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AgustaWestland Products

SERVICE BULLETIN

N° 139-553

DATE: November 18, 2019

REV. : A - April 26, 2021

TITLE

ATA 23 - KIT RADIO MOTOROLA XiR INSTALLATION

REVISION LOG

Helicopters that have complied with previous issue of this Service Bulletin do not need any additional action.

Rev. A of this Service Bulletin has been developed to introduce radio Motorola XiR 8268 antenna variant P/N 3G2310P04111 applicable to AW139 helicopters equipped with kit simplex tank P/N 4G2590F00513. Logistic P/N 139-553L2 has been also introduced.

Revision bars identify changes.

1. PLANNING INFORMATION

A. EFFECTIVITY

AW139 helicopters S/N 31201 to S/N 31398, from S/N 41201 to S/N 41293, from S/N 31400 to S/N 31699, from S/N 31700 onwards, from S/N 41300 to S/N 41499 and from S/N 41501 onwards.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the installation of kit radio Motorola XiR provision P/N 4G2310F04811.

E. DESCRIPTION

The kit radio Motorola XiR provision consists of a structural provision and an electrical provision that includes one universal radio interface installed on the bulkhead STA 1500, one power converter installed in the central lower fuselage, one UHF antenna installed on the central bottom side of the fuselage and one GPS antenna installed on the upper side of the tail boom.

The kit radio Motorola XiR provision P/N 4G2310F04811 allows the installation of models radio Motorola XiR M8268, M8660, M8668, M8668I and M8600I.

Rev. A of this Service Bulletin introduces radio Motorola XiR 8268 antenna variant P/N 3G2310P04111 applicable to AW139 helicopters equipped with kit simplex tank P/N 4G2590F00513.

F. APPROVAL

The technical content of this Service Bulletin is approved under the authority of DOA nr. EASA.21.J.005. For helicopters registered under other Aviation Authorities, before applying the Service Bulletin, applicable Aviation Authority approval must be checked within Leonardo Helicopters customer portal.

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives.

If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

To comply with this Service Bulletin three hundred and forty (340) MMH are deemed necessary.

MMH are based on hands-on time and can change with personnel and facilities available.

H. WEIGHT AND BALANCE

WEIGHT (kg)	4.47	
	ARM (mm)	**MOMENT (kgmm)**
LONGITUDINAL BALANCE	4925.6	22017.4
LATERAL BALANCE	-136.9	-611.9

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		**DESCRIPTION**	**PART**
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.	-
DM02	39-A-06-41-00-00A-010A-A	Access doors and panels - General data.	-
DM03	39-A-11-00-01-00A-720A-A	Decal – Install procedure	-
DM04	39-A-20-10-01-00A-259A-A	Ground connections - Other procedures to protect surfaces	-
DM05	39-A-20-10-08-00A-622A-A	Electrical contacts - Crimp	-
DM06	39-A-20-10-09-00A-920A-A	Bonded studs - Replacement	-
DM07	39-A-20-10-18-00A-691A-A	Sleeve marker - Install procedure	-

Following Data Modules refer to CSRP:

DATA MODULE		**DESCRIPTION**	**PART**
DM08	CSRP-A-51-42-00-00A-720A-D	Potted Inserts - Install procedure.	-

DATA MODULE		DESCRIPTION	PART
DM09	CSRP-A-51-43-02-00A-921A-D	Adhesive bonded anchor nuts	-
DM10	CSRP-A-51-23-00-00A-028A-D	Composite parts specific processes	-

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
ATP	Acceptance Test procedure
AR	As Required
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
FH	Flight Hours
IPD	Illustrated Part Data
ITEP	Illustrated Tool and Equipment Publication
LHD	Leonardo Spa Helicopters
MMH	Maintenance Man Hours
P/N	Part Number
SB	Service Bulletin
S/N	Serial Number
UHF	Ultra High Frequency
VHF	Very High Frequency

3) ANNEX

Annex A Provision for Radio Motorola XiR 8268 Series Model listed in description Acceptance Test Procedure (ATP).

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	**4G2310F04811**		**KIT RADIO MOTOROLA XiR PROVISION**	**REF**	.		-
2	**3G5311A26411**		**RADIO MOTOROLA XiR STRUCTURAL PROVISION**	**REF**	..		-
3	3G5315A69432		GPS Antenna Support Assy	1	…		139-553L1 139-553L2
4	3G5315A92251		Bonding Layer	1	…		139-553L1 139-553L2
5	3G5315A96251		Cover	1	…		139-553L1 139-553L2
6	3G5316A23851		Closure Plate	1	…	(4)	139-553L1
7	3G5316A74151		Bracket	1	…		139-553L1 139-553L2
8	3G5316A74234		Radio Tetra Motorola Support Assy	1	…		139-553L1 139-553L2
9	3G5316A83532		Cover Assy	1	…		139-553L1 139-553L2
10	3G5317A30331		Radio Interface Bracket Assy	1	…		139-553L1 139-553L2
11	3G5355A06951		Cover	1	…		139-553L1 139-553L2
12	A297A04TW02		Rivet,Blind,Titanium	20	…		139-553L1 139-553L2
13	A407A3C2P		Anchor Nut	2	…		139-553L1 139-553L2
14	MS20426AD4-7		Rivet	0,1 kg	…		139-553L1 139-553L2
15	MS27039-0807		Screw	4	…		139-553L1 139-553L2
16	MS27039-1-04		Screw	4	…	(4)	139-553L1
17	MS27039-1-07		Screw	4	…		139-553L1 139-553L2
18	MS27039-1-16		Screw	2	…	(4)	139-553L1
19	NAS1149C0332R		Washer	6	…	(4)	139-553L1
20	NAS1149D0316K		Washer	4	…		139-553L1 139-553L2
21	NAS1149D0332K		Washer	2	…		139-553L1 139-553L2
22	NAS1149DN832K		Washer	4	…		139-553L1 139-553L2
23	NAS1720C4L1P		Rivet	20	…		139-553L1 139-553L2
24	NAS1801-3-6		Screw	2	…		139-553L1 139-553L2
25	NAS1835A3		Insert	4	…		139-553L1 139-553L2
26	NAS1836-3-08M		Insert	8	…		139-553L1 139-553L2
27	NAS1836-3-13		Insert	6	…		139-553L1 139-553L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
28	**3G2310A17311**		**RADIO MOTOROLA XiR ELECTRICAL INSTALLATION**	**REF**	**..**	**(3)**	**-**
29	16-16P3		UHF Antenna 320-670 MHz	1	…		139-553L1 139-553L2
30	3G9A01A62101	3G2310A17311A1R	Radio Motorola XiR C/A (A1A621)	1	…		139-553L1 139-553L2
31	3G9A01B57801		Radio Motorola XiR C/A (A1B578)	1	…		139-553L1 139-553L2
32	3G9A02B54301		Radio Motorola XiR C/A (A2B543)	1	…		139-553L1 139-553L2
33	3G9A01B57901		Radio Motorola XiR C/A (A1B579)	1	…		139-553L1 139-553L2
34	3G9A02B54401		Radio Motorola XiR C/A (A2B544)	1	…		139-553L1 139-553L2
35	3G9B01A55501		Radio Motorola XiR C/A (B1A555)	1	…		139-553L1 139-553L2
36	3G9B01B93501		Radio Motorola XiR C/A (B1B935)	1	…		139-553L1 139-553L2
37	3G9B03B28101		Radio Motorola XiR C/A (B3B281)	1	…		139-553L1 139-553L2
38	3G9B03B28201		Radio Motorola XiR C/A (B3B282)	1	…	(4)	139-553L1
39	3G9D03B24101		Radio Motorola XiR C/A (D3B241)	1	…		139-553L1 139-553L2
40	A363A01		Terminal,Stud	1	…		139-553L1 139-553L2
41	A388A3E06C75		Standoff,Threaded,Bonded	2	…		139-553L1 139-553L2
42	A388A3E08C		Standoff,Threaded,Bonded	1	…	(4)	139-553L1
43	A631A01A		Spacer,Cable Bundles	26	…		139-553L1 139-553L2
44	AA34-300		Universal Radio Interface	1	…		139-553L1 139-553L2
45	AW001CB04H		Clamp	20	…		139-553L1 139-553L2
46	AW001CB05H		Clamp	8	…		139-553L1 139-553L2
47	AW001GH027A		Conductive Gasket	1	…		139-553L1 139-553L2
48	AW002FT102		Grommet,Rubber	3	…		139-553L1 139-553L2
49	AW002FT112		Grommet,Rubber	2	…		139-553L1 139-553L2
50	AW002FT401		Grommet,Rubber	23	…		139-553L1 139-553L2
51	ED300A589		Decal	1	…		139-553L1 139-553L2
52	ED300E163		Decal	1	…		139-553L1 139-553L2
53	ED300E164		Decal	1	…		139-553L1 139-553L2
54	ED300GS2031		Decal	1	…		139-553L1 139-553L2
55	ED300J3116		Decal	1	…		139-553L1 139-553L2
56	ED300PS104		Decal	1	…		139-553L1 139-553L2
57	M85049/95-12A-A		Flange	2	…		139-553L1 139-553L2
58	MS24693-S275		Screw	4	…		139-553L1 139-553L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
59	MS35206-216		Screw	8	…		139-553L1 139-553L2
60	NAS1149D0332J		Washer	19	…		139-553L1 139-553L2
61	NAS1149DN416J		Washer	8	…		139-553L1 139-553L2
62	NAS1190E3P19AK		Screw	3	…		139-553L1 139-553L2
63	NAS1190E3P21AK		Screw	2	…		139-553L1 139-553L2
64	NAS1190E3P30AK		Screw	1	…		139-553L1 139-553L2
65	NAS1190E3P6AK		Screw	1	…	(4)	139-553L1
66	NAS1190E3P7AK		Screw	5	…	(4)	139-553L1
67	NAS1801-3-5		Screw	4	…		139-553L1 139-553L2
68	NAS1802-3-10		Screw	6	…		139-553L1 139-553L2
69	NAS1802-3-21		Screw	2	…		139-553L1 139-553L2
70	NAS1802-3-30		Screw	1	…	(4)	139-553L1
71	NAS1802-3-4		Screw	2	…		139-553L1 139-553L2
72	NAS1802-3-5		Screw	16	…		139-553L1 139-553L2
73	NAS43DD3-45N		Spacer,Sleeve	1	…		139-553L1 139-553L2
74	NAS43DD3-50N		Spacer,Sleeve	2	…	(4)	139-553L1
75	NAS43DD3-60N		Spacer,Sleeve	3	…		139-553L1 139-553L2
76	NAS43DD3-82N		Spacer,Sleeve	1	…		139-553L1 139-553L2
77	S67-1575-145		GPS Antenna	1	…		139-553L1 139-553L2
78	LT-71		Power Converter	1	…		139-553L1 139-553L2
79	ED300CB581		Decal	1	..		139-553L1 139-553L2
80	A556A-T16		Wire	3 m	..		139-553L1 139-553L2
81	MS3320-10		Circuit Breaker	1	..		139-553L1 139-553L2
82	M39029/56-352		Electrical contact	1	..		139-553L1 139-553L2
83	MS25036-153		Terminal lug	1	..		139-553L1 139-553L2
84	3G2490LXXXXX		Aux CB Panel	1	..	(2)	-
85	**3G2310P04111**		**RADIO MOTOROLA XIR 8268 ANTENNA VARIANT**	**REF**	**.**		**-**
86	**3G5311A56111**		**VHF ANTENNA MOTOROLA XIR 8268 STRUCT PROVISION**	**REF**	**..**		**-**
87	3G5316A23851		Closure plate	1	...	(5)	139-553L2
88	A407A3C2P		Nut	6	...	(5)	139-553L2
89	MS27039-1-12		Screw	6	...	(5)	139-553L2
90	NAS1149C0332R		Washer	6	...	(5)	139-553L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
91	**3G9B03B28202**		**Radio Motorola XiR C/A (B3B282)**	**REF**	**..**		**-**
92	M17/60-RG142		Radio frequency cable	5 m	...	(5)	139-553L2
93	81-115-RFX		Electrical connector	1	...	(5)	139-553L2
94	M39012/01-0503		Electrical connector	1	...	(5)	139-553L2
95	M23053/8-007-C		Insulation sleeving	2	...	(5)	139-553L2
96	A631A01A		Spacer	12	..	(5)	139-553L2
97	AW002FT102		Grommet	12	..	(5)	139-553L2

Refer also to IPD for the spares materials required to comply with the AMP DMs referenced in the accomplishment instructions.

2) CONSUMABLES

The following consumable materials, or equivalent, are necessary to accomplish this Service Bulletin:

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
98	MMM-A-132, Type II, Class 2 Code No. 900000581 199-05-002 Type I, Class 2	Adhesive EA9309.3NA (C021)	AR	(1)	-
99	MMM-A-132, Type I, Class 3 199-05-002 Type II, Class 2	Adhesive EA934NA (C057)	AR	(1)	-
100	AWTR033	Fiberglass fabric 20749-1200 (C931)	AR	(1)	-
101	199-05-002 Type II, Class 3	Adhesive EA956 (C193)	AR	(1)	-
102	AMS-S-8802 Type II, Class B2	Sealing compound Proseal 890 (C004)	AR	(1)	-
103	199-05-003 Type I Class 1 Shape IIB Code No. 900004546	Tape, Teflon (C405)	AR	(1)	-
104	AWMS05-001 Type 1, Class B, Grade 2	Sealant MC780 B-2 (C465)	AR	(1)	-
105	A236A01AB	Edging	AR	(1)	-
106	A582A08 or EN6049-006-08-5	Braided tubing	AR	(1)	-
107	2-331350-1	Electrical connector	1	(1)	-

Refer also to AMDI for the consumable materials required to comply with the AMP DM referenced in the accomplishment instructions.

3) LOGISTIC MATRIX

In order to apply this Service Bulletin, the following Logistic P/N can be ordered in accordance with the applicable notes:

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-553L1	1	(4)	-
139-553L2	1	(5)	-

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
3G2490LXXXXX	1	(2)	-

NOTE

(1) Item to be procured as local supply.

(2) The P/N is not properly completed because it is depending on the helicopter configuration. Customers must contact AW139 Product Support Engineering (engineering.support.lhd@leonardocompany.com) to request the new auxiliary CB panel at least three months in advance from the scheduled application of this Service Bulletin.

(3) Productive P/Ns can be provided as part of Radio Motorola XiR Electrical Installation P/N 3G2310A17311, according to the table below:

P/N	DESCRIPTION	Q.TY
3G9A01A62101K1R	Radio Motorola XiR C/A (A1A621)	1
3G9A01B57801K1R	Radio Motorola XiR C/A (A1B578)	1
3G9A01B57901K1R	Radio Motorola XiR C/A (A1B579)	1
3G9A02B54301K1R	Radio Motorola XiR C/A (A2B543)	1
3G9A02B54401K1R	Radio Motorola XiR C/A (A2B544)	1
3G9B01A55501K1R	Radio Motorola XiR C/A (B1A555)	1
3G9B01B93501K1R	Radio Motorola XiR C/A (B1B935)	1
3G9B03B28101K1R	Radio Motorola XiR C/A (B3B281)	1
3G9B03B28201K1R	Radio Motorola XiR C/A (B3B282)	1
3G9D03B24101K1R	Radio Motorola XiR C/A (D3B241)	1

(4) Item to be supplied ONLY for AW139 helicopters NOT equipped with kit simplex tank P/N 4G2590F00513.

(5) Item to be supplied ONLY for AW139 helicopters equipped with kit simplex tank P/N 4G2590F00513.

B. SPECIAL TOOLS

Refer to ITEP for the special tools required to comply with the AMP DM referenced in the accomplishment instructions.

C. INDUSTRY SUPPORT INFORMATION

Customization.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

a) Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.

b) Shape the cables in order to prevent interference with the structure and the other existing installations, using where necessary suitable lacing cords.

c) Exercise extreme care during drilling operations to prevent instruments, cables and hoses damage.

d) After drilling, remove all swarf and sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.

e) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.

f) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.

g) Exposed thread surface and nut must be protected using a layer of tectyl according to MIL-C-16173 grade I.

h) All lengths are in mm.

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 thru 15, gain access to the area affected by the installation and perform radio Motorola XiR structural provision P/N 3G9700A00811 as described in the following procedure:
   2.1 With reference to Figure 2 section A-A, drill n°2 holes Ø 11.48 ÷ 11.61 on the bulkhead STA 1500.

2.2 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 2, install n°2 inserts P/N NAS1836-3-13 by means of adhesive EA934NA (C057).

2.3 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 2 section E-E, prepare indicated contact surfaces to assure the correct electrical bonding.

2.4 With reference to Figure 2 section E-E, install the radio interface bracket assy P/N 3G5317A30331 by means of n°2 screws P/N NAS1801-3-6 and n°2 washers P/N NAS1149D0332K.

2.5 With reference to Figure 3 section F-F, on the interseat console assy install the bracket P/N 3G5316A74151 by means of n°4 rivets P/N MS20426AD4-7.

2.6 With reference to Figure 3, on the radio Tetra Motorola support assy install the cover assy P/N 3G5316A83532 by means of n°4 screws P/N MS27039-0807 and n°4 washers P/N NAS1149DN832K.

2.7 With reference to Figure 3 view B, on the interseat console assy install the radio Tetra Motorola support assy P/N 3G5316A74234 by means of fastener quarter turns.

2.8 With reference to Figure 4 and Figure 5 detail H, drill n°4 holes Ø 17.42 ÷ 17.55 on the passenger compartment subfloor.

2.9 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 5 section M-M, install n°4 inserts P/N NAS1835A3 by means of adhesive EA934NA (C057).

2.10 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 5 detail H, prepare the indicated areas to assure the correct electrical bonding.

NOTE

Following steps 2.11 thru 2.19 are applicable ONLY to helicopters NOT equipped with kit simplex tank P/N 4G2590F00513.

2.11 With reference to Figure 8, perform the indicated cut-out on the rear lower panel P/N 3P5331A02231.

2.12 With reference to Figure 8 section L-L, apply adhesive EA934NA (C057) on the edge of the cut-out.

2.13 With reference to Figure 7 view D, temporarily put in place on the panel P/N 3P5331A02231 the closure plate P/N 3G5316A23851 and countermark the positions of n°4 insert holes and n°2 anchor nut holes.

2.14 With reference to Figure 6 section J-J, drill n°2 holes Ø 5.20 ÷ 5.50 thru rear lower panel P/N 3P5331A02231 in correspondence of previously marked positions.

2.15 In accordance with CSRP DM CSRP-A-51-43-02-00A-921A-D and with reference to Figure 6 section J-J, install n°2 anchor nuts P/N A407A3C2P by means of EA9309.3NA adhesive.

2.16 With reference to Figure 7, drill n°4 holes Ø 11.48 ÷ 11.61 on the rear lower panel P/N 3P5331A02231 in correspondence of previously marked positions.

2.17 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 7 section K-K, install n°4 inserts P/N NAS1836-3-13 by means of adhesive EA934NA (C057).

2.18 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 8 view D, prepare the indicated area to assure the correct electrical bonding.

NOTE

Perform the following step 2.19 only if UHF antenna P/N 16-16P3 is not going to be installed immediately.

2.19 With reference to Figures 6 and 7 install the closure plate P/N 3G5316A23851 by means of n°4 screws P/N MS27039-1-04 and n°4 washers P/N NAS1149C0332R, n°2 screws P/N MS27039-1-16 and n°2 washers P/N NAS1149C0332R.

NOTE

Following steps 2.20 thru 2.26 are applicable ONLY to helicopters equipped with kit simplex tank P/N 4G2590F00513.

2.20 With reference to Figure 30 detail D, perform the indicated cut-out on the left lower panel.

2.21 With reference to Figure 30 section C-C, apply adhesive EA934NA (C057) on the edge of the cut-out.

2.22 With reference to Figure 29 view A, temporarily put in place on the left lower panel the closure plate P/N 3G5316A23851 and countermark the positions of n°6 anchor nut holes.

2.23 With reference to Figure 29 section B-B, drill n°6 holes Ø 5.20 ÷ 5.50 thru left lower panel in correspondence of previously marked positions.

2.24 In accordance with CSRP DM CSRP-A-51-43-02-00A-921A-D and with reference to Figure 29 section B-B, install n°6 anchor nuts P/N A407A3C2P by means of EA9309.3NA adhesive.

2.25 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 30 detail D, prepare the indicated area to assure the correct electrical bonding.

NOTE

Perform the following step 2.26 only if UHF antenna P/N 16-16P3 is not going to be installed immediately.

2.26 With reference to Figure 29, install the closure plate P/N 3G5316A23851 by means of n°6 screws P/N MS27039-1-12 and n°6 washers P/N NAS1149C0332R.

2.27 With reference to Figure 10 detail P, perform the indicated cut-out on the internal skin and honeycomb core of the upper panel assy.

2.28 With reference to Figure 10 section Q-Q, install the cover P/N 3G5315A96251 by means of adhesive EA934NA (C057).

2.29 With reference to Figure 9 view N-N, perform the indicated cut-outs on the previously installed cover and on the external skin of the upper panel assy.

2.30 With reference to Figures 11 and 12, temporarily locate the GPS Antenna Support Assy P/N 3G5315A69432 and countermark the positions of n°20 rivet holes on the tail rotor shaft cowling assy.

2.31 With reference to Figures 11 and 12, drill rivet holes in correspondence of previously marked position.

2.32 In accordance with CSRP DM CSRP-A-51-23-00-00A-028A-D and with reference to figure 12, prepare n°2 plies of fiberglass fabric 20749-1200 (C931) and trim to relate to GPS Antenna Support Assy P/N 3G5315A69432.

2.33 In accordance with CSRP DM CSRP-A-51-23-00-00A-028A-D and with reference to Figures 12 and 13, apply n°1 ply of fiberglass fabric 20749-1200 (C931) soaked with adhesive EA956 (C193) on the internal side of the tail rotor shaft cowling assy.

2.34 In accordance with CSRP DM CSRP-A-51-23-00-00A-028A-D and with reference to Figures 12 and 13, apply n°1 ply of fiberglass fabric 20749-1200 (C931) soaked with adhesive EA956 (C193) on the external side of the tail rotor shaft cowling assy.

2.35 In accordance with CSRP DM CSRP-A-51-23-00-00A-028A-D and with reference to Figure 13 section X-X, perform the indicated cut-out and drill the existing rivet holes on the plies of fiberglass fabric.

2.36 With reference to Figure 12, drill n°2 holes as indicated on the bonding layer P/N 3G5315A92251.

2.37 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 12, prepare the indicated surfaces under rivet head and under upset side rivet to assure the correct electrical bonding.

2.38 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 14, prepare the indicated area to assure the correct electrical bonding.

2.39 With reference to Figure 14 and Figure 15 section V-V, install the bonding layer P/N 3G5315A92251 by means of adhesive EA9309.3NA (C021) and by means of n°4 rivets P/N NAS1720C4L1P.

2.40 With reference to Figure 14, seal the previously installed bonding layer as indicated by means of sealing compound Proseal 890 (C004).

2.41 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 13 section T-T, prepare the contact surfaces to assure the correct electrical bonding.

2.42 With reference to Figures 11 thru 13, install the GPS antenna support assy P/N 3G5315A69432 by means of n°20 rivets P/N A297A04TW02.

NOTE

Perform the following step 2.43 only if GPS Antenna P/N S67-1575-145 is not going to be installed immediately.

2.43 With reference to Figure 11, as indicated apply tape (C405) on the previously installed support and install the cover P/N 3G5355A06951 by means of n°4 screws P/N MS27039-1-07 and n°4 washers P/N NAS1149D0316K.

2.44 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 14 and Figure 15 section W-W, install n°8 inserts P/N NAS1836-3-08M by means of adhesive EA934NA (C057).

3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 16 thru 30, gain access to the area affected by the installation and perform radio Motorola XiR electrical provision P/N 3G2310A17311 as described in the following procedure:

3.1 With reference to Figure 21, at positions n°1 and n°2 remove existing grommets and install n° 2 grommets P/N AW002FT112.

3.2 With reference to Figure 23, at position n°3 install n°1 spacer P/N A631A01A and n°1 grommet P/N AW002FT401.

3.3 With reference to Figure 23, at position n°4 install n°1 clamp P/N AW001CB04H and n°1 spacer P/N NAS43DD3-60N on existing hardware by means of n°1 screw P/N NAS1190E3P30AK.

3.4 With reference to Figure 23, at position n°5 install n°1 clamp P/N AW001CB04H and n°1 spacer P/N NAS43DD3-60N on existing hardware by means of n°1 screw P/N NAS1190E3P21AK.

3.5 With reference to Figure 23, at position n°6 install n°1 clamp P/N AW001CB04H and n°1 spacer P/N NAS43DD3-60N on existing hardware by means of n°1 screw P/N NAS1190E3P21AK.

3.6 With reference to Figure 23, at positions n°7-8-9-10 install n°4 spacers P/N A631A01A and n°4 grommets P/N AW002FT401.

3.7 With reference to Figure 23, at position n°11 install n°1 ground stud P/N A363A01 by means of n°2 rivets P/N MS20426AD3A.

3.8 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 23, install decal P/N ED300GS2031 in an area adjacent to previously installed ground stud.

3.9 With reference to Figure 23, at position n°12 install n°1 spacer P/N A631A01A and n°1 grommet P/N AW002FT401.

NOTE

Following steps 3.10 thru 3.16 are applicable ONLY to helicopters NOT equipped with kit simplex tank P/N 4G2590F00513.

3.10 With reference to Figure 24, at positions n°13-14-15 install n°3 spacers P/N A631A01A and n°3 grommets P/N AW002FT102.

3.11 With reference to Figure 24, at positions n°16 and n°17 install n°2 clamps P/N AW001CB04H on existing hardware by means of n°2 screws P/N NAS1190E3P7AK.

3.12 With reference to Figure 24, at position n°18 install n°1 clamp P/N AW001CB04H on existing hardware by means of n°1 screw P/N NAS1802-3-30.

3.13 With reference to Figure 24, at positions n°19-20-21 install n°3 clamps P/N AW001CB04H on existing hardware by means of n°3 screws P/N NAS1190E3P7AK.

3.14 With reference to Figure 24, at position n°22 install n°1 clamp P/N AW001CB04H on existing hardware by means of n°1 screw P/N NAS1802-3-10.

3.15 With reference to Figure 24, at positions n°23 and n°24 install n°2 clamps P/N AW001CB04H and n°2 spacers P/N NAS43DD3-50N on existing hardware by means of n°2 screws P/N NAS1190E3P19AK.

3.16 In accordance with AMP DM 39-A-20-10-09-00A-920A-A and with reference to Figure 24, at position n°25 install N°1 standoff P/N A388A3E08C by means of adhesive EA9309.3NA (C021) and install n°1 clamp P/N AW001CB04H by means of n°1 washer P/N NAS1149D0332J and n°1 screw P/N NAS1190E3P6AK.

NOTE

Following steps 3.17 and 3.18 are applicable ONLY to helicopters equipped with kit simplex tank P/N 4G2590F00513.

3.17 With reference to Figure 32, at positions n°13-14-15 install n°3 spacers P/N A631A01A and n°3 grommets P/N AW002FT102.

3.18 With reference to Figure 32, at positions n°16-17-18-19-20-21 install n°6 spacers P/N A631A01A and n°6 grommets P/N AW002FT102.

3.19 With reference to Figure 25, at positions n°26 and n°27 install n°2 spacers P/N A631A01A and n°2 grommets P/N AW002FT401.

3.20 With reference to Figure 25, at position n°28 replace the existing spacer with n°1 spacer P/N NAS43DD3-82N and install n°1 clamp P/N AW001CB04H on existing hardware.

3.21 With reference to Figure 25, at position n°29 install n°1 clamp P/N AW001CB04H and n°1 spacer P/N NAS43DD3-45N on existing hardware by means of n°1 screw P/N NAS1190E3P19AK.

3.22 With reference to Figure 25, at position n°30 install n°1 clamp P/N AW001CB04H on existing hardware by means of n°1 screw P/N NAS1802-3-10.

3.23 In accordance with AMP DM 39-A-20-10-09-00A-920A-A and with reference to Figure 26, at positions n°31 and n°32 install N°2 standoffs P/N A388A3E06C75 by means of adhesive EA9309.3NA (C021) and install n°2 clamps P/N AW001CB04H by means of n°2 washers P/N NAS1149D0332J and n°2 screws P/N NAS1802-3-4.

