SERVICE BULLETIN
SUMMARY

AIRBUS INDUSTRIE
CUSTOMER SERVICES DIRECTORATE
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE
Tel: (33) 61933333
Telex: AIRBU 530526F

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

TITLE : AIR CONDITIONING - PRESSURIZATION CONTROL - INTRODUCE THE IMPROVED

PRESSURE CONTROLLER 9022-15702-9.

MODIFICATION No.: 23124K2393

ATA SYSTEM: 21

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

This Service Bulletin is published to advise operators of the issue of the NORD-MICRO Service Bulletin No. 15702-21-005 which modifies the Pressure Controller, from P/N 9022-15702-8 to the P/N 9022-15702-9.

This Service Bulletin gives information about the Software and Hardware changes as follows:

Software Changes:

- Increased confirmation time (from 4 sec. to 8 sec.) for the "High Cabin Rate Test" to avoid system failures during in-flight leak checks. This test is prevented for 30 sec. after system transfer to give the CPC more time to recover an abnormal situation after taking over control.
- Improved EIU test logic to avoid spurious class 3 failure messages during touch down due to flickering LGCIU signals (the signals will be filtered by the CPC for 4 sec.).
- Improved Outflow Valve control algorithm for more robustness against disturbances like pack switching, take off bumps and pressure bumps in general.
- Improved passenger comfort during take-off by reducing the scheduled cabin rate in take-off mode from 600 sea level feet per minute (slfpm) to 400 slfpm.
- Improved software logics which generate the "EX CAB ALT" warning and the "pax sign" to prevent them indicating during high airfield operation.

Hardware Change:

- Introduction of a pull-up resistor to avoid cycling of the High Side Switch (power supply for OFV motors).

SERVICE BULLETIN No.: A320-21-1095

PAGE: 1 of 3

DATE: JUL 02/96

SERVICE BULLETIN SUMMARY

This Service Bulletin also modifies the Pressure Controller to include the neccessary software changes for the External Mode. This feature optimizes the cabin pressure during climb and decent by using time and flight altitude information from the Flight Management System (FMS).

NOTE :

To enable the External Mode you must do a further modification to the aircraft wiring. For details of the wiring modification and associated Service Bulletin, please contact Airbus Industrie using the RFC (or RFC/RMO)

procedure.

EFFECTIVITY

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

SERVICE BULLETIN(S) TO BE ACCOMPLISHED PREVIOUSLY OR SIMULTANEOUSLY

Service Bulletin No. A320-21-1053 (Modification No. 23104K2956)

REFERENCES/REPERCUSSIONS

TFU

: 21.31.00.005

OEB ·

: None

AOT

: None

SIL

: None

LIFE LIMIT

: None

LINE MAINTENANCE AFFECTED : No

OTHER

: None

NATURE OF THE WORK

AIRCRAFT:

NO

EQUIPMENT:

YES

HARD:

YES

SOFT:

YES

OBRM :

REVISION No. :

NO

DATE : JUL 02/96

SERVICE BULLETIN No.: A320-21-1095

PAGE: 2

SERVICE BULLETIN SUMMARY

COMPLIANCE

Desirable

MANPOWER

These times are for aircraft work only.

TOTAL MANHOURS

2.00

ELAPSED TIME (HOURS)

2.00

MATERIAL INFORMATION

AIRCRAFT DATA

None

EQUIPMENT DATA

Designation: Pressure Controller

Supplier: NORD-MICRO Electronik Feinmechanik AG

Service Bulletin No.: 15702-21-005

Old Part Number: 9022-15702-8

New Part Number: 9022-15702-9

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

Mixability: Yes

NOTE :

If the "External Mode" is enabled the Interchangeability

and Mixability will change (Refer to the NORD-MICRO

Service Bulletin No. 15702-21-005).

APPENDICES

DATE : JUL 02/96

None

SERVICE BULLETIN No.: A320-21-1095

SERVICE BULLETIN

AIRBUS INDUSTRIE CUSTOMER SERVICES DIRECTORATE 1 Rond Point Maurice BELLONTE 31707 BLAGNAC CEDEX FRANCE

Tel: (33) 61933333 Telex: AIRBU 530526F

TITLE: AIR CONDITIONING - PRESSURIZATION CONTROL - INTRODUCE THE IMPROVED

PRESSURE CONTROLLER 9022-15702-9.

