 ***A319/A320/A321***

SERVICE BULLETIN

SUMMARY

AIRBUS INDUSTRIE

CUSTOMER SERVICES DIRECTORATE

1 Rond Point Maurice Bellonte

31707 BLAGNAC CEDEX FRANCE

Tel: (33) 5 61 93 33 33

Telex: AIRBU 530526 F

Fax : (33) 5 61 93 42 51

This summary is for information only

and is not approved for modification of the aircraft

ATA SYSTEM : 21

TITLE : AIR CONDITIONING − GENERAL − PRESSURIZATION CONTROL − INTRODUCE A

MODIFIED OUTFLOW VALVE P/N 20790−02AB

MODIFICATION No . : 31333K7284

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

After introduction of an improved Cabin Pressure Controller (CPC), operators

reported that the number of replacements of the OutFlow Valve (OFV) had

increased . Most of the replacements were because of the Fault Code (FC) 81

(actuator loop closure failure) .

The improved CPCs incorporated a very sharp and efficient FC 81 Built In Test

Monitor to minimize the possibility of loss of cabin pressure .

One of the main causes of FC 81 is the mechanical backlash between the coupling

of the OFV gearbox of the feedback potentiometer . Other factors that can lead to

FC 81 are the design/manufacture quality of the feedback potentiometer and the

tracking logic of the position control concept in the software of the actuator

electronics .

This Service Bulletin advises operators of the release of the Nord−Micro Service

Bulletin 20790−21−001 .

This Vendor Service Bulletin introduces:

− A backlash free connection between the coupling of the OFV gearbox and the

feedback potentiometer

− A redesigned feedback potentiometer with improved terminals and additional

internal parts to improve the build quality of the potentiometer

− Software and hardware improvements to the Actuator Electronic Box .

Accomplished of this Vendor Service Bulletin will decrease the number of FC 81

occurrences and thus decrease the number of OFV replacements .

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SERVICE BULLETIN

SUMMARY

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| EVALUATIO | | N TABLE |  |
| COMPLIANCE | DESIRABLE | CANCELS INSPECTION SB | NO |
| POTENTIAL AD | NO | A/C OPERATION AFFECTED | NO |
| RELIABILITY AFFECTED | YES | PAX COMFORT AFFECTED | NO |
| COST SAVING | YES | ETOPS AFFECTED | NO |
| STRUCTURAL LIFE EXTN | NO | VENDOR SB INVOLVED | YES |
| KIT PRICE (USD) | SEE SB |  |  |

EFFECTIVITY

This Service Bulletin is applicable to these operator(s) :

AWE UAL

CONCURRENT REQUIREMENTS

None

REFERENCES/REPERCUSSIONS

|  |  |
| --- | --- |
| TFU | : 21 .31 .51 .015 |
| OEB | : None |
| AOT | : None |
| SIL | : None |
| LIFE LIMIT | : None |

LINE MAINTENANCE AFFECTED : No

OTHER : None

NATURE OF THE WORK

AIRCRAFT : YES

EQUIPMENT : YES

HARD : NO

SOFT : NO

OBRM : NO

MANPOWER

TOTAL MANHOURS

7 .50

7 .50

ELAPSED TIME (HOURS)

MATERIAL INFORMATION

AIRCRAFT DATA

None

APPENDICES

None

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Tel: (33) 5 61 93 33 33

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ATA SYSTEM : 21

TITLE : AIR CONDITIONING − GENERAL − PRESSURIZATION CONTROL − INTRODUCE A

MODIFIED OUTFLOW VALVE P/N 20790−02AB

MODIFICATION No . : 31333K7284

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and shall not be duplicated in any manner (except for the purposes of performing

the tasks described hereunder and provided that any recipient of such document

shall comply with the conditions herein), without AIRBUS INDUSTRIE’s prior

written consent .

