

SERVICE BULLETIN
REVISION TRANSMITTAL SHEET

AIRBUS INDUSTRIE
CUSTOMER SERVICES DIRECTORATE
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31707 BLAGNAC CEDEX FRANCE
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ATA SYSTEM : 21

TITLE : AIR CONDITIONING – COCKPIT AND CABIN TEMPERATURE CONTROL – RELOCATE
COCKPIT TEMPERATURE REGULATION SENSOR.

MODIFICATION No. : 26601P4974 26602P4973 26713P5392

This page transmits Revision No. 02 of Service Bulletin No. A320-21-1112

ADDITIONAL WORK

Additional work is required by this revision for aircraft modified by any previous issue. If this Service Bulletin has been accomplished before Revision No. 02, it is necessary to do the additional work as described in this revision. Aircraft modified (inspected) per Revision No. 02 or later revisions are not affected by the additional work described in this revision.

REASON

Revision No. 02 issued to add Mod. No. 26713P5392, Kits A04 and A05, modify Kit A01 and add aircraft MSN 0702, 0748, 0780, 0783, 0788, 0798, 0804, 0820, 0824, 0825 and 0826 for operator UAL.

Also, this revision is issued to inform the operators having accomplished subject Service Bulletin per Revision No. 01 that they have to apply Config. 03.

The additional work described in this revision requires 51.0 manhours. Accomplishment of the additional work may be done at the operator's convenience.

CHANGES

HEADING

- HEADING
Mod. No. 26713P5392

SUMMARY :

- REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES
Evaluation table updated.
- EFFECTIVITY
Operators updated. Mod. No. 26713P5392 added to the NOTE.
- MANPOWER
Updated. Config. 01, Config. 02 and Config. 03 added.
- MATERIAL INFORMATION
Kits A01 and A02 updated. Kits A04 and A05 added.
- Figure

5 DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 – Dec 21/00

Page : 1 of 4

Modified.

PLANNING INFORMATION :

- EFFECTIVITY
Effectivity updated. Mod. No. 26713P5392 added to the NOTE. Kits A04 and A05 added. Config. 01, Config. 02, Config. 03 and related NOTES added.
- DESCRIPTION
Config. 01, Config. 02 and Config. 03 added.
- MANPOWER
Updated. Config. 01, Config. 02 and Config. 03 added.
- WEIGHT AND BALANCE
Updated. Config. 01, Config. 02 and Config. 03 added.
- REFERENCES
AMM references updated.
- PUBLICATIONS AFFECTED
AWM and IPC references updated.

MATERIAL INFORMATION :

- MATERIAL - PRICE AND AVAILABILITY
Kits A04 and A05 added, kit prices updated.
- LIST OF COMPONENTS
Kits A01 and A02 updated. Kits A04 and A05 added.
- LIST OF MATERIALS - OPERATOR SUPPLIED
Mat. No. 16-001 added.

ACCOMPLISHMENT INSTRUCTIONS :

- GENERAL
AMM reference 52-12-11 becomes 53-12-11. Removal of the forward galley unit added. Sentence concerning Mat. No. 16-001 added.
- MODIFICATION
Paragraph updated. Config. 01, Config. 02 and Config. 03 added. Figure references updated.
- TESTS
Paragraph (1), installation of the forward galley unit and connection of the battery connectors added. Paragraph (2), updated to add Config. 01, Config. 02 and Config. 03. Test after the removal/installation of the forward galley unit added.
- CLOSE-UP
AMM reference updated.
- Figure 1
Title updated.
- Figure 2
Added.
- Figure 3
Title and figure updated. Sheet 2 added.

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 2

- Figure 4
Title and figure updated.
- Figure 5
Title updated.
- Figure 6
Title updated.
- Figure 7
Title updated.
- Figure 8
Title updated.
- Figure 9
Title updated.
- Figure 10
Title updated.
- Figure 11
Title updated.
- Figure 12
Title updated. Figure 13 becomes Figure 12 Sheet 3.
- Figure 13
Title and figure updated. Sheet 2 added.
- Figure 14
Title and figure updated.
- Figure 15
Title and figure updated.
- Figure 16
Title and figure updated.
- Figure 17
Title and figure updated. Sheet 1 added.
- Figure 18
Title and figure updated.
- Figure 19
Title and figure updated.
- Figure 20
Added.
- Figure 21
Title updated.
- Figure 22
Title and figure updated.
- Figure 23
Title and figure updated.
- Figure 24

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 3

SERVICE BULLETIN
REVISION TRANSMITTAL SHEET

Title and figure updated.

- Figure 25
Title and figure updated.
- Figure 26
Title and figure updated.
- Figure 27
Title and figure updated.
- Figure 28
Added.
- Figure 29
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.

HISTORY OF PREVIOUS REVISIONS

Revision No. 01 issued to add one bundle, supplied in new kit A03.

REVISION SEQUENCE

ORIGINAL : Aug 06/98
REVISION No. : 01 - Nov 04/99
REVISION No. : 02 - Dec 21/00

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 4

A319/A320/A321

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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 - COCKPIT AND CABIN TEMPERATURE CONTROL - RELOCATE
COCKPIT TEMPERATURE REGULATION SENSOR.

MODIFICATION No. : 26601P4974 26602P4973 26713P5392

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

One operator reported that the crew felt cold in the cockpit, particularly during long night flights. Investigation revealed that the low temperature was due to the location of the temperature sensor, fitted at the upper part of the cockpit.

Since the operator usually closes the cockpit air outlets, the air circulation within the cockpit is reduced, which leads to differential temperatures being felt, warmer temperatures at ceiling level and colder temperatures at feet level.

This Service Bulletin relocates the temperature sensor at mid-height, on the Rear Panel 120VU.

Accomplishment of this Service Bulletin leads to a better temperature control in the cockpit, thus improving crew comfort.

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	No
KIT PRICE (USD)	See SB		

EFFECTIVITY

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

AAA AAR ABB ACA ADR AEF AEL AES AFR AIH AJM ALK AMC AMM AMU ANA AUA AWE AZA BAW
BMA BXI C3J CDN CIB CJG CMM CNW CSC CSN CTN CYP DLH EIN EWG FTI GFA HDA HVN IAC
IBE IWD JMC KAC LAJ LFA LRC LTU LXR MEA MON MSR MXA NWA OHY OYC PAL RJA RYN SAA
SEU SHK SSV SWR TAI TAP TAR TAS TLA TNA TRZ UAL VIR VLE

5 DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 1 of 4

A319/A320/A321

SERVICE BULLETIN SUMMARY

NOTE : Mod. No. 26601P4974 is embodied before delivery on aircraft MSN 0702, 0748, 0751, 0759, 0780, 0783, 0788, 0798, 0804, 0820, 0824, 0825, 0826, 0833 and subsequent.
Mod. No. 26602P4973 is embodied before delivery on aircraft MSN 0702, 0748, 0780, 0783, 0788, 0798, 0804, 0820, 0824, 0825, 0826, 0833 and subsequent.
Mod. No. 26713P5392 is embodied before delivery on aircraft MSN 0833 and subsequent.

CONCURRENT REQUIREMENTS

None

REFERENCES/REPERCUSSIONS

TFU	: None
OEB	: None
AOT	: None
SIL	: None
LIFE LIMIT	: None
LINE MAINTENANCE AFFECTED	: No
OTHER	: None

NATURE OF THE WORK

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

MANPOWER

Config. 01

TOTAL MANHOURS	79.0
ELAPSED TIME (HOURS)	44.0

Config. 02

TOTAL MANHOURS	63.0
ELAPSED TIME (HOURS)	32.0

Config. 03

TOTAL MANHOURS	51.0
ELAPSED TIME (HOURS)	25.0

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 2



A319/A320/A321

SERVICE BULLETIN SUMMARY

MATERIAL INFORMATION

AIRCRAFT DATA

Kit 211112A01

Placard sets, silencer, ducts, box assy, seals, mesh, plate assy, brackets, sleeves, ceiling panel, connector.

Kit 211112A02

Silencer, ducts, box assy, seals, mesh, ceiling panel.

Kit 211112A03

Bundle

Kit 211112A04

Bundle

Kit 211112A05

Bundle

APPENDICES

None

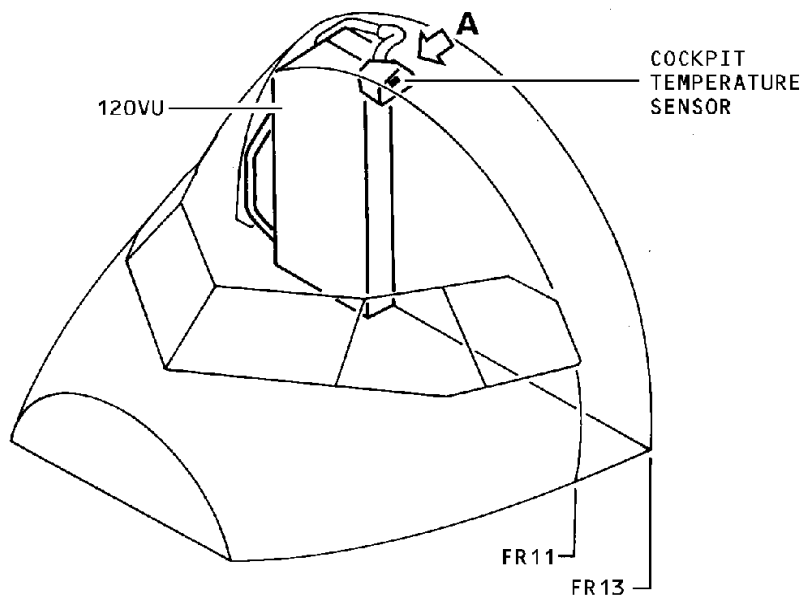
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

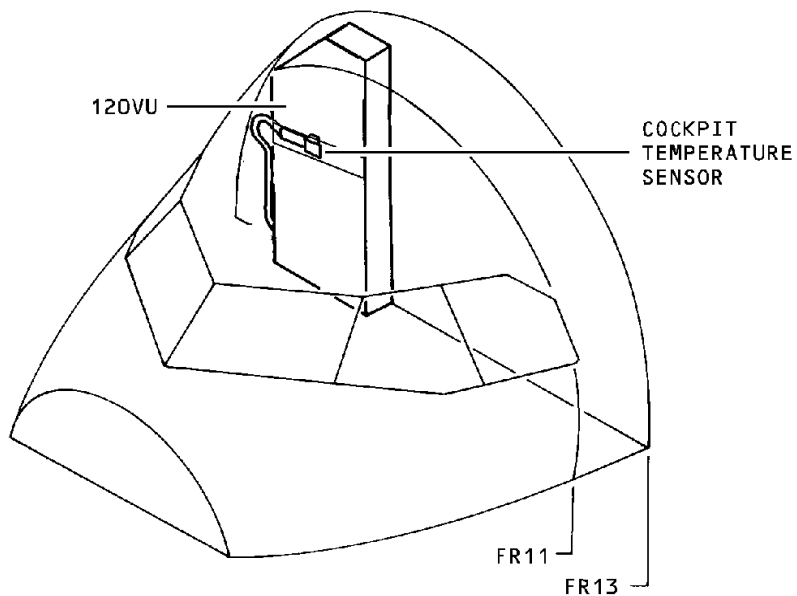
REVISION No. : 02 - Dec 21/00

Page : 3

BEFORE



AFTER



NSB5 211112 SU 01 d

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 4

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COCKPIT TEMPERATURE REGULATION SENSOR.

MODIFICATION No. : 26601P4974 26602P4973 26713P5392

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1. PLANNING INFORMATION

A. EFFECTIVITY

(1) Models

319-111 319-112 319-113 319-114 319-131 320-111 320-211 320-212
320-214 320-231 320-232 320-233 321-111 321-112 321-131 321-211
321-231

(2) Aircraft

(a) Effectivity by MSN

This Service Bulletin is applicable to Aircraft MSN :

0002-0008

0010-0014 0016-0078 0080-0104 0106-0432 0434-0480 0482-0535
0537-0707 0709-0832

NOTE : Mod. No. 26601P4974 is embodied before delivery on
aircraft MSN 0702, 0748, 0751, 0759, 0780, 0783, 0788,
0798, 0804, 0820, 0824, 0825, 0826, 0833and subsequent.

Mod. No. 26602P4973 is embodied before delivery on
aircraft MSN 0702, 0748, 0780, 0783, 0788, 0798, 0804,
0820, 0824, 0825, 0826, 0833and subsequent.

Mod. No. 26713P5392 is embodied before delivery on
aircraft MSN 0833and subsequent.

5 DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 1 of 92

(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
AAA	0022 0023 0024 0025 0026 0027 0029 0030 0140 0142 0157 0229 0288 0331 0547 0615 0622 0632 0662 0726
AAR	0771
ABB	0348 0349
ACA	0059 0068 0073 0084 0122 0126 0127 0141 0149 0150 0154 0159 0183 0233 0242 0248 0253 0254 0255 0265 0277 0290 0310 0311 0324 0330 0333 0341 0342 0350 0359 0378 0384 0426 0546 0572 0634 0639 0649 0656 0670 0672 0682 0688 0691 0693 0695 0697 0711 0719 0721 0728 0732 0736 0740 0742 0752 0757 0769 0773 0779 0785 0800 0813 0817 0829 0831
ADR	0043 0113 0114
AEF	0565 0575 0580 0659 0661 0667 0787 0792
AEL	0085 0131 0132
AES	0739 0743
AFR	0002 0003 0004 0005 0007 0010 0012 0013 0014 0016 0019 0020 0021 0033 0036 0044 0061 0062 0063 0100 0101 0102 0108 0115 0128 0129 0130 0133 0144 0145 0155 0156 0184 0186 0187 0188 0203 0204 0211 0214 0215 0220 0226 0227 0228 0236 0237 0239 0244 0270 0278 0285 0286 0287 0337 0352 0377 0491 0498 0509 0521 0529 0544 0598 0600 0608 0618 0625 0637 0644 0647 0660 0674 0675 0684 0761 0777 0796
AIH	0163 0164 0168 0169 0179 0193 0424 0449 0808 0823
AJM	0422 0528 0624 0626 0628 0630 0666 0775
ALK	0374 0406
AMC	0112 0293
AMM	0291 0292 0327 0336 0677 0781
AMU	0550 0557 0582 0620 0631 0805
ANA	0138 0139 0148 0151 0167 0170 0196 0212 0219 0245 0300 0328 0365 0383 0413 0482 0501 0507 0531 0534 0549 0554 0658 0669 0685 0802 0811
AUA	0552 0570 0581 0768 0776 0797
AWE	0052 0053 0054 0055 0064 0065 0066 0067 0076 0077 0081 0082 0091 0092 0098 0099 0238 0271 0304 0315 0317 0448 0453 0455 0471 0527 0543 0584 0762 0770 0803
AZA	0434 0477 0488 0494 0495 0513 0514 0515 0516 0524 0526 0532 0576 0583 0586 0593 0599 0765 0819
BAW	0006 0008 0011 0017 0018 0039 0042 0103 0109 0120
BMA	0806 0810
BXI	0591
C3J	0772 0799 0828

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 2



A319/A320/A321

SERVICE BULLETIN

OPERATOR	MSN
CDN	0174 0175 0210 0231 0232 0279 0283 0284 0302 0305 0309 0403 0404
CIB	0774 0793 0809
CJG	0707 0724
CMM	0397 0409 0427 0579 0645 0671
CNW	0665 0754
CSC	0540 0551 0556
CSN	0696 0698 0704 0705 0709 0710 0712 0718 0720 0722
CTN	0258 0767
CYP	0028 0035 0037 0038 0180 0256 0295 0316
DLH	0069 0070 0071 0072 0078 0083 0086 0093 0094 0104 0110 0111 0116 0117 0135 0137 0147 0161 0162 0172 0200 0201 0202 0209 0216 0217 0218 0267 0268 0269 0346 0382 0401 0412 0458 0468 0473 0474 0484 0493 0502 0505 0518 0560 0563 0564 0567 0595 0609 0610 0616 0623 0627 0636 0641 0651 0652 0679 0689 0692 0694 0699 0700 0717 0723 0729 0738 0744
EIN	0815
EWG	0646 0654 0794
FTI	0230 0338 0429 0437 0444 0476
GFA	0313 0325 0345 0375 0419 0421 0438 0445 0459 0466 0497 0537
HDA	0633 0756 0784 0816
HVN	0590 0594 0601 0605 0607 0611 0617 0619 0648 0650
IAC	0045 0046 0047 0048 0049 0050 0051 0056 0057 0058 0074 0075 0080 0089 0090 0095 0096 0097 0396 0398 0416 0423 0431 0432 0451 0469 0486 0490 0492 0499
IBE	0134 0136 0143 0146 0158 0173 0176 0177 0199 0207 0223 0224 0240 0241 0246 0264 0266 0274 0303 0312 0323 0356
IWD	0225 0308 0314
JMC	0354 0357 0393 0394 0411 0443 0714 0716 0730 0735
KAC	0181 0182 0195
LAJ	0376 0386 0480
LFA	0597 0604 0614
LRC	0425 0460 0461 0558 0561
LTU	0530
LXR	0395
MEA	0640 0663 0668 0676
MON	0379 0389 0391 0392 0446
MSR	0165 0166 0178 0194 0198 0351 0366 0680 0687 0715 0725
MXA	0252 0259 0260 0261 0275 0276 0280 0296 0320 0321 0332 0353 0361 0368 0369 0467
NWA	0031 0032 0034 0040 0041 0060 0106 0107 0118 0121 0125 0152 0153 0160 0171 0192 0197 0206 0208 0213 0262 0263 0272 0273 0281 0282 0297 0298 0306 0307 0318 0319 0329 0339 0340 0355 0358 0360 0367 0372 0380 0381 0387 0388 0399 0400 0408 0410 0417 0418 0766 0778 0786 0801 0807 0818 0830 0832

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 3



A319/A320/A321

SERVICE BULLETIN

OPERATOR	MSN
OHY	0364 0385
OYC	0221 0222 0294 0299 0301
PAL	0706 0745 0753
RJA	0087 0088 0289 0407 0569
RYN	0362 0363 0573
SAA	0243 0249 0250 0251 0334 0335 0440
SEU	0653 0657 0737 0749
SHK	0322 0326 0344 0478
SSV	0496 0525 0795
SWR	0517 0519 0520 0522 0533 0535 0541 0545 0548 0553 0559 0562 0566 0574 0577 0578 0585 0588 0596 0603 0612 0621 0629 0635 0642 0643 0664 0673 0681 0701 0703 0713 0727 0734 0782 0827
TAI	0733 0741 0747 0789
TAP	0185 0191 0234 0750 0755 0763 0790 0821
TAR	0119 0123 0124 0205 0370 0390 0402 0511
TAS	0371 0814
TLA	0247 0257 0405 0414 0415 0428 0430 0758 0760
TNA	0441 0538 0555 0602 0606 0731 0746 0791 0812 0822
TRZ	0347 0373 0447
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
VIR	0764
VLE	0189 0190 0235 0343 0420 0436 0542

(c) Effectivity by MSN and Kit/Configuration

MSN

0002-0008

0010-0014 0016-0078 0080-0104 0106-00432 0434-0480 0482-0535
0537-0701 0703-0707 0709-0747 0749-0750 0752-0758 0760-0779
0781-0782 0784-0787 0789-0797 0799-0803 0805-0819 0821-0823
0827-0832

KIT No.	QTY PER A/C	CONFIGURATION
---------	-------------	---------------

211112A01	1	01
211112A03	1	01
211112A04	1	01
211112A05	1	01

NOTE (1) Config. 01 concerns Mod. No. 26601P4974, Mod. No. 26602P4973 and Mod. No. 26713P5392.

MSN

0751 0759

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 4

KIT No.	QTY PER A/C	CONFIGURATION
---------	-------------	---------------

211112A02	1	02
211112A05	1	02

NOTE (2) Config. 02 concerns Mod. No. 26602P4973 and Mod. No. 26713P5392.

MSN

0702 0748 0780 0783 0788 0798 0804 0820 0824-0826

KIT No.	QTY PER A/C	CONFIGURATION
---------	-------------	---------------

211112A05	1	03
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NOTE (3) Config. 03 concerns Mod. No. 26713P5392.

(3) Spares

None

B. CONCURRENT REQUIREMENTS

None

C. REASON

(1) History

One operator reported that the crew felt cold in the cockpit, particularly during long night flights. Investigation revealed that the low temperature was due to the location of the temperature sensor, fitted at the upper part of the cockpit. Since the operator usually closes the cockpit air outlets, the air circulation within the cockpit is reduced, which leads to differential temperatures being felt, warmer temperatures at ceiling level and colder temperatures at feet level.

(2) Objective/Action

This Service Bulletin relocates the temperature sensor at mid-height, on the Rear Panel 120VU.

(3) Advantages

Accomplishment of this Service Bulletin leads to a better temperature control in the cockpit, thus improving crew comfort.

(4) Operational/Maintenance Consequences

None

D. DESCRIPTION

To accomplish this Service Bulletin it is necessary to :

(1) Config. 01

(a) Modify the equipment and the wiring in the cockpit

(b) Modify the equipment and the wiring in the Rear Panel 120VU

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 5

- (c) Modify the wiring in the Shelf 93VU in the FWD electronics rack
- (d) Modify the wiring between the Rear Panel 120VU and the Shelf 93VU in the FWD electronics rack

(2) Config. 02

- (a) Modify the equipment and the wiring in the cockpit
- (b) Modify the equipment and the wiring in the Rear Panel 120VU
- (c) Modify the wiring in the Shelf 93VU in the FWD electronics rack

(3) Config. 03

- (a) Modify the equipment and the wiring in the cockpit
- (b) Modify the wiring in the Shelf 93VU in the FWD electronics rack

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 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

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

Config. 01

Get access	17.0
Modify the cockpit	6.0
Modify the 120VU	12.0
Modify the wiring in the 93VU	4.0
Modify the wiring between 120VU and 93VU	5.0
Tests	14.0
Close-up	21.0

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 6

TOTAL MANHOURS	79.0
ELAPSED TIME (HOURS)	44.0
Config. 02	
Get access	17.0
Modify the cockpit	6.0
Modify the 120VU	12.0
Modify the wiring in the 93VU	4.0
Tests	3.0
Close-up	21.0
TOTAL MANHOURS	63.0
ELAPSED TIME (HOURS)	32.0
Config. 03	
Get access	17.0
Modify the cockpit	6.0
Modify the wiring in the 93VU	4.0
Tests	3.0
Close-up	21.0
TOTAL MANHOURS	51.0
ELAPSED TIME (HOURS)	25.0

H. WEIGHT AND BALANCE

Config. 01	
Manufacturers Empty Weight	: -0.069 kg (-0.1521 lb)
Effect on Balance	: -0.896 kgm (-6.480 lb.ft)
Config. 02	
Manufacturers Empty Weight	: -0.780 kg (-1.7195 lb)
Effect on Balance	: -4.849 kgm (-35.072 lb.ft)
Config. 03	
Manufacturers Empty Weight	: -0.890 kg (-1.9621 lb)
Effect on Balance	: -5.246 kgm (-37.944 lb.ft)

I. ELECTRICAL LOAD DATA

Not changed

J. REFERENCES

Aircraft Maintenance Manual (AMM)	: 05-22-10 12-34-24 20-28-00
	21-21-00 21-26-00 21-28-00
	21-31-00 21-63-17 21-63-34

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 7

22-60-00 23-13-00 23-73-00
 24-21-00 24-22-55 24-23-55
 24-27-00 24-32-00 24-32-55
 24-38-51 24-41-00 24-41-55
 24-42-55 24-43-55 24-51-55
 24-61-55 25-11-00 25-13-41
 25-31-41 25-65-33 26-12-00
 26-21-00 26-22-00 27-64-00
 27-92-15 27-92-41 27-94-34
 28-21-00 28-26-00 28-28-00
 28-46-00 29-22-00 29-31-00
 29-34-00 30-21-00 30-31-00
 30-42-00 30-45-00 31-33-00
 31-50-00 31-60-00 32-31-71
 32-42-00 32-45-00 32-49-00
 33-42-00 34-10-00 34-48-00
 34-58-00 49-42-55 52-10-00
 52-12-11 52-30-00 52-31-00
 52-41-00 52-71-00 53-12-11
 73-25-34 77-32-34

Aircraft Wiring Manual (AWM) : 20-00-00 20-60-00 93-00-93
 Consumable Material List (CML)
 Structural Repair Manual (SRM) : 51-23-11 51-44-00 51-46-11

K. PUBLICATIONS AFFECTED

Aircraft Maintenance Manual (AMM) : 21-63-17
 Aircraft Wiring Manual (AWM) : 21-63-01 91-72-40
 Illustrated Parts Catalog (IPC) : 21-63-01 24-92-01 25-13-01
 25-14-01 25-71-11
 Trouble Shooting Manual (TSM) : 21-63-00
 Aircraft Wiring Lists (AWL)

L. INTERCHANGEABILITY/MIXABILITY

None

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 8

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 Industrie. Quote the number of this Service Bulletin. The address is :

AIRBUS INDUSTRIE
MATERIEL SUPPORT CENTER
P.O. Box 630262
22312 HAMBURG
GERMANY

(2) Price and Availability**Kit 211112A01**

Cost : 4,243 US Dollars

Availability : 120 Calendar days from receipt of order

The sales terms (costs and availability) are estimated in relation to economic conditions at the issuedate of the Service Bulletin. 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.

Kit 211112A02

Cost : 2,699 US Dollars

Availability : 120 Calendar days from receipt of order

The sales terms (costs and availability) are estimated in relation to economic conditions at the issue date of the Service Bulletin. 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.