3.24 With reference to Figure 26, at positions n°33 and n°34 install n°2 clamps P/N AW001CB04H on existing hardware.

3.25 With reference to Figure 26, at positions n°35-36-37-38-39-40-41-42-43-44-45-46-47-48-49 install n°15 spacers P/N A631A01A and n°15 grommets P/N AW002FT401.

3.26 With reference to Figure 27, at positions n°50-51-52-53-54-55-56-57 install n°8 clamps P/N AW001CB05H by means of n°8 screws P/N NAS1802-3-5 and n°8 washers P/N NAS1149D0332J.

NOTE

Use ending P/N A236A on metallic edges which can damage cable assemblies and where abrasion may occur. Use braided tubing P/N A582A where cable assemblies chafing or contact with structure may occur.

3.27 With reference to Figures 16 thru 27, 31 and 32, lay down the following cable assemblies following the existing route unless otherwise indicated in the figures:

- Radio Motorola XiR C/A (A1A621) P/N 3G9A01A62101;
- Radio Motorola XiR C/A (A1B578) P/N 3G9A01B57801;
- Radio Motorola XiR C/A (A1B579) P/N 3G9A01B57901;
- Radio Motorola XiR C/A (A2B543) P/N 3G9A02B54301;
- Radio Motorola XiR C/A (A2B544) P/N 3G9A02B54401;
- Radio Motorola XiR C/A (B1A555) P/N 3G9B01A55501;
- Radio Motorola XiR C/A (B1B935) P/N 3G9B01B93501;
- Radio Motorola XiR C/A (B3B281) P/N 3G9B03B28101;
- Radio Motorola XiR C/A (B3B282) P/N 3G9B03B28201 or P/N 3G9B03B28202;
- Radio Motorola XiR C/A (D3B241) P/N 3G9D03B24101.

NOTE

Where necessary and in accordance with AMP DM 39-A-20-10-08-00A-622A-A crimp on wires the required electrical contacts (refer to Figure 36) by means of proper crimping tool.

NOTE

If pin "f" of the connector P127 is already occupied, as alternative it is allowed to utilize pin "G".

3.28 With reference to Figures 18, 19, 31 and Figure 33 wiring diagram, perform the electrical connection of C/A A1A621 between sectioning connector J109 and sectioning connector P127.

3.29 With reference to Figures 18, 19, 21, 22, 31 and Figure 33 wiring diagram, perform the electrical connection of C/A A1B578 between universal radio interface connector A589P1, terminal board connector TB134P1 and sectioning connectors P109, P104, J1076 and J1078.

3.30 With reference to Figures 21, 22, 31 and Figure 34 wiring diagram, perform the electrical connection of C/A A1B579 between sectioning connector P1076, inline junctions TB1122 and TB1124, splices SP10368 and SP10369.

3.31 With reference to Figures 17 thru 19, 21, 22, 31 and Figure 34 wiring diagram, perform the electrical connection of C/A A2B543 between universal radio interface connector A589P1, terminal board connector TB104P1, sectioning connector P1078.

3.32 With reference to Figures 21, 22, 31 and Figure 34 wiring diagram, perform the electrical connection of C/A A2B544 between sectioning connector P1078 and inline junctions TB1126, TB1128, TB1130, TB1132, TB1134, TB1136 and TB1138.

NOTE

If pin "f" of the connector J127 is already occupied, as alternative it is allowed to utilize pin "G".

3.33 With reference to Figures 19, 20, 31 and Figure 33 wiring diagram, perform the electrical connection of C/A B1A555 between sectioning connector J127 and circuit breaker panel connector PL1P1.

3.34 With reference to Figures 18, 21, 23, 31 and Figure 33 wiring diagram, perform the electrical connection of C/A B1B935 between sectioning connector J104, ground stud GS2061, splice SP21158, fuse F238 and power converter connector PS104P1.

3.35 With reference to Figures 21 thru 23, 25 thru 27 and Figure 35 diagram, perform the electrical connection of C/A B3B281 between sectioning connector J3116 and R/T Motorola XiR connector PL199GPS.

NOTE

Following step 3.36 is applicable ONLY to helicopters NOT equipped with kit simplex tank P/N 4G2590F00513.

3.36 With reference to Figures 21, 22, 24 and Figure 35 wiring diagram, perform the electrical connection of C/A B3B282 between UHF antenna connector E163P1 and R/T Motorola XiR connector PL199P1.

NOTE

Following step 3.37 is applicable ONLY to helicopters equipped with kit simplex tank P/N 4G2590F00513.

3.37 With reference to Figures 21, 22, 32 and Figure 35 wiring diagram, assemble radio Motorola XiR C/A (B3B282) P/N 3G9B03B28202 as described in the following procedure:

3.37.1 With reference to Figures 22, 32 and Figure 35 wiring diagram, cut n°1 wire P/N M17/60-RG142 of adequate length and lay down between UHF antenna connector E163P1 and R/T Motorola XiR connector PL199P1.

3.37.2 With reference to Figures 21, 22, 32 and Figure 35 wiring diagram, perform the electrical connection of C/A B3B282 between UHF antenna connector E163P1 P/N M39012/01-0503 and R/T Motorola XiR connector PL199P1 P/N 81-115-RFX. Use n°2 insulation sleeving P/N M23053/8-007-C.

3.37.3 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 wiring diagram, mark wire as R10316A-F by means of marker sleeve.

3.38 With reference to Figures 24 and Figure 35 wiring diagram, perform the electrical connection of C/A D3B241 between sectioning connector P3116 and GPS antenna connector E164P1.

3.39 Perform a pin to pin continuity check of all performed electrical connections.

3.40 With reference to Figure 19, on the bracket previously installed, install universal radio interface P/N AA34-300 by means of n°4 screws P/N NAS1802-3-5 and n°4 washers P/N NAS1149D0332J.

3.41 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 19, install decal P/N ED300A589 in an area adjacent to previously installed universal radio interface.

3.42 With reference to Figure 22, install connector J1076 with flange P/N M85049/95-12A-A by means of n°4 screws P/N MS35206-216 and n°4 washers P/N NAS1149DN416J.

3.43 With reference to Figure 22, install connector J1078 with flange P/N M85049/95-12A-A by means of n°4 screws P/N MS35206-216 and n°4 washers P/N NAS1149DN416J.

3.44 With reference to Figure 23, on the passenger compartment subfloor install power converter P/N LT-71 by means of n°4 screws P/N NAS1801-3-5 and n°4 washers P/N NAS1149D0332J.

3.45 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 23, install decal P/N ED300PS104 in an area adjacent to previously installed power converter.

NOTE

If installed, remove the closure plate P/N 3G5316A23851 with the relevant fixing hardware.

3.46 With reference to Figure 24 or 32, install the conductive gasket P/N AW001GH027A to the UHF antenna P/N 16-16P3.

3.47 With reference to Figure 24 or 32, install UHF antenna P/N 16-16P3 by means of wet installation of n°4 screws P/N NAS1802-3-10 and n°2 screws P/N NAS1802-3-21 using the sealant MC780 B-2 (C465).

3.48 With reference to Figure 24 or 32, seal the mating edge between the UHF antenna and the fuselage using the sealant MC780 B-2 (C465).

3.49 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 24 or 32, install decal P/N ED300E163 in an area adjacent to previously installed UHF antenna.

NOTE

If installed, remove the cover P/N 3G5355A06951 with the relevant fixing hardware.

3.50 With reference to Figure 27, on the upper side of the tail boom install GPS antenna P/N S67-1575-145 by means of wet installation of n°4 screws P/N MS24693-S275 using the sealant MC780 B-2 (C465).

3.51 With reference to Figure 27, seal the mating edge between the GPS antenna and its support using the sealant MC780 B-2 (C465).

3.52 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 27, install decal P/N ED300E164 in an area adjacent to previously installed GPS antenna.

3.53 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 27, install decal P/N ED300J3116 in an area adjacent to connector J3116.

3.54 With reference to Figure 19 and Figure 33 wiring diagram, connect the connector A589P1 to the universal radio interface A589.

3.55 With reference to Figure 21 and Figures 33 and 34 wiring diagram, connect the sectioning connector P1076 to the sectioning connector J1076.

3.56 With reference to Figure 21 and Figures 33 and 34 wiring diagram, connect the sectioning connector P1078 to the sectioning connector J1078.

3.57 With reference to Figure 23 and Figure 33 wiring diagram, connect the connector PS104P1 to the power converter PS104.

3.58 With reference to Figure 24 or 32 and Figure 35 wiring diagram, connect the connector E163P1 to the UHF antenna E163.

3.59 With reference to Figure 27 and Figure 35 wiring diagram, connect the sectioning connector P3116 to the sectioning connector J3116.

3.60 With reference to Figure 27 and Figure 35 wiring diagram, connect the connector E164P1 to the GPS antenna E164.

3.61 Modify the Auxiliary C/B panel on the overhead panel, as described in the following procedure:

NOTE

Customer must contact Product Support Engineering (engineering.support.lhd@leonardocompany.com) at least 3 months in advance of embodiment date of this Service Bulletin in order to receive information on the exact W/D applicable to helicopter.

3.61.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead C/B panel the existing integrally-lit panel.

3.61.2 Perform electrical connections between CB581 pin 2 and connector PL1J1 pin T by means of wire A556A-T16, terminal lug P/N MS25036-153 and electrical contact P/N M39029/56-352; mark the wire as 922-16.

3.61.3 With reference to Figure 28 install one circuit breaker CB581 P/N MS3320-10 in the position indicated as RADIO TETRA on the new integrally-lit panel P/N 3G2490LXXXXX. Apply decal P/N ED300CB581.

3.61.4 Perform a pin-to-pin test of all the electrical connection made.

NOTE

Perform the following step 3.62 only if R/T Motorola XiR (PL199) is not going to be installed immediately.

3.62 Protect and stow the cable connectors PL199P1 and PL199GPS as described in the following procedure:

3.62.1 Apply the applicable protective cap on the connectors.

3.62.2 Cover with Meta-Aramid Nomex fiber sleeve and use cable straps to firmly tie down sleeve on the connector cablings.

3.62.3 Fasten the connector assemblies with cable straps.

NOTE

Perform the following step 3.63 and 3.64 only if R/T Motorola XiR (PL199) is going to be installed immediately.

NOTE

It is allowed to use the electrical adapter P/N AE0112 to connect the connector PL199GPS to R/T Motorola XiR PL199.

3.63 With reference to Figure 22 and Figure 35 wiring diagram, connect the connector PL199GPS to the R/T Motorola XiR PL199.

NOTE

If necessary, it is allowed to replace connector PL199P1 P/N 081-115-RFX with P/N 2-331350-1 on the C/A B3B282 (P/N 3G9B03B28201).

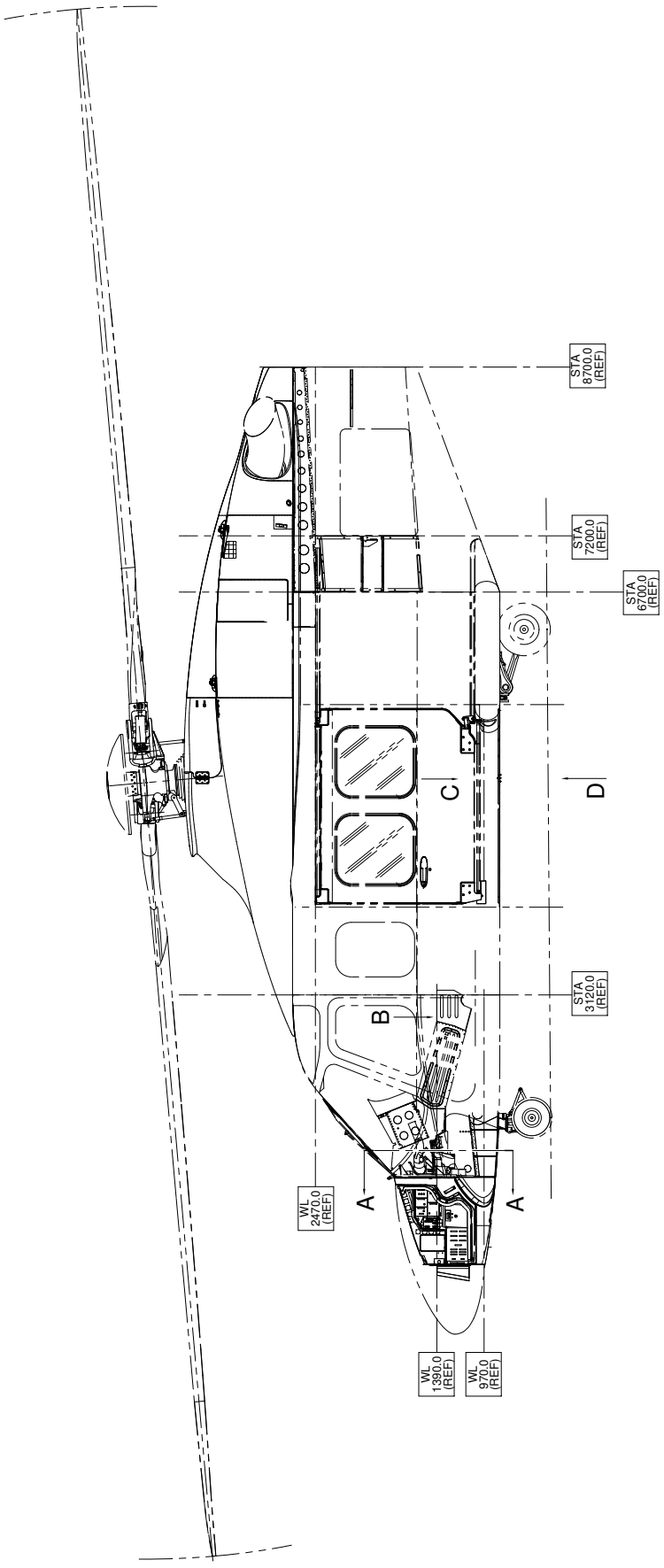
3.64 With reference to Figure 22 and Figure 35 wiring diagram, connect the connector PL199P1 to the R/T Motorola XiR PL199.

4. With reference to Annex A, perform the “Acceptance Test Procedure” for the Provision for Radio Motorola XiR 8268 Series Model listed in description.
5. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
6. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
7. Send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardocompany.com

   As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

3G5311A26411
RADIO MOTOROLA XiR
STRUCTURAL PROVISION



VIEW LOOKING INBOARD LEFT SIDE

Figure 1

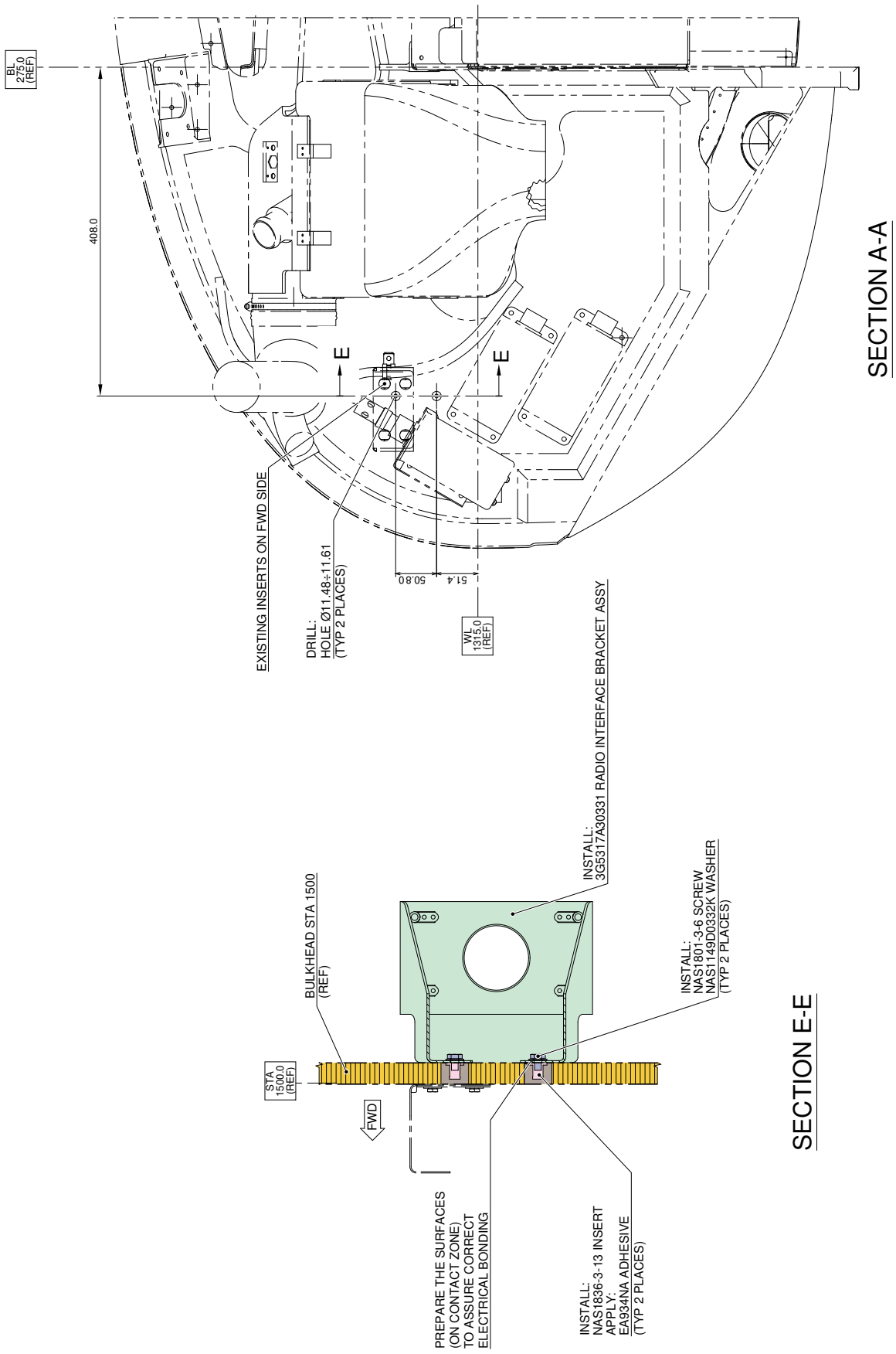

BL 275.0 (REF)
408.0
E
E
SECTION A-A
EXISTING INSERTS ON FWD SIDE
DRILL: HOLE Ø11.48÷11.61 (TYP 2 PLACES)
50.80
51.4
WL 1315.0 (REF)
INSTALL: 3G5317A30331 RADIO INTERFACE BRACKET ASSY
BULKHEAD STA 1500 (REF)
INSTALL: NAS1801-3-6 SCREW NAS1149D0332K WASHER (TYP 2 PLACES)
STA 1500.0 (REF)
FWD
PREPARE THE SURFACES (ON CONTACT ZONE) TO ASSURE CORRECT ELECTRICAL BONDING
INSTALL: NAS1836-3-13 INSERT APPLY: EA934NA ADHESIVE (TYP 2 PLACES)
SECTION E-E

Figure 2

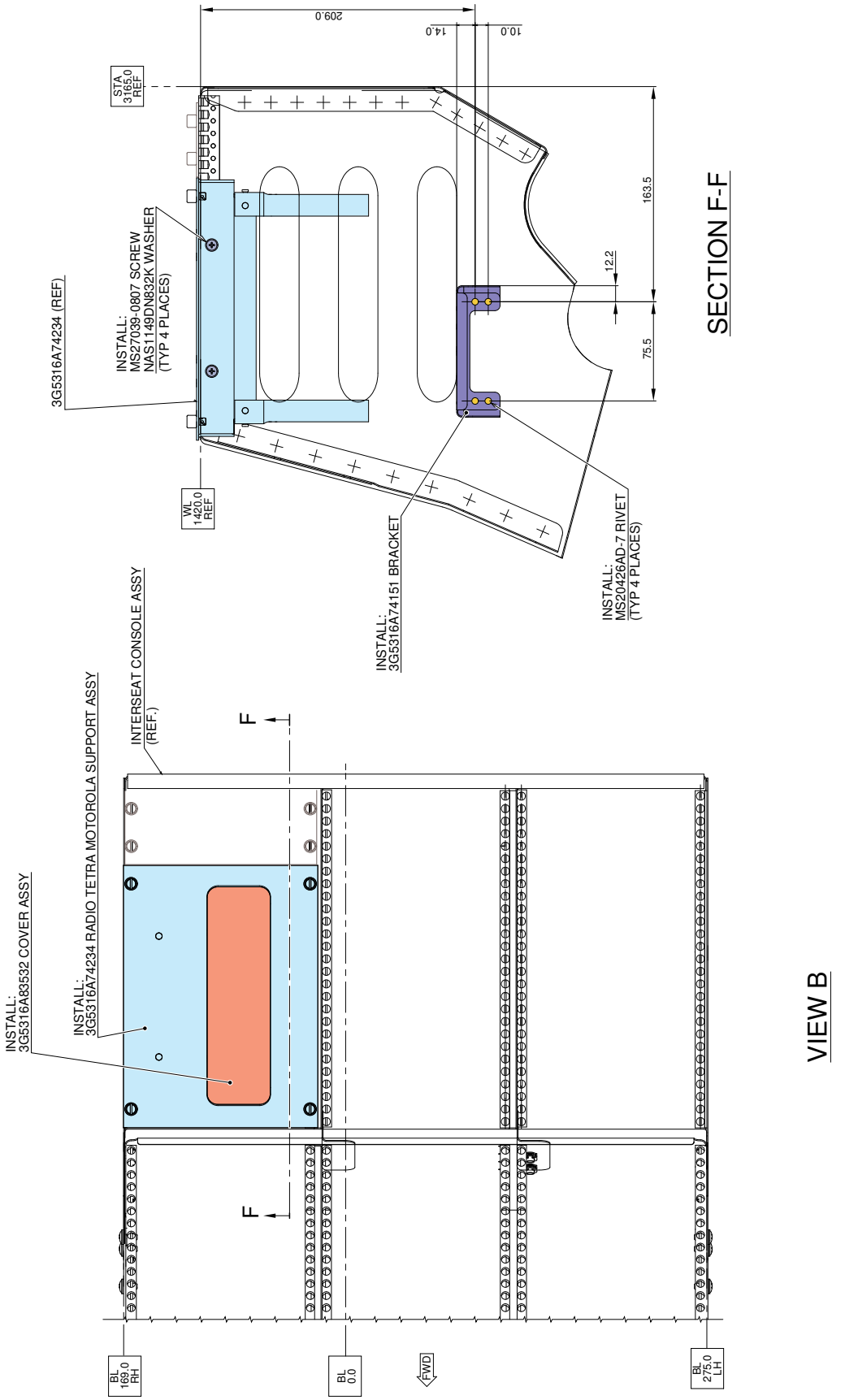

SECTION F-F
209.0
14.0
10.0
STA 3165.0 REF
163.5
12.2
75.5
INSTALL: MS27039-0807 SCREW NAS1149DN832K WASHER (TYP 4 PLACES)
3G5316A74234 (REF)
WL 1420.0 REF
INSTALL: 3G5316A74151 BRACKET
INSTALL: MS20426AD-7 RIVET (TYP 4 PLACES)
VIEW B
INTERSEAT CONSOLE ASSY (REF.)
INSTALL: 3G5316A74234 RADIO TETRA MOTOROLA SUPPORT ASSY
INSTALL: 3G5316A83532 COVER ASSY
F
F
BL 169.0 RH
BL 0.0
FWD
BL 275.0 LH

Figure 3

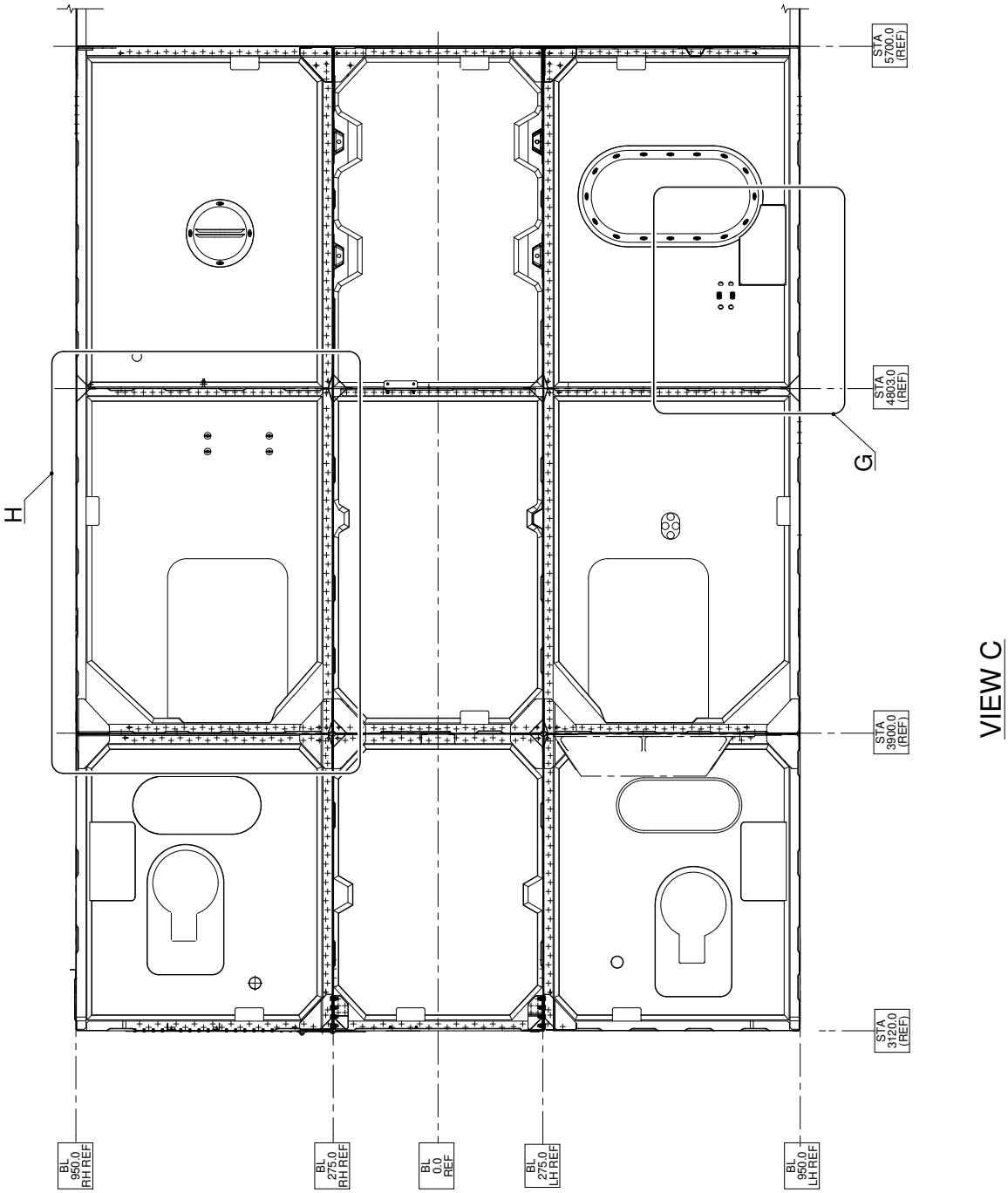

STA 5700.0 (REF)
STA 4803.0 (REF)
STA 3900.0 (REF)
STA 3120.0 (REF)
G
H
VIEW C
BL 950.0 RH REF
BL 275.0 RH REF
BL 0.0 REF
BL 275.0 LH REF
BL 950.0 LH REF

