## SERVICE BULLETIN REVISION TRANSMITTAL SHEET

**ATRBUS** 

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ATA SYSTEM: 21

TITLE: AIR CONDITIONING - AIR COOLING SYSTEM - INTRODUCE MODIFIED AIR

CONDITIONING PACK 1310A0000-03

MODIFICATION No.: 31709K7523

This page transmits Revision No. 01 of Service Bulletin No. A320-21-1135.

### ADDITIONAL WORK

No additional work is required by this revision for aircraft modified by any previous issue.

### **REASON**

New operator AZA with MSNs 1722, 1740 and 1745 added.

### **CHANGES**

### **SUMMARY**

- EFFECTIVITY - Operator AZA added.

## PLANNING INFORMATION

- Para. A.(2)(a) MSNs 1722, 1740 and 1745 added.
- Para. A.(2)(b) Operator AZA added.
- Para. A.(2)(c) MSNs 1722, 1740 and 1745 added.

## MATERIAL INFORMATION

- Para. A.(1) Vendor information updated.
- Para. B. Vendor information added.

## **FILING INSTRUCTIONS**

This Service Bulletin has been generated electronically and is reissued as a complete document. Replace the complete document.

Put this Revision Transmittal Sheet in front of the Service Bulletin.

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## SERVICE BULLETIN REVISION TRANSMITTAL SHEET

**REVISION SEQUENCE** 

ORIGINAL : Dec 19/02

REVISION No.: 01 - Nov 04/03

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## SERVICE BULLETIN SUMMARY

**AIRBUS** 

CUSTOMER SERVICES DIRECTORATE 1 Rond Point Maurice Bellonte 31707 BLAGNAC CEDEX FRANCE

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

ATA SYSTEM: 21

TITLE: AIR CONDITIONING - AIR COOLING SYSTEM - INTRODUCE MODIFIED AIR

CONDITIONING PACK 1310A0000-03

MODIFICATION No.: 31709K7523

#### REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

During tests to simulate the remote failure and the loss of all electrical power the aircraft was supplied only by batteries. Under these conditions a slightly higher pack outer temperature occurred due to the battery supply influence of the temperature control within the back-up mode.

This Service Bulletin has been published to inform the operators of the issue of the LIEBHERR Aerospace Service Bulletin No. 1310A-21-02 introduces an additional 3/2 way valve solenoid in order to improve the temperature back-up function as follows:

- the additional 3/2 way valve solenoid has to be electrically connected in parallel to the solenoid of the AIV. The junction has be achieved by the terminal block within the pressurized area in front of the pack bay.
- the air conditioning pack has to be modified by installing a new 3/2 way valve solenoid.

After modification of the Air Conditioning Pack the differential pressure regulator of the anti-icing-valve LP side will be deactivated in pneumatic temperature back up mode operation. This is assured by venting the p1 pneumatic senseline of the condenser LP side via the 3/2 way valve solenoid.

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

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## SERVICE BULLETIN SUMMARY

### **EFFECTIVITY**

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

AZA DLH HDA USA

**CONCURRENT REQUIREMENTS** 

None

### REFERENCES/REPERCUSSIONS

TFU : None

OEB : None

AOT : None

SIL : None

LIFE LIMIT : None

LINE MAINTENANCE AFFECTED : No

OTHERS : None

## NATURE OF THE WORK

Kit 211135D01R00

AIRCRAFT : YES EQUIPMENT : YES HARD : NO SOFT : NO OBRM : NO

### **MANPOWER**

Kit 211135D01R00

TOTAL MANHOURS 36.50

ELAPSED TIME (HOURS) 20.00

## MATERIAL INFORMATION

AIRCRAFT DATA

Electrical equipment, fasteners, fasteners as spare parts, sections and refer to the LIEBHERR Aerospace Service Bulletin No. 1310A-21-02.

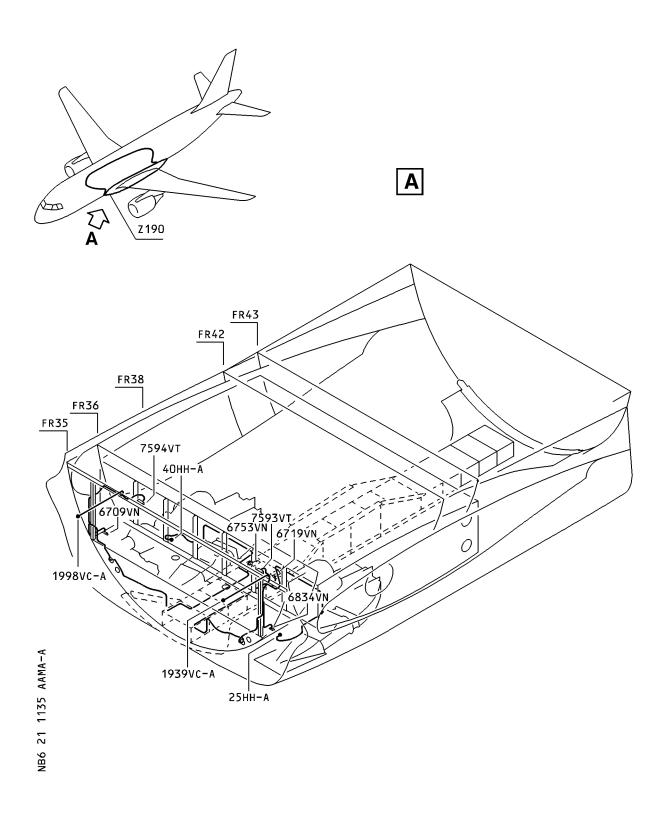
### **APPENDICES**

None

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AIRBUS CUSTOMER SERVICES DIRECTORATE 1 Rond Point Maurice Bellonte

31707 BLAGNAC CEDEX FRANCE Tel : (33) 5 61 93 33 33

Telex: AIRBU 530526F Fax: (33) 5 61 93 42 51

ATA SYSTEM: 21

TITLE: AIR CONDITIONING - AIR COOLING SYSTEM - INTRODUCE MODIFIED AIR

CONDITIONING PACK 1310A0000-03

MODIFICATION No.: 31709K7523

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#### 1. PLANNING INFORMATION

#### A. <u>EFFECTIVITY</u>

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(1) Models

319-112 319-114 320-211 320-214 320-232 321-131 321-211 321-231

- (2) Aircraft
  - (a) Effectivity by MSN

This Service Bulletin is applicable to aircraft MSN:

0844 0861 0863 0868 0875 0877 0885 0890 0896 0901 0904 0922 0929 0936 0946 0949 0972 0997 1019 1033 1038 1040 1044 1046 1051-1052 1055 1061 1065 1069 1077 1080 1084 1089 1095 1097 1109 1112 1114 1122 1134-1136 1141 1147-1148 1155 1161 1170-1171 1182 1188 1203 1205 1209-1210 1214 1224 1245 1254 1260 1263-1265 1268-1269 1273 1275 1277 1286-1287 1289 1294 1297-1298 1301 1310-1311 1313-1315 1317 1319 1326 1328 1331 1337 1340 1342 1348 1354 1358 1360 1365 1367 1369 1371 1378 1382 1389 1391 1393 1403 1412 1417 1425 1431 1436 1442 1447 1455 1462 1465 1472 1481 1492 1496 1499 1517 1519 1521 1525 1531 1536 1539 1651 1666 1701 1704 1722 1724 1740 1745