1. PLANNING INFORMATION

A . EFFECTIVITY

(1) Models

319−131 319−132 320−231 320−232

(2) Aircraft

(a) Effectivity by MSN

This Service Bulletin is applicable to aircraft MSN :

0052−0055

0064−0067 0076−0077 0081−0082 0091−0092 0098−0099 0238 0271

0304 0315 0317 0435 0439 0442 0448 0450 0452 0454−0457 0455

0462−0465 0470−0472 0475 0479 0483 0485 0487 0489 0500 0503

0504 0506 0508 0510 0512 0523 0527 0539 0543 0568 0571 0584

0587 0589 0592 0613 0636 0655 0678 0683 0686 0690 0702 0748

0751 0759 0762 0770 0780 0783 0788 0798 0803 0804 0820

0824−0826 0834 0836 0842 0843 0847 0850 0851 0856 0857 0858

0862 0865−0867 0871 0873 0882 0889 0893 0898 0924 0931 0944

0948 0952 0953 0955 0965 0980 0989 1001 1003 1022 1031 1043

1049−1050 1056 1064 1075 1079 1083 1088 1104 1105

1110−1111 1116 1128 1146 1163 1166 1178 1192 1196 1211 1223

1234 1243 1248 1266 1272 1274 1281 1282 1284 1290 1291 1321

1323 1341 1343 1350 1359 1363 1373 1375 1395 1397 1401 1406

1409 1410 1419 1420 1426 1427 1432 1435 1460 1463 1469 1474

1475 1477 1490 1495 1507 1508 1514 1522 1527 1533 1534 1538

1545 1547 1552 1555 1559 1563 1565 1569 1573 1581

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1584−1586 1600

NOTE : This Service Bulletin is only applicable to aircraft

which have an OFV, P/N 20790−01AA installed . The

modified OFV P/N 20790−02AB can be installed into each

single aisle aircraft for the operators AWE and UAL .

(b) Effectivity by Operator

The Operator/MSN relationship is provided for information only

and is correct at the time of issue in accordance with the

information available to Airbus Industrie . Any future changes

resulting from transfer of an aircraft from one operator to

another will not be reflected in this list unless the Service

Bulletin is revised for another reason .

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OPERATOR | MSN |  |  |  |  |  |  |  |  |  |
| AWE | 0052 | 0053 | 0054 | 0055 | 0064 | 0065 | 0066 | 0067 | 0076 | 0077 |
|  | 0081 | 0082 | 0091 | 0092 | 0098 | 0099 | 0238 | 0271 | 0304 | 0315 |
|  | 0317 | 0448 | 0455 | 0471 | 0527 | 0543 | 0584 | 0762 | 0770 | 0803 |
|  | 0856 | 0866 | 0889 | 0924 | 0931 | 0953 | 1003 | 1043 | 1049 | 1050 |
|  | 1056 | 1064 | 1075 | 1079 | 1083 | 1088 | 1110 | 1111 | 1116 | 1166 |
|  | 1178 | 1196 | 1223 | 1234 | 1274 | 1281 | 1284 | 1323 | 1350 | 1373 |
|  | 1375  1547 | 1395  1552 | 1397  1563 | 1406  1565 | 1410 | 1419 | 1463 | 1490 | 1527 | 1534 |
| UAL | 0435 | 0439 | 0442 | 0450 | 0452 | 0454 | 0456 | 0457 | 0462 | 0463 |
|  | 0464 | 0465 | 0470 | 0472 | 0475 | 0479 | 0483 | 0485 | 0487 | 0489 |
|  | 0500 | 0503 | 0504 | 0506 | 0508 | 0510 | 0512 | 0523 | 0539 | 0568 |
|  | 0571 | 0587 | 0589 | 0592 | 0613 | 0638 | 0655 | 0678 | 0683 | 0686 |
|  | 0690 | 0702 | 0748 | 0751 | 0759 | 0780 | 0783 | 0788 | 0798 | 0804 |
|  | 0820 | 0824 | 0825 | 0826 | 0834 | 0836 | 0842 | 0843 | 0847 | 0850 |
|  | 0851 | 0857 | 0858 | 0862 | 0865 | 0867 | 0871 | 0873 | 0882 | 0893 |
|  | 0898 | 0944 | 0948 | 0952 | 0955 | 0965 | 0980 | 0989 | 1001 | 1022 |
|  | 1031 | 1104 | 1105 | 1128 | 1146 | 1163 | 1192 | 1211 | 1243 | 1248 |
|  | 1266 | 1272 | 1282 | 1290 | 1291 | 1321 | 1341 | 1343 | 1359 | 1363 |
|  | 1401 | 1409 | 1420 | 1426 | 1427 | 1432 | 1435 | 1460 | 1469 | 1474 |
|  | 1475 | 1477 | 1495 | 1507 | 1508 | 1514 | 1522 | 1533 | 1538 | 1545 |
|  | 1555 | 1559 | 1569 | 1573 | 1581 | 1584 | 1585 | 1586 | 1600 |  |

