### 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 36

L.E.P. 1- 4  T. OF C. 4- 5, 8- 11	REVISED TO REFLECT THIS REVISION INDICATING NEW, REVISED, AND/OR DELETED PAGES REVISED TO REFLECT THIS REVISION	
36-ECAM 101- 122	SB 31-1300 INCORPORATED INDICATING/RECORDING SYSTEMS - FLIGHT WARNING COMPUTER (FWC) - INSTALL FWC STANDARD H2-F3P . SB 36-1057 INCORPORATED PNEUMATIC - ENGINE BLEED AIR SUPPLY SYSTEM - INSTALL BMC STD 9 CAPABLE OF A318 PW.	201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749, 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749,
	SB 36-1057 INCORPORATED PNEUMATIC - ENGINE BLEED AIR SUPPLY SYSTEM - INSTALL BMC STD 9 CAPABLE OF A318 PW.	201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749,
36-0BSV 103- 104	FAULT LIST UPDATED	ALL
	SB 36-1057 INCORPORATED PNEUMATIC - ENGINE BLEED AIR SUPPLY SYSTEM - INSTALL BMC STD 9 CAPABLE OF A318 PW.	201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749,
36-11-00 204, 208- 212, 217, 221- 225, 231, 234, 237, 239, 251, 255, 261- 262, 271, 273, 275, 278,	EFFECTIVITY UPDATED SB 36-1057 INCORPORATED PNEUMATIC - ENGINE BLEED AIR SUPPLY SYSTEM - INSTALL BMC STD 9 CAPABLE OF A318 PW.  LAYOUT IMPROVED/MATERIAL RELOCATED TOOL DESIGNATION(S) DATA UPDATED  EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749, ALL 201-225, 227-227, 229-299, 426-499, 503-549, 551-599, 701-749, 201-225, 227-227, 229-299,

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36-12-00 201- 203, 205, 209, 215	TITLE OF TASK(S) DATA UPDATED  EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-250, 252-299, 426-499, 503-549, 551-599, 701-749, 201-225, 227-227, 229-250, 252-299, 426-499, 503-549,
205- 212, 243- 246,	EFFECTIVITY UPDATED CORRECTION/ADDITION/AMPLIFICATION ADDED WIRING INSPECTION CROSS-REFERENCE EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	551-599, 701-749,  ALL  201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

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#### CHAPTER 36

#### **PNEUMATIC**

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N, R or D indicates pages which are New, Revised or Deleted respectively Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary

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T. of C.		3	Nov01/07	36-0BSV			Nov01/07	36-11-00			Nov01/07
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T. of C.	R	8	May01/08	36-CFDS	R		•	36-11-00	R	231	May01/08
T. of C.	R	9	May01/08	36-CFDS	R	103	•	36-11-00		232	Nov01/07
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36-ECAM	R	103	May01/08	36-00-00		201	Aug01/94	36-11-00		238	Nov01/07
36-ECAM	R	104	May01/08	36-00-00		202	Nov01/07	36-11-00	R	239	May01/08
36-ECAM	R	105	May01/08	36-00-00		203	Nov01/07	36-11-00		240	Nov01/07
36-ECAM	R	106	May01/08	36-00-00		204	Nov01/07	36-11-00		241	Feb01/08
36-ECAM	R	107	May01/08					36-11-00		242	Feb01/08
36-ECAM	R	108	May01/08	36-11-00		201	May01/01	36-11-00		243	Feb01/08
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36-ECAM	R	110	May01/08	36-11-00		203	Feb01/08	36-11-00		245	Feb01/08
36-ECAM	R	111	May01/08	36-11-00	R	204	May01/08	36-11-00		246	Feb01/08
36-ECAM	R	112	May01/08	36-11-00		205	Feb01/08	36-11-00		247	Feb01/08
36-ECAM	R	113	May01/08	36-11-00		206	Feb01/08	36-11-00		248	Nov01/07
36-ECAM	R	114	May01/08	36-11-00		207	Aug01/07	36-11-00		249	Feb01/08
36-ECAM	R	115	May01/08	36-11-00	R	208	May01/08	36-11-00		250	Feb01/08
36-ECAM	R	116	May01/08	36-11-00	R	209	May01/08	36-11-00	R	251	May01/08
36-ECAM	R	117	May01/08	36-11-00	R	210	May01/08	36-11-00		252	Feb01/08
36-ECAM	R	118	May01/08	36-11-00	R	211	May01/08	36-11-00		253	Feb01/08
36-ECAM	R		May01/08	36-11-00	R	212	May01/08	36-11-00		254	Feb01/08
36-ECAM	R		May01/08	36-11-00		213	Nov01/07	36-11-00	R		May01/08
36-ECAM	R		May01/08	36-11-00		214	Nov01/07	36-11-00			Feb01/08
36-ECAM	N	122	May01/08	36-11-00			Nov01/07	36-11-00			Nov01/07
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36-11-00			Nov01/07	36-11-00			May01/08	36-11-00			May01/08
36-11-00			Nov01/07	36-11-00			May01/08	36-11-00			May01/08
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36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	_		Nov01/07	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	_		Nov01/07	36-11-00			May01/08	36-11-00			Nov01/07
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36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
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36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00			Feb01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	_		Feb01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
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36-11-00	_		Feb01/08	36-11-00			May01/08	36-11-00			Feb01/08
36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Feb01/08
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36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00			Nov01/07	36-11-00			May01/08	36-11-00			Feb01/08
36-11-00			Nov01/07	36-11-00			May01/08	36-11-00			Nov01/07
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36-11-00	_		Nov01/07	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	R		May01/08	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00			Nov01/07	36-11-00			May01/08	36-11-00			Nov01/07
36-11-00	R	A211	May01/08	36-11-00	R	A262	May01/08	36-11-00		B213	Nov01/07

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36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00	R		May01/08
36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00	R		May01/08
36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00	R		May01/08
36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00	R		May01/08
36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00	R		May01/08
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36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00	R		May01/08
36-11-00		Nov01/07	36-11-00			Nov01/07	36-22-00			Nov01/05
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36-11-00		Feb01/08	36-11-00			Nov01/07	36-22-00			Feb01/03
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36-11-00		Nov01/07	7/ 12 00	_	204	M 04 / 08	36-22-00			Feb01/03
36-11-00		Nov01/07	36-12-00	R		May01/08	36-22-00			Feb01/03
36-11-00		Nov01/07	36-12-00	R R		May01/08	36-22-00			Feb01/03
36-11-00		Nov01/07	36-12-00	K		May01/08	36-22-00			Feb01/03
36-11-00 36-11-00		Nov01/07 Nov01/07	36-12-00 36-12-00	R		Nov01/07	36-22-00 36-22-00			Feb01/03 Feb01/03
36-11-00 36-11-00		Nov01/07	36-12-00 36-12-00	K		May01/08 Feb01/08	<b>36</b> -22-00			Feb01/03
36-11-00 36-11-00		Nov01/07	36-12-00 36-12-00			Nov01/07	<b>36</b> -22-00			Feb01/03
36-11-00		Nov01/07	36-12-00			Nov01/07	<b>36</b> -22-00			Feb01/03
36-11-00		Nov01/07	36-12-00	R		May01/07	<b>36</b> -22-00			Feb01/03
36-11-00 36-11-00		Nov01/07	36-12-00	ĸ		Feb01/08	<b>36</b> -22-00			Feb01/03
36-11-00 36-11-00		Nov01/07	36-12-00			Feb01/08	<b>36</b> -22-00			Feb01/03
36-11-00		Nov01/07	36-12-00			Feb01/08	36-22-00			Feb01/03
36-11-00		Nov01/07	36-12-00			Feb01/06	36-22-00			Feb01/03
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36-11-00		Nov01/07	36-22-00			Feb01/08	36-22-00			Feb01/08
36-11-00		Nov01/07	36-22-00			May01/05	36-22-00			Feb01/08
36-11-00		Nov01/07	36-22-00	R		May01/03	36-22-00			Feb01/08
JU 11-00	D204	110 00 1/01	JU 22-00	r.	207	110 70 17 00	JU 22-00		2,00	1 600 17 00

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36-22-00			Feb01/08	36-22-00			Nov01/99				
36-22-00			Feb01/08	36-22-00			Aug01/06				
36-22-00			Feb01/08				- <b>3</b> - <b>1</b>				
36-22-00			Feb01/08								
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36-22-00			Feb01/08								
36-22-00			Feb01/08								
36-22-00		265	Feb01/08								
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36-22-00		287	Feb01/08								
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36-22-00	R		May01/08								
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Incorrect AIR BLEED generation  ENGINE BLEED AIR SUPPLY SYSTEM  FAULT ISOLATION PROCEDURES  Loss of the BMC1  High Pressure Bleed Valve of the	36-11-00		201 201	ALL ALL ALL
Engine 1 Blocked in the Open Position Fan Air Valve of the Engine 1 Not in Fully Open Position Fan Air Valve of the Engine 1 Not in Fully Open Position (Fault			203 208	ALL
isolation Procedure with Test Set P/N 98F36003002001) Loss of the BMC2 High Pressure Bleed Valve of the Engine 2 Blocked in the Open			214 215	ALL ALL
Position  Fan Air Valve of the Engine 2 Not  in Fully Open Position  Fan Air Valve of the Engine 2 Not				ALL
<pre>in Fully Open Position (Fault isolation Procedure with Test Set P/N 98F36003002001) Bleed Pressure-Regulator Valve of</pre>			227	ALL
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Position  Loss of Automatic Electrical  Closure for the Bleed Pressure			241	ALL
Regulator Valve on Engine 1 Loss of Automatic Electrical Closure for the Bleed Pressure			245	ALL
Regulator Valve on Engine 2 Loss of the Bleed Transferred-Pressure Transducer of			249	ALL
the Engine 1 Loss of the Bleed Transferred-Pressure Transducer of			253	ALL
the Engine 2 Loss of the Bleed Regulated-Pressure Transducer of			257	ALL
the Engine 1 Loss of the Bleed Regulated-Pressure Transducer of			259	ALL
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Temperature-Sensor of the Engine 2 Loss of the Non Return Function and Temperature Limitation			271	ALL
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Closure of the Bleed Pressure-Regulator Valve of the				
Engine 1				
Loss of the Manual Electrical			278	ALL
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Pressure-Regulator Valve of the				
Engine 2				
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HP Bleed Valve and the Bleed				
Pressure-Regulator Valve of the				
Engine 1				
Loss of the Coupling between the			284	ALL
HP Bleed Valve and the Bleed				
Pressure-Regulator Valve of the Engine 2				
HP Bleed Valve of the Engine 1			287	ALL
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HP Bleed Valve of the Engine 2			288	ALL
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the Engine 1 Blocked in the Closed				
Position				
Failure of the HP Bleed Valve of			293	ALL
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Fully Open Position on the Engine			271	ALL
1				
HP Bleed Valve Locked in the Not			A200	ALL
Fully Open Position on the Engine			00	
2				
Loss of the Coupling between the			A203	ALL
HP Bleed Valve of the Engine 1 and				
the Related Closure Control				
Solenoid				
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<pre>HP Bleed Valve of the Engine 2 and the Related Closure Control</pre>				
Solenoid				
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over pressure vatve or the Englise I			ALUI	ALL

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Blocked in the Open Position			ALO) ALL	
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in Fully Open Position (Fault			ALL I ALL	
Isolation Procedure with Test Set				
P/N 98F36003002001)  Fan Air Valve of the Engine 2 Not			A226 ALL	
in Fully Open Position			ALLO ALL	
Fan Air Valve of the Engine 2 Not			A230 ALL	
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P/N 98F36003002001)				
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Loss of the Engine Validity Signal			A251 ALL	
between the EIU1 and the BMC1 Loss of the Engine Validity Signal			A252 ALL	
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FAULT ISOLATION PROCEDURES  Fault of the APU Bleed Supply Fault of the Crossbleed Valve Position Control Disagreement of the Position Switches of the Crossbleed Valve Low Air Pressure in the Right Crossbleed Duct To Slow Operation of the Crossbleed Valve			201 ALL 201 ALL 209 ALL 215 ALL 218 ALL 219 ALL
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Detection				
Loss of the Left-Wing Leak			234	ALL
Detection				
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Detection				
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Leak Detection from the Loop B in			262	ALL
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PNEUMATIC - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			FAULT ISOLATION
WARNINGS/ HALF ONC LIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

#### Upper ECAM DU Warnings

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<b>-</b>	<b></b> _	<b>-</b>			
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AIR APU BLEED LEAK					362200 P 213 T 810 805
AIR APU BLEED LEAK associated with AIR APU BLEED LEAK generated on ground with no bleed air supply					362200 P 242 T 810 823
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	WARNINGS/MALFORCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
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	AIR ENG 1 BLEED FAULT	BMC 1	OVERPRESS-V 5HA1	361153	1	361100 PB255 T 810 945
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R	AIR ENG 1 BLEED FAULT	BMC 1	PRECOOLER	361142	1	361100 PA253 T 810 861
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AIR ENG 1 BLEED LO TEMP associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber and ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise					361100 PA279 T 810 887
AIR ENG 1 BLEED LO TEMP associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber and ENG BLEED AIR - Low bleed temperature of ENG 1 in descent					361100 PA281 T 810 888
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	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
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R	AIR ENG 1 BLEED LO TEMP associated with ANTI-ICE Pnl (25VU) WING ANTI-ICE P/BSW ON legend on	BMC 1	THRM 7170HM1 OR FAN AIR-V 9HA1	361154	1	361100 РА235 Т 810 849
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	AIR ENG 1 BLEED NOT CLSD	BMC 1	PRESS REG-V 4001HA1	361152	1	361100 P 241 T 810 813
	AIR ENG 1 BLEED NOT CLSD associated with STS-Inop System ENG 1 BLEED	BMC 1	PRESS REG-V 4001HA1	361152	1	361100 P 241 T 810 813
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	AIR ENG 1 BLEED NOT CLSD	BMC 1	PRESS REG-V 4001HA1 OR SOL 10HA1	361100	1	361100 P 241 T 810 813
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	AIR ENG 1 HP VALVE FAULT	BMC 1	HP BLEED-V 4000HA1 OR SENSE LINE	361151	1	361100 P 289 T 810 837
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	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	!!	
	AIR ENG 1 HP VALVE FAULT associated with AIR ENG1 HP VALVE FAULT generated on ground with engine at idle	BMC 1	HP BLEED-V 4000HA1 OR SENSE LINE	361151	1	361100 P 289 T 810 837	
R R	AIR ENG 1 LEAK DET FAULT	BMC 1	ENG1 PYLON LOOP INOP	362215	1	362200 P 226 T 810 810	
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	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!
	AIR ENG 1+2 BLEED LO TEMP associated with ENG BLEED AIR - Low bleed temperature of ENG 2 in descent					361100 PA291 T 810 895
R	AIR ENG 1+2 BLEED LO TEMP	BMC 1	FAN AIR V 9HA1 OR THRM 7170HM1 associated with FAN AIR V 9HA2 OR THRM 7170HM2	361154 361154		361100 PA261 T 810 870
R	AIR ENG 1+2 BLEED LO TEMP	BMC 1	THRM 7170HM1 OR FAN AIR-V 9HA1 associated with THRM 7170HM2 OR FAN AIR-V 9HA2	361154 361154		361100 PA261 T 810 870
R	AIR ENG 2 BLEED ABNORM PR	BMC 2	BMC2 OR SOLENOID 10HA2 CKT	361134	1	361100 PA258 T 810 864
	AIR ENG 2 BLEED ABNORM PR	BMC 2	OVERPRESS-V 5HA2	361153	1	361100 P 239 T 810 812
	AIR ENG 2 BLEED ABNORM PR	BMC 2	OVPRESS-V 5HA2	361153	1	361100 P 239 T 810 812
	AIR ENG 2 BLEED ABNORM PR	BMC 2	PRESS REG-V 4001HA2 OR SOL 10HA2 OR SENSE LINE	361100	1	361100 P 234 T 810 810
	AIR ENG 2 BLEED FAULT					361100 PB232 T 810 918
	AIR ENG 2 BLEED FAULT	BMC 2	BMC2	361134	1	361100 P 214 T 810 804
	AIR ENG 2 BLEED FAULT	BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2 OR SENSE LINE	361154	1	361100 P 216 T 810 806 361100 P 221 T 810 806 01
	AIR ENG 2 BLEED FAULT	BMC 2	HP BLEED-V 4000HA2	361151	1	361100 P 215 T 810 805

EFF :	ALL		
SROS			

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	
	AIR ENG 2 BLEED FAULT	BMC 2	OVERPRESS-V 5HA2	361153	1	361100 PB257 T 810 946
	AIR ENG 2 BLEED FAULT	BMC 2	OVPRESS-V 5HA2	361153	1	361100 PB257 T 810 946
R	AIR ENG 2 BLEED FAULT	BMC 2	PRECOOLER	361142	1	361100 PA254 T 810 862
	AIR ENG 2 BLEED FAULT	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 229 T 810 808
	<u>AIR</u> ENG 2 BLEED FAULT	BMC 2	THRM 7170HM2 OR FAN AIR VALVE 9HA2 OR SENSE LINE		1	361100 P 216 T 810 806 361100 P 221 T 810 806 01
	AIR ENG 2 BLEED LEAK					362200 P 209 T 810 804
	AIR ENG 2 BLEED LEAK associated with AIR ENG2 BLEED LEAK generated on ground with no bleed air supply					362200 P 241 T 810 822
	AIR ENG 2 BLEED LEAK	BMC 2	BMC2	361134	1	361100 P 214 T 810 804
	AIR ENG 2 BLEED LO TEMP associated with Lower ECAM DU Flags- BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber and ENG BLEED AIR - Low bleed temperature of ENG 2 in climb					361100 PA287 T 810 893

EFF: ALL SROS

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT - ISOLATION	
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	! !	
	AIR ENG 2 BLEED LO TEMP associated with Lower ECAM DU Flags- BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber and ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise					361100 PA289 T 810 894	
	AIR ENG 2 BLEED LO TEMP associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber and ENG BLEED AIR - Low bleed temperature of ENG 2 in descent					361100 PA291 T 810 895	
R	AIR ENG 2 BLEED LO TEMP	BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2	361154	1	361100 PA237 T 810 850	
R	AIR ENG 2 BLEED LO TEMP associated with ANTI-ICE Pnl (25VU) WING ANTI-ICE P/BSW ON legend on	BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2	361154	1	361100 PA237 T 810 850	
R	AIR ENG 2 BLEED LO TEMP	BMC 2	THRM 7170HM2 OR FAN AIR-V 9HA2	361154	1	361100 PA237 T 810 850	
R	AIR ENG 2 BLEED LO TEMP associated with ANTI-ICE Pnl (25VU) WING ANTI-ICE P/BSW ON legend on	BMC 2	THRM 7170HM2 OR FAN AIR-V 9HA2	361154	1	361100 PA237 T 810 850	
R	AIR ENG 2 BLEED NOT CLSD	BMC 2	BMC2 OR SOLENOID 10HA2 CKT	361134	1	361100 PA258 T 810 864	

EFF :	ALL
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### TROUBLE SHOOTING MANUAL

LIADNINGS / MALEUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
AIR ENG 2 BLEED NOT CLSD	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 245 T 810 814
AIR ENG 2 BLEED NOT CLSD associated with STS-Inop System ENG 2 BLEED	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 245 T 810 814
AIR ENG 2 BLEED NOT CLSD associated with STS-Inop System ENG 2 BLEED and AIR COND Pnl (30VU) ENG 2 BLEED P/BSW FAULT legend on	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 245 T 810 814
AIR ENG 2 BLEED NOT CLSD	BMC 2	PRESS REG-V 4001HA2 OR SOL 10HA2	361100	1	361100 P 245 T 810 814
AIR ENG 2 HP VALVE FAULT					361100 PB249 T 810 937
AIR ENG 2 HP VALVE FAULT	BMC 2	BMC2 OR SOLENOID 11HA2	361134	1	361100 PB247 T 810 931
AIR ENG 2 HP VALVE FAULT	BMC 2	HP BLEED-V 4000HA2 OR SENSE LINE	361151	1	361100 P 293 T 810 838
AIR ENG 2 HP VALVE FAULT associated with AIR ENG2 HP VALVE FAULT generated in flight on top of descent	BMC 2	HP BLEED-V 4000HA2 OR SENSE LINE	361151	1	361100 P 293 T 810 838
AIR ENG 2 HP VALVE FAULT associated with AIR ENG2 HP VALVE FAULT generated on ground with engine at idle		HP BLEED-V 4000HA2 OR SENSE LINE	361151	1	361100 P 293 T 810 838
AIR ENG 2 LEAK DET FAULT	BMC 2	ENG2 PYLON LOOP INOP	362215	1	362200 P 228 T 810 811
AIR ENG 2 LEAK DET FAULT	BMC 2	NO DATA FROM BMC1	361100	1	361100 PA240 T 810 852

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EFF: ALL
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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	PROCEDURE	
AIR L WING LEAK associated with AIR - PACK CONT PACK 1 - Compressor outlet temp unusually low in flight					216100 PA267 T 810 870	
AIR L WING LEAK associated with AIR - PACK CONT PACK 2 - Compressor outlet temp unusually low in flight					216100 PA267 T 810 870	
AIR L WING LEAK					362200 P 201 T 810 801	
AIR L WING LEAK associated with AIR L WING LEAK generated on ground with no bleed air supply					362200 P 238 T 810 819	
AIR L WING LEAK associated with AIR L WING LEAK generated on ground with APU bleed air supply					362200 PA204 T 810 832	
AIR L WING LEAK	BMC 1	BMC1	361134	1	361100 P 201 T 810 801	
AIR L WING LEAK DET FAULT	BMC 1	L WING LOOP A INOP associated with L WING LOOP B INOP	362216 362216		362200 P 232 T 810 813	
AIR L WING LEAK DET FAULT	BMC 1	L WING LOOP A INOP associated with BMC2	362216 361134	İ	362200 Р 236 Т 810 817	
AIR L WING LEAK DET FAULT	BMC 2	L WING LOOP B INOP associated with BMC1	362216 361134	İ	362200 P 234 T 810 815	

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
AIR R WING LEAK associated with AIR - PACK CONT PACK 1 - Compressor outlet temp unusually low in flight					216100 PA267 T 810 870
AIR R WING LEAK associated with AIR - PACK CONT PACK 2 - Compressor outlet temp unusually low in flight					216100 PA267 T 810 870
<u>air</u> R wing leak					362200 P 203 T 810 802
AIR R WING LEAK associated with AIR R WING LEAK generated on ground with no bleed air supply					362200 P 239 T 810 820
AIR R WING LEAK associated with AIR R WING LEAK generated on ground with APU bleed air supply					362200 PA206 T 810 833
AIR R WING LEAK	BMC 2	BMC2	361134	1	361100 P 214 T 810 804
AIR R WING LEAK DET FAULT	BMC 1	R WING LOOP A INOP associated with R WING LOOP B INOP	362216 362216		362200 P 233 T 810 814
AIR R WING LEAK DET	BMC 1	R WING LOOP A INOP	362216	2	362200 P 237 T 810 818
	BMC 2	BMC2 	361134	1	1 0 10 0 10 
AIR R WING LEAK DET	BMC 2	R WING LOOP B INOP associated with	362216	2	362200 P 235 T 810 816
	BMC 1	BMC1	361134	1	
AIR X BLEED FAULT	BMC 1	X-FEED VALVE 6HV OR CKT	361200	1	361200 P 209 T 810 802

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
BLEED MONITORING FAULT	ECAM 1	SDAC1 : NO DATA FROM BMC1+2	361134	1	361100 PB234 T 810 919
	IDENT: I	ECAM 2			
BLEED MONITORING FAULT	ECAM 1	SDAC2: NO DATA FROM BMC1+2	361134	1	361100 PB234 T 810 919
	IDENT: I	ECAM 2			
BLEED MONITORING FAULT	ECAM 2	SDAC1 : NO DATA FROM BMC1+2	361134	1	361100 PB234 T 810 919
BLEED MONITORING FAULT	ECAM 2	SDAC1 : NO DATA FROM BMC1+2	361134	1	361100 PB234 T 810 919
	IDENT: I	ECAM 1			
BLEED MONITORING FAULT	ECAM 2	SDAC2 : NO DATA FROM BMC1+2	361134	1	361100 PB234 T 810 919
BLEED MONITORING FAULT	ECAM 2	SDAC2: NO DATA FROM BMC1+2	361134	1	361100 PB234 T 810 919
	IDENT: I	ECAM 1			] 

### STS-Inop System

ENG 1 BLEED associated with Upper ECAM DU Warnings AIR ENG 1 BLEED NOT CLSD	ВМС	1	PRESS	REG-V	4001HA1	361152	1	361100 P 241 T 810 813
ENG 1 BLEED associated with Upper ECAM DU Warnings AIR ENG 1 BLEED NOT CLSD and AIR COND Pnl (30VU) ENG 1 BLEED P/BSW FAULT legend on	BMC	1	PRESS	REG-V	4001HA1	361152	1	361100 P 241 T 810 813

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	SOURCE	MESSAGE	ATA	С	
ENG 2 BLEED associated with Upper ECAM DU Warnings AIR ENG 2 BLEED NOT CLSD	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 245 T 810 814
ENG 2 BLEED associated with Upper ECAM DU Warnings AIR ENG 2 BLEED NOT CLSD and AIR COND Pnl (30VU) ENG 2 BLEED P/BSW FAULT legend on	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 245 T 810 814

#### STS-Maintenance

	AIR BLEED					360000 P 202 T 810 802
	AIR BLEED	BMC 1	APU LOOP INOP OR BMC IDENT CKT	362217	2	362200 P 230 T 810 812
	AIR BLEED	BMC 1	BMC1	361134	2	361100 P 201 T 810 801
R R R R	AIR BLEED associated with AIR COND Pnl (30VU) APU BLEED P/BSW FAULT legend on	BMC 1	BMC1 OR APU FAULT IND 5HV	361134	2	361100 PB282 T 810 961
R R	AIR BLEED	BMC 1	BMC1 OR SOLENOID 10HA1 CKT	361134	2	361100 PA255 T 810 863
R R	AIR BLEED	BMC 1	BMC1 OR SOLENOID 11HA1	361134	2	361100 PB246 T 810 930
	AIR BLEED	BMC 1	CHECK BMC1	361100	2	361100 PB224 T 810 912
	AIR BLEED	BMC 1	ENG1 PYLON LOOP INOP	362215	2	362200 P 226 T 810 810

EFF :	ALL		
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### TROUBLE SHOOTING MANUAL

	LIADNINGS / MALEUNGTIONS			FAULT ISOLATION		
	WARNINGS/MALFUNCTIONS    -	SOURCE	MESSAGE	ATA	С	!
	AIR BLEED	BMC 1	L WING LOOP A	362216	2	362200 P 252 T 810 825
	AIR BLEED	BMC 1	L WING LOOP A INOP	362216	2	362200 P 217 T 810 807
R	AIR BLEED	BMC 1	NO DATA FROM BMC2	361100	2	361100 PA240 T 810 852
R	AIR BLEED	BMC 1	NO DATA FROM EIU	732534	2	361100 PA245 T 810 855
R	AIR BLEED	BMC 1	NO DATA FROM EIU1	732534	2	361100 PA245 T 810 855
	AIR BLEED	BMC 1	OVERPRESS-V 5HA1	361153	2	361100 PA207 T 810 843
	AIR BLEED	BMC 1	OVPRESS-V 5HA1	361153	2	361100 PA207 T 810 843
	AIR BLEED	BMC 1	R WING LOOP A	362216	2	362200 P 272 T 810 827
	AIR BLEED	BMC 1	R WING LOOP A INOP	362216	2	362200 P 214 T 810 806
	AIR BLEED	BMC 1	REG-PRESS XDCR 8HA1	361116	2	361100 P 257 T 810 819
	AIR BLEED associated with Lower ECAM DU Flags- BLEED AIR ENG1 BLEED pressure replaced by amber XX	BMC 1	REG-PRESS XDCR 8HA1	361116	2	361100 P 257 T 810 819
	AIR BLEED	BMC 1	REG-PRESS XDCR 8HA2	361116	2	361100 PB239 T 810 927
	AIR BLEED	BMC 1	TEMP SENSOR 6HA1	361117	2	361100 P 267 T 810 827

EFF :	ALL		
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### TROUBLE SHOOTING MANUAL

HADNINGS /MALEUNGTIONS			FAULT ISOLATION		
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	
AIR BLEED associated with Lower ECAM DU Flags- BLEED AIR ENG 1 BLEED Temperature replaced by amber XX	BMC 1	TEMP SENSOR 6HA1	361117	2	361100 P 267 T 810 827
AIR BLEED	BMC 1	TEMP SENSOR 6HA2	361117	2	361100 P 269 T 810 828
AIR BLEED associated with Lower ECAM DU Flags- BLEED AIR ENG 2 BLEED Temperature replaced by amber XX	BMC 1	TEMP SENSOR 6HA2	361117	2	361100 P 269 T 810 828
AIR BLEED	BMC 2	ВМС2	361134	2	361100 P 214 T 810 804
AIR BLEED associated with AIR COND Pnl (30VU) APU BLEED P/BSW FAULT legend on	BMC 2	BMC2 OR APU FAULT IND	361134	2	361100 PB284 T 810 962
AIR BLEED	BMC 2	BMC2 OR SOLENOID 10HA2 CKT	361134	2	361100 PA258 T 810 864
AIR BLEED	BMC 2	BMC2 OR SOLENOID 11HA2	361134	2	361100 PB247 T 810 931
AIR BLEED	BMC 2	CHECK BMC2	361100	2	361100 PB227 T 810 913
AIR BLEED	BMC 2	ENG2 PYLON LOOP INOP	362215	2	362200 P 228 T 810 811
AIR BLEED	BMC 2	L WING LOOP B	362216	2	362200 P 262 T 810 826
AIR BLEED	BMC 2	L WING LOOP B INOP	362216	2	362200 P 223 T 810 809

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!!
R	AIR BLEED	BMC 2	NO DATA FROM BMC1	361100	2	361100 PA239 T 810 851
R	AIR BLEED	BMC 2	NO DATA FROM EIU	732534	2	361100 PA247 T 810 856
R	AIR BLEED	BMC 2	NO DATA FROM EIU2	732534	2	361100 PA247 T 810 856
	AIR BLEED	BMC 2	OVERPRESS-V 5HA2	361153	2	361100 PA209 T 810 844
	AIR BLEED	BMC 2	OVPRESS-V 5HA2	361153	2	361100 PA209 T 810 844
	AIR BLEED	BMC 2	R WING LOOP B	362216	2	362200 P 280 T 810 828
	AIR BLEED	BMC 2	R WING LOOP B INOP	362216	2	362200 P 220 T 810 808
	AIR BLEED	BMC 2	REG-PRESS XDCR 8HA1	361116	2	361100 PB236 T 810 926
	AIR BLEED	BMC 2	REG-PRESS XDCR 8HA2	361116	2	361100 P 259 T 810 820
	AIR BLEED associated with Lower ECAM DU Flags- BLEED AIR ENG2 BLEED pressure replaced by amber XX	BMC 2	REG-PRESS XDCR 8HA2	361116	2	361100 P 259 T 810 820
	AIR BLEED	BMC 2	TEMP SENSOR 6HA1	361117	2	361100 P 267 Т 810 827
	AIR BLEED associated with Lower ECAM DU Flags- BLEED AIR ENG 1 BLEED Temperature replaced by amber XX	BMC 2	TEMP SENSOR 6HA1	361117	2	361100 P 267 T 810 827

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE	
AIR BLEED	BMC 2	TEMP SENSOR 6HA2	361117	2	361100 P 269 T 810 828	
AIR BLEED associated with Lower ECAM DU Flags- BLEED AIR ENG 2 BLEED Temperature replaced by amber XX	BMC 2	TEMP SENSOR 6HA2	361117	2	361100 P 269 T 810 828	

#### Lower ECAM DU Flags-BLEED

Abnormal AIR ENG1 bleed temp shown in amber during BMC1 test	BMC 1	BMC1	361134	1	361100 PB242 T 810 928
Abnormal AIR ENG2 bleed temp shown in amber during BMC2 test	BMC 2	BMC2	361134	1	361100 PB244 T 810 929
AIR ENG 1 BLEED Temperature replaced by amber XX associated with STS-Maintenance AIR BLEED	BMC 1	TEMP SENSOR 6HA1	361117	2	361100 P 267 T 810 827
AIR ENG 1 BLEED Temperature replaced by amber XX associated with STS-Maintenance AIR BLEED	BMC 2	TEMP SENSOR 6HA1	361117	2	361100 P 267 T 810 827
AIR ENG 2 BLEED Temperature replaced by amber XX associated with STS-Maintenance AIR BLEED	BMC 1	TEMP SENSOR 6HA2	361117	2	361100 P 269 T 810 828

EFF: ALL SROS **36-ECAM** 

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
AIR ENG 2 BLEED Temperature replaced by amber XX associated with STS-Maintenance AIR BLEED	BMC 2	TEMP SENSOR 6HA2	361117	2	361100 P 269 T 810 828
AIR ENG1 BLEED pressure replaced by amber XX associated with STS-Maintenance AIR BLEED	BMC 1	REG-PRESS XDCR 8HA1	361116	2	361100 P 257 T 810 819
AIR ENG2 BLEED pressure replaced by amber XX associated with STS-Maintenance AIR BLEED	BMC 2	REG-PRESS XDCR 8HA2	361116	2	361100 P 259 T 810 820
Bleed pressure regulator valve of ENG 1 indicated closed in amber					361100 PB210 T 810 903
Bleed pressure regulator valve of ENG 1 indicated open in amber					361100 PB208 Т 810 902
Bleed pressure regulator valve of ENG 1 replaced by amber XX					361100 PB214 Т 810 905
Bleed pressure regulator valve of ENG 2 indicated closed in amber					361100 PB218 T 810 908
Bleed pressure regulator valve of ENG 2 indicated open in amber					361100 PB216 T 810 907
Bleed pressure regulator valve of ENG 2 replaced by amber XX					361100 PB222 T 810 910
ENG BLEED AIR - Bleed pressure of ENG 1 replaced by amber XX					361100 PA267 T 810 876

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT
	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
ENG BLEED AIR - Bleed pressure of ENG 2 replaced by amber XX					361100 PA273 T 810 882
ENG BLEED AIR - Bleed temperature of ENG 1 replaced by amber XX					361100 PA283 T 810 889
ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP and ENG BLEED AIR - Low bleed temperature of ENG 1 in climb					361100 PA277 T 810 886
ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber associated with ENG BLEED AIR - Low bleed temperature of ENG 1 in climb					361100 PA277 T 810 886
ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP and ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise					361100 PA279 T 810 887
ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber associated with ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise					361100 PA279 T 810 887

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			FAULT ISOLATION
WARNINGS/ MALI UNCTIONS	SOURCE	MESSAGE	ATA	С	!
ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP and ENG BLEED AIR - Low bleed temperature of ENG 1 in descent					361100 PA281 T 810 888
ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber associated with ENG BLEED AIR - Low bleed temperature of ENG 1 in descent					361100 PA281 T 810 888
ENG BLEED AIR - Bleed temperature of ENG 2 replaced by amber XX				T	361100 PA293 T 810 896
ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP and ENG BLEED AIR - Low bleed temperature of ENG 2 in climb					361100 PA287 T 810 893
ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber associated with ENG BLEED AIR - Low bleed temperature of ENG 2 in climb				†	361100 PA287 T 810 893

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP and ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise					361100 PA289 T 810 894
ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber associated with ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise					361100 PA289 T 810 894
ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP and ENG BLEED AIR - Low bleed temperature of ENG 2 in descent					361100 PA291 T 810 895
ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber associated with ENG BLEED AIR - Low bleed temperature of ENG 2 in descent					361100 PA291 T 810 895
HP bleed valve of ENG 1 indicated closed in amber					361100 PB212 T 810 904
HP bleed valve of ENG 1 replaced by amber XX					361100 PB215 T 810 906

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	C	ISOLATION     PROCEDURE	
HP bleed valve of ENG 2 indicated closed in amber					361100 PB220 T 810 909	
HP bleed valve of ENG 2 replaced by amber XX					361100 PB223 T 810 911	

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### TROUBLE SHOOTING MANUAL

#### PNEUMATIC - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	S		FAULT ISOLATION
WARNINGS/ MALI ONC I TONS	SOURCE	MESSAGE	ATA	С	PROCEDURE

#### AIR COND Pnl (30VU)

	<b>_</b>				
R R R R	APU BLEED P/BSW FAULT legend on associated with STS-Maintenance AIR BLEED	BMC 1	BMC1 OR APU FAULT IND 5HV	361134 2	361100 PB282 T 810 961
	APU BLEED P/BSW FAULT legend on	BMC 1	BMC1 OR APU FAULT IND 7HV	361134 1	361100 PB259 T 810 951
R R R R	APU BLEED P/BSW FAULT legend on associated with STS-Maintenance AIR BLEED	BMC 2	BMC2 OR APU FAULT IND 5HV	361134 2	361100 PB284 T 810 962
	APU BLEED P/BSW FAULT legend on	BMC 2	BMC2 OR APU FAULT IND 7HV	361134 1	361100 PB261 T 810 952
	ENG 1 BLEED P/BSW FAULT legend on	BMC 1	BMC1	361134 1	361100 P 201 T 810 801
	ENG 1 BLEED P/BSW FAULT legend on	BMC 1	BMC1 OR BLEED FAULT IND 4HA1	361134 1	361100 PB274 T 810 957
	ENG 1 BLEED P/BSW FAULT legend on associated with Upper ECAM DU Warnings AIR ENG 1 BLEED NOT CLSD and STS-Inop System ENG 1 BLEED	BMC 1	PRESS REG-V 4001HA1	361152 1	361100 P 241 T 810 813
	ENG 2 BLEED P/BSW FAULT legend on	BMC 2	вмс2	361134 1	361100 P 214 T 810 804
	ENG 2 BLEED P/BSW FAULT legend on	BMC 2	BMC2 OR BLEED FAULT IND 4HA2	361134 1	361100 PB276 T 810 958

EFF: ALL
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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES				
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	C	ISOLATION   PROCEDURE	
ENG 2 BLEED P/BSW FAULT legend on associated with Upper ECAM DU Warnings AIR ENG 2 BLEED NOT CLSD and STS-Inop System ENG 2 BLEED	BMC 2	PRESS REG-V 4001HA2	361152	1	361100 P 245 T 810 814	

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### TROUBLE SHOOTING MANUAL

### PNEUMATIC - FAULT SYMPTOMS

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			FAULT ISOLATION
	WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!
	AIR APU BLEED LEAK generated on ground with no bleed air supply associated with Upper ECAM DU Warnings AIR APU BLEED LEAK					362200 P 242 T 810 823
	AIR ENG1 BLEED LEAK generated on ground with no bleed air supply associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LEAK					362200 P 240 T 810 821
R	AIR ENG1 HP VALVE FAULT generated in flight on top of descent associated with Upper ECAM DU Warnings AIR ENG 1 HP VALVE FAULT	BMC 1	HP BLEED-V 4000HA1 OR SENSE LINE	361151	1	361100 P 289 T 810 837
R	AIR ENG1 HP VALVE FAULT generated on ground with engine at idle associated with Upper ECAM DU Warnings AIR ENG 1 HP VALVE FAULT	BMC 1	HP BLEED-V 4000HA1 OR SENSE LINE	361151	1	361100 P 289 T 810 837
	AIR ENG2 BLEED LEAK generated on ground with no bleed air supply associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LEAK					362200 P 241 T 810 822
R	AIR ENG2 HP VALVE FAULT generated in flight on top of descent associated with Upper ECAM DU Warnings AIR ENG 2 HP VALVE FAULT	BMC 2	HP BLEED-V 4000HA2 OR SENSE LINE	361151	1	361100 P 293 T 810 838

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!	
	AIR ENG2 HP VALVE FAULT generated on ground with engine at idle associated with Upper ECAM DU Warnings AIR ENG 2 HP VALVE FAULT	BMC 2	HP BLEED-V 4000HA2 OR SENSE LINE	361151	1	361100 P 293 T 810 838	
R	AIR L WING LEAK generated on ground with APU bleed air supply associated with Upper ECAM DU Warnings AIR L WING LEAK					362200 PA204 T 810 832	
	AIR L WING LEAK generated on ground with no bleed air supply associated with Upper ECAM DU Warnings AIR L WING LEAK					362200 P 238 T 810 819	
R	AIR R WING LEAK generated on ground with APU bleed air supply associated with Upper ECAM DU Warnings AIR R WING LEAK					362200 PA206 T 810 833	
	AIR R WING LEAK generated on ground with no bleed air supply associated with Upper ECAM DU Warnings AIR R WING LEAK					362200 P 239 T 810 820	
	APU BLEED AIR SUPPLY X-BLEED MAN CTL message appears on STATUS page					361200 P 219 T 810 806	
	APU BLEED AIR SUPPLY The Pressure in the RH X-Bleed Duct is too low					361200 Р 218 Т 810 804	
	Bleed PRESS fluctuation - high amplitude of 50/8 psi for the ENG 1					361100 PA299 T 810 900	

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES			FAULT ISOLATION	
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!
	Bleed PRESS fluctuation - high amplitude of 50/8 psi for the ENG 2					361100 PB204 T 810 901
	Bleed PRESS fluctuation - low amplitude of 40/48 psi					361100 PA294 T 810 897
	Bleed PRESS fluctuation - low amplitude of 44/36 psi					361100 PA294 T 810 897
	Bleed PRESS fluctuation of 44/14 psi for the engine 1					361100 PA295 T 810 898
	Bleed PRESS fluctuation of 44/14 psi for the engine 2					361100 PA297 T 810 899
R	ENG BLEED AIR - High bleed pressure of ENG 1 in climb					361100 PA262 T 810 871
R	ENG BLEED AIR - High bleed pressure of ENG 1 in cruise					361100 PA263 T 810 872
R	ENG BLEED AIR - High bleed pressure of ENG 2 in climb					361100 PA268 T 810 877
R	ENG BLEED AIR - High bleed pressure of ENG 2 in cruise					361100 PA269 T 810 878
	ENG BLEED AIR - High bleed temperature of ENG 1 in climb				   	361100 PA274 T 810 883
	ENG BLEED AIR - High bleed temperature of ENG 1 in cruise					361100 РА275 Т 810 884

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### TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES			FAULT ISOLATION	
WARNINGS/ PIALI ONC LIONS	SOURCE	MESSAGE	ATA	С	! !
ENG BLEED AIR - High bleed temperature of ENG 1 in descent					361100 PA276 T 810 885
ENG BLEED AIR - High bleed temperature of ENG 2 in climb					361100 PA284 T 810 890
ENG BLEED AIR - High bleed temperature of ENG 2 in cruise					361100 PA285 T 810 891
ENG BLEED AIR - High bleed temperature of ENG 2 in descent					361100 PA286 T 810 892
ENG BLEED AIR - Loss of bleed air from engine 1					361100 PB278 Т 810 959
ENG BLEED AIR - Loss of bleed air from engine 2					361100 PB280 T 810 960
ENG BLEED AIR - Low bleed pressure of ENG 1 in climb					361100 PA264 T 810 873
ENG BLEED AIR - Low bleed pressure of ENG 1 in cruise					361100 PA265 T 810 874
ENG BLEED AIR - Low bleed pressure of ENG 1 in descent/taxi					361100 PA266 T 810 875
ENG BLEED AIR - Low bleed pressure of ENG 2 in climb					361100 PA270 T 810 879
ENG BLEED AIR - Low bleed pressure of ENG 2 in cruise					361100 PA271 T 810 880
ENG BLEED AIR - Low bleed pressure of ENG 2 in descent/taxi					361100 PA272 T 810 881

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
	WARNINGS/ MALI ONC 110NS	SOURCE	MESSAGE	ATA	С	!!
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in climb					361100 PA277 T 810 886
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in climb associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP and Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber					361100 PA277 T 810 886
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in climb associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber					361100 PA277 T 810 886
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in climb associated with Upper ECAM DU Warnings AIR ENG 1+2 BLEED LO TEMP					361100 PA277 T 810 886
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise					361100 PA279 T 810 887

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION
	WARRINGS/ FIRE FOR FILE	SOURCE	MESSAGE	ATA	С	PROCEDURE
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP and Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber					361100 PA279 T 810 887
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber					361100 PA279 T 810 887
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in cruise associated with Upper ECAM DU Warnings AIR ENG 1+2 BLEED LO TEMP					361100 PA279 T 810 887
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in descent					361100 PA281 T 810 888

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES			FAULT ISOLATION	
	WARRINGS/ FIALT ONC LIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in descent associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP and Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber					361100 PA281 T 810 888
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in descent associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 1 shown in amber					361100 PA281 T 810 888
R	ENG BLEED AIR - Low bleed temperature of ENG 1 in descent associated with Upper ECAM DU Warnings AIR ENG 1+2 BLEED LO TEMP					361100 PA281 T 810 888
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in climb					361100 PA287 T 810 893

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			FAULT ISOLATION
	MAYMINGS LINEL ONG LIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in climb associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP and Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber					361100 PA287 T 810 893
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in climb associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber					361100 PA287 T 810 893
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in climb associated with Upper ECAM DU Warnings AIR ENG 1+2 BLEED LO TEMP					361100 PA287 T 810 893
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise					361100 PA289 T 810 894

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
		SOURCE	MESSAGE	ATA	С	PROCEDURE
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP and Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber					361100 PA289 T 810 894
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber					361100 PA289 T 810 894
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in cruise associated with Upper ECAM DU Warnings AIR ENG 1+2 BLEED LO TEMP					361100 PA289 T 810 894
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in descent					361100 PA291 T 810 895

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			FAULT ISOLATION	
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!!	
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in descent associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP and Lower ECAM DU Flags- BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber					361100 PA291 T 810 895	
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in descent associated with Lower ECAM DU Flags-BLEED ENG BLEED AIR - Bleed temperature of ENG 2 shown in amber					361100 PA291 T 810 895	
R	ENG BLEED AIR - Low bleed temperature of ENG 2 in descent associated with Upper ECAM DU Warnings AIR ENG 1+2 BLEED LO TEMP					361100 PA291 T 810 895	
R	ENG BLEED AIR ONE PACK ONLY IF WAI ON status message					361100 PB252 T 810 944	
R	High bleed pressure fluctuation on engine 1 at take-off or climb					361100 PB250 Т 810 938	
R	High bleed pressure fluctuation on engine 2 at take-off or climb					361100 PB251 T 810 939	

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### TROUBLE SHOOTING MANUAL

### PNEUMATIC - FAULT SYMPTOMS

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION	
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE	
		BMC 1	APU LOOP	362217	1	362200 P 288 T 810 829	
		BMC 1	BMC1	361134	3	361100 P 201 T 810 801	
R R		BMC 1	BMC1 OR APU BLEED DISCRETE	361134	3	361100 PB282 T 810 961	
R R		BMC 1	BMC1 OR APU FAULT IND 5HV	361134	3	361100 PB282 T 810 961	
		BMC 1	BMC1 OR APU FAULT IND 7HV	361134	1	361100 PB259 T 810 951	
		BMC 1	BMC1 OR BLEED FAULT IND 4HA1	361134	1	361100 PB274 T 810 957	
R		BMC 1	BMC1 OR SOLENOID 10HA1	361134	1	361100 PA255 T 810 863	
		BMC 1	BMC1 OR SOLENOID 11HA1	361134	3	361100 PB246 T 810 930	
R R		BMC 1	BMC1 OR WAI DISCRETE	361134	3	361100 PB282 T 810 961	
R R		BMC 1	BMC1 OR XFEED-V DISCRETE	361134	3	361100 PB282 T 810 961	
		BMC 1	CHECK BMC1	361100	3	361100 PB224 T 810 912	
		BMC 1	CHECK BMC1 (1HA1)	361100	3	361100 PB224 T 810 912	
R		BMC 1	CHECK PRESS REG-V PWR SPLY	361100	3	361100 PA241 T 810 853	
	_	BMC 1	DRIFT REG-PRESS XDCR 8HA1	361116	3	361100 P 261 T 810 821	
		BMC 1	DRIFT REG-PRESS XDCR 8HA1	361116	3	361100 PB262 T 810 953	

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
		BMC 1	DRIFT TRANSF-PRESS XDCR 7HA1	361115	3	361100 P 249 T 810 817
		BMC 1	DRIFT TRANSF-PRESS XDCR 7HA1	361116	3	361100 PB268 T 810 955
		BMC 1	ENG1 PYLON LOOP	362215	1	362200 P 298 T 810 830
R		BMC 1	FAN AIR V 9HA1 OR THRM 7170HM1	361154	1	361100 PA235 T 810 849
		BMC 1	FAN AIR V 9HA1 OR THRM 7170HM1	361154	3	361100 PA211 T 810 845
R R		BMC 1	FAN AIR V 9HA1 OR THRM 7170HM1 OR SENSE LINE	361154	3	361100 PA217 T 810 847 361100 PA221 T 810 847 01
		BMC 1	HP BLEED-V 4000HA1	361151	3	361100 P 287 T 810 835
		BMC 1	HP BLEED-V 4000HA1 OR SENSE LINE	361151	3	361100 P 297 T 810 839
		BMC 1	HP BLEED-V 4000HA1 OR SOLENOID 11HA1	361151	3	361100 PA203 T 810 841
		BMC 1	HP BLEED-V 4000HA1 OR SOLENOID 4029KS1	361151	3	361100 PA203 T 810 841
R		BMC 1	PRECOOLER	361142	2	361100 PA253 T 810 861
		BMC 1	PRESS REG-V 4001HA1 OR HP BLEED-V 4000HA1 OR S.		3	361100 P 281 T 810 833
		BMC 1	PRESS REG-V 4001HA1 OR SOL 10HA1	361100	1	361100 P 241 T 810 813
		BMC 1	PRESS REG-V 4001HA1 OR SOL 10HA1	361100	3	361100 P 275 T 810 831
		BMC 1	PRESS REG-V 4001HA1 OR SOL 10HA1 OR SENSE LINE	361100	1	361100 P 231 T 810 809

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
		BMC 1	PRESS REG-V 4001HA1 OR SOL 10HA1 OR SENSE LINE	361100	3	361100 P 271 T 810 829
		BMC 1	REG-PRESS XDCR 8HA1	361116	3	361100 P 261 T 810 821
		BMC 1	TEMP SENSOR 6HA1	361117	3	361100 P 263 T 810 825
		BMC 1	TEMP SENSOR 6HA2	361117	3	361100 P 265 T 810 826
R		BMC 1	THRM 7170HM1 OR FAN AIR-V 9HA1	361154	1	361100 PA235 T 810 849
R R		BMC 1	THRM 7170HM1 OR FAN AIR-V 9HA1	361154	3	361100 PA211 T 810 845
R R		BMC 1	THRM 7170HM1 OR FAN AIR VALVE 9HA1 OR SENSE LINE	361154	2	361100 PA217 T 810 847 361100 PA221 T 810 847 01
		BMC 1	TRANSF-PRESS XDCR 7HA1	361115	3	361100 P 249 T 810 817
		BMC 1	X-FEED VALVE 6HV OR CKT	361200	3	361200 P 215 T 810 803
		BMC 2	BMC2	361134	3	361100 P 214 T 810 804
R R		BMC 2	BMC2 OR APU BLEED DISCRETE	361134	3	361100 PB284 T 810 962
R R		BMC 2	BMC2 OR APU FAULT IND 5HV	361134	3	361100 PB284 T 810 962
		BMC 2	BMC2 OR APU FAULT IND 7HV	361134	1	361100 PB261 T 810 952
		BMC 2	BMC2 OR BLEED FAULT IND 4HA2	361134	1	361100 PB276 T 810 958
R		BMC 2	BMC2 OR SOLENOID 10HA2 CKT	361134	1	361100 PA258 T 810 864

EFF: ALL

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### TROUBLE SHOOTING MANUAL

	WARNINGS/MALFUNCTIONS	T   	CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	!
		BMC 2	BMC2 OR SOLENOID 11HA2	361134	3	361100 PB247 T 810 931
R R		BMC 2	BMC2 OR WAI DISCRETE	361134	3	361100 PB284 T 810 962
R R		BMC 2	BMC2 OR XFEED-V DISCRETE	361134	3	361100 PB284 T 810 962
		BMC 2	CHECK BMC2	361100	3	361100 PB227 T 810 913
		BMC 2	CHECK BMC2 (1HA2)	361100	3	361100 PB227 T 810 913
R		BMC 2	CHECK PRESS REG-V PWR SPLY	361100	3	361100 PA243 T 810 854
		BMC 2	DRIFT REG-PRESS XDCR 8HA2	361116	3	361100 P 262 T 810 822
		BMC 2	DRIFT REG-PRESS XDCR 8HA2	361116	3	361100 PB265 T 810 954
		BMC 2	DRIFT TRANSF-PRESS XDCR 7HA2	361115	3	361100 P 253 T 810 818
		BMC 2	DRIFT TRANSF-PRESS XDCR 7HA2	361116	3	361100 PB271 T 810 956
		BMC 2	ENG2 PYLON LOOP	362215	1	362200 PA201 T 810 831
R		BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2	361154	1	361100 PA237 T 810 850
R		BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2	361154	3	361100 PA214 T 810 846
R R		BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2 OR SENSE LINE	361154	3	361100 PA226 T 810 848 361100 PA230 T 810 848 01
		BMC 2	HP BLEED-V 4000HA2	361151	3	361100 P 288 T 810 836

EFF :	ALL	 	 
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### TROUBLE SHOOTING MANUAL

	LIADNINGS /MALEUNGITONS		CFDS FAULT MESSAGES	CFDS FAULT MESSAGES		
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
		BMC 2	HP BLEED-V 4000HA2 OR SENSE LINE	361151	3	361100 PA200 T 810 840
		BMC 2	HP BLEED-V 4000HA2 OR SOLENOID 11HA2	361151	3	361100 PA205 T 810 842
		BMC 2	HP BLEED-V 4000HA2 OR SOLENOID 4029KS2	361151	3	361100 PA205 T 810 842
R		BMC 2	PRECOOLER	361142	2	361100 PA254 T 810 862
		BMC 2	PRESS REG-V 4001HA2 OR HP BLEED-V 4000HA2 OR S.	361100	3	361100 P 284 T 810 834
		BMC 2	PRESS REG-V 4001HA2 OR SOL 10HA2	361100	1	361100 P 245 T 810 814
		BMC 2	PRESS REG-V 4001HA2 OR SOL 10HA2	361100	3	361100 P 278 T 810 832
		BMC 2	PRESS REG-V 4001HA2 OR SOL 10HA2 OR SENSE LINE	361100	1	361100 P 234 T 810 810
		BMC 2	PRESS REG-V 4001HA2 OR SOL 10HA2 OR SENSE LINE	361100	3	361100 P 273 T 810 830
		BMC 2	REG-PRESS XDCR 8HA2	361116	3	361100 P 262 T 810 822
		BMC 2	TEMP SENSOR 6HA1	361117	3	361100 P 263 T 810 825
		BMC 2	TEMP SENSOR 6HA2	361117	3	361100 P 265 T 810 826
R		BMC 2	THRM 7170HM2 OR FAN AIR-V 9HA2	361154	1	361100 PA237 T 810 850
R R		BMC 2	THRM 7170HM2 OR FAN AIR-V 9HA2	361154	3	361100 PA214 T 810 846
R R		BMC 2	THRM 7170HM2 OR FAN AIR VALVE 9HA2 OR SENSE LINE		2	361100 PA226 T 810 848 361100 PA230 T 810 848 01

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### TROUBLE SHOOTING MANUAL

LIADNINGS / MAI FUNCTIONS	FAULT ISOLATION				
WARNINGS/MALFUNCTIONS   	SOURCE	MESSAGE	ATA	С	!
	BMC 2	TRANSF-PRESS XDCR 7HA2	361115	3	361100 P 253 T 810 818
	BMC 2	X-FEED VALVE 6HV OR CKT	361200	3	361200 P 215 T 810 803
	CFDS	NO BMC1 DATA	361134	2	313200 P 257 T 810 846
	CFDS	NO BMC2 DATA	361134	2	313200 P 258 T 810 847
	DMU	BMC1 (1HA1) / DMU (1TV)	361134	3	313600 P 216 T 810 821
	DMU	BMC1 (1HA1) / FDIMU (10TV)	361134	3	313600 P 272 T 810 902
	DMU	BMC2 (1HA2) / DMU (1TV)	361134	3	313600 P 216 T 810 821
	DMU	BMC2 (1HA2) / FDIMU (1OTV)	361134	3	313600 P 272 T 810 902
	ECAM 1	SDAC1 : NO DATA FROM BMC1	361134	3	315400 P 261 T 810 855
	ECAM 1	SDAC1 : NO DATA FROM BMC1+2	361134	1	315400 PA261 T 810 942
	IDENT:	ECAM 2	·		
	ECAM 1	SDAC1 : NO DATA FROM BMC2	361134	3	315400 P 259 T 810 853
	ECAM 1	SDAC2: NO DATA FROM BMC1+2	361134	1	315400 PA262 T 810 943
	IDENT:				
	ECAM 2	SDAC1 : NO DATA FROM BMC1	361134	3	315400 P 261 T 810 855
	ECAM 2	SDAC1 : NO DATA FROM BMC1+2	361134	1	315400 PA261 T 810 942

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### TROUBLE SHOOTING MANUAL

LIADNINGS / MALEUNGTIONS	CFDS FAULT MESSAGES WARNINGS/MALFUNCTIONS				
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	ISOLATION PROCEDURE
	ECAM 2	SDAC1 : NO DATA FROM BMC1+2	361134	1	315400 PA261 T 810 942
	IDENT:	ECAM 1			
	ECAM 2	SDAC1 : NO DATA FROM BMC2	361134	3	315400 P 259 T 810 853
	ECAM 2	SDAC2 : NO DATA FROM BMC1	361134	3	315400 P 262 T 810 856
	ECAM 2	SDAC2 : NO DATA FROM BMC1+2	361134	1	315400 PA262 T 810 943
	ECAM 2	SDAC2 : NO DATA FROM BMC1+2	361134	1	315400 PA262 T 810 943
	IDENT:	ECAM 1			
	ECAM 2	SDAC2: NO DATA FROM BMC2	361134	3	315400 P 260 T 810 854
	TEMPCTL	WAI:NO BLEED AIR ENG 1	361100	1	216300 P 284 T 810 833
	TEMPCTL	WAI:NO BLEED AIR ENG 2	361100	1	216300 P 285 T 810 834

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

#### PNEUMATIC - GENERAL - FAULT ISOLATION PROCEDURES

TASK 36-00-00-810-801

Display of an Operational Message on the ECAM

- 1. Possible Causes
  - OPERATIONAL MESSAGE NO FURTHER ACTION REQUIRED.
- 2. Job Set-up Information

Not Applicable

- 3. Fault Confirmation
  - A. Test Not applicable
- 4. Fault Isolation
  - A. OPERATIONAL MESSAGE NO FURTHER ACTION REQUIRED.