Figure 4

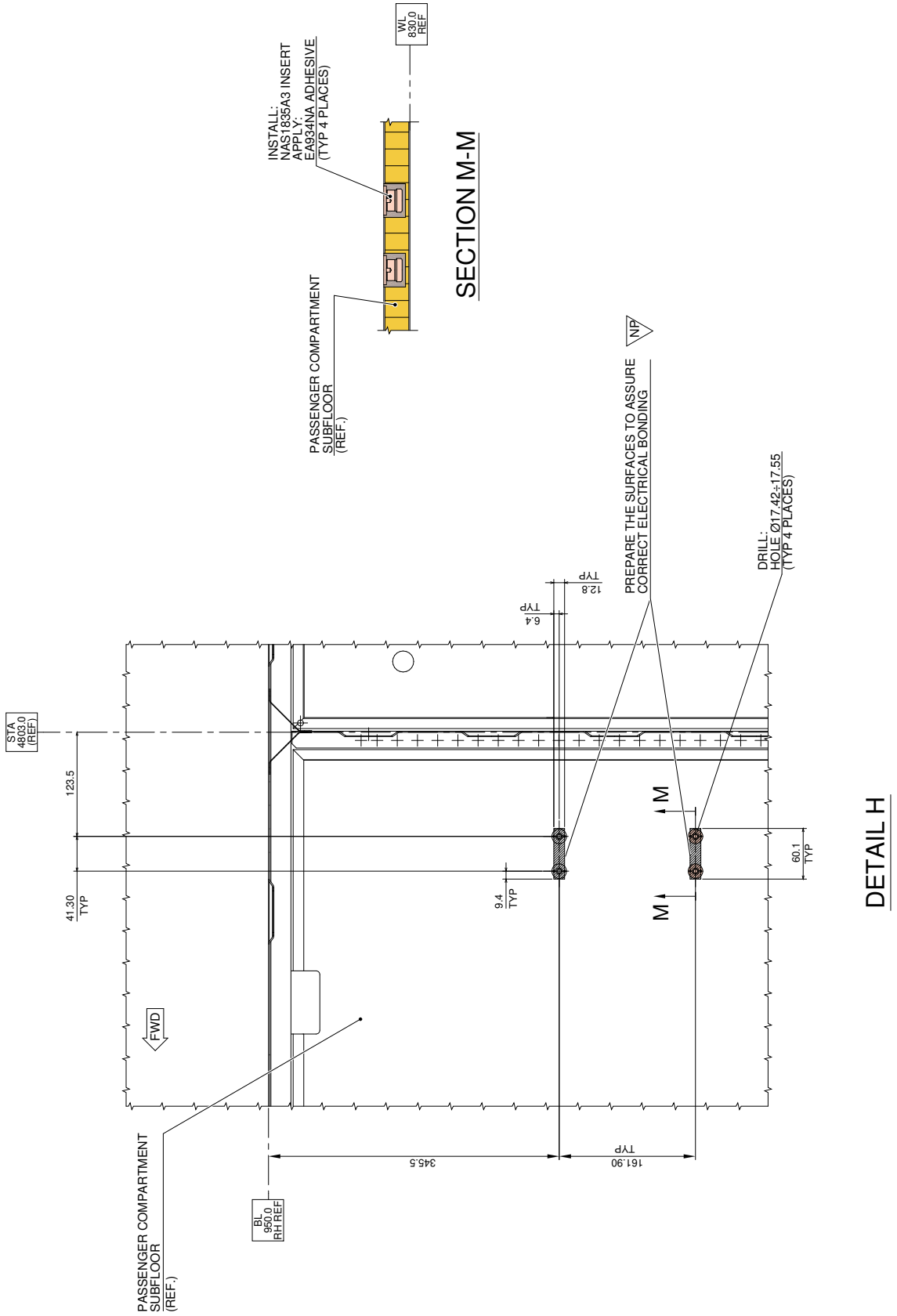
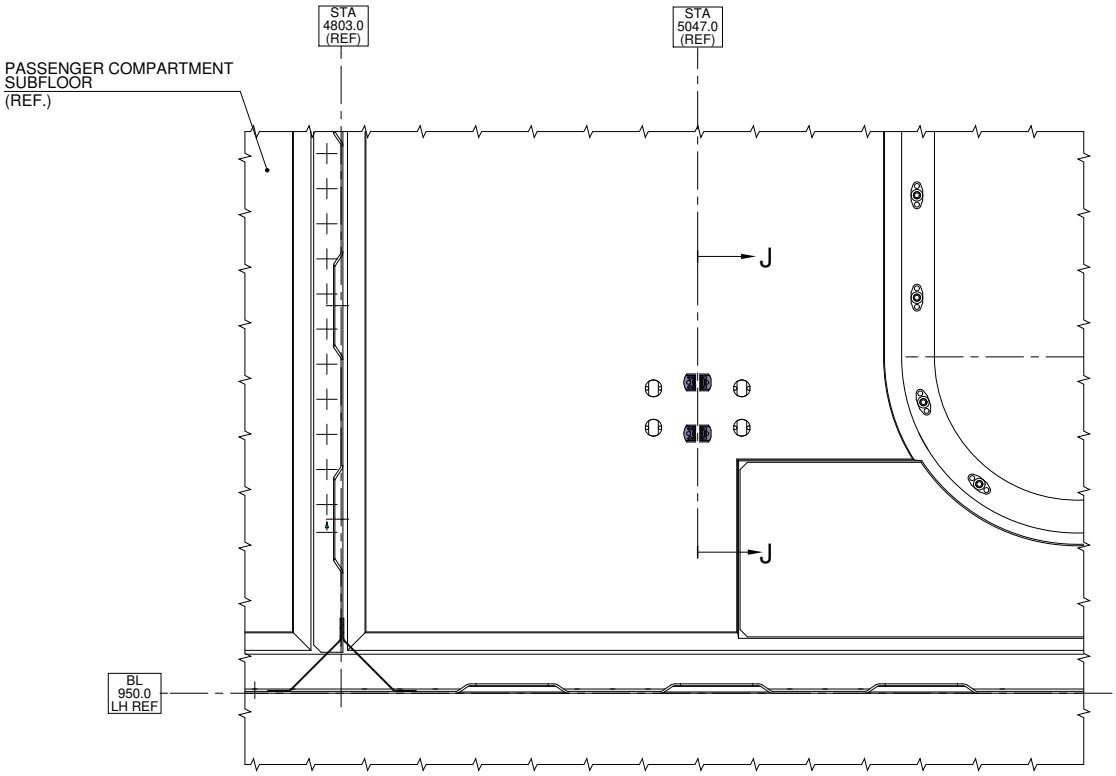
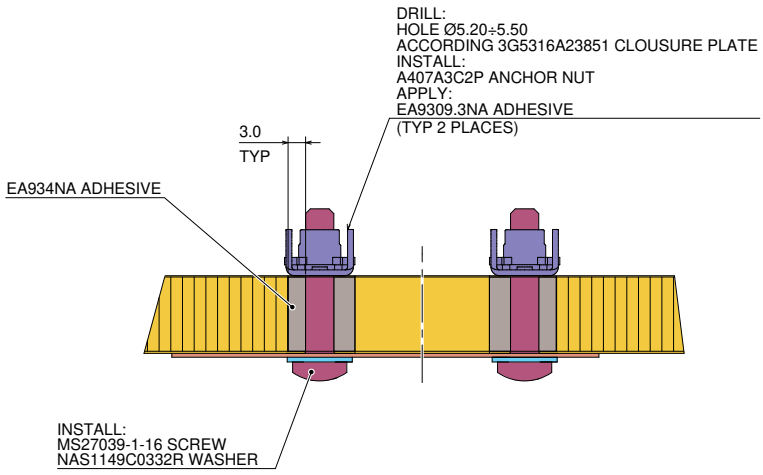

SECTION M-M
INSTALL:
NAS1835A3 INSERT
APPLY:
EA934NA ADHESIVE
(TYP 4 PLACES)
WL
830.0
REF
PASSENGER COMPARTMENT
SUBFLOOR
(REF.)
DETAIL H
PREPARE THE SURFACES TO ASSURE
CORRECT ELECTRICAL BONDING
NP
DRILL:
HOLE Ø17.42÷17.55
(TYP 4 PLACES)
12.8
TYP
6.4
TYP
STA
4803.0
(REF)
123.5
41.30
TYP
9.4
TYP
60.1
TYP
M
M
FWD
345.5
161.90
TYP
BL
950.0
RH REF
PASSENGER COMPARTMENT
SUBFLOOR
(REF.)

Figure 5

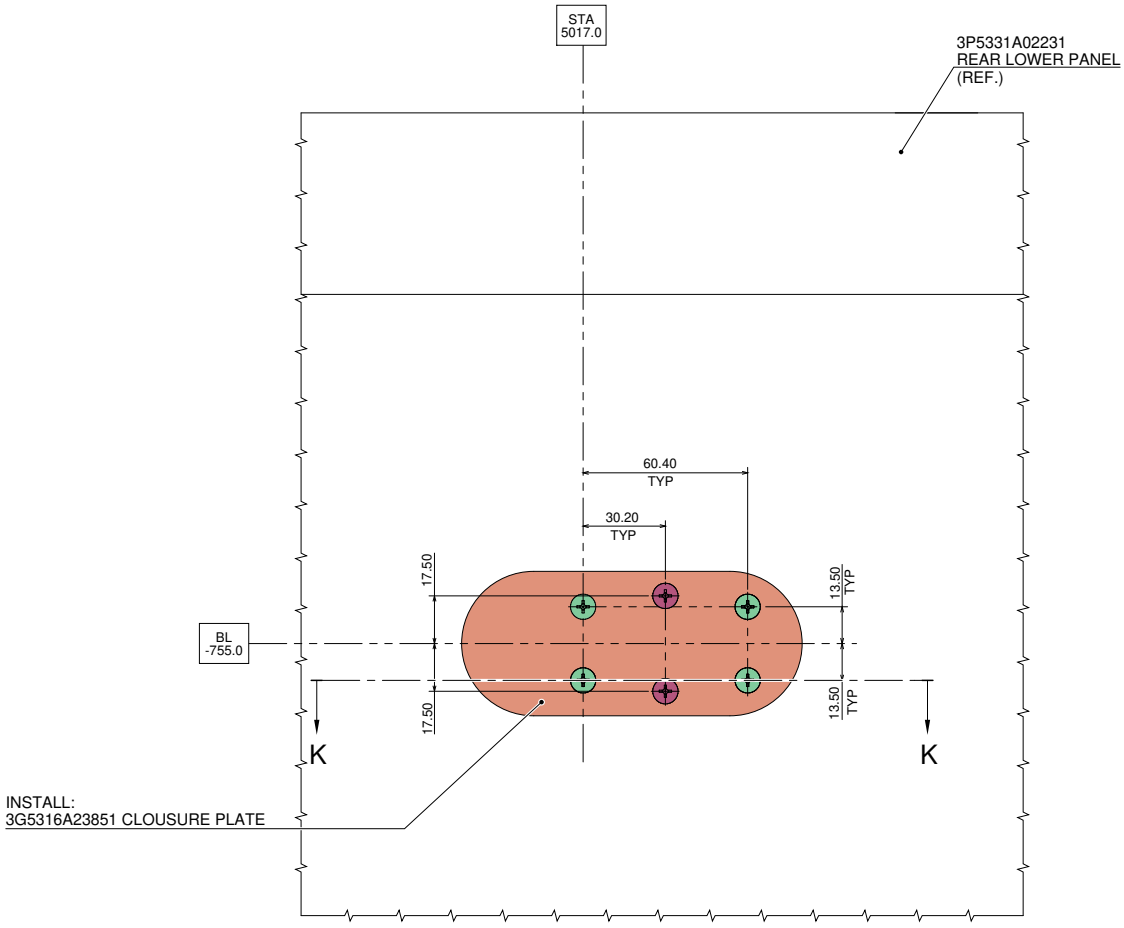


DETAIL G



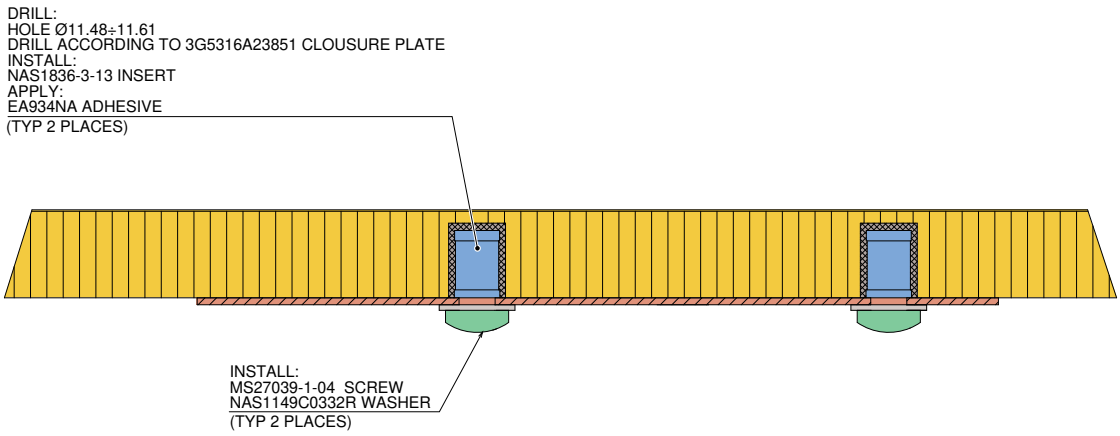
SECTION J-J
ROTATED 90°CCW

Figure 6



VIEW D

(APPLICABLE ONLY TO AW139 HELICOPTERS NOT EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)

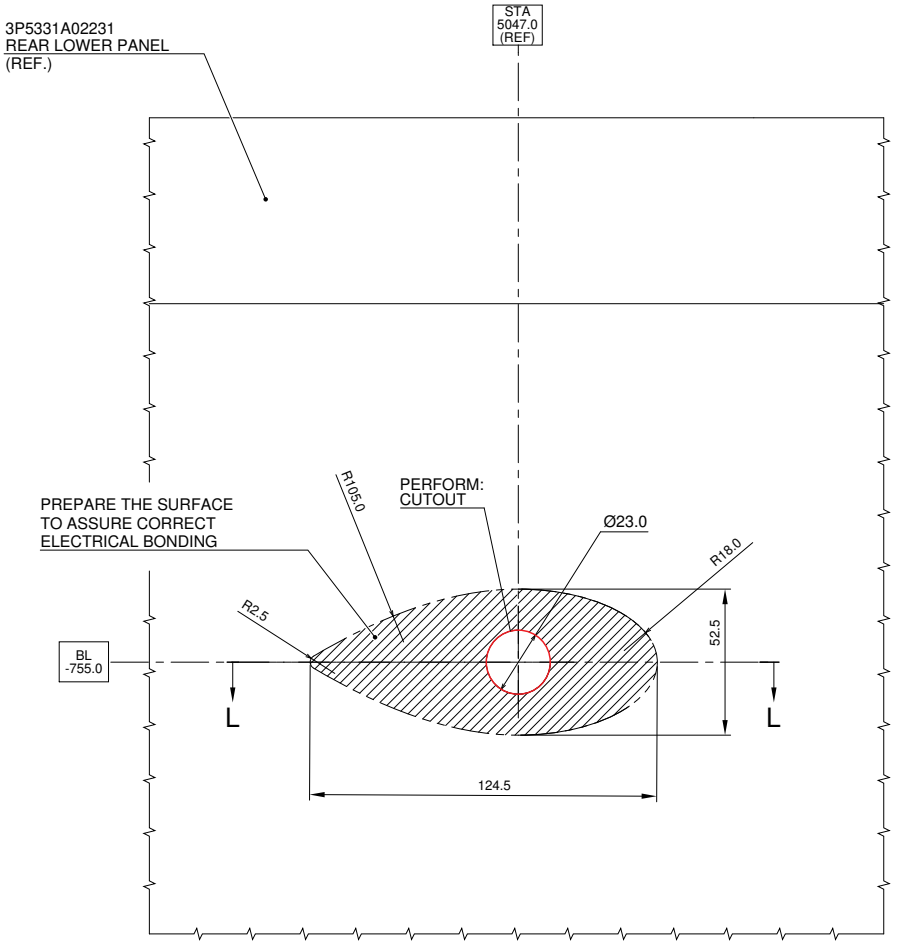


SECTION K-K

(TYP 2 PLACES)

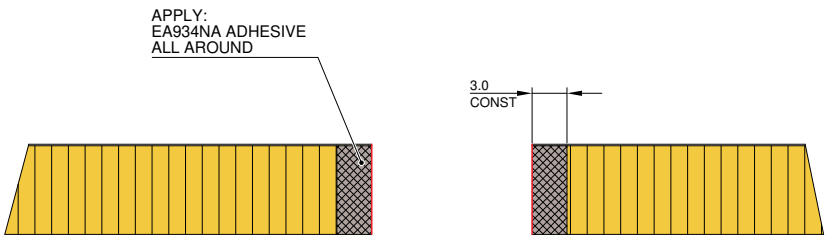
(APPLICABLE ONLY TO AW139 HELICOPTERS NOT EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)

Figure 7



VIEW D

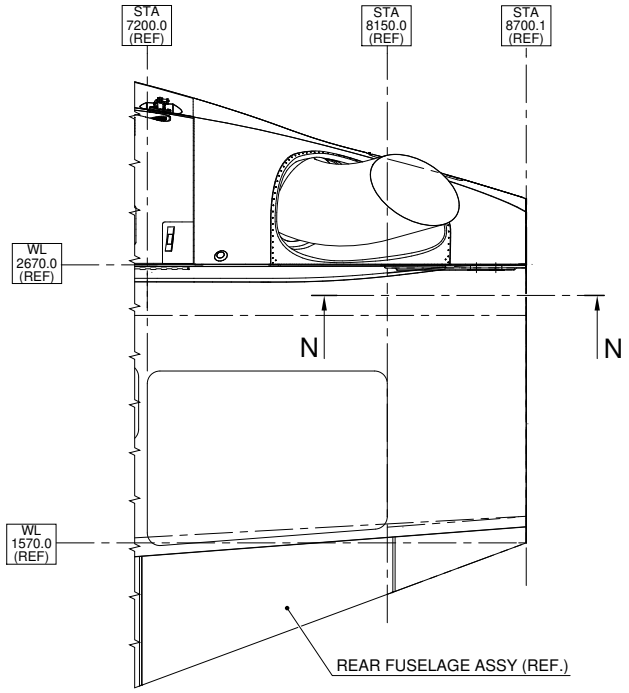
ONLY STRUCTURE SHOWN FOR CLARITY
(APPLICABLE ONLY TO AW139 HELICOPTERS NOT EQUIPPED
WITH KIT SIMPLEX TANK P/N 4G2590F00513)



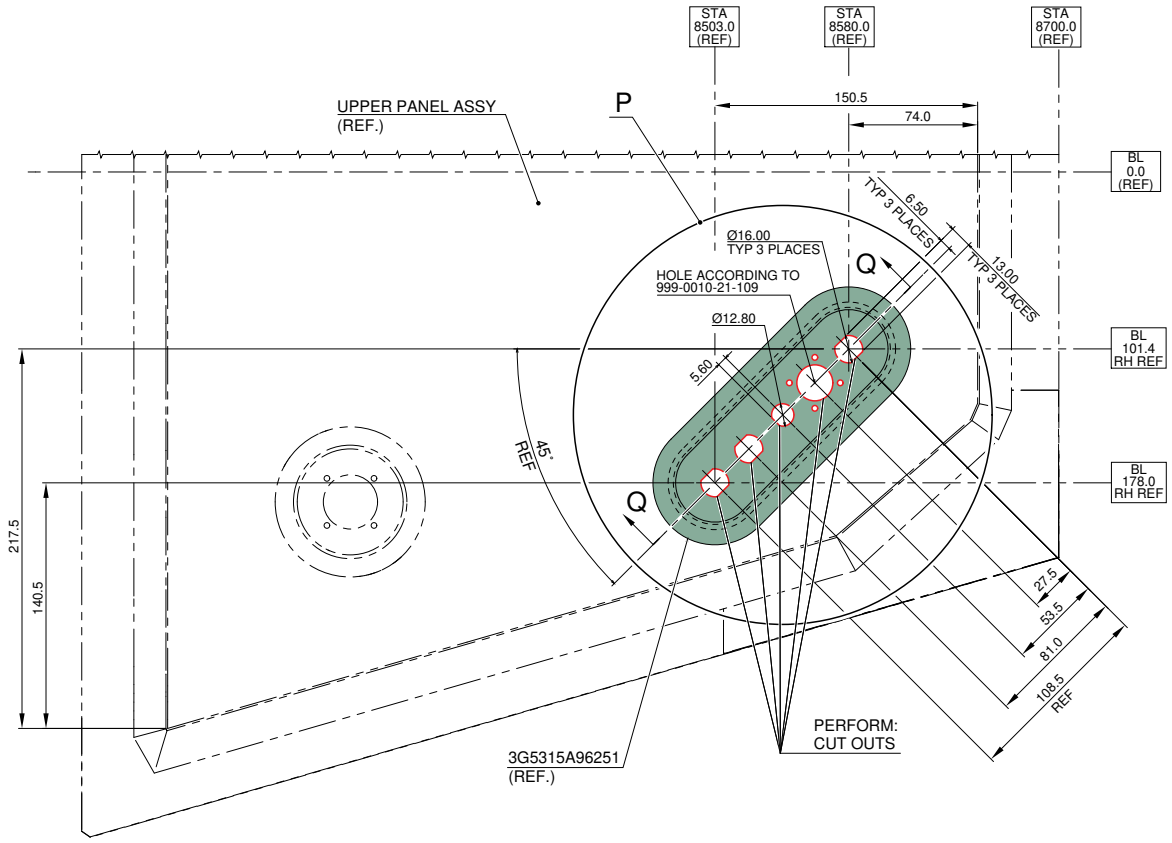
SECTION L-L

(APPLICABLE ONLY TO AW139 HELICOPTERS NOT EQUIPPED
WITH KIT SIMPLEX TANK P/N 4G2590F00513)

Figure 8

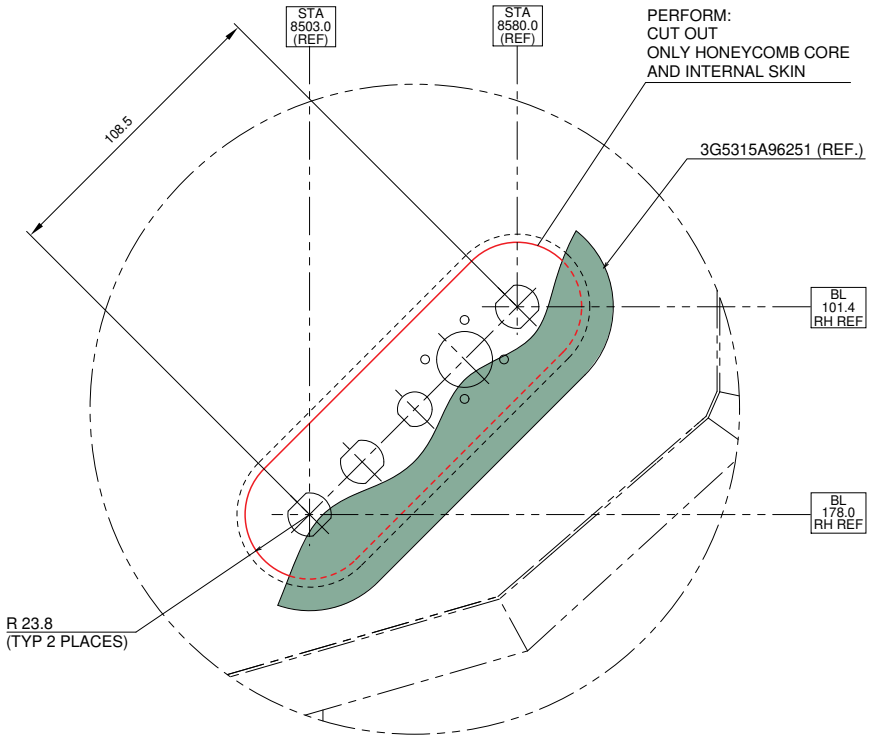


VIEW LOOKING INBOARD LEFT SIDE

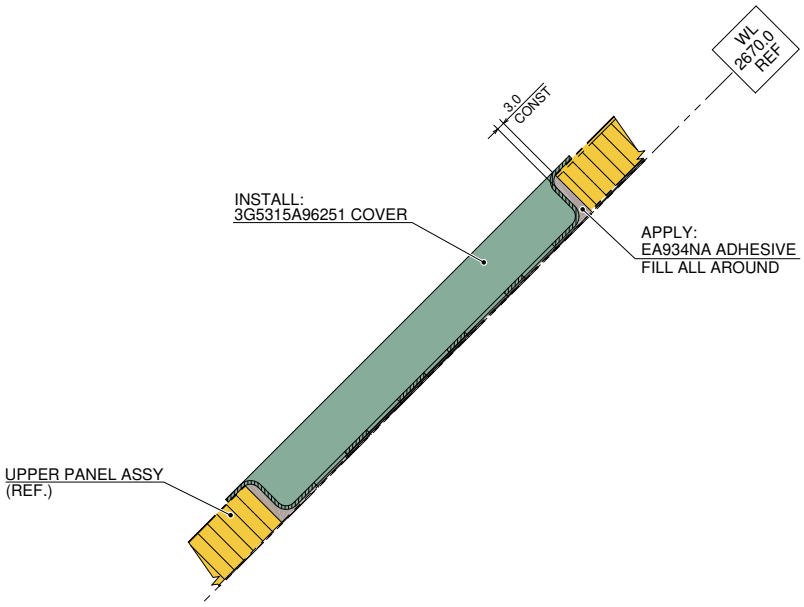


VIEW N-N

Figure 9



DETAIL P



SECTION Q-Q

Figure 10

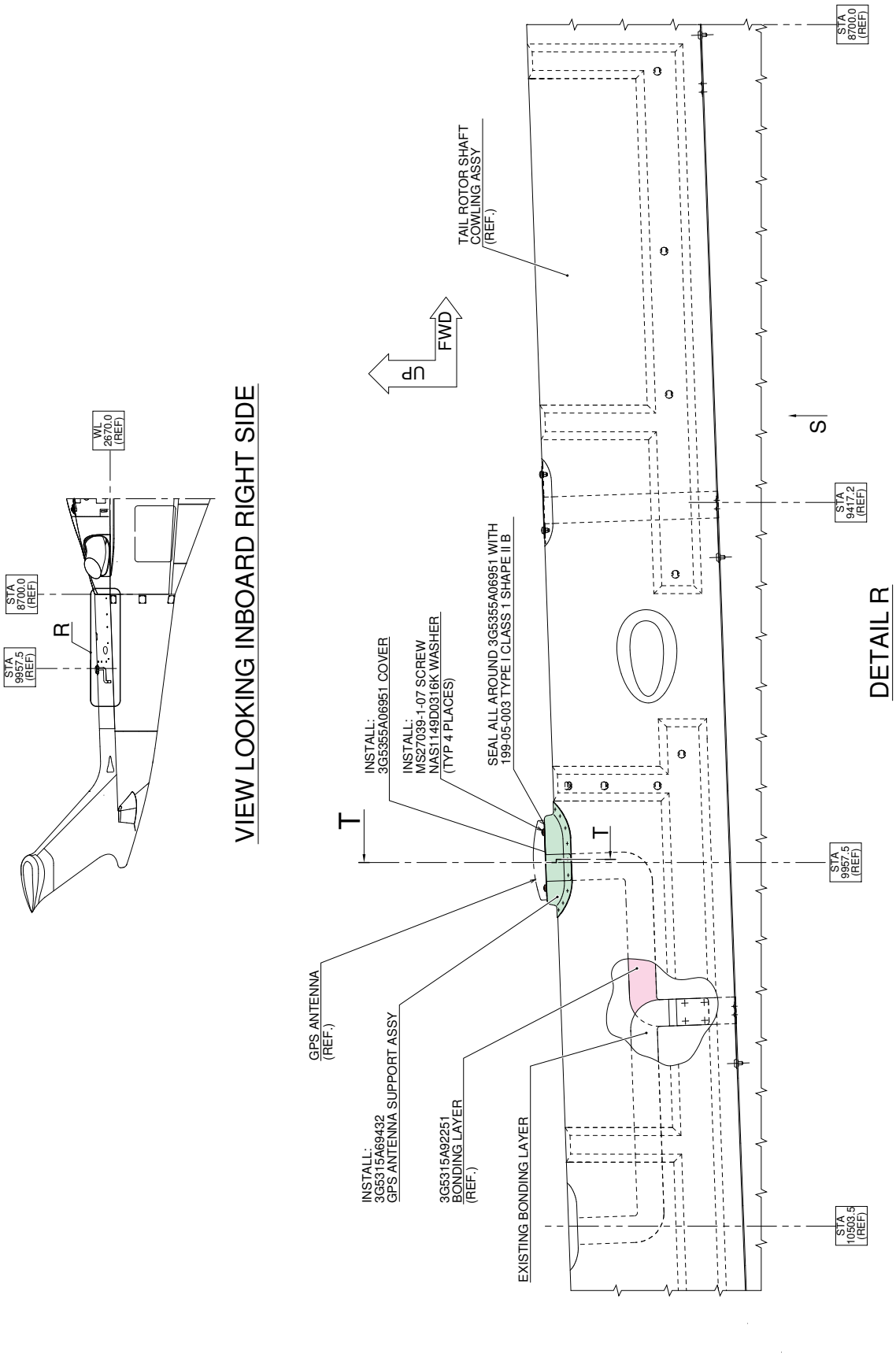

VIEW LOOKING INBOARD RIGHT SIDE
WL 26700.0 (REF.)
STA 8700.0 (REF.)
STA 9957.5 (REF.)
R
DETAIL R
FWD
UP
S
T
TAIL ROTOR SHAFT COWLING ASSY (REF.)
INSTALL: 3G5355A06951 COVER
INSTALL: MS27039-1-07 SCREW NAS1149D0316K WASHER (TYP 4 PLACES)
SEAL ALL AROUND 3G5355A06951 WITH 199-05-003 TYPE I CLASS 1 SHAPE II B
GPS ANTENNA (REF.)
INSTALL: 3G5315A69432 GPS ANTENNA SUPPORT ASSY
3G5315A92251 BONDING LAYER (REF.)
EXISTING BONDING LAYER
STA 8700.0 (REF.)
STA 9417.2 (REF.)
STA 9957.5 (REF.)
STA 10503.5 (REF.)

