AIRBUS INDUSTRIE
PRODUCT SUPPORT DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE
Tel: (33) 61-93-33-33

Telex: AIRBU 530526 F

SERVICE BULLETIN
REVISION TRANSMITTAL SHEET

MODIFICATION NO: 22896K2548, K2994, 22897K2549, K2995 ATA SYSTEM: 21

TITLE : AIR CONDITIONING - TEMPERATURE CONTROL - IMPROVE BASIC CABIN ZONE

CONTROLLER 8HK BITE

Herewith Revision No. 2 of Service Bulletin A320-21-1055. NO ADDITIONAL WORK IS REQUIRED BY THIS REVISION.

REASON

This Revision has been issued to include DLH in the effectivity of this Service Bulletin.

CHANGES

Summary:

- Page 1 of 3 Modification number added.

Approval statement revised.

- Page 2 of 3 Para. EFFECTIVITY - Updated and DLH added.

Vendor Service Bulletin No. 775B-21-01 added.

- Page 3 of 3 Equipment Data added.

Service Bulletin:

- Page 1 of 11 Modification number added. Para. EFFECTIVITY - updated

and DLH added. Revision number revised. EFFECTIVITY updated and Text revised.

- Page 2 EFFECTIVITY updated and Text
- Page 4 Approval statement revised.

Para. 1.E. - Reference to Service Bulletin

775B-21-01 added.

Text shift. - Page 5/6 Text shift.

Para. 1.F. - Cost and availability added.

Para. 1.I. and 1.J. - Reference to Service Bulletin

775B-21-01 added.

- Page 7 Para. 2.B.(1) MODIFICATION - Text added.

- Page 11 Vendor Service Bulletin No. 775B-21-01 added.

Service Bulletin Review Sheet:

- Page 1 of 1 Modification number added.

REVISION SEQUENCE

Original: Sep 28/92

Revision No.: 1 - Dec 3/92 Revision No.: 2 - APR 20/93

SERVICE BULLETIN NO: A320-21-1055

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FILING INSTRUCTIONS

- Replace Summary pages 1 of 3, 2 of 2 and 3 of 3.
- Replace Service Bulletin pages 1 of 11, 2, 4, 5/6, 7 and 11.
- Replace Service Bulletin Review Sheet page 1 of 1.
- File this Revision Transmittal Sheet in the front of this Service Bulletin.

REVISION SEQUENCE

Original: Sep 28/92

Revision No.: 1 - Dec 3/92 Revision No.: 2 - APR 20/93

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

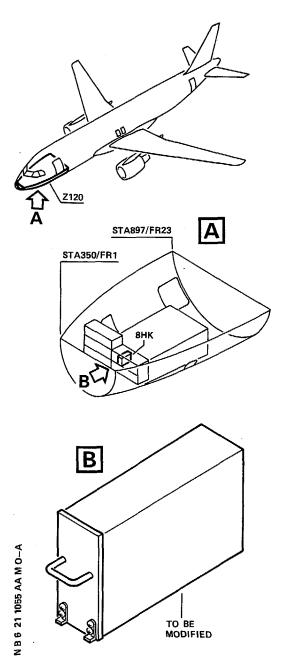
MODIFICATION NO: 22896K2548, K2994, 22897K2549, K2995 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - TEMPERATURE CONTROL - IMPROVE BASIC CABIN ZONE CONTROLLER 8HK BITE

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

This Service Bulletin is issued to advise operators of the issue of the LIEBHERR Service Bulletins ABG SEMCA 775A-21-04 and 775B-21-01 which introduces a Zone-controller with updated software. The modified Zone-controller incorporates the following improvements:

- Initiated test results in plain English
- Reclassification of (external) Wing Anti Icing (WAI) faults to class 1 and NO BLEED AIR ENG. 1 (2) faults to class 2
- Reclassification of pack discharge sensor fault to class 2
- Distinction between ground and flight faults and new Centralized Fault Display System (CFDS) report for ground faults
- Output of dash No. in ''LRU-Ident'' report
- Output of A/C ident in "'CFDS Report"
- Extension of initiated test to include the complete system
- Minor improvements resulting from Flight Test
- Improved watch dog function to avoid spurious zone controller output data loss.
- Hardware change to enable a memory entry if the watchdog is activated.



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- Introduction of less sensitve fault monitoring of the trim air system,
 which will reduce the unnecessary removal of the trim air valves and the trim air pressure regulating valve.
- To fully use the pack cooling capabilities at high altitude, the pack cooling demand signal is optimised.