Kit 211112A03

Cost : 160 US Dollars

Availability : 120 Calendar days from receipt of order

The sales terms (costs and availability) are estimated in relation to economic conditions at the issue date of the Service Bulletin. 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.

Kit 211112A04

Cost : 480 US Dollars

Availability : 120 Calendar days from receipt of order

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 – Dec 21/00

Page : 9

The sales terms (costs and availability) are estimated in relation to economic conditions at the issue date of the Service Bulletin. 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.

Kit 211112A05

Cost : 350 US Dollars

Availability : 120 Calendar days from receipt of order

The sales terms (costs and availability) are estimated in relation to economic conditions at the issue date of the Service Bulletin. 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.

B. INDUSTRY SUPPORT INFORMATION

None

C. LIST OF COMPONENTS

Kit 211112A01

ITEM	NEW PART No.	QTY	UM	KEYWORD	ITEM	OLD PART No.	INT	INST	DISP
1	A2121212520200	2		Sleeve					
2	ASNA0033-036	6		Clamp					
3	ASNA2050DCJ3215	4		Rivet					
4	ASNA2397-10L	12		Washer					
5	D0003005400900	1		Silencer					
7	D2161017600000	1		Duct					
8	D2161018000000	1		Box					
9	D2161018420000	2		Seal					
10	D2161018500000	1		Pipe					
11	D2161018600000	1		Pipe					
12	D2161018700000	1		Mesh					
13	D2511183200000	1		Panel					
14	D5391748500000	2		Bracket					
15	D9251399000000	1		Plate					
16	E0080-01-10C	1		BCKSHLL					
17	EN3545D01MXA15A	1		CNCTR					(01)
18	EN3545D01FXB15A	1		RCPT					(02)
19	EN3545SCD	1		BCKSHLL					
20	E0432A06	1		Conduit					
21	E0052R10B6SNF	1		CNCTR					
22	NAS1096-3-8	7		Screw					
23	NAS1096-3-9	2		Screw					
24	NAS1096-3-15	3		Screw					
25	NAS1100-04-7	4		Screw					
26	NAS1102-06-10	2		Screw					
27	NAS1102-3-11	4		Screw					
28	NAS1726-3	1		Nut					

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 10

ITEM	NEW PART No.	QTY	UM	KEYWORD	ITEM	OLD PART No.	INT	INST	DISP
29	NSA5516-13ND	2		Clamp					
30	NSA5516-27ND	2		Clamp					
31	NSA5516-28ND	2		Clamp					
32	NSA5516-33ND	1		Clamp					
33	NSA5516A28ND	2		Clamp					
	D9100095105395	1		PLCRDSET					
	D9251118800000	1		PLCRDSET					
	NSA935401-03	100		Tie					
	NSA935401-04	200		Tie					
	NSA935401-06	200		Tie					

NOTE (01) PN supplied with reference EN3545D01MXA00A.

NOTE (02) PN supplied with reference EN3545D01FXB00A.

Kit 211112A02

ITEM	NEW PART No.	QTY	UM	KEYWORD	ITEM	OLD PART No.	INT	INST	DISP
1	A2121212520200	2		Sleeve					
2	ASNA0033-036	6		Clamp					
4	ASNA2397-10L	7		Washer					
5	D0003005400900	1		Silencer					
7	D2161017600000	1		Duct					
8	D2161018000000	1		Box					
9	D2161018420000	2		Seal					
10	D2161018500000	1		Pipe					
11	D2161018600000	1		Pipe					
12	D2161018700000	1		Mesh					
13	D2511183200000	1		Panel					
22	NAS1096-3-8	4		Screw					
24	NAS1096-3-15	3		Screw					
25	NAS1100-04-7	4		Screw					
26	NAS1102-06-10	2		Screw					
27	NAS1102-3-11	4		Screw					
28	NAS1726-3	1		Nut					
31	NSA5516-28ND	2		Clamp					
32	NSA5516-33ND	1		Clamp					
33	NSA5516A28ND	2		Clamp					

Kit 211112A03

ITEM	NEW PART No.	QTY	UM	KEYWORD	ITEM	OLD PART No.	INT	INST	DISP
	D9000095117095	1		Bundle					

Kit 211112A04

ITEM	NEW PART No.	QTY	UM	KEYWORD	ITEM	OLD PART No.	INT	INST	DISP
	D9000095120295	1		Bundle					

Kit 211112A05

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 11



A319/A320/A321

SERVICE BULLETIN

ITEM	NEW PART No.	QTY	UM	KEYWORD	ITEM	OLD PART No.	INT	INST	DISP
	D9000095120395	1		Bundle					
	NSA935401-03	10		Tie					
	NSA935401-04	10		Tie					

D. LIST OF MATERIALS – OPERATOR SUPPLIED

DESCRIPTION	REFERENCE TO CML MAT. No.	QTY PER A/C	INST DISP
Solvent	11-026	As required	
Anti-Corrosion Primer	16-001	As required	
Primer Coating Epoxy	16-006	As required	
Polyurethane Finish Paint	16-018	As required	
Wash Primer	16-020	As required	
Lockwire MS20995C32	None	As required	

E. PARTS TO BE RE IDENTIFIED BY THE OPERATOR

None

F. TOOLING – PRICE AND AVAILABILITY

None

G. SPECIAL TOOLS

None

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 – Dec 21/00

Page : 12

3. 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) 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 avionics doors 811, 822 and 824, (Refer to AMM 52-41-00 Page block 1).
- (f) Open the cargo door 825, (Refer to AMM 52-30-00 Page block 201).
- (g) Remove the floor panel 212PF, (Refer to AMM 53-12-11 Page block 401).
- (h) Remove the assembly panels 212JW, 212HW, (Refer to AMM 05-22-10 Page block 601) and the panel on the RH side of the Rear Panel 120VU.
- (i) Open, safety and tag these circuit breakers :

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

- (j) Disconnect the battery connectors, (Refer to AMM 24-38-51 Page block 501).

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 13

- (k) Remove the forward galley unit, (Refer to AMM 25-31-41 Page block 401).
- (2) Standard Practices
 - (a) For the specification of the material numbers (Mat. No.), refer to the CML .
 - (b) Clean the work area with Solvent (Mat. No. 11-026) .
 - (c) Put blanking caps on the disconnected electrical connectors.
 - (d) Cut solid rivets to the necessary length.
 - (e) Drill and deburr the holes, (Refer to SRM 51-44-00) .
 - (f) If necessary, countersink the holes, (Refer to SRM 51-46-11) .
 - (g) After drilling and cutting, apply Wash Primer (Mat. No. 16-020) , Primer Coating Epoxy (Mat. No. 16-006) and Polyurethane Finish Paint (Mat. No. 16-018) to the affected areas.
 - (h) Do the electrical bonding, (Refer to AMM 20-28-00 Page block 201).
 - (i) Obey the instructions of the wiring installation, (Refer to AWM 20-60-00) .
 - (j) Renew the protective finish with Anti-Corrosion Primer (Mat. No. 16-001) , (Refer to SRM 51-23-11) .

B. MODIFICATION

- (1) Config. 01
 - (a) Modify the equipment and the wiring in the cockpit
Refer to figures 1 , 2 , 3 , 4 , 7 , 13 , 20 and 25
 - 1 Remove the temperature sensor 21HK :
(Refer to AMM 21-63-17 Page block 401)

1	Temperature Sensor	Item (40)	Retain
---	--------------------	-----------	--------
 - 2 Remove the panel 211HC :
(Refer to AMM 25-13-41 Page block 401)
Refer to figure 1

1	Panel	Item (13)	Discard
---	-------	-----------	---------
 - 3 Remove the wires shown on the lines 1 thru 9 (Refer to figure 25).
 - 4 Remove the connector 21HK-A
Refer to figure 13
 - 5 Install the panel 211HC :
(Refer to AMM 25-13-41 Page block 401)
Refer to figure 1

1	Panel	D2511183200000	Item 13
---	-------	----------------	---------

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 14

6 From the plate assy, Item (15), remove and stow all the connectors and receptacles (Refer to figure 7).

7 Remove :
Refer to figure 7

1	Plate Assy	Item (15)	Discard
	Discard the hardware.		

8 Below the floor, remove :
Refer to figure 3

1	Duct	D2161001800000	Item (42)	Discard
	With :			
2	Sleeve		Item (43)	Discard
4	Clamp		Item (44)	Discard
1	Clamp		Item (60)	Discard

9 Install :
Refer to figure 4

1	Duct	D2161017600000	Item 7
	With :		
2	Sleeve	A2121212520200	Item 1
4	Clamp	ASNA0033-036	Item 2
2	Washer	ASNA2397-10L	Item 4
2	Screw	NAS1096-3-8	Item 22
1	Nut	NAS1726-3	Item 28
1	Clamp	NSA5516-33ND	Item 32
2	Clamp	NSA5516A28ND	Item 33

10 In front of FR13, on the RH side, remove :
Refer to figure 3

1	Duct	Item (61)	Discard
	With :		
3	Clamp	Item (60)	Discard

11 From the forward reinforcement plate of the electrical bay and from the Aft Crossbeam 20VU, remove :
Refer to figure 2

1	Fitting	Item (62)	Discard
2	Fitting	Item (64)	Discard
	With :		
2	Rivet	Item (63)	Discard
4	Rivet	Item (65)	Discard

(b) Modify the equipment and the wiring in the Rear Panel 120VU
Refer to figures 5 , 6 , 7 , 9 , 10 , 11 , 12 , 13 , 19 and 24

1 From the routing 1M, remove :
Refer to figure 12

2	Clamp	Item (29)	Discard
---	-------	-----------	---------

NOTE : Retain the hardware for the installation.

2 From the routings 2M and 2P, remove :
Refer to figure 12

2 Clamp Item (46) Discard

NOTE : Retain the hardware for the installation.

3 On the front face of the Rear Panel 120VU, drill the holes,
(Refer to figure 5).

4 On the RH side of the Rear Panel 120VU, drill the holes,
(Refer to figure 6).

5 On the RH side of the Rear Panel 120VU, put in position and
attach :

Refer to figures 6 and 9

2 Bracket D5391748500000 Item 14

With :

4 Rivet ASNA2050DCJ3215 Item 3

6 Install :
Refer to figure 7

1 Plate Assy-Side D9251399000000 Item 15

With :

4 Washer ASNA2397-10L Item 4

2 Screw NAS1096-3-8 Item 22

2 Screw NAS1096-3-9 Item 23

7 Install :
Refer to figures 10 and 11

2 Clamp ASNA0033-036 Item 2

5 Washer ASNA2397-10L Item 4

1 Silencer D0003005400900 Item 5

1 Sensor Box Assy D2161018000000 Item 8

2 Seal D2161018420000 Item 9

1 Duct D2161018500000 Item 10

1 Duct D2161018600000 Item 11

1 Mesh Assy D2161018700000 Item 12

2 Screw NAS1096-3-8 Item 22

3 Screw NAS1096-3-15 Item 24

2 Screw NAS1102-06-10 Item 26

4 Screw NAS1102-3-11 Item 27

2 Clamp NSA5516-28ND Item 31

FIN 21HK

1 Temperature Sensor Item (40)

With :

4 Screw NAS1100-04-7 Item 25

NOTE : Item (40) was retained at removal.

8 Install the connector 21HK-B :

1 Backshell E0080-01-10C Item 16

1 Connector E0052R10B6SNF Item 21

Bond the placard identified 21HK, supplied in :
Placard Set D9100095105395

- 9 On the routing 1M, install :
Refer to figure 12

1	Conduit	E0432A06	Item 20
2	Clamp	NSA5516-13ND	Item 29

NOTE : Use the hardware retained at removal.

- 10 On the routings 2M and 2P, install :
Refer to figure 12

2	Clamp	NSA5516-27ND	Item 30
---	-------	--------------	---------

NOTE : Use the hardware retained at removal.

- 11 On the plate assy :
Refer to figure 7

a Install all the connectors and receptacles retained at removal.

b Install :
Refer to figure 12

	FIN 2238VC-A		
1	Connector	EN3545D01MXA15A	Item 17
	FIN 2238VC		
1	Receptacle	EN3545D01FXB15A	Item 18
	FIN 2238VC-A1		
1	Backshell	EN3545SCD	Item 19
	Bond the placards, supplied in :		
1	Placard Set	D9251118800000	

- 12 Install 1 ground point 1278VN with :
Refer to figure 12

1	Washer	ASNA2397-10L	Item 4
1	Screw	NAS1096-3-8	Item 22

Bond the placard identified 1278VN, supplied in :
Placard Set D9100095105395

- 13 Install the wires shown on the lines 1 thru 9 (Refer to figure 24), supplied in :

Bundle D9000095120295

and route them with the wires that are in the aircraft.

NOTE : Use the conduit Item 20 to route the new wires.

- 14 Cut the wires to the necessary length, crimp the terminals and connect them.

- 15 Attach the wires with :

10	Tie-Cable	NSA935401-03
10	Tie-Cable	NSA935401-04

- 16 Do a continuity test of the new electrical wires.

- (c) Modify the wiring in the Shelf 93VU in the FWD electronics rack
Refer to figures 14 , 17 , 21 and 22
- 1 From the Shelf 93VU, remove the items of equipment 1CE3, 5GA1, 5GA2 and 8HK :
(Refer to AMM 21-63-34 Page block 401)
(Refer to AMM 27-94-34 Page block 401)
(Refer to AMM 32-31-71 Page block 401)
- | | | |
|---|-----------------|--------|
| 1 | SEC 3 | Retain |
| 1 | LGCIU 1 | Retain |
| 1 | LGCIU 2 | Retain |
| 1 | Zone Controller | Retain |
- 2 Remove the Shelf 93VU :
- a Disconnect the connectors, (Refer to AWM 93-00-93).
- b Disconnect the bonding braid.
- c Remove the shelf from the electronics rack in the aircraft and install it on bench.
- NOTE : Retain the attachment hardware for the installation.
- 3 On bench :
- a Remove the wires shown on the lines 1 thru 10 (Refer to figure 21).
- b Install the wires shown on the lines 1 thru 10 (Refer to figure 22), supplied in :
- Bundle D9000095120395
and route them with the wires that are in the Shelf 93VU.
- c Cut the wires to the necessary length, crimp the terminals and connect them.
- d Attach the wires with :
- | | | |
|----|-----------|--------------|
| 10 | Tie-Cable | NSA935401-03 |
| 10 | Tie-Cable | NSA935401-04 |
- e Do a continuity test of the new electrical wires.
- 4 Install the Shelf 93VU in the electronics rack on the aircraft and connect the connectors.
- NOTE : Use the attachment hardware retained at removal.
- 5 Install the bonding braid.
- 6 On the Shelf 93VU, install the items of equipment 1CE3, 5GA1, 5GA2 and 8HK :
(Refer to AMM 21-63-34 Page block 401)
(Refer to AMM 27-94-34 Page block 401)
(Refer to AMM 32-31-71 Page block 401)

- 1 SEC 3
- 1 LGCIU 1
- 1 LGCIU 2
- 1 Zone Controller

NOTE : These items of equipment were retained at removal.

- (d) Modify the wiring between the Rear Panel 120VU and the Shelf 93VU in the FWD electronics rack
Refer to figures 18 and 23

- 1 Install the wires shown on the lines 1 thru 10 (Refer to figure 23), supplied in :

Bundle D9000095120295

Bundle D9000095117095

and route them with the wires that are in the Shelf 93VU.

- 2 Cut the wires to the necessary length, crimp the terminals and connect them.

- 3 Attach the wires with :

- 80 Tie-Cable NSA935401-03
- 180 Tie-Cable NSA935401-04
- 200 Tie-Cable NSA935401-06

- 4 Do a continuity test of the new electrical wires.

- (2) Config. 02

- (a) Modify the equipment and the wiring in the cockpit
Refer to figures 1 , 2 , 3 , 4 , 13 , 20 and 25

- 1 Remove the temperature sensor 21HK :
(Refer to AMM 21-63-17 Page block 401)

- 1 Temperature Sensor Item (40) Retain

- 2 Remove the panel 211HC :
(Refer to AMM 25-13-41 Page block 401)
Refer to figure 1

- 1 Panel Item (13) Discard

- 3 Remove the wires shown on the lines 1 thru 9(Refer to figure 25).

- 4 Remove the connector 21HK-A
Refer to figure 13

- 5 Install the panel 211HC :
(Refer to AMM 25-13-41 Page block 401)
Refer to figure 1

- 1 Panel D2511183200000 Item 13

- 6 Below the floor, remove :
Refer to figure 3

- | | | | | |
|--------|--------|----------------|-----------|---------|
| 1 | Duct | D2161001800000 | Item (42) | Discard |
| With : | | | | |
| 2 | Sleeve | | Item (43) | Discard |
| 4 | Clamp | | Item (44) | Discard |
| 1 | Clamp | | Item (60) | Discard |

7 Install :
Refer to figure 4

- | | | | |
|--------|--------|----------------|---------|
| 1 | Duct | D2161017600000 | Item 7 |
| With : | | | |
| 2 | Sleeve | A2121212520200 | Item 1 |
| 4 | Clamp | ASNA0033-036 | Item 2 |
| 2 | Washer | ASNA2397-10L | Item 4 |
| 2 | Screw | NAS1096-3-8 | Item 22 |
| 1 | Nut | NAS1726-3 | Item 28 |
| 1 | Clamp | NSA5516-33ND | Item 32 |
| 2 | Clamp | NSA5516A28ND | Item 33 |

8 In front of FR13, on the RH side, remove :
Refer to figure 3

- | | | | |
|--------|-------|-----------|---------|
| 1 | Duct | Item (61) | Discard |
| With : | | | |
| 3 | Clamp | Item (60) | Discard |

9 From the forward reinforcement plate of the electrical bay
and from the Aft Crossbeam 20VU, remove :
Refer to figure 2

- | | | | |
|--------|---------|-----------|---------|
| 1 | Fitting | Item (62) | Discard |
| 2 | Fitting | Item (64) | Discard |
| With : | | | |
| 2 | Rivet | Item (63) | Discard |
| 4 | Rivet | Item (65) | Discard |

(b) Modify the equipment and the wiring in the Rear Panel 120VU
Refer to figures 8 , 10 , 11 and 13

1 On the RH side of the Rear Panel 120VU, remove :
Refer to figure 8

- | | | | | |
|---|----------------|----------------|-----------|---------|
| 3 | Washer | ASNA2397-10L | Item (45) | Discard |
| 3 | Nut | NAS1726-3E | Item (46) | Discard |
| 3 | Screw | NAS1096-3-10 | Item (55) | Discard |
| 2 | Seal | D2161018420000 | Item (48) | Discard |
| 2 | Plate-Blanking | D2161017920000 | Item (47) | Discard |
| 4 | Screw | NAS1102-3-10 | Item (50) | Discard |
| 1 | Plate Assy | D2161018200000 | Item (51) | Discard |
| 1 | Plate-Blanking | D2161017800000 | Item (53) | Discard |
| 2 | Seal | D2161019120000 | Item (52) | Discard |

2 On the RH side of the Rear Panel 120VU, install :
Refer to figures 10 and 11

- | | | | |
|---|--------|--------------|--------|
| 2 | Clamp | ASNA0033-036 | Item 2 |
| 5 | Washer | ASNA2397-10L | Item 4 |

1	Silencer	D0003005400900	Item 5
1	Sensor Box Assy	D2161018000000	Item 8
2	Seal	D2161018420000	Item 9
1	Duct	D2161018500000	Item 10
1	Duct	D2161018600000	Item 11
1	Mesh Assy	D2161018700000	Item 12
2	Screw	NAS1096-3-8	Item 22
3	Screw	NAS1096-3-15	Item 24
2	Screw	NAS1102-06-10	Item 26
4	Screw	NAS1102-3-11	Item 27
2	Clamp	NSA5516-28ND	Item 31

FIN 21HK

1	Temperature Sensor	Item (40)
---	--------------------	-----------

With :

4	Screw	NAS1100-04-7	Item 25
---	-------	--------------	---------

NOTE : Item (40) was retained at removal.

- 3 Connect the connector 21HK-B that you stowed to the temperature sensor 21HK.

- (c) Modify the wiring in the Shelf 93VU in the FWD electronics rack

Refer to figures 15 , 17 , 22 , 26 and 27

- 1 From the Shelf 93VU, remove the items of equipment 1CE3, 5GA1, 5GA2 and 8HK :
 (Refer to AMM 21-63-34 Page block 401)
 (Refer to AMM 27-94-34 Page block 401)
 (Refer to AMM 32-31-71 Page block 401)

1	SEC 3	Retain
1	LGCIU 1	Retain
1	LGCIU 2	Retain
1	Zone Controller	Retain

- 2 Remove the Shelf 93VU :

- a Disconnect the connectors, (Refer to AWM 93-00-93).
b Disconnect the bonding braid.
c Remove the shelf from the electronics rack in the aircraft and install it on bench.

NOTE : Retain the attachment hardware for the installation.

- 3 On bench :

- a Remove the wires shown on the lines 1 thru 25 (Refer to figure 26) and 1 thru 5 (Refer to figure 27).
b On the Shelf 93VU, remove from the mounting rail of the terminal block assy 213VT :

The lockwire from the end-clamp attachment screws

1	End Clamp	Retain
---	-----------	--------

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 21

- 2 Module NSA937901MA2202 Discard
in positions 12 and 13
- c Install on the mounting rail of the terminal block assy 213VT :
- 1 End Clamp
NOTE : Use the end clamp retained at removal.
Safety the screws in the end clamp with Lockwire MS20995C32.
- d Install the wires shown on the lines 1 thru 10 (Refer to figure 22), supplied in :
Bundle D9000095120395
and route them with the wires that are in the Shelf 93VU.
- e Cut the wires to the necessary length, crimp the terminals and connect them.
- f Attach the wires with :
- 10 Tie-Cable NSA935401-03
- 10 Tie-Cable NSA935401-04
- g Do a continuity test of the new electrical wires.
- 4 Install the Shelf 93VU in the electronics rack on the aircraft and connect the connectors.
NOTE : Use the attachment hardware retained at removal.
- 5 Install the bonding braid.
- 6 On the Shelf 93VU, install the items of equipment 1CE3, 5GA1, 5GA2 and 8HK :
(Refer to AMM 21-63-34 Page block 401)
(Refer to AMM 27-94-34 Page block 401)
(Refer to AMM 32-31-71 Page block 401)
- 1 SEC 3
- 1 LGCIU 1
- 1 LGCIU 2
- 1 Zone Controller

NOTE : These items of equipment were retained at removal.

(3) Config. 03

- (a) Modify the equipment and the wiring in the cockpit
Refer to figures 1 , 2 , 3 , 13 , 20 and 25
- 1 Remove the panel 211HC :
(Refer to AMM 25-13-41 Page block 401)
Refer to figure 1
- 1 Panel Item (13) Retain
- 2 Remove the wires shown on the lines 1 thru 10 (Refer to figure 25).

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 22

3 Remove the connector 21HK-A
Refer to figure 13

4 Install the panel 211HC :
(Refer to AMM 25-13-41 Page block 401)
Refer to figure 1

1 Panel Item (13)

NOTE : Item (13) was retained at removal.

5 In front of FR13, on the RH side, remove :
Refer to figure 3

1	Duct	Item (61)	Discard
	With :		
3	Clamp	Item (60)	Discard
1	Cap	Item (6)	Discard
1	Clamp	Item (2)	Discard

6 From the forward reinforcement plate of the electrical bay
and from the Aft Crossbeam 20VU, remove :
Refer to figure 2

1	Fitting	Item (62)	Discard
2	Fitting	Item (64)	Discard
	With :		
2	Rivet	Item (63)	Discard
4	Rivet	Item (65)	Discard

(b) Modify the wiring in the Shelf 93VU in the FWD electronics
rack
Refer to figures 16 , 17 , 22 , 28 and 29

1 From the Shelf 93VU, remove the items of equipment 1CE3,
5GA1, 5GA2 and 8HK :
(Refer to AMM 21-63-34 Page block 401)
(Refer to AMM 27-94-34 Page block 401)
(Refer to AMM 32-31-71 Page block 401)

1	SEC 3	Retain
1	LGCIU 1	Retain
1	LGCIU 2	Retain
1	Zone Controller	Retain

2 Remove the Shelf 93VU :

- a Disconnect the connectors, (Refer to AWM 93-00-93).
- b Disconnect the bonding braid.
- c Remove the shelf from the electronics rack in the
aircraft and install it on bench.

NOTE : Retain the attachment hardware for the
installation.

3 On bench :

- a Remove the wires shown on the lines 1 thru 25 (Refer to

figure 28) and 1 thru 5 (Refer to figure 29).

- b On the Shelf 93VU, remove from the mounting rail of the terminal block assy 213VT :

The lockwire from the end-clamp attachment screws

- | | | |
|---|------------------------|-----------------|
| 1 | End Clamp | Retain |
| 2 | Module | NSA937901MA2202 |
| | in positions 12 and 13 | Discard |

- c Install on the mounting rail of the terminal block assy 213VT :

- 1 End Clamp

NOTE : Use the end clamp retained at removal.
Safety the screws in the end clamp with Lockwire MS20995C32.

- d Install the wires shown on the lines 1 thru 10 (Refer to figure 22), supplied in :

Bundle D9000095120395
and route them with the wires that are in the Shelf 93VU.

- e Cut the wires to the necessary length, crimp the terminals and connect them.

- f Attach the wires with :

- | | | |
|----|-----------|--------------|
| 10 | Tie-Cable | NSA935401-03 |
| 10 | Tie-Cable | NSA935401-04 |

- g Do a continuity test of the new electrical wires.

- 4 Install the Shelf 93VU in the electronics rack on the aircraft and connect the connectors.

NOTE : Use the attachment hardware retained at removal.

