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AgustaWestland Products

SERVICE BULLETIN

N° 139-578

DATE: April 26, 2021

REV. : /

TITLE

ATA 23 – KIT RADIO MOTOROLA XiR 8268 PROVISION INSTALLATION

REVISION LOG

First issue

1. PLANNING INFORMATION

A. EFFECTIVITY

AB/AW139 helicopters from S/N 31005 thru S/N 31157 (except 31007).

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide the necessary instructions on how to perform the installation of kit radio Motorola XiR 8268 provision P/N 4G2310F04812.

E. DESCRIPTION

The kit radio Motorola XiR provision consists of the structural provision P/N 3G5311A26412 and the electrical provision P/N 3G2310A17312 that includes the installation of the universal radio interface P/N AA34-300 (A589) installed on the bulkhead STA 1500, the power converter P/N LT-71 (PS104) installed in the central lower fuselage, the antenna P/N 16-16P3 (E163) installed on the central bottom side of the fuselage and the GPS antenna P/N S67-1575-145 (E164) installed on the upper side of the tail boom.

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 one hundred twenty-eight (128) 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)	4.26	
	ARM (mm)	**MOMENT (kgmm)**
LONGITUDINAL BALANCE	4926	20984.76
LATERAL BALANCE	-137	-583.62

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-20-10-08-00A-622A-A	Electrical contacts - Crimp	-
DM05	39-A-24-91-04-00A-920A-K	Integrally Lighted Panel replacement	
DM06	39-A-20-10-18-00A-691A-A	Electrical wires and cables - Marking	-
DM07	39-A-20-10-01-00A-259A-A	Ground connections - Other procedures to protect surfaces	-

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
ATP	Acceptance Test Procedure
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
GPS	Global Positioning System
ITEP	Illustrated Tool and Equipment Publication

LHD	Leonardo Helicopters Division
MMH	Maintenance-Man-Hours
P/N	Part Number
S/N	Serial Number

3) ANNEX

Annex A	Provision for Radio Motorola XiR 8268 (ATP).

J. PUBLICATIONS AFFECTED

AW139 AMP

AW139 IPD

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	**4G2310F04812**		**KIT RADIO MOTOROLA XiR 8268 PROVISION**	**REF**	**.**		**-**
2	**3G5311A26412**		**RADIO MOTOROLA XiR 8268 STRUCT PROV**	**REF**	**..**		**-**
3	3G5315A69432		GPS antenna support assy	1	…		139-578L1
4	3G5315A92251		Bonding layer	1	…		139-578L1
5	3G5315A96251		Cover	1	…		139-578L1
6	3G5316A23851		Clousure plate	1	…		139-578L1
7	3G5316A74151		Bracket	1	…		139-578L1
8	3G5316A74234		Radio tetra motorola support assy	1	…		139-578L1
9	3G5316A83532		Cover assy	1	…		139-578L1
10	3G5317A30331		Radio interface bracket assy	1	…		139-578L1
11	3G5355A06951		Cover	1	…		139-578L1
12	A297A04TW02		Rivet	20	…		139-578L1
13	A407A3C2P		Anchor nut	2	…		139-578L1
14	MS20426AD4-7		Rivet	0.1 kg	…		139-578L1
15	MS27039-0807		Screw	4	…		139-578L1
16	MS27039-1-04		Screw	4	…		139-578L1
17	MS27039-1-07		Screw	4	…		139-578L1
18	MS27039-1-16		Screw	2	…		139-578L1
19	NAS1149C0332R		Washer	6	…		139-578L1
20	NAS1149D0316K		Washer	4	…		139-578L1
21	NAS1149D0332K		Washer	2	…		139-578L1
22	NAS1149DN832K		Washer	4	…		139-578L1
23	NAS1720C4L1P		Rivet	4	…		139-578L1
24	NAS1801-3-6		Screw	2	…		139-578L1
25	NAS1835A3		Insert	4	…		139-578L1
26	NAS1836-3-08M		Insert	8	…		139-578L1
27	NAS1836-3-13		Insert	6	…		139-578L1
28	**3G2310A17312**		**RADIO MOTOROLA XiR M8268 ELECT INS**	**REF**	**..**		**-**
29	16-16P3		Antenna	1	…		139-578L1
30	**3G9B01R02201**		**RADIO MOTOROLA XiR M8268 C/A (B1R22)**	**REF**	**…**		**-**
31	A556A-T16		Wire	2 m	….		139-578L1
32	A523A-A07		Electrical contact	4	….		139-578L1
33	A596A03		Junction in-line	2	….		139-578L1
34	M39029/58-364		Electrical contact	2	….		139-578L1
35	M81824/1-2		Splice	2	….		139-578L1
36	M85049/52-1-12W		Backshell	1	….		139-578L1
37	MS3476W12-3P		Connector	1	….		139-578L1
38	**3G9B01R02301**		**RADIO MOTOROLA XiR M8268 C/A (B1R23)**	**REF**	**…**		**-**
39	A556A-T16		Wire	4 m	….		139-578L1
40	A556A-T18		Wire	4 m	….		139-578L1
41	A556A-T20		Wire	13 m	….		139-578L1
42	A523A-A02		Electrical contact	2	….		139-578L1
43	BJE147		Fuse assy	1	….		139-578L1
44	D20419-21		Screwlock	2	….		139-578L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
45	M24308/2-3F		Connector	1	....		139-578L1
46	M39029/30-217		Electrical contact	3	....		139-578L1
47	M39029/5-116		Electrical contact	2	....		139-578L1
48	M39029/56-351		Electrical contact	2	....		139-578L1
49	M39029/58-363		Electrical contact	1	....		139-578L1
50	M39029/63-368		Electrical contact	3	....		139-578L1
51	M81824/1-2		Splice	3	....		139-578L1
52	M81824/1-3		Splice	1	....		139-578L1
53	M85049/48-2-3F		Backshell	1	....		139-578L1
54	M85049/52-1-12W		Backshell	1	....		139-578L1
55	MS25036-108		Terminal lug	2	....		139-578L1
56	MS3456W14S-5SX		Connector	1	....		139-578L1
57	MS3470W12-3S		Connector	1	....		139-578L1
58	**3G9B02B75001**		**RADIO MOTOROLA XiR M8268 C/A (B2B750)**	**REF**	**...**		**-**
59	A556A-T22		Wire	8 m	....		139-578L1
60	A561A-T2-22		Wire	7 m	....		139-578L1
61	A529A400-1102T		Backshell	1	....		139-578L1
62	A590A02		Ferrule	4	....		139-578L1
63	D38999/20JB99SN		Connector	1	....		139-578L1
64	M23053/8-004-C		Insulation sleeving	2 m	....		139-578L1
65	M39029/56-351		Electrical contact	6	....		139-578L1
66	M39029/57-354		Electrical contact	5	....		139-578L1
67	M39029/63-368		Electrical contact	14	....		139-578L1
68	M81824/1-1		Splice	1	....		139-578L1
69	**3G9B02B75101**		**RADIO MOTOROLA XiR M8268 C/A (B2B751)**	**REF**	**...**		**-**
70	A556A-T20		Wire	**1 m**	....		139-578L1
71	A556A-T22		Wire	**3 m**	....		139-578L1
72	A523A-A02		Electrical contact	**1**	....		139-578L1
73	A523A-A05		Electrical contact	**6**	....		139-578L1
74	M39029/58-363		Electrical contact	**7**	....		139-578L1
75	A530A4A11		Backshell	**1**	....		139-578L1
76	A596A02		Junction in-line	**7**	....		139-578L1
77	D38999/26JB99PN		Connector	**1**	....		139-578L1
78	**3G9B03B04201**		**RADIO MOTOROLA XiR M8268 C/A (B3B42)**	**REF**	**...**		**-**
79	S33141		Electrical cable	10 m	....		139-578L1
80	190314		Connector	1	....		139-578L1
81	190321		Bulkhead jack	1	....		139-578L1
82	**3G9B03B04301**		**RADIO MOTOROLA XiR M8268 C/A (B3B43)**	**REF**	**...**		**-**
83	M17/60-RG142		Wire	5 m	....		139-578L1
84	81-115-RFX		Connector	1	....		139-578L1
85	M23053/8-007-C		Insulation sleeving	2 m	....		139-578L1
86	M39012/01-0503		Connector	1	....		139-578L1
87	**3G9D03B01801**		**RADIO MOTOROLA XiR M8268 C/A (D3B18)**	**REF**	**...**		**-**
88	S33141		Electrical Cable	2 m	....		139-578L1
89	190309		Connector	2	....		139-578L1
90	A363A01		Ground stud assy	1	...		139-578L1
91	A366A3E08C75		Stud	2	...		139-578L1
92	A366A3E18C		Stud	1	...		139-578L1
93	A366A3E32C		Stud	6	...		139-578L1
94	A631A01A		Bundle spacer	8	...		139-578L1
95	AA34-300		Universal radio interface	1	...		139-578L1
96	AW001CB04H		Clamp	23	...		139-578L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
97	AW001CL509-N6		Electrical support	4	…		139-578L1
98	AW002FT102		Grommet	38	…		139-578L1
99	ED300A589		Decal	1	…		139-578L1
100	ED300E163		Decal	1	…		139-578L1
101	ED300E164		Decal	1	…		139-578L1
102	ED300GS2061		Decal	1	…		139-578L1
103	ED300J3116		Decal	1	…		139-578L1
104	ED300PS104		Decal	1	…		139-578L1
105	LT-71		Power converter (28/14VDC-8A)	1	…		139-578L1
106	M85049/95-12A-A		Connector flange	2	…		139-578L1
107	MS21042L3		Nut	10	…		139-578L1
108	MS24693-S275		Screw	4	…		139-578L1
109	NAS1149D0332J		Washer	26	…		139-578L1
110	NAS1149DN416J		Washer	8	…		139-578L1
111	NAS1801-3-5		Screw	4	…		139-578L1
112	NAS1802-04-7		Screw	8	…		139-578L1
113	NAS1802-3-10		Screw	4	…		139-578L1
114	NAS1802-3-21		Screw	2	…		139-578L1
115	NAS1802-3-5		Screw	12	…		139-578L1
116	NAS43DD3-43	NAS43DD3-43N	Spacer	1	…		139-578L1
117	NAS43DD3-64N		Spacer	1	…		139-578L1
118	NAS43DD3-80N		Spacer	5	…		139-578L1
119	NAS43DD3-90N		Spacer	1	…		139-578L1
120	S67-1575-145		GPS antenna	1	…		139-578L1
121	AW001GH027A		Gasket	1	…		139-578L1
122	AW001GH007A		Gasket	1	…		139-578L1
123	ED300CB581		Decal	1	.		139-578L1
124	A556A-T16		Wire	3 m	.		139-578L1
125	MS3320-10		Circuit Breaker	1	.		139-578L1
126	M39029/56-352		Electrical contact	1	.		139-578L1
127	MS25036-153		Terminal lug	1	.		139-578L1
128	3G2490LXXXXX		Aux CB Panel	1	.	(1)	-

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
129	AWTR033	Fiber glass 20749 1200	AR	(2)	-
130	199-05-002 TY:I, CL:2	Adhesive	AR	(2)	-
131	199-50-002 TY:I	Resin araldit	AR	(2)	-
132	199-05-002 TY:II	Catalyst	AR	(2)	-
133	199-05-002 TY:II, CL:2	Adhesive	AR	(2)	-
134	199-05-003 TY:I, CL:1	Adhesive	AR	(2)	-
135	199-05-002 TY:II, CL:B2	Sealant	AR	(2)	-
136	A236A01AB	Edging	AR	(2)	-
137	EN6049-006-05-5	Tubing braided	AR	(2)	-
138	BM100A248	Adhesive HT3326-5FR-50	AR	(2)	-

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
139-578L1	1	-	-
3G2490LXXXXX	1	(1)	-

NOTE

(1) 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.

(2) Item to procured as local supply.

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) Protect properly all those equipment not removed from area affected by the modification during installation procedure.

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 7, perform radio Motorola XiR 8268 structural provisions P/N 3G5311A26412 as described in the following procedure:
   - 2.1 With reference to Figure 1 Section A-A and Section E-E, temporarily locate the radio interface bracket assy P/N 3G5317A30331 on the bulkhead STA1500 and countermark n°2 holes in accordance to the dimensioning shown.
   - 2.2 With reference to Figure 1 Section E-E, drill n°2 holes Ø11.48÷11.61 thru the bulkhead STA 1500.

2.3 With reference to Figure 1 Section E-E, install n°2 inserts P/N NAS1836-3-13 on the bulkhead STA1500 by means of adhesive 199-05-002 TY II, CL 2.

2.4 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 1 Section E-E, prepare indicated contact surfaces to assure the correct electrical bonding.

2.5 With reference to Figure 1 Section E-E, install the radio interface bracket assy P/N 3G5317A30331 on the bulkhead STA1500 by means of n°2 screws P/N NAS1801-3-6 and n°2 washers P/N NAS1149D0332K.

2.6 With reference to Figure 2 View B and Section F-F, install the cover assy P/N 3G5316A83532 on the radio tetra motorola support assy P/N 3G5316A74234 by means of n°4 screws P/N MS27039-0807 and n°4 washers P/N NAS1149DN832K.

2.7 With reference to Figure 2 View B and Section F-F, install the radio tetra motorola support assy P/N 3G5316A74234 on the interseat console assy by means of fastener quarter turns.

2.8 With reference to Figure 2 Section F-F, install the bracket P/N 3G5316A74151 on the interseat console assy by means of n°4 rivets P/N MS20426AD4-7 in accordance with the dimensioning shown.

2.9 With reference to Figure 3 View C, Detail H and Section M-M, drill n°4 holes Ø17.42÷17.55 thru the passenger compartment subfloor in accordance with the dimensioning shown.

2.10 With reference to Figure 3 Detail H and Section M-M, install n°4 inserts P/N NAS1835A3 on the passenger compartment subfloor by means of adhesive 199-05-002 TY II, CL 2.

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

2.12 With reference to Figure 4 View D1 and Section L-L, perform indicated cut-out thru the rear lower panel P/N 3P5331A02231 in accordance with the dimensioning shown. Apply adhesive 199-05-002 TY II, CL 2 all around cut-out edges.

2.13 With reference Figure 4 View D, temporarily locate the clousure plate P/N 3G5316A23851 on the rear lower panel P/N 3P5331A02231 and countermark n°6 holes in accordance with the dimensioning shown.

2.14 With reference to Figure 4 View D, Detail G and Section J-J, drill n°2 holes Ø5.20÷5.50 thru the rear lower panel P/N 3P5331A02231.

2.15 With reference to Figure 4 Detail G and Section J-J, install n°2 anchor nuts

P/N A407A3C2P by means of adhesive 199-05-002 TY I, CL 2.

2.16 With reference to Figure 4 View D, Section K-K and Detail G, drill n°4 holes Ø11.48÷11.61 thru the rear lower panel P/N 3P5331A02231.

2.17 With reference to Figure 4 Section K-K, install n°4 inserts P/N NAS1836-3-13 on the rear lower panel P/N 3P5331A02231 by means of adhesive 199-05-002 TY II, CL 2.

2.18 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 4 View D1, prepare the indicated areas to assure the correct electrical bonding.

NOTE

Perform the following step 2.19 only if antenna P/N 16-16P3 will not be installed immediately.

2.19 With reference to Figure 4 View D, Section K-K and Section J-J, install the clousure plate P/N 3G5316A23851 on the rear lower panel P/N 3P5331A02231 by means of n°2 screws P/N MS27039-1-16, n°4 screws P/N MS27039-1-04, n°6 washers P/N NAS1149C0332R and adhesive 199-05-002 TY II, CL 2.

NOTE

Perform the indicated cut-out only thru the honeycomb core and the internal skin of the panel.

2.20 With reference to Figure 5 View N-N and Detail P, perform the indicated cut-out thru the upper panel assy in accordance with the dimensioning shown.

2.21 With reference to Figure 5 View N-N and Section AA-AA, temporarily locate the cover P/N 3G5315A96251 on the performed cut-out.

2.22 With reference to Figure 5 View N-N, perform the indicated cut-outs thru the cover P/N 3G5315A96251 and the external skin of the upper panel assy in accordance with the dimensioning shown.

2.23 With reference to Figure 5 View N-N and Section AA-AA, install the cover P/N 3G5315A96251 on the upper panel assy by means of adhesive 199-05-002 TY II, CL 2.

2.24 With reference to Figure 6 View S, 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.

2.25 With reference to Figures 11 and 12, drill n°20 rivet holes in correspondence of previously marked position.

2.26 With reference to Figure 6 View S and Section X-X, prepare n°2 plies of fiber glass

20749 1200 by means of the resin Araldit 199-50-002 TY I and the catalyst 199-50-002 TY II and trim to relate to GPS antenna support assy P/N 3G5315A69432.

2.27 With reference to Figure 6 View S and Section X-X, apply n°1 ply of fiberglass 20749 1200 on the internal side of the tail rotor shaft cowling assy, n°1 ply of fiberglass 20749 1200 on the external side of the tail rotor shaft cowling assy.

2.28 With reference to Figure 6 Section X-X, perform the indicated cut-out thru the tail rotor shaft cowling assy P/N 3G5355A00635.

2.29 With reference to Figure 6 Detail R and Section T-T and Figure 7 Section U-U, temporarily locate the GPS antenna support assy P/N 3G5315A69432 and the bonding layer P/N 3G5315A92251 on the tail rotor shaft cowling assy P/N 3G5355A00635 and countermark n°2 rivet holes positions on the bonding layer P/N 3G5315A92251.

