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 30		
	REVISED TO REFLECT THIS REVISION INDICATING NEW, REVISED, AND/OR DELETED PAGES REVISED TO REFLECT THIS REVISION	
-	FAULT LIST UPDATED	201-225, 227-227, 229-299, 426-499, 503-549, 551-599, 701-749,
30-31-00 216, 228- 229, 240, 263	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	ALL
201- 202, 209- 211,	EFFECTIVITY UPDATED CORRECTION/ADDITION/AMPLIFICATION MODIFIED TEXT. EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	ALL 201-225, 227-227, 229-299, 426-499, 503-549, 551-599, 701-749,
	EFFECTIVITY UPDATED CIRCUIT BREAKER(S) DATA UPDATED EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-208, 227-227, 229-299, 426-499, 503-549, 551-599, 201-225, 227-227, 229-299, 426-499, 503-549, 551-599, 701-749,
30-71-00 227- 230, 237	EFFECTIVITY UPDATED EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-299, 426-475, 479-499, 701-749,
30-71-00 303	EFFECTIVITY UPDATED EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	227-227, 229-275, 426-450, 701-749,
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30-72-00	EFFECTIVITY UPDATED	
302	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-275, 426-475, 551-599, 701-749,
30-73-00	EFFECTIVITY UPDATED	
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30-73-00	EFFECTIVITY UPDATED	
303	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	227-227, 229-253, 426-450, 701-749,
30-81-00	EFFECTIVITY UPDATED	
	CIRCUIT BREAKER(S) DATA UPDATED	201-225, 227-227, 229-299,
		426-450, 476-499, 503-549,
		551-599, 701-749,
	EFFECTIVITY UPDATED (THROUGHOUT THE TEXT)	201-225, 227-227, 229-299, 426-450, 476-499, 503-549,
		551-599, 701-749,

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CHAPTER 30

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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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OF TEMP.				30-11-00			Feb01/02	30-31-00			Feb01/08
REVISION				30-11-00			Feb01/02	30-31-00			May01/03
KLVIOION				30-11-00			Feb01/02	30-31-00			May01/03
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T. of C.			Aug01/05	30-11-00			Nov01/00	30-31-00		221	•
T. of C.			Feb01/08	30-11-00			Nov01/00	30-31-00			May01/03
T. of C.			Feb01/06	30-11-00			Aug01/94	30-31-00			May01/03
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T. of C.			Feb01/08	30-11-00			Aug01/94	30-31-00			Feb01/06
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		-	110,01,00	30-21-00		201	Feb01/08	30-31-00	R		May01/08
30-ECAM		101	Nov01/06	30-21-00			Feb01/08	30-31-00	R		May01/08
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30-ECAM			Feb01/08	30-21-00			Aug01/07	30-31-00			May01/03
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30-0BSV		101	May01/07	30-21-00			Feb01/08	30-31-00	.,		Feb01/08
30-0BSV			Feb01/08				. 0.00 1, 00	30-31-00			May01/03
30-0BSV			Aug01/06	30-31-00		201	May01/96	30-31-00			May01/03
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30-11-00			Aug01/07	30-31-00			May01/03	30-31-00			Feb01/06
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30-11-00			May01/06	30-31-00			Feb01/06	30-31-00			Nov01/06
30-11-00			May01/06	30-31-00			May01/06	30-31-00			Nov01/06
30-11-00			Feb01/07	30-31-00			May01/03	30-31-00			May01/03
30-11-00			Aug01/05	30-31-00			May01/03	30-31-00			May01/03
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30-31-00			May01/03	30-42-00			Feb01/08	30-42-00			Feb01/08
30-31-00			May01/03	30-42-00			Feb01/08	30-42-00			Feb01/08
30-31-00			May01/03	30-42-00			Feb01/08	30-42-00			Feb01/08
30-31-00			May01/03	30-42-00			Feb01/08	30-42-00			Feb01/08
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30-31-00			May01/03	30-42-00	K		Feb01/08	30-42-00			Feb01/08
30-31-00			May01/03	30-42-00			Feb01/08	30-42-00			Feb01/08
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30-31-00			May01/03	30-42-00			Feb01/08	30-42-00			Feb01/08
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30-31-00			May01/03	30-42-00			Feb01/08	30-45-00	R		May01/08
30-31-00			May01/03	30-42-00			Feb01/08	30-45-00	_		Nov01/00
30-31-00			May01/03	30-42-00			Feb01/08	30-45-00	R		May01/08
30-31-00			May01/03	30-42-00			Feb01/08	30-45-00	_		Nov01/00
30-31-00			May01/03	30-42-00			Feb01/08	30-45-00	R		May01/08
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30-45-00		219	Feb01/08	30-72-00		205	Nov01/05				
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30-71-00			Nov01/07	30-73-00	R		May01/08				
30-71-00			May01/07	30-73-00	R		May01/08				
30-71-00			May01/07	30-73-00	R		May01/08				
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30-71-00		225	May01/07	30-81-00	R	204	May01/08				
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30-71-00	R	230	May01/08	30-81-00		209	Feb01/08				
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System				
Loss of Phase B of the L			222	ALL
Windshield and L Side Windows				
Power Supply				
Loss of Phase B of the R			224	ALL
Windshield and R Side Windows				
Power Supply				
Loss of the Temperature Sensor of			226	ALL
the Left Sliding Window			_	
Loss of the Temperature Sensor of			231	ALL
the Left Fixed Window				
Loss of the Heating System of the			236	ALL
Sliding Window				
Loss of the Heating System of the			241	ALL
Fixed Window				

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SUBJECT	CH/SE/SU	<u>c</u>		EFFECTIVITY
Loss of the Power Supply of the			246	ALL
Side Windows			240	
Loss of the Temperature Sensor of			248	ALL
the Right Sliding Window Loss of the Temperature Sensor of			257	ALL
the Right Fixed Window			233	ALL
Loss of the Heating System of the			258	ALL
Sliding Window				
Loss of the Heating System of the			260	ALL
Fixed Window				
Loss of the Power Supply of the			262	ALL
Side Windows			244	
Loss of the Output Discretes			264	ALL
(Windshield)			245	ALL
Loss of the Output Discretes (Windshield)			200	ALL
Loss of the Output Discretes			266	ALL
(Windshield)			200	ALL
Loss of the Output Discretes (Side			267	ALL
Window)				
Loss of the Command Inputs (ENG			268	ALL
1/ENG 2)				
Loss of the Command Inputs (ENG			270	ALL
<pre>1/ENG 2) Loss of the GND/FLT Information</pre>			272	ALL
Loss of the GND/FLT Information				ALL
Loss of the WHC 1				ALL
Loss of the WHC 2				ALL
Loss of Power Supply of the WHC 1				ALL
Loss of Power Supply of the WHC 2				ALL
Loss of the Heating of the Left				ALL
and Right Windshields				
Left Windshield Arcing			283	ALL
Right Windshield Arcing			284	ALL
Loss of the Identification of the			285	ALL
Left or Right Side by the WHC 1				
(2DG1)				
Loss of the Identification of the			286	ALL
Left or Right Side by the WHC 2				
(2DG2)				
Left Windshield Cracking			287	
Right Windshield Cracking			288	ALL
LITHICUTEL D. DATH. DDOTFCTTON	70 /F 00			
WINDSHIELD RAIN PROTECTION FAULT ISOLATION PROCEDURES	30-45-00		201	A1 1
			201	ALL ALL
One or Both Wipers Inoperative			201	ALL

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SUBJECT Only One Wiper Speed is Available The Wiper Does not Go Back Correctly to the Park Position	CH/SE/SU	<u>C</u>	203	EFFECTIVI ALL ALL	<u>TY</u>
Loss of the Rain Repellent Fluid (CAPT)			208	201-208, 229-299, 503-549,	426-499
Loss of the Rain Repellent Fluid (F/O)			211		227-227 426-499
Loss of the CAPT Wiper (INTMT Position)			214		
Loss of the F/O Wiper (INTMT Position)			217	503-549,	551-599
DRAIN MAST ICE PROTECTION	30-71-00				
FAULT ISOLATION PROCEDURES			201	ALL	
FWD Drainmast-Heater Failure			201	ALL	
AFT Drainmast-Heater Failure			206	ALL	
Control Unit Failure of FWD Drainmast			211	ALL	
Control Unit Failure of AFT Drainmast			216	ALL	
Failure of FWD Waste-Water Ice-Protection System			221	ALL	
Failure of AFT Waste-Water Ice-Protection System			235	ALL	
DRAIN MAST ICE PROTECTION	30-71-00				
TASK SUPPORTING DATA	30 11 00		301	ALL	
WATER SERVICING PANELS HEATING	30-72-00				
FAULT ISOLATION PROCEDURES				ALL	
Failure of heated Fill/Drain			201	ALL	
Nipple					
Failure of heated Overflow Nipple			204	201-225, 451-499,	276-299 503-549
Pathona of backed North Missi			207	551-599,	227 227
Failure of heated Drain Nipple on			206	,	
the Waste-Water Service Panel				229-253, 426-475,	
WATER SERVICING PANELS HEATING	30-72-00				
TASK SUPPORTING DATA			301	ALL	

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SUBJECT POTABLE WATER ICE PROTECTION	CH/SE/SU 30-73-00	<u>c</u>	<u>PAGE</u>	EFFECTIVITY
FAULT ISOLATION PROCEDURES			201	ALL
Ice Formation in the Potable Water				ALL
Lines				
POTABLE WATER ICE PROTECTION	30-73-00			
TASK SUPPORTING DATA			301	ALL
ICE DETECTION	30-81-00			
FAULT ISOLATION PROCEDURES				ALL
Loss of the L Ice Detector and the			201	,
R Ice Detector				229-299, 426-450
				476-499, 503-549
				551-599, 701-749
Loss of the L Ice Detector			204	201-225, 227-227
				229-299, 426-450
				476-499, 503-549
				551-599, 701-749
Loss of the R Ice Detector			206	201-225, 227-227
				229-299, 426-450
				476-499, 503-549
				551-599, 701-749
Icing Indicator Lighting			208	201-225, 236-275
Inoperative				282-299, 426-475
				479-499, 503-549
				551-599, 701-749

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ICE AND RAIN PROTECTION - FAULT SYMPTOMS

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

Upper ECAM DU Warnings

R

R

ANTI ICE CAPT AOA	PHC 1	AOA SENSOR 3FP1	341119	1	303100 P 216 Т 810 808
ANTI ICE CAPT AOA	PHC 1	CHECK AOA PHC1 SUPPLY	303100	1	303100 P 218 T 810 809
ANTI ICE CAPT AOA	PHC 1	PHC 6DA1	303134	1	303100 P 201 T 810 801
ANTI ICE CAPT L STAT	PHC 1	CHECK STATICS PHC1 SUPPLY	303100	1	303100 P 212 T 810 806
ANTI ICE CAPT L STAT	PHC 1	L STATIC PROBE 7DA1	341116	1	303100 P 210 T 810 805
ANTI ICE CAPT L STAT	PHC 1	PHC 6DA1	303134	1	303100 P 201 T 810 801
ANTI ICE CAPT PITOT					303100 P 204 T 810 803
ANTI ICE CAPT PITOT associated with ANTI ICE F/O PITOT and					303100 PA209 T 810 856
ANTI ICE STBY PITOT					
ANTI ICE CAPT PITOT	LGCIU 1	L L/G EXT PROX SNSR 21GA	323173	1	323100 PA226 T 810 854
ANTI ICE CAPT PITOT	LGCIU 2	L L/G EXT PROX SNSR 23GA	323173	1	323100 PA226 T 810 854
ANTI ICE CAPT PITOT	PHC 1	CHECK LGCIU-PHC1 INTERFACE	323171	1	303100 P 204 T 810 803
ANTI ICE CAPT PITOT	PHC 1	CHECK PITOT PHC1 SUPPLY	303100	1	303100 P 207 T 810 804

EFF: ALL SROS

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WARNINGS/MALFUNCTIONS	[CFDS FAULT MESSAGES	 S		FAULT ISOLATION
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	PROCEDURE
ANTI ICE CAPT PITOT	PHC 1	PHC 6DA1	303134	1	303100 P 201 T 810 801
ANTI ICE CAPT PITOT	PHC 1	PITOT PROBE 9DA1	341115	1	303100 P 202 T 810 802
ANTI ICE CAPT R STAT	PHC 1	CHECK STATICS PHC1	303100	1	303100 P 212 T 810 806
ANTI ICE CAPT R STAT	PHC 1	PHC 6DA1	303134	1	303100 P 201 T 810 801
ANTI ICE CAPT R STAT	PHC 1	R STATIC PROBE 8DA1	341116	1	303100 P 214 T 810 807
ANTI ICE CAPT TAT	PHC 1	CHECK TAT PHC1 SUPPLY	303100	1	303100 P 222 T 810 811
ANTI ICE CAPT TAT	PHC 1	PHC 6DA1	303134	1	303100 P 201 T 810 801
ANTI ICE CAPT TAT	PHC 1	TAT SENSOR 11FP1	341118	1	303100 P 220 T 810 810
ANTI ICE DETECT FAULT	CFDS	ICE DETECTOR 1 associated with	308100	1	308100 P 201 T 810 801
	CFDS	ICE DETECTOR 2	308100	1	
ANTI ICE DETECT FAULT	CFDS	ICE DETECTOR 1	308100	1	308100 P 201 T 810 801
ANTI ICE DETECT FAULT	CFDS	ICE DETECTOR 2	308100	1	308100 P 201 T 810 801
ANTI ICE ENG1 VALVE CLSD					302100 P 207 Т 810 803
ANTI ICE ENG1 VALVE OPEN					302100 P 201 T 810 801
ANTI ICE ENG1 VALVE OPEN associated with ANTI ICE Pnl (25VU) ENG1 ANTI-ICE P/BSW FAULT legend illuminated					302100 P 201 T 810 801

R R

EFF: ALL

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT - ISOLATION	
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	C	!!	
	ANTI ICE ENG2 VALVE CLSD					302100 P 209 T 810 804	
	ANTI ICE ENG2 VALVE OPEN					302100 P 204 T 810 802	
R R	ANTI ICE ENG2 VALVE OPEN associated with ANTI ICE Pnl (25VU) ENG2 ANTI-ICE P/BSW FAULT legend illuminated					302100 P 204 T 810 802	
	ANTI ICE F/O AOA	PHC 2	AOA SENSOR 3FP2	341119	1	303100 P 240 T 810 819	
	ANTI ICE F/O AOA	PHC 2	CHECK AOA PHC2 SUPPLY	303100	1	303100 P 242 T 810 820	
	ANTI ICE F/O AOA	PHC 2	PHC 6DA2	303134	1	303100 P 224 T 810 812	
	ANTI ICE F/O L STAT	PHC 2	CHECK STATICS PHC2 SUPPLY	303100	1	303100 P 236 T 810 817	
	ANTI ICE F/O L STAT	PHC 2	L STATIC PROBE 7DA2	341116	1	303100 P 234 T 810 816	
	ANTI ICE F/O L STAT	PHC 2	PHC 6DA2	303134	1	303100 P 224 T 810 812	
	ANTI ICE F/O PITOT					303100 P 227 T 810 814	
	ANTI ICE F/O PITOT associated with ANTI ICE CAPT PITOT and ANTI ICE STBY PITOT					303100 PA209 T 810 856	
	ANTI ICE F/O PITOT	LGCIU 1	R L/G EXT PROX SNSR 20GA	323173	1	323100 PA226 T 810 854	
	ANTI ICE F/O PITOT	LGCIU 2	R L/G EXT PROX SNSR 22GA	323173	1	323100 PA226 T 810 854	

EFF: ALL SROS

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WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGE	 S		FAULT
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	ISOLATION PROCEDURE
ANTI ICE F/O PITOT	PHC 2	CHECK LGCIU-PHC2 INTERFACE	323171	1	303100 P 227 T 810 814
ANTI ICE F/O PITOT	PHC 2	CHECK PITOT PHC2 SUPPLY	303100	1	303100 P 231 T 810 815
ANTI ICE F/O PITOT	PHC 2	PHC 6DA2	303134	1	303100 P 224 T 810 812
ANTI ICE F/O PITOT	PHC 2	PITOT PROBE 9DA2	341115	1	303100 P 225 T 810 813
ANTI ICE F/O R STAT	PHC 2	CHECK STATICS PHC2 SUPPLY	303100	1	303100 P 236 T 810 817
ANTI ICE F/O R STAT	PHC 2	PHC 6DA2	303134	1	303100 P 224 T 810 812
ANTI ICE F/O R STAT	PHC 2	R STATIC PROBE 8DA2	341116	1	303100 P 238 T 810 818
ANTI ICE F/O TAT	PHC 2	CHECK TAT PHC2 SUPPLY	303100	1	303100 P 246 T 810 822
ANTI ICE F/O TAT	PHC 2	PHC 6DA2	303134	1	303100 P 224 T 810 812
ANTI ICE F/O TAT	PHC 2	TAT SENSOR 11FP2	341118	1	303100 P 244 T 810 821
ANTI ICE L WINDOW associated with ANTI ICE L WINDSHIELD	CFDS	NO WHC1 DATA	304234	1	304200 P 278 T 810 829
ANTI ICE L WINDOW	WHC 1	CHECK WINDOWS WHC1	304200	1	304200 P 246 T 810 813
ANTI ICE L WINDOW associated with ANTI ICE L WINDSHIELD	WHC 1	CHECK WINDSHIELD WHC1 SUPPLY	304200	1	304200 P 222 T 810 807
ANTI ICE L WINDOW	WHC 1	L FIXED WINDOW	561100	1	304200 P 241 T 810 812
ANTI ICE L WINDOW	WHC 1	L FIXED WINDOW SENSOR	561100	1	304200 P 231 T 810 810

EFF :	ALL		
SROS			

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	WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION
	WARNINGS/ MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!
R	ANTI ICE L WINDOW	WHC 1	L SLIDING WINDOW	561200	1	304200 P 236 T 810 811
R	ANTI ICE L WINDOW	WHC 1	L SLIDING WINDOW SENSOR	561200	1	304200 P 226 T 810 809
R	ANTI ICE L WINDSHIELD associated with ANTI ICE L WINDOW	CFDS	NO WHC1 DATA	304234	1	304200 P 278 T 810 829
R	ANTI ICE L WINDSHIELD	WHC 1	CHECK WINDSHIELD WHC1	304200	1	304200 P 207 T 810 802
R	ANTI ICE L WINDSHIELD associated with ANTI ICE L WINDOW	WHC 1	CHECK WINDSHIELD WHC1 SUPPLY	304200	1	304200 P 222 T 810 807
R	ANTI ICE L WINDSHIELD	WHC 1	L WINDSHIELD	561000	1	304200 P 209 T 810 803
	ANTI ICE L WINDSHIELD	WHC 1	L WINDSHIELD SENSOR	561000	1	304200 P 201 T 810 801
R	ANTI ICE L WINDSHIELD	WHC 1	X WINDSHIELD SENSOR	561000	1	304200 P 285 T 810 839
R	ANTI ICE L+R WINDSHIELD					304200 P 282 T 810 831
R	ANTI ICE R WINDOW associated with ANTI ICE R WINDSHIELD	CFDS	NO WHC2 DATA	304234	1	304200 P 280 T 810 830
R	ANTI ICE R WINDOW	WHC 2	CHECK WINDOWS WHC2 SUPPLY	304200	1	304200 P 262 T 810 818
R	ANTI ICE R WINDOW associated with ANTI ICE R WINDSHIELD	WHC 2	CHECK WINDSHIELD WHC2 SUPPLY	304200	1	304200 P 224 T 810 808
R	ANTI ICE R WINDOW	WHC 2	R FIXED WINDOW	561100	1	304200 P 260 T 810 817
R	ANTI ICE R WINDOW	WHC 2	R FIXED WINDOW SENSOR	561100	1	304200 P 253 T 810 815

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	HADNINGS / MALEUNG TIONS		CFDS FAULT MESSAGES	 S		FAULT ISOLATION	
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С		
R	ANTI ICE R WINDOW	WHC 2	R SLIDING WINDOW	561200	1	304200 P 258 T 810 816	
R	ANTI ICE R WINDOW	WHC 2	R SLIDING WINDOW SENSOR	561200	1	304200 P 248 T 810 814	
R	ANTI ICE R WINDSHIELD associated with ANTI ICE R WINDOW	CFDS	NO WHC2 DATA	304234	1	304200 P 280 T 810 830	
R	ANTI ICE R WINDSHIELD	WHC 2	CHECK WINDSHIELD WHC2 SUPPLY	304200	1	304200 P 218 T 810 805	
R	ANTI ICE R WINDSHIELD associated with ANTI ICE R WINDOW	WHC 2	CHECK WINDSHIELD WHC2 SUPPLY	304200	1	304200 P 224 T 810 808	
R	ANTI ICE R WINDSHIELD	WHC 2	R WINDSHIELD	561000	1	304200 P 220 T 810 806	
R	ANTI ICE R WINDSHIELD	WHC 2	R WINDSHIELD SENSOR	561000	1	304200 P 213 T 810 804	
R	ANTI ICE R WINDSHIELD	WHC 2	X WINDSHIELD SENSOR	561000	1	304200 P 286 T 810 840	
	ANTI ICE STBY AOA	PHC 3	AOA SENSOR 3FP3	341119	1	303100 P 263 T 810 830	
	ANTI ICE STBY AOA	PHC 3	CHECK AOA PHC3 SUPPLY	303100	1	303100 P 265 T 810 831	
	ANTI ICE STBY AOA	PHC 3	PHC 6DA3	303134	1	303100 P 248 T 810 823	
	ANTI ICE STBY L STAT	PHC 3	CHECK STATICS PHC3 SUPPLY	303100	1	303100 P 259 T 810 828	
	ANTI ICE STBY L STAT	PHC 3	L STATIC PROBE 7DA3	341116	1	303100 P 257 T 810 827	
	ANTI ICE STBY L STAT	PHC 3	PHC 6DA3	303134	1	303100 P 248 T 810 823	
	ANTI ICE STBY PITOT				 	303100 P 251 T 810 825	

EFF: ALL SROS

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WARNINGS/MALFUNCTIONS			FAULT ISOLATION		
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE
ANTI ICE STBY PITOT associated with ANTI ICE CAPT PITOT and ANTI ICE F/O PITOT					303100 PA209 T 810 856
ANTI ICE STBY PITOT	LGCIU 1	N L/G EXT PROX SNSR 24GA	323173	1	323100 PA226 T 810 854
ANTI ICE STBY PITOT	LGCIU 2	N L/G EXT PROX SNSR 25GA	323173	1	323100 PA226 T 810 854
ANTI ICE STBY PITOT	PHC 3	CHECK LGCIU-PHC3 INTERFACE	323171	1	303100 P 251 T 810 825
ANTI ICE STBY PITOT	PHC 3	CHECK PITOT PHC3 SUPPLY	303100	1	303100 P 254 T 810 826
ANTI ICE STBY PITOT	PHC 3	PHC 6DA3	303134	1	303100 P 248 T 810 823
ANTI ICE STBY PITOT	PHC 3	PITOT PROBE 9DA3	341115	1	303100 P 249 T 810 824
ANTI ICE STBY R STAT	PHC 3	CHECK STATICS PHC3 SUPPLY	303100	1	303100 P 259 T 810 828
ANTI ICE STBY R STAT	PHC 3	PHC 6DA3	303134	1	303100 P 248 T 810 823
ANTI ICE STBY R STAT	PHC 3	R STATIC PROBE 8DA3	341116	1	303100 P 261 T 810 829
WING A.ICE L HI PR	TEMPCTL	L WAI VALVE	301151	1	301100 P 207 T 810 804
WING A.ICE L HI PR	TEMPCTL	WAI FILTER OR VALVE 9DL	301151	3	301100 P 207 T 810 804
WING A.ICE L VALVE OPEN	TEMPCTL	L WAI VALVE	301151	1	301100 P 201 T 810 801
WING A.ICE OPEN ON GND					301100 P 212 T 810 808

EFF: ALL

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WARNINGS/MALFUNCTIONS	L	CFDS FAULT MESSAGES	 S		FAULT ISOLATION	
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	PROCEDURE	
WING A.ICE R HI PR	TEMPCTL	R WAI VALVE	301151	1	301100 P 207 T 810 804	
WING A.ICE R HI PR	TEMPCTL	WAI FILTER OR VALVE 10DL	301151	3	301100 P 207 T 810 804	
WING A.ICE R VALVE OPEN	TEMPCTL	R WAI VALVE	301151	1	301100 P 201 T 810 801	
WING A.ICE SYS FAULT					301100 P 209 T 810 806	
WING A.ICE SYS FAULT	LGCIU 1	L L/G EXT PROX SNSR 21GA TGT POS	323173	1	323100 PA226 T 810 854	
WING A.ICE SYS FAULT	LGCIU 2	R L/G EXT PROX SNSR 22GA TGT POS	323173	1	323100 PA226 T 810 854	
WING A.ICE SYS FAULT	TEMPCTL	L WAI VALVE	301151	1	301100 P 204 T 810 803	
WING A.ICE SYS FAULT	TEMPCTL	R WAI VALVE	301151	1	301100 P 204 T 810 803	

STS-Maintenance

ICE DETECT	CFDS	ICE DETECTOR 1	308100		308100 P 204 T 810 802
ICE DETECT	CFDS	ICE DETECTOR 2	308100	!	308100 P 206 Т 810 803

EFF: ALL

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ICE AND RAIN PROTECTION - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS		CFDS FAULT MESSAGES					
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ISOLATION PROCEDURE				
ANTI TOE B-L (25VII)	·						

ANTI ICE Pnl (25VU)

ENG1 ANTI-ICE P/BSW FAULT legend illuminated associated with Upper ECAM DU Warnings ANTI ICE ENG1 VALVE OPEN		302100 P 201 T 810 801
ENG2 ANTI-ICE P/BSW FAULT legend illuminated associated with Upper ECAM DU Warnings ANTI ICE ENG2 VALVE OPEN		302100 P 204 Т 810 802

ANTI-ICE Pnl (25VU)

	WING ANTI-ICE P/BSW FAULT legend on associated with WAI-Does not operate and WAI-Circuit breaker 2DL Tripped					301100 P 215 T 810 809
R	WING ANTI-ICE P/BSW ON legend on associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP	BMC 1	FAN AIR V 9HA1 OR THRM 7170HM1	361154	1	361100 PA235 T 810 849
R	WING ANTI-ICE P/BSW ON legend on associated with Upper ECAM DU Warnings AIR ENG 1 BLEED LO TEMP	BMC 1	THRM 7170HM1 OR FAN AIR-V 9HA1	361154	1	361100 PA235 T 810 849

F :	ALL		
SROS			

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	WARNINGS/MALFUNCTIONS		FAULT ISOLATION			
	WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	С	
R	WING ANTI-ICE P/BSW ON legend on associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP	BMC 2	FAN AIR V 9HA2 OR THRM 7170HM2	361154	1	361100 PA237 T 810 850
R	WING ANTI-ICE P/BSW ON legend on associated with Upper ECAM DU Warnings AIR ENG 2 BLEED LO TEMP	BMC 2	THRM 7170HM2 OR FAN AIR-V 9HA2	361154	1	361100 PA237 T 810 850

EFF: ALL
SROS

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ICE AND RAIN PROTECTION - FAULT SYMPTOMS

	WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES				FAULT ISOLATION	
	WARNINGS/MALFONCTIONS	SOURCE	MESSAGE	ATA	С	!!	
	A.ICE-POT WTR ICE PROT - no FWD potable WTR DRAIN due to ice formation					307300 P 201 T 810 801	
R	A.ICE-WASTE WTR ICE PROT AFT GALY and AFT LAV washbasins do not drain					307100 P 235 T 810 806	
R	A.ICE-WASTE WTR ICE PROT blocked AFT drainmast because of ice formation					307100 P 235 T 810 806	
R	A.ICE-WASTE WTR ICE PROT blocked FWD drainmast because of ice formation					307100 P 221 T 810 805	
R	A.ICE-WASTE WTR ICE PROT FWD GALY and FWD LAV washbasins do not drain					307100 P 221 T 810 805	
R	A.ICE-WASTE WTR ICE PROT no draining of toilet SYS due to ice formation					307100 P 235 T 810 806	
	A.ICE-WASTE WTR SERV PNL ice formation on drain nipple					307200 P 206 T 810 804	
	A.ICE-WTR SERV PNL HTG ice formation on fill/drain nipple					307200 P 201 T 810 801	
	A.ICE-WTR SERV PNL HTG ice formation on overflow nipple					307200 Р 204 Т 810 802	
R	ANTI ICE PITOT warning without message on the PFR					303100 PA211 T 810 861	
	ENG Failure of the engine anti-ice sense line					302100 P 211 T 810 805	

SROS		Printed in France

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LIADNINGS (MALEUNGITONS	Ţ	FAULT ISOLATION			
WARNINGS/MALFUNCTIONS	SOURCE	MESSAGE	ATA	C	! !
ICE DET - Icing Indicator Lighting Inoperative					308100 P 208 T 810 804
RAIN REPELLENT Rain repellent not operative on capt side				T	304500 P 208 T 810 805
RAIN REPELLENT Rain repellent not operative on F/O side					304500 P 211 T 810 806
WAI-Circuit breaker 2DL Tripped associated with ANTI-ICE Pnl (25VU) WING ANTI-ICE P/BSW FAULT legend on and WAI-Does not operate					301100 P 215 T 810 809
WAI-Does not operate associated with ANTI-ICE Pnl (25VU) WING ANTI-ICE P/BSW FAULT legend on and WAI-Circuit breaker 2DL Tripped					301100 P 215 T 810 809
WINDSHIELD Left windshield arcing					304200 P 283 T 810 837
WINDSHIELD Left windshield cracking					304200 Р 287 Т 810 841
WINDSHIELD Right windshield arcing					304200 P 284 T 810 838
WINDSHIELD Right windshield cracking					304200 P 288 T 810 842
WIPER CAPT wiper not operative at intermittent speed					304500 P 214 T 810 807

EFF :	ALL		
SROS			

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TROUBLE SHOOTING MANUAL

WARNINGS/MALFUNCTIONS		FAULT			
	SOURCE	MESSAGE	АТА	С	ISOLATION PROCEDURE
WIPER F/O wipper not operative at intermittent speed					304500 P 217 Т 810 808
WSHLD RAIN PROTECTION Only one speed available					304500 P 203 T 810 802
WSHLD RAIN PROTECTION Wiper does not go back correctly to park pos					304500 P 206 T 810 803
WSHLD RAIN PROTECTION Wiper inoperative					304500 P 201 T 810 801

EFF: ALL SROS **30-OBSV**

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ICE AND RAIN PROTECTION - FAULT SYMPTOMS

WARNINGS/MALFUNCTIONS	CFDS FAULT MESSAGES			FAULT ISOLATION	
WARNINGS/ MALFUNCTIONS	SOURCE	MESSAGE	АТА	С	:
	CFDS	NO PHC1 DATA	303134	2	313200 PA232 T 810 894
	CFDS	NO PHC2 DATA	303134	2	313200 PA234 T 810 895
	CFDS	NO PHC3 DATA	303134	2	313200 PA236 T 810 896
	CFDS	NO WHC1 DATA	304234	1	313200 PA238 T 810 897
	CFDS	NO WHC2 DATA	304234	1	313200 PA240 T 810 898
	PHC 1	PHC 6DA1	303134	3	303100 P 276 T 810 838
	PHC 2	PHC 6DA2	303134	3	303100 P 277 T 810 839
	PHC 3	PHC 6DA3	303134	3	303100 P 278 T 810 840
	TEMPCTL	L WAI VALVE	301151	1	301100 P 211 T 810 807
	TEMPCTL	R WAI VALVE	301151	1	301100 P 211 T 810 807
	TEMPCTL	WAI FILTER OR VALVE 10DL	301151	3	301100 P 208 T 810 805
	TEMPCTL	WAI FILTER OR VALVE 9DL	301151	3	301100 P 208 T 810 805
	WHC 1	WHC1 2DG1	304234	1	304200 P 276 T 810 827
	WHC 2	WHC2 2DG2	304234	3	304200 P 277 T 810 828

EFF: ALL SROS

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30-CFDS

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WING ICE PROTECTION - FAULT ISOLATION PROCEDURES

TASK 30-11-00-810-801

Wing Anti-Ice Control-Valve Failed Open.

WARNING : DO NOT TOUCH THE ANTI-ICE DUCTS UNTIL THEY ARE COOL. THE TEMPERATURE OF THE DUCTS STAYS HIGH FOR SOME TIME AFTER THE ENGINE STOPS.

1. Possible Causes

R

- VALVE-WING ANTI ICE CONTROL, L (9DL)
- VALVE-WING ANTI ICE CONTROL, R (10DL)
- ZONE CONTROLLER (8HK)
- RELAY-ANTI ICE VALVE CONTROL 5DL
- aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNAT	ION
AMM 21-63-34-000	0-001 Removal	of the Zone Controller (8HK)
AMM 21-63-34-400)-001 Installa	tion of the Zone Controller (8HK)
AMM 30-11-00-710	0-001 Operatio	nal Test of the Wing Ice-Protection System
AMM 30-11-51-000	0-001 Removal	of the Wing Anti-Ice Control Valve
AMM 30-11-51-400)-001 Installa	tion of the Wing Anti-Ice Control Valve
ASM 30-11/01		-

3. Fault Confirmation

- A. Procedure
 - (1) With no electrical power or bleed air supplied to the wing anti-ice system.
 - (a) Examine the identified defective Valve-Wing Anti Ice Control L(R) 9DL(10DL).
- 4. Fault Isolation
- R A. Procedure
 - (1) If the locking lever on the WAI valve 9DL(10DL) shows that the valve is open:
 - (a) Replace the applicable VALVE-WING ANTI ICE CONTROL, L (9DL) or VALVE-WING ANTI ICE CONTROL, R (10DL), (Ref. AMM TASK 30-11-51-000-001) and (Ref. AMM TASK 30-11-51-400-001).

EFF: ALL

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R NOTE: The function of step 4. A. (1) is to make sure that the WAI valve is not open without the supply of bleed air or electrical power.

- (2) If the WAI valve 9DL(10DL) is closed in para. 3.A.(1).
 - (a) Supply bleed air to the WAI system (Ref. AMM TASK 30-11-00-710-001), but do not set the P/BSW-Anti-Ice Wing (3DL) to on.
 - (b) Examine the locking lever on the WAI valve 9DL(10DL).
 - (c) If the locking lever position shows the valve is open.
 - (d) Do a check for 28VDC at the WAI valve connector A pin A (Ref. ASM 30-11/01).

NOTE: The function of step 4. A. (2) is to make sure that the WAI valve has not opened with bleed air supplied and electrical power set to off.

- (3) If there is no 28VDC:
 - (a) Replace the WAI valve 9DL(10DL) (Ref. para. 4.A.(1)(a).
- (4) If there is 28VDC:
- R (a) Replace the RELAY-ANTI ICE VALVE CONTROL 5DL.
- R (b) Do the test in Para. 4. A. (2).
- R (5) If the fault continues:
 - (a) Do a check of the aircraft wiring between the WAI valve 9DL(10DL) and the Relay Anti Ice Valve Control (5DL).
 - (b) Repair the unservicable wiring/connectors.
 - (c) Do the operational test of the WAI system (Ref. AMM TASK 30-11-00-710-001).
- R (6) If no defects can be found in the WAI system:
 - (a) Do a check of the aircraft wiring between the applicable wing anti-ice control-valve (9DL) or (10DL), connector A pin J and the SDAC ATA 31-54 (Ref. ASM 30-11/01).
 - (b) Repair all the unserviceable wiring and connectors.
 - (c) Do the operational test of the wing anti-ice system (Ref. AMM TASK 30-11-00-710-001).

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- R (7) If the fault indication is still shown:
 - (a) Replace the ZONE CONTROLLER (8HK), (Ref. AMM TASK 21-63-34-000-001) and (Ref. AMM TASK 21-63-34-400-001).
 - (b) Do the operational test of the wing anti-ice system (Ref. AMM TASK 30-11-00-710-001).
- R (8) If the fault indication is still shown:
 - (a) Do a check of the aircraft wiring between the VALVE-WING ANTI ICE CONTROL, L (9DL) or VALVE-WING ANTI ICE CONTROL, R (10DL) and ZONE CONTROLLER (8HK) (Ref. ASM 30-11/01).
 - (b) Repair all the unserviceable wiring and connectors.
 - (c) Do the operational test of the wing anti-ice system (Ref. AMM TASK 30-11-00-710-001).

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TASK 30-11-00-810-803

Wing Anti-Ice Low Pressure In Left (Right) System.

WARNING : DO NOT TOUCH THE ANTI-ICE DUCTS UNTIL THEY ARE COOL. THE TEMPERATURE OF THE DUCTS STAYS HIGH FOR SOME TIME AFTER THE ENGINE STOPS.

1. Possible Causes

- VALVE-WING ANTI ICE CONTROL, L (9DL)
- VALVE-WING ANTI ICE CONTROL, R (10DL)
- RELAY-ANTI ICE VALVE CONTROL (5DL)
- Engine Bleed Faults
- anti-ice control valve filter
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION					
R R			Bleed Pressure Regulator Valve of the Engine 1 Blocked in the Closed Position or Regulation Too Low					
R R	36-1	1-00-810-810	Bleed Pressure Regulator Valve of the Engine 2 Blocked in the Closed Position or Regulation Too Low					
	AMM	30-11-00-710-001	Operational Test of the Wing Ice-Protection System					
	AMM	30-11-51-000-001	Removal of the Wing Anti-Ice Control Valve					
	AMM	30-11-51-000-002	Removal of the Anti-Ice Valve Filter					
	AMM	30-11-51-400-001	Installation of the Wing Anti-Ice Control Valve					
	AMM	30-11-51-400-002	Installation of the Anti-Ice Valve Filter					
	AMM	31-32-00-860-002	Procedure to Get Access to the SYSTEM REPORT/TEST/AIR COND Page					
	ASM	30-11/01	•					
	ASM	30-11/01						

3. Fault Confirmation

A. Test

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- (1) Make sure that there are no Engine Bleed Faults before trouble shooting the WAI system (Ref. 36-11-00).
 - (2) If there are no engine bleed faults:
 - if the message LH WAI FILTER OR VALVE is shown on the PFR, do the Bleed Pressure Regulator Valve of the Engine 1 Blocked in the Closed Position or Regulation Too Low (Ref. TASK 36-11-00-810-809)
 - if the message RH WAI FILTER OR VALVE is shown on the PFR, do the Bleed Pressure Regulator Valve of the Engine 2 Blocked in the Closed Position or Regulation Too Low (Ref. TASK 36-11-00-810-810).

EFF: ALL

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R NOTE: The steps in Para. 3. A. (2) may show engine bleed faults that are not shown on the PFR.

- R (3) Do the operational test of the Wing Anti-Ice system (Ref. AMM TASK 30-11-00-710-001):
 - if the operational test is OK, no maintenance is necessary
 - if the operational test is not OK, do the next step.
- R (4) At the MCDU, go to the SYSTEM REPORT/TEST AIR COND page (Ref. AMM TASK 31-32-00-860-002) and set TEMP CTL.
 - (a) At the CAB TEMP CONT page, set TEST:
 - if the message PACK 1 AND PACK 2 OFF is shown do step (c)
 - if the message PACK 1 AND 2 SELECT OFF is shown, do the next step.
 - (b) At the AIR COND panel 30VU, set the PACK 1 P/BSW and PACK 2 P/BSW to OFF.
 - (c) At the MCDU, set CONTINUE and wait until the message END OF TEST is shown:
 - if a message related to the WAI filter or WAI valve is shown, do the fault isolation procedure given in Para. 4.A.
 - if a message not related to WAI filter or valve is shown, do the trouble shooting procedure related to the maintenance message.

4. Fault Isolation

R

- A. Procedure.
 - (1) At the ANTI ICE overhead panel 25VU, push (in) the WING P/BSW (3DL).
 - (2) At the applicable Wing Anti Ice Control Valve free connector A, pin A, do a check for 28VDC (Ref. ASM 30-11/01):
 - if there is no 28VDC, do step (8)
 - if there is 28VDC, do the next step.
 - NOTE: The check for 28VDC must be done during the 30 seconds before the ground test relay (4DL) operates. The ground test relay stops system operation after 30 seconds, to prevent heat damage to the aircraft when it is on the ground.
 - (3) Do a check at the Wing Anti Ice Control Valve free connector A, pin C, for a ground (Ref. ASM 30-11/01):
 - if there is no ground, do step (10)
 - if there is a ground, do the next step.
 - (4) Visually examine the anti-ice control valve filter for areas of high contamination and clean or replace as necessary:
 - if the filter is OK, do step (7)
 - if the filter is unserviceable or damaged, do the next step.

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NOTE: The filter is unserviceable if there is high contamination of more than one half of the total mesh area. A blocked filter will not let sufficient air flow to operate the valve mechanism.

- (5) Replace the filter (Ref. AMM TASK 30-11-51-000-002) and (Ref. AMM TASK 30-11-51-400-002).
- R (6) Do the test in Para. 3.A.(4):
 if the fault continues, do the next step.
 - (7) Replace the applicable VALVE-WING ANTI ICE CONTROL, L (9DL) (
 VALVE-WING ANTI ICE CONTROL, R (10DL)), (Ref. AMM TASK 30-11-51-000 001) and (Ref. AMM TASK 30-11-51-400-001):
 if the fault continues, do the next step.
 - (8) Replace the RELAY-ANTI ICE VALVE CONTROL (5DL).
- R (9) Do the test in Para. 3.A.(4):
 if the fault continues, do the next step.
 - (10) Do a check of the aircraft wiring (Ref. ASM 30-11/01), and repair as necessary.
- R (11) Do the test in Para. 3.A.(4).

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TASK 30-11-00-810-804

Wing Anti-Ice High Pressure In Left (Right) System.

WARNING : DO NOT TOUCH THE ANTI-ICE DUCTS UNTIL THEY ARE COOL. THE TEMPERATURE OF THE DUCTS STAYS HIGH FOR SOME TIME AFTER THE ENGINE STOPS.

- 1. Possible Causes
 - VALVE-WING ANTI ICE CONTROL, L (9DL)
 - VALVE-WING ANTI ICE CONTROL, R (10DL)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-11-00-710-001 AMM 30-11-51-000-001 AMM 30-11-51-400-001	Operational Test of the Wing Ice-Protection System Removal of the Wing Anti-Ice Control Valve Installation of the Wing Anti-Ice Control Valve

- 3. Fault Confirmation
- R A. Test
 - (1) Do the operational test of the wing anti-ice system (Ref. AMM TASK 30-11-00-710-001).
 - 4. Fault Isolation
 - A. Procedure
 - (1) If the ECAM shows the messages:
 - WING A.ICE L(R) HI PR on the EWD
 - WAI REGUL on the STATUS page.
 - (2) Replace the VALVE-WING ANTI ICE CONTROL, L (9DL) or VALVE-WING ANTI ICE CONTROL, R (10DL) (Ref. AMM TASK 30-11-51-000-001) and (Ref. AMM TASK 30-11-51-400-001).