- 5 Install the bonding braid.

- 6 On the Shelf 93VU, install the items of equipment 1CE3, 5GA1, 5GA2 and 8HK :
(Refer to AMM 21-63-34 Page block 401)
(Refer to AMM 27-94-34 Page block 401)
(Refer to AMM 32-31-71 Page block 401)

- | | |
|---|-----------------|
| 1 | SEC 3 |
| 1 | LGCIU 1 |
| 1 | LGCIU 2 |
| 1 | Zone Controller |

NOTE : These items of equipment were retained at removal.

C. TEST

- (1) Job Set-Up

- (a) Install the forward galley unit, (Refer to AMM 25-31-41

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 24

Page block 401).

- (b) Connect the battery connectors, (Refer to AMM 24-38-51 Page block 401).
- (c) Energize the aircraft electrical circuits, (Refer to AMM 24-41-00 Page block 201).
- (d) Remove the safety clips and tags and close these circuit breakers :

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

(2) Tests

(a) Config. 01

- 1 Do the test after the removal/installation of the forward galley unit, (Refer to AMM 25-31-41 Page block 401).
- 2 On each connector that you disconnected, do a visual check to make sure that :
(Refer to AMM 20-00-00)
 - The label of the connector is the same as as the label on the support plate
 - The connector is correctly locked.
- 3 Do the test after the removal/installation of the batteries (2PB1, 2PB2), (Refer to AMM 24-38-51 Page block 401).
- 4 Test after the removal/installation of the Shelf 93VU in the FWD electronics rack
 - a Do the test after the removal/installation of the zone controller (8HK), (Refer to AMM 21-63-34 Page block 401).

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 25

- b Do the test (for 1 CE3 only) after the removal/installation of the Spoiler Elevator Computer (SEC), (Refer to AMM 27-94-34 Page block 401).
 - c Do the test after the removal/installation of the LGCIU (5GA1, 5GA2), (Refer to AMM 32-31-71 Page block 401).
- 5 Test after the removal/installation of the connectors of the Rear Panel 120VU
 - a Do the operational test of the cabin recirculation fans (14HG and 15HG), (Refer to AMM 21-21-00 Page block 501).
 - b Do the operational test of the avionics equipment ventilation from the Multipurpose Control and Display Unit (MCDU), (Refer to AMM 21-26-00 Page block 501).
 - c Do the operational test of the FWD (4HN) or AFT (33HN) cargo compartment outlet isolation valve in the ditching configuration, (Refer to AMM 21-28-00 Page block 501).
 - d Do the operational test of the outflow valve closing in the ditching configuration, (Refer to AMM 21-31-00 Page block 501).
 - e Do the windshear procedure, (Refer to AMM 22-60-00 Page block 501).
 - f Do the operational test of the radio navigation selection in standby mode using the RMP1 and 2, (Refer to AMM 23-13-00 Page block 501).
 - g Do the BITE test of the Cabin Intercommunication Data System (CIDS) through the PTP, (Refer to AMM 23-73-00 Page block 501).
 - h Do the functional test of the IDG disconnect system - engine in operation, (Refer to AMM 24-21-00 Page block 501).
 - i Do the test after the removal/installation of the generator line contactors (9XU1 and 9XU2) and the bus transfer contactors (11XU1 and 11XU2), (Refer to AMM 24-22-55 Page block 401).
 - j Do the test after the removal/installation of the APU generator line contactor (3XS), (Refer to AMM 24-23-55 Page block 401).
 - k Do the operational test of the GEN FAULT warning, (Refer to AMM 24-27-00 Page block 501).
 - l Do the operational test of the DC generation switching, (Refer to AMM 24-32-00 Page block 501).
 - m Do the test after the removal/installation of the transformer 1 (2) contactors (5PU1, 5PU2, 14PU), (Refer to AMM 24-32-55 Page block 401).
 - n Do the operational test of the Ground Power Control Unit

(GPCU), (Refer to AMM 24-41-00 Page block 501).

- o Do the test after the removal/installation of the external power contactor (3XG), (Refer to AMM 24-41-55 Page block 401).
- p Do the test after the removal/installation of the contactors (12XX, 14XX), (Refer to AMM 24-42-55 Page block 401).
- q Do the test after the removal/installation of the DC service bus ground supply contactor (3PX), (Refer to AMM 24-43-55 Page block 401).
- r Do the test after the removal/installation of the AC service bus normal supply contactor (12XN), (Refer to AMM 24-51-55 Page block 401).
- s Do the test after the removal/installation of the DC service bus normal supply contactor (8PN), (Refer to AMM 24-61-55 Page block 401).
- t Do the operational test of the captain and first officer seats (3MS, 4MS), (Refer to AMM 25-11-00 Page block 501).
- u Do the operational test of the emergency locator transmitter (1MX), (Refer to AMM 25-65-33 Page block 501).
- v Do the operational test of the engine fire and overheat detection with the Centralized Fault Display System (CFDS), (Refer to AMM 26-12-00 Page block 501).
- w Do the functional test of the ENG 1 (2) fire push-button switch sub-functions related to the engine shutdown and isolation (with external air supply), (Refer to AMM 26-21-00 Page block 501).
- x Do the operational test of the APU fire extinguishing P/BSW function (single channel configuration) and the APU emergency shutdown circuit, (Refer to AMM 26-22-00 Page block 501).
- y Do the operational test of the spoiler hydraulic actuation, (Refer to AMM 27-64-00 Page block 501).
- z Do the operational test of the side stick assembly, (Refer to AMM 27-92-41 Page block 501).
- aa Do the test after the removal/installation of the pedal position transducer unit, (Refer to AMM 27-92-15 Page block 401).
- ab Do the functional test of the center tank fuel control, (Refer to AMM 28-21-00 Page block 501).
- ac Do the operational test of the main transfer system, (Refer to AMM 28-26-00 Page block 501).

- ad Do the functional test of the ACT inward pressure relief valve, (if the ACT is installed), (Refer to AMM 28-28-00 Page block 501).
- ae Do the operational test of the ACT manual transfer system, (if the ACT is installed), (Refer to AMM 28-28-00 Page block 501).
- af Do the special test of the tank level sensing system, (Refer to AMM 28-46-00 Page block 501).
- ag Do the operational test of the Ram Air Turbine (RAT) automatic deployment, (Refer to AMM 29-22-00 Page block 501).
- ah Do the operational test of the fluid low level warning system, (Refer to AMM 29-31-00 Page block 501).
- ai Do the operational test of the reservoir low air pressure warning of the blue hydraulic system, (Refer to AMM 29-34-00 Page block 501).
- aj Do the operational test of the engine air intake ice protection, (Refer to AMM 30-21-00 Page block 501).
- ak Do the operational test of the probe ice protection, (Refer to AMM 30-31-00 Page block 501).
- al Do the operational test of the windshield anti-icing and defogging, (Refer to AMM 30-42-00 Page block 501).
- am Do the functional test of the windshield rain protection, (Refer to AMM 30-45-00 Page block 501).
- an Do the operational test of the recorders control with the Centralized Fault Display System (CFDS), (Refer to AMM 31-33-00 Page block 501).
- ao Do the operational test of the System Data Acquisition Concentrator (SDAC), (Refer to AMM 31-50-00 Page block 501).
- ap Do the operational test of the EFIS/ECAM switching functions, (Refer to AMM 31-60-00 Page block 501).
- aq Do the EIS input test, (Refer to AMM 31-60-00 Page block 501).
- ar Do the operational test of the normal braking system, (Refer to AMM 32-42-00 Page block 501).
- as Do the operational test of the parking brake system, (Refer to AMM 32-45-00 Page block 501).
- at Do the functional test of the Tire Pressure Indicating System (TPIS), (Refer to AMM 32-49-00 Page block 501).
- au Do the operational test of the landing lights, (Refer to AMM 33-42-00 Page block 501).
- av Do the operational test of the 5 minutes time delay of

ADIRU 2 and 3 power disconnection in emergency configuration, (Refer to AMM 34-10-00 Page block 501).

- aw Do the operational test of the GPWS ground self-test function, (Refer to AMM 34-48-00 Page block 501).
 - ax Do the operational test of the Global Positioning System (GPS), (Refer to AMM 34-58-00 Page block 501).
 - ay Do the test after the removal/installation of the start contactors (5KA, 10KA), (Refer to AMM 49-42-55 Page block 401).
 - az Do the functional test of the FWD cargo compartment door, (Refer to AMM 52-31-00 Page block 501).
 - ba Do the operational test of the door warning system, (Refer to AMM 52-71-00 Page block 501).
 - bb For aircraft powered by CFM engines, do the operational test of the engine interface units (1KS1, 1KS2), (Refer to AMM 73-25-34 Page block 501).
 - bc Do the operational test of the Engine Vibration Monitoring Unit (EVMU) through the Centralized Fault Display System (CFDS), (Refer to AMM 77-32-34 Page block 501).
 - bd At the next APU start up, make sure that all APU parameters are correct.
- 6 Do the test after the removal/installation of the cabin temperature sensor (21HK), (Refer to AMM 21-63-17 Page block 401).

(b) Config. 02

- 1 Do the test after the removal/installation of the forward galley unit, (Refer to AMM 25-31-41 Page block 401).
- 2 On each connector that you disconnected, do a visual check to make sure that :
(Refer to AWM 20-00-00)
 - The label of the connector is the same as as the label on the support plate
 - The connector is correctly locked.
- 3 Do the test after the removal/installation of the batteries (2PB1, 2PB2), (Refer to AMM 24-38-51 Page block 401).
- 4 Test after the removal/installation of the Shelf 93VU in the FWD electronics rack
 - a Do the test after the removal/installation of the zone controller (8HK), (Refer to AMM 21-63-34 Page block 401).
 - b Do the test (for 1 CE3 only) after the

removal/installation of the Spoiler Elevator Computer (SEC), (Refer to AMM 27-94-34 Page block 401).

c Do the test after the removal/installation of the LGCIU (5GA1, 5GA2), (Refer to AMM 32-31-71 Page block 401).

5 Do the test after the removal/installation of the cabin temperature sensor (21HK), (Refer to AMM 21-63-17 Page block 401).

(c) Config. 03

1 Do the test after the removal/installation of the forward galley unit, (Refer to AMM 25-31-41 Page block 401).

2 On each connector that you disconnected, do a visual check to make sure that :

(Refer to AWM 20-00-00)

- The label of the connector is the same as as the label on the support plate

- The connector is correctly locked.

3 Do the test after the removal/installation of the batteries (2PB1, 2PB2), (Refer to AMM 24-38-51 Page block 401).

4 Test after the removal/installation of the Shelf 93VU in the FWD electronics rack

a Do the test after the removal/installation of the zone controller (8HK), (Refer to AMM 21-63-34 Page block 401).

b Do the test (for 1 CE3 only) after the removal/installation of the Spoiler Elevator Computer (SEC), (Refer to AMM 27-94-34 Page block 401).

c Do the test after the removal/installation of the LGCIU (5GA1, 5GA2), (Refer to AMM 32-31-71 Page block 401).

D. CLOSE UP

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

(2) De-energize the aircraft electrical circuits, (Refer to AMM 24-41-00 Page block 201).

(3) Install the floor panel 212PF, (Refer to AMM 53-12-11 Page block 401).

(4) Install the assembly panels 212JW and 212HW, (Refer to AMM 05-22-10 Page block 601) and the panel on the RH side of the rear panel 120VU.

(5) Close the passenger/crew door 831, (Refer to AMM 52-10-00 Page block 201).

(6) Close the avionics doors 811, 822 and 824, (Refer to AMM 52-41-00 Page block 1).

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 30



A319/A320/A321

SERVICE BULLETIN

- (7) Close the cargo door 825, (Refer to AMM 52-30-00 Page block 201).
- (8) Disconnect the aircraft electrical ground-connection, (Refer to AMM 12-34-24 Page block 201).
- (9) Remove the access platform(s).
- (10) Restore the systems and the aircraft to normal operating condition.

E. DOCUMENTATION

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

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 31

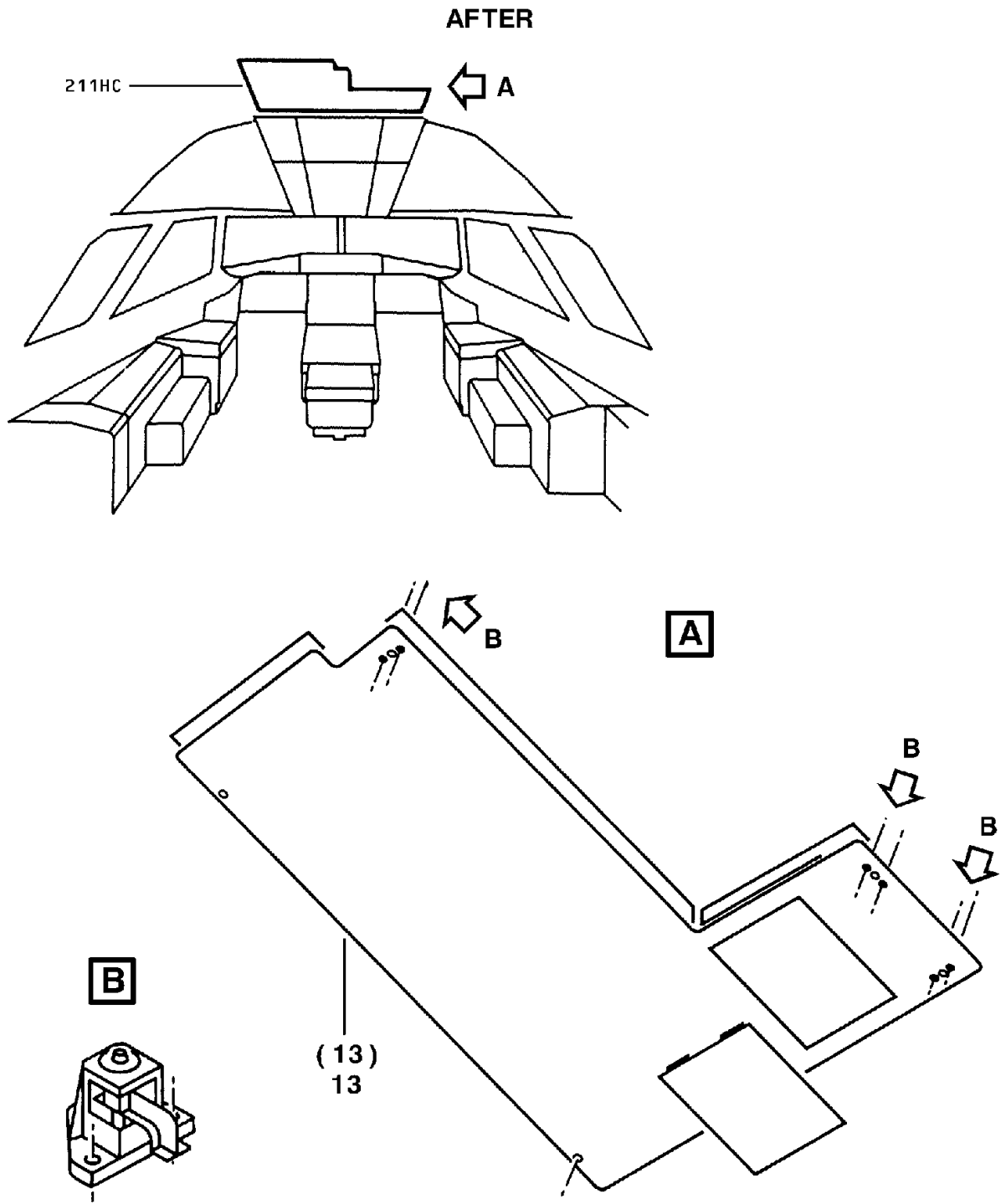


Figure 1 Sheet 1
Modification to the Equipment in the Cockpit (Config. 01 and Config. 02)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 32

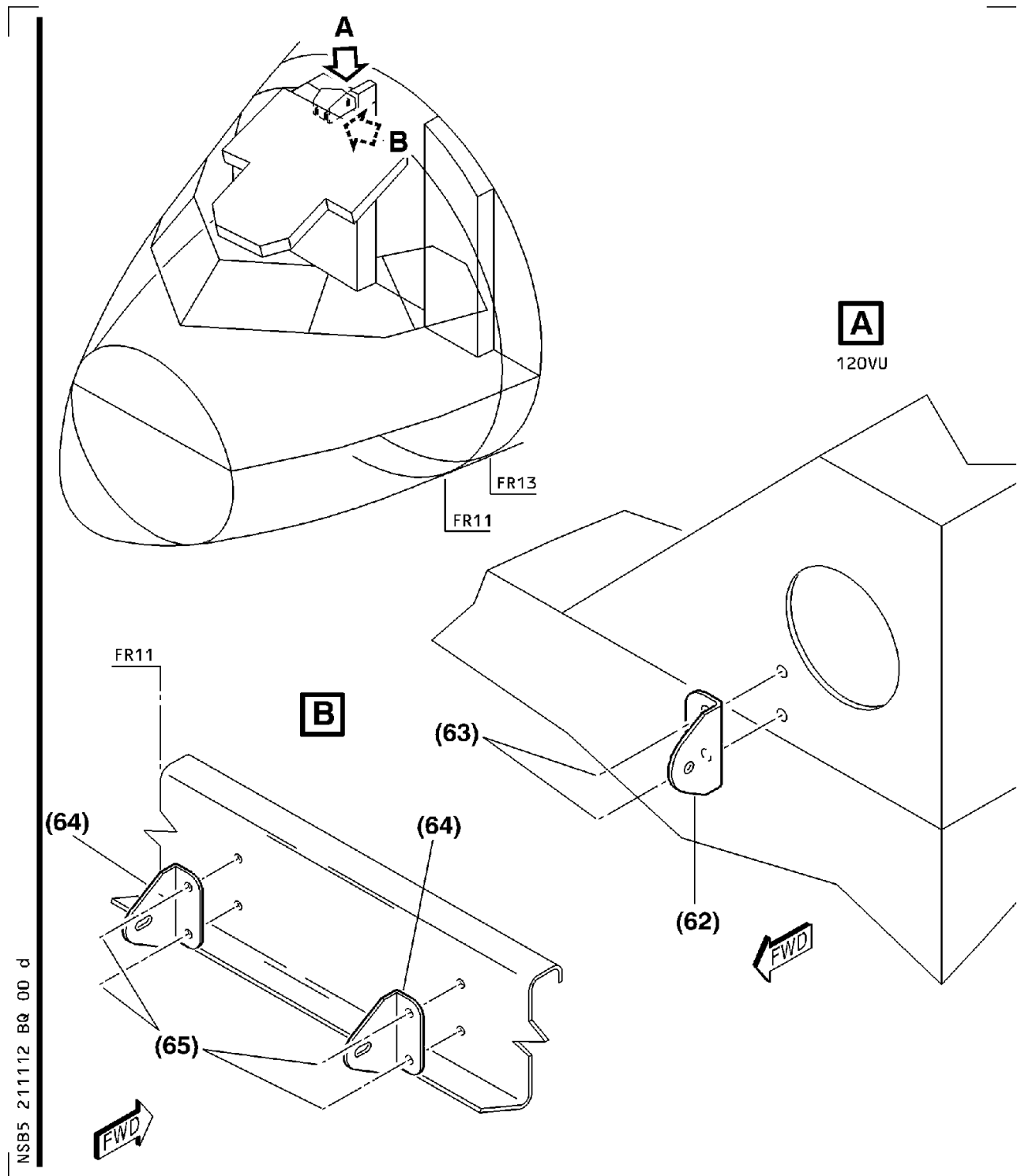


Figure 2 Sheet 1
Removal of the Attachment Fitting of the Temperature Probe Casing (Config. 01, Config. 02 and Config. 03)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 33



A319/A320/A321

SERVICE BULLETIN

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DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 34



Figure 3 Sheet 1
Modification to the Equipment in the Cockpit

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 36



A319/A320/A321

SERVICE BULLETIN

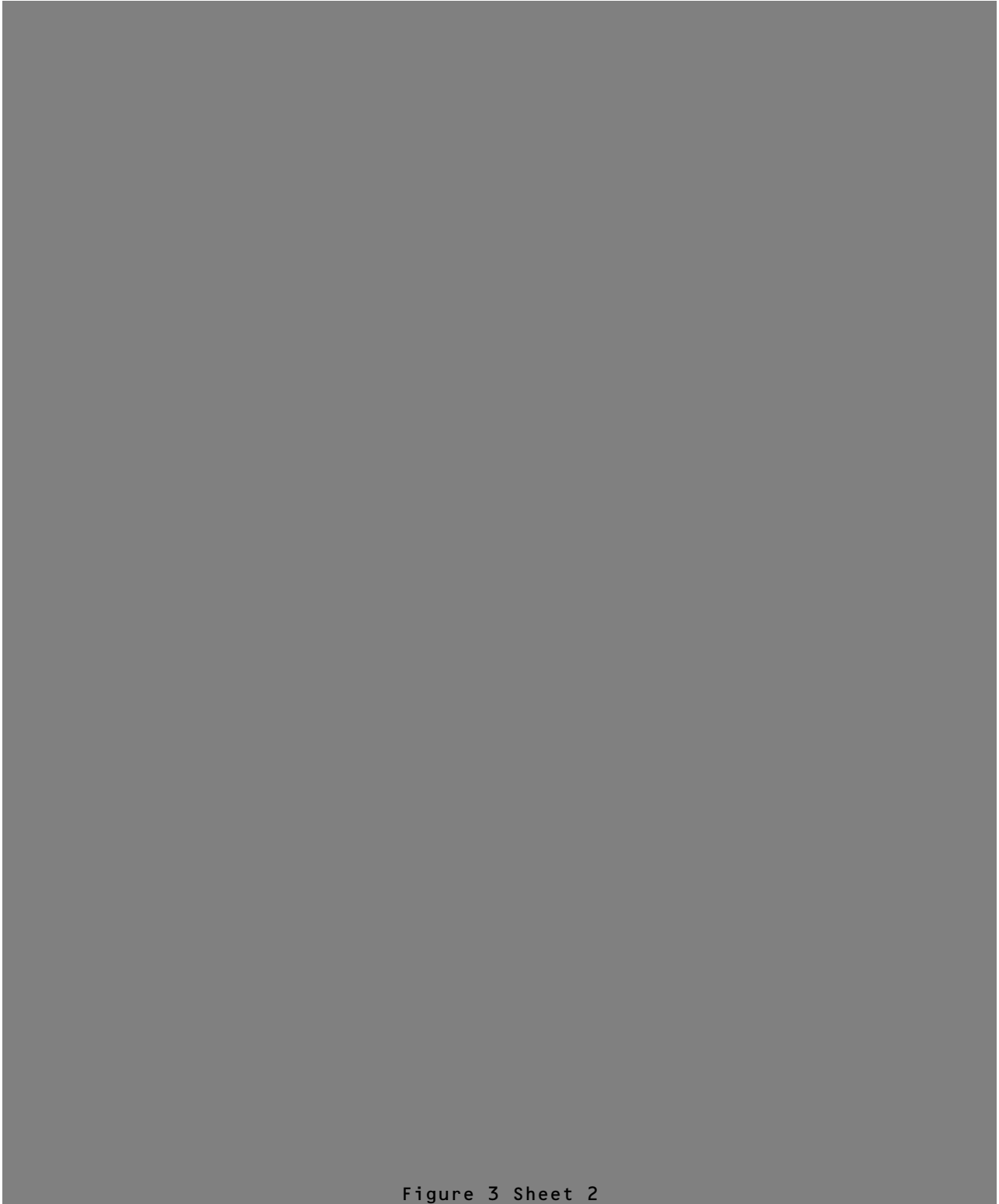


Figure 3 Sheet 2
Modification to the Equipment in the Cockpit

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 38

I



Figure 4 Sheet 1

Modification to the Equipment in the Cockpit (Config. 01 and Config. 02)

