On the upper ECAM display unit:

 the ELEC AC BUS 1 FAULT warning comes into view.

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - Replace the DIODE MODULE (1164VD).
 - (1) If the fault continues:
 - Do a check of the status of the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU).
 - (a) If the circuit breaker is closed:
 - Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 1 If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC1 (11XU1) and the pin AA/9C of the GCU1 (1XU1) (Ref. ASM 24-22/02).
 - a If the fault continues:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 2 If the fault continues:
 - Do a check for 28VDC.
 - <u>a</u> If there is no 28VDC at the pin A/D2 of the EPC auxiliary control relay (5XG):
 - Replace the RELAY-EPC AUX CTL (5XG).
 - * If the fault continues:
 - Repair the wiring between the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU) and the pin A/D3 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-22/02) and (Ref. ASM 24-23/02).
 - <u>b</u> If there is no 28VDC at the pin A/A2 of the GLC1 auxiliary control relay (4XU1):
 - Replace the RELAY-GLC 1 AUX CTL (4XU1).
 - * If the fault continues:
 - Repair the wiring between the pin A/D2 of the EPC auxiliary control relay (5XG) and the pin A/A3 of the GLC1 auxiliary control relay (4XU1) (Ref. ASM 24-23/02) and (Ref. ASM 24-22/02).
 - If there is no 28VDC at the pin B/22 of the GLC1 (9XU1):
 Replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).

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- * If the fault continues:
- Repair the wiring between the pin A/A2 of the GLC1 auxiliary control relay (4XU1) and the pin B/24 of the GLC1 (9XU1) (Ref. ASM 24-22/02).
- d If there is no 28VDC at the pin B/3 of the BTC1 (11XU1):
 Replace the RELAY-BUS TIE (30XU1).
 - * If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/02) between:
 - . the pin B/22 of the GLC1 (9XU1) and the pin A/B2 of the bus tie relay (30XU1)
 - . the pin A/B3 of the bus tie relay (30XU1) and the pin B/3 of the BTC1 (11XU1).
- (b) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ELEC/GEN1/OFF/BTC1 SPLY (5XU).
- (c) If the fault continues:
 - Continue this fault isolation procedure from step 4.B.
- B. Do a check of the status of the ELEC/GEN1/OFF/BTC2 SPLY circuit breaker (14XU).
 - (1) If the circuit breaker is closed:
 - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (a) If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC2 (11XU2) and the pin AA/9C of the GCU2 (1XU2) (Ref. ASM 24-22/03).
 - 1 If the fault continues:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - Do a check for 28VDC.
 - If there is no 28VDC at the pin A/13 of the diode module (2420VD):
 - Replace the DIODE MODULE (2420VD).
 - a If the fault continues:
 - Repair the wiring between the pin 2 of the ELEC/GEN1/OFF/BTC2 SPLY circuit breaker (14XU) and the

EFF: 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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pin A/28 of the diode module (2420VD) (Ref. ASM 24-22/03).

- 2 If there is no 28VDC at the pin B/12 of the GLC-APU (3XS):
 - Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin A/13 of the diode module (2420VD) and the pin B/10 of the GLC-APU (3XS) (Ref. ASM 24-22/03).
- 3 If there is no 28VDC at the pin B/10 of the EPC (3XG):
 - Replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin B/12 of the GLC-APU (3XS) and the pin B/12 of the EPC (3XG) (Ref. ASM 24-22/03).
- 4 If there is no 28VDC at the pin A/B3 of the EPC auxiliary control relay (5XG):
 - replace the RELAY-EPC AUX CTL (5XG).
 - a If the fault continues:
 - Repair the wiring between the pin B/10 of the EPC contactor (3XG) and the pin A/B2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-22/03).
- 5 If there is no 28VDC at the pin A/D3 of the APU GLC auxiliary control relay (4XS):
 - Replace the RELAY-APU GLC AUX CTL (4XS).
 - a If the fault continues:
 - Repair the wiring between the pin A/B3 of the EPC auxiliary control relay (5XG) and the pin A/D2 of the APU GLC auxiliary control relay (4XS) (Ref. ASM 24-22/03).
- 6 If there is no 28VDC at the pin A/C1 of the GLC2 auxiliary control relay (4XU2):
 - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - a If the fault continues:
 - Repair the wiring between the pin A/D3 of the APU GLC auxiliary control relay (4XS) and the pin A/C2 of the GLC2 auxiliary control relay (4XU2) (Ref. ASM 24-22/03).
- 7 If there is no 28VDC at the pin A/B3 of the GLC1 auxiliary control relay (4XU1):
 - Replace the RELAY-GLC 1 AUX CTL (4XU1).

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- a If the fault continues:
 - Repair the wiring between the pin A/C1 of the GLC2 auxiliary control relay (4XU2) and the pin A/B2 of the GLC1 auxiliary control relay (4XU1) (Ref. ASM 24-22/03).
- 8 If there is no 28VDC at the pin B/14 of the GLC1 (9XU1):
 - Replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002)..
 - a If the fault continues:
 - Repair the wiring between the pin A/B3 of the GLC1 auxiliary control relay (4XU1) and the pin B/16 of the GLC1 (9XU1) (Ref. ASM 24-22/03).
- 9 If there is no 28VDC at the pin B/3 of the BTC2 (11XU2):
 Replace the RELAY-SMOKE (30XU2).
 - a If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/03) between:
 - . The pin B/6 of the GLC2 (9XU2) and the pin A/B2 of the smoke relay (30XU2)
 - . The pin B/14 of the GLC1 (9XU1) and the pin A/B2 of the smoke relay (30XU2)
 - . The pin A/B3 of the smoke relay (30XU2) and the pin B/3 of the BTC2 (11XU2).
- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-ELEC/GEN1/OFF/BTC2 SPLY (14XU).

**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - Replace the DIODE MODULE (1164VD).
 - (1) If the fault continues:
 - Do a check of the status of the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU).
 - (a) If the circuit breaker is closed:
 - Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 1 If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC1 (11XU1) and the pin AA/9A of the GCU1 (1XU1) (Ref. ASM 24-22/02).

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- a If the fault continues:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
- 2 If the fault continues:
 - Do a check for 28VDC.
 - <u>a</u> If there is no 28VDC at the pin A/D2 of the EPC auxiliary control relay (5XG):
 - Replace the RELAY-EPC AUX CTL (5XG).
 - * If the fault continues:
 - Repair the wiring between the ELEC/GEN1/OFF/BTC1 SPLY circuit breaker (5XU) and the pin A/D3 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-22/02) and (Ref. ASM 24-23/02).
 - \underline{b} If there is no 28VDC at the pin A/A2 of the GLC1 auxiliary control relay (4XU1):
 - Replace the RELAY-GLC 1 AUX CTL (4XU1).
 - * If the fault continues:
 - Repair the wiring between the pin A/D2 of the EPC auxiliary control relay (5XG) and the pin A/A3 of the GLC1 auxiliary control relay (4XU1) (Ref. ASM 24-23/02) and (Ref. ASM 24-22/02).
 - c If there is no 28VDC at the pin B/22 of the GLC1 (9XU1):
 Replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001)
 and (Ref. AMM TASK 24-22-55-400-002).
 - * If the fault continues:
 - Repair the wiring between the pin A/A2 of the GLC1 auxiliary control relay (4XU1) and the pin B/24 of the GLC1 (9XU1) (Ref. ASM 24-22/02).
 - d If there is no 28VDC at the pin B/3 of the BTC1 (11XU1):
 Replace the RELAY-BUS TIE (30XU1).
 - * If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/02)
 - . the pin B/22 of the GLC1 (9XU1) and the pin A/B2 of the bus tie relay (30XU1)
 - . the pin A/B3 of the bus tie relay (30 \times U1) and the pin B/3 of the BTC1 (11 \times U1).

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- (b) If the circuit breaker is open:

 R Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ELEC/GEN1/OFF/BTC1 SPLY (5XU).
 - (c) If the fault continues:
 - Continue this fault isolation procedure from step 4.B.
 - B. Do a check of the status of the ELEC/GEN1/OFF/BTC2 SPLY circuit breaker (14XU).
 - (1) If the circuit breaker is closed:
 - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (a) If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC2 (11XU2) and the pin AA/9A of the GCU2 (1XU2) (Ref. ASM 24-22/03).
 - 1 If the fault continues:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - Do a check for 28VDC.
 - $\frac{1}{2420\text{VD}}$ If there is no 28VDC at the pin A/13 of the diode module (2420VD):
 - Replace the DIODE MODULE (2420VD).
 - a If the fault continues:
 - Repair the wiring between the pin 2 of the ELEC/GEN1/OFF/BTC2 SPLY circuit breaker (14XU) and the pin A/28 of the diode module (2420VD) (Ref. ASM 24-22/03).
 - If there is no 28VDC at the pin B/12 of the GLC-APU (3XS):

 Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001)
 and (Ref. AMM TASK 24-23-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin A/13 of the diode module (2420VD) and the pin B/10 of the GLC-APU (3XS) (Ref. ASM 24-22/03).
 - 3 If there is no 28VDC at the pin B/10 of the EPC (3XG):
 - Replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).

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- a If the fault continues:
 - Repair the wiring between the pin B/12 of the GLC-APU (3XS) and the pin B/12 of the EPC (3XG) (Ref. ASM 24-22/03).
- 4 If there is no 28VDC at the pin A/B3 of the EPC auxiliary control relay (5XG):
 - replace the RELAY-EPC AUX CTL (5XG).
 - a If the fault continues:
 - Repair the wiring between the pin B/10 of the EPC contactor (3XG) and the pin A/B2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-22/03).
- 5 If there is no 28VDC at the pin A/D3 of the APU GLC auxiliary control relay (4XS):
 - Replace the RELAY-APU GLC AUX CTL (4XS).
 - a If the fault continues:
 - Repair the wiring between the pin A/B3 of the EPC auxiliary control relay (5XG) and the pin A/D2 of the APU GLC auxiliary control relay (4XS) (Ref. ASM 24-22/03).
- 6 If there is no 28VDC at the pin A/C1 of the GLC2 auxiliary control relay (4XU2):
 - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - a If the fault continues:
 - Repair the wiring between the pin A/D3 of the APU GLC auxiliary control relay (4XS) and the pin A/C2 of the GLC2 auxiliary control relay (4XU2) (Ref. ASM 24-22/03).
- 7 If there is no 28VDC at the pin A/B3 of the GLC1 auxiliary control relay (4XU1):
 - replace the RELAY-GLC 1 AUX CTL (4XU1).
 - a If the fault continues:
 - Repair the wiring between the pin A/C1 of the GLC2 auxiliary control relay (4XU2) and the pin A/B2 of the GLC1 auxiliary control relay (4XU1) (Ref. ASM 24-22/03).
- 8 If there is no 28VDC at the pin B/30 of the GLC1 (9XU1):
 - Replace the GLC-1 (9XU1) (Ref. AMM TASK 24-22-55-000-001)
 and (Ref. AMM TASK 24-22-55-400-002).
 - a If the fault continues:
 - Repair the wiring between the pin A/B3 of the GLC1 auxiliary control relay (4XU1) and the pin B/32 of the GLC1 (9XU1) (Ref. ASM 24-22/03).
- If there is no 28VDC at the pin B/3 of the BTC2 (11XU2):
 Replace the RELAY-SMOKE (30XU2).