2.30 With reference to Figure 6 View S and Section T-T, drill n°2 rivet holes in the previously marked positions thru the bonding layer P/N 3G5315A92251.

2.31 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 6 View S, prepare the indicated surfaces under rivet head and under upset side rivet to assure the correct electrical bonding.

2.32 With reference to Figure 7 section U-U, install the bonding layer P/N 3G5315A92251 on the tail rotor shaft cowling assy P/N 3G5355A00635 by means of the adhesive 199-05-002 TY I, CL 2.

2.33 With reference Figure 7 Section U-U and Section V-V, fix one end of the bonding layer P/N 3G5315A92251 to the existing bonding layer P/N 3G5315A21851 by means of n°4 rivets P/N NAS1720C4L1P in accordance with the dimensioning shown. Seal with adhesive 199-05-004 TY II, CL B2 after assembly by rivets.

2.34 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 6 Section T-T and Figure 7 Section U-U, prepare the contact surfaces to assure the correct electrical bonding.

2.35 With reference Figure 6 View S and Section T-T, install the GPS antenna support assy P/N 3G5315A69432 on the tail rotor shaft cowling assy P/N 3G5355A00635 by means of n°20 rivets P/N A297A04TW02.

NOTE

Perform the following step 2.36 only if GPS antenna P/N S67-1575-145 will not be installed immediately.

2.36 With reference Figure 6 Detail R, install the cover P/N 3G5355A06951 on the GPS

antenna support assy P/N 3G5315A69432 by means of n°4 screws P/N MS27039-1-07 and n°4 washers P/N NAS1149D0316K.

2.37 With reference Figure 6 Detail R, seal all around the cover P/N 3G5355A06951 with adhesive 199-05-003 TY I, CL 1.

2.38 With reference Figure 7 Section U-U and Section W-W, drill n°8 insert holes Ø11.48÷11.61 thru the tail rotor shaft cowling assy P/N 3G5355A00635 in accordance with the dimensioning shown.

2.39 With reference Figure 7 Section W-W, install n°8 inserts P/N NAS1836-3-08M on the tail rotor shaft cowling assy P/N 3G5355A00635 by means of the adhesive 199-05-002 TY II, CL 2.

NOTE

Use the edging P/N A236A01AB on edges which are liable to cause damage to cable assemblies or where abrasion may occur.

NOTE

Install the tubing braided P/N EN6049-006-05-5 where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

3. With reference to Figures 8 thru 17 and Figures 18 thru 20 wiring diagram, perform radio Motorola XiR M8268 electrical installation P/N 3G2310A17312 as described in the following procedure:

3.1 With reference to Figure 12 View A, install n°2 connector flanges P/N M85049/95-12A-A on the bracket P/N 3G5316A74151 (previously installed at step 2.8) by means of n°8 screws P/N NAS1802-04-7 and n°8 washers P/N NAS1149DN416J.

3.2 With reference to Figure 13 View looking floor from STA 3120 to STA 4800 RH side, install the ground stud assy (GS2061) P/N A363A01 on the structure at location n°1.

3.3 In accordance with the AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 13 View looking floor from STA 3120 to STA 4800 RH side, install the decal P/N ED300GS2061 in an area adjacent the ground stud assy GS2061.

3.4 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install n°2 studs P/N A366A3E08C75 on the structure at locations n°1 and n°2.

3.5 With reference to Figure 14 View looking floor from STA 3120 to

STA 4800 LH side, install n°2 electrical supports P/N AW001CL509-N6 on the structure at locations n°3 and n°5.

3.6 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install the stud P/N A366A3E18C on the structure at location n°4.

3.7 With reference to Figure 15 View looking floor from STA 4800 to STA 6700 RH side, install the electrical support P/N AW001CL509-N6 on the structure at location n°1.

3.8 With reference to Figure 16 View looking rear zone, remove n°2 existing studs and replace with n°2 new studs P/N A366A3E32C on the structure at locations n°1 and n°6.

3.9 With reference to Figure 16 View looking rear zone, install n°4 studs P/N A366A3E32C on the structure at locations n°2 thru n°4 and n°7.

3.10 With reference to Figure 16 View looking rear zone, install the electrical support P/N AW001CL509-N6 on the structure at location n°5.

3.11 With reference to Figure 12 and Figure 19 wiring diagram, assemble the radio Motorola XiR M8268 C/A (B1R22) P/N 3G9B01R02201 as described in the following procedure:

3.11.1 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay it down between connector P1076 and junction in-line TB1122.

3.11.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-364 (P1076 side) and n°1 electrical contact P/N A523A-A07 (TB1122 side) by means of proper crimping tool.

3.11.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10305B16-G by means of marker sleeves.

3.11.4 With reference to Figure 12 View A and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between splice SP10368 and junction in-line TB1122.

3.11.5 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A07 (TB1122 side) by means of proper crimping tool.

3.11.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10305A16-G by means of marker sleeves.

3.11.7 With reference to Figure 19 wiring diagram, perform electrical connection between wire marked as R10305A16-G and splice P/N M81824/1-2 (SP10368).

3.11.8 With reference to Figure 19 wiring diagram, perform electrical connection between wires marked as R10305A16-G and R10305B16-G by means of junction in-line P/N A596A03 (TB1122).

3.11.9 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between connector P1076 and junction in-line TB1124.

3.11.10 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-364 (P1076 side) and n°1 electrical contact P/N A523A-A07 (TB1124 side) by means of proper crimping tool.

3.11.11 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10304E16-G by means of marker sleeves.

3.11.12 With reference to Figure 12 View A and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between splice SP10369 and junction in-line TB1124.

3.11.13 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A07 (TB1124 side) by means of proper crimping tool.

3.11.14 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10304F16-G by means of marker sleeves.

3.11.15 With reference to Figure 19 wiring diagram, perform electrical connection between wire marked as R10304F16-G and splice P/N M81824/1-2 (SP10369).

3.11.16 With reference to Figure 19 wiring diagram, perform electrical connection between wires marked as R10304F16-G and R10304E16-G by means of junction in-line P/N A596A03 (TB1124).

3.11.17 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark the cable assembly so obtained as B1R22 by means of marker sleeves.

3.11.18 With reference to Figure 12 and Figure 19 wiring diagram, assemble the connector P1076 on the C/A B1R22 by means of the connector P/N MS3476W12-3P and the backshell P/N M85049/52-1-12W and install in position on the bracket P/N 3G5316A74151.

3.12 With reference to Figures 9 thru 13 and Figure 18 wiring diagram, assemble the radio Motorola XiR M8268 C/A (B1R23) P/N 3G9B01R02301 as described in the following procedure:

3.12.1 With reference to Figure 9 and 11 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between connector TB7P1 and splice SP10365.

3.12.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-351 (TB7P1 side) by means of proper crimping tool.

3.12.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10301C20N-G by means of marker sleeves.

3.12.4 With reference to Figure 11 and Figure 18 wiring diagram, cut n°2 wires P/N A556A-T20 of adequate length and lay down between connector A589P1 and splice SP10365.

3.12.5 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wires n°2 electrical contacts P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.12.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wires as R10301B20-G and R10301A20-G by means of marker sleeves.

3.12.7 With reference to Figure 18 wiring diagram, perform electrical connection between wires marked as R10301C20N-G, R10301B20-G and R10301A20-G by means of splice P/N M81824/1-2 (SP10365).

3.12.8 With reference to Figure 11 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between connector A589P1 and splice SP10366.

3.12.9 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.12.10 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10300B20-G by means of marker sleeves.

3.12.11 With reference to Figure 11 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between connector PL1P7 and splice SP10366.

3.12.12 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (PL1P7 side) by means of proper crimping tool.

3.12.13 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10300A20-G by means of marker sleeves.

3.12.14 With reference to Figures 11 and 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between splices SP10366 and SP21158.

3.12.15 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10300C20-G by means of marker sleeves.

3.12.16 With reference to Figure 18 wiring diagram, perform electrical connection between wires marked as R10300B20-G, R10300A20-G and R10300C20-G by means of splice P/N M81824/1-2 (SP10366).

3.12.17 With reference to Figures 11 and 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T18 of adequate length and lay down between connector PS104P1 and splice SP21158.

3.12.18 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/30-217 (PS104P1 side) by means of proper crimping tool.

3.12.19 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10300D18-G by means of marker sleeves.

3.12.20 With reference to Figure 18 wiring diagram, perform electrical connection between wires marked as R10300D18-G and R10300C20-G by means of splice P/N M81824/1-2 (SP21158).

3.12.21 With reference to Figure 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between connector PS104P1 and ground stud assy GS2061.

3.12.22 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/30-217 (PS104P1 side) and n°1 terminal lug P/N MS25036-108 (GS2061 side) by means of proper crimping tool.

3.12.23 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10302A16N-G by means of marker sleeves.

3.12.24 With reference to Figures 12 and 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between connector J1076 and ground stud assy GS2061.

3.12.25 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/5-116 (J1076 side) and n°1 terminal lug P/N MS25036-108 (GS2061 side) by means of proper crimping tool.

3.12.26 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10305C16N-G by means of marker sleeves.

3.12.27 With reference to Figure 18 wiring diagram, perform electrical connection between wires marked as R10305C16N-G and R10302A16N-G by means of GS2061.

3.12.28 With reference to Figure 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T18 of adequate length and lay down between connector PS104P1 and fuse F238.

3.12.29 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/30-217 (PS104P1 side) and n°1 electrical contact P/N A523A-A02 (F238 side) by means of proper crimping tool.

3.12.30 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10304A18-G by means of marker sleeves.

3.12.31 With reference to Figure 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T18 of adequate length and lay down between splice SP10367 and fuse F238.

3.12.32 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A02 (F238 side) by means of proper crimping tool.

3.12.33 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10304B18-G by means of marker sleeves.

3.12.34 With reference to figure 18 wiring diagram, perform electrical connection between wires marked as R10304B18-G and R10304A18-G by means of fuse assy P/N BJE147 (F238).

3.12.35 With reference to Figures 12 and 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between splice SP10367 and connector J1076.

3.12.36 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/5-116 (J1076 side) by means of proper crimping tool.

3.12.37 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10304D16-G by means of marker sleeves.

3.12.38 With reference to Figures 12 and 13 and Figure 18 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between splice SP10367 and connector J1078.

3.12.39 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 18 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-351 (J1078 side) by means of proper crimping tool.

3.12.40 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 wiring diagram, mark wire as R10304C20-G by means of marker sleeves.

3.12.41 With reference to figure 18 wiring diagram, perform electrical connection between wires marked as R10304B18-G,

R10304C20-G and R10304D16-G by means of splice P/N M81824/1-3 (SP10367).

3.12.42 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and Figure 18 wiring diagram, mark the cable assembly so obtained as B1R23 by means of marker sleeves.

3.12.43 With reference to Figure 12 and Figure 18 wiring diagram, assemble the connector J1076 on the C/A B1R23 by means of the connector P/N MS3470W12-3S and the backshell P/N M85049/52-1-12W and install in position on the bracket P/N 3G5316A74151.

3.12.44 With reference to Figure 13 and Figure 18 wiring diagram, assemble the connector P/N MS3456W14S-5SX (PS104P1) on the C/A B1R23.

3.13 With reference to Figures 9 thru 12 and Figure 19 wiring diagram, assemble the radio Motorola XiR M8268 C/A (B2B750) P/N 3G9B02B75001 as described in the following procedure:

3.13.1 With reference to Figures 11and 12 and Figure 19 wiring diagram, cut n°4 wires P/N A561A-T2-T22 of adequate length and lay down between connector A589P1 and connector J1078.

3.13.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wires n°4 electrical contacts P/N M39029/63-368 (A589P1 side) and n°4 electrical contacts P/N M39029/56-351 (J1078 side) by means of proper crimping tool.

3.13.3 Install n°2 ferrules P/N A590A02 and n°2 insulation sleevings P/N M23053/8-004-C on the electrical contacts P/N M39029/63-368 (A589P1 side).

3.13.4 Install n°2 insulation sleevings P/N M23053/8-004-C on the electrical contacts P/N M39029/56-351 (J1078 side).

3.13.5 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wires as R10306A22-S (white), R10306A22-S (blue), R10307A22-S (white) and R10307A22-S (blue) by means of marker sleeves.

3.13.6 With reference to Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector A589P1 and the wires R10306A22-S and R10307A22-S.

3.13.7 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical

contact P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.13.8 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10308A22-S by means of marker sleeves.

3.13.9 With reference to Figure 11 and 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector J1078 and connector A589P1.

3.13.10 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/57-351 (J1078 side) and n°1 electrical contact P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.13.11 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10309A22-S by means of marker sleeves.

3.13.12 With reference to Figure 11 and 12 and Figure 19 wiring diagram, cut n°2 wires P/N A556A-T22 of adequate length and lay down between splice SP10370 and connector A589P1.

3.13.13 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wires n°2 electrical contacts P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.13.14 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10310A22-S and R10310B22-S by means of marker sleeves.

3.13.15 With reference to Figure 11 and 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between splice SP10370 and connector J1078.

3.13.16 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-351 (J1078 side) by means of proper crimping tool.

3.13.17 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10310C22-S by means of marker sleeves.

3.13.18 With reference to figure 19 wiring diagram, perform electrical connection between wires marked as R10310A22-S,

R10310B22-S and R10310C22-S by means of splice P/N M81824/1-1 (SP10370).

3.13.19 With reference to Figure 9 and 11 and Figure 19 wiring diagram, cut n°2 wires P/N A561A-T2-T22 of adequate length and lay down between connector A589P1 and connector A8-6P3.

3.13.20 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/63-368 (A589P1 side) and n°2 electrical contacts P/N M39029/57-354 (A8-6P3 side) by means of proper crimping tool.

3.13.21 Install n°1 ferrule P/N A590A02 and n°1 insulation sleeving P/N M23053/8-004-C on the electrical contact P/N M39029/63-368 (A589P1 side).

3.13.22 Install n°1 insulation sleeving P/N M23053/8-004-C on the electrical contact P/N M39029/57-354 (A8-6P3 side).

3.13.23 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10311A22-S (white) and R10311A22-S (blue) by means of marker sleeves.

3.13.24 With reference to Figure 9 and 11 and Figure 19 wiring diagram, cut n°2 wires P/N A561A-T2-T22 of adequate length and lay down between connector A8-6P1 and connector A589P1.

3.13.25 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/57-354 (A8-6P1 side) and n°2 electrical contacts P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.13.26 Install n°1 ferrule P/N A590A02 and n°1 insulation sleeving P/N M23053/8-004-C on the electrical contacts P/N M39029/63-368 (A589P1 side).

3.13.27 Install n°1 insulation sleeving P/N M23053/8-004-C on the electrical contacts P/N M39029/57-354 (A8-6P3 side).

3.13.28 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wires as R10312A22-S (white) and R10312A22-S (blue) by means of marker sleeves.

3.13.29 With reference to Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector

A589P1 and the wires R10311A22-S and R10312A22-S.

3.13.30 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.13.31 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10313A22-S by means of marker sleeves.

3.13.32 With reference to Figure 9 and 11 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T2-T22 (blue) of adequate length and lay down between connector A8-6P3 and connector A589P1.

3.13.33 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/57-354 (A8-6P3 side) and n°1 electrical contact P/N M39029/63-368 (A589P1 side) by means of proper crimping tool.

3.13.34 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10314A22-S by means of marker sleeves.

3.13.35 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and Figure 19 wiring diagram, mark the cable assembly so obtained as B2B750 by means of marker sleeves.

3.14 With reference to Figure 9 thru 12 and Figure 19 wiring diagram, assemble the radio Motorola XiR M8268 C/A (B2B751) P/N 3G9B02B75101 as described in the following procedure:

3.14.1 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between connector P1078 and junction in-line TB1126.

3.14.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A02 (TB1126 side) by means of proper crimping tool.

3.14.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10304G20-S by means of marker sleeves.

3.14.4 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between junction in-line TB1128 and connector P1078.

3.14.5 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A05 (TB1128 side) by means of proper crimping tool.

3.14.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10306B22-S by means of marker sleeves.

3.14.7 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector P1078 and junction in-line TB1130.

3.14.8 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A05 (TB1130 side) by means of proper crimping tool.

3.14.9 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10306C22-S by means of marker sleeves.

3.14.10 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between junction in-line TB1132 and connector P1078.

3.14.11 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A05 (TB1132 side) by means of proper crimping tool.

3.14.12 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10307B22-S by means of marker sleeves.

3.14.13 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector P1078 and junction in-line TB1134.

3.14.14 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A05 (TB1134 side) by means of proper crimping tool.

3.14.15 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10307C22-S by means of marker sleeves.

3.14.16 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between junction in-line TB1136 and connector P1078.

3.14.17 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A05 (TB1136 side) by means of proper crimping tool.

3.14.18 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10309B22-S by means of marker sleeves.

3.14.19 With reference to Figure 12 and Figure 19 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between the junction in-line TB1138 and connector P1078.

3.14.20 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 19 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P1078 side) and n°1 electrical contact P/N A523A-A05 (TB1138 side) by means of proper crimping tool.

3.14.21 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 19 wiring diagram, mark wire as R10310D22-S by means of marker sleeves.

3.14.22 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and Figure 19 wiring diagram, mark the cable assembly so obtained as B2B751 by means of marker sleeves.

3.14.23 With reference to Figure 12 and Figure 19 wiring diagram, assemble the connector P1078 on the C/A B2B751 by means of the connector P/N D38999/26JB99PN and the backshell P/N A530A4A11 and install in position on the bracket P/N 3G5316A74151.