(c) Effectivity by MSN and Kit/Configuration

None

(3) Spares

None

B . CONCURRENT REQUIREMENTS

None

C . REASON

(1) History

After introduction of an improved Cabin Pressure Controller (CPC),

operators reported that the number of replacements of the OutFlow

Valve (OFV) had increased . Most of the replacements were because of

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SERVICE BULLETIN

the Fault Code (FC) 81 (actuator loop

The improved CPCs incorporated a very

Built In Test Monitor to minimize the

closure failure) .

sharp and efficient FC

possibility of loss of

81 cabin

pressure .

One of the main causes of FC 81 is the mechanical backlash between

the coupling of the OFV gearbox of the feedback potentiometer .

Other factors that can lead to FC 81 are the design/manufacture

quality of the feedback potentiometer and the tracking logic of the

position control concept in the software of the actuator

electronics .

(2) Objective/Action

This Service Bulletin advises operators of the release of the

Nord−Micro Service Bulletin 20790−21−001 .

This Vendor Service Bulletin introduces:

− A backlash free connection between the coupling of the OFV

gearbox and the feedback potentiometer

− A redesigned feedback potentiometer with improved terminals and

additional internal parts to improve the build quality of the

potentiometer

− Software and hardware improvements to the Actuator Electronic

Box .

(3) Advantages

Accomplishment of this Vendor Service Bulletin will decrease the

number of FC 81 occurrences and thus decrease the number of OFV

replacements .

(4) Operational/Maintenance Consequences

None

D . DESCRIPTION

To accomplish this Service Bulletin it is necessary to :

(1.1D.)(1) Remove the outflow valve 10HL, P/N 20790−01AA .

(1.2D.)(2) Do the modification to the outflow valve 10HL, in accordance with

the Nord−Micro Service Bulletin 20790−21−001 .

(1.3D.)(3) Reidentify the valve .

(1.4D.)(4) Install the modified outflow valve 10HL, P/N 20790−02AB .

E . COMPLIANCE

(1) Classification

Desirable .

(2) Accomplishment Timescale

In accordance with operators’ maintenance schedule .

F . APPROVAL

The technical content of this Service Bulletin has been approved under

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the authority of the DGAC Design Organisation Approval No . F .JA .02 .

If an aircraft listed in the effectivity has a modification or repair

embodied that is not of AIRBUS origin, and which affects the content of

this Service Bulletin, the operator is responsible for obtaining

approval by its airworthiness authority for any adaptation necessary

before incorporation of the Service Bulletin .

G . MANPOWER

The manpower estimates given in this Service Bulletin are based on the direct labor cost to do the work . These estimates assume that the work will be done by experienced personnel, and may need to be revised upwards to suit operators’ circumstances . The estimates do not include the time to prepare, plan or inspect the work . Manufacture and procurement of parts and tools, drying time for paints, sealants, etc . and general administration work are also not included .

Get Access 1 .50

Modification 4 .00

Test 1.00

Close−up 1 .00

TOTAL MANHOURS 7 .50

ELAPSED TIME (HOURS) 7 .50

NOTE : Refer also to the Nord−Micro Service Bulletin 20790−21−001 .