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### (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. 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									
AZA	1722	1740	1745							
DLH	0875 1367	0901	1080	1161	1188	1214	1260	1273	1337	1365
HDA	0877									
USA	0936 1046 1095 1147 1224	0946 1051 1097 1148 1245 1287 1315 1358 1412 1472	0949 1052 1109 1155 1254 1289	0972 1055 1112 1170 1263 1294 1319 1369 1425 1492	0997 1061 1114 1171 1264 1297 1326	1019 1065 1122 1182 1265 1298 1328 1378 1436 1499	1033 1069 1134 1203 1268	1038 1077 1135 1205 1269 1310 1340	1275 1311 1342 1391 1455	1044 1089 1141 1210

## (c) Effectivity by MSN and Kit/Configuration

The kits and configurations applicable to these MSNs are given at the end of this list:

```
0844 0861 0863 0868 0875 0877 0885 0890 0896 0901 0904 0922 0929 0936 0946 0949 0972 0997 1019 1033 1038 1040 1044 1046 1051-1052 1055 1061 1065 1069 1077 1080 1084 1089 1095 1097 1109 1112 1114 1122 1134-1136 1141 1147-1148 1155 1161 1170-1171 1182 1188 1203 1205 1209-1210 1214 1224 1245 1254 1260 1263-1265 1268-1269 1273 1275 1277 1286-1287 1289 1294 1297-1298 1301 1310-1311 1313-1315 1317 1319 1326 1328 1331 1337 1340 1342 1348 1354 1358 1360 1365 1367 1369 1371 1378 1382 1389 1391 1393 1403 1412 1417 1425 1431 1436 1442 1447 1455 1462 1465 1472 1481 1492 1496 1499 1517 1519 1521 1525 1531 1536 1539 1651 1666 1701 1704 1722 1724 1740 1745
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KIT No. QTY PER A/C CONFIGURATION 211135D01R01 1 None

(3) Spares

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None

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#### B. CONCURRENT REQUIREMENTS

None

#### C. REASON

(1) History

During tests to simulate the remote failure and the loss of all electrical power the aircraft was supplied only by batteries. Under these conditions a slightly higher pack outer temperature occurred due to the battery supply influence of the temperature control within the back-up mode.

### (2) Objective/Action

This Service Bulletin has been published to inform the operators of the issue of the LIEBHERR Aerospace Service Bulletin No. 1310A-21-02 introduces an additional 3/2 way valve solenoid in order to improve the temperature back-up function as follows:

- the additional 3/2 way valve solenoid has to be electrically connected in parallel to the solenoid of the AIV. The junction has be achieved by the terminal block within the pressurized area in front of the pack bay.
- the air conditioning pack has to be modified by installing a new 3/2 way valve solenoid.

### (3) Advantages

After modification of the Air Conditioning Pack the differential pressure regulator of the anti-icing-valve LP side will be deactivated in pneumatic temperature back up mode operation. This is assured by venting the p1 pneumatic senseline of the condenser LP side via the 3/2 way valve solenoid.

(4) Operational/Maintenance Consequences

None

### D. DESCRIPTION

To accomplish this Service Bulletin it is necessary to :

- (1) Modify the Air Conditioning Pack in accordance with the Liebherr Aerospace Service Bulletin No. 1310A-21-02.
- (2) Kit 211135D01R00
  - (a) Install the sections for the terminal blocks 7593VT and 7594VT.
  - (b) Install the new wirings 6083, 6084-R, 6084-B and 6085 to the cable route 4621VB.

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- (c) Install the new wirings 6187, 6188-R, 6188-B and 6189 to the cable route 4648VB.
- (d) Modify the wiring 6054-B of the cable route 4621VB.
- (e) Modify the wiring 6162-B of the cable route 4648VB.

### 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 the authority of the DGAC Design Organization 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.

### Kit 211135D01R00

Get Access	6.00
Modification	21.00
Test	3.00
Close-up	6.50
TOTAL MANHOURS	36.50
ELAPSED TIME (HOURS)	20.00

#### H. WEIGHT AND BALANCE

Kit 211135D01R00

For A319

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Manufacturers Empty Weight: 2.436 kg (5.37 lb)

Effect on Balance : 35.451 kgm (256.38 lb.ft)

For A320

Manufacturers Empty Weight: 2.436 kg (5.37 lb)

Effect on Balance : 39.348 kgm (284.56 lb.ft)

For A321

Manufacturers Empty Weight: 2.436 kg (5.37 lb)

Effect on Balance : 49.744 kgm (359.75 lb.ft)

## I. <u>ELECTRICAL LOAD DATA</u>

Not changed

### J. <u>REFERENCES</u>

Aircraft Maintenance Manual (AMM) : 12-34-24 20-28-00 21-21-41

21-52-41 21-61-00 24-38-51 24-41-00 25-54-12 25-80-00 52-10-00 52-30-00 53-35-13

Consumable Material List (CML)

Structural Repair Manual (SRM) : 51-44-11

Elec. Std. Practices Manual (ESPM) : 20-33-00 20-43-42

### K. PUBLICATIONS AFFECTED

Aircraft Maintenance Manual (AMM) : 21-52-00 21-52-23 21-52-41

21-61-41 21-60-00 21-61-00

Aircraft Schematic Manual (ASM) : 21-61-00

Illustrated Parts Catalog (IPC) : 21-52-03 21-52-41

## L. <u>INTERCHANGEABILITY/MIXABILITY</u>

DESCRIPTION OLD PART No. NEW PART No. INT MIXABILITY

Pack, Air 1310A0000-02 1310A0000-03 03 None

Conditioning

NOTE: For definitions of interchangeability codes in column INT. refer to ATA 200 Chapter 1A-2.

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### 2. MATERIAL INFORMATION

#### A. MATERIAL - PRICE AND AVAILABILITY

(1) Material

Customers with aircraft shown in the effectivity of this Service Bulletin should send a purchase order to AIRBUS. Quote the number of this Service Bulletin. The address is:

AIRBUS MATERIAL SUPPORT CENTER PO BOX 630262 22312 HAMBURG GERMANY