I

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 40

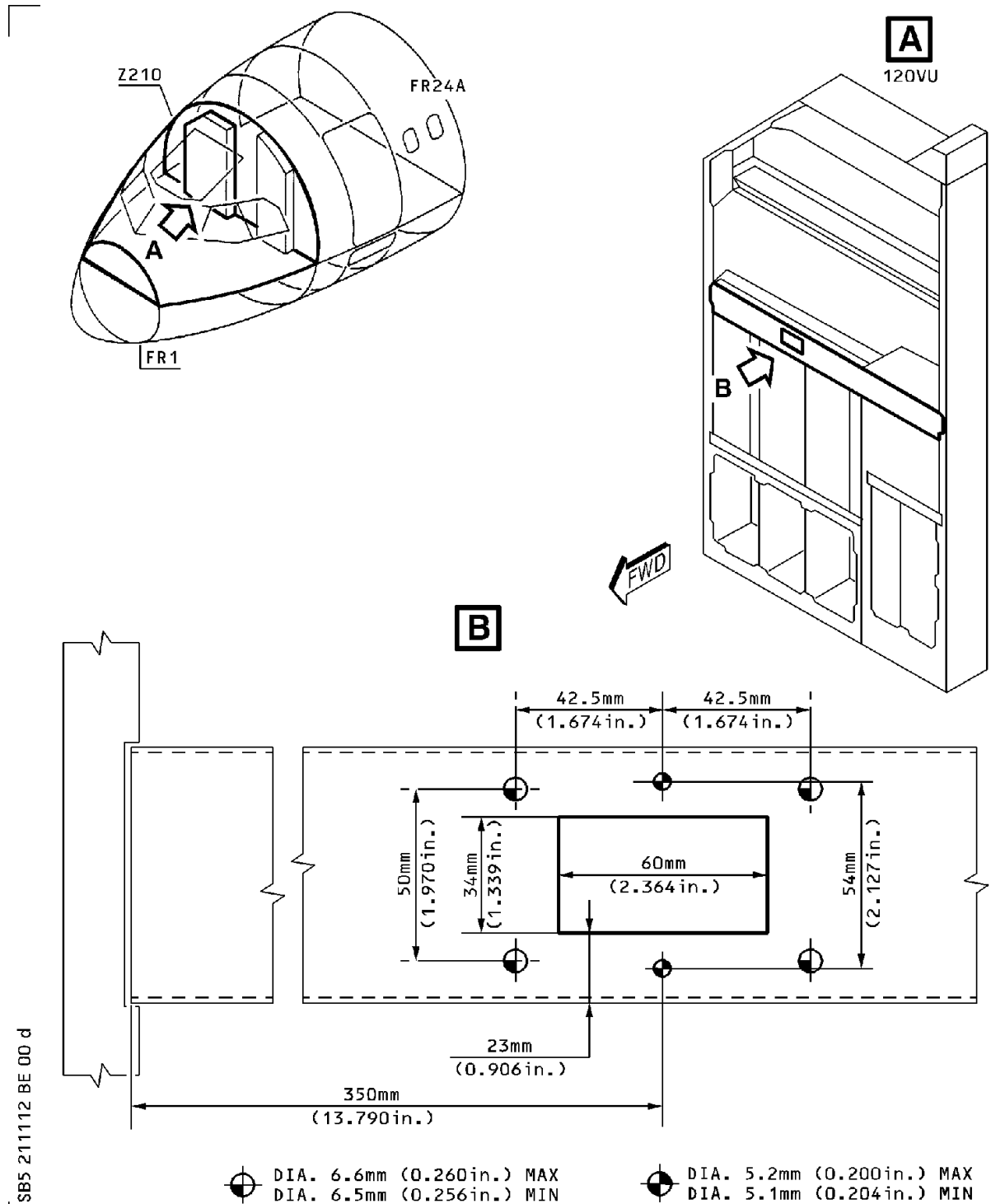


Figure 5 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 41

This Page Intentionally Left Blank

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 42



A319/A320/A321

SERVICE BULLETIN



Figure 6 Sheet 1

Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 44

I



Figure 7 Sheet 1

Modification to the Equipment in the Rear Panel 120VU (Config. 01)

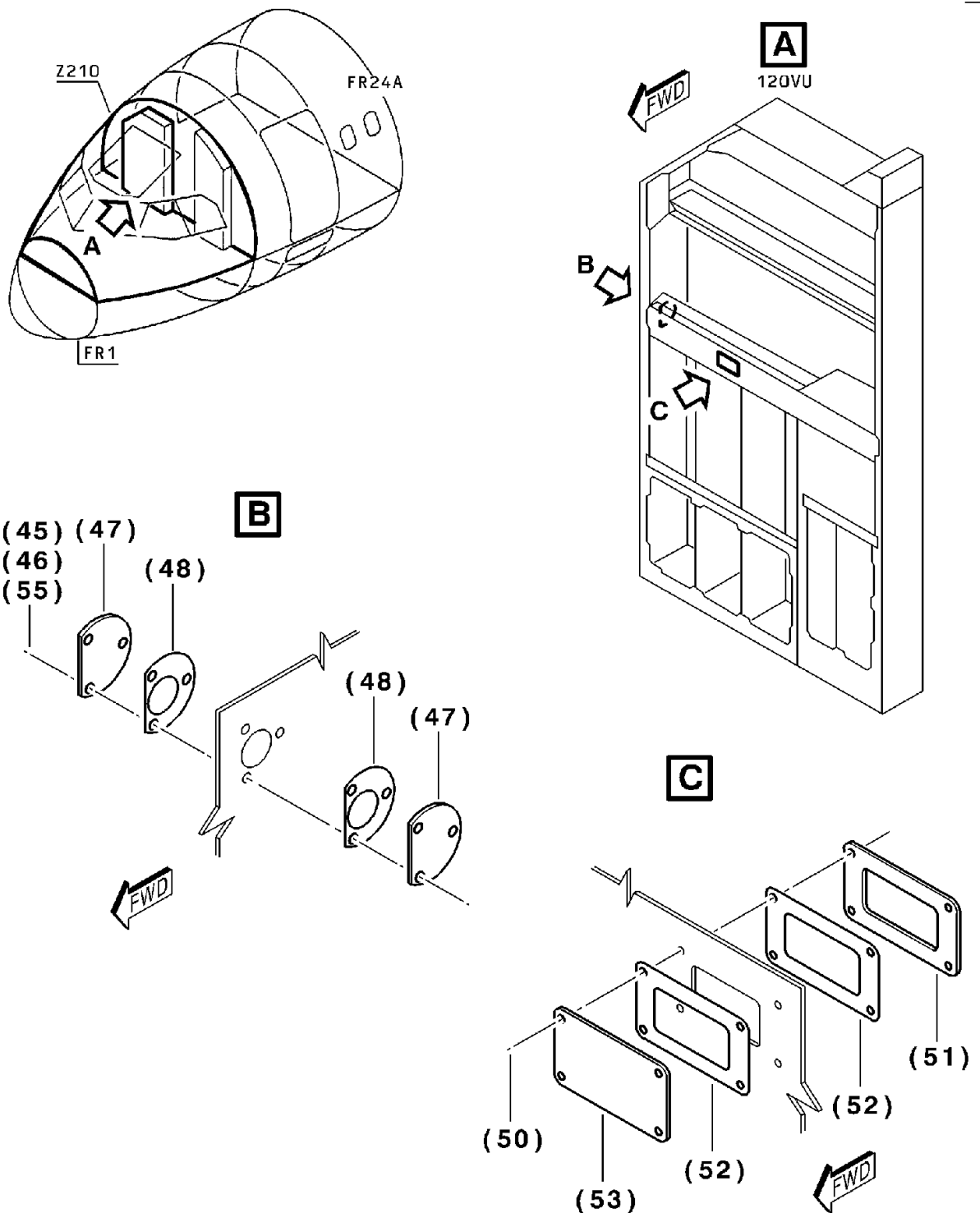
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DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 46



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Figure 8 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 02)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 47

This Page Intentionally Left Blank

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 48



A319/A320/A321

SERVICE BULLETIN



Figure 9 Sheet 1

Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 50

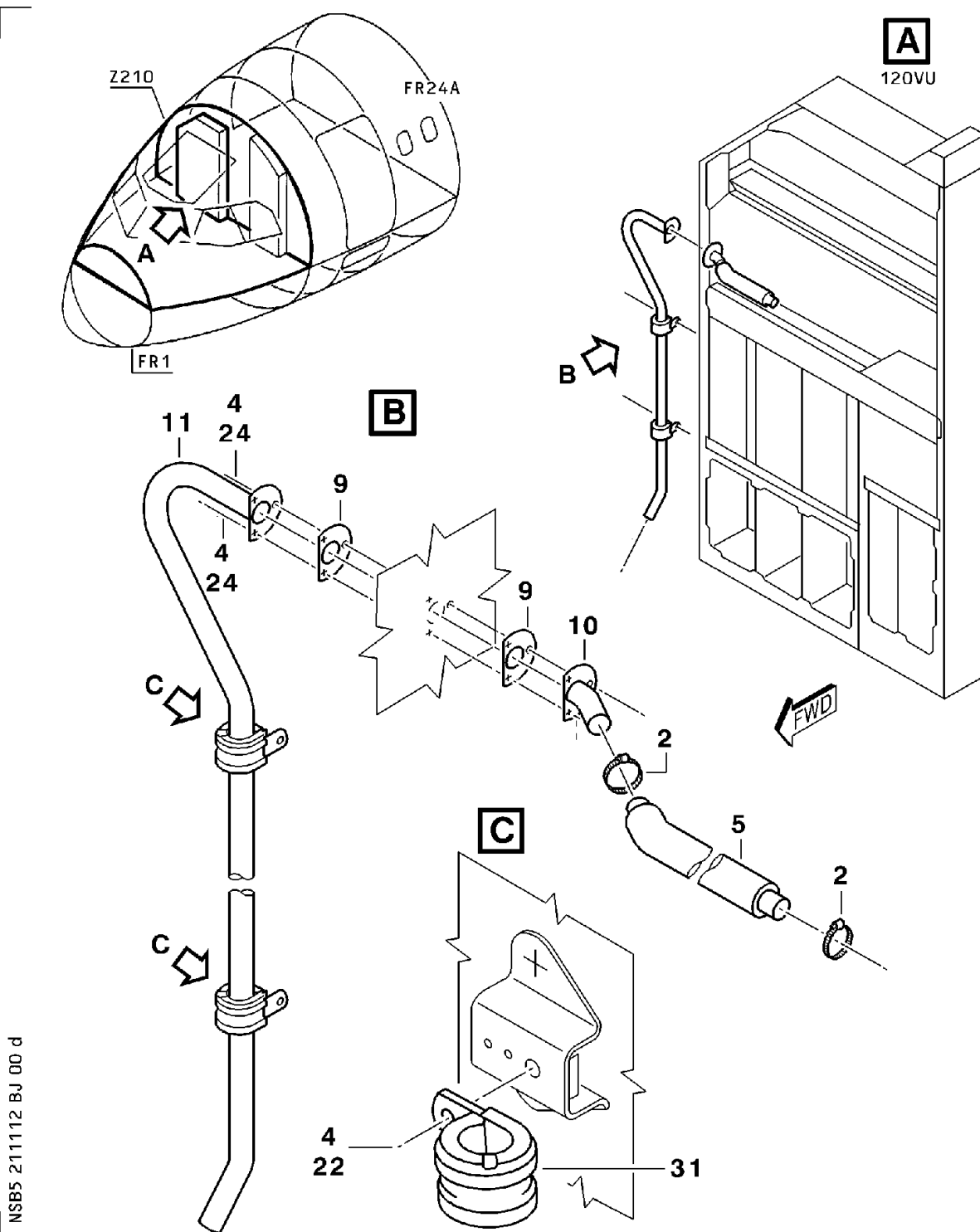


Figure 10 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 01 and Config. 02)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 51



A319/A320/A321

SERVICE BULLETIN

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DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 52



Figure 11 Sheet 1

Modification to the Equipment in the Rear Panel 120VU (Config. 01 and Config. 02)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 54

I



Figure 12 Sheet 1

Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 56



Figure 12 Sheet 2

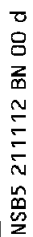
Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 58





A319/A320/A321

SERVICE BULLETIN

I

This Page Intentionally Left Blank

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 60



Figure 13 Sheet 1
Modification to the Equipment in the Cockpit

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 62



Figure 13 Sheet 2
Modification to the Equipment in the Cockpit

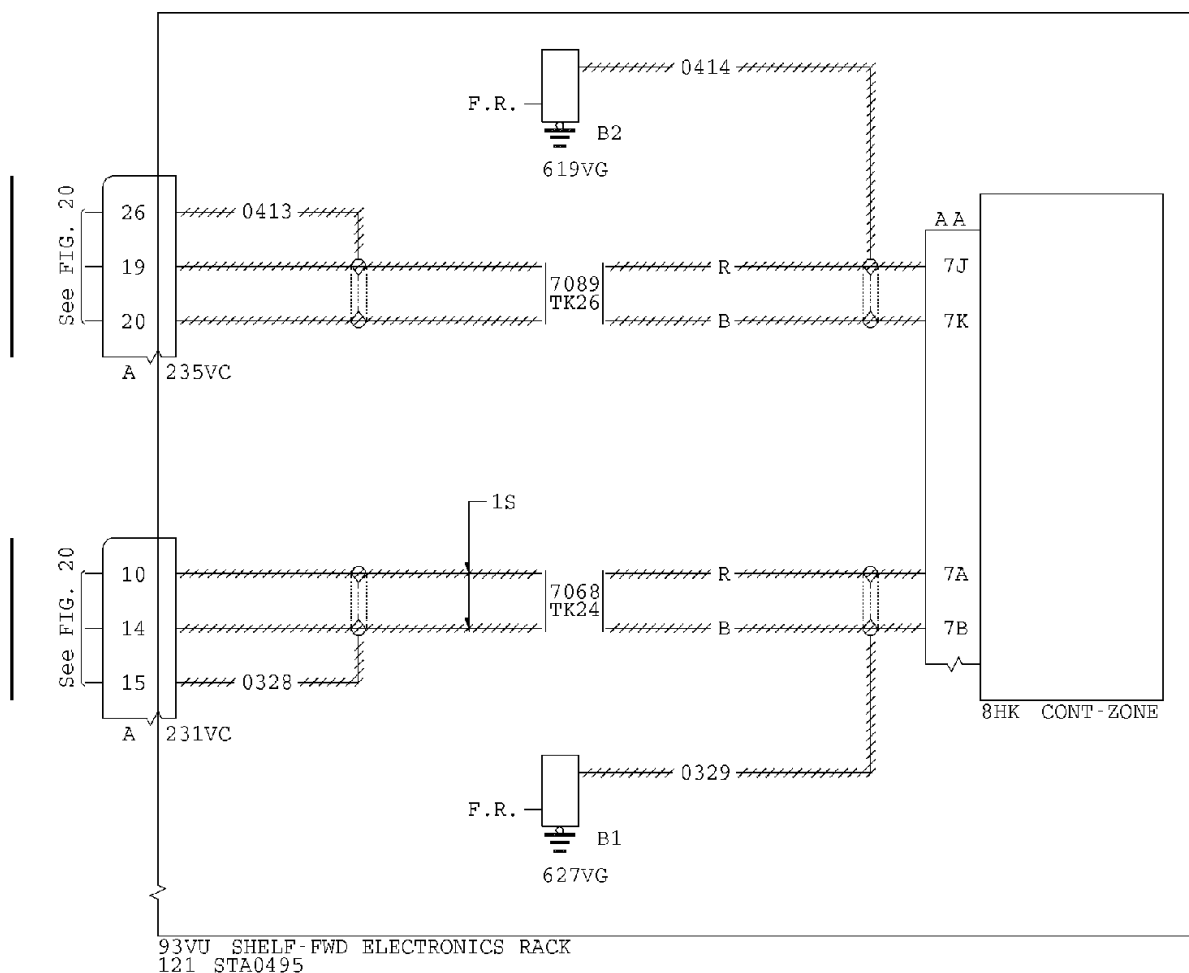
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 64

BEFORE



///// DELETED WIRE

F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE CF24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S

Figure 14 Sheet 1
Modification to the Wiring in the Shelf 93VU in the FWD Electronics Rack
(Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

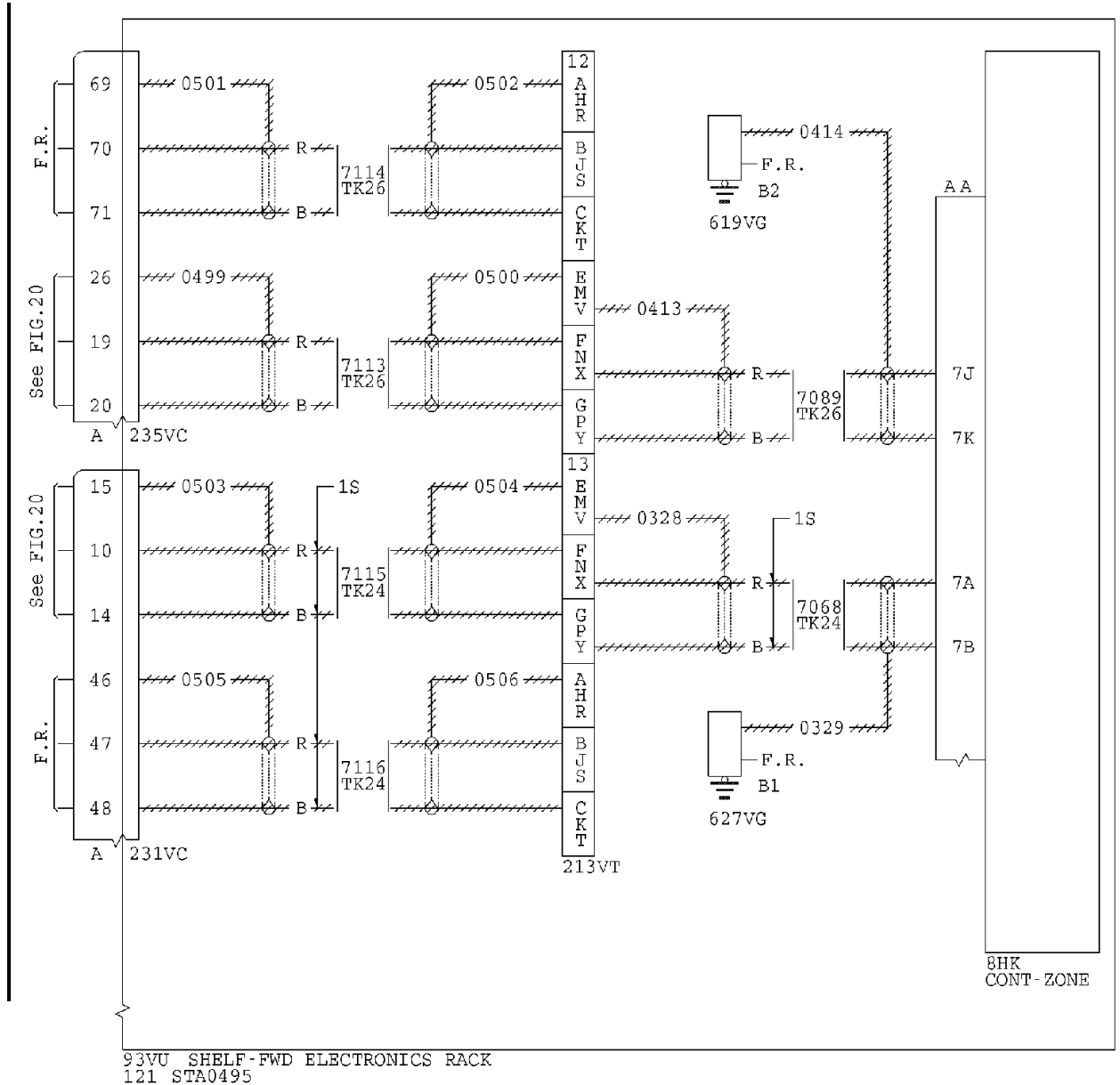
Page : 65



A319/A320/A321

SERVICE BULLETIN

BEFORE



////// DELETED WIRE

F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE CF24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S

NB5211112AEAAB

Figure 15 Sheet 1
Modification to the Wiring in the Shelf 93VU in the FWD Electronics Rack
(Config. 02)

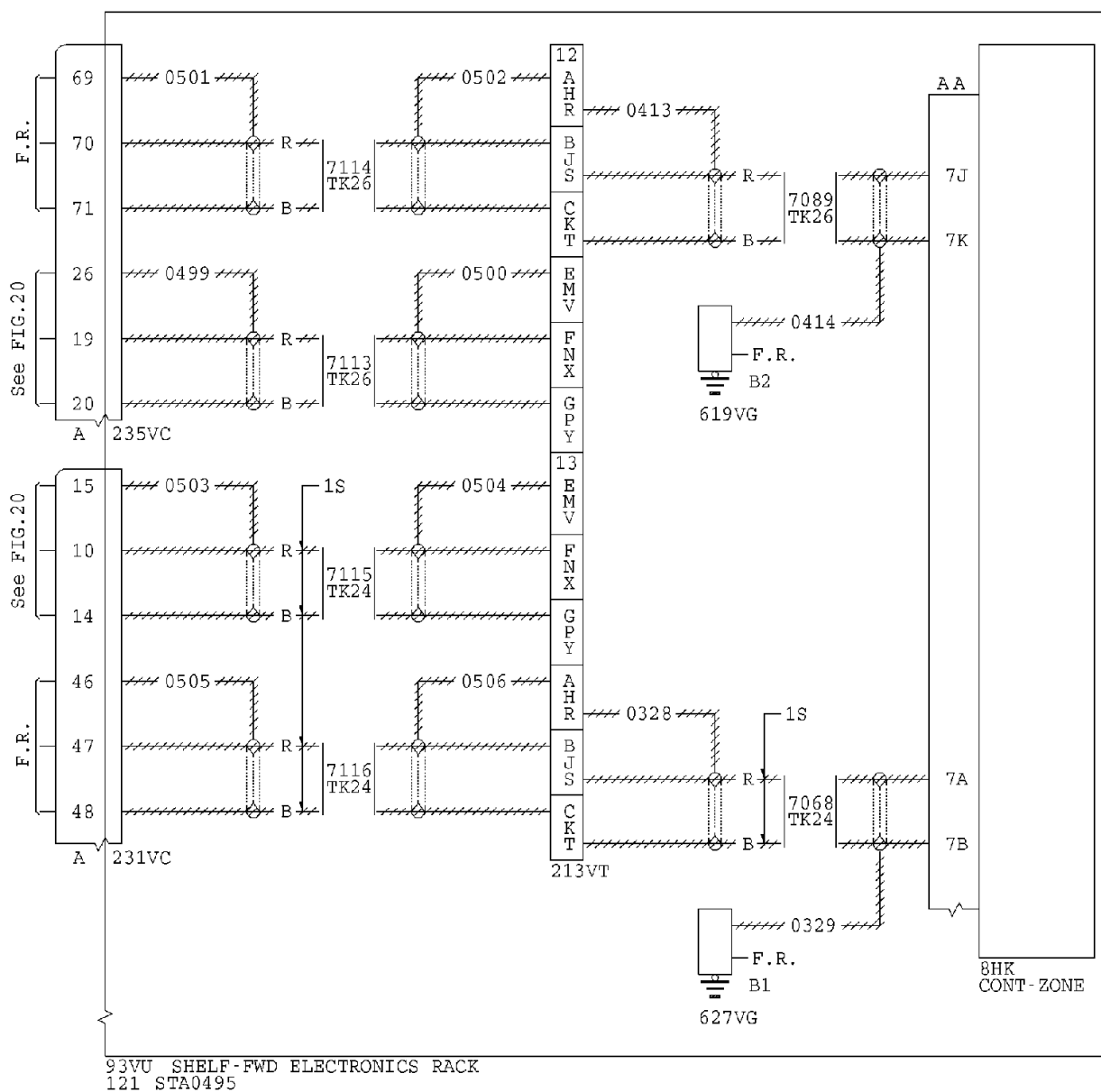
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 66

BEFORE



DELETED WIRE

F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE CF24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S

Figure 16 Sheet 1
Modification to the Wiring in the Shelf 93VU in the FWD Electronics Rack
(Config. 03)

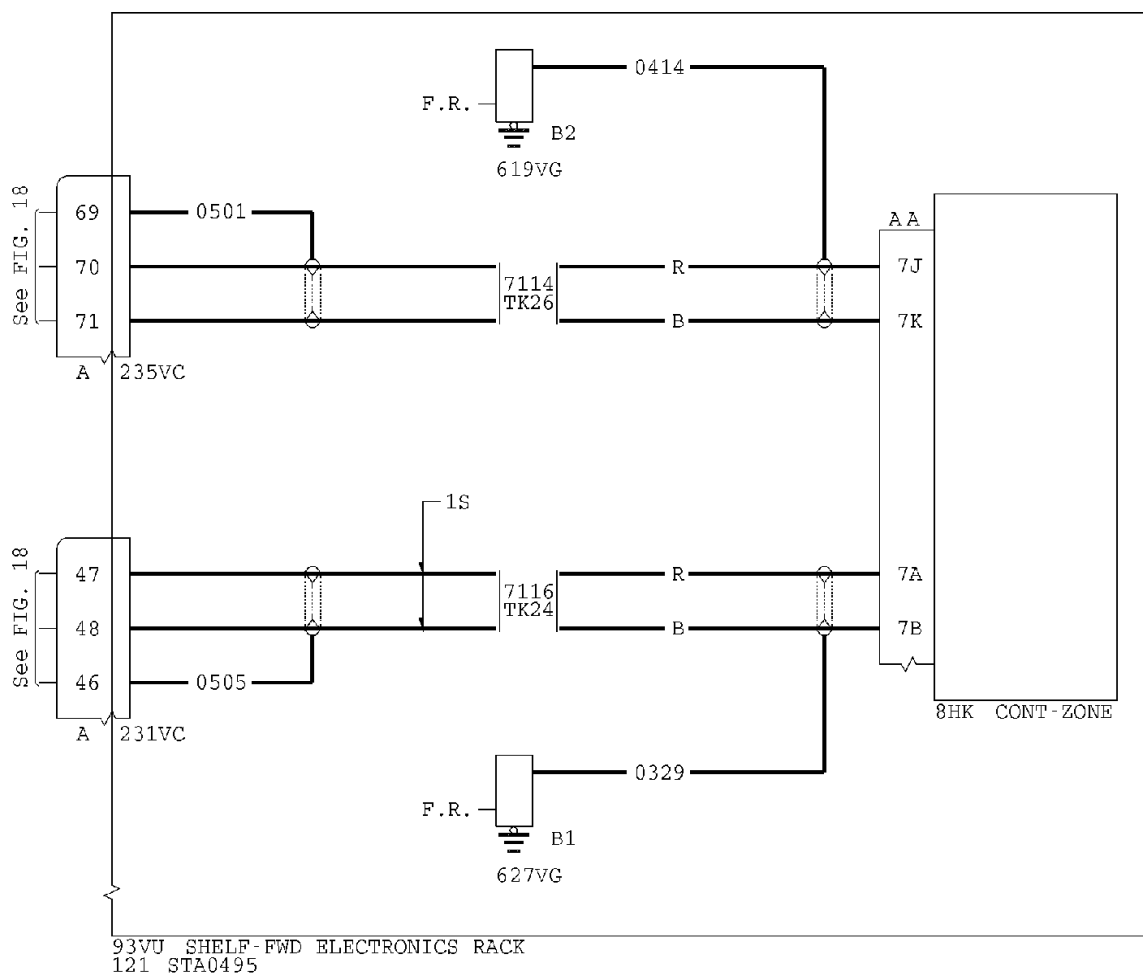
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 67