ATA SYSTEM: 21 MODIFICATION No.: 23124K2393

1. PLANNING INFORMATION

A. EFFECTIVITY

(1) Aircraft models: 320-111, 320-211, 320-212, 320-214, 320-212, 320-231, 320-232, 320-233, 321-111, 321-112,

321-131

(2) Aircraft

Customer and	MSN	Kit No.	Qty	Config.
Fleet No.			of Kits	No_
	•	NONE	NONE	NONE .

AAA	001-015	022,023,024,025,026,027, 029,030,140,142,157,229, 547,615,622

ACA	201 - 234	, 126, 122, 184, 873, 860, 959
		127,141,149,150,154,159,
		183,233,242,248,253,254,
		255,265,277,290,310,311,
	•	324,330,333,341,342,350,
		350 378 38/ /.26

ADR	001-003	043,113,114

AEF	001	575
	051,052	565,580

AFR	001,002	005,007
	007 000	047 040 000 004

004-008 014,019,020,021,002 061,062,063,100,101,102, 031-048 128,129,133,186,187,188,

226,227,228,285,286,287

131,132 106,107

DATE : JUL 02/96 SERVICE BULLETIN No.: A320-21-1095

REVISION No.: PAGE : 1 of 13

SERVICE BULLETIN

Customer and Fleet No.	MSN	Kit No.	Qty of Kits NONE	Config. No. NONE
AIB 001 401,402	258 376,386			
AJM 001-003	624,626,628			
ALK 001,002	374,406			
AMC 001,002	112,293			
ANA 001-022	138,139,148,151,167,170, 196,212,219,245,300,328, 365,383,413,482,501,507, 531,534,549,554			
AUA 476-478	552,570,581			
AZA 001-017	477,488,494,495,434,524, 526,532,515,516,513,514, 576,583,586,593,599		•	
BAW 001-010	006,008,011,017,018,039, 042,103,109,120			
BV 051,052	185,191			
CDN 401-405 407-411 415,416	174,175,210,231,232 283,284,302,305,309 403,404			
csc 051-053	540,551,556			
CYP 001-008	028,035,037,038,180,256, 295,316			

DATE : JUL 02/96 SERVICE BULLETIN No. : A320-21-1095

SERVICE BULLETIN

	omer and t No.	MSN	Kit No.	Qty of Kits	Config.
1 600	c reos		NONE	NONE	NONE
DLH	001-010	069,070,071,072,078,083, 086,093,094,104			
	012-034	110,111,116,117,135,137, 147,161,162,172,200,201, 202,209,216,217,218,267, 268,269,346,382,401			
	101-115	458,468,473,474,484,493, 412,502,505,518,560,563, 564,567,595			
FHA	001,002	332,369	•		•
	101-103	538,555,602			
GFA	801-816	313,325,345,375,419,421, 438,445,459,466,481,497, 536,537,542,543			
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			
	020-027	278,337,352,236,237,377, 491,525			
	101-105	498,509,521,529,544			
	201,202	144,145			
	301,302	204,211			
	401-403	215,244,270			

DATE : JUL 02/96 SERVICE BULLETIN No. : A320 - 21 - 1095

SERVICE BULLETIN

	comer and et No.	MSN	Kit No.	Qty of Kits NONE	Config. No. NONE
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			
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			
ОНҮ	001	385			
OYC	001-006	163,164,168,169,179,193			
RGA	001-008	590,594,601,605,607,611, 617,619			
RJA	001-003	087,088,569			
SAA	001-007	243,249,250,251,334,335, 440			
SHK	001-003	322,326,344			
SWR	226-236	533,545,548,553,559,562, 566,574,577,585,596			
	276-281	517,519,520,522,535,541			

DATE : JUL 02/96 SERVICE BULLETIN No. : A320-21-1095

SERVICE BULLETIN

Customer and Fleet No.	MSN	Kit No.	Qty of Kits NONE	Config. No. NONE
TAI 001,002 051-054	558,561 448,453,460,461			
TAR 001-008	119,124,205,370,390,402, 123,511			
UAL 401-435	435,439,442,450,452,454, 456,457,462,463,464,465, 470,472,475,479,483,485, 487,489,500,503,504,506, 508,510,512,523,539,568, 571,587,589,592,613			
XF 001-009 053-056 101-103 201-204 501,502 504-508	393,394,414,430,443,447, 415,405,361 428,496,527,530 425,573,582 550,557,591,597 446,422 371,397,409,427,528			
551,552	279,579			
XP 001 051-059 062,063 502-506	085 203,220,221,222,294,299, 301,348,349 391,392 362,363,455,471,584			
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 501-506 509	347,354,357,373,411,424 441			
XZ 003,004 101-110	189,190 234,235,288,289,331,343, 395,407,420,436			