EFFECTIVITY

This Service Bulletin is applicable to the following operators:

AAA, ACA, ADR, AFR, AMC, ANA, BAW, BV, CDN, CYP, DLH, FHA, GFA, HP, IAC, IBE, ITF, MSR, MXA, NWA, OYC, RJA, SAA, TAR, XR, XS, XP, XR and XZ.

SERVICE BULLETIN/MODIFICATION TO BE ACCOMPLISHED PREVIOUSLY OR SIMULTANEOUSLY

None

REFERENCES/REPERCUSSIONS

TFU: 21633404, 21633446, 21613406, 21635102, LII

LIFE LIMIT: None

21633451

RFW: D0025/92 D1001/92

D0068/92

LINE MAINTENANCE AFFECTED: No

AOT: None SIL: None OEB: None AIB: None

NATURE OF MODIFICATION

Aircraft: No Equipment: Yes Hardware: Yes Software: Yes

COMPLIANCE

Desirable

MANPOWER

Total manhours:

2.5

Elapsed time (hours):

2.5

NOTE: The total manhours and elapsed time given is for the Zone-controller removal, installation and test only. For manhours data of the Zone-controller modification, refer to LIEBHERR ABG-SEMCA Service Bulletins No. 775A-21-04 and 775B-21-01.

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MATERIAL INFORMATION

Aircraft Data

None

Equipment Data

Applicable to all except DLH:

Designation Supplier

Service Bulletin Part Number, Before Part Number, After

Interchangeability Code

Mixability

Applicable to DLH only:

Designation

Supplier Service Bulletin Part Number, Before Part Number, After

Interchangeability Code

Mixability

: Zone-controller

: LIEBHERR

: 775A-21-04

: 775A0000-06

: 775A0000~07

: Not affected

: Zone - controller : LIEBHERR

: 775B-21-01 : 775B0000-01

: 775B0000-02

: 01

: 01

: Not affected

APPENDICES

None

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AIRBUS INDUSTRIE
PRODUCT SUPPORT DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE

ØA320 SERVICE BULLETIN

Tel: (33) 61-93-33-33 Telex: AIRBU 530526 F

MODIFICATION NO: 22896K2548, K2994, 22897K2549, K2995 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - TEMPERATURE CONTROL - IMPROVE BASIC CABIN ZONE CONTROLLER 8HK BITE

1. PLANNING INFORMATION

A. EFFECTIVITY

- (1) Aircraft Models: 320-111, 320-211, 320-212, 320-231
- (2) Aircraft

Customer and Fleet No.	MSN	Qty of Kits 211055A00
AAA 001-012	022, 023, 024, 025, 026, 027, 029, 030, 140, 142, 157, 229	None
ACA 201-227	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	None
ADR 001-003	043, 113, 114	None
AFR 001-002, 004-008,	005, 007, 014, 019, 020, 021, 002	None
031-048	061, 062, 063, 100, 101, 102, 128, 129, 133, 186, 187, 188, 226, 227, 228, 285, 286, 287	None
AMC 001-002	112, 293	None
ANA 001-012	138, 139, 148, 151, 167, 170, 196, 212, 219, 245, 300, 328	None
BAW 001-010	006, 008, 011, 017, 018, 039, 042, 103, 109, 120	None
BV 051-052	185, 191	None
CDN 401-411	174, 175, 210, 231, 232, 279, 283, 284, 302, 305, 309	None
CYP 001-007	028, 035, 037, 038, 180, 256, 295	None
DLH 001-031	069, 070, 071, 072, 078, 083, 086, 093, 094, 104, 105, 110, 111, 116, 117, 135, 137, 147, 161, 162, 172, 200, 201, 202, 209, 216, 217, 218, 267, 268, 269	None
FHA 001	332	None
GFA 801-802	313, 325	None