AFTER



CONFIG. 01

— NEW WIRE

F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE CF24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S

NB5211112AGAAA

Figure 17 Sheet 1
Modification to the Wiring in the Shelf 93VU in the FWD Electronics Rack

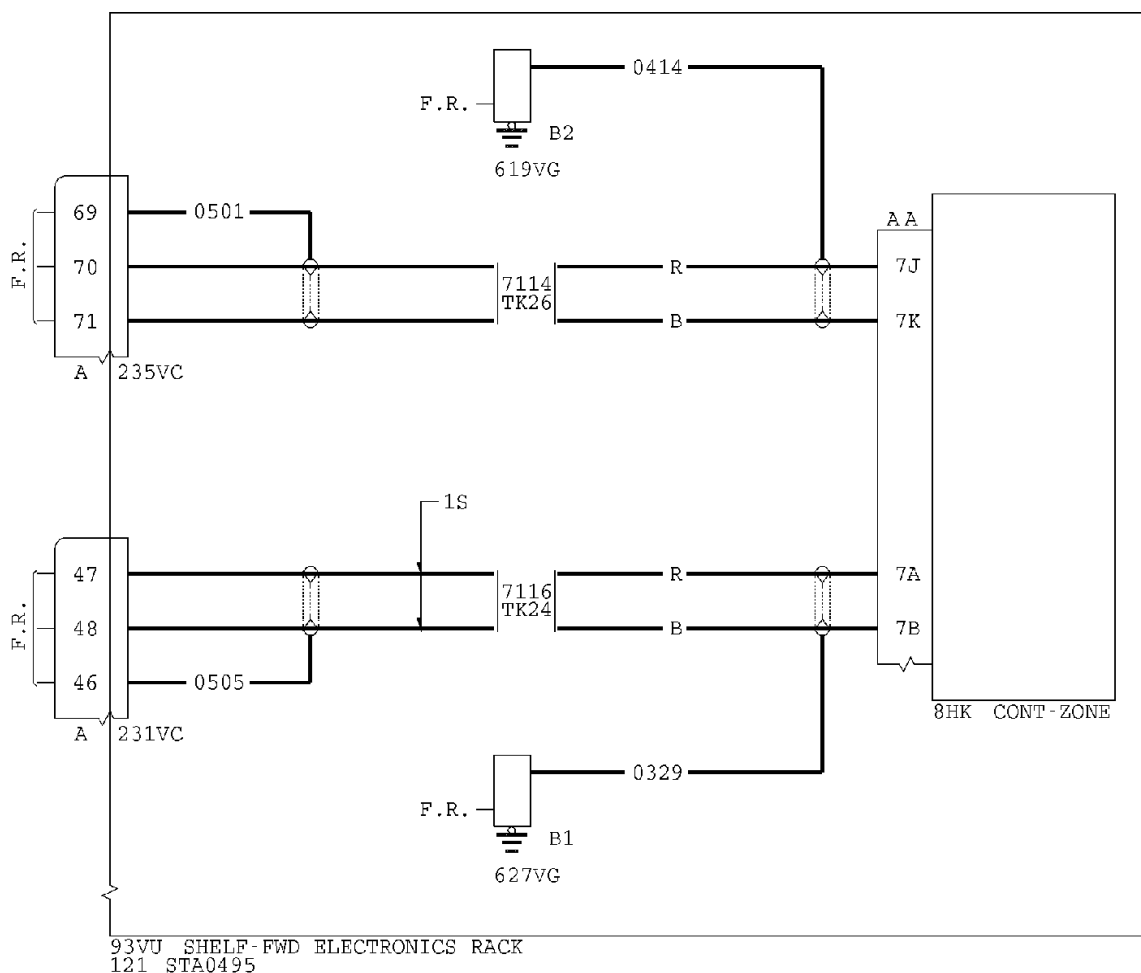
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 68

AFTER



CONFIG. 02 AND CONFIG. 03

— NEW WIRE

F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE CF24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S

NB5211112AFAAB

Figure 17 Sheet 2
Modification to the Wiring in the Shelf 93VU in the FWD Electronics Rack

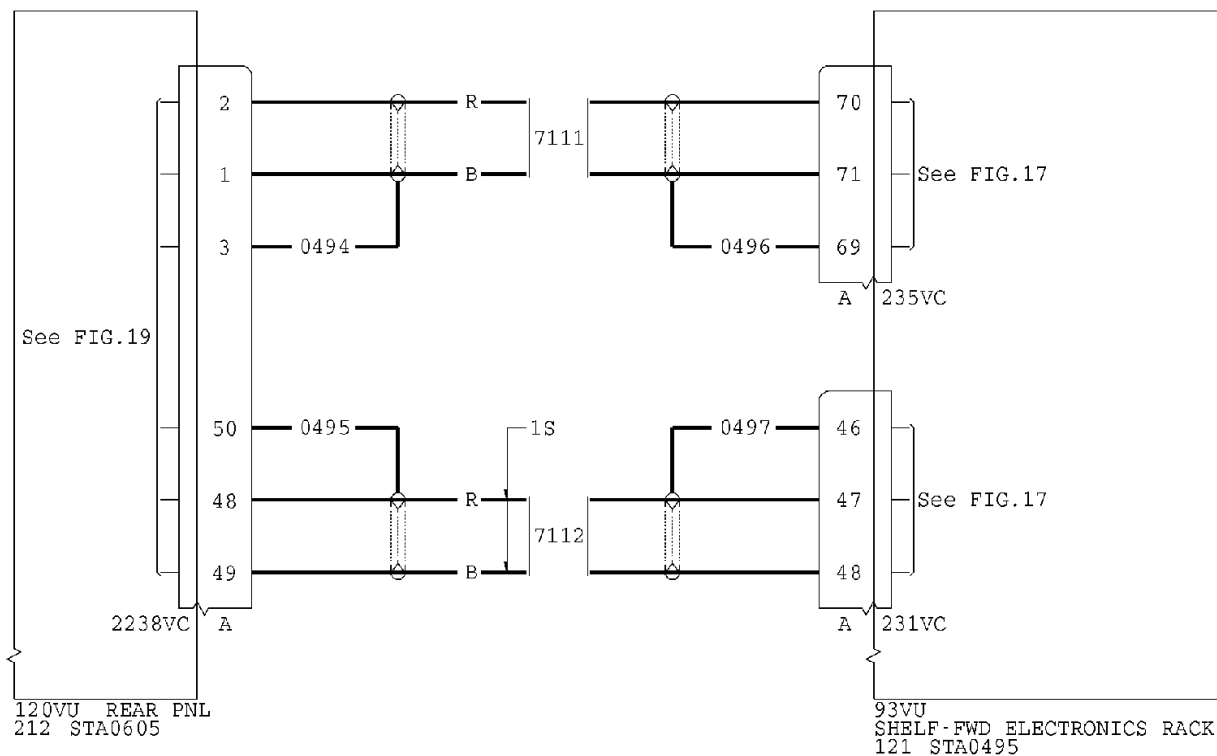
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 69

AFTER



— NEW WIRE
F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE TK24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S
SHIELDING CONTINUITY WIRES ARE CF24 GAUGE

Figure 18 Sheet 1
Modification to the Wiring Between the Rear Panel 120VU and the Shelf 93VU in
the FWD Electronics Rack (Config. 01)

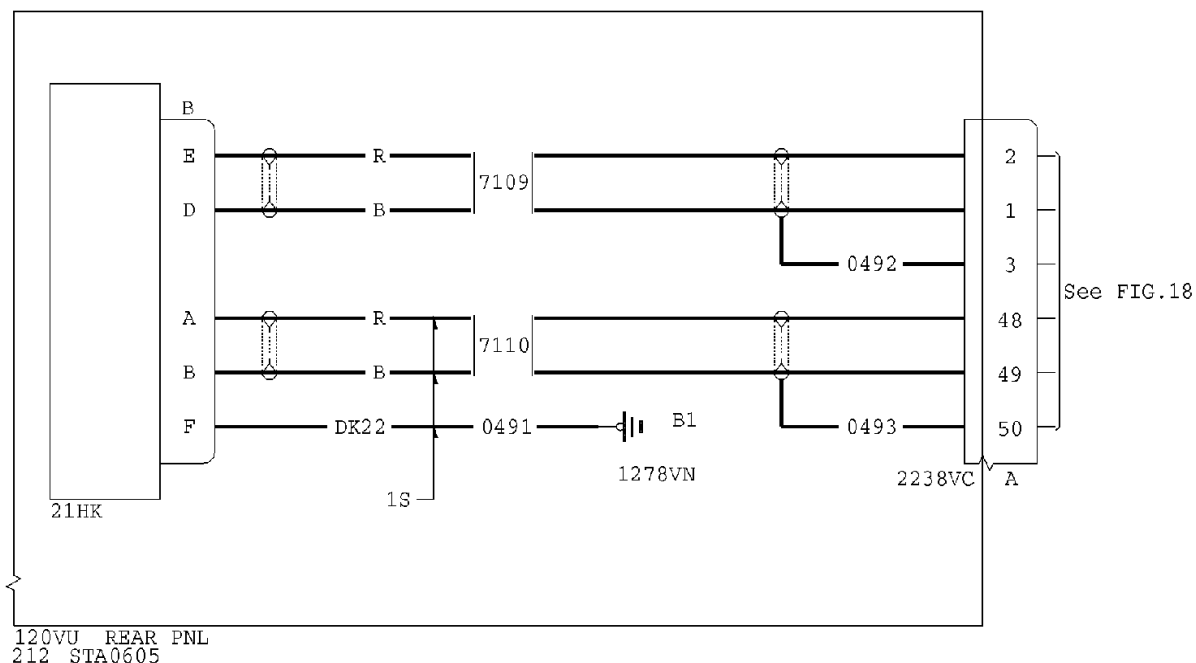
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 70

AFTER



— NEW WIRE
F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
UNLESS OTHERWISE SPECIFIED ALL WIRES ARE TT24 GAUGE
UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S
SHIELDING CONTINUITY WIRES ARE DK24 GAUGE

Figure 19 Sheet 1
Modification to the Wiring in the Rear Panel 120VU (Config. 01)

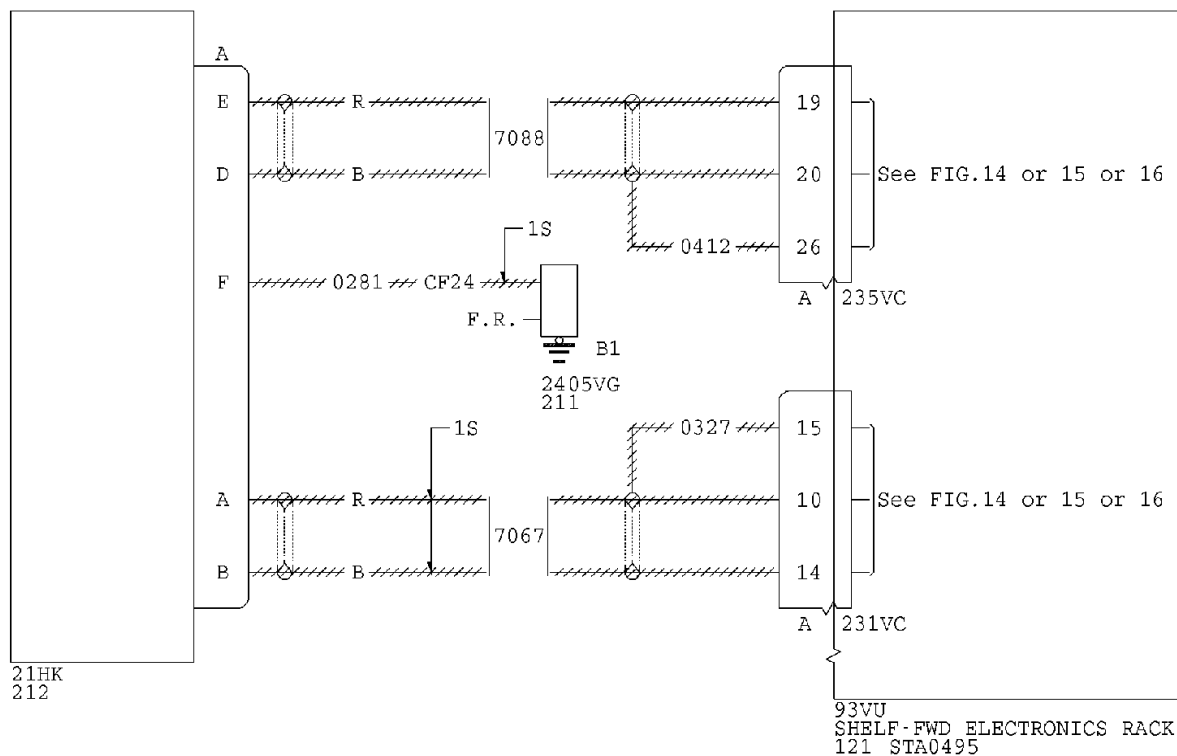
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 71

BEFORE



////// DELETED WIRE

F.R. FOR REFERENCE

NOTE : UNLESS OTHERWISE SPECIFIED PREFIX ALL WIRE IDENTIFICATION WITH ATA2163
 UNLESS OTHERWISE SPECIFIED ALL WIRES ARE TK24 GAUGE
 UNLESS OTHERWISE SPECIFIED ALL ROUTES ARE 2S
 SHIELDING CONTINUITY WIRES ARE CF24 GAUGE

NB5211112AHAAA

Figure 20 Sheet 1
Modification to the Wiring Between the Connector 21HK-A and the Shelf 93VU in the FWD Electronics Rack (Config. 01, Config. 02 and Config. 03)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 72



A319/A320/A321

SERVICE BULLETIN



Figure 21 Sheet 1
Hook-up Chart (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 74



A319/A320/A321

SERVICE BULLETIN

I



Figure 22 Sheet 1
Hook-up Chart (Config. 01, Config. 02 and Config. 03)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 76



A319/A320/A321

SERVICE BULLETIN

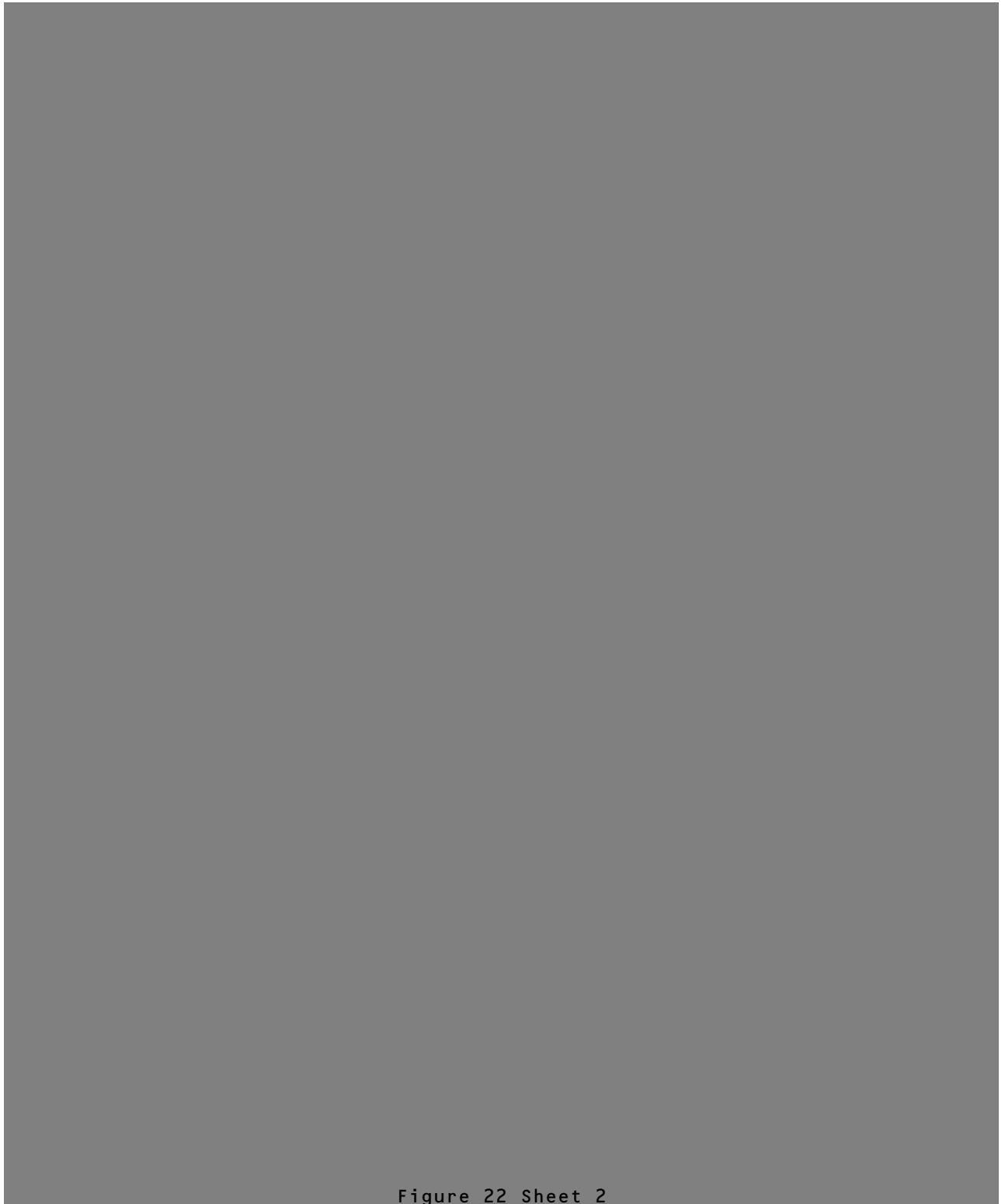


Figure 22 Sheet 2
Hook-up Chart (Config. 01, Config. 02 and Config. 03)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 78

I



Figure 23 Sheet 1
Hook-up Chart (Config. 01)

I

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 80

I



Figure 24 Sheet 1
Hook-up Chart (Config. 01)

I

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 82

I



Figure 25 Sheet 1
Hook-up Chart (Config. 01, Config. 02 and Config. 03)

I

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 84

I



Figure 26 Sheet 1
Hook-up Chart (Config. 02)

I

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 86

I



Figure 27 Sheet 1
Hook-up Chart (Config. 02)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 88



Figure 28 Sheet 1
Hook-up Chart (Config. 03)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 90



Figure 29 Sheet 1
Hook-up Chart (Config. 03)

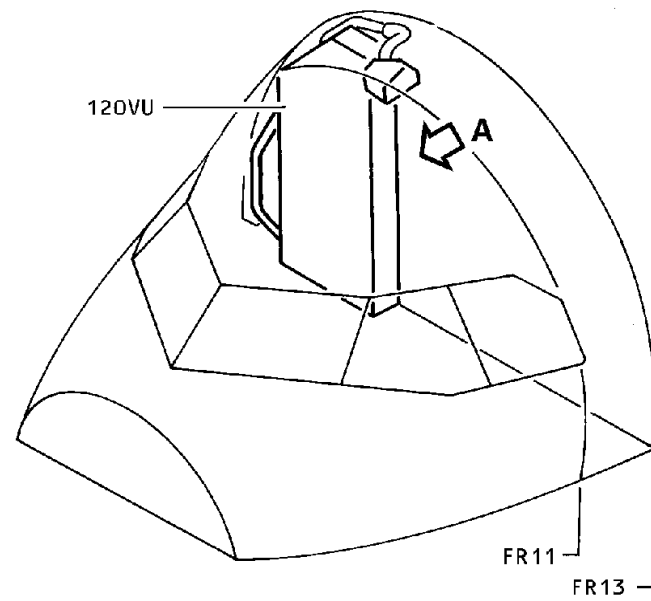
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 92

BEFORE



CONFIG.01 and CONFIG.02

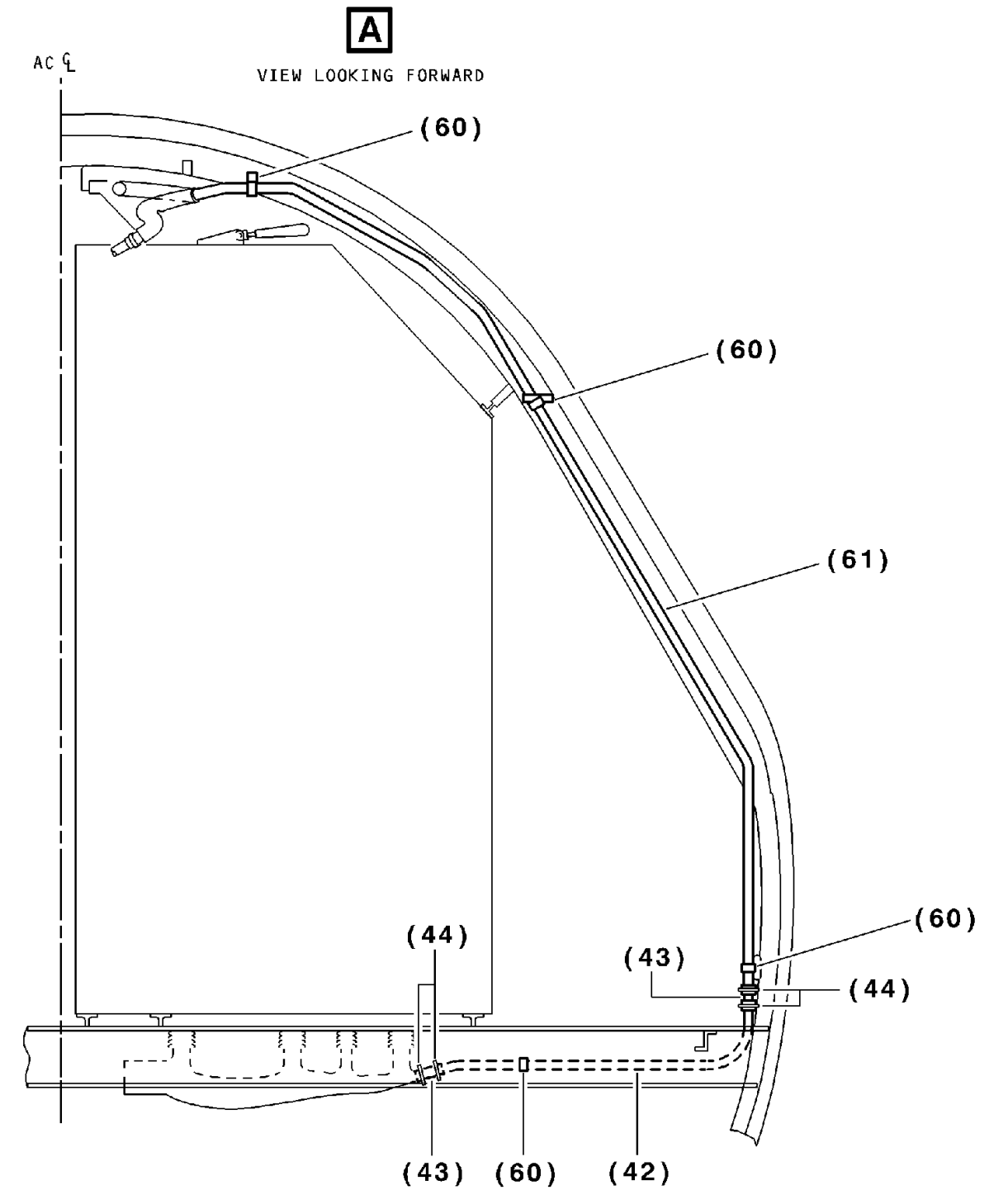


Figure 3 Sheet 1
Modification to the Equipment in the Cockpit

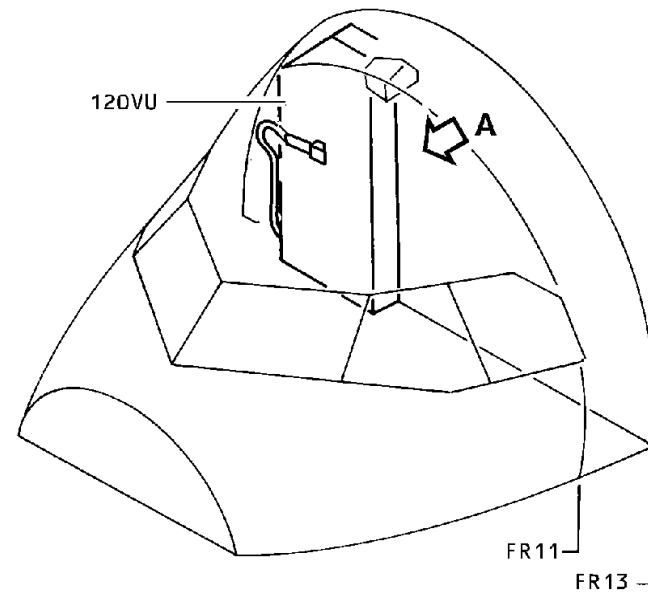
DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 35/36