Modification of removed equipment should be negotiated directly with LIEBHERR-AEROSPACE as per instructions given in Vendor Service Bulletin No. 1310A-21-02. The address is:

LIEBHERR-AEROSPACE LINDENBERG GmbH Customer Service P.O. Box 1363 D-88153 Lindenberg Germany

(2) Price and Availability

Kit 211135D01R00

Cost : 2020 US Dollars

Availability: 150 calendar days from receipt of order

The Kit availability given above is the standard lead time from the date of your purchase order. If you require the Kit(s) before this time, please include a retrofit planning schedule with your order so that we can try to comply with your requirements.

Refer to the LIEBHERR Aerospace Service Bulletin No. 1310A-21-02 for the equipment modification sales terms.

## B. <u>INDUSTRY SUPPORT INFORMATION</u>

Refer to the Vendor Service Bulletin (VSB) for the industry support terms.

C. LIST OF COMPONENTS

Kit 211135D01R00

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ITEM	NEW PART No.	QTY UM	KEYWORD	ITEM	OLD PART	No.	INT	INST	DISP
1	NAS5066-08-1	18	NUT						
2	LN9198-3210BF	6	RIVET						
3	D9249174222200	2	SECTION						
4	D9299227500400	1	EQUIPMNT						
5	NAS1096-2-12	2	SCREW						
6	D9299227500600	1	EQUIPMNT						
7	NAS1096-2-8	14	SCREW						
8	NAS1096-2-18	3	SCREW						
9	NAS1096-2-20	3	SCREW						
10	NAS1096-2-27	8	SCREW						
11	NAS1096-3-8	4	SCREW						
12	NAS1102-3-8	8	SCREW						
13	NAS1149D0363K	8	WASHER						
14	NAS1149CN816R	36	WASHER						
15	NAS1149C0332R	28	WASHER						
16	NAS935808C03	21	WASHER						
17	MS21042L3	18	NUT						
18	NAS5066-08-2	26	NUT						
19	MS21919WCH3	7	CLAMP						
20	MS21919WCH4	5	CLAMP						
21	MS21919WCH8	29	CLAMP						
22	MS21919WCH10	2	CLAMP						
23	NSA5527-03-03D	6	SPACER						
24	NSA5527-03-01D	9	SPACER						
25	NSA5527-03-02D	16	SPACER						
26	NSA5527-03-08D	5	SPACER						
27	NSA5586A	2	BLOCK						
28	NSA5527-03-06D	2	SPACER						
29	D9249173320400	2	FRLDHALF						
30	D9249173320600	2	FRLDHALF						
31	D9249172020000	1	ANGLE						
32	NSA934710T14	2	FITTING						
33	NSA935807-06	7	CLAMP						
34	NSA935807-12	31	CLAMP						
35	NSA935807-14	4	CLAMP						
36	NAS1096-2-25	3	SCREW						
37	NAS1096-2-30	5	SCREW						
38	NAS1096-2-33	2	SCREW						
39	NAS1096-2-36	4	SCREW						
40	NAS1096-2-14	1	SCREW						
41	NSA935401-04	100	TIE						
42	NSA935401-03	100	TIE						

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ITEM	NEW PART No.	QTY UN	1 KEYWORD	ITEM	OLD PART No.	INT INST DISP
43	NSA5527-03-03	1	SPACER			
44	NSA5527-03-02	6	SPACER			
45	NAS1801-3-9	16	SCREW			

NOTE: Refer to the AIRBUS Standards Manual (SM) if you find part numbers for the hardware components in the related kit(s) which you can not identify in the LIST OF COMPONENTS of this Service Bulletin. The SM will give you the correct part number to part number relationship.

## D. LIST OF MATERIALS - OPERATOR SUPPLIED

### (1) Consumable Materials

DESCRIPTION	REFERENCE TO CML MAT. No.	QTY PER A/C INST DISP
Identification Paint	07-020	As required
Adhesive	08-001	As required
Adhesive	08-013	As required
Adhesive (Activator)	08-009A	As required
Sealant	09-013	As required
Sealant	09-052	As required
Cleaning Agent	11-006	As required
Primer	16-001	As required
Top Coat	16-002	As required
Lint-Free Cotton Cloth	19-003	As required

(2) Components

None

## E. PARTS TO BE RE-IDENTIFIED BY THE OPERATOR

ITEM	NEW PART No.	KEYWORD	ITEM	OLD PART No.	INT
50	1310A0000-03	PACKAIR		1310A0000-02	03

NOTE: For definitions of interchangeability codes in 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**

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

### (1) Preparation

- (a) De-energize the aircraft electrical circuits, (Refer to AMM 24-41-00 Page block 201).
- (b) Electrically ground the aircraft, (Refer to AMM 12-34-24 Page block 201).
- (c) Put the access platform(s) in position.
- (d) Open the passenger/crew door 831, (Refer to AMM 52-10-00 Page block 201).
- (e) Open the FWD cargo compartment door 825, (Refer to AMM 52-30-00 Page block 201).
- (f) Open, safety and tag these circuit breakers:

PANEL	DESIGNATION	FIN	LOCATION
123VU	GEN1/EGIU1/115VAC	23XU1	12AF
123VU	GEN2/EGIU2/115VAC	23XU2	01AF
123VU	GND/PWR/PROT	2XG	07AB
122VU	ELEC/EXT PWR/CTL	11XG	29 X
123VU	APU GEN/EGIU2/115VAC	23XS	08AA
106VU	CSM/G /EV/MAN/SPLY	6XE	04 B
105VU	ELEC/CSM/G /EV AUTO/SPLY	7XE	01 C
125VU	BAT BUS/301PP/SPLY	11PB	01CC
105VU	ELEC/HOT BUS/701PP SPLY	12PB1	01 E
105VU	ELEC/HOT BUS/702PP SPLY	12PB2	02 E
105VU	ELEC/HOT BUS/701PP SPLY	5PB1	01 D
105VU	ELEC/HOT BUS/702PP SPLY	5PB2	02 D
105VU	ELEC/BAT/REF/BCL1	9PB1	01AS
105VU	ELEC/BAT/REF/BCL2	9PB2	01AS
105VU	FLT CTL/ELAC1/STBY SPLY	16CE1	01 A
105VU	FLT CTL/ELAC2/STBY/SPLY	16CE2	02 A
105VU	FLT CTL/SEC1/STBY SPLY	22CE	01 B
105VU	ADIRS/ADIRU1/28VDC	6FP1	02 C
105VU	ELEC/STAT INV/CNTOR/CTL	14XB	02 G

(g) Remove belly fairing panels 191BB, 192EB and 192 KB (Refer to AMM 53-35-13 Page block 401).

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- (h) Remove R/H air duct (Refer to AMM 21-52-41 Page block 401).
- (i) Remove the rear partitions of the FWD cargo compartment (Refer to AMM 25-54-12 Page block 401).
- (j) Remove the rear ceiling panels of the FWD cargo compartment (Refer to AMM 25-54-12 Page block 401).
- (k) Remove the air filters of the air conditioning system (Refer to AMM 21-21-41 Page block 401).
- (1) Remove the air conditioning pipes at FR35 (FR35/8 for A321) if necessary.
- (m) Remove the thermal and acoustical insulation in the working area at FR35 (FR35/8 for A321) (Refer to AMM 25-80-00 Page block 201.)
- (n) Disconnect the battery connectors (2PB1, 2PB2) before you do this Service Bulletin, (Refer to AMM 24-38-51 Page block 401).