Figure 11

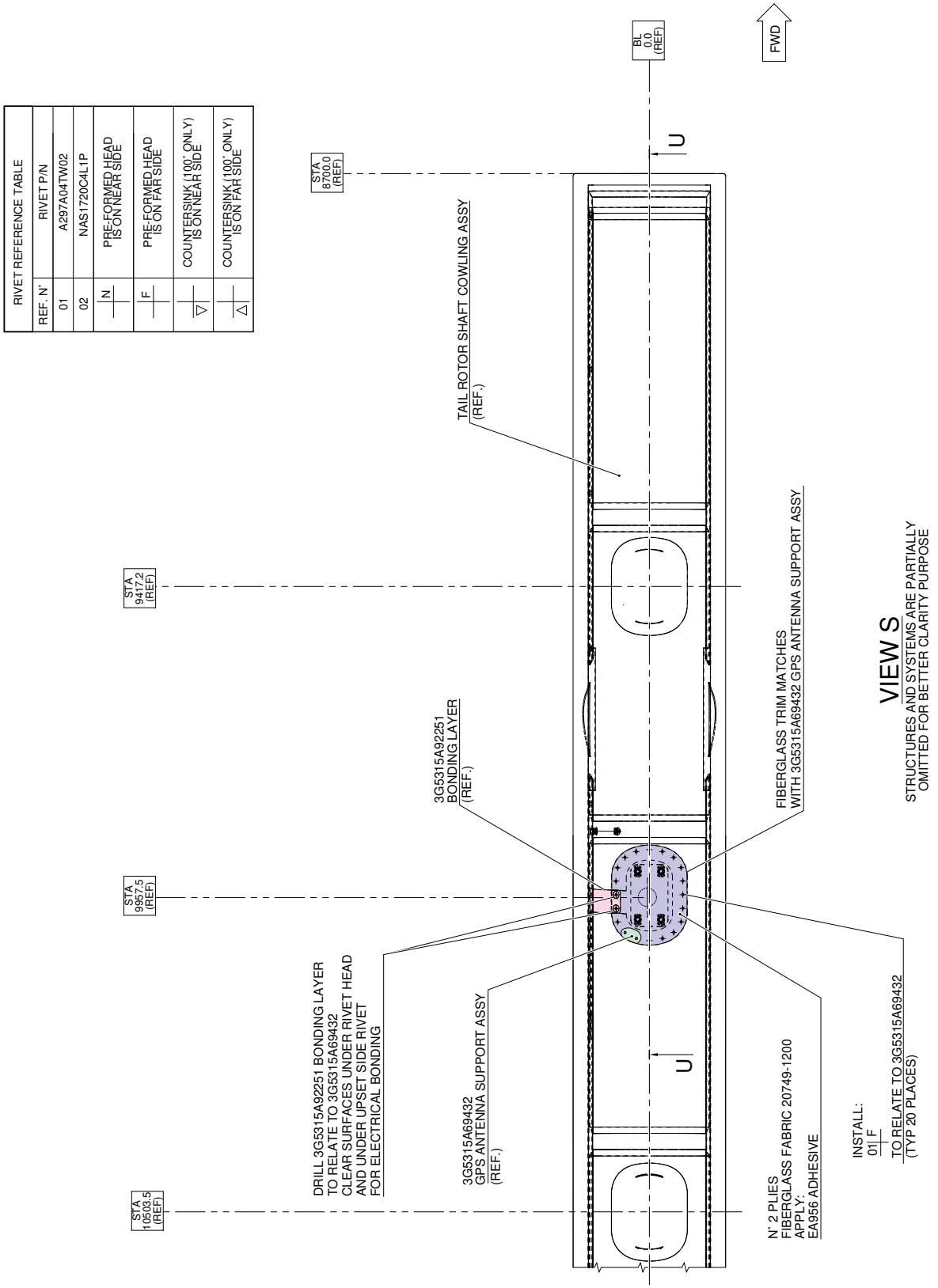
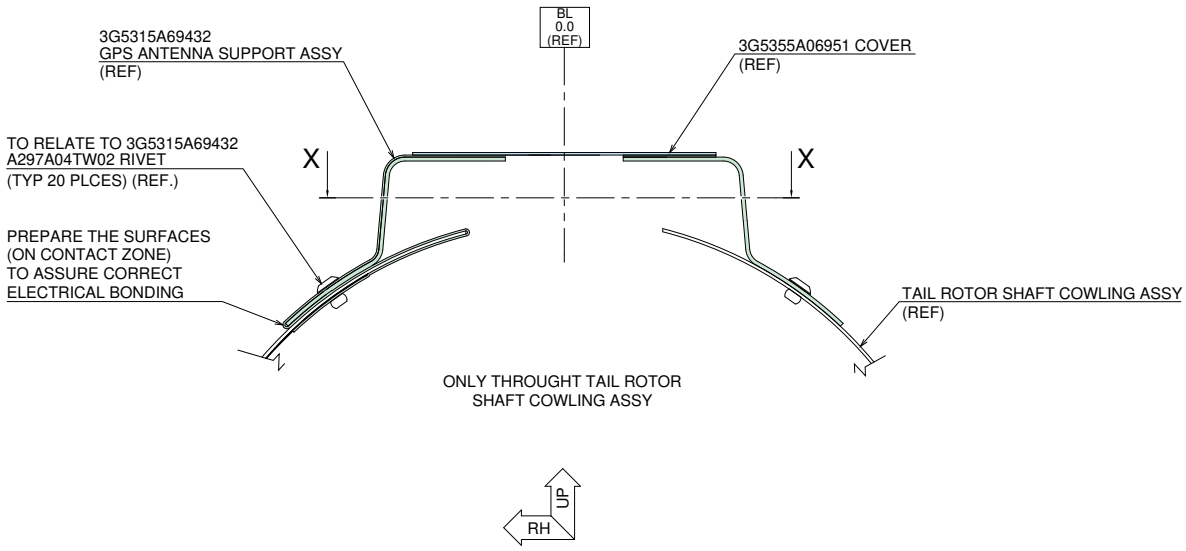
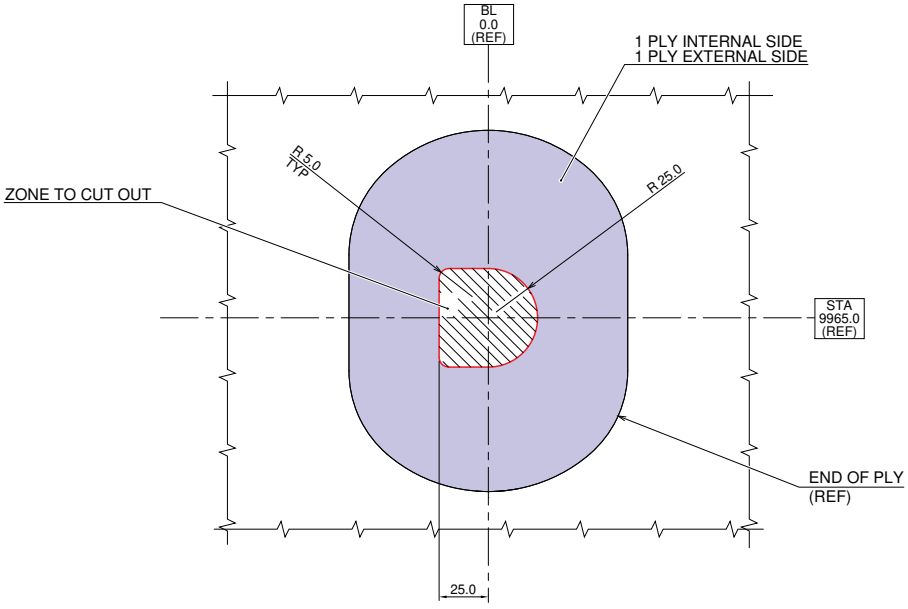

RIVET REFERENCE TABLE
REF. N°
RIVET P/N
01
A297A04TW02
02
NAS1720C4L1P
N
PRE-FORMED HEAD IS ON NEAR SIDE
F
PRE-FORMED HEAD IS ON FAR SIDE
COUNTERSINK (100° ONLY) IS ON NEAR SIDE
COUNTERSINK (100° ONLY) IS ON FAR SIDE
STA 8700.0 (REF.)
BL 0.0 (REF.)
FWD
U
TAIL ROTOR SHAFT COWLING ASSY (REF.)
STA 9417.2 (REF.)
3G5315A92251 BONDING LAYER (REF.)
FIBERGLASS TRIM MATCHES WITH 3G5315A69432 GPS ANTENNA SUPPORT ASSY
STA 9957.5 (REF.)
VIEW S
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
DRILL 3G5315A92251 BONDING LAYER TO RELATE TO 3G5315A69432 CLEAR SURFACES UNDER RIVET HEAD AND UNDER UPSET SIDE RIVET FOR ELECTRICAL BONDING
3G5315A69432 GPS ANTENNA SUPPORT ASSY (REF.)
STA 10503.5 (REF.)
N° 2 PLIES FIBERGLASS FABRIC 20749-1200 APPLY: EA956 ADHESIVE
INSTALL: 01 F TO RELATE TO 3G5315A69432 (TYP 20 PLACES)

Figure 12



SECTION T-T



SECTION X-X

Figure 13

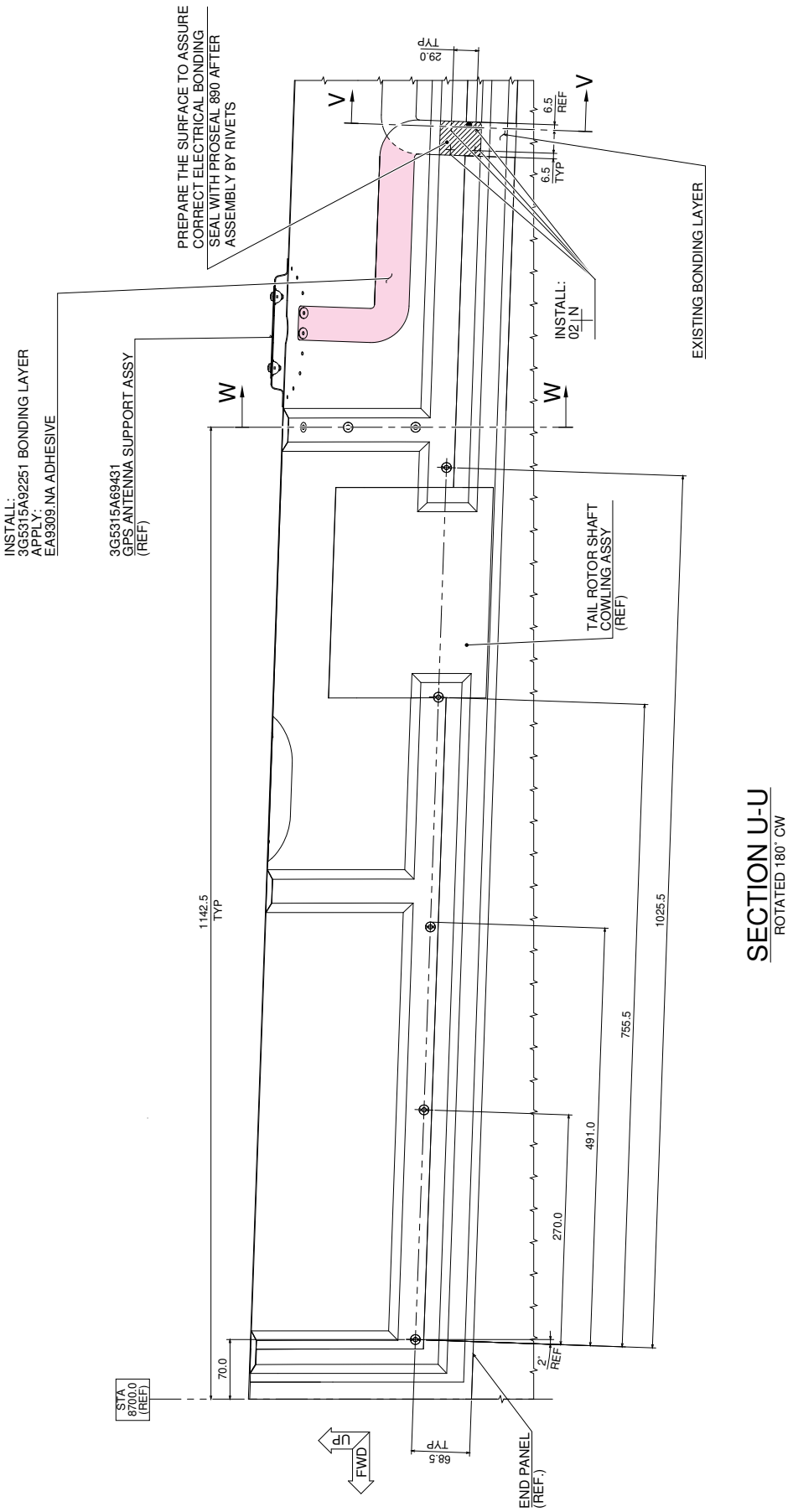

PREPARE THE SURFACE TO ASSURE CORRECT ELECTRICAL BONDING
SEAL WITH PROSEAL 890 AFTER ASSEMBLY BY RIVETS
INSTALL: 3G5315A92251 BONDING LAYER
APPLY: EA9309.NA ADHESIVE
3G5315A69431 GPS ANTENNA SUPPORT ASSY (REF)
INSTALL: 02.1.N
EXISTING BONDING LAYER
TAIL ROTOR SHAFT COWLING ASSY (REF)
29.0 TYP
6.5 REF
6.5 TYP
1142.5 TYP
1025.5
755.5
491.0
270.0
2" REF
70.0
68.5 TYP
STA 8700.0 (REF.)
UP
FWD
END PANEL (REF.)
SECTION U-U
ROTATED 180° CW

Figure 14

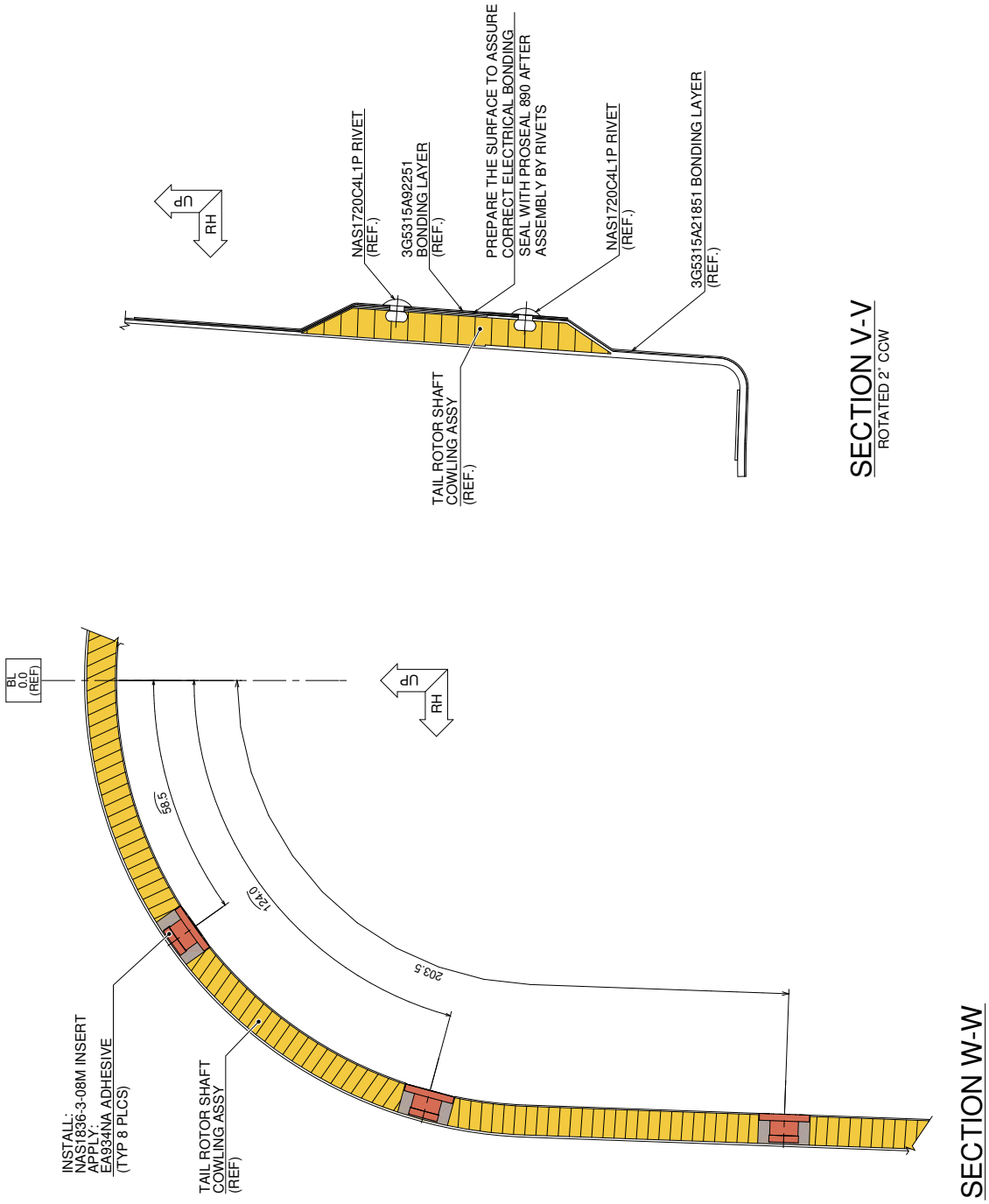

SECTION V-V
ROTATED 2° CCW
NAS1720C4L1P RIVET (REF.)
3G5315A92251 BONDING LAYER (REF.)
PREPARE THE SURFACE TO ASSURE CORRECT ELECTRICAL BONDING SEAL WITH PROSEAL 890 AFTER ASSEMBLY BY RIVETS
NAS1720C4L1P RIVET (REF.)
3G5315A21851 BONDING LAYER (REF.)
TAIL ROTOR SHAFT COWLING ASSY (REF.)
UP
RH
SECTION W-W
BL 0.0 (REF)
UP
RH
58.5
124.0
203.5
INSTALL: NAS1836-3-08M INSERT APPLY: EA934NA ADHESIVE (TYP 8 PLCS)
TAIL ROTOR SHAFT COWLING ASSY (REF)

Figure 15

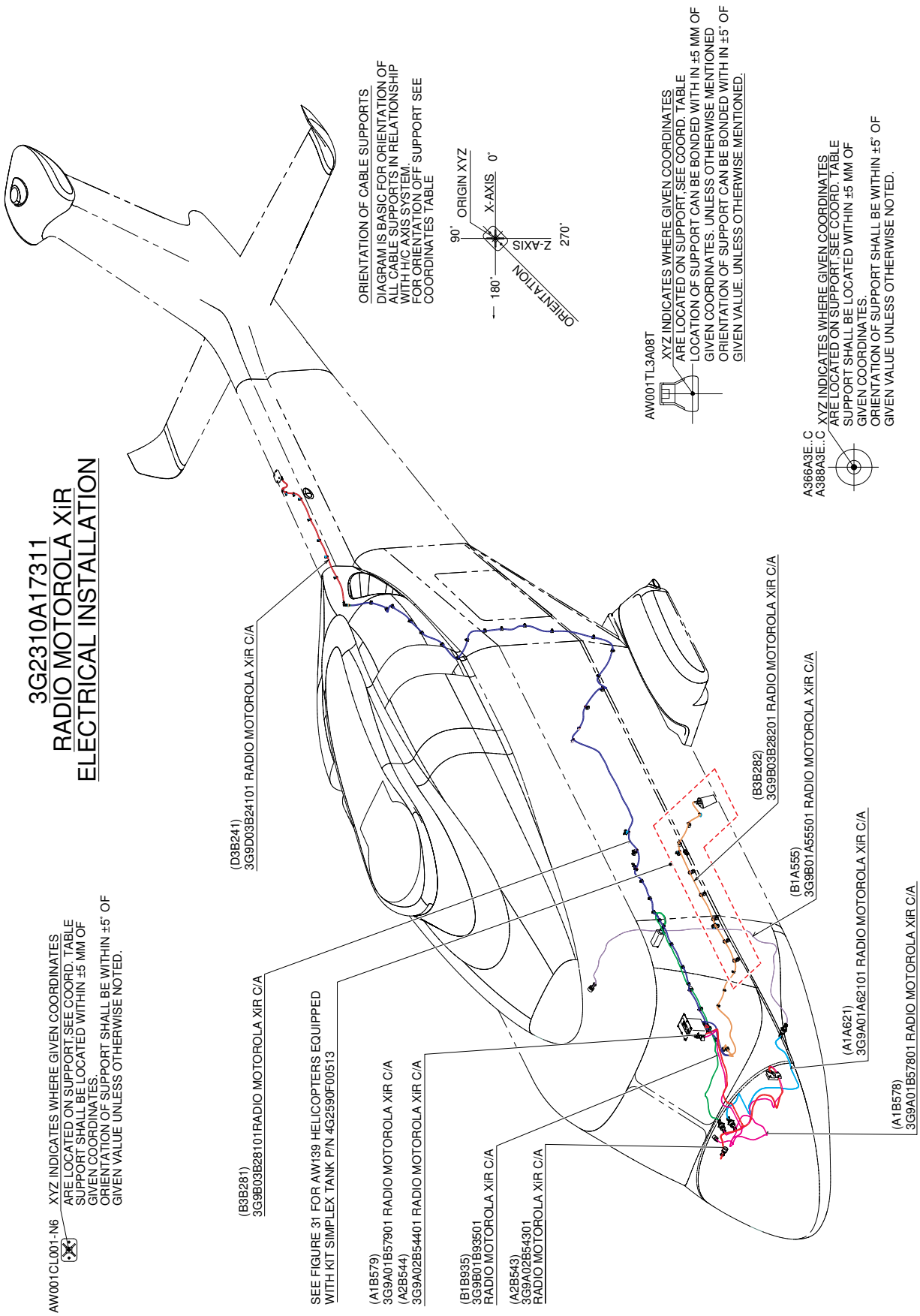

3G2310A17311
RADIO MOTOROLA XiR
ELECTRICAL INSTALLATION
AW001CL001-N6
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT,SEE COORD. TABLE SUPPORT SHALL BE LOCATED WITHIN ±5 MM OF GIVEN COORDINATES.
ORIENTATION OF SUPPORT SHALL BE WITHIN ±5° OF GIVEN VALUE UNLESS OTHERWISE NOTED.
(B3B281)
3G9B03B28101RADIO MOTOROLA XiR C/A
SEE FIGURE 31 FOR AW139 HELICOPTERS EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513
(A1B579)
3G9A01B57901 RADIO MOTOROLA XiR C/A
(A2B544)
3G9A02B54401 RADIO MOTOROLA XiR C/A
(B1B935)
3G9B01B93501
RADIO MOTOROLA XiR C/A
(A2B543)
3G9A02B54301
RADIO MOTOROLA XiR C/A
(D3B241)
3G9D03B24101 RADIO MOTOROLA XiR C/A
ORIENTATION OF CABLE SUPPORTS
DIAGRAM IS BASIC FOR ORIENTATION OF ALL CABLE SUPPORTS IN RELATIONSHIP WITH H/C AXIS SYSTEM.
FOR ORIENTATION OFF SUPPORT SEE COORDINATES TABLE
90°
ORIGIN XYZ
X-AXIS
0°
180°
Z-AXIS
270°
ORIENTATION
AW001TL3A08T
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A366A3E..C
A388A3E..C
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT,SEE COORD. TABLE
SUPPORT SHALL BE LOCATED WITHIN ±5 MM OF GIVEN COORDINATES.
ORIENTATION OF SUPPORT SHALL BE WITHIN ±5° OF GIVEN VALUE UNLESS OTHERWISE NOTED.
(B3B282)
3G9B03B28201 RADIO MOTOROLA XiR C/A
(B1A555)
3G9B01A55501 RADIO MOTOROLA XiR C/A
(A1A621)
3G9A01A62101 RADIO MOTOROLA XiR C/A
(A1B578)
3G9A01B57801 RADIO MOTOROLA XiR C/A

Figure 16

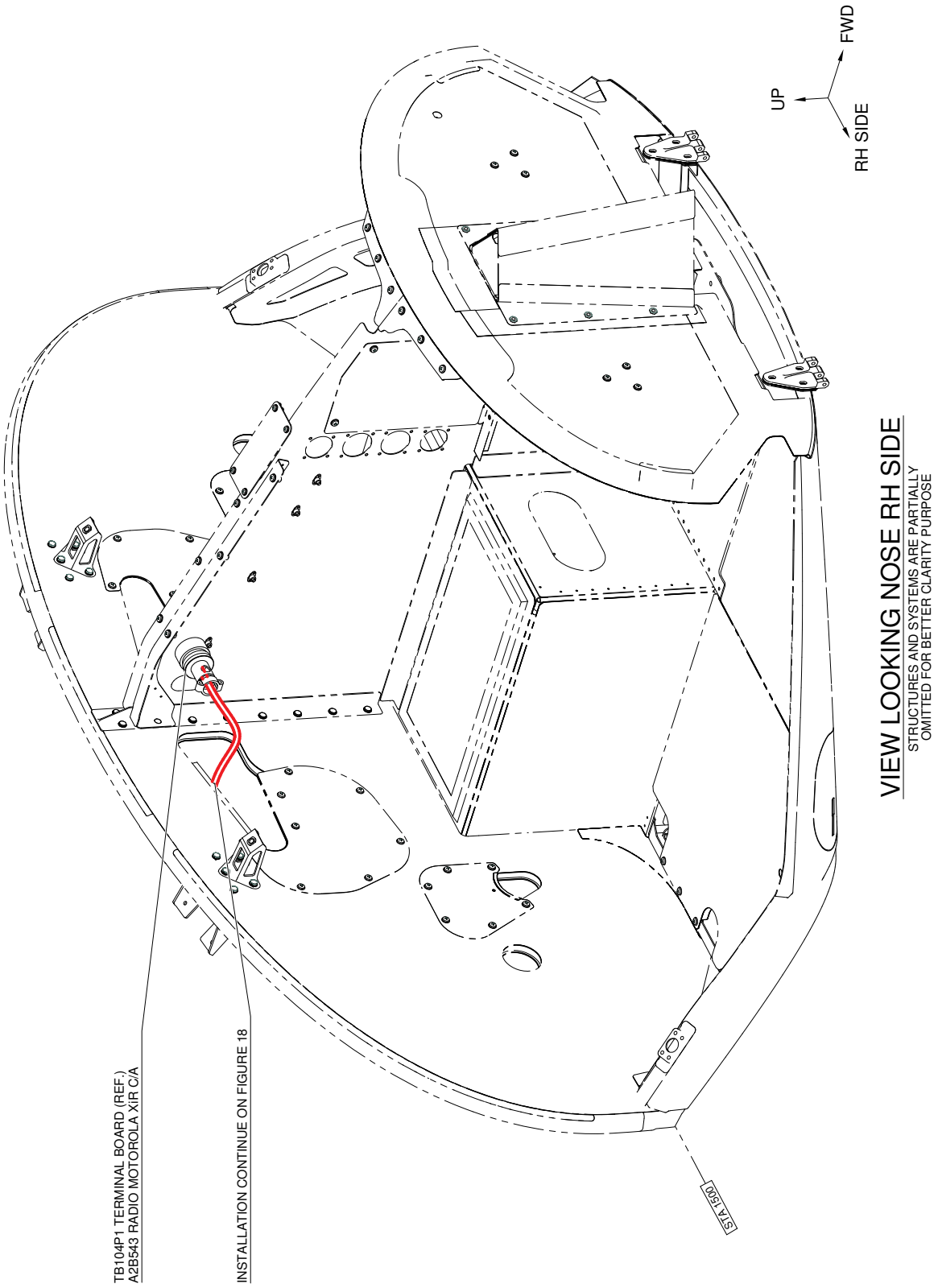

FWD
UP
RH SIDE
VIEW LOOKING NOSE RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
TB104P1 TERMINAL BOARD (REF.)
A2B543 RADIO MOTOROLA XIR C/A
INSTALLATION CONTINUE ON FIGURE 18
STA 505