BEFORE



CONFIG.03

A

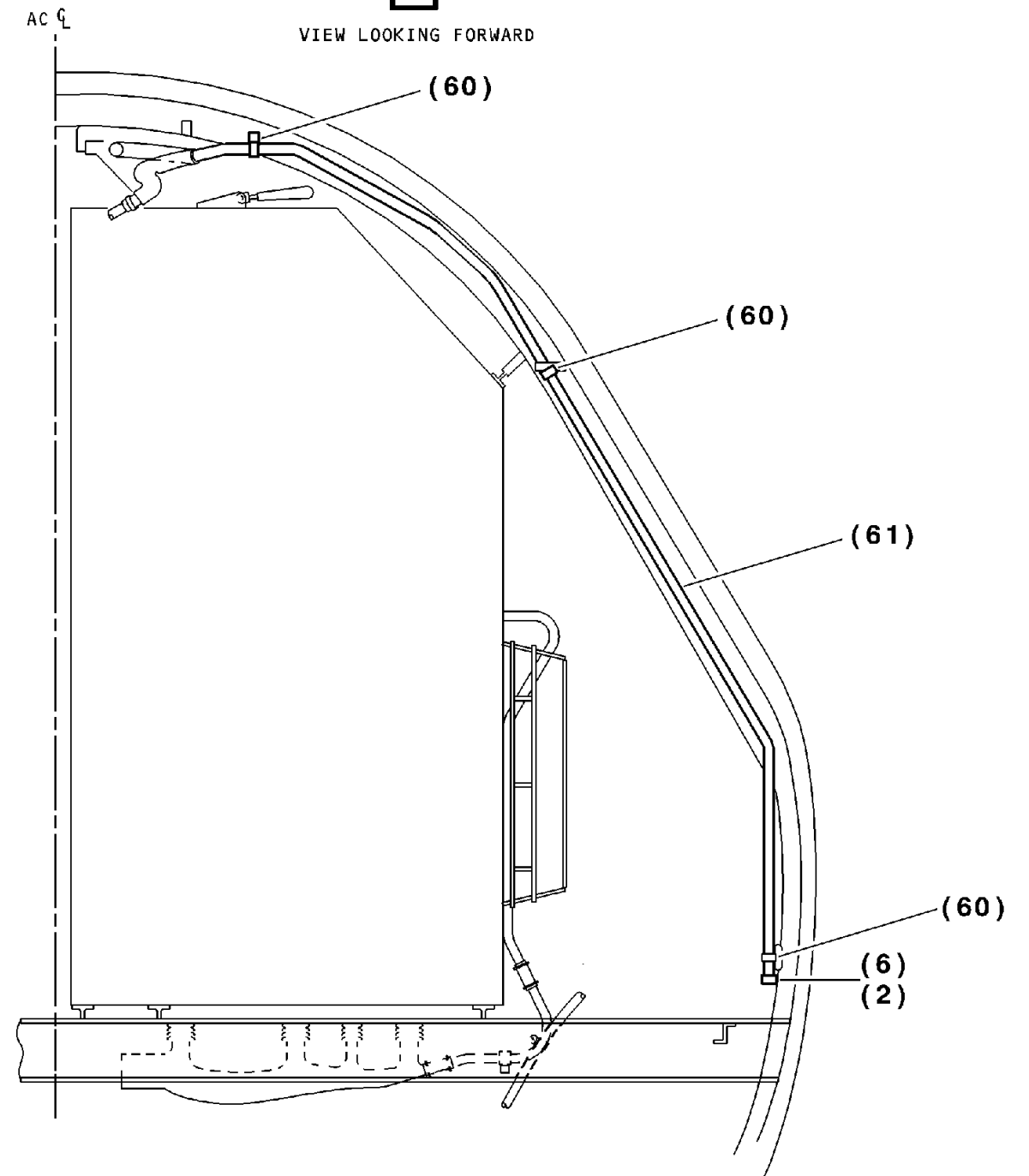


Figure 3 Sheet 2
Modification to the Equipment in the Cockpit

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 37/38

AFTER

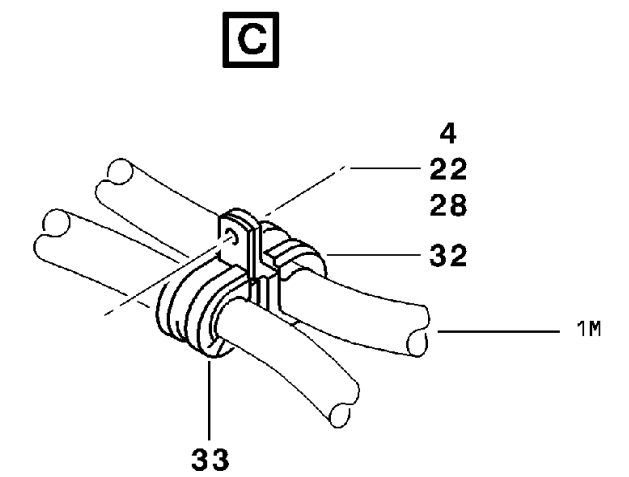
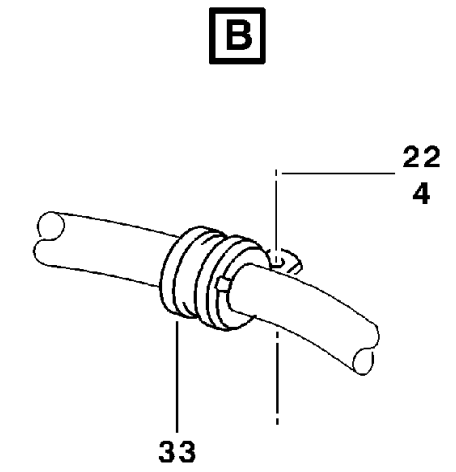
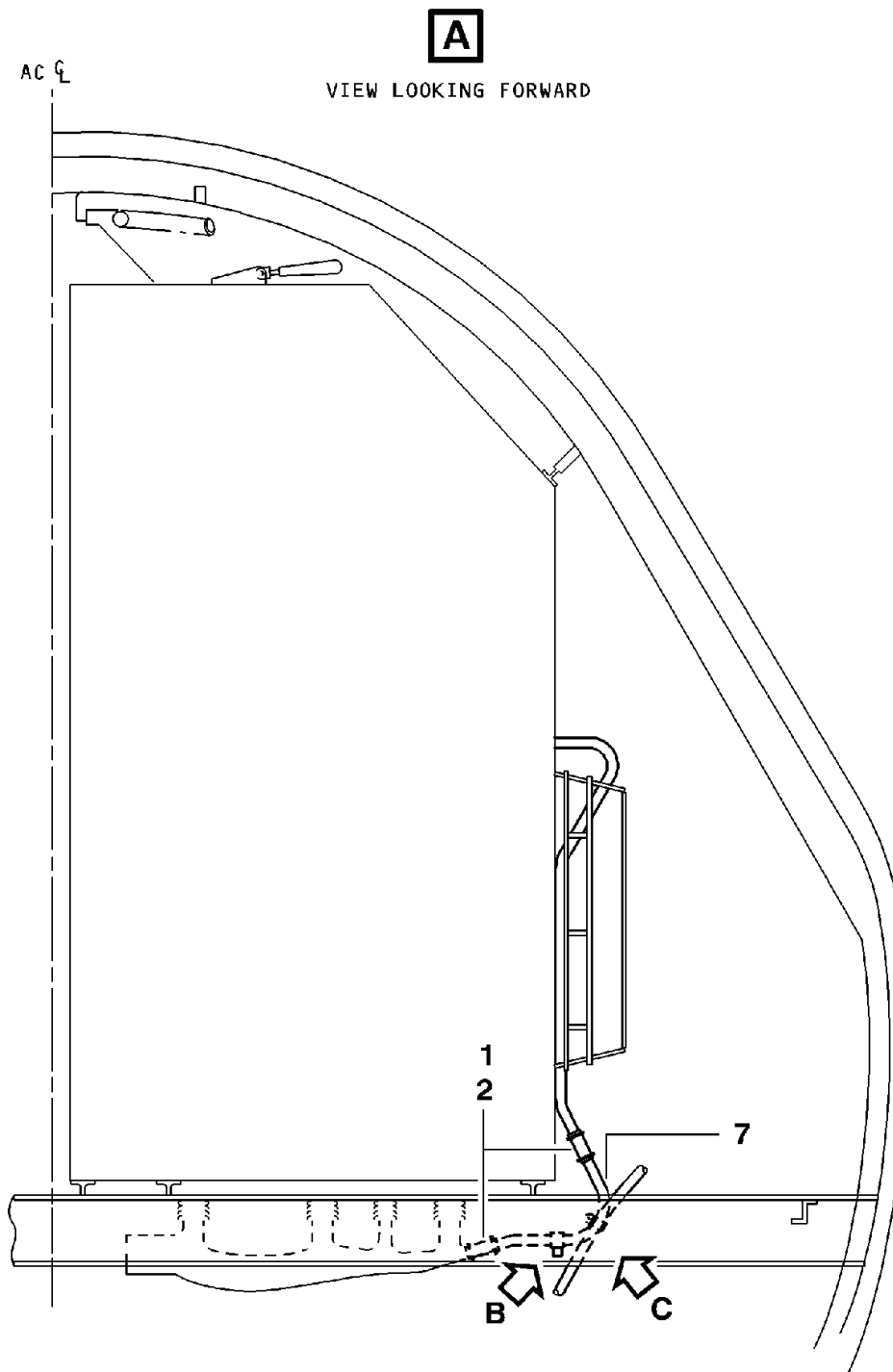
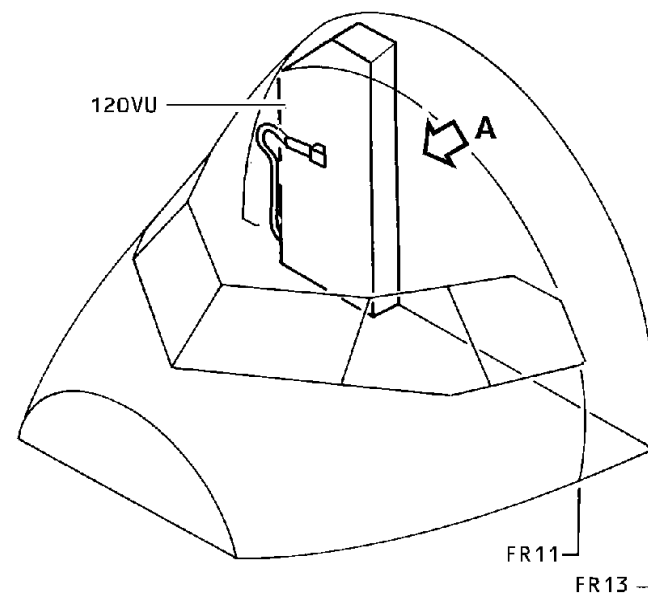


Figure 4 Sheet 1
Modification to the Equipment in the Cockpit (Config. 01 and Config. 02)

DATE : Aug 06/98

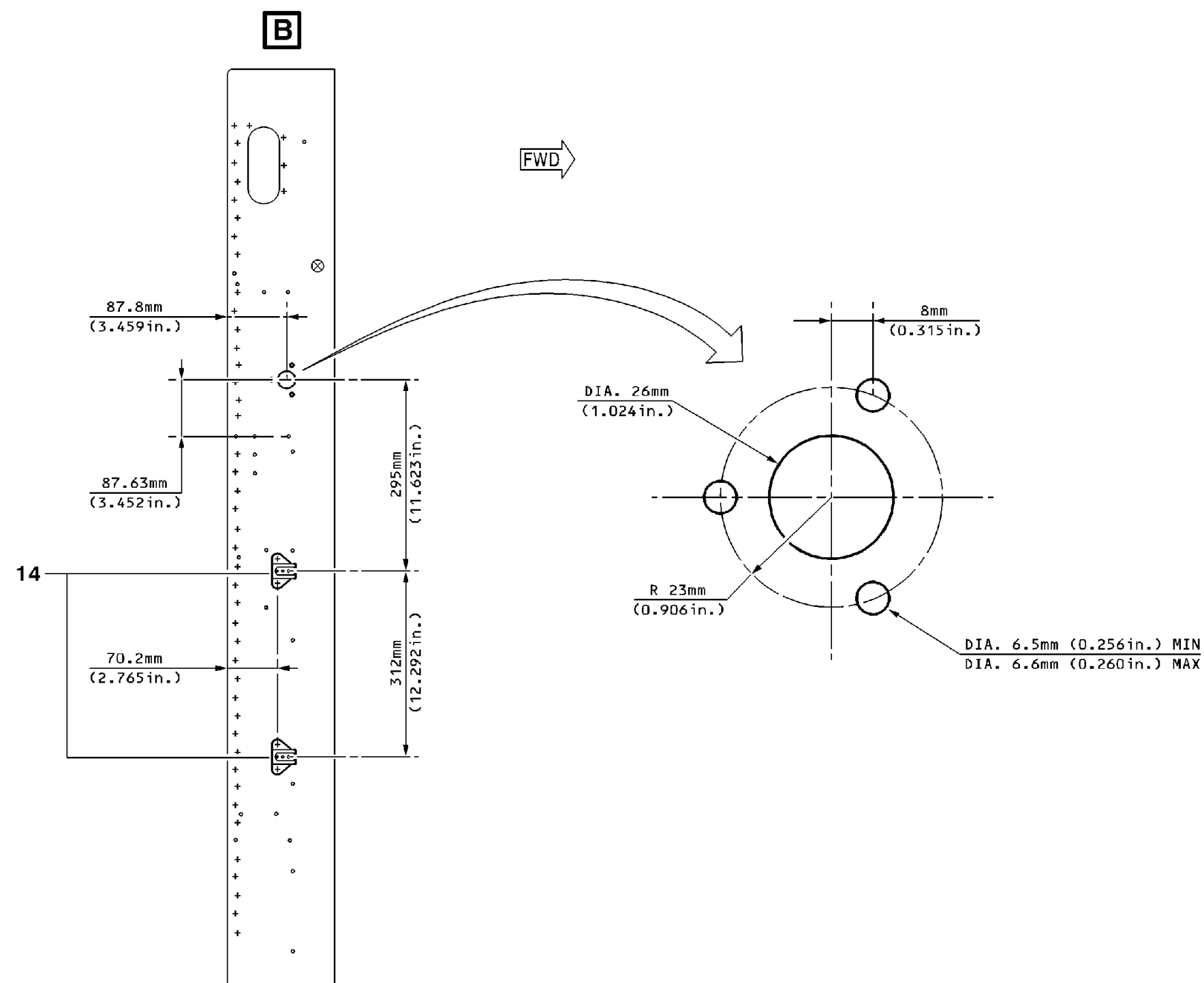
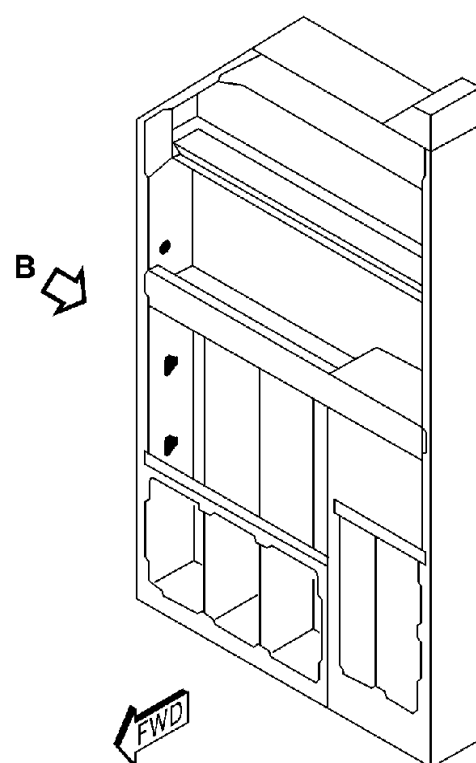
SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 39/40



120VU

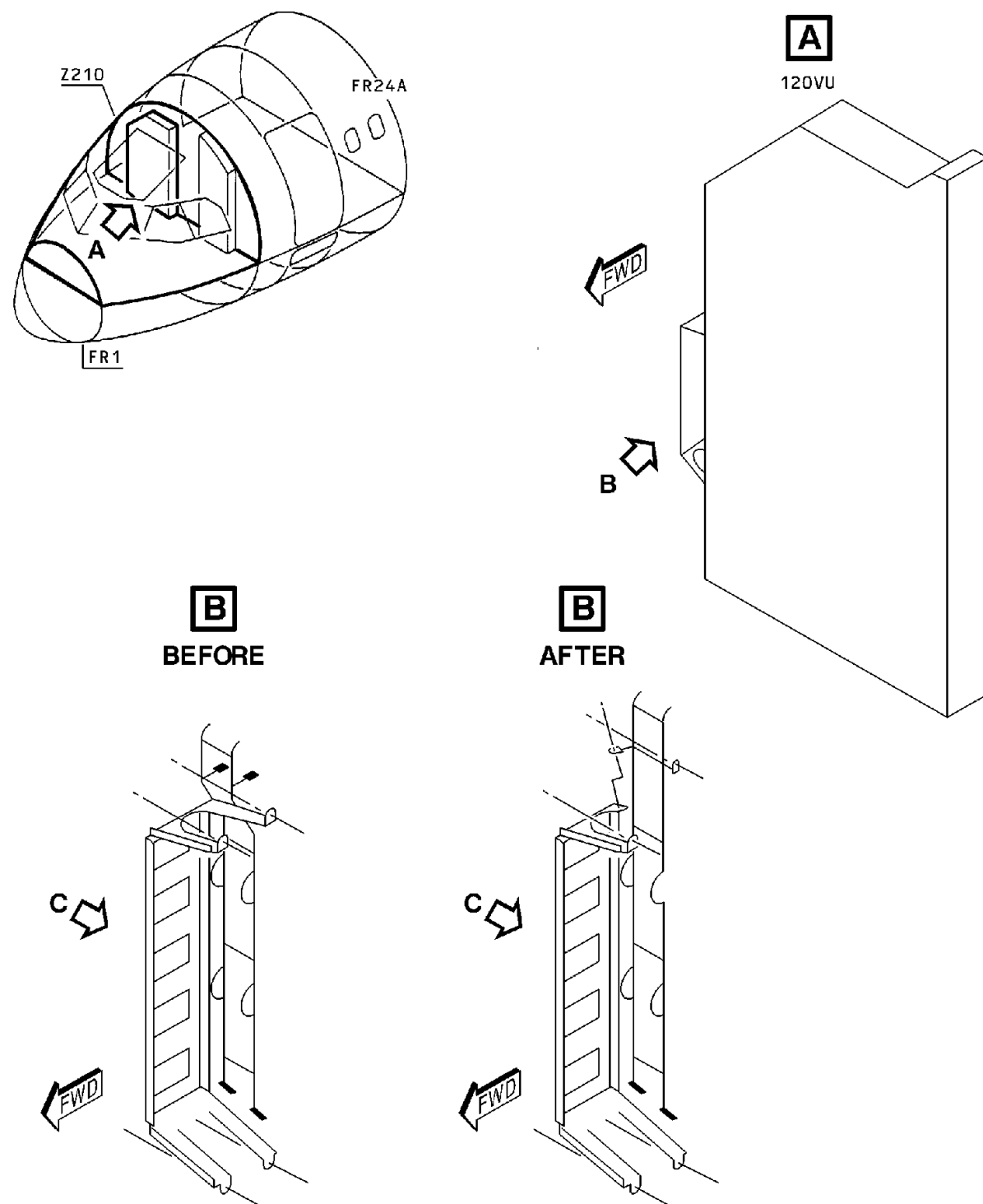


DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 43/44



AFTER

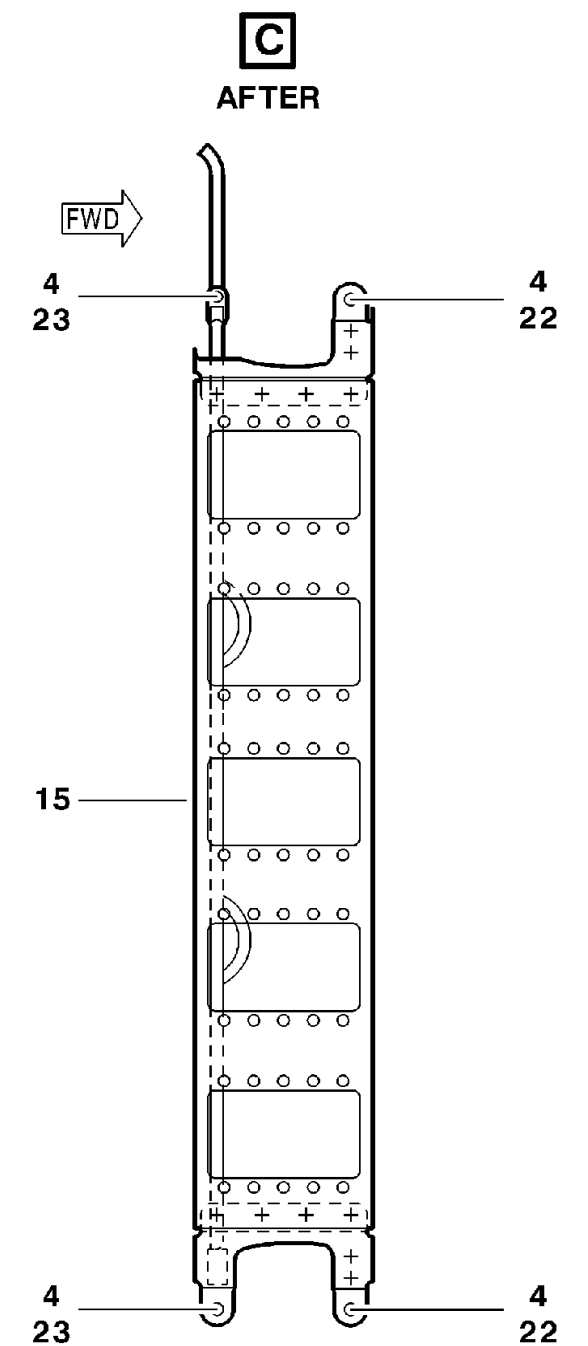
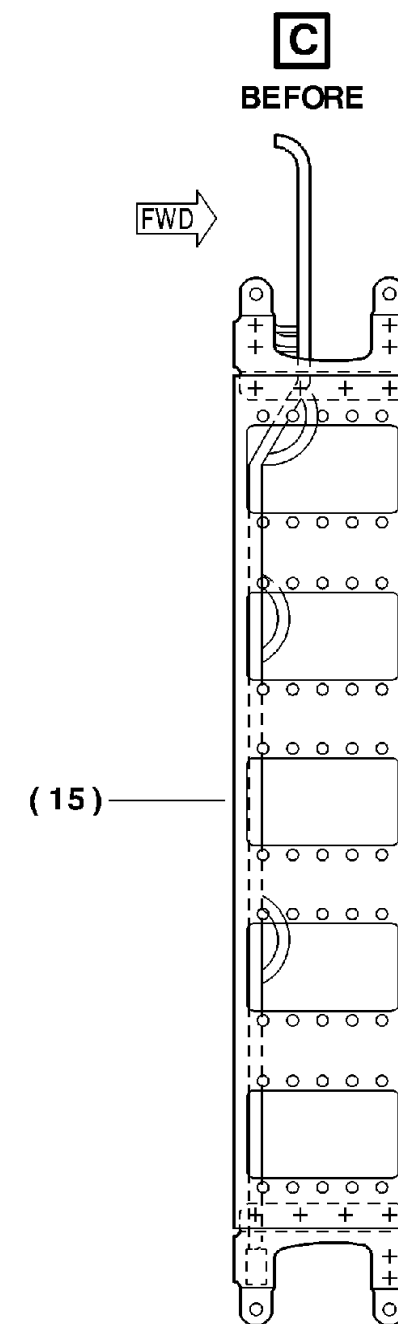


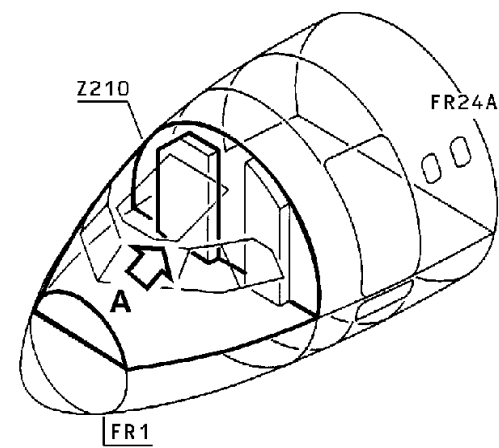
Figure 7 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

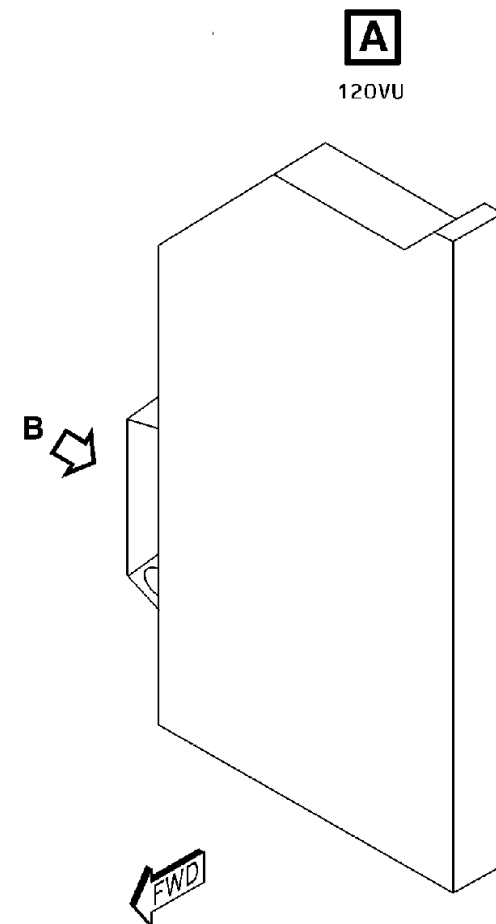
SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