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) *A 319/A 320/A 321*

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- If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/03) between:
 - . The pin B/22 of the GLC2 (9XU2) and the pin A/B2 of the smoke relay (30XU2)
 - . The pin B/30 of the GLC1 (9XU1) and the pin A/B2 of the smoke relay (30XU2)
 - . The pin A/B3 of the smoke relay (30XU2) and the pin B/3 of the BTC2 (11XU2).
- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
- (a) If the fault continues:
 - Replace the C/B-ELEC/GEN1/OFF/BTC2 SPLY(14XU).

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C. Test

ACTION RESULT

1. On the ELEC panel 35VU: - release the GEN 1 pushbutton - the OFF legend of the GEN 1 switch (3XU1).

On the ELEC panel 35VU:

- pushbutton switch (3XU1) comes on.
- 2. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the lower ECAM display unit:

- the GEN 2 supplies the AC 2 and AC 1 busbars.
- D. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 2 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-50-00-810-816

Failure of the AC BUS 2 with the GEN 1 in Operation

1. Possible Causes

- BTC-2 (11XU2)
- GCU-2 (1XU2)
- RELAY-GLC 2 AUX CTL (4XU2)
- GLC-2 (9XU2)
- RELAY-SMOKE (30XU2)
- BTC-1 (11XU1)
- GCU-1 (1XU1)
- GLC-APU (3XS)
- EPC (3XG)
- RELAY-EPC AUX CTL (5XG)
- RELAY-BUS TIE (30XU1)
- DIODE MODULE (1164 VD)
- wiring
- C/B-ELEC/GEN2/OFF/BTC2 SPLY (8XU)
- DIODE MODULE (2420VD)
- RELAY-APU GLC AUX CTL (4XS)
- RELAY-GLC 1 AUX CTL (4XU1)
- R C/B-ELEC/GEN2/OFF/BTC1 SPLY (15XU)
 - C/B-ELEC/GEN2/OFF/BTC2 SPLY(8XU)

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-22-34-000-001	Removal of the GCU-1(2) (1XU1, 1XU2)
	AMM	24-22-34-400-001	Installation of the GCU-1(2) (1XU1, 1XU2)
	AMM	24-22-55-000-001	Removal of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-22-55-400-002	Installation of the Contactors (9XU1, 9XU2, 11XU1, 11XU2)
	AMM	24-23-55-000-001	Removal of the APU GLC (3XS)
		24-23-55-400-001	Installation of the APU GLC (3XS)
	AMM		Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	24-41-55-000-001	Removal of the External Power Contactor (EPC)
	AMM	24-41-55-400-001	Installation of the External Power Contactor (EPC)
	AMM	31-60-00-860-001	EIS Start Procedure
	AMM	31-60-00-860-002	EIS Stop Procedure
	AMM	49-00-00-860-004	APU Shutdown by External Power (GTCP 36-300)
	AMM	49-00-00-860-006	APU Shutdown by External Power (APS 3200)

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REFERENCE DESIGNATION

AMM 49-00-00-860-009 APU Shutdown by External Power (131-9(A))

AMM 71-00-00-710-003 Engine Automatic Start

AMM 71-00-00-710-028 Engine Shutdown ASM 24-22/02

3. Fault Confirmation

A. Job Set-up

ASM 24-22/03

- (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) Start the engine 1 (Ref. AMM TASK 71-00-00-710-003).
 - (d) Stop the APU:
 - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-004) or
 - APS 3200 (Ref. AMM TASK 49-00-00-860-006) or
 - 131-9(A) (Ref. AMM TASK 49-00-00-860-009).
 - (e) Push the ELEC/APU GEN pushbutton switch (2XS).
- B. Test
 - (1) Do this test:

ACTION RESULT

1. On the ELEC panel 35VU:

 release the GEN 2 pushbutton switch (3XU2)

On the ELEC panel 35VU:

 the OFF legend of the GEN 2 pushbutton switch (3XU2) comes on.

On the upper ECAM display unit:

 the ELEC AC BUS 2 FAULT warning come into view.

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4. Fault Isolation

- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,
 - A. If the test confirms the fault:
 - Replace the DIODE MODULE (1164 VD).
 - (1) If the fault continues:
 - Do a check of the status of the ELEC/GEN2 OFF/BTC2 SPLY circuit breaker (8XU).
 - (a) If the circuit breaker is closed:
 - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 1 If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC2 (11XU2) and the pin AA/9C of the GCU2 (1XU2) (Ref. ASM 24-22/03).
 - a If the fault continues:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 2 If the fault continues:
 - Do a check for 28VDC.
 - <u>a</u> If there is no 28VDC at the pin A/A2 of the GLC2 auxiliary control relay (4XU2):
 - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - * If the fault continues:
 - Repair the wiring between the pin 2 of the ELEC/GEN2 OFF/BTC2 SPLY circuit breaker (8XU) and the pin A/A3 of the GLC2 auxiliary control relay (4XU2) (Ref. ASM 24-22/03).
 - b If there is no 28VDC at the pin B/22 of the GLC2 (9XU2):
 - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - * If the fault continues:
 - Repair the wiring between the pin A/A2 of the GLC2 auxiliary control relay (4XU2) and the pin B/24 of the GLC2 (9XU2) (Ref. ASM 24-22/03).
 - <u>c</u> If there is no 28VDC at the pin B/3 of the BTC2 (11XU2): - Replace the RELAY-SMOKE (30XU2).
 - * If the fault continues:

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- Do a check and repair the wiring (Ref. ASM 24-22/03) between:
- . the pin B/22 of the GLC2 (9XU2) and the pin A/B2 of the smoke relay (30XU2)
- . the pin A/B3 of the smoke relay (30XU2) and the pin B/3 of the BTC2 (11XU2).
- (b) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ELEC/GEN2/OFF/BTC2 SPLY (8XU).
- (c) If the fault continues:
 - Continue this fault isolation procedure from step 4.B.
- B. Do a check of the status of the ELEC/BTC1/SPLY circuit breaker (15XU).
 - (1) If the circuit breaker is closed:
 - Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (a) If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC1 (11XU1) and the pin AA/9C of the GCU1 (1XU1) (Ref. ASM 24-22/02).
 - 1 If the fault continues:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - (b) If the fault continues:
 - Do a check for 28VDC.
 - 1 If there is no 28VDC at the pin A/11 of the diode module (2420VD):
 - Replace the DIODE MODULE (2420VD).
 - a If the fault continues:
 - Repair the wiring between the pin 2 of the ELEC/BTC1/SPLY circuit breaker (15XU) and the pin A/26 of the diode module (2420VD) (Ref. ASM 24-22/02).
 - 2 If there is no 28VDC at the pin B/8 of the GLC-APU (3XS):
 - Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001) and (Ref. AMM TASK 24-23-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin A/11 of the diode module 2420VD and the pin B/6 of the GLC-APU (3XS) (Ref. ASM 24-22/02).

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- 3 If there is no 28VDC at the pin B/6 of the EPC (3XG):
 - Replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin B/8 of the GLC-APU (3XS) and the pin B/8 the EPC (3XG) (Ref. ASM 24-22/02).
- 4 If there is no 28VDC at the pin A/A3 of the EPC auxiliary control relay (5XG):
 - Replace the RELAY-EPC AUX CTL (5XG).
 - a If the fault continues:
 - Repair the wiring between the pin B/6 of the EPC (3XG) and the pin A/A2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-22/02).
- 5 If there is no 28VDC at the pin A/C3 of the APU GLC auxiliary control relay (4XS):
 - Replace the RELAY-APU GLC AUX CTL (4XS).
 - a If the fault continues:
 - Repair the wiring between the pin A/A3 of the EPC auxiliary control relay (5XG) and the pin A/C2 of the APU GLC auxiliary control relay (4XS) (Ref. ASM 24-22/02).
- 6 If there is no 28VDC at the pin A/C1 of the GLC1 auxiliary control relay (4XU1):
 - Replace the RELAY-GLC 1 AUX CTL (4XU1).
 - a If the fault continues:
 - Repair the wiring between the pin A/C3 of the APU GLC auxiliary control relay (4XS) and the pin A/C2 of the GLC1 auxiliary control relay (4XU1) (Ref. ASM 24-22/02).
- If there is no 28VDC at the pin A/B3 of the GLC2 auxiliary control relay (4XU2):
 - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - a If the fault continues:
 - Repair the wiring between the pin A/C1 of the GLC1 auxiliary control relay (4XU1) and the pin A/B2 of the GLC2 auxiliary control relay (4XU2) (Ref. ASM 24-22/02).
- 8 If there is no 28VDC at the pin B/14 of the GLC2 (9XU2):
 - Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - a If the fault continues:
 - Repair the wiring between the pin A/B3 of the GLC2 auxiliary control relay (4XU2) and the pin B/16 of the GLC2 contactor (9XU2) (Ref. ASM 24-22/02).

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- 9 If there is no 28VDC at the pin B/3 of the BTC1 (11XU1): - Replace the RELAY-BUS TIE (30XU1).
 - a If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/02) between:
 - . The pin B/6 of the GLC1 (9XU1) and the pin A/B2 of the BUS TIE relay (30XU1)
 - . The pin B/14 of the GLC2 (9XU2) and the pin A/B2 of the BUS TIE relay (30XU1)
 - . The pin A/B3 of the BUS TIE relay (30XU1) and the pin B/3 of the BTC1 (11XU1).
- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-ELEC/GEN2/OFF/BTC1 SPLY (15XU).

