SERVICE BULLETIN SUMMARY

AIRBUS INDUSTRIE
CUSTOMER SERVICES DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE
Tel: (33) 61933333

Tel: (33) 61933333 Telex: AIRBU 530526F

This summary is for information only and is not approved for modification of the aircraft

TITLE : AIR CONDITIONING - COCKPIT AND CABIN TEMPERATURE CONTROL - INTRODUCE

CABIN ZONE TEMPERATURE CONTROLLER 775A0000-08

MODIFICATION No.: 24340K3364

ATA SYSTEM: 21

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

This Service Bulletin is published to advise operators of issue of the LIEBHERR Service Bulletin No. 775A-21-05. Several Zone Controllers of in-service A320 aircraft have given spurious fault indications of the air-conditioning system. Investigations have shown that the Zone Controller Software has to be improved.

This Service Bulletin describes the procedure to modify the Zone Controller from P/N 775A0000-07 to the Zone Controller P/N 775A0000-08. This Service Bulletin gives further information about the improved Zone Controller Software and is as follows:

- Wing Anti Ice monitoring fault messages changed from:

"LH WAI FILTER OR VALVE"
"RH WAI FILTER OR VALVE"

to:

"L/R WAI VALVE"
"WAI: NO BLEED AIR ENG 1/2"

- Improvement of the Zone Controller secondary pack temperature demand calculation.
- Introduction of new software for the Trim Air Valve (TAV)
 monitoring by step-counting replacing the TAV potentiometer
 monitoring.
- Improvement of the main controller for the duct overheat monitoring.
- Data transmission from the mixer temperatures and pack demand on Zone Temp. Controller main ARINC output bus to SDAC/DMU.

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- Improvement of the system reaction on the TAV failure.
- Improvement of the temperature sensor monitoring.
- Improvement of the sensor supply voltage message.
- In the event of a Trim Air Pressure Regulating Valve "Failed Closed" detection, in addition to the ECAM warning "COND HOT AIR FAULT," the CFDS message "TRIM AIR PRESS VALVE" will be transmitted.
- Improvement of the Ground Report Sub-Menu.
- ARINC transmission for selected temperature.
- In the event of both the recirculation fans 1 and 2 failing, in addition to the ECAM warning "COND L AND R CAB FAN FAULT", the CFDS message "RECIRC FAN 1 AND 2 OR SUPPLY" is transmitted.
- Improved APU pack demand when 2nd pack is started.
- Improved CFDS Class II and Class III message.
- Improvement of the Menu Mode.
- Change of the Trim Air-Valve Power Up-Test and Initiated-Test.
- Output of the max. failure number at Ground Report.
- Lower out of range limit for the temperature sensors.
- Trim Air Pressure Regulating Valve (TAPRV) pressure reduce drive output.
- Failure message originated by the bleed temp. sensor.

The accomplishment of this Service Bulletin will improve the monitoring reliability of the air-conditioning system.

EFFECTIVITY

This Service Bulletin is applicable to these customer(s):
AAA,ACA,ADR,AFR,AIB,ALK,AMC,ANA,BAW,BV,CDN,CYP,FHA,GFA,HP,IAC,IBE,ITF,
KAC,MON,MSR,MXA,NWA,OYC,RJA,SAA,SHK,TAI,TAR,UAL,XF,XP,XR,XW,XZ.

SERVICE BULLETIN(S) TO BE ACCOMPLISHED PREVIOUSLY OR SIMULTANEOUSLY

None

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REFERENCES/REPERCUSSIONS

TFU : No: 216000004, 216334052, 301100014

OEB : None

AOT : None

SIL : None

LIFE LIMIT : None

LINE MAINTENANCE AFFECTED : No

OTHER : None

NATURE OF THE WORK

AIRCRAFT : NO

EQUIPMENT: YES

HARD: NO

SOFT: YES

OBRM: NO

<u>COMPLIANCE</u>

Desirable

MANPOWER

TOTAL MANHOURS 3.25

ELAPSED TIME (HOURS) 3.25

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SERVICE BULLETIN SUMMARY

MATERIAL INFORMATION

AIRCRAFT DATA

None

EQUIPMENT DATA

Designation: Zone Controller

Supplier: LIEBHERR-AERO-TECHNIK GmbH

Service Bulletin No.: 775A-21-05

Old Part Number : 775A0000-07

New Part Number : 775A0000-08

Interchangeability code: 02 (Refer to ATA 200 Chapter 1A-2)