3.15 With reference to Figures 12 thru 16 and Figure 20 wiring diagram, assemble the radio Motorola XiR M8268 C/A (B3B42) P/N 3G9B03B04201 as described in the following procedure:

3.15.1 With reference to Figure 12 and 16 and Figure 20 wiring diagram, cut n°1 wire P/N S33141 of adequate length and lay down between connector PL199GPS and connector J3116.

3.15.2 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 20 wiring diagram, mark wire as R10315A-F by means of marker sleeves.

3.15.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and Figure 20 wiring diagram, mark the cable assembly so obtained as B3B42 by means of marker sleeves.

3.15.4 With reference to Figure 12 View A and Figure 20 wiring diagram, assemble the connector P/N 190314 (PL199GPS) on the C/A B3B42.

3.15.5 With reference to Figure 12 View A and Figure 20 wiring diagram, assemble the TNC bulkhead jack P/N 190321 (J3116) on the C/A B3B42.

3.16 With reference to Figures 12 thru 14 and Figure 20 wiring diagram, assemble the radio Motorola XiR M8268 C/A (B3B43) P/N 3G9B03B04301 as described in the following procedure:

3.16.1 With reference to Figure 12 and 14 and Figure 20 wiring diagram, cut n°1 wire P/N M17/60-RG142 of adequate length and lay down between connector E163P1 and connector PL199P1.

3.16.2 Install n°2 insulation sleevings P/N M23053/8-007-C on E163P1 side and PL199P1 side.

3.16.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 20 wiring diagram, mark wire as R10316A-F by means of marker sleeves.

3.16.4 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and Figure 20 wiring diagram, mark the cable assembly so obtained as B3B43 by means of marker sleeves.

3.16.5 With reference to Figure 12 View A and Figure 20 wiring diagram, assemble the connector P/N 81-115-RFX (PL199P1) on the C/A B3B43.

3.16.6 With reference to Figure 14 and Figure 20 wiring diagram, assemble the connector P/N M39012/01-0503 (E163P1) on the C/A B3B43.

3.17 With reference to Figure 14 thru Figure17 and Figure 20 wiring diagram, assemble the radio Motorola XiR M8268 C/A (D3B18) P/N 3G9D03B01801 as described in the following procedure:

3.17.1 With reference to Figure 14 and 16 and Figure 20 wiring diagram, cut n°1 wire P/N S33141 of adequate length and lay down between connector P3116 and connector E163P1.

3.17.2 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 20 wiring diagram, mark wire as R10315B-F by means of marker sleeves.

3.17.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and Figure 20 wiring diagram, mark the cable assembly so obtained as D3B18 by means of marker sleeves.

3.17.4 With reference to Figure 17 View looking up tail zone and Figure 20 wiring diagram, assemble the connector P/N 190309 (E164P1) on the C/A D3B18.

3.17.5 With reference to Figure 17 View looking up tail zone and Figure 3 wiring diagram, assemble the connector P/N 190309 (P3116) on the C/A D3B18.

3.18 With reference to Figure 11 and Figures 18 and 19 wiring diagram, assemble the connector A589P1 on the C/A B1R23 and C/A B2B750 by means of the connector P/N M24308/2-3F, the backshell P/N M85049/48-2-3F and n°2 screwlocks P/N D20419-21.

3.19 With reference to Figure 12 and Figure 18 wiring diagram, assemble the connector J1078 on the C/A B1R23 and C/A B2B750 by means of the connector P/N D38999/20JB99SN and the backshell P/N A529A400-1102T and install in position on the bracket P/N 3G5316A74151.

3.20 With reference to Figures 8 thru 17, secure the cable assemblies laid down at the previous steps by means of existing hardware and lacing cords.

3.21 With reference to Figure 10 View looking cockpit area RH side, install n°3 bundle spacers P/N A631A01A between C/A B1R23 and C/A B2B750.

3.22 With reference to Figure 11 View looking cockpit area LH side, install n°4 bundle spacers P/N A631A01A between C/A B1R23 and C/A B2B750.

3.23 With reference to Figure 12 View looking interseat console zone, install the bundle spacer P/N A631A01A between C/A B1R23 and C/A B2B750.

3.24 With reference to Figure 12 View looking interseat console zone, install n°2 grommets P/N AW002FT102 on C/A B3B43 and C/A B3B42.

3.25 With reference to Figure 13 View looking floor on STA 3120 middle and LH side, install n°4 grommets P/N AW002FT102 on C/A B3B43 and C/A B3B42.

3.26 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install n°21 grommets P/N AW002FT102 on C/A B3B43 and C/A B3B42.

3.27 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install n°2 clamps P/N AW001CB04H on C/A B3B43 by means of n°2 nuts P/N MS21042L3 and n°2 washers P/N NAS1149D0332J.

3.28 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install the clamp P/N AW001CB04H on C/A B3B43 by means of the spacer P/N NAS43DD3-43, the nut P/N MS21042L3 and the washer P/N NAS1149D0332J.

3.29 With reference to Figure 15 View looking floor from STA 4800 to STA 6700 RH side, install n°8 grommets P/N AW002FT102 on C/A B3B42.

3.30 With reference to Figure 16 View looking rear zone, install n°3 grommets P/N AW002FT102 on C/A B3B42.

3.31 With reference to Figure 16 View looking rear zone, install n°5 clamps P/N AW001CB04H on C/A B3B42 by means of n°5 spacers P/N NAS43DD3-80N, n°5 nuts P/N MS21042L3 and n°5 washers P/N NAS1149D0332J.

3.32 With reference to Figure 16 View looking rear zone, install the clamp P/N AW001CB04H on C/A B3B42 by means of the spacer P/N NAS43DD3-64N, the nut P/N MS21042L3 and the washer P/N NAS1149D0332J.

3.33 With reference to Figure 16 View looking rear zone, install n°5 clamps P/N AW001CB04H on C/A B3B42 on the existing hardware.

3.34 With reference to Figure 16 View looking rear zone, install the clamp P/N AW001CB04H on C/A B3B42 by means of the spacer P/N NAS43DD3-90N, the nut P/N MS21042L3 and the washer P/N NAS1149D0332J.

3.35 With reference to Figure 17 View looking up tail zone, install n°8 clamps P/N AW001CB04H on C/A D3B18 by means of n°8 screws P/N NAS1802-3-5 and n°8 washers P/N NAS1149D0332J.

3.36 With reference to Figures 9 and 11, perform the electrical connection of C/A B1R23 to connector TB7P1 and to connector PL1P7.

3.37 With reference to Figures 9, perform the electrical connection of C/A B2B750 to connector A8-6P1 and to connector A8-6P3.

3.38 With reference to Figure 11 View looking cockpit area LH side, install the universal radio interface (A589) P/N AA34-300 on the radio interface bracket assy P/N 3G5317A30331 (previously installed at step 2.5) by means of n°4 screws P/N NAS1802-3-5 and n°4 washers P/N NAS1149D0332J.

3.39 With reference to Figure 11 View looking cockpit area LH side and Figures 18 and 19 wiring diagram, connect the connector A589P1 to the universal radio interface A589.

3.40 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 11 View looking cockpit area LH side, install the decal P/N ED300A589 in an area adjacent the universal radio interface A589.

NOTE

Perform the following step 3.41 only if R/T motorola XiR M8268 (PL199) will not be installed immediately.

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

3.41.1 Apply the applicable protective cap on the connectors.

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

3.41.3 Fasten the connector assemblies with cable straps.

NOTE

Perform the following step 3.42 only if R/T motorola XiR M8268 (PL199) will be installed immediately.

3.42 With reference to figure 12 View A and figure 20 wiring diagram, connect the connectors PL199P1 (C/A B3B43) and PL199GPS (C/A B3B42) to the R/T motorola XiR M8268 PL199.

3.43 With reference to Figure 13 View looking floor from STA 3120 to STA 4800 RH side, install the power converter (PS104) P/N LT-71 in position on the floor by means of n°4 screws P/N NAS1801-3-5 and n°4 washers P/N NAS1149D0332J.

3.44 With reference to Figure 13 View looking floor from STA 3120 to STA 4800 RH side and Figure 18 wiring diagram, connect the connector PS104P1 to the power converter PS104.

3.45 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 13 View looking floor from STA 3120 to STA 4800 RH side, install the decal ED300PS104 in an area adjacent the power converter PS104.

3.46 With reference to Figure 17 View looking up tail zone and Figure 20 wiring diagram, connect the connector P3116 of C/A D3B18 to connector J3116 of C/A B3B42.

3.47 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 17 View looking up tail zone, install the decal P/N ED300J3116 in an area adjacent the connector J3116.

NOTE

If installed, remove the clousure plate P/N 3G5316A23851.

3.48 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install the antenna (E163) P/N 16-16P3 and the gasket P/N AW001GH027A on the central bottom side of the fuselage by means of n°4 screws P/N NAS1802-3-10, n°2 screws

P/N NAS1802-3-21 and adhesive HT3326-5FR-50.

3.49 With reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side and Figure 20 wiring diagram, connect the connector E163P1 to the antenna E163.

3.50 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 14 View looking floor from STA 3120 to STA 4800 LH side, install the decal ED300E163 in an area adjacent the antenna E163.

NOTE

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

3.51 With reference to Figure 17 View B, install the GPS antenna (E164) P/N S67-1575-145 and the gasket P/N AW001GH007A on the upper side of the tail boom by means of n°4 screws P/N MS24693-S275 and adhesive HT3326-5FR-50.

3.52 With reference to Figure 17 View looking up tail zone and View B and Figure 20 wiring diagram, connect the connector E164P1 to the GPS antenna E164.

3.53 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 17 View B, install the decal ED300E164 in an area adjacent the GPS antenna E164.

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

NOTE

Customer must contact Leonardo Helicopters PSE (engineering.support.lhd@leonardocompany.com) at least 3 months in advance of embodiment date of this Service Bulletin in order to collect the exact W/D applicable to helicopter configuration.

4.1.1 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.

4.1.2 Perform electrical connections between CB581 pin 2 and connector PL1J7 pin a 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.

4.1.3 With reference to Figure 18 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.

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

5. With reference to Annex A, perform the “Acceptance Test Procedure” for the provision for radio motorola XiR 8268 Series Model.
6. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
7. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
8. 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”.

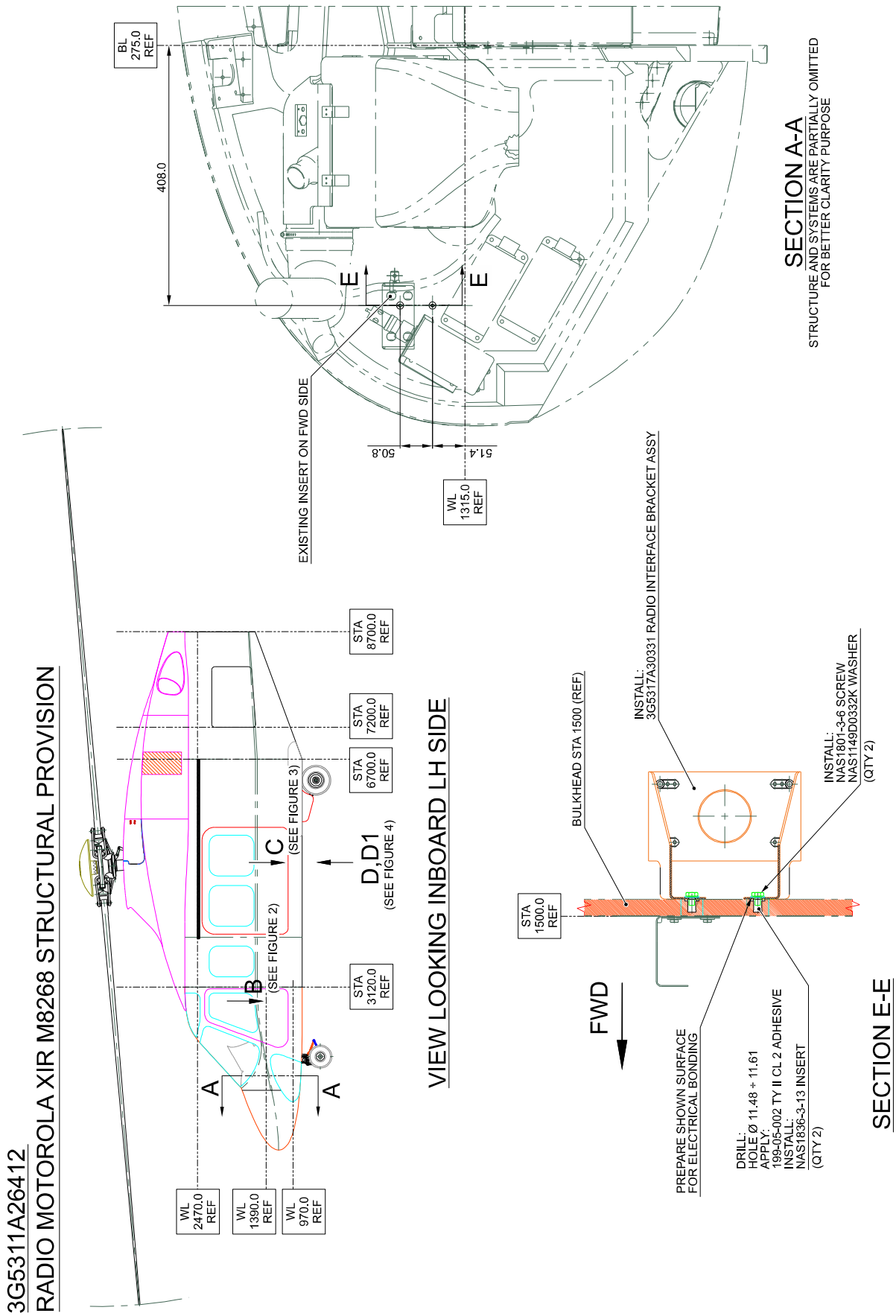

3G5311A26412
RADIO MOTOROLA XIR M8268 STRUCTURAL PROVISION
VIEW LOOKING INBOARD LH SIDE
SECTION A-A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
SECTION E-E
EXISTING INSERT ON FWD SIDE
BL 275.0 REF
408.0
WL 1315.0 REF
50.8
51.4
STA 8700.0 REF
STA 7200.0 REF
STA 6700.0 REF
STA 3120.0 REF
STA 1500.0 REF
WL 2470.0 REF
WL 1390.0 REF
WL 970.0 REF
(SEE FIGURE 3)
(SEE FIGURE 2)
(SEE FIGURE 4)
A
B
C
D,D1
E
FWD
BULKHEAD STA 1500 (REF)
INSTALL:
3G5317A30331 RADIO INTERFACE BRACKET ASSY
INSTALL:
NAS1801-3-6 SCREW
NAS1149D0332K WASHER
(QTY 2)
PREPARE SHOWN SURFACE FOR ELECTRICAL BONDING
DRILL:
HOLE Ø 11.48 + 11.61
APPLY:
199-05-002 TY II CL 2 ADHESIVE
INSTALL:
NAS1836-3-13 INSERT
(QTY 2)

Figure 1

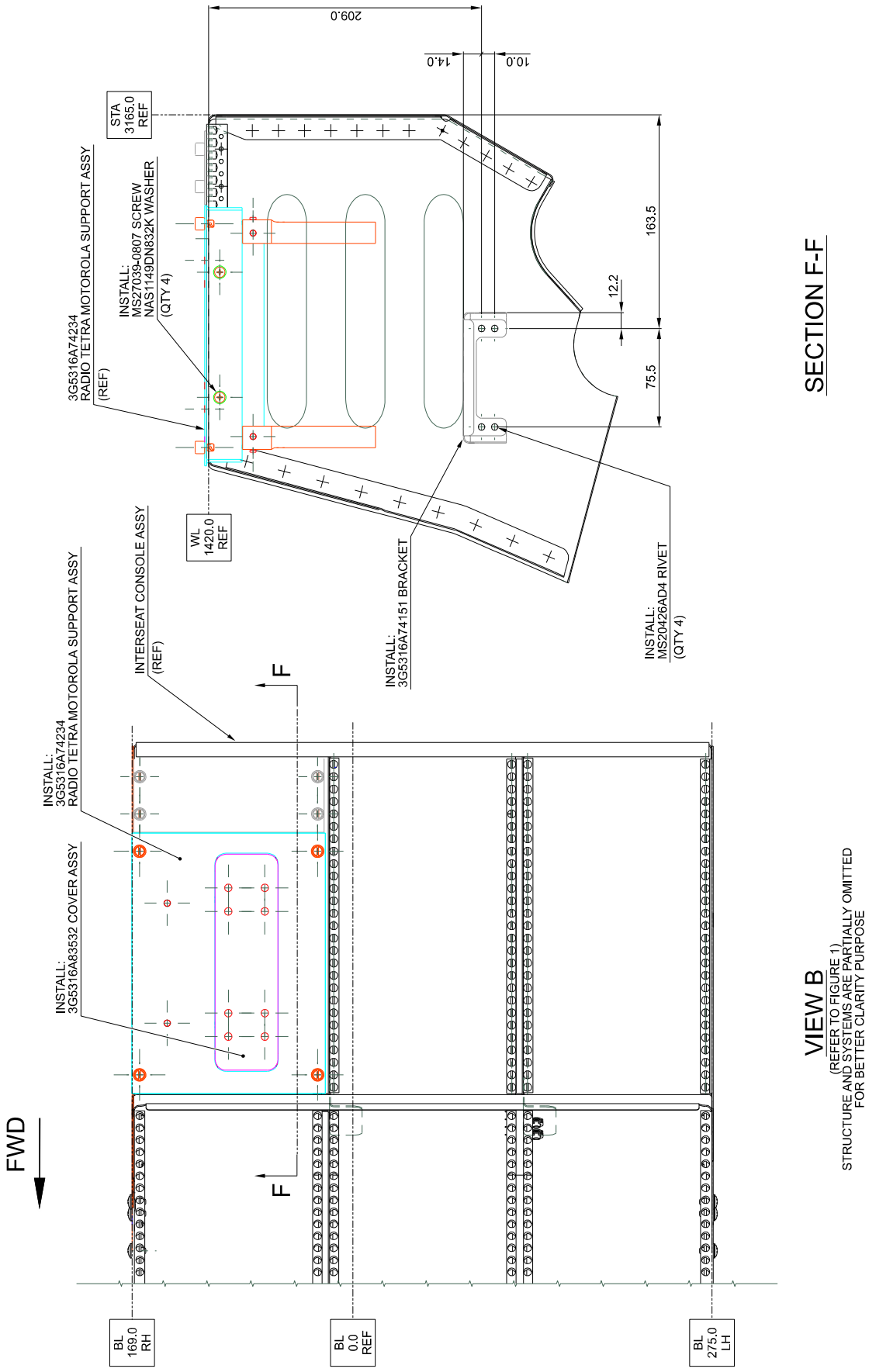

209.0
14.0
10.0
STA
3165.0
REF
3G5316A74234
RADIO TETRA MOTOROLA SUPPORT ASSY
(REF)
INSTALL:
MS27039-0807 SCREW
NAS1149DN832K WASHER
(QTY 4)
163.5
12.2
75.5
WL
1420.0
REF
INSTALL:
3G5316A74151 BRACKET
INSTALL:
MS20426AD4 RIVET
(QTY 4)
SECTION F-F
INTERSEAT CONSOLE ASSY
(REF)
INSTALL:
3G5316A74234
RADIO TETRA MOTOROLA SUPPORT ASSY
INSTALL:
3G5316A83532 COVER ASSY
F
F
FWD
BL
169.0
RH
BL
0.0
REF
BL
275.0
LH
VIEW B
(REFER TO FIGURE 1)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE

Figure 2

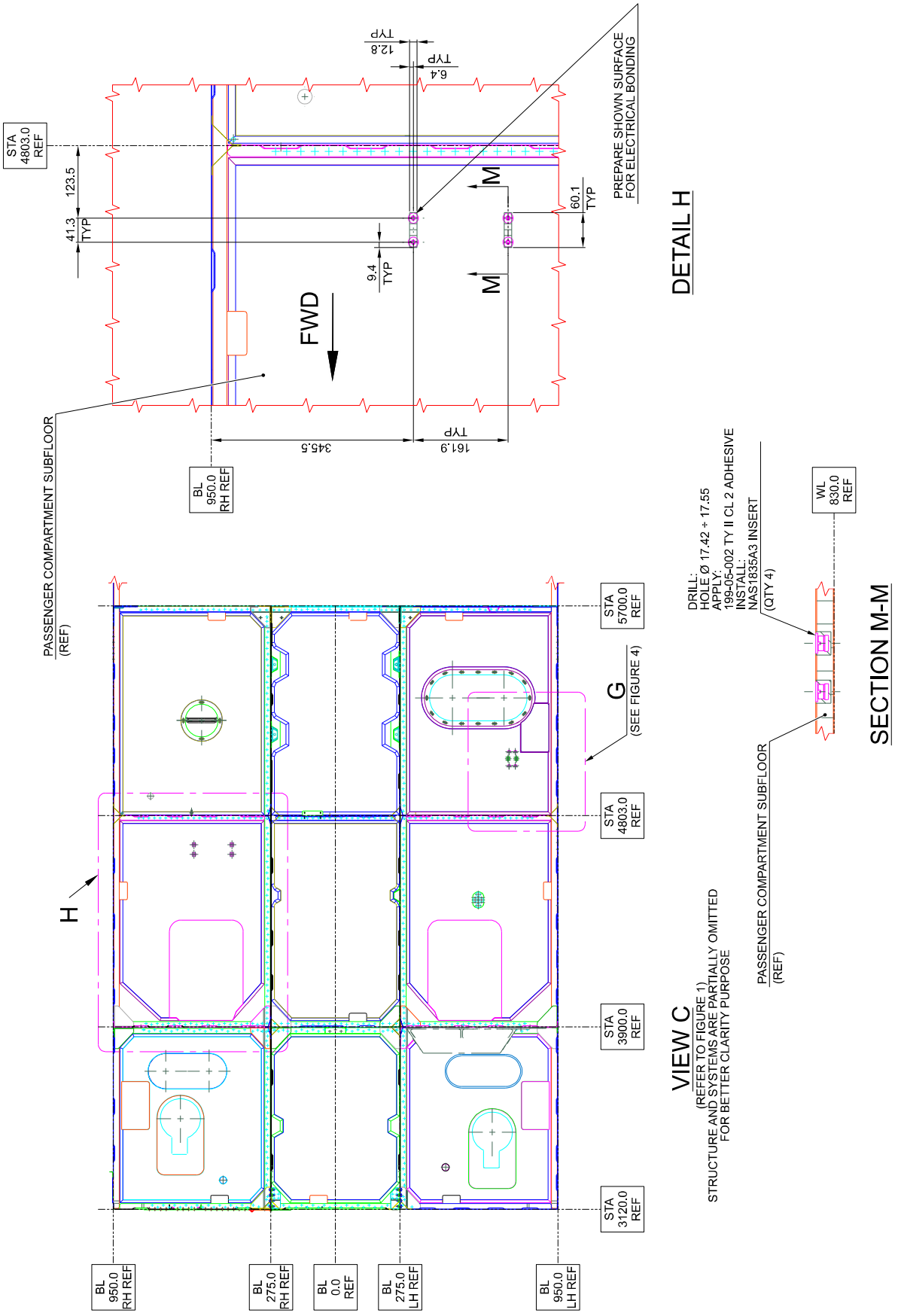

DETAIL H
PREPARE SHOWN SURFACE FOR ELECTRICAL BONDING
STA 4803.0 REF
123.5
41.3 TYP
60.1 TYP
9.4 TYP
M
M
FWD
12.8 TYP
6.4 TYP
345.5
161.9 TYP
BL 950.0 RH REF
PASSENGER COMPARTMENT SUBFLOOR (REF)
STA 5700.0 REF
G (SEE FIGURE 4)
STA 4803.0 REF
STA 3900.0 REF
STA 3120.0 REF
H
BL 950.0 RH REF
BL 275.0 RH REF
BL 0.0 REF
BL 275.0 LH REF
BL 950.0 LH REF
VIEW C
(REFER TO FIGURE 1)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
DRILL:
HOLE Ø 17.42 ÷ 17.55
APPLY:
199-05-002 TY II CL 2 ADHESIVE
INSTALL:
NAS1835A3 INSERT
(QTY 4)
PASSENGER COMPARTMENT SUBFLOOR (REF)
WL 830.0 REF
SECTION M-M

Figure 3

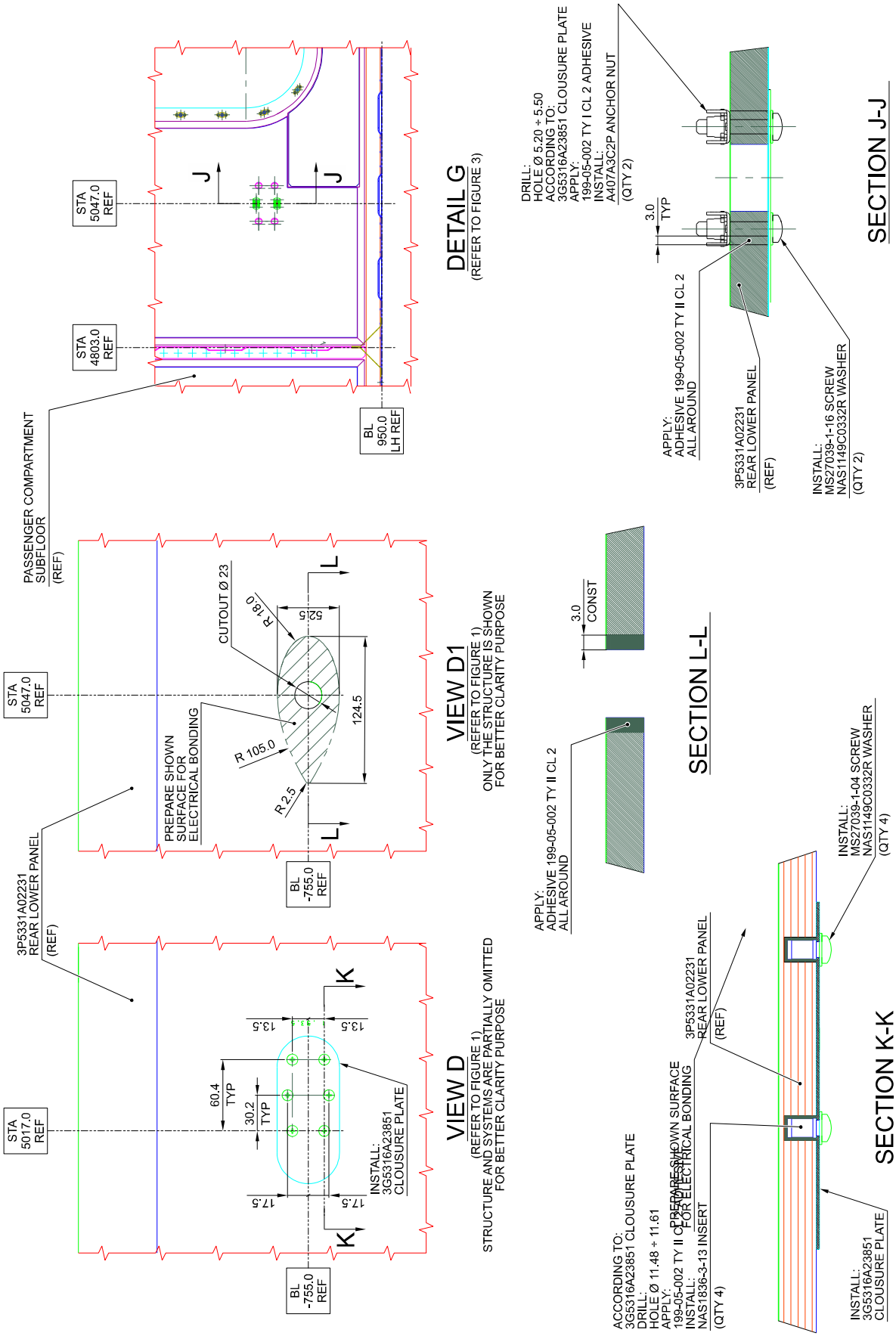

DETAIL G
(REFER TO FIGURE 3)
STA 5047.0 REF
STA 4803.0 REF
BL 950.0 LH REF
PASSENGER COMPARTMENT SUBFLOOR (REF)
VIEW D1
(REFER TO FIGURE 1)
ONLY THE STRUCTURE IS SHOWN FOR BETTER CLARITY PURPOSE
STA 5047.0 REF
PREPARE SHOWN SURFACE FOR ELECTRICAL BONDING
CUTOUT Ø 23
R 18.0
52.5
124.5
R 105.0
R 2.5
BL -755.0 REF
3P5331A02231 REAR LOWER PANEL (REF)
VIEW D
(REFER TO FIGURE 1)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
STA 5017.0 REF
60.4 TYP
30.2 TYP
13.5
17.5
INSTALL: 3G5316A23851 CLOUSURE PLATE
BL -755.0 REF
SECTION L-L
3.0 CONST
APPLY: ADHESIVE 199-05-002 TY II CL 2 ALL AROUND
SECTION J-J
DRILL: HOLE Ø 5.20 +.5.50 ACCORDING TO: 3G5316A23851 CLOUSURE PLATE
APPLY: 199-05-002 TY I CL 2 ADHESIVE
INSTALL: A407A3C2P ANCHOR NUT (QTY 2)
3.0 TYP
APPLY: ADHESIVE 199-05-002 TY II CL 2 ALL AROUND
3P5331A02231 REAR LOWER PANEL (REF)
INSTALL: MS27039-1-16 SCREW NAS1149C0332R WASHER (QTY 2)
SECTION K-K
ACCORDING TO: 3G5316A23851 CLOUSURE PLATE
DRILL: HOLE Ø 11.48 +.11.61
APPLY: 199-05-002 TY II CL 2 PREPARE SHOWN SURFACE FOR ELECTRICAL BONDING
INSTALL: NAS1836-3-13 INSERT (QTY 4)
3P5331A02231 REAR LOWER PANEL (REF)
INSTALL: MS27039-1-04 SCREW NAS1149C0332R WASHER (QTY 4)
INSTALL: 3G5316A23851 CLOUSURE PLATE

Figure 4

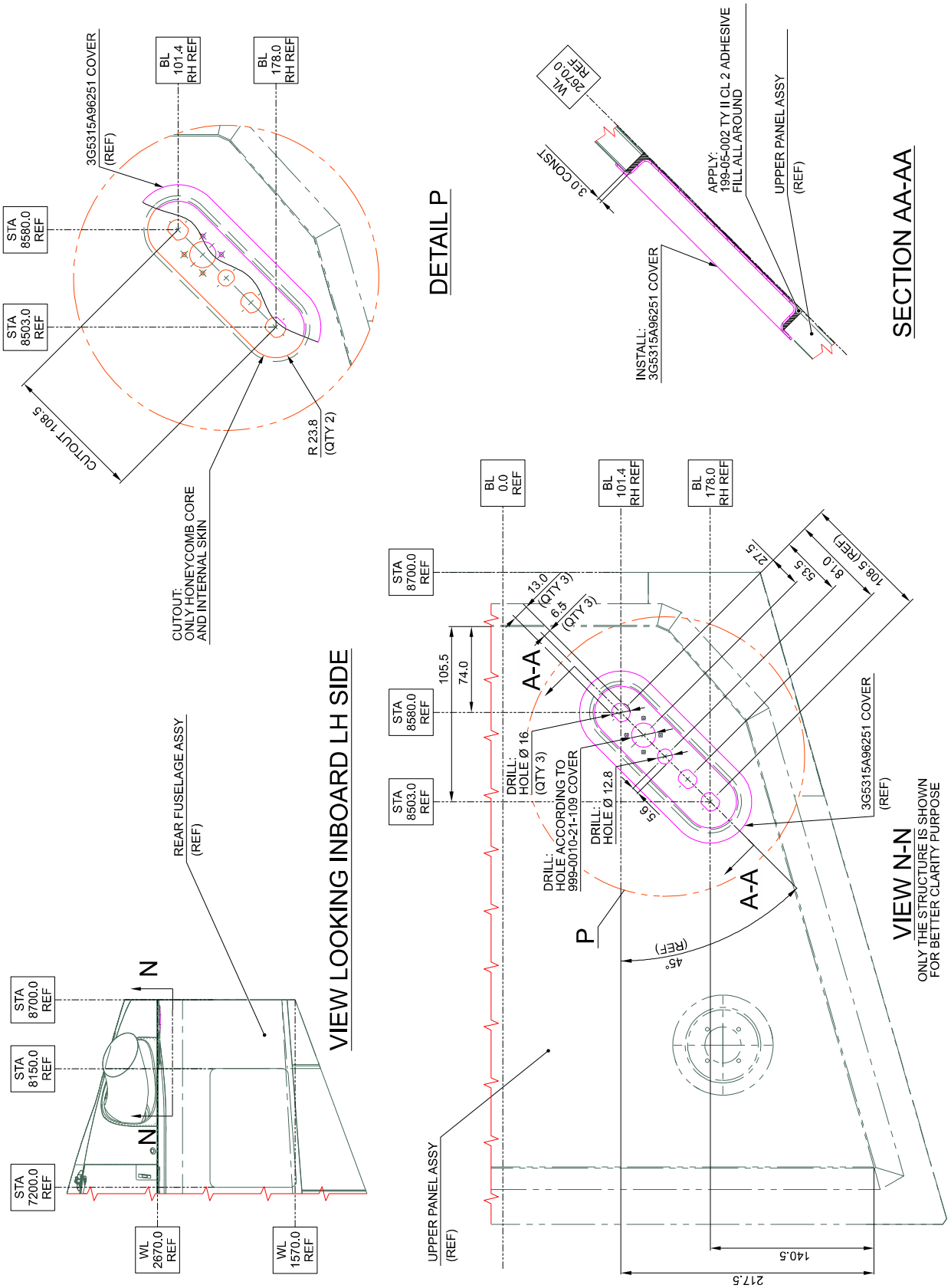

VIEW LOOKING INBOARD LH SIDE
REAR FUSELAGE ASSY
(REF)
STA 8700.0 REF
STA 8150.0 REF
STA 7200.0 REF
WL 2670.0 REF
WL 1570.0 REF
N
N
3G5315A96251 COVER
(REF)
BL 101.4 RH REF
BL 178.0 RH REF
STA 8580.0 REF
STA 8503.0 REF
CUTOUT 108.5
R 23.8
(QTY 2)
CUTOUT:
ONLY HONEYCOMB CORE
AND INTERNAL SKIN
DETAIL P
WL 2670.0 REF
3.0 CONST
APPLY:
199-05-002 TY II CL 2 ADHESIVE
FILL ALL AROUND
UPPER PANEL ASSY
(REF)
INSTALL:
3G5315A96251 COVER
SECTION AA-AA
BL 0.0 REF
BL 101.4 RH REF
BL 178.0 RH REF
STA 8700.0 REF
STA 8580.0 REF
STA 8503.0 REF
105.5
74.0
13.0
(QTY 3)
6.5
(QTY 3)
A-A
DRILL:
HOLE Ø 16
(QTY 3)
DRILL:
HOLE ACCORDING TO
999-0010-21-109 COVER
DRILL:
HOLE Ø 12.8
5.6
P
45°
(REF)
A-A
2.5
5.5
8.0
108.5 (REF)
3G5315A96251 COVER
(REF)
VIEW N-N
ONLY THE STRUCTURE IS SHOWN
FOR BETTER CLARITY PURPOSE
UPPER PANEL ASSY
(REF)
140.5
217.5