**ON A/C 254-275, 451-475,

- A. If the test confirms the fault:
 - Replace the DIODE MODULE (1164 VD).
 - (1) If the fault continues:
 - Do a check of the status of the ELEC/GEN2 OFF/BTC2 SPLY circuit breaker (8XU).
 - (a) If the circuit breaker is closed:
 - Replace the BTC-2 (11XU2) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - 1 If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC2 (11XU2) and the pin AA/9A of the GCU2 (1XU2) (Ref. ASM 24-22/03).
 - a If the fault continues:
 - Replace the GCU-2 (1XU2) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).
 - 2 If the fault continues:
 - Do a check for 28VDC.
 - a If there is no 28VDC at the pin A/A2 of the GLC2 auxiliary control relay (4XU2):
 - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - * If the fault continues:

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- Repair the wiring between the pin 2 of the ELEC/GEN2 OFF/BTC2 SPLY circuit breaker (8XU) and the pin A/A3 of the GLC2 auxiliary control relay (4XU2) (Ref. ASM 24-22/03).
- b If there is no 28VDC at the pin B/22 of the GLC2 (9XU2):
 Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001)
 and (Ref. AMM TASK 24-22-55-400-002).
 - * If the fault continues:
 - Repair the wiring between the pin A/A2 of the GLC2 auxiliary control relay (4XU2) and the pin B/24 of the GLC2 (9XU2) (Ref. ASM 24-22/03).
- \underline{c} If there is no 28VDC at the pin B/3 of the BTC2 (11XU2): Replace the RELAY-SMOKE (30XU2).
 - * If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/03) between:
 - . the pin B/22 of the GLC2 (9XU2) and the pin A/B2 of the smoke relay (30XU2)
 - . the pin A/B3 of the smoke relay (30XU2) and the pin B/3 of the BTC2 (11XU2).
- (b) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ELEC/GEN2/OFF/BTC2 SPLY(8XU).
- (c) If the fault continues:

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- Continue this fault isolation procedure from step 4.B.
- B. Do a check of the status of the ELEC/BTC1/SPLY circuit breaker (15XU).
 - (1) If the circuit breaker is closed:
 - Replace the BTC-1 (11XU1) (Ref. AMM TASK 24-22-55-000-001) and (Ref. AMM TASK 24-22-55-400-002).
 - (a) If the fault continues:
 - Do a check and repair the wiring between the pin B/5 of the BTC1 (11XU1) and the pin AA/9A of the GCU1 (1XU1) (Ref. ASM 24-22/02).
 - 1 If the fault continues:
 - Replace the GCU-1 (1XU1) (Ref. AMM TASK 24-22-34-000-001) and (Ref. AMM TASK 24-22-34-400-001).

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- (b) If the fault continues:
 - Do a check for 28VDC.
 - 1 If there is no 28VDC at the pin A/11 of the diode module (2420VD):
 - Replace the DIODE MODULE (2420VD).
 - a If the fault continues:
 - Repair the wiring between the pin 2 of the ELEC/BTC1/SPLY circuit breaker (15XU) and the pin A/26 of the diode module (2420VD) (Ref. ASM 24-22/02).
 - 2 If there is no 28VDC at the pin B/34 of the GLC-APU (3XS):
 - Replace the GLC-APU (3XS) (Ref. AMM TASK 24-23-55-000-001)
 and (Ref. AMM TASK 24-23-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin A/11 of the diode module 2420VD and the pin B/36 of the GLC-APU (3XS) (Ref. ASM 24-22/02).
 - 3 If there is no 28VDC at the pin B/6 of the EPC (3XG):
 - Replace the EPC (3XG) (Ref. AMM TASK 24-41-55-000-001) and (Ref. AMM TASK 24-41-55-400-001).
 - a If the fault continues:
 - Repair the wiring between the pin B/34 of the GLC-APU (3XS) and the pin B/8 the EPC (3XG) (Ref. ASM 24-22/02).
 - 4 If there is no 28VDC at the pin A/A3 of the EPC auxiliary control relay (5XG):
 - Replace the RELAY-EPC AUX CTL (5XG).
 - a If the fault continues:
 - Repair the wiring between the pin B/6 of the EPC (3XG) and the pin A/A2 of the EPC auxiliary control relay (5XG) (Ref. ASM 24-22/02).
 - 5 If there is no 28VDC at the pin A/C3 of the APU GLC auxiliary control relay (4XS):
 - Replace the RELAY-APU GLC AUX CTL (4XS).
 - a If the fault continues:
 - Repair the wiring between the pin A/A3 of the EPC auxiliary control relay (5XG) and the pin A/C2 of the APU GLC auxiliary control relay (4XS) (Ref. ASM 24-22/02).
 - 6 If there is no 28VDC at the pin A/C1 of the GLC1 auxiliary control relay (4XU1):
 - Replace the RELAY-GLC 1 AUX CTL (4XU1).

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- a If the fault continues:
 - Repair the wiring between the pin A/C3 of the APU GLC auxiliary control relay (4XS) and the pin A/C2 of the GLC1 auxiliary control relay (4XU1) (Ref. ASM 24-22/02).
- If there is no 28VDC at the pin A/B3 of the GLC2 auxiliary control relay (4XU2):
 - Replace the RELAY-GLC 2 AUX CTL (4XU2).
 - a If the fault continues:
 - Repair the wiring between the pin A/C1 of the GLC1 auxiliary control relay (4XU1) and the pin A/B2 of the GLC2 auxiliary control relay (4XU2) (Ref. ASM 24-22/02).
- 8 If there is no 28VDC at the pin B/30 of the GLC2 (9XU2):
 Replace the GLC-2 (9XU2) (Ref. AMM TASK 24-22-55-000-001)
 and (Ref. AMM TASK 24-22-55-400-002).
 - a If the fault continues:
 - Repair the wiring between the pin A/B3 of the GLC2 auxiliary control relay (4XU2) and the pin B/32 of the GLC2 contactor (9XU2) (Ref. ASM 24-22/02).
- 9 If there is no 28VDC at the pin B/3 of the BTC1 (11XU1):
 Replace the RELAY-BUS TIE (30XU1).
 - a If the fault continues:
 - Do a check and repair the wiring (Ref. ASM 24-22/02) between:
 - . The pin B/22 of the GLC1 (9XU1) and the pin A/B2 of the BUS TIE relay (30XU1)
 - . The pin B/30 of the GLC2 (9XU2) and the pin A/B2 of the BUS TIE relay (30XU1)
 - . The pin A/B3 of the BUS TIE relay (30XU1) and the pin B/3 of the BTC1 (11XU1).
- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
- R (a) If the fault continues:
- R Replace the C/B-ELEC/GEN2/OFF/BTC1 SPLY (15XU).

24-50-00

R

R

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EFF: 254-275, 451-475,

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**ON A/C ALL

C. Test

______ ACTION RESULT

- 1. On the ELEC panel 35VU:
 - switch (3XU2).
- 2. On the ECAM control panel:
 - ELEC page.
- On the ELEC panel 35VU:
- release the GEN 2 pushbutton the OFF legend of the GEN 2 pushbutton switch (3XU2) comes on.

On the lower ECAM display unit:

- On the ECAM control panel:

 On the lower ECAM display unit:

 the GEN 1 supplies the AC 1 and AC 2 busbars.
- D. Put the aircraft back to its initial configuration.
 - (1) Stop the engine 1 (Ref. AMM TASK 71-00-00-710-028).
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TROUBLE SHOOTING MANUAL

GALLEY SUPPLY - FAULT ISOLATION PROCEDURES

TASK 24-56-00-810-801

Galley Supply Fault

1. Possible Causes

- GND FAIL RELAY 4XA
- GALLEY SPLY RELAY 5XA
- GALLEY SPLY RELAY 9XA
- MAN GALLEY SPLY RELAY 6XA
- wiring
- GALLEY PWR RELAY
- PBSW 2XA

2. Job Set-up Information

A. Referenced Information

REFERENCE

DESIGNATION

ASM 24-56/01

AMM 24-56-00-710-001 Operational Test of the Galley Supply

3. Fault Confirmation

A. Do a test of the galley supply (Ref. AMM TASK 24-56-00-710-001).

4. Fault Isolation

- A. If the white indicator light FAULT in PBSW 2XA comes on during the test: - do a check of the GND FAIL RELAY 4XA and replace it if necessary.
 - (1) If the fault continues:
 - do a check of the GALLEY SPLY RELAY 5XA and replace it if necessary.
 - (2) If the fault continues:
 - do a check of the GALLEY SPLY RELAY 9XA and replace it if necessary.
 - (3) If the fault continues:
 - do a check of the MAN GALLEY SPLY RELAY 6XA and replace it if necessary.

EFF: ALL **24-56-00**

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- (4) If the fault continues:
 - do a check and repair the wiring if necessary between:
 PBSW 2XA connector A/C1 and GND FAIL RELAY 4XA connector A/A,
 GND FAIL RELAY 4XA connector A/A and GALLEY SPLY RELAY 5XA connector A/X,

GND FAIL RELAY 4XA connector A/A and GALLEY SPLY RELAY 9XA connector A/X, (if fitted),

GALLEY SPLY RELAY 5XA connector A/Z and GND,

GALLEY SPLY RELAY 9XA connector A/Z and GND (if fitted),

CB 7MC and related GALLEY PWR RELAY pin X,

CB 7MC and related GALLEY PWR RELAY connector B/3,

related GALLEY PWR RELAY pin I and GND,

related GALLEY PWR RELAY connector B/5 and GND (Ref. ASM 24-56/01).

- (5) If the fault continues:
 - do a check for 115 VAC at the pins B,C,D and E,F,G, and I,J,K at the related GALLEYS.
 - (a) If there is no 115 VAC:
 - do a check of the related GALLEY PWR RELAY and replace it if necessary.
- (6) If the fault continues:
 - do a check and repair the wiring between the related:
 GALLEY pins B,C,D or E,F,G or I,J,K and the related CB,
 GALLEY pins A or H or L and the related GND (Ref. ASM 24-56/01).
- B. If the white indicator light FAULT in PBSW 2XA does not come on, but there is a fault in the galley equipment:
 - do a check of the PBSW 2XA and replace it if necessary.
 - (1) If the fault continues:
 - do a check and repair the wiring between:
 CB 1XA and PBSW 2XA connector A/C3 (Ref. ASM 24-56/01).
- C. Do the test as given in Para. 3.A. to check the correct operation (no maintenance message is shown).

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EFF: ALL

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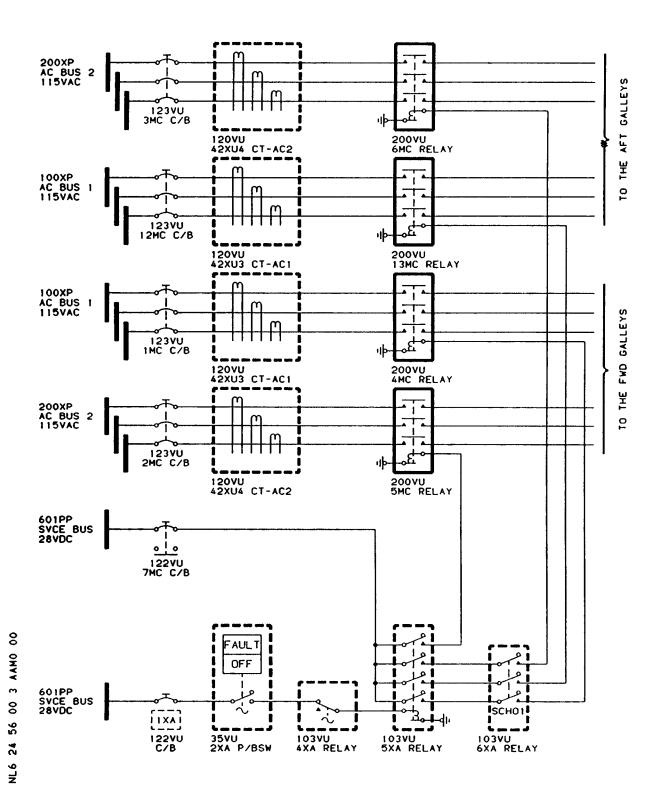
GALLEY SUPPLY - TASK SUPPORTING DATA

EFF: ALL

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Power Supply - Block Diagram Figure 301

EFF: ALL

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DC ELECTRICAL LOAD DISTRIBUTION - FAULT ISOLATION PROCEDURES

TASK 24-60-00-810-801

Unwanted Warning from the DC ESS SHED Busbar

- 1. Possible Causes
 - 8PH
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	23-71-00-710-001	Operational Test of the CVR and the CVR Channel Recording	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
R	AMM	24-62-55-000-001	Removal of the DC Shed Essential Bus Contactor (8PH)	
R R	AMM	24-62-55-400-001	<pre>Installation of the DC Shed Essential Bus Contactor (8PH)</pre>	
	ASM	24-62/01		

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

EFF: ALL **24-60-00**

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B. Test

Do the operational test of the CVR and the CVR channel recording (test of the CVR only) (Ref. AMM TASK 23-71-00-710-001).