Mixability: Not applicable

APPENDICES

None

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TITLE : AIR CONDITIONING - COCKPIT AND CABIN TEMPERATURE CONTROL - INTRODUCE

CABIN ZONE TEMPERATURE CONTROLLER 775A0000-08

MODIFICATION No.: 24340K3364 ATA SYSTEM: 21

1. PLANNING INFORMATION

A. <u>EFFECTIVITY</u>

(1) Aircraft models: 320-111, 320-211, 320-212, 320-231, 320-232

(2) Aircraft

Customer and Fleet No.		MSN	Kit No.	of Kits	Config. No.
			NONE	NONE	NONE
AAA	001-012	022,023,024,025,026,027, 029,030,140,142,157,229			
ACA	201-234	059,068,073,084,122,126, 127,141,149,150,154,159, 183,233,242,248,253,254, 255,265,277,290,310,311, 324,330,333,341,342,350, 359,378,384,426			
ADR	001-003	043,113,114			
AFR	001,002	005,007			
	004-008	014,019,020,021,002			
	031-048	061,062,063,100,101,102, 128,129,133,186,187,188, 226,227,228,285,286,287			
	106,107	131,132			
AIB	001	258			
	401,402	376,386			
ALK	001,002	374,406			
AMC	001,002	112,293			
ANA	001-017	138,139,148,151,167,170, 196,212,219,245,300,328, 365,383,413,482,501			
BAW	001-010	006,008,011,017,018,039, 042,103,109,120			

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	tomer and	MSN	Kit No.	Qty	Config.
FLEE	et No.		NONE	of Kits NONE	NO. NONE
BV	051,052	185,191			
CDN	401-405	174,175,210,231,232			
	407-411	283,284,302,305,309			
	415,416	403,404			
CYP	001-008	028,035,037,038,180,256, 295,316			
FHA	001,002	332,369			
GFA	801-812	313,325,345,375,419,421, 438,445,459,466,481,497			
HP	620-622	052,053,054			
	624-629	055,064,065,066,067,076			
	631-637	077,081,082,091,092,098, 099			
IAC	001-012	045,046,047,048,049,050, 051,056,057,058,074,075			
	014-031	080,089,090,095,096,097, 396,398,416,423,431,432, 451,469,486,490,492,499			
IBE	001-022	134,136,143,146,158,173, 176,177,199,207,223,224, 240,241,246,264,266,274, 303,312,323,356			
ITF	001-003	010,012,013			
	005-018	016,033,036,044,004,003, 108,115,130,155,156,184, 214,239			
	020-026	278,337,352,236,237,377, 491			
	201,202	144,145			
	301,302	204,211			
	401-403	215,244,270			
KAC	001-003	181,182,195			
MON	001,002	379,389			
MSR	001-007	165,166,178,194,198,351, 366			
MXA	001-010	252,259,260,261,275,276, 296,320,321,353			
	012,016	368,433			