## (2) Standard Practices

- (a) Refer to the AIRBUS Standards Manual (SM) if you find part numbers for the hardware components in the related kit(s) which you can not identify in the LIST OF COMPONENTS of this Service Bulletin. The SM will give you the correct part number to part number relationship.
- (b) Refer to the CML for the specification of materials you must use in this Service Bulletin.
- (c) Drill and deburr the holes in metallic structure (Refer to SRM 51-44-11).
- (d) Put blanking caps on the disconnected electrical connectors.
- (e) Do the electrical bonding, (Refer to AMM 20-28-00 Page block 201).
- (f) Obey the instructions for the general wiring installation, (Refer to ESPM 20-33-00).

## B. MODIFICATION

- (1) Modify the Air Conditioning Pack in accordance with the Liebherr Aerospace Service Bulletin No. 1310A-21-02.
- (2) Kit 211135D01R00
  - (a) Install the sections for the terminal blocks 7593VT and 7594VT at FR35 (Fr35/8 for 321).

Refer to Figure 1

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, Sheet 3 (Detail K and L), 6 and 7

1 At cross beam FR35 (FR35/8 for A321) install:

2 sections D9249174222200 Item 3

with

6 rivets LN9198-3210BF Item 2

NOTE: Clean the installation area with CLEANING AGENT

(Mat. No. 11-006) and LINT-FREE COTTON CLOTH (Mat.

No. 19-003).

NOTE: Install the sections item 3 and the rivets item 2

with SEALANT (Mat. No. 09-013).

2 Apply PRIMER (Mat. No. 16-001) and TOP COAT (Mat. No. 16-002) to the rivets item 2.

3 To the sections item 3 install:

4 nuts NAS5066-08-1 Item 1

- (b) Install the new wirings 6083, 6084-R, 6084-B and 6085 to the existing cable route 4621VB as given in the Hook-up Chart figure 4
  - , line 1 thru 4 and Wiring figure 2 .

Refer to Figure 1

, Sheet 2 thru 6

Refer to Figure 2

Refer to Figure 4

- $\underline{1}$  Remove the wire 6054-B from the plug 1939VC-A up to the FR35 (FR35/8 for A321).
- 2 At the pressure bulkhead FR35 (FR35/8 for A321) remove :

1	fitting	NSA934710T14	Item (32)	discard
1	FRLD half	D9249173320600	Item (30)	discard
1	FRLD half	D9249173320400	Item (29)	discard
8	screws	NAS1801-3-9	Item (45)	discard
4	screws	NAS1102-3-8	Item (12)	discard
4	washers	NAS1149D0363K	Item (13)	discard
12	washers	NAS1149C0332R	Item (15)	discard
4	nuts	MS21042L3	Item (17)	discard

3 To the cable route 4621VB between the new solenoid back-up valve 25HH and the connector 1939VC-A install:

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1	elec. equipment	D9299227500400	Item 4
	with		
2	screw	NAS1096-2-8	Item 7
2	screws	NAS1096-3-8	Item 11
4	screws	NAS1102-3-8	Item 12
4	washers	NAS1149D0363K	Item 13
2	washer	NAS1149CN816R	Item 14
14	washers	NAS1149C0332R	Item 15
6	nuts	MS21042L3	Item 17
1	block	NSA5586A	Item 27
1	FRLD half	D9249173320400	Item 29
1	FRLD half	D9249173320600	Item 30
1	fitting	NSA934710T14	Item 32
1	cable tie	NSA935401-04	Item 41
8	screws	NAS1801-3-9	Item 45

NOTE: Install the fitting item 32 and the FRLD half item 29, 30 with SEALANT (Mat. No. 09-052) refer to ESPM 20-43-42 Page block 1.

NOTE: Remove the existing cable holders, attach the electrical equipment item 4 to the cable route 4621VB and reinstall the cable holders in the previous arrangement.

NOTE: The following parts should be used as spare parts only:

7	nuts	NAS5066-08-1	Item 1
6	screw	NAS1096-2-8	Item 7
2	screws	NAS1096-2-18	Item 8
1	screw	NAS1096-2-20	Item 9
5	screw	NAS1096-2-27	Item 10
17	washers	NAS1149CN816R	Item 14
7	washers	NAS935808C03	Item 16
3	nuts	MS21042L3	Item 17
13	nuts	NAS5066-08-2	Item 18
3	clamp	MS21919WCH3	Item 19
3	clamps	MS21919WCH4	Item 20
3	clamps	MS21919WCH8	Item 21
2	clamps	MS21919WCH10	Item 22
2	spacer	NSA5527-03-03D	Item 23
5	spacers	NSA5527-03-01D	Item 24
11	spacer	NSA5527-03-02D	Item 25
4	spacer	NSA5527-03-08D	Item 26
1	spacer	NSA5527-03-06D	Item 28
1	angel	D9249172020000	Item 31
3	clamps	NSA935807-06	Item 33
10	clamps	NSA935807-12	Item 34
2	clamps	NSA935807-14	Item 35

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2	screws	NAS1096-2-30	Item	37
1	screw	NAS1096-2-33	Item	38
1	screw	NAS1096-2-36	Item	39
1	spacers	NAS5527-03-02	Item	44

- $\underline{4}$  Install the plug 25HH-A with ADHESIVE (Mat. No. 08-009A and 08-013).
- $\underline{5}$  Apply a line of the IDENTIFICATION PAINT (Mat. No. 07-020) to the plug 25HH-A.
- 6 Seal the label 7593VT with ADHESIVE (Mat. No. 08-001).
- (c) Modify the wiring 6054-B of the cable route 4621VB as given in the Hook-up Chart figure 4
  - , line 5 and 6 and Wiring figure 2 .

Refer to Figure 1

, Sheet 6

Refer to Figure 2

Refer to Figure 4

- $\underline{1}$  Cut the wire 6054-B to the correct length and install it to the terminal block 7593VT.
- (d) Install the new wirings 6187, 6188-R, 6188-B and 6189 to the cable route 4648VB as given in the Hook-up Chart figure 5
  - , line 1 thru 4 and Wiring figure 3 .

Refer to Figure 1

, Sheet 2 thru 5 , 7

Refer to Figure 3

Refer to Figure 5

- 1 Remove the wire 6162-B from the plug 1998VC-A up to FR35 (FR35/8 for A321).
- 2 At the pressure bulkhead FR35 (FR35/8 for A321) remove :

1	fitting	NSA934710T14	Item	(32)	discard
1	FRLD half	D9249173320600	Item	(30)	discard
1	FRLD half	D9249173320400	Item	(29)	discard
8	screws	NAS1801-3-9	Item	(45)	discard
4	screws	NAS1102-3-8	Item	(12)	discard
4	washers	NAS1149D0363K	Item	(13)	discard

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12	washers	NAS1149C0332R	Item (15)	discard
4	nuts	MS21042L3	Item (17)	discard

<u>3</u> Between the new solenoid back up valve 40HH and the terminal block 7594VT install:

```
elec. equipment D9299227500600 Item 6
```

#### with

tem	7
tem	11
tem	12
tem	13
tem	14
tem	15
tem	17
tem	27
tem	29
tem	30
tem	32
tem	41
tem	45
	tem

NOTE: Install the fitting item 32 and the FRLD half item 29, 30 with SEALANT (Mat. No. 09-052) refer to ESPM

20-43-42 Page block 1.

NOTE: Remove the existing cable holders, attach the electrical equipment item 6 to the cable route 4648VB and reinstall the cable holders in the previous arrangement.

NOTE: The following parts should be used as spare parts only:

6	nuts	NAS5066-08-1	Item	1
5	screw	NAS1096-2-8	Item	7
1	screws	NAS1096-2-18	Item	8
2	screw	NAS1096-2-20	Item	9
4	screw	NAS1096-2-27	Item	10
15	washers	NAS1149CN816R	Item	14
15	washers	NAS935808C03	Item	16
3	nuts	MS21042L3	Item	17
15	nuts	NAS5066-08-2	Item	18
4	clamp	MS21919WCH3	Item	19
1	clamps	MS21919WCH4	Item	20
12	clamps	MS21919WCH8	Item	21
1	clamp	MS21919WCH10	Item	22
2	spacer	NSA5527-03-03D	Item	23
4	spacers	NSA5527-03-01D	Item	24
8	spacer	NSA5527-03-02D	Item	25
1	spacer	NSA5527-03-08D	Item	26

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1	spacer	NSA5527-03-06D	Item 28
5	clamps	NSA935807-06	Item 33
20	clamps	NSA935807-12	Item 34
2	clamps	NSA935807-14	Item 35
2	screws	NAS1096-2-25	Item 36
3	screws	NAS1096-2-30	Item 37
2	screw	NAS1096-2-33	Item 38
2	screw	NAS1096-2-36	Item 39
1	spacer	NSA5527-03-03	Item 43
5	spacers	NAS5527-03-02	Item 44

- $\underline{4}$  Install the plug 40HH-A with ADHESIVE (Mat. No. 08-009A and 08-013).
- 5 Apply a line of the IDENTIFICATION PAINT (Mat. No. 07-020) to the plug 40HH-A.
- 6 Seal the label 7594VT with ADHESIVE (Mat. No. 08-001).
- (e) Modify the wiring 6162-B of the cable route 4648VB as given in the Hook-up Chart figure 5
  - , line 5 and 6 and Wiring figure 3 .

Refer to Figure 1

, Sheet 7

Refer to Figure 3

Refer to Figure 5

1 Cut the wire 6162-B to the correct length and install it to the terminal block 7594VT.

## C. <u>TEST</u>

- (1) Install the air conditioning pipes at FR35 (FR35/8 for A321) if removed.
- (2) Install the air filters of the air conditioning system (Refer to AMM 21-21-41 Page block 401).
- (3) Install the R/H air duct (Refer to AMM 21-52-41 Page block 401).
- (4) Remove the safety clips and the tags and close these circuit breakers:

PANEL	DESIGNATION	FIN	LOCATION
123VU	GEN1/EGIU1/115VAC	23XU1	12AF
123VU	GEN2/EGIU2/115VAC	23XU2	01AF
123VU	GND/PWR/PROT	2XG	07AB

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PANEL	DESIGNATION	FIN	LOCATION
122VU	ELEC/EXT PWR/CTL	11XG	29 X
123VU	APU GEN/EGIU2/115VAC	23XS	08AA
106VU	CSM/G /EV/MAN/SPLY	6XE	04 B
105VU	ELEC/CSM/G /EV AUTO/SPLY	7XE	01 C