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TASK 30-11-00-810-805

Wing Anti-Ice Class 3 Faults.

- 1. Possible Causes
 - Wing Anti-Ice System
- 2. Job Set-up Information

Not Applicable

- 3. Fault Confirmation
 - A. Procedure
 - (1) Examine the ECAM for the Wing Anti-Ice System fault warning.
- 4. Fault Isolation
 - A. Procedure
 - (1) If the ECAM shows the Wing Anti-Ice System warning, do the trouble shooting procedure related to the maintenance message.
 - (2) If the ECAM shows no Wing Anti-Ice System warning, the CFDS message can be regarded as spurious and requires no further action.

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SROS

EFF :

ALL

TROUBLE SHOOTING MANUAL

TASK 30-11-00-810-806

Wing Anti-Ice Control-Valves Do Not Operate.

WARNING : DO NOT TOUCH THE ANTI-ICE DUCTS UNTIL THEY ARE COOL. THE TEMPERATURE
OF THE DUCTS STAYS HIGH FOR SOME TIME AFTER THE ENGINE STOPS.

1. Possible Causes

- C/B-ANTI-ICE/WING/CTL 2DL
- P/BSW ANTI ICE/WING 3DL
- RELAY ANTI ICE VALVE CONTROL 5DL
- RELAY GROUND TEST (4DL)
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE DESIGNATION

R 30-11-00-810-809 AMM 30-11-00-710-001 AMM 32-69-00-860-001 ASM 30-11/01 Wing Anti-Ice (Wing) Circuit Breaker 2DL Tripped Operational Test of the Wing Ice-Protection System Simulation of Flight, with the Aircraft on the Ground

3. Fault Confirmation

A. Procedure

(1) Do the operational test of the wing anti-ice system (Ref. AMM TASK 30-11-00-710-001).

4. Fault Isolation

A. Procedure

(1) If the test is not OK go to para (2).

If the test is OK:

- (a) Do a check of the aircraft wiring from the relay anti-ice control 5DL to the LGCIU 1 and LGCIU 2. (Ref. ASM 30-11/01).
- (b) Repair the unservicable wiring/connectors.

CAUTION: MAKE SURE THAT YOU SET THE WING ANTI-ICE SYSTEM P/BSW TO OFF AFTER 30 SECONDS. THIS WILL PREVENT DAMAGE TO THE SLATS.

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- (c) Do the test in para 3.A. with the L/G simulated to shock absorbers extended (Ref. AMM TASK 32-69-00-860-001).
- (2) If the test in para. 3.A. is not OK:
 - (a) Do a check to see if the circuit breaker (2DL) is open, if it is open, do (Ref. TASK 30-11-00-810-809).
- (3) If the circuit breaker (2DL) is closed:
 - (a) On the P/BSW (3DL) connector do a check for 28VDC on the pin D1 (Ref. ASM 30-11/01).
 - (b) If there is no 28VDC, replace the C/B-ANTI-ICE/WING/CTL 2DL.
 - (c) Do the test in Para. 3.A.
- (4) If there is 28VDC:
 - (a) With the P/BSW 3DL connected, and set to on, do a check for 28VDC at the relay anti-ice valve control, connector pin X (Ref. ASM 30-11/01).
 - (b) If there is no 28VDC, replace the P/BSW ANTI ICE/WING 3DL.
 - (c) Do the test in para. 3.A.
- (5) If there is 28VDC:
 - (a) Replace the RELAY ANTI ICE VALVE CONTROL 5DL
 - (b) Do the test in Para. 3.A.
- (6) If the fault continues:
 - (a) Replace the RELAY GROUND TEST (4DL).
 - (b) Do the test in Para. 3.A.
- (7) If the fault continues:
 - (a) Do a check of the aircraft wiring (Ref. ASM 30-11/01) between:
 - the circuit breaker (2DL) and the P/BSW (3DL)
 - relay (3DL) and relay (5DL)
 - relay (5DL) and relay (4DL)
 - relay (4DL) connector pin A3 and pin X2 for ground
 - (b) Repair all the unserviceable wiring and connectors.
 - (c) Do the test in Para. 3.A.

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TASK 30-11-00-810-807

Wing Anti-Ice - Spurious Fault Indications.

- 1. Possible Causes
 - Wing Anti-Ice System
- 2. Job Set-up Information

Not Applicable

- 3. Fault Confirmation
 - A. Test
 - (1) Examine the ECAM display for the Wing Anti-Ice System fault warning.
- 4. Fault Isolation
 - A. Procedure
- R (1) If the ECAM shows the Wing Anti-Ice System warning, do the trouble shooting procedure related to the maintenance message.
 - (2) If the ECAM shows no Wing Anti-Ice System warning, the CFDS message can be regarded as spurious and requires no further action.

EFF: ALL 30-11-00

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TASK 30-11-00-810-808

Wing Anti-Ice Control-Valves Stay Open After Ground Test

WARNING: DO NOT TOUCH THE ANTI-ICE DUCTS UNTIL THEY ARE COOL. THE TEMPERATURE
OF THE DUCTS STAYS HIGH FOR SOME TIME AFTER THE ENGINE STOPS.

1. Possible Causes

- RELAY-GROUND TEST (4DL)
- LGCIU-1 (5GA1)
- LGCIU-2 (5GA2)
- PROX SNSR-L L/G EXT, SYS 1 (21GA)
- PROX SNSR-R L/G EXT, SYS 2 (22GA)
- RELAY-FAULT MONITOR C/O (6DL)
- aircraft wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
	70 44 00 740 004		
AMM	30-11-00-710-001	Operational Test of the Wing Ice-Protection System	
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)	
AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)	
AMM	32-31-73-000-001	Removal of the Proximity-Sensors 9GA(8GA),	
		11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA),	
		17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA),	
		35GA(34GA)	
AMM	32-31-73-400-001	Installation of the Proximity-Sensors 9GA(8GA),	
		11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA),	
		17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA)	
AMM	32-31-73-820-002	Adjustment of the MLG Extension Proximity Sensors	
Airiii	JE 31 13 020 002	-	
		20GA, 21GA, 22GA, 23GA	
ASM	30-11/01		

3. Fault Confirmation

A. Procedure

<u>CAUTION</u>: MAKE SURE THAT YOU SET THE WING ANTI-ICE SYSTEM P/BSW TO OFF AFTER 30 SECONDS. THIS WILL PREVENT DAMAGE TO THE SLATS.

<u>NOTE</u>: When the Wing Anti-Ice System Ground Test is OK, the system will automatically switch off after 30 seconds. If after 35 seconds the anti-ice symbols on the BLEED page, on the lower ECAM DU, do not go off, the ANTI ICE WING P/BSW must be released (out) manually.

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R	
R R	(1) If the ECAM message WING AICE OPEN ON GND is shown:
R	(a) Do the operational test of the wing anti-ice system. (Ref. AMM TASK 30-11-00-710-001):
R R R	 if the test is OK, no more maintenance work is necessary if the test is not OK, do the fault isolation procedure in Para. 4.A.
	4. Fault Isolation
R R	A. Procedure
R R	(1) Replace the RELAY-GROUND TEST (4DL).
R R R	(a) Do the test in Para. 3.A.:if the fault continues do the next step.
R R R	NOTE: When the Anti-Ice Ground Test is done two or more times, keep sufficient time between each test, to let the slats become cool.
R R R	(2) Remove the RELAY-GROUND TEST 4DL and RELAY-FAULT MONITOR C/O 6DL from their holders.
R R R	NOTE: When the RELAY-GROUND TEST 4DL is removed from its holder, this will remove the ground from pin Z of the RELAY-FAULT MONITOR C/O 6DL.
R R R	 (3) At pin Z of the Relay 6DL holder, do a check for continuity to ground: if there is no ground, do step (10) if there is a ground, do the next step.
R R R R R	 (4) Remove each LGCIU from its ARINC tray (Ref. AMM TASK 32-31-71-000-001) in sequence until the ground goes from pin Z of relay 6DL: if the ground on pin Z stays when both the LGCIUs have been removed, do step (9) if the ground on pin Z goes when an LGCIU is removed, do the next step.

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R R R R R R R	(5)	<pre>Interchange and install the two LGCIUs (Ref. AMM TASK 32-31-71-400- 001), and do steps (3) thru (4) again: if the ground on pin Z goes when the LGCIU is removed from the same system as in step (4), install the LGCIUs and relays 4DL and 6DL, and do step (7) if the ground on pin Z goes when the LGCIU is removed from the opposite system to that in step (4), install the LGCIUs and relays 4DL and 6DL, and do the next step.</pre>
R R R	(6)	Replace the LGCIU-1 (5GA1) or LGCIU-2 (5GA2) in the system which had the ground in step (5), (Ref. AMM TASK $32-31-71-000-001$) and (Ref. AMM TASK $32-31-71-400-001$).
R R		<pre>(a) Do the test in Para 3.A.: - if the fault continues, do the next step.</pre>
R R R R	(7)	Adjust the applicable prox sensor PROX SNSR-L L/G EXT, SYS 1 (21GA) or PROX SNSR-R L/G EXT, SYS 2 (22GA) (Ref. AMM TASK 32-31-73-820-002), related to the LGCIU which gave the ground: - for LGCIU1 adjust proximity sensor 21GA - for LGCIU2 adjust proximity sensor 22GA.
R R		(a) Do the test in Para. 3.A.:if the fault continues, do the next step.
R R	(8)	Replace the unserviceable proximity sensor (Ref. AMM TASK 32-31-73-000-001) and (Ref. AMM TASK 32-31-73-400-001).
R R		(a) Do the test in Para. 3.A.:if the fault continues, do the next step.
R R R R R	(9)	Do a check and repair as necessary the aircraft wiring (Ref. ASM 30-11/01) between pin Z of relay 6DL and: - the RELAY-GROUND TEST 4DL - the RELAY-ANTI ICE VALVE CONTROL 5DL - the LGCIU1 5GA1 - the LGCIU2 5GA2
R R		(a) Do the test in Para. 3.A.:if the fault continues, do the next step.
R	(10)	Replace the RELAY-FAULT MONITOR C/O (6DL).
R		(a) Do the test in Para. 3.A.

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TASK 30-11-00-810-809

Wing Anti-Ice (Wing) Circuit Breaker 2DL Tripped

WARNING : DO NOT TOUCH THE ANTI-ICE DUCTS UNTIL THEY ARE COOL. THE TEMPERATURE
OF THE DUCTS STAYS HIGH FOR SOME TIME AFTER THE ENGINE STOPS.

- 1. Possible Causes
 - ANTI ICE/WING/CTL (2DL)
 - aircraft wiring
 - Diode 1160VD
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE

DESIGNATION

AMM 24410086100200

ASM 30-11/01

TSM 30-11-00 P.Block 301 WING ICE PROTECTION

- 3. Fault Confirmation
 - A. Test
 - (1) Energize the aircraft electrical circuits (Ref. AMM 24410086100200), if the FAULT indicator light on the P/BSW (3DL) comes on, or the C/B ANTI ICE/WING/CTL (2DL) trips, do the fault isolation.
- 4. Fault Isolation
 - A. Procedure

CAUTION

Do not close the tripped C/B until a check for a short circuit in the aircraft wiring has been done. Damage to the aircraft systems can occur.

- (1) Do a check and repair as neccessary the aircraft wiring (Ref. ASM 30-11/01) between:
 - the circuit breaker (2DL) and the P/BSW (3DL)
 - the P/BSW (3DL) and the relay (5DL)
 - the relay (9DL) and the valves (9DL) and (10DL)
 - the valve (9DL) and the valve (10DL)
 - the relay (5DL) and the relay (6DL)
 - the relay (6DL) and the relay (7DL).

NOTE : More information about the relays can be found in the Task Supporting Data (Ref. TSM 30-11-00 P.Block 301).

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- (a) Make sure that the circuit breaker (2DL) is closed (Ref. ASM 30-11/01).
- (b) Do the test in Para. 3.A.if the fault continues, do the next step.
- (2) Do a check of the C/B ANTI ICE/WING/CTL (2DL).
 - (a) If the check is unsatisfactory, replace the circuit breaker (2DL).
 - (b) Do the fault confirmation in Para. 3.A.if the fault continues, do the next step.
- (3) Do a check of the Diode 1160VD.
 - (a) If the check is unsatisfactory, replace the diode.
 - (b) Do the fault confirmation in Para. 3.A.

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EFF: ALL

SROS

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WING ICE PROTECTION - TASK SUPPORTING DATA

R 1. Table of Relay Sets.

A. The relay configurations that follow are valid for their aplicable diagram. R FIGURE 301 - Wing Anti-ice Not Selected In Air R (A/C Power On, P/BSW 3DL Not Operated, No Faults) R STATE FIN If a fault occurs: 1DL Closed any discrepency of 5DL,6DL,9DL,10DL. 2DL Closed or if a wiring fault removes the 28VDC 3DL **O**pen from the coil of TDL. 4DL De-energized TDL de-energizes, to cause 4LP/11LP to 5DL De-energized energize. FAULT lamp comes on. 6DL De-energized 7DL Energized 9DL De-energized valve closed 10DL De-energized valve closed 4LP De-energized FAULT lamp off 11LP De-energized FAULT lamp off R FIGURE 302 - Wing Anti-ice Selected In Air R (A/C Power On, P/BSW 3DL Operated, No Faults) R FIN STATE If a fault occurs: Closed 1DL Any discrepency of 6DL,9DL,10DL, or a 3DL Closed wiring fault ,will remove the 28VDC from the coil of 7DL. 4DL Energized after 30 secs TDL de-energizes to cause 4LP/11LP 5DL Energized to energize. FAULT lamp comes on. 6DL Energized 7DL Energized 9DL Energized valve open 10_{DL} Energized valve open 4LP De-energized FAULT lamp Off 11LP De-energized FAULT lamp off

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TROUBLE SHOOTING MANUAL

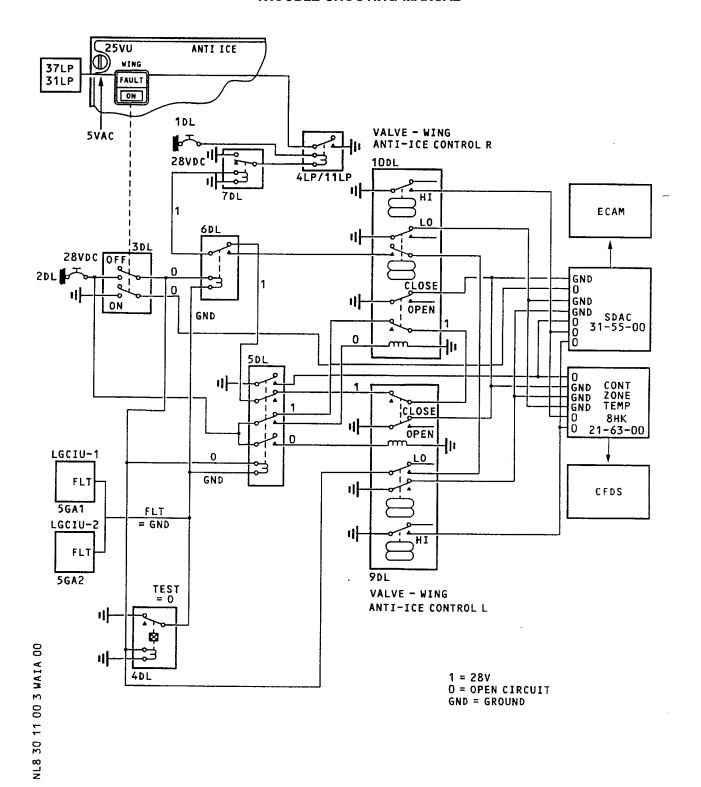
R R	FIGURE 303 - Wing Anti-ice Test Selected On (30 Seconds Delay Not Expired, P/BSW 3DL Op		
R	·	FIN	STATE
	If a fault occurs:	1DL	Closed
	Any discrepency of 6DL, 9DL,10DL,or a	2DL	Closed
	wiring fault removes 28VDC from the coil	3DL	Closed
	of 7DL. 7DL de-energizes, to cause 4LP/	4DL	De-energized
	11LP to energize. FAULT lamp comes on.	5DL	Energized
		6DL	Energized
		7DL	Energized
		9DL	Energized
			valve open
		10DL	Energized
			valve open
		4LP	De-energized
			FAULT lamp on
		11LP	De-energized
			FAULT lamp on
R	FIGURE 304 - Wing Anti-ice Test Selected On G		
R	(30 Seconds Delay Expired, P/BSW 3DL Not Rele		
R		FIN	STATE
	If a fault occurs:	1DL	Closed
	Any discrepency of 5DL,6DL,9DL,10DL,	2DL	Closed
	or a wiring fault, removes 28VDC from	3DL	Cl
			Closed
	the coil of 7DL. 7DL de-energizes to	4DL	Energized
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL	Energized De-energized
	the coil of 7DL. 7DL de-energizes to	4DL 5DL 6DL	Energized De-energized De-energized
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL 7DL	Energized De-energized De-energized Energized
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL	Energized De-energized De-energized Energized De-energized
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL 7DL 9DL	Energized De-energized De-energized Energized De-energized valves closed
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL 7DL	Energized De-energized De-energized Energized De-energized
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL 7DL 9DL	Energized De-energized De-energized Energized De-energized valves closed De-energized valves closed
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL 7DL 9DL 10DL	Energized De-energized De-energized Energized Ve-energized valves closed Ve-energized valves closed De-energized FAULT lamp off
	the coil of 7DL. 7DL de-energizes to cause 4LP/11LP to energize.	4DL 5DL 6DL 7DL 9DL	Energized De-energized De-energized Energized De-energized valves closed De-energized valves closed

EFF: ALL 30-11-00

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TROUBLE SHOOTING MANUAL



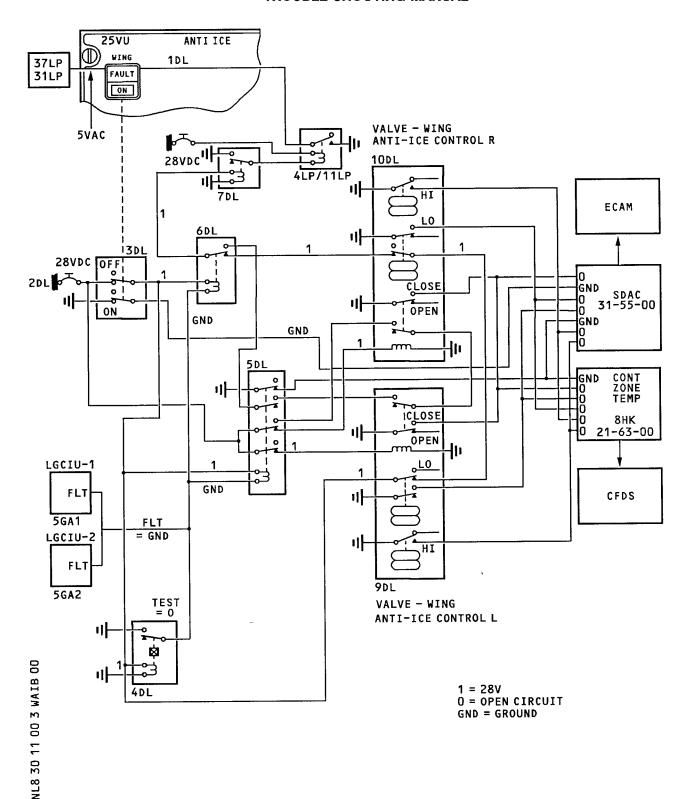
Wing Anti-ice Not Selected In Air (A/C Power On, P/BSW 3DL Not Operated, No Faults)
Figure 301

EFF: ALL
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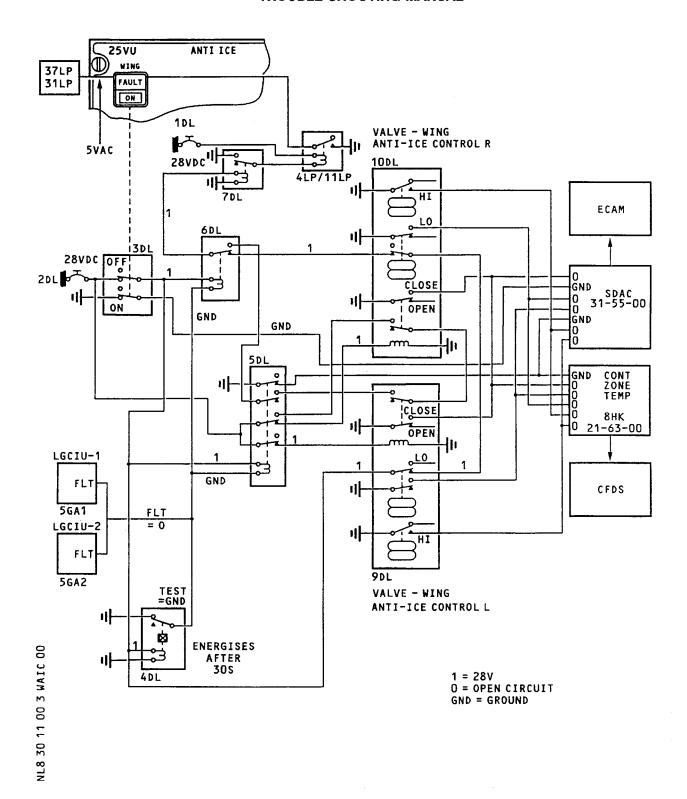
Wing Anti-ice Selected In Air (A/C Power On, P/BSW 3DL Operated, No Faults)
Figure 302

EFF: ALL

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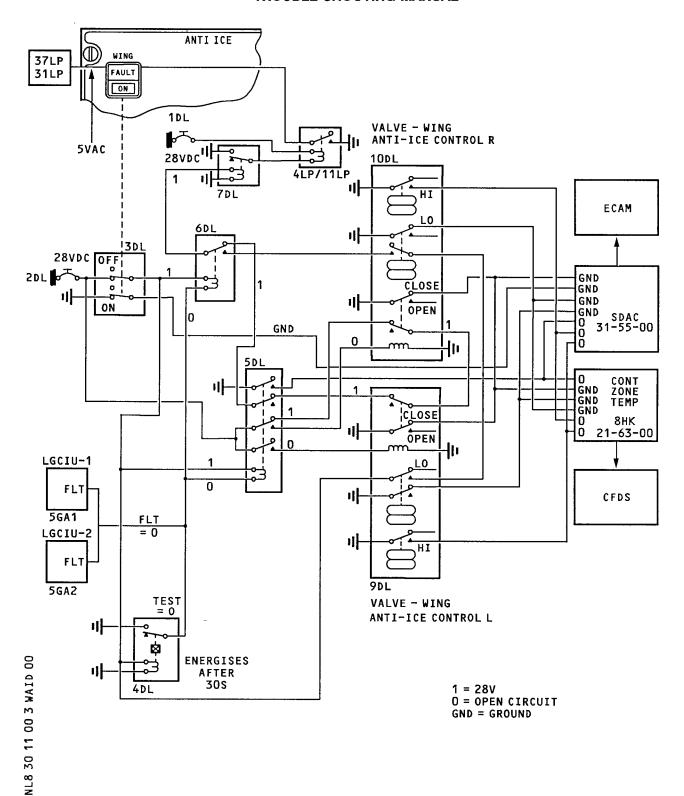
Wing Anti-ice Test Selected On Ground (30 Seconds Delay Not Expired, P/BSW 3DL Operated)
Figure 303

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Wing Anti-ice Test Selected On Ground (30 Seconds Delay Expired, P/BSW 3DL Not Released)
Figure 304

EFF: ALL
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ENGINE AIR INTAKE ICE PROTECTION - FAULT ISOLATION PROCEDURES

TASK 30-21-00-810-801

Failure of the Engine 1 Air Intake Anti-Ice Valve in the Open Position

1. Possible Causes

- VALVE-ENG AIR INTAKE ANTI ICE (4000DN)
- P/BSW-AIR INLET ANTI ICE VALVE ENG1 CTL (2DN1)
- wiring between pin A/10 of the engine 1 air intake anti-ice valve and the ground terminal
- wiring between pin A/9 of the engine 1 air intake anti-ice valve and the circuit breaker (1DN1)
- C/B-ANTI ICE ENG1 CTL SUPPLY (1DN1)
- defective muscle pressure tubes and hoses

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION	
	AMM	30-21-00-710-002	Operational Test of the Engine Air Intake Ice Protection (with the Engines in operation)	
	AMM	30-21-49-210-001	Visual Inspection of the Anti-Ice System Tubes, Ducts, and Hoses	
	AMM	30-21-51-000-041	Removal of the Engine Air Intake Anti-ice Valve (4000DN)	
	AMM	30-21-51-400-042	<pre>Installation of the Engine Air Intake Anti-ice Valve (4000DN)</pre>	
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	
	ASM	30-21/01		

3. Fault Confirmation

A. Test

Do the operational test of the engine air intake ice protection (Ref. AMM TASK 30-21-00-710-002).

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4. Fault Isolation

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

PANEL DESIGNATION

IDENT. LOCATION

122VU ANTI ICE/ENG/1

1DN1 X10

- B. If the test confirms the fault:
 - do a check of the status of the circuit breaker (1DN1).

- (1) If the circuit breaker is closed:
 - do a check for 28VDC at pin A/9 of the engine 1 air intake anti-ice valve (4000DN).
 - (a) If there is 28VDC:
 - replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN) (Ref. AMM TASK 30-21-51-000-041) and (Ref. AMM TASK 30-21-51-400-042).
 - (b) If there is no 28VDC:
 - do a check for 28VDC at pin A/D2 of the ANTI ICE/ENG 1 pushbutton switch (2DN1).
 - 1 If there is 28VDC:
 - replace the P/BSW-AIR INLET ANTI ICE VALVE ENG1 CTL (2DN1).
 - 2 If there is no 28VDC:
 - do a check for a ground signal at pin A/10 of the engine 1 air intake anti-ice valve (4000DN).
 - a If there is no ground signal:
 - repair the wiring between pin A/10 of the engine 1 air intake anti-ice valve and the ground terminal (Ref. ASM 30-21/01).
 - b If there is a ground signal:
 - do a check of the wiring between pin A/9 of the engine 1 air intake anti-ice valve and the circuit breaker (1DN1).
 - c If there is no continuity:
 - repair the above wiring.
 - d If there is continuity:
 - replace the circuit breaker (1DN1).

EFF: ALL

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- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - - 1 If the fault continues:
 - do a check for a short to ground at the wiring between pin A/9 of the engine 1 air intake anti-ice valve and the circuit breaker (1DN1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE ENG1 CTL SUPPLY (1DN1).
 - (b) If the circuit breaker stays closed and the fault continues:do the functional test of the sense lines (Ref. AMM TASK 36-11-00-720-007).
 - 1 If there are leaks:
 - repair the defective muscle pressure tubes and hoses (Ref. AMM TASK 30-21-49-210-001).
 - 2 If there is no leak:
 - replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN).
- C. Do the operational test given in Para. 3.

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@A319/A320/A321

TROUBLE SHOOTING MANUAL

TASK 30-21-00-810-802

Failure of the Engine 2 Air Intake Anti-Ice Valve in the Open Position

1. Possible Causes

- VALVE-ENG AIR INTAKE ANTI ICE (4000DN)
- P/BSW-AIR INLET ANTI ICE VALVE ENG2 CTL (2DN2)
- wiring between pin A/10 of the engine 2 air intake anti-ice valve and the ground terminal
- wiring between pin A/9 of the engine 2 air intake anti-ice valve and the circuit breaker (1DN2)

- C/B-ANTI ICE ENG2 CTL SUPPLY (1DN2)
- defective muscle pressure tubes and hoses

2. Job Set-up Information

A. Referenced Information

	REFE	RENCE	DESIGNATION	
	AMM	30-21-00-710-002	Operational Test of the Engine Air Intake Ice Protection (with the Engines in operation)	
	AMM	30-21-49-210-001	Visual Inspection of the Anti-Ice System Tubes, Ducts, and Hoses	
	AMM	30-21-51-000-041	Removal of the Engine Air Intake Anti-ice Valve (4000DN)	
	AMM	30-21-51-400-042	<pre>Installation of the Engine Air Intake Anti-ice Valve (4000DN)</pre>	
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	
	ASM	30-21/02		

3. Fault Confirmation

A. Do the operational test of the engine air intake ice protection (Ref. AMM TASK 30-21-00-710-002).

4. Fault Isolation

SROS

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

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/ENG/2	1DN2	W10

EFF: ALL

30-21-00

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R R	B. If the test confirms the fault:do a check of the status of the circuit breaker (1DN2).
R R R	(1) If the circuit breaker is closed:do a check for 28VDC at pin A/9 of the engine 2 air intake anti-ice valve (4000DN).
R R R	(a) If there is 28VDC:replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN) (Ref. AMM TASK 30-21-51-400-042).
R R R	(b) If there is no 28VDC:do a check for 28VDC at pin A/D2 of the ANTI ICE/ENG 2 pushbutton switch (2DN2).
R R	<pre>1 If there is 28VDC: - replace the P/BSW-AIR INLET ANTI ICE VALVE ENG2 CTL (2DN2).</pre>
R R R	 If there is no 28VDC: do a check for a ground signal at pin A/10 of the engine 2 air intake anti-ice valve (4000DN).
R R R	 a If there is no ground signal: repair the wiring between pin A/10 of the engine 2 air intake anti-ice valve and the ground terminal (Ref. ASM 30-21/02).
R R R	 b If there is a ground signal: do a check of the wiring between pin A/9 of the engine 2 air intake anti-ice valve and the circuit breaker (1DN2).
R R	<u>c</u> If there is no continuity:- repair the above wiring.
R R	d If there is continuity:- replace the circuit breaker (1DN2).
R R	(2) If the circuit breaker is open:close the circuit breaker.
R R	(a) If the circuit breaker trips:replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN).
R R R	 If the fault continues: do a check for a short to ground at the wiring between pin A/9 of the engine 2 air intake anti-ice valve and the circuit breaker (1DN2).
R R	<u>a</u> If there is a short to ground:repair the related wiring.

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R	b If there is no short to ground:
R	- replace the C/B-ANTI ICE ENG2 CTL SUPPLY (1DN2).
R	(b) If the circuit breaker stays closed and the fault continues:
R	- do the functional test of the sense lines (Ref. AMM TASK 36-11-
R	00-720-007).
R	<u>1</u> If there are leaks:
R	- repair the defective muscle pressure tubes and hoses (Ref.
R	AMM TASK 30-21-49-210-001).
R	2 If there is no leak:
R	- replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN).

C. Do the operational test given in Para. 3.

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TASK 30-21-00-810-803

Failure of the Engine 1 Air Intake Anti-Ice Valve in the Closed Position

1. Possible Causes

- VALVE-ENG AIR INTAKE ANTI ICE (4000DN)
- P/BSW-AIR INLET ANTI ICE VALVE ENG1 CTL (2DN1)
- wiring between the engine 1 air intake anti-ice valve (4000DN) and the circuit breaker (1DN1)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-21-00-710-002	Operational Test of the Engine Air Intake Ice Protection (with the Engines in operation)	
AMM	30-21-00-710-003	Operational Test of the NAI Valve	
AMM	30-21-49-210-001	Visual Inspection of the Anti-Ice System Tubes, Ducts, and Hoses	
AMM	30-21-51-000-040	Removal of the Engine Air-Intake Anti-Ice Valve (4000DN)	
AMM	30-21-51-000-041	Removal of the Engine Air Intake Anti-ice Valve (4000DN)	
AMM	30-21-51-400-041	Installation of the Engine Air-Intake Anti-Ice Valve (4000DN)	
AMM	30-21-51-400-042	Installation of the Engine Air Intake Anti-ice Valve (4000DN)	

3. Fault Confirmation

A. Do the operational test of the engine air intake ice protection (Ref. AMM TASK 30-21-00-710-002).

4. Fault Isolation

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

PANEL	DESIGNATION	IDENT. LOCA	TION
	ANTI TCF/FNG/1		(10

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- B. If the test confirms the fault: R - do a check of the overpressure indicator on the air intake anti-ice valve (4000DN). R (1) If the overpressure indicator is extended: R - replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN) (Ref. AMM TASK R 30-21-51-000-041) and (Ref. AMM TASK 30-21-51-400-042). (2) If the overpressure indicator is not extended: R - do the operational test of the NAI valve (Ref. AMM TASK 30-21-00-R 710-003). R (a) If the NAI valve operates correctly: R - do a check of the motive pressure line for correct condition R (Ref. AMM TASK 30-21-49-210-001). R R (b) If the fault continues: - do a check of the status of the circuit breaker (1DN1): R 1 If the circuit breaker is closed: R - make sure that there is 28VDC at pin A/9 of the engine 1 air R R intake anti-ice valve (4000DN). a If there is 28VDC: R - replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN) (Ref. R AMM TASK 30-21-51-000-040) and (Ref. AMM TASK 30-21-51-R 400-041). R b If there is no 28VDC: R R - make sure that there is 28VDC at pin A/D2 of the ANTI ICE/ENG 1 pushbutton switch (2DN1). R R . If there is no 28VDC: - replace the P/BSW-AIR INLET ANTI ICE VALVE ENG1 CTL R (2DN1).R R . If there is 28VDC: - do a check and repair the wiring between the engine 1 air R R intake anti-ice valve (4000pN) and the circuit breaker (1DN1).R 2 If the circuit breaker (1DN1) is open: R - close the circuit breaker (1DN1). R
 - C. Do the operational test given in Para. 3.

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TASK 30-21-00-810-804

Failure of the Engine 2 Air Intake Anti-Ice Valve in the Closed Position

1. Possible Causes

- VALVE-ENG AIR INTAKE ANTI ICE (4000DN)
- P/BSW-AIR INLET ANTI ICE VALVE ENG2 CTL (2DN2)
- wiring between the engine 2 air intake anti-ice valve (4000DN) and the circuit breaker (1DN2)

2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	30-21-00-710-002	Operational Test of the Engine Air Intake Ice Protection (with the Engines in operation)	
	AMM	30-21-00-710-003	Operational Test of the NAI Valve	
	AMM	30-21-49-210-001	Visual Inspection of the Anti-Ice System Tubes, Ducts, and Hoses	
	AMM	30-21-51-000-040	Removal of the Engine Air-Intake Anti-Ice Valve (4000DN)	
R R	AMM	30-21-51-000-041	Removal of the Engine Air Intake Anti-ice Valve (4000DN)	
	AMM	30-21-51-400-041	Installation of the Engine Air-Intake Anti-Ice Valve (4000DN)	
R R	AMM	30-21-51-400-042	Installation of the Engine Air Intake Anti-ice Valve (4000DN)	

3. Fault Confirmation

A. Test

Do the operational test of the engine air intake ice protection (Ref. AMM TASK 30-21-00-710-002).

4. Fault Isolation

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

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/ENG/2	1DN2	w10

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SROS

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- B. If the test confirms the fault: R - do a check of the overpressure indicator on the air intake anti-ice valve (4000DN). R (1) If the overpressure indicator is extended: R - replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN) (Ref. AMM TASK R 30-21-51-000-041) and (Ref. AMM TASK 30-21-51-400-042). (2) If the overpressure indicator is not extended: R - do the operational test of the NAI valve (Ref. AMM TASK 30-21-00-R 710-003). R (a) If the NAI valve operates correctly: R - do a check of the motive pressure line for correct condition R (Ref. AMM TASK 30-21-49-210-001). R R (b) If the fault continues: - do a check of the status of the circuit breaker (1DN2): R 1 If the circuit breaker is closed: R - make sure that there is no 28VDC at pin A/9 of the engine 2 R R air intake anti-ice valve (4000DN). R If there is no 28VDC: - replace the VALVE-ENG AIR INTAKE ANTI ICE (4000DN) (Ref. R AMM TASK 30-21-51-000-040) and (Ref. AMM TASK 30-21-51-R 400-041). R b If there is 28VDC: R - make sure that there is no 28VDC at pin A/D2 of the ANTI R ICE/ENG 2 pushbutton switch (2DN2). R R . If there is 28VDC: - replace the P/BSW-AIR INLET ANTI ICE VALVE ENG2 CTL R (2DN2).R . If there is no 28VDC: R - do a check and repair the wiring between the engine 2 air R R intake anti-ice valve (4000pN) and the circuit breaker (1DN2).R 2 If the circuit breaker (1DN2) is open: R - close the circuit breaker (1DN2). R
 - C. Do the operational test given in Para. 3.

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R **ON A/C 247-253, 426-450, 551-599, 701-749,

TASK 30-21-00-810-805

Failure of the Flexible Sense Line of the Engine Air Intake Anti-Ice Valve

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

REFERENCE	DESIGNATION		
AMM 71-13-00-010-010 AMM 71-13-00-410-010 AMM 78-36-00-010-040 AMM 78-36-00-410-040 30-21-00-991-001 30-21-00-991-002	Opening of the Fan Cowls 437AL(447AL),438AR(448AR) Closing of the Fan Cowls 437AL(447AL),438AR(448AR) Opening of the Thrust Reverser Doors Closing of the Thrust Reverser Doors Fig. 201 Fig. 202		

- 3. Fault Confirmation
 - A. Open the fan cowl doors (Ref. AMM TASK 71-13-00-010-010).
 - (1) Open the thrust reverser doors (Ref. AMM TASK 78-36-00-010-040).
 - B. Test

Not Applicable

4. Fault Isolation

(Ref. Fig. 201/TASK 30-21-00-991-001, 202/TASK 30-21-00-991-002)

WARNING: CP2101 ANTI-SEIZE (MIL-T-5544) COMPOUND IS FLAMMABLE AND VAPOR IS HARMFUL. AVOID SOURCES OF IGNITION. USE ONLY IN AREAS WITH ADEQUATE VENTILATION. AVOID BREATHING OF VAPOR OR PROLONGED OR REPEATED CONTACT WITH SKIN. CONTAINS LEAD, A CUMULATIVE POISON. WASH HANDS WELL BEFORE EATING, DRINKING, OR SMOKING. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE "MATERIAL SAFETY DATA SHEET" AND FOLLOW ALL THE LISTED SAFETY AND HEALTH PRECAUTIONS.

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R

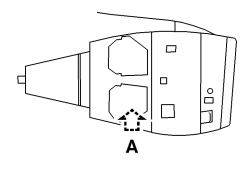
247-253, 426-450, 551-599, 701-749,

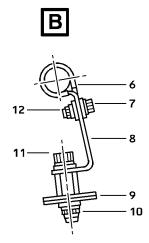
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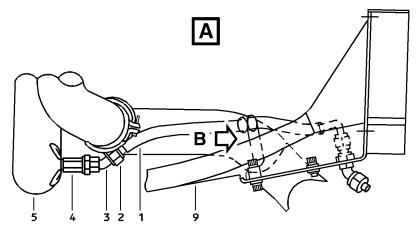
EFF:

@A319/A320/A321

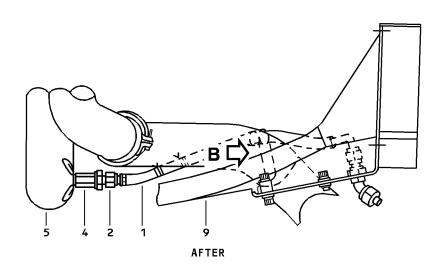
TROUBLE SHOOTING MANUAL







BEFORE



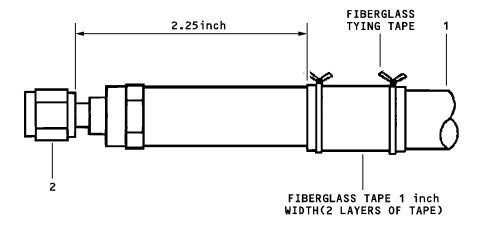
Anti-Ice Flex Hose Assembly Figure 201/TASK 30-21-00-991-001

EFF: 247-253, 426-450, 551-599, 701-749,

30-21-00

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Fiberglass Cloth and Tying Tape on the Flex Hose Assembly Figure 202/TASK 30-21-00-991-002

R EFF: 247-253, 426-450, 551-599, 701-749, SROS

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- A. If the fault symptom is identified by the crew observation:

 Failure of the flexible sense line of the engine air intake anti-ice valve:
 - (1) Loosen the two ends of the flexible sense line (1),
 - Remove and discard the elbow fitting (3) from the union (4) installed in the engine bleed duct (5) (Ref. Fig. 201).
 - (2) Apply two wraps of fiberglass cloth tape to the flexible sense line end attached to the bleed duct,
 - Put the tape 2.25 in. (57.15 mm) from the end of the coupling nut of the flexible sense line,
 - Attach the tape at the two ends with fiberglass tying tape (Ref. Fig. 202).
 - (3) Loosen the bolt (7) and the nut (12) that attach the clamp (6) of the flexible sense line to the support bracket (8),
 - Loosen the bolt (11) and the nut (10) that attach the bracket (8) to the fireshield (9) (Ref. Fig. 201).
 - (4) Attach the coupling nut (2) of the flexible sense line (1) to the union (4),
 - Be careful when you tighten. Use the double wrench procedure to prevent torsional damage to the flexible sense line (1) (Ref. Fig. 201).
 - (5) Do a check of the hose for no preload before and after you tighten the end connections of the flexible sense line,
 - Make sure that the stainless-steel braided sleeving of the flexible sense line is not twisted.
 - NOTE: Adjust the bracket so that its position agrees with the natural curve of the flexible sense line, without preload on the flexible hose.
 - (6) Tighten the bolt (11) and nut (10) that attach the bracket (8) to the fireshield (9),
 - Tighten the bolt (7) and nut (12) that attach the clamp (6) to the bracket (8),
 - Make sure that the flexible sense line (1) is not in a preload condition,
 - Adjust the flexible sense line, if necessary (Ref. Fig. 201).

5. Close-up

- A. Close the thrust reverser doors (Ref. AMM TASK 78-36-00-410-040).
 - (1) Close the fan cowl doors (Ref. AMM TASK 71-13-00-410-010).