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Customer and	MSN	Kit No.	Qty of Kits	Config.
, 1000		NONE	NONE	NONE
NWA 301-350	031,032,034,040,041,060, 106,107,118,121,125,152, 153,160,171,192,197,206, 208,213,262,263,272,273, 281,282,297,298,306,307, 318,319,329,339,340,355, 358,360,367,372,380,381, 387,388,399,400,408,410, 417,418			
OYC 001-006	163,164,168,169,179,193			
RJA 001,002	087,088			
SAA 001-007	243,249,250,251,334,335, 440			
SHK 001-003	322,326,344	,		
TAI 051-054	448,453,460,461			
TAR 001-007	119,124,205,370,390,402, 123			
UAL 401-423	435,439,442,450,452,454, 456,457,462,463,464,465, 470,472,475,479,483,485, 487,489,500,503,504			
XF 001-009	393,394,414,430,443,447, 415,405,361			
053,054	428,496			
101	425			
501,502	446,422			
504-507	371,397,409,427			
551	279			
XP 001	085			
051-059	203,220,221,222,294,299, 301,348,349			
062,063	391,392			
502,503	362,363			•
504,505	455,471			
XR 501-525	225,230,238,247,257,271, 280,291,292,304,308,314, 315,317,327,336,338,429, 444,449,467,476,478,480, 437			
XW 501-506	347,354,357,373,411,424			
509	441			

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Customer and Fleet No.

MSN

Kit No. Qty

Config.

NONE

NONE

of Kits No.

NONE

XZ 003,004

189,190

101-110

234,235,288,289,331,343,

395,407,420,436

This Service Bulletin is not applicable to A320 A/C MSN 506 and subsequent because these A/C are fitted with Zone Temp. Controller type 755C0000-03 introduced by mod 24l39K3599 Service Bulletin A320-21-1086.

(3) Spares

Zone Controller P/N 775A0000-07

B. REASON

(1) History

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(2) Objective/Action

This Service Bulletin describes the procedure to modify the Zone Controller from P/N 775A0000-07 to the Zone Controller P/N 775A0000-08.

This Service Bulletin gives further information about the improved Zone Controller Software and is as follows:

- Wing Anti Ice monitoring fault messages changed from:

"LH WAI FILTER OR VALVE"
"RH WAI FILTER OR VALVE"

to:

"L/R WAI VALVE"

"WAI: NO BLEED AIR ENG 1/2

- Improvement of the Zone Controler secondary pack temperature demand calculation.
- Introduction of new software for the Trim Air Valve (TAV)
 monitoring by step counting replacing the TAV
 potentiometer monitoring.

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- Improvement of the main controller for the duct overheat monitoring.
- Data transmission from the mixer temperatures and pack demand on Zone Temp. Controller main ARINC output bus to SDAC/DMU.
- Improvement of the system reaction on the TAV failure.
- Improvement of the temperature sensor monitoring.
- Improvement of the sensor supply voltage message.
- In the event of a Trim Air Pressure Regulating Valve "Failed Closed" message, in addition to the ECAM warning "COND HOT AIR FAULT," the CFDS message "TRIM AIR PRESS VALVE" will be transmitted.
- Improvement of the Ground Report Sub-Menu.
- ARINC transmission for selected temperature.
- In the event of both the recirculation fans 1 and 2 failing, in addition to the ECAM warnig "COND L AND R CAB FAN FAULT", the CFDS message "RECIRC FAN 1 AND 2 OR SUPPLY" is transmitted.
- Improved APU pack demand when 2nd pack is started.
- Improved CFDS Class II and Class III messages.
- Improvement of the Menu Mode.
- Change of the Trim Air-Valve Power Up-Test and Initiated-Test.
- Output of the max. failure number at Ground Report.
- Lower out of range limit for the temperature sensors.
- Trim Air Pressure Regulating Valve (TAPRV) pressure reduce drive output.
- Failure message originated by the bleed temp. sensor.

(3) Advantages

The accomplishment of this Service Bulletin will improve the monitoring reliability of the air-conditioning system.

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(4) Operational/Maintenance Consequences

None

(5) Accomplishment Timescale

In accordance with operators maintenance planning.

C. <u>DESCRIPTION</u>

To accomplish this Service Bulletin it is necessary to :

(1) Modify the Zone Controller 8HK P/N 775A0000-07.