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	tomer and et No.	MSN	Qty of Kits 211055A00
HP	620-622 624-629 631-637	052, 053, 054, 055, 064, 065, 066, 067, 076, 077, 081, 082, 091, 092, 098, 099	None
IAC	001-012 014-019	045, 046, 047, 048, 049, 050, 051, 056, 057, 058, 074, 075, 080, 089, 090, 095, 096, 097	None
IBE	001-021	134, 136, 143, 146, 158, 173, 176, 177, 199, 207, 223, 224, 240, 241, 246, 264, 266, 274, 303, 312, 323	None
ITF	001-003 005-020 023,024, 201-202, 301-302,	010, 012, 013, 016, 033, 036, 044 004, 003, 108, 115, 130, 155, 156, 184, 214, 239, 258, 278, 236, 237, 144, 145, 204, 211,	None
		215, 244, 270 165, 166, 178, 194, 198 252, 259, 260, 261, 275, 276, 296	None None
NWA	301-333	320, 321 031, 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,	None
	001-006 001-002	297, 298, 306, 307, 318, 319, 329 163, 164, 168, 169, 179, 193 087, 088	None None
SAA TAR TAR	001-006 001-003 007	243, 249, 250, 251, 334, 335 119, 124, 205 123	None None
	001, 051-057 501-516	085 203, 220, 221, 222, 294, 299, 301 225, 230, 238, 247, 257, 271, 280, 291, 292, 304, 308, 314, 315, 317,	None
XS XZ	001,002 001-004, 101-105	327, 336 322, 326 131, 132, 189, 190 234, 235, 288, 289, 331	None None

Modification 22896K2548, K2994 is embodied, prior to delivery, on A/C MSN 181, 182, 195, 316 and A/C MSN 337 and subsequent, except on DLH A/C.

Modification 22897K2549, K2995 is embodied, prior to delivery, on A/C MSN 346 and subsequent DLH A/C.

NOTE: - No Kit will be provided for this Service Bulletin.

- For components required to modify the Zone-controller 8HK, refer to the LIEBHERR ABG-SEMCA Service Bulletins No. 775A-21-04 and 775B-21-01.

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B. REASON

(1) History

Spurious zone controller output data loss have given problems in service, especially on CFM engine driven A/C with EIU V12.

Several CFDS interface and BITE modifications have shown to give reasonable improvements.

(2) Objective/Action

This modification consists of modifying the Zone-controller.

(3) Advantages

The updated software of the Zone-controller incorporates the following improvements:

- Initiated test results in plain English
- Reclassification of (external) Wing Anti Icing (WAI) faults to class 1 and NO BLEED AIR ENG. 1 (2) faults to class 2
- Reclassification of pack discharge sensor fault to class 2
- Distinction between ground and flight faults and new Centralized Fault Display System (CFDS) report for ground faults
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- Improved watch dog function to avoid spurions zone controller output data loss.
- Hardware change to enable a memory entry if the watchdog is activated
- Introduction of less sensitve fault monitoring of the trim air system, which will reduce the unnecessary removal of the trim air valves and the trim air pressure regulating valve.
- To fully use the pack cooling capabilities at high altitude, the pack cooling demand signal is optimised.

(4) Accomplishment Timescale

In accordance with the operator's requirements.

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C. DESCRIPTION

Accomplishment of this Service Bulletin consists of:

(1) Modifying the Zone-controller 8HK.

D. APPROVAL

This Service Bulletin relates to the change(s) referenced on page 1 which has (have) been approved by the DGAC.
The technical information contained in this Service Bulletin has been approved under the authority of DGAC Design Organisation Approval No. C 01.

E. MANPOWER

This Service Bulletin may be accomplished in the following approximate manhours and elapsed 'time:

	<u>Manhours/aircraf</u>
Gain access	0.50
Removal/Installation	0.50
Test	1.00
Close-Up Total manhours	<u>0.50</u> 2.50
Elapsed time (hours)	2.50

This Service Bulletin assumes that the aircraft has been placed in a maintenance status. The manhours/elapsed time estimates do not include preparation for the modification, nonproductive elapsed time or administrative functions.

The total manhours and elapsed time given is for the Zone-controller removal, installation and test only. For manhours data of the Zone-controller modification, refer to LIEBHERR ABG-SEMCA Service Bulletins No. 775A-21-04 and 775B-21-01.

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SERVICE BULLETIN

F. MATERIAL - COST AND AVAILABILITY

(1) Material

AIRBUS INDUSTRIE
(Dept. AI/SE3)
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE
Will contact the affected operators individually for detailed organization of the retrofit.

(2) Cost and Availability

Free of charge

G. TOOLING - PRICE AND AVAILABILITY

None

H. WEIGHT AND BALANCE

Not affected

I. REFERENCES

Aircraft Maintenance Manual: 12-34-24, 21-63-34, 52-41-00, 21-63-00 LIEBHERR ABG-SEMCA Service Bulletins 775A-21-04 and 775B-21-01.

J. PUBLICATIONS AFFECTED

Aircraft Maintenance Manual 21-00-00, 21-63-00

Refer to LIEBHERR ABG-SEMCA Service Bulletins 775A-21-04 and 775B-21-01.