H . WEIGHT AND BALANCE

Not changed

I . ELECTRICAL LOAD DATA Not changed

J . REFERENCES

Aircraft Maintenance Manual (AMM) : 12−34−24 21−31−00 21−31−51

Nord−Micro Service Bulletin (SB) : 20790−21−001

Consumable Materials List (CML) :

K . PUBLICATIONS AFFECTED

Illustrated Parts Catalog (IPC) : 21−31−04 21−31−51

L . INTERCHANGEABILITY/MIXABILITY

DESCRIPTION OLD PART No . NEW PART No . INT MIXABILITY

VALVE

NOTE

20790−01AA 20790−02AB

: For the definitions of interchangeability

INT . refer to ATA 200 Chapter 1A−2 .

02 Not applicable

codes in the column

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2. MATERIAL INFORMATION

A . MATERIAL − PRICE AND AVAILABILITY

(1) Material

Modification of removed equipment should be negotiated directly

with:

NORD−MICRO AG & CO . OHG

REPAIR STATION

VICTOR−SLOTOSCH−STRASSE 20

D 60388 FRANKFURT

GERMANY

TEL: (+49) 6109 303 435

FAX: (+49) 6109 303 641

as per instructions given in the Nord−Micro Service Bulletin 20790−21−001 .

(2) Price and Availability

Refer to the Nord−Micro Service Bulletin 20790−21−001 for the

equipment modification sales terms .

B . INDUSTRY SUPPORT INFORMATION

None

C . LIST OF COMPONENTS

None

D . LIST OF MATERIALS − OPERATOR SUPPLIED

DESCRIPTION REFERENCE TO CML QTY PER A/C INST DISP

MAT . No .

Solvent 11−026 As required

Cloth 19−003 As required

E . PARTS TO BE RE IDENTIFIED BY THE OPERATOR

ITEM NEW PART No KEYWORD ITEM OLD PART No . INT

20790−02AB VALVE 20790−01AA 02 See Note 1

NOTE (1) The Valve is modified by the Nord−Micro Service Bulletin

20790−21−001 .

NOTE : For the definitions of interchangeability codes in the column

INT . refer to ATA 200 Chapter 1A−2 .

F . TOOLING − PRICE AND AVAILABILITY

None

G . SPECIAL TOOLS

None

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3. ACCOMPLISHMENT INSTRUCTIONS

A . GENERAL

WARNING : MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND CAUTIONS INCLUDED

IN THE REFERENCED PROCEDURES .

(1) Preparation

.aA.)(1)(a) Make sure that the aircraft is electrically grounded, refer to AMM 12−34−24 Page block 201.

.bA.)(1)(b) Open, safety and tag the circuit breaker(s) listed in the AMM 21−31−51 Page block 401.

.cA.)(1)(c) Do the preparation for the removal of the outflow valve 10HL, refer to AMM 21−31−51 Page block 401.

(2) Standard Practices

.aA.)(2)(a) Refer to the Consumable Materials List (CML) for the specification of the materials (Mat . No . ) which you must use in this Service Bulletin .

.bA.)(2)(b) If necessary, clean the work area with the solvent (Mat . No . 11−026) and a cloth (Mat . No . 19−003) .

.cA.)(2)(c) Tag the parts which you must remove and retain, to make the subsequent installation easier .

B . MODIFICATION

.1B.)(1) Remove the outflow valve 10HL, P/N 20790−01AA, refer to AMM

21−31−51 Page block 401.

.2B.)(2) Do the modification to the outflow valve 10HL, refer to Nord−Micro

Service Bulletin 20790−21−001 .

.3B.)(3) Reidentify the valve, refer to Para . 2E .

.4B.)(4) Install the modified outflow valve 10HL, P/N 20790−02AB, refer to

AMM 21−31−51 Page block 401.

NOTE : During the three month in−service test period, do a print

every two weeks of the last leg report, the previous legs

report, and the post flight report . In case of an ATA 21

failure occurrence, do a print of the last leg report, the

previous legs report, the post flight report, and read out

of the Non Volatile Memory information of both cabin

pressure controllers . For both cases send the reports to:

GILLES JUAN

AI/SE−22

AIRBUS INDUSTRIE

1, ROND POINT MAURICE BELLONTE

31707 BLAGNAC CEDEX

FRANCE

for further investigation .

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C . TEST

.1C.)(1) Remove the safety tags and close the circuit breaker(s) listed in

the AMM 21−31−51 Page block 401.