D. APPROVAL

The design data contained in this Service Bulletin has been approved under the authority of DGAC Design Organisation Approval No C O1. The changes specified in this Service Bulletin have been approved by the DGAC when they are major, or under the authority of DGAC Design Organisation Approval No. CO1, when they are minor.

E. MANPOWER

This Service Bulletin is written for an aircraft in a maintenance condition. The manhours/elapsed time estimates do not include the time to prepare for the modification, non-productive elapsed times or administration.

Get access	0.50
Modification	1.25
Test	0.50
Close-up	1.00
TOTAL MANHOURS	3.25
ELAPSED TIME (HOURS)	3.25

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F. MATERIAL - COST AND AVAILABILITY

(1) Material

Procurement to be negotiated directly with :

LIEBHERR-AERO-TECHNIK GmbH Customer Service Postfach 1363 D-88163 Lindenberg GERMANY

(2) Cost and Availability

Cost:

The material required to accomplish this Service Bulletin is free of charge.

Availability:

The availability of the material for this Service Bulletin is to be negotiated directly with:

LIEBHERR-AERO-TECHNIK GmbH Customer Service Postfach 1363 D-88163 Lindenberg GERMANY

G. TOOLING - PRICE AND AVAILABILITY

None

H. WEIGHT AND BALANCE

Not changed

I. REFERENCES

Aircraft Maintenance Manual (AMM)

: 06-31-53, 12-34-24, 21-63-00,

21-63-34

LIEBHERR Service Bulletin

: 775A-21-05

J. PUBLICATIONS AFFECTED

Illustrated Parts Catalog (IPC)

: 21-63-08, 21-63-34

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2. ACCOMPLISHMENT INSTRUCTIONS

A. GENERAL

WARNING: MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND ALL THE CAUTIONS INCLUDED IN THE REFERENCED PROCEDURES.

(1) Preparation

- (a) Electrical ground the aircraft (Refer to AMM 12-34-24, P. Block 201).
- (b) Open the access door 811.
- (c) Open, safety and tag the applicable circuit breakers as given in AMM 21-63-34, P. Block 401.
- (2) Standard Practices

None

B. MODIFICATION

- (1) Modify the Zone Controller 8HK
 - (a) Remove and retain the Zone Controller 8Hk P/N 775A0000-07 from the Electronics Rack 93VU in the avionics compartment (Ref. AMM 21-63-34, P. Block 401).
 - NOTE: Operators who have no Zone Controller repair facilities should send the removed unit to LIEBHERR Customer Service for modification.
 - (b) Install the Zone Controller 8HK P/N 775A0000-08 modified as per LIEBHERR Service Bulletin No. 775A-21-05 in the Electronics Rack 93VU in the avionics compartment (Ref. AMM 21-63-34, P. Block 401).

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C. TESTS

- (1) Remove the safety tags and close the circuit breakers that you opened in para. 2.A. (1) (c).
- (2) Do an operation test of the cockpit and cabin temperature control (Ref. AMM 21-63-00, P. Block 501).

D. CLOSE-UP

- (1) Make sure that the working area is clean and clear of tools and other items of equipment.
- (2) Close the access door 801.

E. DOCUMENTATION

Write in the applicable aircraft records that you have done all the work given in this Service Bulletin.

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3. MATERIAL INFORMATION

A. LIST OF COMPONENTS

ITEM NEW PART NO. QTY KEYWORD ITEM OLD PART NO. INT INST DISP

NOTE :

No Airbus Industrie kit is required for this Service

Bulletin.

Details of procurement are to be negotiated directly with:

LIEBHERR-AERO-TECHNIK GmbH

Customer Service Postfach 1363 D-88163 Lindenberg Germany

B. SPECIAL TOOLS

None

C. <u>LIST OF MATERIAL - OPERATOR SUPPLIED</u>

None

D. PARTS TO BE RE-IDENTIFIED BY OPERATOR

ITEM NEW PART NO.	KEYWORD	ITEM	OLD PART NO.	INT
775A0000-08	Zone Controller		775A0000-07	

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