125VU	BAT BUS/301PP/SPLY	11PB	01CC
105VU	ELEC/HOT BUS/701PP SPLY	12PB1	01 E
105VU	ELEC/HOT BUS/702PP SPLY	12PB2	02 E
105VU	ELEC/HOT BUS/701PP SPLY	5PB1	01 D
105VU	ELEC/HOT BUS/702PP SPLY	5PB2	02 D
105VU	ELEC/BAT/REF/BCL1	9PB1	01AS
105VU	ELEC/BAT/REF/BCL2	9PB2	01AS
105VU	FLT CTL/ELAC1/STBY SPLY	16CE1	01 A
105VU	FLT CTL/ELAC2/STBY/SPLY	16CE2	02 A
105VU	FLT CTL/SEC1/STBY SPLY	22CE	01 B
105VU	ADIRS/ADIRU1/28VDC	6FP1	02 C
105VU	ELEC/STAT INV/CNTOR/CTL	14XB	02 G

(5) Do the operational test of the pack temperature-control system (Refer to AMM 21-61-00 Page block 501).

#### D. CLOSE UP

- (1) De-energize the aircraft electrical circuits, (Refer to AMM 24-41-00 Page block 201).
- (2) Make sure that the work areas are clean and clear of tools and other items of equipment.
- (3) Install the belly fairing panels 191BB, 192EB and 192 KB (Refer to AMM 53-35-11 Page block 401).
- (4) Install the thermal and acoustical insulation in the working area at FR35 (FR35/8 for A321) (Refer to AMM 25-80-00 Page block 201.)
- (5) Install the rear ceiling panels of the FWD cargo compartment (Refer to AMM 25-54-12 Page block 401).
- (6) Install the rear partitions of the FWD cargo compartment (Refer to AMM 25-54-12 Page block 401).
- (7) Connect the battery connectors (2PB1, 2PB2) (Refer to AMM 24-38-51 Page block 401).
- (8) Close the FWD cargo compartment door 825, (Refer to AMM 52-30-00 Page block 201).
- (9) Close the passenger/crew door(s) 831, (Refer to AMM 52-10-00 Page block 201).

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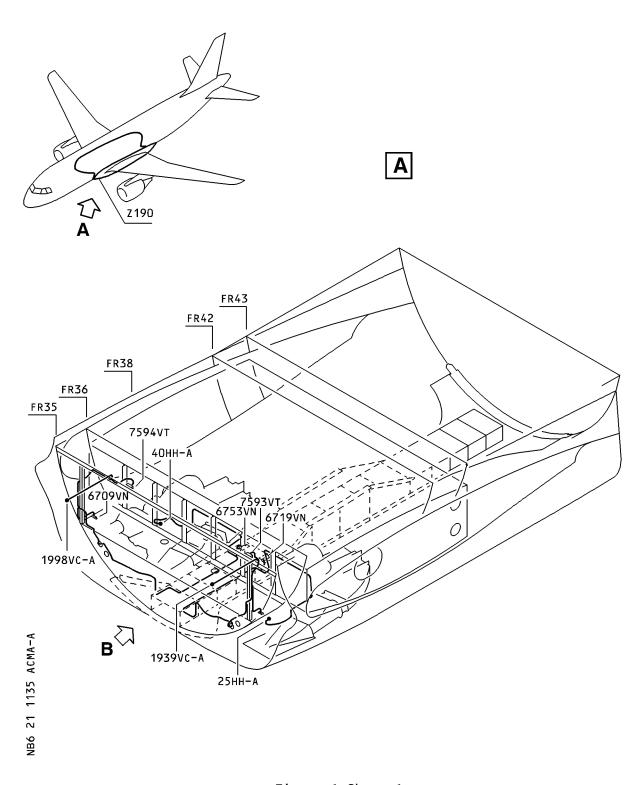
- (10) Disconnect the aircraft electrical ground-connection, (Refer to AMM 12-34-24 Page block 201).
- (11) Remove the access platform(s).
- (12) Restore the systems and the aircraft to normal operating condition.

## E. <u>DOCUMENTATION</u>

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

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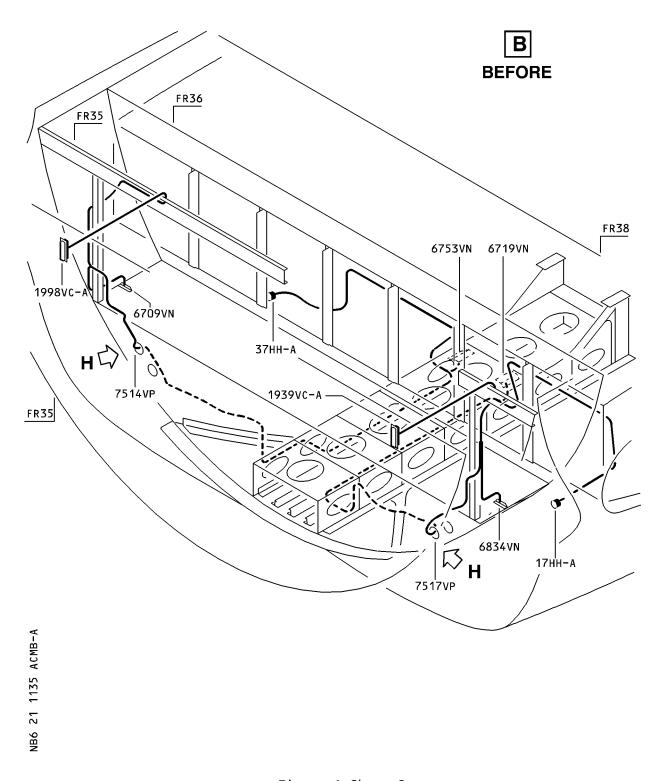


 $$\operatorname{\sc Figure}\ 1$$  Sheet 1 Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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 $$\operatorname{\sc Figure}\ 1$$  Sheet 2 Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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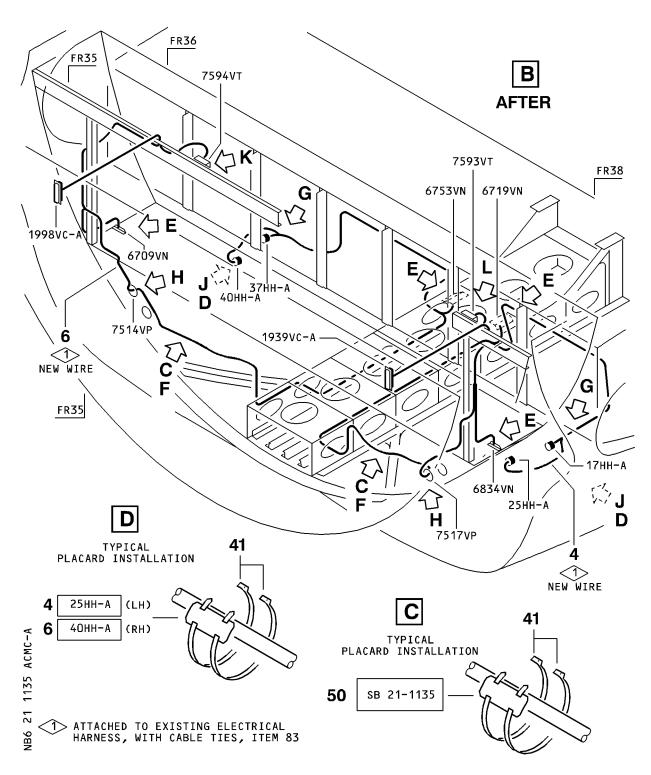


Figure 1 Sheet 3
Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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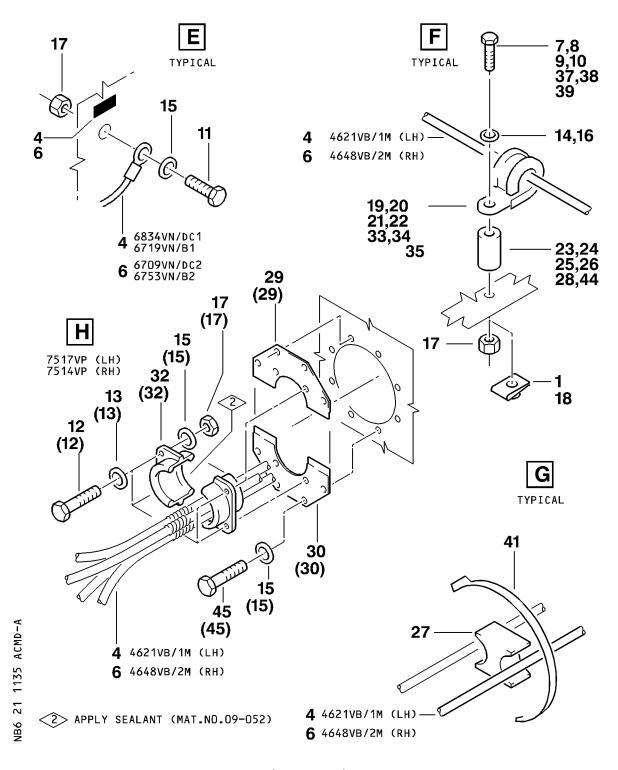


Figure 1 Sheet 4 Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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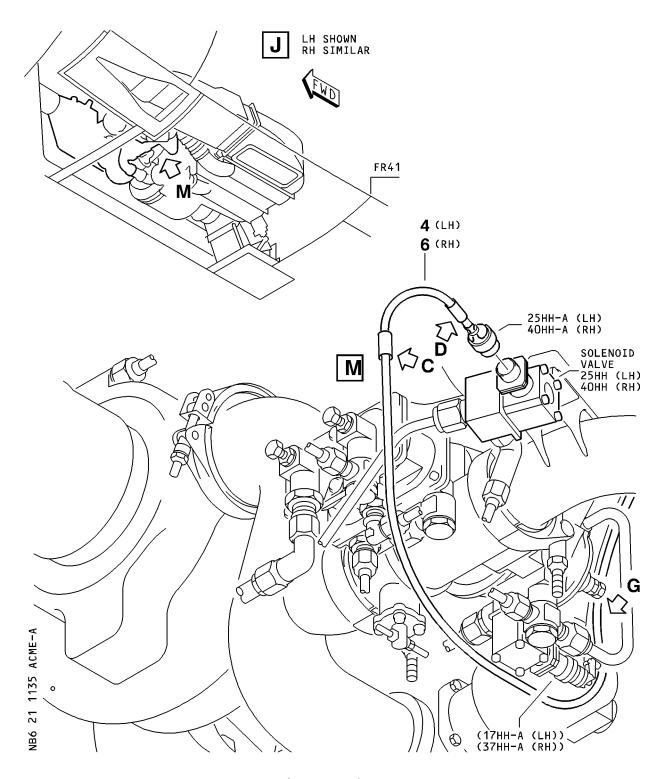