(1) If the test is correct:

- do this test

ACTION

RESULT

On the ECAM control panel:

page.

On the lower ECAM display unit: - push the ELEC key to get the ELEC - the ELEC page comes into view.

> On the upper ECAM display unit: - the ELEC DC ESS BUS SHED warning comes into view.

4. Fault Isolation

- A. If the test confirms the fault:
 - replace the 8PH (Ref. AMM TASK 24-62-55-000-001) and (Ref. AMM TASK 24-62-55-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring between:
 - . the pin B/21 of the contactor (8PH) and the first branch point
 - . the pin B/19 of the contactor (8PH) and the ground (Ref. ASM 24-62/01).
- B. Do this test to make sure that the system operates correctly:

On the ECAM control panel:

page.

On the ECAM control panel:

- push the ELEC key to get the ELEC - the ELEC page comes into view.

On the upper ECAM display unit: - no warning comes into view.

Close-up

EFF: ALL

A. De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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24-60-00

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TASK 24-60-00-810-803

Loss of the DC Busbars

- 1. Possible Causes
 - TR-1 (1PU1)
 - TR-2 (1PU2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
A MM	2/ 72 54 000 004	Demoved of the Terreformer Destifies (ADUA ADUA)	
AMM	24-32-51-000-001	Removal of the Transformer Rectifier (1PU1, 1PU2)	
AMM	24-32-51-400-001	<pre>Installation of the Transformer Rectifier (1PU1, 1PU2)</pre>	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-60-00-860-001	EIS Start Procedure	
ASM	24-32/01		
ASM	24-32/02		

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) On the MCDU, get the ELEC menu on the SYSTEM REPORT/TEST page.

EFF: ALL 24-60-00

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B. Test

ACTION RESULT

1. On the ECAM control panel:

 push the ELEC key to get the ELEC page.

ACTION RESULT

On the upper ECAM display unit:

 the ELEC DC BUS 1+2 FAULT and ELEC DC BAT BUS FAULT warnings come into view.

On the lower ECAM display unit:

- the amber DC 1 and DC 2 indications come into view
- the DC ESS BUS is supplied by the ESS TR.
- 2. On the MCDU, ELEC page:
 - push the line key adjacent to the TR1 indication.
- 3. On the MCDU:
 - push the line key adjacent to the RESET indication.

On the MCDU:

- the TR1 page comes into view.

On the MCDU:

- if the NO FAULT indication comes into view, stop the trouble shooting
- if the TR1 indication comes into view, do again the steps 2 and 3 to reset the TR2
- if, on the MCDU, TR2 page, the TR2 indication comes into view, do the trouble shooting given in Para. 4.

4. Fault Isolation

- A. If the test confirms the fault:
 - replace the TR-1 (1PU1) and TR-2 (1PU2) (Ref. AMM TASK 24-32-51-000-001) and (Ref. AMM TASK 24-32-51-400-001).
 - (1) If the fault continues:
 - do a check for a short to ground and repair the wiring between:
 - the TR1 SPLY circuit breaker (2PU1) and the pins A/A, A/B, A/C of the TR1 (1PU1)
 - the 28VDC outlet of the TR1 and the pin A/F of the contactor (5PU1)
 - . the pins A/G and B/5 of the contactor (5PU1) (Ref. ASM 24-32/02)
 - the TR2 SPLY circuit breaker (2PU2) and the pins A/A, A/B, A/C of the TR2 (1PU2)
 - the 28VDC outlet of the TR2 and the pin A/F of the contactor (5PU2)
 - . the pin 12 of the contactor (14XX) and the pin B/3 of the contactor (14PU)
 - . the pins A/G and B/3 of the contactor (5PU2) (Ref. ASM 24-32/01).

EFF: ALL

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B. Do this test to make sure that the system operates correctly:

ACTION RESULT

On the ECAM control panel:

- push the ELEC key to get the

- the normal configuration comes into 1. On the ECAM control panel: ELEC page.

view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-804

Failure of the DC BUS TIE (Loss of the Connection between the DC BAT Bus and the DC 2 Bus)

- 1. Possible Causes
 - CNTOR-DC NORM BUS 2 SWITCHING (1PC2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE	DESIGNATION
R	24-30-00-810-802 AMM 24-32-00-710-001 AMM 24-35-55-000-001 AMM 24-35-55-400-001 ASM 24-35/02	Failure of the TR2 or TR2 Contactor or Related Wiring Operational Test of the DC Generation Switching Removal of the Contactor (1PC1, 1PC2) Installation of the Contactor (1PC1, 1PC2)

- 3. Fault Confirmation
 - A. Test

R

R

R R

R

R

Do the operational test of the DC generation switching (Ref. AMM TASK 24-32-00-710-001).

- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

	PANEL	DESIGNATION	IDENT.	 LOCATION
	122VU	ELEC/CNTOR/DC BUS/TIE 1/FAULT	14PC	U24
R R		If the fault symptom is identified by the warnings that	follow on	the

- upper ECAM DU:
 - (1) ELEC TR2 FAULT:
 - Do the trouble shooting procedure (Ref. TASK 24-30-00-810-802).
 - (2) ELEC TR2 FAULT and ELEC DC BUS2 FAULT, and if, on the lower ECAM DU:
 - The amber DC 2 indication comes into view
 - The line between the DC 2 and DC BAT buses goes out of view
 - The ESS TR supplies the DC ESS bus:

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R	 Replace the CNTOR-DC NORM BUS 2 SWITCHING (1PC2) (Ref. AMM TASK
R	24-35-55-000-001) and (Ref. AMM TASK 24-35-55-400-001).
R	
R	(a) If the fault continues:
R	 Do a check and repair the wiring between:
R	. The circuit breaker (14PC) pin B/3 of the contactor (1PC2),
R	through the contactors (5PU2, 1PC1, 4PC)
R	. Pin B/5 of the contactor (1PC2) and the ground (Ref. ASM 24-35/02).

C. Do the test given in para. 3.

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TASK 24-60-00-810-806

Unwanted Warning from the DC 1 Busbar

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure
ASM	24-61/01	
ASM	31-54/08	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL DESIGNATION	IDENT.	LOCATION
121VU EIS/SDAC1 AND 2/BUS1/28VDC	14WV	P04
125VU 101PP/SPLY	1PN1	CD01

EFF: ALL

24-60-00

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C. Do this test	C.	Do	this	test:
-----------------	----	----	------	-------

ACTION RESULT

On the ECAM control panel:

page.

On the upper ECAM display unit:

- push the ELEC key to get the ELEC - the DC BUS1 FAULT warning comes into

On the lower ECAM display unit:

- the normal configuration comes into view with the DC 1 busbar shown in amber.

4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- A. If the test confirms the fault:
 - do a check and repair the wiring:
 - . between the 28VDC BUS 1 (101PP) and the first branch point, the EIS/SDAC1 & 2/BUS1/28VDC circuit breaker (14WV) included,
 - . then between the 28VDC BUS 1 (101PP) and the pin E of the TR1 contactor (5PU1), the 101PP SPLY circuit breaker (1PN1) included (Ref. ASM 31-54/08) and (Ref. ASM 24-61/01).

**ON A/C 254-275, 432-475, 481-499, 563-599,

- A. If the test confirms the fault:
 - do a check and repair the wiring:
 - between the 28VDC BUS 1 (101PP) and the first branch point, the EIS/SDAC1 & 2/BUS1/28VDC circuit breaker (14WV) included,
 - . then between the 28VDC BUS 1 (101PP) and the pin 10 of the module 13PN, the 101PP SPLY circuit breaker (1PN1) included (Ref. ASM 31-54/08) and (Ref. ASM 24-61/01).

**ON A/C ALL

B. Do this test to make sure that the system operates correctly:

______ ACTION RESULT

On the ECAM control panel: - push the ELEC key to get the ELEC - the normal configuration comes into page.

On the lower ECAM display unit:

view.

EFF: ALL **24-60-00**

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL SROS 24-60-00

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TASK 24-60-00-810-807

Unwanted Warning from the DC 2 Busbar

- 1. Possible Causes
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the	
AMM	24-41-00-862-002	External Power De-energize the Aircraft Electrical Circuits Supplied	
	- · · · · · · · · · · · · · · · · · · ·	from the External Power	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
ASM	24-61/01		
ASM	31-54/08		

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT.	LOCATION
	EIS/SDAC1 AND 2/BUS2/28VDC	44WV	P03
	202PP/SPLY	1PN2	BG01

EFF: ALL

24-60-00

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C. Do this Test:

ACTION RESULT

On the ECAM control panel:

- push the ELEC key.

On the upper ECAM DU:

- the DC BUS2 FAULT warning comes into

On the lower ECAM DU, on the ELEC page:

 the normal configuration comes into view with the DC 2 busbar shown in amber.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

.....

PANEL DESIGNATION

IDENT. LOCATION

121VU EIS/SDAC1 AND 2/BUS2/28VDC 124VU 202PP/SPLY

44WV P03 1PN2 BG01

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- B. If the test confirms the fault:
 - do a check and repair the wiring:
 - between the 28VDC BUS 2 (202PP) and the first branch point, the circuit breaker (44WV) included,
 - . then between the 28VDC BUS 2 (202PP) and the pin E of the TR2 contactor (5PU2), the circuit breaker (1PN2) included (Ref. ASM 31-54/08) and (Ref. ASM 24-61/01).

**ON A/C 254-275, 432-475, 481-499, 563-599,

- B. If the test confirms the fault:
 - do a check and repair the wiring:
 - between the 28VDC BUS 2 (202PP) and the first branch point, the circuit breaker (44WV) included,
 - then between the 28VDC BUS 2 (202PP) and the pin 4 of the module 14PN, the circuit breaker (1PN2) included (Ref. ASM 31-54/08) and (Ref. ASM 24-61/01).