UNASSIGNED AIRCRAFT: 364, 546, 572

DATE : JUL 02/96 SERVICE BULLETIN No. : A320 - 21 - 1095

SERVICE BULLETIN

This modification is embodied prior to delivery on:

- A319 aircraft MSN 578 and subsequent.
- A320 aircraft MSN 603, 630 and subsequent.
- A321 aircraft MSN 604 and subsequent.
- (3) Spares

Pressure controller P/N 9022-15702-8

DATE : JUL 02/96 SERVICE BULLETIN No. : A320 - 21 - 1095

SERVICE BULLETIN

B. REASON

(1) History

This Service Bulletin is published to advise operators of the issue of the NORD-MICRO Service Bulletin No. 15702-21-005.

(2) Objective/Action

This Service Bulletin describes the procedure to modify the Pressure Controller, from P/N 9022-15702-8 to the P/N 9022-15702-9, and introduce the following Software and Hardware changes:

Software Changes:

- Increased confirmation time (from 4 sec. to 8 sec.) for the "High Cabin Rate Test" to avoid system failures during in-flight leak checks. This test is prevented for 30 sec. after system transfer to give the CPC more time to recover an abnormal situation after taking over control.
- Improved EIU test logic to avoid spurious class 3 failure messages during touch down due to flickering LGCIU signals (the signals will be filtered by the CPC for 4 sec.).
- Improved Outflow Valve control algorithm for more robustness against disturbances like pack switching, take off bumps and pressure bumps in general.
- Improved passenger comfort during take-off by reducing the scheduled cabin rate in take-off mode from 600 sea level feet per minute (slfpm) to 400 slfpm.
- Improved software logics which generate the "EX CAB ALT" warning and the "pax sign" to prevent them indicating during high airfield operation.

Hardware Change:

 Introduction of a pull-up resistor to avoid cycling of the High Side Switch (power supply for OFV motors).

DATE : JUL 02/96 . SERVICE BULLETIN No. : A320 - 21 - 1095

SERVICE BULLETIN

This Service Bulletin also modifies the Pressure Controller to include the neccessary software changes for the External Mode. This feature optimizes the cabin pressure during climb and decent by using time and flight altitude information from the Flight Management System (FMS).

NOTE: To enable the External Mode you must do a further modification to the aircraft wiring. For details of the wiring modification and associated Service Bulletin, please contact Airbus Industrie using the RFC (or RFC/RMO) procedure.

(3) Advantages

The accomplishment of this Service Bulletin will improve passenger comfort, offer additional high airfield operation capability and increase the flexibilty of the CPC.

If the "External Mode" is enabled, the passenger comfort will be increased by allowing smoother changes in cabin pressure during climb and decent.

(4) Operational/Maintenance Consequences

None

(5) Accomplishment Timescale

In accordance with operators maintenance planning.

C. DESCRIPTION

To accomplish this Service Bulletin it is necessary to :

- (1) Remove the cabin pressure controllers 11HL and 12HL.
- (2) Modify the pressure controllers as per NORD-MICRO Service Bulletin 15702-21-005.
- (3) Install the modified cabin pressure controllers 11HL and 12HL.

D. APPROVAL

The design data contained in this Service Bulletin has been approved under the authority of DGAC Design Organisation Approval No C 01. 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.

DATE: JUL 02/96 SERVICE BULLETIN No.: A320 - 21 - 1095

SERVICE BULLETIN

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.

NOTE: For the manhours needed to modify one Pressure Controller, Refer to the NORD-MICRO Service Bulletin No. 15702-21-005.

Get access	0.50
Removal of Pressure Controllers	0.25
Installation of Pressure Controllers	0.25
Test	0.50
Close-up	0.50
TOTAL MANHOURS	2.00
ELAPSED TIME (HOURS)	2.00

F. MATERIAL - COST AND AVAILABILITY

(1) Material

Procurement to be negotiated directly with :

NORD-MICRO Electronik Feinmechanik AG Material Support Department P.O. BOX 630225 60352 Frankfurt GERMANY

as per instructions given in NORD-MICRO Service Bulletin No 15702-21-005.

(2) Cost and Availability

NOTE: Refer to the NORD-MICRO Service Bulletin No 15702-21-005 for the equipment modification sales terms.