Figure 17

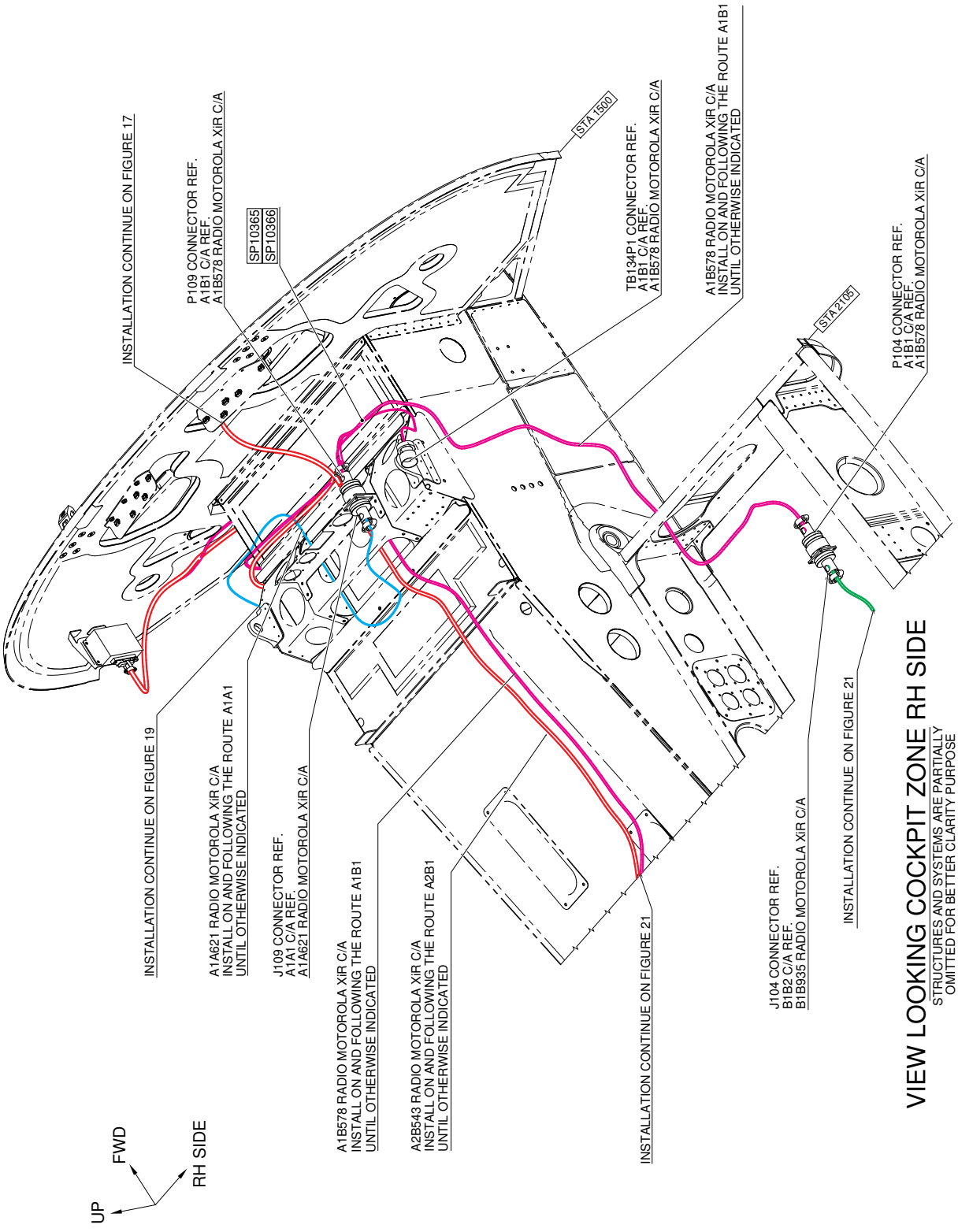

VIEW LOOKING COCKPIT ZONE RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALLATION CONTINUE ON FIGURE 17
INSTALLATION CONTINUE ON FIGURE 19
P109 CONNECTOR REF.
A1B1 C/A REF.
A1B578 RADIO MOTOROLA XiR C/A
SP10365
SP10366
STA 1500
TB134P1 CONNECTOR REF.
A1B1 C/A REF.
A1B578 RADIO MOTOROLA XiR C/A
A1B578 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A1B1
UNTIL OTHERWISE INDICATED
P104 CONNECTOR REF.
A1B1 C/A REF.
A1B578 RADIO MOTOROLA XiR C/A
STA 2105
A1A621 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A1A1
UNTIL OTHERWISE INDICATED
J109 CONNECTOR REF.
A1A1 C/A REF.
A1A621 RADIO MOTOROLA XiR C/A
A1B578 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A1B1
UNTIL OTHERWISE INDICATED
A2B543 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A2B1
UNTIL OTHERWISE INDICATED
INSTALLATION CONTINUE ON FIGURE 21
J104 CONNECTOR REF.
B1B2 C/A REF.
B1B935 RADIO MOTOROLA XiR C/A
INSTALLATION CONTINUE ON FIGURE 21
UP
FWD
RH SIDE

Figure 18

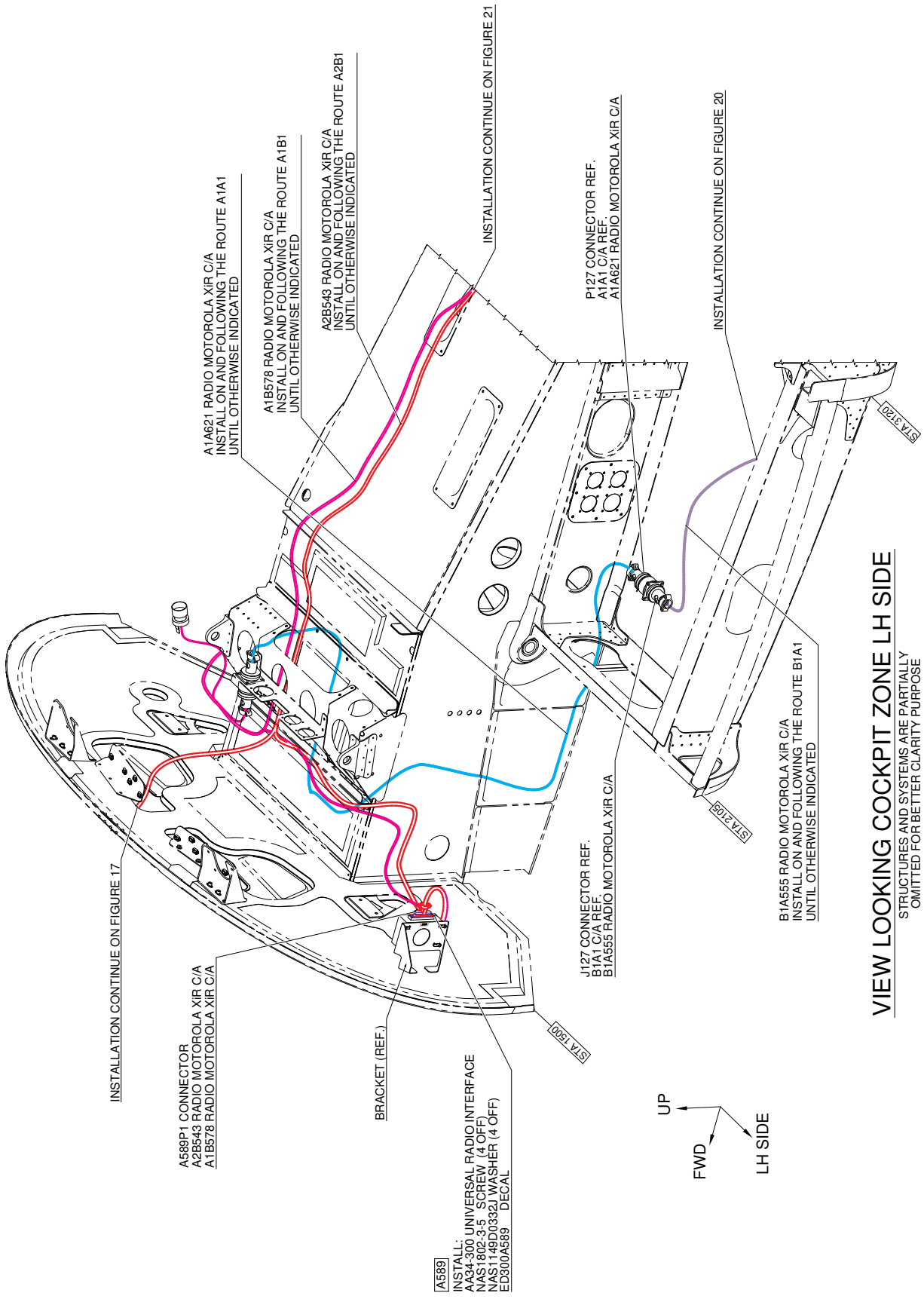
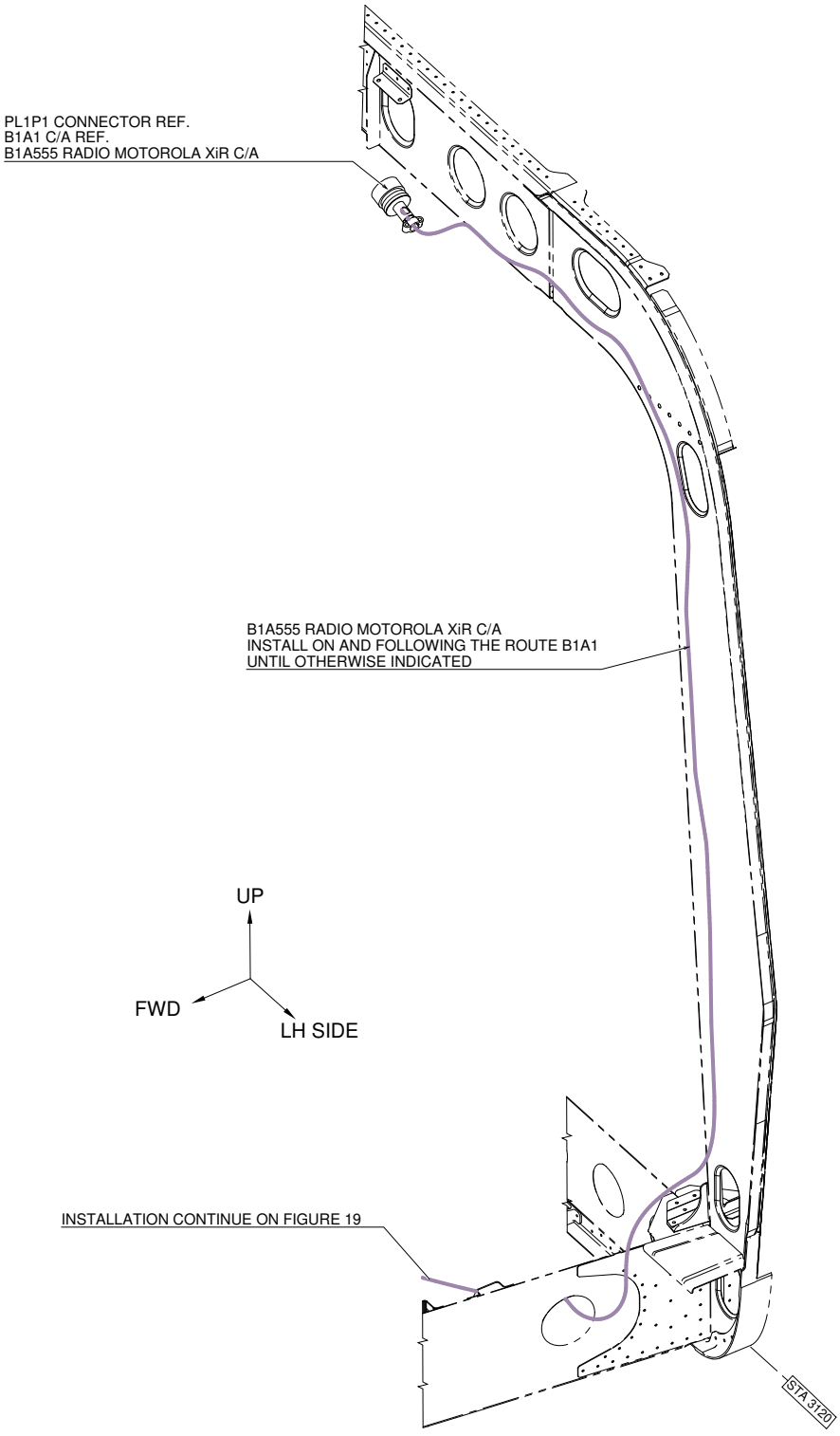

A1A621 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A1A1
UNTIL OTHERWISE INDICATED
A1B578 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A1B1
UNTIL OTHERWISE INDICATED
A2B543 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE A2B1
UNTIL OTHERWISE INDICATED
INSTALLATION CONTINUE ON FIGURE 21
P127 CONNECTOR REF.
A1A1 C/A REF.
A1A621 RADIO MOTOROLA XiR C/A
INSTALLATION CONTINUE ON FIGURE 20
STA 312.0
STA 210.6
B1A555 RADIO MOTOROLA XiR C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A1
UNTIL OTHERWISE INDICATED
J127 CONNECTOR REF.
B1A1 C/A REF.
B1A555 RADIO MOTOROLA XiR C/A
STA 150.0
INSTALLATION CONTINUE ON FIGURE 17
A589P1 CONNECTOR
A2B543 RADIO MOTOROLA XiR C/A
A1B578 RADIO MOTOROLA XiR C/A
BRACKET (REF.)
A589
INSTALL:
AA34-300 UNIVERSAL RADIO INTERFACE
NAS1802-3-5 SCREW (4 OFF)
NAS1149D0332J WASHER (4 OFF)
ED300A589 DECAL
UP
FWD
LH SIDE
VIEW LOOKING COCKPIT ZONE LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 19



VIEW LOOKING STA 3120 LH SIDE

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 20

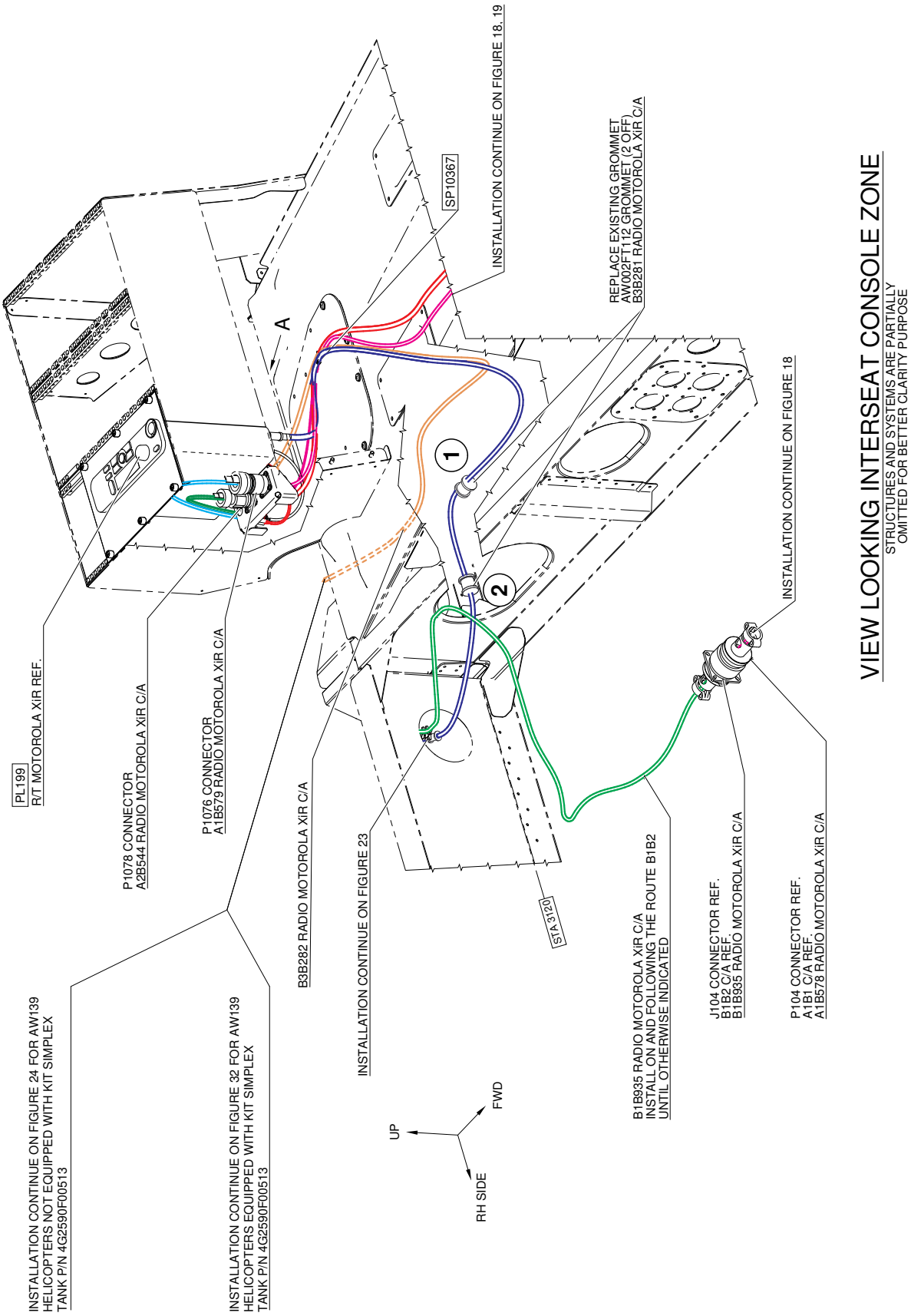

VIEW LOOKING INTERSEAT CONSOLE ZONE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALLATION CONTINUE ON FIGURE 18, 19
SP10367
REPLACE EXISTING GROMMET AW002FT112 GROMMET (2 OFF) B3B281 RADIO MOTOROLA XiR C/A
INSTALLATION CONTINUE ON FIGURE 18
PL199 R/T MOTOROLA XiR REF.
P1078 CONNECTOR A2B544 RADIO MOTOROLA XiR C/A
P1076 CONNECTOR A1B579 RADIO MOTOROLA XiR C/A
B3B282 RADIO MOTOROLA XiR C/A
INSTALLATION CONTINUE ON FIGURE 23
STA 3120
B1B935 RADIO MOTOROLA XiR C/A INSTALL ON AND FOLLOWING THE ROUTE B1B2 UNTIL OTHERWISE INDICATED
J104 CONNECTOR REF. B1B2 C/A REF. B1B935 RADIO MOTOROLA XiR C/A
P104 CONNECTOR REF. A1B1 C/A REF. A1B578 RADIO MOTOROLA XiR C/A
INSTALLATION CONTINUE ON FIGURE 24 FOR AW139 HELICOPTERS NOT EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513
INSTALLATION CONTINUE ON FIGURE 32 FOR AW139 HELICOPTERS EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513
UP
FWD
RH SIDE
A
1
2

Figure 21

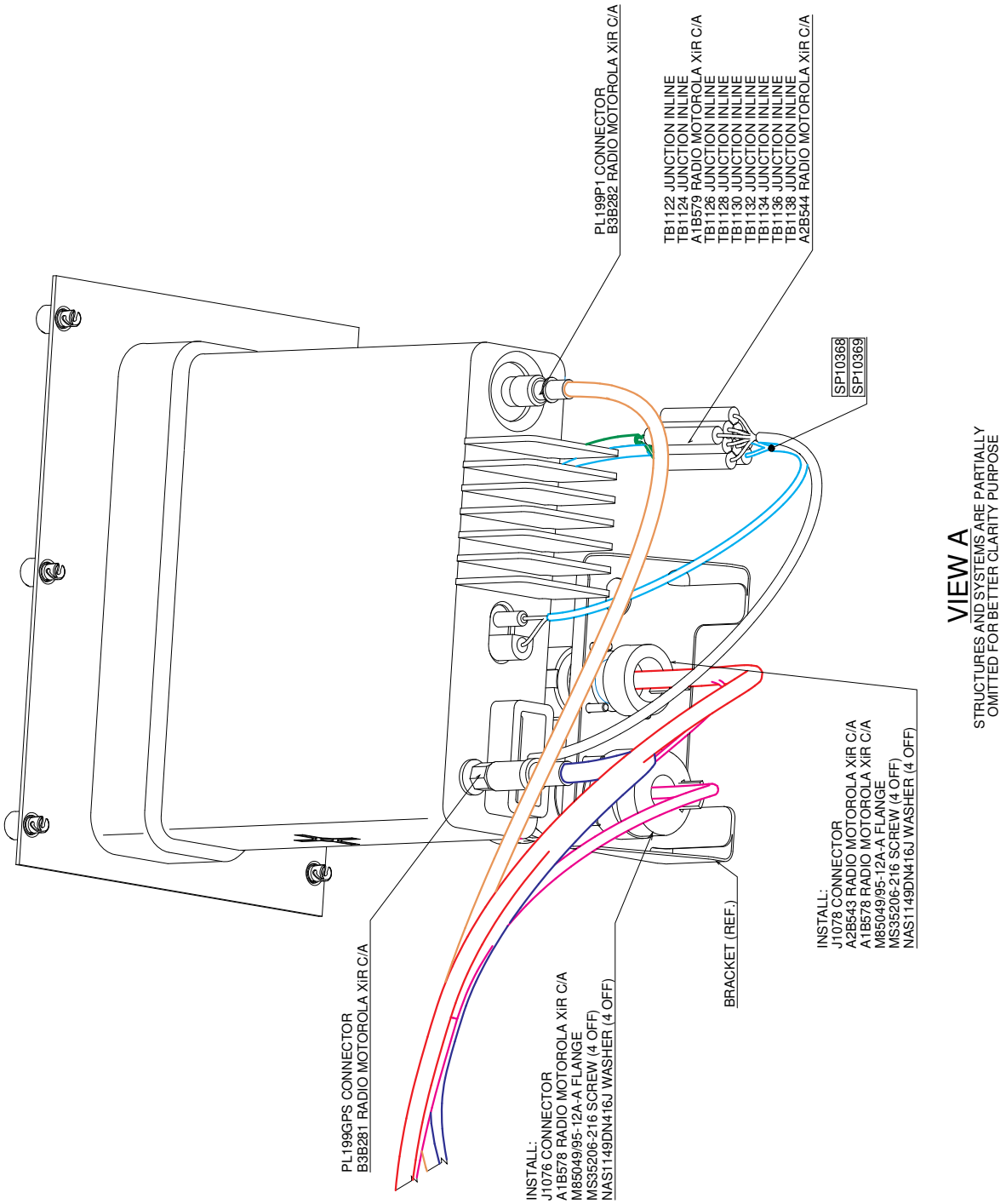

PL199P1 CONNECTOR
B3B282 RADIO MOTOROLA XiR C/A
TB1122 JUNCTION INLINE
TB1124 JUNCTION INLINE
A1B579 RADIO MOTOROLA XiR C/A
TB1126 JUNCTION INLINE
TB1128 JUNCTION INLINE
TB1130 JUNCTION INLINE
TB1132 JUNCTION INLINE
TB1134 JUNCTION INLINE
TB1136 JUNCTION INLINE
TB1138 JUNCTION INLINE
A2B544 RADIO MOTOROLA XiR C/A
SP10368
SP10369
VIEW A
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
INSTALL:
J1078 CONNECTOR
A2B543 RADIO MOTOROLA XiR C/A
A1B578 RADIO MOTOROLA XiR C/A
M85049/95-12A-A FLANGE
MS35206-216 SCREW (4 OFF)
NAS1149DN416J WASHER (4 OFF)
BRACKET (REF.)
INSTALL:
J1076 CONNECTOR
A1B578 RADIO MOTOROLA XiR C/A
M85049/95-12A-A FLANGE
MS35206-216 SCREW (4 OFF)
NAS1149DN416J WASHER (4 OFF)
PL199GPS CONNECTOR
B3B281 RADIO MOTOROLA XiR C/A

Figure 22

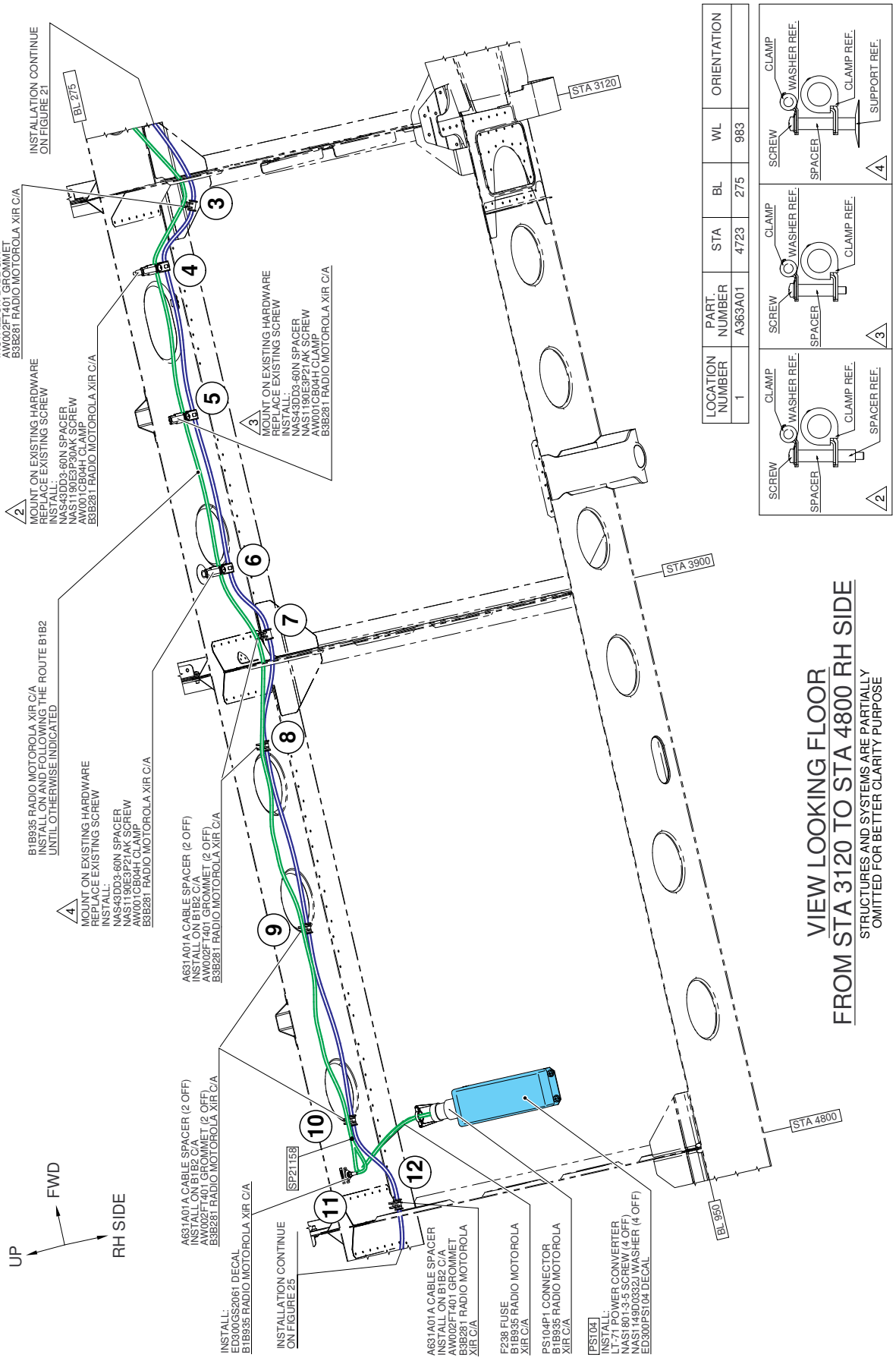

VIEW LOOKING FLOOR
FROM STA 3120 TO STA 4800 RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
STA 3120
STA 3900
STA 4800
BL 275
BL 950
FWD
UP
RH SIDE
LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
1
A363A01
4723
275
983
INSTALLATION CONTINUE ON FIGURE 21
INSTALLATION CONTINUE ON FIGURE 25
SP21158
A631A01A CABLE SPACER INSTALL ON B1B2 C/A AW002FT401 GROMMET B3B281 RADIO MOTOROLA XiR C/A
B1B935 RADIO MOTOROLA XiR C/A INSTALL ON AND FOLLOWING THE ROUTE B1B2 UNTIL OTHERWISE INDICATED
2 MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS43DD3-60N SPACER NAS1190E3P30AK SCREW AW001CB04H CLAMP B3B281 RADIO MOTOROLA XiR C/A
3 MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS43DD3-60N SPACER NAS1190E3P21AK SCREW AW001CB04H CLAMP B3B281 RADIO MOTOROLA XiR C/A
4 MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS43DD3-60N SPACER NAS1190E3P21AK SCREW AW001CB04H CLAMP B3B281 RADIO MOTOROLA XiR C/A
INSTALL: ED300GS2061 DECAL B1B935 RADIO MOTOROLA XiR C/A
F238 FUSE B1B935 RADIO MOTOROLA XiR C/A
PS104P1 CONNECTOR B1B935 RADIO MOTOROLA XiR C/A
PS104
INSTALL: LJ-71 POWER CONVERTER NAS1801-3-5 SCREW (4 OFF) NAS1149D0332J WASHER (4 OFF) ED300PS104 DECAL
SCREW
WASHER REF.
CLAMP
SPACER
CLAMP REF.
SPACER REF.
SUPPORT REF.