Figure 5

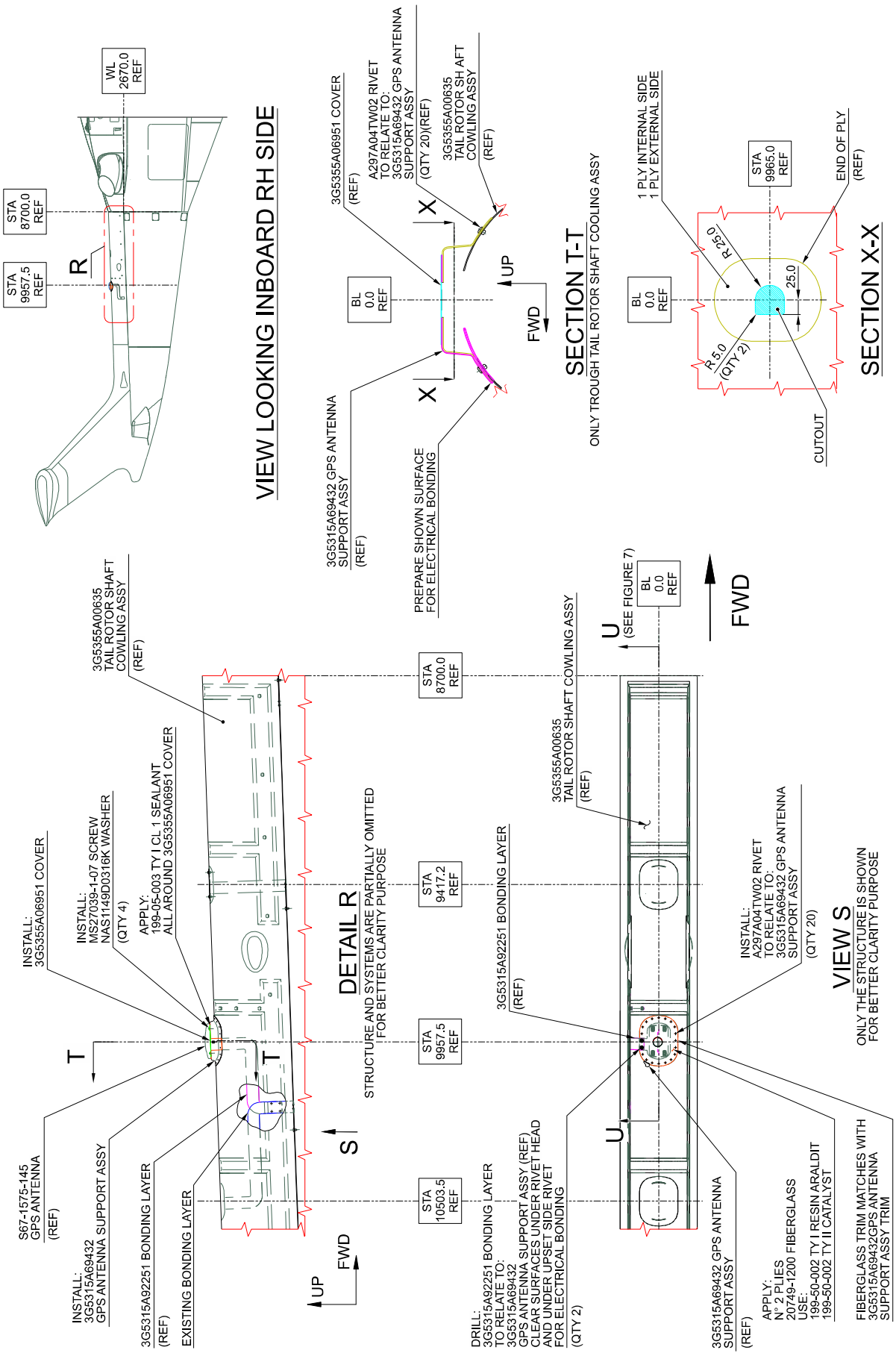

VIEW LOOKING INBOARD RH SIDE
STA 8700.0 REF
STA 9957.5 REF
WL 2670.0 REF
R
SECTION T-T
ONLY TROUGH TAIL ROTOR SHAFT COOLING ASSY
3G5355A06951 COVER (REF)
A297A04TW02 RIVET TO RELATE TO: 3G5315A69432 GPS ANTENNA SUPPORT ASSY (QTY 20)(REF)
3G5355A00635 TAIL ROTOR SH AFT COWLING ASSY (REF)
BL 0.0 REF
X
UP
FWD
3G5315A69432 GPS ANTENNA SUPPORT ASSY (REF)
PREPARE SHOWN SURFACE FOR ELECTRICAL BONDING
SECTION X-X
1 PLY INTERNAL SIDE
1 PLY EXTERNAL SIDE
STA 9965.0 REF
END OF PLY (REF)
R 25.0
25.0
R 5.0 (QTY 2)
CUTOUT
3G5355A00635 TAIL ROTOR SHAFT COWLING ASSY (REF)
STA 8700.0 REF
STA 9417.2 REF
STA 9957.5 REF
STA 10503.5 REF
T
S
U
DETAIL R
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALL: 3G5355A06951 COVER
INSTALL: MS27039-1-07 SCREW NAS1149D0316K WASHER (QTY 4)
APPLY: 199-05-003 TY I CL 1 SEALANT ALL AROUND 3G5355A06951 COVER
S67-1575-145 GPS ANTENNA (REF)
INSTALL: 3G5315A69432 GPS ANTENNA SUPPORT ASSY
3G5315A92251 BONDING LAYER (REF)
EXISTING BONDING LAYER
3G5315A92251 BONDING LAYER (REF)
DRILL: 3G5315A92251 BONDING LAYER TO RELATE TO: 3G5315A69432 GPS ANTENNA SUPPORT ASSY (REF) CLEAR SURFACES UNDER RIVET HEAD AND UNDER UPSET SIDE RIVET FOR ELECTRICAL BONDING (QTY 2)
3G5315A69432 GPS ANTENNA SUPPORT ASSY (REF)
APPLY: N° 2 PLIES 20749-1200 FIBERGLASS USE: 199-50-002 TY I RESIN ARALDIT 199-50-002 TY II CATALYST
FIBERGLASS TRIM MATCHES WITH 3G5315A69432GPS ANTENNA SUPPORT ASSY TRIM
VIEW S
ONLY THE STRUCTURE IS SHOWN FOR BETTER CLARITY PURPOSE
INSTALL: A297A04TW02 RIVET TO RELATE TO: 3G5315A69432 GPS ANTENNA SUPPORT ASSY (QTY 20)
3G5355A00635 TAIL ROTOR SHAFT COWLING ASSY (REF)
(SEE FIGURE 7)
BL 0.0 REF
FWD
UP
FWD

Figure 6

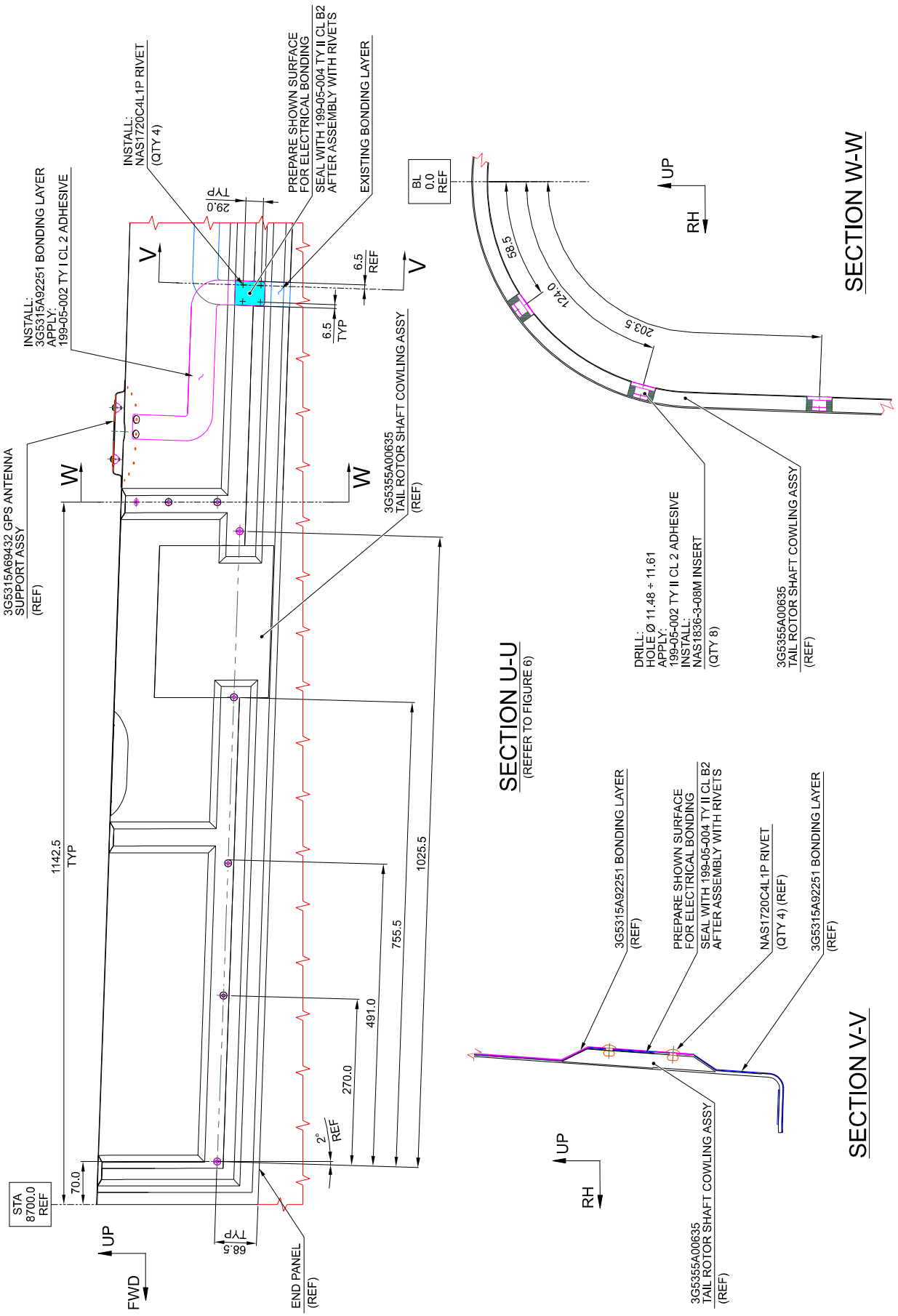

INSTALL:
NAS1720C4L1P RIVET
(QTY 4)
PREPARE SHOWN SURFACE
FOR ELECTRICAL BONDING
SEAL WITH 199-05-004 TY II CL B2
AFTER ASSEMBLY WITH RIVETS
EXISTING BONDING LAYER
INSTALL:
3G5315A92251 BONDING LAYER
APPLY:
199-05-002 TY I CL 2 ADHESIVE
3G5315A69432 GPS ANTENNA
SUPPORT ASSY
(REF)
3G5355A00635
TAIL ROTOR SHAFT COWLING ASSY
(REF)
29.0 TYP
6.5 REF
6.5 TYP
1142.5 TYP
70.0
STA
8700.0
REF
2° REF
270.0
491.0
755.5
1025.5
68.5 TYP
END PANEL
(REF)
FWD
UP
V
W
BL
0.0
REF
SECTION W-W
RH
UP
58.5
124.0
203.5
DRILL:
HOLE Ø 11.48 ÷ 11.61
APPLY:
199-05-002 TY II CL 2 ADHESIVE
INSTALL:
NAS1836-3-08M INSERT
(QTY 8)
SECTION U-U
(REFER TO FIGURE 6)
3G5315A92251 BONDING LAYER
(REF)
PREPARE SHOWN SURFACE
FOR ELECTRICAL BONDING
SEAL WITH 199-05-004 TY II CL B2
AFTER ASSEMBLY WITH RIVETS
NAS1720C4L1P RIVET
(QTY 4) (REF)
3G5315A92251 BONDING LAYER
(REF)
SECTION V-V
RH
UP
3G5355A00635
TAIL ROTOR SHAFT COWLING ASSY
(REF)

Figure 7

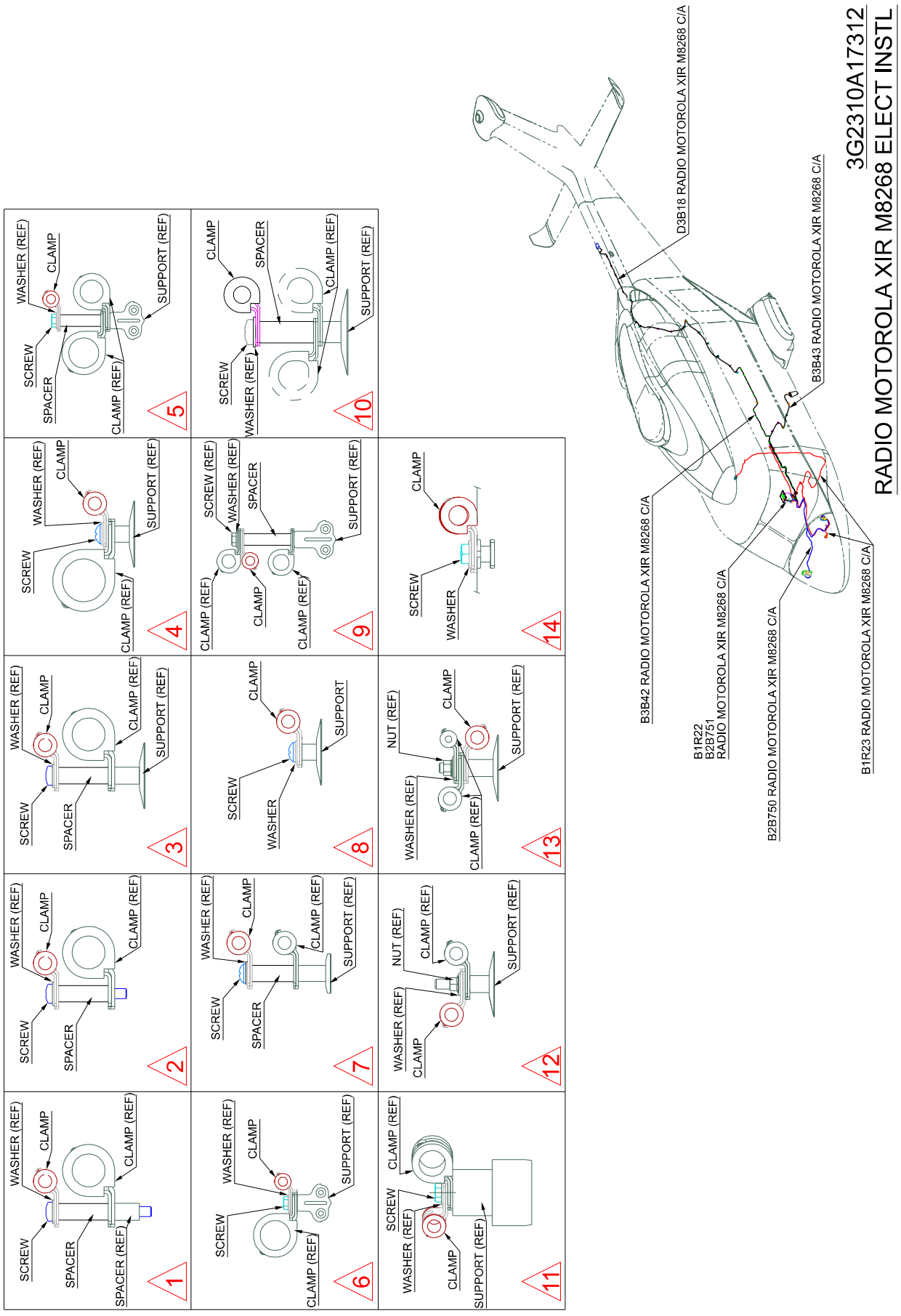

3G2310A17312
RADIO MOTOROLA XIR M8268 ELECT INSTL
B3B42 RADIO MOTOROLA XIR M8268 C/A
D3B18 RADIO MOTOROLA XIR M8268 C/A
B1R22
B2B751
RADIO MOTOROLA XIR M8268 C/A
B2B750 RADIO MOTOROLA XIR M8268 C/A
B3B43 RADIO MOTOROLA XIR M8268 C/A
B1R23 RADIO MOTOROLA XIR M8268 C/A
SCREW
WASHER (REF)
CLAMP
SPACER
CLAMP (REF)
SPACER (REF)
SUPPORT (REF)
WASHER
SCREW (REF)
NUT (REF)
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Figure 8