EFF: ALL

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R **ON A/C ALL

C. Do this Test:	
ACTION	RESULT

On the ECAM control panel: - push the ELEC key. On the lower ECAM DU, on the ELEC page:
- the normal configuration comes into
view.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-808

Failure of the Connection between the Busbar 2XP and the TR2

- 1. Possible Causes
 - CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU)
 - RELAY-GND/FLT SELECT CTL (7XX)
 - CNTOR-AC & DC GND SVCE SPLY (14XX)
 - wiring
- R C/B-TR2/214XP/SPLY (2PU2)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE 		Circuit Breaker Tripped and/or C/B TRIPPED Warning Removal of the TR 1 and TR 2 Contactors (5PU1, 5PU2)	
R R				
R R			and the TR 2/AC Service Bus Normal Supply Contactor (14PU)	
R R R	AMM	24-32-55-400-001	<pre>Installation of the TR 1 and TR 2 Contactors (5PU1, 5PU2) and the TR 2/AC Service Bus Normal Supply Contactor (14PU)</pre>	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
	AMM	31-60-00-860-001	EIS Start Procedure	
	ASM	24-32/01		
	ASM	24-42/01		

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL
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B. Test Do this test:

RESULT

ACTION ______

ELEC page.

1. On the ECAM control panel:
- push the ELEC key to get the
- the ELEC TR2 FAULT warning comes into view₌

2. On the FWD attendant panel 120RH: In the cabin:

CLG pushbutton switches.

- push the CABIN WDO and CABIN - the ceiling FWD and AFT lights (right hand) and the window FWD and AFT lights (left hand) remain off.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION ._____

122VU ELEC/AC PWR/SVCE/CTL 123VU TR2/214XP/SPLY

3XX 2PU2 ABO4

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-431, 476-480, 503-549, R 551-561, 701-749,

- B. If the test confirms the fault:
 - Do a check of the status of the circuit breaker (2PU2).
 - (1) If this circuit breaker is closed:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - (a) If the fault continues:
 - Replace the RELAY-GND/FLT SELECT CTL (7XX).
 - (b) If the fault continues:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX).
 - (c) If the fault continues:
 - Do a check and repair the wiring between respectively:
 - . the circuit breaker (3XX) and the pin B/3 of the TR2/AC SVCE BUS normal supply contactor (14PU)
 - . the pin B/5 of the contactor (14PU) and the ground (Ref. ASM 24-32/01) and (Ref. ASM 24-42/01).

EFF: ALL 24-60-00

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- (d) If the fault continues:
 - Do a check of the wiring for a short to ground between respectively the pins A/2, B/2, C/2 of the circuit breaker (2PU2) and the pins A/D, A/E, A/F of the TR2/AC SVCE BUS normal supply contactor (14PU) (Ref. ASM 24-32/01).
 - $\underline{1}$ If the wiring is not correct:
 - Repair the wiring.
 - 2 If the wiring is correct:
 - Replace the C/B-TR2/214XP/SPLY (2PU2).
- (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-TR2/214XP/SPLY (2PU2).

**ON A/C 254-275, 432-475, 481-499, 563-599,

- B. If the fault continues:
 - Do a check of the status of the circuit breaker (2PU2).
 - (1) If this circuit breaker is closed:
 - Replace the CNTOR-TR 2/AC SVCE BUS NORM SPLY (14PU) (Ref. AMM TASK 24-32-55-000-001) and (Ref. AMM TASK 24-32-55-400-001).
 - (a) If the fault continues:
 - Replace the RELAY-GND/FLT SELECT CTL (7XX).
 - (b) If the fault continues:
 - Replace the CNTOR-AC & DC GND SVCE SPLY (14XX).
 - (c) If the fault continues:
 - Do a check and repair the wiring between respectively:

 the circuit breaker (3XX) and the pin B/3 of the TR2/AC SVCE
 BUS normal supply contactor (14PU)
 - . the pin B/5 of the contactor (14PU) and the ground (Ref. ASM 24-32/01) and (Ref. ASM 24-42/01).
 - (d) If the fault continues:
 - Do a check of the wiring for a short to ground between respectively the pins A/2, B/2, C/2 of the circuit breaker (2PU2) and the pins 22, 23, 24 of the module 20XX (Ref. ASM 24-32/01).
 - 1 If the wiring is not correct: - Repair it.
 - 2 If the wiring is correct:
 Replace the C/B-TR2/214XP/SPLY (2PU2).

EFF: 201-225, 227-227, 229-299, 426-499, 503-549, 551-561, 563-599, 701-749,

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- (2) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 Replace the C/B-TR2/214XP/SPLY (2PU2).

**ON A/C ALL

C. Do the test given in Para. 3. to make sure that no warning message comes into view on the upper ECAM display unit, and that the cabin lights come on when the related pushbutton switches are pushed.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002)

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TASK 24-60-00-810-809

Failure of the DC BUS TIE (Loss of the Connection between the DC 2 Bus and the DC BAT Bus)

- 1. Possible Causes
 - CNTOR-DC NORM BUS 2 SWITCHING (1PC2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R	24-3	0-00-810-801	Failure of the TR1 or TR1 Contactor or Related Wiring	
	AMM	24-32-00-710-001	Operational Test of the DC Generation Switching	
	AMM	24-35-55-000-001	Removal of the Contactor (1PC1, 1PC2)	
	AMM	24-35-55-400-001	Installation of the Contactor (1PC1, 1PC2)	
	ASM	24-35/02		

- 3. Fault Confirmation
 - A. Test

Do the operational test of the DC generation switching (Ref. AMM TASK 24-32-00-710-001).

- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ELEC/CNTOR/DC BUS/TIE 1/FAULT	14PC	U24

- R B. If the fault symptom is identified by the warnings that follow on the upper ECAM DU:
 - (1) ELEC TR1 FAULT:

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- Do the trouble shooting procedure (Ref. TASK 24-30-00-810-801).
- (2) ELEC TR1 FAULT and ELEC DC BUS1 FAULT, and if, on the lower ECAM DU:
 - The amber DC 1 and DC BAT indications come into view
 - The line between the DC 2 and DC BAT buses goes out of view
- R The green line between the DC 1 and DC BAT buses comes into view
 - The ESS TR supplies the DC ESS bus:

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R	 Replace the CNTOR-DC NORM BUS 2 SWITCHING (1PC2) (Ref. AMM TASK
R	24-35-55-000-001) and (Ref. AMM TASK 24-35-55-400-001).
R	
R	(a) If the fault continues:
R	- Do a check and repair the wiring between:
R	The circuit breaker (14PC) and pin B/3 of the DC NORM BUS2
R	switching contactor (1PC2), through the contactors (5PU2, 1PC1, 4PC)
R	. Pin B/5 of the contactor (1PC2) and the ground (Ref. ASM 24-35/02).

C. Do the test given in para. 3.

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TASK 24-60-00-810-810

Loss of the 28VDC SHED ESS Bus 801PP

- 1. Possible Causes
 - CNTOR-DC SHED ESS BUS (8PH)
 - RELAY-B HYD PUMP CTL (21XE)
 - RELAY STAT INV CTL (6XB)
 - wiring
- C/B-EMER/SHED/CNTOR/SPLY (1PH)
 - 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION	
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM	23-71-00-710-001	Operational Test of the CVR and the CVR Channel Recording	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
	AMM	24-62-55-000-001	Removal of the DC Shed Essential Bus Contactor (8PH)	
	AMM	24-62-55-400-001	<pre>Installation of the DC Shed Essential Bus Contactor (8PH)</pre>	
	AMM	31-60-00-860-001	EIS Start Procedure	
	ASM	24-62/01		
	AWM	24-62-02		

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

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B. Test

page.

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ACTION RESULT

On the ECAM control panel:

(1) Do this test:

On the upper ECAM display unit: - push the ELEC key to get the ELEC - the ELEC DC ESS BUS SHED warning comes into view.

(2) Do the operational test of the CVR channel recording (test of the CVR only) (Ref. AMM TASK 23-71-00-710-001).

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION

IDENT. LOCATION

106VU EMER/SHED/CNTOR/SPLY

1PH C07

- B. If the test confirms the fault:
- Do a check of the status of the circuit breaker (1PH).
- (1) If the circuit breaker (1PH) is closed:
 - Do a check for 28VDC between pins B/5 and B/3 of the DC SHED ESS BUS contactor (8PH) (Ref. ASM 24-62/01).
 - (a) If there is 28VDC on the contactor (8PH):
 - Replace the CNTOR-DC SHED ESS BUS (8PH) (Ref. AMM TASK 24-62-55-000-001) and (Ref. AMM TASK 24-62-55-400-001).
 - (b) If there is no 28VDC on the contactor (8PH):
 - Do a check for 28VDC at pin A/B2 of the B hydraulic pump control relay (21XE).
 - 1 If there is 28VDC on the relay (21XE):
 - Replace the RELAY-B HYD PUMP CTL (21XE).
 - a If the fault continues:
 - Do a check and repair the wiring between: pin A/B3 of the B hydraulic pump control relay (21XE) and pin B/3 of the DC SHED ESS BUS contactor (8PH), . pin B/5 of the DC SHED ESS BUS contactor (8PH) and the ground point or terminal block (Ref. ASM 24-62/01) and

(Ref. AWM 24-62-02).

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R R		C on the relay (21XE): VDC at pin A/B2 of the static inverter B).
R	- Replace the RE . If the fault	
R R	static inverte	repair the wiring between pin A/B3 of the r control relay (6XB) and pin A/B2 of the B control relay (21XE) (Ref. ASM 24-62/01).
R	- Do a check and pin A/F of t pin 1 of the E pin A/2 of t (1PH) and pin (6XB)	8VDC on the relay (6XB): I repair the wiring between the: he DC ESS BUS supply contactor (4PC) and MER/SHED/ CNTOR/SPLY circuit breaker (1PH), he EMER/SHED/CNTOR/SPLY circuit breaker A/B2 of the static inverter control relay 2/01) and (Ref. AWM 24-62-02).
<pre>R (2) If the circuit breaker is open: R - Do the procedure (Ref. TASK 24-00-00-810-803).</pre>		
R R R	(a) If the fault continues - Replace the C/B-EMER	: /SHED/CNTOR/SPLY (1PH).
	C. Do this test to make sure that	the system operates correctly:
	ACTION	RESULT
	1. On the ECAM control panel:push the ELEC key to get the ELEC page.	
		<pre>On the lower ECAM display unit: - the normal configuration comes into view.</pre>
	2. On the overhead control and indicating panel 21VU:push the RCDR/GND CTL pushbutton switch.	 on the pushbutton switch, the ON legend comes on make sure that you can hear the conversations from the CVR microphone in the headset.