30-21-00

TROUBLE SHOOTING MANUAL

PROBE ICE PROTECTION - FAULT ISOLATION PROCEDURES

TASK 30-31-00-810-801

Loss of the PHC 1

- 1. Possible Causes
 - PHC-1 (6DA1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
R		30-31-00-710-001 30-31-34-000-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC)	
	A1111	30 31 34 000 002	(6DA1,6DA2,6DA3)	
R	AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC 6DA1:
 - replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL 30-31-00

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TASK 30-31-00-810-802

Failure of the Pitot Probe (PHC1)

- 1. Possible Causes
 - PROBE-PITOT, 1 (9DA1)
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the pitot probe 1 (9DA1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		RENCE	DESIGNATION	
	AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
-	AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
1	AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
ı	AMM	34-11-15-000-001	Removal of the Pitot Probe (9DA1, 9DA2, 9DA3)	
-	AMM ASM	34-11-15-400-001 30-31/01	Installation of the Pitot Probe (9DA1, 9DA2, 9DA3)	

- 3. Fault Confirmation
- R A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
 - 4. Fault Isolation
 - A. If the test gives the maintenance message PITOT PROBE 9DA1:
 - disconnect the connector from the pitot probe 1 (9DA1) and do a check of the resistance between pins A/B and A/C.
 - (1) If the resistance is more than 43 ohms (open circuit) or less than 30 ohms (short circuit):
 - (a) Replace the PROBE-PITOT, 1 (9DA1) (Ref. AMM TASK 34-11-15-000-001) and (Ref. AMM TASK 34-11-15-400-001).
 - (2) If the resistance is between 30 ohms and 43 ohms:
 - (a) Replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL **SROS**

30-31-00

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the pitot probe 1 (9DA1), pin A/H to pin A/B (Ref. ASM 30-31/01).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-803

Loss of the GND/FLT Information (PHC 1)

1. Possible Causes

- PROX SNSR-L L/G EXT, SYS 1 (21GA)
- PROX SNSR-L L/G EXT, SYS 2 (23GA)
- LGCIU-1 (5GA1)
- L/G/LGCIU/SYS1/NORM (1GA)
- HYDRAULIC/LGCIU/SYS2 (2GA)
- HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA)
 - PHC-1 (6DA1)
 - LGCIU-2 (5GA2)
 - wiring

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2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	32-00-00-860-001	Flight Configuration Precautions with Electrical Power
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
AMM	32-31-73-000-001	Removal of the Proximity-Sensors 9GA(8GA), 11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA), 17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA), 35GA(34GA)
AMM	32-31-73-200-001	Inspection of the MLG Proximity Sensor and Target Clearances
AMM	32-31-73-400-001	<pre>Installation of the Proximity-Sensors 9GA(8GA), 11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA), 17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA)</pre>
ASM	30-31/01	

3. Fault Confirmation

A. Test

(1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).

EFF: ALL SROS

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4. Fault Isolation

- A. If the ECAM warning message ANTI ICE CAPT PITOT comes into view only or associated with the maintenance message CHECK LGCIU PHC1 INTERFACE and if the loss of the GND/FLT information occurred:
 - make sure that there is no maintenance message related to the landing gear system (Ref. ATA 32).
 - (1) If there is one or more maintenance message(s):
 - do the related trouble shooting.
 - (2) If there is no maintenance message:
 - do the inspection of the MLG proximity sensor and target clearances (Ref. AMM TASK 32-31-73-200-001).
 - (a) If the fault continues:
 - replace the PROX SNSR-L L/G EXT, SYS 1 (21GA) and PROX SNSR-L L/G EXT, SYS 2 (23GA), (Ref. AMM TASK 32-31-73-000-001) and (Ref. AMM TASK 32-31-73-400-001).
 - (b) If the fault continues:
 - do a check for ground signal at pin A/E and/or pin A/D and/or pin A/I of the PHC1 (6DA1).
 - 1 If there is no ground signal:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - 2 If there is a ground signal:

Simulate the flight configuration:

- on the panel 49VU, open the L/G/LGCIU/SYS1/NORM (1GA) circuit breaker
- on the panel 121VU, open the HYDRAULIC/LGCIU/SYS2 (2GA) and HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA) circuit breakers.

NOTE : Make sure that you obey the flight configuration precautions (Ref. AMM TASK 32-00-00-860-001).

- do a check for ground signal at PIN A/E and/or PIN A/D and/or PIN A/I of the PHC1 (6DA1).
- a If there is a ground signal:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
- b If there is no ground signal:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
- c If the fault continues:
 - replace the LGCIU-2 (5GA2).
 - * If the fault continues:

EFF: ALL

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- do a check and repair the wiring from the PHC 1 (6DA1) pin A/E to the LGCIU 1 (5GA1) pin AB/14A and/or from the PHC 1 pin A/D to the LGCIU 2 (5GA2) pin AB/14A (Ref. ASM 30-31/01).
- B. Do the test given in para. 3.

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-804

Loss of the Power Supply for the Pitot Probe

1. Possible Causes

R

- PHC-1 (6DA1)
- wiring between the PHC 1 pin A/S and the ground terminal
- wiring between the PHC 1 pin A/A and the circuit breaker (3DA1)
- wiring from the PHC 1 (6DA1) pin A/H to the pitot probe 1 (9DA1) pin A/B
- C/B-ANTI ICE/PROBES/PITOT/1 (3DA1)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
	AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
	AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
R	AMM	34-11-15-000-001	Removal of the Pitot Probe (9DA1, 9DA2, 9DA3)	
R	AMM ASM	34-11-15-400-001 30-31/01	Installation of the Pitot Probe (9DA1, 9DA2, 9DA3)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION
49VU ANTI ICE/PROBES/PITOT/1 3DA1 DO2

EFF: ALL

30-31-00

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TROUBLE SHOOTING MANUAL B. If the test gives the maintenance message CHECK PITOT PHC 1 SUPPLY: - do a check of the status of the circuit breaker (3DA1). (1) If the circuit breaker is closed: - do a check for 115VAC at pin A/A of the PHC 1 (6DA1) (Ref. ASM 30-31/01). (a) If there is 115VAC: - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002). (b) If there is no 115VAC: - do a check for a ground signal at pin A/S of the PHC 1 (6DA1). If there is no ground signal: - repair the wiring between the PHC 1 pin A/S and the ground terminal. 2 If there is a ground signal: - do a check of the wiring between the PHC 1 pin A/A and the circuit breaker (3DA1). a If there is no continuity: - repair the above wiring. b If there is continuity: - replace the circuit breaker (3DA1). (2) If the circuit breaker is open: - close the circuit breaker. (a) If the circuit breaker trips again: - disconnect the connector from the pitot probe 1 (9DA1) and do a check of the resistance between pin A/B and pin A/C. If the resistance is more than 43 ohms (open circuit) or less than 35 ohms (short circuit): Replace the PROBE-PITOT 1 (9DA1) (Ref. AMM TASK 34-11-15-000-001) and (Ref. AMM TASK 34-11-15-400-001). If the resistance is between 35 ohms and 43 ohms: Replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002). If the fault continues:

EFF: ALL

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- do a check and repair the wiring from the PHC 1 (6DA1)

pin A/H to the pitot probe 1 (9DA1) pin A/B (Ref. ASM 30-

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- 3 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 1 pin A/A and the circuit breaker (3DA1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/PITOT/1 (3DA1).
- C. Do the operational test given in Para. 3.

EFF: ALL SROS 30-31-00

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-805

Failure of the L Static Probe (PHC1)

- 1. Possible Causes
 - PROBE-L STATIC, 1 (7DA1)
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the L static probe 1 (7DA1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM	34-11-16-000-001	Removal of the Static Probe (7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)	
AMM	34-11-16-400-002	Installation of the Static Probe (7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)	
ASM	30-31/01		

- 3. Fault Confirmation
- R A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
 - 4. Fault Isolation
 - A. If the test gives the maintenance message L STATIC PROBE 7DA1: - do a check of the resistance between pin 2 and pin 1.
 - (1) If the resistance is more than 13 ohms (open circuit) or less than 10 ohms (short circuit):
 - (a) Replace the PROBE-L STATIC, 1 (7DA1) (Ref. AMM TASK 34-11-16-000-001) and (Ref. AMM TASK 34-11-16-400-002).
 - (2) If the resistance is between 10 ohms and 13 ohms:
 - (a) Replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL **SROS**

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the L static probe 1 (7DA1), pin A/D to pin 2 (Ref. ASM 30-31/01).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-806

Loss of the Power Supply for the Static Probe

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring between the PHC 1 pin A/U and the ground terminal
 - wiring between the PHC 1 pin A/M and the circuit breaker (5DA1)
 - C/B-ANTI ICE/PROBES/1/STATIC (5DA1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		RENCE	DESIGNATION
_	MM	30-31-00-710-001	Operational Test of the Probe Ice Protection
-	MM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
P	MM	30-31-34-400-002	Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
A	NSM	30-31/01	, , ,

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK STATICS PHC1 SUPPLY:
 do a check of the status of the circuit breaker (5DA1).
 - (1) If the circuit breaker is closed:- do a check for 28VDC at pin A/M of the PHC 1 (6DA1).
 - (a) If there is 28VDC:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (b) If there is not 28VDC:
 - do a check for a ground signal at pin A/U of the PHC 1 (6DA1):
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 1 pin A/U and the ground terminal (Ref. ASM 30-31/01).

EFF: ALL

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- 2 If there is a ground signal:
 - do a check of the wiring between the PHC 1 pin A/M and the circuit breaker (5DA1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (5DA1).
- (2) If the circuit breaker is open:
 close the circuit breaker.
 - (a) If the circuit breaker trips again:
 replace the PHC-1 (6DA1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 1 pin A/M and the circuit breaker (5DA1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - b If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/1/STATIC (5DA1).
- B. Do the operational test given in Para. 3.

EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-807

Failure of the R Static Probe (PHC1)

- 1. Possible Causes
 - PROBE-R STATIC, 1 (8DA1)
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the R static probe 1 (8DA1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	34-11-16-000-001	Removal of the Static Probe (7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)	
AMM	34-11-16-400-002	<pre>Installation of the Static Probe (7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)</pre>	
ASM	30-31/01		

- 3. Fault Confirmation
- R A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
 - 4. Fault Isolation
 - A. If the test gives the maintenance message R STATIC PROBE 8DA1: - do a check of the resistance between pin 2 and pin 1.
 - (1) If the resistance is more than 13 ohms (open circuit) or less than 10 ohms (short circuit):
 - (a) Replace the PROBE-R STATIC, 1 (8DA1), (Ref. AMM TASK 34-11-16-000-001) and (Ref. AMM TASK 34-11-16-400-002).
 - (2) If the resistance is between 10 ohms and 13 ohms:
 - (a) Replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL **SROS**

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the R static probe 1 (8DA1) pin A/E to pin 2 (Ref. ASM 30-31/01).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-808

Failure of the Angle of Attack Sensor (PHC 1)

- 1. Possible Causes
 - SENSOR-ANGLE OF ATTACK, 1 (3FP1)
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the angle of attack sensor 1 (3FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Backs Tes Backsetics	
AMM	30-31-00-710-007	Operational Test of the Probe Ice Protection Operational Test of the Angle of Attack Sensor	
AMM		Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM	34-11-19-000-001	Removal of the Angle of Attack Sensor (3FP1, 3FP2, 3FP3)	
AMM	34-11-19-400-001	<pre>Installation of the Angle of Attack Sensor (3FP1, 3FP2, 3FP3)</pre>	
ASM	30-31/01		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480, 503-549, R 551-551, 701-749,
 - A. If the test gives the maintenance message AOA SENSOR 3FP1:
 - disconnect the connector from the angle of attack sensor 1 (3FP1) and do a check of the resistance between pin A/<J and pin A/<G.
 - (1) If the resistance is more than 300 ohms (open circuit) or less than 20 ohms (short circuit).
 - (a) Replace the SENSOR-ANGLE OF ATTACK, 1 (3FP1) (Ref. AMM TASK 34-11-19-000-001) and (Ref. AMM TASK 34-11-19-400-001).

EFF: ALL **SROS**

30-31-00

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- (2) If the resistance is between 20 ohms and 300 ohms:
 - (a) Replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (b) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the angle of attack sensor 1 (3FP1), pin A/F to pin A/<J (Ref. ASM 30-31/01).

R **ON A/C 247-275, 287-299, 429-475, 481-499, 553-599,

- R A. If the test gives the maintenance message AOA SENSOR 3FP1:
- R (1) Do the operational test of the angle of attack sensor (3FP1) (Ref.
 R AMM TASK 30-31-00-710-007).
- R (2) If one of the results recorded is less than 1A:
- R (a) Replace the SENSOR-ANGLE OF ATTACK, 1 (3FP1) (Ref. AMM TASK 34-R 11-19-000-001) and (Ref. AMM TASK 34-11-19-400-001).
- R (3) If none of the results recorded is less than 1A:
- R (a) Replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and R (Ref. AMM TASK 30-31-34-400-002).
 - (b) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the angle of attack sensor 1 (3FP1), pin A/F to pin A/<J (Ref. ASM 30-31/01).

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B. Do the operational test given in Para. 3.

EFF: ALL 30-31-00

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-809

Loss of the Power Supply for the Angle of Attack Sensor

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring between the PHC 1 pin A/S and the ground terminal
 - wiring between the PHC 1 pin A/C and the circuit breaker (4DA1)
 - C/B-ANTI ICE/PROBES/AOA/1 (4DA1)
- Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM 30-31-34-400-002	Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
ASM 30-31/01	(ODA 1, ODAZ, ODAZ)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

49VU ANTI ICE/PROBES/AOA/1

4DA1 DO4

- B. If the test gives the maintenance message CHECK AOA PHC1 SUPPLY:
 do a check of the status of the circuit breaker (4DA1).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at pin A/C of the PHC 1 (6DA1).
 - (a) If there is 115VAC:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

30-31-00

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TROUBLE SHOOTING MANUAL

- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/S of the PHC 1 (6DA1).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 1 pin A/S and the ground terminal (Ref. ASM 30-31/01).
 - 2 If there is a ground signal:
 - do a check of the wiring between the PHC 1 pin A/C and the circuit breaker (4DA1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DA1).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the PHC-1 (6DA1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 1 pin A/C and the circuit breaker (4DA1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/AOA/1 (4DA1).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-810

Failure of the TAT Sensor

- 1. Possible Causes
 - SENSOR-TAT, 1 (11FP1)
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the TAT sensor 1 (11FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-11-18-000-001	Removal of the TAT Sensor (11FP1, 11FP2)
AMM	34-11-18-400-001	Installation of the TAT Sensor (11FP1, 11FP2)
ASM	30-31/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message TAT SENSOR 11FP1:
 - disconnect the connector from the TAT sensor 1 (11FP1) and do a check of the resistance between pin A/B and pin A/C.
 - (1) If the resistance is more than 24 ohms (open circuit) or less than 18 ohms (short circuit):
 - (a) Replace the SENSOR-TAT, 1 (11FP1) (Ref. AMM TASK 34-11-18-000-001) and (Ref. AMM TASK 34-11-18-400-001).
 - (2) If the resistance is between 18 ohms and 24 ohms:
 - (a) Replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the TAT sensor 1 (11FP1), pin A/J to pin A/B (Ref. ASM 30-31/01).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-811

Loss of the Power Supply for the TAT Sensor

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring between the PHC 1 pin A/S and the ground terminal
 - wiring between the PHC 1 pin A/B and the circuit breaker (1DA1)
 - C/B-ANTI ICE/PROBES/1/TAT (1DA1)
- Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	70 74 00 740 004	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
ASM	30-31/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/PROBES/1/TAT

- B. If the test gives the maintenance message CHECK TAT PHC1 SUPPLY:

 do a check of the status of the circuit breaker (1DA1).
 - (1) If the circuit breaker is closed:- do a check for 115VAC at pin A/B of the PHC 1 (6DA1).
 - (a) If there is 115VAC:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL 30-31-00

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- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/S of the PHC 1 (6DA1).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 1 pin A/S and the ground terminal (Ref. ASM 30-31/01).
 - 2 If there is a ground signal:
 - do a check of the wiring between the PHC 1 pin A/B and the circuit breaker (1DA1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (1DA1).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the PHC-1 (6DA1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 1 pin A/B and the circuit breaker (1DA1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/PROBES/1/TAT (1DA1).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-812

Loss of the PHC 2

- 1. Possible Causes
 - PHC-2 (6DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-31-00-710-001 AMM 30-31-34-000-002 AMM 30-31-34-400-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3) Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC 6DA2:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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TASK 30-31-00-810-813

Failure of the Pitot Probe (PHC 2)

- 1. Possible Causes
 - PROBE-PITOT, 2 (9DA2)
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the pitot probe 2 (9DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM	34-11-15-000-001	Removal of the Pitot Probe (9DA1, 9DA2, 9DA3)	
AMM ASM	34-11-15-400-001 30-31/01	Installation of the Pitot Probe (9DA1, 9DA2, 9DA3)	

- 3. Fault Confirmation
 - A. Test

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- (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PITOT PROBE 9DA2:
 - disconnect the connector from the pitot probe 2 (9DA2) and do a check of the resistance between pin A/B and pin A/C.
- (1) If the resistance is more than 43 ohms (open circuit) or less than 30 ohms (short circuit):
 - (a) Replace the PROBE-PITOT, 2 (9DA2), (Ref. AMM TASK 34-11-15-000-001) and (Ref. AMM TASK 34-11-15-400-001).
- R (2) If the resistance is between 30 ohms and 43 ohms:
 - (a) Replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the pitot probe 2 (9DA2) pin A/H to pin A/B (Ref. ASM 30-31/01).
- B. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-814

Loss of the GND/FLT Information (PHC 2)

1. Possible Causes

- PROX SNSR-R L/G EXT, SYS 1 (20GA)
- PROX SNSR-R L/G EXT, SYS 2 (22GA)
- LGCIU-1 (5GA1)
- L/G/LGCIU/SYS1/NORM (1GA)
- HYDRAULIC/LGCIU/SYS2 (2GA)
- R HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA)
 - PHC-2 (6DA2)
 - LGCIU-2 (5GA2)
 - wiring

2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	32-00-00-860-001	Flight Configuration Precautions with Electrical Power
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
AMM	32-31-73-000-001	Removal of the Proximity-Sensors 9GA(8GA),
		11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA),
		17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA), 35GA(34GA)
AMM	32-31-73-200-001	Inspection of the MLG Proximity Sensor and Target Clearances
AMM	32-31-73-400-001	Installation of the Proximity-Sensors 9GA(8GA), 11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA),
ASM	30-31/02	17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA)
7011	30 31/0L	

3. Fault Confirmation

A. Test

(1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).

EFF: ALL
SROS

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4. Fault Isolation

- R **ON A/C 227-227, 229-231, 276-281,
 - A. If the ECAM warning message ANTI ICE F/O PITOT comes into view only or associated with the maintenance message CHECK LGCIU PHC2 INTERFACE and if the loss of the GND/FLT information occurred:
 - make sure that there is no maintenance message related to the landing gear system (Ref. ATA 32).
 - (1) If there is one or more maintenance message(s):
 - do the related trouble shooting.
 - (2) If there is no maintenance message:
 - do the inspection of the MLG proximity sensor and target clearances (Ref. AMM TASK 32-31-73-200-001).
 - (a) If the fault continues:
 - replace the PROX SNSR-R L/G EXT, SYS 1 (20GA) and PROX SNSR-R L/G EXT, SYS 2 (22GA), (Ref. AMM TASK 32-31-73-000-001) and (Ref. AMM TASK 32-31-73-400-001).
 - (b) If the fault continues:
 - do a check for ground at pin A/E and/or pin A/D and/or pin A/I of the PHC 2 (6DA2).
 - 1 If there is no ground signal:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - 2 If there is a ground signal:
 - Simulate the flight configuration:
 - on the panel 49VU, open the L/G/LGCIU/SYS1/NORM (1GA) circuit breaker
 - on the panel 121VU, open the HYDRAULIC/LGCIU/SYS2 (2GA) and HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA) circuit breakers.
 - NOTE : Make sure that you obey the flight configuration precautions (Ref. AMM TASK 32-00-00-860-001).
 - do a check for ground at PIN A/E and/or PIN A/D and/or PIN A/I of the PHC2 (6DA2).
 - a If there is a ground signal:
 - replace the LGCIU-1 (5GA1), (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - b If there is no ground signal:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- c If the fault continues:
 - replace the LGCIU-2 (5GA2).
 * If the fault continues:
 - do a check and repair the wiring from the PHC 2 pin A/E to the LGCIU 1 pin AB/14E and/or from the PHC 2 pin A/D to the LGCIU 2 pin AB/14E (Ref. ASM 30-31/02).

**ON A/C ALL

- R Post SB 32-1145 For A/C 227-227,229-231,276-281,
 - A. If the ECAM warning message ANTI ICE F/O PITOT comes into view only or associated with the maintenance message CHECK LGCIU PHC2 INTERFACE and if the loss of GND/FLT information occurred:
 - make sure that there is no maintenance message related to the landing gear system (Ref. ATA 32).
 - (1) If there is one or more maintenance message(s):
 - do the related trouble shooting.
 - (2) If there is no maintenance message:
 - do the inspection of the MLG proximity sensor and target clearances (Ref. AMM TASK 32-31-73-200-001).
 - (a) If the fault continues:
 - replace the PROX SNSR-R L/G EXT, SYS 1 (20GA) and PROX SNSR-R L/G EXT, SYS 2 (22GA), (Ref. AMM TASK 32-31-73-000-001) and (Ref. AMM TASK 32-31-73-400-001).
 - (b) If the fault continues:
 - do a check for ground at pin A/E and/or pin A/D and/or pin A/I of the PHC 2 (6DA2).
 - 1 If there is no ground signal:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - 2 If there is a ground signal:

Simulate flight configuration:

- on the pannel 49VU, open the L/G/LGCIU/SYS1/NORM (1GA) circuit breaker.
- on the pannel 121VU, open the HYDRAULIC/LGCIU/SYS2 (2GA) and HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA) circuit breakers.

NOTE : Make sure you obey the flight configuration precautions (Ref. AMM TASK 32-00-00-860-001).

 do a check for ground at PIN A/E and/or PIN A/D and/or PIN A/I of the PHC2 (6DA2).

EFF: ALL

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- a If there is a ground signal:
 - replace the LGCIU-1 (5GA1), (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
- b If there is no ground signal:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
- c If the fault continues: - replace the LGCIU-2 (5GA2).
- d If the fault continues:
 - do a check and repair the wiring from the PHC 2 pin A/E to the LGCIU 1 pin AB/14E and/or from the PHC 2 pin A/D to the LGCIU 2 pin AB/14E (Ref. ASM 30-31/02).

**ON A/C ALL

B. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-815

Loss of the Power Supply for the Pitot Probe (PHC 2)

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring between the PHC 2 pin A/S and the ground terminal
 - wiring between the PHC 2 pin A/A and the circuit breaker (3DA2)
 - wiring from the PHC 2 (6DA2) pin A/H to the pitot probe 2 (9DA2) pin A/B
 - C/B-ANTI ICE/PROBES/2/PITOT (3DA2)
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
	AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
	AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
R	AMM	34-11-15-000-001	Removal of the Pitot Probe (9DA1, 9DA2, 9DA3)	
R	AMM	34-11-15-400-001	Installation of the Pitot Probe (9DA1, 9DA2, 9DA3)	
R	_	30-31/01 30-31/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/PROBES/2/PITOT	3DA2	Y14

EFF: ALL

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SROS

TROUBLE SHOOTING MANUAL B. If the test gives the maintenance message CHECK PITOT PHC 2 SUPPLY: - do a check of the status of the circuit breaker (3DA2). (1) If the circuit breaker is closed: - do a check for 115VAC at pin A/A of the PHC 2 (6DA2). (a) If there is no 115VAC: - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002). (b) If there is 115VAC: - do a check for a ground signal at pin A/S of the PHC 2 (6DA2). If there is no ground signal: - repair the wiring between the PHC 2 pin A/S and the ground terminal (Ref. ASM 30-31/02). If there is a ground signal: - do a check of the wiring between the PHC 2 pin A/A and the circuit breaker (3DA2). a If there is no continuity: - repair the above wiring. b If there is continuity: replace the circuit breaker (3DA2). (2) If the circuit breaker is open: - close the circuit breaker. (a) If the circuit breaker trips again: - disconnect the connector from the pitot probe 2 (9DA2) and do a check of the resistance between pin A/B and pin A/C. If the resistance is more than 43 ohms (open circuit) or less than 35 ohms (short circuit): Replace the PROBE-PITOT 2 (9DA2) (Ref. AMM TASK 34-11-15-000-001) and (Ref. AMM TASK 34-11-15-400-001). 2 If the resistance is between 35 ohms and 43 ohms: Replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL 30-31-00

31/01).

If the fault continues:

- do a check and repair the wiring from the PHC 2 (6DA2)

pin A/H to the pitot probe 2 (9DA2) pin A/B (Ref. ASM 30-

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- 3 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 2 pin A/A and the circuit breaker (3DA2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/2/PITOT (3DA2).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-816

Failure of the L Static Probe (PHC 2)

- 1. Possible Causes
 - PROBE-L STATIC, 2 (7DA2)
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the L static probe 2 (7DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	34-11-16-000-001	Removal of the Static Probe
		(7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)
ΔΜΜ	34-11-16-400-002	Installation of the Static Probe
A	34 11 10 400 002	(7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)
ASM	30-31/02	(1001)1002,1003,0001,0002,0003

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message L STATIC PROBE 7DA2:
 do a check of the resistance between pin 2 and pin 1.
 - (1) If the resistance is more than 13 ohms (open circuit) or less than 10 ohms (short circuit):
 - (a) Replace the PROBE-L STATIC, 2 (7DA2) (Ref. AMM TASK 34-11-16-000-001) and (Ref. AMM TASK 34-11-16-400-002).
 - (2) If the resistance is between 10 ohms and 13 ohms:
 - (a) Replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the L static probe 2 (7DA2) pin A/D to pin 2 (Ref. ASM 30-31/02).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

30-31-00

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-817

Loss of the Power Supply for the Static Probe (PHC 2)

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring between the PHC 2 pin A/U and the ground terminal
 - wiring between the PHC 2 pin A/M and the circuit breaker (5DA2)
 - C/B-ANTI ICE/PROBES/2/STATIC (5DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
	50-31-00-710-001 50-31-34-000-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM 3	0-31-34-400-002	Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
ASM 3	0-31/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/PROBES/2/STATIC

Y11

5DA2

- B. If the test gives the maintenance message CHECK STATICS PHC2 SUPPLY: - do a check of the status of the circuit breaker (5DA2).
 - (1) If the circuit breaker is closed: - do a check for 28VDC at pin A/M of the PHC 2 (6DA2).
 - (a) If there is 28VDC:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

ALL

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- (b) If there is no 28VDC:
 - do a check for a ground signal at pin A/U of the PHC 2 (6DA2).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 2 pin A/U and the ground terminal (Ref. ASM 30-31/02).
 - 2 If there is ground signal:
 - do a check of the wiring between the PHC 2 pin A/M and the circuit breaker (5DA2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (5DA2).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the PHC-2 (6DA2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 2 pin A/M and the circuit breaker (5DA2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/PROBES/2/STATIC (5DA2).
- C. Do the operational test given in Para. 3.

EFF: ALL

30-31-00

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TASK 30-31-00-810-818

Failure of the R Static Probe (PHC 2)

- 1. Possible Causes
 - PROBE-R STATIC, 2 (8DA2)
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the R static probe 2 (8DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	34-11-16-000-001	Removal of the Static Probe
		(7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)
AMM	34-11-16-400-002	Installation of the Static Probe
		(7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)
ASM	30-31/02	
	•	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message R STATIC PROBE 8DA2:
 do a check of the resistance between pin 2 and pin 1.
 - (1) If the resistance is more than 13 ohms (open circuit) or less than 10 ohms (short circuit):
 - (a) Replace the PROBE-R STATIC, 2 (8DA2), (Ref. AMM TASK 34-11-16-000-001) and (Ref. AMM TASK 34-11-16-400-002).
 - (2) If the resistance is between 10 ohms and 13 ohms:
 - (a) Replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

30-31-00

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the R static probe 2 (8DA2) pin A/E to pin 2 (Ref. ASM 30-31/02).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

30-31-00

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-819

Failure of the Angle of Attack Sensor (PHC 2)

- 1. Possible Causes
 - SENSOR-ANGLE OF ATTACK, 2 (3FP2)
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the angle of attack sensor 2 (3FP2)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-00-710-007	Operational Test of the Angle of Attack Sensor
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-11-19-000-001	Removal of the Angle of Attack Sensor (3FP1, 3FP2, 3FP3)
AMM	34-11-19-400-001	<pre>Installation of the Angle of Attack Sensor (3FP1, 3FP2, 3FP3)</pre>
ASM	30-31/01	

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480, 503-549, R 551-551, 701-749,
 - A. If the test gives the maintenance message AOA SENSOR 3FP2:
 - disconnect the connector from the angle of attack sensor 2 (3FP2) and do a check of the resistance between pin A/<J and pin A/<G:
 - (1) If the resistance is more than 300 ohms (open circuit) or less than 20 ohms (short circuit):
 - (a) Replace the SENSOR-ANGLE OF ATTACK, 2 (3FP2), (Ref. AMM TASK 34-11-19-000-001) and (Ref. AMM TASK 34-11-19-400-001).

EFF: ALL **SROS**

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- (2) If the resistance is between 20 ohms and 300 ohms:
 - (a) Replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (b) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the angle of attack sensor 2 (3FP2) pin A/F to pin A/<J (Ref. ASM 30-31/01).

R **ON A/C 247-275, 287-299, 429-475, 481-499, 553-599,

- R A. If the test gives the maintenance message AOA SENSOR 3FP2:
- R (1) Do the operational test of the angle of attack sensor (3FP2) (Ref. R AMM TASK 30-31-00-710-007).
- R (2) If one of the results recorded is less than 1A:
- R (a) Replace the SENSOR-ANGLE OF ATTACK, 2 (3FP2), (Ref. AMM TASK 34-R 11-19-000-001) and (Ref. AMM TASK 34-11-19-400-001).
- R (3) If none of the results recorded is less than 1A:
- R (a) Replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and R (Ref. AMM TASK 30-31-34-400-002).
 - (b) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the angle of attack sensor 2 (3FP2), pin A/F to pin A/<J (Ref. ASM 30-31/01).

**ON A/C ALL

R R

R R

B. Do the operational test given in Para. 3.

EFF: ALL 30-31-00

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-820

Loss of the Power Supply for the Angle of Attack Sensor (PHC 2)

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring between the PHC 2 pin A/S and the ground terminal
 - wiring between the PHC 2 pin A/C and the circuit breaker (4DA2)
 - C/B-ANTI ICE/PROBES/2/AOA (4DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
ASM 30-31/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION ______ Y 13 4DA2

- 122VU ANTI ICE/PROBES/2/AOA
 - B. If the test gives the maintenance message CHECK AOA PHC2 SUPPLY: - do a check of the status of the circuit breaker (4DA2).
 - (1) If the circuit breaker is closed: - do a check for 115VAC at pin A/C of the PHC 2 (6DA2).
 - (a) If there is 115VAC:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL 30-31-00

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- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/S of the PHC 2 (6DA2).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 2 pin A/S and the ground terminal (Ref. ASM 30-31/02).
 - 2 If there is a ground signal:
 - do a check of the wiring between the PHC 2 pin A/C and the circuit breaker (4DA2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DA2).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the PHC-2 (6DA2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 2 pin A/C and the circuit breaker (4DA2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/2/AOA (4DA2).
- C. Do the operational test given in Para. 3.

EFF: ALL

30-31-00

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-821

Failure of the TAT Sensor (PHC 2)

- 1. Possible Causes
 - SENSOR-TAT, 2 (11FP2)
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the TAT sensor 2 (11FP2)
- 2. Job Set-up Information
 - A. Referenced Information

R	REFERENCE		DESIGNATION	
Δ	мм	30-31-00-710-001	Operational Test of the Probe Ice Protection	
-	MM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
A	MM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
A	MM	34-11-18-000-001	Removal of the TAT Sensor (11FP1, 11FP2)	
	MM SM	34-11-18-400-001 30-31/02	Installation of the TAT Sensor (11FP1, 11FP2)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message TAT SENSOR 11FP2:
 - disconnect the connector from the TAT sensor 2 (11FP2) and do a check of the resistance between pin A/B and pin A/C.
 - (1) If the resistance is more than 24 ohms (open circuit) or less than 18 ohms (short circuit):
 - (a) Replace the SENSOR-TAT, 2 (11FP2), (Ref. AMM TASK 34-11-18-000-001) and (Ref. AMM TASK 34-11-18-400-001).
 - (2) If the resistance is between 18 ohms and 24 ohms:
 - (a) Replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

30-31-00

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the TAT sensor 2 (11FP2) pin A/J to pin A/B (Ref. ASM 30-31/02).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-822

Loss of the Power Supply for the TAT Sensor

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring between the PHC 2 pin A/S and the ground terminal
 - wiring between the PHC 2 pin A/B and the circuit breaker (1DA2)
 - C/B-ANTI ICE/PROBES/2/TAT (1DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
	70 74 00 740 004		
AMM		Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
ASM	30-31/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/PROBES/2/TAT

2 SLIPPLY-

1DA2

- B. If the test gives the maintenance message CHECK TAT PHC2 SUPPLY:- do a check of the status of the circuit breaker (1DA2).
 - (1) If the circuit breaker is closed:- do a check for 115VAC at pin A/B of the PHC 2 (6DA2).
 - (a) If there is 115VAC:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

30-31-00

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- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/S of the PHC 2 (6DA2).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 2 pin A/S and the ground terminal (Ref. ASM 30-31/02).
 - 2 If there is a ground signal:
 - do a check of the wiring between the PHC 2 pin A/B and the circuit breaker (1DA2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (1DA2).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the PHC-2 (6DA2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 2 pin A/B and the circuit breaker (1DA2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/2/TAT (1DA2).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-823

Loss of the PHC 3

- 1. Possible Causes
 - PHC-3 (6DA3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-31-00-710-001 AMM 30-31-34-000-002 AMM 30-31-34-400-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3) Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation

EFF: ALL 30-31-00

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TASK 30-31-00-810-824

Failure of the Pitot Probe (PHC 3)

- 1. Possible Causes
 - PROBE-PITOT, 3 (9DA3)
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the pitot probe 3 (9DA3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-11-15-000-001	Removal of the Pitot Probe (9DA1, 9DA2, 9DA3)
AMM ASM	34-11-15-400-001 30-31/03	Installation of the Pitot Probe (9DA1, 9DA2, 9DA3)

- 3. Fault Confirmation
 - A. Test

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- (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PITOT PROBE 9DA3:
 - disconnect the connector from the pitot probe 3 (9DA3) and do a check of the resistance between pin A/B and pin A/C.
- (1) If the resistance is more than 43 ohms (open circuit) or less than 30 ohms (short circuit):
 - (a) Replace the PROBE-PITOT, 3 (9DA3), (Ref. AMM TASK 34-11-15-000-001) and (Ref. AMM TASK 34-11-15-400-001).
- (2) If the resistance is between 30 ohms and 43 ohms: R
 - (a) Replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL **SROS**

30-31-00

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the pitot probe 3 (9DA3) pin A/H to pin A/B (Ref. ASM 30-31/03).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

30-31-00

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TASK 30-31-00-810-825

Loss of the GND/FLT Information (PHC 3)

1. Possible Causes

- PROX SNSR-NLG EXT, SYS 1 (24GA)
- PROX SNSR-NLG EXT, SYS 2 (25GA)
- LGCIU-1 (5GA1)
- L/G/LGCIU/SYS1/NORM (1GA)
- HYDRAULIC/LGCIU/SYS2 (2GA)
- HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA)
 - PHC-3 (6DA3)
 - LGCIU-2 (5GA2)
 - wiring

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2. Job Set-up Information

A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	32-00-00-860-001	Flight Configuration Precautions with Electrical Power
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
AMM	32-31-73-000-005	Removal of the NLG Proximity-Sensors 12GA, 13GA, 18GA, 19GA, 24GA, 25GA, 30GA, 31GA, 37GA (36GA), 39GA (38GA)
AMM	32-31-73-200-002	Inspection of the NLG Proximity Sensor and Target Clearances
AMM	32-31-73-400-005	Installation of the NLG Proximity-Sensors 12GA, 13GA, 18GA, 19GA, 24GA, 25GA, 30GA, 31GA, 37GA (36GA), 39GA (38GA)
ASM	30-31/03	

3. Fault Confirmation

A. Test

(1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).

EFF: ALL
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4. Fault Isolation

- A. If the ECAM warning message ANTI ICE STBY PITOT comes into view only or associated with the maintenance message CHECK LGCIU PHC 3 INTERFACE and if the loss of the GND/FLT information occurred:
 - make sure that there is no maintenance message related to the landing gear system (Ref. ATA 32).
 - (1) If there is one or more maintenance message(s):
 - do the related trouble shooting.
 - (2) If there is no maintenance message:
 - do the inspection of the NLG proximity sensor and target clearances (Ref. AMM TASK 32-31-73-200-002).
 - (a) If the fault continues:
 - replace the PROX SNSR-NLG EXT, SYS 1 (24GA) and PROX SNSR-NLG EXT, SYS 2 (25GA), (Ref. AMM TASK 32-31-73-000-005) and (Ref. AMM TASK 32-31-73-400-005).
 - (b) If the fault continues:
 - do a check for ground at pin A/E and/or pin A/D and/or pin A/I of the PHC3 (6DA3).
 - 1 If there is no ground signal:
 - replace the LGCIU-1 (5GA1) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - 2 If there is a ground signal:

Simulate the flight configuration:

- on the panel 49VU, open the L/G/LGCIU/SYS1/NORM (1GA) circuit breaker
- on the panel 121VU, open the HYDRAULIC/LGCIU/SYS2 (2GA) and HYDRAULIC/LGCIU/SYS1/GRND SPLY (52GA) circuit breakers.

NOTE : Make sure that you obey the flight configuration precautions (Ref. AMM TASK 32-00-00-860-001).

- Do a check for ground at PIN A/E and/or PIN A/D and/or A/I of the PHC-3 (6DA3).
- a If there is a ground signal:
 - replace the LGCIU-1 (5GA1), (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
- b If there is no ground signal:
 - replace the PHC-3 (6DA3) , (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
- c If the fault continues:
 - replace the LGCIU-2 (5GA2).
 - * If the fault continues:

EFF: ALL

30-31-00

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TROUBLE SHOOTING MANUAL

- do a check and repair the wiring from the PHC 3 pin A/E to the LGCIU 1 pin AB/15A, and/or from the PHC 3 pin A/D to the LGCIU 2 pin AB/15A (Ref. ASM 30-31/03).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

30-31-00

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TASK 30-31-00-810-826

Loss of the Power Supply for the Pitot Probe (PHC 3)

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring between the PHC 3 pin A/S and the ground terminal
 - wiring between the PHC 3 pin A/A and the circuit breaker (3DA3)
 - wiring from the PHC 3 (6DA3) pin A/H to the pitot probe 3 (9DA3) pin A/B
 - C/B-ANTI ICE/PROBES/3/PITOT (3DA3)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE 	DESIGNATION
	AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
	AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
	AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
R	AMM	34-11-15-000-001	Removal of the Pitot Probe (9DA1, 9DA2, 9DA3)
R	AMM	34-11-15-400-001	Installation of the Pitot Probe (9DA1, 9DA2, 9DA3)
R	ASM ASM	30-31/01 30-31/03	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT. L	OCATION
122VU	ANTI ICE/PROBES/3/PITOT	3DA3	Z 16

EFF: ALL

30-31-00

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TROUBLE SHOOTING MANUAL B. If the test gives the maintenance message CHECK PITOT PHC 3 SUPPLY: - do a check of the status of the circuit breaker (3DA3). (1) If the circuit breaker is closed: - do a check for 115VAC at pin A/A of the PHC 3 (6DA3). (a) If there is 115VAC: - replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002). (b) If there is no 115VAC: - do a check for a ground signal at pin A/S of the PHC 3 (6DA3). If there is no ground signal: - repair the wiring between the PHC 3 pin A/S and the ground terminal (Ref. ASM 30-31/03). If there is a ground signal: - do a check of the wiring between the PHC 3 pin A/A and the circuit breaker (3DA3). a If there is no continuity: - repair the above wiring. b If there is continuity: - replace the circuit breaker (3DA3). (2) If the circuit breaker is open: - close the circuit breaker. (a) If the circuit breaker trips again: - disconnect the connector from the pitot probe 3 (9DA3) and do a check of the resistance between pin A/B and pin A/C. If the resistance is more than 43 ohms (open circuit) or less than 35 ohms (short circuit): Replace the PROBE-PITOT 3 (9DA3) (Ref. AMM TASK 34-11-15-000-001) and (Ref. AMM TASK 34-11-15-400-001). 2 If the resistance is between 35 ohms and 43 ohms: Replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002)

EFF: ALL 30-31-00

If the fault continues:

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R R and (Ref. AMM TASK 30-31-34-400-002).

do a check and repair the wiring from the PHC 3 (6DA3)
 pin A/H to the pitot probe 3 (9DA3) pin A/B (Ref. ASM 30-

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- 3 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 3 pin A/A and the circuit breaker (3DA3).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - b If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/3/PITOT (3DA3).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-827

Failure of the L Static Probe (PHC 3)

- 1. Possible Causes
 - PROBE-L STATIC, 3 (7DA3)
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the L static probe 3 (7DA3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	34-11-16-000-001	Removal of the Static Probe
		(7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)
AMM	34-11-16-400-002	Installation of the Static Probe
A1111	34 11 10 400 002	(7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)
ASM	30-31/03	(VA , VAE, VAJ,OVA ,OVAE,OVAJ)
ASM	30-31/03	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message L STATIC PROBE 7DA3:
 do a check of the resistance between pin 2 and pin 1.
 - (1) If the resistance is more than 13 ohms (open circuit) or less than 10 ohms (short circuit).
 - (a) Replace the PROBE-L STATIC, 3 (7DA3), (Ref. AMM TASK 34-11-16-000-001) and (Ref. AMM TASK 34-11-16-400-002).
 - (2) If the resistance is between 10 ohms and 13 ohms:
 - (a) Replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the L static probe 3 (7DA3) pin A/D to pin 2 (Ref. ASM 30-31/03).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-828

Loss of the Power Supply for the Static Probe (PHC 3)

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring between the PHC 3 pin A/U and the ground terminal
 - wiring between the PHC 3 pin A/M and the circuit breaker (5DA3)
 - C/B-ANTI ICE/PROBES/3/STATIC (5DA3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
ASM	30-31/03	•

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/PROBES/3/STATIC

5DA3 Z14

- B. If the test gives the maintenance message CHECK STATICS PHC 3 SUPPLY:
 do a check of the status of the circuit breaker (5DA3).
 - (1) If the circuit breaker is closed:
 - do a check for 28VDC at pin A/M of the PHC 3 (6DA3).
 - (a) If there is 28VDC:
 - replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- (b) If there is no 28VDC:
 - do a check for a ground signal at pin A/U of the PHC 3 (6DA3).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 3 pin A/U and the ground terminal (Ref. ASM 30-31/03).
 - 2 If there is a ground signal:
 - do a check of the wiring between the PHC 3 pin A/M and the circuit breaker (5DA3).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (5DA3).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 replace the PHC-3 (6DA3).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 3 pin A/M and the circuit breaker (5DA3).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/PROBES/3/STATIC (5DA3).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-829

Failure of the R Static Probe (PHC 3)

- 1. Possible Causes
 - PROBE-R STATIC, 3 (8DA3)
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the R static probe 3 (8DA3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
		(6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
AMM	34-11-16-000-001	Removal of the Static Probe
		(7DA1.7DA2.7DA3.8DA1.8DA2.8DA3)
AMM	34-11-16-400-002	Installation of the Static Probe
		(7DA1.7DA2.7DA3.8DA1.8DA2.8DA3)
ASM	30-31/03	(,,,,,,,,
AMM	34-11-16-000-001 34-11-16-400-002	(6DA1,6DA2,6DA3) Removal of the Static Probe (7DA1,7DA2,7DA3,8DA1,8DA2,8DA3)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message R STATIC PROBE 8DA3:
 do a check of the resistance between pin 2 and pin 1.
 - (1) If the resistance is more than 13 ohms (open circuit) or less than 10 ohms (short circuit).
 - (a) Replace the PROBE-R STATIC, 3 (8DA3), (Ref. AMM TASK 34-11-16-000-001) and (Ref. AMM TASK 34-11-16-400-002).
 - (2) If the resistance is between 10 ohms and 13 ohms:
 - (a) Replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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- (b) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the R static probe 3 (8DA3) pin A/E to pin 2 (Ref. ASM 30-31/03).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-830

Failure of the Angle of Attack Sensor (PHC 3)

- 1. Possible Causes
 - SENSOR-ANGLE OF ATTACK, 3 (3FP3)
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the angle of attack sensor 3 (3FP3)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-00-710-007	Operational Test of the Angle of Attack Sensor
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-11-19-000-001	Removal of the Angle of Attack Sensor (3FP1, 3FP2, 3FP3)
AMM	34-11-19-400-001	<pre>Installation of the Angle of Attack Sensor (3FP1, 3FP2, 3FP3)</pre>
ASM	30-31/01	
ASM	30-31/03	

3. Fault Confirmation

A. Test

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- (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation

R **ON A/C 201-225, 227-227, 229-245, 276-286, 426-428, 476-480, 503-549, 551-551, 701-749,

- A. If the test gives the maintenance message AOA SENSOR 3FP3:
 - disconnect the connector from the angle of attack sensor 3 (3FP3) and do a check of the resistance between pin A/<J and pin A/<G.
 - (1) If the resistance is more than 300 ohms (open circuit) or less than 20 ohms (short circuit):
 - (a) Replace the SENSOR-ANGLE OF ATTACK, 3 (3FP3) (Ref. AMM TASK 34-11-19-000-001) and (Ref. AMM TASK 34-11-19-400-001).