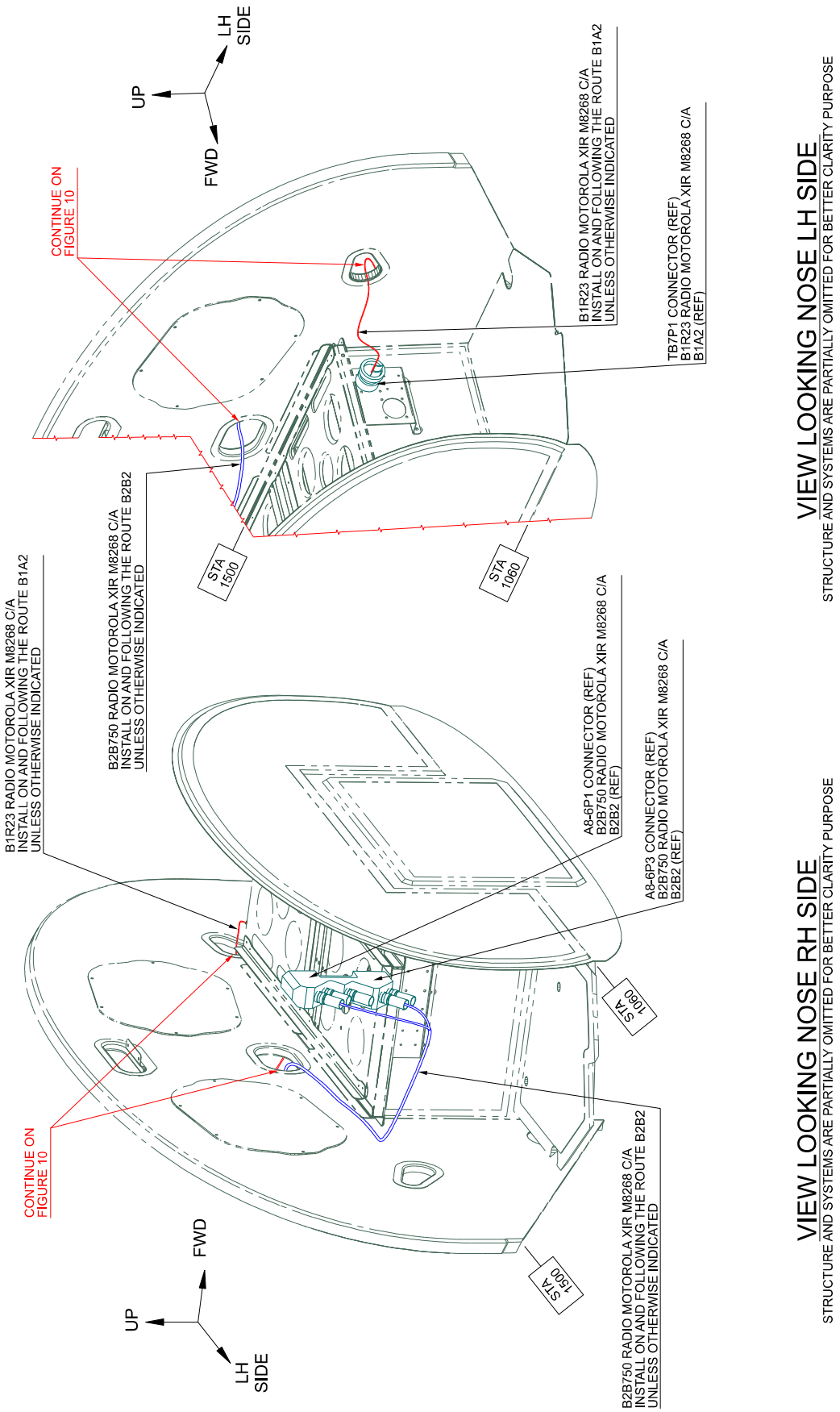

UP
LH SIDE
FWD
CONTINUE ON FIGURE 10
B1R23 RADIO MOTOROLA XIR M8268 C/A INSTALL ON AND FOLLOWING THE ROUTE B1A2 UNLESS OTHERWISE INDICATED
TB7P1 CONNECTOR (REF) B1R23 RADIO MOTOROLA XIR M8268 C/A B1A2 (REF)
B2B750 RADIO MOTOROLA XIR M8268 C/A INSTALL ON AND FOLLOWING THE ROUTE B2B2 UNLESS OTHERWISE INDICATED
STA 1500
STA 1060
VIEW LOOKING NOSE LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
B1R23 RADIO MOTOROLA XIR M8268 C/A INSTALL ON AND FOLLOWING THE ROUTE B1A2 UNLESS OTHERWISE INDICATED
A8-6P1 CONNECTOR (REF) B2B750 RADIO MOTOROLA XIR M8268 C/A B2B2 (REF)
A8-6P3 CONNECTOR (REF) B2B750 RADIO MOTOROLA XIR M8268 C/A B2B2 (REF)
STA 1060
CONTINUE ON FIGURE 10
B2B750 RADIO MOTOROLA XIR M8268 C/A INSTALL ON AND FOLLOWING THE ROUTE B2B2 UNLESS OTHERWISE INDICATED
STA 1500
VIEW LOOKING NOSE RH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
LH SIDE

Figure 9

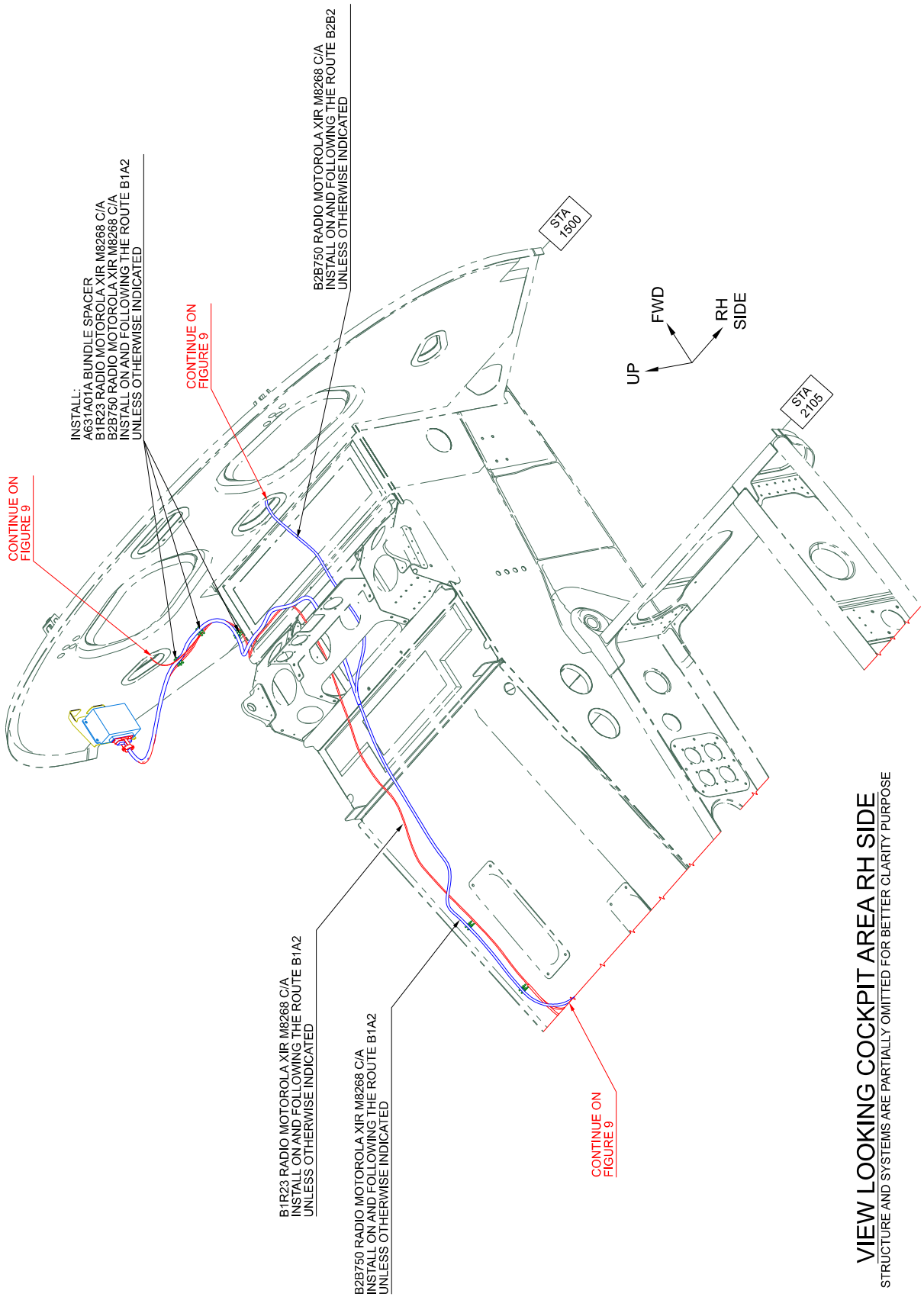

VIEW LOOKING COCKPIT AREA RH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
STA 1500
STA 2105
UP
FWD
RH SIDE
INSTALL:
A631A01A BUNDLE SPACER
B1R23 RADIO MOTOROLA XIR M8268 C/A
B2B750 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
B2B750 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B2B2
UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 9
CONTINUE ON FIGURE 9
CONTINUE ON FIGURE 9
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
B2B750 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED

Figure 10

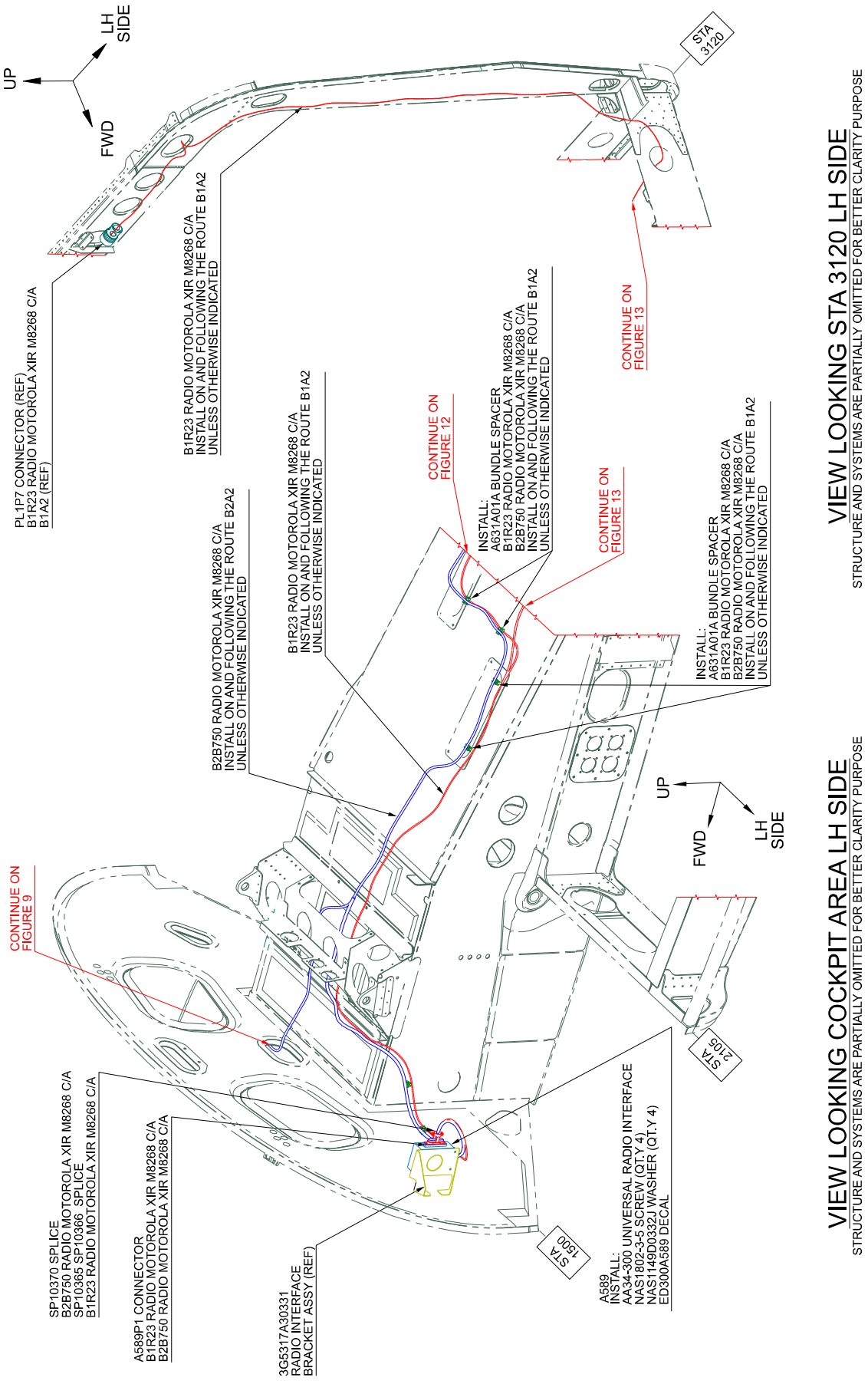

UP
FWD
LH SIDE
STA 3120
PL1P7 CONNECTOR (REF)
B1R23 RADIO MOTOROLA XIR M8268 C/A
B1A2 (REF)
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 13
CONTINUE ON FIGURE 12
INSTALL:
A631A01A BUNDLE SPACER
B1R23 RADIO MOTOROLA XIR M8268 C/A
B2B750 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
B2B750 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B2A2
UNLESS OTHERWISE INDICATED
VIEW LOOKING STA 3120 LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
CONTINUE ON FIGURE 9
SP10370 SPLICE
B2B750 RADIO MOTOROLA XIR M8268 C/A
SP10365 SP10366 SPLICE
B1R23 RADIO MOTOROLA XIR M8268 C/A
A589P1 CONNECTOR
B1R23 RADIO MOTOROLA XIR M8268 C/A
B2B750 RADIO MOTOROLA XIR M8268 C/A
3G5317A30331
RADIO INTERFACE
BRACKET ASSY (REF)
A589
INSTALL:
AA34-300 UNIVERSAL RADIO INTERFACE
NAS1802-3-5 SCREW (QT.Y 4)
NAS1149D0332J WASHER (QT.Y 4)
ED300A589 DECAL
STA 1500
STA 2105
VIEW LOOKING COCKPIT AREA LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 11

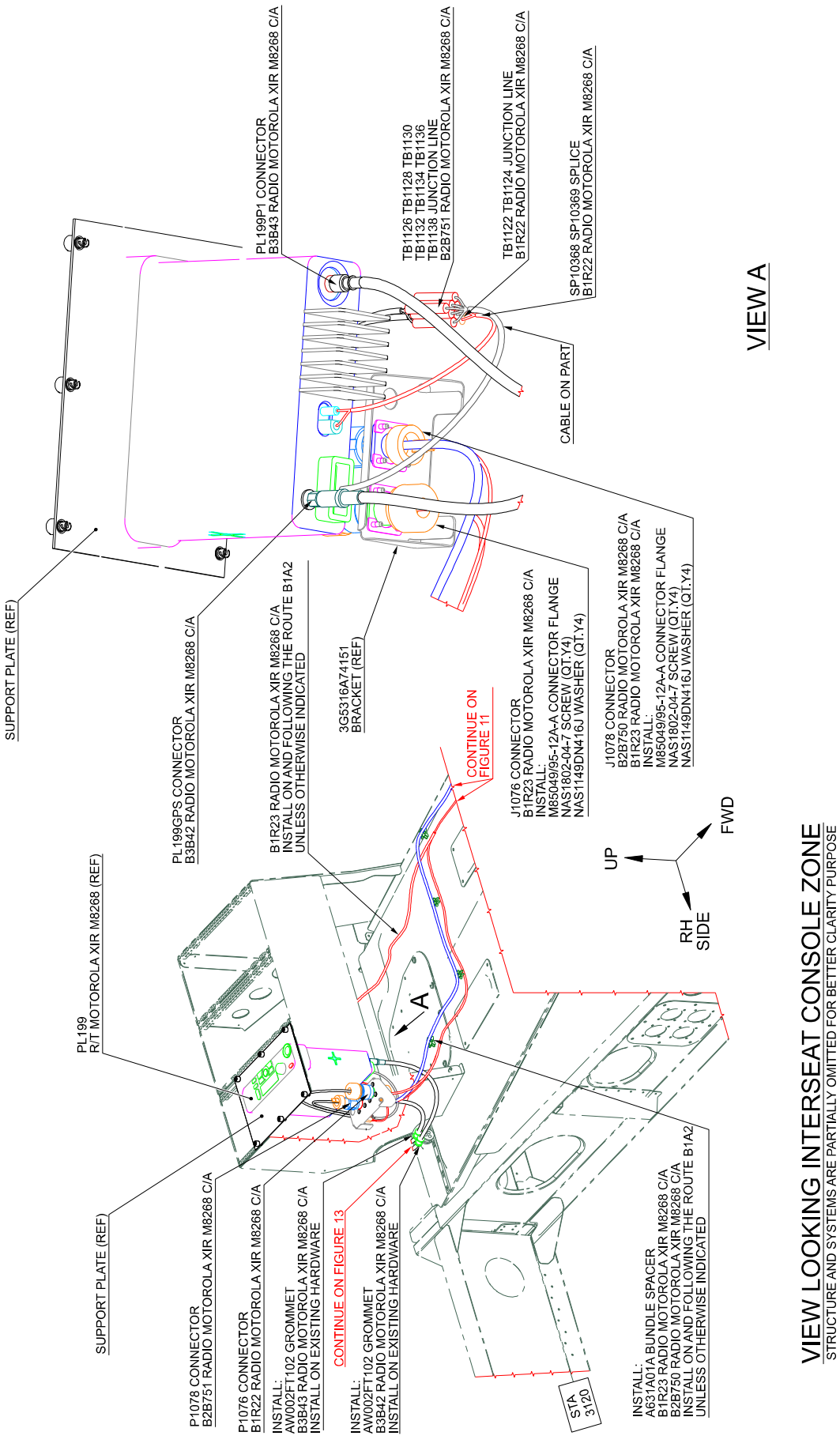

VIEW LOOKING INTERSEAT CONSOLE ZONE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
VIEW A
SUPPORT PLATE (REF)
PL199P1 CONNECTOR
B3B43 RADIO MOTOROLA XIR M8268 C/A
TB1126 TB1128 TB1130
TB1132 TB1134 TB1136
TB1138 JUNCTION LINE
B2B751 RADIO MOTOROLA XIR M8268 C/A
TB1122 TB1124 JUNCTION LINE
B1R22 RADIO MOTOROLA XIR M8268 C/A
SP10368 SP10369 SPLICE
B1R22 RADIO MOTOROLA XIR M8268 C/A
CABLE ON PART
PL199GPS CONNECTOR
B3B42 RADIO MOTOROLA XIR M8268 C/A
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
3G5316A74151
BRACKET (REF)
CONTINUE ON
FIGURE 11
J1076 CONNECTOR
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL:
M85049/95-12A-A CONNECTOR FLANGE
NAS1802-04-7 SCREW (QT.Y4)
NAS1149DN416J WASHER (QT.Y4)
J1078 CONNECTOR
B2B750 RADIO MOTOROLA XIR M8268 C/A
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL:
M85049/95-12A-A CONNECTOR FLANGE
NAS1802-04-7 SCREW (QT.Y4)
NAS1149DN416J WASHER (QT.Y4)
PL199
R/T MOTOROLA XIR M8268 (REF)
A
UP
FWD
RH
SIDE
SUPPORT PLATE (REF)
P1078 CONNECTOR
B2B751 RADIO MOTOROLA XIR M8268 C/A
P1076 CONNECTOR
B1R22 RADIO MOTOROLA XIR M8268 C/A
INSTALL:
AW002FT102 GROMMET
B3B43 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON EXISTING HARDWARE
CONTINUE ON FIGURE 13
INSTALL:
AW002FT102 GROMMET
B3B42 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON EXISTING HARDWARE
STA
3120
INSTALL:
A631A01A BUNDLE SPACER
B1R23 RADIO MOTOROLA XIR M8268 C/A
B2B750 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED

Figure 12

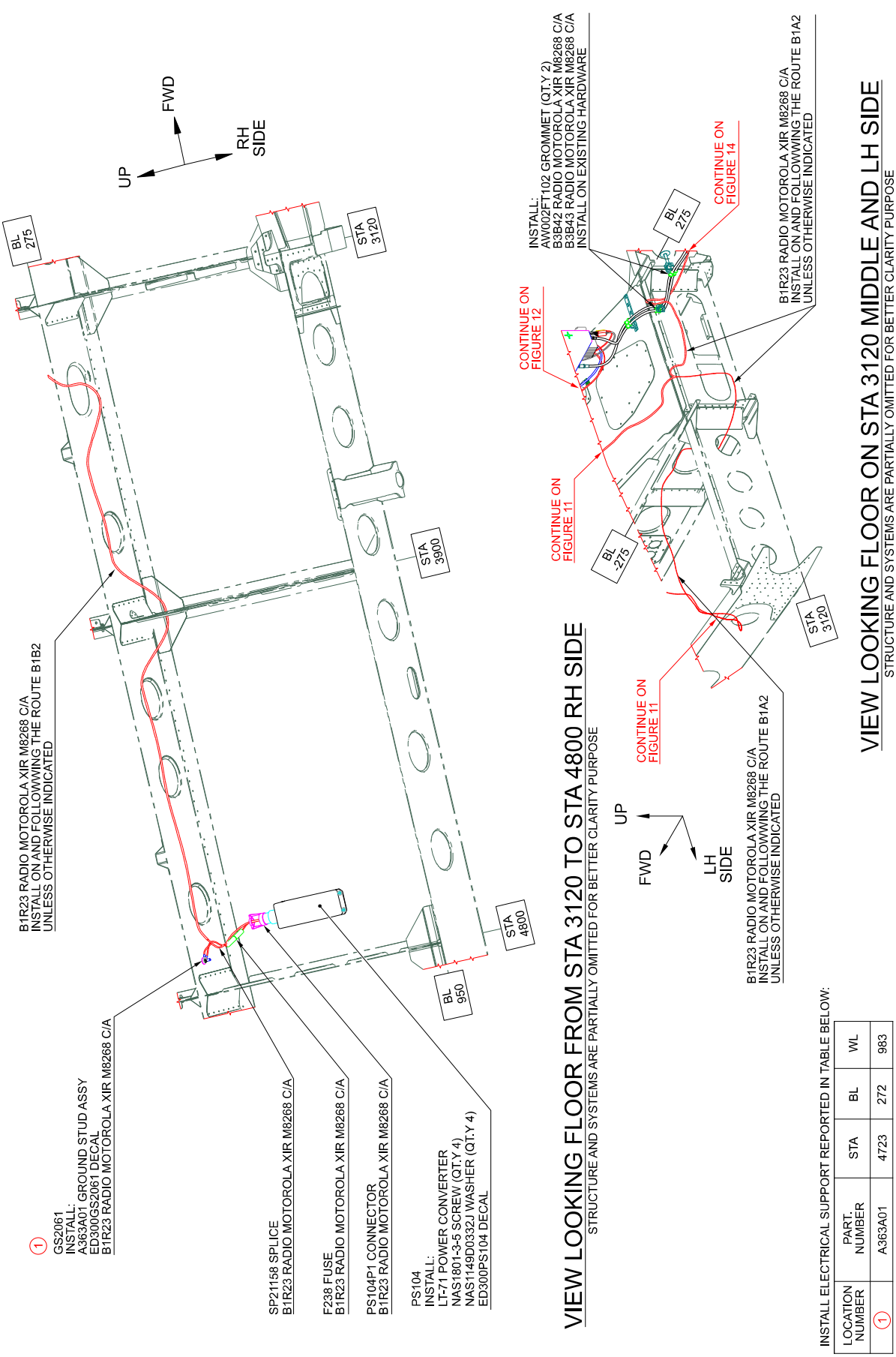
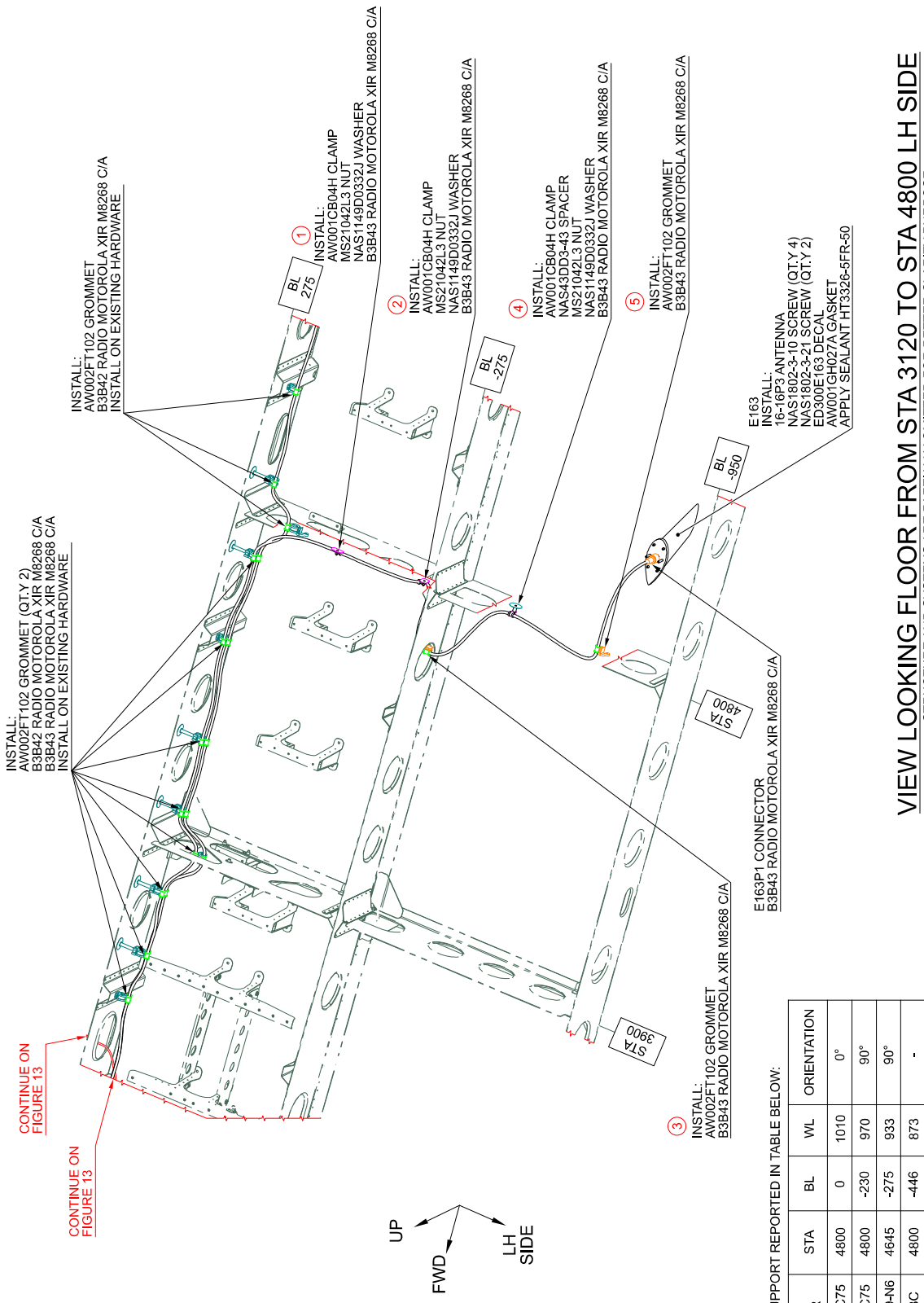

UP
FWD
RH SIDE
BL 275
STA 3120
STA 3900
STA 4800
BL 950
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWWING THE ROUTE B1B2
UNLESS OTHERWISE INDICATED
① GS2061
INSTALL:
A363A01 GROUND STUD ASSY
ED300GS2061 DECAL
B1R23 RADIO MOTOROLA XIR M8268 C/A
SP21158 SPLICE
B1R23 RADIO MOTOROLA XIR M8268 C/A
F238 FUSE
B1R23 RADIO MOTOROLA XIR M8268 C/A
PS104P1 CONNECTOR
B1R23 RADIO MOTOROLA XIR M8268 C/A
PS104
INSTALL:
LT-71 POWER CONVERTER
NAS1801-3-5 SCREW (QT.Y 4)
NAS1149D0332J WASHER (QT.Y 4)
ED300PS104 DECAL
VIEW LOOKING FLOOR FROM STA 3120 TO STA 4800 RH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALL:
AW002FT102 GROMMET (QT.Y 2)
B3B42 RADIO MOTOROLA XIR M8268 C/A
B3B43 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON EXISTING HARDWARE
CONTINUE ON FIGURE 12
CONTINUE ON FIGURE 11
CONTINUE ON FIGURE 14
CONTINUE ON FIGURE 11
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
B1R23 RADIO MOTOROLA XIR M8268 C/A
INSTALL ON AND FOLLOWWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
UP
FWD
LH SIDE
VIEW LOOKING FLOOR ON STA 3120 MIDDLE AND LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:
LOCATION NUMBER | PART NUMBER | STA | BL | WL
① | A363A01 | 4723 | 272 | 983

Figure 13



INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
①	A366A3E08C75	4800	0	1010	0°
②	A366A3E08C75	4800	-230	970	90°
③	AW001CL509-N6	4645	-275	933	90°
④	A366A3E18C	4800	-446	873	-
⑤	AW001CL509-N6	4800	-740	937	90°

Figure 14

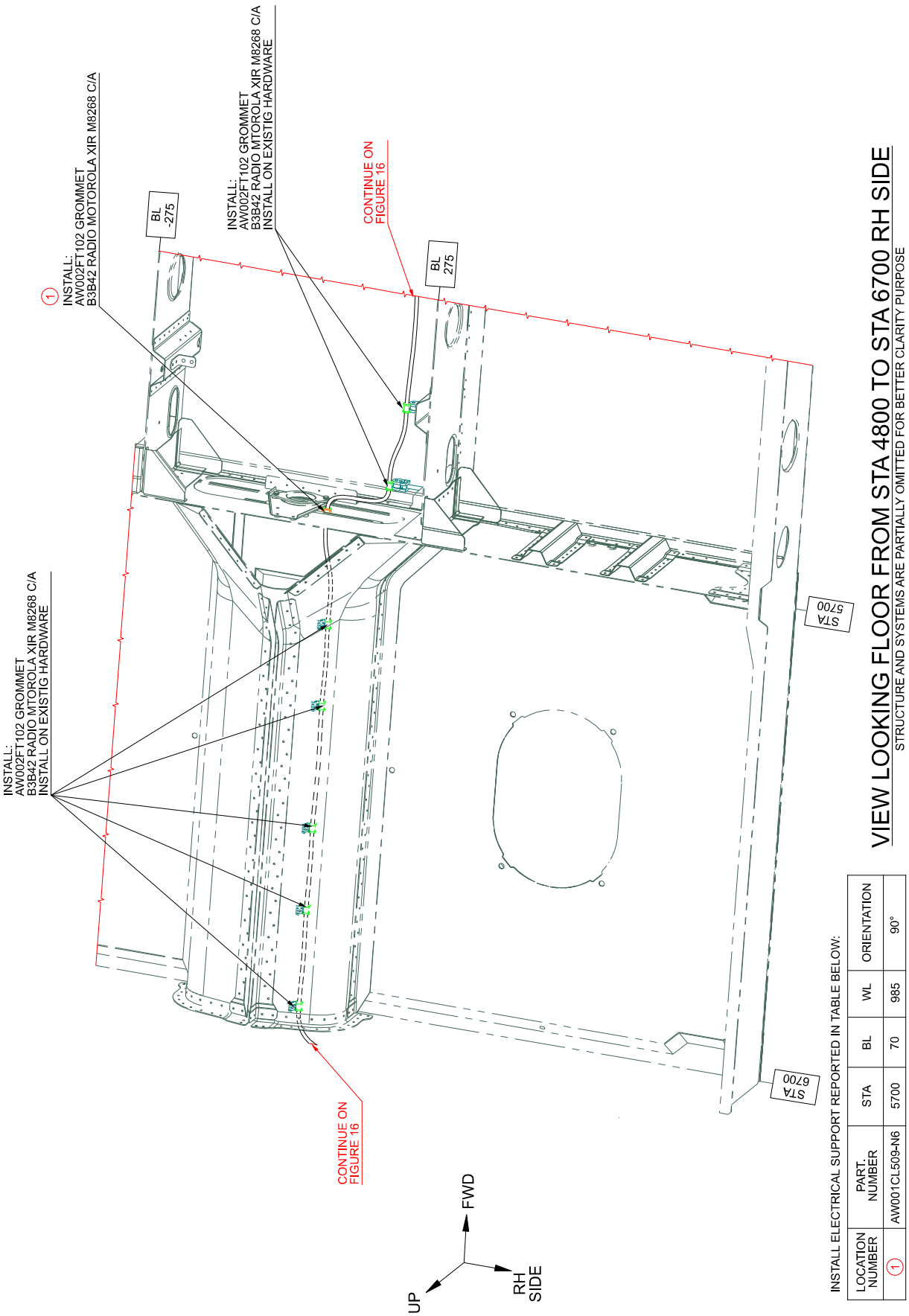
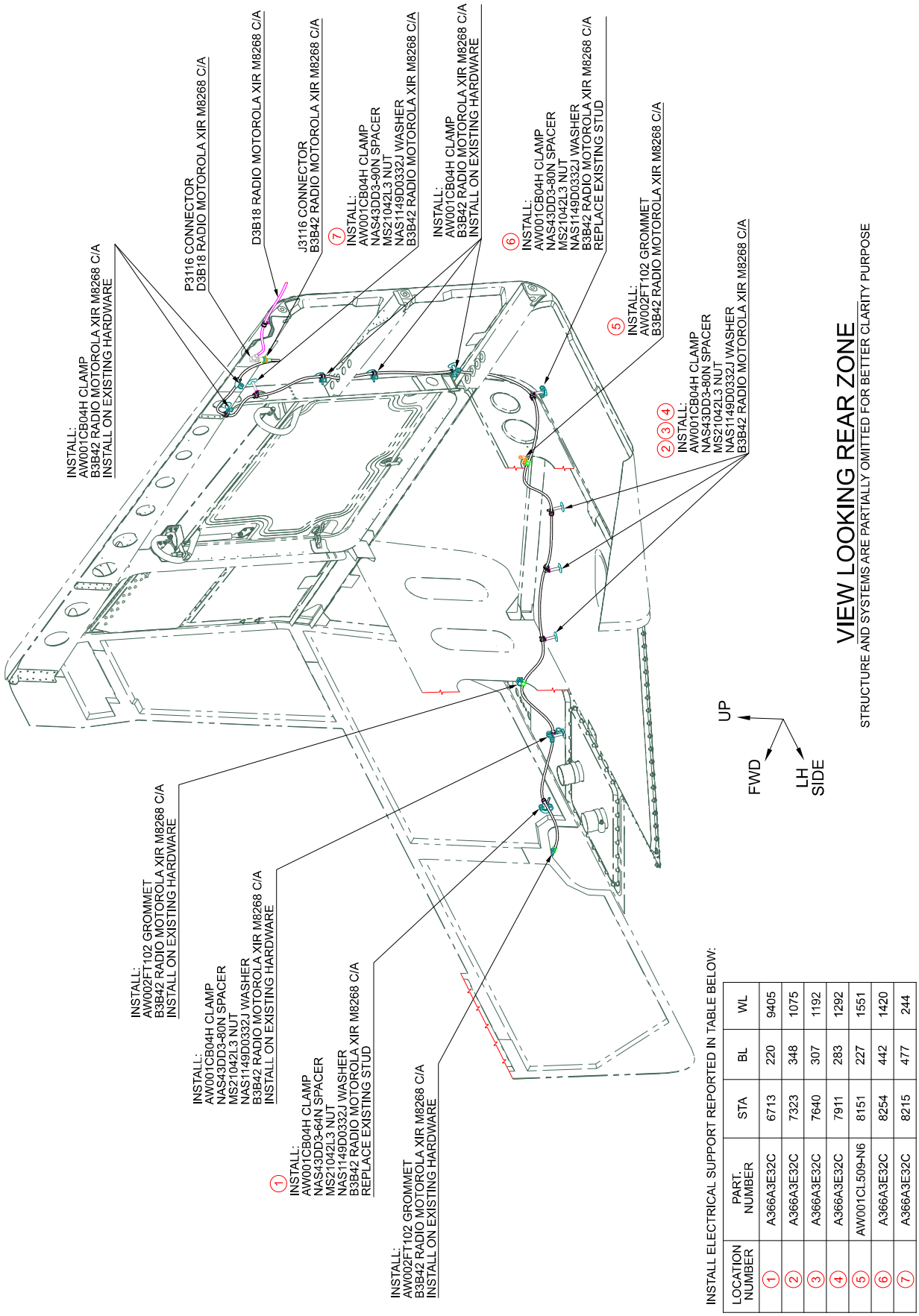