EFF: ALL 36-00-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-00-00-810-802

Incorrect AIR BLEED generation

#### 1. Possible Causes

- BMC-1 (1HA1)
- BMC-2 (1HA2)
- wiring

#### 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION		
_		24-24-00-710-001	Operational Test of the Emergency Generation System		
R R	AMM	31-32-00-860-011	Procedure to Get Access to the SYSTEM REPORT/TEST/PNEU Page		
R	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)		
R	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)		
R	ASM	31-54/03			
R	ASM	36-11/01			

#### 3. Fault Confirmation

A. Table of the circuit breakers used in this procedure:

	PANEL	DESIGNATION	IDENT.	LOCATION
R	49VU	AIR BLEED/ENG 1/CTL	3HA1	D12
R	49VU	AIR BLEED/ENG 1/MONG	2HA1	D11
	49VU	FWS/FWC1/SPLY	3WW	F01
	12 1VU	EIS/FWC2/SPLY	2WW	Q07
R	122VU	AIR BLEED/ENG 2/CTL	<b>3</b> HA2	<b>z23</b>
R	122VU	AIR BLEED/ENG 2/MONG	2HA2	<b>Z22</b>

#### B. Test

(1) Not Applicable

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#### 4. Fault Isolation

R R R R R	If the AIR BLEED maintenance message comes into view on the ECAM STATUS page without a CFDS fault message: . at the end of the operational test of the emergency generation system (CSM/G test) (Ref. AMM TASK 24-24-00-710-001), . or during APU/ground power transfer, - Open the circuit breakers 2WW and 3WW for 5 to 10 seconds to cancel the AIR BLEED maintenance message, then close them.
	NOTE: 1: Approximately 2 minutes are necessary for the full initialization of the FWCs.
R R R	NOTE: 2: The reset of the BMCs (Bleed Monitoring Computers) will not cancel the AIR BLEED maintenance message on the ECAM STATUS page. If this maintenance message came into view after a power transfer, it can go out of view after the first subsequent engine start and will not come into view again after engine shutdown.
R R	NOTE: 3: The AIR BLEED maintenance message is applicable when it is shown, after engine shutdown, in the POST FLIGHT Report as an ECAM message with the related CFDS fault message.
R R R	<ul> <li>(1) If the fault continues:         <ul> <li>On one MCDU, get the SYSTEM REPORT/TEST PNEU menu page (Ref. AMM TASK 31-32-00-860-011).</li> <li>On one MCDU, push the line key adjacent to the BMC1(2) indication.</li> </ul> </li> </ul>
R R R R R R R R R R	<ul> <li>(a) If the BMC1(2) page does not come into view: <ul> <li>Do a check of the wiring (Ref. ASM 36-11/01) and (Ref. ASM 31-54/03) between:</li> <li>Pin AA/10C of the BMC1 (1HA1) and pin AB/12G of the SDAC1(2) (1WV1(2))</li> <li>Pin AA/11C of the BMC1 (1HA1) and pin AB/12H of the SDAC1(2) (1WV1(2))</li> <li>Pin AA/10C of the BMC2 (1HA2) and pin AE/12C of the SDAC1(2) (1WV1(2))</li> <li>Pin AA/11C of the BMC2 (1HA2) and pin AE/12D of the SDAC1(2) (1WV1(2)).</li> </ul> </li> </ul>
R R	<ul><li>1 If the wiring is not correct:</li><li>- Repair the wiring.</li></ul>
R R R	2 If the wiring is correct: - Replace the BMC-1 (1HA1) or BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
R	(b) If the BMC1(2) page comes into view:
R R	<u>NOTE</u> : The AIR BLEED maintenance message on the ECAM STATUS page is an unwanted message. You can ignore it.

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- ۶	Open the AIR BLEED/ENG 1/MONG (2HA1) and AIR BLEED/ENG 1/CTL
₹	(3HA1) circuit breakers and the AIR BLEED/ENG 2/MONG (2HA2) and
₹	AIR BLEED/ENG 2/CTL (3HA2) circuit breakers during 5 to 10
₹	seconds, then close them.

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#### TROUBLE SHOOTING MANUAL

#### ENGINE BLEED AIR SUPPLY SYSTEM - FAULT ISOLATION PROCEDURES

TASK 36-11-00-810-801

Loss of the BMC1

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001	BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- R B. Do the test given in para. 3.

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-802

High Pressure Bleed Valve of the Engine 1 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION		
 	36-11-51-000-042 36-11-51-400-042	Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve (4000HA)		

- 3. Fault Confirmation
  - A. Test
    - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
- R A. If the fault symptom is identified by the maintenance message:
  R HP BLEED-V 4000HA
  and if the bleed temperature indication is more than 255 deg.C plus or minus 5 deg.C:
   replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042)
  R and (Ref. AMM TASK 36-11-51-400-042).
  - B. Test
    - (1) Do the engine start procedure.
    - (2) Make sure that the ECAM warning AIR ENG 1 BLEED FAULT is not shown on the upper ECAM DU.

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## *GA319/A320/A321*

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-803

Fan Air Valve of the Engine 1 Not in Fully Open Position

#### 1. Possible Causes

- VALVE-FAN AIR, ENG1 (9HA1)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- filter of the fan air valve control thermostat (7170HM1)
- sense line
- wiring

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

(2.00 to 26.00 lbf.ft)

No specific Torque Wrench: range 0.20 to 3.60 m.daN

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

R 98F36003002000 1 TBD

B. Referenced Information

REFE	RENCE	DESIGNATION
АММ	36-11-00-710-003	Operational Test of the Bleed Air System
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)
AMM		Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ASM	36-11/01	

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#### 3. Fault Confirmation

- A. Test
  - (1) Not Applicable
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - <u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA1 or THRM 7170HM1 or SENSE LINE:
    - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM1) and the fan air valve (9HA1).
    - (1) If the unions are loose:
       TORQUE to 1.6 m.daN (11.79 lbf.ft).
    - (2) If the unions are correctly tightened:
      - Do a check of the filter of the fan air valve control thermostat (7170HM1).
      - (a) If the filter is dirty:
        - Clean the filter of the fan air valve control thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
      - (b) If the filter is not dirty:
        - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
        - 1 If the fan air valve does not fully open:
          - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
        - 2 If the fan air valve fully opens:
          - Disconnect the sense line from the fan air valve control thermostat (7170HM1).
          - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.

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- Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.
- Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
- $\underline{a}$  If the pressure decreases after 20 seconds:
  - Repair or replace the sense line.
- b If the pressure stays constant after 20 seconds:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - \* If the fault continues:
    - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1
      (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

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- A. If the fault symptom is identified by the maintenance message THRM 7170HM1 OR FAN AIR VALVE 9HA1 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM1) and the fan air valve (9HA1).
  - (1) If the unions are loose:
    - TORQUE to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan air valve control thermostat (7170HM1).
    - (a) If the filter is dirty:
      - Clean the filter of the fan air valve control thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).

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- (b) If the filter is not dirty:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
  - 1 If the fan air valve does not fully open:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - 2 If the fan air valve fully opens:
    - Disconnect the sense line from the fan air valve control thermostat (7170HM1).
    - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.
    - Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.
    - Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - a If the pressure decreases after 20 seconds:
      - Repair or replace the sense line.
    - b If the pressure stays constant after 20 seconds:
      - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
        - \* If the fault continues:
        - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - . Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1 (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C ALL

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- B. Test
  - (1) Do the operational test of the bleed air system (Ref. AMM TASK 36-11-00-710-003).

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(2) After the subsequent flight, make sure that the fault does not continue.

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-803- 01

Fan Air Valve of the Engine 1 Not in Fully Open Position (Fault isolation Procedure with Test Set P/N 98F36003002001)

#### 1. Possible Causes

- THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
- VALVE-FAN AIR, ENG1 (9HA1)
- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- filter of the fan-air valve control-thermostat (7170HM1)
- sense line
- wiring

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

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REFERENCE QTY DESIGNATION

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No specific blanking cap

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

R 98F36003002001 1 TBD

B. Referenced Information

REFE	RENCE	DESIGNATION		
AMM		Operational Test of the Bleed Air System		
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature		
		Sensor 6HA1(6HA2)		
AMM	36-11-17-400-001	Installation of the Heat-Exchanger Outlet-Temperature		
		Sensor 6HA1(6HA2)		
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat		
		(7170HM1, 7170HM2)		
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve		
Ailii	30 11 43 000 003	Control-Thermostat		
A M M	7/ 11 /7 /00 001			
AMM	36-11-43-400-001	Installation of the Fan-Air Valve Control-Thermostat		
		(7170HM1, 7170HM2)		
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve		
		Control-Thermostat		
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)		
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)		
AMM	36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve		
		9HA1 (9HA2) with the Bleed Test Set P/N		
		98p36003000000 or P/N 98F36003002000		
		70#300300000 C: 171 701 30003002000		

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ASM 36-11/01

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- 3. Fault Confirmation
  - A. Test
    - (1) Not Applicable
- 4. Fault Isolation
  - CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY

CAUSE LEAKAGE.

<u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

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

- A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA1 or THRM 7170HM1 or SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM1) and the fan air valve (9HA1).
  - (1) If the unions are loose:
     TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan-air valve control-thermostat (7170HM1).
    - (a) If the filter is dirty:
      - Clean the filter of the fan-air valve control-thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
      - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.

CAUTION: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

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- 3 Connect the TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.
- 4 Connect the digital pressure gage to the tee of the special hose assembly.
- Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

- a If the fan air valve fully opens:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- b If the fan air valve does not fully open:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
    - \* If the test is not OK:
    - \* Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - \* If the test is OK:
    - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
    - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
    - $\star$  Connect the TBD (98F36003002001) to the sense line of the fan air valve.
    - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - \*\* If the pressure decreases after 20 seconds:
    - \*\* Repair or replace the sense line.
    - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
    - \*\* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1 (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.

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- (a) If the wiring is not correct:
  - Repair the wiring.
- (b) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message THRM 7170HM1 OR FAN AIR VALVE 9HA1 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan-air valve control- thermostat (7170HM1) and the fan air valve (9HA1).
  - (1) If the unions are loose:
    - TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan-air valve control-thermostat (7170HM1).
    - (a) If the filter is dirty:
      - Clean the filter of the fan-air valve control-thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
      - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.

CAUTION: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

- <u>3</u> Connect the TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.
- Connect the digital pressure gage to the tee of the special hose assembly.
- Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of

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the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

- a If the fan air valve fully opens:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- b If the fan air valve does not fully open:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
    - \* If the test is not OK:
    - \* Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - \* If the test is OK:
    - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
    - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
    - \* Connect the TBD (98F36003002001) to the sense line of the fan air valve.
    - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - \*\* If the pressure decreases after 20 seconds:
    - \*\* Repair or replace the sense line.
    - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
    - \*\* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - . Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1 (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

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- R (1) Do the operational test of the bleed air system (Ref. AMM TASK 36-11-00-710-003).
- R (2) After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-804

Loss of the BMC2

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

-----

### REFERENCE DESIGNATION

-----

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-805

High Pressure Bleed Valve of the Engine 2 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-51-000-042 AMM 36-11-51-400-042	Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve (4000HA)

- 3. Fault Confirmation
  - A. Test
    - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message:

    HP BLEED-V 4000HA

    and if the bleed temperature indication is more than 255 deg.C plus or
    minus 5 deg.C:

    Deal and the VALVE HP BLEED (4000HA) (Ref. AMM TASK 76 11 51 000 042)
    - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
  - B. Test
    - (1) Do the engine start procedure.
    - (2) Make sure that the ECAM warning AIR ENG 2 BLEED FAULT is not shown on the upper ECAM DU.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-806

Fan Air Valve of the Engine 2 Not in Fully Open Position

### 1. Possible Causes

- VALVE-FAN AIR, ENG2 (9HA2)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- filter of the fan air valve control thermostat (7170HM2)
- sense line
- wiring

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

R 98F36003002000 1 TBD

B. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-710-003	Operational Test of the Bleed Air System	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat	
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>	
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve Control-Thermostat	
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)	
AMM		Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
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### 3. Fault Confirmation

- A. Test
  - (1) Not Applicable
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - <u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA2 or THRM 7170HM2 or SENSE LINE:
    - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM2) and the fan air valve (9HA2).
    - (1) If the unions are loose:
       TORQUE to 1.6 m.daN (11.79 lbf.ft).
    - (2) If the unions are correctly tightened:
      - Do a check of the filter of the fan air valve control thermostat (7170HM2).
      - (a) If the filter is dirty:
        - Clean the filter of the fan air valve control thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
      - (b) If the filter is not dirty:
        - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
        - 1 If the fan air valve does not fully open:
          - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
        - 2 If the fan air valve fully opens:
          - Disconnect the sense line from the fan air valve control thermostat (7170HM2).
          - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.

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- Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.
- Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
- a If the pressure decreases after 20 seconds:
  - Repair or replace the sense line.
- b If the pressure stays constant after 20 seconds:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - \* If the fault continues:
    - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2
      (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

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- A. If the fault symptom is identified by the maintenance message THRM 7170HM2 OR FAN AIR VALVE 9HA2 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM2) and the fan air valve (9HA2).
  - (1) If the unions are loose:
    - TORQUE to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan air valve control thermostat (7170HM2).
    - (a) If the filter is dirty:
      - Clean the filter of the fan air valve control thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).

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- (b) If the filter is not dirty:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
  - 1 If the fan air valve does not fully open:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - 2 If the fan air valve fully opens:
    - Disconnect the sense line from the fan air valve control thermostat (7170HM2).
    - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.
    - Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.
    - Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - a If the pressure decreases after 20 seconds:
      - Repair or replace the sense line.
    - b If the pressure stays constant after 20 seconds:
      - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
        - \* If the fault continues:
        - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - . Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2 (1HA2)
    - Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

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- B. Test
  - (1) Do the operational test of the bleed air system (Ref. AMM TASK 36-11-00-710-003).

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(2) After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-806- 01

Fan Air Valve of the Engine 2 Not in Fully Open Position (Fault isolation Procedure with Test Set P/N 98F36003002001)

### 1. Possible Causes

- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
- VALVE-FAN AIR, ENG2 (9HA2)
- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- filter of the fan-air valve control-thermostat (7170HM2)
- sense line
- wiring

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

-----

REFERENCE QTY DESIGNATION

No specific blanking cap

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

R 98F36003002001 1 TBD

B. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-710-003	Operational Test of the Bleed Air System	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat	
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>	
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve Control-Thermostat	
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)	
AMM	36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	

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- 3. Fault Confirmation
  - A. Test
    - (1) Not Applicable
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - <u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA2 or THRM 7170HM2 or SENSE LINE:
    - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM2) and the fan air valve (9HA2).
    - (1) If the unions are loose:
       TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
    - (2) If the unions are correctly tightened:
      - Do a check of the filter of the fan-air valve control-thermostat (7170HM2).
      - (a) If the filter is dirty:
        - Clean the filter of the fan-air valve control-thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
      - (b) If the filter is not dirty:
        - Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
        - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
          - CAUTION: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

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- 3 Connect the TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.
- 4 Connect the digital pressure gage to the tee of the special hose assembly.
- Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

- a If the fan air valve fully opens:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- b If the fan air valve does not fully open:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
    - \* If the test is not OK:
    - \* Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - \* If the test is OK:
    - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
    - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
    - \* Connect the TBD (98F36003002001) to the sense line of the fan air valve.
    - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - \*\* If the pressure decreases after 20 seconds:
    - \*\* Repair or replace the sense line.
    - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
    - \*\* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2 (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.

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- (a) If the wiring is not correct:
  - Repair the wiring.
- (b) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message THRM 7170HM2 OR FAN AIR VALVE 9HA2 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM2) and the fan air valve (9HA2).
  - (1) If the unions are loose:
    - TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan-air valve control-thermostat (7170HM2).
    - (a) If the filter is dirty:
      - Clean the filter of the fan-air valve control-thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
      - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.

<u>CAUTION</u>: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

- <u>3</u> Connect the TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.
- Connect the digital pressure gage to the tee of the special hose assembly.
- Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of

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the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

- a If the fan air valve fully opens:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- b If the fan air valve does not fully open:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
    - \* If the test is not OK:
    - \* Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - \* If the test is OK:
    - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
    - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
    - \* Connect the TBD (98F36003002001) to the sense line of the fan air valve.
    - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - \*\* If the pressure decreases after 20 seconds:
    - \*\* Repair or replace the sense line.
    - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
    - \*\* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - . Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2 (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

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- R (1) Do the operational test of the bleed air system (Ref. AMM TASK 36-11-00-710-003).
- R (2) After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-807

Bleed Pressure-Regulator Valve of the Engine 1 Blocked in the Open Position or Regulation Failure

### 1. Possible Causes

- XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- VALVE-BLEED PRESS REG (4001HA)
- BMC-1 (1HA1)

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	

#### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.

#### 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA1
  - (1) Do a check for correct indication of the pressure transducer (8HA1).
    - (a) On the AIR control panel 30VU (with the APU BLEED pushbutton switch pushed and the X-BLEED selector switch set to OPEN), do a check of the pressure indications of the two systems on the ECAM BLEED page.
      - 1 If the pressure indication of the defective system is 8 psi (0.55 bar) minimum more than the indication of the opposite system:

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- Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
- 2 If the difference in the pressure indication is less than 8 psig:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- (2) If the fault continues:
  - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-808

Bleed Pressure-Regulator Valve of the Engine 2 Blocked in the Open Position or Regulation Failure

### 1. Possible Causes

- XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- VALVE-BLEED PRESS REG (4001HA)
- BMC-2 (1HA2)

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	

#### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.

#### 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA2
  - (1) Do a check for the correct indication of the pressure transducer (8HA2).
    - (a) On the AIR control panel 30VU, with the APU BLEED pushbutton switch pushed and the X-BLEED selector switch set to OPEN, do a check on the ECAM BLEED page of the pressure indications of the two systems.
      - 1 If the pressure indication of the defective system is 8 psi (0.55 bar) minimum more than that of the opposite system:

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- Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
- 2 If the difference in the pressure indication is not important (less than 8 psig):
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- (2) If the fault continues:
  - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-809

Bleed Pressure Regulator Valve of the Engine 1 Blocked in the Closed Position or Regulation Too Low

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- sense line

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific blanking cap

B. Referenced Information

REFERENCE **DESIGNATION** AMM 36-11-00-720-007 Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000 AMM 36-11-16-000-001 Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2) 36-11-16-400-001 Installation of the Bleed Regulated Pressure AMM Transducer (8HA1, 8HA2) AMM 36-11-52-000-040 Removal of the Bleed Pressure-Regulator Valve (4001HA) 36-11-52-000-042 Removal of the Bleed Pressure Regulator Valve AMM (4001HA) AMM 36-11-52-400-040 Installation of the Bleed Pressure-Regulator Valve (4001HA) AMM 36-11-52-400-042 Installation of the Bleed Pressure Regulator Valve (4001HA) R AMM 36-11-52-720-001 Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000 AMM 36-11-55-000-001 Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2) Installation of the Bleed-Pressure-Regulator Valve AMM 36-11-55-400-001 Control-Solenoid (10HA1, 10HA2)

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### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.
- 4. Fault Isolation
  - CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
  - A. If the fault is identified by the maintenance message: PRESS REG-V 4001HA1 OR SOL 10HA1 OR SENSE LINE
    - Do a check of the sense line unions and clamps between the bleed pressure-regulator valve (4001HA) and the solenoid (10HA1).
    - (1) If the unions are loose:
      - Tighten them.
    - (2) If the unions are correctly tightened:
      - Do a check of the opening of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).
      - (a) If the bleed pressure-regulator valve does not open:
        - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - (b) If the bleed pressure-regulator valve opens:
        - Do a leakage check of the sense line between the bleed pressure-regulator valve and the bleed pressure-regulator valve control-solenoid (Ref. AMM TASK 36-11-00-720-007).
        - 1 If the pressure decreases very slowly:
          - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-040) and (Ref. AMM TASK 36-11-52-400-040).
        - 2 If the pressure decreases to "O" psig in less than 20 seconds:
          - Do an internal leakage check of the bleed pressure-regulator valve control-solenoid.
          - Disconnect the sense line at the bleed pressure-regulator valve control solenoid. Put a blanking cap on the sense
          - Pressurize the sense line to 30 psi (2.07 bar) then close the shutoff valve of the pressure source.
          - a If the pressure decreases:
            - Repair or replace the sense line.

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- b If the pressure stays constant:
  - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- (3) If the fault continues:
  - Do a check of the correct indication of the bleed regulated-pressure transducer (8HA1).
  - On the AIR control panel 30VU, push the APU BLEED pushbutton switch and set the X-BLEED selector switch to OPEN.
  - On the ECAM BLEED page, do a check of the pressure indications of the two systems.
  - (a) If the pressure indication of the defective system is 8 psi (0.55 bar) minimum less than the indication of the opposite system:
    - Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-810

Bleed Pressure Regulator Valve of the Engine 2 Blocked in the Closed Position or Regulation Too Low

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- sense line

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific blanking cap

B. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>

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### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
  - A. If the fault is identified by the maintenance message: PRESS REG-V 4001HA2 OR SOL 10HA2 OR SENSE LINE
    - Do a check of the sense line unions and clamps between the bleed pressure-regulator valve (4001HA) and the solenoid (10HA2).
    - (1) If the unions are loose:
      - Tighten them.
    - (2) If the unions are correctly tightened:
      - Do a check of the opening of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).
      - (a) If the bleed pressure-regulator valve does not open:
        - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - (b) If the bleed pressure-regulator valve opens:
        - Do a leakage check of the sense line between the bleed pressure-regulator valve and the bleed pressure-regulator valve control-solenoid (Ref. AMM TASK 36-11-00-720-007).
        - 1 If the pressure decreases very slowly:
          - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
        - 2 If the pressure decreases to "O" psig in less than 20 seconds:
          - Do an internal leakage check of the bleed pressure-regulator valve control-solenoid.
          - Disconnect the sense line at the bleed pressure-regulator valve control-solenoid. Put a blanking cap on the sense line.
          - Pressurize the sense line to 30 psi (2.07 bar) then close the shutoff valve of the pressure source.
          - a If the pressure decreases:
            - Repair or replace the sense line.

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- b If the pressure stays constant:
  - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- (3) If the fault continues:
  - Do a check of the correct indication of the bleed regulated-pressure transducer (8HA2).
  - On the AIR control panel 30VU, push the APU BLEED pushbutton switch and set the X-BLEED selector switch to OPEN.
  - On the ECAM BLEED page, do a check of the pressure indications of the two systems.
  - (a) If the pressure indication of the defective system is 8 psi (0.55 bar) minimum less than the indication of the opposite system:
    - Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-811

Overpressure Valve of the Engine 1 Blocked in the not Fully Open Position

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 1 (5HA1)
  - BMC-1 (1HA1)
  - wiring from the BMC1 (1HA1) to the overpressure valve (5HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-34-000-001 AMM 36-11-34-400-001 AMM 36-11-53-000-001 AMM 36-11-53-400-001 ASM 36-11/01	Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2) Removal of the Overpressure Valve (5HA1, 5HA2) Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message: OVERPRESS-V-5HA1
    - replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
    - (1) If the fault continues:
      - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (2) If the fault continues:
      - do a check and repair the wiring from the BMC1 (1HA1) to the overpressure valve (5HA1), pin AA/10A to pin A/1 (Ref. ASM 36-11/01).

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\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message: OVPRESS-V-5HA1
  - replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - (1) If the fault continues:
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (2) If the fault continues:
    - do a check and repair the wiring from the BMC1 (1HA1) to the overpressure valve (5HA1), pin AA/10A to pin A/1 (Ref. ASM 36-11/01).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-812

Overpressure Valve of the Engine 2 Blocked in the not Fully Open Position

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 2 (5HA2)
  - BMC-2 (1HA2)
  - wiring from the BMC2 (1HA2) to the overpressure valve (5HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-34-000-001 AMM 36-11-34-400-001 AMM 36-11-53-000-001 AMM 36-11-53-400-001 ASM 36-11/02	Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2) Removal of the Overpressure Valve (5HA1, 5HA2) Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Test.
    - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message: OVERPRESS-V-5HA2
    - replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
    - (1) If the fault continues:
      - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (2) If the fault continues:
      - do a check and repair the wiring from the BMC2 (1HA2) to the overpressure valve (5HA2), pin AA/10A to pin A/1 (Ref. ASM 36-11/02).

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### TROUBLE SHOOTING MANUAL

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message: OVPRESS-V-5HA2
  - replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - (1) If the fault continues:
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (2) If the fault continues:
    - do a check and repair the wiring from the BMC2 (1HA2) to the overpressure valve (5HA2), pin AA/10A to pin A/1 (Ref. ASM 36-11/02).

\*\*ON A/C ALL

- B. Test
  - (1) Do the engine start procedure.
  - (2) Make sure that the ECAM warning AIR ENG 2 BLEED ABNORM PR is not shown on the upper ECAM DU.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-813

Loss of Automatic Electrical Closure for the Bleed Pressure Regulator Valve on Engine 1

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- P/BSW-ENG 1 BLEED (4HA1)
- wiring

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

DEFEDENCE OTV DESTANTION

REFERENCE QTY DESIGNATION

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

R 98F36003002000 1 TBD

B. 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
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>
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	49-00-00-860-009	APU Shutdown by External Power (131-9(A))

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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).
- B. Test
  - (1) Do a check of the position of the ENG 1 BLEED pushbutton switch (4HA1).
    - (a) If the pushbutton switch is pushed:
      - on the ECAM control panel 11VU, push the BLEED key (the BLEED page comes into view on the lower ECAM DU)
      - approximately 30 minutes after engine 1 shutdown, do a check of the position of the bleed pressure regulator valve (4001HA) on the BLEED page.

NOTE: During the engine shutdown, the bleed pressure regulator valve can close slowly, without closure command. The cause of this slow closure can be a decreased segmentation play.

- If the position is fully closed:no more maintenance is necessary.
- If the position is not fully closed:do the trouble shooting given in Para. 4.A.
- (b) If the pushbutton switch is released:
  - Connect the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the test port of the bleed pressure regulator valve, and slowly pressurize the system No. 2 to 30 psi (2.0684 bar).
  - On the ECAM control panel 11VU, push the BLEED key (the BLEED page comes into view on the lower ECAM DU).
  - 3 On the AIR COND panel 30VU, make sure that the ENG 1 BLEED pushbutton switch (4HA1) is pushed.
  - 4 On the BLEED page, make sure that the bleed pressure regulator valve is shown open.

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- 5 Start the APU:
  - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-003)
  - APS 3200 (Ref. AMM TASK 49-00-00-860-005) or
  - 131-9(A) (Ref. AMM TASK 49-00-00-860-008).
- 6 On the AIR COND panel 30VU, push the APU BLEED pushbutton switch (the OFF legend goes off).
- 7 On the BLEED page, make sure that the bleed pressure regulator valve is shown closed.
- 8 Stop the APU:
  - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-004)
  - APS 3200 (Ref. AMM TASK 49-00-00-860-006) or
  - 131-9(A) (Ref. AMM TASK 49-00-00-860-009).
- 9 Depressurize the system on the test set.
- 10 Remove the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent.

#### 4. Fault Isolation

R

- A. Do a check of the visual position indicator of the bleed pressure-regulator valve.
  - (1) If the visual position indicator is in the closed position:
    - Disconnect the electrical connector 4001HA1-A and make sure that there is continuity between pins A/5 and A/3 (Ref. ASM 36-11/01).
    - (a) If there is continuity:
      - On the wiring side, do a check for ground at the connector 4001HA1-A pin 3.
      - 1 If there is a ground signal:
        - Do a check and repair the wiring from the bleed pressure-regulator valve 4001HA1-A pin A/5 and the BMC1 pin AA/2B (Ref. ASM 36-11/01).
      - 2 If there is no ground signal:
        - Do a check and repair the wiring from the connector 4001HA1-A pin 3 to the ground point (Ref. ASM 36-11/01).
    - (b) If there is no continuity:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).

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- (2) If the visual position indicator is in the open position:
  - Disconnect the sense line between the bleed pressure-regulator valve and the bleed pressure-regulator valve-control solenoid.
  - (a) If the bleed pressure regulator valve is closed:
    - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - (b) If the bleed pressure-regulator valve is not closed:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
    - Refer to Para. 4B.
  - (c) If the fault continues:
    - Replace the P/BSW-ENG 1 BLEED (4HA1).
    - If the fault continues:
      - Do a check and repair the wiring (Ref. ASM 36-11/01) between:
        - . Pin 2 of the AIR BLEED/ENG 1/CTL circuit breaker (3HA1) and pin AA/8A of the BMC 1 (1HA1)
        - . Pin 2 of the AIR BLEED/ENG 1/CTL circuit breaker and pin A/D2 of the ENG 1 BLEED pushbutton switch (4HA1)
        - . Pin AA/7A of the BMC 1 and pin A/D1 of the ENG 1 BLEED pushbutton switch
        - Pin A/D3 of the ENG 1 BLEED pushbutton switch and pin A/1 of the engine 1 bleed pressure regulator valve control solenoid (10HA1)
        - . Pin A/2 of the engine 1 bleed pressure-regulator valve control-solenoid and the ground.
- B. Do the test given in para. 3.

### 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) 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).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-814

Loss of Automatic Electrical Closure for the Bleed Pressure Regulator Valve on Engine 2

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- P/BSW-ENG 2 BLEED (4HA2)
- wiring

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

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REFERENCE QTY DESIGNATION

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

R 98F36003002000 1 TBD

B. 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		
AMM	31-60-00-860-002	EIS Stop Procedure		
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)		
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)		
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)		
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>		
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))		

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AMM 49-00-00-860-009 APU Shutdown by External Power (131-9(A))

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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).

#### B. Test

- (1) Do a check of the position of the ENG 2 BLEED pushbutton switch (4HA2).
  - (a) If the pushbutton switch is pushed:
    - on the ECAM control panel 11VU, push the BLEED key (the BLEED page comes into view on the lower ECAM DU)
    - approximately 30 minutes after engine 2 shutdown, do a check of the position of the bleed pressure regulator valve (4001HA) on the BLEED page.

NOTE: During the engine shutdown, the bleed pressure regulator valve can close slowly, without closure command. The cause of this slow closure can be a decreased segmentation play.

- 1 If the position is fully closed:- no more maintenance is necessary.
- If the position is not fully closed:do the trouble shooting given in Para. 4.A.
- (b) If the pushbutton switch is released:
  - Connect the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the test port of the bleed pressure regulator valve, and slowly pressurize the system No. 2 to 30 psi (2.0684 bar).
  - On the ECAM control panel 11VU, push the BLEED key (the BLEED page comes into view on the lower ECAM DU).
  - 3 On the AIR COND panel 30VU, make sure that the ENG 2 BLEED pushbutton switch (4HA2) is pushed.
  - 4 On the BLEED page, make sure that the bleed pressure regulator valve is shown open.

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- 5 Start the APU:
  - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-003)
  - APS 3200 (Ref. AMM TASK 49-00-00-860-005) or
  - 131-9(A) (Ref. AMM TASK 49-00-00-860-008).
- 6 On the AIR COND panel 30VU, push the APU BLEED pushbutton switch (the OFF legend goes off).
- 7 On the BLEED page, make sure that the bleed pressure regulator valve is shown closed.
- 8 Stop the APU:
  - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-004)
  - APS 3200 (Ref. AMM TASK 49-00-00-860-006) or
  - 131-9(A) (Ref. AMM TASK 49-00-00-860-009).
- 9 Depressurize the system on the test set.
- 10 Remove the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent.

#### 4. Fault Isolation

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- A. Do a check of the visual position indicator of the bleed pressure-regulator valve.
  - (1) If the visual position indicator is in the closed position:
    - Disconnect the electrical connector 4001HA2-A and make sure that there is continuity between pins A/5 and A/3 (Ref. ASM 36-11/02).
    - (a) If there is continuity:
      - On the wiring side, do a check for ground at the connector 4001HA2-A pin 3.
      - 1 If there is a ground signal:
        - Do a check and repair the wiring from the bleed pressure-regulator valve 4001HA2-A pin A/5 and the BMC2 pin AA/2B (Ref. ASM 36-11/02).
      - 2 If there is no ground signal:
        - Do a check and repair the wiring from the connector 4001HA2-A pin 3 to the ground point (Ref. ASM 36-11/02).
    - (b) If there is no continuity:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).

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- (2) If the visual position indicator is in the open position:
  - Disconnect the sense line between the bleed pressure-regulator valve and the bleed pressure-regulator valve control-solenoid.
  - (a) If the bleed pressure-regulator valve is closed:
    - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - (b) If the bleed pressure-regulator valve is not closed:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
    - Refer to Para. 4B.
  - (c) If the fault continues:
    - Replace the P/BSW-ENG 2 BLEED (4HA2).
    - 1 If the fault continues:
      - Do a check and repair the wiring (Ref. ASM 36-11/02)
        between:
        - Pin 2 of the AIR BLEED/ENG 2/CTL circuit breaker (3HA2) and pin AA/8A of the BMC 2 (1HA2)
        - Pin 2 of the AIR BLEED/ENG 2/CTL circuit breaker and pin A/D2 of the ENG 2 BLEED pushbutton switch (4HA2)
        - Pin AA/7A of the BMC 2 and pin A/D1 of the ENG 2 BLEED pushbutton switch
        - . Pin A/D3 of the ENG 2 BLEED pushbutton switch and pin A/1 of the engine 2 bleed pressure-regulator valve control-solenoid (10HA2)
        - Pin A/2 of the engine 2 bleed pressure-regulator valve control solenoid and the ground.
- B. Do the test given in para. 3.

## 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) 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 36-11-00-810-817

Loss of the Bleed Transferred-Pressure Transducer of the Engine 1

#### 1. Possible Causes

- XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
- BMC-1 (1HA1)
- wiring between pin A/2 of the bleed transferred-pressure transducer (7HA1) and the ground terminal
- wiring between pin A/1 of the bleed transferred-pressure transducer (7HA1) and the circuit breaker (2HA1)
- wiring from the bleed transferred-pressure transducer (7HA1) to the BMC1 (1HA1)
- C/B-BMC 1 (2HA1)

## 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 36-	11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
AMM 36-	11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
ASM 36-	11/01	

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

PANEL DESIGNATION IDENT. LOCATION \_\_\_\_\_\_ 49VU AIR BLEED/ENG 1/MONG 2HA1 D11

R \*\*ON A/C 201-225, 236-275, 282-299, 426-450, 479-499, 503-549, 551-599, R 701-749,

B. If the fault symptom is identified by the Class 3 maintenance message: 36-11-15

DRIFT TRANSF-PRESS XDCR 7HA1

- Do a check of the status of the circuit breaker (2HA1).

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- (1) If the circuit breaker is closed:
  - Do a check for 28VDC at pin A/1 of the bleed transferred-pressure transducer (7HA1) (Ref. ASM 36-11/01).
  - (a) If there is no 28VDC:
    - Do a check for ground at pin A/2 of the bleed transferred-pressure transducer (7HA1).
    - 1 If there is no ground:
      - Repair the wiring between pin A/2 of the bleed transferred-pressure transducer (7HA1) and the ground terminal.
    - 2 If there is ground:
      - Do a check of the wiring between pin A/1 of the bleed transferred-pressure transducer (7HA1) and the circuit breaker (2HA1).
      - <u>a</u> If there is no continuity:
      - Repair the above wiring.
      - <u>b</u> If there is continuity:- Replace the circuit breaker (2HA1).
    - 3 If the fault continues:
      - Make sure that there is a O psig output signal (0.9VDC) on the BMC1 (1HA1) connector between pins AA/14B and AA/15B.
      - a If there is no 0.9VDC:
        - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
    - 4 If the fault continues:
      - Do a check and repair the wiring from the bleed transferred-pressure transducer (7HA1) to the BMC1 (1HA1), pins A/3 and A/4 to pins AA/15B and AA/14B.
  - (b) If there is 28VDC:
    - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1).
- (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-BMC 1 (2HA1).
  - (b) If the circuit breaker stays closed and the fault continues:
    - Replace the BMC-1 (1HA1).

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- R \*\*ON A/C 227-227, 229-235, 276-281, 451-478,
  - B. If the fault symptom is identified by the maintenance message TRANSF-PRESS XDCR 7HA1:
    - Do a check of the status of the circuit breaker (2HA1).
    - (1) If the circuit breaker is closed:
      - Do a check for 28VDC at pin A/1 of the bleed transferred-pressure transducer (7HA1) (Ref. ASM 36-11/01).
      - (a) If there is no 28VDC:
        - Do a check for ground at pin A/2 of the bleed transferred-pressure transducer (7HA1).
        - 1 If there is no ground:
          - Repair the wiring between pin A/2 of the bleed transferred-pressure transducer (7HA1) and the ground terminal.
        - 2 If there is ground:
          - Do a check of the wiring between pin A/1 of the bleed transferred-pressure transducer (7HA1) and the circuit breaker (2HA1).
          - <u>a</u> If there is no continuity:Repair the above wiring.
          - <u>b</u> If there is continuity:- Replace the circuit breaker (2HA1).
        - 3 If the fault continues:
          - Make sure that there is a O psig output signal (0.9VDC) on the BMC1 (1HA1) connector between pins AA/14B and AA/15B.
          - a If there is no 0.9VDC:
            - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
        - 4 If the fault continues:
          - Do a check and repair the wiring from the bleed transferred-pressure transducer (7HA1) to the BMC1 (1HA1), pins A/3 and A/4 to pins AA/15B and AA/14B.
      - (b) If there is 28VDC:
        - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1).

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- - (a) If the fault continues:
     Replace the C/B-BMC 1 (2HA1).
  - (b) If the circuit breaker stays closed and the fault continues:Replace the BMC-1 (1HA1).

\*\*ON A/C ALL

C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-818

Loss of the Bleed Transferred-Pressure Transducer of the Engine 2

#### 1. Possible Causes

- XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
- BMC-2 (1HA2)
- wiring between pin A/2 of the bleed transferred-pressure transducer (7HA2) and the ground terminal
- wiring between pin A/1 of the bleed transferred-pressure transducer (7HA2) and the circuit breaker (2HA2)
- wiring from the bleed transferred-pressure transducer (7HA2) to the BMC2 (1HA2)
- C/B-BMC 2 (2HA2)

### 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 36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
AMM 36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
ASM 36-11/02		

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

PANEL DESIGNATION IDENT. LOCATION \_\_\_\_\_\_ 122VU AIR BLEED/ENG 2/MONG 2HA2 Z22

R \*\*ON A/C 201-225, 236-275, 282-299, 426-450, 479-499, 503-549, 551-599, R 701-749,

B. If the fault symptom is identified by the Class 3 maintenance message: 36-11-15

DRIFT TRANSF-PRESS XDCR 7HA2

- Do a check of the status of the circuit breaker (2HA2).

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- (1) If the circuit breaker is closed:
  - Do a check for 28VDC at pin A/1 of the bleed transferred-pressure transducer (7HA2) (Ref. ASM 36-11/02).
  - (a) If there is no 28VDC:
    - Do a check for ground at pin A/2 of the bleed transferred-pressure transducer (7HA2).
    - 1 If there is no ground:
      - Repair the wiring between pin A/2 of the bleed transferred-pressure transducer (7HA2) and the ground terminal.
    - 2 If there is ground:
      - Do a check of the wiring between pin A/1 of the bleed transferred-pressure transducer (7HA2) and the circuit breaker (2HA2).
      - <u>a</u> If there is no continuity:
        - Repair the above wiring.
      - b If there is continuity:
        - Replace the circuit breaker (2HA2).
    - 3 If the fault continues:
      - Make sure that there is a O psig output signal (0.9VDC) on the BMC2 (1HA2) connector between pins AA/14A and AA/15B.
      - a If there is no 0.9VDC:
        - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
    - 4 If the fault continues:
      - Do a check and repair the wiring from the bleed transferred-pressure transducer (7HA2) to the BMC2 (1HA2), pins A/3 and A/4 to pins AA/15B and AA/14B.
  - (b) If there is 28VDC:
    - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2).
- (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-BMC 2 (2HA2).
  - (b) If the circuit breaker stays closed and the fault continues:
    - Replace the BMC-2 (1HA2).

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- R \*\*ON A/C 227-227, 229-235, 276-281, 451-478,
  - B. If the fault symptom is identified by the maintenance message TRANSF-PRESS XDCR 7HA2:
    - Do a check of the status of the circuit breaker (2HA2).
    - (1) If the circuit breaker is closed:
      - Do a check for 28VDC at pin A/1 of the bleed transferred-pressure transducer (7HA2) (Ref. ASM 36-11/02).
      - (a) If there is no 28VDC:
        - Do a check for ground at pin A/2 of the bleed transferred-pressure transducer (7HA2).
        - 1 If there is no ground:
          - Repair the wiring between pin A/2 of the bleed transferred-pressure transducer (7HA2) and the ground terminal.
        - 2 If there is ground:
          - Do a check of the wiring between pin A/1 of the bleed transferred-pressure transducer (7HA2) and the circuit breaker (2HA2)
          - <u>a</u> If there is no continuity:Repair the above wiring.
          - <u>b</u> If there is continuity:- Replace the circuit breaker (2HA2).
        - 3 If the fault continues:
          - Make sure that there is a O psig output signal (0.9VDC) on the BMC2 (1HA2) connector between pins AA/14A and AA/15B.
          - a If there is no 0.9VDC:
            - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
        - 4 If the fault continues:
          - Do a check and repair the wiring from the bleed transferred-pressure transducer (7HA2) to the BMC2 (1HA2), pins A/3 and A/4 to pins AA/15B and AA/14B.
      - (b) If there is 28VDC:
        - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2).

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- - (a) If the fault continues:
     Replace the C/B-BMC 2 (2HA2).
  - (b) If the circuit breaker stays closed and the fault continues:Replace the BMC-2 (1HA2).

\*\*ON A/C ALL

C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-819

Loss of the Bleed Regulated-Pressure Transducer of the Engine 1

#### 1. Possible Causes

- XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- wiring between pin A/1 of the bleed regulated-pressure transducer (8HA1) and the circuit breaker (2HA1)
- wiring between pin A/2 of the bleed regulated-pressure transducer (8HA1) and the ground terminal
- wiring from the bleed regulated-pressure transducer (8HA1) pins A/3 and A/4 to the BMC1 (1HA1) pins AA/12B and AA/11B

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- C/B-BMC 1 (2HA1)
- 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	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
	AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)

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

PANEL DESIGNATION IDENT. LOCATION \_\_\_\_\_\_ 2HA1

EFF: ALL

49VU AIR BLEED/ENG 1/MONG

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	B. If the fault symptom is identified by the maintenance message: REG-PRESS XDCR 8HA1
R	- Do a check of the status of the circuit breaker (2HA1)
R R	<ul> <li>(1) If the circuit breaker is closed</li> <li>Do a check for 28VDC at pin A/1 of the bleed regulated-pressure transducer (8HA1) (Ref. ASM 36-11/01).</li> </ul>
R	<ul> <li>(a) If there is no 28VDC</li> <li>Do a check of the wiring between pin A/1 of the bleed regulated-pressure transducer (8HA1) and the circuit breaker (2HA1).</li> </ul>
R	<ul><li>1 If there is no continuity:</li><li>- Repair the above wiring.</li></ul>
R	<ul><li>2 If there is continuity:</li><li>- Replace the circuit breaker (2HA1).</li></ul>
R R	<ul><li>(b) If there is 28VDC</li><li>Do a check for ground at pin A/2 of the bleed regulated-pressure transducer (8HA1).</li></ul>
R	<ul> <li>If there is no ground signal:         <ul> <li>Repair the wiring between pin A/2 of the bleed regulated-pressure transducer (8HA1) and the ground terminal.</li> </ul> </li> </ul>
R R	If there is a ground signal: <ul> <li>Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).</li> </ul>
R R	<ul> <li>a If the fault continues:         <ul> <li>Do a check and repair the wiring from the bleed regulated-pressure transducer (8HA1) pins A/3 and A/4 to the BMC1 (1HA1) pins AA/12B and AA/11B (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R	<ul><li>(2) If the circuit breaker is open</li><li>Do the procedure (Ref. TASK 24-00-00-810-803).</li></ul>
R	(a) If the fault continues:
R R	- Replace the C/B-BMC 1 (2HA1).
	C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-820

Loss of the Bleed Regulated-Pressure Transducer of the Engine 2

### 1. Possible Causes

- XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- wiring between pin A/1 of the bleed regulated-pressure transducer (8HA2) and the circuit breaker (2HA2)
- wiring between pin A/2 of the bleed regulated-pressure transducer (8HA2) and the ground terminal
- wiring from the bleed regulated-pressure transducer (8HA2) pins A/3 and A/4 to the BMC2 (1HA2) pins AA/12B and AA/11B

R

- C/B-BMC 2 (2HA2)
- 2. Job Set-up Information
  - A. Referenced Information

	REFERENCE	DESIGNATION 	
R	24-00-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning	
	AMM 36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
	AMM 36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	

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

PANEL DESIGNATION IDENT. LOCATION
122VU AIR BLEED/ENG 2/MONG 2HA2 Z22

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	В.	If the fault symptom is identified by the maintenance message: REG-PRESS XDCR 8HA2
R		- Do a check of the status of the circuit breaker (2HA2).
R R		<ul> <li>(1) If the circuit breaker is closed</li> <li>- Do a check for 28VDC at pin A/1 of the bleed regulated-pressure transducer (8HA2) (Ref. ASM 36-11/02).</li> </ul>
R		<ul> <li>(a) If there is no 28VDC</li> <li>Do a check of the wiring between pin A/1 of the bleed regulated-pressure transducer (8HA2) and the circuit breaker (2HA2).</li> </ul>
R R		1 If there is no continuity:
R		- Repair the above wiring.
R R		$\underline{2}$ If there is continuity:
R		- Replace the circuit breaker (2HA2).
R R		<ul><li>(b) If there is 28VDC:</li><li>Do a check for ground at pin A/2 of the bleed regulated-pressure transducer (8HA2).</li></ul>
R		<u>1</u> If there is no ground:
R R		<ul> <li>Repair the wiring between pin A/2 of the bleed regulated-pressure transducer (8HA2) and the ground terminal.</li> </ul>
R R		2 If there is ground: <ul> <li>Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).</li> </ul>
R		$\underline{a}$ If the fault continues:
R R		- Do a check and repair the wiring from the bleed
R		regulated-pressure transducer (8HA2) pins A/3 and A/4 to the BMC2 (1HA2) pins AA/12B and AA/11B (Ref. ASM 36-11/02)
R		<pre>(2) 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		- Replace the C/B-BMC 2 (2HA2).
	С.	After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-821

Shift of Calibration of the Bleed Regulated-Pressure Transducer of the Engine 1

- 1. Possible Causes
  - XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM 36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation

\*\*ON A/C 201-225, 236-275, 282-299, 426-450, 479-499, 503-549, 551-599, 701-749,

A. If the fault symptom is identified by the Class 3 maintenance message: 36-11-16

DRIFT REG-PRESS XDCR 8HA1

- replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
- R \*\*ON A/C 227-227, 229-235, 276-281, 451-478,
  - A. If the fault symptom is identified by the maintenance message REG PRESS XDCR 8HA1:
    - replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL **SROS** 

**36-11-00** 

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## 

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-822

Shift of Calibration of the Bleed Regulated-Pressure Transducer of the Engine 2

- 1. Possible Causes
  - XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION		
AMM 36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)		
AMM 36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)		

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation

\*\*ON A/C 201-225, 236-275, 282-299, 426-450, 479-499, 503-549, 551-599, 701-749,

A. If the fault symptom is identified by the Class 3 maintenance message: 36-11-16

DRIFT REG-PRESS XDCR 8HA2

- replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
- R \*\*ON A/C 227-227, 229-235, 276-281, 451-478,
  - A. If the fault symptom is identified by the maintenance message REG PRESS XDCR 8HA2:
    - replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL **SROS** 

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-825

Loss of One Sensing Element of the Exchanger Outlet Temperature-Sensor of the Engine 1

## 1. Possible Causes

- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- BMC-1 (1HA1)
- wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA1)
   and th ground terminal
- wiring from the exchanger outlet temperature-sensor (6HA1) to the BMC1 (1HA1)

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature
		Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	Installation of the Heat-Exchanger Outlet-Temperature
		Sensor 6HA1(6HA2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
ASM	36-11/01	

#### 3. Fault Confirmation

- A. Test.
  - (1) Not applicable, the fault is evident.

#### 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: TEMP SENSOR 6HA1
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (1) If the fault continues:
    - do a check for ground at pin A/1 of the exchanger outlet temperature-sensor (6HA1).
    - (a) If there is no ground:
      - do a check and repair the wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA1) and th ground terminal (Ref. ASM 36-11/01).

EFF: ALL

36-11-00

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- (b) If there is ground:
  - do a check and repair the wiring from the exchanger outlet temperature-sensor (6HA1) to the BMC1 (1HA1), pins A/2 and A/4 to pins AA/9B and AA/10B.
- (2) If the fault continues:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
SROS

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-826

Loss of One Sensing Element of the Exchanger Outlet Temperature-Sensor of the Engine 2

### 1. Possible Causes

- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- BMC-2 (1HA2)
- wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA2)
   and the ground terminal
- wiring from the exchanger outlet temperature-sensor (6HA2) to the BMC2 (1HA2)

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature	
		Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	Installation of the Heat-Exchanger Outlet-Temperature	
		Sensor 6HA1(6HA2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
ASM	36-11/02		

#### 3. Fault Confirmation

- A. Test.
  - (1) Not applicable, the fault is evident.

#### 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: TEMP SENSOR 6HA2:
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (1) If the fault continues:
    - do a check for ground at pin A/1 of the exchanger outlet temperature-sensor of the engine 2.
    - (a) If there is no ground:
      - do a check and repair the wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA2) and the ground terminal (Ref. ASM 36-11/02).