.2C.)(2) Do the operational test of the pressure control and monitoring

system, refer to AMM 21−31−00 Page block 501.

.3C.)(3) Do the operational test of the manual pressure control and

monitoring system, refer to AMM 21−31−00 Page block 501.

D . CLOSE UP

.1D.)(1) Make sure that the work areas are clean and clear of tools and

other items of equipment .

.2D.)(2) Do the close up after the installation of the outflow valve 10HL,

refer to AMM 21−31−51 Page block 401.

E . DOCUMENTATION

Write in the applicable aircraft records that you have done all the work

given in this Service Bulletin .

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SERVICE BULLETIN

REPORTING SHEET

TITLE : AIR CONDITIONING − GENERAL − PRESSURIZATION CONTROL − INTRODUCE A

MODIFIED OUTFLOW VALVE P/N 20790−02AB

MODIFICATION No . : 31333K7284

Please complete the appropriate item (A or B):

A − SB WILL BE embodied . . . . . . . . . . . . . .YES/NO (if NO please comment)

If YES, aircraft concerned (as per SB effectivity by default) and planned dates

(month/year) of embodiment: . . . . . . . . . . . . . . . . . . . . . . . . . .

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

B − SB HAS BEEN embodied on aircraft: . . . . . . . . . . . . . . . . . . . . .

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Operator comments: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

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From Airline: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Name/Title: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Signature: . . . . . . . . . . . . Date: . . . . . . . . . . .

If operational documentation is affected (see Paragraph 1 .K of this SB): If information is needed prior to next normal revision or prior to SB embodiment, please indicate required service(s):

Either: Advance data . . . . . . . . . . . . . . . . . . . . . . YES/NO

Or : Intermediate/Temporary revision . . . . . . . . . . . . YES/NO

Important Information: This SB will only be incorporated in your maintenance and

operational documentation if this sheet is returned to Airbus Industrie and

signed by a duly authorised representative . With the next feasible revision,

this will result in

−updating of maintenance documentation to show pre and post SB data .

−updating of maintenance and operational documentation to show post SB data

after embodiment .

If this SB requires previous or simultaneous accomplishment of other SBs, Airbus

Industrie shall automatically include them in the manual revisions . Refer to SIL

00−037 for detailed information .

Please return this completed sheet to:

AIRBUS INDUSTRIE

CUSTOMER SERVICES DIRECTORATE

1 Rond Point Maurice Bellonte

31707 BLAGNAC CEDEX FRANCE

Attn: AI/SE−D32 Technical Data and Documentation Services Fax: (+33) 5 61 93 28 06

or via your Resident Customer Support Office .

Alternatively, SB lists via letters or fax are also accepted .

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QUALITY PERCEPTION FORM

Use this form to tell us what is your perception of the quality of this Service Bulletin . The reported data that you provide us will be used to analyse areas of difficulties and to take corrective action to further improve the quality of our Service Bulletins .

We thank you for the time you have taken in completing this form .

(Please rate on a scale of 1 to 4, with 4 being the highest score)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| − Quality | rating of this SB | 4 3 | 2 | 1 |
| − Quality | rating of the Accomplishment Instructions | 4 3 | 2 | 1 |
| − Quality | rating of the Illustrations | 4 3 | 2 | 1 |
| − Is this | SB easy to understand ? | Y / N |  |  |

If you have had difficulties in the accomplishment of this SB please quote below

the area(s) and give a short description of the issue .

Planning

X Effectivity

X Reason

X Manpower

X References

X Publication

Comments :

Material

X Kit Content

X List of Materials

Operator Supplied

X Re−identification

X Tooling

Instructions

X Preparation

X Mod/Inspection

X Test

X Close−up

X Illustrations

Operator :

Name/Title :

Date:

Please return this form to :

AIRBUS INDUSTRIE

CUSTOMER SERVICES DIRECTORATE

1 Rond Point Maurice Bellonte

31707 BLAGNAC CEDEX

Attn : AI/SE−T1 Service Bulletins Management

FAX : (33) 5 61 93 42 51

or via your Resident Customer Support Office .

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