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2. ACCOMPLISHMENT INSTRUCTIONS

A. GENERAL

- (1) Preparation
 - (a) Electrically ground the aircraft (Ref. AMM 12-34-24, P. Block 201).
 - (b) Open the access door 811 at the forward avionics compartment (Ref. AMM 52-41-00, P. BLock 001).
 - (c) Open, safety and tag this (these) circuit breaker(s):

PANEL	SERVICE	IDENT.	LOCATION
122VU	AIR COND/ZONE TEMP CTL/28DC/SYS2	4HK	V20
122VU	AIR COND/ZONE TEMP CTL/28DC/SYS1	3HK	V19
122VU	AIR COND/ZONE TEMP CTL/115VAC/SYS2	2HK	V18
122VU	AIR COND/ZONE TEMP CTL/115VAC/SYS1	1HK	V17

B. MODIFICATION

(1) Do the modification to the Zone-controller 8HK.

Refer to Figure 1.

(a) Remove the Zone-controller 8HK, item 1. (Ref. AMM 21-63-34, P. Block 401).

Applicable to all A/C except DLH:

(b) Do the modification to the Zone-controller 8HK, item 1, as given in the LIEBHERR ABG-SEMCA Service Bulletin No. 775A-21-04.

Applicable to DLH A/C only:

(b) Do the modification to the Zone - controller 8HK, item 1, as given in the LIEBHERR ABG-SEMCA Service Bulletin No. 775B-21-01.

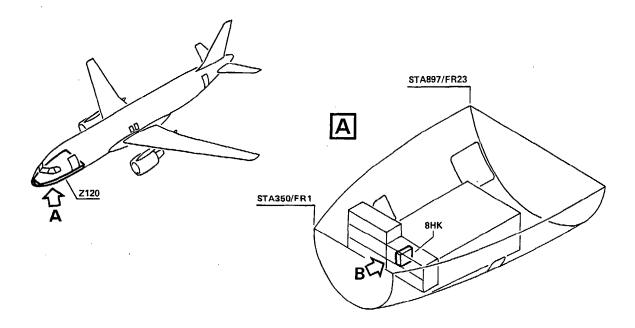
Applicable to all A/C:

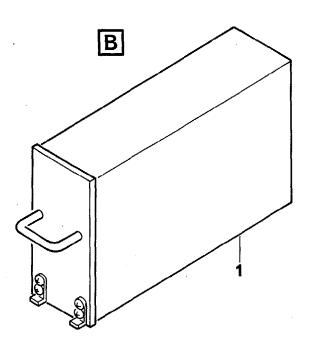
- (c) Change the part number of the Zone-controller 8HK, item 1, as given in Para. 3.C.
- (d) Install the modified Zone-controller 8HK, item 1, (Ref. AMM 21-63-34, P. Block 401).

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N B 6 21 1055 AC M O-A

Zone - Controller - Removal/Installation Figure 1

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C. TEST

- (1) Close the circuit breakers that you opened in Para. 2.A.(1)(c).
- (2) Do an operational 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 811 to the forward avionics compartment (Ref. AMM 52-41-00, P. Block 001).

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

No Kit will be provided for this Service Bulletin. For components required to modify the Zone-controller 8HK, refer to the LIEBHERR ABG-SEMCA Service Bulletins No. 775A-21-04 and 775B-21-01.

B. LIST OF MATERIALS - OPERATOR SUPPLIED

None

C. PARTS TO BE RE-IDENTIFIED

Refer to LIEBHERR ABG-SEMCA Service Bulletins No. 775A-21-04 and 775B-21-01.

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Printed in France

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SERVICE BULLETIN

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MODIFICATION NO: 22896K2548, K2994, 22897K2549, K2995 ATA SYSTEM: 21

T I T L E : AIR CONDITIONING - TEMPERATURE CONTROL - IMPROVE BASIC CABIN ZONE CONTROLLER 8HK BITE

IS BEING HEREWITH SUBMITTED TO YOU FOR REVIEW

Please fill:

... REJECTED

... WILL BE EMBODIED

... EFFECTIVITY

This SB can only be incorporated in your 'customized' documentation within the agreed time schedule in so far as this sheet is returned to us on purchase date and signed by a duly authorized and empowered officer or representative.

FROM:

Please return to:

AIRLINE:
PRODUCT SUPPORT DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE

Att.: AI/SP - Technical Publications
Department

DATE:

19.

| DATE: Sep 28/92 | REVISION NO: 2 - APR 20/93 SERVICE BULLETIN NO: A320-21-1055

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