EFF: ALL

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- (b) If there is ground:
  - do a check and repair the wiring from the exchanger outlet temperature-sensor (6HA2) to the BMC2 (1HA2), pins A/2 and A/4 to pins AA/9B and AA/10B.
- (2) If the fault continues:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
SROS

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-827

Loss of the Two Sensing Elements of the Exchanger Outlet Temperature-Sensor of the Engine 1

### 1. Possible Causes

- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- BMC-1 (1HA1)
- BMC-2 (1HA2)
- wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA1) and th ground terminal
- wiring from the exchanger outlet temperature-sensor (6HA1) to the BMC1 (1HA1)
- wiring from the exchanger outlet temperature-sensor (6HA1) to the BMC2 (1HA2)

## 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
ASM	36-11/01	·	
ASM	36-11/02		

## 3. Fault Confirmation

#### A. Test.

(1) Not applicable, the fault is evident.

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## 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: TEMP SENSOR 6HA1
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (1) If the fault continues:
    - do a check for ground at pin A/1 of the exchanger outlet temperature-sensor (6HA1).
    - (a) If there is no ground:
      - do a check and repair the wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA1) and th ground terminal (Ref. ASM 36-11/01).
    - (b) If there is ground:
      - do a check and repair the wiring from the exchanger outlet temperature-sensor (6HA1) to the BMC1 (1HA1), pins A/2 and A/4 to pins AA/9B and AA/10B
      - do a check and repair the wiring from the exchanger outlet temperature-sensor (6HA1) to the BMC2 (1HA2), pins A/4 and A/5 to pins AA/6D and AA/7D (Ref. ASM 36-11/02).
  - (2) If the fault continues:
    - replace the BMC-1 (1HA1) and/or the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-828

Loss of the Two Sensing Elements of the Exchanger Outlet Temperature-Sensor of the Engine 2

### 1. Possible Causes

- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- BMC-2 (1HA2)
- BMC-1 (1HA1)
- wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA2) and th ground terminal
- wiring from the exchanger outlet temperature-sensor (6HA2) to the BMC2 (1HA2)
- wiring from the exchanger outlet temperature-sensor (6HA2) to the BMC1 (1HA1)

## 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
ASM	36-11/01	
ASM	36-11/02	

## 3. Fault Confirmation

#### A. Test.

(1) Not applicable, the fault is evident.

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## 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: TEMP SENSOR 6HA2:
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (1) If the fault continues:
    - do a check for ground at pin A/1 of the exchanger outlet temperature-sensor (6HA2)
    - (a) If there is no ground:
      - do a check and repair the wiring between pin A/1 of the exchanger outlet temperature-sensor (6HA2) and th ground terminal (Ref. ASM 36-11/02).
    - (b) If there is ground:
      - do a check and repair the wiring from the exchanger outlet temperature-sensor (6HA2) to the BMC2 (1HA2), pins A/2 and A/4 to pins AA/9B and AA/10B and
      - do a check and repair the wiring from the exchanger outlet temperature-sensor (6HA2) to the BMC1 (1HA1), pins A/4 and A/5 to pins AA/6D and AA/7D (Ref. ASM 36-11/01).
  - (2) If the fault continues:
    - replace the BMC-2 (1HA2) and/or the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-829

Loss of the Non Return Function and Temperature Limitation Function of the Bleed Pressure-Regulator Valve of the Engine  ${\bf 1}$ 

## 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)

### 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
R	AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
	AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)

### 3. Fault Confirmation

#### A. Test

- (1) Do the operational test of the BMC1 (with the CFDS) (Ref. AMM TASK 36-11-00-740-001).
- (2) Do the test of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).

## 4. Fault Isolation

- A. If the test gives the maintenance message: PRESS REG-V 4001HA1 OR SOL 10HA1 OR SENSE LINE:
  - Do a check of the regulation by the bleed pressure-regulator valve.
  - (1) If the regulation by the bleed pressure-regulator valve is too low:
    - Do a check and clean the sense line that goes to the bleed transferred-pressure transducer (7HA1) (from the bleed pressure-regulator valve control-solenoid (10HA1) to the bleed pressure-regulator valve (4001HA)).

EFF: ALL

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- (a) If the sense line has no internal leaks:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- (2) If the operation of the bleed pressure-regulator valve is intermittent:
  - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - (a) If the fault continues:
    - Replace the sense line between:
      - . the bleed pressure-regulator valve (4001HA) and the bleed pressure-regulator valve control-solenoid (10HA1) and/or  $\,$
      - the bleed pressure-regulator valve control-solenoid (10HA1) and the bleed transferred-pressure transducer (7HA1).
- B. Do the test given in para. 3.

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R

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EFF:

ALL

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-830

Loss of the Non Return Function and Temperature Limitation Function of the Bleed Pressure-Regulator Valve of the Engine 2

## 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)

### 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
R	AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
	AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)

### 3. Fault Confirmation

## A. Test

- (1) Do the operational test of the BMC2 (with the CFDS) (Ref. AMM TASK 36-11-00-740-001).
- (2) Do the test of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).

## 4. Fault Isolation

- A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA2 OR SOL 10HA2 OR SENSE LINE:
  - Do a check of the regulation by the bleed pressure-regulator valve.
  - (1) If the regulation by the bleed pressure-regulator valve is too low:
    - Do a check and clean the sense line that goes to the bleed transferred-pressure transducer (7HA2) (from the bleed pressure-regulator valve control-solenoid (10HA2) to the bleed pressure-regulator valve (4001HA)).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (a) If the sense line has no internal leaks:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- (2) If the operation of the bleed pressure-regulator valve is intermittent:
  - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - (a) If the fault continues:
    - Replace the sense line between:
      - . the bleed pressure-regulator valve (4001HA) and the bleed pressure-regulator valve control-solenoid (10HA2) and/or  $\,$
      - the bleed pressure-regulator valve control-solenoid (10HA2) and the bleed transferred-pressure transducer (7HA2).
- B. Do the test given in para. 3.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-831

Loss of the Manual Electrical Closure of the Bleed Pressure-Regulator Valve of the Engine  ${\bf 1}$ 

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- BMC-1 (1HA1)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- wiring
- wiring from the connector of the bleed pressure-regulator valve control-solenoid to the ENG 1 BLEED pushbutton switch
- P/BSW-ENG 1 BLEED (4HA1)
- wiring from the ENG 1 BLEED pushbutton switch to the circuit breaker (3HA1)

## 2. Job Set-up Information

A. Referenced Information

REFERENCE		RENCE	DESIGNATION	
	36-11-00-810-829		Loss of the Non Return Function and Temperature Limitation Function of the Bleed Pressure-Regulator Valve of the Engine 1	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
R	AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	
	AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	
	ASM	36-11/01		

### 3. Fault Confirmation

#### A. Test

(1) Do the test of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).

EFF: ALL

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## 4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

49VU AIR BLEED/ENG 1/CTL 49VU AIR BLEED/ENG 1/MONG 3HA1 D12 2HA1 D11

- B. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA1 OR SOL 10HA1
  - Do a check of the visual position indicator of the bleed pressure-regulator valve.
  - (1) If the bleed pressure-regulator valve is open:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
  - (2) If the bleed pressure-regulator valve is closed:
    - Make sure that the valve position indication on the lower ECAM display unit is correct when you manually operate the valve shaft.
    - (a) If the indication does not agree with the position of the valve butterfly:
      - Do a check and repair the wiring between the bleed pressure-regulator valve and the BMC1, pin A/5 to pin AA/2B (Ref. ASM 36-11/01).
      - 1 If the fault continues:
        - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (b) If the fault continues:
      - Release the ENG 1 BLEED pushbutton switch.
      - Make sure that the bleed pressure-regulator valve control-solenoid (10HA1) makes clicks.
      - 1 If the solenoid makes clicks:
        - Do a check and clean the sense line between the bleed pressure-regulator valve control-solenoid (10HA1) and the bleed pressure-regulator valve (4001HA).
        - a If the fault continues:
          - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
        - b If the fault continues:
          - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).

EFF: ALL

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- 2 If the solenoid does not make clicks:
  - Do a check for 28 VDC at pin A/1 of the connector of the bleed pressure-regulator valve control-solenoid (10HA1) with the ENG 1 BLEED pushbutton switch (4HA1) released (OFF legend on) and the circuit breaker (2HA1) open.
  - a If there is 28 VDC:
    - Do a check for ground at pin A/3 of the connector of the bleed pressure-regulator valve control-solenoid (10HA1).
      - \* If there is no ground signal:
      - \* Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - b If there is no 28 VDC:
    - Do a check for 28 VDC at pin A/D2 of the ENG 1 BLEED pushbutton switch (4HA1) (Ref. ASM 36-11/01).
      - \* If there is 28 VDC:
      - \* Do a check and repair the wiring from the connector of the bleed pressure-regulator valve control-solenoid to the ENG 1 BLEED pushbutton switch, pin A/1 to pin A/D3.
      - \*\* If the fault continues:
      - \*\* Replace the P/BSW-ENG 1 BLEED (4HA1).
      - \* If there is no 28 VDC:
      - \* Replace the circuit breaker (3HA1).
      - \*\* If the fault continues:
      - \*\* Do a check and repair the wiring from the ENG 1 BLEED pushbutton switch to the circuit breaker (3HA1), pin A/D2 to pin 2 (Ref. ASM 36-11/01).
- C. If the test gives the maintenance message: PRESS REG-V 4001HA1 OR SOL 10HA1 OR SENSE LINE
  - do the trouble shooting procedure for the Bleed Pressure Regulator Valve (4001HA) and the Bleed Pressure Regulator Solenoid (10HA1) (Ref. TASK 36-11-00-810-829)
- D. Do the test given in para. 3.

36-11-00

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-832

Loss of the Manual Electrical Closure of the Bleed Pressure-Regulator Valve of the Engine 2

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- BMC-2 (1HA2)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- wiring
- wiring from the connector of the bleed pressure-regulator valve control-solenoid to the ENG 2 BLEED pushbutton switch
- P/BSW-ENG 2 BLEED (4HA2)
- wiring from the ENG 2 BLEED pushbutton switch to the circuit breaker (3HA2)

## 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
R	AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	
	AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>	
	ASM	36-11/02	,	
	TSM	36-11-00-810-830	Loss of the Non Return Function and Temperature Limitation Function of the Bleed Pressure-Regulator Valve of the Engine 2	

### 3. Fault Confirmation

#### A. Test

(1) Do the test of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).

EFF: ALL

36-11-00

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## 4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU AIR BLEED/ENG 2/CTL 122VU AIR BLEED/ENG 2/MONG 3HA2 Z23 2HA2 Z22

B. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA2 OR SOL 10HA2

- Do a check of the visual position indicator of the bleed pressure-regulator valve.
- (1) If the bleed pressure-regulator valve is open:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- (2) If the bleed pressure-regulator valve is closed:
  - Make sure that the valve position indication on the lower ECAM display unit is correct when you manually operate the valve shaft.
  - (a) If the indication does not agree with the position of the valve butterfly:
    - Do a check and repair the wiring between the bleed pressure-regulator valve and the BMC2, pin A/5 to pin AA/2B (Ref. ASM 36-11/02).
    - 1 If the fault continues:
      - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (b) If the fault continues:
    - Release the ENG 2 BLEED pushbutton switch.
    - Make sure that the bleed pressure-regulator valve control-solenoid (10HA2) makes clicks.
    - 1 If the solenoid makes clicks:
      - Do a check and clean the sense line between the bleed pressure-regulator valve control-solenoid (10HA2) and the bleed pressure-regulator valve (4001HA).
      - a If the fault continues:
        - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - b If the fault continues:
        - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).

EFF: ALL

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## TROUBLE SHOOTING MANUAL

- 2 If the solenoid does not make clicks:
  - Do a check for 28 VDC at pin A/1 of the connector of the bleed pressure-regulator valve control-solenoid (10HA2) with the ENG 2 BLEED pushbutton switch (4HA2) released (OFF legend on) and the circuit breaker (2HA2) open.
  - a If there is 28 VDC:
    - Do a check for ground at pin A/3 of the connector of the bleed pressure-regulator valve control-solenoid (10HA2).
      - \* If there is no ground signal:
      - \* Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - b If there is no 28 VDC:
    - Do a check for 28 VDC at pin A/D2 of the ENG 2 BLEED pushbutton switch (4HA2) (Ref. ASM 36-11/02).
      - \* If there is 28 VDC:
      - \* Do a check and repair the wiring from the connector of the bleed pressure-regulator valve control-solenoid to the ENG 2 BLEED pushbutton switch, pin A/1 to pin A/D3 (Ref. ASM 36-11/02).
      - \*\* If the fault continues:
      - \*\* Replace the P/BSW-ENG 2 BLEED (4HA2).
      - \* If there is no 28 VDC:
      - \* Replace the circuit breaker (3HA2).
      - \*\* If the fault continues:
      - \*\* Do a check and repair the wiring from the ENG 2 BLEED pushbutton switch to the circuit breaker (3HA2), pin A/D2 to pin 2 (Ref. ASM 36-11/02).
- C. If the test gives the maintenance message PRESS REG-V 4001HA2 OR SOL 10HA2 OR SENSE LINE:
  - do the trouble shooting procedure for the Bleed Pressure Regulator Valve (4001HA) and the Bleed Pressure Regulator Solenoid (10HA2) (Ref. TSM TASK 36-11-00-810-830)
- D. Do the test given in para. 3.

36-11-00

EFF:

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-833

Loss of the Coupling between the HP Bleed Valve and the Bleed Pressure-Regulator Valve of the Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - VALVE-HP BLEED (4000HA)
  - VALVE-BLEED PRESS REG (4001HA)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)
AMM	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ASM	36-11/01	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the test of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).
- 4. Fault Isolation

\*\*ON A/C 201-225, 451-475, 551-599,

- A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA1 OR HP BLEED-V 4000HA1 OR SENSE LINE and if the HP bleed valve is blocked in the open position:
  - Make sure that the indication of the HP bleed-valve position on the lower ECAM display unit is correct when you manually operate the valve shaft.

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#### TROUBLE SHOOTING MANUAL

- (1) If the indication does not agree with the position of the valve butterfly:
  - Do a check and repair the wiring from the HP bleed valve to the BMC1, pin A/1 to pin AA/14A (Ref. ASM 36-11/01).
  - (a) If the fault continues:
    - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (b) If the fault continues:
    - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
  - (c) If the fault continues:
    - Do a check and clean the sense line between the bleed pressure-regulator valve (4001HA), the HP bleed valve (4000HA) and the related solenoid (11HA1).
  - (d) If the fault continues:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- R \*\*ON A/C 227-227, 229-299, 426-450, 476-499, 503-549, 701-749,
  - A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA1 OR HP BLEED-V 4000HA1 OR SENSE LINE and if the HP bleed valve is blocked in the open position:
    - Make sure that the indication of the HP bleed-valveposition on the lower ECAM display unit is correct when you manually operate the valve shaft.
    - (1) If the indication does not agree with the position of the valve butterfly:
      - Do a check and repair the wiring from the HP bleed valve to the BMC1, pin A/1 to pin AA/14A (Ref. ASM 36-11/01).
      - (a) If the fault continues:
        - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
      - (b) If the fault continues:
        - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
      - (c) If the fault continues:
        - Do a check and clean the sense line between the bleed pressure-regulator valve (4001HA) and the HP bleed valve (4000HA).

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### TROUBLE SHOOTING MANUAL

- (d) If the fault continues:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).

\*\*ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-834

Loss of the Coupling between the HP Bleed Valve and the Bleed Pressure-Regulator Valve of the Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - VALVE-HP BLEED (4000HA)
  - VALVE-BLEED PRESS REG (4001HA)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION				
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)				
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)				
AMM	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)				
AMM	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)				
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)				
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)				
AMM	36-11-52-720-001	Functional Test of the Opening of the Bleed-Pressure Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000				
ASM	36-11/02					

- 3. Fault Confirmation
  - A. Test

R

- (1) Do the test of the bleed pressure-regulator valve (Ref. AMM TASK 36-11-52-720-001).
- 4. Fault Isolation

\*\*ON A/C 201-225, 451-475, 551-599,

- A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA2 OR HP BLEED-V 4000HA2 OR SENSE LINE and if the HP bleed valve is blocked in the open position:
  - Make sure that the indication of the HP bleed valve position on the lower ECAM display unit is correct when you manually operate the valve shaft.

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

- (1) If the indication does not agree with the position of the valve butterfly:
  - Do a check and repair the wiring from the HP bleed valve to the BMC2, pin A/1 to pin AA/14A (Ref. ASM 36-11/02).
  - (a) If the fault continues:
    - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (b) If the fault continues:
    - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
  - (c) If the fault continues:
    - Do a check and clean the sense line between the bleed pressure-regulator valve (4001HA), the HP bleed valve (4000HA) and the related solenoid (11HA2).
  - (d) If the fault continues:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- R \*\*ON A/C 227-227, 229-299, 426-450, 476-499, 503-549, 701-749,
  - A. If the fault symptom is identified by the maintenance message: PRESS REG-V 4001HA2 OR HP BLEED-V 4000HA2 OR SENSE LINE and if the HP bleed valve is blocked in the open position:
    - Make sure that the indication of the HP bleed valve position on the lower ECAM display unit is correct when you manually operate the valve shaft.
    - (1) If the indication does not agree with the position of the valve butterfly:
      - Do a check and repair the wiring from the HP bleed valve to the BMC2, pin A/1 to pin AA/14A (Ref. ASM 36-11/02).
      - (a) If the fault continues:
        - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
      - (b) If the fault continues:
        - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
      - (c) If the fault continues:
        - Do a check and clean the sense line between the bleed pressure-regulator valve (4001HA) and the HP bleed valve (4000HA).

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EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (d) If the fault continues:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).

\*\*ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-835

HP Bleed Valve of the Engine 1 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - wiring
  - wiring between pin A/3 of the HP bleed valve and the ground terminal
- 2. Job Set-up Information
  - A. Referenced Information

REFERENC	 E 	DESIGNATION					
	11-51-000-040 11-51-400-040	Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve					
ASM 36-	11/01	(4000HA)					

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA1
    - make sure that the indication of the position of the HP bleed valve on the lower ECAM display unit is correct when you manually operate the valve shaft.
    - (1) If the indication does not agree with the position of the valve butterfly:
      - do a check and repair the wiring from the HP bleed valve to the BMC1, pin A/1 to pin AA/14A and pin A/5 to pin AA/15A (Ref. ASM 36-11/01).
      - (a) If the fault continues:
        - do a check and repair the wiring between pin A/3 of the HP bleed valve and the ground terminal.
      - (b) If the fault continues:
        - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF : ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-836

HP Bleed Valve of the Engine 2 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - wiring
  - wiring between pin A/3 of the HP bleed valve and the ground terminal
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION						
AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)						
AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)						
ASM	36-11/02							

- 3. Fault Confirmation
  - A. Test
    - (1) Not applicable
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA2
    - make sure that the indication of the position of the HP bleed valve on the lower ECAM display unit is correct when you manually operate the valve shaft.
    - (1) If the indication does not agree with the position of the valve butterfly:
      - do a check and repair the wiring from the HP bleed valve to the BMC2, pin A/1 to pin AA/14A and pin A/5 to pin AA/15A (Ref. ASM 36-11/02).
      - (a) If the fault continues:
        - do a check and repair the wiring between pin A/3 of the HP bleed valve and the ground terminal.
      - (b) If the fault continues:
        - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-837

Failure of the HP Bleed Valve of the Engine 1 Blocked in the Closed Position

#### 1. Possible Causes

- VALVE-HP BLEED (4000HA)
- SOL-HP BLEED OVERRIDE, ENG1 (11HA1)
- XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
- VALVE-BLEED PRESS REG (4001HA)
- sense line
- wiring

No specific

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

B. Referenced Information

	REFE	RENCE	DESIGNATION				
	AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)				
	AMM	36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)				
	AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)				
	AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)				
R R R	AMM	36-11-51-720-001	Functional Test of the HP Bleed Valve (4000HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000				
	AMM	36-11-58-000-001	Removal of the HP Bleed Override Solenoid (11HA1, 11HA2)				
	AMM	36-11-58-400-001	<pre>Installation of the HP Bleed Override Solenoid (11HA1, 11HA2)</pre>				
	AMM ASM	71-00-00-710-003 36-11/01	Engine Automatic Start				

#### 3. Fault Confirmation

- A. Test.
  - (1) Not Applicable

EFF: ALL

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### 4. Fault Isolation

\*\*ON A/C 201-225, 451-475, 551-599,

- A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA1 OR SENSE LINE
  - do a check of the unions of the sense line from the bleed pressure-regulator valve (4001HA) and the HP bleed valve (4000HA) and to the HP bleed valve closure control solenoid (11HA1).
  - (1) If the unions are loose:
    - tighten these unions again to 1.6 m.daN (11.79 lbf.ft) and refer to Para. 4B.
  - (2) If the unions are correct:
    - make sure that the indication of the HP bleed valve position on the lower ECAM DU is correct when you manually operate the valve shaft.
    - (a) If the position on the lower ECAM DU is different with the position indicator:
      - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
    - (b) If the position on the lower **ECAM DU** agrees with the position indicator:
      - Do a functional test of the opening of the engine 1 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
      - 1 If the test is not OK:
        - Replace the VALVE-HP BLEED (4000HA) of the engine 1 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040).
      - 2 If the test is OK:
        - Replace the sense line between the HP bleed valve and the bleed pressure regulator valve of the engine 1.
        - TORQUE the coupling nut on the HP sense line to 1.6 m.daN (11.79 lbf.ft).
        - a If the fault continues:
          - replace the SOL-HP BLEED OVERRIDE, ENG1 (11HA1) (Ref. AMM TASK 36-11-58-000-001) and (Ref. AMM TASK 36-11-58-400-001)
        - b If the fault continues:
          - replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1),
             (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).

EFF: ALL

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- c If the fault continues:
  - do a check and repair the wiring from the HP bleed valve to the BMC1, pins A/1 and A/5 to pins AA/14A and AA/15A (Ref. ASM 36-11/01).
  - refer to Para. 4.B.
- R \*\*ON A/C 227-227, 229-299, 426-450, 476-499, 503-549, 701-749,
  - A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA1 OR SENSE LINE
    - Do a check of the unions of the sense line at the VALVE-BLEED PRESS REG (4001HA) and at the VALVE-HP BLEED (4000HA).
    - (1) If the unions are loose:
      - Tighten these unions again to 1.6 m.daN (11.79 lbf.ft) and refer to Para. 4B.
    - (2) If the unions are correct:
      - Make sure that the indication of position of the HP bleed valve on the lower ECAM DU is correct when you manually operate the valve shaft.
      - (a) If the position on the lower **ECAM DU** does not agree with the position indicator:
        - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
      - (b) If the position on the lower ECAM DU agrees with the position indicator:
        - Do a functional test of the opening of the engine 1 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
        - 1 If the test is not **OK**:
          - Replace the VALVE-HP BLEED (4000HA) of the engine 1 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040).
        - 2 If the test is OK:
          - Replace the sense line between the HP bleed valve and the bleed pressure regulator valve of the engine 1.
          - TORQUE the coupling nut on the HP sense line to 1.6 m.daN (11.79 lbf.ft).
          - a If the fault continues:
            - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1), (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
          - b If the fault continues:
            - Do a check and repair the wiring from the HP bleed valve to the BMC1, pins A/1 and A/5 to pins AA/14A and AA/15A (Ref. ASM 36-11/01).

EFF: ALL

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- Refer to Para. 4B.

### \*\*ON A/C ALL

#### B. Test

- (1) Do the engine 1 start procedure (Ref. AMM TASK 71-00-00-710-003).
- (2) Make sure that the ECAM warning AIR ENG 1 HP VALVE FAULT is not shown on the upper ECAM DU.

EFF: ALL | | SROS 36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-838

Failure of the HP Bleed Valve of the Engine 2 Blocked in the Closed Position

#### 1. Possible Causes

- VALVE-HP BLEED (4000HA)
- SOL-HP BLEED OVERRIDE, ENG2 (11HA2)
- XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
- VALVE-BLEED PRESS REG (4001HA)
- sense line
- wiring

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

B. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transduce (7HA1, 7HA2)
AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>
AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)
AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)
AMM	36-11-51-720-001	Functional Test of the HP Bleed Valve (4000HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
AMM	36-11-58-000-001	Removal of the HP Bleed Override Solenoid (11HA1, 11HA2)
AMM	36-11-58-400-001	Installation of the HP Bleed Override Solenoid (11HA1, 11HA2)
AMM	71-00-00-710-003	Engine Automatic Start
ASM	36-11/02	

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#### 3. Fault Confirmation

- A. Test
  - (1) Not Applicable

EFF: ALL

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#### 4. Fault Isolation

\*\*ON A/C 201-225, 451-475, 551-599,

- A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA2 OR SENSE LINE
  - do a check of the unions of the sense line from the bleed pressure-regulator valve (4001HA) and the HP bleed valve (4000HA) and to the HP bleed valve closure control solenoid (11HA2).
  - (1) If the unions are loose:
    - tighten these unions again to 1.6 m.daN (11.79 lbf.ft) and refer to Para. 4B.
  - (2) If the unions are correct:
    - make sure that the indication of the HP bleed valve position on the lower ECAM DU is correct when you manually operate the valve shaft.
    - (a) If the position on the lower ECAM DU is different with the position indicator:
      - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
    - (b) If the position on the lower **ECAM DU** agrees with the position indicator:
      - Do a functional test of the opening of the engine 2 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
      - 1 If the test is not OK:
        - Replace the VALVE-HP BLEED (4000HA) of the engine 2 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040).
      - 2 If the test is OK:
        - Replace the sense line between the HP bleed valve and the bleed pressure regulator valve of the engine 2.
        - TORQUE the coupling nut on the HP sense line to 1.6 m.daN (11.79 lbf.ft).
        - a If the fault continues:
          - replace the SOL-HP BLEED OVERRIDE, ENG2 (11HA2) (Ref. AMM TASK 36-11-58-000-001) and (Ref. AMM TASK 36-11-58-400-001)
        - b If the fault continues:
          - replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2), (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

- c If the fault continues:
  - do a check and repair the wiring from the HP bleed valve to the BMC2, pins A/1 and A/5 to pins AA/14A and AA/15A (Ref. ASM 36-11/02).
  - refer to Para. 4.B.
- R \*\*ON A/C 227-227, 229-299, 426-450, 476-499, 503-549, 701-749,
  - A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA2 OR SENSE LINE
    - Do a check of the unions of the sense line at the VALVE-BLEED PRESS REG (4001HA) and at the VALVE-HP BLEED (4000HA).
    - (1) If the unions are loose:
      - Tighten these unions again to 1.6 m.daN (11.79 lbf.ft) and refer to Para. 4B.
    - (2) If the unions are correct:
      - Make sure that the indication of position of the HP bleed valve on the lower ECAM DU is correct when you manually operate the valve shaft.
      - (a) If the position on the lower **ECAM DU** does not agree with the position indicator:
        - Replace the VALVE-HP BLEED (4000HA), (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
      - (b) If the position on the lower **ECAM DU** agrees with the position indicator:
        - Do a functional test of the opening of the engine 2 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
        - 1 If the test is not **OK**:
          - Replace the VALVE-HP BLEED (4000HA) of the engine 2 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040).
        - 2 If the test is OK:
          - Replace the sense line between the HP bleed valve and the bleed pressure regulator valve of the engine 2.
          - TORQUE the coupling nut on the HP sense line to 1.6 m.daN (11.79 lbf.ft).
          - a If the fault continues:
            - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2), (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
          - b If the fault continues:
            - Do a check and repair the wiring from the HP bleed valve to the BMC2, pins A/1 and A/5 to pins AA/14A and AA/15A (Ref. ASM 36-11/02).

EFF: ALL

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- Refer to Para. 4B.

### \*\*ON A/C ALL

#### B. Test

- (1) Do the engine 2 start procedure (Ref. AMM TASK 71-00-00-710-003).
- (2) Make sure that the ECAM warning AIR ENG 2 HP VALVE FAULT is not shown on the upper ECAM DU.

EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-839

HP Bleed Valve Locked in the Not Fully Open Position on the Engine 1

WARNING: MAKE SURE THAT THE PNEUMATIC SYSTEM IS DEPRESSURIZED BEFORE YOU START

WORK ON THE PNEUMATIC SYSTEM.

WARNING: MAKE SURE THAT PERSONS DO NOT START THE ENGINES DURING THIS

PROCEDURE; IT IS DANGEROUS TO WORK ON OR GO NEAR AN ENGINE WHEN IT

OPERATES.

#### 1. Possible Causes

- XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
- VALVE-HP BLEED (4000HA)
- sense line between the HP bleed valve (4000HA), the bleed pressure regulator va ve (4001HA) and the soleno d (11HA1) on engine 1.
- sense line between the HP bleed valve and the bleed pressure regulator valve 4001HA

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

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B. Referenced Information

REFE	RENCE	DESIGNATION							
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)							
AMM	36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)							
AMM	36-11-15-720-001	Functional Test of the Bleed Transferred Pressure-Transducer (7HA1, 7HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000							
AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)							
AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)							
AMM	36-11-51-720-001	Functional Test of the HP Bleed Valve (4000HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000							

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

- 3. Fault Confirmation
  - A. Not Applicable
- 4. Fault Isolation

\*\*ON A/C 201-225, 551-599,

A. If the fault symptom is identified by the maintenance message: 361151

HP BLEED-V

4000HA1

OR SENSE LINE

- do the functional test of the bleed transferred pressure transducer (7HA1) (Ref. AMM TASK 36-11-15-720-001).
- (1) If the test is not OK:
  - replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) (Ref. AMM TASK 36-11-15-400-001)
  - refer to Para. 4.B.
- (2) If the test is OK:
  - disconnect the sense line from the HP bleed valve of the engine 1
  - put a cap on the pressure port of the sense line of the HP bleed
  - do a functional test of the opening of the engine 1 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
  - (a) If the test is not OK:
    - replace the VALVE-HP BLEED (4000HA) of the engine 1 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040)
    - refer to Para. 4.B.
  - (b) If the test is OK:
    - replace the sense line between the HP bleed valve (4000HA), the bleed pressure regulator va ve (4001HA) and the soleno d (11HA1) on engine 1. of the engine 1
    - refer to Para. 4.B.
- R \*\*ON A/C 227-227, 229-299, 426-450, 476-499, 503-549, 701-749,
  - A. If the fault symptom is identified by the maintenance message:

361151 HP BLEED-V

4000HA1

OR SENSE LINE

- do the functional test of the bleed transferred pressure transducer (7HA1) (Ref. AMM TASK 36-11-15-720-001).

EFF: ALL **36-11-00** 

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#### TROUBLE SHOOTING MANUAL

- (1) If the test is not OK:
  - replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) (Ref. AMM TASK 36-11-15-400-001)
  - refer to Para. 4.B.
- (2) If the test is OK:
  - disconnect the sense line from the HP bleed valve of the engine 1
  - put a cap on the pressure port of the sense line of the HP bleed valve
  - do a functional test of the opening of the engine 1 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
  - (a) If the test is not OK:
    - replace the VALVE-HP BLEED (4000HA) of the engine 1 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040)
    - refer to Para. 4.B.
  - (b) If the test is OK:
    - replace the sense line between the HP bleed valve and the bleed pressure regulator valve 4001HA of the engine 1
    - refer to Para. 4.B.

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-840

HP Bleed Valve Locked in the Not Fully Open Position on the Engine 2

WARNING: MAKE SURE THAT THE PNEUMATIC SYSTEM IS DEPRESSURIZED BEFORE YOU START

WORK ON THE PNEUMATIC SYSTEM.

WARNING : MAKE SURE THAT PERSONS DO NOT START THE ENGINES DURING THIS

PROCEDURE; IT IS DANGEROUS TO WORK ON OR GO NEAR AN ENGINE WHEN IT

OPERATES.

#### 1. Possible Causes

- XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
- VALVE-HP BLEED (4000HA)
- sense line between the HP bleed valve (4000HA), the bleed pressure regulator va ve (4001HA) and the soleno d (11HA2) on engine 2.
- sense line between the HP bleed valve and the bleed pressure regulator valve 4001HA

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

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B. Referenced Information

REFE	RENCE	DESIGNATION					
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)					
AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>					
AMM	36-11-15-720-001	Functional Test of the Bleed Transferred Pressure-Transducer (7HA1, 7HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000					
AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)					
AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)					
AMM	36-11-51-720-001	Functional Test of the HP Bleed Valve (4000HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000					

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

- 3. Fault Confirmation
  - A. Not Applicable
- 4. Fault Isolation

\*\*ON A/C 201-225, 551-599,

A. If the fault symptom is identified by the maintenance message:

361151

HP BLEED-V

4000HA2

OR SENSE LINE

- do the functional test of the bleed transferred pressure transducer (7HA2) (Ref. AMM TASK 36-11-15-720-001).
- (1) If the test is not OK:
  - replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) (Ref. AMM TASK 36-11-15-400-001)
  - refer to Para. 4.B.
- (2) If the test is OK:
  - disconnect the sense line from the HP bleed valve of the engine 2
  - put a cap on the pressure port of the sense line of the HP bleed valve
  - do a functional test of the opening of the engine 2 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
  - (a) If the test is not OK:
    - replace the VALVE-HP BLEED (4000HA) of the engine 2 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040)
    - refer to Para. 4.B.
  - (b) If the test is OK:
    - replace the sense line between the HP bleed valve (4000HA), the bleed pressure regulator va ve (4001HA) and the soleno d (11HA2) on engine 2. of the engine 2
    - refer to Para. 4.B.
- R \*\*ON A/C 227-227, 229-299, 426-450, 476-499, 503-549, 701-749,
  - A. If the fault symptom is identified by the maintenance message:

361151 HP BLEED-V

4000HA2

OR SENSE LINE

- do the functional test of the bleed transferred pressure transducer (7HA2) (Ref. AMM TASK 36-11-15-720-001).

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

- (1) If the test is not OK:
  - replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) (Ref. AMM TASK 36-11-15-400-001)
  - refer to Para. 4.B.
- (2) If the test is OK:
  - disconnect the sense line from the HP bleed valve of the engine 2
  - put a cap on the pressure port of the sense line of the HP bleed valve
  - do a functional test of the opening of the engine 2 HP bleed valve (Ref. AMM TASK 36-11-51-720-001).
  - (a) If the test is not OK:
    - replace the VALVE-HP BLEED (4000HA) of the engine 2 (Ref. AMM TASK 36-11-51-000-040) (Ref. AMM TASK 36-11-51-400-040)
    - refer to Para. 4.B.
  - (b) If the test is OK:
    - replace the sense line between the HP bleed valve and the bleed pressure regulator valve 4001HA of the engine 2
    - refer to Para. 4.B.

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-841

Loss of the Coupling between the HP Bleed Valve of the Engine 1 and the Related Closure Control Solenoid

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - SOL-HP BLEED OVERRIDE, ENG1 (11HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION						
AMM AMM	36-11-51-000-040 36-11-51-400-040	Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve (4000HA)						
AMM	36-11-58-000-001	Removal of the HP Bleed Override Solenoid (11HA1, 11HA2)						
AMM	36-11-58-400-001	<pre>Installation of the HP Bleed Override Solenoid (11HA1, 11HA2)</pre>						

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation

\*\*ON A/C 201-225, 451-475, 551-599,

- A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA1 OR SOLENOID 11HA1
  - do a check and clean the sense line between the HP bleed valve (4000HA), the Soleno d HP Bleed Override (11HA1) and the bleed pressure-regulator valve (4001HA).
  - (1) If the connections are not correct:
    - repair them and refer to Para. B
  - (2) If the connections are correct:
    - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
  - (3) If the fault continues:
    - replace the SOL-HP BLEED OVERRIDE, ENG1 (11HA1) (Ref. AMM TASK 36-11-58-000-001) and (Ref. AMM TASK 36-11-58-400-001).

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

\*\*ON A/C ALL

В.	After	the	subsequent	flight,	make	sure	that	the	fault	does	not	continue
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EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-842

Loss of the Coupling between the HP Bleed Valve of the Engine 2 and the Related Closure Control Solenoid

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - SOL-HP BLEED OVERRIDE, ENG2 (11HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REF	ERENCE	DESIGNATION						
AMN AMN	1 36-11-51-000-040 1 36-11-51-400-040	Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve						
AMN	1 36-11-58-000-001	(4000HA) Removal of the HP Bleed Override Solenoid (11HA1,						
AMN	1 36-11-58-400-001	11HA2) Installation of the HP Bleed Override Solenoid (11HA1, 11HA2)						

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation

\*\*ON A/C 201-225, 451-475, 551-599,

- A. If the fault symptom is identified by the maintenance message: HP BLEED-V 4000HA2 OR SOLENOID 11HA2
  - do a check and clean the sense line between the HP bleed valve (4000HA), the Soleno d HP Bleed Override (11HA2) and the bleed pressure-regulator valve (4001HA).
  - (1) If the connections are not correct:
    - repair them and refer to Para. B
  - (2) If the connections are correct:
    - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
  - (3) If the fault continues:
    - replace the SOL-HP BLEED OVERRIDE, ENG2 (11HA2) (Ref. AMM TASK 36-11-58-000-001) and (Ref. AMM TASK 36-11-58-400-001).

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

\*\*ON A/C ALL

В.	After	the	subsequent	flight,	make	sure	that	the	fault	does	not	continue
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EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-843

Overpressure Valve of the Engine 1 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 1 (5HA1)
  - wiring from the overpressure valve to the BMC1
  - wiring between pin A/2 of the overpressure valve and the ground terminal
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-53-000-001 AMM 36-11-53-400-001 ASM 36-11/01	Removal of the Overpressure Valve (5HA1, 5HA2) Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message OVERPRESS-V 5HA1, if the overpressure valve is blocked in the open position and if the bleed pressure indication is more than 80 psig:
    - replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
    - (1) If the fault continues:
      - do a check and repair the wiring from the overpressure valve to the BMC1, pin A/1 to pin AA/10A (Ref. ASM 36-11/01).
    - (2) If the fault continues:
      - do a check and repair the wiring between pin A/2 of the overpressure valve and the ground terminal.

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message OVPRESS-V-5HA1, if the overpressure valve is blocked in the open position and if the bleed pressure indication is more than 80 psig:
  - replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring from the overpressure valve to the BMC1, pin A/1 to pin AA/10A (Ref. ASM 36-11/01).
  - (2) If the fault continues:
    - do a check and repair the wiring between pin A/2 of the overpressure valve and the ground terminal.

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-844

Overpressure Valve of the Engine 2 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 2 (5HA2)
  - wiring from the overpressure valve to the BMC2
  - wiring between pin A/2 of the overpressure valve and the ground terminal
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-53-000-001 AMM 36-11-53-400-001 ASM 36-11/02	Removal of the Overpressure Valve (5HA1, 5HA2) Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message OVERPRESS-V 5HA2, if the overpressure valve is blocked in the open position and if the bleed pressure indication is more than 80 psig:
    - replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
    - (1) If the fault continues:
      - do a check and repair the wiring from the overpressure valve to the BMC2, pin A/1 to pin AA/10A (Ref. ASM 36-11/02).
    - (2) If the fault continues:
      - do a check and repair the wiring between pin A/2 of the overpressure valve and the ground terminal.

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message OVPRESS-V-5HA2, if the overpressure valve is blocked in the open position and if the bleed pressure indication is more than 80 psig:
  - replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring from the overpressure valve to the BMC2, pin A/1 to pin AA/10A (Ref. ASM 36-11/02).
  - (2) If the fault continues:
    - do a check and repair the wiring between pin A/2 of the overpressure valve and the ground terminal.

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-845

Fan Air Valve of the Engine 1 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-FAN AIR, ENG1 (9HA1)
  - BMC-1 (1HA1)
- R THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
  - THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
  - wiring from the fan air valve (9HA1) to the BMC1 (1HA1)
  - wiring between pin A/3 of the fan air valve and the ground terminal
- R wiring
  - 2. Job Set-up Information
    - A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
	AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
	AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>	
	AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
	AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)	
R	ASM	36-11/01		
	TSM	36-11-00-810-847	Fan Air Valve of the Engine 1 Not in Fully Open Position	

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA1 OR THRM 7170HM1:
    - (1) If the temperature regulation is abnormally low (less than 180°C during climb/cruise:
      - replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

- (2) If the fault continues:
  - do a check and repair the wiring from the fan air valve (9HA1) to the BMC1 (1HA1), pins A/1 and A/5 to pins AA/12A and AA/13A.
  - (a) If the fault continues:
    - do a check and repair the wiring between pin A/3 of the fan air valve and the ground terminal.
- (3) If the fault continues:
  - replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
- (4) If the fault continues:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

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R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, R 278-279, 281-281, 283-283, 286-299, 701-749, R Post SB 36-1057 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, R 254-275,278-279,281-281,283-283,286-299,701-749,
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- R A. If the fault symptom is identified by the maintenance message THRM 7170HM1 OR FAN AIR-V 9HA1:
  - (1) If the temperature regulation is too low (less than 180 deg.C during climb/cruise):
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- R (2) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - pin A/1 of the fan air valve (9ha1) to pin AA/12A of the BMC1
      (1HA1)
    - pin A/5 of the fan air valve to pin AA/13A of the BMC1
    - . pin A/3 of the fan air valve to the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - 1 If the fault continues:
      - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

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### TROUBLE SHOOTING MANUAL

#### R \*\*ON A/C ALL

- B. If the test gives the maintenance message FAN AIR-V 9HA1 OR THRM 7170HM1 OR SENSE LINE:
  - do the trouble shooting procedure for the Fan Air Valve of the Engine 1 Blocked in the Closed Position (Ref. TSM TASK 36-11-00-810-847)
- C. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
SROS

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-846

Fan Air Valve of the Engine 2 Blocked in the Open Position

- 1. Possible Causes
  - VALVE-FAN AIR, ENG2 (9HA2)
  - BMC-2 (1HA2)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
  - THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
  - wiring from the fan air valve (9HA2) to the BMC2 (1HA2)
  - wiring between pin A/3 of the fan air valve and the ground terminal
- R wiring

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

	REFERENCE		DESIGNATION	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
	AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
	AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>	
	AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
	AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)	
R	ASM	36-11/02		
	TSM	36-11-00-810-848	Fan Air Valve of the Engine 2 Not in Fully Open Position	

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA2 OR THRM 7170HM2:
    - (1) If the temperature regulation is abnormally low (less than 180°C during climb/cruise:
      - replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).

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- (2) If the fault continues:
  - do a check and repair the wiring from the fan air valve (9HA2) to the BMC2 (1HA2), pins A/1 and A/5 to pins AA/12A and AA/13A.
  - (a) If the fault continues:
    - do a check and repair the wiring between pin A/3 of the fan air valve and the ground terminal.
- (3) If the fault continues:
  - replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
- (4) If the fault continues:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

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R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, R 278-279, 281-281, 283-283, 286-299, 701-749, R Post SB 36-1057 For A/C 201-201,203-204,206-225,227-227,229-231,233-244, R 254-275,278-279,281-281,283-283,286-299,701-749,
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- R A. If the fault symptom is identified by the maintenance message THRM 7170HM2 OR FAN AIR-V 9HA2:
  - (1) If the temperature regulation is too low (less than 180 deg.C during climb/cruise):
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
  - (2) If the fault continues:
    - Do a check of the wiring (Ref. ASM 36-11/02) between:
      - pin A/1 of the fan air valve (9HA2) to pin AA/12A of the BMC2
        (1HA2)
      - pin A/5 of the fan air valve to pin AA/13A of the BMC2
      - . pin A/3 of the fan air valve to the ground terminal.
    - (a) If the wiring is not correct:
      - Repair the wiring.
    - (b) If the wiring is correct:
      - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
      - 1 If the fault continues:
        - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

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### TROUBLE SHOOTING MANUAL

#### R \*\*ON A/C ALL

- B. If the test gives the maintenance message FAN AIR-V 9HA2 OR THRM 7170HM2 OR SENSE LINE:
  - do the trouble shooting procedure for the Fan Air Valve of the Engine 2 Blocked in the Closed Position (Ref. TSM TASK 36-11-00-810-848)
- C. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-847

Fan Air Valve of the Engine 1 Not in Fully Open Position

#### 1. Possible Causes

- VALVE-FAN AIR, ENG1 (9HA1)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- filter of the fan air valve control thermostat (7170HM1)
- sense line
- wiring

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

98F36003002000 1 TBD

B. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ASM	36-11/01	

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA1 or THRM 7170HM1 or SENSE LINE:
    - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM1) and the fan air valve (9HA1).
    - (1) If the unions are loose:
      - TORQUE to 1.6 m.daN (11.79 lbf.ft).
    - (2) If the unions are correctly tightened:
      - Do a check of the filter of the fan air valve control thermostat (7170HM1).
      - (a) If the filter is dirty:
        - Clean the filter of the fan air valve control thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
      - (b) If the filter is not dirty:
        - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
        - 1 If the fan air valve does not fully open:
          - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
        - 2 If the fan air valve fully opens:
          - Disconnect the sense line from the fan air valve control thermostat (7170HM1).
          - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.
          - Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
- $\underline{a}$  If the pressure decreases after 20 seconds:
  - Repair or replace the sense line.
- b If the pressure stays constant after 20 seconds:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - \* If the fault continues:
    - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1
      (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message THRM 7170HM1 OR FAN AIR VALVE 9HA1 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM1) and the fan air valve (9HA1).
  - (1) If the unions are loose:
    - TORQUE to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan air valve control thermostat (7170HM1).
    - (a) If the filter is dirty:
      - Clean the filter of the fan air valve control thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- 1 If the fan air valve does not fully open:
  - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
- 2 If the fan air valve fully opens:
  - Disconnect the sense line from the fan air valve control thermostat (7170HM1).
  - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.
  - Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.
  - Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
  - a If the pressure decreases after 20 seconds:
    - Repair or replace the sense line.
  - b If the pressure stays constant after 20 seconds:
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
      - \* If the fault continues:
      - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1
      (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-847- 01

Fan Air Valve of the Engine 1 Not in Fully Open Position (Fault Isolation Procedure with Test Set P/N 98F36003002001)

#### 1. Possible Causes

- THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
- VALVE-FAN AIR, ENG1 (9HA1)
- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- filter of the fan-air valve control-thermostat (7170HM1)
- sense line
- wiring

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

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REFERENCE QTY DESIGNATION

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No specific blanking cap

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

R 98F36003002001 1 TBD

B. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-43-400-003	<pre>Installation of the Filter of the Fan-Air Valve Control-Thermostat</pre>
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ASM	36-11/01	

EFF: ALL

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- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - <u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

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

- A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA1 or THRM 7170HM1 or SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM1) and the fan air valve (9HA1).
  - (1) If the unions are loose:
    - TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan-air valve control-thermostat (7170HM1).
    - (a) If the filter is dirty:
      - Clean the filter of the fan-air valve control-thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
      - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.

CAUTION: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

Connect the TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line from the fan air valve.

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- 4 Connect the digital pressure gage to the tee of the special hose assembly.
- 5 Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of the fa air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

- a If the fan air valve fully opens:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- b If the fan air valve does not fully open:
  - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
    - \* If the test is not OK:
    - \* Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - \* If the test is OK:
    - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
    - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
    - \* Connect the TBD (98F36003002001) to the sense line from the fan air valve.
    - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
    - \*\* If the pressure decreases after 20 seconds:
    - \*\* Repair or replace the sense line.
    - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
    - \*\* Replace SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - . Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1 (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.

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

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- (b) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message THRM 7170HM1 OR FAN AIR VALVE 9HA1 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM1) and the fan air valve (9HA1).
  - (1) If the unions are loose:
    - TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan-air valve control-thermostat (7170HM1).
    - (a) If the filter is dirty:
      - Clean the filter of the fan-air valve control-thermostat (7170HM1) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
      - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.

<u>CAUTION</u>: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

- Connect the TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.
- $\underline{\underline{4}}$  Connect the digital pressure gage to the tee of the special hose assembly.
- Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

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- a If the fan air valve fully opens:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- <u>b</u> If the fan air valve does not fully open:
   Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
  - \* If the test is not OK:
  - \* Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - \* If the test is OK:
  - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM1).
  - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
  - \* Connect the TBD (98F36003002001) to the sense line of the fan air valve.
  - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
  - \*\* If the pressure decreases after 20 seconds:
  - \*\* Repair or replace the sense line.
  - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
  - \*\* Replace SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/01) between:
    - . Pin A/1 of the fan air valve (9HA1) and pin AA/12A of the BMC1 (1HA1)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

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B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-848

Fan Air Valve of the Engine 2 Not in Fully Open Position

#### 1. Possible Causes

- VALVE-FAN AIR, ENG2 (9HA2)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- filter of the fan air valve control thermostat (7170HM2)
- sense line
- wiring

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

98F36003002000 1 TBD

B. Referenced Information

REFE	RENCE	DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ASM	36-11/02	

EFF: ALL

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- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA2 or THRM 7170HM2 or SENSE LINE:
    - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM2) and the fan air valve (9HA2).
    - (1) If the unions are loose:
      - TORQUE to 1.6 m.daN (11.79 lbf.ft).
    - (2) If the unions are correctly tightened:
      - Do a check of the filter of the fan air valve control thermostat (7170HM2).
      - (a) If the filter is dirty:
        - Clean the filter of the fan air valve control thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
      - (b) If the filter is not dirty:
        - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
        - 1 If the fan air valve does not fully open:
          - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
        - 2 If the fan air valve fully opens:
          - Disconnect the sense line from the fan air valve control thermostat (7170HM2).
          - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.
          - Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.

EFF: ALL

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- Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
- $\underline{a}$  If the pressure decreases after 20 seconds:
  - Repair or replace the sense line.
- b If the pressure stays constant after 20 seconds:
  - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - \* If the fault continues:
    - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2
      (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message THRM 7170HM2 OR FAN AIR VALVE 9HA2 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan air valve control thermostat (7170HM2) and the fan air valve (9HA2).
  - (1) If the unions are loose:
    - TORQUE to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan air valve control thermostat (7170HM2).
    - (a) If the filter is dirty:
      - Clean the filter of the fan air valve control thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).

EFF: ALL

36-11-00

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- 1 If the fan air valve does not fully open:
  - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
- 2 If the fan air valve fully opens:
  - Disconnect the sense line from the fan air valve control thermostat (7170HM2).
  - Put a blanking cap on the union of the sense line of the fan air valve control thermostat.
  - Connect a TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent to the sense line from the fan air valve.
  - Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
  - a If the pressure decreases after 20 seconds:
    - Repair or replace the sense line.
  - b If the pressure stays constant after 20 seconds:
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
      - \* If the fault continues:
      - \* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2
      (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-848- 01

Fan Air Valve of the Engine 2 Not in Fully Open Position (Fault Isolation Procedure with Test Set P/N 98F36003002001)

#### 1. Possible Causes

- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
- VALVE-FAN AIR, ENG2 (9HA2)
- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- filter of the fan-air valve control-thermostat (7170HM2)
- sense line
- wiring

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific blanking cap

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

R 98F36003002001 1 TBD

B. Referenced Information

REFE	RENCE	DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-000-003	Removal of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-43-400-003	Installation of the Filter of the Fan-Air Valve Control-Thermostat
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ASM	36-11/02	

EFF: ALL

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- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
  - <u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message FAN AIR V 9HA2 or THRM 7170HM2 or SENSE LINE:
    - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM2) and the fan air valve (9HA2).
    - (1) If the unions are loose:
      - TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
    - (2) If the unions are correctly tightened:
      - Do a check of the filter of the fan-air valve control-thermostat (7170HM2).
      - (a) If the filter is dirty:
        - Clean the filter of the fan-air valve control-thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
      - (b) If the filter is not dirty:
        - Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
        - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
          - CAUTION: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.
        - <u>3</u> Connect a TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.

EFF: ALL

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- Connect the digital pressure gage to the tee of the special hose assembly.
- 5 Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

- a If the fan air valve fully opens:

  Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- <u>b</u> If the fan air valve does not fully open:
   Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
  - \* If the test is not OK:
  - \* Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - \* If the test is OK:
  - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
  - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
  - $\star$  Connect the TBD (98F36003002001) to the sense line of the fan air valve.
  - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
  - \*\* If the pressure decreases after 20 seconds:
  - \*\* Repair or replace the sense line.
  - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
  - \*\* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2
      (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.

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

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- (b) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message THRM 7170HM2 OR FAN AIR VALVE 9HA2 OR SENSE LINE:
  - Do a check of the unions and clamps of the sense line between the fan-air valve control-thermostat (7170HM2) and the fan air valve (9HA2).
  - (1) If the unions are loose:
    - TORQUE the unions to 1.6 m.daN (11.79 lbf.ft).
  - (2) If the unions are correctly tightened:
    - Do a check of the filter of the fan-air valve control-thermostat (7170HM2).
    - (a) If the filter is dirty:
      - Clean the filter of the fan-air valve control-thermostat (7170HM2) in the overhaul facility or replace it with a new or a clean one (Ref. AMM TASK 36-11-43-000-003) and (Ref. AMM TASK 36-11-43-400-003).
    - (b) If the filter is not dirty:
      - <u>1</u> Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
      - Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.

CAUTION: MAKE SURE THAT THE HOSE ASSEMBLY OF THE BLEED TEST SET DOES NOT APPLY TOO MUCH FORCE ON THE FAV SENSE LINE. IF IT APPLIES TOO MUCH FORCE, IT CAN CAUSE DAMAGE TO THE SENSE LINE.

- <u>3</u> Connect a TBD (98F36003002001) with the special hose and 90 degree elbow assembly to the sense line of the fan air valve.
- $\underline{\underline{4}}$  Connect the digital pressure gage to the tee of the special hose assembly.
- Slowly pressurize the sense line and make sure that the visual indicator of the fan air valve does not start to move before 0.27 bar (4 psi). Also make sure that the visual indicator of the fan air valve moves to the fully open position before or at a maximum of 0.62 bar (9 psi).

NOTE: Read the pressure on the digital pressure gage.