EFF: ALL

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- (2) If the resistance is between 20 ohms and 300 ohms:
 - (a) Replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (b) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the angle of attack sensor 3 (3FP3), pin A/F to pin A/<J (Ref. ASM 30-31/03).

R **ON A/C 247-275, 287-299, 429-475, 481-499, 553-599,

- R A. If the test gives the maintenance message AOA SENSOR 3FP3:
- R (1) Do the operational test of the angle of attack sensor (3FP3) (Ref.
 R AMM TASK 30-31-00-710-007).
- R (2) If one of the results recorded is less than 1A:
 - (a) Replace the SENSOR-ANGLE OF ATTACK, 3 (3FP3) (Ref. AMM TASK 34-11-19-400-001).
- R (3) If none of the results recorded is less than 1A:
 - (a) Replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (b) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the angle of attack sensor 3 (3FP3), pin A/F to pin A/<J (Ref. ASM 30-31/01).

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B. Do the operational test given in Para. 3.

EFF: ALL

SROS

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TASK 30-31-00-810-831

Loss of the Power Supply for the Angle of Attack Sensor (PHC 3)

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring between the PHC 3 pin A/S and the ground terminal
 - wiring between the PHC 3 pin A/C and the circuit breaker (4DA3)
 - C/B-ANTI ICE/PROBES/3/AOA (4DA3)
- Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
	70 74 00 740 004	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
ASM	30-31/03	,

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

- 122VU ANTI ICE/PROBES/3/AOA
 - B. If the test gives the maintenance message CHECK AOA PHC 3 SUPPLY:do a check of the status of the circuit breaker (4DA3).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at pin A/C of the PHC 3 (6DA3).
 - (a) If there is 115VAC:
 - replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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4DA3

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- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/S of the PHC 3 (6DA3).
 - 1 If there is no ground signal:
 - repair the wiring between the PHC 3 pin A/S and the ground terminal (Ref. ASM 30-31/03).
 - 2 If there is a ground signal:
 - do a check of the wiring between the PHC 3 pin A/C and the circuit breaker (4DA3).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DA3).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the PHC-3 (6DA3).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the PHC 3 pin A/C and the circuit breaker (4DA3).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/PROBES/3/AOA (4DA3).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-832

Loss of the Validation Input (PHC 1)

- 1. Possible Causes
 - PHC-1 (6DA1)
 - LGCIU-2 (5GA2)
 - wiring from the PHC 1 to the LGCIU 2
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
AMM ASM	32-31-71-400-001 30-31/01	Installation of the LGCIU (5GA1, 5GA2)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC1: LGCIU2: do a check for ground at pin A/I of the PHC 1 (6DA1).
 - (1) If there is ground:
 - replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (2) If there is no ground:
 - replace the LGCIU-2 (5GA2), (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 to the LGCIU 2 pin A/<I to pin AA/12F (Ref. ASM 30-31/01).
 - B. Do the operational test given in Para. 3.

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TASK 30-31-00-810-833

Loss of the Validation Input (PHC 2)

- 1. Possible Causes
 - PHC-2 (6DA2)
 - LGCIU-2 (5GA2)
 - wiring from the PHC 2 to the LGCIU 2
- 2. Job Set-up Information
 - A. Referenced Information

REFER	ENCE	DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
AMM	32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
ASM	30-31/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC2: LGCIU2: do a check for ground at pin A/I of the PHC 2 (6DA2).
 - (1) If there is ground:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (2) If there is no ground:
 - replace the LGCIU-2 (5GA2) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 2 to the LGCIU 2, pin A/<I to pin AA/12E (Ref. ASM 30-31/02).</p>
 - B. Do the operational test given in Para. 3.

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-834

Loss of the Validation Input (PHC 3)

- 1. Possible Causes
 - PHC-3 (6DA3)
 - LGCIU-2 (5GA2)
 - wiring from the PHC 3 to the LGCIU 2
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)	
AMM ASM	32-31-71-400-001 30-31/03	Installation of the LGCIU (5GA1, 5GA2)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC3: LGCIU2: do a check for ground at pin A/I of the PHC 3 (6DA3).
 - (1) If there is ground:
 - replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (2) If there is no ground:
 - replace the LGCIU-2 (5GA2) (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 3 to the LGCIU 2, pin A/<I to pin AA/12F (Ref. ASM 30-31/03).</p>
 - B. Do the operational test given in Para. 3.

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TASK 30-31-00-810-835

Loss of the Input Discrete (ENG 1/ENG 2) (PHC 1)

- 1. Possible Causes
 - PHC-1 (6DA1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG1 (12KS1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG2 (12KS2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM AMM	30-31-00-710-001 30-31-34-000-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC)	
AMM	30-31-34-400-002	(6DA1,6DA2,6DA3) Installation of the Probe Heat Computer (PHC)	
ASM	30-31/01	(6DA1,6DA2,6DA3)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK EIU PHC 1 INTERFACE:
 do a check for ground at pin A/<F and/or pin A/<G of the PHC 1 (6DA1).
 - (1) If there is ground:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (2) If there is no ground:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (12KS1).
 - (a) If the fault continues:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG2 (12KS2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the PHC 1 (6DA1) pin A/<F to the relay (12KS1) pin A/4
 - from the relay (12K\$1) pin A/B to ground
 - from the PHC 1 (6DA1) pin A/<G to the relay (12KS2) pin A/4 and
 - from the relay (12KS2) pin A/B to ground (Ref. ASM 30-31/01).
- B. Do the operational test given in Para. 3.

EFF: ALL SROS 30-31-00

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TASK 30-31-00-810-836

Loss of the Input Discrete (ENG 1/ENG 2) (PHC 2)

- 1. Possible Causes
 - PHC-2 (6DA2)
 - RELAY-OIL LOW PRESS AND GROUND, ENG1 (10KS1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG2 (10KS2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-31-00-710-001 AMM 30-31-34-000-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC)	
	(6DA1,6DA2,6DA3)	
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
ASM 30-31/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK EIU PHC 2 INTERFACE: - do a check for ground at pin A/<F and/or pin A/<G of the PHC 2 (6DA2).
 - (1) If there is ground:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (2) If there is no ground:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (10KS1).
 - (a) If the fault continues:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG2 (10KS2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the PHC 2 (6DA2) pin A/<F to the relay (10KS1) pin A/6
 - from the relay (10KS1) pin A/C to ground
 - from the PHC 2 (6DA2) pin A/<G to the relay (10KS2) pin A/6 and
 - from the relay (10KS2) pin A/C to ground (Ref. ASM 30-31/02).
- B. Do the operational test given in Para. 3.

EFF: ALL SROS 30-31-00

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TASK 30-31-00-810-837

Loss of the Input Discrete (ENG 1/ENG 2) (PHC 3)

- 1. Possible Causes
 - PHC-3 (6DA3)
 - RELAY-OIL LOW PRESS AND GROUND, ENG1 (12KS1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG2 (12KS2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
A	MM 30-31-00-710-001	Operational Test of the Probe Ice Protection	
A	MM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
A	MM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
A	SM 30-31/03		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK EIU PHC 3 INTERFACE:
 do a check for ground at pin A/<F and/or pin A/<G of the PHC 3 (6DA3).
 - (1) If there is ground:
 - replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (2) If there is no ground:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (12KS1).
 - (a) If the fault continues:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG2 (12KS2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the PHC 3 (6DA3) pin A/<F to the relay (12KS1) pin A/2
 - from the relay (12K\$1) pin A/A to ground
 - from the PHC 3 (6DA3) pin A/<G to the relay (12KS2) pin A/2 and
 - from the relay (12KS2) pin A/A to ground (Ref. ASM 30-31/03).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-838

Loss of the PHC 1 (Class 3 Faults)

- 1. Possible Causes
 - PHC-1 (6DA1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-31-00-710-001 AMM 30-31-34-000-002 AMM 30-31-34-400-002	Operational Test of the Probe Ice Protection Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3) Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC 6DA1:
 - replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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TASK 30-31-00-810-839

Loss of the PHC 2 (Class 3 Faults)

- 1. Possible Causes
 - PHC-2 (6DA2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	1 30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM		Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	1 30-31-34-400-002	Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC 6DA2:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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TASK 30-31-00-810-840

Loss of the PHC 3 (Class 3 Faults)

- 1. Possible Causes
 - PHC-3 (6DA3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		RENCE	DESIGNATION
	AMM	30-31-00-710-001	Operational Test of the Backs Inc Best estima
			Operational Test of the Probe Ice Protection
	AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
	AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message PHC 6DA3:
 - replace the PHC-3 (6DA3) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).

EFF: ALL

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TASK 30-31-00-810-841

Loss of the Pitot Probe Output-Discrete from the PHC 1

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM	34-13-00-740-002	INTERFACE TEST of the ADR	
ASM	30-31/01		
ASM	34-13/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU1 PITOT PHC1 INTERFACE:
 - do a check for ground at pin A/<B of the PHC 1 (6DA1) (Ref. ASM 30-31/01).
 - (1) If there is no ground:
 - replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1) pin A/<B to pin AA/4J (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 1) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-842

Loss of the Angle-of-Attack Sensor Output-Discrete from the PHC 1

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
34-11-00-810-829	Loss of the Angle of Attack Sensor 1
34-13-00-810-906	Loss of the AOA 1 Input to the ADR 1
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
	(6DA1,6DA2,6DA3)
AMM 30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
	(6DA1,6DA2,6DA3)
AMM 34-13-00-740-002	INTERFACE TEST of the ADR
ASM 30-31/01	
ASM 34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message:

CHECK ADIRU1 AOA PHC1 INTERFACE:

- do a check for ground at pin A/Z of the PHC 1 (6DA1) (Ref. ASM 30-31/01).
- (1) If there is no ground:
 - replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1) pin A/Z to pin AA/3J (Ref. ASM 34-13/02).

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- (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 1) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (Ref. TASK 34-13-00-810-906) and (Ref. TASK 34-11-00-810-829).
- B. Do the test given in para. 3.

EFF: ALL | | SROS 30-31-00

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TASK 30-31-00-810-843

Loss of the L Static Probe Output-Discrete from the PHC 1

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM 34-13-00-740-002	INTERFACE TEST of the ADR	
ASM 30-31/01		
ASM 34-13/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU 1 L STATIC PHC 1 INTERFACE:
 - do a check for ground at pin A/X of the PHC 1 (6DA1) (Ref. ASM 30-31/01).
 - (1) If there is no ground:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1), pin A/X to pin AA/4G (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 1) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-31-00-810-844

Loss of the R Static Probe Output-Discrete from the PHC 1

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-13-00-740-002	INTERFACE TEST of the ADR
ASM	30-31/01	
ASM	34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU 1 R STATIC PHC 1 INTERFACE:
 - do a check for ground at pin A/Y of the PHC 1 (6DA1) (Ref. ASM 30-31/01).
 - (1) If there is no ground:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1), pin A/Y to pin AA/4H (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 1) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-845

Loss of the TAT Sensor Output-Discrete from the PHC 1

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
34-13-00-810-909	Loss of the TAT Sensor 1 Input on the ADR1
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM 34-13-00-740-002	INTERFACE TEST of the ADR
ASM 30-31/01	
ASM 34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU 1 TAT PHC 1 INTERFACE:
 - do a check for ground at pin A/<A of the PHC 1 (6DA1) (Ref. ASM 30-31/01).
 - (1) If there is no ground:
 - replace the PHC-1 (6DA1) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the ADIRU 1 (1FP1), pin A/<A to pin AA/4F (Ref. ASM 34-13/02).

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- (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 1) (Ref. AMM TASK 34- 13-00-740-002)
 - do the necessary corrective actions: (Ref. TASK 34-13-00-810-909).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-846

Loss of the Pitot Probe Output Discrete from the PHC 2

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM 34-13-00-740-002	INTERFACE TEST of the ADR	
ASM 30-31/02		
ASM 34-13/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU2 PITOT PHC2 INTERFACE:
 - do a check for ground at pin A/<B of the PHC 2 (6DA2) (Ref. ASM 30-31/02).
 - (1) If there is no ground:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2) pin A/<B to pin AA/4J (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 2) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-847

Loss of the Angle-of-Attack Sensor Output-Discrete from the PHC 2

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
34-11-00-810-832	Loss of the Angle of Attack Sensor 2
34-13-00-810-907	Loss of the AOA 2 Input to the ADR 2
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
	(6DA1,6DA2,6DA3)
AMM 30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
	(6DA1,6DA2,6DA3)
AMM 34-13-00-740-002	INTERFACE TEST of the ADR
ASM 30-31/02	
ASM 34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message:

CHECK ADIRU2 AOA PHC2 INTERFACE:

- do a check for ground at pin A/Z of the PCH 2 (6DA2) (Ref. ASM 30-31/02).
- (1) If there is no ground:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2) pin A/Z to pin AA/3J (Ref. ASM 34-13/02).

EFF: ALL

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- (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 2) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions (Ref. TASK 34-13-00-810-907) and (Ref. TASK 34-11-00-810-832).
- B. Do the test given in para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-848

Loss of the L Static Probe Output-Discrete from the PHC 2

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-13-00-740-002	INTERFACE TEST of the ADR
ASM	30-31/02	
ASM	34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU 2 L STATIC PHC2 INTERFACE:
 - do a check for ground at pin A/X of the PHC 2 (6DA2) (Ref. ASM 30-31/02).
 - (1) If there is no ground:
 - replace the PHC-2 (6DA2) (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2), pin A/X to pin AA/4G (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 2) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-849

Loss of the R Static Probe Output-Discrete from the PHC 2

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM	34-13-00-740-002	INTERFACE TEST of the ADR	
ASM	30-31/02		
ASM	34-13/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU2 R STATIC PHC 2 INTERFACE:
 - do a check for ground at pin A/Y of the PHC 2 (6DA2) (Ref. ASM 30-31/02).
 - (1) If there is no ground:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2) pin A/Y to pin AA/4H (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 2) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-850

Loss of the TAT Sensor Output-Discrete from the PHC 2

- 1. Possible Causes
 - PHC-2 (6DA2)
 - wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
34-13-00-810-910	Loss of the TAT Sensor 2 Input on the ADR2
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM 34-13-00-740-002	INTERFACE TEST of the ADR
ASM 30-31/02	
ASM 34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU2 TAT PHC2 INTERFACE:
 - do a check for ground at pin A/<A of the PHC 2 (6DA2) (Ref. ASM 30-31/02).
 - (1) If there is no ground:
 - replace the PHC-2 (6DA2), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 2 (6DA2) to the ADIRU 2 (1FP2) pin A/<A to pin AA/4F (Ref. ASM 34-13/02).

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- (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 2) (Ref. AMM TASK 34- 13-00-740-002)
 - do the necessary corrective actions: (Ref. TASK 34-13-00-810-910).
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-851

Loss of the Pitot Probe Output-Discrete from the PHC 3

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	DESIGNATION	
AMM 30-31-00-71	0-001 Operational Test	t of the Probe Ice Protection	
AMM 30-31-34-00	O-002 Removal of the I (6DA1,6DA2,6DA3	Probe Heat Computer (PHC)	
AMM 30-31-34-40	0-002 Installation of (6DA1,6DA2,6DA3	the Probe Heat Computer (PHC)	
AMM 34-13-00-74	0-002 INTERFACE TEST	of the ADR	
ASM 30-31/03			
ASM 34-13/02			

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU3 PITOT PHC3 INTERFACE:
 - do a check for ground at pin A/<B of the PHC 3 (6DA3) (Ref. ASM 30-31/03).
 - (1) If there is no ground:
 - replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3) pin A/<B to pin AA/4J (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 3) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-852

Loss of the Angle-of-Attack Sensor Output-Discrete from the PHC 3

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3)

DESTANATION

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

REFERENCE	DESTRUCTION
34-11-00-810-831	Loss of the Angle of Attack Sensor 3
34-13-00-810-908	Loss of the AOA 3 Input to the ADR 3
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC)
	(6DA1,6DA2,6DA3)
AMM 30-31-34-400-002	Installation of the Probe Heat Computer (PHC)
	(6DA1,6DA2,6DA3)
AMM 34-13-00-740-002	INTERFACE TEST of the ADR
ASM 30-31/03	
ASM 34-13/02	

- 3. Fault Confirmation
 - A. Test

DEFEDENCE

- (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message:

CHECK ADIRU3 AOA PHC3 INTERFACE:

- do a check for ground at pin A/Z of the PHC 3 (6DA3) (Ref. ASM 30-31/03).
- (1) If there is no ground:
 - replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3) pin A/Z to pin AA/3J (Ref. ASM 34-13/02).

EFF: ALL

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- (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 3) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (Ref. TASK 34-11-00-810-831) and (Ref. TASK 34-13-00-810-908).
- B. Do the test given in para. 3.

EFF: ALL SROS 30-31-00

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TASK 30-31-00-810-853

Loss of the L Static Probe Output-Discrete from the PHC 3

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-31-00-710-001	Operational Test of the Probe Ice Protection
AMM	30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM	30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM	34-13-00-740-002	INTERFACE TEST of the ADR
ASM	30-31/03	
ASM	34-13/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU3 L STATIC PHC3 INTERFACE:
 - do a check for ground at pin A/X of the PHC 3 (6DA3) (Ref. ASM 30-31/03).
 - (1) If there is no ground:
 - replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3) pin A/X to pin AA/4G (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 3) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

30-31-00

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TASK 30-31-00-810-854

Loss of the R Static Probe Output-Discrete from the PHC 3

- 1. Possible Causes
 - PHC-3 (6DA3)
 - wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM 30-31-	00-710-001	Operational Test of the Probe Ice Protection
AMM 30-31-	34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)
AMM 30-31-	34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>
AMM 34-13-	00-740-002	INTERFACE TEST of the ADR
ASM 30-31/	03	
ASM 34-13/	02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU3 R STATIC PHC3 INTERFACE:
 - do a check for ground at pin A/Y of the PHC 3 (6DA3) (Ref. ASM 30-31/03).
 - (1) If there is no ground:
 - replace the PHC-3 (6DA3), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 3 (6DA3) to the ADIRU 3 (1FP3) pin A/Y to pin AA/4H (Ref. ASM 34-13/02).
 - (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 3) (Ref. AMM TASK 34-13-00-740-002)
 - do the necessary corrective actions: (TSM chapter 34).

EFF: ALL

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B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

TASK 30-31-00-810-855

Loss of the TAT Sensor Output-Discrete from the PHC 1 to the ADIRU 3

- 1. Possible Causes
 - PHC-1 (6DA1)
 - wiring from the PHC 1 (6DA1) to the ADIRU 3 (1FP3)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
34-13-00-810-911	Loss of the TAT Sensor 1 Input on the ADR3	
AMM 30-31-00-710-001	Operational Test of the Probe Ice Protection	
AMM 30-31-34-000-002	Removal of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)	
AMM 30-31-34-400-002	<pre>Installation of the Probe Heat Computer (PHC) (6DA1,6DA2,6DA3)</pre>	
AMM 34-13-00-740-002	INTERFACE TEST of the ADR	
ASM 30-31/01		
ASM 34-13/02		

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the probe ice protection (Ref. AMM TASK 30-31-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK ADIRU3 TAT PHC1 INTERFACE:
 - do a check for ground at pin A/<A of the PHC 1 (6DA1) (Ref. ASM 30-31/01).
 - (1) If there is no ground:
 - replace the PHC-1 (6DA1), (Ref. AMM TASK 30-31-34-000-002) and (Ref. AMM TASK 30-31-34-400-002).
 - (a) If the fault continues:
 - do a check and repair the wiring from the PHC 1 (6DA1) to the ADIRU 3 (1FP3) pin A/<A to pin AA/4F (Ref. ASM 34-13/02).

EFF: ALL

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- (b) If the fault continues:
 - do the INTERFACE TEST of the ADR (system 3) (Ref. AMM TASK 34- 13-00-740-002)
 - do the necessary corrective actions: (Ref. TASK 34-13-00-810-911)
- B. Do the operational test given in Para. 3.

EFF: ALL
SROS

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TASK 30-31-00-810-856

Loss of the LGCIU 2 (5GA2)

- 1. Possible Causes
 - LGCIU-1 (5GA1)
 - LGCIU-2 (5GA2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
		72 74 74 000 004	D
		32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)
		32-31-71-400-001	Installation of the LGCIU (5GA1, 5GA2)
	AMM	32-31-73-000-001	Removal of the Proximity-Sensors 9GA(8GA), 11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA), 17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA), 35GA(34GA)
R	AMM	32-31-73-000-005	Removal of the NLG Proximity-Sensors 12GA, 13GA, 18GA, 19GA, 24GA, 25GA, 30GA, 31GA, 37GA (36GA), 39GA (38GA)
	AMM	32-31-73-400-001	Installation of the Proximity-Sensors 9GA(8GA), 11GA(10GA), 27GA(26GA), 29GA(28GA), 15GA(14GA), 17GA(16GA), 21GA(20GA), 23GA(22GA), 33GA(32GA)
R	AMM	32-31-73-400-005	Installation of the NLG Proximity-Sensors 12GA, 13GA, 18GA, 19GA, 24GA, 25GA, 30GA, 31GA, 37GA (36GA), 39GA (38GA)
R R R	AMM	32-69-00-740-001	BITE Check Landing Gear Control Interface Unit (LGCIU) using MCDU to Ensure that Continuous BITE is Operative
		30-31/01	
	ASM	30-31/02	

- 3. Fault Confirmation
 - A. Get the CFDS MENU page as follows:
 - (1) Push in the line key adjacent to the CFDS indication. Make sure that the CFDS menu page comes into view.
 - (2) Push in the line key adjacent to the LAST LEG REPORT.
 - (a) If there are CFDS messages related to ATA chapter 32:Refer to the para. 4.A.

EFF: ALL
SROS

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- (b) If there are CFDS messages related to ATA chapter 30.31:Refer to the para. 4.B.
- (c) Else:
 - Refer to the para. 4.C.

4. Fault Isolation

- A. If the fault symptom is identified by the ECAM warnings:
 - . ANTI ICE CAPT PROBES
 - . ANTI ICE F/O PITOT
 - . ANTI ICE STBY PITOT

and the CFDS messages related to ATA chapter 32:

- Do the bite test of the landing gear (Ref. AMM TASK 32-69-00-740-001).
- replace the defective LGCIU-1 (5GA1) or LGCIU-2 (5GA2) (Ref. AMM TASK 32-31-71-000-001) (Ref. AMM TASK 32-31-71-400-001).
- B. If the fault symptom is identified by the ECAM warnings:
 - . ANTI ICE CAPT PROBES
 - . ANTI ICE F/O PITOT
 - . ANTI ICE STBY PITOT

and CFDS messages related to ATA chapter 30.31:

- Refer to the related trouble shooting.
- C. If the fault symptom is identified by the ECAM warnings:
 - . ANTI ICE CAPT PROBES
 - . ANTI ICE F/O PITOT
 - . ANTI ICE STBY PITOT
 - (1) Do a check and repair the wiring from:
 - The PHC 1 (6DA1) pin A/E to the LGCIU 1 (5GA1) pin AB/14A (Ref. ASM 30-31/01).
 - The PHC 1 (6DA1) pin A/D to the LGCIU 2 (5GA2) pin AB/14A.
 - The PHC 2 (6DA2) pin E/E to the LGCIU 1 (5GA1) pin AB/14E (Ref. ASM 30-31/02).
 - The PHC 2 (6DA2) pin E/D to the LGCIU 2 (5GA2) pin AB/14E.
 - (2) If the fault continues, replace the sensors of proximity (Ref. AMM TASK 32-31-73-000-001) (Ref. AMM TASK 32-31-73-400-001) and (Ref. AMM TASK 32-31-73-400-005).

R

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EFF:

ALL

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TASK 30-31-00-810-861

Failure of the Pitot Probe without Maintenance Message on the Post Flight Report

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

Failure of the Pitot Probe (PHC1)

REFERENCE

DESIGNATION

3. Fault Confirmation

30-31-00-810-802

- A. Test Not Applicable
- 4. Fault Isolation
 - A. If the fault symptom is identified by the crew observation:

 ANTI ICE CAPT PITOT or ANTI ICE F/O PITOT or ANTI ICE STBY PITOT warning
 on the upper ECAM DU without maintenance message on the Post Flight
 Report, the related pitot probe is defective.
 - (1) Do the trouble shooting procedure (Ref. TASK 30-31-00-810-802)

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EFF: ALL 30-31-00

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WINDSHIELD ANTI-ICING AND DEFOGGING - FAULT ISOLATION PROCEDURES

TASK 30-42-00-810-801

Loss of the Left Windshield Temperature Sensor

- 1. Possible Causes
 - WINDSHIELD-L (3DG1)
 - WHC-1 (2DG1)
 - wiring from the WHC 1 (2DG1) to the L windshield (3DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
ESPM 20-44-11	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
AMM 56-11-11-000-001	Removal of the Windshield
AMM 56-11-11-400-001	Installation of the Windshield
ASM 30-42/01	
AWM 30-42-01	
30-42-00-991-001	Fig. 201
30-42-00-991-007	Fig. 202

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

DESIGNATION	IDENT. L	
J ANTI ICE/WHC/1	 5DG1	X13

EFF: ALL

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. If the test gives the maintenance message L WINDSHIELD SENSOR associated with ECAM message ANTI-ICE L WINDSHIELD, or ANTI-ICE L WINDOW:
 - (1) If the ECAM warning is triggered on ground with OAT greater than 40 deg.C or if the cockpit window/windshield is directly heading to the sun and air conditioning packs selected off:
 - (a) On the AIR COND panel 30VU:
 - select air conditioning PACK on (OFF legend off),
 - after 5 minutes, open and close C/B 5DG1 to reset WHC1,
 - select air conditioning PACK off (OFF legend on).
 - (2) If the fault continues:
 - disconnect the connector from the L windshield (3DG1) and do a check of the resistance between pin A/C and pin A/D. (Ref. Fig. 201/TASK 30-42-00-991-001, 202/TASK 30-42-00-991-007)
 - (a) If the resistance is not correct or out of the limits (more than 715 ohms (open circuit) or less than 370 ohms (short circuit)):

NOTE: If only one sensor is available we recommend the replacement of the L windshield (3DG1) if you operate in icing conditions.

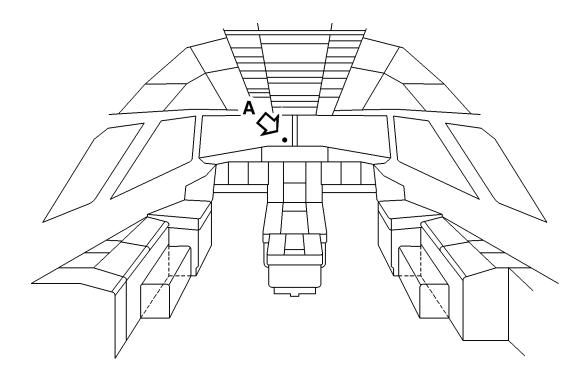
- make sure that the connector pins are not damaged
- do a check of the resistance of the sensor 2 between pins A/E and A/F for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
- 1 If the resistance of the sensor 2 is correct:
 - disconnect the wiring from pin A/C and connect it to pin A/E
 (Ref. AWM 30-42-01) and (Ref. ASM 30-42/01),
 - disconnect the wiring from pin A/D and connect it to pin A/F (Ref. AWM 30-42-01) and (Ref. ASM 30-42/01).
- 2 If the sensor 2 resistance is not correct or out of the limits and if a third sensor is installed in the windshield (in relation with the part number):
 - make sure that the connector pins are not damaged
 - do a check of the resistance of the sensor 3 between pins A/D and A/E for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
 - a If the resistance of the sensor 3 is correct:
 - disconnect the wiring from pin A/D (or A/F) and connect it to pin A/E (Ref. AWM 30-42-01) and (Ref. ASM 30-42/01)
 - disconnect the wiring from pin A/C (or A/E) and connect it to pin A/D (Ref. AWM 30-42-01) and (Ref. ASM 30-42/01).

EFF: 201-225, 227-227, 229-254, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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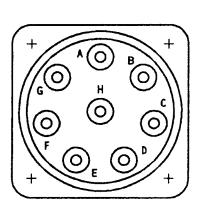


HEATING SYSTEM ₹ • B SENSOR 1 E • D SENSOR 3 (OPTION) ESENSOR 2 • E

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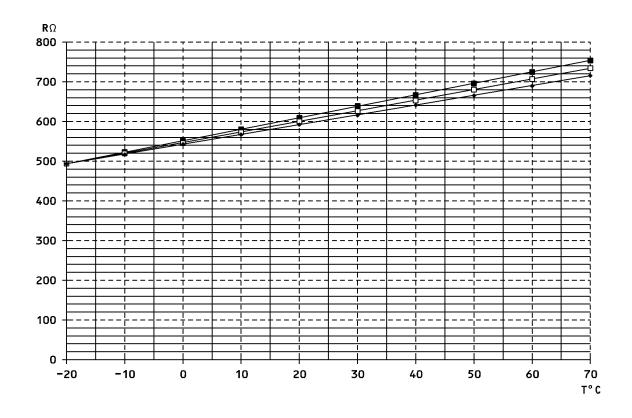
L Windshield Electrical Connector Figure 201/TASK 30-42-00-991-001

EFF: ALL SROS

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> Sensor Resistance Versus Temperature Figure 202/TASK 30-42-00-991-007

EFF: ALL SROS

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- <u>b</u> If the sensor 3 resistance is not correct or out of the limits (more than 715 ohms or less than 370 ohms):
 - replace the WINDSHIELD-L (3DG1), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001)
 - put the wiring back to its serviceable configuration (Ref. AWM 30-42-01) and (Ref. ASM 30-42/01).
- 3 If the fault continues:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001)
 and (Ref. AMM TASK 30-42-34-400-001).
- 4 If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L windshield (3DG1) pin B/A and pin B/B to pins A/C and A/D, pins B/A and B/B to pins A/E and A/F and pins B/A and B/B to pins A/D and A/E.
- (b) If the resistance is correct:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - 1 If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L windshield (3DG1) pin B/A and pin B/B to pins A/C and A/D, pins B/A and B/B to pins A/E and A/F and pins B/A and B/B to pins A/D and A/E.
 - 2 If the fault continues:
 - replace the WINDSHIELD-L (3DG1), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).

**ON A/C 255-275, 451-475,

- B. If the test gives the maintenance message L WINDSHIELD SENSOR:
 - disconnect the connector from the L windshield (3DG1) and do a check of the resistance between pin A/C and pin A/D. (Ref. Fig. 201/TASK 30-42-00-991-001, 202/TASK 30-42-00-991-007)
 - (1) If the resistance is not correct or out of the limits (more than 715 ohms (open circuit) or less than 370 ohms (short circuit)):
 - NOTE : If only one sensor is available we recommend the replacement of the L windshield (3DG1) if you operate in icing conditions.
 - make sure that the connector pins are not damaged
 - do a check of the resistance of the sensor 3 between pins A/D and A/E for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the sensor 3 is correct:
 - connect pins B/A and B/B of the WHC1 (2DG1) to pins A/D and A/E of the sensor 3 (Ref. ESPM 20-44-11) and (Ref. ASM 30-42/01).

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EFF: ALL

SROS

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- (b) If the sensor 3 resistance is not correct or out of the limits (more than 715 ohms or less than 370 ohms):
 - make sure that the connector pins are not damaged
 - do a check of the resistance of the sensor 2 between pins A/E and A/F for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
 - 1 If the resistance of the sensor 2 is correct:
 - connect pins B/A and B/B of the WHC1 (2DG1) to pins A/E and A/F of the sensor 2 (Ref. ESPM 20-44-11) and (Ref. ASM 30-42/01)
 - 2 If the resistance of the sensor 2 is not correct: - replace the WINDSHIELD-L (3DG1), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).
- (c) If the fault continues:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
- (d) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L windshield (3DG1) pin B/A and pin B/B to pins A/C and A/D and pins B/A and B/B to pins A/E and A/F.
- (2) If the resistance is correct:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L windshield (3DG1) pin B/A and pin B/B to pins A/C and A/D and pin B/A and pin B/B to pins A/E and A/F.
 - (b) If the fault continues:
 - replace the WINDSHIELD-L (3DG1), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).

**ON A/C ALL

C. Do the operational test given in Para. 3.

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TASK 30-42-00-810-802

Loss of Phase A of the Windshield Power Supply

- 1. Possible Causes
 - WHC-1 (2DG1)
 - wiring between pin A/G of the WHC 1 (2DG1) and ground terminal
 - wiring between pin A/A of the WHC 1 (2DG1) and the circuit breaker (1DG1)
 - C/B-ANTI ICE/L/WSHLD (1DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
ASM	30-42/01	•	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION	IDENT. LOCATION
123VU ANTI ICE/L/WHSLD	1DG1 AF10

EFF: ALL

30-42-00

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- B. If the test gives the maintenance message CHECK WINDSHIELD WHC1 SUPPLY:
 do a check of the status of the circuit breaker (1DG1).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at pin A/A of the WHC 1 (2DG1) (Ref. ASM 30-42/01).
 - (a) If there is 115VAC:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/G of the WHC 1 (2DG1).
 - 1 If there is no ground signal:
 - repair the wiring between pin A/G of the WHC 1 (2DG1) and ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between pin A/A of the WHC 1 (2DG1) and the circuit breaker (1DG1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - b If there is continuity:
 replace the C/B-ANTI ICE/L/WSHLD (1DG1).
 - (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the WHC-1 (2DG1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between pin A/A of the WHC 1 (2DG1) and the circuit breaker (1DG1).
 - a If there is a short to ground:
 - repair the related wiring.
 - b If there is no short to ground:
 - replace the C/B-ANTI ICE/L/WSHLD (1DG1).
 - (b) If the circuit breaker stays closed and the fault continues: - replace the WHC-1 (2DG1).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-42-00-810-803

Loss of the Windshield Heating System

- 1. Possible Causes
 - WINDSHIELD-L (3DG1)
 - WHC-1 (2DG1)
 - wiring from the WHC 1 (2DG1) to the L windshield (3DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
AMM	56-11-11-000-001	Removal of the Windshield
AMM	56-11-11-400-001	Installation of the Windshield
ASM	30-42/01	
30-4	2-00-991-001	Fig. 201

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

30-42-00-991-008-A Fig. 203

**ON A/C 701-749,

30-42-00-991-008 Fig. 203A

**ON A/C ALL

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).

EFF: ALL 30-42-00

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4. Fault Isolation

- A. If the test gives the maintenance message L WINDSHIELD:
 - disconnect the connector from the L windshield (3DG1) and do a check of the resistance between pin A and pin B. (Ref. Fig. 201/TASK 30-42-00-991-001)
- R **ON A/C 201-225, 227-227, 229-299, 426-499, 503-549, 551-599,

(Ref. Fig. 203/TASK 30-42-00-991-008-A)

**ON A/C 701-749,

(Ref. Fig. 203A/TASK 30-42-00-991-008)

**ON A/C ALL

- (1) If the resistance is more than 14 ohms or less than 10 ohms: - replace the WINDSHIELD-L (3DG1), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).
- (2) If the resistance is between 10 ohms and 14 ohms:
 - (a) Replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L windshield (3DG1) pin A/C and pin A/D to pin A/A and pin A/B (Ref. ASM 30-42/01).
- B. Do the operational test given in Para. 3.

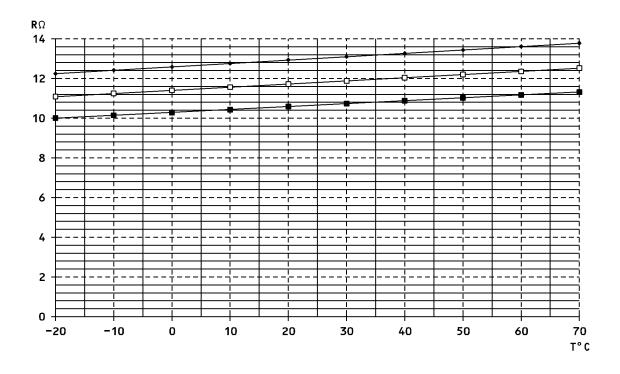
30-42-00

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EFF: ALL

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Heating Coat Resistance Versus Temperaure - Fixed Window Film Figure 203/TASK 30-42-00-991-008-A

R EFF: 201-225, 227-227, 229-299, 426-499, 503-549, 551-599, SROS

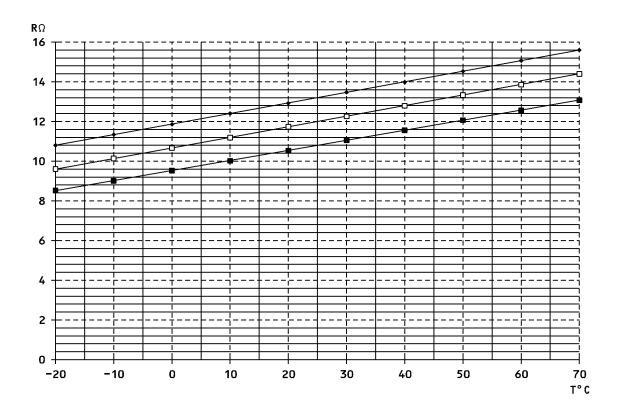
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30 42 00

30-42-00

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Heating Coat Resistance Versus Temperature - Fixed Window Film Figure 203A/TASK 30-42-00-991-008

R EFF: 701-749, SROS 30-42-00

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TASK 30-42-00-810-804

Loss of the Right Windshield Temperature Sensor

- 1. Possible Causes
 - WINDSHIELD-R (3DG2)
 - WHC-2 (2DG2)
 - wiring from the WHC 2 (2DG2) to the R windshield (3DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
ESPM 20-44-11		
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM 56-11-11-000-001	Removal of the Windshield	
AMM 56-11-11-400-001	Installation of the Windshield	
ASM 30-42/02		
AWM 30-42-02		
30-42-00-991-007	Fig. 202	
30-42-00-991-002	Fig. 204	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT. LO	CATION
122VU	ANTI ICE/WHC/2	5DG2	w13

EFF: ALL

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-450, 476-499, 503-549, R 551-599, 701-749,

- B. If the test gives the maintenance message R WINDSHIELD SENSOR associated with ECAM message ANTI-ICE R WINDSHIELD, or ANTI-ICE R WINDOW:
 - (1) If the ECAM warning is triggered on ground with OAT greater than 40 deg.C or if the cockpit window/windshield is directly heading to the sun and air conditioning packs selected off:
 - select air conditioning PACK on,
 - after 5 minutes, open and close C/B 5DG2 to reset WHC2.
 - (2) If the fault continues:
 - disconnect the connector from the R windshield (3DG2) and do a check of the resistance between pins A/C and A/D. (Ref. Fig. 202/TASK 30-42-00-991-007, 204/TASK 30-42-00-991-002)
 - (a) If the resistance is not correct or out of the limits (more than 715 ohms (open circuit) or less than 370 ohms (short circuit)):

NOTE: If only one sensor is available we recommend the replacement of the WINDSHIELD-R (3DG2) if you operate in icing conditions.

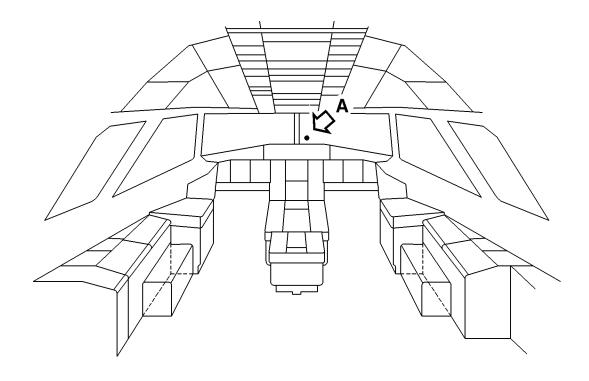
- make sure that the connector pins are not damaged
- do a check of the resistance of the sensor 2 between pins A/E and A/F for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
- 1 If the resistance of the sensor 2 is correct:
 - disconnect the wiring from pin A/C and connect it to pin A/E
 (Ref. AWM 30-42-02) and (Ref. ASM 30-42/02),
 - disconnect the wiring from pin A/D and connect it to pin A/F (Ref. AWM 30-42-02) and (Ref. ASM 30-42/02).
- If the resistance of the sensor 2 is not correct or out of limits and if a third sensor is installed in the windshield (in relation with the part number):
 - make sure that the connector pins are not damaged
 - do a check of the resistance of the sensor 3 between pins A/D and A/E for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - a If the resistance of the sensor 3 is correct:
 - disconnect the wiring from pin A/D (or A/F) and connect it to pin A/E (Ref. AWM 30-42-02) and (Ref. ASM 30-42/02),
 - disconnect the wiring from pin A/C (or A/E) and connect it to pin A/D (Ref. AWM 30-42-02) and (Ref. ASM 30-42/02).