EFF: ALL

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-811

Failure of the DC BUS TIE (Loss of the Connection between the DC BUS 1, DC BAT BUS and DC BUS 2)

- 1. Possible Causes
 - RELAY-SWTG SPLY/TR2 FAULT (8PC2)
 - wiring
- C/B-ELEC/TR2/FAULT/DC BUS TIE/CONFIG (7PC2)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-32-00-710-001	Operational Test of the DC Generation Switching
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM	31-60-00-860-001	EIS Start Procedure
	ASM	24-35/02	

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-60-00

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B. Test

ACTION

RESULT.

On the ECAM control panel:

- push the ELEC key to get the ELEC page.

On the upper ECAM display unit:

- the ELEC TR2 FAULT, ELEC DC BUS 2 FAULT and ELEC DC BAT BUS FAULT warnings come into view.

On the lower ECAM display unit:

- the DC 2 and DC BAT indications come on amber
- the line between DC 2 and DC BAT busses goes off
- the line between DC 1 and DC BAT busses goes off
- the DC ESS bus is supplied by the ESS TR.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

______ PANEL DESIGNATION

IDENT. LOCATION

122VU ELEC/TR2/FAULT/DC BUS TIE/CONFIG

7PC2 W30

- B. If the test confirms the fault: R
 - Replace the RELAY-SWTG SPLY/TR2 FAULT (8PC2).
 - (1) If the fault continues:
 - Do a check of the status of the circuit breaker (7PC2).
 - (a) If the circuit breaker is closed:
 - Do a check and repair the wiring between:
 - . the circuit breaker (7PC2) and the pins A/X1 and A/B2 of the
 - the pin A/B1 of this relay and the pins B/3 of the contactors (1PC1) and (1PC2), through the relays (20XN1, 20XN2) and the contactor (4PC)
 - the pin B/5 of the contactors (1PC1) and (1PC2) and the ground (Ref. ASM 24-35/02).

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- (b) If the circuit breaker is open:

 Do the procedure (Ref. TASK 24-00-00-810-803).
 - $\underline{1}$ If the fault continues:
 - Replace the C/B-ELEC/TR2/FAULT/DC BUS TIE/CONFIG (7PC2).
 - C. Do the operational test of the DC generation switching (Ref. AMM TASK 24-32-00-710-001).

5. Close-up

R

R

R

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-812

Failure of the DC BUS TIE (Loss of the Connection between the DC BUS 1, DC BAT BUS and DC BUS 2)

- 1. Possible Causes
 - RELAY-SWTG SPLY/TR1 FAULT (8PC1)
 - wiring
- C/B-ELEC/TR1/FAULT/DC BUS TIE/CONFIG (7PC1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-00-00-810-803		Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-32-00-710-001	Operational Test of the DC Generation Switching
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>
	AMM ASM	31-60-00-860-001 24-35/02	EIS Start Procedure

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).

EFF: ALL 24-60-00

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B. Test

(1) Do this test:

ACTION

RESULT.

On the ECAM control panel:

- push the ELEC key to get the ELEC page.

On the upper ECAM display unit:

- the ELEC TR1 FAULT, ELEC DC BUS 1 FAULT and ELEC DC BAT BUS FAULT warnings come into view.

On the lower ECAM display unit:

- the DC1 and DC BAT indications come on amber
- the line between the DC 2 and DC BAT busses goes off
- the line between the DC 1 and DC BAT busses goes off
- the DC ESS bus is supplied by the ESS TR.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

______ PANEL DESIGNATION

IDENT. LOCATION

122VU ELEC/TR1/FAULT/DC BUS TIE/CONFIG

7PC1 W29

- B. If the fault continues: R
 - Replace the RELAY-SWTG SPLY/TR1 FAULT (8PC1).
- R (1) If the fault continues:
 - Do a check of the status of the circuit breaker (7PC1).
 - (a) If the circuit breaker is closed:
 - Do a check and repair the wiring between:
 - . the circuit breaker (7PC1) and the pins A/X1 and A/B2 of the
 - the pin A/B1 of this relay and the pins B/3 of the contactors (1PC1) and (1PC2), through the relays (20XN1, 20XN2) and the contactor (4PC)
 - the pin B/5 of the contactors (1PC1) and (1PC2) and the ground (Ref. ASM 24-35/02).

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- (b) If the circuit breaker is open:

 R Do the procedure (Ref. TASK 24-00-00-810-803).
 - $\underline{1}$ If the fault continues:
 - Replace the C/B-ELEC/TR1/FAULT/DC BUS TIE/CONFIG (7PC1).
 - C. Do the operational test of the DC generation switching (Ref. AMM TASK 24-32-00-710-001).

5. Close-up

R

R

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-813

Loss of DC Busbars and DC Generation

- 1. Possible Causes
 - internal wiring of the different parts of the panel 120VU
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
AMM	31-60-00-860-001	EIS Start Procedure

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Test

ACTION RESULT

- 1. On the ECAM control panel:
 - push the ELEC key to get the ELEC page.

On the upper ECAM display unit:

- the ELEC DC EMER CONFIG warning comes into view.

On the lower ECAM display unit:

- the amber DC 1, DC 2 and DC ESS indications come on
- the amber TR 1, TR 2 and ESS TR indications come on with the related parameters.

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4. Fault Isolation

- A. If the test confirms the fault:
 - make sure that no tool or other item has been forgotten in the panel
 120VU.
 - (1) If the result of the inspection is correct:
 - do a check and repair the internal wiring of the different parts of the panel 120VU for short to ground between the break connectors and successively the circuit breakers and other components.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-814

Failure of the DC Emergency Generation

- 1. Possible Causes
 - CNTOR-ESS TR (3PE)
 - TR-ESS (1PE)
 - CNTOR-AC ESS BUS SWITCHING (15XE)
 - wiring
- R C/B-ESS TR/CNTOR/SPLY (5PE)
 - C/B-ESS TR/SPLY (4PE)

R

- C/B-AC ESS/BUS/EMER/CNTOR/SPLY (15PC)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE 		DESIGNATION Circuit Breaker Tripped and/or C/B TRIPPED Warning	
R				
	AMM	24-24-55-000-002	Removal of the AC ESS BUS Contactor (15XE)	
	AMM	24-24-55-400-002	Installation of the AC ESS BUS Contactor (15XE)	
	AMM	24-34-51-000-001	Removal of the Essential Transformer Rectifier (1PE)	
	AMM	24-34-51-400-001	<pre>Installation of the Essential Transformer Rectifier (1PE)</pre>	
	AMM	24-34-55-000-001	Removal of the Essential TR Contactor (3PE)	
	AMM	24-34-55-400-001	Installation of the Essential TR Contactor (3PE)	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
	AMM	31-60-00-860-001	EIS Start Procedure	
	AMM	31-60-00-860-002	EIS Stop Procedure	
	ASM	24-24/02	·	
	ASM	24-34/01		
	ASM	24-35/01		

3. Fault Confirmation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION	IDENT.	LOCATION
106VU AC ESS/BUS/EMER/CNTOR/SPLY 106VU ESS TR/CNTOR/CTL	15PC 5PE	C08
106VU ESS TR/SPLY	4PE	CO1
123VU TR1/SPLY	2PU1	AB10

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- B. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- C. Test

ACTION RESULT

On the ECAM control panel:
 push the ELEC key.

2. In the AC power center 123VU:
- open the circuit breaker 2PU1.

On the upper ECAM DU:

 the DC BUS TIE and ELEC DC ESS BUS FAULT warnings come into view.

If, on the ELEC page:

- the line between the AC ESS bus and the ESS TR is green,
- the ESS TR voltage is 28VDC.

Do the trouble shooting given in Para. 4.B.

If, on the ELEC page:

- the line between the AC ESS bus and the ESS TR is green,
- the ESS TR voltage is OVDC.

Do the trouble shooting given in Para. 4.C.

If, on the ELEC page:

- the line between the AC ESS bus and the ESS TR does not appear,
- the ESS TR voltage is OVDC.

Do the trouble shooting given in Para. 4.D.

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4. Fault Isolation

R **ON A/C 201-205, 227-227, 229-240, 276-283, 476-478,

- A. If the test confirms the fault:
 - Replace the CNTOR-ESS TR (3PE) (Ref. AMM TASK 24-34-55-000-001) and (Ref. AMM TASK 24-34-55-400-001).
 - (1) If the fault continues:
 - Do a check of the status of the circuit breaker (5PE).
 - (a) If the circuit breaker is closed:
 - Do a check and repair the wiring between:
 - the 28VDC output of the ESS TR (1PE) and the pin A/F of the contactor (3PE)
 - . the pins A/G and B/3 of the contactor (3PE)
 - . the pin B/5 of the contactor (3PE) and the pin B/F of the ESS TR (1PE) (Ref. ASM 24-34/01).
 - (b) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ESS TR/CNTOR/SPLY (5PE).
- R **ON A/C 206-225, 227-227, 229-233, 241-277, 279-279, 281-281, 284-299,
- R 426-475, 479-499, 503-549, 551-599, 701-749,
- R Post SB 24-1091 For A/C 227-227,229-233,276-277,279-279,281-281,
 - A. If the test confirms the fault:
 - Replace the CNTOR-ESS TR (3PE) (Ref. AMM TASK 24-34-55-000-001) and (Ref. AMM TASK 24-34-55-400-001).
 - (1) If the fault continues:
 - Do a check of the status of the circuit breaker (5PE).
 - (a) If the circuit breaker is closed:
 - Do a check and repair the wiring between:
 - . the 28VDC output of the ESS TR (1PE) and the pin A/F of the contactor (3PE) $\frac{1}{2}$
 - . the pins A/G and B/3 of the ESS TR contactor (3PE)
 - . the pin B/5 of the ESS TR contactor (3PE) and the ground (Ref. ASM 24-34/01).
 - (b) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - 1 If the fault continues:
 - Replace the C/B-ESS TR/CNTOR/SPLY (5PE).

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R R	B. If the test confirms the fault:
R	 Replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
R R	(1) If the fault continues:
R	- Do a check of the status of the circuit breaker (4PE).
R R	 (a) If the circuit breaker is closed: Do a check and repair the wiring between the pins L1, L2, L3 of the AC ESS BUS contactor (15XE) and the pins A/A, A/B, A/C of the ESS TR (1PE) (Ref. ASM 24-34/01).
R	(b) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R R	1 If the fault continues:
R	- Replace the C/B-ESS TR/SPLY (4PE).
R R	C. If the test confirms the fault:
R R	 Replace the CNTOR-AC ESS BUS SWITCHING (15XE) (Ref. AMM TASK 24-24-55-000-002) and (Ref. AMM TASK 24-24-55-400-002).
R R	(1) If the fault continues:
R	- Do a check of the status of the circuit breaker (15PC)
R	 (a) If the circuit breaker is closed: Do a check and repair the wiring between respectively:
	* through the contactor (4PC) and the relay (17PC)* through the contactors (5PU1) and (5PU2). the pin A/D of the contactor (3XC) and the pin B/K of the
R R	contactor (15XE), through the contactors (5PU1, 5PU2, 3PC), the relay (17PC), the contactor (3XC) and the timer (33XE) the pin B/D of the contactor (3XC) and the first branch point the pin B/L of the contactor (15XE) and the ground through the timer (33XE) (Ref. ASM 24-24/02) and (Ref. ASM 24-35/01).
R	(b) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R	1 If the fault continues:
R R	- Replace the C/B-AC ESS/BUS/EMER/CNTOR/SPLY (15PC).
	04.00.00

EFF: ALL 24-60-00

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D. Do this Test:

ACTION RESULT

1. On the ECAM control panel:

On the upper ECAM DU:

- push the ELEC key.