G. TOOLING - PRICE AND AVAILABILITY

None

H. WEIGHT AND BALANCE

Not changed

DATE : .IIII 02/96 SERVICE BULLETIN No. : A320 - 21 - 1095

SERVICE BULLETIN

I. REFERENCES

Aircraft Maintenance Manual (AMM)

: 06-41-53, 12-34-24, 21-31-00,

21-31-34, 52-10-00

Service Bulletin (SB)

: A320-21-1053

J. PUBLICATIONS AFFECTED

Aircraft Schematic Manual (ASM)

: 21-31-00

Aircraft Wiring Manual (AWM)

: 21-31-01, 21-31-02

Illustrated Parts Catalog (IPC)

: 21-31-08, 21-31-34

DATE : JUL 02/96 SERVICE BULLETIN No. : A320-21-1095

REVISION No.: PAGE: 10

SERVICE BULLETIN

2. ACCOMPLISHMENT INSTRUCTIONS

A. GENERAL

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

(1) Preparation

- (a) Electrically ground the aircraft (Refer to AMM 12-34-24, P. Block 201).
- (b) Put the access platforms in position.
- (c) Open the passenger/crew door (841) (Refer to AMM 52-10-00, P. Block 201).
- (d) Open the forward avionics compartment door 811 (Refer to AMM 06-41-53, P. Block 001).
- (e) Open, safety and tag the applicable circuit breakers (Refer to AMM 21-31-34, P. Block 401).

(2) Standard Practices

None

B. MODIFICATION

- (1) Remove the two cabin pressure controllers (11HL and 12HL), 9022-15702-8, (Refer to AMM 21-31-34, P. Block 401).
- (2) Modify the pressure controllers as detailed in the NORD-MICRO Service Bulletin No. 15702-21-005.
- (3) Install the modified cabin pressure controllers (11HL and 12HL), P/N 9022-15702-9, (Refer to AMM 21-31-34, P. Block 401).

DATE: JUL 02/96 SERVICE BULLETIN No.: A320-21-1095

SERVICE BULLETIN

C. TESTS

- (1) Remove the safety clips and the tags and close the circuit breakers you opened in Para. 2.A.(1)(e).
- (2) Do an operational test of the pressure control and monitoring system (Refer to AMM 21-31-00, P. Block 501).

D. CLOSE-UP

- (1) Make sure that the work area is clean and clear of tools and other items of equipment.
- (2) Close the forward avionics-compartment door 811 (Refer to AMM 06-41-53, P. Block 001).
- (3) Close the passenger/crew door 841 (Refer to AMM 52-10-00, P. Block 201).
- (4) Remove the access platforms.

E. DOCUMENTATION

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

DATE : JUL 02/96 SERVICE BULLETIN No. : A320 - 21 - 1095

SERVICE BULLETIN

3. MATERIAL INFORMATION

A. LIST OF COMPONENTS

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

9022-15702-9 2 Press Controller 9022-15702-8

NOTE:

No Airbus Industrie kit is required for this Service

Bulletin.

Details of procurement are to be negotiated directly with:

NORD-MICRO Electronik Feinmechanik

Material Support Department

P.O. BOX 630225 60352 Frankfurt

GERMANY

B. SPECIAL TOOLS

None

C. LIST OF MATERIAL - OPERATOR SUPPLIED

None

D. PARTS TO BE RE-IDENTIFIED BY OPERATOR

ITEM NEW PART NO.	KEYWORD	ITEM	OLD PART NO.	INT
9022-15702-9	Press Controller		9022-15702-8	

DATE : JUL 02/96 SERVICE BULLETIN No. : A320 - 21 - 1095

REVISION No.: PAGE: 13

SERVICE BULLETIN

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

Telex: AIRBU 530526F

TITLE : AIR CONDITIONING - PRESSURIZATION CONTROL - INTRODUCE THE IMPROVED

PRESSURE CONTROLLER 9022-15702-9.

MODIFICATION No.: 23124K2393 ATA SYSTEM: 21

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 if this sheet is returned to us on the purchase date and signed by a duly authorized and empowered officer or representative.

FROM :
AIRLINE :
NAME :
DATE :
19

Please return to :

AIRBUS INDUSTRIE
CUSTOMER SERVICES DIRECTORATE
TECHNICAL PUBLICATIONS
1 Rond Point Maurice BELLONTE
31707 BLAGNAC CEDEX FRANCE

TEL: (33) 61-93-33-33 Telex: AIRBU 530526

6 DATE : JUL 02/96 SERVICE BULLETIN No. : A320-21-1095

REVISION No.: PAGE: 1 of 1