EFF: ALL

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- a If the fan air valve fully opens:

  Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- <u>b</u> If the fan air valve does not fully open:
   Do the functional test of the opening of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
  - \* If the test is not OK:
  - \* Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - \* If the test is OK:
  - \* Disconnect the sense line from the fan-air valve control-thermostat (7170HM2).
  - \* Put a blanking cap on the union of the sense line of the fan-air valve control-thermostat.
  - $\star$  Connect the TBD (98F36003002001) to the sense line of the fan air valve.
  - \* Pressurize the sense line to 2.1 bar (30 psi) then close the shut-off valve of the pressure source.
  - \*\* If the pressure decreases after 20 seconds:
  - \*\* Repair or replace the sense line.
  - \*\* If the pressure stays constant after 20 seconds and if the fault continues:
  - \*\* Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - Do a check of the wiring (Ref. ASM 36-11/02) between:
    - . Pin A/1 of the fan air valve (9HA2) and pin AA/12A of the BMC2 (1HA2)
    - . Pin A/3 of the fan air valve and the ground terminal.
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C ALL

R

B. After the subsequent flight, make sure that the fault does not continue.

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-849

Fan Air Valve of the Engine 1 Blocked in the Open Position

#### 1. Possible Causes

- THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- VALVE-FAN AIR, ENG1 (9HA1)

#### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)

#### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message: FAN AIR V 9HA1 OR THRM CTL 7170HM1
    - (1) Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - (2) If the fault continues:
      - on the AIR control panel 30VU, with the APU BLEED pushbutton switch pushed and the X-BLEED selector switch set to OPEN, do a check on the ECAM BLEED page, of the temperature indication of the two systems.

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- (a) If the temperature indication of the defective system is 20 deg.C (68 deg.F) less than that of the opposite system:
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message: THRM 7170HM1 OR FAN AIR-V 9HA1
  - replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
  - (1) If the fault continues:
    - on the AIR COND panel 30VU, with the APU BLEED pushbutton switch pushed and the X-BLEED selector switch set to OPEN, do a check of the temperature indication of the two systems on the ECAM BLEED page.
    - (a) If the temperature indication of the defective system is 20 deg.C (68 deg.F) less than that of the opposite system:
      - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - 1 If the fault continues:
        - replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-850

Fan Air Valve of the Engine 2 Blocked in the Open Position

#### 1. Possible Causes

- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- VALVE-FAN AIR, ENG2 (9HA2)

#### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)

#### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the fault symptom is identified by the maintenance message: FAN AIR V 9HA2 OR THRM CTL 7170HM2
    - (1) Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - (2) If the fault continues:
      - on the AIR control panel 30VU, with the APU BLEED pushbutton switch pushed and the X-BLEED selector switch set to OPEN, do a check on the ECAM BLEED page, of the temperature indication of the two systems.

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- (a) If the temperature indication of the defective system is 20 deg.C (68 deg.F) less than that of the opposite system:
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
- (3) If the fault continues:
  - replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C 451-475,

- A. If the fault symptom is identified by the maintenance message: THRM 7170HM2 OR FAN AIR-V 9HA2
  - replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
  - (1) If the fault continues:
    - on the AIR COND panel 30VU, with the APU BLEED pushbutton switch pushed and the X-BLEED selector switch set to OPEN, do a check of the temperature indication of the two systems on the ECAM BLEED page.
    - (a) If the temperature indication of the defective system is 20 deg.C (68 deg.F) less than that of the opposite system:
      - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - 1 If the fault continues:
        - replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).

\*\*ON A/C ALL

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-851

Loss of the BMC1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		RENCE	DESIGNATION
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test

ASM 36-11/03

- (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:

NO DATA FROM BMC1

- replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- (1) If the fault continues:
  - do a check and repair the wiring for the ARINC 429 OUTPUT BUS from the BMC1 (1HA1) AA/10C, 11C to the BMC 2 (1HA2) AA/1D, 2D, (Ref. ASM 36-11/03).
- B. Do the test given in para. 3.

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-852

Loss of the BMC2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
<b>AMM</b> 36-11-00-740-001	RITE Test of the RMC 1(2)

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)
ASM 36-11/03

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:

NO DATA FROM BMC2

- replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- (1) If the fault continues:
  - do a check and repair the wiring for the ARINC 429 OUTPUT BUS from the BMC2 (1HA2) AA/10C, 11C to the BMC1 (1HA1) AA/1D, 2D, (Ref. ASM 36-11/03).
- B. Do the test given in para. 3.

**36-11-00** 

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ALL

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-853

Loss of the Power Supply of the Bleed Pressure-Regulator Valve of the Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - wiring between the BMC1 pin AB/1B and the ground terminal
  - wiring between the BMC1 pin AA/8A and the circuit breaker (3HA1)
  - wiring
  - C/B-AIR BLEED/ENG 1/CTL (3HA1)
- 2. Job Set-up Information
  - A. Referenced Information

\_\_\_\_\_\_ REFERENCE **DESIGNATION** 

24-00-00-810-803 AMM 36-11-34-000-001 AMM 36-11-34-400-001 ASM 36-11/01

Circuit Breaker Tripped and/or C/B TRIPPED Warning Removal of the BMC (1HA1, 1HA2)
Installation of the BMC (1HA1, 1HA2)

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

PANEL DESIGNATION IDENT. LOCATION

49VU AIR BLEED/ENG 1/CTL

\_\_\_\_\_

D12

3HA1

- B. If the fault symptom is identified by the maintenance message CHECK PRESS **REG V PWR SPLY:** 
  - Do a check of the status of the circuit breaker AIR BLEED/ENG 1/CTL (3HA1).
  - (1) If the circuit breaker (3HA1) is closed:
    - Do a check for 28VDC at pin AA/8A of the BMC1 (1HA1) (Ref. ASM 36-11/01).
    - (a) If there is 28VDC:
      - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

EFF: ALL **36-11-00** 

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#### TROUBLE SHOOTING MANUAL

- (b) If there is no 28VDC:
  - Do a check for ground at pin AB/1B of the BMC1 (1HA1).
  - 1 If there is no ground:
    - Repair the wiring between the BMC1 pin AB/1B and the ground terminal.
  - 2 If there is ground:
    - Do a check of the wiring between the BMC1 pin AA/8A and the circuit breaker (3HA1).
    - a If there is no continuity:
      - Repair the above wiring.
    - b If there is continuity:
      - Replace the C/B-AIR BLEED/ENG 1/CTL (3HA1).
- (2) If the circuit breaker (3HA1) is open:
  - Do the procedure (Ref. TASK 24-00-00-810-803).
  - (a) If the fault continues:
    - Replace the C/B-AIR BLEED/ENG 1/CTL (3HA1).
    - 1 If the fault continues:
      - Replace the BMC-1 (1HA1).
- C. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-854

Loss of the Power Supply of the Bleed Pressure-Regulator Valve of the Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - wiring between the BMC2 pin AB/1B and the ground terminal
  - wiring between the BMC2 pin AA/8A and the circuit breaker (3HA2)
  - C/B-AIR BLEED/ENG 2/CTL (3HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
24-00-00-810-803 AMM 36-11-34-000-001 AMM 36-11-34-400-001 ASM 36-11/02	Circuit Breaker Tripped and/or C/B TRIPPED Warning Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

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

PANEL DESIGNATION IDENT. LOCATION

122VU AIR BLEED/ENG 2/CTL 3HA2 Z23

- B. If the fault symptom is identified by the maintenance message CHECK PRESS REG-V PWR SPLY:
  - Do a check of the status of the circuit breaker (3HA2).
  - (1) If the circuit breaker (3HA2) is closed:
    - Do a check for 28VDC at pin AA/8A of the BMC2 (1HA2) (Ref. ASM 36-11/02).
    - (a) If there is 28VDC:
      - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

- (b) If there is no 28VDC:
  - Do a check for ground at pin AB/1B of the BMC2 (1HA2).
  - 1 If there is no ground:
    - Repair the wiring between the BMC2 pin AB/1B and the ground terminal.
  - 2 If there is ground:
    - Do a check of the wiring between the BMC2 pin AA/8A and the circuit breaker (3HA2).
    - <u>a</u> If there is no continuity:
      - Repair the above wiring.
    - b If there is continuity:
      - Replace the circuit breaker (3HA2).
- (2) If the circuit breaker (3HA2) is open:
  - Do the procedure (Ref. TASK 24-00-00-810-803).
  - (a) If the fault continues:
    - Replace the C/B-AIR BLEED/ENG 2/CTL (3HA2).
  - (b) If the circuit breaker stays closed and the fault continues:Replace the BMC-2 (1HA2).
- C. Do the operational test given in Para. 3.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-855

Loss of the Bus from the EIU1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - EIU-1 (1KS1)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
4 MM	7/ 11 00 7/0 001	DITE Took of the DMC 4/2)
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM	73-25-34-400-040	Installation of the Engine Interface Unit (EIU) (1KS1,1KS2)
ASM	36-11/03	

- 3. Fault Confirmation
  - A. Test

**SROS** 

- (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the test gives the maintenance message:

NO DATA FROM EIU

- replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- (1) If the fault continues:
  - do a check and repair the wiring of the VALVE CLOSURE FOR ENGINE START signal from the BMC1 (1HA1) to the EIU1 (1KS1), pins AA/7C and AA/8C to pins AB/5H and AB/5K (Ref. ASM 36-11/03).
- (2) If the fault continues:
  - replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

\*\*ON A/C 451-475,

- A. If the test gives the maintenance message: NO DATA FROM EIU1
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (1) If the fault continues:
    - do a check of the wiring (Ref. ASM 36-11/03) between:
      - . pin AA/7C of the BMC1 (1HA1) and pin AB/5H of the EIU1 (1KS1)
      - . pin AA/8C of the BMC1 and pin AB/5K of the EIU1.
    - (a) If the wiring is not correct:
      - repair the wiring.
    - (b) If the wiring is correct:
      - replace the EIU-1 (1KS1) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

\*\*ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-856

Loss of the Bus from the EIU2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - EIU-2 (1KS2)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001	BITE Test of the BMC 1(2)
AMM 36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM 73-25-34-000-040	Removal of the Engine Interface Unit (EIU) (1KS1,1KS2)
AMM 73-25-34-400-040	<pre>Installation of the Engine Interface Unit (EIU) (1K\$1,1K\$2)</pre>
ASM 36-11/03	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the test gives the maintenance message:

NO DATA FROM EIU

- replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- (1) If the fault continues:
  - do a check and repair the wiring of the VALVE CLOSURE FOR ENGINE START signal from the BMC2 (1HA2) to the EIU2 (1KS2), pins AA/7C and AA/8C to pins AB/5H and AB/5K (Ref. ASM 36-11/03).
- (2) If the fault continues:
  - replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

\*\*ON A/C 451-475,

- A. If the BITE test gives the maintenance message: NO DATA FROM EIU2
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (1) If the fault continues:
    - do a check of the wiring (Ref. ASM 36-11/03) between:
      - . pin AA/7C of the BMC2 (1HA2) and pin AB/5H of the EIU2 (1KS2)
      - . pin AA/8C of the BMC2 and pin AB/5K of the EIU2.
    - (a) If the wiring is not correct:
      - repair the wiring.
    - (b) If the wiring is correct:
      - replace the EIU-2 (1KS2) (Ref. AMM TASK 73-25-34-000-040) and (Ref. AMM TASK 73-25-34-400-040).

\*\*ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-857

Loss of the Bus from the CFDIU to the BMC1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - CFDIU (1TW)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM AMM AMM	31-32-34-000-001 31-32-34-400-001 36-11-00-740-001 36-11-34-000-001 36-11-34-400-001 31-32/04	Removal of the CFDIU (1TW) Installation of the CFDIU (1TW) BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message: NO DATA FROM CFDIU
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - do a check and repair the wiring of the ARINC 429 signal from the CFDIU (1TW) to the BMC1 (1HA1), pins AA/11F and AA/11G to pins AA/4C and AA/5C (Ref. ASM 31-32/04).
    - (2) 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).
  - B. Do the test given in para. 3.

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EFF:

ALL

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-858

Loss of the Bus from the CFDIU to the BMC2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - CFDIU (1TW)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-32-34-000-001 AMM 31-32-34-400-001 AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 31-32/05	Removal of the CFDIU (1TW) Installation of the CFDIU (1TW) BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message: NO DATA FROM CFDIU
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - do a check and repair the wiring of the ARINC 429 signal from the CFDIU (1TW) to the BMC2 (1HA2), pins AB/11D and AB/11E to pins AA/4C and AA/5C (Ref. ASM 31-32/05).
    - (2) 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).
  - B. Do the test given in para. 3.

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EFF:

ALL

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-859

Loss of the Engine Validity Signal between the EIU1 and the BMC1

- 1. Possible Causes
  - CFDIU (1TW)
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM 3 AMM 3	31-32-34-000-001 31-32-34-400-001 36-11-00-740-001 36-11-34-000-001 36-11-34-400-001	Removal of the CFDIU (1TW) Installation of the CFDIU (1TW) BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:

EIU1 ENG FAMILY DISAGREE

- replace the CFDIU (1TW) (Ref. AMM TASK 31-32-34-000-001) and (Ref. AMM TASK 31-32-34-400-001).
- (1) If the fault continues:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-860

Loss of the Engine Validity Signal between the EIU2 and the BMC2

- 1. Possible Causes
  - CFDIU (1TW)
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-32-34-000-001 AMM 31-32-34-400-001 AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001	Removal of the CFDIU (1TW) Installation of the CFDIU (1TW) BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance messages:

EIU2 ENG FAMILY DISAGREE

- replace the CFDIU (1TW) (Ref. AMM TASK 31-32-34-000-001) and (Ref. AMM TASK 31-32-34-400-001).
- (1) If the fault continues:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-861

Failure of the Bleed Air Precooler-Exchanger of the Engine 1

- 1. Possible Causes
  - EXCHANGER-BLEED AIR PRECOOL (7150HM1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-42-000-001	Removal of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)
AMM 36-11-42-400-001	Installation of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)

- 3. Fault Confirmation
  - A. Test
    - (1) Not Applicable
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message: PRECOOLER
    - replace the EXCHANGER-BLEED AIR PRECOOL (7150HM1) (Ref. AMM TASK 36-11-42-000-001) and (Ref. AMM TASK 36-11-42-400-001).
    - (1) If the fault continues:
      - do a check and repair the clogged duct between the fan of the engine and the fan air valve (9HA1).
  - B. Test
    - (1) Do the engine start procedure.
    - (2) Make sure that the ECAM warning AIR ENG 1 BLEED FAULT is not shown on the upper ECAM DU.

#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-862

Failure of the Bleed Air Precooler-Exchanger of the Engine 2

- 1. Possible Causes
  - EXCHANGER-BLEED AIR PRECOOL (7150HM2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-42-000-001	Removal of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)
AMM 36-11-42-400-001	Installation of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)

- 3. Fault Confirmation
  - A. Test
    - (1) Not Applicable
- 4. Fault Isolation
  - A. If the fault symptom is identified by the maintenance message: PRECOOLER
    - replace the EXCHANGER-BLEED AIR PRECOOL (7150HM2) (Ref. AMM TASK 36-11-42-000-001) and (Ref. AMM TASK 36-11-42-400-001).
    - (1) If the fault continues:
      - do a check and repair the clogged duct between the fan of the engine and the fan air valve (9HA2).
  - B. Test
    - (1) Do the engine start procedure.
    - (2) Make sure that the ECAM warning AIR ENG 2 BLEED FAULT is not shown on the upper ECAM DU.

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-863

Loss of or Accidental Automatic Closure of the Bleed Pressure-Regulator Valve of the Engine 1

### 1. Possible Causes

- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- P/BSW-ENG 1 BLEED (4HA1)
- AIR BLEED/ENG 1/CTL (3HA1)
- BMC-1 (1HA1)
- 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	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve
		Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve
		Control-Solenoid (10HA1, 10HA2)
ASM	36-11/01	

### 3. Fault Confirmation

- A. Test
  - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

#### 4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION	IDENT. LOCATION
49VU AIR BLEED/ENG 1/CTL	3HA1 D12
49VII ATR BLEED/ENG 1/MONG	2HA1 D11

EFF: ALL

36-11-00

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#### TROUBLE SHOOTING MANUAL

- B. If the test gives the maintenance message: BMC1 OR SOLENOID 10HA1 CKT
  - NOTE : If the maintenance message BMC1 OR SOLENOID 10HA1 CKT comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
  - Do a check of the status of the circuit breaker (3HA1).
  - (1) If the circuit breaker (3HA1) is closed:
    - Do a check for 28 VDC at pin A/1 of the connector of the bleed pressure regulator valve control solenoid (10HA1) with the ENG 1 BLEED pushbutton switch (4HA1) released (OFF legend on).
    - (a) If there is 28 VDC:
      - Do a check for ground at pin A/2 of the connector of the bleed pressure regulator valve control solenoid (10HA1).
      - 1 If there is no ground signal:
        - Repair the wiring from the pin A/2 to the ground point.
      - 2 If there is a ground signal:
        - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
    - (b) If there is no 28 VDC:
      - Do a check for 28 VDC at pin A/D2 of the ENG 1 BLEED pushbutton switch (4HA1).
      - 1 If there is 28 VDC:
        - Replace the P/BSW-ENG 1 BLEED (4HA1).
        - a If the fault continues:
          - Do a check and repair the wiring from the pin A/1 of the bleed pressure regulator valve control solenoid to the pin A/D3 of the ENG 1 BLEED pushbutton switch.
      - 2 If there is no 28 VDC:
        - Do a check and repair the wiring from the pin A/D2 of the ENG 1 BLEED pushbutton switch to the pin 2 of the circuit breaker 3HA1.
        - a If the fault continues:
          - Replace the AIR BLEED/ENG 1/CTL (3HA1).
  - (2) If the circuit breaker (3HA1) is tripped:
    - Do the procedure (Ref. TASK 24-00-00-810-803).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (3) Check of the automatic closure of the bleed pressure regulator valve (4001HA).
  - Remove the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001).
  - Do a check for 28 VDC at pin AA/8A of the BMC1.
  - (a) If there is no 28 VDC:
    - Do a check and repair the wiring between pin AA/8A of the BMC1 and pin 2 of the circuit breaker 3HA1.
  - (b) If there is 28 VDC:
    - Do a check of the wiring between pin A/D1 of the ENG 1 BLEED pushbutton switch and pin AA/7A of the BMC1.
    - 1 If there is continuity:
      - Replace the P/BSW-ENG 1 BLEED (4HA1).
      - a If the fault continues:
        - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - 2 If there is no continuity:
      - Repair the wiring between pin A/D1 of the ENG 1 BLEED pushbutton switch and pin AA/7A of the BMC1 (Ref. ASM 36-11/01).
- C. Do the test given in para. 3.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-864

Loss of or Accidental Electrical Closure of the Bleed Pressure-Regulator Valve of the Engine  $\mathbf 2$ 

### 1. Possible Causes

- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- P/BSW-ENG 2 BLEED (4HA2)
- AIR BLEED/ENG 2/CTL (3HA2)
- BMC-2 (1HA2)
- 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	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve
		Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve
		Control-Solenoid (10HA1, 10HA2)
ASM	36-11/02	

### 3. Fault Confirmation

- A. Test
  - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

#### 4. Fault Isolation

A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION		IDENT.	LOCATION
122VU	AIR BLEED/ENG	2/CTL	3HA2	z23
122VU	AIR BLEED/ENG	2/MONG	2HA2	<b>Z22</b>

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- B. If the test gives the maintenance message: BMC2 OR SOLENOID 10HA2 CKT
  - NOTE : If the maintenance message BMC2 OR SOLENOID 10HA2 CKT comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
  - Do a check of the status of the circuit breaker (3HA2).
  - (1) If the circuit breaker (3HA2) is closed:
    - Do a check for 28 VDC at pin A/1 of the connector of the bleed pressure regulator valve control solenoid (10HA2) with the ENG 2 BLEED pushbutton switch (4HA2) released (OFF legend on).
    - (a) If there is 28 VDC:
      - Do a check for ground at pin A/2 of the connector of the bleed pressure-regulator valve control-solenoid (10HA2).
      - 1 If there is no ground signal:
        - Repair the wiring from the pin A/2 to the ground point.
      - 2 If there is a ground signal:
        - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
    - (b) If there is no 28 VDC:
      - Do a check for 28 VDC at pin A/D2 of the ENG 2 BLEED pushbutton switch (4HA2).
      - 1 If there is 28 VDC:
        - Replace the P/BSW-ENG 2 BLEED (4HA2).
        - a If the fault continues:
          - Do a check and repair the wiring from the pin A/1 of the bleed pressure regulator valve control solenoid to the pin A/D3 of the ENG 2 BLEED pushbutton switch.
      - 2 If there is no 28 VDC:
        - Do a check and repair the wiring from the pin A/D2 of the ENG 2 BLEED pushbutton switch to the pin 2 of the circuit breaker 3HA2.
        - a If the fault continues:
          - Replace the AIR BLEED/ENG 2/CTL (3HA2).
  - (2) If the circuit breaker (3HA2) is tripped:
    - Do the procedure (Ref. TASK 24-00-00-810-803).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (3) Check of the automatic closure of the bleed pressure regulator valve (4001HA).
  - Remove the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001).
  - Do a check for 28 VDC at pin AA/8A of the BMC2.
  - (a) If there is no 28 VDC:
    - Do a check and repair the wiring from the BMC2 pin AA/8A to the circuit breaker 3HA2 pin 2.
  - (b) If there is 28 VDC:
    - Do a check of the wiring between pin A/D1 of the ENG 2 BLEED pushbutton switch and pin AA/7A of the BMC2.
    - 1 If there is continuity:
      - Replace the P/BSW-ENG 2 BLEED (4HA2).
      - a If the fault continues:
        - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - 2 If there is no continuity:
      - Repair the wiring between pin A/D1 of the ENG 2 BLEED pushbutton switch and pin AA/7A of the BMC2 (Ref. ASM 36-11/02).
- C. Do the test given in para. 3.

EFF: ALL

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# *GA319/A320/A321*

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-870

Fan Air Valves of the Engine 1 and Engine 2 Blocked in the Open Position

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

REFERENCE	DESIGNATION
36-11-00-810-849	Fan Air Valve of the Engine 1 Blocked in the Open Position
36-11-00-810-850	Fan Air Valve of the Engine 2 Blocked in the Open Position
AMM 36-11-54-720-001	Functional Test of the Opening of the Fan Air Valve 9HA1 (9HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000

- 3. Fault Confirmation
  - A. Test
    - (1) Do the test of the fan air valve (Ref. AMM TASK 36-11-54-720-001).
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the test gives the maintenance messages:

FAN AIR V 9HA1 OR THRM 7170HM1 and FAN AIR V 9HA2 OR THRM 7170HM2:

- do the trouble shooting procedures (Ref. TASK 36-11-00-810-849) and (Ref. TASK 36-11-00-810-850).

\*\*ON A/C 451-475,

A. If the test gives the maintenance messages:

THRM 7170HM1 OR FAN AIR-V 9HA1 and THRM 7170HM2 OR FAN AIR-V 9HA2:

- do the trouble shooting procedures (Ref. TASK 36-11-00-810-849) and (Ref. TASK 36-11-00-810-850).

EFF: ALL

36-11-00

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**SROS** 

### TROUBLE SHOOTING MANUAL

\*\*ON A/C ALL

TASK 36-11-00-810-871

High Bleed Pressure of the Engine 1 in Climb

- 1. Possible Causes
  - VALVE-BLEED PRESS REG (4001HA)
  - VALVE-OVERPRESSURE, ENG 1 (5HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-53-000-001	Removal of the Overpressure Valve (5HA1, 5HA2)
AMM	36-11-53-400-001	Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - (a) If the fault continues:
        - Replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-872

High Bleed Pressure of the Engine 1 in Cruise

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE DESIGNATION	DESIGNATION	
AMM 36-11-00-740-001 BITE Test of the BMC 1(2)		
AMM 36-11-16-000-001 Removal of the Bleed Regulated Pressure Transda (8HA1, 8HA2)	ıcer	
AMM 36-11-16-400-001 Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)		
AMM 36-11-51-000-040 Removal of the High Pressure Bleed Valve (4000)	IA)	
AMM 36-11-51-400-040 Installation of the High Pressure Bleed Valve (4000HA)		

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
      - (a) If the fault continues:
        - replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

36-11-00

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-873

Low Bleed Pressure of the Engine 1 in Climb

- 1. Possible Causes
  - SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001 AMM 36-11-55-000-001 AMM 36-11-55-400-001	BITE Test of the BMC 1(2) Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2) Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-874

Low Bleed Pressure of the Engine 1 in Cruise

- 1. Possible Causes
  - VALVE-BLEED PRESS REG (4001HA)
  - XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - (a) If the fault continues:
        - Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-875

Low Bleed Pressure of the Engine 1 in Descent/Taxi

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - sense line
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001 AMM 36-11-51-000-040 AMM 36-11-51-400-040	BITE Test of the BMC 1(2) Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve (4000HA)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
      - (a) If the fault continues:
        - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE.

          DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.
        - CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
        - replace the sense line between the bleed pressure-regulator valve control-solenoid (10HA1) and the bleed pressure-regulator valve (4001HA).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-876

Loss of the Bleed Pressure Monitoring of the Engine 1

- 1. Possible Causes
  - XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
      - (a) If the fault continues:
        - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

**36-11-00** 

ALL

EFF:

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-877

High Bleed Pressure of the Engine 2 in Climb

- 1. Possible Causes
  - VALVE-BLEED PRESS REG (4001HA)
  - VALVE-OVERPRESSURE, ENG 2 (5HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-53-000-001	Removal of the Overpressure Valve (5HA1, 5HA2)
AMM	36-11-53-400-001	Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - (a) If the fault continues:
        - Replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

**36-11-00** 

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-878

High Bleed Pressure of the Engine 2 in Cruise

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
      - (a) If the fault continues:
        - replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-879

Low Bleed Pressure of the Engine 2 in Climb

- 1. Possible Causes
  - SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE DESIGNATION	ON
AMM 36-11-55-000-001 Removal of Control-Sc AMM 36-11-55-400-001 Installate	of the BMC 1(2)  f the Bleed-Pressure-Regulator Valve  blenoid (10HA1, 10HA2)  ion of the Bleed-Pressure-Regulator Valve  blenoid (10HA1, 10HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-880

Low Bleed Pressure of the Engine 2 in Cruise

- 1. Possible Causes
  - VALVE-BLEED PRESS REG (4001HA)
  - XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM 36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM 36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM 36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
AMM 36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - (a) If the fault continues:
        - Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

**36-11-00** 

### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-881

Low Bleed Pressure of the Engine 2 in Descent/Taxi

- 1. Possible Causes
  - VALVE-HP BLEED (4000HA)
  - sense line
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001 AMM 36-11-51-000-040 AMM 36-11-51-400-040	BITE Test of the BMC 1(2) Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve (4000HA)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
      - (a) If the fault continues:

<u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE.

DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF
THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.

CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

- replace the sense line between the bleed pressure-regulator valve control-solenoid (10HA2) and the bleed pressure-regulator valve (4001HA).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-882

Loss of the Bleed Pressure Monitoring of the Engine 2

- 1. Possible Causes
  - XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
АММ	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
  - 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.

R

- (1) If there is no maintenance message:
  - replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).
  - (a) If the fault continues:
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00
SROS

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-883

High Bleed Temperature of the Engine 1 in Climb

- 1. Possible Causes
  - THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
  - EXCHANGER-BLEED AIR PRECOOL (7150HM1)
- 2. Job Set-up Information
  - A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-42-000-001	Removal of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)	
	AMM	36-11-42-400-001	Installation of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)	
R	AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
R	AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>	
R			,	

- 3. Fault Confirmation
  - A. Test

R

R R

- (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
    - (a) If the fault continues:
      - replace the EXCHANGER-BLEED AIR PRECOOL (7150HM1) (Ref. AMM TASK 36-11-42-000-001) and (Ref. AMM TASK 36-11-42-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-884

High Bleed Temperature of the Engine 1 in Cruise

- 1. Possible Causes
  - VALVE-FAN AIR, ENG1 (9HA1)
  - VALVE-HP BLEED (4000HA)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-51-400-040	<pre>Installation of the High Pressure Bleed Valve (4000HA)</pre>	
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)	

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
- R R
- (1) If there is no maintenance message:
  - replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - (a) If the fault continues:
    - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL **SROS** 

**36-11-00** 

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-885

High Bleed Temperature of the Engine 1 in Descent

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-00	1 BITE Test of the BMC 1(2)
AMM 36-11-17-000-00	
AMM 36-11-17-400-00	1 Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)

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- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-886

Low Bleed Temperature of the Engine 1 in Climb

### 1. Possible Causes

- SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
- VALVE-FAN AIR, ENG1 (9HA1)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
- wiring

### 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION
	АММ	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM		Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
	AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
R	AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
R	AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>
	AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
	AMM ASM	36-11-54-400-001 36-11/01	Installation of the Fan Air Valve (9HA1, 9HA2)

### 3. Fault Confirmation

- A. Test
  - (1) Do the BITE test of the BMC 1 (Ref. AMM TASK 36-11-00-740-001).

### 4. Fault Isolation

- A. If the fault symptom is identified by the class 3 maintenance message: TEMP SENSOR 6HA1
  - Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (1) If the fault continues:
    - Do a check of the wiring (Ref. ASM 36-11/01) between:
      - pin 4 of the engine 1 exchanger output temperature sensor (6HA1)
        and pin AA/10B of the BMC 1 (1HA1)
      - . pin 2 of the engine 1 exchanger output temperature sensor and pin AA/9B of the BMC 1  $\,$
      - . pin 1 and the ground.

EFF: ALL 36-11-00

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**SROS** 

### TROUBLE SHOOTING MANUAL

- (a) If the wiring is not correct:
  - Repair the wiring.
- (b) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - 1 If the fault continues:
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL SROS 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-887

Low Bleed Temperature of the Engine 1 in Cruise

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
  - VALVE-FAN AIR, ENG1 (9HA1)
  - THERMOSTAT-FAN AIR VALVE CTL (7170HM1)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	
AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
AMM	36-11-43-400-001	Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
AMM ASM	36-11-54-400-001 36-11/01	Installation of the Fan Air Valve (9HA1, 9HA2)	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC 1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives no maintenance message:
    - no maintenance is necessary.
    - (1) If the BITE test gives the class 3 maintenance message: TEMP SENSOR 6HA1
      - Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

- (2) If the fault continues:
  - do a check of the wiring (Ref. ASM 36-11/01) between:
    - pin 4 of the engine 1 exchanger output temperature sensor (6HA1)
      and pin AA/10B of the BMC 1 (1HA1)
    - pin 2 of the engine 1 exchanger output temperature sensor and pin
      AA/9B of the BMC 1
    - . pin 1 and the ground
  - (a) If the wiring is not correct:
    - Repair the wiring.
  - (b) If the wiring is correct:
    - Replace the VALVE-FAN AIR, ENG1 (9HA1) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
    - 1 If the fault continues:
      - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM1) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-888

Low Bleed Temperature of the Engine 1 in Descent

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
  - VALVE-HP BLEED (4000HA)
  - wiring
- Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
A MM	7/ 11 00 7/0 001	DITE Took of the DMC 4/2)	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	
AMM	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)	
ASM	36-11/01		

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC 1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives no maintenance message:
    - no maintenance is necessary.
    - (1) If the BITE test gives the class 3 maintenance message: TEMP SENSOR 6HA1
      - Replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - (a) If the fault continues:
        - Do a check and repair the wiring (Ref. ASM 36-11/01) between:
          - . pin 4 of the engine 1 exchanger output temperature sensor (6HA1) and pin AA/10B of the BMC 1 (1HA1)
          - . pin 2 of the engine 1 exchanger output temperature sensor and pin AA/9B of the BMC 1
          - . pin 1 and the ground.

EFF: ALL **36-11-00** 

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### TROUBLE SHOOTING MANUAL

- (2) If the BITE test gives the class 3 maintenance message: HP BLEED-V 4000HA1
  - Replace the VALVE-HP BLEED (4000HA) of the engine 1 (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL SROS 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-889

Loss of the Bleed Temperature Monitoring of the Engine 1

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
- (1) If there is no maintenance message:
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (a) If the fault continues:
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL **SROS** 

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-890

High Bleed Temperature of the Engine 2 in Climb

- 1. Possible Causes
  - THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
  - EXCHANGER-BLEED AIR PRECOOL (7150HM2)
- 2. Job Set-up Information
  - A. Referenced Information

	REFE	RENCE	DESIGNATION	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-42-000-001	Removal of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)	
	AMM	36-11-42-400-001	Installation of the Bleed-Air Precooler Exchanger (7150HM1, 7150HM2)	
R	AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
R	AMM	36-11-43-400-001	<pre>Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)</pre>	
R				

- 3. Fault Confirmation
  - A. Test

R

R R

- (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
      - (a) If the fault continues:
        - replace the EXCHANGER-BLEED AIR PRECOOL (7150HM2) (Ref. AMM TASK 36-11-42-000-001) and (Ref. AMM TASK 36-11-42-400-001).
    - B. After the subsequent flight, make sure that the fault does not continue.

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36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-891

High Bleed Temperature of the Engine 2 in Cruise

- 1. Possible Causes
  - VALVE-FAN AIR, ENG2 (9HA2)
  - VALVE-HP BLEED (4000HA)
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-51-000-040	Removal of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-51-400-040	Installation of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
AMM	36-11-54-400-001	Installation of the Fan Air Valve (9HA1, 9HA2)	

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
- R R

**SROS** 

- (1) If there is no maintenance message:
  - replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - (a) If the fault continues:
    - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-040) and (Ref. AMM TASK 36-11-51-400-040).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL **36-11-00** 

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-892

High Bleed Temperature of the Engine 2 in Descent

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	

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- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
    - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-1

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-893

Low Bleed Temperature of the Engine 2 in Climb

#### 1. Possible Causes

- SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
- VALVE-FAN AIR, ENG2 (9HA2)
- THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
- wiring

### 2. Job Set-up Information

A. Referenced Information

REI	FERENCE	DESIGNATION
AMI	<b>1</b> 36-11-00-740-001	BITE Test of the BMC 1(2)
AMI		Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMI	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMI	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMI	36-11-43-400-001	Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)
AMI	4 36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)
AMI ASI	36-11-54-400-001 36-11/02	Installation of the Fan Air Valve (9HA1, 9HA2)

### 3. Fault Confirmation

- A. Test
  - (1) Do the BITE test of the BMC 2 (Ref. AMM TASK 36-11-00-740-001).

### 4. Fault Isolation

- A. If the BITE test gives the class 3 maintenance message: TEMP SENSOR 6HA2
  - Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (1) If the fault continues:
    - Do a check of the wiring (Ref. ASM 36-11/02) between:
      - pin 4 of the engine 2 exchanger output temperature sensor (6HA2)
        and pin AA/10B of the BMC 2 (1HA2)
      - . 2 of the engine 2 exchanger output temperature sensor and pin AA/9B of the BMC 2
      - . pin 1 and the ground.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

- (a) If the wiring is not correct:
  - Repair the wiring.
- (b) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - 1 If the fault continues:
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL SROS 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-894

Low Bleed Temperature of the Engine 2 in Cruise

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
  - VALVE-FAN AIR, ENG2 (9HA2)
  - THERMOSTAT-FAN AIR VALVE CTL (7170HM2)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
	AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	
R	AMM	36-11-43-000-001	Removal of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
R	AMM	36-11-43-400-001	Installation of the Fan-Air Valve Control-Thermostat (7170HM1, 7170HM2)	
	AMM	36-11-54-000-001	Removal of the Fan Air Valve (9HA1, 9HA2)	
	AMM ASM	36-11-54-400-001 36-11/02	Installation of the Fan Air Valve (9HA1, 9HA2)	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC 2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives no maintenance message:
    - no maintenance is necessary.
    - (1) If the BITE test gives the class 3 maintenance message: TEMP SENSOR 6HA2
      - Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - (a) If the fault continues:
        - Do a check of the wiring (Ref. ASM 36-11/02) between:
           pin 4 of the engine 2 exchanger output temperature sensor (6HA2) and pin AA/10B of the BMC 2 (1HA2)

EFF: ALL

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SROS

## *GA319/A320/A321*

### TROUBLE SHOOTING MANUAL

- . pin 2 of the engine 2 exchanger output temperature sensor and pin AA/9B of the BMC 2
- . pin 1 and the ground.
- (b) If the wiring is not correct:
  - Repair the wiring.
- (c) If the wiring is correct:
  - Replace the VALVE-FAN AIR, ENG2 (9HA2) (Ref. AMM TASK 36-11-54-000-001) and (Ref. AMM TASK 36-11-54-400-001).
  - 1 If the fault continues:
    - Replace the THERMOSTAT-FAN AIR VALVE CTL (7170HM2) (Ref. AMM TASK 36-11-43-000-001) and (Ref. AMM TASK 36-11-43-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL SROS 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-895

Low Bleed Temperature of the Engine 2 in Descent

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
  - VALVE-HP BLEED (4000HA)
  - wiring
- Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
	7/ // 00 7/0 00/	DITT T ( ( ) DNO 4(2)
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)
AMM	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)
ASM	36-11/02	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC 2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives no maintenance message:
    - no maintenance is necessary.
    - (1) If the BITE test gives the class 3 maintenance message: TEMP SENSOR 6HA2
      - Replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - (a) If the fault continues:
        - Do a check and repair the wiring (Ref. ASM 36-11/02) between:
        - . pin 4 of the engine 2 exchanger output temperature sensor (6HA2) and pin AA/10B of the BMC 2 (1HA2)
        - . pin 2 of the engine 2 exchanger output temperature sensor and AA/9B of the BMC 2
        - . pin 1 and the ground.

ALL

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## TROUBLE SHOOTING MANUAL

- (2) If the BITE test gives the class 3 maintenance message: HP BLEED-V 4000HA2
  - Replace the VALVE-HP BLEED (4000HA) of the engine 2 (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL SROS 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-896

Loss of the Bleed Temperature Monitoring of the Engine 2

- 1. Possible Causes
  - SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
	7/ // 00 7/0 00/	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation

A. If the test gives a maintenance message:

- Do the trouble shooting procedure related to the maintenance message.

- (1) If there is no maintenance message:
  - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
  - (a) If the fault continues:
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL **SROS** 

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## TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-897

Small Variation of the Bleed Pressure Indication

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

Not Applicable

- 3. Fault Confirmation
  - A. Test

Not applicable, it is not a fault.

NOTE: The PRV has normal fluctuations between 40 and 48 psi.

 ${\underline{\mathtt{NOTE}}}$  : Automatic switching between the HPV and the IP check valve can

cause fluctuations from 36 to 44 psi.

- 4. Fault Isolation
  - A. No maintenance action is required.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-898

Variation of the Bleed Pressure Indication for the Engine 1

- 1. Possible Causes
  - SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
  - sense line
- 2. Job Set-up Information
  - A. Referenced Information

	REFERENCE		DESIGNATION	
R R R	AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	
	AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation

<u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.

CAUTION : USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - do a check of the sense line unions at the bleed pressure-regulator valve of the engine 1 (4001HA) and the related control solenoid (10HA1).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (a) If the unions are loose:
  - tighten these unions again (specified torque value is 1.6 m.daN).
- (b) If the unions are correct:
  - do the functional test of the upstream sense line between the bleed pressure-regulator valve (4001HA) and the control solenoid (10HA1) (Ref. AMM TASK 36-11-00-720-007).
  - 1 If the pressure drop is high: - replace the sense line.

  - If the pressure drop is slow or stays constant:do a check for leaks on the sense line at the engine/pylon

connection. To do this, manually move the sense line.

- <u>a</u> If the pressure drop is high:replace the sense line.
- b If the pressure drop is not high:
  - replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-899

Variation of the Bleed Pressure Indication for the Engine 2

- 1. Possible Causes
  - SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
  - sense line
- 2. Job Set-up Information
  - A. Referenced Information

	REFERENCE		DESIGNATION
R R R	AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
	AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
R			

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation

CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.

<u>CAUTION</u>: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - do a check of the sense line unions at the bleed pressure-regulator valve of the engine 2 (4001HA) and the related control solenoid (10HA2).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (a) If the unions are loose:
  - tighten these unions again (specified torque value is 1.6 m.daN).
- (b) If the unions are correct:
  - do the functional test of the upstream sense line between the bleed pressure-regulator valve (4001HA) and the control solenoid (10HA2) (Ref. AMM TASK 36-11-00-720-007).
  - 1 If the pressure drop is high: - replace the sense line.
  - 2 If the pressure drop is slow or stays constant:
    - do a check for leaks on the sense line at the engine/pylon connection. To do this, manually move the sense line.
    - <u>a</u> If the pressure drop is high:replace the sense line.
    - b If the pressure drop is not high:
      - replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-900

High Variation of the Bleed Pressure Indication for the Engine 1

#### 1. Possible Causes

- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- VALVE-BLEED PRESS REG (4001HA)
- VALVE-OVERPRESSURE, ENG 1 (5HA1)
- sense line between upstream of the pressure regulator valve (4001HA) and the bleed transferred-pressure transducer (7HA1)

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

DEFEDENCE OTV DESTONATION

REFERENCE QTY DESIGNATION

No specific blanking cap

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

R 98F36003002000 1 TBD

B. 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	31-60-00-860-001	EIS Start Procedure
AMM	31-60-00-860-002	EIS Stop Procedure
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-53-000-001	Removal of the Overpressure Valve (5HA1, 5HA2)
AMM	36-11-53-400-001	Installation of the Overpressure Valve (5HA1, 5HA2)
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>
36-11-00-991-002		Fig. 201

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

## 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 ECAM control panel, push the BLEED key (on the lower ECAM display unit, the BLEED page comes into view).
- B. Test
  - (1) Do the operational test of the BMC1 (with the CFDS) (Ref. AMM TASK 36-11-00-740-001).

#### 4. Fault Isolation

- A. If the test gives a maintenance message:do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no message:
    - <u>CAUTION</u>: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION
      OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART
      CAN QUICKLY CAUSE LEAKAGE.
    - CAUTION : USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE,
      ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO
      LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
    - do a check of the sense line unions upstream of the bleed transferred pressure transducer (7HA1).
    - (a) If the unions are loose, TORQUE these unions to 1.6 m.daN (11.79 lbf.ft) and stop trouble shooting.
    - (b) If the unions are correctly tightened and if the fault continues:
      - Disconnect the electrical connectors from the bleed transferred pressure transducer (7HA1) and from the bleed regulated pressure transducer (8HA1).
      - Install the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent.

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#### TROUBLE SHOOTING MANUAL

- 3 Connect the cable from the test set between the bleed transferred pressure transducer (7HA1) and the bleed regulated pressure transducer (8HA1).
- 4 Disconnect the sense line from the bleed pressure regulator valve control solenoid (10HA1) and put a blanking cap on the sense line union.
- 5 Disconnect the sense line from the bleed pressure regulator valve (4001HA) and connect to the test set.

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6 Do this check: (Ref. Fig. 201/TASK 36-11-00-991-002)

ACTION RESULT

1. On the test set: Open the shutoff valve of the air shows the pressure. cylinder.

The pressure gage of the air cylinder

2. On the test set: Use the primary regulator to pressurize the pressure source to 35 psig.

The primary gage shows 35 psig.

3. On the test set: to 30 psig.

Make sure that the same indication is Slowly pressurize the system up shown on the lower ECAM display unit.

- 4. On the test set: Close the shutoff valve.
  - a If the pressure decreases to 0 psig in less than 20 seconds:
    - replace the sense line between upstream of the pressure regulator valve (4001HA) and the bleed transferred-pressure transducer (7HA1).
  - b If the pressure drop-is not high or very slow:
    - replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
  - 7 Depressurize the system on the test set.
  - 8 Remove the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent.

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## TROUBLE SHOOTING MANUAL

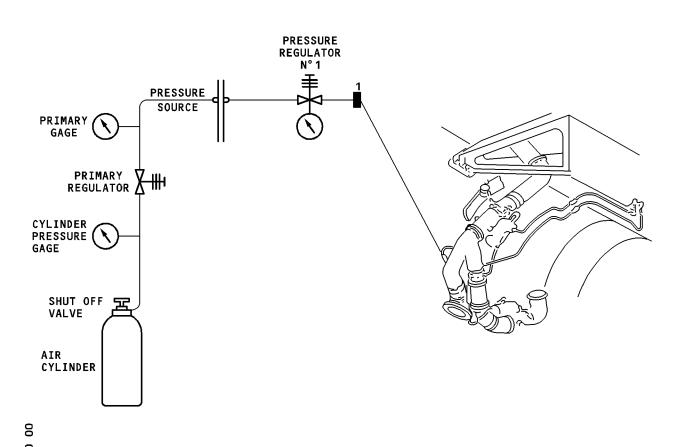


Illustration of the check of the upstream PRV-TLT-7HA sense line. Figure 201/TASK 36-11-00-991-002

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## TROUBLE SHOOTING MANUAL

#### B. Test

After the subsequent flight, make sure that the fault does not continue.

- (1) If the fault continues:
  - Replace the VALVE-BLEED PRESS REG (4001HA) on the engine 1 (Ref. AMM TASK 36-11-52-000-042) (Ref. AMM TASK 36-11-52-400-042).
- (2) If the fault continues:
  - Replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) (Ref. AMM TASK 36-11-53-400-001).

### 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) 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 36-11-00-810-901

High Variation of the Bleed Pressure Indication for the Engine 2

#### 1. Possible Causes

- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- VALVE-BLEED PRESS REG (4001HA)
- VALVE-OVERPRESSURE, ENG 2 (5HA2)
- sense line between upstream of the pressure regulator valve (4001HA) and the bleed transferred-pressure transducer (7HA2)

## 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific blanking cap

No specific Torque Wrench: range 0.20 to 3.60 m.daN

(2.00 to 26.00 lbf.ft)

98D36003000000 1 TEST SET-ENGINE BLEED SYSTEM

R 98F36003002000 1 TBD

B. 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	31-60-00-860-001	EIS Start Procedure	
AMM	31-60-00-860-002	EIS Stop Procedure	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-52-000-040	Removal of the Bleed Pressure-Regulator Valve (4001HA)	
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-52-400-040	Installation of the Bleed Pressure-Regulator Valve (4001HA)	
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-53-000-001	Removal of the Overpressure Valve (5HA1, 5HA2)	
AMM	36-11-53-400-001	Installation of the Overpressure Valve (5HA1, 5HA2)	
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	

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#### TROUBLE SHOOTING MANUAL

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REFERENCE DESIGNATION

AMM 36-11-55-400-001

Installation of the Bleed-Pressure-Regulator Valve

Control-Solenoid (10HA1, 10HA2)

36-11-00-991-002 Fig. 201

#### 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 ECAM control panel, push the BLEED key (on the lower ECAM display unit, the BLEED page comes into view).
- B. Test
  - (1) Do the operational test of the BMC2 (with the CFDS) (Ref. AMM TASK 36-11-00-740-001).

### 4. Fault Isolation

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no message:

CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION
OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART

CAN QUICKLY CAUSE LEAKAGE.

CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

- Do a check of the sense line unions upstream of the bleed transferred-pressure transducer (7HA2).
- (a) If the unions are loose, TORQUE these unions to 1.6 m.daN (11.79 lbf.ft) and stop trouble shooting.

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| EFF : ALL

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#### TROUBLE SHOOTING MANUAL

- (b) If the unions are correctly tightened and if the fault continues:
  - Disconnect the electrical connectors from the bleed transferred-pressure transducer (7HA2) and from the bleed regulated-pressure transducer (8HA2).
  - Install the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent.
  - Connect the cable from the test set between the bleed transferred-pressure transducer (7HA2) and the bleed regulated-pressure transducer (8HA2).
  - 4 Disconnect the sense line from the bleed pressure-regulator valve control-solenoid (10HA2) and put a blanking cap on the sense line union.
  - $\underline{5}$  Disconnect the sense line from the bleed pressure-regulator valve (4001HA).
  - <u>6</u> Do this check: (Ref. Fig. 201/TASK 36-11-00-991-002)

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#### ACTION

#### RESULT

1. On the test set:

R

The pressure gage of the air cylinder shows the pressure.

- Open the shutoff valve of the air cylinder.
- 2. On the test set:

The primary gage shows 35 psig.

- Use the primary regulator to pressurize the pressure source to 35 psig.
- 3. On the test set:

Make sure that the same indication is shown on the lower ECAM display unit.

- Slowly pressurize the system to 30 psig.
- 4. On the test set:
   Close the shutoff valve.
  - <u>a</u> If the pressure decreases to 0 psig in less than 20 seconds:
    - Replace the sense line between upstream of the pressure regulator valve (4001HA) and the bleed transferred-pressure transducer (7HA2).

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### TROUBLE SHOOTING MANUAL

- <u>b</u> If the pressure decreases only by a small value or very slowly:
  - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- 7 Depressurize the system on the test set.
- $\underline{8}$  Remove the TEST SET-ENGINE BLEED SYSTEM (98D36003000000) or TBD (98F36003002000) or equivalent.

<u>NOTE</u>: If this fault occurs again during the subsequent flight, replace the bleed pressure-regulator valve (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).

B. Test

R

After the subsequent flight, make sure that the fault does not continue.

- (1) If the fault continues:
  - Replace the VALVE-BLEED PRESS REG (4001HA) on engine 2 (Ref. AMM TASK 36-11-52-000-040) (Ref. AMM TASK 36-11-52-400-040)
- (2) If the fault continues:
  - Replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) (Ref. AMM TASK 36-11-53-400-001)

#### 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) 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).

36-11-00

EFF: ALL

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## TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-902

The Bleed Pressure-Regulator Valve of the Engine 1 is Shown Open Amber on the Lower ECAM DU

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
- wiring

## 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>
ASM	36-11/01	

## 3. Fault Confirmation

ALL

### A. Test

(1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

36-11-00

R

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EFF :

### TROUBLE SHOOTING MANUAL

## 4. Fault Isolation

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
    - (a) If the fault continues:
      - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
      - 1 If the fault continues:
        - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
        - a If the fault continues:
          - Do a check and repair the wiring:
            - From pin AA/2B of the BMC1 (1HA1) to pin A/5 of the bleed pressure-regulator valve (4001HA)
            - From pin A/3 of the bleed pressure-regulator valve (4001HA) to the first terminal block (Ref. ASM 36-11/01).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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## *GA319/A320/A321*

## TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-903

The Bleed Pressure-Regulator Valve of the Engine 1 is Shown Closed Amber on the Lower ECAM DU

### 1. Possible Causes

- XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- sense line
- wiring

## 2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the
R R			Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
	AMM	36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
R R R	AMM	36-11-15-720-001	Functional Test of the Bleed Transferred Pressure-Transducer (7HA1, 7HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
	AMM	36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
	ASM	36-11/01	

### 3. Fault Confirmation

#### A. Test

(1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

EFF: ALL
SROS

36-11-00

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### TROUBLE SHOOTING MANUAL

## 4. Fault Isolation

CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE. DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY

CAUSE LEAKAGE.

CAUTION : USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - Do the functional test of the bleed transferred-pressure transducer
       (7HA1) (Ref. AMM TASK 36-11-15-720-001).
    - (a) If the test is not OK:
      - Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
    - (b) If the test is OK:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - 1 If the fault continues:
        - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
        - a If the fault continues:
          - Do the functional test of the upstream sense line between the bleed pressure-regulator valve (4001HA) and the control solenoid (10HA1) (Ref. AMM TASK 36-11-00-720-007).
            - \* If the pressure decreases to 0 psig in less than 20 seconds:
            - \* Replace the related sense line.
            - \* If the pressure decreases by a small value:
            - \* Do a check and repair the wiring:
            - . From pin AA/2B of the BMC1 (1HA1) to pin A/5 of the bleed pressure-regulator valve (4001HA)  $\,$
            - From pin A/5 of the bleed pressure-regulator valve (4001HA) to the first terminal block (Ref. ASM 36-11/01).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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## TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-904

The HP Bleed Valve of the Engine 1 is Shown Closed Amber on the Lower ECAM DU

### 1. Possible Causes

- VALVE-HP BLEED (4000HA)
- VALVE-BLEED PRESS REG (4001HA)
- sense line
- wiring

## 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION	
R R R	AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
IX.	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)	
	AMM	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)	
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
	ASM	36-11/01	• •	

## 3. Fault Confirmation

## A. Test

(1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

## 4. Fault Isolation

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
    - (a) If the fault continues:

CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE.

DEFORMATION OF THE RIGID PART OR LARGE DEFORMATION OF

THE FLEXIBLE PART CAN QUICKLY CAUSE LEAKAGE.

CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE

LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE

TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.

- Do the functional test of the upstream sense line between the bleed pressure-regulator valve (4001HA) and the control solenoid (10HA1) (Ref. AMM TASK 36-11-00-720-007).
- $\underline{1}$  If the pressure decreases to 0 psig in less than 20 seconds:
  - Replace the related sense line.
- 2 If the pressure decreases only by a small value:
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
  - a If the fault continues:
    - Do a check and repair the wiring:
      - . From pin AA/2B of the BMC1 (1HA1) to pin A/5 of the bleed pressure-regulator valve (4001HA).
      - From pin A/5 of the bleed pressure-regulator valve (4001HA) to the first terminal block (Ref. ASM 36-11/01).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-905

Amber XX on the Lower ECAM DU Replace the Position Indication of the Bleed Pressure-Regulator Valve of the Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
	72023III. 2011

AMM 36-11-00-740-001 BITE Test of the BMC 1(2) 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2) AMM AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.

R R

- (1) If there is no maintenance message:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

**SROS** 

**36-11-00** 

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-906

Amber XX on the Lower ECAM DU Replace the Position Indication of the HP Bleed Valve of the Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE DESIGNATION

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.

R R

- (1) If there is no maintenance message:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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## TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-907

The Bleed Pressure-Regulator Valve of the Engine 2 is Shown Open Amber on the Lower ECAM DU

### 1. Possible Causes

- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
- wiring

## 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>
ASM	36-11/02	·

## 3. Fault Confirmation

### A. Test

(1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

## 4. Fault Isolation

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
    - (a) If the fault continues:
      - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
      - 1 If the fault continues:
        - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
        - a If the fault continues:
          - Do a check and repair the wiring:
            - . From pin AA/2B of the BMC2 (1HA2) to pin A/5 of the bleed pressure-regulator valve (4001HA)
            - From pin A/3 of the bleed pressure-regulator valve (4001HA) to the first terminal block (Ref. ASM 36-11/02).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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# *GA319/A320/A321*

## TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-908

The Bleed Pressure-Regulator Valve of the Engine 2 is Shown Closed Amber on the Lower ECAM DU

### 1. Possible Causes

- XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
- VALVE-BLEED PRESS REG (4001HA)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- sense line
- wiring

## 2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION	
R R R	AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
	AMM	36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
R R R	AMM	36-11-15-720-001	Functional Test of the Bleed Transferred Pressure-Transducer (7HA1, 7HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
	AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	
	AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>	
	ASM	36-11/02	, ,	

### 3. Fault Confirmation

#### A. Test

(1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

EFF: ALL
SROS

36-11-00

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### TROUBLE SHOOTING MANUAL

## 4. Fault Isolation

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - Do the functional test of the bleed transferred-pressure transducer (7HA2) (Ref. AMM TASK 36-11-15-720-001).
    - (a) If the test is not OK:
      - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) (Ref. AMM TASK 36-11-15-400-001).
    - (b) If the test is OK:
      - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
      - 1 If the fault continues:
        - Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
        - a If the fault continues:
          - CAUTION: BE CAREFUL WITH THE SEMI-FLEXIBLE SENSE LINE.