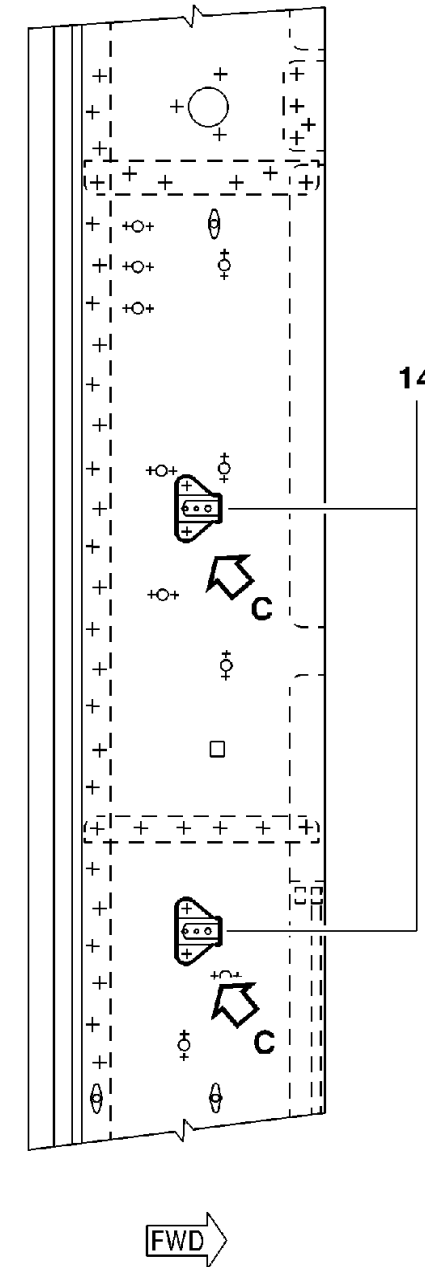
Page : 45/46



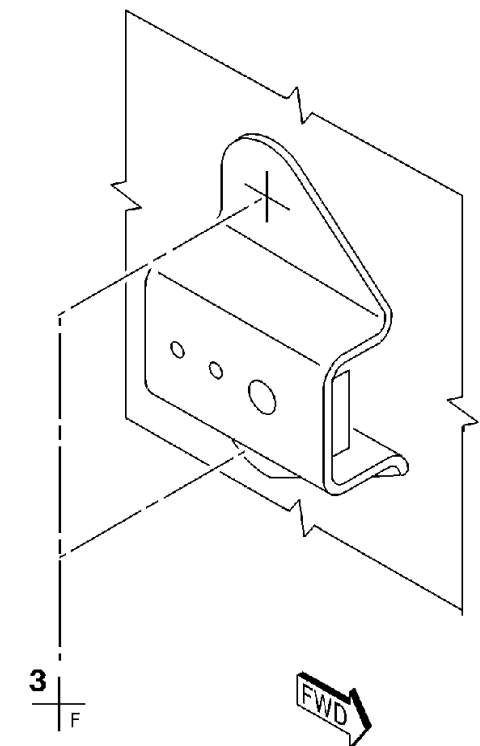
AFTER



B



C



HEAD ON HIDDEN SIDE

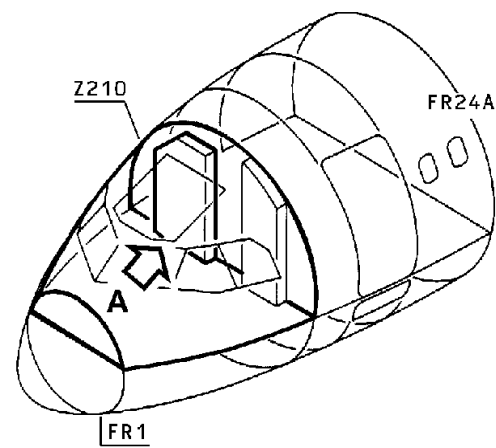
Figure 9 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 49/50



AFTER

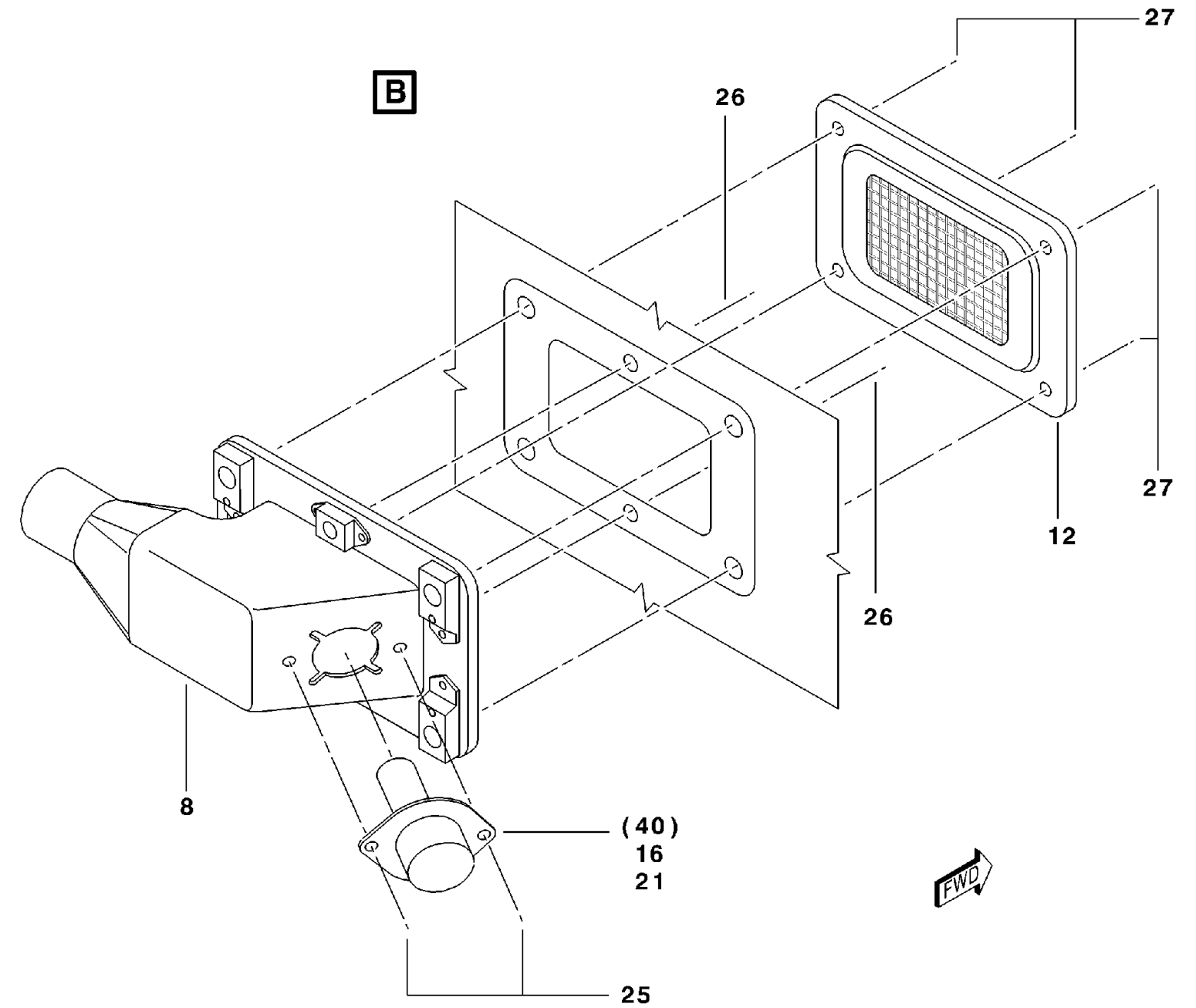
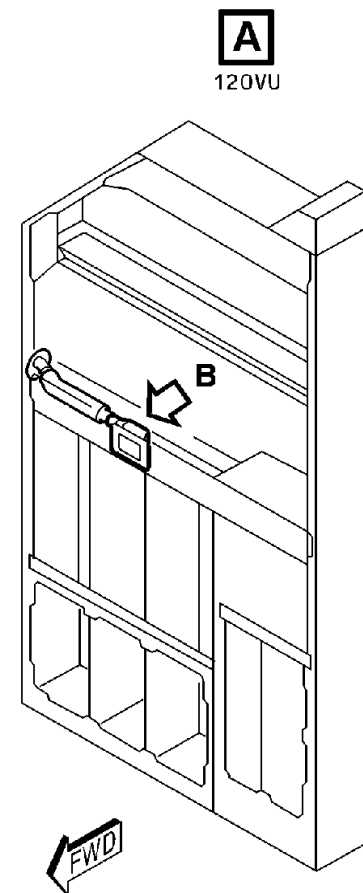


Figure 11 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 01 and Config. 02)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 53/54

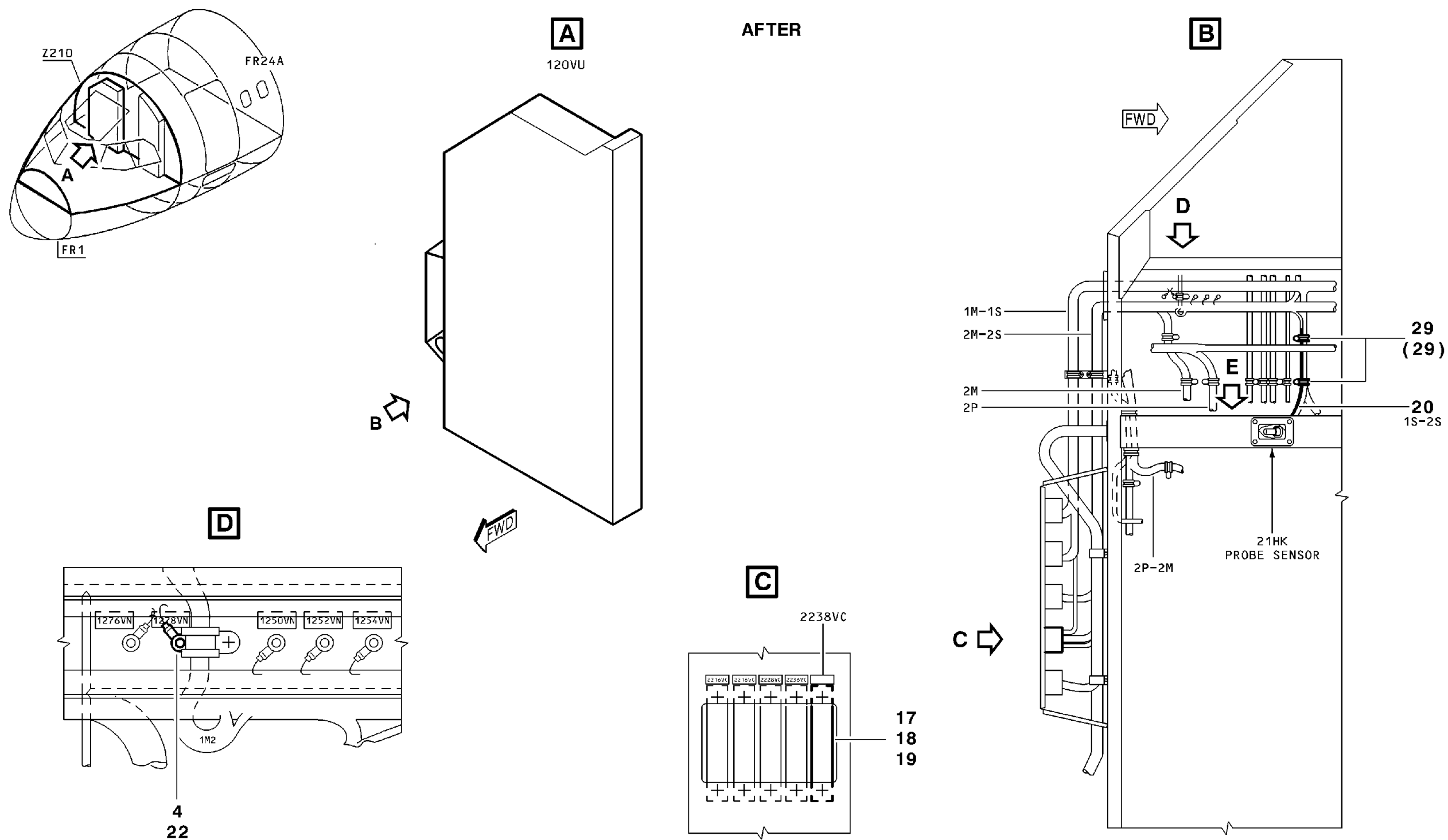


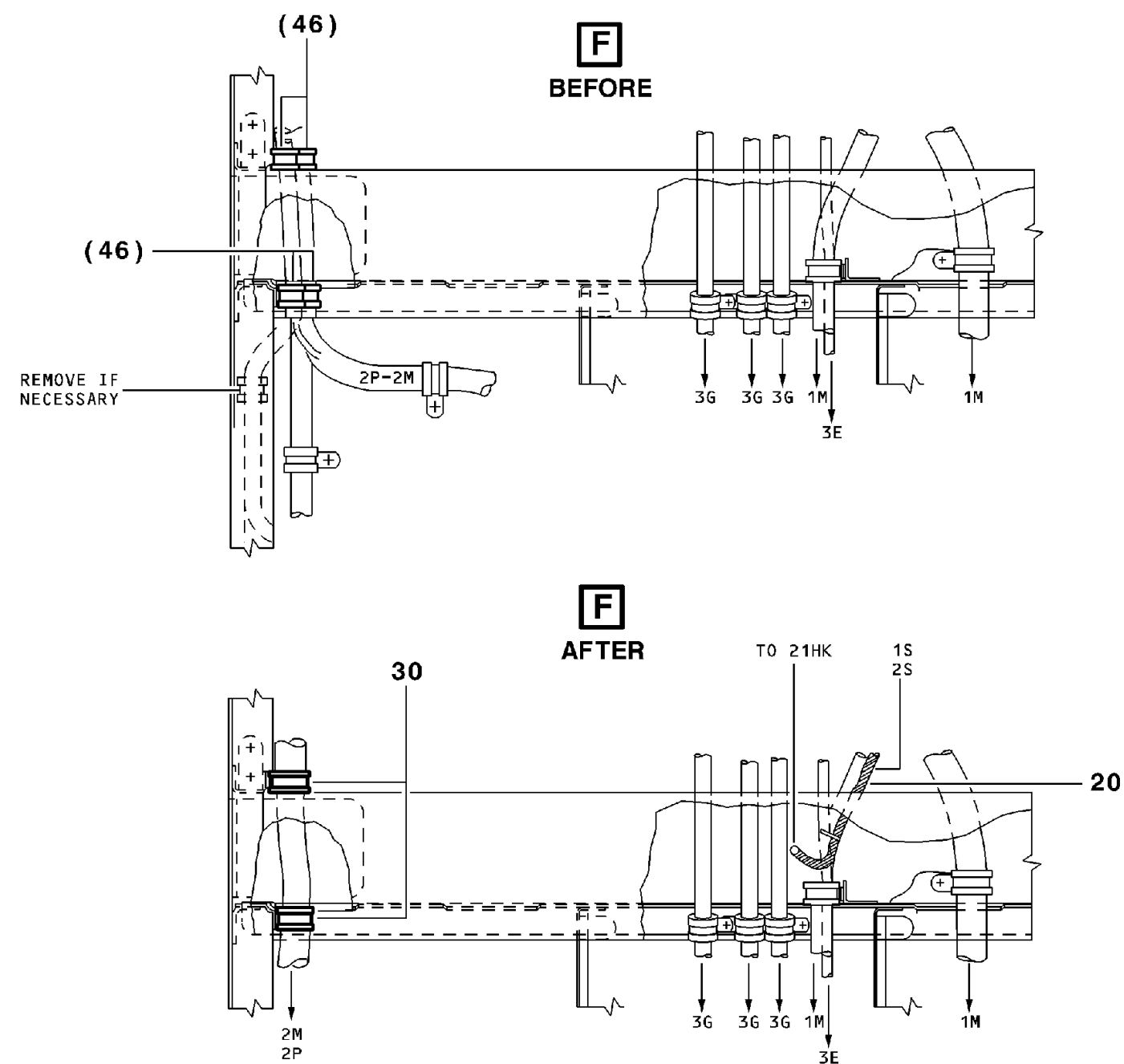
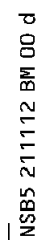
Figure 12 Sheet 1
Modification to the Equipment in the Rear Panel 120VU (Config. 01)

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 55/56

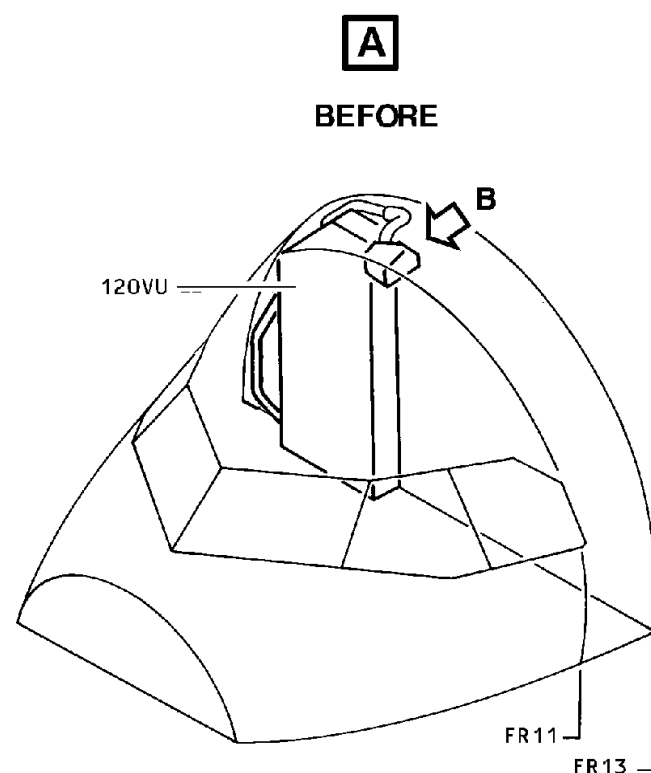
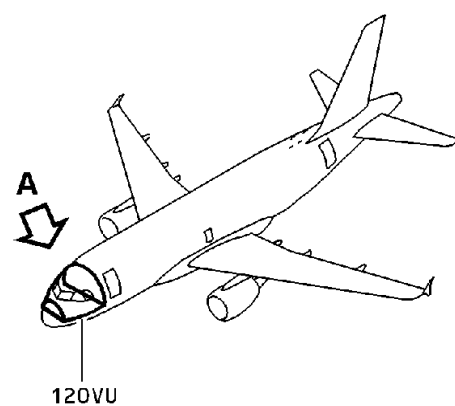


DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 57/58



CONFIG.01 and CONFIG.02

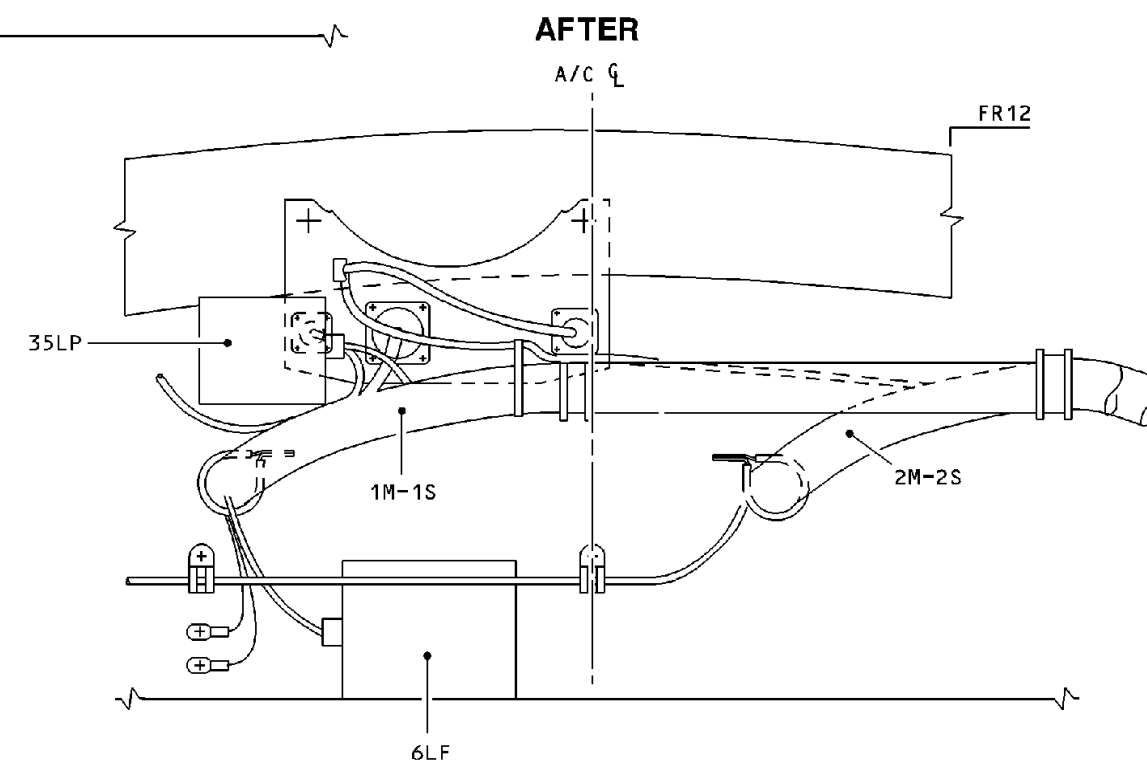
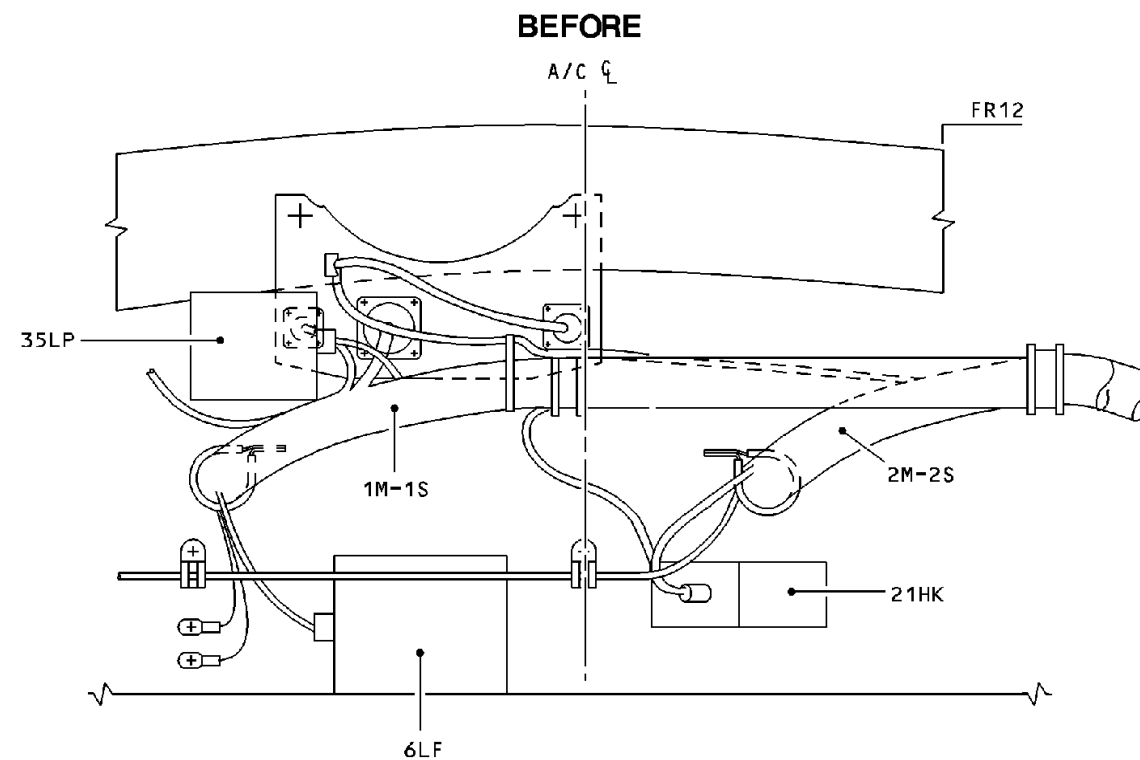


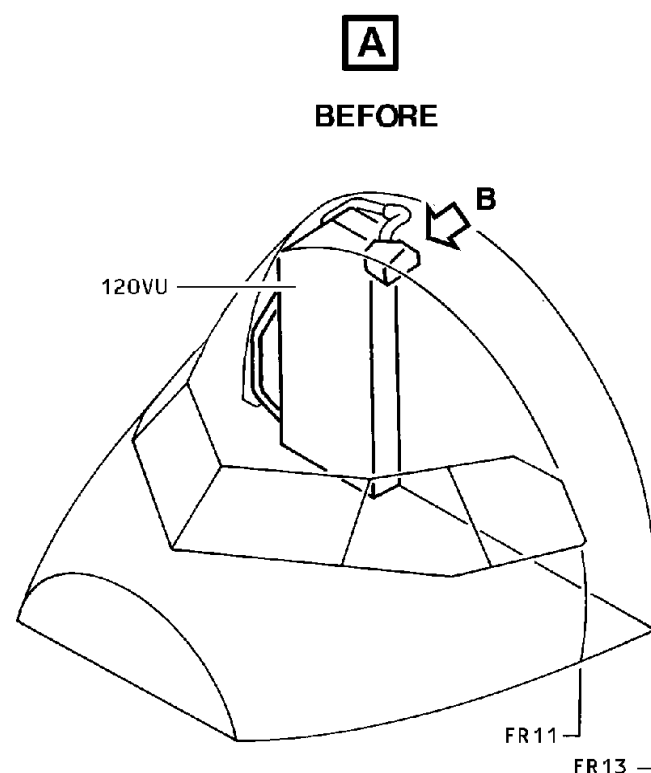
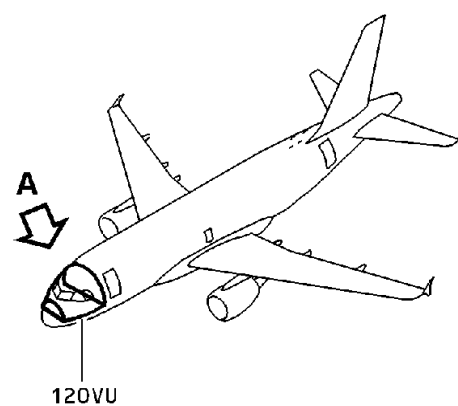
Figure 13 Sheet 1
Modification to the Equipment in the Cockpit