Figure 23

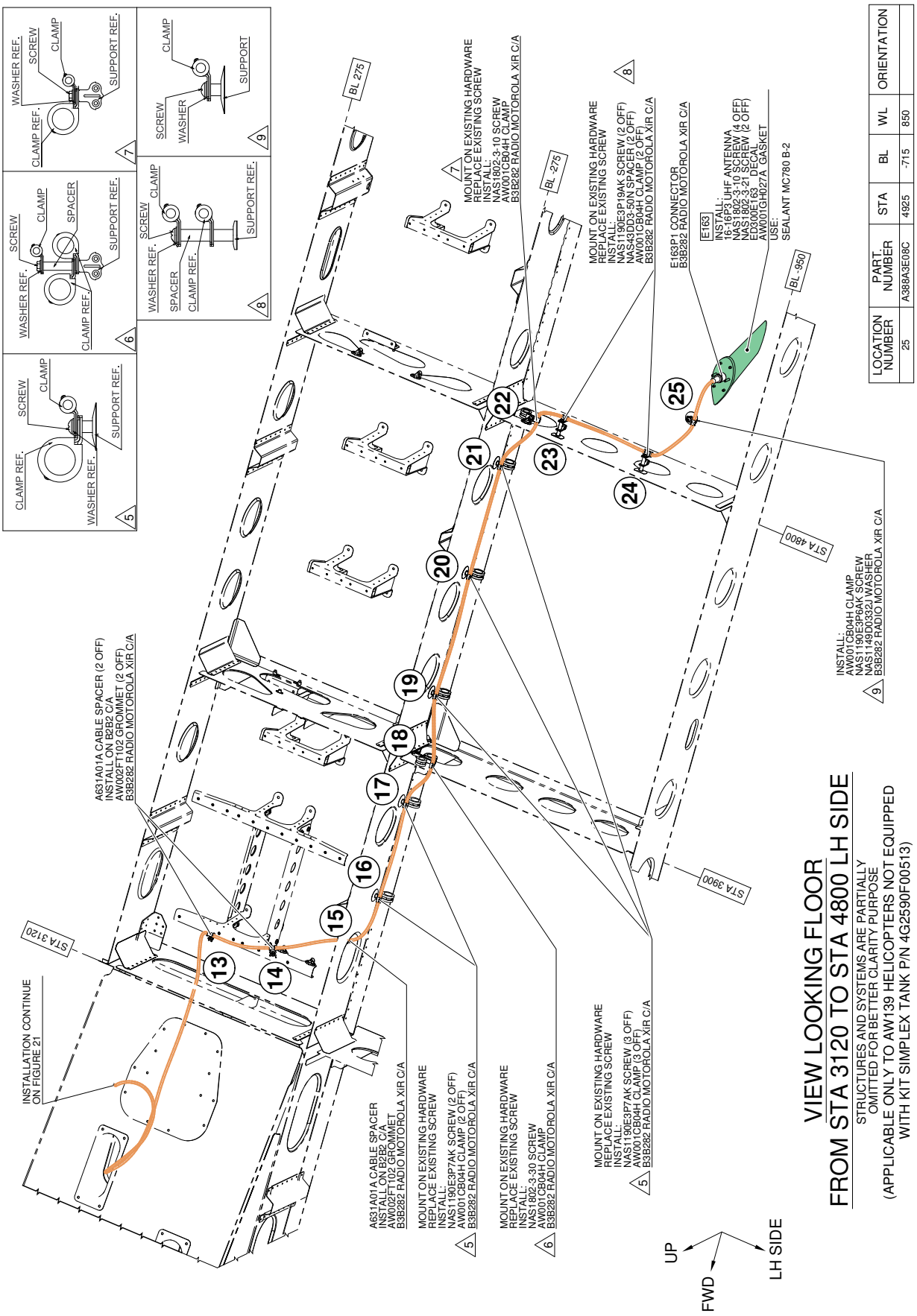

VIEW LOOKING FLOOR
FROM STA 3120 TO STA 4800 LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(APPLICABLE ONLY TO AW139 HELICOPTERS NOT EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
25 | A389A3E08C | 4925 | -715 | 850 |
STA 3120
STA 3900
STA 4800
BL 275
BL -275
BL -950
INSTALLATION CONTINUE ON FIGURE 21
A631A01A CABLE SPACER (2 OFF) INSTALL ON B2B2 C/A AW002FT102 GROMMET (2 OFF) B3B282 RADIO MOTOROLA XIR C/A
MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS1190E3P7AK SCREW (2 OFF) AW001CB04H CLAMP (2 OFF) B3B282 RADIO MOTOROLA XIR C/A 5
MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS1802-3-30 SCREW AW001CB04H CLAMP B3B282 RADIO MOTOROLA XIR C/A 6
MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS1190E3P7AK SCREW (3 OFF) AW001CB04H CLAMP (3 OFF) B3B282 RADIO MOTOROLA XIR C/A 5
MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS1190E3P19AK SCREW (2 OFF) NAS43DD3-50N SPACER (2 OFF) AW001CB04H CLAMP (2 OFF) B3B282 RADIO MOTOROLA XIR C/A 8
MOUNT ON EXISTING HARDWARE REPLACE EXISTING SCREW INSTALL: NAS1802-3-10 SCREW AW001CB04H CLAMP B3B282 RADIO MOTOROLA XIR C/A 7
E163P1 CONNECTOR B3B282 RADIO MOTOROLA XIR C/A
E163 INSTALL: 1575-1602 UHF ANTENNA NAS1802-3-10 SCREW (4 OFF) NAS1802-3-21 SCREW (2 OFF) ED300E163 DECAL AW001GH027A GASKET USE: SEALANT MC780 B-2
INSTALL: AW001CB04H CLAMP NAS1190E3P6AK SCREW NAS1149D0332J WASHER B3B282 RADIO MOTOROLA XIR C/A 9
WASHER REF. SCREW CLAMP SUPPORT REF. CLAMP REF. 7
WASHER REF. SCREW CLAMP SPACER SUPPORT REF. CLAMP REF. 6
CLAMP REF. SCREW CLAMP SUPPORT REF. WASHER REF. 5
SCREW CLAMP SUPPORT WASHER 9
WASHER REF. SCREW CLAMP SUPPORT REF. SPACER CLAMP REF. 8
UP
FWD
LH SIDE

Figure 24

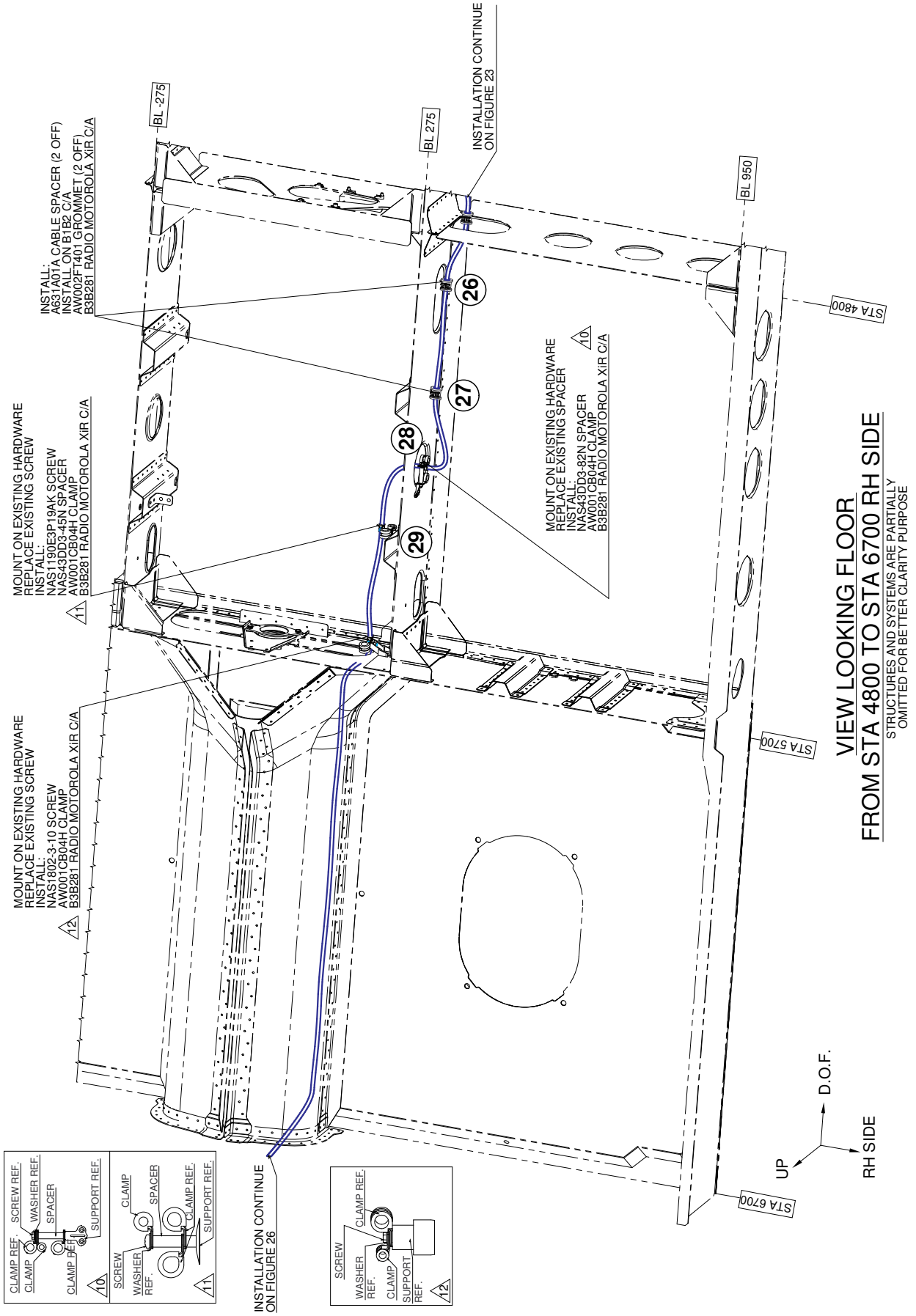

VIEW LOOKING FLOOR
FROM STA 4800 TO STA 6700 RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
BL 275
BL 275
BL 950
STA 4800
STA 5700
STA 6700
INSTALLATION CONTINUE ON FIGURE 23
INSTALLATION CONTINUE ON FIGURE 26
INSTALL:
A631A01A CABLE SPACER (2 OFF)
INSTALL ON B1B2 C/A
AW002F1401 GROMMET (2 OFF)
B3B281 RADIO MOTOROLA XiR C/A
MOUNT ON EXISTING HARDWARE
REPLACE EXISTING SCREW
INSTALL:
NAS1190E3P19AK SCREW
NAS43DD3-45N SPACER
AW001CB04H CLAMP
B3B281 RADIO MOTOROLA XiR C/A
11
MOUNT ON EXISTING HARDWARE
REPLACE EXISTING SPACER
INSTALL:
NAS43DD3-82N SPACER
AW001CB04H CLAMP
B3B281 RADIO MOTOROLA XiR C/A
10
MOUNT ON EXISTING HARDWARE
REPLACE EXISTING SCREW
INSTALL:
NAS1802-3-10 SCREW
AW001CB04H CLAMP
B3B281 RADIO MOTOROLA XiR C/A
12
26
27
28
29
CLAMP REF.
SCREW REF.
CLAMP
WASHER REF.
SPACER
CLAMP REF.
SUPPORT REF.
10
SCREW
CLAMP
WASHER REF.
SPACER
CLAMP REF.
SUPPORT REF.
11
SCREW
CLAMP REF.
WASHER REF.
CLAMP
SUPPORT REF.
12
UP
D.O.F.
RH SIDE

Figure 25

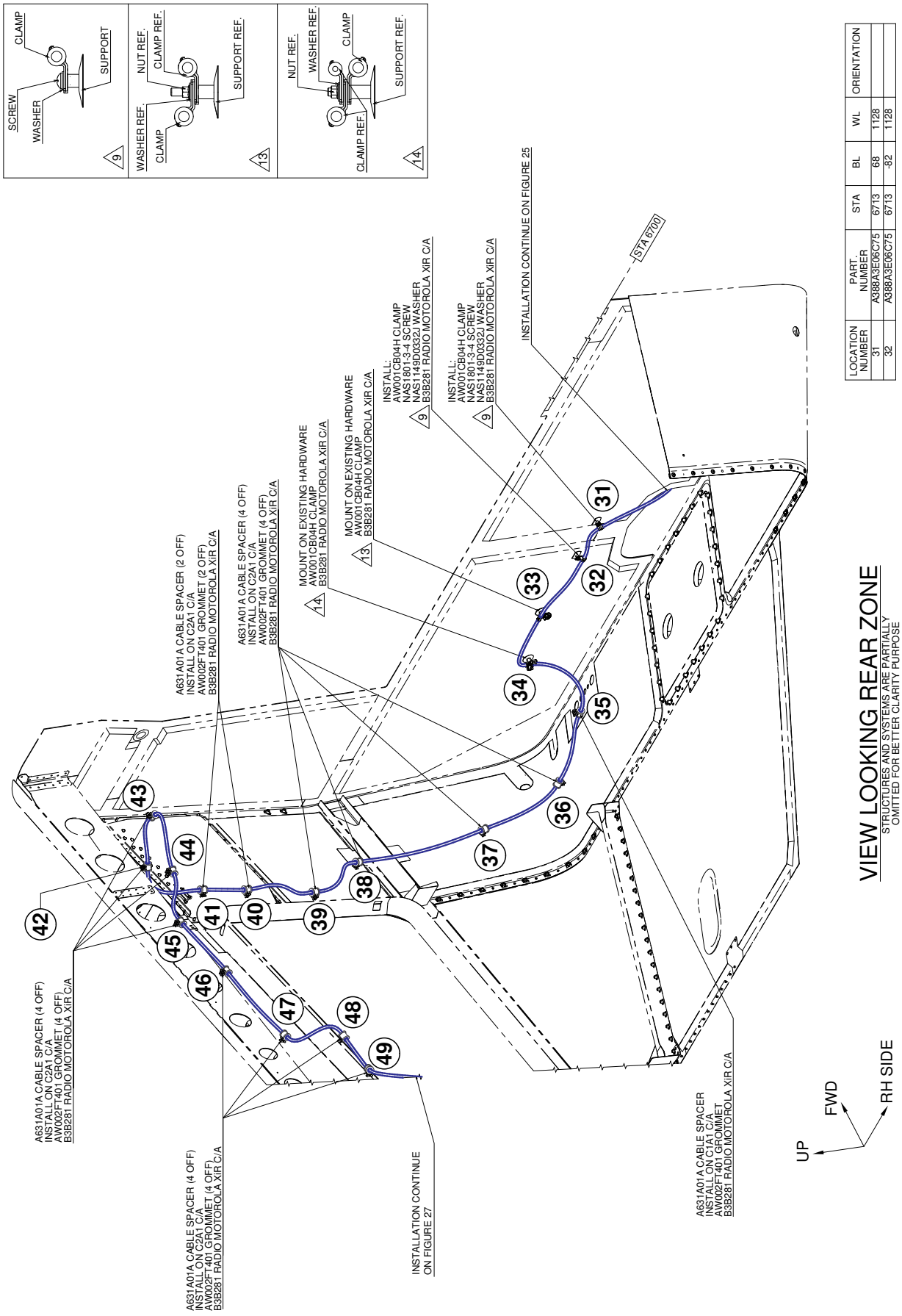

SCREW
WASHER
CLAMP
SUPPORT
9
WASHER REF.
CLAMP
NUT REF.
CLAMP REF.
SUPPORT REF.
13
NUT REF.
WASHER REF.
CLAMP
CLAMP REF.
SUPPORT REF.
14
LOCATION NUMBER
PART. NUMBER
STA
BL
WL
ORIENTATION
31
A388A3E06C75
6713
68
1128
32
A388A3E06C75
6713
-82
1128
INSTALLATION CONTINUE ON FIGURE 25
STA 6700
MOUNT ON EXISTING HARDWARE
AW001CB04H CLAMP
B3B281 RADIO MOTOROLA XIR C/A
14
INSTALL:
AW001CB04H CLAMP
NAS1801-3-4 SCREW
NAS1149D0332J WASHER
B3B281 RADIO MOTOROLA XIR C/A
13
9
A631A01A CABLE SPACER (2 OFF)
INSTALL ON C2A1 C/A
AW002FT401 GROMMET (2 OFF)
B3B281 RADIO MOTOROLA XIR C/A
A631A01A CABLE SPACER (4 OFF)
INSTALL ON C2A1 C/A
AW002FT401 GROMMET (4 OFF)
B3B281 RADIO MOTOROLA XIR C/A
A631A01A CABLE SPACER (4 OFF)
INSTALL ON C2A1 C/A
AW002FT401 GROMMET (4 OFF)
B3B281 RADIO MOTOROLA XIR C/A
A631A01A CABLE SPACER (4 OFF)
INSTALL ON C2A1 C/A
AW002FT401 GROMMET (4 OFF)
B3B281 RADIO MOTOROLA XIR C/A
INSTALLATION CONTINUE
ON FIGURE 27
A631A01A CABLE SPACER
INSTALL ON C1A1 C/A
AW002FT401 GROMMET
B3B281 RADIO MOTOROLA XIR C/A
VIEW LOOKING REAR ZONE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
RH SIDE

Figure 26

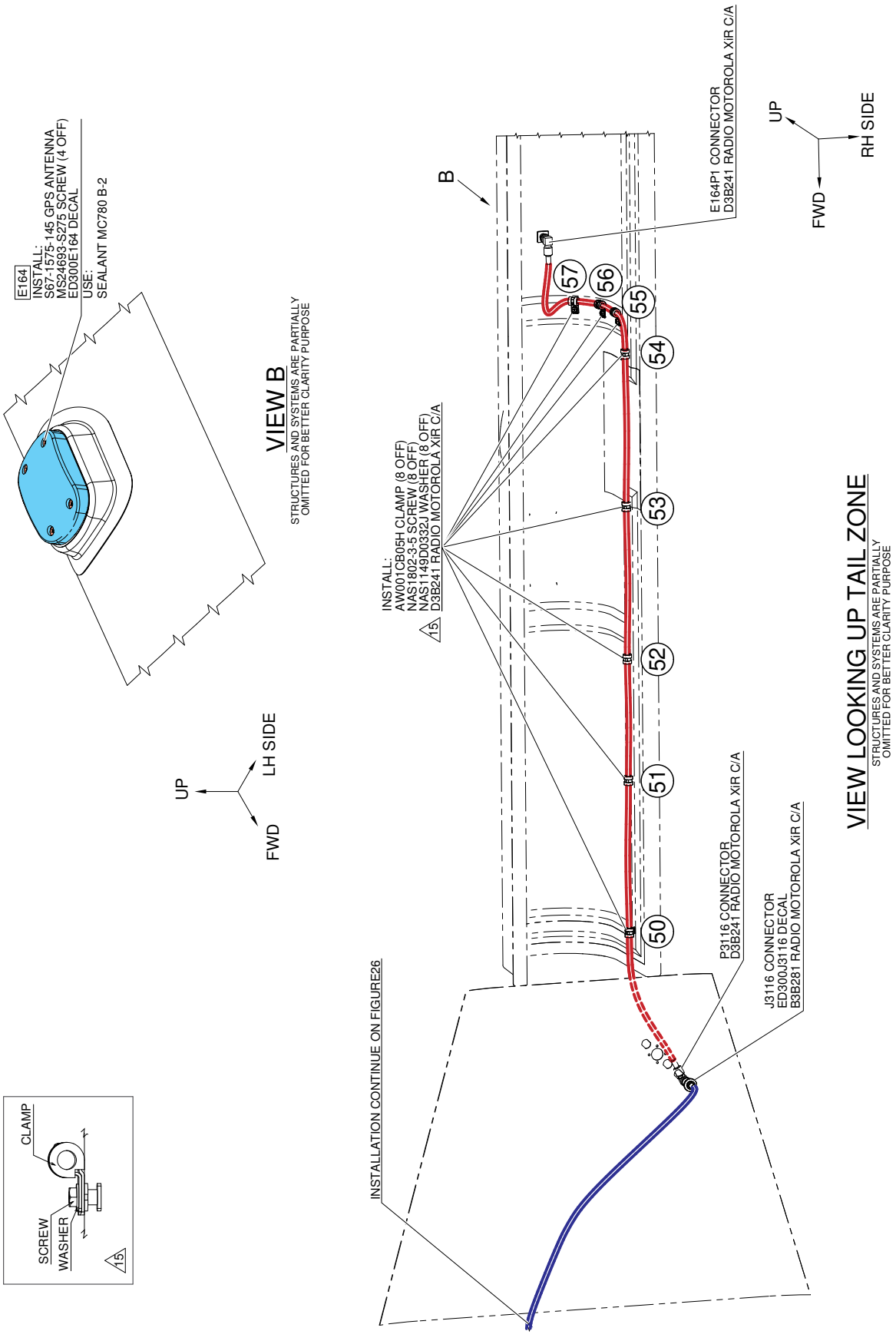

E164
INSTALL:
S67-1575-145 GPS ANTENNA
MS24693-S275 SCREW (4 OFF)
ED300E164 DECAL
USE:
SEALANT MC780 B-2
VIEW B
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
LH SIDE
CLAMP
SCREW
WASHER
15
B
E164P1 CONNECTOR
D3B241 RADIO MOTOROLA XiR C/A
INSTALL:
AW001CB05H CLAMP (8 OFF)
NAS1802-3-5 SCREW (8 OFF)
NAS1149D0332J WASHER (8 OFF)
D3B241 RADIO MOTOROLA XiR C/A
15
P3116 CONNECTOR
D3B241 RADIO MOTOROLA XiR C/A
J3116 CONNECTOR
ED300J3116 DECAL
B3B281 RADIO MOTOROLA XiR C/A
INSTALLATION CONTINUE ON FIGURE26
57
56
55
54
53
52
51
50
UP
FWD
RH SIDE
VIEW LOOKING UP TAIL ZONE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 27