            DEFORMATION OF THE RIGID PART OR LARGE

            DEFORMATION OF THE FLEXIBLE PART CAN QUICKLY

            CAUSE LEAKAGE.
          - CAUTION: USE TWO WRENCHES DURING DISCONNECTION OF THE SENSE LINE, ONE TO MAINTAIN THE FIXED NUT AND THE SECOND ONE TO LOOSEN/TIGHTEN THE SENSE LINE COUPLING.
          - Do the functional test of the upstream sense line between the bleed pressure-regulator valve (4001HA) and the control solenoid (10HA2) (Ref. AMM TASK 36-11-00-720-007).
            - \* If the pressure decreases to 0 psig in less than 20 seconds:
            - \* Replace the related sense line.
            - \* If the pressure decreases only by a small value:
            - \* Do a check and repair the wiring:
            - From pin AA/2B of the BMC2 (1HA2) to pin A/5 of the bleed pressure-regulator valve (4001HA).
            - From pin A/5 of the bleed pressure-regulator valve (4001HA) to the first terminal block (Ref. ASM 36-11/02).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-909

The HP Bleed Valve of the Engine 2 is Shown Closed Amber on the Lower ECAM DU

#### 1. Possible Causes

- VALVE-HP BLEED (4000HA)
- VALVE-BLEED PRESS REG (4001HA)
- sense line
- wiring

### Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION
R R R	AMM	36-11-00-720-007	Functional Test of the Sense Lines Connected to the Bleed Pressure-Regulator Valve (4001HA) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000
ĸ	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
	AMM	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)
	AMM	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)
	AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)
	AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)
	ASM	36-11/02	<b>,</b>

### 3. Fault Confirmation

- A. Test
  - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

### 4. Fault Isolation

- A. If the test gives a maintenance message:
  - Do the trouble shooting procedure related to the maintenance message.
  - (1) If there is no maintenance message:
    - Replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042) and (Ref. AMM TASK 36-11-51-400-042).
    - (a) If the fault continues:
      - Do the functional test of the upstream sense line between the bleed pressure-regulator valve (4001HA) and the control solenoid (10HA2) (Ref. AMM TASK 36-11-00-720-007).

EFF: ALL

36-11-00

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## TROUBLE SHOOTING MANUAL

- If the pressure decreases to 0 psig in less than 20 seconds:
   Replace the related sense line.
- 2 If the pressure decreases by a small value.
  - Replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
  - a If the fault continues:
    - Do a check and repair the wiring:
      - From pin AA/2B of the BMC2 (1HA2) to pin A/5 of the bleed pressure-regulator valve (4001HA)
      - From pin A/5 of the bleed pressure-regulator valve (4001HA) to the first terminal block (Ref. ASM 36-11/02).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-910

Amber XX on the Lower ECAM DU Replace the Position Indication of the Bleed Pressure-Regulator Valve of the Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION			
	2-01-01.01.			
AMM 74 11 00 740 001	PITE Took of the PMC 1/2)			

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)

R

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.

R R

- (1) If there is no maintenance message:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-911

Amber XX on the Lower ECAM DU Replace the Position Indication of the HP Bleed Valve of the Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001 AMM 36-11-34-000-001	BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2)

AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives a maintenance message:
    - Do the trouble shooting procedure related to the maintenance message.
    - (1) If there is no maintenance message:
      - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-912

Internal Failure of the BMC1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
  - SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
AMM	36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM ASM	36-11-34-400-001 36-11/01	Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the test gives the maintenance message: CHECK BMC1
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

EFF: ALL 36-11-00

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- (1) If the fault continues:
  - replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
  - (a) If the fault continues:
    - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
    - 1 If the fault continues:
      - do a check for 28VDC at pins 1 and 2 of the bleed transferred pressure transducer (7HA1).
      - a If there is no 28VDC:
        - do a check and repair the wiring (Ref. ASM 36-11/01) between pin 1 of the bleed transferred pressure transducer (7HA1) and the first terminal block.
      - b If there is 28VDC:
        - do a check and repair the wiring (Ref. ASM 36-11/01)
          between:
          - pin 3 of the bleed transferred pressure transducer
            (7HA1) and pin AA/15B of the BMC1 (1HA1)
          - pin 4 of the bleed transferred pressure transducer
            (7HA1) and pin AA/14B of the BMC1
          - pin 4 of the exchanger out temperature sensor (6HA1)
            and pin AA/10B of the BMC1
          - pin 2 of the exchanger out temperature sensor (6HA1)
            and pin AA/9B of the BMC1.

\*\*ON A/C 451-475,

- A. If the test gives the maintenance message: CHECK BMC1 (1HA1)
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (1) If the fault continues:
    - replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
    - (a) If the fault continues:
      - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - 1 If the fault continues:
        - do a check for 28VDC at pins 1 and 2 of the bleed transferred pressure transducer (7HA1).

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R

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EFF :

ALL

### TROUBLE SHOOTING MANUAL

- a If there is no 28VDC:
  - do a check and repair the wiring (Ref. ASM 36-11/01) between pin 1 of the bleed transferred pressure transducer (7HA1) and the first terminal block.
- b If there is 28VDC:
  - do a check and repair the wiring (Ref. ASM 36-11/01)
    between:
    - pin 3 of the bleed transferred pressure transducer
      (7HA1) and pin AA/15B of the BMC1 (1HA1)
    - pin 4 of the bleed transferred pressure transducer
      (7HA1) and pin AA/14B of the BMC1
    - ${\tt .}$  pin 4 of the exchanger out temperature sensor (6HA1) and pin AA/10B of the BMC1
    - pin 2 of the exchanger out temperature sensor (6HA1)
      and pin AA/9B of the BMC1.

\*\*ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL 36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-913

Internal Failure of the BMC2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
  - SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
AMM	36-11-15-400-001	Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)	
AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM ASM	36-11-34-400-001 36-11/02	Installation of the BMC (1HA1, 1HA2)	

- 3. Fault Confirmation
  - A. Test
    Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
- R \*\*ON A/C 201-225, 227-227, 229-299, 426-450, 476-499, 503-549, 551-599, R 701-749,
  - A. If the test gives the maintenance message: CHECK BMC2
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

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- (1) If the fault continues:
  - replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
  - (a) If the fault continues:
    - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
    - 1 If the fault continues:
      - do a check for 28VDC at pins 1 and 2 of the bleed transferred pressure transducer (7HA2).
      - a If there is no 28VDC:
        - do a check and repair the wiring (Ref. ASM 36-11/02) between pin 1 of the bleed transferred pressure transducer (7HA2) and the first terminal block.
      - b If there is 28VDC:
        - do a check and repair the wiring (Ref. ASM 36-11/02)
          between:
          - pin 3 of the bleed transferred pressure transducer
            (7HA2) and pin AA/15B of the BMC2 (1HA2)
          - pin 4 of the bleed transferred pressure transducer (7HA2) and pin AA/14B of the BMC2
          - pin 4 of the exchanger out temperature sensor (6HA2)
            and pin AA/10B of the BMC2
          - . pin 2 of the exchanger out temperature sensor (6HA2) and pin AA/9B of the BMC2.

\*\*ON A/C 451-475,

- A. If the test gives the maintenance message: CHECK BMC2 (1HA2)
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (1) If the fault continues:
    - replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
    - (a) If the fault continues:
      - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
      - 1 If the fault continues:
        - do a check for 28VDC at pins 1 and 2 of the bleed transferred pressure transducer (7HA2).

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D

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EFF :

ALL

#### TROUBLE SHOOTING MANUAL

- a If there is no 28VDC:
  - do a check and repair the wiring (Ref. ASM 36-11/02) between pin 1 of the bleed transferred pressure transducer (7HA2) and the first terminal block.
- b If there is 28VDC:
  - do a check and repair the wiring (Ref. ASM 36-11/02)
    between:
    - pin 3 of the bleed transferred pressure transducer
      (7HA2) and pin AA/15B of the BMC2 (1HA2)
    - pin 4 of the bleed transferred pressure transducer (7HA2) and pin AA/14B of the BMC2
    - ${\tt .}$  pin 4 of the exchanger out temperature sensor (6HA2) and pin AA/10B of the BMC2
    - pin 2 of the exchanger out temperature sensor (6HA2)
      and pin AA/9B of the BMC2.

\*\*ON A/C ALL

B. Do the test given in para. 3.

EFF: ALL | | SROS 36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-917

Loss of the BMC 1 and Overpressure or Overtemperature on the Engine 1 Bleed System Detected by the BMC 2

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
36-11-00-810-803	Fan Air Valve of the Engine 1 Not in Fully Open Position
36-11-00-810-807	Bleed Pressure-Regulator Valve of the Engine 1 Blocked in the Open Position or Regulation Failure
AMM 36-11-00-740-001	BITE Test of the BMC 1(2)
AMM 36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Not applicable.
- 4. Fault Isolation
  - A. If there is no related maintenance message:
    - NOTE: This fault symptom comes into view when there is a possible BMC 1 fault plus an overpressure or an overtemperature on the engine 1 bleed system.
    - do the BITE test of the BMC 1 (Ref. AMM TASK 36-11-00-740-001).
    - (1) If the test is not OK:
      - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
      - do the trouble shooting procedure for an overpressure (Ref. TASK 36-11-00-810-807)
      - do the trouble shooting procedure for an overtemperature (Ref. TASK 36-11-00-810-803).

EFF: ALL

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- (2) If the test is OK:
  - do the trouble shooting procedure for an overpressure (Ref. TASK 36-11-00-810-807)
  - do the trouble shooting procedure for an overtemperature (Ref. TASK 36-11-00-810-803).

EFF: ALL
SROS

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-918

Loss of the BMC 2 and Overpressure or Overtemperature on the Engine 2 Bleed System Detected by the BMC 1

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
36-11-00-810-806	Fan Air Valve of the Engine 2 Not in Fully Open Position
36-11-00-810-808	Bleed Pressure-Regulator Valve of the Engine 2 Blocked in the Open Position or Regulation Failure
AMM 36-11-00-740-001	BITE Test of the BMC 1(2)
AMM 36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Not applicable.
- 4. Fault Isolation
  - A. If there is no related maintenance message:
    - NOTE: This fault symptom comes into view when there is a possible BMC 2 fault plus an overpressure or an overtemperature on the engine 2 bleed system.
    - do the BITE test of the BMC 2 (Ref. AMM TASK 36-11-00-740-001).
    - (1) If the test is not OK:
      - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
      - do the trouble shooting procedure for an overpressure (Ref. TASK 36-11-00-810-808)
      - do the trouble shooting procedure for an overtemperature (Ref. TASK 36-11-00-810-806).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (2) If the test is OK:
  - do the trouble shooting procedure for an overpressure (Ref. TASK 36-11-00-810-808)
  - do the trouble shooting procedure for an overtemperature (Ref. TASK 36-11-00-810-806).

EFF: ALL
SROS

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-919

Loss of the 2nd BMC (the 1st is lost)

#### 1. Possible Causes

- BMC-1 (1HA1)
- BMC-2 (1HA2)
- wiring of the ARINC 429 OUTPUT SIGNAL from the BMC1 (1HA1) pins AA/10C, 11C, 12 to the first terminal block
- wiring of the arinc 429 OUTPUT SIGNAL from the BMC2 (1HA2) pins AA/10C, 11C, 12 to the first terminal block

#### 2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 31-50-00-710-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001 ASM 36-11/03	Ground Scanning of the Central Warning System Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

#### 3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION		IDENT.	LOCATION
49VU	AIR BLEED/ENG	1/CTL	3HA1	D12
49VU	AIR BLEED/ENG	1/MONG	2HA1	D11
122VU	AIR BLEED/ENG	2/CTL	3HA2	Z23
122VU	AIR BLEED/ENG	2/MONG	2HA2	Z22

B. Test

Do the operational test of the central warning systems (SDAC) (Ref. AMM TASK 31-50-00-710-001).

### 4. Fault Isolation

A. If the test gives the maintenance messages :

SDAC1: NO DATA FROM BMC 1+2

or

SDAC2: NO DATA FROM BMC 1+2

- replace the BMC-1 (1HA1) and the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- (1) If the fault continues:
  - do a check and repair:
    - the wiring of the ARINC 429 OUTPUT SIGNAL from the BMC1 (1HA1) pins AA/10C, 11C, 12 to the first terminal block
    - . the wiring of the arinc 429 OUTPUT SIGNAL from the BMC2 (1HA2) pins AA/10C, 11C, 12 to the first terminal block (Ref. ASM 36-11/03).
- B. Do the test given in para. 3.

EFF: ALL SROS 36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-926

Loss of the Bleed Regulated-Pressure Transducer of the Engine 1 (Detected by BMC2)

#### 1. Possible Causes

- XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
- BMC-2 (1HA2)
- wiring between pin A/2 of the bleed regulated-pressure transducer (8HA1)
   and the ground terminal
- wiring between pin A/1 of the bleed regulated-pressure transducer (8HA1)
   and the circuit breaker (2HA1)
- R wiring
  - C/B-AIR BLEED/ENG 1/MONG (2HA1)
    - wiring from the bleed regulated-pressure transducer (8HA1) to the BMC1 (1HA1)

#### 2. Job Set-up Information

A. Referenced Information

REFERENCE
DESIGNATION

Circuit Breaker Tripped and/or C/B TRIPPED Warning
AMM 36-11-16-000-001
Removal of the Bleed Regulated Pressure Transducer
(8HA1, 8HA2)
AMM 36-11-16-400-001
Installation of the Bleed Regulated Pressure
Transducer (8HA1, 8HA2)

R

ASM 36-11/01

- 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 AIR BLEED/ENG 1/MONG 2HA1 D11

EFF: ALL

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### TROUBLE SHOOTING MANUAL

R	- Replace the C/B-AIR BLEED/ENG 1/MONG (2HA1).
R R	(a) If the fault continues:
R	<ul><li>(2) If the circuit breaker is open:</li><li>Do the procedure (Ref. TASK 24-00-00-810-803).</li></ul>
R	<ul><li>(b) If there is 28VDC:</li><li>Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1).</li></ul>
R R	<ul> <li>Do a check and repair the wiring from the bleed regulated-pressure transducer (8HA1) to the BMC1 (1HA1), pins A/3 and A/4 to pins AA/12B and AA/11B.</li> </ul>
R R	4 If the fault continues:
R R	<ul> <li>a If there is no 0.9VDC:</li> <li>Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)</li> <li>(Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).</li> </ul>
R R	<ul> <li>If the fault continues:         <ul> <li>Make sure that there is a 0 psig output signal (0.9VDC) on the BMC1 (1HA1) connector between pins AA/11B and AA/12B.</li> </ul> </li> </ul>
R	<ul><li><u>b</u> If there is continuity:</li><li>Replace the C/B-AIR BLEED/ENG 1/MONG (2HA1).</li></ul>
R	<ul><li><u>a</u> If there is no continuity:</li><li>Repair the above wiring.</li></ul>
R	<ul> <li>If there is a ground signal:         <ul> <li>Do a check of the wiring between pin A/1 of the bleed regulated-pressure transducer (8HA1) and the circuit breaker (2HA1).</li> </ul> </li> </ul>
R	<ul> <li>If there is no ground signal:         <ul> <li>Repair the wiring between pin A/2 of the bleed</li> <li>regulated-pressure transducer (8HA1) and the ground</li> <li>terminal.</li> </ul> </li> </ul>
R R	<ul><li>(a) If there is no 28VDC:</li><li>Do a check for ground at pin A/2 of the bleed regulated-pressure transducer (8HA1).</li></ul>
R R	<ul><li>(1) If the circuit breaker is closed:</li><li>Do a check for 28VDC at pin A/1 of the bleed regulated-pressure transducer (8HA1) (Ref. ASM 36-11/01).</li></ul>
R	<ul><li>B. If the fault symptom is identified by the maintenance message:</li><li>REG-PRESS XDCR 8HA1</li><li>Do a check of the status of the circuit breaker (2HA1):</li></ul>

EFF: ALL

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R

### TROUBLE SHOOTING MANUAL

(b) If the circuit breaker stays closed and the fault continues:Replace the BMC-2 (1HA2).

C. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
SROS

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-927

Loss of the Bleed Regulator-Pressure Transducer of the Engine 2 (Detected by BMC1)

#### 1. Possible Causes

- XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
- BMC-1 (1HA1)
- wiring between pin A/2 of the bleed regulated-pressure transducer (8HA2)
   and the ground terminal
- wiring between pin A/1 of the bleed regulated-pressure transducer (8HA2) and the circuit breaker (2HA2)
- R wiring
- C/B-AIR BLEED/ENG 2/MONG (2HA2)
  - wiring from the bleed regulated-pressure transducer (8HA2) to the BMC2 (1HA2

#### 2. Job Set-up Information

A. Referenced Information

	KEFE	KENLE 	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	36-11-16-000-001	Removal of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
	AMM	36-11-16-400-001	Installation of the Bleed Regulated Pressure Transducer (8HA1, 8HA2)
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
	ASM	36-11/02	

- 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

122VU AIR BLEED/ENG 2/MONG 2HA2 Z22

R EFF: ALL
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R R	<ul> <li>B. If the fault symptom is identified by the maintenance message:</li> <li>REG-PRESS XDCR 8HA2</li> <li>Do a check of the status of the circuit breaker (2HA2).</li> </ul>
R R	<ul><li>(1) If the circuit breaker is closed:</li><li>Do a check for 28VDC at pin A/1 of the bleed regulated-pressure transducer (8HA2) (Ref. ASM 36-11/02).</li></ul>
R R	<ul><li>(a) If there is no 28VDC:</li><li>Do a check for ground at pin A/2 of the bleed regulated-pressure transducer (8HA2).</li></ul>
R	<ul> <li>If there is no ground signal:         <ul> <li>Repair the wiring between pin A/2 of the bleed</li> <li>regulated-pressure transducer (8HA2) and the ground</li> <li>terminal.</li> </ul> </li> </ul>
R	<ul> <li>If there is a ground signal:         <ul> <li>Do a check of the wiring between pin A/1 of the bleed regulated-pressure transducer (8HA2) and the circuit breaker (2HA2).</li> </ul> </li> </ul>
R	<ul><li><u>a</u> If there is no continuity:</li><li>Repair the above wiring.</li></ul>
R	<ul> <li>b If there is continuity:</li> <li>- Replace the C/B-AIR BLEED/ENG 2/MONG (2HA2).</li> </ul>
R R	<ul> <li>If the fault continues:         <ul> <li>Make sure that there is a 0 psig output signal (0.9VDC) on the BMC2 (1HA2) connector between pins AA/11B and AA/12B.</li> </ul> </li> </ul>
R R	<pre>a If there is no 0.9VDC:     - Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)         (Ref. AMM TASK 36-11-16-000-001) and (Ref. AMM TASK 36-11-16-400-001).</pre>
R R R	<ul> <li>If the fault continues:         <ul> <li>Do a check and repair the wiring from the bleed regulated-pressure transducer (8HA2) to the BMC2 (1HA2, pins A/3 and A/4 to pins AA/12B and AA/11B.</li> </ul> </li> </ul>
R	<ul><li>(b) If there is 28VDC:</li><li>Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2).</li></ul>
R	<ul><li>(2) If the circuit breaker is open:</li><li>Do the procedure (Ref. TASK 24-00-00-810-803).</li></ul>
R R R	<ul><li>(a) If the fault continues:</li><li>Replace the C/B-AIR BLEED/ENG 2/MONG (2HA2).</li></ul>

R EFF : ALL

**36-11-00** 

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R

### TROUBLE SHOOTING MANUAL

(b) If the circuit breaker stays closed and the fault continues:Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

C. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
SROS

36-11-00

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-928

Abnormal Bleed Temperature Shown Amber during BMC1 Test with the Engines Not in Operation

- 1. Possible Causes
  - BMC-1 (1HA1)
  - SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1)
  - wiring from the connector 1HA1-AB/1B to the ground
  - wiring from the connector 1HA1-AA/9B to the connector 6HA1-A/2
  - wiring from the connector 1HA1-AA/10B to the connector 6HA1-A/4
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

warning notice(s)

B. Referenced Information

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)

AMM 36-11-17-000-001 Removal of the Heat-Exchanger Outlet-Temperature

Sensor 6HA1(6HA2)

AMM 36-11-17-400-001 Installation of the Heat-Exchanger Outlet-Temperature

Sensor 6HA1(6HA2)

ASM 36-11/01

AMM 36-11-34-000-001

AMM 36-11-34-400-001

- 3. Fault Confirmation
  - A. Job Set-Up

ALL

(1) On the center pedestal, on the ENG panel 115VU:put a warning notice(s) to tell persons not to start the engines.

Removal of the BMC (1HA1, 1HA2)

Installation of the BMC (1HA1, 1HA2)

- B. Test
  - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

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#### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If during the test with the engines not in operation, an abnormal bleed temperature is shown amber on the BLEED page of the lower ECAM DU:
  - remove the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-000-001)
  - Do the test given in para. 3.
  - (1) If during the test, the abnormal bleed temperature is shown amber on the BLEED page for the engines 1 and 2:
    - on the connector 1HA1-AB, on the wiring side, make sure that there is ground at pin 1B (Ref. ASM 36-11/01):
    - (a) If there is ground at pin 1B:
      - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.
    - (b) If there is no ground at pin 1B:
      - do a check and repair the wiring from the connector 1HA1-AB/1B to the ground
      - refer to Para. 4.B.
  - (2) If during the test, the abnormal bleed temperature is shown amber on the BLEED page for the engine 1 only:
    - replace the SENSOR-EXCHANGER OUT TEMP, ENG 1 (6HA1) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
    - (a) If the fault continues:
      - do a check and repair the wiring from the connector 1HA1-AA/9B to the connector 6HA1-A/2 and wiring from the connector 1HA1-AA/10B to the connector 6HA1-A/4 (Ref. ASM 36-11/01)
      - refer to Para. 4.B.
    - (b) If the fault does not continue:
      - refer to Para. 4.B.
- B. Install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001) and do the test given in Para. 3.

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-929

Abnormal Bleed Temperature Shown Amber during BMC2 Test with the Engines Not in Operation

- 1. Possible Causes
  - BMC-2 (1HA2)
  - SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2)
  - wiring from the connector 1HA2-AB/1B to the ground
  - wiring from the connector 1HA2-AA/9B to the connector 6HA2-A/2
  - wiring from the connector 1HA2-AA/10B to the connector 6HA2-A/4
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

warning notice(s)

B. Referenced Information

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)

AMM 36-11-17-000-001 Removal of the Heat-Exchanger Outlet-Temperature

Sensor 6HA1(6HA2)

AMM 36-11-17-400-001 Installation of the Heat-Exchanger Outlet-Temperature

Sensor 6HA1(6HA2)

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AMM 36-11-34-000-001

AMM 36-11-34-400-001

3. Fault Confirmation

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- A. Job Set-Up
  - (1) On the center pedestal, on the ENG panel 115VU:put a warning notice(s) to tell persons not to start the engines.

Removal of the BMC (1HA1, 1HA2)

Installation of the BMC (1HA1, 1HA2)

- B. Test
  - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

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#### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If during the test with the engines not in operation, an abnormal bleed temperature is shown amber on the BLEED page of the lower ECAM DU:
  - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
  - Do the test given in para. 3.
  - (1) If during the test, the abnormal bleed temperature is shown amber on the BLEED page for the engines 1 and 2:
    - on the connector 1HA2-AB, on the wiring side, make sure that there is ground at pin 1B (Ref. ASM 36-11/02):
    - (a) If there is ground at pin 1B:
      - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.
    - (b) If there is no ground at pin 1B:
      - do a check and repair the wiring from the connector 1HA2-AB/1B to the ground
      - refer to Para. 4.B.
  - (2) If during the test, the abnormal bleed temperature is shown amber on the BLEED page for the engine 2 only:
    - replace the SENSOR-EXCHANGER OUT TEMP, ENG 2 (6HA2) (Ref. AMM TASK 36-11-17-000-001) and (Ref. AMM TASK 36-11-17-400-001).
    - (a) If the fault continues:
      - do a check and repair the wiring from the connector 1HA2-AA/9B to the connector 6HA2-A/2 and wiring from the connector 1HA2-AA/10B to the connector 6HA2-A/4 (Ref. ASM 36-11/02)
      - refer to Para. 4.B.
    - (b) If the fault does not continue:
      - refer to Para. 4.B.
- B. Install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) and do the test given in Para. 3.

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### TROUBLE SHOOTING MANUAL

\*\*ON A/C 201-225, 451-475, 551-599,

TASK 36-11-00-810-930

BMC1 output failure for HP Bleed Override Solenoid of Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - SOL-HP BLEED OVERRIDE, ENG1 (11HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
AMM	36-11-58-000-001	Removal of the HP Bleed Override Solenoid (11HA1, 11HA2)	
AMM	36-11-58-400-001	<pre>Installation of the HP Bleed Override Solenoid (11HA1, 11HA2)</pre>	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message: BMC1 OR SOLENOID 11HA1
    - NOTE: If the maintenance message BMC1 OR SOLENOID 11HA1 comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - replace the SOL-HP BLEED OVERRIDE, ENG1 (11HA1) (Ref. AMM TASK 36-11-58-000-001) and (Ref. AMM TASK 36-11-58-400-001).
  - B. Do the test given in para. 3.

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-931

BMC2 output failure for HP Bleed Override Solenoid of Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - SOL-HP BLEED OVERRIDE, ENG2 (11HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
AMM	36-11-58-000-001	Removal of the HP Bleed Override Solenoid (11HA1, 11HA2)	
AMM	36-11-58-400-001	<pre>Installation of the HP Bleed Override Solenoid (11HA1, 11HA2)</pre>	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message: BMC2 OR SOLENOID 11HA2
    - NOTE: If the maintenance message BMC2 OR SOLENOID 11HA2 comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - replace the SOL-HP BLEED OVERRIDE, ENG2 (11HA2) (Ref. AMM TASK 36-11-58-000-001) and (Ref. AMM TASK 36-11-58-400-001).
  - B. Do the test given in para. 3.

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#### TROUBLE SHOOTING MANUAL

\*\*ON A/C ALL

TASK 36-11-00-810-936

HP Bleed Valve blocked in the closed position or regulation too low on Engine 1 without associated maintenance message

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

REFERENCE DESIGNATION

36-11-00-810-837

Failure of the HP Bleed Valve of the Engine 1 Blocked in the Closed Position

- 3. Fault Confirmation
  - A. Do the Last Leg Report Test of the BMC 1
- 4. Fault Isolation
  - A. If the Last Leg Report Test of the BMC 1 shows the maintenance message: 36-11-51

HP BLEED-V 4000HA1

OR SENSE LINE

- do the following trouble shooting procedure (Ref. TASK 36-11-00-810-837)

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#### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-937

HP Bleed Valve blocked in the closed position or regulation too low on Engine 2 without associated maintenance message

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

REFERENCE DESIGNATION

36-11-00-810-838 Failure of the HP Bleed Valve of the Engine 2 Blocked in the Closed Position

- 3. Fault Confirmation
  - A. Do the Last Leg Report Test of the BMC 2
- 4. Fault Isolation
  - A. If the Last Leg Report Test of the BMC 2 shows the maintenance message: 36-11-51

HP BLEED-V 4000HA2

OR SENSE LINE

- do the following trouble shooting procedure (Ref. TASK 36-11-00-810-838)

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-938

High bleed pressure fluctuation on Engine 1 at take-off or climb phase

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 1 (5HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-53-000-001 AMM 36-11-53-400-001	Removal of the Overpressure Valve (5HA1, 5HA2) Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - A. Replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001)
  - B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-939

High bleed pressure fluctuation on Engine 2 at take-off or climb phase

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 2 (5HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-53-000-001 AMM 36-11-53-400-001	Removal of the Overpressure Valve (5HA1, 5HA2) Installation of the Overpressure Valve (5HA1, 5HA2)

- 3. Fault Confirmation
  - A. Not applicable.
- 4. Fault Isolation
  - A. Replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001)
  - B. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-944

Failure of the Bleed Pressure Regulator Valve Control Solenoid or its Wiring

#### 1. Possible Causes

- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- P/BSW-ENG 1 BLEED (4HA1)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- P/BSW-ENG 2 BLEED (4HA2)

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- C/B-AIR BLEED/ENG 1/CTL (3HA1)
- R wiring
  - C/B-AIR BLEED/ENG 2/CTL (3HA2)

#### 2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION	
24 00 00 840 807	Cinquit Pacakan Tainand and/on C/P IDIDDED Hanning	
24-00-00-810-803 AMM 36-11-55-000-001	Circuit Breaker Tripped and/or C/B TRIPPED Warning Removal of the Bleed-Pressure-Regulator Valve	
AMM 30 11 33 000 001	Control-Solenoid (10HA1, 10HA2)	
AMM 36-11-55-400-001	Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)	
ASM 36-11/01	·	
ASM 36-11/02		

- 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	AIR BLEED/ENG 1/CTL	3HA1	D12
122VII	ATR BIFFD/FNG 2/CTI	3HA2	723

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R	WAI ON:
R R	<ul> <li>On the overhead circuit breaker panel 49VU, do a check of the status of the AIR BLEED/ENG 1/CTL circuit breaker (3HA1).</li> </ul>
_	(1) If the circuit breaker (3HA1) is open:
R R	- Do the procedure (Ref. TASK 24-00-00-810-803).
R R	<ul><li>(a) If the fault continues:</li><li>Replace the C/B-AIR BLEED/ENG 1/CTL (3HA1).</li></ul>
R R	<ul> <li>(2) If the circuit breaker (3HA1) is closed:         <ul> <li>Do a check for 28VDC at the pin A/1 of the connector of the engine</li> <li>1 bleed pressure regulator valve control solenoid (10HA1) with the</li> <li>ENG 1 BLEED pushbutton switch (4HA1) released (0FF legend on) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R R	<ul> <li>(a) If there is 28VDC:         <ul> <li>Do a check for a ground signal at the pin A/2 of the connector of the engine 1 bleed pressure regulator valve control solenoid (10HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R	<ul><li>1 If there is no ground signal:</li><li>- Repair or replace the wiring as necessary.</li></ul>
R R	If there is a ground signal: <ul> <li>Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)</li> <li>(Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).</li> </ul>
R R	<ul><li>(b) If there is no 28VDC:</li><li>Do a check for 28VDC at the pin A/D2 of the ENG 1 BLEED pushbutton switch (4HA1) (Ref. ASM 36-11/01).</li></ul>
R	<pre>1 If there is 28VDC:    - Replace the P/BSW-ENG 1 BLEED (4HA1).</pre>
R R	<ul> <li>a If the fault continues:         <ul> <li>Do a check and repair the wiring between the pin A/1 of the bleed pressure regulator valve control solenoid and the pin A/D3 of the ENG 1 BLEED pushbutton switch (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R R	<ul> <li>If there is no 28VDC:         <ul> <li>Do a check and repair the wiring between the pin A/D2 of the ENG 1 BLEED pushbutton switch and the pin 2 of the circuit breaker 3HA1 (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R	<ul><li><u>a</u> If the fault continues:</li><li>- Replace the C/B-AIR BLEED/ENG 1/CTL (3HA1).</li></ul>

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R R	(3) If the fault continues: - On the rear circuit breaker panel 122VU, do a check of the status of the AIR BLEED/ENG 2/CTL circuit breaker (3HA2).
<b>D</b>	(a) If the circuit breaker (3HA2) is open:
R R	- Do the procedure (Ref. TASK 24-00-00-810-803).
R R	<pre>1 If the fault continues:    - Replace the C/B-AIR BLEED/ENG 2/CTL (3HA2).</pre>
R R	<ul> <li>(b) If the circuit breaker (3HA2) is closed:         <ul> <li>Do a check for 28VDC at the pin A/1 of the connector of the engine 2 bleed pressure regulator valve control solenoid (10HA2) with the ENG 2 BLEED pushbutton switch (4HA2) released (0FF legend on) (Ref. ASM 36-11/02).</li> </ul> </li> </ul>
R R	<ul> <li>If there is 28VDC:         <ul> <li>Do a check for a ground signal at the pin A/2 of the connector of the engine 2 bleed pressure regulator valve control solenoid (10HA2) (Ref. ASM 36-11/02).</li> </ul> </li> </ul>
R	<ul><li><u>a</u> If there is no ground signal:</li><li>Repair or replace the wiring as necessary.</li></ul>
R R	<ul> <li>b If there is a ground signal:</li> <li>Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)</li> <li>(Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).</li> </ul>
	<ul> <li>If there is no 28VDC:</li> <li>do a check for 28VDC at the pin A/D2 of the ENG 2 BLEED pushbutton switch (4HA2) (Ref. ASM 36-11/02).</li> </ul>
R	<ul><li><u>a</u> If there is 28VDC:</li><li>Replace the P/BSW-ENG 2 BLEED (4HA2).</li></ul>
R R	. If the fault continues: - Do a check and repair the wiring between the pin A/1 of the bleed pressure regulator valve control solenoid and the pin A/D3 of the ENG 2 BLEED pushbutton switch (Ref. ASM 36-11/02).
R R	<ul> <li>b If there is no 28VDC:</li> <li>Do a check and repair the wiring between the pin A/D2 of the ENG 2 BLEED pushbutton switch and the pin 2 of the circuit breaker 3HA2 (Ref. ASM 36-11/02).</li> </ul>
R	<ul><li>If the fault continues:</li><li>Replace the C/B-AIR BLEED/ENG 2/CTL (3HA2).</li></ul>
	C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-945

Failure of the Overpressure Valve in Closed Position on the Engine 1

- 1. Possible Causes
  - VALVE-OVERPRESSURE, ENG 1 (5HA1)
  - VALVE-HP BLEED (4000HA)
  - VALVE-BLEED PRESS REG (4001HA)
  - wiring
  - sense line
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
A MM	7/ 44 54 000 0/2		
	36-11-51-000-042 36-11-51-400-042	Removal of the High Pressure Bleed Valve (4000HA) Installation of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-53-000-001	Removal of the Overpressure Valve (5HA1, 5HA2)	
AMM	36-11-53-400-001	Installation of the Overpressure Valve (5HA1, 5HA2)	
AMM	36-11-53-720-001	Functional Test of the Overpressure Valve 5HA1 (5HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
ASM	36-11/01		

### 3. Fault Confirmation

#### A. Test

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(1) Do the functional test of the engine 1 overpressure valve (5HA1) (Ref. AMM TASK 36-11-53-720-001).

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#### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If the functional test of the engine 1 overpressure valve (5HA1) is not correct:
  - replace the VALVE-OVERPRESSURE, ENG 1 (5HA1) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring between:
      - pin A/1 of the engine 1 overpressure valve (5HA1) and pin AA/10A
        of the BMC1 (1HA1)
      - p pin A/2 of the engine 1 overpressure valve and the ground (Ref. ASM 36-11/01).
- B. If the functional test of the engine 1 overpressure valve (5HA1) is correct:
  - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042)
     and (Ref. AMM TASK 36-11-51-400-042).
  - (1) If the fault continues:
    - do a leak check of the sense line between the bleed pressure regulator valve (4001HA) and the HP bleed valve (4000HA).
    - (a) If there is a leak:
      - repair or replace the sense line.
    - (b) If there is no leak:
      - replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-946

Failure of the Overpressure Valve in Closed Position on the Engine 2

#### 1. Possible Causes

- VALVE-OVERPRESSURE, ENG 2 (5HA2)
- VALVE-HP BLEED (4000HA)
- VALVE-BLEED PRESS REG (4001HA)
- wiring
- sense line

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
АММ	36-11-51-000-042	Removal of the High Pressure Bleed Valve (4000HA)	
	36-11-51-400-042	Installation of the High Pressure Bleed Valve (4000HA)	
AMM	36-11-52-000-042	Removal of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-52-400-042	Installation of the Bleed Pressure Regulator Valve (4001HA)	
AMM	36-11-53-000-001	Removal of the Overpressure Valve (5HA1, 5HA2)	
AMM	36-11-53-400-001	Installation of the Overpressure Valve (5HA1, 5HA2)	
AMM	36-11-53-720-001	Functional Test of the Overpressure Valve 5HA1 (5HA2) with the Bleed Test Set P/N 98D36003000000 or P/N 98F36003002000	
ASM	36-11/02		

### 3. Fault Confirmation

#### A. Test

(1) Do the functional test of the engine 2 overpressure valve (5HA2) (Ref. AMM TASK 36-11-53-720-001).

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#### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If the functional test of the engine 2 overpressure valve (5HA2) is not correct:
  - replace the VALVE-OVERPRESSURE, ENG 2 (5HA2) (Ref. AMM TASK 36-11-53-000-001) and (Ref. AMM TASK 36-11-53-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring between:
      - pin A/1 of the engine 2 overpressure valve (5HA2) and pin AA/10A
        of the BMC2 (1HA2)
      - pin A/2 of the engine 2 overpressure valve and the ground (Ref. ASM 36-11/02).
- B. If the functional test of the engine 2 overpressure valve (5HA2) is correct:
  - replace the VALVE-HP BLEED (4000HA) (Ref. AMM TASK 36-11-51-000-042)
     and (Ref. AMM TASK 36-11-51-400-042).
  - (1) If the fault continues:
    - do a leak check on the sense line between the bleed pressure regulator valve (4001HA) and the HP bleed valve (4000HA).
    - (a) If there is a leak:
      - repair or replace the sense line.
    - (b) If there is no leak:
      - replace the VALVE-BLEED PRESS REG (4001HA) (Ref. AMM TASK 36-11-52-000-042) and (Ref. AMM TASK 36-11-52-400-042).
- C. After the subsequent flight, make sure that the fault does not continue.

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#### TROUBLE SHOOTING MANUAL

\*\*ON A/C 451-475,

TASK 36-11-00-810-951

Spurious APU leak indication on the Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - P/BSW-AIR COND/APU BLEED (5HV)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)
ASM 36-12/01

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives the maintenance message: BMC1 OR APU FAULT IND 7HV
    - NOTE: If the maintenance message BMC1 OR APU FAULT IND 7HV comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
    - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - Replace the P/BSW-AIR COND/APU BLEED (5HV) (Ref. ASM 36-12/01).
      - (a) If the fault continues:
        - Do a check and repair the wiring (Ref. ASM 36-12/01) between:
           Pin A/B1 of the APU bleed pushbutton switch (5HV) and pin AA/14C of the BMC1 (1HA1)
          - . Pin A/B3 and the ground.

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B. Do the test given in para. 3.

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TASK 36-11-00-810-952

Spurious APU leak indication on the Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - P/BSW-AIR COND/APU BLEED (5HV)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM AMM	36-11-00-740-001 36-11-34-000-001 36-11-34-400-001 36-12/01	BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives the maintenance message: BMC2 OR APU FAULT IND 7HV
    - NOTE : If the maintenance message BMC2 OR APU FAULT IND 7HV comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
    - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - Replace the P/BSW-AIR COND/APU BLEED (5HV) (Ref. ASM 36-12/01).
      - (a) If the fault continues:
        - Do a check and repair the wiring (Ref. ASM 36-12/01) between:
           Pin A/B1 of the APU bleed pushbutton switch (5HV) and pin AA/14C of the BMC2 (1HA2)
          - . Pin A/B3 and the ground.
  - B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-953

Drift of the Engine 1 Bleed Regulated Pressure Transducer

- 1. Possible Causes
  - XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)
  - BMC-1 (1HA1)
  - wiring
- C/B-AIR BLEED/ENG 1/MONG (2HA1)
  - 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	
.,		36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)	
	AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM ASM	36-11-34-400-001 36-11/01	Installation of the BMC (1HA1, 1HA2)	

- 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	AIR BLEED/ENG 1/MONG	2HA1	D11

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R R	<ul> <li>B. If the fault symptom is identified by the maintenance message:</li> <li>DRIFT REG-PRESS XDCR 8HA1</li> <li>Do a check of the status of the AIR BLEED/ENG 1/MONG circuit breaker</li> </ul>	
R	(2HA1).	
R R	<ul> <li>(1) If the circuit breaker is closed:         <ul> <li>Do a check for 28VDC at pin A/1 of the bleed regulated pressure transducer (8HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>	
R R	<ul><li>(a) If there is no 28VDC:</li><li>Do a check for ground at pin A/2 of the bleed regulated pressure transducer (8HA1) (Ref. ASM 36-11/01).</li></ul>	
R R	<ul> <li>If there is no ground:         <ul> <li>Repair the wiring between pin A/2 of the bleed regulated pressure transducer (8HA1) and the ground (Ref. ASM 36-11/01).</li> </ul> </li> </ul>	
R R	<ul> <li>If there is a ground:         <ul> <li>Do a check of the wiring between pin A/1 of the bleed regulated pressure transducer (8HA1) and the circuit break (2HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>	er
R	<ul><li><u>a</u> If there is no continuity:</li><li>Repair the above wiring.</li></ul>	
R	<ul><li><u>b</u> If there is continuity:</li><li>- Replace the circuit breaker (2HA1).</li></ul>	
R R	J If the fault continues:    - Make sure that there is a O psig output signal (0.9VDC) at the BMC1 (1HA1) connector between pins AA/11B and AA/12B (Ref. ASM 36-11/01).	
R R	<pre>a If there is no 0.9VDC:    - Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1)       (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36- 11-15-400-001).</pre>	
R R	<ul> <li>If the fault continues:         <ul> <li>Do a check and repair the wiring between pins A/3 and A/4 the bleed regulated pressure transducer (8HA1) and pins AA/12B and AA/11B of the BMC1 (1HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>	of
R R	<ul><li>(b) If there is 28VDC:</li><li>Replace the XDCR-BLEED REGULATED PRESS, ENG 1 (8HA1) (Ref. AM TASK 36-11-15-400-001).</li></ul>	M

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R	(2) If the circuit breaker is open: - Do the procedure (Ref. TASK 24-00-00-810-803).
R R R	<ul><li>(a) If the fault continues:</li><li>Replace the C/B-AIR BLEED/ENG 1/MONG (2HA1).</li></ul>
R R	<ul><li>(b) If the circuit breaker stays closed and the fault continues:</li><li>Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).</li></ul>

C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-954

Drift of the Engine 2 Bleed Regulated Pressure Transducer

- 1. Possible Causes
  - XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
  - BMC-2 (1HA2)
  - wiring
  - C/B-AIR BLEED/ENG 2/MONG (2HA2)
- 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	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
	AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
	ASM	36-11/02	
R			

- 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
122VU AIR BLEED/ENG 2/MONG 2HA2 Z22

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R	В.	If the fault symptom is identified by the maintenance message: DRIFT REG-PRESS XDCR 8HA2
R		- Do a check of the status of the AIR BLEED/ENG 2/MONG circuit breaker
R		(2HA2).
_		(1) If the circuit breaker is closed:
R		- Do a check for 28VDC at pin A/1 of the bleed regulated pressure
R		transducer (8HA2) (Ref. ASM 36-11/02).
_		(a) If there is no 28VDC:
R		- Do a check for ground at pin A/2 of the bleed regulated
R		pressure transducer (8HA2) (Ref. ASM 36-11/02).
		1 If there is no ground:
R		<ul> <li>Repair the wiring between pin A/2 of the bleed regulated</li> </ul>
R		pressure transducer (8HA2) and the ground (Ref. ASM 36-11/02).
		2 If there is a ground:
R		<ul> <li>Do a check of the wiring between pin A/1 of the bleed</li> </ul>
R		regulated pressure transducer (8HA2) and the circuit breaker (2HA2) (Ref. ASM 36-11/02).
R		<ul><li><u>a</u> If there is no continuity:</li><li>Repair the wiring.</li></ul>
R		<ul> <li>b If there is continuity:</li> <li>Replace the C/B-AIR BLEED/ENG 2/MONG (2HA2) (Ref. ASM 36-11/02).</li> </ul>
		3 If the fault continues:
R		- Make sure that there is a O psig output signal (0.9VDC) at
R		the BMC2 (1HA2) connector between pins AA/11B and AA/12B.
		$\underline{a}$ If there is no <b>0.9VDC</b> :
R		- Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2)
R		(Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
		4 If the fault continues:
R		- Do a check and repair the wiring between pins A/3 and A/4 of
R		the bleed regulated pressure transducer (8HA2) and pins AA/12B and AA/11B of the BMC2 (1HA2) (Ref. ASM 36-11/02).
		(b) If there is 28VDC:
R		- Replace the XDCR-BLEED REGULATED PRESS, ENG 2 (8HA2) (Ref. AMM
R		TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).

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R	<ul><li>(2) If the circuit breaker is open:</li><li>Do the procedure (Ref. TASK 24-00-00-810-803).</li></ul>
R	(a) If the fault continues:
R R	- Replace the C/B-AIR BLEED/ENG 2/MONG (2HA2).
R R	<ul><li>(b) If the circuit breaker stays closed and the fault continues:</li><li>Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).</li></ul>

C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-955

Drift of the Engine 1 Bleed Transferred Pressure Transducer

- 1. Possible Causes
  - XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1)
  - BMC-1 (1HA1)
- wiring
- C/B-AIR BLEED/ENG 1/MONG (2HA1)
- 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	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
	AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM ASM	36-11-34-400-001 36-11/01	Installation of the BMC (1HA1, 1HA2)

- 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
49٧0	AIR BLEED/ENG 1/MONG	2HA1	D11

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	B. If the fault symptom is identified by the maintenance message: DRIFT TRANSF-PRESS XDCR 7HA1
R R	<ul> <li>Do a check of the status of the AIR BLEED/ENG 1/MONG circuit breaker (2HA1).</li> </ul>
R R	<ul> <li>(1) If the circuit breaker is closed:         <ul> <li>Do a check for 28VDC at pin A/1 of the bleed transferred pressure transducer (7HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R R	<ul><li>(a) If there is no 28VDC:</li><li>Do a check for ground at pin A/2 of the bleed transferred pressure transducer (7HA1) (Ref. ASM 36-11/01).</li></ul>
R R	<ul> <li>If there is no ground:         <ul> <li>Repair the wiring between pin A/2 of the bleed transferred pressure transducer (7HA1) and the ground (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R R	<ul> <li>If there is ground:         <ul> <li>Do a check of the wiring between pin A/1 of the bleed transferred pressure transducer (7HA1) and the AIR BLEED/ENG 1/MONG circuit breaker (2HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R	<ul><li><u>a</u> If there is no continuity:</li><li>Repair the wiring.</li></ul>
R	<ul> <li><u>b</u> If there is continuity:</li> <li>- Replace the C/B-AIR BLEED/ENG 1/MONG (2HA1) (Ref. ASM 36-11/01).</li> </ul>
R R	<ul> <li>If the fault continues:</li> <li>Make sure that there is a O psig output signal (0.9VDC) at the BMC1 (1HA1) connector between pins AA/14B and AA/15B.</li> </ul>
R R	<ul> <li>a If there is no 0.9VDC:</li> <li>Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).</li> </ul>
R R	<ul> <li>If the fault continues:         <ul> <li>Do a check and repair the wiring between pins A/3 and A/4 of the bleed transferred pressure transducer (7HA1) and pins AA/14B and AA/15B of the BMC1 (1HA1) (Ref. ASM 36-11/01).</li> </ul> </li> </ul>
R R	<ul><li>(b) If there is 28VDC:</li><li>Replace the XDCR-BLEED TRANSFER PRESS, ENG 1 (7HA1) (Ref. AMM TASK 36-11-15-400-001).</li></ul>

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R	<ul><li>(2) If the circuit breaker is open:</li><li>Do the procedure (Ref. TASK 24-00-00-810-803).</li></ul>
R R	(a) If the fault continues:
R	- Replace the C/B-AIR BLEED/ENG 1/MONG (2HA1).
R	<ul><li>(b) If the circuit breaker stays closed and the fault continues:</li><li>Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and</li></ul>
R	(Ref. AMM TASK 36-11-34-400-001).
	C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-956

Drift of the Engine 2 Bleed Transferred Pressure Transducer

DESTANATION

- 1. Possible Causes
  - XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2)
  - BMC-2 (1HA2)
- wiring

DEFEDENCE

- C/B-AIR BLEED/ENG 2/MONG (2HA1)
- 2. Job Set-up Information
  - A. Referenced Information

	KEFE	KENCE	DESIGNATION
R	24-0	0-00-810-803	Circuit Breaker Tripped and/or C/B TRIPPED Warning
	AMM	36-11-15-000-001	Removal of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)
	AMM	36-11-15-400-001	<pre>Installation of the Bleed Transferred Pressure Transducer (7HA1, 7HA2)</pre>
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
	ASM	36-11/02	

- 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
122VU	   AIR BLEED/ENG 2/MONG	2HA2	Z22

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R	DRIFT T	fault symptom is identified by the maintenance message: RANSF-PRESS XDCR 7HA2
R R	- Do a (2HA2	check of the status of the AIR BLEED/ENG 2/MONG circuit breaker ?).
R R	- D	the circuit breaker is closed: To a check for 28VDC at pin A/1 of the bleed transferred pressure cransducer (7HA2) (Ref. ASM 36-11/02).
R R	(a)	<ul> <li>If there is no 28VDC:</li> <li>Do a check for ground at pin A/2 of the bleed transferred pressure transducer (7HA2) (Ref. ASM 36-11/02).</li> </ul>
R R		<ul> <li>If there is no ground:         <ul> <li>Repair the wiring between pin A/2 of the bleed transferred pressure transducer (7HA2) and the ground (Ref. ASM 36-11/02).</li> </ul> </li> </ul>
R R		<ul> <li>If there is ground:         <ul> <li>Do a check of the wiring between pin A/1 of the bleed transferred pressure transducer (7HA2) and the AIR BLEED/ENG2/MONG circuit breaker (2HA2) (Ref. ASM 36-11/02).</li> </ul> </li> </ul>
R		<ul><li><u>a</u> If there is no continuity:</li><li>Repair the wiring.</li></ul>
R		<ul> <li><u>b</u> If there is continuity:</li> <li>Replace the C/B-AIR BLEED/ENG 2/MONG (2HA1) (Ref. ASM 36-11/02).</li> </ul>
R R		<ul> <li>If the fault continues:         <ul> <li>Make sure that there is a O psig output signal (0.9VDC) at the BMC2 (1HA2) connector between pins AA/14B and AA/15B.</li> </ul> </li> </ul>
R R		a If there is no 0.9VDC: - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-000-001) and (Ref. AMM TASK 36-11-15-400-001).
R R		<ul> <li>If the fault continues:</li> <li>Do a check and repair the wiring between pins A/3 and A/4 of the bleed transferred pressure transducer (7HA2) and pins AA/14B and AA/15B of the BMC2 (1HA2) (Ref. ASM 36-11/02).</li> </ul>
R R	(b)	If there is 28VDC: - Replace the XDCR-BLEED TRANSFER PRESS, ENG 2 (7HA2) (Ref. AMM TASK 36-11-15-400-001).

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R	<ul><li>(2) If the circuit breaker is open:</li><li>Do the procedure (Ref. TASK 24-00-00-810-803).</li></ul>
R	(a) If the fault continues:
R R	- Replace the C/B-AIR BLEED/ENG 2/MONG (2HA1).
R	<ul><li>(b) If the circuit breaker stays closed and the fault continues:</li><li>Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and</li></ul>
R	(Ref. AMM TASK 36-11-34-400-001).

C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-957

Spurious ENG BLEED fault indication on the Engine 1

- 1. Possible Causes
  - BMC-1 (1HA1)
  - P/BSW-ENG 1 BLEED (4HA1)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION				
AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001 ASM 36-11/01	BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)				

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives the maintenance message: BMC1 OR BLEED FAULT IND 4HA1
    - NOTE: If the maintenance message BMC1 OR BLEED FAULT IND 4HA1 comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
    - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - Replace the P/BSW-ENG 1 BLEED (4HA1) (Ref. ASM 36-11/01).
      - (a) If the fault continues:
        - Do a check and repair the wiring (Ref. ASM 36-11/01) between:
           Pin A/C2 of the engine 1 bleed pushbutton switch (4HA1) and pin AA/4A of the BMC1 (1HA1)
          - Pin A/C2 of the engine 1 bleed pushbutton switch and pin AA/4A of the BMC1
          - . Pin A/C3 and the ground.

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B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-958

Spurious ENG BLEED fault indication on the Engine 2

- 1. Possible Causes
  - BMC-2 (1HA2)
  - P/BSW-ENG 2 BLEED (4HA2)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION				
AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001 ASM 36-11/02	BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)				

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the BITE test gives the maintenance message: BMC2 OR BLEED FAULT IND 4HA2
    - NOTE : If the maintenance message BMC2 OR BLEED FAULT IND 4HA2 comes into view with no associated ECAM warning, no trouble shooting procedure is necessary.
    - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) If the fault continues:
      - Replace the P/BSW-ENG 2 BLEED (4HA2) (Ref. ASM 36-11/02).
      - (a) If the fault continues:
        - Do a check and repair the wiring (Ref. ASM 36-11/02) between:
           Pin A/C2 of the engine 2 bleed pushbutton switch (4HA2) and pin AA/4A of the BMC2 (1HA2)
          - Pin A/C2 of the engine 2 bleed pushbutton switch and pin AA/4A of the BMC2
          - . Pin A/C3 and the ground.

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B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

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TASK 36-11-00-810-959

Loss of Bleed Air from the Engine 1 because of Starter-Valve Opening Indication

### 1. Possible Causes

- VALVE-PNEUMATIC STARTER (4005KS)
- BMC-1 (1HA1)
- P/BSW-ENG 1 BLEED (4HA1)
- ENG/APU FIRE PNL (1WD)
- SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1)
- wiring

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION			
АММ	26-12-12-000-001	Removal of the ENG/APU Fire Panel (1WD)			
AMM	26-12-12-400-001	Installation of the ENG/APU Fire Panel (1WD)			
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)			
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)			
AMM	36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)			
AMM	36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>			
AMM	80-11-20-000-003	Removal of the Starter Shutoff Valve			
AMM ASM	80-11-20-400-003 36-11/01	Installation of the Starter Shutoff Valve			

### 3. Fault Confirmation

#### A. Test

(1) Not applicable, the fault is evident.