- no message comes into view.

2. In the AC power center 123VU:
- open the circuit breaker 2PU1.

On the lower ECAM DU, on the ELEC page:

- the TR 1 no longer supplies the DC 1 bus,
- the DC 1 bus is supplied by the DC 2 bus through the DC BAT bus,
- the DC ESS bus is supplied by the AC ESS bus through the ESS TR.
- 3. In the AC power center 123VU:
 close the circuit breaker 2PU1.
- 5. Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL 24-60-00

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TASK 24-60-00-810-815

Failure of the DC Emergency Generation

1. Possible Causes

- CNTOR-ESS TR (3PE)
- TR-ESS (1PE)
- CNTOR-AC ESS BUS SWITCHING (15XE)
- wiring
- R C/B-ESS TR/CNTOR/SPLY (5PE)
 - C/B-ESS TR/SPLY (4PE)

R

- C/B-AC ESS/BUS/EMER/CNTOR/SPLY (15PC)

2. Job Set-up Information

A. Referenced Information

R 24-00-00-810-803		REFERENCE 		DESIGNATION Circuit Breaker Tripped and/or C/B TRIPPED Warning	
AMM 24-24-55-400-001 Removal of the AC ESS BUS Contactor (15XE) AMM 24-34-51-000-001 Removal of the Essential Transformer Rectifier (1PE) AMM 24-34-55-000-001 Removal of the Essential TR Contactor (3PE) AMM 24-34-55-400-001 Removal of the Essential TR Contactor (3PE) AMM 24-34-55-400-001 Installation of the Essential TR Contactor (3PE) AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02	R				
AMM 24-34-51-000-001 AMM 24-34-51-400-001 AMM 24-34-55-000-001 AMM 24-34-55-400-001 AMM 24-34-55-400-001 AMM 24-41-00-861-002 AMM 24-41-00-862-002 AMM 31-60-00-860-001 AMM 31-60-00-860-002 ASM 24-24/02 Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Installation of the Essential Transformer Rectifier (1PE) Installation of the Essential Transformer Rectifier (1PE) Installation of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE) Removal of the Essential Transformer Rectifier (1PE)		AMM	24-24-55-000-002	Removal of the AC ESS BUS Contactor (15XE)	
AMM 24-34-51-400-001 Installation of the Essential Transformer Rectifier (1PE) AMM 24-34-55-000-001 Removal of the Essential TR Contactor (3PE) AMM 24-34-55-400-001 Installation of the Essential TR Contactor (3PE) AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-24-55-400-002	Installation of the AC ESS BUS Contactor (15XE)	
(1PE) AMM 24-34-55-000-001 Removal of the Essential TR Contactor (3PE) AMM 24-34-55-400-001 Installation of the Essential TR Contactor (3PE) AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-34-51-000-001	Removal of the Essential Transformer Rectifier (1PE)	
AMM 24-34-55-400-001 Installation of the Essential TR Contactor (3PE) AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-34-51-400-001		
AMM 24-41-00-861-002 Energize the Aircraft Electrical Circuits from the External Power AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-34-55-000-001	Removal of the Essential TR Contactor (3PE)	
External Power AMM 24-41-00-862-002 De-energize the Aircraft Electrical Circuits Supplied from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-34-55-400-001	Installation of the Essential TR Contactor (3PE)	
from the External Power AMM 31-60-00-860-001 EIS Start Procedure AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-41-00-861-002	-	
AMM 31-60-00-860-002 EIS Stop Procedure ASM 24-24/02		AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power	
ASM 24-24/02		AMM	31-60-00-860-001	EIS Start Procedure	
		AMM	31-60-00-860-002	EIS Stop Procedure	
ASM 24-34/01		ASM	24-24/02	·	
		ASM	24-34/01		
ASM 24-35/01		ASM	24-35/01		

3. Fault Confirmation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
106VU	AC ESS/BUS/EMER/CNTOR/SPLY	15PC	c08
106VU	ESS TR/CNTOR/CTL	5PE	C02
106VU	ESS TR/SPLY	4PE	CO1
12 3 VU	TR1/SPLY	2PU1	AB10

EFF: ALL 24-60-00

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- B. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002)
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
- C. Test

ACTION RESULT

1. On the ECAM control panel:

- push the ELEC key.

On the upper ECAM DU:

- the warnings below come into view:
 - . ELEC TR1 FAULT,
 - . ELEC TR2 FAULT,
 - . ELEC DC ESS FAULT.
- 2. In the AC power center 123VU:
 open the circuit breaker 2PU1.
- If, on the lower ECAM DU, on the ELEC page:
- the line between the AC ESS bus and the ESS TR is green,
- the ESS TR voltage is 28VDC.

Do the trouble shooting given in Para. 4.B.

If, on the ELEC page:

- the line between the AC ESS bus and the ESS TR is green,
- the ESS TR voltage is OVDC.

Do the trouble shooting given in Para. 4.C.

If, on the ELEC page:

- the line between the AC ESS bus and the ESS TR does not appear,
- the ESS TR voltage is OVDC.

Do the trouble shooting given in Para. 4.D.

EFF: ALL

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4. Fault Isolation

R R	A. If the test confirms the fault:
R R	 Replace the CNTOR-ESS TR (3PE) (Ref. AMM TASK 24-34-55-000-001) and (Ref. AMM TASK 24-34-55-400-001).
R R	(1) If the fault continues:
R	- Do a check of the status of the circuit breaker (5PE).
R	 (a) If the circuit breaker is closed: Do a check and repair the wiring between respectively: the 28VDC output of the ESS TR (1PE) and the pin A/F of the contactor (3PE) the pins A/G and B/3 of the contactor (3PE) the pin B/5 of the contactor (3PE) and the pin B/F of the ESS TR (1PE) (Ref. ASM 24-34/01)
R	(b) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R	1 If the fault continues:
R R	- Replace the C/B-ESS TR/CNTOR/SPLY (5PE).
R R	B. If the test confirms the fault:
R	- Replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
R R	(1) If the fault continues:
R	- Do a check of the status of the circuit breaker (4PE).
R R	 (a) If the circuit breaker is closed: Do a check and repair the wiring between the pins L1, L2, L3 of the AC ESS BUS contactor (15XE) and the pins A/A, A/B, A/C of the ESS TR (1PE) (Ref. ASM 24-34/01).
R	(b) If the circuit breaker is open:Do the procedure (Ref. TASK 24-00-00-810-803).
R R	<u>1</u> If the fault continues:
R	- Replace the C/B-ESS TR/SPLY (4PE).

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	INCODEL SI	IOOTING MANOAL
R	C. If the test confirms the fault	:
R R R	 Replace the CNTOR-AC ESS BUS 000-002) and (Ref. AMM TASK 2 	SWITCHING (15XE) (Ref. AMM TASK 24-24-55- 24-24-55-400-002).
R R	(1) If the fault continues:	
R	- Do a check of the status	of the circuit breaker (15PC).
R	 the pin K1 of the of of the contactor (3X) 	r the wiring between respectively: contactor (15XE) and the pins A/B and B/B
R R	* through the contact the pin A/D of the contactor (15XE), the relay (17PC), the contact the pin B/D of the contact the pin B/L of the pin B/L of the	tor (4PC) and the relay (17PC) tors (5PU1) and (5PU2) contactor (3XC) and the pin B/K of the rough the contactors (5PU1, 5PU2, 3PC), the ntactor (3XC) and through the timer (33XE) contactor (3XC) and the first branch point contactor (15XE) and the ground through f. ASM 24-24/02) and (Ref. ASM 24-35/01).
R	(b) If the circuit breaker - Do the procedure (Re	is open: f. TASK 24-00-00-810-803).
R	<u>1</u> If the fault continu	ues:
R R	- Replace the C/B-A	C ESS/BUS/EMER/CNTOR/SPLY (15PC).
	D. Do this Test:	
	ACTION	RESULT
	 On the ECAM control panel: push the ELEC key. 	On the upper ECAM DU: - no message comes into view.
	2. In the AC power center 123VU: - open the circuit breaker 2PU1.	On the lower ECAM DU, on the ELEC page: - the TR 1 no longer supplies the DC 1 bus, - the DC 1 bus is supplied by the DC 2 bus through the DC BAT bus, - the DC ESS bus is supplied by the AC ESS bus through the ESS TR.
	3. In the AC power center 123VU:	

EFF: ALL

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5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 24-60-00-810-816

Unwanted Warning from the DC ESS Busbar

- 1. Possible Causes
 - wiring

R

- C/B-SDAC/1 AND 2/28VDC/ESS BUS (12WV)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
	AMM	24-41-00-862-002	De-energize the Aircraft Electrical Circuits Supplied from the External Power
	AMM ASM	31-60-00-860-001 31-54/08	EIS Start Procedure

- 3. Fault Confirmation
 - A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - B. Test

ACTION RESULT ______

- 1. On the ECAM control panel:
- On the ECAM control panel:
 push the ELEC key to get the
 the DC ESS BUS FAULT warning comes ELEC page.

into view.

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4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION -----

IDENT. LOCATION

49VU SDAC/1 AND 2/28VDC/ESS BUS

12WV

F05

- B. If the fault continues:
 - Do a check of the status of the circuit breaker (12WV):
 - (1) If the circuit breaker is closed:
 - Do a check and repair the wiring from the 401PP busbar to the first branch point, through the circuit breaker (12WV) (Ref. ASM 31-54/08).
 - (2) If the circuit breaker is open:
 - Do the procedure (Ref. TASK 24-00-00-810-803).
 - (a) If the fault continues:
 - Replace the C/B-SDAC/1 AND 2/28VDC/ESS BUS (12WV).
- C. Do this test to make sure that the system operates correctly:

ACTION RESULT

1. On the ECAM control panel:
- push the ELEC key to get the
- no message comes into view. ELEC page.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the ECAM control panel, set the UPPER DISPLAY and LOWER DISPLAY potentiometers to OFF.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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EFF: ALL

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TASK 24-60-00-810-817

Loss of the Essential TR

- 1. Possible Causes
 - TR-ESS (1PE)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	24-34-51-000-001	Removal of the Essential Transformer Rectifier (1PE)	
AMM	24-34-51-400-001	<pre>Installation of the Essential Transformer Rectifier (1PE)</pre>	
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
AMM	31-32-00-860-004	Procedure to Get Access to the SYSTEM REPORT/TEST/ELEC Page	
AMM	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
ASM	24-34/01	·	

3. Fault Confirmation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

123VU TR1/SPLY 2PU1 AB10

- B. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (b) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only) (Ref. AMM TASK 31-60-00-860-001).
 - (c) On the MCDU, get the SYSTEM REPORT/TEST/ELEC page (Ref. AMM TASK 31-32-00-860-004).