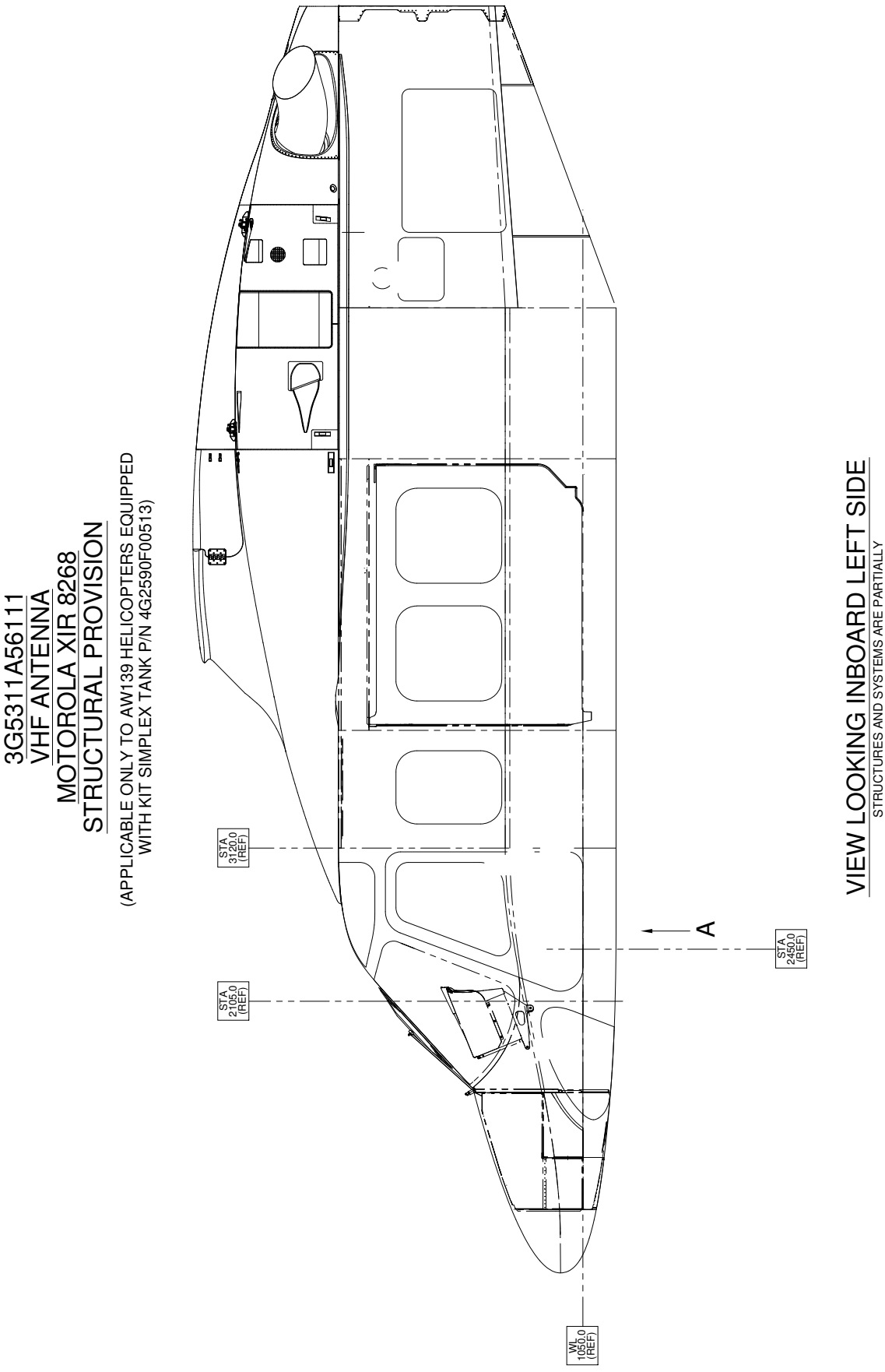
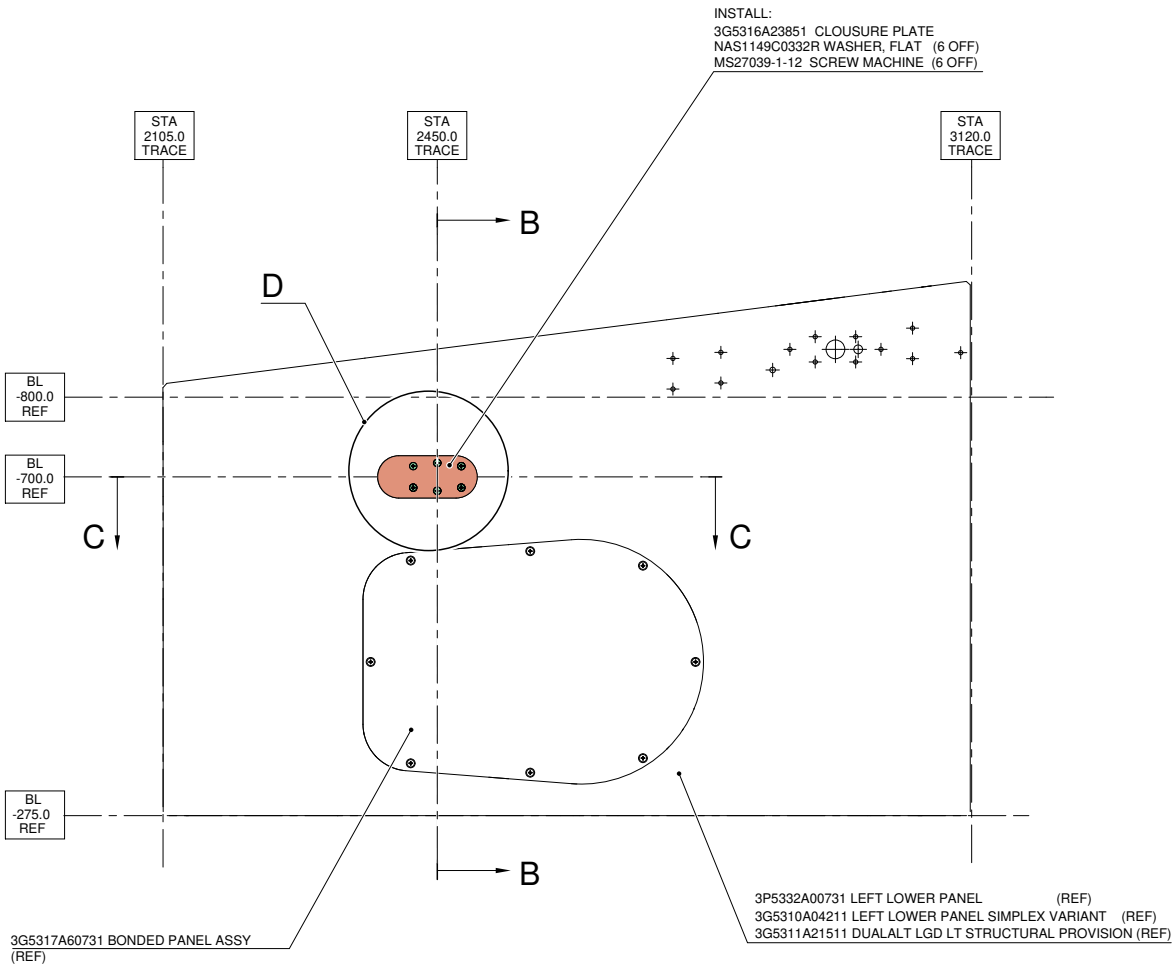
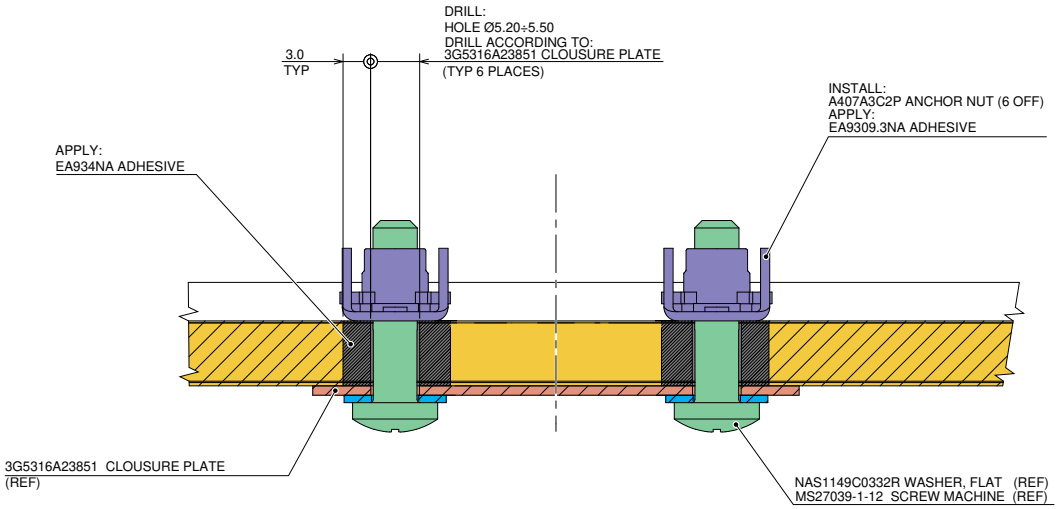

3G5311A56111
VHF ANTENNA
MOTOROLA XIR 8268
STRUCTURAL PROVISION
(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED
WITH KIT SIMPLEX TANK P/N 4G2590F00513)
VIEW LOOKING INBOARD LEFT SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
STA 3120.0 (REF)
STA 2105.0 (REF)
STA 2450.0 (REF)
WL 1050.0 (REF)
A

Figure 28

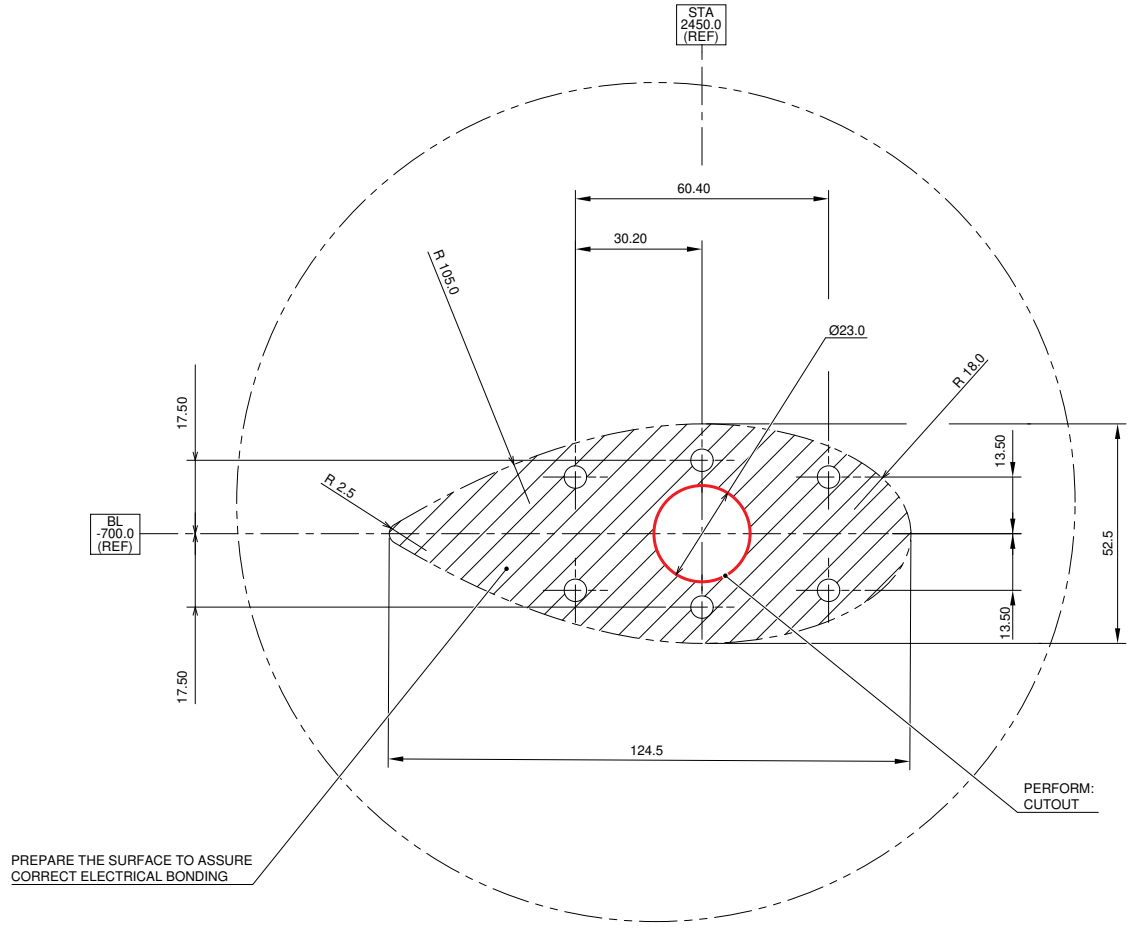


VIEW A
(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)



SECTION B-B
ROTATED 90° CCW
(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)

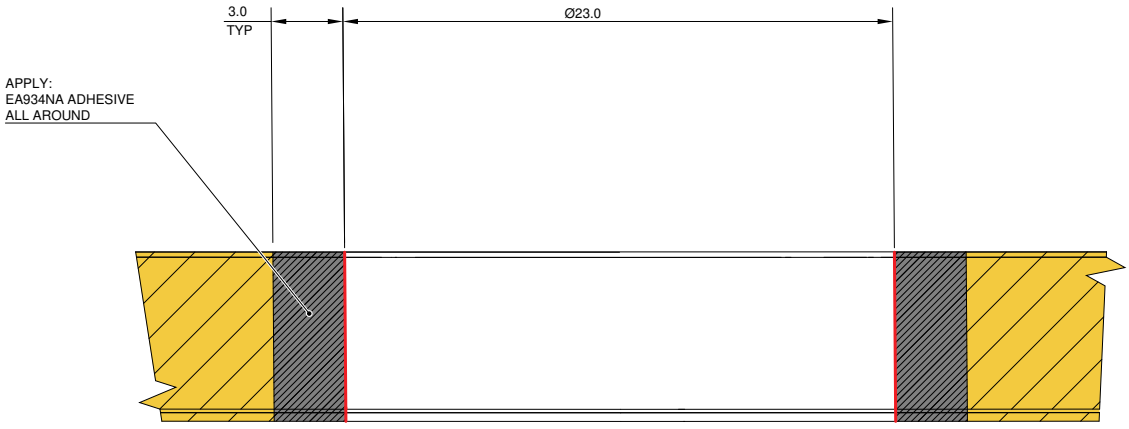
Figure 29



DETAIL D

3G5316A23851 CLOUSURE PLATE
OMITTED FOR CLARITY

(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED
WITH KIT SIMPLEX TANK P/N 4G2590F00513)



SECTION C-C

(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED
WITH KIT SIMPLEX TANK P/N 4G2590F00513)

Figure 30

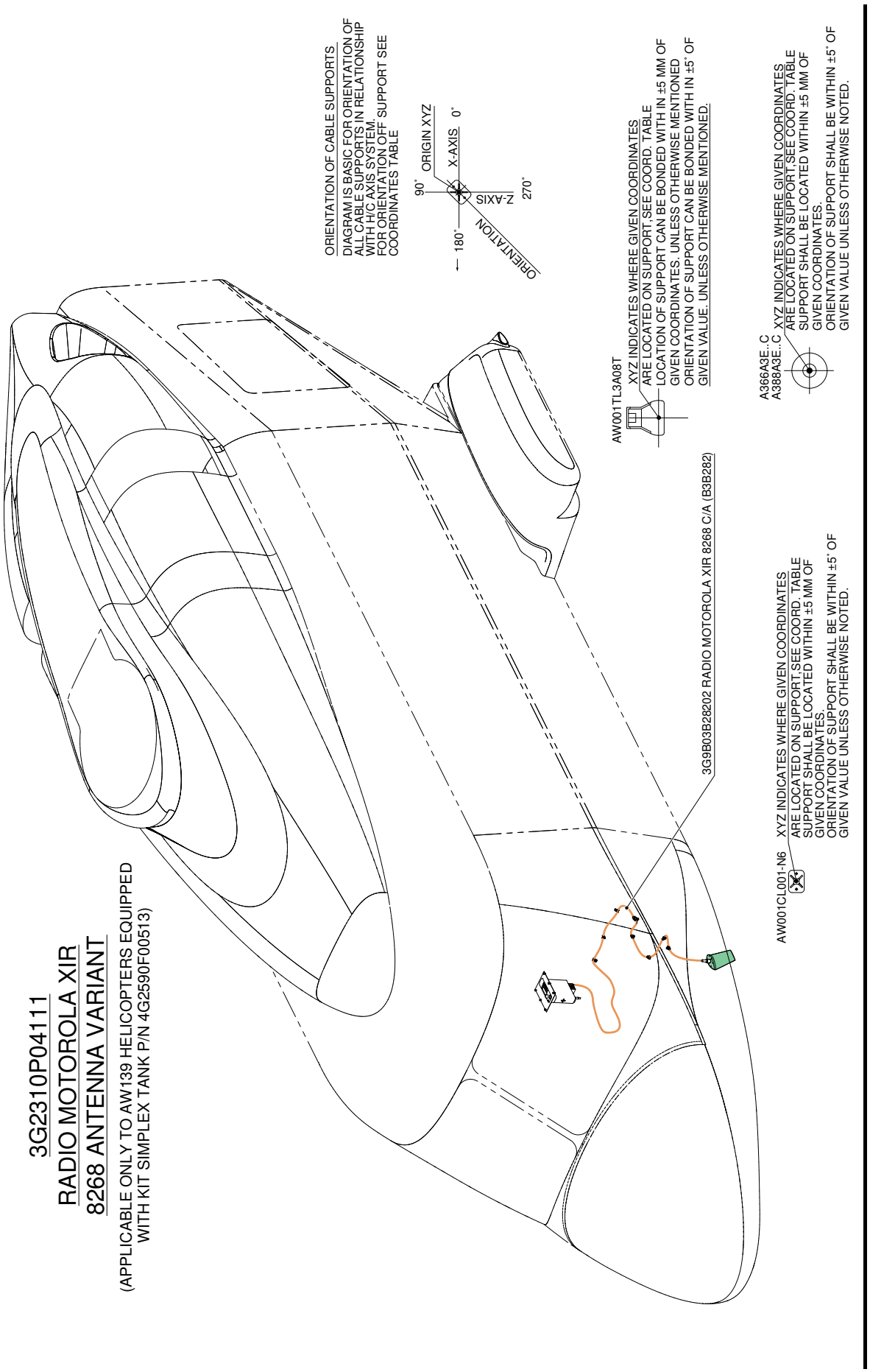

3G2310P04111
RADIO MOTOROLA XIR
8268 ANTENNA VARIANT
(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)
ORIENTATION OF CABLE SUPPORTS
DIAGRAM IS BASIC FOR ORIENTATION OF ALL CABLE SUPPORTS IN RELATIONSHIP WITH H/C AXIS SYSTEM.
FOR ORIENTATION OFF SUPPORT SEE COORDINATES TABLE
90° ORIGIN XYZ
X-AXIS 0°
Z-AXIS 270°
180°
ORIENTATION
AW001TL3A08T
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A366A3E..C
A388A3E..C
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT,SEE COORD. TABLE
SUPPORT SHALL BE LOCATED WITHIN ±5 MM OF GIVEN COORDINATES.
ORIENTATION OF SUPPORT SHALL BE WITHIN ±5° OF GIVEN VALUE UNLESS OTHERWISE NOTED.
3G9B03B28202 RADIO MOTOROLA XIR 8268 C/A (B3B282)
AW001CL001-N6
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT,SEE COORD. TABLE
SUPPORT SHALL BE LOCATED WITHIN ±5 MM OF GIVEN COORDINATES.
ORIENTATION OF SUPPORT SHALL BE WITHIN ±5° OF GIVEN VALUE UNLESS OTHERWISE NOTED.

Figure 31

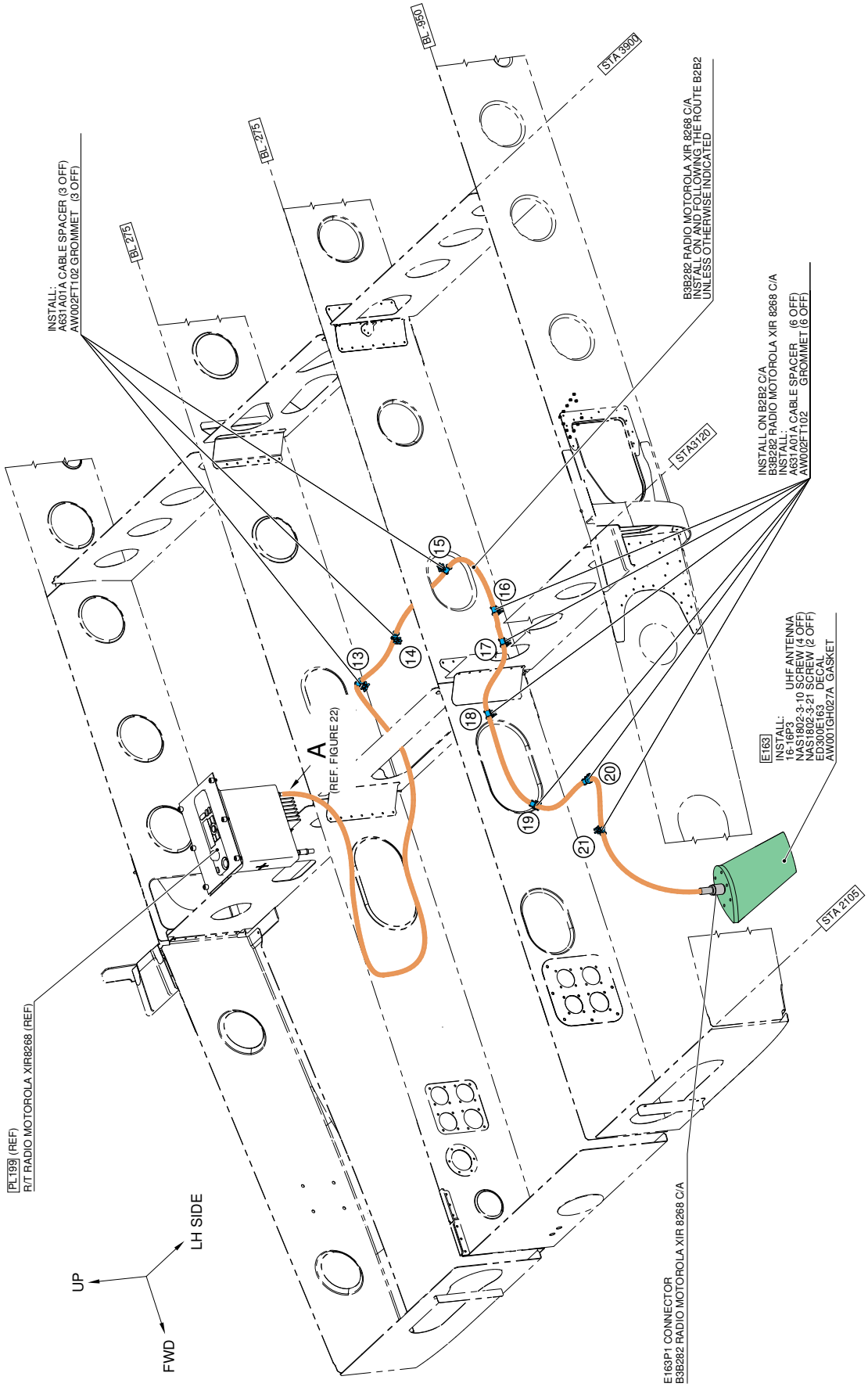
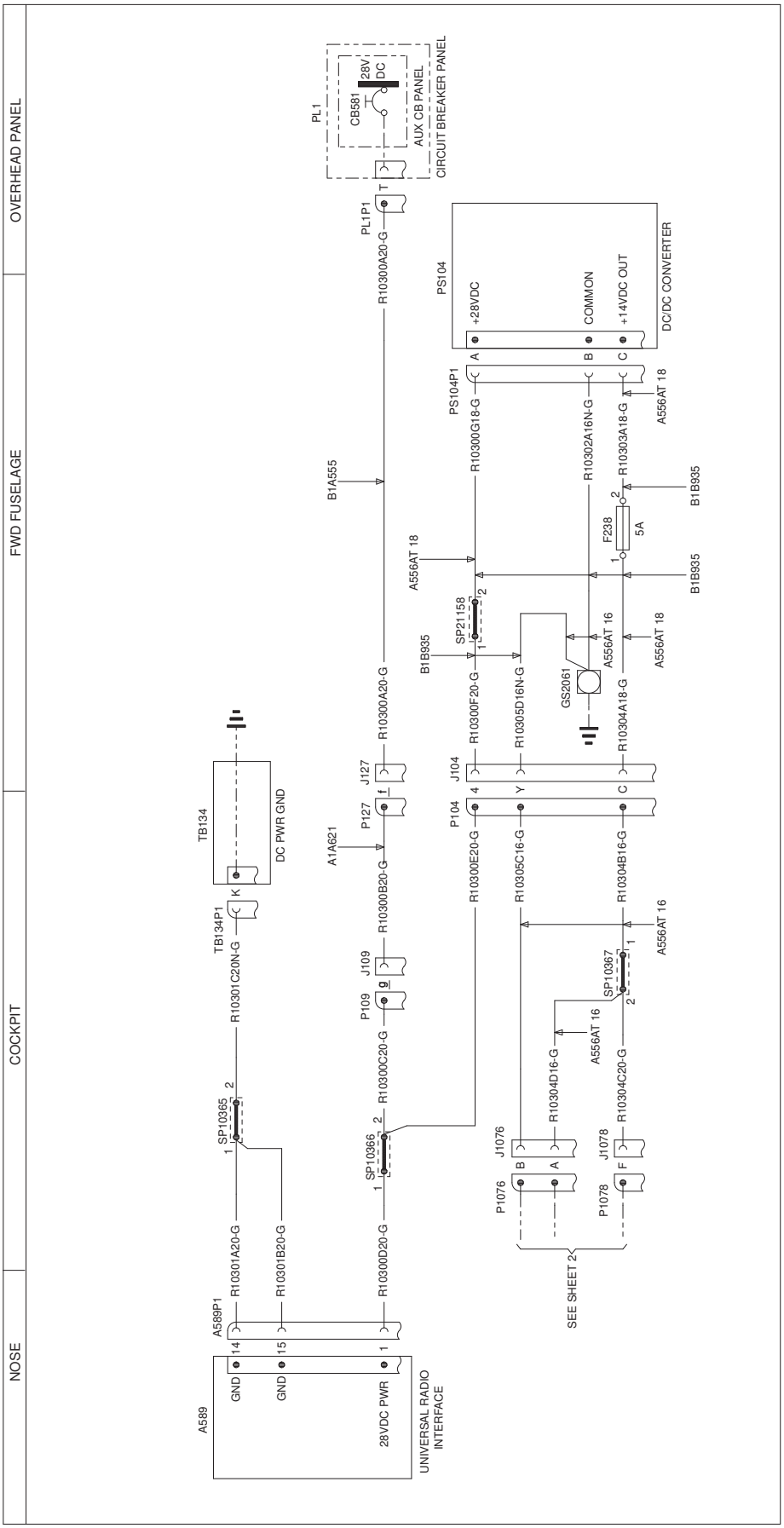

VIEW LOOKING DOWN FROM STA 2105 TO STA 6700
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(APPLICABLE ONLY TO AW139 HELICOPTERS EQUIPPED WITH KIT SIMPLEX TANK P/N 4G2590F00513)
INSTALL:
A631A01A CABLE SPACER (3 OFF)
AW002FT102 GROMMET (3 OFF)
B3B282 RADIO MOTOROLA XIR 8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B2B2
UNLESS OTHERWISE INDICATED
INSTALL ON B2B2 C/A
B3B282 RADIO MOTOROLA XIR 8268 C/A
INSTALL:
A631A01A CABLE SPACER (6 OFF)
AW002FT102 GROMMET (6 OFF)
E163
INSTALL:
16-16P3 UHF ANTENNA
NAS1802-3-10 SCREW (4 OFF)
NAS1802-3-21 SCREW (2 OFF)
EC3005E63 SEAL
AW001GH027A GASKET
PL199 (REF)
R/T RADIO MOTOROLA XIR8268 (REF)
E163P1 CONNECTOR
B3B282 RADIO MOTOROLA XIR 8268 C/A
BL 950
BL 275
BL 275
STA 3900
STA3120
STA 2105
A
(REF. FIGURE 22)
13
14
15
16
17
18
19
20
21
UP
LH SIDE
FWD

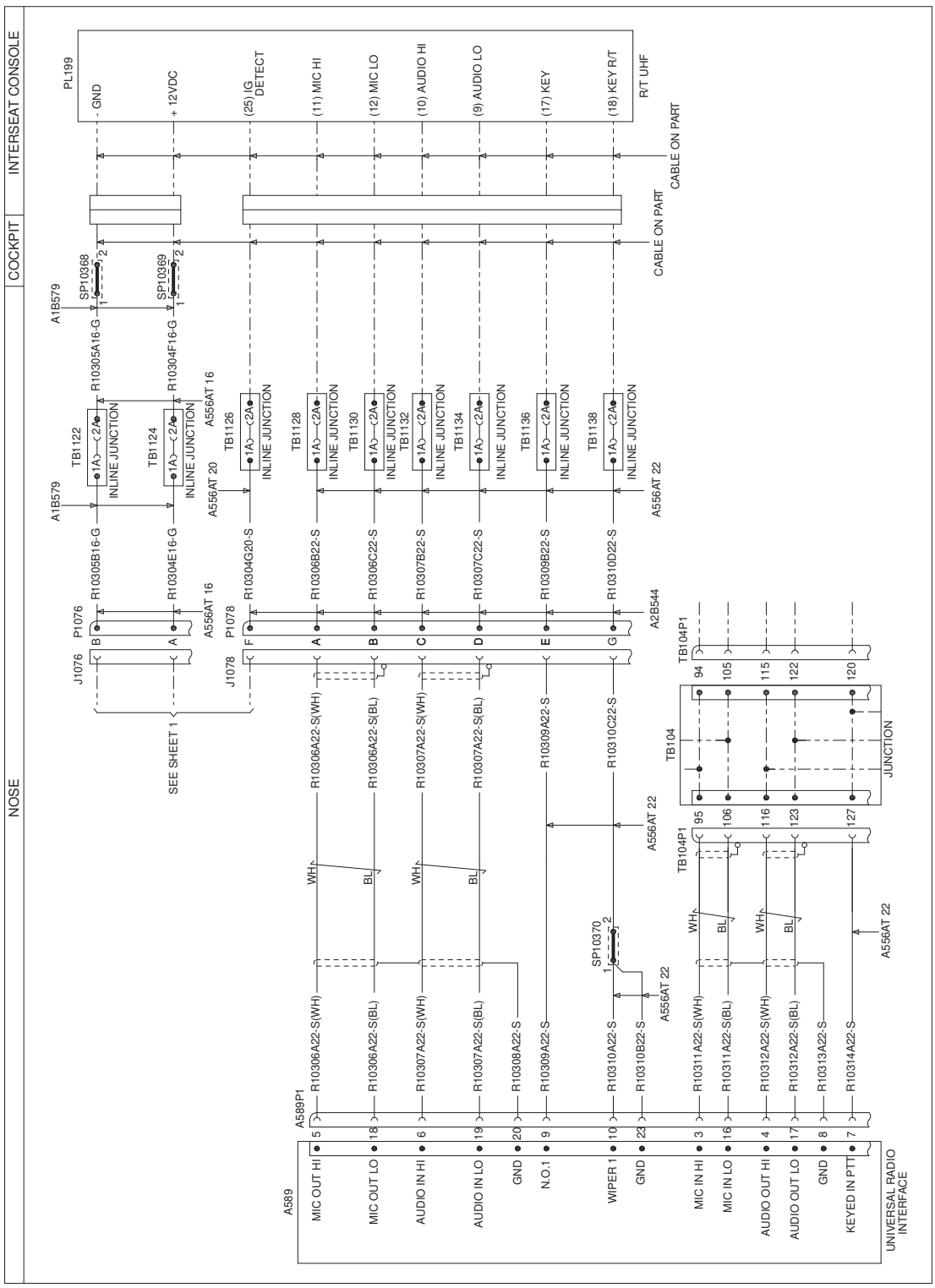
Figure 32



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1B578 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 20 UNLESS SPECIFIED