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If the fault symptom is identified by the crew observation: ENG BLEED AIR Loss of bleed air from engine 1
  - Replace the engine 1 VALVE-PNEUMATIC STARTER (4005KS) (Ref. AMM TASK 80-11-20-000-003) and (Ref. AMM TASK 80-11-20-400-003).
  - (1) If the fault continues:
    - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (a) If the fault continues:
      - Do a check of the wiring (Ref. ASM 36-11/01) between:
        - . Pin 2 of the AIR BLEED/ENG 1/CTL circuit breaker (3HA1) and pin AA/8A of the BMC 1 (1HA1)
        - Pin 2 of the AIR BLEED/ENG 1/CTL circuit breaker and pin A/D2 of the ENG 1 BLEED pushbutton switch (4HA1)
        - Pin AA/7A of the BMC 1 and pin A/D1 of the ENG 1 BLEED pushbutton switch
        - Pin A/D3 of the ENG 1 BLEED pushbutton switch and pin A/1 of the bleed pressure regulator valve control solenoid (10HA1)
        - Pin A/2 of the engine 1 bleed pressure regulator valve control solenoid and the ground.
      - 1 If the wiring is not correct:
        - Repair the wiring.
      - 2 If the wiring is correct:
        - Replace the P/BSW-ENG 1 BLEED (4HA1).
        - a If the fault continues:
          - Replace the ENG/APU FIRE PNL (1WD) (Ref. AMM TASK 26-12-12-000-001) and (Ref. AMM TASK 26-12-12-400-001).
            - \* If the fault continues:
            - \* Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 1 (10HA1) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-11-00-810-960

Loss of Bleed Air from the Engine 2 because of Starter-Valve Opening Indication

### 1. Possible Causes

- VALVE-PNEUMATIC STARTER (4005KS)
- BMC-2 (1HA2)
- P/BSW-ENG 2 BLEED (4HA2)
- ENG/APU FIRE PNL (1WD)
- SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2)
- wiring

### 2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION		
AMM 26-12-12-000-001	Removal of the ENG/APU Fire Panel (1WD)		
AMM 26-12-12-400-001	Installation of the ENG/APU Fire Panel (1WD)		
AMM 36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)		
AMM 36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)		
AMM 36-11-55-000-001	Removal of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)		
AMM 36-11-55-400-001	<pre>Installation of the Bleed-Pressure-Regulator Valve Control-Solenoid (10HA1, 10HA2)</pre>		
AMM 80-11-20-000-003	Removal of the Starter Shutoff Valve		
AMM 80-11-20-400-003	Installation of the Starter Shutoff Valve		
ASM 36-11/02			

### 3. Fault Confirmation

### A. Test

(1) Not applicable, the fault is evident.

EFF: ALL 36-11-00

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If the fault symptom is identified by the crew observation: ENG BLEED AIR Loss of bleed air from engine 2
  - Replace the engine 2 VALVE-PNEUMATIC STARTER (4005KS) (Ref. AMM TASK 80-11-20-000-003) and (Ref. AMM TASK 80-11-20-400-003).
  - (1) If the fault continues:
    - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (a) If the fault continues:
      - Do a check of the wiring (Ref. ASM 36-11/02) between:
        - . Pin 2 of the AIR BLEED/ENG 2/CTL circuit breaker (3HA2) and pin AA/8A of the BMC 2 (1HA2)
        - Pin 2 of the AIR BLEED/ENG 2/CTL circuit breaker and pin A/D2 of the ENG 2 BLEED pushbutton switch (4HA2)
        - Pin AA/7A of the BMC 2 and pin A/D1 of the ENG 2 BLEED pushbutton switch
        - Pin A/D3 of the ENG 2 BLEED pushbutton switch and pin A/1 of the bleed pressure regulator valve control solenoid (10HA2)
        - Pin A/2 of the engine 2 bleed pressure regulator valve control solenoid and the ground.
      - 1 If the wiring is not correct:
        - Repair the wiring.
      - 2 If the wiring is correct:
        - Replace the P/BSW-ENG 2 BLEED (4HA2).
        - a If the fault continues:
          - Replace the ENG/APU FIRE PNL (1WD) (Ref. AMM TASK 26-12-12-000-001) and (Ref. AMM TASK 26-12-12-400-001).
            - \* If the fault continues:
            - \* Replace the SOLENOID-BLEED PRESS REG V CTL, ENG 2 (10HA2) (Ref. AMM TASK 36-11-55-000-001) and (Ref. AMM TASK 36-11-55-400-001).
- B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
  TASK 36-11-00-810-961
R Discrete Signal Failure of the BMC1
R 1. Possible Causes
R
     - BMC-1 (1HA1)
R 2. Job Set-up Information
      A. Referenced Information
R
  REFERENCE
                             DESIGNATION
R AMM 36-11-00-740-001
                             BITE Test of the BMC 1(2)
R AMM 36-11-34-000-001
                             Removal of the BMC (1HA1, 1HA2)
R AMM 36-11-34-400-001
                            Installation of the BMC (1HA1, 1HA2)
R 3. Fault Confirmation
  **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
  Post SB 36-1057 For A/C 201-201,203-204,206-225,227-227,229-231,233-244,
                            254-275,278-279,281-281,283-283,286-299,701-749,
R
     A. Test
R
         (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
  **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
R 4. Fault Isolation
  **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
  Post SB 36-1057 For A/C 201-201,203-204,206-225,227-227,229-231,233-244,
                            254-275,278-279,281-281,283-283,286-299,701-749,
R
      A. If the test gives one of the following maintenance message:
R
         BMC1 OR APU FAULT AND 5HV or
R
R
         BMC1 OR XFEED-V DISCRETE or
         BMC1 OR APU BLEED DISCRETE or
R
         BMC1 OR WAI DISCRETE
R
         - Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM
R
           TASK 36-11-34-400-001).
```

EFF: 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749, SROS

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### TROUBLE SHOOTING MANUAL

R B. Do the test given in para. 3.

EFF: 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749, SROS

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#### TROUBLE SHOOTING MANUAL

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R **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
  TASK 36-11-00-810-962
R Discrete Signal Failure of the BMC2
  1. Possible Causes
R
     - BMC-2 (1HA2)
R 2. Job Set-up Information
      A. Referenced Information
R
  REFERENCE
                             DESIGNATION
R AMM 36-11-00-740-001
                             BITE Test of the BMC 1(2)
R AMM 36-11-34-000-001
                             Removal of the BMC (1HA1, 1HA2)
R AMM 36-11-34-400-001
                            Installation of the BMC (1HA1, 1HA2)
R 3. Fault Confirmation
  **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
  Post SB 36-1057 For A/C 201-201,203-204,206-225,227-227,229-231,233-244,
                            254-275,278-279,281-281,283-283,286-299,701-749,
R
     A. Test
R
         (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
  **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
R 4. Fault Isolation
  **ON A/C 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275,
  278-279, 281-281, 283-283, 286-299, 701-749,
  Post SB 36-1057 For A/C 201-201,203-204,206-225,227-227,229-231,233-244,
                            254-275,278-279,281-281,283-283,286-299,701-749,
R
      A. If the test gives one of the following maintenance message:
R
         BMC2 OR APU FAULT AND 5HV or
R
R
         BMC2 OR XFEED-V DISCRETE or
         BMC2 OR APU BLEED DISCRETE or
R
         BMC2 OR WAI DISCRETE
R
         - Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM
R
           TASK 36-11-34-400-001).
```

EFF: 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749, SROS

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### TROUBLE SHOOTING MANUAL

R B. Do the test given in para. 3.

EFF: 201-201, 203-204, 206-225, 227-227, 229-231, 233-244, 254-275, 278-279, 281-281, 283-283, 286-299, 701-749, SROS

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### TROUBLE SHOOTING MANUAL

### ENGINE BLEED AIR SUPPLY SYSTEM - TASK SUPPORTING DATA

### 1. BMC output data bus (numerical word)

These tables contain all the output parameters in the digital form. The following tables give:

- SYS LABEL SDI: output label for which the parameter is available
- PARAMETER DEFINITION: parameter name
- RANGE ACCURACY: measurement range. Maximun value transmitted. When the digital value changes, the change step is equal to the accuracy
- UNIT: unit in which the digital value is transmitted
- SIG BIT: indicates whether a sign bit is available
- DATA BITS: number of bits used by the parameter in the label
- XMSN INTV: output transmission interval. The refresh rate is given in milliseconds (MIN/MAX)
- CODE:

- BNR: binary data word
- BCD: binary coded decimal data word
- ISO: data word coded in ISO 5 code

PARAMETER	R LIST	PAR	AMETEI	R CH	ARACTI	ERIST	[CS (I	NUMERI(	c)
EQ.SYS.LAB.SDI	DEFINITION (*=REMARK)	OPER RANGE	UNIT       	SIG  BIT 	-	XMSN  INTV 	•	:	SOURCE    ORIGIN    BUS No.   ATA REF   CONV
•	ENG1  PRECOOLER  OUTLET  TEMP.	0/+512   0,5 	deg.   C 	         	-	125 <i> </i>   250 	<b>BNR</b>       	       	
•	ENG1   PRECOOLER   INLET   PRESS PR1		PSIG     	       	-	   125/   250 	   BNR     	       	
	  ENG2  PRECOOLER    OUTLET  TEMP		deg.   C 	       	-	125 <i> </i>   125 <i> </i>   250 		       	
•	ENG2  PRECOOLER  INLET  PRESS PR2	0/+512   0,5 	PSIG       	         	-	125 <i> </i>   125 <i> </i>   250 	BNR     		
1.151.01	  ENG1  TRANSFER  RED  PRESSURE	   0/+512 1 0,5 	  PSIG   	       	-	125 <i> </i>   125 <i> </i>   250 	BNR     	- <b></b>       	 

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### TROUBLE SHOOTING MANUAL

PARAMETE	R LIST	PAR	AMETEI	R CH	ARACTI	ERIST	CS (I	NUMERI(	c)
İ	DEFINITION  (*=REMARK)	OPER RANGE		SIG  BIT   		XMSN  INTV 		CODE   	SOURCE    ORIGIN    BUS No.   ATA REF   CONV
 	  ENG1 HIGH  PRESS	  for CFM ENG 1	  PSIG 		14	   125/  250   		<b></b>	 
į Į	  ENG2  TRANSFER- '  RED  PRESSURE	•	  PSIG   	<b></b>       	-	   125/  250 	BNR	<b></b>     	 
 	PRESS	  for CFM ENG 1		           		   125/  250   	   BNR 	<b></b>           	 
•	  EQUIPT  IDENT		NONE	<b></b>   		125 <i> </i>   125 <i> </i>   250	BCD	   	 
	  MAINTE-  NANCE DATA			   	:	SEE  NOTE	  IS05	   	 
1.316.01	   OIL TEMP 	  -60 TO +250   0,5	  deg.   C	   	12   	   125/   250	BNR	   	 
1.322.01   2.322.10	NACELLE   TEMP	  -55 TO +330   0,5	  deg.   C	   	•	   125/   250		<b></b>   	 

EFF: ALL

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### TROUBLE SHOOTING MANUAL

### APU BLEED AIR SUPPLY AND CROSSBLEED SYSTEMS - FAULT ISOLATION PROCEDURES

TASK 36-12-00-810-801

Fault of the APU Bleed Supply

### 1. Possible Causes

- ECB (59KD)
- BMC-1 (1HA1)
- BMC-2 (1HA2)
- APU BLEED P/BSW (5HV)
- wiring

### 2. Job Set-up Information

#### A. Referenced Information

49-00-00-810-824  APU AUTO SHUT DOWN - IGV FAILURE, Inlet Guide Vanes Fault (GTCP36-300)  49-00-00-810-827  49-00-00-810-828  Total Pressure-Sensor Fault (GTCP 36-300)  49-00-00-810-829  49-00-00-810-830  49-00-00-810-847  No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (GTCP 36-300)  49-00-00-810-947  No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)  49-00-00-810-903  49-00-00-810-904  APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS 3200)  49-00-00-810-905  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907  Load Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908  Inlet Pressure/Temperature Sensor Fault (APS 3200)  No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS support) (APS 3200)
Fault (GTCP36-300)  49-00-00-810-827  49-00-00-810-828  Total Pressure-Sensor Fault (GTCP 36-300)  49-00-00-810-829  49-00-00-810-830  49-00-00-810-847  No APU Bleed-Air Pressure, Low or Fluctuating APU  Bleed-Air Pressure (GTCP 36-300)  49-00-00-810-847  No APU Bleed-Air Pressure, Low or Fluctuating APU  Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)  49-00-00-810-903  Bleed Flow-Transducer Fault (APS 3200)  49-00-00-810-904  APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed  Control Valve Fault (APS 3200)  49-00-00-810-905  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide  Vane Actuator Fault (APS 3200)  49-00-00-810-907  Load-Compressor Discharge Temperature-Sensor Fault  (APS 3200)  49-00-00-810-908  Inlet Pressure/Temperature Sensor Fault (APS 3200)  No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-828       Total Pressure-Sensor Fault (GTCP 36-300)         49-00-00-810-829       Load Control-Valve Fault (GTCP 36-300)         49-00-00-810-830       Surge Control-Valve Fault (GTCP 36-300)         49-00-00-810-847       No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (GTCP 36-300)         49-00-00-810-903       Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)         49-00-00-810-904       APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS 3200)         49-00-00-810-905       APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)         49-00-00-810-907       Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)         49-00-00-810-908       Inlet Pressure/Temperature Sensor Fault (APS 3200)         49-00-00-810-937       No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-829 49-00-00-810-830 Surge Control-Valve Fault (GTCP 36-300) 49-00-00-810-847 No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (GTCP 36-300)  49-00-00-810-847 No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)  49-00-00-810-903 Bleed Flow-Transducer Fault (APS 3200)  49-00-00-810-904 APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200)  49-00-00-810-905 APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-830 49-00-00-810-847 No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (GTCP 36-300)  49-00-00-810-847 No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)  49-00-00-810-903 Bleed Flow-Transducer Fault (APS 3200)  49-00-00-810-904 APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200)  49-00-00-810-905 APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) No APU Bleed-Air Pressure, Low or Fluctuating APU
No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (GTCP 36-300)  49-00-00-810-847 No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)  49-00-00-810-903 Bleed Flow-Transducer Fault (APS 3200) APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200)  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) No APU Bleed-Air Pressure, Low or Fluctuating APU
Bleed-Air Pressure (GTCP 36-300)  49-00-00-810-847  No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS Support) (GTCP 36-300)  49-00-00-810-903  Bleed Flow-Transducer Fault (APS 3200)  APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200)  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907  Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908  Inlet Pressure/Temperature Sensor Fault (APS 3200)  No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-847  No APU Bleed-Air Pressure, Low or Fluctuating APU Bleed-Air Pressure (with AIDS Support) (GTCP 36-300) 49-00-00-810-903 Bleed Flow-Transducer Fault (APS 3200) APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200) APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200) Load-Compressor Discharge Temperature-Sensor Fault (APS 3200) 10-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) No APU Bleed-Air Pressure, Low or Fluctuating APU
Bleed-Air Pressure (with AIDS Support) (GTCP 36-300) 49-00-00-810-903 Bleed Flow-Transducer Fault (APS 3200) 49-00-00-810-904 APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS 3200) 49-00-00-810-905 APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200) 49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200) 49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-903 Bleed Flow-Transducer Fault (APS 3200) 49-00-00-810-904 APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200) 49-00-00-810-905 APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200) 49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200) 49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-904  APU AUTO SHUT DOWN - SURGE /REVERSE FLOW, Bleed Control Valve Fault (APS3200)  49-00-00-810-905  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907  Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908  Inlet Pressure/Temperature Sensor Fault (APS 3200)  No APU Bleed-Air Pressure, Low or Fluctuating APU
Control Valve Fault (APS3200)  49-00-00-810-905  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907  Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908  Inlet Pressure/Temperature Sensor Fault (APS 3200)  No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-905  APU AUTO SHUT DOWN - OVERTEMPERATURE, Inlet Guide Vane Actuator Fault (APS 3200)  49-00-00-810-907  Load-Compressor Discharge Temperature-Sensor Fault (APS 3200)  49-00-00-810-908  Inlet Pressure/Temperature Sensor Fault (APS 3200)  No APU Bleed-Air Pressure, Low or Fluctuating APU
Vane Actuator Fault (APS 3200) 49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200) 49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) 49-00-00-810-937 No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-907 Load-Compressor Discharge Temperature-Sensor Fault (APS 3200) 49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) 49-00-00-810-937 No APU Bleed-Air Pressure, Low or Fluctuating APU
(APS 3200) 49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) 49-00-00-810-937 No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-908 Inlet Pressure/Temperature Sensor Fault (APS 3200) 49-00-00-810-937 No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-00-810-937 No APU Bleed-Air Pressure, Low or Fluctuating APU
49-00-81-810-851
49-00-81-810-853 Differential-Pressure Transducer (P24) Fault (131-9(A))
49-00-81-810-854 Total-Pressure Transducer (P23) Fault (131-9(A))
49-00-81-810-855 Load-Control Valve (P12) Fault (131-9(A))
49-00-81-810-856 Bleed Shutoff due to Reverse Flow Condition
(131-9(A))
49-00-81-810-871 Surge Control Valve (P18) Fault (131-9(A))
49-50-00-810-802 Bleed Load-Valve Position-Switch Fault (GTCP 36-300)

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### TROUBLE SHOOTING MANUAL

REFE	RENCE	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	31-60-00-860-001	EIS Start Procedure
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	49-00-00-710-005	Self-Test of the ECB (APS 3200)
AMM	49-00-00-710-009	Self-Test of the ECB (131-9(A))
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	49-00-00-860-009	APU Shutdown by External Power (131-9(A))
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	49-61-34-000-003	Removal of the Electronic Control Box (ECB) (131-9(A))
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)
AMM	49-61-34-400-003	<pre>Installation of the Electronic Control Box (ECB) (131-9(A))</pre>
ASM	36-12/00	

### 3. Fault Confirmation

A. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	DESIGNATION	IDENT. LOCAT	ION
49٧0	AIR BLEED/X FEED/VALVE/BAT	2HV D1	13
49VU	AIR BLEED/ENG 1/CTL	3HA1 D1	12
49VU	AIR BLEED/ENG 1/MONG	2HA1 D1	11
12 1VU	APU/APU/CTL	2KD L4	<b>4</b> 2
12 1VU	APU/ECB/SPLY	1KD L4	<b>i</b> 1
122VU	AIR BLEED/ENG 2/CTL	3HA2 Z2	23
122VU	AIR BLEED/ENG 2/MONG	2HA2 Z2	22
122VII	ATR BIFFD/X FFFD VALVE/NORM	1HV 72	'n

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## ) *A 319/A 320/A 321*

#### TROUBLE SHOOTING MANUAL

- 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).
  - (3) On panel 30VU, make sure that the OFF legends on the PACK 1 and PACK 2 pushbutton switches are on.

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

C. Test

ACTION

RESULT

- 1. Do the self test of the ECB (Ref. AMM TASK 49-00-00-710-005).
- 2. Start the APU (Ref. AMM TASK 49-00-00-860-005).
- 3. On the panel 30VU:
  - push the APU BLEED pushbutton switch.

On the panel 30VU:

- the ON legend on the APU BLEED pushbutton switch comes on.

NOTE: The APU supplies bleed-air after approx. 5 seconds.

On the SD:

- the APU bleed-valve symbol shows the APU bleed valve in the open (GREEN) position.

- 4. On the panel 30VU:
  - push the APU BLEED pushbutton switch.

On the panel 30VU:

- the ON legend on the APU BLEED pushbutton switch goes off.

On the SD:

- the APU bleed-valve symbol shows the APU bleed valve in the closed (GREEN) position.
- 5. Stop the APU (Ref. AMM TASK 49-00-00-860-006).

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### TROUBLE SHOOTING MANUAL

\*\*ON A/C 247-253,

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

C. Test

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**ACTION** 

**RESULT** 

- 1. Do the self test of the ECB (Ref. AMM TASK 49-00-00-710-009).
- 2. Start the APU (Ref. AMM TASK 49-00-00-860-008).
- 3. On the panel 30VU:
  - push the APU BLEED pushbutton switch.

On the panel 30VU:

 the ON legend on the APU BLEED pushbutton switch comes on.

NOTE: The APU supplies bleed-air after approx. 5 seconds.

On the SD:

 the APU bleed-valve symbol shows the APU bleed valve in the open (GREEN) position.

- 4. On the panel 30VU:
  - push the APU BLEED pushbutton switch.

On the panel 30VU:

- the **ON** legend on the **APU BLEED** pushbutton switch goes off.

On the SD:

- the APU bleed-valve symbol shows the APU bleed valve in the closed (GREEN) position.
- 5. Stop the APU (Ref. AMM TASK 49-00-00-860-009).

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### TROUBLE SHOOTING MANUAL

\*\*ON A/C ALL

#### 4. Fault Isolation

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

- A. If the self test gives the maintenance message:
  - BLEED CTL VLV P33 P24 (Ref. TASK 49-00-00-810-904),
  - BLEED FLOW XDCR P24 (Ref. TASK 49-00-00-810-903),
  - INLET TEMP/PRESS SNSR P22 (Ref. TASK 49-00-00-810-908),
  - INLET GUIDE VANE ACTR P21 (Ref. TASK 49-00-00-810-905),
  - LCDT SNSR P29 (Ref. TASK 49-00-00-810-907).

\*\*ON A/C 251-251,

- A. If the self test gives the maintenance message:
  - DIFFERENTIAL PRESS XDCR P24 (Ref. TASK 49-00-81-810-853),
  - TOTAL PRESS XDCR P23 (Ref. TASK 49-00-81-810-854),
  - SURGE CTL VALVE P18 (Ref. TASK 49-00-81-810-871),
  - INLET GUIDE VANE ACTR P21 (Ref. TASK 49-00-81-810-851),
  - LOAD CTL VALVE P12 (Ref. TASK 49-00-81-810-855).

\*\*ON A/C 247-250, 252-253,

Post SB 49-1069 For A/C 247-250,252-253, Post SB 49-1073 For A/C 247-250,252-253,

- A. If the self test gives the maintenance message:
  - DIFFERENTIAL PRESS XDCR (8043KM) (Ref. TASK 49-00-00-810-827),
  - TOTAL PRESS XDCR (8044KM) (Ref. TASK 49-00-00-810-828),
  - SURGE CTL VALVE (8058KM) (Ref. TASK 49-00-00-810-830),
  - INLET GUIDE VANE ACTR (8014KM) (Ref. TASK 49-00-00-810-824),
  - LOAD CTL VALVE (8050KM) (Ref. TASK 49-00-00-810-829).
- R \*\*ON A/C 201-225, 227-227, 229-250, 252-299, 426-499, 503-549, 551-599, R 701-749,
  - B. Maintenance ACtion
    - (1) If the test gives the maintenance message AIR APU FAULT on the EWD: do the trouble shooting of the APU bleed outlet (Ref. TASK 49-00-00-810-904).
    - (2) If the test gives that the APU supplies . no bleed-air pressure

- low or fluctuating bleed-air pressure:
- do the related trouble shooting task (Ref. TASK 49-00-00-810-937).

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#### TROUBLE SHOOTING MANUAL

- (3) If the fault continues:
  - replace the APU BLEED P/BSW (5HV) on panel 30VU.
- (4) If the fault continues:
  - do a check and repair if necessary the wiring between:
     the BMC-1, BMC-2 connector AB/6A and the ECB (ELECTRONIC CONTROL BOX) (59KD) connector AB/D6 (Ref. ASM 36-12/00).
- (5) If the fault continues:
  - do a check and repair the wiring if necessary between: the BMC-1, BMC-2 connector AA/14C and the APU BLEED P/BSW (5HV) connector A/B1 (Ref. ASM 36-12/00), the APU BLEED P/BSW (5HV) connector A/B3 and GND (Ref. ASM 36-12/00).
- (6) If the fault continues:
  - do a check and repair the wiring if necessary between: the BMC-1, BMC-2 connector AA/15C and the APU LOAD-CONTROL VALVE connector P/33 (Ref. ASM 36-12/00), the APU LOAD-CONTROL VALVE connector P4 and GND (Ref. ASM 36-12/00).
- (7) 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).
- (8) If the fault continues:
  - replace the BMC-1 (1HA1) or the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

\*\*ON A/C 251-251,

- B. Maintenance Action
  - (1) If the test gives the Warning AIR APU FAULT on the EWD:
    - do the trouble shooting of the APU bleed-air output (Ref. TASK 49-00-81-810-856).
  - (2) If the fault continues:
    - replace the APU BLEED P/BSW (5HV) on panel 30VU.
  - (3) If the fault continues:
    - do a check and repair if necessary the wiring between:
       the BMC-1, BMC-2 connector AB/6A and the ECB (ELECTRONIC CONTROL BOX) (59KD) connector AB/D6 (Ref. ASM 36-12/00).

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- (4) If the fault continues:
  - do a check and repair the wiring if necessary between: the BMC-1, BMC-2 connector AA/14C and the APU BLEED P/BSW (5HV) connector A/B1 (Ref. ASM 36-12/00), the APU BLEED P/BSW (5HV) connector A/B3 and GND (Ref. ASM 36-12/00).
- (5) If the fault continues:
  - do a check and repair the wiring if necessary between: the BMC-1, BMC-2 connector AA/15C and the APU LOAD-CONTROL VALVE connector P/33 (Ref. ASM 36-12/00), the APU LOAD-CONTROL VALVE connector P4 and GND (Ref. ASM 36-12/00).
- (6) If the fault continues:
  - replace the ECB (59KD) (Ref. AMM TASK 49-61-34-000-003) and (Ref. AMM TASK 49-61-34-400-003).
- (7) If the fault continues:
  - replace the BMC-1 (1HA1) or the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
- R \*\*ON A/C 247-250, 252-253,

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

- B. Maintenance Action
  - (1) If the test gives the maintenance message AIR APU FAULT on the EWD:do the trouble shooting of the APU bleed-air output (Ref. TASK 49-

00-00-810-829), (Ref. TASK 49-50-00-810-802) and (Ref. TASK 49-00-00-810-847).

- (2) If the test gives that the APU supplies
  - no bleed-air pressure

or

- low or fluctuating bleed-air pressure:
- do the related trouble shooting task (Ref. TASK 49-00-00-810-847) or (Ref. TASK 49-00-00-810-847).
- (3) If the fault continues:
  - replace the APU BLEED P/BSW (5HV) on panel 30VU.
- (4) If the fault continues:
  - do a check and repair if necessary the wiring between:
     the BMC-1, BMC-2 connector AB/6A and the ECB (ELECTRONIC CONTROL BOX) (59KD) connector AB/D6 (Ref. ASM 36-12/00).

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### TROUBLE SHOOTING MANUAL

- (5) If the fault continues:
  - do a check and repair the wiring if necessary between: the BMC-1, BMC-2 connector AA/14C and the APU BLEED P/BSW (5HV) connector A/B1 (Ref. ASM 36-12/00), the APU BLEED P/BSW (5HV) connector A/B3 and GND (Ref. ASM 36-12/00).
- (6) If the fault continues:
  - do a check and repair the wiring if necessary between: the BMC-1, BMC-2 connector AA/15C and the APU LOAD-CONTROL VALVE connector P/33 (Ref. ASM 36-12/00), the APU LOAD-CONTROL VALVE connector P4 and GND (Ref. ASM 36-12/00).
- (7) 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).
- (8) If the fault continues:
  - replace the BMC-1 (1HA1) or the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).

#### \*\*ON A/C ALL

C. Do the test as given in para. 3 to make sure that the operation is correct.

### 5. Close-up

- A. Put the aircraft back to the serviceable condition.
  - (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**

### TROUBLE SHOOTING MANUAL

TASK 36-12-00-810-802

Fault of the Crossbleed Valve Position Control

- 1. Possible Causes
  - VALVE-X BLEED (6HV)
  - BMC-1 (1HA1)
  - BMC-2 (1HA2)
  - wiring
  - X-BLEED-VALVE AUTO CTL RELAY (4HV)
  - CROSSBLEED-VALVE SELECTOR SWITCH (3HV)
  - X-BLEED-VALVE AUTOMATIC-CONTROL RELAY (4HV)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION				
ΔММ	36-11-00-740-001	BITE Test of the BMC 1(2)				
AMM		Removal of the BMC (1HA1, 1HA2)				
AMM		Installation of the BMC (1HA1, 1HA2)				
AMM		Removal of the Crossbleed Valve (6HV)				
	36-12-52-400-001	Installation of the Crossbleed Valve (6HV)				
AMM		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	49-00-00-860-009	APU Shutdown by External Power (131-9(A))				
ASM	36-12/01	•				
	ault Confirmation					

A. Test

R 551-599, 701-749,

- (1) Start the APU (Ref. AMM TASK 49-00-00-860-005).
- (2) On the AIR COND panel 30VU:
  - (a) Make sure that:
    - the APU BLEED p/bsw ON legend shows on.

R \*\*ON A/C 201-225, 227-227, 229-250, 252-299, 426-456, 476-499, 503-549,

- the OFF legend on the PACK 1 and the PACK 2 p/bsw shows off.
- (b) Set the X BLEED selector to the OPEN position.

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# *⑤A319/A320/A321*

### TROUBLE SHOOTING MANUAL

- (3) Do the operational test of both BMCs (Ref. AMM TASK 36-11-00-740-001).
- (4) Stop the APU (Ref. AMM TASK 49-00-00-860-006).

\*\*ON A/C 457-475,

#### A. Test

- (1) Start the APU (Ref. AMM TASK 49-00-00-860-003).
- (2) On the AIR COND panel 30VU:
  - (a) Make sure that:
    - the APU BLEED p/bsw ON legend shows on.
    - the OFF legend on the PACK 1 and the PACK 2 p/bsw shows off.
  - (b) Set the X BLEED selector to the OPEN position.
- (3) Do the operational test of both BMCs (Ref. AMM TASK 36-11-00-740-001).
- (4) Stop the APU (Ref. AMM TASK 49-00-00-860-004).

\*\*ON A/C 247-253,

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

#### A. Test

- (1) Start the APU (Ref. AMM TASK 49-00-00-860-008).
- (2) On the AIR COND panel 30VU:
  - (a) Make sure that:
    - the APU BLEED p/bsw ON legend shows on.
    - the OFF legend on the PACK 1 and the PACK 2 p/bsw shows off.
  - (b) Set the X BLEED selector to the OPEN position.
- (3) Do the operational test of both BMCs (Ref. AMM TASK 36-11-00-740-001).
- (4) Stop the APU (Ref. AMM TASK 49-00-00-860-009).

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### TROUBLE SHOOTING MANUAL

#### \*\*ON A/C ALL

### 4. Fault Isolation

- A. If both BMCs give the maintenance message X-FEED VALVE 6HV OR CKT and the VALVE-X BLEED (6HV) is accidentally open:
  - put the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) to the CLOSE position.
  - (1) If the VALVE-X BLEED (6HV) closes:
    - remove one of the two BMCs (Ref. AMM TASK 36-11-34-000-001),
    - do the operational test again.
    - (a) If the test is OK:
      - replace the removed BMC-1 (1HA1) or BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001).
    - (b) If the test is not **OK**:
      - install the removed BMC-1 (1HA1) or BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001).
      - remove the other BMC (Ref. AMM TASK 36-11-34-000-001),
      - do the operational test again.
      - 1 If the test is OK:
        - replace the removed BMC-1 (1HA1) or BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001).
  - (2) If the fault continues:
    - do a check for a ground signal at the X-BLEED-VALVE
       AUTOMATIC-CONTROL RELAY (4HV) connector A/X2 (Ref. ASM 36-12/01).
    - (a) If there is a ground signal:
      - do a check and repair the wiring between:
         the BMC-1, BMC-2 (1HA1, 1HA2) connector AB/5A and the
         X-BLEED-VALVE AUTO CTL RELAY (4HV) connector A/X2 (Ref. ASM 36-12/01).
    - (b) If there is no ground signal:
      - replace the X-BLEED-VALVE AUTO CTL RELAY (4HV).
  - (3) If the VALVE-X BLEED (6HV) does not close:
    - replace the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) on the panel 30VU.
  - (4) If the fault continues:
    - replace the VALVE-X BLEED (6HV) (Ref. AMM TASK 36-12-52-000-001) and (Ref. AMM TASK 36-12-52-400-001).

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- B. If both BMCs give the maintenance message X-FEED VALVE 6HV OR CKT and the VALVE-X BLEED (6HV) is accidentally closed:
  - replace the VALVE-X BLEED (6HV) (Ref. AMM TASK 36-12-52-000-001) and (Ref. AMM TASK 36-12-52-400-001).
  - (1) If the fault continues:
    - put the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) on panel 30VU to the OPEN position.
    - (a) If the VALVE-X BLEED (6HV) opens:
      - replace the X-BLEED-VALVE AUTOMATIC-CONTROL RELAY (4HV).
      - 1 If the fault continues:
        - replace the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) on the panel 30VU.
      - 2 If the fault continues:
        - do a check and repair the wiring between:
           the X-BLEED-VALVE AUTOMATIC-CONTROL RELAY (4HV) connector
           A/A3,A1 and the VALVE-X BLEED (6HV) connector A/H,J (Ref. ASM 36-12/01),
        - do a check and repair the wiring between:
           the VALVE-X BLEED (6HV) connector A/G and ground (Ref. ASM 36-12/01).
      - 3 If the fault continues:
        - do a check and repair the wiring between: the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) connector A/23 and the X-BLEED-VALVE AUTOMATIC-CONTROL RELAY (4HV) connector A/A2,X1 (Ref. ASM 36-12/01).
      - 4 If the fault continues:
        - do a check and repair the wiring between:
           the CIRCUIT BREAKER (1HV) and the CROSSBLEED-VALVE SELECTOR
           SWITCH (3HV) connector A/21 (Ref. ASM 36-12/01).
      - 5 If the fault continues:
        - do a check and repair the wiring between: the X-BLEED-VALVE AUTOMATIC-CONTROL RELAY (4HV) connector A/X2 and the BMC-1, BMC-2 (1HA1/2) connector AB/5A (Ref. ASM 36-12/01).
    - (b) If the VALVE-X BLEED (6HV) does not open:
      - replace the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) on the panel 30VU.
      - 1 If the fault continues:
        - do a check and repair the wiring between: the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) connector A/10,12 and the VALVE-X BLEED (6HV) connector A/K,L (Ref. ASM 36-12/01),
        - do a check and repair the wiring between:

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the VALVE-X BLEED (6HV) A/M and ground (Ref. ASM 36-12/01).

- 2 If the fault continues:
  - do a check and repair the wiring between:
     the CIRCUIT BREAKER (2HV) and the CROSSBLEED-VALVE SELECTOR
     SWITCH (3HV) connector A/9 (Ref. ASM 36-12/01).
- C. If only one BMC gives the maintenance message X-FEED VALVE 6HV OR CKT:
   replace the related BMC-1 (1HA1) or BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring between:
       the related BMC connector AB/5A and the first terminal block (Ref. ASM 36-12/01).
- **D.** Do the test as given in Para. 3. to make sure that the operation is correct (no maintenance message shown).

EFF: ALL 36-12-00

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## TROUBLE SHOOTING MANUAL

TASK 36-12-00-810-803

Disagreement of the Position Switches of the Crossbleed Valve

- 1. Possible Causes
  - VALVE-X BLEED (6HV)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION	
ΔΜΜ	36-11-00-740-001	BITE Test of the BMC 1(2)	
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
AMM		Installation of the BMC (1HA1, 1HA2)	
	36-12-52-000-002	Removal of the Crossbleed Valve Actuator	
AMM		Installation of the Crossbleed Valve Actuator	
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	49-00-00-860-009	APU Shutdown by External Power (131-9(A))	
ASM	36-12/01		

- 3. Fault Confirmation
- R \*\*ON A/C 201-225, 227-227, 229-250, 252-299, 426-456, 476-499, 503-549, R 551-599, 701-749,
  - A. Test
    - (1) Start the APU (Ref. AMM TASK 49-00-00-860-005).
    - (2) Do the operational test of both BMCs (Ref. AMM TASK 36-11-00-740-001).
    - (3) Stop the APU (Ref. AMM TASK 49-00-00-860-006).

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\*\*ON A/C 251-251,

#### A. Test

- (1) Start the APU (Ref. AMM TASK 49-00-00-860-008).
- (2) Do the operational test of both BMCs (Ref. AMM TASK 36-11-00-740-001).
- (3) Stop the APU (Ref. AMM TASK 49-00-00-860-009).
- R \*\*ON A/C 247-250, 252-253, 457-475,
- R Post SB 49-1069 For A/C 247-250,252-253,
  - A. Test
    - (1) Start the APU (Ref. AMM TASK 49-00-00-860-003).
    - (2) Do the operational test of both BMCs (Ref. AMM TASK 36-11-00-740-001).
    - (3) Stop the APU (Ref. AMM TASK 49-00-00-860-004).

\*\*ON A/C ALL

### 4. Fault Isolation

- A. If both BMCs give the maintenance message X FEED-V 6HV OR CKT:
  - replace the VALVE-X BLEED (6HV) (Ref. AMM TASK 36-12-52-000-002) and (Ref. AMM TASK 36-12-52-400-002).
  - (1) If the fault continues:
    - do a check and repair the wiring between: the BMC-1, BMC-2 (1HA1/2) AB/1A,2A and the VALVE-X BLEED (6HV) A/F,D (Ref. ASM 36-12/01),
    - do a check and repair the wiring between:
       the VALVE-X BLEED (6HV) A/N and ground (Ref. ASM 36-12/01).
  - (2) If the fault continues:
    - do a check and repair the wiring between:
       the BMC-1, BMC-2 (1HA1/2) connectors AB/3A,4A and the
       CROSSBLEED-VALVE SELECTOR SWITCH (3HV) connectors A/2,4 (Ref. ASM 36-12/01),
    - do a check and repair the wiring between:
       the CROSSBLEED-VALVE SELECTOR SWITCH (3HV) connector A/1 and ground (Ref. ASM 36-12/01).

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- B. If only one BMC gives the maintenance message X FEED VALVE 6HV OR CKT:
   replace the related BMC (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
  - (1) If the fault continues:
    - do a check and repair the wiring between: the related BMC connectors AB/1A,2A,3A,4A and the first terminal block (Ref. ASM 36-12/01).
- C. Do the test as given in Para. 3. to make sure that the operation is correct (no maintenance message shown).

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### TROUBLE SHOOTING MANUAL

TASK 36-12-00-810-804

Low Air Pressure in the Right Crossbleed Duct

- 1. Possible Causes
  - VALVE-X BLEED (6HV)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
AMM 12-33-21-618-001 AMM 12-33-21-618-001 AMM 36-12-52-000-001 AMM 36-12-52-400-001	Pre-conditioning through the HP Ground Connection Pre-conditioning with the APU Removal of the Crossbleed Valve (6HV) Installation of the Crossbleed Valve (6HV)

### 3. Fault Confirmation

A. Do the pre-conditioning with the high-pressure ground connection (Ref. AMM TASK 12-33-21-618-001) or with the APU (Ref. AMM TASK 12-33-21-618-001).

NOTE: Make sure that there are no maintenance messages related to the pack 2 and/or the crossbleed system available before you do this test.

#### 4. Fault Isolation

- A. If the right pack does not operate during the pre-conditioning because of low pressure:
  - replace the VALVE-X BLEED (6HV) (Ref. AMM TASK 36-12-52-000-001) and (Ref. AMM TASK 36-12-52-400-001).
- B. Do the test as given in Para. 3. to make sure that the operation is correct (no maintenance message shown).

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### TROUBLE SHOOTING MANUAL

TASK 36-12-00-810-806

To Slow Operation of the Crossbleed Valve

- 1. Possible Causes
  - VALVE-X BLEED (6HV)
  - VALVE-X BLEED ACTUATOR
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-12-00-710-001	Operational Test of the APU Bleed Air Supply and Crossbleed Systems
AMM	36-12-52-000-001	Removal of the Crossbleed Valve (6HV)
AMM	36-12-52-000-002	Removal of the Crossbleed Valve Actuator
AMM	36-12-52-400-001	Installation of the Crossbleed Valve (6HV)
AMM	36-12-52-400-002	Installation of the Crossbleed Valve Actuator

### 3. Fault Confirmation

A. Do the operational test of the APU bleed-air supply and the crossbleed systems (Ref. AMM TASK 36-12-00-710-001).

### 4. Fault Isolation

- A. If after the test the message X-BLEED MAN CTL is shown on the status page of the lower ECAM display unit:
  - look at the visual position indicator of the crossbleed valve to make sure that the indicator shows fully closed position,
  - set the X-BLEED selector switch on AIR COND overhead panel 30VU to the OPEN position,
  - do a check of the operation time of the crossbleed valve from fully closed to fully open position.
  - (1) If the operation time of the crossbleed valve is more than 10 s: - replace the VALVE-X BLEED ACTUATOR (Ref. AMM TASK 36-12-52-000-002) and (Ref. AMM TASK 36-12-52-400-002).
  - (2) If the fault continues:
    - replace the VALVE-X BLEED (6HV) (Ref. AMM TASK 36-12-52-000-001) and (Ref. AMM TASK 36-12-52-400-001).
- B. Do the test given in Para. 3.

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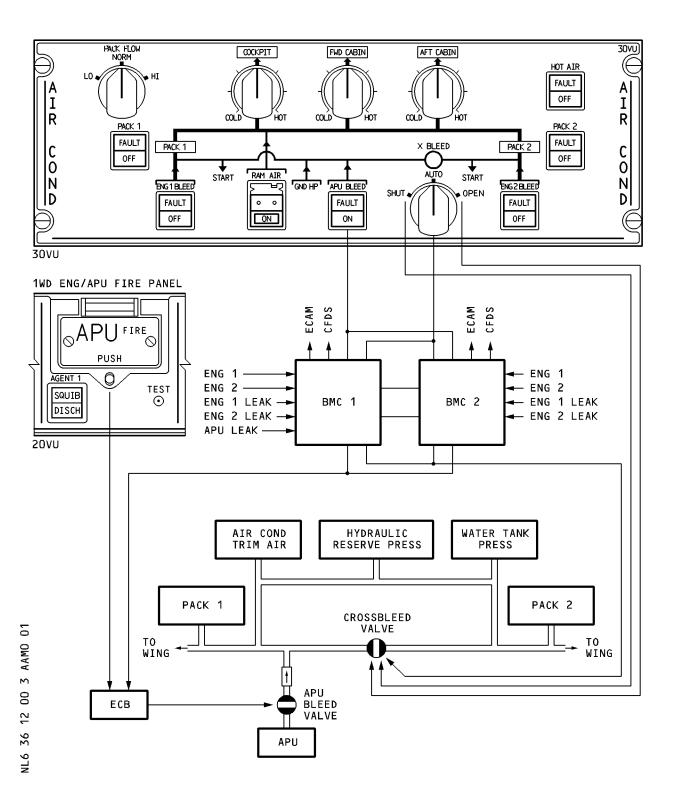
APU BLEED AIR SUPPLY AND CROSSBLEED SYSTEMS - TASK SUPPORTING DATA

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APU and Crossbleed Air Supply - Block Diagram Figure 301

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R

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### TROUBLE SHOOTING MANUAL

## LEAK DETECTION - FAULT ISOLATION PROCEDURES

TASK 36-22-00-810-801

Air Leak in the Left Wing

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

	REFE	RENCE	DESIGNATION
R	ΔΜΜ	36-11-00-720-004	Leak Check of Engine Bleed Air Supply System and
R	Αι	30 11 00 120 004	Packs Components
	AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
	AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>

- 3. Fault Confirmation
  - A. Test
    - (1) Do the functional test of the engine bleed-air supply-system (Ref. AMM TASK 36-11-00-720-004).
- 4. Fault Isolation
  - A. Make sure that the leak is on the same side of the leak warning.
    - (1) Repair the ducts which cause the leak.

<u>NOTE</u>: If the L WING LEAK ECAM warning comes into view on ground and if:

- the packs are in operation
- there is high **OAT**
- you replaced the flow control valve (8HB)

first do a check of the pack area or of the seals at the flow control valve.

- (a) If no leak is found on the wing ducts:
  - open the access door 471AL on the pylon
  - remove the engine 1 exchanger outlet temperature sensor (6HA1) (Ref. AMM TASK 36-11-17-000-001)

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- make sure that the seal of the engine 1 exchanger outlet temperature sensor (6HA1) is not damaged. Replace the seal if necessary
- install the engine 1 exchanger outlet temperature sensor (6HA1) (Ref. AMM TASK 36-11-17-400-001)
- close the access door 471AL.

R

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-802

Air Leak in the Right Wing

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

	REFE	RENCE	DESIGNATION
R R	AMM	36-11-00-720-004	Leak Check of Engine Bleed Air Supply System and Packs Components
.`	AMM	36-11-17-000-001	Removal of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)
	AMM	36-11-17-400-001	<pre>Installation of the Heat-Exchanger Outlet-Temperature Sensor 6HA1(6HA2)</pre>

- 3. Fault Confirmation
  - A. Test
    - (1) Do the functional test of the engine bleed-air supply-system applicable to the right wing only (Ref. AMM TASK 36-11-00-720-004).
- 4. Fault Isolation
  - A. Make sure that the leak is on the same side of the leak warning.
    - (1) Repair the ducts which cause the leak.

NOTE : If the R WING LEAK ECAM warning comes into view on ground and if:

- the packs are in operation
- there is high OAT
- you replaced the flow control valve (11HB)

first do a check of the pack area or of the seals at the flow control valve.

- (a) If no leak is found on the wing ducts:
  - open the access door 482AR on the pylon
  - remove the engine 2 exchanger outlet temperature sensor (6HA2) (Ref. AMM TASK 36-11-17-000-001)
  - make sure that the seal of the engine 2 exchanger outlet temperature sensor (6HA2) is not damaged. Replace the seal if necessary

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## TROUBLE SHOOTING MANUAL

- install the engine 2 exchanger outlet temperature sensor (6HA2) (Ref. AMM TASK 36-11-17-400-001)
- close the access door 482AR.

R

B. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-803

Air Leak in the Engine 1 Pylon

- 1. Possible Causes
  - BMC-1 (1HA1)
  - CABLE-CONNECTING, ENG 1 PYLON (2HF1)
  - SNSG ELEM-OVHT, ENG 1 PYLON (1HF1)
  - CABLE ASSY (3HF1)
  - ducts
  - seals
  - wiring between the pin 5B of the BMC1 connector (1HA1-AA) and the cable 2HF1
  - wiring between the pin 6B of the BMC1 connector (1HA1-AA) and the cable 3HF1
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

9240SI

1 CONTROLLER-LOOP

B. Referenced Information

	REFE	RENCE	DESIGNATION
R	AMM	24-92-00-210-812	Visual Inspection of the Wiring Installed in the
R			Forward Pylon After an Engine Bleed Leak
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
	AMM	36-22-15-000-001	Removal of the Pylon Overheat Sensing Element (1HF1, 1HF2)
	AMM	36-22-15-400-001	<pre>Installation of the Pylon Overheat Sensing Element (1HF1, 1HF2)</pre>
	ASM	36-22/01	

- 3. Fault Confirmation
  - A. Test
    - (1) Start the APU.
    - (2) On the AIR control panel 30VU, push the APU BLEED pushbutton switch.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

R

- A. If the fault is confirmed (ENG BLEED LEAK warning):
  - do a leakage check of the ducting.
  - (1) If the duct is cracked/damaged:
    - replace the defective ducts.
  - (2) If there are leaks on the seals:
    - replace the defective seals.
    - NOTE: If there are no air leaks, replace the seals (to prevent leaks).
- (3) Do a visual inspection of the wiring installed in the left forward pylon (Ref. AMM TASK 24-92-00-210-812).
- B. If no leak warning comes into view:
  - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
  - on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/5B and the ground (Ref. ASM 36-22/01)
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - (1) If the impedance is more than 17 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - refer to Para. 4.C.
  - (2) If the impedance is less than 17 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - do a visual inspection of the sensing elements and cables on the engine 1 pylon loop.
    - (a) If a sensing element or cable is damaged:
      - replace the sensing element or cable (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
    - (b) If no sensing element is damaged:
      - disconnect the connector between the cable 2HF1 and the sensing element 1HF1
      - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/5B and the ground
      - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - 1 If the impedance is less than 17 KOhms:
        - replace the CABLE-CONNECTING, ENG 1 PYLON (2HF1) (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
- a If the impedance is less than 17 KOhms:
  - do a check and repair the wiring between the pin 5B of the BMC1 connector (1HA1-AA) and the cable 2HF1
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.C.
- b If the impedance is more than 17 KOhms:
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
     refer to Para. 4.C.
- 2 If the impedance is more than 17 KOhms:
  - disconnect the connector between the cable 3HF1 and the sensing element 1HF1
  - connect the connector between the cable 2HF1 and the sensing element 1HF1
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - a If the impedance is less than 17 KOhms:
    - replace the SNSG ELEM-OVHT, ENG 1 PYLON (1HF1)
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC connector
    - install the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
  - b If the impedance is more than 17 KOhms:
    - replace the CABLE ASSY (3HF1)
    - connect all the cables or connectors disconnected
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
      - . if the impedance is less than 17 KOhms:
      - do a check and repair the wiring between the pin 6B of the BMC1 connector (1HA1-AA) and the cable 3HF1
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
        connector
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
      - . if the impedance is more than 17 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector

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## TROUBLE SHOOTING MANUAL

- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- C. After the subsequent flight, make sure that the fault does not continue.

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-804

Air Leak in the Engine 2 Pylon

- 1. Possible Causes
  - BMC-2 (1HA2)
  - CABLE-CONNECTING, ENG 2 PYLON (2HF2)
  - SNSG ELEM-OVHT, ENG 2 PYLON (1HF2)
  - CABLE ASSY (3HF2)
  - ducts
  - seals
  - wiring between the pin 6B of the BMC2 connector (1HA2-AA) and the cable 2HF2
  - wiring between the pin 5B of the BMC2 connector (1HA2-AA) and the cable 3HF2
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

9240SI

1 CONTROLLER-LOOP

B. Referenced Information

	REFE	RENCE	DESIGNATION
R R	AMM	24-92-00-210-812	Visual Inspection of the Wiring Installed in the Forward Pylon After an Engine Bleed Leak
•	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
	AMM	36-22-15-000-001	Removal of the Pylon Overheat Sensing Element (1HF1, 1HF2)
	AMM	36-22-15-400-001	<pre>Installation of the Pylon Overheat Sensing Element (1HF1, 1HF2)</pre>
	ASM	36-22/01	•

- 3. Fault Confirmation
  - A. Test
    - (1) Start the APU.
    - (2) On the AIR control panel 30VU, push the APU BLEED pushbutton switch.

EFF: ALL
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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

R

- A. If the fault is confirmed (ENG BLEED LEAK warning):
  - do a leakage check of the ducting.
  - (1) If the duct is cracked/damaged:
    - replace the defective ducts.
  - (2) If there are leaks on the seals:
    - replace the defective seals.

NOTE: If there are no air leaks, replace the seals (to prevent leaks).

- (3) Do a visual inspection of the wiring installed in the right forward pylon (Ref. AMM TASK 24-92-00-210-812).
- B. If no leak warning comes into view:
  - remove the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-000-001)
  - on the shelf 96VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA2-AA/6B and the ground (Ref. ASM 36-22/01)
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - (1) If the impedance is more than 17 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - replace the BMC-2 (1HA2) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - refer to Para. 4.C.
  - (2) If the impedance is less than 17 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - do a visual inspection of the sensing elements and cables on the engine 2 pylon loop.
    - (a) If a sensing element or cable is damaged:
      - replace the sensing element or cable (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
      - install the BMC2 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
    - (b) If no sensing element is damaged:
      - disconnect the connector between the cable 2HF2 and the sensing element 1HF2
      - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA2-AA/6B and the ground
      - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - 1 If the impedance is less than 17 KOhms:
        - replace the CABLE-CONNECTING, ENG 2 PYLON (2HF2) (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)

EFF: ALL

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### TROUBLE SHOOTING MANUAL

- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
- a If the impedance is less than 17 KOhms:
  - do a check and repair the wiring between the pin 6B of the BMC2 connector (1HA2-AA) and the cable 2HF2
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
  - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.C.
- b If the impedance is more than 17 KOhms:
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
  - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.C.
- 2 If the impedance is more than 17 KOhms:
  - disconnect the connector between the cable 3HF2 and the sensing element 1HF2
  - connect the connector between the cable 2HF2 and the sensing element 1HF2
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - a If the impedance is less than 17 KOhms:
    - replace the SNSG ELEM-OVHT, ENG 2 PYLON (1HF2)
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - install the BMC-2 (1HA2) which is removed (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
  - b If the impedance is more than 17 KOhms:
    - replace the CABLE ASSY (3HF2)
    - connect all the cables or connectors disconnected
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
      - . if the impedance is less than 17 KOhms:
      - do a check and repair the wiring between the pin 5B of the BMC2 connector (1HA2-AA) and the cable 3HF2
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
      - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
      - . if the impedance is more than 17 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector

EFF: ALL

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- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- C. After the subsequent flight, make sure that the fault does not continue.

EFF: ALL
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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-805

Air Leak from the APU in the Aft Cargo Compartment

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

REFERENCE **DESIGNATION** 

R AMM 36-12-00-790-001 Leak Test of the APU Bleed-Air Supply-System

- 3. Fault Confirmation
  - A. Test
    - (1) Do the Leak Test of the APU Bleed Air Supply System (Ref. AMM TASK 36-12-00-790-001).
- 4. Fault Isolation
  - A. If the cause of the leak is a cracked/damaged duct: - repair or replace the defective ducts.
  - B. If the cause of the leak is a defective seal: replace the defective seals.
  - C. After the subsequent flight, make sure that the fault does not continue.

36-22-00 EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-806

Loss of the Leak Detection Loop A on the Right Wing

### 1. Possible Causes

- BMC-1 (1HA1)
- wiring
- sensing element
- wiring from the connector AA/4D to the sensing element (80HF)
- wiring from the sensing element (39HF) to the sensing element (42HF)
- wiring from the sensing element (47HF) to the connector AA/5D

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)
AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
AMM	36-22-16-400-001	Installation of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)
AMM	36-22-16-400-004	Installation of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-400-005	Installation of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
ASM	36-22/01	

## 3. Fault Confirmation

#### A. Test

(1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

EFF: ALL

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### 4. Fault Isolation

- A. If the test gives the maintenance message:
  - R WING LOOP A INOP
  - remove the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001).
  - do a continuity check of the R wing loop A from pin AA/4D of the BMC1 to pin AA/5D of the BMC1 (Ref. ASM 36-22/01).
  - NOTE: This procedure is related to the loss of the wing-loop detection signal or to incorrect continuity of the loop.