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 61/62



CONFIG.03

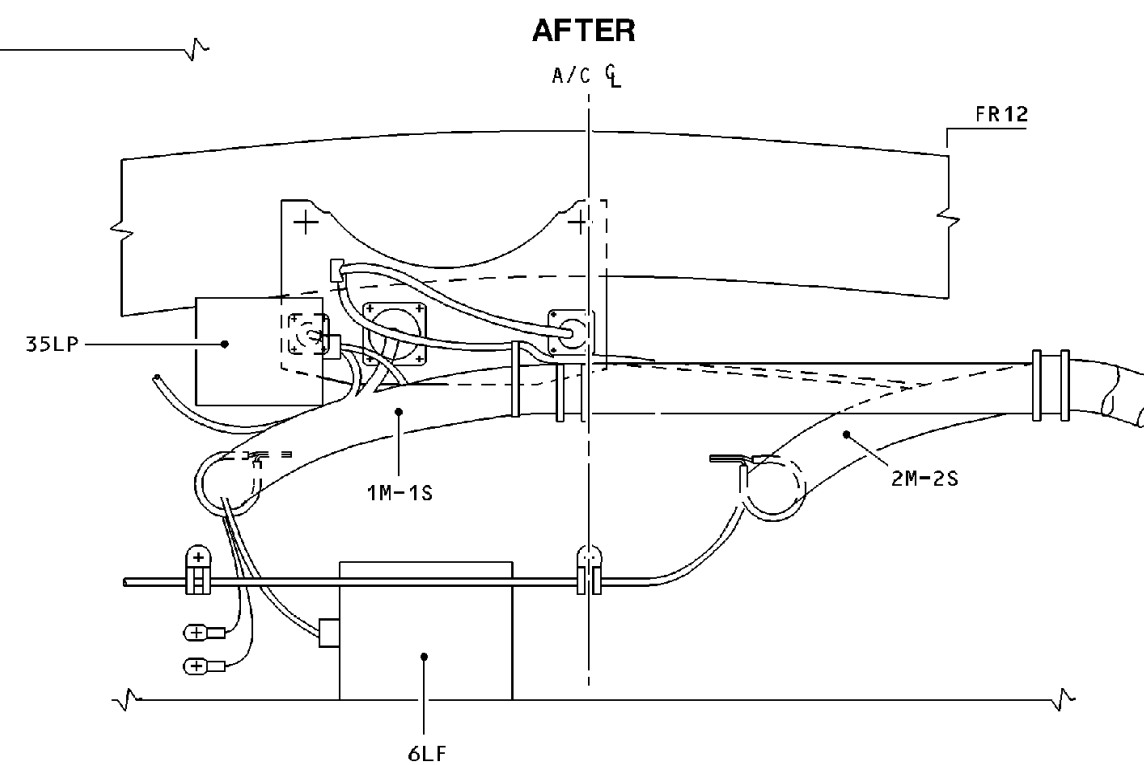
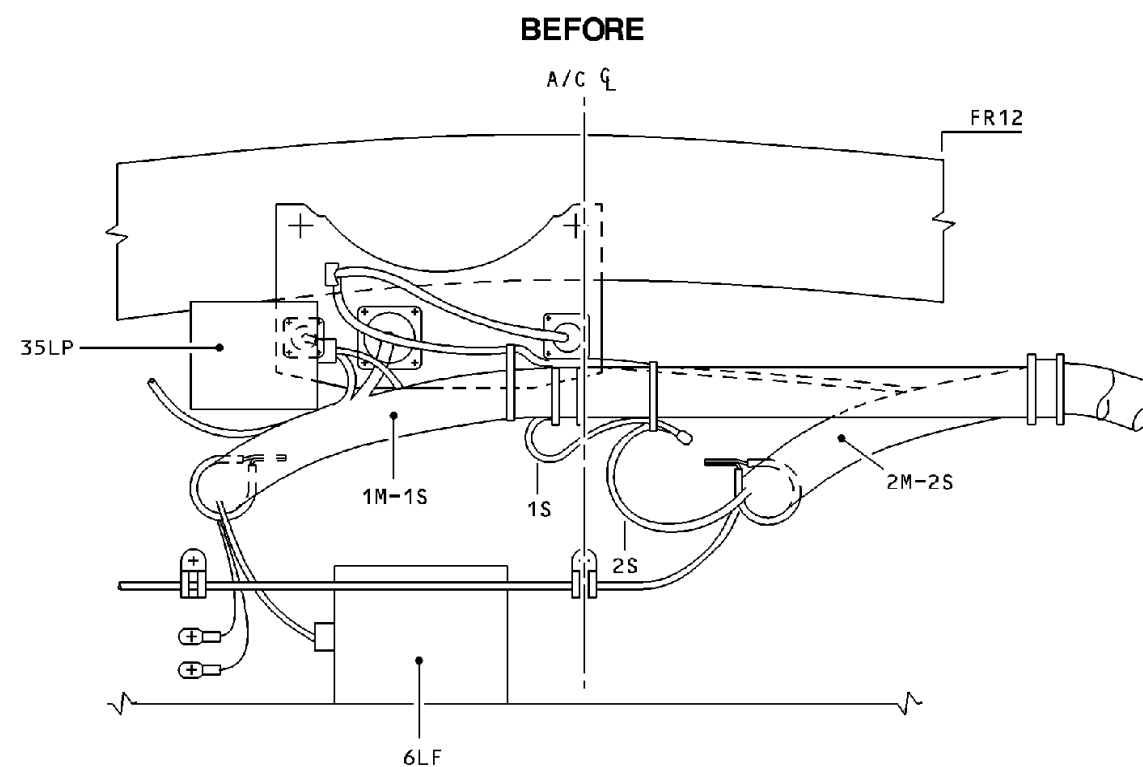


Figure 13 Sheet 2
Modification to the Equipment in the Cockpit

DATE : Aug 06/98

SERVICE BULLETIN No. : A320-21-1112

REVISION No. : 02 - Dec 21/00

Page : 63/64

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	8HK-AA	SH		2163-7068		1S	TK24			93VU	231VC	SH		D	Fig.14
2	93VU	8HK-AA	7B		2163-7068	B	1S	TK24			93VU	231VC	14		D	Fig.14
3	93VU	8HK-AA	7A		2163-7068	R	1S	TK24			93VU	231VC	10		D	Fig.14
4	93VU	8HK-AA	SH		2163-7089		2S	TK26			93VU	235VC	SH		D	Fig.14
5	93VU	8HK-AA	7K		2163-7089	B	2S	TK26			93VU	235VC	20		D	Fig.14
6	93VU	8HK-AA	7J		2163-7089	R	2S	TK26			93VU	235VC	19		D	Fig.14
7	93VU	2163-7068	W.F.		2163-0328		1S	CF24			93VU	231VC	15		D	Fig.14
8	93VU	2163-7068	W.F.		2163-0329		1S	CF24			93VU	627VG	GND		D	Fig.14
9	93VU	2163-7089	W.F.		2163-0413		2S	CF24			93VU	235VC	26		D	Fig.14
10	93VU	2163-7089	W.F.		2163-0414		2S	CF24			93VU	619VG	GND		D	Fig.14
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
D = DELETED WIRE																
SH = SHIELD																
W.F. = WIRE FERRULE																

Figure 21 Sheet 1
Hook-up Chart (Config. 01)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	8HK-AA	SH	E0718-02-30	2163-7114		2S	TK26	2100	84	93VU	235VC	SH	E0718-02-30	(c) A	Fi17sh1
2	93VU	8HK-AA	7K	E0170FA2200	2163-7114	B	2S	TK26	2100	84	93VU	235VC	71	EN3155-008M2222	(c) A	Fi17sh1
3	93VU	8HK-AA	7J	E0170FA2200	2163-7114	R	2S	TK26	2100	84	93VU	235VC	70	EN3155-008M2222	(c) A	Fi17sh1
4	93VU	8HK-AA	SH	E0718-02-30	2163-7116		1S	TK24	2100	84	93VU	231VC	SH	E0718-02-30	(c) A	Fi17sh1
5	93VU	8HK-AA	7B	E0170FA2200	2163-7116	B	1S	TK24	2100	84	93VU	231VC	48	EN3155-014M2018	(c) A	Fi17sh1
6	93VU	8HK-AA	7A	E0170FA2200	2163-7116	R	1S	TK24	2100	84	93VU	231VC	47	EN3155-014M2018	(c) A	Fi17sh1
7	93VU	2163-7116	W.F.	E0160-1-0H	2163-0329		1S	CF24	2100	84	93VU	627VG	GND	EN3155-015F2018	(c) A	Fi17sh1
8	93VU	2163-7114	W.F.	E0160-1-0H	2163-0414		2S	CF24	2100	84	93VU	619VG	GND	EN3155-015F2018	(c) A	Fi17sh1
9	93VU	2163-7114	W.F.	E0160-1-0H	2163-0501		2S	CF24	500	20	93VU	235VC	69	EN3155-008M2222	(c) A	Fi17sh1
10	93VU	2163-7116	W.F.	E0160-1-0H	2163-0505		1S	CF24	500	20	93VU	231VC	46	EN3155-014M2018	(c) A	Fi17sh1
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
(c) = BUNDLE D9000095120395 W.F. = WIRE FERRULE																
A = ADDED WIRE																
SH = SHIELD																

Figure 22 Sheet 1
Hook-up Chart (Config. 01, Config. 02 and Config. 03)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	8HK-AA	SH	E0718-02-30	2163-7114		2S	TK26	2100	84	93VU	235VC	SH	E0718-02-30	(c) A	Fi17sh2
2	93VU	8HK-AA	7K	E0170FA2200	2163-7114	B	2S	TK26	2100	84	93VU	235VC	71	EN3155-008M2222	(c) A	Fi17sh2
3	93VU	8HK-AA	7J	E0170FA2200	2163-7114	R	2S	TK26	2100	84	93VU	235VC	70	EN3155-008M2222	(c) A	Fi17sh2
4	93VU	8HK-AA	SH	E0718-02-30	2163-7116		1S	TK24	2100	84	93VU	231VC	SH	E0718-02-30	(c) A	Fi17sh2
5	93VU	8HK-AA	7B	E0170FA2200	2163-7116	B	1S	TK24	2100	84	93VU	231VC	48	EN3155-014M2018	(c) A	Fi17sh2
6	93VU	8HK-AA	7A	E0170FA2200	2163-7116	R	1S	TK24	2100	84	93VU	231VC	47	EN3155-014M2018	(c) A	Fi17sh2
7	93VU	2163-7116	W.F.	E0160-1-0H	2163-0329		1S	CF24	2100	84	93VU	627VG	GND	EN3155-015F2018	(c) A	Fi17sh2
8	93VU	2163-7114	W.F.	E0160-1-0H	2163-0414		2S	CF24	2100	84	93VU	619VG	GND	EN3155-015F2018	(c) A	Fi17sh2
9	93VU	2163-7114	W.F.	E0160-1-0H	2163-0501		2S	CF24	500	20	93VU	235VC	69	EN3155-008M2222	(c) A	Fi17sh2
10	93VU	2163-7116	W.F.	E0160-1-0H	2163-0505		1S	CF24	500	20	93VU	231VC	46	EN3155-014M2018	(c) A	Fi17sh2
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(c) = BUNDLE D9000095120395 W.F. = WIRE FERRULE																
A = ADDED WIRE																
SH = SHIELD																

Figure 22 Sheet 2
Hook-up Chart (Config. 01, Config. 02 and Config. 03)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	120VU	2163-7111	W.F.	E0160-1-0H	2163-0494		2S	CF24	500	20	120VU	2238VC-A	3	EN3155-014M2018	(d) A	Fig.18
2	120VU	2163-7112	W.F.	E0160-1-0H	2163-0495		1S	CF24	500	20	120VU	2238VC-A	50	EN3155-014M2018	(d) A	Fig.18
3	93VU	2163-7111	W.F.	E0160-1-0H	2163-0496		2S	CF24	500	20	93VU	235VC-A	69	EN3155-003F2222	(d) A	Fig.18
4	93VU	2163-7112	W.F.	E0160-1-0H	2163-0497		1S	CF24	500	20	93VU	231VC-A	46	EN3155-015F2018	(d) A	Fig.18
5	93VU	231VC-A	SH	E0718-02-30	2163-7112		1S	TK24	9000	360	120VU	2238VC-A	SH	E0718-02-30	(b) A	Fig.18
6	93VU	231VC-A	48	EN3155-015F2018	2163-7112	B	1S	TK24	9000	360	120VU	2238VC-A	49	EN3155-014M2018	(b) A	Fig.18
7	93VU	231VC-A	47	EN3155-015F2018	2163-7112	R	1S	TK24	9000	360	120VU	2238VC-A	48	EN3155-014M2018	(b) A	Fig.18
8	93VU	235VC-A	SH	E0718-02-30	2163-7111		2S	TK24	9000	360	120VU	2238VC-A	SH	E0718-02-30	(b) A	Fig.18
9	93VU	235VC-A	71	EN3155-003F2222	2163-7111	B	2S	TK24	9000	360	120VU	2238VC-A	1	EN3155-014M2018	(b) A	Fig.18
10	93VU	235VC-A	70	EN3155-003F2222	2163-7111	R	2S	TK24	9000	360	120VU	2238VC-A	2	EN3155-014M2018	(b) A	Fig.18
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(b) = BUNDLE D9000095117095 SH = SHIELD																
(d) = BUNDLE D9000095120295 W.F. = WIRE FERRULE																
A = ADDED WIRE																

Figure 23 Sheet 1
Hook-up Chart (Config. 01)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	120VU	21HK-B	F	EN3155-019F2018	2163-0491		1S	DK22	3000	120	120VU	1278VN	GND	NSA936501TA2206	(d) A	Fig.19
2	120VU	21HK-B	SH	E0718-03-30	2163-7109		2S	TT24	3000	120	120VU	2238VC	SH	E0718-03-30	(d) A	Fig.19
3	120VU	21HK-B	D	EN3155-019F2018	2163-7109	B	2S	TT24	3000	120	120VU	2238VC	1	EN3155-015F2018	(d) A	Fig.19
4	120VU	21HK-B	E	EN3155-019F2018	2163-7109	R	2S	TT24	3000	120	120VU	2238VC	2	EN3155-015F2018	(d) A	Fig.19
5	120VU	21HK-B	SH	E0718-03-30	2163-7110		1S	TT24	3000	120	120VU	2238VC	SH	E0718-03-30	(d) A	Fig.19
6	120VU	21HK-B	B	EN3155-019F2018	2163-7110	B	1S	TT24	3000	120	120VU	2238VC	49	EN3155-015F2018	(d) A	Fig.19
7	120VU	21HK-B	A	EN3155-019F2018	2163-7110	R	1S	TT24	3000	120	120VU	2238VC	48	EN3155-015F2018	(d) A	Fig.19
8	120VU	2163-7109	W.F.	E0160-1-0H	2163-0492		2S	DK24	500	20	120VU	2238VC	3	EN3155-015F2018	(d) A	Fig.19
9	120VU	2163-7110	W.F.	E0160-1-0H	2163-0493		1S	DK24	500	20	120VU	2238VC	50	EN3155-015F2018	(d) A	Fig.19
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(d) = BUNDLE D9000095120295 W.F. = WIRE FERRULE																
A = ADDED WIRE																
SH = SHIELD																

Figure 24 Sheet 1
Hook-up Chart (Config. 01)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	2163-7067	W.F.		2163-0327		1S	CF24			93VU	231VC-A	15		D	Fig.20
2	93VU	2163-7088	W.F.		2163-0412		2S	CF24			93VU	235VC-A	26		D	Fig.20
3	93VU	231VC-A	SH		2163-7067		1S	TK24			212	21HK-A	SH		D	Fig.20
4	93VU	231VC-A	14		2163-7067	B	1S	TK24			212	21HK-A	B		D	Fig.20
5	93VU	231VC-A	10		2163-7067	R	1S	TK24			212	21HK-A	A		D	Fig.20
6	93VU	235VC-A	SH		2163-7088		2S	TK24			212	21HK-A	SH		D	Fig.20
7	93VU	235VC-A	20		2163-7088	B	2S	TK24			212	21HK-A	D		D	Fig.20
8	93VU	235VC-A	19		2163-7088	R	2S	TK24			212	21HK-A	E		D	Fig.20
9	211	2405VG	GND		2163-0281		1S	CF24			212	21HK-A	F		D	Fig.20
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D = DELETED WIRE																
SH = SHIELD																
W.F. = WIRE FERRULE																

Figure 25 Sheet 1
Hook-up Chart (Config. 01, Config. 02 and Config. 03)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	213VT	SH		2163-7068		1S	TK24			93VU	8HK-AA	SH		D	Fig.15
2	93VU	213VT	13Y		2163-7068	B	1S	TK24			93VU	8HK-AA	7B		D	Fig.15
3	93VU	213VT	13X		2163-7068	R	1S	TK24			93VU	8HK-AA	7A		D	Fig.15
4	93VU	213VT	SH		2163-7089		2S	TK26			93VU	8HK-AA	SH		D	Fig.15
5	93VU	213VT	12Y		2163-7089	B	2S	TK26			93VU	8HK-AA	7K		D	Fig.15
6	93VU	213VT	12X		2163-7089	R	2S	TK26			93VU	8HK-AA	7J		D	Fig.15
7	93VU	213VT	SH		2163-7113		2S	TK26			93VU	235VC	SH		D	Fig.15
8	93VU	213VT	12G		2163-7113	B	2S	TK26			93VU	235VC	20		D	Fig.15
9	93VU	213VT	12F		2163-7113	R	2S	TK26			93VU	235VC	19		D	Fig.15
10	93VU	213VT	SH		2163-7114		2S	TK26			93VU	235VC	SH		D	Fig.15
11	93VU	213VT	12C		2163-7114	B	2S	TK26			93VU	235VC	71		D	Fig.15
12	93VU	213VT	12B		2163-7114	R	2S	TK26			93VU	235VC	70		D	Fig.15
13	93VU	213VT	SH		2163-7115		1S	TK24			93VU	231VC	SH		D	Fig.15
14	93VU	213VT	13G		2163-7115	B	1S	TK24			93VU	231VC	14		D	Fig.15
15	93VU	213VT	13F		2163-7115	R	1S	TK24			93VU	231VC	10		D	Fig.15
16	93VU	213VT	SH		2163-7116		1S	TK24			93VU	231VC	SH		D	Fig.15
17	93VU	213VT	13C		2163-7116	B	1S	TK24			93VU	231VC	48		D	Fig.15
18	93VU	213VT	13B		2163-7116	R	1S	TK24			93VU	231VC	47		D	Fig.15
19	93VU	2163-7068	W.F.		2163-0328		1S	CF24			93VU	213VT	13V		D	Fig.15
20	93VU	2163-7068	W.F.		2163-0329		1S	CF24			93VU	627VG	GND		D	Fig.15
21	93VU	2163-7089	W.F.		2163-0413		2S	CF24			93VU	213VT	12V		D	Fig.15
22	93VU	2163-7089	W.F.		2163-0414		2S	CF24			93VU	619VG	GND		D	Fig.15
23	93VU	2163-7113	W.F.		2163-0499		2S	CF24			93VU	235VC	26		D	Fig.15
24	93VU	2163-7113	W.F.		2163-0500		2S	CF24			93VU	213VT	12E		D	Fig.15
25	93VU	2163-7114	W.F.		2163-0501		2S	CF24			93VU	235VC	69		D	Fig.15
D = DELETED WIRE SH = SHIELD W.F. = WIRE FERRULE																

Figure 26 Sheet 1
Hook-up Chart (Config. 02)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	2163-7114	W.F.		2163-0502		2S	CF24			93VU	213VT	12A		D	Fig.15
2	93VU	2163-7115	W.F.		2163-0503		1S	CF24			93VU	231VC	15		D	Fig.15
3	93VU	2163-7115	W.F.		2163-0504		1S	CF24			93VU	213VT	13E		D	Fig.15
4	93VU	2163-7116	W.F.		2163-0505		1S	CF24			93VU	231VC	46		D	Fig.15
5	93VU	2163-7116	W.F.		2163-0506		1S	CF24			93VU	213VT	13A		D	Fig.15
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D = DELETED WIRE W.F. = WIRE FERRULE																

Figure 27 Sheet 1
Hook-up Chart (Config. 02)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	213VT	SH		2163-7068		1S	TK24			93VU	8HK-AA	SH		D	Fig.16
2	93VU	213VT	13T		2163-7068	B	1S	TK24			93VU	8HK-AA	7B		D	Fig.16
3	93VU	213VT	13S		2163-7068	R	1S	TK24			93VU	8HK-AA	7A		D	Fig.16
4	93VU	213VT	SH		2163-7089		2S	TK26			93VU	8HK-AA	SH		D	Fig.16
5	93VU	213VT	12T		2163-7089	B	2S	TK26			93VU	8HK-AA	7K		D	Fig.16
6	93VU	213VT	12S		2163-7089	R	2S	TK26			93VU	8HK-AA	7J		D	Fig.16
7	93VU	213VT	SH		2163-7113		2S	TK26			93VU	235VC	SH		D	Fig.16
8	93VU	213VT	12G		2163-7113	B	2S	TK26			93VU	235VC	20		D	Fig.16
9	93VU	213VT	12F		2163-7113	R	2S	TK26			93VU	235VC	19		D	Fig.16
10	93VU	213VT	SH		2163-7114		2S	TK26			93VU	235VC	SH		D	Fig.16
11	93VU	213VT	12C		2163-7114	B	2S	TK26			93VU	235VC	71		D	Fig.16
12	93VU	213VT	12B		2163-7114	R	2S	TK26			93VU	235VC	70		D	Fig.16
13	93VU	213VT	SH		2163-7115		1S	TK24			93VU	231VC	SH		D	Fig.16
14	93VU	213VT	13G		2163-7115	B	1S	TK24			93VU	231VC	14		D	Fig.16
15	93VU	213VT	13F		2163-7115	R	1S	TK24			93VU	231VC	10		D	Fig.16
16	93VU	213VT	SH		2163-7116		1S	TK24			93VU	231VC	SH		D	Fig.16
17	93VU	213VT	13C		2163-7116	B	1S	TK24			93VU	231VC	48		D	Fig.16
18	93VU	213VT	13B		2163-7116	R	1S	TK24			93VU	231VC	47		D	Fig.16
19	93VU	2163-7068	W.F.		2163-0328		1S	CF24			93VU	213VT	13R		D	Fig.16
20	93VU	2163-7068	W.F.		2163-0329		1S	CF24			93VU	627VG	GND		D	Fig.16
21	93VU	2163-7089	W.F.		2163-0413		2S	CF24			93VU	213VT	12R		D	Fig.16
22	93VU	2163-7089	W.F.		2163-0414		2S	CF24			93VU	619VG	GND		D	Fig.16
23	93VU	2163-7113	W.F.		2163-0499		2S	CF24			93VU	235VC	26		D	Fig.16
24	93VU	2163-7113	W.F.		2163-0500		2S	CF24			93VU	213VT	12E		D	Fig.16
25	93VU	2163-7114	W.F.		2163-0501		2S	CF24			93VU	235VC	69		D	Fig.16
D = DELETED WIRE SH = SHIELD W.F. = WIRE FERRULE																

Figure 28 Sheet 1
Hook-up Chart (Config. 03)

Line	E N D 1				L E A D						E N D 2				Instructions	
	Zone or Panel	Elec.Ident.	Term	Terminal P/N	Wire Ident.	Co	Rte	Gauge	Length		Zone or Panel	Elec.Ident.	Term	Terminal P/N		
									mm	Inch						
1	93VU	2163-7114	W.F.		2163-0502		2S	CF24			93VU	213VT	12A		D	Fig.16
2	93VU	2163-7115	W.F.		2163-0503		1S	CF24			93VU	231VC	15		D	Fig.16
3	93VU	2163-7115	W.F.		2163-0504		1S	CF24			93VU	213VT	13E		D	Fig.16
4	93VU	2163-7116	W.F.		2163-0505		1S	CF24			93VU	231VC	46		D	Fig.16
5	93VU	2163-7116	W.F.		2163-0506		1S	CF24			93VU	213VT	13A		D	Fig.16
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D = DELETED WIRE W.F. = WIRE FERRULE																

Figure 29 Sheet 1
Hook-up Chart (Config. 03)

A319/A320/A321

SERVICE BULLETIN REPORTING SHEET

TITLE : AIR CONDITIONING - COCKPIT AND CABIN TEMPERATURE CONTROL - RELOCATE
COCKPIT TEMPERATURE REGULATION SENSOR.

MODIFICATION No. : 26601P4974 26602P4973 26713P5392

Please complete the appropriate item :

Accepted for embodiment.....YES/NO

Embodied on MSN :.....

Rejected

YES/NO

If YES, please provide
short explanation

From Airline :

Name/Title :

Signature :

Date :

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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.
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A319/A320/A321

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X Reason	X List of Materials	X Mod/Inspection
X Manpower	Operator Supplied	X Test
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