EFF: ALL

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C. Test

ACTION RESULT

1. On the ECAM control panel:

- push the STS key.

On the upper ECAM DU:

- these warnings come into view:
 - . ELEC TR1 FAULT,
 - . ELEC TR2 FAULT,
 - . ELEC ESS TR FAULT,
 - . ELEC ESS BUS FAULT.

On the lower ECAM DU, on the STATUS page:

- the DC BUS TIE indication comes into view.
- 2. In the AC power center 123VU:
 - open the circuit breaker 2PU1.
- 3. On the MCDU:
 - push the line key adjacent to the TR3 indication.

Or (if the CFDS is not available):

In the relay box 103VU:

- push TR RESET pushbutton switch (15PU).
- 4. In the AC power center 123VU:
 - close the circuit breaker (2PU1)
- 4. Fault Isolation
 - A. If the test confirms the fault:
 - replace the TR-ESS (1PE) (Ref. AMM TASK 24-34-51-000-001) and (Ref. AMM TASK 24-34-51-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring between respectively:
 - . the pin B/J of the ESS TR and the pin AB/7A of the CFDIU (1TW)
 - the pin 6 of the pushbutton switch (15PU) and the first branch point
 - . the pin 5 of the TR RESET pushbutton switch (15PU) and the ground
 - . the pin B/E of the ESS TR and the pin AA/7K of the CFDIU (Ref. ASM 24-34/01).

EFF: ALL

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B. Do this Test:

ELEC page.

ACTION RESULT ______

1. On the ECAM control panel:

On the upper ECAM display unit: On the ECAM control panel:

On the upper ECAM display uni

push the ELEC key to get the

no warning comes into view.

- 5. Close-up
 - A. Put the aircraft back to its initial configuration.
 - (1) On the MCDU, push the line key adjacent to the RETURN indication until the CFDS menu page comes into view.
 - (2) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
 - (3) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

24-60-00 EFF: ALL

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DC MAIN DISTRIBUTION - FAULT ISOLATION PROCEDURES

TASK 24-61-00-810-801

Loss of the 601PP and 602PP busbars in Normal Configuration

1. Possible Causes

- CNTOR-DC SVCE BUS NORM SPLY (8PN)
- CNTOR-DC SVCE BUS GND SPLY (3PX)
- wiring
- C/B-DC SVCE 6PP SPLY (7PN)
- C/B-ELEC/DC/SVCE/BUS (5PN)

2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION	
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from Engine 1(2)	
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the Engine 1(2)</pre>	
	AMM	24-43-55-000-001	Removal of the DC Service Bus Ground Supply Contactor (3PX)	
	AMM	24-43-55-400-001	<pre>Installation of the DC Service Bus Ground Supply Contactor (3PX)</pre>	
	AMM	24-61-55-000-001	Removal of the DC Service Bus Normal Supply Contactor (8PN)	
	AMM	24-61-55-400-001	Installation of the DC Service Bus Normal Supply Contactor (8PN)	
	ASM	24-43/01		
	ASM	24-61/01		

3. Fault Confirmation

- A. Job Set-UP
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

EFF: ALL 24-61-00

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B. Test

R

R

R

R

R

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R

R

R

R

R

R

R

ACTION RESULT ______ 1. On the overhead panel 25VU: - the CAPT dome lights do not come on. - put the INT LT/DOME switch in the BRT position 4. Fault Isolation A. Table of the circuit breakers used in this procedure: PANEL DESIGNATION IDENT. LOCATION ------122VU ELEC/DC/SVCE/BUS 5PN X24 124VU DC SVCE/602PP/SPLY 7PN **BD01** B. If the test confirms the fault: - Do a check of the status of the circuit breaker (7PN). (1) If the circuit breaker is closed: - Do a check for 28VDC on the pin F of the contactor (8PN) (Ref. ASM 24-61/01). (a) If there is no 28VDC: - Do a check of the wiring between the circuit breaker (7PN) and the contactor (8PN) (Ref. ASM 24-61/01). 1 If there is no continuity: - Repair the wiring. 2 If there is continuity: - Replace the C/B-DC SVCE 6PP SPLY (7PN). (b) If there is 28VBC: - Do a check for 28VDC on the pin 3 of the contactor (8PN) (Ref. ASM 24-61/01). 1 If there is 28VDC: - Replace the CNTOR-DC SVCE BUS NORM SPLY (8PN) (Ref. AMM TASK 24-61-55-000-001) and (Ref. AMM TASK 24-61-55-400-001). a If the fault continues: - Do a check and repair the wiring between A/E of the contactor (8PN) and the busbars 601PP and 602PP (Ref. ASM

EFF: ALL

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24-43/01).

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R R	 If there is no 28VDC: Do a check of the wiring between the circuit breaker (5PN) and the pin 3 of the contactor (8PN) (Ref. ASM 24-61/01). 		
.,	and the pin 5 of the contactor (of N) (Net 1 Adir 24 of) of 1		
R	<u>a</u> If there is no continuity:Repair the wiring.		
	b If there is continuity:		
R	- Replace the CNTOR-DC SVCE BUS GND SPLY (3PX) (Ref. AMM		
R	TASK 24-43-55-000-001) and (Ref. AMM TASK 24-43-55-400-001).		
R	c If the fault continues:		
R	<u>- Il the radic continues.</u>		
R	- Replace the C/B-ELEC/DC/SVCE/BUS (5PN).		
	(2) If the circuit breaker is open:		
R	- Do the procedure (Ref. TASK 24-00-00-810-803).		
R	(a) If the fault continues:		
R	(a) If the fact continues.		
R	- Replace the C/B-DC SVCE 6PP SPLY (7PN).		

C. Do the test given in Para. 3 and make sure that the CAPT dome lights come on.

5. Close-up

- A. Put the aircraft back to its initial configuration.
 - (1) On the overhead panel 25VU, put the INT LT/DOME switch in the OFF position.
 - (2) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

EFF: ALL 24-61-00

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REFUELING ON BATTERY - FAULT ISOLATION PROCEDURES

TASK 24-67-00-810-801

Refueling not Possible

1. Possible Causes

- CNTOR-DC SVCE BUS GND SPLY (3PX)
- CNTOR-DC SVCE BUS NORM SPLY (8PN)
- RELAY REFLNG NORM/BAT (5PR)
- RELAY REFLNG BUS 501PP CTL (8PR)
- CTL PNL REFUEL/DEFUEL (800VU)
- wiring
- C/B-REFLNG/501PP/BAT (1PR)
- C/B-ELEC/RFL/SPLY/LOGIC (4PR)

R

2. Job Set-up Information

A. Referenced Information

			DESIGNATION	
R			Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power	
	AMM	24-41-00-862-002	<pre>De-energize the Aircraft Electrical Circuits Supplied from the External Power</pre>	
	AMM	24-43-55-000-001	Removal of the DC Service Bus Ground Supply Contactor (3PX)	
	AMM	24-43-55-400-001	Installation of the DC Service Bus Ground Supply Contactor (3PX)	
	AMM	24-61-55-000-001	Removal of the DC Service Bus Normal Supply Contactor (8PN)	
	AMM	24-61-55-400-001	Installation of the DC Service Bus Normal Supply Contactor (8PN)	
	AMM	28-25-55-000-001	Removal of the Refuel Panel 800VU	
	AMM	28-25-55-400-001	Installation of the Refuel Panel 800VU	
	ASM	24-67/01		

3. Fault Confirmation

- A. Job Set-up
 - (1) Aircraft Maintenance Configuration
 - (a) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).

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B. Test

No applicable, the fault is evident.

4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

	PANEL DESIGNATION IDENT. LOCATION	1				
	122VU ELEC/RFL/SPLY/LOGIC 4PR U29 122VU ELEC/REFLNG/ON/BAT 1PR U28	-				
R	B. If the refueling is not possible:Do a check of the battery 1 voltage.					
R	(1) If the voltage is correct:R - Do a check of the status of the circuit breakers (1PR) and (4PR).					
R	(a) If the circuit breakers are closed:Replace the RELAY - REFLNG NORM/BAT (5PR) and RELAY - REFLNG BUS 501PP CTL (8PR).					
R	1 If the fault continues:					
R R R	- Replace the CNTOR-DC SVCE BUS GND SPLY (3PX) (Ref. AMM TASK 24-43-55-000-001) and (Ref. AMM TASK 24-43-55-400-001).					
R R	<pre>2 If the fault continues:</pre>					
R R	 Replace the CNTOR-DC SVCE BUS NORM SPLY (8PN) (Ref. AMM TASK 24-61-55-000-001) and (Ref. AMM TASK 24-61-55-400-001). 	(
R R	$\underline{3}$ If the fault continues:					
R R	- Replace the CTL PNL - REFUEL/DEFUEL (800VU) (Ref. AMM TASK 28-25-55-400-001).					
R R	$\underline{4}$ If the fault continues:					
R	 Do a check and repair the wiring between respectively: the circuit breaker (1PR) and the pin A/C1 of the relay (5PR) the circuit breaker (4PR) and the pins A/X1 and A/A1 of the relay (5PR) the pin A/X2 of the relay (5PR) and the ground, through the contactors (3PX and 8PN), the switch (10PR) or the relay (11PR), and the microswitch (20QU) the pin A/C2 of the relay (5PR) and the pins A/A1, A/C1 and A/X1 of the relay (8PR) the pin A/A2 of the relay (8PR) and the terminal block the pin A/C2 of the relay (8PR) and the terminal block 	Ý				

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. the pin A/X2 of the relay (8PR) and the ground (Ref. ASM 24-67/01).

- (b) If the circuit breaker (1PR) is open:Do the procedure (Ref. TASK 24-00-00-810-803).
- R 1 If the fault continues:
- R Replace the C/B-REFLNG/501PP/BAT (1PR).
- (c) If the circuit breaker (4PR) is open:

 Do the procedure (Ref. TASK 24-00-00-810-803).
- R $\underline{1}$ If the fault continues:
 - Replace the C/B-ELEC/RFL/SPLY/LOGIC (4PR).
 - C. Do this test.
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Do a refueling to make sure that the fault does not continue.

5. Close-up

R

R

R

R

- A. Put the aircraft back to its initial configuration.
 - (1) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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