The resistance of the loop must be less than 15 ohms at ambient temperature.

The BMC gives the maintenance message when the resistance of the loop is more than 75 ohms (discontinuity).

There is continuity when the resistance of the loop is less than 75 ohms.

- (1) If there is continuity:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (a) If the fault continues and the resistance of the loop is between 15 ohms and 75 ohms:
    - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/4D of the BMC1 to the cable (37HF) and from pin AA/5D of the BMC1 to the cable (48HF) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring.
    - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a visual inspection of the sensing elements on the R wing loop A.
    - 1 If a sensing element is damaged:
      - replace the sensing element.
      - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If no sensing element is damaged:
      - do a continuity check of each sensing element, one after the other.
      - a If there is no continuity on the sensing element:
        - replace the sensing element: (Ref. AMM TASK 36-22-16-000-001) (Ref. AMM TASK 36-22-16-000-004) (Ref. AMM TASK 36-22-16-000-005) (Ref. AMM TASK 36-22-16-000-006) (Ref. AMM TASK 36-22-16-400-004)

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(Ref. AMM TASK 36-22-16-400-005) (Ref. AMM TASK 36-22-16-400-007).

- install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
- b If there is continuity on the sensing element:
  - do a check and repair the wiring from the connector AA/4D to the sensing element (80HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (39HF) to the sensing element (42HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (47HF) to the connector AA/5D (Ref. ASM 36-22/01).
  - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

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## TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-807

Loss of the Leak Detection Loop A on the Left Wing

### 1. Possible Causes

- BMC-1 (1HA1)
- wiring
- sensing element
- wiring from the connector AA/3B to the sensing element (81HF)
- wiring from the sensing element (23HF) to the sensing element (26HF)
- wiring from the sensing element (36HF) to the connector AA/4B

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements 29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)
AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements 26HF(42HF),53HF(69HF)
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements 27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements 28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
AMM	36-22-16-400-001	<pre>Installation of the Overheat Sensing Elements 29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)</pre>
AMM	36-22-16-400-004	<pre>Installation of the Overheat Sensing Elements 26HF(42HF),53HF(69HF)</pre>
AMM	36-22-16-400-005	<pre>Installation of the Overheat Sensing Elements 27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)</pre>
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements 28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
ASM	36-22/01	

## 3. Fault Confirmation

#### A. Test

(1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

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### 4. Fault Isolation

- A. If the test gives the maintenance message:
  - L WING LOOP A INOP
  - remove the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001).
  - do a continuity check of the L wing loop A from pin AA/3B of the BMC1 to pin AA/4B of the BMC1 (Ref. ASM 36-22/01).
  - <u>NOTE</u>: This procedure is related to the loss of the wing-loop detection signal or to incorrect continuity of the loop.

The resistance of the loop must be less than 15 ohms at ambient temperature.

The BMC gives the maintenance message when the resistance of the loop is more than 75 ohms (discontinuity).

There is continuity when the resistance of the loop is less than 75 ohms.

- (1) If there is continuity:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (a) If the fault continues and the resistance of the loop is between 15 ohms and 75 ohms:
    - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/3B of the BMC1 to the cable (21HF) and from pin AA/4B of the BMC1 to the cable (30HF) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring.
    - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a visual inspection of the sensing elements on the L wing loop A.
    - 1 If a sensing element is damaged:
      - replace the sensing element.
      - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If no sensing element is damaged:
      - do a continuity check of each sensing element, one after the other.
      - a If there is no continuity on a sensing element:
        - replace the sensing element: (Ref. AMM TASK 36-22-16-000-001) (Ref. AMM TASK 36-22-16-000-004) (Ref. AMM TASK 36-22-16-000-005) (Ref. AMM TASK 36-22-16-000-006) (Ref. AMM TASK 36-22-16-400-004)

EFF: ALL

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### TROUBLE SHOOTING MANUAL

(Ref. AMM TASK 36-22-16-400-005) (Ref. AMM TASK 36-22-16-400-007).

- install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
- b If there is continuity on a sensing element:
  - do a check and repair the wiring from the connector AA/3B to the sensing element (81HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (23HF) to the sensing element (26HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (36HF) to the connector AA/4B (Ref. ASM 36-22/01).
  - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-808

Loss of the Leak Detection Loop B on the Right Wing

### 1. Possible Causes

- BMC-2 (1HA2)
- wiring
- sensing element
- wiring from the connector AA/3B to the sensing element (82HF)
- wiring from the sensing element (66HF) to the sensing element (69HF)
- wiring from to the sensing element (75HF) to the connector AA/4B

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)
AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
AMM	36-22-16-400-001	Installation of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)
AMM	36-22-16-400-004	Installation of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-400-005	Installation of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
ASM	36-22/01	

## 3. Fault Confirmation

#### A. Test

(1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

EFF: ALL

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If the test gives the maintenance message:
  - R WING LOOP B INOP
  - remove the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001).
  - do a continuity check of the R wing loop B from pin AA/3B of the BMC2 to pin AA/4B of the BMC2 (Ref. ASM 36-22/01).
  - NOTE: This procedure is related to the loss of the wing-loop detection signal or to incorrect continuity of the loop.

The resistance of the loop must be less than 15 ohms at ambient temperature.

The BMC gives the maintenance message when the resistance of the loop is more than 75 ohms (discontinuity).

There is continuity when the resistance of the loop is less than 75 ohms.

- (1) If there is continuity:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
  - (a) If the fault continues and the resistance of the loop is between 15 ohms and 75 ohms:
    - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/3B of the BMC2 to the cable (64HF) and from pin AA/4B of the BMC2 to the cable (76HF) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring.
    - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a visual inspection of the sensing elements on the R wing loop B.
    - 1 If a sensing element is damaged:
      - replace the sensing element.
      - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If no sensing element is damaged:
      - do a continuity check of each sensing element, one after the other.
      - a If there is no continuity on a sensing element:
        - replace the sensing element: (Ref. AMM TASK 36-22-16-000-001) (Ref. AMM TASK 36-22-16-000-004) (Ref. AMM TASK 36-22-16-000-005) (Ref. AMM TASK 36-22-16-000-006) (Ref. AMM TASK 36-22-16-400-004)

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### TROUBLE SHOOTING MANUAL

(Ref. AMM TASK 36-22-16-400-005) (Ref. AMM TASK 36-22-16-400-007).

- install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
- b If there is continuity on a sensing element:
  - do a check and repair the wiring from the connector AA/3B to the sensing element (82HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (66HF) to the sensing element (69HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from to the sensing element (75HF) to the connector AA/4B (Ref. ASM 36-22/01).
  - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

EFF: ALL SROS 36-22-00

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-809

Loss of the Leak Detection Loop B on the Left Wing

### 1. Possible Causes

- BMC-2 (1HA2)
- wiring
- sensing element
- wiring from the connector AA/4D to the sensing element (83HF)
- wiring from the sensing element (50HF) to the sensing element (53HF)
- wiring from the sensing element (63HF) to the connector AA/5D

### 2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)
AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
AMM	36-22-16-400-001	Installation of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)
AMM	36-22-16-400-004	Installation of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-400-005	Installation of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
ASM	36-22/01	

## 3. Fault Confirmation

#### A. Test

(1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- A. If the test gives the maintenance message:
  - L WING LOOP B INOP
  - remove the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001).
  - do a continuity check of the L wing loop B from pin AA/4D of the BMC2 to pin AA/5D of the BMC2 (Ref. ASM 36-22/01).
  - <u>NOTE</u>: This procedure is related to the loss of the wing-loop detection signal or to incorrect continuity of the loop.

The resistance of the loop must be less than 15 ohms at ambient temperature.

The BMC gives the maintenance message when the resistance of the loop is more than 75 ohms (discontinuity).

There is continuity when the resistance of the loop is less than 75 ohms.

- (1) If there is continuity:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
  - (a) If the fault continues and the resistance of the loop is between 15 ohms and 75 ohms:
    - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/4D of the BMC2 to the cable (77HF) and from pin AA/5D of the BMC2 to the cable (57HF) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring.
    - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a visual inspection of the sensing elements on the L wing loop B.
    - 1 If a sensing element is damaged:
      - replace the sensing element.
      - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If no sensing element is damaged:
      - do a continuity check of each sensing element, one after the other.
      - a If there is no continuity on a sensing element:
        - replace the sensing element: (Ref. AMM TASK 36-22-16-000-001) (Ref. AMM TASK 36-22-16-000-004) (Ref. AMM TASK 36-22-16-000-005) (Ref. AMM TASK 36-22-16-000-006) (Ref. AMM TASK 36-22-16-400-001) (Ref. AMM TASK 36-22-16-400-004)

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### TROUBLE SHOOTING MANUAL

(Ref. AMM TASK 36-22-16-400-005) (Ref. AMM TASK 36-22-16-400-007).

- install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
- b If there is continuity on a sensing element:
  - do a check and repair the wiring from the connector AA/4D to the sensing element (83HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (50HF) to the sensing element (53HF) (Ref. ASM 36-22/01).
  - do a check and repair the wiring from the sensing element (63HF) to the connector AA/5D (Ref. ASM 36-22/01).
  - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-810

Loss of the Leak Detection Loop on the Engine 1 Pylon

- 1. Possible Causes
  - BMC-1 (1HA1)
  - SNSG ELEM-OVHT, ENG 1 PYLON (1HF1)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
	7/ 44 00 7/0 004	DTTT T 1 ( (1 DW2 4/2))
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-15-000-001	Removal of the Pylon Overheat Sensing Element (1HF1, 1HF2)
AMM	36-22-15-400-001	<pre>Installation of the Pylon Overheat Sensing Element (1HF1, 1HF2)</pre>
ASM	36-22/01	

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:

**ENG1 PYLON LOOP INOP** 

- remove the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
- do a check of the engine 1 pylon-loop from pin AA/5B of the BMC1 to pin AA/6B of the BMC1 (Ref. ASM 36-22/01).
- <u>NOTE</u>: This procedure is related to the loss of the engine 1 pylon-loop detection signal or to incorrect continuity of the loop.

  The resistance of the loop must be less than 10 ohms at ambient

temperature.
The BMC gives the maintenance message when the resistance of the

loop is more than 75 ohms (discontinuity).

There is continuity when the resistance of the loop is less than 75 ohms.

EFF: ALL

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- (1) If there is continuity:
  - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (a) If the fault continues and the resistance of the loop is between 10 ohms and 75 ohms:
    - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/5B of the BMC1 to the cable (2HF1) and from pin AA/6B of the BMC1 to the cable (3HF1) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring from pin AA/5B of the BMC1 to the cable
       (2HF1) and from pin AA/6B of the BMC1 to the cable (3HF1)
    - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a check of the sensing element (1HF1).
    - 1 If there is no continuity:
      - replace the SNSG ELEM-OVHT, ENG 1 PYLON (1HF1) (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)
      - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If there is continuity:
      - do a check and repair the wiring from the connector AA/5B to the sensing element (2HF1) (Ref. ASM 36-22/01)
      - do a check and repair the wiring from the sensing element
         (3HF1) to the connector AA/6B (Ref. ASM 36-22/01)
      - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

EFF: ALL 36-22-00

#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-811

Loss of the Leak Detection Loop on the Engine 2 Pylon

- 1. Possible Causes
  - BMC-2 (1HA2)
  - SNSG ELEM-OVHT, ENG 2 PYLON (1HF2)
  - wiring
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE		DESIGNATION
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-15-000-001	Removal of the Pylon Overheat Sensing Element (1HF1, 1HF2)
AMM	36-22-15-400-001	<pre>Installation of the Pylon Overheat Sensing Element (1HF1, 1HF2)</pre>
ASM	36-22/01	·

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message:

ENG2 PYLON LOOP INOP:

- remove the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001)
- do a check of the engine 2 pylon loop from pin AA/5B of the BMC2 to pin AA/6B of the BMC2 (Ref. ASM 36-22/01).
- NOTE: This procedure is related to the loss of the engine 2 pylon-loop detection signal or to incorrect continuity of the loop.

  The resistance of the loop must be less than 10 ohms at ambient

temperature.
The BMC gives the maintenance message when the resistance of the

loop is more than 75 ohms (discontinuity).
There is continuity when the resistance of the loop is less than

75 ohms.

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- (1) If there is continuity:
  - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
  - (a) If the fault continues and the resistance of the loop is between 10 ohms and 75 ohms:
    - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/5B of the BMC2 to the cable (2HF2) and from pin AA/6B of the BMC2 to the cable (3HF2) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring from pin AA/5B of the BMC2 to the cable
       (2HF2) and from pin AA/6B of the BMC2 to the cable (3HF2)
    - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a check of the sensing element (1HF2).
    - 1 If there is no continuity:
      - replace the SNSG ELEM-OVHT, ENG 2 PYLON (1HF2) (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001).
      - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If there is continuity:
      - do a check and repair the wiring from the connector AA/5B to the sensing element (3HF2) (Ref. ASM 36-22/01)
      - do a check and repair the wiring from the sensing element (2HF2) to the connector AA6B (Ref. ASM 36-22/01)
      - install the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

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EFF:

ALL

#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-812

Loss of the Leak Detection Loop of the APU

#### 1. Possible Causes

- BMC-1 (1HA1)
- wiring
- sensing element
- wiring from the connector AA/7B to the sensing element (12HF)
- wiring from the sensing element (19HF) to the connector AA/8B

#### 2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION
AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001 AMM 36-22-17-000-001 AMM 36-22-17-400-001 ASM 36-22/01	BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2) Removal of the APU Overheat Sensing-Elements Installation of the APU Overheat Sensing-Elements

#### 3. Fault Confirmation

- A. Test
  - (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

### 4. Fault Isolation

A. If the test gives the maintenance message:

APU LOOP INOP OR BMC IDENT CKT:

- remove the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001).
- do a continuity check of the APU loop from pin AA/7B of the BMC1 to pin AA/8B of the BMC1 (Ref. ASM 36-22/01).
- <u>NOTE</u>: This procedure is related to the loss of the APU-loop detection signal or to incorrect continuity of the loop.

The resistance of the loop must be less than 15 ohms at ambient temperature.

The BMC gives the maintenance message when the resistance of the loop is more than 75 ohms (discontinuity).

There is continuity when the resistance of the loop is less than 75 ohms.

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- (1) If there is continuity:
  - do a check for a ground signal at pin AA/9A of the BMC1.
  - (a) If there is no ground signal:
    - repair the wiring.
    - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is a ground signal:
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
    - 1 If the fault continues and the resistance of the loop is between 15 ohms and 75 ohms:
      - do a check and clean all the connections (Ref. ASM 36-22/01) to remove contamination and decrease the resistance of the loop.
- (2) If there is no continuity:
  - do a check of the wiring from pin AA/7B of the BMC1 to the cable (11HF) and from pin AA/8B of the BMC1 to the cable (20HF) (Ref. ASM 36-22/01).
  - (a) If there is no continuity:
    - repair the wiring.
    - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
  - (b) If there is continuity:
    - do a visual inspection of the sensing elements on the APU loop.
    - 1 If a sensing element is damaged:
      - replace the sensing element.
      - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
    - 2 If no sensing element is damaged:
      - do a continuity check of each sensing element, one after the other.
      - a If there is no continuity on a sensing element:
        - replace the sensing element (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001).
        - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
      - b If there is continuity on a sensing element:
        - do a check and repair the wiring from the connector AA/7B to the sensing element (12HF) (Ref. ASM 36-22/01).
        - do a check and repair the wiring from the sensing element (19HF) to the connector AA/8B (Ref. ASM 36-22/01).
        - install the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-400-001).
- B. Do the test given in para. 3.

EFF: ALL

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-813

Loss of the Left-Wing Leak Detection

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

REFERENCE	DESIGNATION
36-22-00-810-807 36-22-00-810-809 AMM 36-11-00-740-001	Loss of the Leak Detection Loop A on the Left Wing Loss of the Leak Detection Loop B on the Left Wing BITE Test of the BMC 1(2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 and BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives these two maintenance messages:
    - on the BMC1
      - L WING LOOP A INOP
    - on the BMC2
      - L WING LOOP B INOP
    - do this trouble shooting procedure (Ref. TASK 36-22-00-810-807) and (Ref. TASK 36-22-00-810-809).

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-814

Loss of the Right-Wing Leak Detection

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

REFERENCE	DESIGNATION
36-22-00-810-806 36-22-00-810-808 AMM 36-11-00-740-001	Loss of the Leak Detection Loop A on the Right Wing Loss of the Leak Detection Loop B on the Right Wing BITE Test of the BMC 1(2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 and BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives these two maintenance messages;
    - on the BMC1:
      - R WING LOOP A INOP
    - on the BMC2:
      - CHECK R WING LOOP B
    - do this trouble shooting procedure (Ref. TASK 36-22-00-810-806).
    - (1) Do this trouble shooting procedure (Ref. TASK 36-22-00-810-808).

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-815

Loss of the Left-Wing Leak Detection

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
36-22-00-810-809 AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001	Loss of the Leak Detection Loop B on the Left Wing BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 and BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives these two maintenance messages:
    - on the BMC1: BMC1
    - and on the BMC2:
      - L WING LOOP B INOP:
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) Do this trouble shooting procedure (Ref. TASK 36-22-00-810-809).

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-816

Loss of the Right-Wing Leak Detection

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
36-22-00-810-808 AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001	Loss of the Leak Detection Loop B on the Right Wing BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 and BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives these two maintenance messages:
    - on the BMC1: BMC1
    - and on the BMC2:
      - R WING LOOP B INOP
    - replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) Do this trouble shooting procedure (Ref. TASK 36-22-00-810-808).

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-817

Loss of the Left-Wing Leak Detection

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
36-22-00-810-807 AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001	Loss of the Leak Detection Loop A on the Left Wing BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC1 and BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives these two maintenance messages:
    - on the BMC1:
      - L WING LOOP A INOP
    - and on the BMC2:
      - BMC2
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) Do this trouble shooting procedure (Ref. TASK 36-22-00-810-807).

EFF: ALL 36-22-00

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-818

Loss of the Right-Wing Leak Detection

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
36-22-00-810-806 AMM 36-11-00-740-001 AMM 36-11-34-000-001 AMM 36-11-34-400-001	Loss of the Leak Detection Loop A on the Right Wing BITE Test of the BMC 1(2) Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the operational test of the BMC1 and BMC2 (with the CFDS) (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives these two maintenance messages on the BMC1: R WING LOOP A INOP and on the BMC2: BMC2:
    - replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - (1) Do this trouble shooting procedure (Ref. TASK 36-22-00-810-806).

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-819

Inadvertent Leak Detection by the left wing loops

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

REFERENCE	DESIGNATION
36-22-00-810-825 36-22-00-810-826	Leak Detection from the Loop A in the Left Wing Leak Detection from the Loop B in the Left Wing

- 3. Fault Confirmation
  - A. Test Not applicable
- 4. Fault Isolation
  - A. Do the following procedures: (Ref. TASK 36-22-00-810-825) and (Ref. TASK 36-22-00-810-826)

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-820

Inadvertent Leak Detection by the right wing loops

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

REFERENCE	DESIGNATION
36-22-00-810-827 36-22-00-810-828	Leak Detection from the Loop A in the Right Wing Leak Detection from the Loop B on the Right Wing

- 3. Fault Confirmation
  - A. Test Not applicable
- 4. Fault Isolation
  - A. Do the following procedures: (Ref. TASK 36-22-00-810-827) and (Ref. TASK 36-22-00-810-828)

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#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-821

Unwanted Engine 1 Leak Detection

- 1. Possible Causes
  - BMC-1 (1HA1)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION
<b>AMM</b> 36-11-00-740-001	RITE Test of the RMC 1(2)

Removal of the BMC (1HA1, 1HA2)

Installation of the BMC (1HA1, 1HA2)

AMM 36-11-34-400-0013. Fault Confirmation

AMM 36-11-34-000-001

- A. Test
  - (1) Do the BITE test of the BMC 1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the ECAM warning AIR ENG 1 BLEED LEAK associated with the FAULT legend on on the ENG 1 BLEED pushbutton switch:
    - (1) Release and push the ENG 1 BLEED pushbutton switch to clear the warnings.
      - NOTE : No further maintenance action is required if the ducts are cold and not pressurized.
    - (2) If the fault continues:
      - (a) Replace the BMC-1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)

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#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-822

Unwanted Engine 2 Leak Detection

- 1. Possible Causes
  - BMC-2 (1HA2)
- 2. Job Set-up Information
  - A. Referenced Information

REFERENCE	DESIGNATION

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)

- 3. Fault Confirmation
  - A. Test
    - (1) Do the BITE test of the BMC 2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the ECAM warning AIR ENG 2 BLEED LEAK associated with the FAULT legend on on the ENG 2 BLEED pushbutton switch:
    - (1) Release and push the ENG 2 BLEED pushbutton switch to clear the warnings.
      - NOTE : No further maintenance action is required if the ducts are cold and not pressurized.
    - (2) If the fault continues:
      - (a) Replace the BMC-2 (1HA2) (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)

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#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-823

Unwanted APU Leak Detection

#### 1. Possible Causes

- BMC-1 (1HA1)
- CONNECTING CABLE (11HF)
- OVHT SENS ELEMENT (12HF)
- OVHT SENS ELEMENT (13HF)
- OVHT SENS ELEMENT (14HF)
- OVHT SENS ELEMENT (15HF)
- OVHT SENS ELEMENT (16HF)
- OVHT SENS ELEMENT (17HF)
- OVHT SENS ELEMENT (18HF)
- OVHT SENS ELEMENT (19HF)
- CABLE ASSY (20HF)
- OVERHEAT SENSING ELEM (84HF)
- wiring between the pin 7B of the BMC1 connector (1HA1-AA) and the cable 11HF
- wiring between the pin 8B of the BMC1 connector (1HA1-AA) and the cable 20HF

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

R 9240SI

#### 1 CONTROLLER-LOOP

B. Referenced Information

REFERENCE DESIGNATION

AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)
AMM 36-22-17-000-001 Removal of the APU Overheat Sensing-Elements
ASM 36-22/01

#### 3. Fault Confirmation

- A. Test
  - (1) Not applicable.

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### 4. Fault Isolation

R \*\*ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

- A. If the fault is identified by the ECAM warning AIR APU BLEED LEAK associated with the FAULT legend on the APU BLEED pushbutton switch:

   release and push the APU BLEED pushbutton switch to clear the warnings.
  - (1) If the warning goes out of view:no further maintenance action is required.
  - (2) If the warning stays in view:
    - do the impedance check of the APU overheat detection loop
    - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
    - on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/7B and the ground (Ref. ASM 36-22/01)
    - do an impedance check on the CONTROLLER-LOOP (9240SI).
    - (a) If the impedance is more than 10 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.
    - (b) If the impedance is less than 10 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - do a visual inspection of the sensing elements and the cables on the APU loop.
    - (c) If a sensing element or a cable is damaged:
      - replace the sensing element or the cable (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.
    - (d) If no sensing element is damaged:
      - disconnect the connector between the sensing elements 15HF and 16HF
      - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/7B and the ground
      - do an impedance check on the CONTROLLER-LOOP (9240SI).
    - (e) If the impedance is less than 10 KOhms:
      - disconnect the connector between the sensing elements 13HF and 14HF
      - do an impedance check on the CONTROLLER-LOOP (9240SI).
      - 1 If the impedance is less than 10 KOhms:
        - disconnect the connector between the cable 11HF and the sensing element 12HF

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- do an impedance check on the CONTROLLER-LOOP (9240SI).
- a If the impedance is less than 10 KOhms:
  - replace the CONNECTING CABLE (11HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
  - do an impedance check on the CONTROLLER-LOOP (9240SI)
  - \* If the impedance is less than 10 KOhms:
  - do a check and repair the wiring between the pin 7B of the BMC1 connector (1HA1-AA) and the cable 11HF
  - connect all the cables or connectors disconnected
  - disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC1}$  connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.B.
  - \* If the impedance is more than 10 KOhms:
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.B.
- b If the impedance is more than 10 KOhms:
  - disconnect the connector between the sensing elements 12HF and 13HF
  - connect the connector between the cable 11HF and the sensing element 12HF
  - do an impedance check on the CONTROLLER-LOOP (9240SI).
  - \* If the impedance is less than 500 KOhms:
  - replace the OVHT SENS ELEMENT (12HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.B.
  - \* If the impedance is more than 500 KOhms:
  - replace the OVHT SENS ELEMENT (13HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.B.
- 2 If the impedance is more than 10 K0hms:
  - connect the connector between the sensing elements 13HF and 14HF

EFF: 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

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#### TROUBLE SHOOTING MANUAL

- disconnect the connector between the sensing elements 14HF and 15HF
- do an impedance check on the CONTROLLER-LOOP (9240SI).
- a If the impedance is less than 10 K0hms:
  - replace the OVHT SENS ELEMENT (14HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.B.
- b If the impedance is more than 10 K0hms:
  - replace the OVHT SENS ELEMENT (15HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.B.
- (f) If the impedance is more than 10 KOhms:
  - connect the connector between the sensing elements 15HF and 16HF
  - disconnect the connector between the sensing elements 17HF and 18HF
  - do an impedance check on the CONTROLLER-LOOP (9240SI).
  - 1 If the impedance is less than 10 KOhms:
    - disconnect the connector between the sensing elements 16HF and 17HF
    - do an impedance check on the CONTROLLER-LOOP (9240SI).
    - $\underline{a}$  If the impedance is less than 10 K0hms:
      - replace the OVHT SENS ELEMENT (16HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - connect all the cables or connectors disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001),
      - refer to Para. 4.B.
    - b If the impedance is more than 10 KOhms:
      - replace the OVHT SENS ELEMENT (17HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - connect all the cables or connectors disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.

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- 2 If the impedance is more than 10 K0hms:
  - connect the connector between the sensing elements 17HF and 18HF
  - disconnect the connector between the sensing element 19HF and the cable 20HF
  - do an impedance check on the CONTROLLER-LOOP (9240SI)
  - a If the impedance is less than 10 K0hms:
    - disconnect the connector between the sensing elements 18HF and 19HF
    - do an impedance check on the CONTROLLER-LOOP (9240SI).
    - \* If the impedance is less than 10 KOhms:
    - replace the OVHT SENS ELEMENT (18HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
    - \* If the impedance is more than 10 K0hms:
    - replace the OVHT SENS ELEMENT (19HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
  - b If the impedance is more than 10 K0hms
    - replace the CABLE ASSY (20HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - connect all the cables or connectors disconnected
      - do an impedance check on the CONTROLLER-LOOP (9240SI)
      - \* If the impedance is less than 10 KOhms:
      - do a check and repair the wiring between the pin 8B of the BMC1 connector (1HA1-AA) and the cable 20HF
      - connect all the cables or connector disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.
      - \* If the impedance is more than 10 K0hms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.

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

- A. If the fault is identified by the ECAM warning AIR APU BLEED LEAK associated with the FAULT legend on the APU BLEED pushbutton switch:

   release and push the APU BLEED pushbutton switch to clear the warnings.
  - (1) If the warning goes out of view:
    - no further maintenance action is required.
  - (2) If the warning stays in view:
    - do the impedance check of the APU overheat detection loop
    - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
    - on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/7B and the ground (Ref. ASM 36-22/01)
    - do an impedance check on the CONTROLLER-LOOP (9240SI).
    - (a) If the impedance is more than 10 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
      - refer to Para. 4.B.
    - (b) If the impedance is less than 10 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - do a visual inspection of the sensing elements and the cables on the APU loop.
    - (c) If a sensing element or a cable is damaged:
      - replace the sensing element or a cable (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.
    - (d) If no sensing element is damaged:
      - disconnect the connector between the sensing elements 15HF and 16HF
      - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/7B and the ground
      - do an impedance check on the CONTROLLER-LOOP (9240SI).
    - (e) If the impedance is less than 10 KOhms:
      - disconnect the connector between the sensing elements 13HF and 14HF
      - do an impedance check on the CONTROLLER-LOOP (9240SI).
      - 1 If the impedance is less than 10 KOhms:
        - disconnect the connector between the sensing elements 12HF and 84HF
- do an impedance check on the CONTROLLER-LOOP (9240SI).

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#### TROUBLE SHOOTING MANUAL

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R	<ul> <li><u>a</u> If the impedance is less than 500 K0hms:         <ul> <li>disconnect the connector between the cable 11HF and the sensing element 12HF</li> <li>do an impedance check on the CONTROLLER-LOOP (9240SI).</li> </ul> </li> </ul>		
R R	* If the impedance is less than 10 KOhms: - replace the CONNECTING CABLE (11HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).		
R	** If the impedance is less than 10 KOhms:  - do a check and repair the wiring between the pin 7B of the BMC1 connector (1HA1-AA) and the cable 11HF  - connect all the cables or connectors disconnected  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)  - refer to Para. 4.B.		
R	** If the impedance is more than 10 KOhms: - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B.		
R	* If the impedance is more than 10 KOhms: - replace the OVHT SENS ELEMENT (12HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B.		
R	b If the impedance is more than 500 KOhms: - disconnect the connector between the sensing elements 13HF and 84HF - connect the connector between the cable 12HF and the sensing element 84HF - do an impedance check on the CONTROLLER-LOOP (9240SI).		
	* If the impedance is less than 10 K0hms: - replace the OVERHEAT SENSING ELEM (84HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) connect all the cables or connectors disconnected		

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connector

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- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1

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- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- \* If the impedance is more than 10 K0hms:
- replace the OVHT SENS ELEMENT (13HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- 2 If the impedance is more than 10 K0hms:
  - connect the connector between the sensing elements 13HF and 14HF
  - disconnect the connector between the sensing elements 14HF and 15HF
  - do an impedance check read on the CONTROLLER-LOOP (9240SI).
  - a If the impedance is less than 10 K0hms:
    - replace the OVHT SENS ELEMENT (14HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
  - b If the impedance is more than 10 K0hms:
    - replace the OVHT SENS ELEMENT (15HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
- (f) If the impedance is more than 10 KOhms:
  - connect the connector between the sensing element 15HF and 16HF
  - disconnect the connector between the sensing elements 17HF and 18HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - 1 If the impedance is less than 10 K0hms:
    - disconnect the connector between the sensing elements 16HF and 17HF
  - do an impedance check on the CONTROLLER-LOOP (9240SI).

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If the impedance is less than 10 KOhms: - replace the OVHT SENS ELEMENT (16HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001), - refer to Para. 4.B. b If the impedance is more than 10 KOhms: replace the OVHT SENS ELEMENT (17HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. 2 If the impedance is more than 10 K0hms: - connect the connector between the sensing elements 17HF and **18HF** - disconnect the connector between the sensing element 19HF and the cable 20HF R - do an impedance check on the CONTROLLER-LOOP (9240SI). If the impedance is less than 10 KOhms: disconnect the connector between the sensing elements 18HF and 19HF - do an impedance check on the CONTROLLER-LOOP (9240SI). R \* If the impedance is less than 10 KOhms: replace the OVHT SENS ELEMENT (18HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. \* If the impedance is more than 10 KOhms: - replace the OVHT SENS ELEMENT (19HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. If the impedance is more than 10 KOhms:

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- replace the CABLE ASSY (20HF) (Ref. AMM TASK 36-22-17-

- connect all the cables or connectors disconnected

000-001) and (Ref. AMM TASK 36-22-17-400-001)

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R	- do an impedance check on the CONTROLLER-LOOP (9240SI).
R	* If the impedance is less than 10 KOhms:  - do a check and repair the wiring between the pin 8B of the BMC1 connector (1HA1-AA) and the cable 20HF  - connect all the cables or connector disconnected  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector  - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
R	- refer to Para. 4.B.  * If the impedance is more than 10 KOhms: - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
	001)

- refer to Para. 4.B.

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B. After the subsequent flight, make sure that the fault does not continue.

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#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-825

Leak Detection from the Loop A in the Left Wing

#### 1. Possible Causes

- BMC-1 (1HA1)
- CABLE-CONNECTING, L WING LOOP A (21HF)
- SNSG ELEM-OVHT, L WING LOOP A (81HF)
- SNSG ELEM-OVHT, L WING LOOP A (22HF)
- SNSG ELEM-OVHT, L WING LOOP A (23HF)
- CABLE-CONNECTING, L WING LOOP A (24HF)
- CABLE-CONNECTING, L WING LOOP A (25HF)
- SNSG ELEM-OVHT, L WING LOOP A (26HF)
- SNSG ELEM-OVHT, L WING LOOP A (27HF)
- SNSG ELEM-OVHT, L WING LOOP A (28HF)
- SNSG ELEM-OVHT, L WING LOOP A (29HF)
- ELEMENT-OVERHEAT SENSING (73HF)
- OVHT SENS ELEMENT (31HF)
- OVERHEAT SENSING ELEM (32HF)
- OVHT SENS ELEMENT (33HF)
- OVHT SENS ELEMENT (34HF)
- OVHT SENS ELEMENT (35HF)
- OVHT SENS ELEMENT (36HF)
- CABLE ASSY (30HF)
- wiring
- duct

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY DESIGNATION

R 9240SI

1 CONTROLLER-LOOP

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### TROUBLE SHOOTING MANUAL

#### B. Referenced Information

REFE	RENCE	DESIGNATION			
AMM	36-11-00-720-004	Leak Check of Engine Bleed Air Supply System and			
		Packs Components			
AMM	36-11-00-740-001	BITE Test of the BMC 1(2)			
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)			
AMM		Installation of the BMC (1HA1, 1HA2)			
AMM	36-22-00-790-001	Leak Check on all the Bleed Air Ducts and Packs Components			
AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements 29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)			
AMM	36-22-16-000-002	Removal of the Cables 21HF(37HF),77HF(64HF)			
AMM	36-22-16-000-003	Removal of the Cables 24HF(40HF),51HF(67HF)			
AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements 26HF(42HF),53HF(69HF)			
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements 27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)			
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements 28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)			
AMM	36-22-16-000-007	Removal of the Cables 25HF(41HF),52HF(68HF)			
AMM	36-22-16-400-001	<pre>Installation of the Overheat Sensing Elements 29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)</pre>			
AMM	36-22-16-400-002	Installation of the Cables 21HF(37HF),77HF(64HF)			
AMM	36-22-16-400-003	Installation of the Cables 24HF(40HF),51HF(67HF)			
AMM	36-22-16-400-004	<pre>Installation of the Overheat Sensing Elements 26HF(42HF),53HF(69HF)</pre>			
AMM	36-22-16-400-005	Installation of the Overheat Sensing Elements 27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)			
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements 28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)			
AMM	36-22-16-400-008	Installation of the Cables 25HF(41HF),52HF(68HF)			
AMM	36-22-18-000-001	Removal of the Fuselage Overheat Sensing-Elements (Loop A and B)			
AMM	36-22-18-400-001	Installation of the Fuselage Overheat Sensing-Elements (Loop A and B)			
ΛСΜ	36-22/01	concound aromania (mach in and m)			

### 3. Fault Confirmation

#### A. Test

 $\underline{\underline{\mathtt{NOTE}}}$  : The overheat detection threshold is between 117 and 131 degrees Celsius.

An overheat detection by one loop can occur in these conditions :

- high Outside Air Temperature (OAT),
- ECS supplied with hot bleed air.

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#### TROUBLE SHOOTING MANUAL

In these conditions, the ambient air around the sensing elements can increase to the detection threshold but there is not an air leak.

If there is an air leak, there will be an AIR L(R) WING LEAK warning on the ECAM.

No other maintenance action is necessary if:

- the overheat detection was by one loop only with high OAT and ECS supplied with hot bleed air,
- the result of the BMC BITE test is TEST OK.
- (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

#### 4. Fault Isolation

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- A. If the test gives the maintenance message:
  - L WING LOOP A
  - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
  - on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/3B and the ground (Ref. ASM 36-22/01)
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - (1) If the impedance is more than 10 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
  - (2) If the impedance is less than 10 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - do a visual inspection of the sensing elements and cables on the L wing loop A.
    - (a) If a sensing element or cable is damaged:
      - replace the sensing element or cable (Ref. AMM TASK 36-22-16000-001), (Ref. AMM TASK 36-22-16-400-001), (Ref. AMM TASK 3622-16-000-002), (Ref. AMM TASK 36-22-16-400-002), (Ref. AMM
        TASK 36-22-16-000-003), (Ref. AMM TASK 36-22-16-400-003), (Ref.
        AMM TASK 36-22-16-000-007), (Ref. AMM TASK 36-22-16-400-008),
        (Ref. AMM TASK 36-22-16-000-004), (Ref. AMM TASK 36-22-16-400004) (Ref. AMM TASK 36-22-16-000-005), (Ref. AMM TASK 36-22-16400-005), (Ref. AMM TASK 36-22-18-000-001), (Ref. AMM TASK 3622-18-400-001), (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM
        TASK 36-22-16-400-007)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
    - (b) If no sensing element is damaged:
      - disconnect the connector between the sensing elements 28HF and 29HF
      - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/3B and the ground

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R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
R R	If the impedance is less than 10 KOhms: <ul> <li>disconnect the connector between the cables 24HF and 25HF</li> <li>do a check of the impedance read or the CONTROLLER-LOOP (9240SI).</li> </ul>
	<ul> <li>a If the impedance is less than 10 K0hms:</li> <li>disconnect the connector between the sensing elements</li> <li>81HF and 22HF</li> </ul>
R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
R	<ul> <li>if the impedance is less than 500 K0hms:</li> <li>disconnect the connector between the cable 21HF and the sensing element 81HF</li> </ul>
R	- do a check of the impedance read on the CONTROLLER-LOOP
R	<pre>(9240SI) * if the impedance is less than 10 KOhms: - replace the CABLE-CONNECTING, L WING LOOP A (21HF) (Ref. AMM TASK 36-22-16-000-002) and (Ref. AMM TASK 36-22-16-400-002)</pre>
R	- do a check of the impedance read on the CONTROLLER-LOOP
R	<pre>(9240SI). ** if the impedance is less than 10 K0hms: - do a check and repair the wiring between the pin AA/3B of the BMC1 (1HA1) and the cable 21HF</pre>
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector</li> <li>install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-</li> </ul>
R	001) - refer to Para. 4.C.  ** if the impedance is more than 10 KOhms: - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
R	- refer to Para. 4.C.  * if the impedance is more than 10 KOhms: - replace the SNSG ELEM-OVHT, L WING LOOP A (81HF) (Ref. AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C if the impedance is more than 500 KOhms:

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- disconnect the connector between the sensing elements 22HF and 23HF
- connect the connector between the sensing elements 81HF and 22HF
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
- \* if the impedance is less than 10 KOhms:
- replace the SNSG ELEM-OVHT, L WING LOOP A (22HF) (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
- connect all the cables or connectors disconnected
- disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC1}$  connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \* if the impedance is more than 10 KOhms:
- disconnect the connector between the sensing element 23HF and the cable 24HF
- connect the connector between the sensing elements 22HF and 23HF
- do a check of the impedance read in the CONTROLLER-LOOP (9240SI).
- \*\* if the impedance is less than 10 KOhms:
- replace the SNSG ELEM-OVHT, L WING LOOP A (23HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-400-005)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \*\* if the impedance is more than 10 K0hms:
- replace the CABLE-CONNECTING, L WING LOOP A (24HF)
   (Ref. AMM TASK 36-22-16-000-003) and (Ref. AMM TASK 36-22-16-400-003)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- b If the impedance is more than 10 KOhms:
  - disconnect the connector between the sensing elements
     26HF and 27HF
  - connect the connector between the cables 24HF and 25HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - . if the impedance is less than 10 KOhms:

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- disconnect the connector b	etween	the	cable	25HF	and	the
sensing element 26HF						
- do a check of the impedance	e read	on 1	the COI	NTROLI	_ER-L	.00P
(9240SI).						
• if the impedance is less t	han 10	<b>K</b> Ohr	nc -			

- \* if the impedance is less than 10 KOhms:
- replace the CABLE-CONNECTING, L WING LOOP A (25HF)
   (Ref. AMM TASK 36-22-16-000-007) and (Ref. AMM TASK 36-22-16-400-008)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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- \* if the impedance is more than 10 KOhms:
- replace the SNSG ELEM-OVHT, L WING LOOP A (26HF) (Ref. AMM TASK 36-22-16-000-004) and (Ref. AMM TASK 36-22-16-400-004)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- . If the impedance is more than 10 KOhms:
- disconnect the connector between the sensing elements 27HF and 28HF
- connect the connector between the sensing elements 26HF and 27HF
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
- \* if the impedance is less than 10 KOhms:
- replace the SNSG ELEM-OVHT, L WING LOOP A (27HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-400-005)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \* if the impedance is more than 10 K0hms:
- replace the SNSG ELEM-OVHT, L WING LOOP A (28HF) (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
- connect all the cables or connectors disconnected
- disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC1}$  connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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		THOOSEL OHOOTHIG MANOAL
	2	If the impedance is more than 10 KOhms:
	_	- disconnect the connector between the sensing elements 32HF
		and 33HF
		<ul> <li>connect the connector between the sensing elements 28HF and 29HF</li> </ul>
R		<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R		(9240SI).
		a If the impedance is less than 10 K0hms:
		- disconnect the connector between the sensing elements
		73HF and 31HF
R		<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R		(9240SI).
		if the impedance is less than 10 K0hms:
		- disconnect the connector between the sensing elements
		29HF and 73HF
R		<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R		(9240SI).
		* if the impedance is less than 10 K0hms:
		- replace the SNSG ELEM-OVHT, L WING LOOP A (29HF) (Ref.
		AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-
		400-001)
		<ul> <li>connect all the cables or connectors disconnected</li> </ul>
R		<ul><li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1</li></ul>
		connector
		- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
		001)
		- refer to Para. 4.C.
		* if the impedance is more than 10 KOhms:
		- replace the ELEMENT-OVERHEAT SENSING (73HF) (Ref. AMM
		TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400- 001)
		- connect all the cables or connectors disconnected
R		- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
IX		connector
		- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
		001)
		- refer to Para. 4.C.
		if the impedance is more than 10 KOhms:
		- disconnect the connector between the sensing elements
		31HF and 32HF
		- connect the connector between the sensing elements 73HF
		and 31HF
R		<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R		(9240\$1).
		* if the impedance is less than 10 KOhms:

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- replace the OVHT SENS ELEMENT (31HF) (Ref. AMM TASK 36-

22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1

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connector

TROUBLE SHOOTING MANUAL - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C. \* if the impedance is more than 10 K0hms: - replace the OVERHEAT SENSING ELEM (32HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C. b If the impedance is more than 10 K0hms: - disconnect the connector between the sensing elements 35HF and 36HF - connect the connector between the sensing elements 32HF and 33HF - do a check of the impedance read on the CONTROLLER-LOOP (9240SI). . If the impedance is less than 10 KOhms: - disconnect the connector between the sensing elements 33HF and 34HF - do a check of the impedance read on the CONTROLLER-LOOP (9240SI). \* if the impedance is less than 10 KOhms: - replace the OVHT SENS ELEMENT (33HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C. \* if the impedance is more than 10 K0hms: - disconnect the connector between the sensing elements 34HF and 35HF - connect the connector between the sensing elements 33HF do a check of the impedance read on the CONTROLLER-LOOP (9240SI). \*\* if the impedance is less than 10 KOhms: replace the OVHT SENS ELEMENT (34HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1

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- refer to Para. 4.C.

connector

001)

\*\* if the impedance is more than 10 KOhms:

- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-

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#### TROUBLE SHOOTING MANUAL

- replace the OVHT SENS ELEMENT (35HF) (Ref. AMM TASK 36-

22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001) - connect all the cables or connectors disconnected R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C. . If the impedance is more than 10 KOhms: disconnect the connector between the sensing element 36HF and the cable 30HF connect the connector between the sensing elements 35HF and 36HF - do a check of the impedance read on the CONTROLLER-LOOP R (9240SI). \* if the impedance is less than 10 KOhms: - replace the OVHT SENS ELEMENT (36HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C. \* if the impedance is more than 10 K0hms: replace the CABLE ASSY (30HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001) - connect all the cables or connectors disconnected - do a check of the impedance read on the CONTROLLER-LOOP R R (9240SI). \*\* if the impedance is less than 10 KOhms: - do a check and repair the wiring between the pin AA/4B of the BMC1 (1HA1) and the cable 30HF disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C. \*\* if the impedance is more than 10 K0hms: R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.C.

- B. If the test gives the TEST OK message:
  - do a functional test of the bleed air supply system (Ref. AMM TASK 36-11-00-720-004)
  - do the leak check on the bleed air ducts (Ref. AMM TASK 36-22-00-790-001).
  - repair the duct which causes the leak.

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### TROUBLE SHOOTING MANUAL

C. Do the test given in para. 3.

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#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-826

Leak Detection from the Loop B in the Left Wing

#### 1. Possible Causes

- BMC-2 (1HA2)
- CABLE-CONNECTING (57HF)
- ELEMENT-OVERHEAT SENSING (63HF)
- ELEMENT-OVERHEAT SENSING (62HF)
- OVHT SENS ELEMENT (61HF)
- ELEMENT-OVERHEAT SENSING (60HF)
- ELEMENT-OVERHEAT SENSING (59HF)
- ELEMENT-OVERHEAT SENSING (58HF)
- OVHT SENS ELEMENT (78HF)
- SNSG ELEM-OVHT, L WING LOOP B (56HF)
- SNSG ELEM-OVHT, L WING LOOP B (55HF)
- SNSG ELEM-OVHT, L WING LOOP B (54HF)
- SNSG ELEM-OVHT, L WING LOOP B (53HF)
- CABLE-CONNECTING, L WING LOOP B (52HF)
- CABLE-CONNECTING, L WING LOOP B (51HF)
- SNSG ELEM-OVHT, L WING LOOP B (50HF)
- SNSG ELEM-OVHT, L WING LOOP B (49HF)
- SNSG ELEM-OVHT, L WING LOOP B (83HF)
- CABLE-CONNECTING, L WING LOOP B (77HF)
- wiring
- duct

#### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY DESIGNATION

R 9240SI

1 CONTROLLER-LOOP

Printed in France

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## *GA319/A320/A321*

### TROUBLE SHOOTING MANUAL

### B. Referenced Information

REFERENCE		DESIGNATION	
	7/ 44 00 700 00/	Lead Observed Francisco Blood Air Corolla Control and	
AMM	36-11-00-720-004	Leak Check of Engine Bleed Air Supply System and Packs Components	
A M M	7/ 11 00 7/0 001	BITE Test of the BMC 1(2)	
		Removal of the BMC (1HA1, 1HA2)	
		·	
		Installation of the BMC (1HA1, 1HA2)	
AMM	36-22-00-790-001	Leak Check on all the Bleed Air Ducts and Packs Components	
AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements	
		29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)	
AMM	36-22-16-000-002	Removal of the Cables 21HF(37HF),77HF(64HF)	
AMM	36-22-16-000-003	Removal of the Cables 24HF(40HF),51HF(67HF)	
AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements	
		26HF(42HF),53HF(69HF)	
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements	
		27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)	
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements	
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)	
AMM	36-22-16-000-007	Removal of the Cables 25HF(41HF),52HF(68HF)	
AMM	36-22-16-400-001	Installation of the Overheat Sensing Elements	
		29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)	
AMM	36-22-16-400-002	<pre>Installation of the Cables 21HF(37HF),77HF(64HF)</pre>	
AMM	36-22-16-400-003	<pre>Installation of the Cables 24HF(40HF),51HF(67HF)</pre>	
AMM	36-22-16-400-004	Installation of the Overheat Sensing Elements	
		26HF(42HF),53HF(69HF)	
AMM	36-22-16-400-005	Installation of the Overheat Sensing Elements	
		27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)	
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements	
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)	
AMM		<pre>Installation of the Cables 25HF(41HF),52HF(68HF)</pre>	
AMM	36-22-18-000-001	Removal of the Fuselage Overheat Sensing-Elements	
		(Loop A and B)	
AMM	36-22-18-400-001	Installation of the Fuselage Overheat	
		Sensing-Elements (Loop A and B)	
ASM	36-22/01		
	AMM AMM AMM AMM AMM AMM AMM AMM AMM AMM	AMM 36-11-00-720-004  AMM 36-11-00-740-001  AMM 36-11-34-000-001  AMM 36-11-34-400-001  AMM 36-22-00-790-001  AMM 36-22-16-000-002  AMM 36-22-16-000-003  AMM 36-22-16-000-005  AMM 36-22-16-000-005  AMM 36-22-16-000-007  AMM 36-22-16-400-001  AMM 36-22-16-400-001  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-005  AMM 36-22-16-400-007  AMM 36-22-18-400-001	

### 3. Fault Confirmation

#### A. Test

 $\underline{\underline{\mathtt{NOTE}}}$  : The overheat detection threshold is between 117 and 131 degrees Celsius.

An overheat detection by one loop can occur in these conditions:

- high Outside Air Temperature (OAT),
- ECS supplied with hot bleed air.

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#### TROUBLE SHOOTING MANUAL

In these conditions, the ambient air around the sensing elements can increase to the detection threshold but there is not an air leak.

If there is an air leak, there will be an AIR L(R) WING LEAK warning on the ECAM.

No other maintenance action is necessary if:

- the overheat detection was by one loop only with high OAT and ECS supplied with hot bleed air,
- the result of the BMC BITE test is TEST OK.
- (1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

#### 4. Fault Isolation

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- A. If the test gives the maintenance message:
  - L WING LOOP B
  - remove the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-000-001)
  - on the shelf 96VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA2-AA/5D and the ground (Ref. ASM 36-22/01)
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - (1) If the impedance is more than 10 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - replace the BMC-2 (1HA2) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
  - (2) If the impedance is less than 10 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - do a visual inspection of the sensing elements and cables on the L wing loop B.
    - (a) If a sensing element or cable is damaged:
      - replace the sensing element or cable (Ref. AMM TASK 36-22-18-000-001), (Ref. AMM TASK 36-22-18-400-001), (Ref. AMM TASK 36-22-16-000-001), (Ref. AMM TASK 36-22-16-400-001),

(Ref. AMM TASK 36-22-16-000-002), (Ref. AMM TASK 36-22-16-400-002), (Ref. AMM TASK 36-22-16-000-003), (Ref. AMM TASK 36-22-16-400-003),

(Ref. AMM TASK 36-22-16-000-004), (Ref. AMM TASK 36-22-16-400-004) (Ref. AMM TASK 36-22-16-000-005), (Ref. AMM TASK 36-22-16-400-005),

(Ref. AMM TASK 36-22-16-000-006), (Ref. AMM TASK 36-22-16-400-008), (Ref. AMM TASK 36-22-16-000-007), (Ref. AMM TASK 36-22-16-400-007).

- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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	(b) If no sensing element is damaged:
	<ul> <li>disconnect the connector between the sensing elements 56HF and 55HF</li> </ul>
R	<ul> <li>connect the CONTROLLER-LOOP (9240SI) between the connector</li> <li>1HA2-AA/5D and the ground</li> </ul>
R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R	(9240SI).
	$\underline{1}$ If the impedance is less than 10 KOhms:
	<ul> <li>disconnect the connector between the sensing elements 60HF and 59HF</li> </ul>
R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R	(9240\$1).
	$\underline{a}$ If the impedance is less than 10 KOhms:
	<ul> <li>disconnect the connector between the sensing elements</li> <li>63HF and 62HF</li> </ul>
R	- do a check of the impedance read on the CONTROLLER-LOOP
R	(9240SI) if the impedance is less than 500 KOhms:
	- disconnect the connector between the cable 57HF and the
_	sensing element 63HF
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI)</li> </ul>
	* if the impedance is less than 10 KOhms:
	<ul><li>replace the CABLE-CONNECTING (57HF) (Ref. AMM TASK 36- 22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)</li></ul>
R	- do a check of the impedance read on the CONTROLLER-LOOP
R	(9240SI).
	<pre>** if the impedance is less than 10 K0hms: - do a check and repair the wiring between the pin AA/5D</pre>
	of the BMC2 (1HA2) and the cable 57HF
	- connect all the cables or connectors disconnected
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> </ul>
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)
	<pre>- refer to Para. 4.C. ** if the impedance is more than 10 K0hms:</pre>
	- connect all the cables or connectors disconnected
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
	connector
	<ul><li>install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400- 001)</li></ul>
	- refer to Para. 4.C.
	* if the impedance is more than 10 KOhms:
	<ul><li>replace the ELEMENT-OVERHEAT SENSING (63HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-</li></ul>
	001)
_	- connect all the cables or connectors disconnected
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> </ul>
	Connection
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- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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- . if the impedance is more than 500 KOhms:
- disconnect the connector between the sensing elements
   62HF and 61HF
- connect the connector between the sensing elements 63HF and 62HF
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
- \* if the impedance is less than 10 KOhms:
- replace the ELEMENT-OVERHEAT SENSING (62HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
- refer to Para. 4.C.
- \* if the impedance is more than 10 KOhms:
- disconnect the connector between the sensing elements 61HF and 60HF
- connect the connector between the sensing elements 62HF and 61HF
- do a check of the impedance read in the CONTROLLER-LOOP (9240SI).
- \*\* if the impedance is less than 10 KOhms:
- replace the OVHT SENS ELEMENT (61HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \*\* if the impedance is more than 10 K0hms:
- replace the ELEMENT-OVERHEAT SENSING (60HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- b If the impedance is more than 10 KOhms:
  - disconnect the connector between the sensing elements 58HF and 78HF
  - connect the connector between the cables 60HF and 59HF

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R R	- do a check of the impedance read on the CONTROLLER-LOOP
ĸ	(9240SI) if the impedance is less than 10 KOhms: - disconnect the connector between the cable 59HF and
R	58HF - do a check of the impedance read on the CONTROLLER-LOOP
R	<pre>(9240SI). * if the impedance is less than 10 KOhms:</pre>
	- replace the ELEMENT-OVERHEAT SENSING (59HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2</li> </ul>
	connector
	<ul> <li>install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400- 001)</li> </ul>
	- refer to Para. 4.C.
	* if the impedance is more than 10 KOhms:
	- replace the ELEMENT-OVERHEAT SENSING (58HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-
	001)
_	- connect all the cables or connectors disconnected
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> </ul>
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)
	- refer to Para. 4.C.
	<ul> <li>if the impedance is more than 10 K0hms:</li> <li>disconnect the connector between the sensing elements</li> </ul>
	78HF and 56HF
	- connect the connector between the sensing elements 58HF
n.	and 78HF
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
	* if the impedance is less than 10 KOhms:
	- replace the OVHT SENS ELEMENT (78HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
	- connect all the cables or connectors disconnected
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
	connector - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)
	- refer to Para. 4.C.
	* if the impedance is more than 10 KOhms:
	- replace the SNSG ELEM-OVHT, L WING LOOP B (56HF) (Ref.
	AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-400-001)
_	- connect all the cables or connectors disconnected
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> </ul>
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- refer to Para. 4.C.