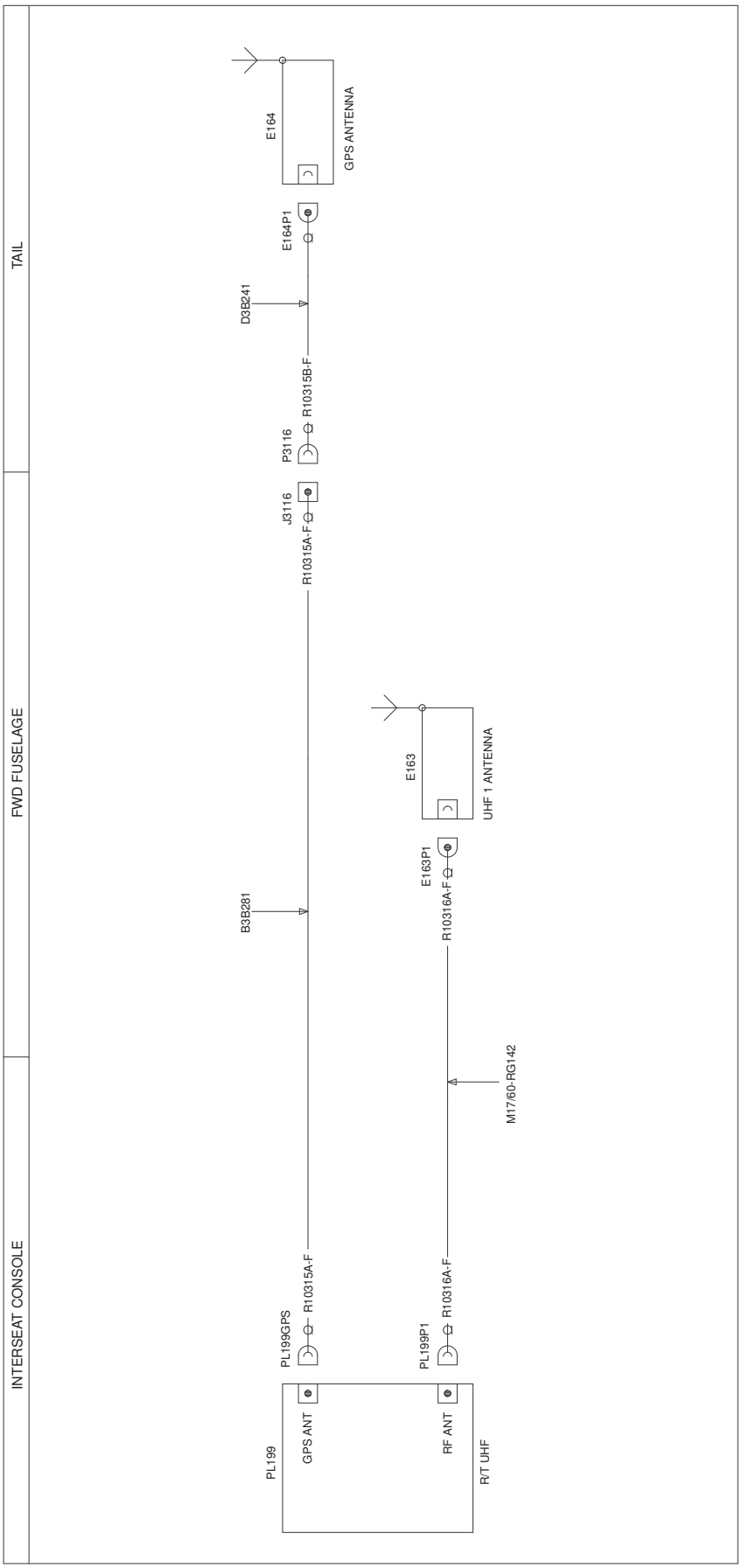
3G2310W13711
WIRING DIAGRAM RADIO MOTOROLA XiR
SHEET 1

Figure 33



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A2B543 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A561A22 UNLESS SPECIFIED

Figure 34



3G2310W13711

WIRING DIAGRAM RADIO MOTOROLA XiR

SHEET 3

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B3B282 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE S33141 UNLESS SPECIFIED

Figure 35

Cable Assy	Wire	From Ref Des	Electrical Contact	To Ref Des	Electrical Contact
A1A621	R10300B20-G	J109	M39029/56-351	P127	M39029/58-363
A1B578	R10300D20-G	A589P1	M39029/63-368	SP10366	N.A.
	R10301A20-G	A589P1	M39029/63-368	SP10365	N.A.
	R10305C16-G	J1076	M39029/5-116	P104	M39029/58-364
	R10304B16-G	P104	M39029/58-364	SP10367	N.A.
	R10301B20-G	SP10365	N.A.	A589P1	M39029/63-368
	R10301C20N-G	SP10365	N.A.	TB134P1	M39029/56-351
	R10300C20-G	SP10366	N.A.	P109	M39029/58-363
	R10300E20-G	SP10366	N.A.	P104	M39029/58-363
	R10304C20-G	SP10367	N.A.	J1078	M39029/56-351
	R10304D16-G	SP10367	N.A.	J1076	M39029/5-116
A1B579	R10305B16-G	P1076	M39029/58-364	TB1122	A523A-A07
	R10305A16-G	SP10368	N.A.	TB1122	A523A-A07
	R10304E16-G	TB1124	A523A-A07	P1076	M39029/58-364
	R10304F16-G	TB1124	A523A-A07	SP10369	N.A.
A2B543	R10306A22-S (WH)	A589P1	M39029/63-368	J1078	M39029/56-351
	R10306A22-S (BL)	A589P1	M39029/63-368	J1078	M39029/56-351
	R10308A22-S	A589P1	M39029/63-368	A589P1	N.A.
	R10311A22-S (WH)	A589P1	M39029/63-368	TB104P1	M39029/56-348
	R10311A22-S (BL)	A589P1	M39029/63-368	TB104P1	M39029/56-348
	R10313A22-S	A589P1	M39029/63-368	A589P1	N.A.
	R10307A22-S (WH)	J1078	M39029/56-351	A589P1	M39029/63-368
	R10307A22-S (BL)	J1078	M39029/56-351	A589P1	M39029/63-368
	R10309A22-S	J1078	M39029/56-351	A589P1	M39029/63-368
	R10310A22-S	SP10370	N.A.	A589P1	M39029/63-368
	R10310B22-S	SP10370	N.A.	A589P1	M39029/63-368
	R10310C22-S	SP10370	N.A.	J1078	M39029/56-351
	R10312A22-S (WH)	TB104P1	M39029/56-348	A589P1	M39029/63-368
	R10312A22-S (BL)	TB104P1	M39029/56-348	A589P1	M39029/63-368
	R10314A22-S	TB104P1	M39029/56-348	A589P1	M39029/63-368
A2B544	R10304G20-S	P1078	M39029/58-363	TB1126	A523A-A02
	R10306C22-S	P1078	M39029/58-363	TB1130	A523A-A05
	R10307C22-S	P1078	M39029/58-363	TB1134	A523A-A05
	R10306B22-S	TB1128	A523A-A05	P1078	M39029/58-363
	R10307B22-S	TB1132	A523A-A05	P1078	M39029/58-363
	R10309B22-S	TB1136	A523A-A05	P1078	M39029/58-363
	R10310D22-S	TB1138	A523A-A05	P1078	M39029/58-363
B1A555	R10300A20-G	J127	M39029/56-351	PL1P1	M39029/58-364
B1B935	R10303A18-	F238	A523A-A02	PS104P1	M39029/30-217
	R10305D16N-	GS2061	MS25036-108	J104	M39029/56-352
	R10300F20-	J104	M39029/56-351	SP21158	N.A.
	R10304A18-	J104	M39029/56-352	F238	A523A-A02
	R10302A16N-	PS104P1	M39029/30-217	GS2061	MS25036-108
	R10300G18-	SP21158	N.A.	PS104P1	M39029/30-217

Figure 36

ANNEX A

PROVISION FOR RADIO MOTOROLA XIR 8268

SERIES ACCEPTANCE TEST PROCEDURE (ATP)

1 SYSTEM TEST

This section describes the ACCEPTANCE TEST PROCEDURE to be applied on the Radio XiR 8268 Series provision system installed as a kit on the AW139 production helicopters.

1.1 TEST RESULTS AND TOLLERANCE

The listed values are "nominal" and, unless otherwise specified, a tolerance of ± 5% on the result required shall be considered acceptable.

1.2 TEST PREREQUISITES AND SAFETY PROVISION

- During all ATPs Tests, disconnect if installed, the wires from the Fire extinguishing bottles and stow them properly (E1- MTR1 & MTR2, E2- MTR1 & MTR2).
- If other Electro-Explosive Devices (EED) are fitted, ensure that they are electrically disconnected.
- When required, for continuity tests a low voltage tester may be used.
- When it is required testing pins and sockets of plug and receptacles connectors, contact is to be made by means of the correct mating socket or pin.
- Under no circumstances must be used any other form of probe.

WARNING

NOT HANDLE AND OPERATE PLUG/RECEPTACLE CONNECTORS WITH VOLTAGE PRESENCE.

1.	Visually verify the proper installation of the following components: **UNIT** / **P/N** / **REF-DES** **Universal Radio Interface** / AA34-300 / A589 **DC/DC Converter** / LT-71 / PS104 **UHF Antenna** / 16-16P3 / E163 **GPS Antenna** / S67-1575-145 / E164 Check the correct mechanical installation and fixings. Check the Electrical wires installation. Check that all the connectors are properly plugged and fastened. Use the Figure 28 thru 30 wiring diagrams as reference documents.	☐
2.	Verify that the PRIMUS EPIC® S/W 4.8 or following release is installed.	☐
3.	Verify that Primus Epic Settings configuration properly enables the Radio XCVR where the Radio equipment is installed, with use of AMP setting procedure (39-A-45-45-00-00A-752A-A)	☐
4.	Before all test procedure verify that the External Power Bench is operative and set to the appropriate voltage (28 VDC).	☐

1.2.1 HARNESS CHECK

1.	(If DITMCO or “pin to pin” verification haven’t been performed on the equipment wiring) If the equipment wiring didn’t performed DITMCO or “pin to pin” verification, double check all the electrical wiring harness of system for proper isolation resistance, electrical voltage and proper continuity between end points (pin-to-pin check), refer to radio Motorola XiR electrical provision P/N 3G2310A17311.	☐

1.3 REQUIRED TOOLS

NOTE

Verify that all Tools required and used during the test procedure are correctly calibrated.

Table 1-1 Tools required

1.	Low resistance ohmmeter	☐
2.	N°2 Headsets David Clark H10-13	☐
3.	DC External Power Bench (28VDC)	☐
4.	Multimeter	☐
5.	Conductor pins and wire extensions for troubleshooting operation	☐
6.	Cable and Antenna Analyzer S820D or equivalent	☐
INSTRUMENT TOLERANCE: +/- 2% MAX		

1.4 ELECTRICAL SETTINGS

1.	Verify that all the Electrical Power Distribution System’s Circuit Breakers are pushed in except for the radio XiR 8268 circuit breaker (CB581) and “IGN #1/2” and “START #1/2” that need to be pulled out.	☐
2.	Verify that all the Avionic Devices’ Circuit Breakers are pushed in (at least Navigation, Communication, Modular Avionic Units, Displays and Lighting Systems’ CBs need to be pushed in).	☐

1.5 PRELIMINARY CHECKS

1.5.1 BONDING CHECKS

1.	Disconnect the external power. Verify that the Radio XiR 8268 circuit breaker (CB581) is pulled out, disconnect all the radio equipment connectors (Antennas’s, Transceiver’s, Audio Adapter’s and DC/DC Converter’s).	☐
2.	With the helicopter powered off, Measure the ohmic value between the LRUs (connector or dedicated pad) and the reference point, and record the measured value in the Table 1-2.	☐

3.	Connect all the connectors of the LRUs under test	☐

Table 1-2 Radio XIR 8268 Series provision - LRUs bonding values

#	Ref-des	Description	Reference Point	Limit Value	Measured Value
1.	E163	Antenna UHF	Battery Negative Pole	3 mΩ	mΩ
2.	E164	Antenna GPS	Battery Negative Pole	20 mΩ	mΩ
3.	PS104	DC/DC converter	Local Structure	5 mΩ	mΩ
4.	A589	AA34-300 interface	Local Structure	5 mΩ	mΩ

1.5.2 POWER SUPPLIES CHECK AND PIN-TO-PIN CHECK

1.	Pull out the XiR 8268 radio's CB (**CB581**).	☐
2.	Disconnect all the connectors and terminal lugs belonging to the following LRUs, if applicable: **PS104, A589, E163, E164.**	☐
3.	Verify the grounding on the pin **PS104P1-B.**	☐
4.	Verify the grounding of the following pin: **A589P1–14** ☐ **A589P1–15** ☐ **SP10368-2** ☐	☐
5.	Verify the continuity of the core of the coaxial RF cable between the **PL199P1** connector and the connector **E163P1**. Verify the isolation between core and shield of the coaxial connector.	☐
6.	Verify the continuity of the core of the coaxial cable between the **PL199GPS** connector and the connector **E164P1.** Verify the isolation between core and shield of the coaxial connector.	☐
7.	With the helicopter electrically powered push in the XiR 8268 Radio's circuit breaker (**CB581**).	☐
8.	Verify the voltage **28VDC** between the following elements: **PS104P1 - A (+)** **PS104P1 - B (-)** ☐	☐
9.	Pull out the XiR 8268 radio's CB (**CB581**).	☐
10.	Connect all the terminations of the DC/DC Converter **PS104** in order to be sure that the unit is connected to the power input (through the CB581). See Figure 28 thru 30 wiring diagrams.	☐

11.	With the helicopter electrically powered push in the XiR 8268 Radio's circuit breaker (**CB581**).	☐
12.	Verify the voltage **14 VDC** between the following elements: **SP10369-2 (+)** — **SP10368-2 (-)** ☐	☐
13.	Verify the voltage **28VDC** between the following elements: **A589P1-1 (+)** — **A589P1-14 (-)** ☐ **A589P1-1 (+)** — **A589P1-15 (-)** ☐	☐
14.	Verify that the following splices are properly stowed: **SP10368-2** ☐ **SP10369-2** ☐	☐
15.	Pull out the Radio XiR 8268 circuit breaker (**CB581**) and re-connect all the system connectors. See Figure 28 thru 30 wiring diagrams.	☐

1.5.3 CONTROL BUS AND AUDIO PIN TO PIN CHECK

1.	Verify that the XiR8268 radio's CB (**CB581**) is pulled out.	☐
2.	Verify the continuity between the following couple of sockets: **Audio Interface vs MRC** **A589P1-3** — **TB104P1-95** ☐ **A589P1-4** — **TB104P1-116** ☐ **A589P1-7** — **TB104P1-127** ☐ **A589P1-16** — **TB104P1-106** ☐ **A589P1-17** — **TB104P1-123** ☐ **Audio Interface vs RT** **A589P1-5** — **TB1128-1A** ☐ **A589P1-6** — **TB1132-1A** ☐ **A589P1-9** — **TB1136-1A** ☐ **A589P1-23** — **TB1138-1A** ☐ **A589P1-18** — **TB1130-1A** ☐ **A589P1-19** — **TB1134-1A** ☐ **A589P1-10** — **TB1138-1A** ☐	☐
3.	Connect all the unplugged connectors to the relevant equipment.	☐

1.6 XiR 8268 SERIES ANTENNAS' CABLE AND VSWR TESTS

1.6.1 INSTRUMENT CALIBRATION FOR RF ANTENNA TESTING

1.	Using instrument ref[6] § 1.3 or equivalent, select the *VNA mode* and set the RF limits as follows: ● Start frequency: 320 MHz. ● Stop frequency: 670 MHz.	☐
2.	Perform Instrument calibration, if necessary.	☐

1.6.2 UHF ANTENNA'S CABLE LINE ATTENUATION

1.	Select the **Cable loss** applicable measure on the instrument ref[6] § 1.3.	☐
2.	Pull out "XiR 8268" CB (**CB581**).	☐
3.	Verify that the UHF antenna's coaxial connector **E163P1** is unplugged.	☐
4.	Connect the antenna plug **PL199P1** connector to the Cable&Antenna Analyzer S820D or equivalent.	☐
5.	Connect an enclosed precision "short" (of Calibration Tool) at the end of the RF coaxial transmission line.	☐
6.	Perform Cable Loss on and verify the limit in the table below.	☐

ANTENNA	**PASS/FAIL**
Line Attenuation or Cable Loss Attenuation [dB]	
	PASS if A<3dB ±0.15 dB

7.	Reconnect the RF cable to the relevant antenna and push in the radio CB (**CB581**).	☐

1.6.3 UHF ANTENNA'S VSWR

1.	Pull out the XiR 8268 Radio Circuit Breaker (CB581).	☐
2.	Verify the antenna's coaxial connector **E163P1** is plugged in.	☐
3.	Verify the instrument ref[6] § Table 1-1 is properly calibrated, see § 1.6.1. Otherwise perform § 1.6.1 steps.	☐
4.	Connect the antenna plug **PL199P1** connector to the Cable&Antenna Analyzer S820D or equivalent.	☐
5.	Select the *SWR* measure on the instrument ref[6] § 1.3.	☐

6.	Perform the measure and report the VSWR value on peak marker in the following table: *VSWR Peak Marker* / *PASS/FAIL Band 320 - 670 MHz* ***PASS if all values < 3*** **NOTE**: outside band the VSWR value could be > 3.	☐
7.	Push in the radio CB (**CB581**).	☐

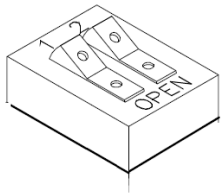
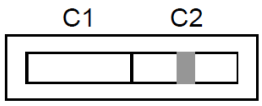
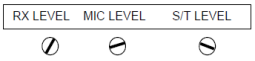
1.6.4 INSTRUMENT CALIBRATION FOR GPS ANTENNA TESTING

1.	Using instrument ref[6] § 1.3 or equivalent, select the *VNA mode* and set the RF limits as follows: ● Start frequency: 1565 MHz. ● Stop frequency: 1586 MHz.	☐
2.	Perform Instrument calibration, if necessary.	☐

1.6.5 GPS ANTENNA'S CABLE LINE ATTENUATION

1.	Select the **Cable loss** applicable measure on the instrument ref[6] § 1.3.	☐
2.	Pull out "XiR 8268" CB (**CB581**).	☐
3.	Unplug the UHF antenna's coaxial connector **E164P1**.	☐
4.	Connect the antenna plug **PL199GPS** connector to the Cable&Antenna Analyzer S820D or equivalent.	☐
5.	Connect an enclosed precision "short" (of Calibration Tool) at the end of the RF coaxial transmission line.	☐
6.	Perform Cable Loss on and verify the limit in the table below. **ANTENNA** / **PASS/FAIL** **Line Attenuation or Cable Loss Attenuation [dB]** **PASS if A<3dB ±0.15 dB** **NOTE**: outside band the VSWR value could be > 3.	☐
7.	Reconnect the GPS cable to the relevant antenna and push in the radio CB (**CB581**).	☐

1.7 UNIVERSAL RADIO INTERFACE SETTINGS

1.	Pull out the XiR 8268 Radio Circuit Breaker (**CB581**).		☐
2.	Disconnect the **A589P1** connector.		☐
3.	On **A589** LRU. Verify the switches S1 and S2 are in OPEN position, see the picture on the right as reference. See also Figure A1 to visualize the position on the equipment.		☐
4.	On **A589** LRU. Verify the "C1/C2 Mic Isolation" switch selector is in C2 position (right position), see the picture on the right as reference. See Figure A1 to visualize the position on the equipment.		☐
5.	On **A589** LRU adjust the "RX LEVEL", "MIC LEVEL" and "S/T LEVEL" using the relevant screw, see the picture on the right as reference. See also Figure A1 to visualize the position on the equipment. Rotating the potentiometer clockwise (cw) will increase the level, rotating it counterclockwise (ccw) will reduce the level[1]. RX LEVEL Adjusts the signal level of the incoming radio audio MIC LEVEL Adjusts the signal level of the mic output S/T LEVEL Adjusts the signal level of the sidetone		☐
6.	Connect all the connectors and terminal lugs belonging to the following LRUs, if applicable: **PS104, A589, E163, E164.**		☐
7.	Push in the "XiR 8268" Radio Circuit Breaker (**CB581**).		☐

2 TEST RESULT

Table 2-1 AW139 – XIR 8268 Series provision – Test Results

139G2310D061

Helicopter S/N:_____

RADIO XIR 8268 Series Provision

Acceptance Test Procedure

REF.	*DESCRIPTION*	*OPERATOR*	*DATE*	*REMARKS*
1.2	TEST PREREQUISITES AND SAFETY PROVISION			
1.3	REQUIRED TOOLS			
1.4	ELECTRICAL SETTINGS			
1.5	PRELIMINARY CHECKS			
1.6	XIR 8268 RADIO ANTENNA'S CABLE AND VSWR TESTS			
1.7	UNIVERSAL RADIO INTERFACE SETTINGS			
Engineering dpt signature(if required):				
Quality dpt approval:				

3 COMMUNICATION TEST AND AUDIO TUNING

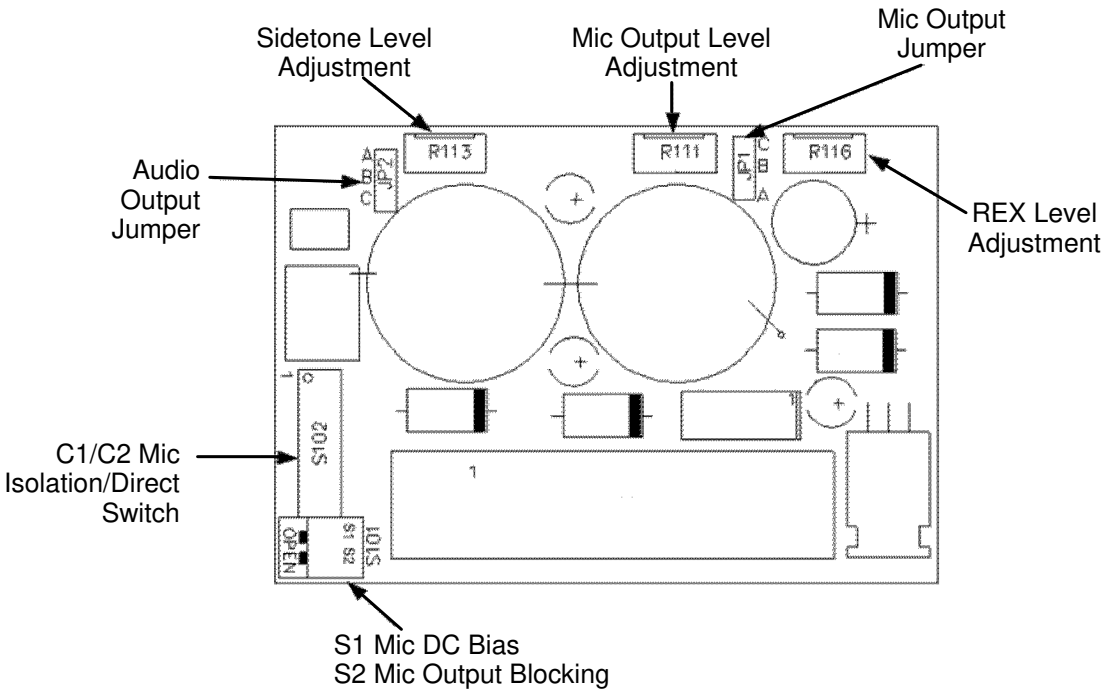
In order to properly assess the correct functioning of the installed provision and correctly perform the adjustments required in ref [5] § 1.7 a Motorola XiR 8268 Radio should be installed as test equipment. To install the above mentioned Radio see Figure 28 thru 30 wiring diagrams.

3.1 XiR 8268 SERIES TRANSMISSION AND RECEPTION TEST – AUDIO TUNING[2]

1.	The helicopter external power port shall be connected to the **External Power Bench** set to **28 VDC** output. Power up the External Power and the Helicopter.	☐
2.	Verify that the XiR 8268 Radio Circuit Breaker (**CB581**) is pushed in. Power on the Radio using the On/Off Button (see Figure A2).	☐
3.	Verify that the radio is switched on correctly (at power up green LED blinks and the display lights up) and no FAIL indication is lit.	☐
4.	Select, on the PLT or CPLT Audio Control Panel (**AV900**), the **COM 4** buttons of the XCVR where the radio is connected. Push and hold, on AV900, XCVR AUD button and set Radio volume to the MID range level.  Only for ref.	☐
5.	Select a radio channel to communicate with a radio tuned at the same frequency to evaluate the quality of the communication.	☐
6.	Press the PTT and speak into PLT or CPLT headset. Adjust the sidetone's signal level ("**ST LEVEL**") using the procedure presents in ref [5] § 1.7.	☐
7.	Press the PTT and speak into PLT or CPLT headset. Adjust the received signal level ("**R/X LEVEL**") using the procedure presents in ref [5] § 1.7.	☐
8.	Press the PTT and speak into PLT or CPLT headset. Adjust the transmitted signal level ("**MIC LEVEL**") using the procedure presents in ref [5] § 1.7.	☐
9.	Ensure that the radio system works properly and the audio is correctly tuned.	☐
10.	Switch off the XiR 8268 Radio pressing the using the On/Off Button (see Figure A2). **NOTE**: The radio may take up to 7 seconds to completely turn off.	☐

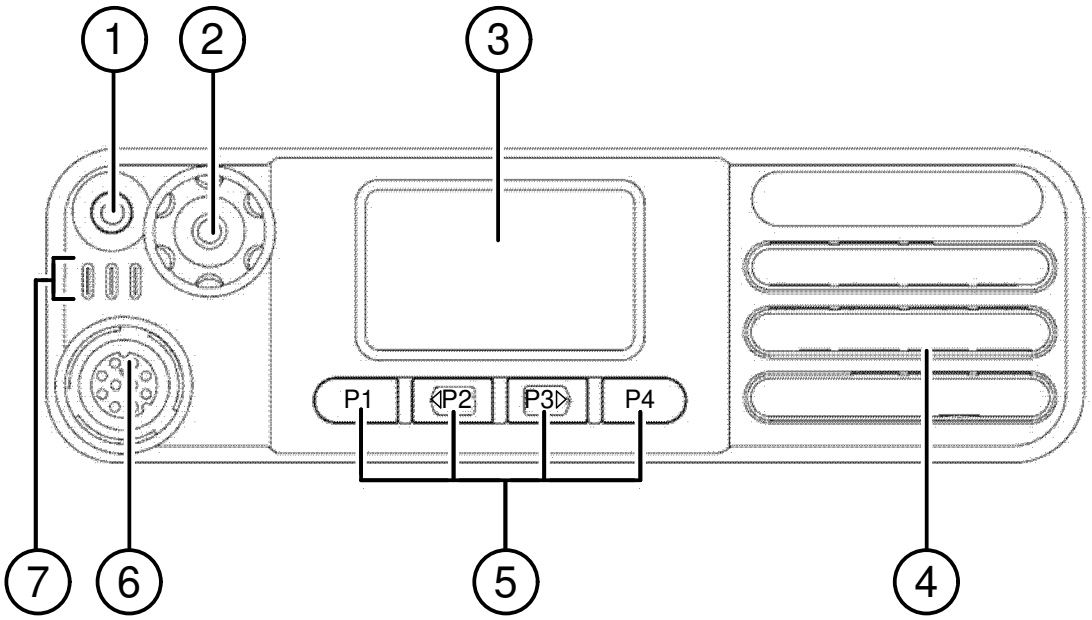
For detailed information regarding the configuration of the radio and its functions refer to the XiR 8268 Series User Guide.

[2] These procedures should be performed every time a new radio is installed and every time problems with audio signals are detected.



AA34-300 INTERFACES

Figure A1



1 On/Off Button

2 Volume/Channel Knob

3 Display

4 Speaker

5 Front Programmable Buttons

6 Accessory Connector

7 LED Indicators

XiR BUTTONS

Figure A2

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HELICOPTERS

AgustaWestland Products

Please send to the following address: **LEONARDO S.p.A.** **CUSTOMER SUPPORT & SERVICES - ITALY** **PRODUCT SUPPORT ENGINEERING & LICENSES DEPT.** Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988	**SERVICE BULLETIN COMPLIANCE FORM**	Date:
	Number:	
	Revision:	

Customer Name and Address:	Telephone:
	Fax:
	B.T. Compliance Date:

Helicopter Model	S/N	Total Number	Total Hours	T.S.O.

Remarks:

Information:

We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.