Figure 1 Sheet 5 Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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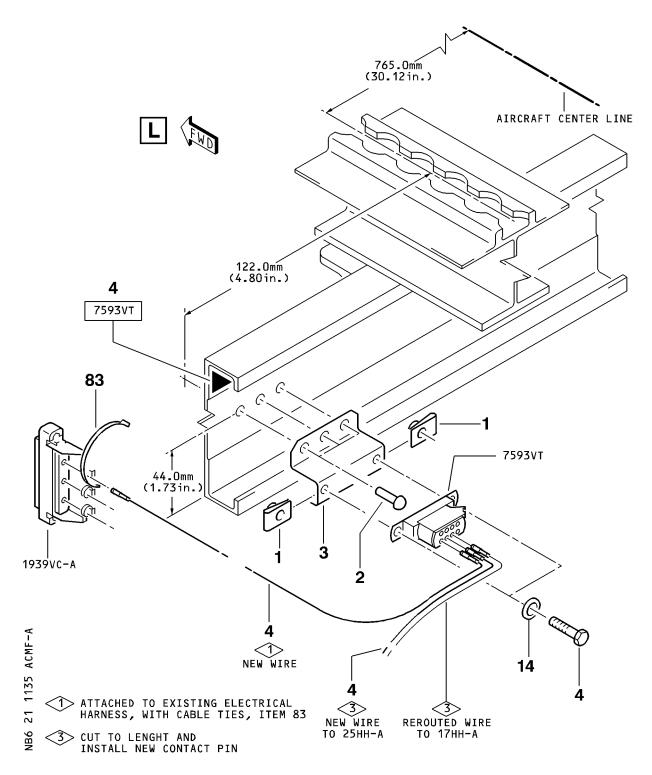


Figure 1 Sheet 6 Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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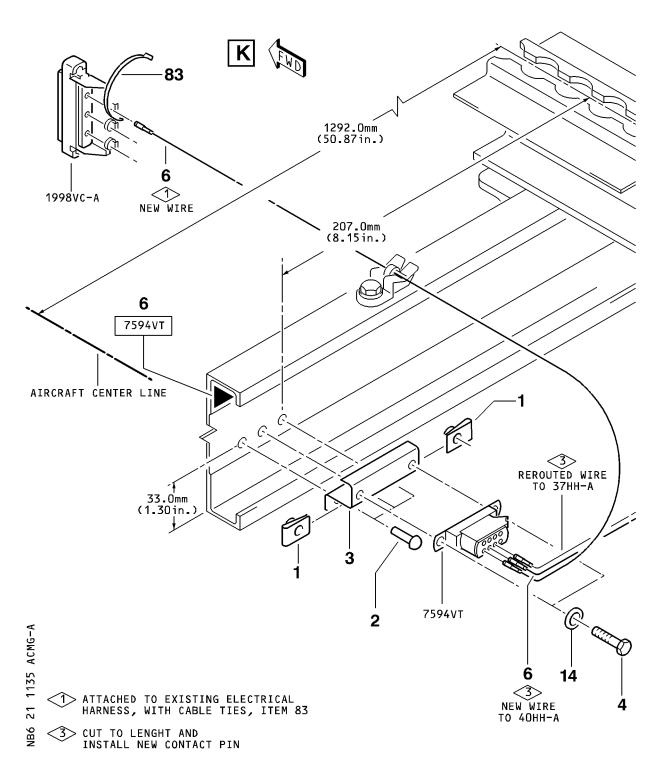


Figure 1 Sheet 7
Wiring Installation of the Solenoid Back-up Valve 25HH and 40HH

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Figure 2 Sheet 1 (Goto A3 section)
Installation of the wiring between the Solenoid Back-up Valve 25HH and the Connector 1939VC (Kit 211135D01R00)

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Figure 3 Sheet 1 (Goto A3 section)
Installation of the Wiring between the Solenoid Back-up Valve 40HH and the Connector 1998VC (Kit 211135D01R00)

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Figure 4 Sheet 1 (Goto A3 section) Hook-up Chart

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Figure 5 Sheet 1 (Goto A3 section) Hook-up Chart

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TITLE : AIR CONDITIONING - AIR COOLING SYSTEM - INTRODUCE MODIFIED AIR

CONDITIONING PACK 1310A0000-03

Please complete the appropriate item ( $\Delta$  or R):

MODIFICATION No.: 31709K7523

Tease compress the appropriate reem (A or b).	
A - SB <u>WILL BE</u> embodied YES/NO (if NO please comment If YES, aircraft concerned (as per SB effectivity by default) and planned date	:) es
(month/year) of embodiment:	•

<u>If operational documentation is affected (see Paragraph 1.K of this SB):</u> 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

<u>Important Information:</u> This SB will only be incorporated in your maintenance and operational documentation if this sheet is returned to Airbus 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 shall automatically include them in the manual revisions. Refer to SIL 00-037 for detailed information.

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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 ?	Υ,	/ N		

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X Effectivity X Kit content X Preparation X Reason X List of Materials X Mod/Inspection X Manpower Operator Supplied X Test X References X Re-identification X Close-Up X Publication X Tooling X Illustrations		Planning	Material	Instruction	S
	X X X	Reason Manpower References	<ul><li>X List of Materials</li><li>Operator Supplied</li><li>X Re-identification</li></ul>	X Mod/Inspect X Test X Close-Up	ion