EFF: 201-225, 227-227, 229-254, 276-299, 426-450, 476-499, 503-549, 551-599, 701-749,

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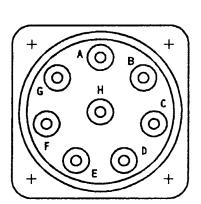
HEATING SYSTEM A

B

SENSOR 1

SENSOR 3

(OPTION)
SENSOR 2



R Windshield Electrical Connector Figure 204/TASK 30-42-00-991-002

EFF : ALL
SROS
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03

30 42 00

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- b If the sensor 3 resistance is not correct:
 - replace the WINDSHIELD-R (3DG2), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).
 - put the wiring back to its serviceable configuration (Ref. AWM 30-42-02) and (Ref. ASM 30-42/02).
- c If the fault continues:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
- 3 If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R windshield (3DG2) pins B/A and B/B to pins A/C and A/D and pins B/A and B/B to pins A/E and A/F and pins B/A and B/B to pins A/D and A/E.
- (b) If the resistance is correct:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - 1 If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R windshield (3DG2) pins B/A and B/B to pins A/C and A/D and pins B/A and B/B to pins A/E and A/F and pins B/A and B/B to pins A/D and A/E.
 - 2 If the fault continues:
 - replace the WINDSHIELD-R (3DG2), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).

**ON A/C 255-275, 451-475,

- B. If the test gives the maintenance message R WINDSHIELD SENSOR:
 - disconnect the connector from the R windshield (3DG2) and do a check of the resistance between pins A/C and A/D. (Ref. Fig. 202/TASK 30-42-00-991-007, 204/TASK 30-42-00-991-002)
 - (1) If the resistance is not correct or out of the limits (more than 715 ohms (open circuit) or less than 370 ohms (short circuit)):
 - <u>NOTE</u>: If only one sensor is available we recommend the replacement of the WINDSHIELD-R (3DG2) if you operate in icing conditions.
 - make sure that the connector pins are not damaged
 - do a check of the resistance of the sensor 3 between pins A/D and A/E for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the sensor 3 is correct:
 - connect pins B/A and B/B of the WHC2 (2DG2) to pins A/D and A/E of the sensor 3 (Ref. ESPM 20-44-11) and (Ref. ASM 30-42/02).

EFF: ALL

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- (b) If the resistance of the sensor 3 is not correct or out of the limits (more than 715 ohms or less than 370 ohms):
 - make sure that the connector pins are not damaged
 - do a check of the resistance of the sensor 2 between pins A/E and A/F for correct value. (Ref. Fig. 202/TASK 30-42-00-991-007)
 - 1 If the resistance of the sensor 2 is correct:
 - connect pins B/A and B/B of the WHC2 (2DG2) to pins A/E and A/F of the sensor 2 (Ref. ESPM 20-44-11) and (Ref. ASM 30-42/02).
 - 2 If the sensor 2 resistance is not correct:
 replace the WINDSHIELD-R (3DG2), (Ref. AMM TASK 56-11-11 000-001) and (Ref. AMM TASK 56-11-11-400-001).
- (c) If the fault continues:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
- (d) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R windshield (3DG2) pins B/A and B/B to pins A/C and A/D and pins B/A and B/B to pins A/E and A/F.
- (2) If the resistance is correct:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R windshield (3DG2) pins B/A and B/B to pins A/C and A/D and pins B/A and B/B to pins A/E and A/F.
 - (b) If the fault continues:
 - replace the WINDSHIELD-R (3DG2), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).

**ON A/C ALL

C. Do the operational test given in Para. 3.

30-42-00

EFF:

ALL

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-805

Loss of Phase A of the Windshield Power Supply

1. Possible Causes

- WHC-2 (2DG2)
- wiring between pin A/G of the WHC 2 and the ground terminal
- wiring between pin A/A of the WHC 2 and the circuit breaker (1DG2)
- C/B-ANTI ICE/R/WSHLD (1DG2)
- wiring between pin A/A of the WHC 1 (2DG1) and the circuit breaker (1DG2)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
A MM	30-42-00-710-001	Occasional Took of the Hindehield Asti Toise and	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
ASM	30-42/02		

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
123VU	ANTI ICE/R/WHSLD	1DG2	AF03

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EFF :

ALL

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- B. If the test gives the maintenance message CHECK WINDSHIELD WHC2 SUPPLY:
 do a check of the status of the circuit breaker (1DG2).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at pin A/A of the WHC 2 (2DG2) (Ref. ASM 30-42/02).
 - (a) If there is 115VAC:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/G of the WHC 2 (2DG2).
 - 1 If there is no ground signal:
 - repair the wiring between pin A/G of the WHC 2 and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between pin A/A of the WHC 2 and the circuit breaker (1DG2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - b If there is continuity:
 replace the C/B-ANTI ICE/R/WSHLD (1DG2).
 - (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the WHC-2 (2DG2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between pin A/A of the WHC 1 (2DG1) and the circuit breaker (1DG2).
 - \underline{a} If there is a short to ground:
 - repair the related wiring.
 - $\underline{\mathbf{b}}$ If there is no short to ground:
 - replace the C/B-ANTI ICE/R/WSHLD (1DG2).
 - (b) If the circuit breaker stays closed and the fault continues: - replace the WHC-2 (2DG2).
- C. Do the operational test given in Para. 3.

EFF: ALL

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TASK 30-42-00-810-806

Loss of the Windshield Heating System

- 1. Possible Causes
 - WINDSHIELD-R (3DG2)
 - WHC-2 (2DG2)
 - wiring from the WHC 2 (2DG2) to the R windshield (3DG2)
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION
	AMM	30-42-00-710-001	Operational Test of the Windshield Asti-Toing and
	AMM	30-42-00-7 10-00 1	Operational Test of the Windshield Anti-Icing and Defogging
	AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
	AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
	AMM	56-11-11-000-001	Removal of the Windshield
	AMM	56-11-11-400-001	Installation of the Windshield
		30-42/02	
R	**0N	A/C 201-225, 227-227	, 229-299, 426-499, 503-549, 551-599,
	30-42	2-00-991-008-A	Fig. 203
	**ON	A/C 701-749,	
	30-42	2-00-991-008	Fig. 203A
	**0N	A/C ALL	
	30-42	2-00-991-002	Fig. 204

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).

EFF: ALL SROS

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4. Fault Isolation

- A. If the test gives the maintenance message R WINDSHIELD:
 - disconnect the connector from the R windshield (3DG2) and do a check of the resistance between pin A and pin B.
- R **ON A/C 201-225, 227-227, 229-299, 426-499, 503-549, 551-599,

(Ref. Fig. 203/TASK 30-42-00-991-008-A)

**ON A/C 701-749,

(Ref. Fig. 203A/TASK 30-42-00-991-008)

**ON A/C ALL

(Ref. Fig. 204/TASK 30-42-00-991-002)

- (1) If the resistance is more than 14 ohms or less than 10 ohms: - replace the WINDSHIELD-R (3DG2), (Ref. AMM TASK 56-11-11-000-001) and (Ref. AMM TASK 56-11-11-400-001).
- (2) If the resistance is between 10 ohms and 14 ohms:
 - (a) Replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R windshield (3DG2) pin A/C and pin A/D to pin A/A and pin A/B (Ref. ASM 30-42/02).
- B. Do the operational test given in Para. 3.

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EFF: ALL

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TASK 30-42-00-810-807

Loss of Phase B of the L Windshield and L Side Windows Power Supply

- 1. Possible Causes
 - WHC-1 (2DG1)
 - wiring between the WHC 1 (2DG1) pin A/G and the ground terminal
 - wiring
 - circuit breaker (1DG1) and/or between the WHC 1 pin A/G and the circuit breaker
 - C/B-ANTI ICE/L/WSHLD (1DG1)
 - C/B-ANTI ICE/WINDOWS/L (4DG1)
- 2. Job Set-up Information
 - A. Referenced Information

DEFEDENCE DESTANTION

REFERENCE DESIGNATION

AMM 30-42-00-710-001 Operational Test of the Windshield Anti-Icing and

ASM 30-42/01

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation

123VU ANTI ICE/L/WHSLD

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

Defogging

PANEL DESIGNATION IDENT. LOCATION
122VU ANTI ICE/WINDOWS/L 4DG1 X14

- B. If the test gives the maintenance message CHECK WINDSHIELD WHC1 SUPPLY:
 do a check of the status of the circuit breakers (1DG1) and (4DG1).
 - (1) If the circuit breaker (1DG1) and/or the circuit breaker (4DG1) are/is closed:
 - do a check for 115VAC at pin A/B and pin B/G of the WHC 1 (2DG1) (Ref. ASM 30-42/01).

EFF: ALL

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AF10

1DG1

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- (a) If there is no 115VAC:
 - do a check for a ground signal at pin A/G of the WHC 1 (2DG1).
 - 1 If there is no ground signal:
 - repair the wiring between the WHC 1 (2DG1) pin A/G and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the WHC 1 (2DG1) pin A/B and the circuit breaker (1DG1) and/or between the WHC 1 (2DG1) pin B/G and the circuit breaker (4DG1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - b If there is continuity:
 - replace the circuit breaker (1DG1) and/or the circuit breaker (4DG1).
- (2) If the circuit breakers are open:
 - close the circuit breakers.
 - (a) If the circuit breakers trip again:
 - replace the WHC-1 (2DG1) circuit breaker (1DG1) and/or between the WHC 1 pin A/G and the circuit breaker.
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the WHC 1 pin A/B and the circuit breaker (1DG1) and/or between the WHC 1 pin A/G and the circuit breaker (4DG1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - b If there is no short to ground:
 - replace the C/B-ANTI ICE/L/WSHLD (1DG1) and/or the C/B-ANTI ICE/WINDOWS/L (4DG1).
 - (b) If the circuit breakers stay closed and the fault continues: - replace the WHC-1 (2DG1).
- C. Do the operational test given in Para. 3.

EFF: ALL 30-42-00

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-808

Loss of Phase B of the R Windshield and R Side Windows Power Supply

- 1. Possible Causes
 - WHC-2 (2DG2)
 - wiring between the WHC 2 pin A/G and the ground terminal
 - wiring between the WHC 2 pin A/B and the circuit breaker (1DG2)
 - wiring between the WHC 2 pin B/G and the circuit breaker (4DG2)
 - C/B-ANTI ICE/R/WSHLD (1DG2)
 - C/B-ANTI ICE/WINDOWS/R (4DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE DESIGNATION

ANN 70 /2 00 740 004

AMM 30-42-00-710-001 Operational Test of the Windshield Anti-Icing and Defogging

ASM 30-42/01

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/WINDOWS/R 4DG2 W14

123VU ANTI ICE/R/WHSLD 1DG2 AF03

- B. If the test gives the maintenance message CHECK WINDSHIELD WHC2 SUPPLY:
 do a check of the status of the circuit breakers (1DG2) and (4DG2).
 - (1) If the circuit breaker (1DG2) and/or the circuit breaker (4DG2) are/is closed:
 - do a check for 115VAC at pin A/B and pin B/G of the WHC 2 (2DG2)
 (Ref. ASM 30-42/01).

EFF: ALL

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- (a) If there is no 115VAC:
 - do a check for a ground signal at pin A/G of the WHC 2 (2DG2).
 - 1 If there is no ground signal:
 - repair the wiring between the WHC 2 pin A/G and the ground terminal.
 - 2 If there is ground signal:
 - do a check of the wiring between the WHC 2 pin A/B and the circuit breaker (1DG2) and/or do a check of the wiring between the WHC 2 pin B/G and the circuit breaker (4DG2).
 - a If there is no continuity:
 - repair the above wiring.
 - b If there is continuity:
 - replace the circuit breaker (1DG2) and the circuit breaker (4DG2).
- (2) If the circuit breakers are open:
 - close the circuit breakers.
 - (a) If the circuit breakers trip again:
 - replace the WHC-2 (2DG2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the WHC 2 pin A/B and the circuit breaker (1DG2) and at the wiring between the WHC 2 pin B/G and the circuit breaker (4DG2).
 - a If there is a short to ground:
 - repair the related wiring.
 - b If there is no short to ground:
 - replace the C/B-ANTI ICE/R/WSHLD (1DG2) and/or the C/B-ANTI ICE/WINDOWS/R (4DG2).
 - (b) If the circuit breakers stay closed and the fault continues: - replace the WHC-2 (2DG2).
- C. Do the operational test given in Para. 3.

EFF: ALL 30-42-00

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-809

Loss of the Temperature Sensor of the Left Sliding Window

- 1. Possible Causes
 - WINDOW-SLIDING, L (8DG1)
 - WHC-1 (2DG1)
 - wiring from the WHC1 (2DG1) to the L sliding window (8DG1)
 - wiring from the WHC 1 (2DG1) to the L sliding window (8DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM	56-12-11-000-001	Removal of the Sliding Windows	
AMM	56-12-11-400-001	Installation of the Sliding Windows	
ASM	30-42/01	_	
AWM	30-42-03		
30-4	2-00-991-007	Fig. 202	
30-42-00-991-003		Fig. 205	

R

R

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/WHC/1 5DG1 X13

EFF: ALL

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, R 701-749,

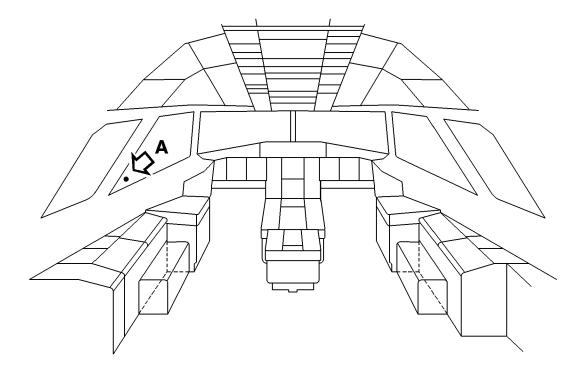
- B. If the test gives the maintenance message L SLIDING WINDOW SENSOR associated with ECAM message ANTI-ICE L WINDSHIELD, or ANTI-ICE L WINDOW:
 - (1) If the WHC1 PN 6664287 is installed and if the ECAM warning is triggered on ground with OAT greater than 40 deg.C or if the cockpit window/windshield is directly heading to the sun and air conditioning packs off:
 - operate the air conditioning packs
 - after 5 minutes, open and close circuit breaker 5DG1 to do a reset of the WHC1.
 - (a) If the fault continues:
 refer to Para. C.
 - (2) If the WHC1 PN 6664287 is not installed: refer to Para. C.
- C. If the test gives the maintenance message L SLIDING WINDOW SENSOR associated with ECAM message ANTI-ICE L WINDSHIELD, or ANTI-ICE L WINDOW:
 - disconnect the connector from the L sliding window (8DG1) and do a check of the resistance between pins A/C and A/D.
 (Ref. Fig. 202/TASK 30-42-00-991-007, 205/TASK 30-42-00-991-003)
 - (1) If the resistance is more than 715 ohms (open circuit) or less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/W and B/X of the WHC1 (2DG1) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-03) and (Ref. ASM 30-42/01).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-SLIDING, L (8DG1), (Ref. AMM TASK 56-12-11-000-001) and (Ref. AMM TASK 56-12-11-400-001).
 - (c) If the fault continues:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC1 (2DG1) to the L sliding window (8DG1) pins B/W and B/X to pins A/C and A/D and pins B/W and B/X to pins A/E and A/F.

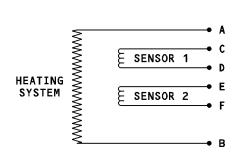
EFF: 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, 701-749,

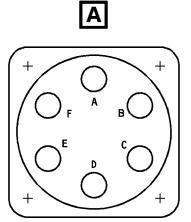
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L Sliding Window Electrical Connector Figure 205/TASK 30-42-00-991-003

EFF : ALL
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- (2) If the resistance is between 370 ohms and 715 ohms:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the WHC1 (2DG1) to the L sliding window (8DG1) pins B/W and B/X to pins A/C and A/D and pins B/W and B/X to pins A/E and A/F.

**ON A/C 255-275,

- C. If the test gives the maintenance message L SLIDING WINDOW SENSOR:
 - disconnect the connector from the L sliding window (8DG1) and do a check of the resistance between pins A/C and A/D.
 (Ref. Fig. 202/TASK 30-42-00-991-007, 205/TASK 30-42-00-991-003)
 - (1) If the resistance is more than 715 ohms (open circuit) or less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/W and B/X of the WHC1 (2DG1) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-03) and (Ref. ASM 30-42/01).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-SLIDING, L (8DG1), (Ref. AMM TASK 56-12-11-000-001) and (Ref. AMM TASK 56-12-11-400-001).
 - (c) If the fault continues:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L sliding window (8DG1) pins B/W and B/X to pins A/C and A/D and pins B/W and B/X to pins A/E and A/F.
 - (2) If the resistance is between 370 ohms and 715 ohms:
 - (a) Replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L sliding window (8DG1) pins B/W and B/X to pins A/C and A/D and pins B/W and B/X to pins A/E and A/F.

EFF: ALL

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**ON A/C ALL

D. Do the operational test given in Para. 3.

EFF: ALL SROS 30-42-00

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TASK 30-42-00-810-810

Loss of the Temperature Sensor of the Left Fixed Window

- 1. Possible Causes
 - WINDOW-FIXED, L (7DG1)
 - WHC-1 (2DG1)
 - wiring from the WHC1 (2DG1) to the L fixed window (7DG1)
 - wiring from the WHC 1 (2DG1) to the L fixed window (7DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and	
AMM 30-42-34-000-001	<pre>Defogging Removal of the Window Heat Computer (WHC)</pre>	
AMM 30-42-34-400-001	(2DG1,2DG2). Installation of the Window Heat Computer (WHC)	
AMM 56-11-12-000-001	(2DG1,2DG2). Removal of the Fixed Windows	
AMM 56-11-12-400-002 ASM 30-42/01	Installation of the Fixed Windows	
AWM 30-42-03	-1 000	
30-42-00-991-007 30-42-00-991-005	Fig. 202 Fig. 206	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
122VU		5DG1	X13

EFF: ALL

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, R 701-749,

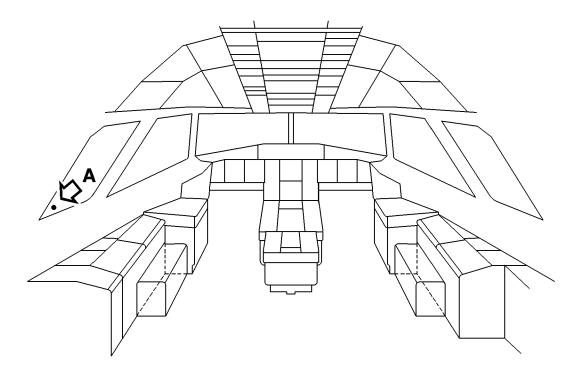
- B. If the test gives the maintenance message L FIXED WINDOW SENSOR associated with ECAM message ANTI-ICE L WINDSHIELD, or ANTI-ICE L WINDOW:
 - (1) If the WHC1 PN 6664287 is installed and if the ECAM warning is triggered on ground with OAT greater than 40 deg.C or if the cockpit window/windshield is directly heading to the sun and air conditioning packs off:
 - operate the air conditioning packs
 - after 5 minutes, open and close circuit breaker 5DG1 to do a reset of the WHC1.
 - (a) If the fault continues:
 refer to Para. C.
 - (2) If the WHC1 PN 6664287 is not installed: refer to Para. C.
- C. If the test gives the maintenance message L FIXED WINDOW SENSOR associated with ECAM message ANTI-ICE L WINDSHIELD, or ANTI-ICE L WINDOW:
 - disconnect the connector from the L fixed window (7DG1) and do a check of the resistance between pins A/C and A/D. (Ref. Fig. 206/TASK 30-42-00-991-005)
 - (1) If the resistance is more than 715 ohms (open circuit) or is less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/U and B/V of the WHC1 (2DG1) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-03) and (Ref. ASM 30-42/01).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-FIXED, L (7DG1), (Ref. AMM TASK 56-11-12-000-001) and (Ref. AMM TASK 56-11-12-400-002).
 - (c) If the fault continues:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC1 (2DG1) to the L fixed window (7DG1) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.

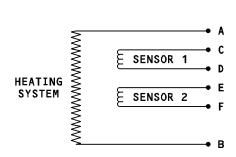
EFF: 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, 701-749,

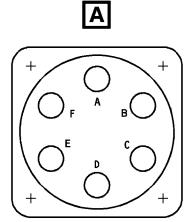
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L Fixed Window Electrical Connector Figure 206/TASK 30-42-00-991-005

EFF : ALL

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- (2) If the resistance is between 370 ohms and 715 ohms:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the WHC1 (2DG1) to the L fixed window (7DG1) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.

**ON A/C 255-275,

- C. If the test gives the maintenance message L FIXED WINDOW SENSOR:
 - disconnect the connector from the L fixed window (7DG1) and do a check of the resistance between pins A/C and A/D. (Ref. Fig. 202/TASK 30-42-00-991-007, 206/TASK 30-42-00-991-005)
 - (1) If the resistance is more than 715 ohms (open circuit) (OAT more than 40 deg. C) or is less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/U and B/V of the WHC1 (2DG1) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-03) and (Ref. ASM 30-42/01).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-FIXED, L (7DG1), (Ref. AMM TASK 56-11-12-000-001) and (Ref. AMM TASK 56-11-12-400-002).
 - (c) If the fault continues:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L fixed window (7DG1) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.
 - (2) If the resistance is between 370 ohms and 715 ohms:
 - (a) Replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L fixed window (7DG1) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.

EFF: ALL

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**ON A/C ALL

D. Do the operational test given in Para. 3.

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TASK 30-42-00-810-811

Loss of the Heating System of the Sliding Window

- 1. Possible Causes
 - WINDOW-SLIDING, L (8DG1)
 - WHC-1 (2DG1)
 - wiring from the WHC 1 (2DG1) to the L sliding window (8DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM 56-12-11-000-001	Removal of the Sliding Windows	
AMM 56-12-11-400-001	Installation of the Sliding Windows	
ASM 30-42/01		
30-42-00-991-003	Fig. 205	
30-42-00-991-009	Fig. 207	
30-42-00-991-010	Fig. 208	
30-42-00-991-011	Fig. 209	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message L SLIDING WINDOW:
 - disconnect the connector from the L sliding window (8DG1) and do a check of the resistance between pin A and pin B.

NOTE: This procedure is applicable to these glass windows:

- PPG supplier (P/N: NP...)
- SPS supplier (P/N: SPS...).

(Ref. Fig. 205/TASK 30-42-00-991-003, 207/TASK 30-42-00-991-009, 208/TASK 30-42-00-991-010, 209/TASK 30-42-00-991-011)

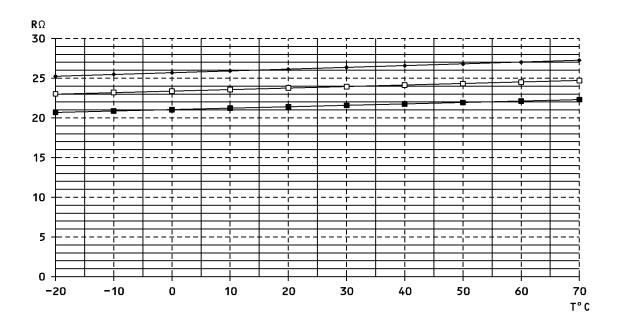
EFF: ALL

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> Illustration of the Heating Coat Resistance Versus Temperature - Sliding Window - Old SPS Windows standard

Figure 207/TASK 30-42-00-991-009

EFF: ALL SROS

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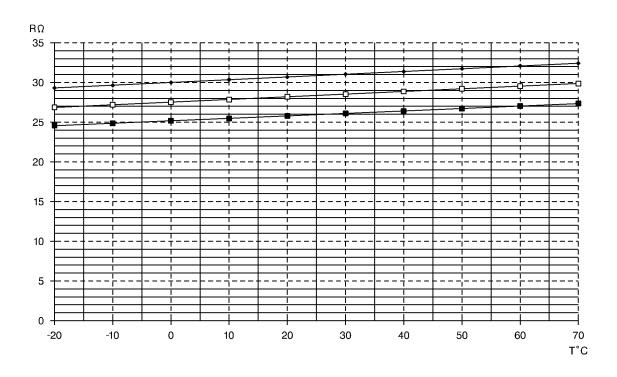


Illustration of the Heating Coat Resistance Versus Temperature - Sliding

Lateral Window - SPS windows standard

Figure 208/TASK 30-42-00-991-010

EFF: ALL

30-42-00

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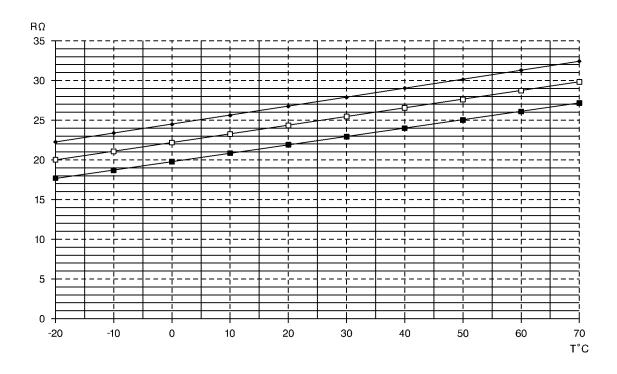


Illustration of the Heating Coat Resistance Versus Temperature - Sliding
Lateral Window - PPG Windows standard
Figure 209/TASK 30-42-00-991-011

EFF: ALL

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- (1) If the resistance is not correct:
 - replace the WINDOW-SLIDING, L (8DG1), (Ref. AMM TASK 56-12-11-000-001) and (Ref. AMM TASK 56-12-11-400-001).
- (2) If the resistance is correct:
 - (a) Replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L sliding window (8DG1) pin B/J to pin A/A (Ref. ASM 30-42/01).
- B. Do the operational test given in Para. 3.

EFF: ALL 30-42-00

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-812

Loss of the Heating System of the Fixed Window

- 1. Possible Causes
 - WINDOW-FIXED, L (7DG1)
 - WHC-1 (2DG1)
 - wiring from the WHC 1 (2DG1) to the L fixed window (7DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and	
	Defogging	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM 56-11-12-000-001	Removal of the Fixed Windows	
AMM 56-11-12-400-002	Installation of the Fixed Windows	
30-42-00-991-005	Fig. 206	
30-42-00-991-012	Fig. 210	
30-42-00-991-013	Fig. 211	
30-42-00-991-014	Fig. 212	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message L FIXED WINDOW:
 - disconnect the connector from the L fixed window (7DG1) and do a check of the resistance between pin A and pin B.

NOTE: This procedure is applicable to these glass windows:

- PPG supplier (P/N: NP...)
- SPS supplier (P/N: SPS...).

(Ref. Fig. 206/TASK 30-42-00-991-005, 210/TASK 30-42-00-991-012, 211/TASK 30-42-00-991-013, 212/TASK 30-42-00-991-014)

EFF: ALL

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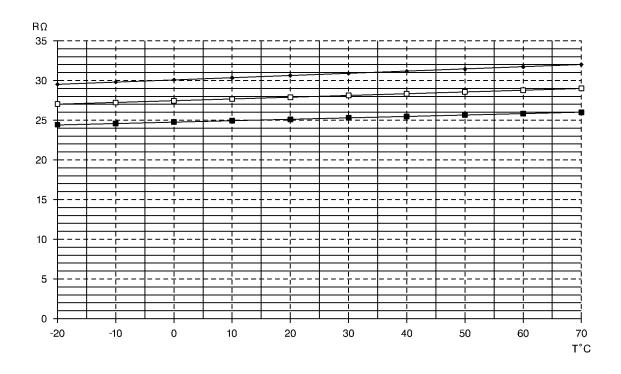


Illustration of the Heat

Illustration of the Heating Coat Resistance Versus Temperature - Fixed Lateral Window - Old SPS windows standard Figure 210/TASK 30-42-00-991-012

EFF : ALL

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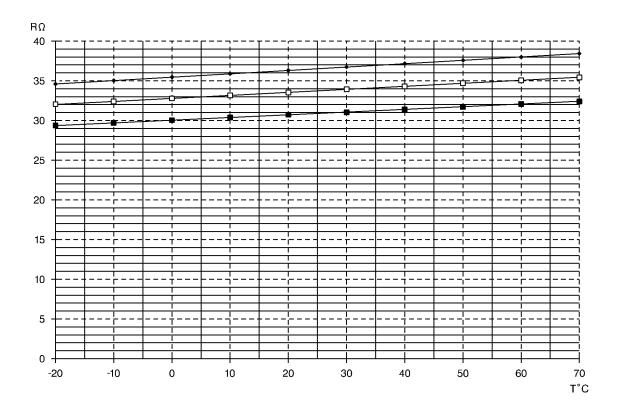


Illustration of the Heating Coat Resistance Versus Temperature - Fixed Lateral Window - SPS windows standard Figure 211/TASK 30-42-00-991-013

EFF: ALL

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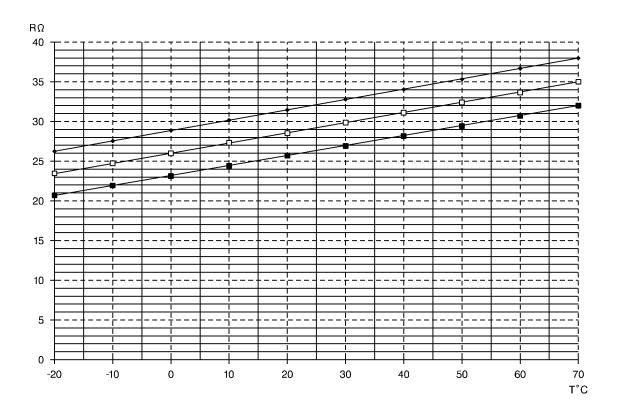


Illustration of the Heating Coat Resistance Versus Temperature - Fixed Lateral Window - PPG windows standard Figure 212/TASK 30-42-00-991-014

EFF : ALL

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- (1) If the resistance is not correct:
 - replace the WINDOW-FIXED, L (7DG1), (Ref. AMM TASK 56-11-12-000-001) (Ref. AMM TASK 56-11-12-400-002).
- (2) If the resistance is correct:
 - (a) Replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the L fixed window (7DG1) pin B/H to pin A/A.
- B. Do the test given in para. 3.

30-42-00

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-813

Loss of the Power Supply of the Side Windows

- 1. Possible Causes
 - WHC-1 (2DG1)
 - wiring between the WHC 1 pin A/G and the ground terminal
 - wiring between the WHC 1 pin B/G and the circuit breaker (4DG1)
 - C/B-ANTI ICE/WINDOWS/L (4DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
ASM	30-42/01	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT. LOCATION
122VU	J ANTI ICE/WINDOWS/L	4DG1 X14

EFF: ALL

30-42-00

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- B. If the test gives the maintenance message CHECK WINDOWS WHC 1 SUPPLY:
 do a check of the status of the circuit breaker (4DG1).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at pin B/G of the WHC 1 (2DG1) (Ref. ASM 30-42/01).
 - (a) If there is 115VAC:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/G of the WHC 1 (2DG1).
 - 1 If there is no ground signal:
 - repair the wiring between the WHC 1 pin A/G and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the WHC 1 pin B/G and the circuit breaker (4DG1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DG1).
 - (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the WHC-1 (2DG1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the WHC 1 pin B/G and the circuit breaker (4DG1).
 - <u>a</u> If there is a short to ground:
 - repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/WINDOWS/L (4DG1).
- C. Do the operational test given in Para. 3.

EFF: ALL

30-42-00

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TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-814

Loss of the Temperature Sensor of the Right Sliding Window

- 1. Possible Causes
 - WINDOW-SLIDING, R (8DG2)
 - WHC-2 (2DG2)
 - wiring from the WHC2 (2DG2) to the R sliding window (8DG2)
 - wiring from the WHC 2 (2DG2) to the R sliding window (8DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM	56-12-11-000-001	Removal of the Sliding Windows	
AMM	56-12-11-400-001	Installation of the Sliding Windows	
ASM	30-42/02	<u>-</u>	
AWM	30-42-04		
30-4	2-00-991-007	Fig. 202	
30-4	2-00-991-004	Fig. 213	

R

R

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

EFF: ALL

30-42-00

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, R 701-749,

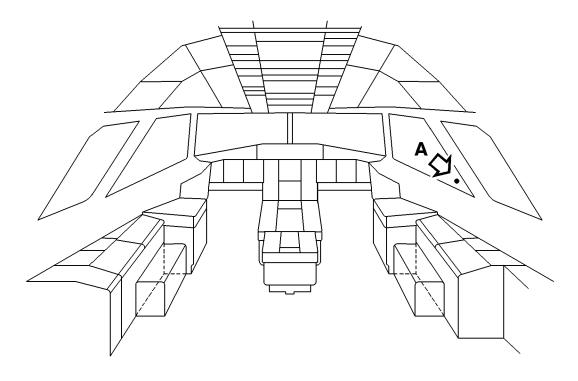
- B. If the test gives the maintenance message R SLIDING WINDOW SENSOR associated with ECAM message ANTI-ICE R WINDSHIELD, or ANTI-ICE R WINDOW:
 - (1) If the WHC2 PN 6664287 is installed and if the ECAM warning is triggered on ground with OAT greater than 40 deg.C or if the cockpit window/windshield is directly heading to the sun and air conditioning packs off:
 - operate the air conditioning packs
 - after 5 minutes, open and close circuit breaker 5DG2 to do a reset of the WHC2.
 - (a) If the fault continues:
 refer to Para. C.
 - (2) If the WHC2 PN 6664287 is not installed: refer to Para. C.
- C. If the test gives the maintenance message R SLIDING WINDOW SENSOR associated with ECAM message ANTI-ICE R WINDSHIELD, or ANTI-ICE R WINDOW:
 - disconnect the connector from the R sliding window (8DG2) and do a check of the resistance between pin A/C and pin A/D. (Ref. Fig. 213/TASK 30-42-00-991-004)
 - (1) If the resistance is more than 715 ohms (open circuit) or less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/W and B/X of the WHC2 (2DG2) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-04) and (Ref. ASM 30-42/02).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-SLIDING, R (8DG2), (Ref. AMM TASK 56-12-11-000-001) and (Ref. AMM TASK 56-12-11-400-001).
 - (c) If the fault continues:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC2 (2DG2) to the R sliding window (8DG2) pins B/W and B/X to pins A/D and A/C and pins B/W and B/X to pins A/E and A/F.

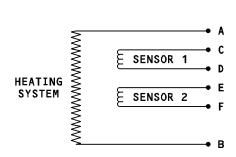
EFF: 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, 701-749,

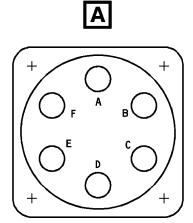
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R Sliding Window Electrical Connector Figure 213/TASK 30-42-00-991-004

EFF: ALL SROS

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- (2) If the resistance is between 370 ohms and 715 ohms:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the WHC2 (2DG2) to the R sliding window (8DG2) pins B/W and B/X to pins A/D and A/C and pins B/W and B/X to pins A/E and A/F.

**ON A/C 255-275,

- C. If the test gives the maintenance message R SLIDING WINDOW SENSOR:
 - disconnect the connector from the R sliding window (8DG2) and do a check of the resistance between pin A/C and pin A/D. (Ref. Fig. 202/TASK 30-42-00-991-007, 213/TASK 30-42-00-991-004)
 - (1) If the resistance is more than 715 ohms (open circuit) (OAT more than 40 deg. C) or less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 (Ref. Fig. 202/TASK 30-42-00-991-007)
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/W and B/X of the WHC2 (2DG2) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-04) and (Ref. ASM 30-42/02).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-SLIDING, R (8DG2), (Ref. AMM TASK 56-12-11-000-001) and (Ref. AMM TASK 56-12-11-400-001).
 - (c) If the fault continues:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R sliding window (8DG2) pins B/W and B/X to pins A/D and A/C and pins B/W and B/X to pins A/E and A/F.
 - (2) If the resistance is between 370 ohms and 715 ohms:
 - (a) Replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R sliding window (8DG2) pins B/W and B/X to pins A/D and A/C and pins B/W and B/X to pins A/E and A/F.

EFF: ALL

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**ON A/C ALL

D. Do the operational test given in Para. 3.

EFF: ALL SROS 30-42-00

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TASK 30-42-00-810-815

Loss of the Temperature Sensor of the Right Fixed Window

- 1. Possible Causes
 - WINDOW-FIXED, R (7DG2)
 - WHC-2 (2DG2)
 - wiring from the WHC2 (2DG2) to the R fixed window (7DG2)
 - wiring from the WHC 2 (2DG2) to the R fixed window (7DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM 56-11-12-000-001	Removal of the Fixed Windows	
AMM 56-11-12-400-002	Installation of the Fixed Windows	
ASM 30-42/02		
AWM 30-42-04		
30-42-00-991-006	Fig. 214	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

DESIGNATION	_	LOCATION
 ANTT TCF/WHC/2	50G2	W13

EFF: ALL

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R **ON A/C 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, R 701-749,

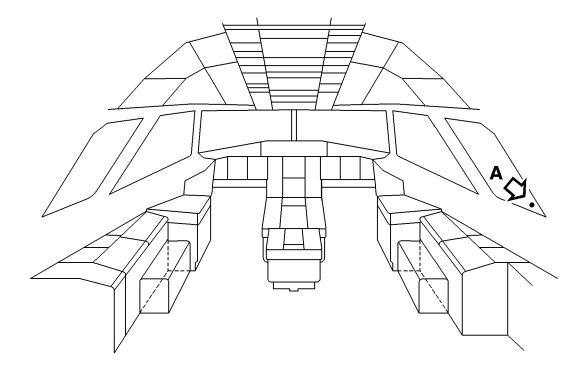
- B. If the test gives the maintenance message R FIXED WINDOW SENSOR associated with ECAM message ANTI-ICE R WINDSHIELD, or ANTI-ICE R WINDOW:
 - (1) If the WHC2 PN 6664287 is installed and if the ECAM warning is triggered on ground with OAT greater than 40 deg.C or if the cockpit window/windshield is directly heading to the sun and air conditioning packs off:
 - operate the air conditioning packs
 - after 5 minutes, open and close circuit breaker 5DG2 to do a reset of the WHC2.
 - (a) If the fault continues:
 refer to Para. C.
 - (2) If the WHC2 PN 6664287 is not installed: refer to Para. C.
- C. If the test gives the maintenance message R FIXED WINDOW SENSOR associated with ECAM message ANTI-ICE R WINDSHIELD, or ANTI-ICE R WINDOW:
 - disconnect the connector from the R fixed window (7DG2) and do a check of the resistance between pin A/C and pin A/D. (Ref. Fig. 214/TASK 30-42-00-991-006)
 - (1) If the resistance is more than 715 ohms (open circuit) or less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms.
 - connect pins B/U and B/V of the WHC2 (2DG2) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-04) and (Ref. ASM 30-42/02).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-FIXED, R (7DG2), (Ref. AMM TASK 56-11-12-000-001) and (Ref. AMM TASK 56-11-12-400-002).
 - (c) If the fault continues:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC2 (2DG2) to the R fixed window (7DG2) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.

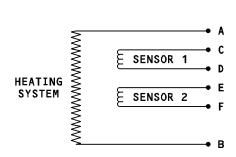
EFF: 201-225, 227-227, 229-254, 276-299, 426-499, 503-549, 551-599, 701-749,

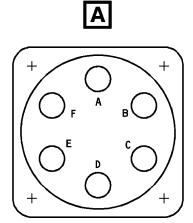
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R Fixed Window Electrical Connector Figure 214/TASK 30-42-00-991-006

EFF: ALL SROS

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- (2) If the resistance is between 370 ohms and 715 ohms:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) (Ref. AMM TASK 30-42-34-400-001).
 - (a) If the fault continues:
 - do a check and repair the wiring from the WHC2 (2DG2) to the R fixed window (7DG2) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.

**ON A/C 255-275,

- C. If the test gives the maintenance message R FIXED WINDOW SENSOR:
 - disconnect the connector from the R fixed window (7DG2) and do a check of the resistance between pin A/C and pin A/D. (Ref. Fig. 214/TASK 30-42-00-991-006)
 - (1) If the resistance is more than 715 ohms (open circuit) (OAT more than 40 deg. C) or less than 370 ohms (short circuit):
 - do a check of the resistance of the spare sensor between pins A/E and A/F for correct value.
 - (a) If the resistance of the spare sensor is between 370 ohms and 715 ohms:
 - connect pins B/U and B/V of the WHC2 (2DG2) to pins A/E and A/F of the spare sensor (Ref. AWM 30-42-04) and (Ref. ASM 30-42/02).
 - (b) If the resistance of the spare sensor is more than 715 ohms or less than 370 ohms:
 - replace the WINDOW-FIXED, R (7DG2), (Ref. AMM TASK 56-11-12-000-001) and (Ref. AMM TASK 56-11-12-400-002).
 - (c) If the fault continues:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (d) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R fixed window (7DG2) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.
 - (2) If the resistance is between 370 ohms and 715 ohms:
 - (a) Replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R fixed window (7DG2) pins B/U and B/V to pins A/D and A/C and pins B/U and B/V to pins A/E and A/F.

EFF: ALL

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**ON A/C ALL

D. Do the operational test given in Para. 3.

EFF: ALL SROS 30-42-00

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TASK 30-42-00-810-816

Loss of the Heating System of the Sliding Window

- 1. Possible Causes
 - WINDOW-SLIDING, R (8DG2)
 - WHC-2 (2DG2)
 - wiring from the WHC 2 (2DG2) to the R sliding window (8DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM 56-12-11-000-001	Removal of the Sliding Windows	
AMM 56-12-11-400-001	Installation of the Sliding Windows	
ASM 30-42/02		
30-42-00-991-009	Fig. 207	
30-42-00-991-010	Fig. 208	
30-42-00-991-011	Fig. 209	
30-42-00-991-004	Fig. 213	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message R SLIDING WINDOW:
 - disconnect the connector from the R sliding window (8DG2) and do a check of the resistance between pin A and pin B.

 ${\underline{\mathtt{NOTE}}}$: This procedure is applicable to these glass windows:

- PPG supplier (P/N: NP...)
- SPS supplier (P/N: SPS...).

(Ref. Fig. 207/TASK 30-42-00-991-009, 208/TASK 30-42-00-991-010, 209/TASK 30-42-00-991-011, 213/TASK 30-42-00-991-004)

EFF: ALL

30-42-00

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- (1) If the resistance is not correct:
 - replace the WINDOW-SLIDING, R (8DG2), (Ref. AMM TASK 56-12-11-000-001) and (Ref. AMM TASK 56-12-11-400-001).
- (2) If the resistance is correct:
 - (a) Replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R sliding window (8DG2) pin B/J to pin A/A (Ref. ASM 30-42/02).
- B. Do the operational test given in Para. 3.

EFF: ALL 30-42-00

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-817

Loss of the Heating System of the Fixed Window

- 1. Possible Causes
 - WINDOW-FIXED, R (7DG2)
 - WHC-2 (2DG2)
 - wiring from the WHC 2 (2DG2) to the R fixed window (7DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-00-710-001	Operational Test of the Windshield Anti-Icing and	
	Defogging	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
AMM 56-11-12-000-001	Removal of the Fixed Windows	
AMM 56-11-12-400-002	Installation of the Fixed Windows	
30-42-00-991-012	Fig. 210	
30-42-00-991-013	Fig. 211	
30-42-00-991-014	Fig. 212	
30-42-00-991-006	Fig. 214	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message R FIXED WINDOW:
 - disconnect the connector from the R fixed window (7DG2) and do a check of the resistance between pins A and B.