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- 2 If the impedance is more than 10 K0hms:
  - disconnect the connector between the cables 52HF and 51HF
  - connect the connector between the sensing elements **56HF** and **55HF**
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - a If the impedance is less than 10 KOhms:
    - disconnect the connector between the sensing elements
       54HF and 53HF
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - . if the impedance is less than 10 KOhms:
      - disconnect the connector between the sensing elements 55HF and 54HF
      - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - \* if the impedance is less than 10 KOhms:
      - replace the SNSG ELEM-OVHT, L WING LOOP B (55HF) (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
      - connect all the cables or connectors disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
      - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
      - \* if the impedance is more than 10 K0hms:
      - replace the SNSG ELEM-OVHT, L WING LOOP B (54HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-400-005)
      - connect all the cables or connectors disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
      - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
      - . if the impedance is more than 10 KOhms:
      - disconnect the connector between the sensing element 53HF and the cable 52HF
      - connect the connector between the sensing elements **54HF** and **53HF**
      - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - \* if the impedance is less than 10 KOhms:
      - replace the SNSG ELEM-OVHT, L WING LOOP B (53HF) (Ref.
        AMM TASK 36-22-16-000-004) and (Ref. AMM TASK 36-22-16400-004)
      - connect all the cables or connectors disconnected

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### TROUBLE SHOOTING MANUAL

	INCOBLE SHOOTING MANUAL
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
	connector
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001) - refer to Para. 4.C.
	* if the impedance is more than 10 KOhms:
	- replace the CABLE-CONNECTING, L WING LOOP B (52HF)
	(Ref. AMM TASK 36-22-16-000-007) and (Ref. AMM TASK 36-
	22-16-400-008)
	<ul> <li>connect all the cables or connectors disconnected</li> </ul>
R	<ul><li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2</li></ul>
	connector
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001) - refer to Para. 4.C.
	refer to rara. 4.0.
	b If the impedance is more than 10 KOhms:
	- disconnect the connector between the sensing elements
	49HF and 83HF
n	- connect the connector between the cables 52HF and 51HF
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
IX.	. if the impedance is less than 10 KOhms:
	- disconnect the connector between the cable 51HF and the
	sensing element 50HF
R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R	(9240SI).
	<pre>* if the impedance is less than 10 KOhms: - replace the CABLE-CONNECTING, L WING LOOP B (51HF)</pre>
	(Ref. AMM TASK 36-22-16-000-003) and (Ref. AMM TASK 36-
	22-16-400-003)
	- connect all the cables or connectors disconnected
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
	connector
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)
	<ul><li>refer to Para. 4.C.</li><li>* if the impedance is more than 10 KOhms:</li></ul>
	- disconnect the connector between the sensing elements
	50HF and 49HF
	- connect the connector between the cable 51HF and the
	sensing element 50HF
R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R	(9240SI).
	<pre>** if the impedance is less than 10 KOhms: - replace the SNSG ELEM-OVHT, L WING LOOP B (50HF) (Ref.</pre>
	AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-
	400-005)
	- connect all the cables or connectors disconnected
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
	connector

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001)

### TROUBLE SHOOTING MANUAL

- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-

```
- refer to Para. 4.C.
                         ** if the impedance is more than 10 K0hms:
                         - replace the SNSG ELEM-OVHT, L WING LOOP B (49HF) (Ref.
                         AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-
                         400-007)
                         - connect all the cables or connectors disconnected
R
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
                         connector
                         - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
                         NN1)
                         - refer to Para. 4.C.
                         . If the impedance is more than 10 K0hms:
                         - disconnect the connector between the sensing element
                         83HF and the cable 77HF
                         - connect the connector between the sensing elements 49HF
                         and 83HF
                         - do a check of the impedance read on the CONTROLLER-LOOP
R
                         (9240SI).
R
                         * if the impedance is less than 10 KOhms:
                         - replace the SNSG ELEM-OVHT, L WING LOOP B (83HF) (Ref.
                         AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-
                         400-001)
                         - connect all the cables or connectors disconnected
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
R
                         connector
                         - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
                         001)
                         - refer to Para. 4.C.
                         * if the impedance is more than 10 KOhms:
                         - replace the CABLE-CONNECTING, L WING LOOP B (77HF)
                         (Ref. AMM TASK 36-22-16-000-002) and (Ref. AMM TASK 36-
                         22-16-400-002)
                         - connect all the cables or connectors disconnected
                         - do a check of the impedance read on the CONTROLLER-LOOP
R
                         (9240SI).
                         ** if the impedance is less than 10 KOhms:
                         - do a check and repair the wiring between the pin AA/4D
                         of the BMC2 (1HA2) and the cable 77HF
                          - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
R
                         connector
                         - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
                         001)
                         - refer to Para. 4.C.
                         ** if the impedance is more than 10 K0hms:
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
R
                         connector
                         - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
                         001)
                         - refer to Para. 4.C.
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### TROUBLE SHOOTING MANUAL

- B. If the test gives the TEST OK message:
  - do a functional test of the bleed air supply system (Ref. AMM TASK 36-11-00-720-004)
  - do the leak check on the bleed air ducts (Ref. AMM TASK 36-22-00-790-001).
  - repair the duct which causes the leak.
- C. Do the test given in para. 3.

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## *GA319/A320/A321*

### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-827

Leak Detection from the Loop A in the Right Wing

#### 1. Possible Causes

- BMC-1 (1HA1)
- CABLE-CONNECTING, R WING LOOP A (37HF)
- SNSG ELEM-OVHT, R WING LOOP A (80HF)
- SNSG ELEM-OVHT, R WING LOOP A (38HF)
- SNSG ELEM-OVHT, R WING LOOP A (39HF)
- CABLE-CONNECTING, R WING LOOP A (40HF)
- CABLE-CONNECTING, R WING LOOP A (41HF)
- SNSG ELEM-OVHT, R WING LOOP A (42HF)
- SNSG ELEM-OVHT, R WING LOOP A (43HF)
- SNSG ELEM-OVHT, R WING LOOP A (44HF)
- SNSG ELEM-OVHT, R WING LOOP A (45HF)
- ELEMENT-OVERHEAT SENSING (74HF)
- ELEMENT-OVERHEAT SENSING (47HF)
- CABLE-CONNECTING LOOP B R WING (48HF)
- wiring
- duct

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

.\_\_\_\_\_

R 9240SI

#### 1 CONTROLLER-LOOP

B. Referenced Information

	REFERENCE		DESIGNATION	
R R	AMM	36-11-00-720-004	Leak Check of Engine Bleed Air Supply System and Packs Components	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
R R	AMM	36-22-00-790-001	Leak Check on all the Bleed Air Ducts and Packs Components	
	AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements 29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)	
	AMM	36-22-16-000-002	Removal of the Cables 21HF(37HF),77HF(64HF)	
	AMM	36-22-16-000-003	Removal of the Cables 24HF(40HF),51HF(67HF)	
	AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements 26HF(42HF),53HF(69HF)	

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REFERENCE		DESIGNATION
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
AMM	36-22-16-000-007	Removal of the Cables 25HF(41HF),52HF(68HF)
AMM	36-22-16-400-001	Installation of the Overheat Sensing Elements
		29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)
AMM	36-22-16-400-002	Installation of the Cables 21HF(37HF),77HF(64HF)
AMM	36-22-16-400-003	Installation of the Cables 24HF(40HF),51HF(67HF)
AMM	36-22-16-400-004	Installation of the Overheat Sensing Elements
		26HF(42HF),53HF(69HF)
AMM	36-22-16-400-005	Installation of the Overheat Sensing Elements
		27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)
AMM	36-22-16-400-007	Installation of the Overheat Sensing Elements
		28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)
AMM	36-22-16-400-008	Installation of the Cables 25HF(41HF),52HF(68HF)
AMM	36-22-18-000-001	Removal of the Fuselage Overheat Sensing-Elements
		(Loop A and B)
AMM	36-22-18-400-001	Installation of the Fuselage Overheat
		Sensing-Elements (Loop A and B)
ASM	36-22/01	

### 3. Fault Confirmation

### A. Test

 ${\tt NOTE}$ : The overheat detection threshold is between 117 and 131 degrees Celsius.

An overheat detection by one loop can occur in these conditions:

- high Outside Air Temperature (OAT),
- ECS supplied with hot bleed air.

In these conditions, the ambient air around the sensing elements can increase to the detection threshold but there is not an air leak.

If there is an air leak, there will be an AIR L(R) WING LEAK warning on the ECAM.

No other maintenance action is necessary if:

- the overheat detection was by one loop only with high OAT and ECS supplied with hot bleed air,
- the result of the BMC BITE test is TEST OK.
- (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

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- A. If the test gives the maintenance message: R WING LOOP A
  - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
- R on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/4D and the ground (Ref. ASM 36-22/01)
- R do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - (1) If the impedance is more than 10 K0hms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - refer to Para. 4.C.
  - (2) If the impedance is less than 10 K0hms:
    - do a visual inspection of the sensing elements and cables on the R wing loop A.
    - (a) If a sensing element or cable is damaged:
      - replace the sensing element or cable (Ref. AMM TASK 36-22-16000-001), (Ref. AMM TASK 36-22-16-400-001), (Ref. AMM TASK 3622-16-000-002), (Ref. AMM TASK 36-22-16-400-002), (Ref. AMM
        TASK 36-22-16-000-003), (Ref. AMM TASK 36-22-16-400-003), (Ref.
        AMM TASK 36-22-16-000-004), (Ref. AMM TASK 36-22-16-400-004),
        (Ref. AMM TASK 36-22-16-000-005), (Ref. AMM TASK 36-22-16-400005), (Ref. AMM TASK 36-22-16-000-006), (Ref. AMM TASK 36-2216-400-007), (Ref. AMM TASK 36-22-16-000-007), (Ref. AMM TASK
        36-22-16-400-008)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
    - (b) If no sensing element is damaged:
      - disconnect the connector between the sensing element 42HF and the cable 41HF
      - connect the CONTROLLER-LOOP (9240SI) between the BMC1 connector 1HA1-AA/4D and the ground
      - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - 1 If the impedance is less than 10 K0hms:
        - disconnect the connector between the sensing elements 38HF and 39HF
        - do a check of the impedance read or the CONTROLLER-LOOP (9240SI).
        - a If the impedance is less than 10 K0hms:
          - disconnect the connector between the sensing elements 80HF and the cable 37HF
          - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

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- . if the impedance is less than 10 KOhms:
- replace the CABLE-CONNECTING, R WING LOOP A (37HF) (Ref. AMM TASK 36-22-16-000-002) and (Ref. AMM TASK 36-22-16-400-002)
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
- \* if the impedance is less than 10 KOhms:
- do a check and repair the wiring between the pin AA/4D of the BMC1 (1HA1) and the cable 37HF
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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- \* if the impedance is more than 10 KOhms:
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- . if the impedance is more than 10 K0hms:
- disconnect the connector between the sensing elements 80HF and 38HF
- connect the connector between the sensing element 80HF and the cable 37HF
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
- \* if the impedance is less than 500 KOhms:
- replace the SNSG ELEM-OVHT, R WING LOOP A (80HF) (Ref. AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \* if the impedance is more than 500 KOhms:
- replace the SNSG ELEM-OVHT, R WING LOOP A (38HF) (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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#### TROUBLE SHOOTING MANUAL

- b If the impedance is more than 10 K0hms:
  - disconnect the connector between the sensing element 39HF and 40HF
  - connect the connector between the sensing elements 38HF and 39HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - . if the impedance is less than 10 KOhms:
    - replace the SNSG ELEM-OVHT, R WING LOOP A (39HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-400-005)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
    - . if the impedance is more than 10 KOhms:
    - disconnect the connector between the cables  $40 \, \text{HF}$  and  $41 \, \text{HF}$
    - connect the connector between the cable 40HF and the sensing element 39HF
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - \* if the impedance is less than 10 KOhms:
    - replace the CABLE-CONNECTING, R WING LOOP A (40HF)
      (Ref. AMM TASK 36-22-16-000-003) and (Ref. AMM TASK 3622-16-400-003)
    - connect all the cables or connectors disconnected
    - disconnet the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
    - \* if the impedance is more than 10 KOhms:
    - replace the CABLE-CONNECTING, R WING LOOP A (41HF)
      (Ref. AMM TASK 36-22-16-000-007) and (Ref. AMM TASK 3622-16-400-007)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector.
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
- 2 If the impedance is more than 10 K0hms:
  - disconnect the connector between the sensing elements 44HF and 45HF
  - connect the connector between the sensing element 42HF and the cable 41HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

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#### TROUBLE SHOOTING MANUAL

- $\underline{a}$  If the impedance is less than 10 K0hms:
  - disconnect the connector between the sensing elements
     42HF and 43HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - . if the impedance is less than 10 KOhms:
    - replace the SNSG ELEM-OVHT, R WING LOOP A (42HF) (Ref. AMM TASK 36-22-16-000-004) and (Ref. AMM TASK 36-22-16-400-004)
    - connect all the cables or connectors disconnected
    - disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC1}$  connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001),
    - refer to Para. 4.C.
    - . if the impedance is more than 10 KOhms:
    - disconnect the connector between the sensing elements 43HF and 44HF
    - connect the connector between the sensing elements 42HF and 43HF
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - \* if the impedance is less than 10 KOhms:
    - replace the SNSG ELEM-OVHT, R WING LOOP A (43HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-400-005)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
    - \* if the impedance is more than 10 KOhms:
    - replace the SNSG ELEM-OVHT, R WING LOOP A (44HF) (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.
- b If the impedance is more than 10 K0hms:
  - disconnect the connector between the sensing elements
     74HF and 47HF
  - connect the connector between the sensing elements 44HF and 45HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - . if the impedance is less than 10 KOhms:

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### TROUBLE SHOOTING MANUAL

	- disconnect the connector between the sensing elements
R	45HF and 74HF - do a check of the impedance read on the CONTROLLER-LOOP
R	<pre>(9240SI). * if the impedance is less than 10 KOhms: - replace the SNSG ELEM-OVHT, R WING LOOP A (45HF) (Ref. AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-</pre>
	400-001)
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1</li> </ul>
	connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400- 001)
	- refer to Para. 4.C.
	* if the impedance is more than 10 KOhms:
	- replace the ELEMENT-OVERHEAT SENSING (74HF), (Ref. AMM TASK 36-22-18-400-001) and (Ref. AMM TASK 36-22-18-400-001)
	- connect all the cables or connectors disconnected
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector</li> </ul>
	- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
	001)
	<ul><li>refer to Para. 4.C.</li><li>if the impedance is more than 10 Kohms</li></ul>
	- connect the connector between the sensing elements 74HF and 47HF
	<ul> <li>disconnect the connector between the sensing element</li> <li>47HF and the cable 48HF</li> </ul>
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI)</li> </ul>
	* if the impedance is less than 10 KOhms:
	- replace the ELEMENT-OVERHEAT SENSING (47HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-
	001)
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1</li> </ul>
	connector
	<ul><li>install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400- 001)</li></ul>
	- refer to Para. 4.C.
	* if the impedance is more than 10 K0hms:
	- replace the CABLE-CONNECTING LOOP B R WING (48HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-
	400-001)
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R	(9240SI)
	** if the impedance is less than 10 KOhms:

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of the BMC1 (1HA1) and the cable 48HF

- do a check and repair the wiring between the pin AA/5D

- connect all the cables or connector disconnected

# **@A319/A320/A321**

### TROUBLE SHOOTING MANUAL

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- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \*\* if the impedance is more than 10 KOhms:
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- B. If the test gives the TEST OK message:
  - do a functional test of the bleed air supply system (Ref. AMM TASK 36-11-00-720-004)
  - do the leak check on the bleed air ducts (Ref. AMM TASK 36-22-00-790-001).
  - repair the duct which causes the leak.
- C. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-828

Leak Detection from the Loop B on the Right Wing

#### 1. Possible Causes

- BMC-2 (1HA2)
- ELEMENT-OVERHEAT SENSING (76HF)
- ELEMENT-OVERHEAT SENSING (75HF)
- ELEMENT-OVERHEAT SENSING (79HF)
- SNSG ELEM-OVHT, R WING LOOP B (72HF)
- SNSG ELEM-OVHT, R WING LOOP B (71HF)
- SNSG ELEM-OVHT, R WING LOOP B (70HF)
- SNSG ELEM-OVHT, R WING LOOP B (69HF)
- CABLE-CONNECTING, R WING LOOP B (68HF)
- CABLE-CONNECTING, R WING LOOP B (67HF)
- SNSG ELEM-OVHT, R WING LOOP B (66HF)
- SNSG ELEM-OVHT, R WING LOOP B (65HF)
- SNSG ELEM-OVHT, R WING LOOP B (82HF)
- CABLE-CONNECTING, R WING LOOP B (64HF)
- wiring
- duct

### 2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

R 9240SI

### 1 CONTROLLER-LOOP

B. Referenced Information

	REFERENCE		DESIGNATION	
R	AMM	36-11-00-720-004	Leak Check of Engine Bleed Air Supply System and	
R			Packs Components	
	AMM	36-11-00-740-001	BITE Test of the BMC 1(2)	
	AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)	
	AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)	
R	AMM	36-22-00-790-001	Leak Check on all the Bleed Air Ducts and Packs	
R			Components	
	AMM	36-22-16-000-001	Removal of the Overheat Sensing Elements	
			29HF(45HF),56HF(72HF),81HF(80HF),83HF (82HF)	
	AMM	36-22-16-000-002	Removal of the Cables 21HF(37HF),77HF(64HF)	
	AMM	36-22-16-000-003	Removal of the Cables 24HF(40HF),51HF(67HF)	
	AMM	36-22-16-000-004	Removal of the Overheat Sensing Elements	
			26HF(42HF),53HF(69HF)	

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REFERENCE		DESIGNATION	
AMM	36-22-16-000-005	Removal of the Overheat Sensing Elements 27HF(43HF),50HF(66HF),23HF(39HF),54HF (70HF)	
AMM	36-22-16-000-006	Removal of the Overheat Sensing Elements 28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)	
AMM	36-22-16-000-007	Removal of the Cables 25HF(41HF),52HF(68HF)	
AMM	36-22-16-400-001	<pre>Installation of the Overheat Sensing Elements 29HF(45HF),56HF(72HF),81HF(80HF), 83HF(82HF)</pre>	
AMM	36-22-16-400-002	<pre>Installation of the Cables 21HF(37HF),77HF(64HF)</pre>	
AMM	36-22-16-400-003	<pre>Installation of the Cables 24HF(40HF),51HF(67HF)</pre>	
AMM	36-22-16-400-004	<pre>Installation of the Overheat Sensing Elements 26HF(42HF),53HF(69HF)</pre>	
AMM	36-22-16-400-005	<pre>Installation of the Overheat Sensing Elements 27HF(43HF),50HF(66HF),23HF(39HF), 54HF(70HF)</pre>	
AMM	36-22-16-400-007	<pre>Installation of the Overheat Sensing Elements 28HF(44HF),49HF(65HF),55HF(71HF), 22HF(38HF)</pre>	
AMM	36-22-16-400-008	Installation of the Cables 25HF(41HF),52HF(68HF)	
AMM	36-22-18-000-001	Removal of the Fuselage Overheat Sensing-Elements (Loop A and B)	
AMM	36-22-18-400-001	<pre>Installation of the Fuselage Overheat Sensing-Elements (Loop A and B)</pre>	
ASM	36-22/01		

### 3. Fault Confirmation

### A. Test

NOTE : The overheat detection threshold is between 117 and 131 degrees Celsius.

An overheat detection by one loop can occur in these conditions:

- high Outside Air Temperature (OAT),
- ECS supplied with hot bleed air.

In these conditions, the ambient air around the sensing elements can increase to the detection threshold but there is not an air leak.

If there is an air leak, there will be an AIR L(R) WING LEAK warning on the ECAM.

No other maintenance action is necessary if:

- the overheat detection was by one loop only with high OAT and ECS supplied with hot bleed air,
- the result of the BMC BITE test is TEST OK.

(1) Do the BITE test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

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- A. If the test gives the maintenance message: R WING LOOP B
  - remove the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-000-001)
- on the shelf 96VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA2-AA/4B and the ground (Ref. ASM 36-22/01)
- R do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - (1) If the impedance is more than 10 KOhms:
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - replace the BMC-2 (1HA2) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
    - refer to Para. 4.C.
  - (2) If the impedance is less than 10 K0hms:
    - do a visual inspection of the sensing elements and cables on the R wing loop B.
    - (a) If a sensing element or cable is damaged:
      - replace the sensing element or cable (Ref. AMM TASK 36-22-16000-001), (Ref. AMM TASK 36-22-16-400-001), (Ref. AMM TASK 3622-16-000-002), (Ref. AMM TASK 36-22-16-400-002), (Ref. AMM
        TASK 36-22-16-000-003), (Ref. AMM TASK 36-22-16-400-003), (Ref.
        AMM TASK 36-22-16-000-004), (Ref. AMM TASK 36-22-16-400-004),
        (Ref. AMM TASK 36-22-16-000-005), (Ref. AMM TASK 36-22-16-400005), (Ref. AMM TASK 36-22-16-000-006), (Ref. AMM TASK 36-2216-400-007), (Ref. AMM TASK 36-22-16-000-007), (Ref. AMM TASK
        36-22-16-400-008)
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
      - install the BMC2 (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.C.
    - (b) If no sensing element is damaged:
      - disconnect the connector between the sensing element 69HF and the cable 70HF
      - connect the CONTROLLER-LOOP (9240SI) between the BMC2 connector 1HA2-AA/4B and the ground
      - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
      - 1 If the impedance is less than 10 K0hms:
        - disconnect the connector between the sensing elements 79HF and 72HF
        - do a check of the impedance read or the CONTROLLER-LOOP (9240SI).
        - a If the impedance is less than 10 K0hms:
          - disconnect the connector between the sensing elements 75HF and the cable 76HF
          - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

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#### TROUBLE SHOOTING MANUAL

- . if the impedance is less than 10 KOhms:
- replace the ELEMENT-OVERHEAT SENSING (76HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
  - \* if the impedance is less than 10 KOhms:
  - do a check and repair the wiring between the pin AA/4B of the BMC2 (1HA2) and the cable 76HF
  - connect all the cables or connectors disconnected
  - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
  - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
  - refer to Para. 4.C.

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- \* if the impedance is more than 10 KOhms:
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- . if the impedance is more than 10 KOhms:
- disconnect the connector between the sensing elements 75HF and 79HF
- connect the connector between the sensing element **75HF** and the cable **76HF**
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
- \* if the impedance is less than 500 KOhms:
- replace the ELEMENT-OVERHEAT SENSING (75HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \* if the impedance is more than 500 KOhms:
- replace the ELEMENT-OVERHEAT SENSING (79HF) (Ref. AMM TASK 36-22-18-000-001) and (Ref. AMM TASK 36-22-18-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.

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#### TROUBLE SHOOTING MANUAL

- b If the impedance is more than 10 K0hms:
  - disconnect the connector between the sensing element 72HF and 71HF
  - connect the connector between the sensing elements 79HF and 72HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - . if the impedance is less than 10 KOhms:
    - replace the SNSG ELEM-OVHT, R WING LOOP B (72HF) (Ref. AMM TASK 36-22-16-000-001) and (Ref. AMM TASK 36-22-16-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.C.

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- . if the impedance is more than 10 KOhms:
- disconnect the connector between the sensing elements 71HF and 70HF
- connect the connector between the sensing elements 72HF and 71HF
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
- \* if the impedance is less than 10 KOhms:
- replace the SNSG ELEM-OVHT, R WING LOOP B (71HF) (Ref. AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \* if the impedance is more than 10 KOhms:
- replace the SNSG ELEM-OVHT, R WING LOOP B (70HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-400-005)
- connect all the cables or connectors disconnected
- disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC2}$  connector.
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- 2 If the impedance is more than 10 K0hms:
  - disconnect the connector between the cables 67HF and 66HF
  - connect the connector between the sensing elements 69HF and 70HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

EFF: ALL

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#### TROUBLE SHOOTING MANUAL

- a If the impedance is less than 10 KOhms:
  - disconnect the connector between the sensing elements
     69HF and 68HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - . if the impedance is less than 10 KOhms:
    - replace the SNSG ELEM-OVHT, R WING LOOP B (69HF) (Ref. AMM TASK 36-22-16-000-004) and (Ref. AMM TASK 36-22-16-400-004)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
    - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001),
    - refer to Para. 4.C.

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- . if the impedance is more than 10 KOhms:
- disconnect the connector between the sensing elements 68HF and the cable 67HF
- connect the connector between the sensing elements  $69\mathrm{HF}$  and  $68\mathrm{HF}$
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
- \* if the impedance is less than 10 KOhms:
- replace the CABLE-CONNECTING, R WING LOOP B (68HF)
  (Ref. AMM TASK 36-22-16-000-007) and (Ref. AMM TASK 3622-16-400-008)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \* if the impedance is more than 10 KOhms:
- replace the CABLE-CONNECTING, R WING LOOP B (67HF)
  (Ref. AMM TASK 36-22-16-000-003) and (Ref. AMM TASK 3622-16-400-003)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- b If the impedance is more than 10 K0hms:
  - disconnect the connector between the sensing elements
     65HF and 82HF
  - connect the connector between the cables 67HF and 66HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - . if the impedance is less than 10 KOhms:
    - disconnect the connector between the sensing element 65HF and cable 66HF

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### TROUBLE SHOOTING MANUAL

R	- do a check of the impedance read on the CONTROLLER-LOOP
R	<pre>(9240SI). * if the impedance is less than 10 K0hms:</pre>
	- replace the SNSG ELEM-OVHT, R WING LOOP B (66HF) (Ref. AMM TASK 36-22-16-000-005) and (Ref. AMM TASK 36-22-16-
R	400-005) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2
	connector - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)
	<pre>- refer to Para. 4.C. * if the impedance is more than 10 K0hms:</pre>
	- replace the SNSG ELEM-OVHT, R WING LOOP B (65HF) (Ref.
	AMM TASK 36-22-16-000-006) and (Ref. AMM TASK 36-22-16-400-007)
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2</li> </ul>
	connector - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001) - refer to Para. 4.C.
	if the impedance is more than 10 Kohms
	<ul> <li>connect the connector between the sensing elements 65HF and 82HF</li> </ul>
	<ul> <li>disconnect the connector between the sensing element</li> <li>82HF and the cable 64HF</li> </ul>
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI)</li> </ul>
· ·	* if the impedance is less than 10 KOhms:
	<ul> <li>replace the SNSG ELEM-OVHT, R WING LOOP B (82HF) (Ref. AMM TASK 36-22-16-400-001)</li> </ul>
_	- connect all the cables or connectors disconnected
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector</li> </ul>
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400- 001)
	- refer to Para. 4.C.
	<pre>* if the impedance is more than 10 KOhms: - replace the CABLE-CONNECTING, R WING LOOP B (64HF)</pre>
	(Ref. AMM TASK 36-22-16-000-002) and (Ref. AMM TASK 36-22-16-400-002)
R	<ul> <li>connect all the cables or connectors disconnected</li> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R	(9240SI)
	<pre>** if the impedance is less than 10 K0hms: - do a check and repair the wiring between the pin AA/3B</pre>
	of the BMC2 (1HA2) and the cable 64HF
R	<ul> <li>connect all the cables or connector disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2</li> </ul>
N.	connector
<b></b>	26 00 00

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### TROUBLE SHOOTING MANUAL

- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- \*\* if the impedance is more than 10 K0hms:
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector
- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.C.
- B. If the test gives the TEST OK message:
  - do a functional test of the bleed air supply system (Ref. AMM TASK 36-11-00-720-004)
  - do the leak check on the bleed air ducts (Ref. AMM TASK 36-22-00-790-001).
  - repair the duct which causes the leak.
- C. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-829

APU Leak Detection

- 1. Possible Causes
  - BMC-1 (1HA1)
  - CONNECTING CABLE (11HF)
  - OVHT SENS ELEMENT (12HF)
  - OVHT SENS ELEMENT (13HF)
  - OVHT SENS ELEMENT (14HF)
  - OVHT SENS ELEMENT (15HF)
  - OVHT SENS ELEMENT (16HF)
  - OVHT SENS ELEMENT (17HF)
  - OVHT SENS ELEMENT (18HF)
  - OVHT SENS ELEMENT (19HF)
  - CABLE ASSY (20HF)
  - OVERHEAT SENSING ELEM (84HF)
  - wiring
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

R 9240SI

1 CONTROLLER-LOOP

B. Referenced Information

REFERENCE

#### **DESIGNATION**

AMM 36-11-00-740-001 BITE Test of the BMC 1(2) AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2) Installation of the BMC (1HA1, 1HA2) AMM 36-11-34-400-001 AMM 36-22-17-000-001 Removal of the APU Overheat Sensing-Elements Installation of the APU Overheat Sensing-Elements AMM 36-22-17-400-001

- 3. Fault Confirmation
  - A. Test

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(1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).

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### TROUBLE SHOOTING MANUAL

### 4. Fault Isolation

- R \*\*ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,
  - A. If the test gives the maintenance message: APU LOOP
    - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
    - on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/7B and the ground (Ref. ASM 36-22/01)
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - (1) If the impedance is more than 10 K0hms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).
      - refer to Para. 4.B.
    - (2) If the impedance is less than 10 KOhms:
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - do a visual inspection of the sensing elements and cables on the APU loop.
      - (a) If a sensing element or cable is damaged:
        - replace the sensing element or cable (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
        - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
        - install the BMC1 (Ref. AMM TASK 36-11-34-400-001)
        - refer to Para. 4.B.
      - (b) If no sensing element is damaged:
        - disconnect the connector between the sensing elements 15HF and 16HF
        - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/7B and the ground
        - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
        - 1 If the impedance is less than 10 KOhms:
          - disconnect the connector between the sensing elements 13HF and 14HF
          - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
          - a If the impedance is less than 10 K0hms:
            - disconnect the connector between the cable 11HF and the sensing element 12HF
            - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
              - . if the impedance is less than 10 KOhms:
              - replace the CONNECTING CABLE (11HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)

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#### TROUBLE SHOOTING MANUAL

- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
- \* if the impedance is less than 10 KOhms:
- do a check and repair the wiring between the pin AA/7B of the BMC1 (1HA1) and the cable 11HF
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- \* if the impedance is more than 10 KOhms:
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- . if the impedance is more than 10 K0hms:
- disconnect the connector between the sensing elements
   12HF and 13HF
- connect the connector between the cable 11HF and the sensing element 12HF
- do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
- \* if the impedance is less than 500 KOhms:
- replace the OVHT SENS ELEMENT (12HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- \* if the impedance is more than 500 KOhms:
- replace the OVHT SENS ELEMENT (13HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the <code>CONTROLLER-LOOP</code> (9240SI) from the <code>BMC1</code> connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- b If the impedance is more than 10 KOhms:
  - connect the connector between the sensing elements 13HF and 14HF
  - disconnect the connector between the sensing elements
     14HF and 15HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - . if the impedance is less than 10 KOhms:

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- replace the OVHT SENS ELEMENT (14HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- . if the impedance is more than 10 KOhms:
- replace the OVHT SENS ELEMENT (15HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- 2 If the impedance is more than 10 K0hms:
  - connect the connector between the sensing element 15HF and **16HF**
  - disconnect the connector between the sensing elements 17HF and 18HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - a If the impedance is less than 10 KOhms:
    - disconnect the connector between the sensing elements 16HF and 17HF
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
      - \* if the impedance is less than 10 KOhms:
      - replace the OVHT SENS ELEMENT (16HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - connect all the cables or connectors disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001),
      - refer to Para. 4.B.
      - \* if the impedance is more than 10 KOhms:
      - replace the OVHT SENS ELEMENT (17HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
      - connect all the cables or connectors disconnected
      - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
      - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
      - refer to Para. 4.B.

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- b If the impedance is more than 10 K0hms:
  - connect the connector between the sensing elements 17HF and 18HF
  - disconnect the connector between the sensing element 19HF and the cable 20HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - . if the impedance is less than 10 KOhms:
    - disconnect the connector between the sensing elements 18HF and 19HF
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
    - \* if the impedance is less than 10 KOhms:
    - replace the OVHT SENS ELEMENT (18HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
    - \* if the impedance is more than 10 KOhms:
    - replace the OVHT SENS ELEMENT (19HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
    - . if the impedance is more than 10 KOhms
    - replace the CABLE ASSY (20HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
    - connect all the cables or connectors disconnected
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)
    - \* if the impedance is less than 10 KOhms:
    - do a check and repair the wiring between the pin AA/8B of the BMC1 (1HA1) and the cable 20HF
    - connect all the cables or connector disconnected
    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
    - refer to Para. 4.B.
    - \* if the impedance is more than 10 K0hms:
    - disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC1}$  connector
    - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)

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- refer to Para. 4.B.

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	Α.	If the test gives the maintenance message: APU LOOP
R		- remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001) - on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the
R		connector 1HA1-AA/7B and the ground (Ref. ASM 36-22/01) - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
R		(1) If the impedance is more than 10 KOhms:    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector    - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).    - refer to Para. 4.B.
R		(2) If the impedance is less than 10 KOhms: <ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector</li> <li>do a visual inspection of the sensing elements and cables on the APU loop.</li> </ul>
R		<ul> <li>(a) If a sensing element or cable is damaged:         <ul> <li>replace the sensing element or cable (Ref. AMM TASK 36-22-17-000-001)</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector install the BMC1 (Ref. AMM TASK 36-11-34-400-001)</li> <li>refer to Para. 4.B.</li> </ul> </li> </ul>
		<ul><li>(b) If no sensing element is damaged:</li><li>disconnect the connector between the sensing elements 15HF and 16HF</li></ul>
R		<ul> <li>connect the CONTROLLER-LOOP (9240SI) between the connector</li> <li>1HA1-AA/7B and the ground</li> </ul>
R R		<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
		<ul> <li>If the impedance is less than 10 K0hms:</li> <li>disconnect the connector between the sensing elements 13HF and 14HF</li> </ul>
R R		<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
D		<ul> <li><u>a</u> If the impedance is less than 10 K0hms:</li> <li>- disconnect the connector between the sensing elements</li> <li>12HF and 84HF</li> <li>- do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>
R R		(9240SI).  (AA) if the impedance is less than 500 K0hms:  - disconnect the connector between the cable 11HF and the sensing element 12HF
R R		- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

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(1.1) if the impedance is less than 10 KOhms: - replace the CONNECTING CABLE (11HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) do a check of the impedance read on the CONTROLLER-LOOP R (9240SI) R (aa) if the impedance is less than 10 K0hms: - do a check and repair the wiring between the pin AA/7B of the BMC1 (1HA1) and the cable 11HF - connect all the cables or connectors disconnected R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. (ab) if the impedance is more than 10 KOhms: - connect all the cables or connectors disconnected R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. (1.2) if the impedance is more than 10 K0hms: - replace the OVHT SENS ELEMENT (12HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. (AB) if the impedance is more than 500 KOhms: - disconnect the connector between the sensing elements 13HF and 84HF - connect the connector between the cable 12HF and the sensing element 84HF - do a check of the impedance read on the CONTROLLER-LOOP R (1.1) if the impedance is less than 10 KOhms: - replace the OVERHEAT SENSING ELEM (84HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001). - connect all the cables or connectors disconnected R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. (1.2) if the impedance is more than 10 K0hms: replace the OVHT SENS ELEMENT (13HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001) - connect all the cables or connectors disconnected R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector

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#### TROUBLE SHOOTING MANUAL

- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- b If the impedance is more than 10 K0hms:
  - connect the connector between the sensing elements 13HF and 14HF
  - disconnect the connector between the sensing elements
     14HF and 15HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

(AA) if the impedance is less than 10 KOhms:

- replace the OVHT SENS ELEMENT (14HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.

(AB) if the impedance is more than 10 KOhms:

- replace the OVHT SENS ELEMENT (15HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the  ${\tt CONTROLLER-LOOP}$  (9240SI) from the  ${\tt BMC1}$  connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.
- 2 If the impedance is more than 10 K0hms:
  - connect the connector between the sensing element 15HF and 16HF
  - disconnect the connector between the sensing elements 17HF and 18HF
  - do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
  - a If the impedance is less than 10 KOhms:
    - disconnect the connector between the sensing elements 16HF and 17HF
    - do a check of the impedance read on the CONTROLLER-LOOP (9240SI)

(AA) if the impedance is less than 10 KOhms:

- replace the OVHT SENS ELEMENT (16HF) (Ref. AMM TASK 36-22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
- connect all the cables or connectors disconnected
- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001),
- refer to Para. 4.B.

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#### TROUBLE SHOOTING MANUAL

(AB) if the impedance is more than 10 KOhms:

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- replace the OVHT SENS ELEMENT (17HF) (Ref. AMM TASK 36-
                         22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
                         - connect all the cables or connectors disconnected
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
R
                         connector
                         install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
                         001)
                         - refer to Para. 4.B.
                      If the impedance is more than 10 KOhms:
                       - connect the connector between the sensing elements 17HF
                         and 18HF
                       - disconnect the connector between the sensing element 19HF
                         and the cable 20HF
                       - do a check of the impedance read on the CONTROLLER-LOOP
R
R
                         (9240SI)
                         (AA) if the impedance is less than 10 KOhms:
                         - disconnect the connector between the sensing elements
                         18HF and 19HF
                         - do a check of the impedance read on the CONTROLLER-LOOP
R
R
                         (9240SI).
                         (1.1) if the impedance is less than 10 KOhms:
                         - replace the OVHT SENS ELEMENT (18HF) (Ref. AMM TASK 36-
                         22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
                         - connect all the cables or connectors disconnected
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
R
                         connector
                         - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
                         001)
                         - refer to Para. 4.B.
                         (1.2) if the impedance is more than 10 KOhms:

    replace the OVHT SENS ELEMENT (19HF) (Ref. AMM TASK 36-

                         22-17-000-001) and (Ref. AMM TASK 36-22-17-400-001)
                         - connect all the cables or connectors disconnected
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
R
                         connector
                         - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-
                         001)
                         - refer to Para. 4.B.
                         (AB) if the impedance is more than 10 KOhms:
                         - replace the CABLE ASSY (20HF) (Ref. AMM TASK 36-22-17-
                         000-001) and (Ref. AMM TASK 36-22-17-400-001)

    connect all the cables or connectors disconnected

                         - do a check of the impedance read on the CONTROLLER-LOOP
R
R
                         (9240SI)
                         (aa) if the impedance is less than 10 K0hms:
                         - do a check and repair the wiring between the pin AA/8B
                         of the BMC1 (1HA1) and the cable 20HF
                         - connect all the cables or connector disconnected
R
                         - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1
                         connector
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### TROUBLE SHOOTING MANUAL

- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.

(ab) if the impedance is more than 10 K0hms:

- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector
- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001)
- refer to Para. 4.B.

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B. Do the test given in para. 3.

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### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-830

Leak Detection on the Engine 1 Pylon

- 1. Possible Causes
  - BMC-1 (1HA1)
  - CABLE-CONNECTING, ENG 1 PYLON (2HF1)
  - SNSG ELEM-OVHT, ENG 1 PYLON (1HF1)
  - CABLE ASSY (3HF1)
  - wiring
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

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R 9240SI

1 CONTROLLER-LOOP

B. Referenced Information

REFERENCE DESIGNATION

AMM 36-11-00-740-001 BITE Test of the BMC 1(2)
AMM 36-11-34-000-001 Removal of the BMC (1HA1, 1HA2)
AMM 36-11-34-400-001 Installation of the BMC (1HA1, 1HA2)
AMM 36-22-15-000-001 Removal of the Pylon Overheat Sensing Element (1HF1, 1HF2)
AMM 36-22-15-400-001 Installation of the Pylon Overheat Sensing Element (1HF1, 1HF2)
ASM 36-22/01

3. Fault Confirmation

A. Test

R

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- (1) Do the BITE test of the BMC1 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message: ENG1 PYLON LOOP
    - remove the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-000-001)
- on the shelf 95VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/5B and the ground (Ref. ASM 36-22/01)
- R do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

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(1) If the impedance is more than 17 KOhms: R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - replace the BMC-1 (1HA1) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001). - refer to Para. 4.B. (2) If the impedance is less than 17 KOhms: R disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - do a visual inspection of the sensing elements and cables on the engine 1 pylon loop. (a) If a sensing element or cable is damaged: - replace the sensing element or cable (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001) R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. (b) If no sensing element is damaged: - disconnect the connector between the cable 2HF1 and the sensing element 1HF1 R - connect the CONTROLLER-LOOP (9240SI) between the connector 1HA1-AA/5B and the ground - do a check of the impedance read on the CONTROLLER-LOOP R (9240SI). R 1 If the impedance is less than 17 KOhms: - replace the CABLE-CONNECTING, ENG 1 PYLON (2HF1) (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001) - do a check of the impedance read on the CONTROLLER-LOOP R (9240SI). R a If the impedance is less than 17 KOhms: - do a check and repair the wiring between the pin AA/5B of the BMC1 (1HA1) and the cable 2HF1 - connect all the cables or connectors disconnected R - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. b If the impedance is more than 17 KOhms: - connect all the cables or connectors disconnected - disconnect the CONTROLLER-LOOP (9240SI) from the BMC1 R connector - install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B. If the impedance is more than 17 KOhms:

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sensing element 1HF1

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disconnect the connector between the cable 3HF1 and the

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	<ul> <li>connect the connector between the cable 2HF1 and the sensing element 1HF1</li> </ul>	
R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP</li> </ul>	
R	(9240SI).	
	V. = 1.00=7.	
	a If the impedance is less than 17 KOhms:	
	- replace the SNSG ELEM-OVHT, ENG 1 PYLON (1HF1)	
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC	
K	connector	
	- install the BMC-1 (1HA1) which is removed (Ref. AMM TASK	
	36-11-34-400-001)	
	- refer to Para. 4.B.	
	b If the impedance is more than 17 KOhms:	
	- replace the CABLE ASSY (3HF1)	
	- connect all the cables or connectors disconnected	
R	- do a check of the impedance read on the CONTROLLER-LOOP	
R	(9240SI)	
	. if the impedance is less than 17 KOhms:	
	- do a check and repair the wiring between the pin AA/6B	
	of the BMC1 (1HA1) and the cable 3HF1	
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1	
	connector	
	- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-	
	001)	
	- refer to Para. 4.B.	
	if the impedance is more than 17 K0hms:	
R	- disconnect the CONTROLLER-LOOP (9240SI) from the BMC1	
	connector	
	- install the BMC1 (1HA1) (Ref. AMM TASK 36-11-34-400-	

- refer to Para. 4.B.

B. Do the test given in para. 3.

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#### TROUBLE SHOOTING MANUAL

TASK 36-22-00-810-831

Leak Detection on the Engine 2 Pylon

- 1. Possible Causes
  - BMC-2 (1HA2)
  - CABLE-CONNECTING, ENG 2 PYLON (2HF2)
  - SNSG ELEM-OVHT, ENG 2 PYLON (1HF2)
  - CABLE ASSY (3HF2)
  - wiring
- 2. Job Set-up Information
  - A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

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R 9240SI

1 CONTROLLER-LOOP

B. Referenced Information

REFERENCE DESIGNATION

AMM	36-11-00-740-001	BITE Test of the BMC 1(2)
AMM	36-11-34-000-001	Removal of the BMC (1HA1, 1HA2)
AMM	36-11-34-400-001	Installation of the BMC (1HA1, 1HA2)
AMM	36-22-15-000-001	Removal of the Pylon Overheat Sensing Element (1HF1, 1HF2)
AMM	36-22-15-400-001	<pre>Installation of the Pylon Overheat Sensing Element (1HF1, 1HF2)</pre>
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- 3. Fault Confirmation
  - A. Test

**SROS** 

- (1) Do the operationnal test of the BMC2 (Ref. AMM TASK 36-11-00-740-001).
- 4. Fault Isolation
  - A. If the test gives the maintenance message: ENG2 PYLON LOOP
    - remove the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-000-001)
- R on the shelf 96VU, connect the CONTROLLER-LOOP (9240SI) between the connector 1HA2-AA/6B and the ground (Ref. ASM 36-22/01)
- R do a check of the impedance read on the CONTROLLER-LOOP (9240SI).

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R	(1) If the impedance is more than 17 KOhms:    - disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector    - replace the BMC-2 (1HA2) which is removed (Ref. AMM TASK 36-11-34-000-001) and (Ref. AMM TASK 36-11-34-400-001).    - refer to Para. 4.B.
R	<ul> <li>(2) If the impedance is less than 17 KOhms:         <ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> <li>do a visual inspection of the sensing elements and cables on the engine 2 pylon loop.</li> </ul> </li> </ul>
R	<ul> <li>(a) If a sensing element or cable is damaged:         <ul> <li>replace the sensing element or cable (Ref. AMM TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector install the BMC2 (Ref. AMM TASK 36-11-34-400-001)</li> <li>refer to Para. 4.B.</li> </ul> </li> </ul>
R	<ul> <li>(b) If no sensing element is damaged:         <ul> <li>disconnect the connector between the cable 2HF2 and the sensing element 1HF2</li> <li>connect the CONTROLLER-LOOP (9240SI) between the connector 1HA2-AA/6B and the ground</li> </ul> </li> </ul>
R R	- do a check of the impedance read on the CONTROLLER-LOOP (9240SI).
n	1 If the impedance is less than 17 KOhms: <ul> <li>replace the CABLE-CONNECTING, ENG 2 PYLON (2HF2) (Ref. AMM</li> <li>TASK 36-22-15-000-001) and (Ref. AMM TASK 36-22-15-400-001)</li> </ul>
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
R	<ul> <li>a If the impedance is less than 17 K0hms:</li> <li>- do a check and repair the wiring between the pin AA/6B of the BMC2 (1HA2) and the cable 2HF2</li> <li>- connect all the cables or connectors disconnected</li> <li>- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2</li> </ul>
	connector - install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001) - refer to Para. 4.B.
R	<ul> <li>b If the impedance is more than 17 KOhms:         <ul> <li>connect all the cables or connectors disconnected</li> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> <li>install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-001)</li> <li>refer to Para. 4.B.</li> </ul> </li> </ul>
	<ul> <li>If the impedance is more than 17 K0hms:</li> <li>disconnect the connector between the cable 3HF2 and the sensing element 1HF2</li> </ul>

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	<ul> <li>connect the connector between the cable 2HF2 and the sensing element 1HF2</li> </ul>
R R	<ul> <li>do a check of the impedance read on the CONTROLLER-LOOP (9240SI).</li> </ul>
R	<ul> <li><u>a</u> If the impedance is less than 17 KOhms:</li> <li>- replace the SNSG ELEM-OVHT, ENG 2 PYLON (1HF2)</li> <li>- disconnect the CONTROLLER-LOOP (9240SI) from the BMC2</li> </ul>
	connector - install the BMC-2 (1HA2) which is removed (Ref. AMM TASK 36-11-34-400-001)
	- refer to Para. 4.B.
	<ul> <li><u>b</u> If the impedance is more than 17 KOhms:</li> <li>- replace the CABLE ASSY (3HF2)</li> <li>- connect all the cables or connectors disconnected</li> </ul>
R	- do a check of the impedance read on the CONTROLLER-LOOP
R	(9240SI)
	if the impedance is less than 17 KOhms:
	<ul> <li>do a check and repair the wiring between the pin AA/5B of the BMC2 (1HA2) and the cable 3HF2</li> </ul>
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> </ul>
	- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-
	001)
	- refer to Para. 4.B.
	if the impedance is more than 17 KOhms:
R	<ul> <li>disconnect the CONTROLLER-LOOP (9240SI) from the BMC2 connector</li> </ul>

- refer to Para. 4.B.

- install the BMC2 (1HA2) (Ref. AMM TASK 36-11-34-400-

B. Do the test given in para. 3.

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TASK 36-22-00-810-832

Air Leak in the Left Wing with the APU in Operation

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

	REFERENCE		DESIGNATION	
	AMM	21-52-00-200-010	Hot-Air Leak-Check in the Air Conditioning Bay	
	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	
R	AMM	36-22-00-790-001	Leak Check on all the Bleed Air Ducts and Packs	
R			Components	
	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	49-00-00-860-009	APU Shutdown by External Power (131-9(A))	

- 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
    - (1) 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).

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(2) On the AIR COND panel 30VU, push the APU BLEED pushbutton switch (5HV) (the ON legend comes on).

#### 4. Fault Isolation

- A. On the upper ECAM DU, if the AIR L WING LEAK warning comes into view:
   do a leak test on the bleed air ducts (Ref. AMM TASK 36-22-00-790-001).
  - (1) If there are leaks:
    - replace the defective ducts or seals as necessary.
  - (2) If there is no leak:
    - do a hot-air leak check in the air conditioning bay (Ref. AMM TASK 21-52-00-200-010).
    - (a) If there are cracks or damage on the ducts:
      - replace the defective ducts.
    - (b) If there are leaks on the seals:replace the defective seals.

#### 5. Close-up

- A. Put the aircraft back to its initial configuration.
  - (1) On the AIR COND panel 30VU, release the APU BLEED pushbutton switch (5HV) (the ON legend goes off).
  - (2) 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).
  - (3) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
  - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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TASK 36-22-00-810-833

Air Leak in the Right Wing with the APU in Operation

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

	REFERENCE		DESIGNATION	
	AMM	21-52-00-200-010	Hot-Air Leak-Check in the Air Conditioning Bay	
	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	
R	AMM	36-22-00-790-001	Leak Check on all the Bleed Air Ducts and Packs	
R			Components	
	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	49-00-00-860-009	APU Shutdown by External Power (131-9(A))	

- 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
    - (1) Start the APU:
      - GTCP 36-300 (Ref. AMM TASK 49-00-00-860-003)
        - or
      - APS 3200 (Ref. AMM TASK 49-00-00-860-005)
      - 131-9(A) (Ref. AMM TASK 49-00-00-860-008).

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#### TROUBLE SHOOTING MANUAL

(2) On the AIR COND panel 30VU, push the APU BLEED pushbutton switch (5HV) (the ON legend comes on).

#### 4. Fault Isolation

- A. On the upper ECAM DU, if the AIR R WING LEAK warning comes into view:
   do a leak test on the bleed air ducts (Ref. AMM TASK 36-22-00-790-001).
  - (1) If there are leaks:
    - replace the defective ducts or seals as necessary.
  - (2) If there is no leak:
    - do a hot-air leak check in the air conditioning bay (Ref. AMM TASK 21-52-00-200-010).
    - (a) If there are cracks or damage on the ducts:
      - replace the defective ducts.
    - (b) If there are leaks on the seals:replace the defective seals.

#### 5. Close-up

- A. Put the aircraft back to its initial configuration.
  - (1) On the AIR COND panel 30VU, release the APU BLEED pushbutton switch (5HV) (the ON legend goes off).
  - (2) 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).
  - (3) Do the EIS stop procedure (Ref. AMM TASK 31-60-00-860-002).
  - (4) De-energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-862-002).

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#### LEAK DETECTION - TASK SUPPORTING DATA

- 1. <u>Typical Method of Trouble Shooting to Isolate the Faulty Element of the</u>
  Overheat Detection System
  - A. Recommendations

R

- (1) You must only use AC resistance meters with the characteristics that follow to make sure that the overheat detection system operates correctly:
  - a maximum test voltage of 1VAC RMS
  - a test signal of 1KHZ
  - the possibility to measure the resistance value of a resistor which is in parallel with a capacitor.
- (2) The sensing element of the overheat detection loop is serviceable when its measured insulation resistance is:
  - for the APU loop more than 10 Kohms
  - for the wing loops more than 10 Kohms
  - for the engine/pylon loop more than 17 Kohms.
- (3) When you do the trouble shooting of a loop that you think is unserviceable, use the usual techniques for electrical fault isolation, i.e. divide the system to find the location of the fault. After the end of the trouble shooting procedure, you must do a continuity check to make sure that the system operates correctly.
- (4) Do not use DC meters because these can cause damage the sensing elements.
- (5) There are no temperature or time restrictions when you use an AC resistance meter.
- B. Typical Method (for example : sensing element 16HF)
   (Ref. Fig. 301)
  - (1) Make sure that the APU and the engines are not in operation.
  - (2) Put warning notices to prevent personnel not to start the APU or the engines.
  - (3) Open, safety and tag circuit breaker 2HA1 on this panel 122VU.
  - (4) Disconnect connector AA from the BMC1.
  - (5) Use an AC resistance meter (1VAC RMS maximum 1KHZ, test signal) to do a check of the resistance between pin 7B and ground.

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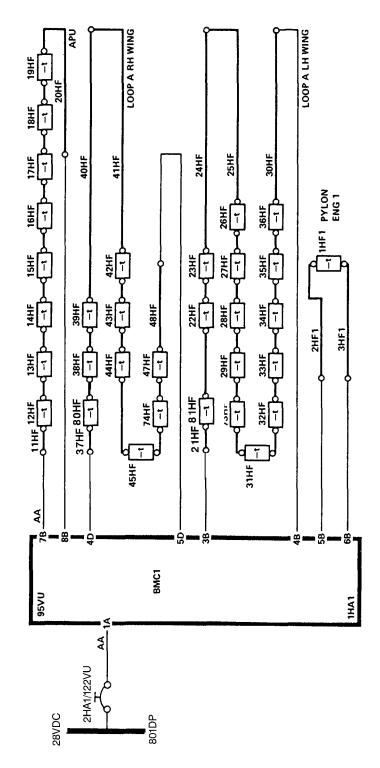


Illustration of the leak detection - Electrical schematic Figure 301

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- R (6) If the reading is below 10 Kohms, isolate half the loop to divide the system. To do this disconnect the connector between the sensing R R elements 16HF and 15HF. Do again a check of the resistance between pin 7B and ground. If the resistance is above 10 Kohms, this is an R indication that the faulty element is located between the sensing R elements 16HF and 19HF. R
  - (7) Connect again the sensing element 15HF to the sensing element 16HF and then disconnect the sensing element 17HF from the sensing element 18HF. The meter shows that the resistance between pin 7B and ground is below 10 Kohms. The faulty element is this between sensing elements 16HF and 17HF.
  - (8) Disconnect the sensing element 16HF from the sensing element 17HF and do a check of the resistance. The value is below 10 Kohms: the sensing element 16HF is thus the faulty element and you must replace

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