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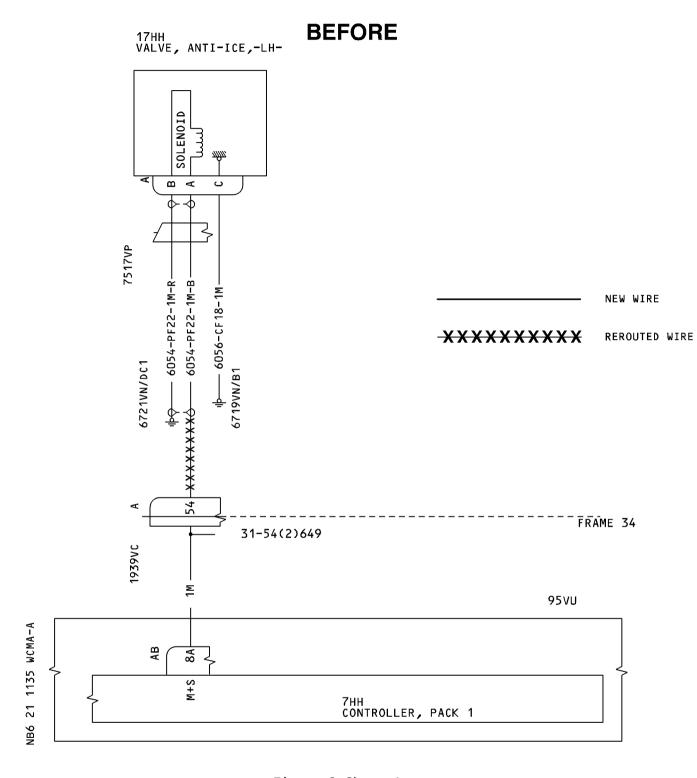
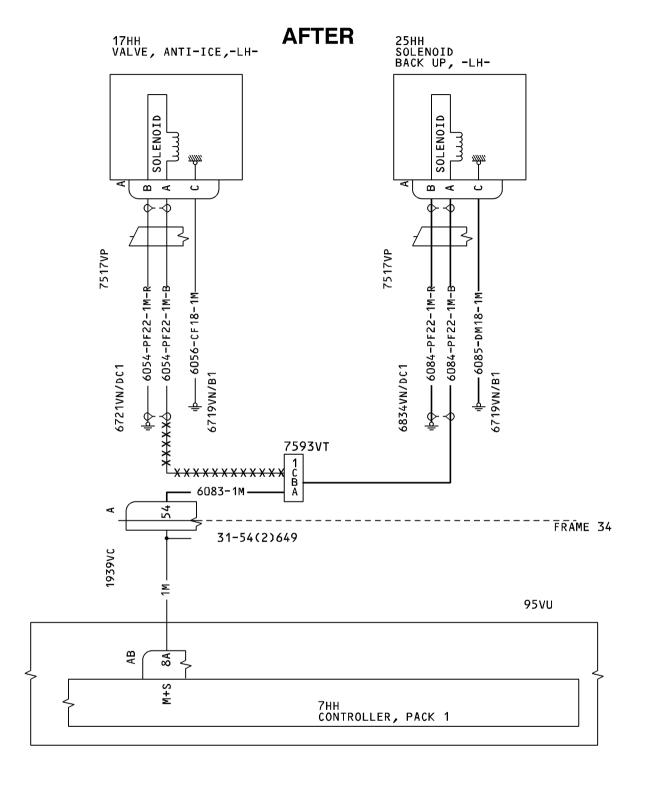


Figure 2 Sheet 1
Installation of the wiring between the Solenoid Back-up Valve 25HH and the Connector 1939VC (Kit 211135D01R00)

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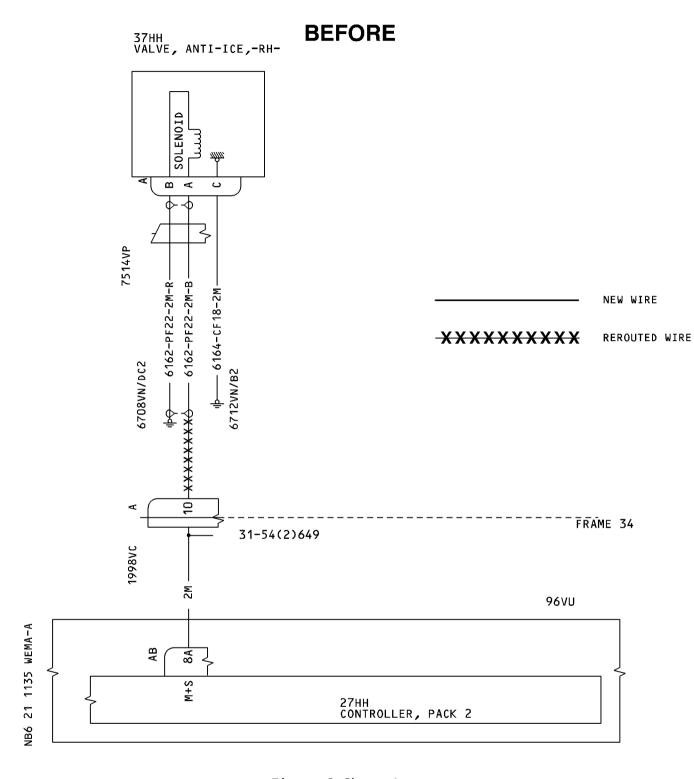
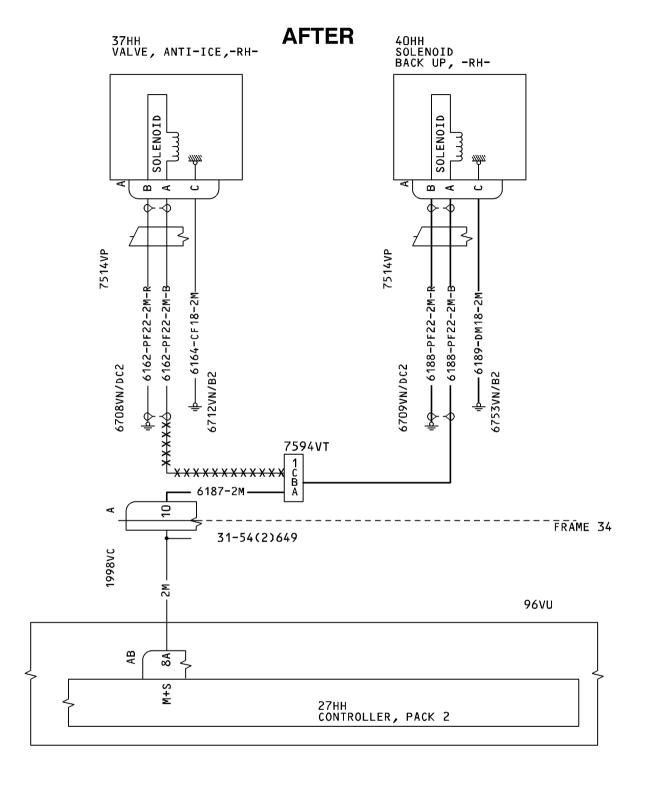


Figure 3 Sheet 1
Installation of the Wiring between the Solenoid Back-up Valve 40HH and the Connector 1998VC (Kit 211135D01R00)

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L		EN	D 1				LEA	D				EN	D 2				
I N E	ZONE OR PANEL	ELEC. IDENT.	TERM.	TERMINAL P/N	WIRE IDENT	COL	ROUTE	GAUGE	LEN MM	GTH INCH	ZONE OR PANEL	ELEC. IDENT	TERM.	TERMINAL P/N		INSTRUCTIO	NS
1	137	25HH-A	А	NSA938152SA2000	2161-6084	В	1M	PF22	7800	307.1	137	7593VT	1B	NSA937910EA2000	$\rightarrow$	A)	1)
2	137	25HH-A	В	NSA938152SA2000	2161-6084	R	1M	PF22	7800	307.1	137	6834VN	DC1	NSA936501TA2206		A)	1)
3	137	25HH-A	С	NSA938152SA2000	2161-6085		1M	DM18	3000	118.1	191	6719VN	В1	NSA936501TA1604		A)	1)
4	131	1939VC-A	54	E0395FV2200	2161-6083		1M	CF22	1900	74.8	137	759 <b>3V</b> T	1A	NSA937910EA2000		A)	1)
5	137	17HH-A	Α		2161-6054		1M	PF22			131	1939VC-A	54	E0395FV2200		BEFORE	1)
6	137	17HH-A	Α		2161-6054		1M	PF22			137	7593VT	10	NSA937910EA2000		AFTER	1)
7																	
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Figure 4 Sheet 1 Hook-up Chart

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SERVICE BULLETIN

L I		EN	ID 1				LEA	D				EN	D 2				
N E	ZONE OR	ELEC. IDENT.	TERM.	TERMINAL P/N	WIRE IDENT	COL	ROUTE	GAUGE	LEN	1	ZONE OR PANEL	ELEC. IDENT	TERM.	TERMINAL P/N	INSTRUCTIONS		
	PANEL								MM	INCH							
1	138	40HH-A	A	NSA938152SA2000	2161-6188	В	2М	PF22	7800	307.1	138	7594VT	1B	NSA937910EA2000	A)	1)	
2	138	40HH-A	В	NSA938152SA2000	2161-6188	R	2M	PF22	7800	307.1	138	6709VN	DC2	NSA936501TA2206	A)	1)	
3	138	40HH-A	С	NSA938152SA2000	2161-6189		2M	DM18	3500	137.8	192	6753VN	B2	NSA936501TA1604	A)	1)	
4	132	1998VC-A	10	E0395FV2200	2161-6187		2М	CF22	1900	74.1	138	7594VT	1A	NSA937910EA2000	A)	1)	
5	138	37HH-A	A		2161-6162		2M	PF22			132	1998VC-A	10	E0395FV2200	BEFORE	1)	
6	138	37HH-A	A		2161-6162		2M	PF22			138	7594VT	10	NSA937910EA2000	AFTER	1)	
7																	
8																	
9																	
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23																	
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25																	

1) ELT.EQUIPMENT D9299227500600, "SHEET 05, ISSUE C"

A = ADDED WIRE

Figure 5 Sheet 1 Hook-up Chart

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