NOTE: This procedure is applicable to these glass windows:

- PPG supplier (P/N: NP...)
- SPS supplier (P/N: SPS...).

(Ref. Fig. 210/TASK 30-42-00-991-012, 211/TASK 30-42-00-991-013, 212/TASK 30-42-00-991-014, 214/TASK 30-42-00-991-006)

EFF: ALL

30-42-00

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- (1) If the resistance is not correct:
 - replace the WINDOW-FIXED, R (7DG2), (Ref. AMM TASK 56-11-12-000-001) and (Ref. AMM TASK 56-11-12-400-002).
- (2) If the resistance is correct:
 - (a) replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the R fixed window (7DG2) pin B/H to pin A/A.
- B. Do the operational test given in Para. 3.

EFF: ALL 30-42-00

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TASK 30-42-00-810-818

Loss of the Power Supply of the Side Windows

- 1. Possible Causes
 - WHC-2 (2DG2)
 - wiring between the WHC 2 pin A/G and the ground terminal
 - wiring between the WHC 2 pin B/G and the circuit breaker (4DG2)
 - C/B-ANTI ICE/WINDOWS/R (4DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	
ASM	30-42/02	•	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT. LOCATION
122VU	ANTI ICE/WINDOWS/R	4DG2 W14

EFF: ALL

30-42-00

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- B. If the test gives the maintenance message CHECK WINDOWS WHC 2 SUPPLY:
 do a check of the status of the circuit breaker (4DG2).
 - (1) If the circuit breaker is closed:
 - do a check for 115VAC at pin A/A of the WHC 2 (2DG2) (Ref. ASM 30-42/02).
 - (a) If there is 115VAC:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/G of the WHC 2 (2DG2).
 - 1 If there is no ground signal:
 - repair the wiring between the WHC 2 pin A/G and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the WHC 2 pin B/G and the circuit breaker (4DG2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DG2).
 - (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the WHC-2 (2DG2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the WHC 2 pin B/G and the circuit breaker (4DG2).
 - <u>a</u> If there is a short to ground:
 - repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/WINDOWS/R (4DG2).
 - (b) If the circuit breaker stays closed and the fault continues: - replace the WHC-2 (2DG2).
- C. Do the operational test given in Para. 3.

EFF: ALL

30-42-00

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TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-819

Loss of the Output Discretes (Windshield)

1. Possible Causes

- WHC-1 (2DG1)
- wiring from the WHC 1 (2DG1) to the SDAC 1 (1WV1)
- wiring from the WHC 1 (2DG1) to the SDAC 2 (1WV2)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	Installation of the Window Heat Computer (WHC) (2DG1,2DG2).
ASM	30-42/01	·

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK SDAC-WINDSHIELD WHC 1 INTERFACE:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the SDAC1 (1WV1) pin B/D to pin AA/10B and/or
 - do a check and repair the wiring from the WHC 1 (2DG1) to the SDAC2 (1WV2) pin B/D to pin AA/10B (Ref. ASM 30-42/01).
- B. Do the operational test given in Para. 3.

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TASK 30-42-00-810-820

Loss of the Output Discretes (Windshield)

- 1. Possible Causes
 - WHC-2 (2DG2)
 - wiring from the WHC 2 (2DG2) to the SDAC 1 (1WV1)
 - wiring from the WHC 2 (2DG2) to the SDAC 2 (1WV2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		 Rence 	DESIGNATION
	AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and
	AMM	30-42-34-000-001	Defogging Removal of the Window Heat Computer (WHC)
	AMM	30-42-34-400-001	(2DG1,2DG2). Installation of the Window Heat Computer (WHC)
	ASM	30-42/02	(2DG1,2DG2).

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK SDAC-WINDSHIELD WHC 2 INTERFACE:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the SDAC1 (1WV1) pin 3/D to pin AA/10H and/or
 - do a check and repair the wiring from the WHC 2 (2DG2) to the SDAC2 (1WV2) pin B/D to pin AA/10H (Ref. ASM 30-42/02).
 - B. Do the operational test given in Para. 3.

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TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-821

Loss of the Output Discretes (Windshield)

- 1. Possible Causes
 - WHC-1 (2DG1)
 - wiring from the WHC 1 (2DG1) to the SDAC 1 (1WV1)
 - wiring from the WHC 1 (2DG1) to the SDAC 2 (1WV2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
ASM	30-42/01	\

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK SDAC-WINDOW WHC 1 INTERFACE:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring from the WHC 1 (2DG1) to the SDAC1 (1WV1) pin B/E to pin AA/10C and/or
 - do a check and repair the wiring from the WHC 1 (2DG1) to the SDAC2 (1WV2) pin B/E to pin AA/10C (Ref. ASM 30-42/01).
 - B. Do the operational test given in Para. 3.

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TASK 30-42-00-810-822

Loss of the Output Discretes (Side Window)

- 1. Possible Causes
 - WHC-2 (2DG2)
 - wiring from the WHC 2 (2DG2) to the SDAC 1 (1WV1)
 - wiring from the WHC 2 (2DG2) to the SDAC 2 (1WV2)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	Installation of the Window Heat Computer (WHC) (2DG1,2DG2).
ASM	30-42/02	(200.)2002/-

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK SDAC-WINDOW WHC 2 INTERFACE:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (1) If the fault continues:
 - do a check and repair the wiring from the WHC 2 (2DG2) to the SDAC1 (1WV1) pin B/E to pin AA/10J and/or
 - do a check and repair the wiring from the WHC 2 (2DG2) to the SDAC2 (1WV2) pin B/E to pin AA/10J (Ref. ASM 30-42/02).
 - B. Do the operational test given in Para. 3.

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TASK 30-42-00-810-823

Loss of the Command Inputs (ENG 1/ENG 2)

- 1. Possible Causes
 - WHC-1 (2DG1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG1 (12KS1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG2 (12KS2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		RENCE	DESIGNATION	
A	MM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and	
A	MM	30-42-34-000-001	Defogging Removal of the Window Heat Computer (WHC)	
A	MM	30-42-34-400-001	(2DG1,2DG2). Installation of the Window Heat Computer (WHC) (2DG1,2DG2).	
A	SM	30-42/01	(2001,2002).	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK EIU WHC 1 INTERFACE: do a check for ground at pin B/Y and/or pin B/Z of the WHC 1 (2DG1).
 - (1) If there is ground:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (2) If there is no ground:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (12KS1).
 - (a) If the fault continues:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG2 (12KS2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the WHC 1 (2DG1) pin B/Y to the relay (12KS1) pin A/2
 - from the relay (12KS1) pin A/A to the ground
 - from the WHC 1 (2DG1) pin B/Z to the relay (12KS2) pin A/2 and
 - from the relay (12KS2) pin A/A to the ground. (Ref. ASM 30-42/01)
- B. Do the operational test given in Para. 3.

EFF: ALL | | SROS 30-42-00

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TASK 30-42-00-810-824

Loss of the Command Inputs (ENG 1/ENG 2)

- 1. Possible Causes
 - WHC-2 (2DG2)
 - RELAY-OIL LOW PRESS AND GROUND, ENG1 (10KS1)
 - RELAY-OIL LOW PRESS AND GROUND, ENG2 (10KS2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
ASM	30-42/02	

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message CHECK EIU WHC 2 INTERFACE:
 do a check for ground at pin B/Y and/or pin B/Z of the WHC 2 (2DG2).
 - (1) If there is ground:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (2) If there is no ground:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (10KS1).
 - (a) If the fault continues:
 - replace the RELAY-OIL LOW PRESS AND GROUND, ENG2 (10KS2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the WHC 2 (2DG2) pin B/Y to the relay (10KS1) pin A/2
 - from the relay (10KS1) pin A/A to the ground
 - from the WHC 2 (2DG2) pin B/Z to the relay (10KS2) pin A/2 and
 - from the relay (10KS2) pin A/A to the ground. (Ref. ASM 30-42/02)
- B. Do the operational test given in Para. 3.

EFF: ALL
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TASK 30-42-00-810-825

Loss of the GND/FLT Information

1. Possible Causes

- WHC-1 (2DG1)
- LGCIU-1 (5GA1)
- LGCIU-2 (5GA2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	Installation of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)	
AMM ASM	32-31-71-400-001 30-42/01	Installation of the LGCIU (5GA1, 5GA2)	

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK LGCIU WHC 1 INTERFACE:
 do a check for ground at pin B/F and/or pin B/T of the WHC 1 (2DG1).
 - (1) If there is ground:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (2) If there is no ground:
 - replace the LGCIU-1 (5GA1), (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (a) If the fault continues:
 - replace the LGCIU-2 (5GA2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the WHC 1 (2DG1) pin B/F to the LGCIU 1 (5GA1) pin AB/14A and/or
 - from the WHC 1 (2DG1) pin B/T to the LGCIU 2 (5GA2) pin AB/14A.

(Ref. ASM 30-42/01)

B. Do the operational test given in Para. 3.

EFF: ALL SROS 30-42-00

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TASK 30-42-00-810-826

Loss of the GND/FLT Information

1. Possible Causes

- WHC-2 (2DG2)
- LGCIU-1 (5GA1)
- LGCIU-2 (5GA2)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION	
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging	
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	30-42-34-400-001	Installation of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM	32-31-71-000-001	Removal of the LGCIU (5GA1, 5GA2)	
AMM ASM	32-31-71-400-001 30-42/02	Installation of the LGCIU (5GA1, 5GA2)	

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).

4. Fault Isolation

- A. If the test gives the maintenance message CHECK LGCIU WHC 2 INTERFACE:
 do a check for ground at pin B/F and/or pin B/T of the WHC 2 (2DG2).
 - (1) If there is ground:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).
 - (2) If there is no ground:
 - replace the LGCIU-1 (5GA1), (Ref. AMM TASK 32-31-71-000-001) and (Ref. AMM TASK 32-31-71-400-001).
 - (a) If the fault continues:
 - replace the LGCIU-2 (5GA2).

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- (b) If the fault continues:
 - 1 Do a check and repair the wiring:
 - from the WHC 2 (2DG2) pin B/F to the LGCIU 1 (5GA1) pin AB/14E and/or
 - from the WHC 2 (2DG2) pin B/T to the LGCIU 2 (5GA2) pin AB/14E.

(Ref. ASM 30-42/02)

B. Do the operational test given in Para. 3.

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TASK 30-42-00-810-827

Loss of the WHC 1

- 1. Possible Causes
 - WHC-1 (2DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and
AMM	30-42-34-000-001	Defogging Removal of the Window Heat Computer (WHC)
AMM	30-42-34-400-001	(2DG1,2DG2). Installation of the Window Heat Computer (WHC) (2DG1,2DG2).

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message WHC 2DG1:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).

EFF: ALL 30-42-00

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TASK 30-42-00-810-828

Loss of the WHC 2

- 1. Possible Causes
 - WHC-2 (2DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and
AMM	30-42-34-000-001	Defogging Removal of the Window Heat Computer (WHC)
AMM	30-42-34-400-001	(2DG1,2DG2). Installation of the Window Heat Computer (WHC) (2DG1,2DG2).

3. Fault Confirmation

- A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message WHC 2DG2:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).

EFF: ALL 30-42-00

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TASK 30-42-00-810-829

Loss of Power Supply of the WHC 1

- 1. Possible Causes
 - WHC-1 (2DG1)
 - wiring between the WHC 1 (2DG1) pin B/R and the ground terminal
 - wiring between the WHC 1 pin B/C and the circuit breaker (5DG1)
 - C/B-ANTI ICE/WHC/1 (5DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFE	RENCE	DESIGNATION
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
AMM ASM	31-32-00-740-003 30-42/01	Ground Scanning of the CFDIU

- 3. Fault Confirmation
 - A. Test
 - (1) Do the BITE test of the CFDIU (Ref. AMM TASK 31-32-00-740-003).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/WHC/1 5DG1 X13

- B. If the test gives the maintenance message NO WHC 1 DATA:do a check of the status of the circuit breaker (5DG1).
 - (1) If the circuit breaker is closed:
 - do a check for 28VDC at pin B/C of the WHC 1 (2DG1) (Ref. ASM 30-42/01).
 - (a) If there is 28VDC:
 - replace the WHC-1 (2DG1), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).

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- (b) If there is no 28VDC:
 - do a check for a ground signal at pin B/R of the WHC 1 (2DG1).
 - 1 If there is no ground signal:
 - repair the wiring between the WHC 1 (2DG1) pin B/R and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the WHC 1 pin B/C and the circuit breaker (5DG1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (5DG1).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips again:
 - replace the WHC-1 (2DG1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the WHC 1 pin B/C and the circuit breaker (5DG1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/WHC/1 (5DG1).
- C. Do the BITE test given in Para. 3.

EFF: ALL

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TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-830

Loss of Power Supply of the WHC 2

- 1. Possible Causes
 - WHC-2 (2DG2)
 - wiring between the WHC 2 (2DG2) pin B/R and the ground terminal
 - wiring between the WHC 2 pin B/S and the circuit breaker (5DG2)
 - C/B-ANTI ICE/WHC/2 (5DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM	30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>
AMM ASM	31-32-00-869-002 30-42/02	Procedure for Class 3 Faults Reading

- 3. Fault Confirmation
 - A. Test
 - (1) On the CFDS MENU page, get access to the AVIONICS STATUS page (Ref. AMM TASK 31-32-00-869-002).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION ______

122VU ANTI ICE/WHC/2

5DG2

W 13

- B. If the test gives the maintenance message NO WHC 2 DATA: - do a check of the status of the circuit breaker (5DG2).
 - (1) If the circuit breaker is closed:
 - do a check for 28VDC at pin B/S of the WHC 2 (2DG2) (Ref. ASM 30-42/02).
 - (a) If there is 28VDC:
 - replace the WHC-2 (2DG2), (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).

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- (b) If there is no 28VDC:
 - do a check for a ground signal at pin B/R of the WHC 2 (2DG2).
 - 1 If there is no ground signal:
 - repair the wiring between the WHC 2 (2DG2) pin B/R and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the WHC 2 pin B/S and the circuit breaker (5DG2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (5DG2).
- (2) If the circuit breaker is open:
 close the circuit breaker.
 - - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the WHC 2 pin B/S and the circuit breaker (5DG2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/WHC/2 (5DG2).
- C. Do the BITE test given in Para. 3.

EFF: ALL

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TASK 30-42-00-810-831

Loss of the Heating of the Left and Right Windshields

Defogging

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

REFERENCE DESIGNATION

AMM 30-42-00-710-001 Operational Test of the Windshield Anti-Icing and

- 3. Fault Confirmation
 - A. Test Not applicable.
- 4. Fault Isolation
 - A. The ANTI ICE L+R WINDSHIELD warning is shown on the upper ECAM DU after the loss of the heating of the left and right windshields. To do the trouble shooting, refer to the POST FLIGHT REPORT and start the trouble shooting from the first ANTI ICE WINDSHIELD warning and its related maintenance message (Ref. 30-ECAM Page Block 101).

 After this step, on the upper ECAM DU, the ANTI ICE L+R WINDSHIELD warning goes out of view and the WINDSHIELD warning related to the other windshield with the related maintenance message comes into view.
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001) to know the related maintenance message.
 - (2) Do the related trouble shooting (Ref. 30-ECAM Page Block 101).

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EFF:

ALL

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-837

Left Windshield Arcing

- 1. Possible Causes
 - WINDSHIELD-L (3DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		RENCE	DESIGNATION
	AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and
	AMM AMM	56-11-11-000-001 56-11-11-400-001	Defogging Removal of the Windshield Installation of the Windshield

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message TEST OK:
 replace the WINDSHIELD-L (3DG1) (Ref. AMM TASK 56-11-11-000-001) and
 (Ref. AMM TASK 56-11-11-400-001).

NOTE: Do not remove the WHC 1 (2DG1).

B. Do the test given in Para. 3.A.

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TASK 30-42-00-810-838

Right Windshield Arcing

- 1. Possible Causes
 - WINDSHIELD-R (3DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		RENCE	DESIGNATION
	AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and
	AMM AMM	56-11-11-000-001 56-11-11-400-001	Defogging Removal of the Windshield Installation of the Windshield

- 3. Fault Confirmation
 - A. Test
 - (1) Do the operational test of the windshield anti-icing and defogging (Ref. AMM TASK 30-42-00-710-001).
- 4. Fault Isolation
 - A. If the test gives the maintenance message TEST OK:
 replace the WINDSHIELD-R (3DG2) (Ref. AMM TASK 56-11-11-000-001) and
 (Ref. AMM TASK 56-11-11-400-001).

NOTE: Do not remove the WHC 2 (2DG2).

B. Do the test given in Para. 3.A.

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TASK 30-42-00-810-839

Loss of the Identification of the Left or Right Side by the WHC 1 (2DG1)

- 1. Possible Causes
 - WHC-1 (2DG1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION	
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).	
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>	

- 3. Fault Confirmation
 - A. Test Not Applicable
- 4. Fault Isolation
 - A. If the fault is identified by the maintenance message: X WINDSHIELD SENSOR
 - (1) Remove the WHC-1 (2DG1) (Ref. AMM TASK 30-42-34-000-001).
 - (2) Do a check for 28VDC at pins C and S of the connector 2DG1-B on the wiring side at the same time.
 - (a) If there is 28VDC at pins C and S at the same time:
 - there is an unwanted 28VDC at pin S
 - repair the wiring.
 - (b) If there is no 28VDC at pins C and S at the same time:
 - replace the WHC-1 (2DG1) (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001)

30-42-00

ALL

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-840

Loss of the Identification of the Left or Right Side by the WHC 2 (2DG2)

- 1. Possible Causes
 - WHC-2 (2DG2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-42-34-000-001	Removal of the Window Heat Computer (WHC) (2DG1,2DG2).
AMM 30-42-34-400-001	<pre>Installation of the Window Heat Computer (WHC) (2DG1,2DG2).</pre>

- 3. Fault Confirmation
 - A. Test
 Not Applicable
- 4. Fault Isolation
 - A. If the fault is identified by the maintenance message: X WINDSHIELD SENSOR
 - (1) Remove the WHC-2 (2DG2) (Ref. AMM TASK 30-42-34-000-001).
 - (2) Do a check for 28VDC at pins C and S of the connector 2DG2-B on the wiring side at the same time.
 - (a) If there is 28VDC at pins C and S at the same time:
 - there is an unwanted 28VDC at pin C
 - repair the wiring.
 - (b) If there is no 28VDC at pins C and S at the same time:
 - replace the WHC-2 (2DG2) (Ref. AMM TASK 30-42-34-000-001) and (Ref. AMM TASK 30-42-34-400-001).

EFF: ALL 30-42-00

TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-841

Left Windshield Cracking

- 1. Possible Causes
 - WINDSHIELD-L (3DG1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-42-00-710-001	Operational Test of the Windshield Anti-Icing and Defogging
AMM	56-11-11-000-001	Removal of the Windshield
AMM	56-11-11-400-001	Installation of the Windshield

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable, the fault is evident.
- 4. Fault Isolation
 - A. If the fault is identified by the crew observation:
 replace the WINDSHIELD-L (3DG1) (Ref. AMM TASK 56-11-11-000-001) (Ref. AMM TASK 56-11-11-400-001).
 - B. Do the operational test of the windshield (Ref. AMM TASK 30-42-00-710-001).

EFF: ALL 30-42-00

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TROUBLE SHOOTING MANUAL

TASK 30-42-00-810-842

Right Windshield Cracking

- 1. Possible Causes
 - WINDSHIELD-R (3DG2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION
AMM 30-42-00-710-	001 Operational Test of the Windshield Anti-Icing and Defogging
AMM 56-11-11-000- AMM 56-11-11-400-	001 Removal of the Windshield

- 3. Fault Confirmation
 - A. Test
 - (1) Not applicable, the fault is evident.
- 4. Fault Isolation

 - B. Do the operational test of the windshield (Ref. AMM TASK 30-42-00-710-001).

EFF: ALL 30-42-00

TROUBLE SHOOTING MANUAL

WINDSHIELD RAIN PROTECTION - FAULT ISOLATION PROCEDURES

TASK 30-45-00-810-801

One or Both Wipers Inoperative

- 1. Possible Causes
 - CTL SW-WIPER, CAPT (5DB1)
 - CTL SW-WIPER, F/O (5DB2)
 - MOTOR CONVERTER-WIPER, CAPT (6DB1)
 - MOTOR CONVERTER-WIPER, F/O (6DB2)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-45-00-720-001	Functional Test of the Windshield Rain Protection.
AMM	30-45-51-000-001	Removal of the Wiper Motor Converter (6DB1, 6DB2)
AMM	30-45-51-400-001	Installation of the Wiper Motor Converter (6DB1, 6DB2)
ASM	30-45/01	

- 3. Fault Confirmation
 - A. Test

Do the functional test of the windshield rain protection (Ref. AMM TASK 30-45-00-720-001).

- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/F/O/WIPER	4DB2	W12
122VU	ANTI ICE/WIPER/CAPT	4DB1	X12

EFF: ALL

30-45-00

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- R **ON A/C 201-225, 227-227, 229-299, 426-499, 701-749,
 - B. If the wiper(s) does(do) not operate:
 - do a check for 28VDC at pin A of the wiper motor converter 6DB1(6DB2)
 (Ref. ASM 30-45/01).
 - (1) If there is no 28VDC:
 - do a check and repair the wiring from pin 2 of the circuit breaker
 2DB1(2DB2) to pin A of the wiper motor converter 6DB1(6DB2).
 - On the panel 21VU(22VU), set the WIPER control switch to SLOW.
 - (2) If there is 28VDC:
 - do a check for ground at pin C of the wiper motor converter 6DB1(6DB2).
 - (a) If there is no ground signal:
 - do a check of the wiring from pin C of the wiper motor converter 6DB1(6DB2) to pin 3 of the WIPER control switch 5DB1(5DB2).
 - 1 If there is no continuity: - repair the above wiring.
 - 2 If there is continuity:
 - replace the CTL SW-WIPER, CAPT (5DB1) (CTL SW-WIPER, F/O (5DB2)).
 - (b) If there is a ground signal:
 - replace the MOTOR CONVERTER-WIPER, CAPT (6DB1) (MOTOR CONVERTER-WIPER, F/O (6DB2)) (Ref. AMM TASK 30-45-51-000-001) and (Ref. AMM TASK 30-45-51-400-001).

**ON A/C ALL

C. Do the test given in Para. 3.

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EFF: ALL

TROUBLE SHOOTING MANUAL

TASK 30-45-00-810-802

Only One Wiper Speed is Available

1. Possible Causes

- CTL SW-WIPER, CAPT (5DB1)
- CTL SW-WIPER, F/O (5DB2)
- MOTOR CONVERTER-WIPER, CAPT (6DB1)
- MOTOR CONVERTER-WIPER, F/O (6DB2)
- wiring from pin 2 of the circuit breaker 4DB1(4DB2) to pin A of the wiper motor converter 6DB1(6DB2)
- wiring from pin C of the wiper motor converter 6DB1(6DB2) to pin 3 of the WIPER control switch 5DB1(5DB2)
- wiring from pin E of the wiper motor converter 6DB1(6DB2) to pin 4 of the WIPER control switch 5DB1(5DB2)

2. Job Set-up Information

A. Referenced Information

	REFERENCE		DESIGNATION	
	AMM	30-45-00-720-001	Functional Test of the Windshield Rain Protection.	
R	AMM	30-45-51-000-001	Removal of the Wiper Motor Converter (6DB1, 6DB2)	
R	AMM	30-45-51-400-001	Installation of the Wiper Motor Converter (6DB1,	
R			6DB2)	
	ASM	30-45/01		

3. Fault Confirmation

A. Test

Do the functional test of the windshield rain protection (Ref. AMM TASK 30-45-00-720-001).

4. Fault Isolation

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

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/F/O/WIPER	4DB2	w12
122VU	ANTI ICE/WIPER/CAPT	4DB1	X12

EFF: ALL 30-45-00

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R **ON A/C 201-225, 227-227, 229-299, 426-499, 701-749,

- B. If there is only one speed available:
 - do a check for 28VDC at pin A/A of the wiper motor converter 6DB1(6DB2)
 (Ref. ASM 30-45/01).
 - (1) If there is no 28VDC:
 - do a check and repair the wiring from pin 2 of the circuit breaker
 4DB1(4DB2) to pin A of the wiper motor converter 6DB1(6DB2)
 - (2) On the panel 21VU(22VU):
 - set the WIPER control switch to SLOW.
 - (3) If there is 28VDC:
 - do a check for ground at pin C of the wiper motor converter 6DB1(6DB2).
 - (a) If there is no ground signal:
 - do a check of the wiring from pin C of the wiper motor converter 6DB1(6DB2) to pin 3 of the WIPER control switch 5DB1(5DB2).
 - 1 If there is no continuity:
 repair the above wiring.
 - 2 If there is continuity:
 - replace the CTL SW-WIPER, CAPT (5DB1) (CTL SW-WIPER, F/O (5DB2)).
 - (b) If there is a ground signal: replace the MOTOR CONVERTER-WIPER, CAPT (6DB1) (MOTOR CONVERTER-WIPER, F/O (6DB2)) (Ref. AMM TASK 30-45-51-000-001) and (Ref. AMM TASK 30-45-51-400-001).
 - (4) On the panel 21VU(22VU):
 - set the WIPER control switch to FAST.
 - (5) If there is 28VDC:
 - do a check for ground at pin E of the wiper motor converter 6DB1(6DB2).
 - (a) If there is no ground signal:
 - do a check of the wiring from pin E of the wiper motor converter 6DB1(6DB2) to pin 4 of the WIPER control switch 5DB1(5DB2).
 - 1 If there is no continuity:
 repair the above wiring.

EFF: 201-225, 227-227, 229-299, 426-499, 701-749,

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- 2 If there is continuity:
 - replace the CTL SW-WIPER, CAPT (5DB1) (CTL SW-WIPER, F/O (5DB2)).
- (b) If there is a ground signal:
 - replace the MOTOR CONVERTER-WIPER, CAPT (6DB1) (MOTOR CONVERTER-WIPER, F/O (6DB2)) (Ref. AMM TASK 30-45-51-000-001) and (Ref. AMM TASK 30-45-51-400-001).

**ON A/C ALL

R

C. Do the test given in Para. 3.

EFF: ALL SROS

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TASK 30-45-00-810-803

The Wiper Does not Go Back Correctly to the Park Position

- 1. Possible Causes
 - 6DB1(6DB2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION
AMM	30-45-00-200-001	<pre>Inspection/Check of the Operation of the Windshield Wipers.</pre>
AMM	30-45-00-720-001	Functional Test of the Windshield Rain Protection.
AMM	30-45-51-000-001	Removal of the Wiper Motor Converter (6DB1, 6DB2)
AMM	30-45-51-400-001	<pre>Installation of the Wiper Motor Converter (6DB1, 6DB2)</pre>
AMM	30-45-52-400-002	Installation of the Wiper Arm (306DM, 307DM)

- 3. Fault Confirmation
 - A. Test

SROS

Do the functional test of the windshield rain protection (Ref. AMM TASK 30-45-00-720-001).

- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT. LOCATION		
_	ANTI ICE/F/O/WIPER ANTI ICE/WIPER/CAPT	4DB2 4DB1	W12 X12	

- R **ON A/C 201-225, 227-227, 229-299, 426-499, 701-749,
 - B. If the wiper(s) does(do) not go back correctly to the park position:
 - (1) On the panel 21VU (22VU), make sure that the WIPER control switch 5DB1(5DB2) is at OFF.

EFF: ALL

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- (2) Do a check for the correct sweeping angle and park position of the wiper(s) (Ref. AMM TASK 30-45-00-200-001) and do a check for the correct operation of the wiper(s) given in Para. 4.D. of the installation of the Wiper Arm (Ref. AMM TASK 30-45-52-400-002).
 - If wiper does not go back correctly to parking position or if wiper does not stop in parking position: adjust/replace microswitches (CMM 304551 p104)
 - If fault continues replace the 6DB1(6DB2) (Ref. AMM TASK 30-45-51-000-001) and (Ref. AMM TASK 30-45-51-400-001).

**ON A/C ALL

C. Do the test given in Para. 3.

R

R

EFF: ALL **SROS**

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R **ON A/C 201-208, 227-227, 229-299, 426-499, 503-549, 551-599,

TASK 30-45-00-810-805

Loss of the Rain Repellent Fluid (CAPT)

1. Possible Causes

- SOL VALVE-RAIN RPLNT, CAPT (3DB1)
- P/BSW-RAIN RPLNT, CAPT (2DB1)
- wiring from the CAPT solenoid valve (3DB1) pin A/B to the ground terminal
- wiring from the CAPT solenoid valve (3DB1) to the relay (11KS2)
- RELAY-OIL LOW PRESS AND GROUND, ENG1 (11KS1)
- RELAY-OIL LOW PRESS AND GROUND, ENG2 (11KS2)
- wiring between the CAPT solenoid valve (3DB1) pin A/A and the circuit breaker (1DB1)
- wiring between the CAPT solenoid valve pin A/A and the circuit breaker
 (1DB1)
- C/B-ANTI ICE/RPLNT/CAPT (1DB1)

2. Job Set-up Information

A. Referenced Information

1DM)
m .
e
Valve

3. Fault Confirmation

A. Test

Do the functional test of the rain repellent system (Ref. AMM TASK 30-45-00-720-002).

4. Fault Isolation

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

PANEL DESIGNATION IDENT. LOCATION

49VU ANTI ICE/RAIN/RPLNT/CAPT 1DB1 D01

EFF: 201-208, 227-227, 229-299, 426-499, 503-549, 551-599,

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- B. If the test confirms the fault:
 - do a check of the status of the circuit breaker (1DB1).
 - (1) If the circuit breaker is closed:
 - (a) Do a check of the nitrogen pressure of the rain-repellent fluid can:
 - if the pointer is in the yellow band, replace the can (Ref. AMM TASK 30-45-00-600-001).
 - (b) If the fault continues:
 - Do a check of the fluid gage of the rain-repellent fluid can:if the REFILL float is visible, replace the can.
 - (c) If the fault continues:
 - press the CAPT RAIN RPLNT pushbutton switch and do a check for 28VDC at pin A/A of the CAPT solenoid valve (3DB1).
 - 1 If there is 28VDC:
 - replace the SOL VALVE-RAIN RPLNT, CAPT (3DB1) (Ref. AMM TASK 30-45-41-000-001) and (Ref. AMM TASK 30-45-41-400-001).
 - 2 If there is no 28VDC:
 - do a check for 28VDC at pin 1 of the CAPT RAIN RPLNT pushbutton switch.
 - a If there is 28VDC:
 - replace the P/BSW-RAIN RPLNT, CAPT (2DB1).
 - b If there is no 28VDC:
 - do a check for a ground signal at pin A/D and pin A/C of the CAPT solenoid valve (3DB1) (Ref. ASM 30-45/01).
 - If there is no ground signal:
 - * repair the wiring from the CAPT solenoid valve (3DB1) pin A/B to the ground terminal and the wiring from the CAPT solenoid valve (3DB1) to the relay (11KS2), pin A/D to pin 4.
 - . If the fault continues:
 - * replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (11KS1) and/or the RELAY-OIL LOW PRESS AND GROUND, ENG2 (11KS2)
 - . If there is a ground signal:
 - * do a check of the wiring between the CAPT solenoid valve (3DB1) pin A/A and the circuit breaker (1DB1).
 - ** If there is no continuity, repair the above wiring.
 - ** If there is continuity, replace the circuit breaker (1DB1).

EFF: 201-208, 227-227, 229-299, 426-499, 503-549, 551-599,

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- (2) If the circuit breaker is open:
 close the circuit breaker.
 - - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the CAPT solenoid valve pin A/A and the circuit breaker (1DB1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/RPLNT/CAPT (1DB1).
 - (b) If the circuit breaker stays closed and the fault continues: - replace the SOL VALVE-RAIN RPLNT, CAPT (3DB1).
- C. Do the test given in Para. 3.

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503-549, 551-599,

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TASK 30-45-00-810-806

Loss of the Rain Repellent Fluid (F/O)

1. Possible Causes

- SOL VALVE-RAIN RPLNT, F/O (3DB2)
- P/BSW-RAIN RPLNT, F/O (2DB2)
- wiring from the F/O solenoid valve (3DB2) pin A/B to the ground terminal
- wiring from the F/O solenoid valve (3DB2) to the relay (10KS1)
- RELAY-OIL LOW PRESS AND GROUND, ENG1 (10KS1)
- RELAY-OIL LOW PRESS AND GROUND, ENG2 (10KS2)
- wiring between the F/O solenoid valve (3DB2) pin A/A and the circuit breaker (1DB2)
- wiring between the F/O solenoid valve pin A/A and the circuit breaker
 (1DB2)
- C/B-ANTI ICE/F/O/RAIN/RPLNT (1DB2)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION				
AMM 30-45-00-600-001	Servicing of the Rain Repellent Fluid Can (1DM)				
AMM 30-45-00-720-002	Functional Test of the Rain Repellent System.				
AMM 30-45-41-000-001	Removal of the Rain Repellent Solenoid Valve (3DB1,3DB2)				
AMM 30-45-41-400-001	<pre>Installation of the Rain Repellent Solenoid Valve (3DB1,3DB2)</pre>				
ASM 30-45/01					

3. Fault Confirmation

A. Test

Do the functional test of the rain repellent system (Ref. AMM TASK 30-45-00-720-002).

EFF: 201-208, 227-227, 229-299, 426-499, 503-549, 551-599,

30-45-00

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4. Fault Isolation

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

PANEL DESIGNATION

TDENT LOCATION

R **ON A/C 201-208, 227-227, 229-299, 426-475, 477-499, 503-549, 551-599,

122VU ANTI ICE/RAIN/RPLNT/F/O

1DB2 W11

**ON A/C 476-476,

122VU ANTI ICE/F/O/RAIN/RPLNT

1DB2 W11

- R **ON A/C 201-208, 227-227, 229-299, 426-499, 503-549, 551-599,
 - B. If the test confirms the fault:
 - do a check of the status of the circuit breaker (1DB2).
 - (1) If the circuit breaker is closed:
 - (a) Do a check of the nitrogen pressure of the rain-repellent fluid
 - if the pointer is in the yellow band, replace the can (Ref. AMM TASK 30-45-00-600-001).
 - (b) If the fault continues:
 - Do a check of the fluid gage of the rain-repellent fluid can: - if the REFILL float is visible, replace the can.
 - (c) If the fault continues:
 - press the F/O RAIN RPLNT pushbutton switch and do a check for 28VDC at pin A/A of the F/O solenoid valve (3DB2).
 - 1 If there is 28VDC:
 - replace the SOL VALVE-RAIN RPLNT, F/O (3DB2) (Ref. AMM TASK 30-45-41-000-001) and (Ref. AMM TASK 30-45-41-400-001).
 - 2 If there is no 28VDC:
 - do a check for 28VDC at pin 1 of the F/O RAIN RPLNT pushbutton switch.
 - a If there is 28VDC:
 - replace the P/BSW-RAIN RPLNT, F/O (2DB2).

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30-45-00

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- b If there is no 28VDC:
 - do a check for a ground signal at pin A/D and pin A/C of the F/O solenoid valve (3DB2) (Ref. ASM 30-45/01).
 - . If there is no ground signal:
 - * repair the wiring from the F/O solenoid valve (3DB2) pin A/B to the ground terminal and the wiring from the F/O solenoid valve (3DB2) to the relay (10KS1), pin A/D to pin 8.
 - . If the fault continues:
 - * replace the RELAY-OIL LOW PRESS AND GROUND, ENG1 (10KS1) and/or the RELAY-OIL LOW PRESS AND GROUND, ENG2 (10KS2).
 - . If there is a ground signal:
 - * do a check of the wiring between the F/O solenoid valve (3DB2) pin A/A and the circuit breaker (1DB2).
 - ** If there is no continuity, repair the above wiring.
 - ** If there is continuity, replace the circuit breaker (1DB2).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips:
 - replace the SOL VALVE-RAIN RPLNT, F/O (3DB2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the
 F/O solenoid valve pin A/A and the circuit breaker (1DB2)
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - 2 If there is no short to ground:
 replace the C/B-ANTI ICE/F/O/RAIN/RPLNT (1DB2).
 - (b) If the circuit breaker stays closed and the fault continues: - replace the SOL VALVE-RAIN RPLNT, F/O (3DB2).
- C. Do the test given in Para. 3.

TROUBLE SHOOTING MANUAL

R **ON A/C 503-549, 551-599,

TASK 30-45-00-810-807

Loss of the CAPT Wiper (INTMT Position)

1. Possible Causes

- MOTOR CONVERTER-WIPER, CAPT (6DB1)
- TIMER-WIPER, CAPT (7DB1)
- CTL SW-WIPER, CAPT (5DB1)
- wiring between the motor converter (6DB1) pin A/L and the ground terminal
- wiring between the motor converter (6DB1) pin A/J and the circuit breaker (4DB1)
- C/B-ANTI ICE/WIPER/CAPT (4DB1)
- wiring between the motor converter (6DB1) and the CAPT WIPER control switch (5DB1)

2. Job Set-up Information

A. Referenced Information

REFERENCE	DESIGNATION				
AMM 30-45-00-720-001	Functional Test of the Windshield Rain Protection.				
AMM 30-45-51-000-001 AMM 30-45-51-400-001	Removal of the Wiper Motor Converter (6DB1, 6DB2) Installation of the Wiper Motor Converter (6DB1,				
AMM 30-45-54-000-001 AMM 30-45-54-400-001 ASM 30-45/01	6DB2) Removal of the Wiper Timer (7DB1,7DB2) Installation of the Wiper Timer (7DB1,7DB2)				

3. Fault Confirmation

A. Test

Do the functional test of the windshield rain protection (Ref. AMM TASK 30-45-00-720-001).

4. Fault Isolation

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

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/WIPER/CAPT	4DB1	X12

EFF: 503-549, 551-599,

30-45-00

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- B. If the test confirms the fault:
 - do a check of the status of the circuit breaker (4DB1).
 - (1) If the circuit breaker (4DB1) is closed:
 - do a check for 28VDC at pin A/J of the motor converter (6DB1) (Ref. ASM 30-45/01).
 - (a) If there is 28VDC:
 - replace the MOTOR CONVERTER-WIPER, CAPT (6DB1) (Ref. AMM TASK 30-45-51-000-001) and (Ref. AMM TASK 30-45-51-400-001) and/or the TIMER-WIPER, CAPT (7DB1) (Ref. AMM TASK 30-45-54-000-001) and (Ref. AMM TASK 30-45-54-400-001).
 - (b) If there is no 28VDC:
 - do a check for a ground signal at pin A/L of the motor converter (6DB1).
 - 1 If there is no ground signal:
 - repair the wiring between the motor converter (6DB1) pin A/L
 and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the motor converter (6DB1)
 pin A/J and the circuit breaker (4DB1).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DB1).
 - (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips:
 - replace the MOTOR CONVERTER-WIPER, CAPT (6DB1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the motor converter (6DB1) pin A/J and the circuit breaker (4DB1).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:
 replace the C/B-ANTI ICE/WIPER/CAPT (4DB1).

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- (b) If the circuit breaker stays closed and the fault continues: - replace the MOTOR CONVERTER-WIPER, CAPT (6DB1).
 - 1 If the fault continues:
 - set the CAPT WIPER control switch (5DB1) to INTMT (defective position) and do a check for a ground signal at pin A/D of the motor converter (6DB1).
 - a If there is a ground signal:
 replace the MOTOR CONVERTER-WIPER, CAPT (6DB1).
- C. Do the test given in Para. 3.

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TROUBLE SHOOTING MANUAL

TASK 30-45-00-810-808

Loss of the F/O Wiper (INTMT Position)

1. Possible Causes

- MOTOR CONVERTER-WIPER, F/O (6DB2)
- TIMER-WIPER, F/O (7DB2)
- CTL SW-WIPER, F/O (5DB2)
- wiring between the motor converter (6DB2) pin A/L and the ground terminal
- wiring between the motor converter (6DB2) pin A/J and the circuit breaker (4DB2)
- C/B-ANTI ICE/F/O/WIPER (4DB2)
- wiring between the motor converter (6DB2) and the F/O WIPER control switch (5DB2)

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION			
AMM	30-45-00-720-001	Functional Test of the Windshield Rain Protection.			
AMM	30-45-51-000-001	Removal of the Wiper Motor Converter (6DB1, 6DB2)			
AMM	30-45-51-400-001	<pre>Installation of the Wiper Motor Converter (6DB1, 6DB2)</pre>			
AMM	30-45-54-000-001	Removal of the Wiper Timer (7DB1,7DB2)			
AMM	30-45-54-400-001	Installation of the Wiper Timer (7DB1,7DB2)			
ASM	30-45/01				

3. Fault Confirmation

A. Test

Do the functional test of the windshield rain protection (Ref. AMM TASK 30-45-00-720-001).

4. Fault Isolation

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

PANEL	DESIGNATION	IDENT. LOCATION

122VU ANTI ICE/F/O/WIPER

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4DB2 W12

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- B. If the test confirms the fault:
 - do a check of the status of the circuit breaker (4DB2).
 - (1) If the circuit breaker (4DB2) is closed:
 - do a check for 28VDC at pin A/J of the motor converter (6DB2) (Ref. ASM 30-45/01).
 - (a) If there is 28VDC:
 - replace the MOTOR CONVERTER-WIPER, F/O (6DB2) (Ref. AMM TASK 30-45-51-000-001) and (Ref. AMM TASK 30-45-51-400-001) and/or the TIMER-WIPER, F/O (7DB2) (Ref. AMM TASK 30-45-54-000-001) and (Ref. AMM TASK 30-45-54-400-001).
 - (b) If there is no 28VDC:
 - do a check for a ground signal at pin A/L of the motor converter (6DB2).
 - 1 If there is no ground signal:
 - repair the wiring between the motor converter (6DB2) pin A/L
 and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between the motor converter (6DB2)
 pin A/J and the circuit breaker (4DB2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DB2).
 - (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips:
 - replace the MOTOR CONVERTER-WIPER, F/O (6DB2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between the motor converter (6DB2) pin A/J and the circuit breaker (4DB2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/F/O/WIPER (4DB2).

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- (b) If the circuit breaker stays closed and the fault continues: - replace the MOTOR CONVERTER-WIPER, F/O (6DB2).
 - 1 If the fault continues:
 - set the F/O WIPER control switch (5DB2) to INTMT (defective position) and do a check for a ground signal at pin A/D of the motor converter (6DB2).
 - <u>a</u> If there is a ground signal:
 replace the MOTOR CONVERTER-WIPER, F/O (6DB2).
 - b If there is no ground signal:
 replace the CTL SW-WIPER, F/O (5DB2).
 . If the fault continues:
 do a check and repair the wiring between the motor
 converter (6DB2) and the F/O WIPER control switch (5DB2)
 , pin A/D to pin 2.
- C. Do the test given in Para. 3.

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TROUBLE SHOOTING MANUAL

DRAIN MAST ICE PROTECTION - FAULT ISOLATION PROCEDURES

TASK 30-71-00-810-801

FWD Drainmast-Heater Failure

- 1. Possible Causes
 - CONTROL UNIT (5DU)
 - DRAINMAST-FWD (4DU)
 - DEU-B (300RH1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFE	RENCE	DESIGNATION				
R	23-73-00-810-827		<pre>DEU-B - Fault in DEU-B 300RHx with connected systems/devices</pre>				
.,	AMM	23-73-47-000-001	Removal of the Decoder/Encoder Unit B (300RH)				
	AMM	23-73-47-400-001	Installation of the Decoder/Encoder Unit B (300RH)				
	AMM	30-71-00-710-001	Operational Test of the Drainmast Ice Protection				
	AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit				
	AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>				
	AMM	30-71-51-000-001	Removal of the Drain Mast				
	AMM	30-71-51-400-001	Installation of the Drain Mast				
	ASM	30-71/01					

- 3. Fault Confirmation
 - A. Do the operational test of the waste-water ice-protection system (Ref. AMM TASK 30-71-00-710-001).
- 4. Fault Isolation
- R A. If the PTP 110RH shows the fault message DRAINMASTS HEATER FWD:
- R (1) If the green HTR LED of CONTROL UNIT 5DU does not come on:
- R (a) Replace CONTROL UNIT (5DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).

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R	(b) If the fault continues:
R	
R	1 Do a check of the resistance value of the drainmast heater and
R	the temperature sensor. Refer to the resistance values in the
R	tables.
R	 Resistance values of the temperature sensor:

EFF: ALL

30-71-00

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TROUBLE SHOOTING MANUAL

TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	1784+-9
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	1926+-6
+20deg C (68deg F)	2000+-5
+30deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6
-	

- Resistance values of the heater:

EFF: ALL
SROS

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TROUBLE SHOOTING MANUAL

PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00	57+-3
4-60000H840-00	57+-3
4-60000H880-00	118+-5
4-60000H882-00	118+-5
4-60000H883-00	118+-5

(c) If the fault continues:

<u>1</u> Replace DRAINMAST-FWD (4DU) or only the cover or the heater tube assembly (Ref. AMM TASK 30-71-51-000-001) and (Ref. AMM TASK 30-71-51-400-001).

- (d) If the fault continues:
 - 1 Do a check and repair the wiring between:
 - CONTROL UNIT 5DU connector A/8 and DRAINMAST 4DU connector A/B
 - DRAINMAST 4DU connector A/C and GND
 - DRAINMAST 4DU connector A/A and GND (Ref. ASM 30-71/01).
- (2) If the green HTR LED of CONTROL UNIT 5DU comes on:
 - (a) Do a check and repair the wiring if necessary between:
 - CONTROL UNIT 5DU connector A/11 and DEU-B 300RH1 connector C/34
 - CONTROL UNIT 5DU connector A/14 and CB 1DU
 - CONTROL UNIT 5DU connector A/15 and GND (Ref. ASM 30-71/01).
 - (b) If the fault continues:
 - Replace DEU-B (300RH1) (Ref. AMM TASK 23-73-47-000-001) and (Ref. AMM TASK 23-73-47-400-001).
 - (c) If the fault continues:
 - Do the trouble shooting procedure for the fault in DEU-B 300RH1 with connected Systems/Devices (Ref. TASK 23-73-00-810-827).
- B. Do the test as given in Para. 3.A.

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A. Put the aircraft back to its initial configuration.

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TASK 30-71-00-810-802

AFT Drainmast-Heater Failure

- 1. Possible Causes
 - CONTROL UNIT (15DU)
 - DRAINMAST-AFT (14DU)
 - DEU-B (300RH5)
 - DECODER/ENCODER UNIT B (300RH7)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

	REFERENCE 		DESIGNATION DEU-B - Fault in DEU-B 300RHx with connected systems/devices	
R				
IX.	AMM	23-73-47-000-001	Removal of the Decoder/Encoder Unit B (300RH)	
	AMM		Installation of the Decoder/Encoder Unit B (300RH)	
	AMM	30-71-00-710-001	Operational Test of the Drainmast Ice Protection	
	AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit	
	AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>	
	AMM	30-71-51-000-001	Removal of the Drain Mast	
	AMM	30-71-51-400-001	Installation of the Drain Mast	
	ASM	30-71/01		

- 3. Fault Confirmation
 - A. Do the operational test of the waste-water ice-protection system (Ref. AMM TASK 30-71-00-710-001).
- 4. Fault Isolation
- R A. If the PTP 110RH shows the fault message DRAINMASTS HEATER AFT:

R

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- (1) Do the operational test of CONTROL UNIT 15DU (Ref. AMM TASK 30-71-00-710-001).
- R (2) If the green HTR LED of CONTROL UNIT 15DU does not come on:

R

R

(a) Replace CONTROL UNIT (15DU) (Ref. AMM TASK 30-71-34-000-001) (Ref. AMM TASK 30-71-34-400-001).

EFF: ALL

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R	(b) If the fault continues:
R	
R	1 Do a check of the resistance value of the drainmast heater and
R	the temperature sensor. Refer to the resistance values in the
R	tables.
R	- Resistance values of the sensor:

EFF: ALL
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TROUBLE SHOOTING MANUAL

TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	1784+-9
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	1926+-6
+20deg C (68deg F)	2000+-5
+30deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6
	-+

- Resistance values of the heater:

EFF: ALL
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PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00	57+-3
4-60000H840-00	57+-3
4-60000H880-00	118+-5
4-60000H882-00	118+-5
4-60000H883-00	118+-5

(c) If the fault continues:

<u>1</u> Replace DRAINMAST-AFT (14DU) or only the cover or the heater tube assembly (Ref. AMM TASK 30-71-51-000-001) and (Ref. AMM TASK 30-71-51-400-001).

- (d) If the fault continues:
 - 1 Do a check and repair of the wiring between:
 - CONTROL UNIT 15DU connector A/8 and DRAINMAST 14DU connector A/B
 - DRAINMAST 14DU connector A/C and GND
 - DRAINMAST 14DU connector A/A and GND (Ref. ASM 30-71/01).
- (3) If the green HTR LED of CONTROL UNIT 15DU comes on:
 - (a) Do a check and repair of the wiring if necessary between:
 - CONTROL UNIT 15DU connector A/11 and DEU-B 300RH5 or DEU-B 300RH7 connector C/34
 - CONTROL UNIT 15DU connector A/14 and CB 11DU
 - CONTROL UNIT 15DU connector A/15 and GND (Ref. ASM 30-71/01).
 - (b) If the fault continues:
 - Replace DEU-B (300RH5), if installed or DECODER/ENCODER UNIT B (300RH7), if installed (Ref. AMM TASK 23-73-47-000-001) and (Ref. AMM TASK 23-73-47-400-001).
 - (c) If the fault continues:
 - Do the trouble shooting procedure for the fault in DEU-B 300RH5 or DEU-B 300RH7 with connected Systems/Devices (Ref. TASK 23-73-00-810-827).
- B. Do the test as given in Para. 3.A.
- 5. Close-up

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A. Put the aircraft back to its initial configuration.

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TROUBLE SHOOTING MANUAL

TASK 30-71-00-810-803

Control Unit Failure of FWD Drainmast

- 1. Possible Causes
 - CONTROL UNIT (5DU)
 - DRAINMAST-FWD (4DU)
 - DEU-B (300RH1)
 - wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
AMM	23-73-47-000-001	Removal of the Decoder/Encoder Unit B (300RH)		
AMM	23-73-47-400-001	Installation of the Decoder/Encoder Unit B (300RH)		
AMM	30-71-00-710-001	Operational Test of the Drainmast Ice Protection		
AMM	30-71-00-710-002	Operational Test of the Waste-Water Ice-Protection Heater-Elements		
AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit		
AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>		
AMM	30-71-51-000-001	Removal of the Drain Mast		
AMM ASM TSM	30-71-51-400-001 30-71/01 23730081082700	Installation of the Drain Mast		

3. Fault Confirmation

A. Do the operational test of the waste-water ice-protection system (Ref. AMM TASK 30-71-00-710-001).

4. Fault Isolation

R

- R A. If the PTP 110RH shows the fault message DRAINMAST UNIT FWD:
- R
- R (1) Do the operational test of CONTROL UNIT 5DU (Ref. AMM TASK 30-71-00-710-002).
- R (2) If the green UNIT LED of CONTROL UNIT 5DU does not come on:
- R (a) Replace CONTROL UNIT (5DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).

EFF: ALL

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R	(b) If the fault continues:
R	
R	1 Do a check of the resistance value of the drainmast heater and
R	the temperature sensor. Refer to the resistance values in the
R	tables.
R	 Resistance values of the temperature sensor:

R EFF : ALL
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TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	1784+-9
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	1926+-6
+20deg C (68deg F)	2000+-5
+30deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6

⁻ Resistance values of the heater:

R EFF: ALL
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PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00	57+-3
4-60000H840-00	57+-3
4-60000H880-00	118+-5
4-60000H882-00	118+-5
4-60000H883-00	118+-5

(c) If the fault continues:

Replace DRAINMAST-FWD (4DU) or only the cover or the heater tube assembly (Ref. AMM TASK 30-71-51-000-001) and (Ref. AMM TASK 30-71-51-400-001).

- (d) If the fault continues:
 - 1 Do a check and repair the wiring between:
 - CONTROL UNIT 5DU connector A/4 and DRAINMAST 4DU connector A/D
 - CONTROL UNIT 5DU connector A/5 and DRAINMAST 4DU connector A/E
 - DRAINMAST 4DU connector A/C and GND
 - DRAINMAST 4DU connector A/A and GND (Ref. ASM 30-71/01).
- (3) If the green UNIT LED of CONTROL UNIT 5DU comes on:
 - (a) Do a check and repair the wiring if necessary between:
 - CONTROL UNIT 5DU connector A/19 and DEU-B 300RH1 connector C/35
 - CONTROL UNIT 5DU connector A/14 and CB 1DU
 - CONTROL UNIT 5DU connector A/15 and GND (Ref. ASM 30-71/01).
 - (b) If the fault continues:
 - <u>1</u> Replace DEU-B (300RH1) (Ref. AMM TASK 23-73-47-000-001) and (Ref. AMM TASK 23-73-47-400-001).
 - (c) If the fault continues:
 - Do the trouble shooting procedures for the fault in DEU-B 300RH1 (Ref. TSM 23730081082700).
- B. Do the test as given in Para. 3.A.

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A. Put the aircraft back to its initial configuration.

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TASK 30-71-00-810-804

Control Unit Failure of AFT Drainmast

1. Possible Causes

- CONTROL UNIT (15DU)
- DRAINMAST-AFT (14DU)
- DEU-B (300RH5)
- wiring

2. Job Set-up Information

A. Referenced Information

REFERENCE		DESIGNATION		
AMM	23-73-47-000-001	Removal of the Decoder/Encoder Unit B (300RH)		
AMM	23-73-47-400-001	Installation of the Decoder/Encoder Unit B (300RH)		
AMM	30-71-00-710-001	Operational Test of the Drainmast Ice Protection		
AMM	30-71-00-710-002	Operational Test of the Waste-Water Ice-Protection Heater-Elements		
AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit		
AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>		
AMM	30-71-51-000-001	Removal of the Drain Mast		
AMM	30-71-51-400-001	Installation of the Drain Mast		
ASM	30-71/01			
TSM	23730081083000			

3. Fault Confirmation

A. Do the operational test of the waste-water ice-protection system (Ref. AMM TASK 30-71-00-710-002).

4. Fault Isolation

R

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- R A. If the PTP 110RH shows the fault message DRAINMAST UNIT AFT:
- R (1) Do the operational test of CONTROL UNIT 15DU (Ref. AMM TASK 30-71-00-710-001).
- R (2) If the green UNIT LED of CONTROL UNIT 15DU does not come on:
- R (a) Replace CONTROL UNIT (15DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).

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R	(b) If the fault continues:
R	
R	1 Do a check of the resistance value of the drainmast heater and
R	the temperature sensor. Refer to the resistance values in the
R	tables.
R	 Resistance values of the temperature sensor

EFF: ALL

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TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	+ 1784+-9 +
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	1926+-6
+20deg C (68deg F)	2000+-5
+30deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6

- Resistance values of the heater:

EFF: ALL
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PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00	57+-3
4-60000H840-00	57+-3
4-60000H880-00	118+-5
4-60000H882-00	118+-5
4-60000H883-00	118+-5

(c) If the fault continues:

Replace DRAINMAST-AFT (14DU) or only the cover or the heater tube assembly (Ref. AMM TASK 30-71-51-000-001) and (Ref. AMM TASK 30-71-51-400-001).

- (d) If the fault continues:
 - 1 Do a check and repair the wiring between:
 - CONTROL UNIT 15DU connector A/4 and DRAINMAST 14DU connector A/D
 - CONTROL UNIT 15DU connector A/5 and DRAINMAST 14DU connector A/E
 - DRAINMAST 14DU connector A/C and GND
 - DRAINMAST 14DU connector A/A and GND (Ref. ASM 30-71/01).
- (3) If the green UNIT LED of CONTROL UNIT 15DU comes on:
 - (a) Do a check and repair the wiring if necessary between:
 - CONTROL UNIT 15DU connector A/19 and DEU-B 300RH5 connector C/35
 - CONTROL UNIT 15DU connector A/14 and CB 11DU
 - CONTROL UNIT 15DU connector A/15 and GND (Ref. ASM 30-71/01).
 - (b) If the fault continues:
 - <u>1</u> Replace DEU-B (300RH5) (Ref. AMM TASK 23-73-47-000-001) and (Ref. AMM TASK 23-73-47-400-001).
 - (c) If the fault continues:
 - Do the trouble shooting procedures for the fault in DEU-B 300RH5 (Ref. TSM 23730081083000).
- B. Do the test as given in Para. 3.A.
- 5. Close-up

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A. Put the aircraft back to its initial configuration.

EFF: ALL

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TASK 30-71-00-810-805

Failure of FWD Waste-Water Ice-Protection System

1. Possible Causes

- CONTROL UNIT (5DU)
- DRAINMAST-FWD (4DU)
- SENSOR-WASTE WATER DE ICING (40DU)
- wiring
- CONTROL UNIT (3DW)
- HEATER ELEMENT-WASTE WATER DE ICING (48DU)
- HEATER ELEMENT-WASTE WATER DE ICING (49DU)
- HEATER ELEMENT-WASTE WATER DE ICING (142DU)
- microfuse
- HEATER ELEMENT-WASTE WATER DE ICING (41DU)
- HEATER ELEMENT-WASTE WATER DE ICING (42DU)
- CONTROL UNIT (140DU)
- SENSOR-WASTE WATER DE ICING (141DU)
- HEATER ELEMENT-WASTE WATER DE ICING (146DU)
- HEATER ELEMENT-WASTE WATER DE ICING (147DU)

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

cooling spray

B. Referenced Information

REFERENCE		DESIGNATION		
AMM	30-71-00-710-002	Operational Test of the Waste-Water Ice-Protection Heater-Elements		
AMM	30-71-17-000-001	Removal of the Waste-Water De-icing Sensor (40DU)		
AMM	30-71-17-400-001	<pre>Installation of the Waste-Water De-icing Sensor (40DU)</pre>		
AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit		
AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>		
AMM	30-71-51-000-001	Removal of the Drain Mast		
AMM	30-71-51-400-001	Installation of the Drain Mast		
AMM	30-71-53-000-001	Removal of the Waste-Water De-icing Heater Elements (41DU, 42DU)		

EFF: ALL

30-71-00

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REFERENCE		DESIGNATION
AMM	30-71-53-000-003	Removal of the Waste-Water De-icing Heater Elements (142DU, 146DU, 147DU)
AMM	30-71-53-400-001	Installation of the Waste-Water De-icing Heater Elements (41DU, 42DU)
AMM	30-71-53-400-003	Installation of the Waste-Water De-icing Heater Elements (142DU, 146DU, 147DU)
AMM	30-73-00-740-001	BITE Test of the Potable Water Ice-Protection
AMM	30-73-34-000-001	Removal of the Potable and Waste Water Ice Protection Control Unit (3DW)
AMM	30-73-34-400-001	<pre>Installation of the Potable and Waste Water Ice Protection Control Unit (3DW)</pre>
ASM	30-71/01	

3. Fault Confirmation

A. Do the operational test of the waste-water ice-protection system (Ref. AMM TASK 30-71-00-710-002).

4. Fault Isolation

- A. If the green 'UNIT' LED of the CONTROL UNIT 5DU does not come on:
 replace the CONTROL UNIT (5DU) (Ref. AMM TASK 30-71-34-000-001) and
 (Ref. AMM TASK 30-71-34-400-001).
- R B. If the green HTR LED of CONTROL UNIT 5DU does not come on:
 - (1) Do a check of the resistance value of the drainmast heater and the temperature sensor. Refer to the resistance values in the tables.Resistance of value the temperature sensor:

EFF: ALL 30-71-00

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TROUBLE SHOOTING MANUAL

TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	+ 1784+-9
Odeg C (32deg F)	+ 1854+-8
+10deg C (50deg F)	+ 1926+-6
+20deg C (68deg F)	
+30deg C (86deg F)	
+40deg C (104deg F)	2153+-6

- Resistance value of the heater:

R R R R

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R R R R R

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EFF: ALL
SROS

30-71-00

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TROUBLE SHOOTING MANUAL

PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00 4-60000H840-00	57+-3 57+-3
4-60000H880-00 4-60000H882-00 4-60000H883-00	-+

(2) If the fault continues:

R

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(a) Replace DRAINMAST-FWD (4DU) or only the cover or the heater tube assembly (Ref. AMM TASK 30-71-51-000-001) and (Ref. AMM TASK 30-71-51-400-001).

- (3) If the fault continues:
 - (a) Do a check and repair the wiring between:
 - CONTROL UNIT 5DU connector A/4 and DRAINMAST 4DU connector A/D
 - CONTROL UNIT 5DU connector A/5 and DRAINMAST 4DU connector A/E
 - CONTROL UNIT 5DU connector A/8 and DRAINMAST 4DU connector A/B
 - DRAINMAST 4DU connector A/C and GND
 - DRAINMAST 4DU connector A/A and GND (Ref. ASM 30-71/01).
- C. If the green 'UNIT' LED and the green 'HTR' LED of the CONTROL UNIT 5DU do not come on:
 - do a check for the subsequent signals:
 115 VAC at CONTROL UNIT 5DU connector A/14,
 GND at CONTROL UNIT 5DU connector A/15 (Ref. ASM 30-71/01).
 - (1) If the two signals are OK:
 - replace the CONTROL UNIT (5DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).
 - (2) If there is no GND:
 - do a check and repair the wiring between:
 CONTROL UNIT 5DU connector A/15 and GND (Ref. ASM 30-71/01).
 - (3) If there is no 115 VAC:
 - do a check and repair the wiring between:
 CONTROL UNIT 5DU connector A/14 and CB 1DU (Ref. ASM 30-71/01).

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ALL

EFF:

SROS

TROUBLE SHOOTING MANUAL

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

R R	D. If the green UNIT LED and the green HTR LED of CONTROL UNIT 5DU come on:
R	(1) Do the BITE test of the potable-water ice-protection system (Ref. AMM TASK 30-73-00-740-001).
R R	(2) If the green III/IV LED of CONTROL UNIT 3DW does not come on:
R	(a) Do a check of the related microfuses.
R R	(b) If the microfuses are OK:
R R	1 Replace CONTROL UNIT (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
R R	(c) If the fault continues:
R R R	1 Remove the insulation from around the SENSOR 141DU, the HEATER 48DU, HEATER 49DU and HEATER 142DU.
R R	$\underline{2}$ Apply cooling spray to the SENSOR 141DU for at least 10 s.
R R	3 Stop for approximately 120 s.
R R	<u>4</u> Do a check of the temperature of HEATER 48DU, HEATER 49DU and HEATER 142DU.
R R	$\underline{5}$ If one of the HEATERS stays cold:
R R R	 Do a check of the resistance value of the drainmast heater and the temperature sensor. Refer to the resistance values in the tables. Resistance values of the temperature sensor:

EFF: 201-225, 451-475, 551-599,

30-71-00

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TROUBLE SHOOTING MANUAL

TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	1784+-9
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	1926+-6
+20deg C (68deg F)	2000+-5
+30deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6
	T

- Resistance values of the heater:

EFF: 201-225, 451-475, 551-599,

30-71-00

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R R R R

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TROUBLE SHOOTING MANUAL

PART NUMBER	RESISTANCE VALUE I	N OHM
4-60000н800-00 4-60000н840-00	57+-3 57+-3	
4-60000H880-00 4-60000H882-00 4-60000H883-00	118+-5 118+-5 118+-5	

- (d) If the fault continues:
 - 1 If HEATER 48DU, HEATER 49DU and HEATER 142DU stay cold:
 - Replace SENSOR-WASTE WATER DE ICING (40DU) (Ref. AMM TASK 30-71-17-000-001) and (Ref. AMM TASK 30-71-17-400-001).
 - 2 If HEATER 48DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (48DU) (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
 - 3 If HEATER 49DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (49DU) (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
 - 4 If HEATER 142DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (142DU) (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
- (e) If one microfuse is not OK:
 - Do a check for a short circuit (Ref. ASM 30-71/01).
 - Replace the microfuse.
- R **ON A/C 227-227, 229-275, 426-450, 701-749,
 - D. If the green UNIT LED and the green HTR LED of CONTROL UNIT 5DU come on:
 - (1) Do the BITE test of the potable-water ice-protection system (Ref. AMM TASK 30-73-00-740-001).
 - (2) If the green III/IV LED of CONTROL UNIT 3DW does not come on:
 - (a) Do a check of the related microfuses.
 - (b) If the microfuses are OK:
 - Replace CONTROL UNIT (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).

EFF: 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,

30-71-00

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TROUBLE SHOOTING MANUAL

- (c) If the fault continues:
 - Remove the insulation from around the SENSOR 40DU, HEATER 42DU and HEATER 41DU.
 - 2 Apply cooling spray to the SENSOR 40DU for at least 10 s.
 - 3 Stop for approximately 120 s.
 - 4 Do a check of the temperature of HEATER 42DU and HEATER 41DU.
 - 5 If a heater stays cold:
 - <u>a</u> Do a check of the resistance value of the drainmast heater and the temperature sensor. Refer to the resistance values in the tables.
 - Resistance values of the temperature sensor:

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TROUBLE SHOOTING MANUAL

TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	1784+-9
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	+ 1926+-6
+20deg C (68deg F)	2000+-5
+ 3 0deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6
	+

⁻ Resistance values of the heater:

227-227, 229-275, 426-450, 701-749,

TROUBLE SHOOTING MANUAL

PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00	57+-3
4-60000H840-00	57+-3
4-60000H880-00	118+-5
4-60000H882-00	118+-5
4-60000H883-00	118+-5

- (d) If the fault continues:
 - 1 If HEATER 42DU and HEATER 41DU stay cold:
 - Replace SENSOR-WASTE WATER DE ICING (40DU) (Ref. AMM TASK 30-71-17-000-001) and (Ref. AMM TASK 30-71-17-400-001).
 - 2 If HEATER 41DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (41DU) (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
 - 3 If HEATER 42DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (42DU) (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
- (e) If one microfuse is not OK:
 - 1 Do a check for a short circuit (Ref. ASM 30-71/01).
 - 2 Replace the microfuse.

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

- D. If the green I/II LED of CONTROL UNIT 140DU does not come on:
 - (1) Do a check of the related microfuses.
 - (2) If the microfuses are OK:
 - (a) Replace the CONTROL UNIT (140DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).

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TROUBLE SHOOTING MANUAL

R R	(3)	If t	he fault continues:
R R R R		(a)	Do a check for the subsequent signals: - 115 VAC at CONTROL UNIT 140DU connector A/14 - 28 VDC at CONTROL UNIT 140DU connector A/16 - GND at CONTROL UNIT 140DU connector A/12 - GND at CONTROL UNIT 140DU connector A/15 (Ref. ASM 30-71/01).
R R		(b)	If all the signals are OK:
R R R			Remove the insulation from around SENSOR 141DU, the HEATERS 142DU, 146DU and 147DU.
R R			2 Apply cooling spray to the SENSOR 141DU for at least 10 s.
R R			3 Stop for approximately 120 s.
R R			4 Do a check of the temperature of the HEATERS 142DU, 146DU and 147DU.
R R			5 If one of the HEATERS stays cold:
R R R			 Do a check of the resistance value of the drainmast heater and the temperature sensor. Refer to the resistance values in the tables. Resistance values of the temperature sensor:

EFF: 276-299, 476-499, 503-549,

30-71-00

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TROUBLE SHOOTING MANUAL

TEMPERATURE	RESISTANCE VALUE IN OHM
-10deg C (14deg F)	1784+-9
Odeg C (32deg F)	1854+-8
+10deg C (50deg F)	1926+-6
+20deg C (68deg F)	2000+-5
+30deg C (86deg F)	2076+-5
+40deg C (104deg F)	2153+-6

- Resistance values of the heater:

EFF: 276-299, 476-499, 503-549,

30-71-00

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SROS

R R R R

R

R

R

R R R R R

R

TROUBLE SHOOTING MANUAL

PART NUMBER	RESISTANCE VALUE IN OHM
4-60000H800-00	57+-3
4-60000H840-00	57+-3
4-60000H880-00	118+-5
4-60000H882-00	118+-5
4-60000H883-00	118+-5

R

R

R

(c) If the fault continues:

- 1 If the HEATERS 142DU, 146DU and 147DU stay cold:
 - Replace SENSOR-WASTE WATER DE ICING (141DU) (Ref. AMM TASK 30-71-17-000-001) and (Ref. AMM TASK 30-71-17-400-001).
- 2 If HEATER 142DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (142DU) (Ref. AMM TASK 30-71-53-000-003) and (Ref. AMM TASK 30-71-53-400-003).
- 3 If HEATER 146DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (146DU) (Ref. AMM TASK 30-71-53-000-003) and (Ref. AMM TASK 30-71-53-400-003).
- 4 If HEATER 147DU stays cold:
 - Replace HEATER ELEMENT-WASTE WATER DE ICING (147DU) (Ref. AMM TASK 30-71-53-000-003) and (Ref. AMM TASK 30-71-53-400-003).
- (d) If there is no 115 VAC:
 - Do a check and repair the wiring between:
 CONTROL UNIT 140DU connector A/14 and CB 8DU.
- (e) If there is no 28 VDC:
 - Do a check and repair the wiring between:
 CONTROL UNIT 140DU connector A/16 and CB 9DU.
- (f) If there is no GND:
 - 1 Do a check and repair the related wiring between:
 - CONTROL UNIT 140DU connector A/12 and GND
 - CONTROL UNIT 140DU connector A/15 and GND (Ref. ASM 30-71/01).

EFF: 276-299, 476-499, 503-549,

30-71-00

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- (4) If one microfuse is not OK:
 - (a) Do a check for a short circuit (Ref. ASM 30-71/01).
 - (b) Replace the microfuse.

**ON A/C ALL

E. Do the test as given in Para. 3.A.

5. Close-up

A. Put the aircraft back to its initial configuration.

EFF: ALL

30-71-00

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TROUBLE SHOOTING MANUAL

TASK 30-71-00-810-806

Failure of AFT Waste-Water Ice-Protection System

1. Possible Causes

- CONTROL UNIT (15DU)
- DRAINMAST-AFT (14DU)
- SENSOR-TEMP, WASTE WTR (60DU)
- wiring
- CONTROL UNIT 35DU
- SENSOR-WASTE WATER DE ICING (70DU)
- HEATER 71DU
- HEATER 72DU
- HEATER 73DU
- microfuse
- CONTROL UNIT (103DW)
- HEATER 61DU
- HEATER 62DU

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE QTY DESIGNATION

No specific

cooling spray

B. Referenced Information

REFERENCE		DESIGNATION
AMM	30-71-00-710-002	Operational Test of the Waste-Water Ice-Protection Heater-Elements
AMM	30-71-17-000-001	Removal of the Waste-Water De-icing Sensor (40DU)
AMM	30-71-17-400-001	<pre>Installation of the Waste-Water De-icing Sensor (40DU)</pre>
AMM	30-71-18-000-001	Removal of Sensor
AMM	30-71-18-400-001	Installation of Sensor
AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit
AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>
AMM	30-71-51-000-001	Removal of the Drain Mast
AMM	30-71-51-400-001	Installation of the Drain Mast
AMM	30-71-53-000-001	Removal of the Waste-Water De-icing Heater Elements (41DU, 42DU)

EFF: ALL

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REFERENCE		DESIGNATION
A M M	70 74 57 /00 004	Tartallation of the Heats Nation De inion Heats
AMM	30-71-53-400-001	Installation of the Waste-Water De-icing Heater Elements (41DU, 42DU)
AMM	30-71-58-000-001	Removal of AFT Waste-Pipe Heating Elements
AMM	30-71-58-400-001	Installation of AFT Waste-Pipe Heating Elements
AMM	30-73-00-740-001	BITE Test of the Potable Water Ice-Protection
AMM	30-73-34-000-001	Removal of the Potable and Waste Water Ice Protection Control Unit (3DW)
AMM	30-73-34-400-001	<pre>Installation of the Potable and Waste Water Ice Protection Control Unit (3DW)</pre>
ASM	30-71/01	

3. Fault Confirmation

A. Do the operational test of the waste-water ice-protection system (Ref. AMM TASK 30-71-00-710-002).

4. Fault Isolation

- A. If the green 'UNIT' LED of the CONTROL UNIT 15DU does not come on:
 - replace the CONTROL UNIT (15DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).
- B. If the green 'HTR' LED of the CONTROL UNIT 15DU does not come on:
 - Do a check of the resistance value of the drainmast heater and temperature sensor. Refer to the related CMM for the correct values. If the fault continues:
 - Replace the DRAINMAST-AFT (14DU) (Ref. AMM TASK 30-71-51-000-001) and (Ref. AMM TASK 30-71-51-400-001).
 - (1) If the fault continues:
 - Do a check and repair the wiring between: CONTROL UNIT 15DU connector A/4 and DRAINMAST 14DU connector A/D CONTROL UNIT 15DU connector A/5 and DRAINMAST 14DU connector A/E CONTROL UNIT 15DU connector A/8 and DRAINMAST 14DU connector A/B DRAINMAST 14DU connector A/C and GND DRAINMAST 14DU connector A/A and GND (Ref. ASM 30-71/01).
- C. If the green 'UNIT' LED and the green 'HTR' LED of the CONTROL UNIT 15DU do not come on:
 - do a check for the subsequent signals:
 115VAC at CONTROL UNIT 15DU connector A/14,
 GND at CONTROL UNIT 15DU connector A/15 (Ref. ASM 30-71/01).
 - (1) If the two signals are OK:
 - replace the CONTROL UNIT (15DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).

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- (2) If there is no 115 VAC:
 - do a check and repair the wiring between:
 CONTROL UNIT 15DU connector A/14 and CB 11DU (Ref. ASM 30-71/01).
- (3) If there is no GND:
 - do a check and repair the wiring between:
 CONTROL UNIT 15DU connector A/15 and GND (Ref. ASM 30-71/01).
- R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-475, 479-499,
 - D. If the green I/II LED of CONTROL UNIT 35DU does not come on: - do a check of the related microfuses.
 - (1) If the microfuses are OK:
 - replace the CONTROL UNIT 35DU (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).
 - (2) If the fault continues:
 - NOTE: Remove the insulation from around the SENSOR 70DU and the HEATERS 71DU, 72DU and 73DU.
 - apply cooling spray to the SENSOR 70DU for at least 10 s,
 - stop for approx. 120 s,
 - do a check of the temperature of the HEATERs 71DU, 72DU and 73DU.
 - (a) If the HEATERS 71DU, 72DU and 73DU stay cold:
 - replace the SENSOR-WASTE WATER DE ICING (70DU) (Ref. AMM TASK 30-71-18-000-001) and (Ref. AMM TASK 30-71-18-400-001).
 - (b) If the HEATER 71DU stays cold:
 - replace the HEATER 71DU (Ref. AMM TASK 30-71-58-000-001) and (Ref. AMM TASK 30-71-58-400-001).
 - (c) If the HEATER 72DU stays cold:
 - replace the HEATER 72DU (Ref. AMM TASK 30-71-58-000-001) and (Ref. AMM TASK 30-71-58-400-001).
 - (d) If the HEATER 73DU stays cold:
 - replace the HEATER 73DU (Ref. AMM TASK 30-71-58-000-001) and (Ref. AMM TASK 30-71-58-400-001).
 - (3) If one microfuse is not OK:
 - do a check for a short circuit (Ref. ASM 30-71/01),
 - replace the microfuse.

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**ON A/C 254-275,

- D. If the green 'UNIT' LED and the green 'HTR' LED of the CONTROL UNIT 5DU come on:
 - do the BITE test of the potable-water ice-protection system (Ref. AMM TASK 30-73-00-740-001).
 - (1) If the green I/II LED of the CONTROL UNIT 103DW does not come on:

 do a check of the related microfuses.
 - (a) If the microfuses are OK:
 - replace the CONTROL UNIT (103DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - (b) If the fault continues:

NOTE : Remove the insulation from around the SENSOR 60DU, the HEATER 61DU and the HEATER 62DU.

- apply cooling spray to the SENSOR 60DU for at least 10 s,
- stop for approx. 120 s,
- do a check of the temperature of the HEATER 61DU and HEATER
 62DU.
- 1 If the HEATER 61DU and HEATER 62DU stay cold:
 - replace the SENSOR-TEMP, WASTE WTR (60DU) (Ref. AMM TASK 30-71-17-000-001) and (Ref. AMM TASK 30-71-17-400-001).
- 2 If the HEATER 61DU stays cold:
 - replace the HEATER 61DU (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
- 3 If the HEATER 62DU stays cold:
 - replace the HEATER 62DU (Ref. AMM TASK 30-71-53-000-001) and (Ref. AMM TASK 30-71-53-400-001).
- (c) If one microfuse is not OK:
 - do a check for a short circuit (Ref. ASM 30-71/01),
 - replace the microfuse.

**ON A/C ALL

- E. Do the test as given in Para. 3.A.
- 5. Close-up
 - A. Put the aircraft back to its initial configuration.

EFF: ALL

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TROUBLE SHOOTING MANUAL

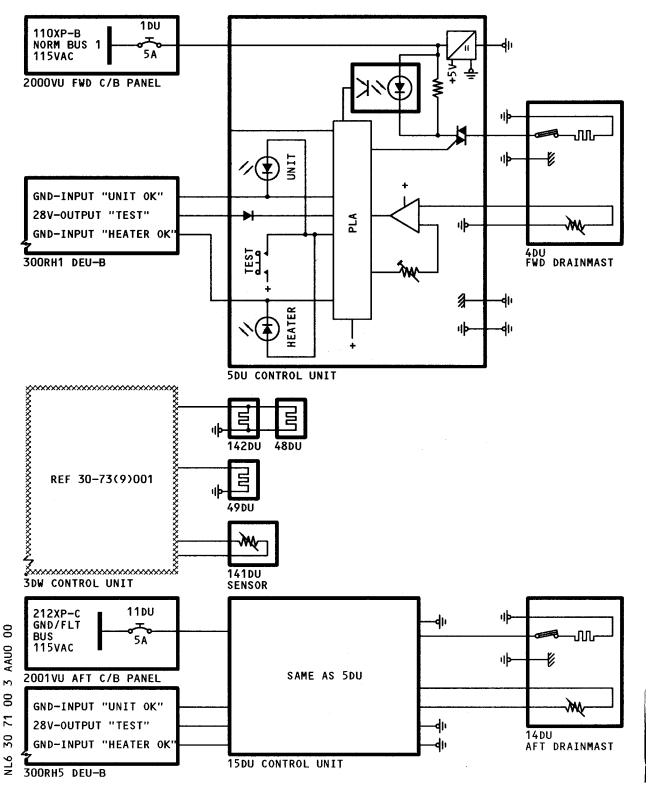
DRAIN MAST ICE PROTECTION - TASK SUPPORTING DATA

EFF: ALL

30-71-00

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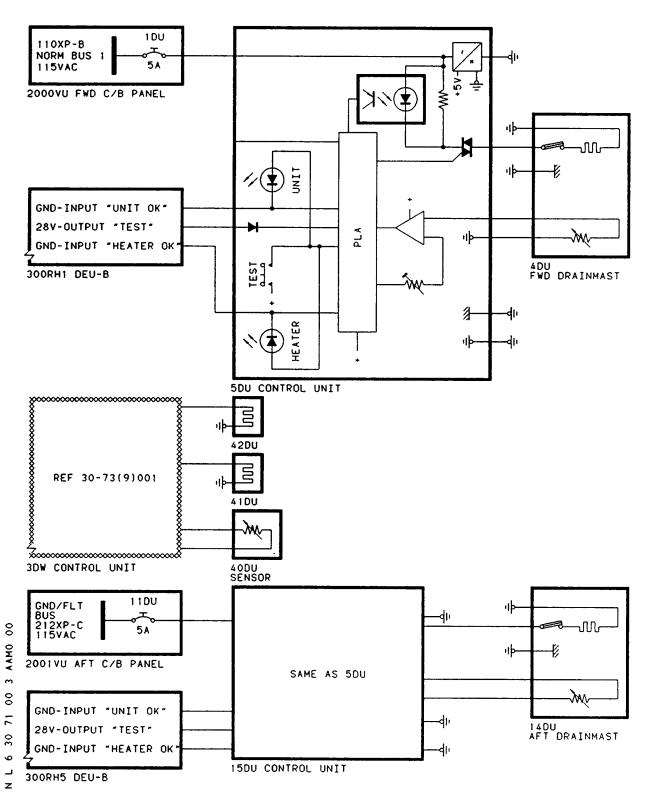
TROUBLE SHOOTING MANUAL



Waste-Water Ice Protection - Electrical Schematic Figure 301

R EFF: 201-225, 451-475, 551-599, 30-71-00 Page 302 Nov 01/03 SROS

TROUBLE SHOOTING MANUAL



Waste-Water Ice Protection - Electrical Schematic Figure 301A

R EFF: 227-227, 229-275, 426-450, 701-749, SROS

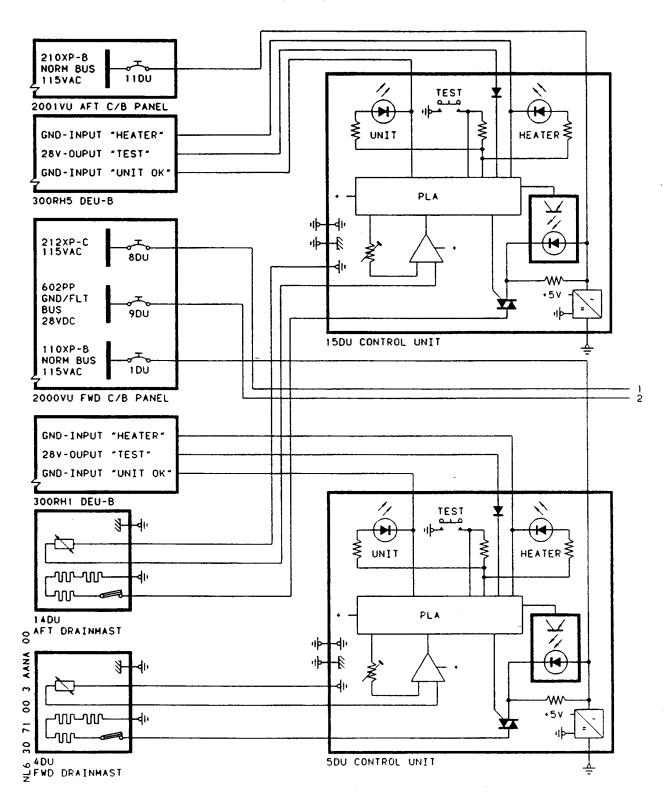
Printed in France

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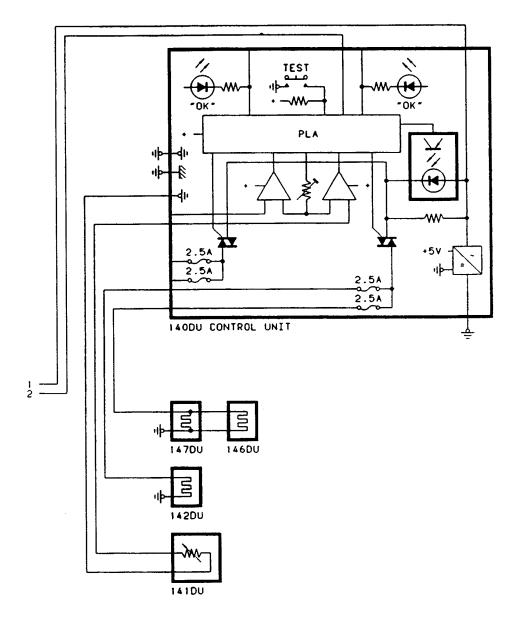
Waste-Water Ice Protection - Electrical Schematic Figure 301B (SHEET 1)

R EFF: 276-299, 476-499, 503-549,

SROS

Printed in France

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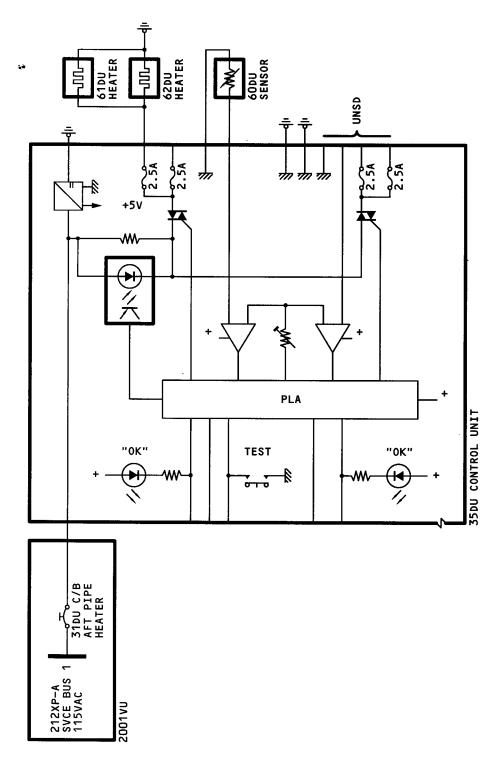


Waste-Water Ice Protection - Electrical Schematic Figure 301B (SHEET 2)

R EFF: 276-299, 476-499, 503-549, SROS 30-71-00

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Waste-Water Ice Protection - Electrical Schematic Figure 302

EFF : 254-275, SROS 30-71-00

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TROUBLE SHOOTING MANUAL

WATER SERVICING PANELS HEATING - FAULT ISOLATION PROCEDURES

TASK 30-72-00-810-801

Failure of heated Fill/Drain Nipple

- 1. Possible Causes
 - THERMOSTAT-FILL AND DRAIN NIPPLE (12DV)
 - NIPPLE-FILL AND DRAIN (11DV)
 - wiring
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE

QTY DESIGNATION

No specific cooling spray

No specific access platform 2 m (6 ft. 7 in.)

B. Referenced Information

REFERENCE	DESIGNATION

AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the
		External Power
AMM	30-72-52-000-001	Removal of the Heated Fill/Drain Nipple 11DV and/or
		Overflow Nipple 13DV
AMM	30-72-52-400-001	Installation of the Heated Fill/Drain Nipple 11DV
		and/or Overflow Nipple 13DV
AMM	52-30-00-860-006	Open the Bulk Cargo-Compartment Door

3. Fault Confirmation

ASM 30-72/01

- A. Aircraft Maintenance Configuration
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Put an access platform in position at the potable-water service panel 171AL.
 - (3) Open the BULK cargo-compartment door (Ref. AMM TASK 52-30-00-860-006).
 - (4) Open the sidewall panel 161DW to get access to the thermostat 12DV.

EFF: ALL

30-72-00

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**ON A/C 201-225, 276-299, 451-499, 503-549, 551-599,

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

______ SERVICE

2001VU HEATER SERV PANEL

15DV D01

R **ON A/C 227-227, 229-275, 426-450, 701-749,

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

PANEL SERVICE IDENT. LOCATION ______

15DV 2001VU WATER SERVICE PANEL HEATER FN8

**ON A/C ALL

C. Do this test:

ACTION RESULT ______

At the potable-water service At the potable-water service panel

- apply cooling spray on and around the thermostat 12DV for at least 10 s.

(outboard side):

- make sure that the heated fill/drain nipple 11DV becomes warm

- 4. Fault Isolation
 - A. If the heated fill/drain nipple 11DV stays cold:
 - replace the THERMOSTAT-FILL AND DRAIN NIPPLE (12DV) (Ref. AMM TASK 30-72-52-000-001) and (Ref. AMM TASK 30-72-52-400-001).
 - (1) If the fault continues:
 - replace the NIPPLE-FILL AND DRAIN (11DV) (Ref. AMM TASK 30-72-52-000-001) and (Ref. AMM TASK 30-72-52-400-001).
 - (2) If the fault continues:
 - do a check for the subsequent signals: 115VAC at TERMINAL BLOCK 7510VT connector 6/F, GND at TERMINAL BLOCK 7510VT connector 6/A.
 - (a) If one signal is not OK:
 - do a check and repair the related wiring (Ref. ASM 30-72/01).

30-72-00 EFF: ALL

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B. Do the test as given in Para. 3.C.

5. Close-up

A. Put the aircraft back to the serviceable condition.

EFF: ALL
SROS

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R **ON A/C 201-225, 276-299, 451-499, 503-549, 551-599,

TASK 30-72-00-810-802

Failure of heated Overflow Nipple

- 1. Possible Causes
 - THERMOSTAT-OVERFLOW NIPPLE (14DV)
 - NIPPLE-OVERFLOW (13DV)
 - wiring
- 2. Job Set-up Information
 - A. Fixtures, Tools, Test and Support Equipment

REFERENCE **QTY DESIGNATION**

No specific

cooling spray

No specific

access platform 2 m (6 ft. 7 in.)

B. Referenced Information

REFERENCE		DESIGNATION
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power
AMM	30-72-52-000-001	Removal of the Heated Fill/Drain Nipple 11DV and/or Overflow Nipple 13DV
AMM	30-72-52-400-001	<pre>Installation of the Heated Fill/Drain Nipple 11DV and/or Overflow Nipple 13DV</pre>
AMM ASM	52-30-00-860-006 30-72/01	Open the Bulk Cargo-Compartment Door

- 3. Fault Confirmation
 - A. Aircraft Maintenance Configuration
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Put an access platform in position at the potable-water service panel 171AL.
 - (3) Open the BULK cargo-compartment door (Ref. AMM TASK 52-30-00-860-006).

201-225, 276-299, 451-499, 503-549, 551-599,

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- (4) Open the sidewall panel 161DW to get access to the thermostat 14DV.
- B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL SERVICE 2001VU WATER SERV PANEL 15DV DO1

C. Do this test:

1. At the potable-water service panel (inboard side):

at least 10 seconds.

At the potable-water service panel (outboard side):

- apply cooling spray on and around the thermostat 14DV for nipple 13DV becomes warm.

4. Fault Isolation

- A. If the overflow nipple 13DV stayes cold:
 - replace the THERMOSTAT-OVERFLOW NIPPLE (14DV) (Ref. AMM TASK 30-72-52-000-001) and (Ref. AMM TASK 30-72-52-400-001).
 - (1) If the fault continues:
 - replace the NIPPLE-OVERFLOW (13DV) (Ref. AMM TASK 30-72-52-000-001) and (Ref. AMM TASK 30-72-52-400-001).
 - (a) If the fault continues:
 - check for the subsequent signals at the terminal block 7510VT7:
 - 115VAC at 7510VT7/F;
 - GND at 7510VT7/A.
 - 1 If one signal is missing:
 - check and repair the wiring (Ref. ASM 30-72/01).
- B. Do the test as given in Para. 3.C.
- 5. Close-up
 - A. Put the aircraft back to the serviceable condition.

201-225, 276-299, 451-499, 503-549,

30-72-00

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TROUBLE SHOOTING MANUAL

R **ON A/C 201-225, 227-227, 229-253, 276-299, 426-475, 479-499,

TASK 30-72-00-810-804

Failure of heated Drain Nipple on the Waste-Water Service Panel

- 1. Possible Causes
 - CONTROL UNIT (35DU)
 - NIPPLE ASSY-LAV DRAIN (21DV)
 - aircraft wiring
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION		
AMM	24-41-00-861-002	Energize the Aircraft Electrical Circuits from the External Power		
AMM	30-71-34-000-001	Removal of the Waste-Water Ice-Protection Control-Unit		
AMM	30-71-34-400-001	<pre>Installation of the Waste-Water Ice-Protection Control-Unit</pre>		
AMM	30-72-52-000-002	Removal of the Heated Drain Nipple 21DV		
AMM	30-72-52-400-002	Installation of the Heated Drain Nipple 21DV		
AMM	52-30-00-860-001	Open the FWD or AFT Cargo-Compartment Door with the Yellow Electric Pump		
ASM	30-72/01	·		

3. Fault Confirmation

- A. Aircraft Maintenance Configuration
 - (1) Energize the aircraft electrical circuits (Ref. AMM TASK 24-41-00-861-002).
 - (2) Open the AFT cargo-compartment door (Ref. AMM TASK 52-30-00-860-001).
 - (3) Open the sidewall panel 162CW to get access to the control unit 35DU.
- B. Make sure that this(these) circuit breaker(s) is(are) closed:

PANEL	SERVICE	IDENT.	LOCATION
	ICE PROT - CTL	10 D U	D06
2001VU	ICE PROT - HTR	31DU	D07

EFF: 201-225, 227-227, 229-253, 276-299, 426-475, 479-499,

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TROUBLE SHOOTING MANUAL

C. Do this test.

NOTE: The control unit 35DU controls and monitors heaters of the water servicing ice-protection and of the waste-water ice-protection. The result of HTRs of the waste water ice-protection system are indicated in parentheses, because the principal interest of this test is the water servicing ice-protection.

ACTION RESULT

1. On the control unit 35DU:push and hold the TEST pushbutton switch.

- On the control unit 35DU:
 the green LED III/IV (I/II) comes on.
- release the TEST pushbutton switch.
- the green LED III/IV (I/II) goes off.

4. Fault Isolation

- A. If the LED III/IV does not come on:
 - replace the CONTROL UNIT (35DU) (Ref. AMM TASK 30-71-34-000-001) and (Ref. AMM TASK 30-71-34-400-001).
 - (1) If the fault continues:
 - replace the NIPPLE ASSY-LAV DRAIN (21DV) (Ref. AMM TASK 30-72-52-000-002) and (Ref. AMM TASK 30-72-52-400-002).
 - (a) If the fault continues:
 - do a check for the subsequent signals: 115VAC at control unit 35DU connector A/14, 28VDC at control unit 35DU connector A/16, GND at control unit 35DU connector A/15 (Ref. ASM 30-72/01).
 - If the signals are OK:
 - check and repair the aircraft wiring between control unit 35DU connector A/20 and terminal block 7585VT3/B control unit 35DU connector A/17 and terminal block 7585VT2/K control unit 35DU connector A/18 and terminal block 7585VT2/A.
 - If one signal is missing:
 - do a check and repair of the related aircraft wiring (Ref. ASM 30-72/01).
- B. Do the test as given in Para. 3.C.

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A. Put the aircraft back to the serviceable condition.

EFF: 201-225, 227-227, 229-253, 276-299, 426-475, 479-499, SROS

30-72-00

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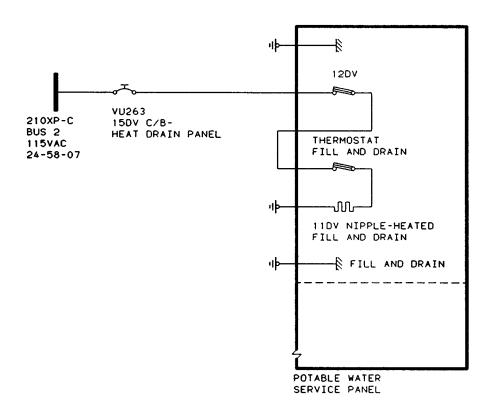
WATER SERVICING PANELS HEATING - TASK SUPPORTING DATA

EFF: ALL

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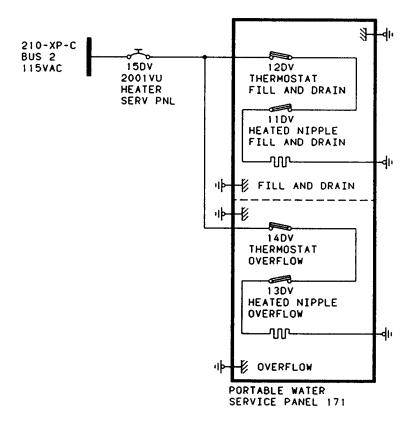
Water Servicing-Panel Heating - Electrical Schematic Figure 301

R EFF: 201-225, 227-227, 229-275, 426-475, 551-599, 701-749, SROS

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Water Servicing-Panel Heating - Electrical Schematic Figure 301A

Printed in France

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

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POTABLE WATER ICE PROTECTION - FAULT ISOLATION PROCEDURES

TASK 30-73-00-810-801

Ice Formation in the Potable Water Lines

1. Possible Causes

- CTL UNIT-POTABLE AND WASTE WATER DEICING (3DW)
- SENSOR-POTABLE WATER DE ICING (10DW)
- 300DW (300DW)
- UNIT-CONTROL (23DW)
- SENSOR (29DW)
- R SENSOR (30DW)
 - UNIT-CONTROL (33DW)
- R SENSOR (40DW)
- R UNIT-CONTROL (53DW)
- R SENSOR (60DW)
- R SENSOR (61DW)
 - HEATER(s)
 - microfuse
 - aircraft wiring

2. Job Set-up Information

A. Referenced Information

30-71-00-810-805		DESIGNATION
		Failure of FWD Waste-Water Ice-Protection System
AMM	30-73-00-720-001	Functional Test of the Potable Water Ice-Protection
AMM	30-73-00-740-001	BITE Test of the Potable Water Ice-Protection
AMM	30-73-17-000-001	Removal of the Potable-Water De-icing Sensor (10DW)
AMM	30-73-17-400-001	<pre>Installation of the Potable-Water De-icing Sensor (10DW)</pre>
AMM	30-73-18-000-001	Removal of the Potable Water De-icing Sensor (29DW)
AMM	30-73-18-400-001	Installation of the Potable Water De-icing Sensor (29DW)
AMM	30-73-19-000-001	Removal of Temperature Sensor 30DW (40DW, 60DW, 61DW, 70DW, 90DW, 210DW)
AMM	30-73-19-400-001	Installation of Temperature Sensor 30DW (40DW, 60DW, 61DW, 70DW, 90DW, 210DW)
AMM	30-73-34-000-001	Removal of the Potable and Waste Water Ice Protection Control Unit (3DW)
AMM	30-73-34-400-001	Installation of the Potable and Waste Water Ice
		Protection Control Unit (3DW)
AMM	30-73-35-000-001	Removal of the Potable-Water Ice-Protection
		Control-Unit 33DW (53DW)
AMM	30-73-35-400-001	<pre>Installation of the Potable-Water Ice-Protection Control-Unit 33DW (53DW)</pre>

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REFE	RENCE	DESIGNATION
AMM	30-73-53-000-001	Removal of the Potable-Water De-icing Heater Elements (4DW, 5DW, 6DW, 9DW)
AMM	30-73-53-400-001	Installation of the Potable-Water De-icing Heater Elements (4DW, 5DW, 6DW, 9DW)
AMM	30-73-54-000-001	Removal of the Inner Line Heater (25DW)
AMM	30-73-54-400-001	Installation of the Inner Line Heater (25DW)
AMM	30-73-55-000-001	Removal of the Potable-Water Heater Elements
AMM	30-73-55-400-001	Installation of the Potable-Water Heater Elements
ASM	30-73/01	
ASM	30-73/02	

3. Fault Confirmation

- A. Do the BITE test of the potable water ice-protection (Ref. AMM TASK 30-73-00-740-001).
- 4. Fault Isolation
- R **ON A/C 201-225, 227-227, 229-275, 426-475, 551-599, 701-749,
 - A. Maintenance Action for CONTROL UNIT 3DW
 - (1) If the green I/II LED of CONTROL UNIT 3DW does not come on: - do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the CTL UNIT-POTABLE AND WASTE WATER DEICING (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-53-000-001) and (Ref. AMM TASK 30-73-53-400-001).
 - a If all applicable HEATERs stay cold:
 - replace the SENSOR-POTABLE WATER DE ICING (10DW) (Ref. AMM TASK 30-73-17-000-001) and (Ref. AMM TASK 30-73-17-400-001).
 - (b) If one microfuse is not OK:
 - do a check for a short circuit and replace the microfuse (Ref. ASM 30-73/01).

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- (2) If the green III/IV LED of the CONTROL UNIT 3DW does not come on: - do the trouble shooting of the FWD waste-water ice-protection system (Ref. TASK 30-71-00-810-805)
- (3) If both green LEDs do not come on:
 - replace the CTL UNIT-POTABLE AND WASTE WATER DEICING (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - (a) If the fault continues:
 - do a check of the subsequent signals:
 - 115VAC at connector 3DW-A/14,
 - 28VDC at connector 3DW-A/16,
 - GND at connector 3DW-A/12,
 - GND at connector 3DW-A/15 (Ref. ASM 30-73/01).
 - 1 If one signal is missing:
 - do a check and repair of the aircraft wiring (Ref. ASM 30-73/01).

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

- A. Maintenance Action for CONTROL UNIT 3DW
 - (1) If the green I/II LED of CONTROL UNIT 3DW does not come on: - do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the CTL UNIT-POTABLE AND WASTE WATER DEICING (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-53-000-001) and (Ref. AMM TASK 30-73-53-400-001).
 - a If all applicable HEATERs stay cold:
 - replace the SENSOR-POTABLE WATER DE ICING (10DW) (Ref. AMM TASK 30-73-17-000-001) and (Ref. AMM TASK 30-73-17-400-001).
 - (b) If one microfuse is not OK:
 - do a check for a short circuit and replace the microfuse (Ref. ASM 30-73/01).

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EFF:

ALL

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- (2) If the green III/IV LED of the CONTROL UNIT 3DW does not come on:
 do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the CTL UNIT-POTABLE AND WASTE WATER DEICING (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-53-000-001) and (Ref. AMM TASK 30-73-53-400-001).
 - (b) If one microfuse is not OK:
 - do a check for a short circuit and replace the microfuse (Ref. ASM 30-73/01).
- (3) If both green LEDs do not come on:
 - replace the CTL UNIT-POTABLE AND WASTE WATER DEICING (3DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - (a) If the fault continues:
 - do a check of the subsequent signals:
 - 115VAC at connector 3DW-A/14,
 - 28VDC at connector 3DW-A/16,
 - GND at connector 3DW-A/12,
 - GND at connector 3DW-A/15 (Ref. ASM 30-73/01).
 - 1 If one signal is missing:
 - do a check and repair of the aircraft wiring (Ref. ASM 30-73/01).

**ON A/C 254-275,

- B. Maintenance Action for CONTROL UNIT 23DW
 - (1) If the green I/II LED of CONTROL UNIT 23DW does not come on: - do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the UNIT-CONTROL (23DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related

EFF: 254-299, 476-499, 503-549,

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HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-54-000-001) and (Ref. AMM TASK 30-73-54-400-001) or (Ref. AMM TASK 30-73-55-000-001) and (Ref. AMM TASK 30-73-55-400-001).

- a If all applicable HEATERs stay cold:
 - replace the SENSOR (29DW) (Ref. AMM TASK 30-73-18-000-001) and (Ref. AMM TASK 30-73-18-400-001).
- (b) If one microfuse is not OK:
 - do a check for a short circuit and replace the microfuse (Ref. ASM 30-73/01).
- (2) If the green III/IV LED of the CONTROL UNIT 23DW does not come on: - do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the UNIT-CONTROL (23DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-55-000-001) and (Ref. AMM TASK 30-73-55-400-001).
 - a If all applicable HEATERs stay cold:
 - replace the SENSOR (30DW) (Ref. AMM TASK 30-73-19-000-001) and (Ref. AMM TASK 30-73-19-400-001).
 - (b) If one microfuse is not OK:
 - do a check for a short circuit and replace the microfuse (Ref. ASM 30-73/01).
- (3) If both green LEDs do not come on:
 - replace the UNIT-CONTROL (23DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - (a) If the fault continues:
 - do a check of the subsequent signals:
 - 115VAC at connector 23DW-A/14,
 - 28VDC at connector 23DW-A/16,
 - GND at connector 23DW-A/12,
 - GND at connector 23DW-A/15 (Ref. ASM 30-73/01).
 - 1 If one signal is missing:
 - do a check and repair of the aircraft wiring (Ref. ASM 30-73/01).

EFF: 254-275,

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- R **ON A/C 227-227, 229-253,
- R Post SB 38-1045 For A/C 227-227,229-245,
 - B. Maintenance Action for CONTROL UNIT 23DW
 - (1) If the green I/II LED of CONTROL UNIT 23DW does not come on: - do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the UNIT-CONTROL (23DW) (Ref. AMM TASK 30-73-34-000-001) and (Ref. AMM TASK 30-73-34-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-54-000-001) and (Ref. AMM TASK 30-73-55-400-001) and (Ref. AMM TASK 30-73-55-400-001).
 - $\underline{\mathbf{a}}$ If all applicable HEATERs stay cold:
 - replace the SENSOR (29DW) (Ref. AMM TASK 30-73-18-000-001) and (Ref. AMM TASK 30-73-18-400-001).
 - (b) If one microfuse is not OK:
 - do a check for a short circuit and replace the microfuse (Ref. ASM 30-73/01).

**ON A/C 254-275,

- C. Maintenance Action for CONTROL UNIT 33DW
 - (1) If the green I/II LED of the CONTROL UNIT 33DW does not come on: - do the trouble shooting of the FWD waste-water ice-protection system (Ref. TASK 30-71-00-810-805)
 - (2) If the green III/IV LED of CONTROL UNIT 33DW does not come on: - do a check of the related microfuses:
 - (a) If the microfuses are OK:
 - replace the UNIT-CONTROL (33DW) (Ref. AMM TASK 30-73-35-000-001) and (Ref. AMM TASK 30-73-35-400-001).
 - 1 If the fault continues:
 - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-55-000-001) and (Ref. AMM TASK 30-73-55-400-001).

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EFF: 227-227, 229-275,

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R
                      If all applicable HEATERs stay cold:
R
                       replace the SENSOR (40DW) (Ref. AMM TASK 30-73-19-000-
                         001) and (Ref. AMM TASK 30-73-19-400-001).
R
             (b) If one microfuse is not OK:
R
                 - do a check for a short circuit and replace the microfuse (Ref.
R
R
                   ASM 30-73/02).
         (3) If both green LEDs do not come on:
R
             - replace the UNIT-CONTROL (33DW) (Ref. AMM TASK 30-73-35-000-001)
R
               and (Ref. AMM TASK 30-73-35-400-001).
R
             (a) If the fault continues:
R
                 - do a check of the subsequent signals:
R
                   - 115VAC at connector 33DW-A/14,
R
                   - 28VDC at connector 33DW-A/16,
R
R
                   - GND at connector 33DW-A/12,
                   - GND at connector 33DW-A/15 (Ref. ASM 30-73/02).
R
                 1 If one signal is missing:
R
                    - do a check and repair of the aircraft wiring (Ref. ASM 30-
R
R
                      73/02).
      D. Maintenance Action for CONTROL UNIT 53DW
R
         (1) If the green I/II LED of CONTROL UNIT 53DW does not come on:
R
             - do a check of the related microfuses:
R
R
             (a) If the microfuses are OK:
                 - replace the UNIT-CONTROL (53DW) (Ref. AMM TASK 30-73-35-000-
R
                   001) and (Ref. AMM TASK 30-73-35-400-001).
R
                   If the fault continues:
R
                    - do the functional test of the potable water ice protection
R
                      (Ref. AMM TASK 30-73-00-720-001) and replace the related
R
                      HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-55-000-
R
R
                      001) and (Ref. AMM TASK 30-73-55-400-001).
                      If all applicable HEATERs stay cold:
R
                       - replace the SENSOR (60DW) (Ref. AMM TASK 30-73-19-000-
R
                         001) and (Ref. AMM TASK 30-73-19-400-001).
R
R
             (b) If one microfuse is not OK:
                 - do a check for a short circuit and replace the microfuse (Ref.
R
                   ASM 30-73/02).
R
         (2) If the green III/IV LED of the CONTROL UNIT 53DW does not come on:
R
             - do a check of the related microfuses:
R
             (a) If the microfuses are OK:
R
                 - replace the UNIT-CONTROL (53DW) (Ref. AMM TASK 30-73-35-000-
R
                   001) and (Ref. AMM TASK 30-73-35-400-001).
R
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1 If the fault continues: R R - do the functional test of the potable water ice protection (Ref. AMM TASK 30-73-00-720-001) and replace the related R HEATER(s) which stay(s) cold (Ref. AMM TASK 30-73-55-000-R 001) and (Ref. AMM TASK 30-73-55-400-001). R R If all applicable HEATERs stay cold: R - replace the SENSOR (61DW) (Ref. AMM TASK 30-73-19-000-001) and (Ref. AMM TASK 30-73-19-400-001). R (b) If one microfuse is not OK: R R - do a check for a short circuit and replace the microfuse (Ref. R ASM 30-73/02). (3) If both green LEDs do not come on: R - replace the UNIT-CONTROL (53DW) (Ref. AMM TASK 30-73-35-000-001) R R and (Ref. AMM TASK 30-73-35-400-001). (a) If the fault continues: R - do a check of the subsequent signals: R R - 115VAC at connector 53DW-A/14, - 28VDC at connector 53DW-A/16, - GND at connector 53DW-A/12, R - GND at connector 53DW-A/15 (Ref. ASM 30-73/02). R R 1 If one signal is missing: R - do a check and repair of the aircraft wiring (Ref. ASM 30-73/02). R

**ON A/C ALL

R E. Do the test as given in the Para. 3.A.

5. Close-up

A. Put the aircraft back to its initial configuration.

EFF: ALL

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@A319/A320/A321

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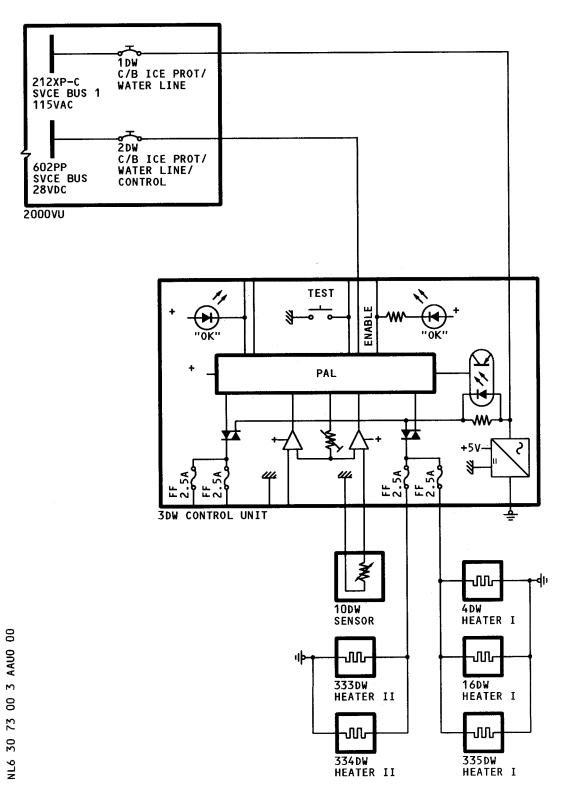
POTABLE WATER ICE PROTECTION - TASK SUPPORTING DATA

EFF: ALL

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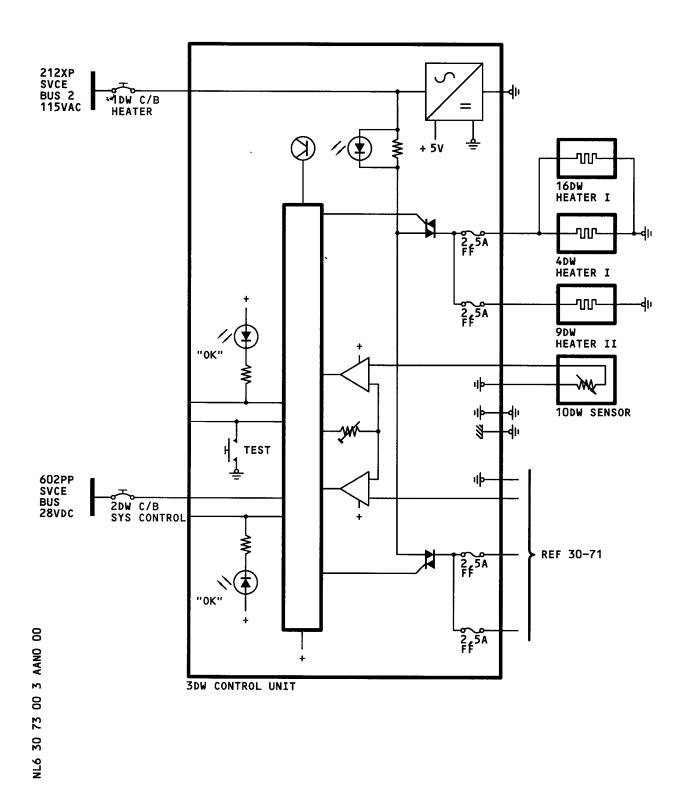


Potable Water Ice Protection - Electrical Schematic Figure 301

R EFF: 201-225, 451-475, 551-599, SROS 30-73-00

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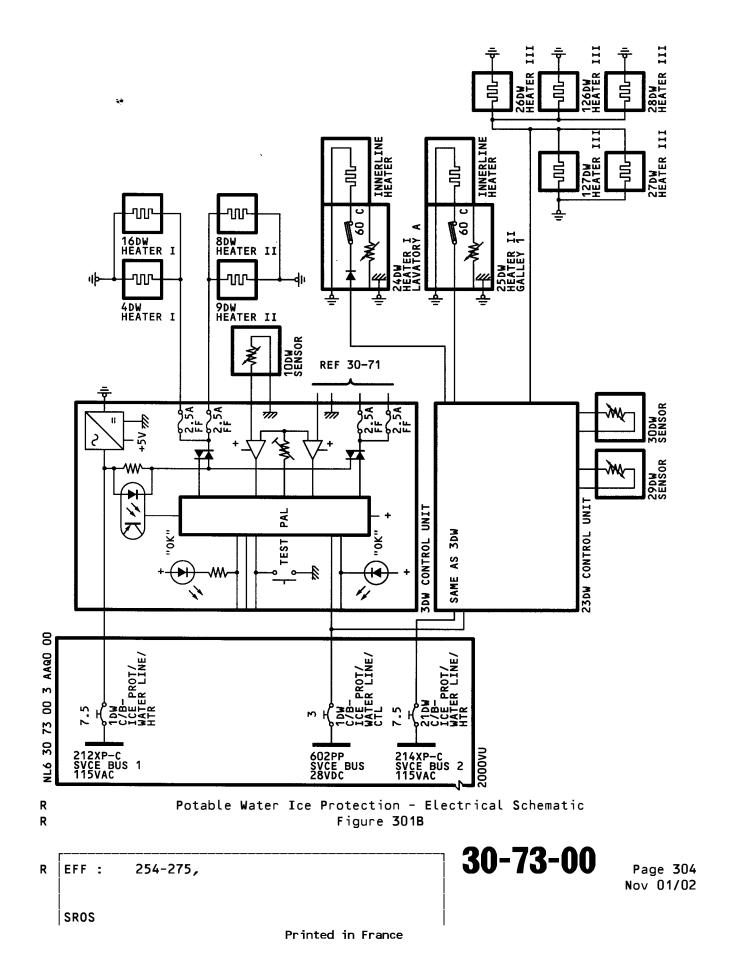
Potable Water Ice Protection - Electrical Schematic Figure 301A

R EFF: 227-227, 229-253, 426-450, 701-749, SROS

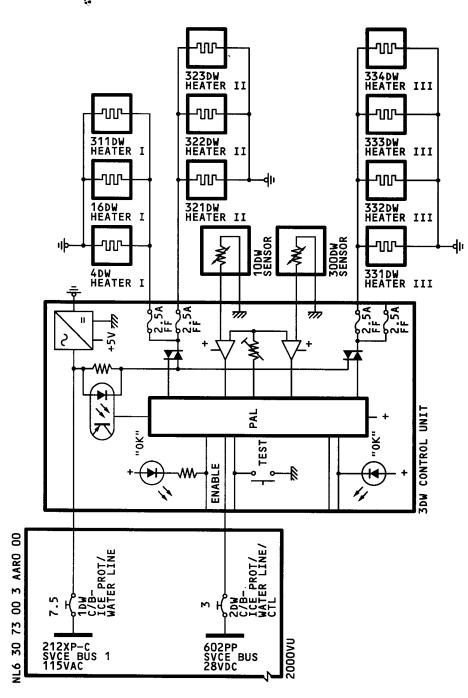
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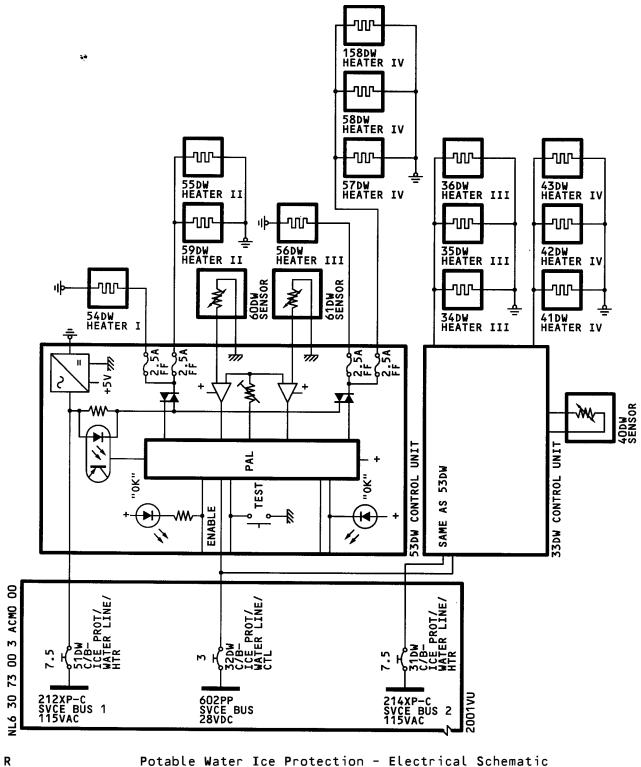
Potable Water Ice Protection - Electrical Schematic Figure 301C

276-299, 476-499, 503-549, EFF: **SROS**

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Potable Water Ice Protection - Electrical Schematic Figure 302

EFF : 254-275, SROS

R

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TROUBLE SHOOTING MANUAL

ICE DETECTION - FAULT ISOLATION PROCEDURES

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

TASK 30-81-00-810-801

Loss of the L Ice Detector and the R Ice Detector

- 1. Possible Causes
 - DET-ICE, L (2DD1)
 - DET-ICE, R (2DD2)
 - wiring between pin A/7 of the L ice detector and the ground terminal
 - wiring between pin A/7 of the R ice detector and the ground terminal
 - wiring between pin A/1 of the L ice detector and the circuit breaker (4DD1)
 - wiring between pin A/1 of the R ice detector and the circuit breaker (4DD2)
 - C/B-ANTI ICE/ICE DET/L (4DD1)
 - C/B-ANTI ICE/ICE DET/R (4DD2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION

AMM 30-81-00-710-001 Operational Test of the Ice Detection System AMM 30-81-31-000-001 Removal of the Ice Detector (2DD1, 2DD2) AMM 30-81-31-400-001 Installation of the Ice Detector (2DD1, 2DD2)

- 3. Fault Confirmation
 - A. Test

Do the operational test of the ice detection system (Ref. AMM TASK 30-81-00-710-001).

- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL	DESIGNATION	IDENT.	LOCATION
122VU	ANTI ICE/ICE DET/R	4DD2	V 13
122VU	ANTI ICE/ICE DET/L	4DD1	V 12

EFF: ALL 30-

30-81-00

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- B. If the test gives the maintenance message ICE DETECTOR 1 AND ICE DETECTOR 2:
 - do a check of the status of the circuit breakers (4DD1, 4DD2).
 - (1) If these circuit breakers are closed:
 - do a check for 115VAC at pin A/1 of the L ice detector (2DD1) and the R ice detector (2DD2).
 - (a) If there is 115VAC:
 - replace the DET-ICE, L (2DD1) and the DET-ICE, R (2DD2) (Ref. AMM TASK 30-81-31-000-001) and (Ref. AMM TASK 30-81-31-400-001).
 - (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/7 of the L ice detector
 (2DD1) and pin A/7 of the R ice detector (2DD2).
 - 1 If there is no ground signal:
 - repair the wiring between pin A/7 of the L ice detector and the ground terminal and wiring between pin A/7 of the R ice detector and the ground terminal.
 - 2 If there is a ground signal:
 - do a check of the wiring between pin A/1 of the L ice detector and the circuit breaker (4DD1) and the wiring between pin A/1 of the R ice detector and the circuit breaker (4DD2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - b If there is continuity:
 - replace the circuit breaker (4DD1) and the circuit breaker (4DD2).
 - (2) If these circuit breakers are open:
 - close the circuit breakers.
 - (a) If the circuit breakers trip:
 - replace the DET-ICE, L (2DD1) and the DET-ICE, R (2DD2).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between pin A/1 of the L ice detector and the circuit breaker (4DD1) and the wiring between pin A/1 of the R ice detector and the circuit breaker (4DD2).
 - <u>a</u> If there is a short to ground:
 - repair the related wiring.

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

30-81-00

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- (b) If these circuit breakers stay closed and the fault continues: replace the DET-ICE, L (2DD1) and the DET-ICE, R (2DD2).
- C. Do the operational test given in Para. 3.

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TASK 30-81-00-810-802

Loss of the L Ice Detector

- 1. Possible Causes
 - DET-ICE, L (2DD1)
 - wiring between pin A/7 of the L ice detector and the ground terminal
 - wiring between pin A/1 of the L ice detector and the circuit breaker
 (4DD1)
 - C/B-ANTI ICE/ICE DET/L (4DD1)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE	DESIGNATION

AMM 30-81-00-710-001 Operational Test of the Ice Detection System
AMM 30-81-31-000-001 Removal of the Ice Detector (2DD1, 2DD2)
AMM 30-81-31-400-001 Installation of the Ice Detector (2DD1, 2DD2)
ASM 30-81/01

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the ice detection system (Ref. AMM TASK 30-81-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/ICE DET/L

- B. If the test gives the maintenance message ICE DETECTOR 1:do a check of the status of the circuit breaker (4DD1).
 - (1) If the circuit breaker is closed:- do a check for 115VAC at pin A/1 of the L ice detector (2DD1).
 - (a) If there is 115VAC:
 replace the DET-ICE, L (2DD1) (Ref. AMM TASK 30-81-31-000-001)
 and (Ref. AMM TASK 30-81-31-400-001).

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

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V 12

4DD1

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- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/7 of the L ice detector (2DD1):
 - 1 If there is no ground signal:
 - repair the wiring between pin A/7 of the L ice detector and the ground terminal (Ref. ASM 30-81/01).
 - 2 If there is a ground signal:
 - do a check of the wiring between pin A/1 of the L ice detector and the circuit breaker (4DD1).
 - a If there is no continuity: - repair the above wiring.
 - b If there is continuity: - replace the circuit breaker (4DD1).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - (a) If the circuit breaker trips: - replace the DET-ICE, L (2DD1).
 - 1 If the fault continues:
 - do a check for a short to ground at the wiring between pin A/1 of the L ice detector and the circuit breaker (4DD1).
 - a If there is a short to ground: - repair the related wiring.
 - b If there is no short to ground: - replace the C/B-ANTI ICE/ICE DET/L (4DD1).
 - (b) If the circuit breaker stays closed and the fault continues: - replace the DET-ICE, L (2DD1).
- C. Do the operational test given in Para. 3.

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TASK 30-81-00-810-803

Loss of the R Ice Detector

- 1. Possible Causes
 - DET-ICE, R (2DD2)
 - wiring between pin A/7 of the R ice detector and the ground terminal
 - wiring between pin A/1 of the R ice detector and the circuit breaker
 (4DD2)
 - C/B-ANTI ICE/ICE DET/R (4DD2)
- 2. Job Set-up Information
 - A. Referenced Information

REFERENCE		DESIGNATION				
AMM	30-81-00-710-001	Operational Test of the Ice Detection System				

AMM 30-81-00-710-001 Operational Test of the Ice Detection System AMM 30-81-31-000-001 Removal of the Ice Detector (2DD1, 2DD2) AMM 30-81-31-400-001 Installation of the Ice Detector (2DD1, 2DD2) ASM 30-81/01

- 3. Fault Confirmation
 - A. Test
 Do the operational test of the ice detection system (Ref. AMM TASK 30-81-00-710-001).
- 4. Fault Isolation
 - A. Table of the circuit breakers used in this procedure:

PANEL DESIGNATION IDENT. LOCATION

122VU ANTI ICE/ICE DET/R 4DD2 V13

- B. If the test gives the maintenance message ICE DETECTOR 2:do a check of the status of the circuit breaker (4DD2).
 - (1) If the circuit breaker is closed:- do a check for 115VAC at pin A/1 of the R ice detector (2DD2).
 - (a) If there is 115VAC:
 replace the DET-ICE, R (2DD2) (Ref. AMM TASK 30-81-31-000-001)
 and (Ref. AMM TASK 30-81-31-400-001).

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

30-81-00

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- (b) If there is no 115VAC:
 - do a check for a ground signal at pin A/7 of the R ice detector
 (2DD2).
 - 1 If there is no ground signal:
 - repair the wiring between pin A/7 of the R ice detector and the ground terminal (Ref. ASM 30-81/01).
 - 2 If there is a ground signal:
 - do a check of the wiring between pin A/1 of the R ice detector and the circuit breaker (4DD2).
 - <u>a</u> If there is no continuity:repair the above wiring.
 - <u>b</u> If there is continuity:replace the circuit breaker (4DD2).
- (2) If the circuit breaker is open:
 - close the circuit breaker.
 - - 1 If the fault continues:
 - do a check for a short to ground at the wiring between pin A/1 of the R ice detector and the circuit breaker (4DD2).
 - <u>a</u> If there is a short to ground:repair the related wiring.
 - <u>b</u> If there is no short to ground:replace the C/B-ANTI ICE/ICE DET/R (4DD2).
- C. Do the operational test given in Para. 3.

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R **ON A/C 201-225, 236-275, 282-299, 426-475, 479-499, 503-549, 551-599, R 701-749,

TASK 30-81-00-810-804

Icing Indicator Lighting Inoperative

1. Possible Causes

- SW-INT LT/STBY COMPASS (2LF)
- wiring from the circuit breaker (1LF) to the pin 1B of the ICE IND&/STBY COMPASS switch (2LF)
- wiring from the lighted icing indicator (16DD) to the pin 2B of the ICE IND&/STBY COMPASS switch (2LF)
- wiring between pin 1 of the lighted icing indicator (16DD) and pin 2B of the IC IND&/STBY COMPASS switch (2LF)
- wiring between pin 2 of the lighted icing indicator (16DD) and the ground.
- LED of the lighted icing indicator (16DD)

2. Job Set-up Information

A. Referenced Information

REFERENCE DESIGNATION

ASM 33-13/00 AWM 30-81-00

3. Fault Confirmation

A. On the INT LT section of the overhead control and indicating panel 25VU, set the ICE IND&/STBY COMPASS switch (2LF) to ON and make sure that the LED of the icing indicator does not come on.

4. Fault Isolation

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

DANEL DESTANATION TOENT LOCATION

PANEL DESIGNATION

IDENT. LOCATION

49VU LIGHTING/ICE AND STBY/COMP/LIGHT

1LF H04

EFF: 201-225, 236-275, 282-299, 426-475, 479-499, 503-549, 551-599, 701-749,

30-81-00

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- B. Make sure that the lighting of the standby compass is operative when the ICE IND&/STBY COMPASS switch (2LF) is in the ON position.
 - (1) If the lighting of the standby compass is inoperative, do a check of the circuit breaker (1LF) status.
 - (a) If the circuit breaker is closed:
 - do a check for 28VDC at pin 2B of the ICE IND&/STBY COMPASS switch (2LF) (Ref. ASM 33-13/00).
 - 1 If there is no 28VDC:
 - do a check for 28VDC at pin 1B of the ICE IND&/STBY COMPASS switch (2LF) (Ref. ASM 33-13/00).
 - a If there is 28VDC:
 - replace the SW-INT LT/STBY COMPASS (2LF).
 - b If there is no 28VDC:
 - do a check and repair the wiring from the circuit breaker (1LF) to the pin 1B of the ICE IND&/STBY COMPASS switch (2LF).
 - 2 If there is 28VDC:
 - do a check and repair the wiring from the lighted icing indicator (16DD) to the pin 2B of the ICE IND&/STBY COMPASS switch (2LF) (Ref. AWM 30-81-00).
 - (2) If the lighting of the standby compass is operative:
 - (a) Do a check for 28VDC at pin 1 of the lighted icing indicator (16DD)
 - if there is no 28VDC:
 - Do a check and repair the wiring between pin 1 of the lighted icing indicator (16DD) and pin 2B of the IC IND&/STBY COMPASS switch (2LF)
 - if there is 28VDC:
 - 2 Do a check for a ground signal at pin 2 of the lighted icing indicator (16DD)
 - a If there is no ground signal:
 - do a check and repair the wiring between pin 2 of the lighted icing indicator (16DD) and the ground.
 - b If there is a ground signal:
 - replace the LED of the lighted icing indicator (16DD).
- C. On the INT LT section of the overhead control and indicating panel 25VU, set the ICE IND&/STBY COMPASS switch (2LF) to ON and make sure that the LED of the icing indicator comes on.

EFF: 201-225, 236-275, 282-299, 426-475, 479-499, 503-549, 551-599, 701-749,

30-81-00

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