VIEW LOOKING FLOOR FROM STA 4800 TO STA 6700 RH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
1 | AW001CL509-N6 | 5700 | 70 | 985 | 90°
1 INSTALL: AW002FT102 GROMMET B3B42 RADIO MOTOROLA XIR M8268 C/A
INSTALL: AW002FT102 GROMMET B3B42 RADIO MTOROLA XIR M8268 C/A INSTALL ON EXISTIG HARDWARE
INSTALL: AW002FT102 GROMMET B3B42 RADIO MTOROLA XIR M8268 C/A INSTALL ON EXISTIG HARDWARE
BL -275
BL 275
STA 6700
STA 5700
CONTINUE ON FIGURE 16
CONTINUE ON FIGURE 16
FWD
UP
RH SIDE

Figure 15



INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART NUMBER	STA	BL	WL
①	A366A3E32C	6713	220	9405
②	A366A3E32C	7323	348	1075
③	A366A3E32C	7640	307	1192
④	A366A3E32C	7911	283	1292
⑤	AW001CL509-N6	8151	227	1551
⑥	A366A3E32C	8254	442	1420
⑦	A366A3E32C	8215	477	244

Figure 16

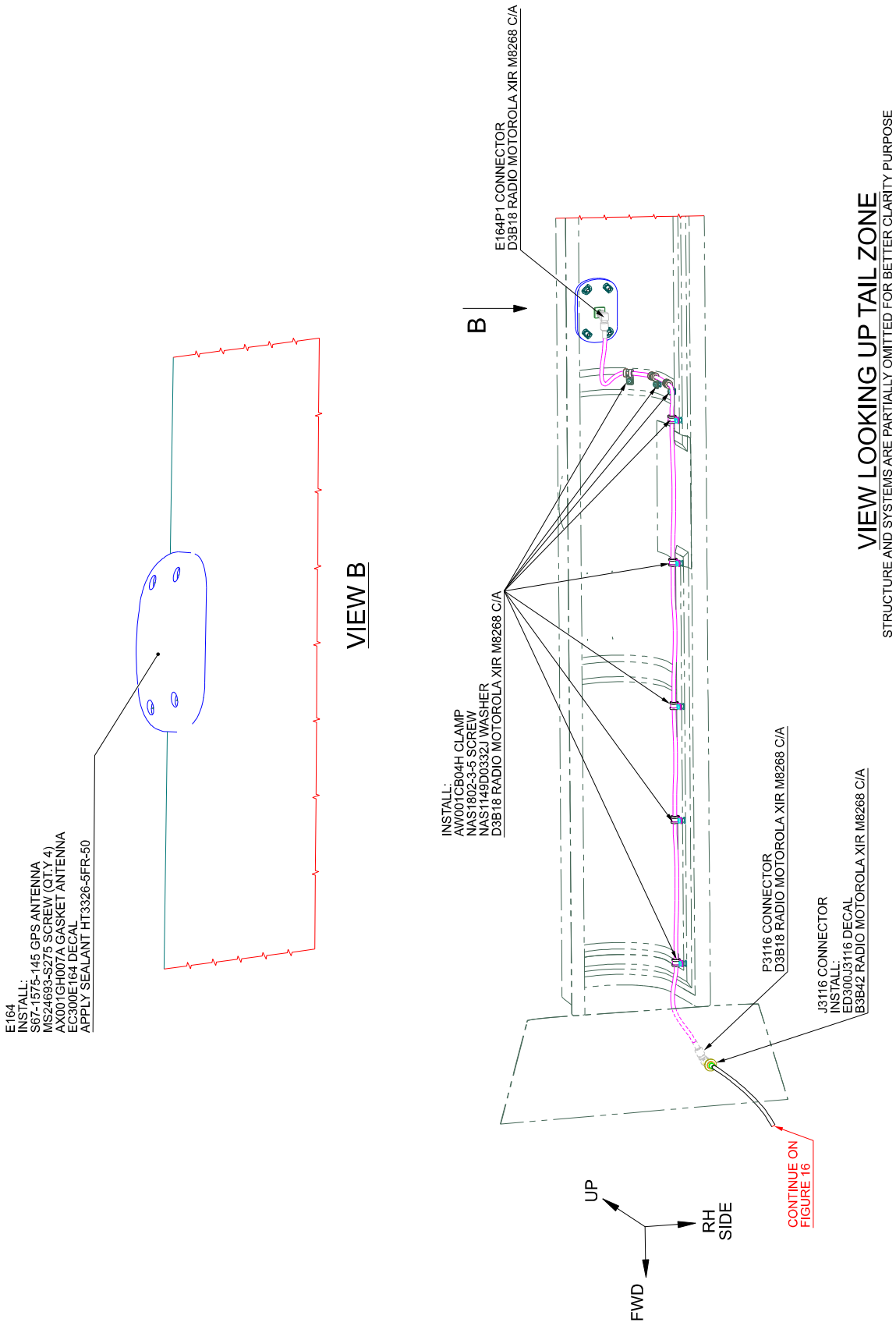

E164
INSTALL:
S67-1575-145 GPS ANTENNA
MS24693-S275 SCREW (QTY 4)
AX001GH007A GASKET ANTENNA
EC300E164 DECAL
APPLY SEALANT HT3326-5FR-50
VIEW B
B
E164P1 CONNECTOR
D3B18 RADIO MOTOROLA XIR M8268 C/A
INSTALL:
AW001CB04H CLAMP
NAS1802-3-5 SCREW
NAS1149D0332J WASHER
D3B18 RADIO MOTOROLA XIR M8268 C/A
P3116 CONNECTOR
D3B18 RADIO MOTOROLA XIR M8268 C/A
J3116 CONNECTOR
INSTALL:
ED300J3116 DECAL
B3B42 RADIO MOTOROLA XIR M8268 C/A
CONTINUE ON
FIGURE 16
UP
RH
SIDE
FWD
VIEW LOOKING UP TAIL ZONE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 17

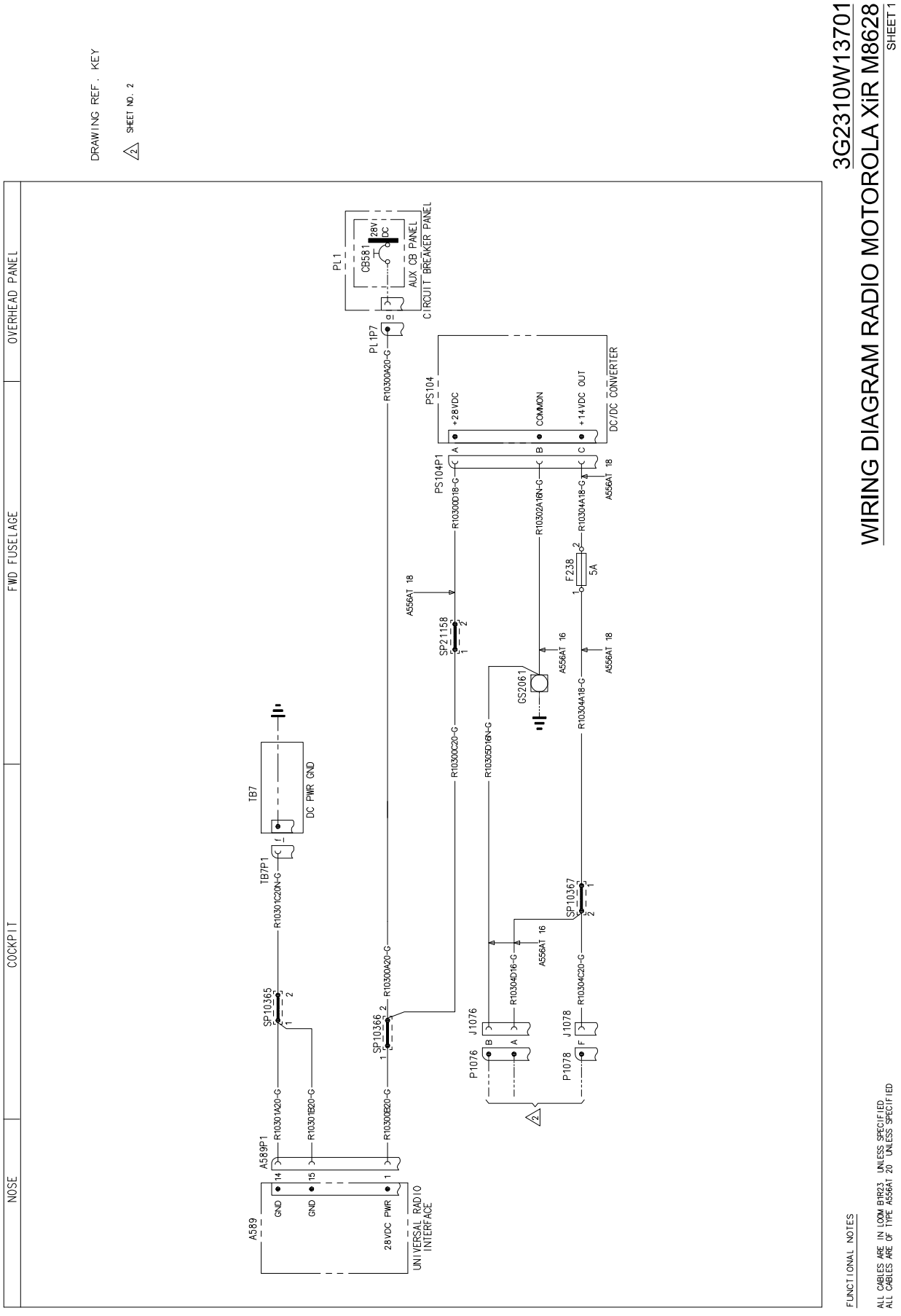

3G2310W13701
WIRING DIAGRAM RADIO MOTOROLA XiR M8628
SHEET 1
DRAWING REF. KEY
SHEET NO. 2
NOSE
COCKPIT
FWD FUSELAGE
OVERHEAD PANEL
A589
UNIVERSAL RADIO INTERFACE
A589P1
GND
GND
28VDC PWR
R10301A20-G
R10301E20-G
R10300E20-G
SP10365
SP10366
R10300A20-G
TB7P1
R10301C20N-G
TB7
DC PWR GND
R10300C20-G
SP21158
A556AT 18
PS104P1
R10300D18-G
R10302A18N-G
R10304A18-G
PS104
+28VDC
COMMON
+14VDC OUT
DC/DC CONVERTER
F238
5A
GS2061
A556AT 16
R10305D18N-G
R10304D16-G
R10304C20-G
SP10367
P1076
J1076
P1078
J1078
PL1P7
R10300A20-G
PL1
CB581
28V DC
AUX CB PANEL
CIRCUIT BREAKER PANEL
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B1R23 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556A1 20 UNLESS SPECIFIED

Figure 18

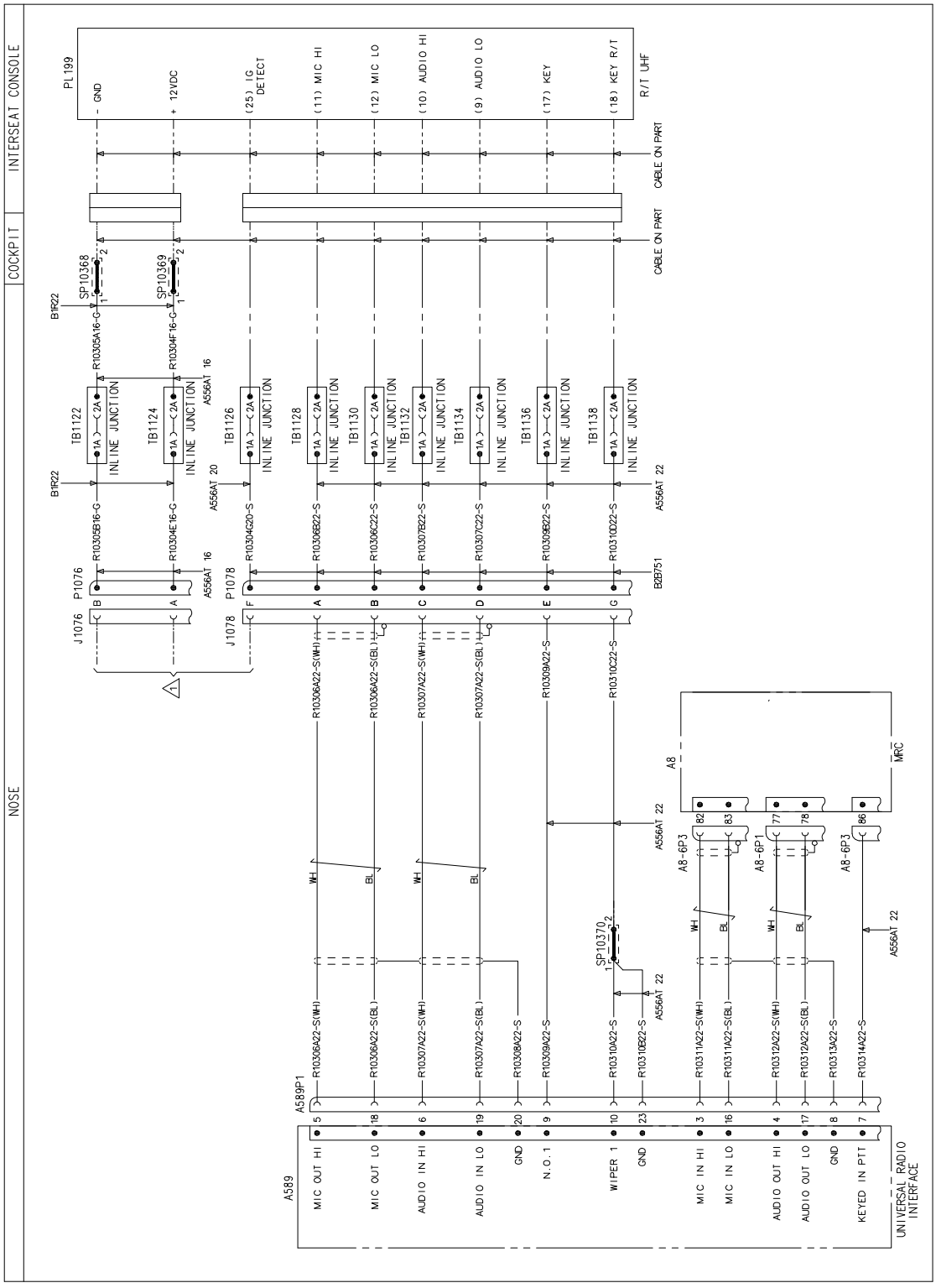

NOSE
COCKPIT
INTERSEAT CONSOLE
DRAWING REF. KEY
SHEET NO. 1
P199
- GND
+ 12VDC
(25) IG DETECT
(11) MIC HI
(12) MIC LO
(10) AUDIO HI
(9) AUDIO LO
(17) KEY
(18) KEY R/T
R/T UHF
CABLE ON PART
SP10368
SP10369
SP10370
TB1122
TB1124
TB1126
TB1128
TB1130
TB1132
TB1134
TB1136
TB1138
INLINE JUNCTION
P1076
P1078
J1076
J1078
A589
A589P1
UNIVERSAL RADIO INTERFACE
MIC OUT HI
MIC OUT LO
AUDIO IN HI
AUDIO IN LO
GND
N.O.1
WIPER 1
MIC IN HI
MIC IN LO
AUDIO OUT HI
AUDIO OUT LO
KEYED IN PTT
A8
MRC
A8-6P3
A8-6P1
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B2B750 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A561AT2 22 UNLESS SPECIFIED

Figure 19

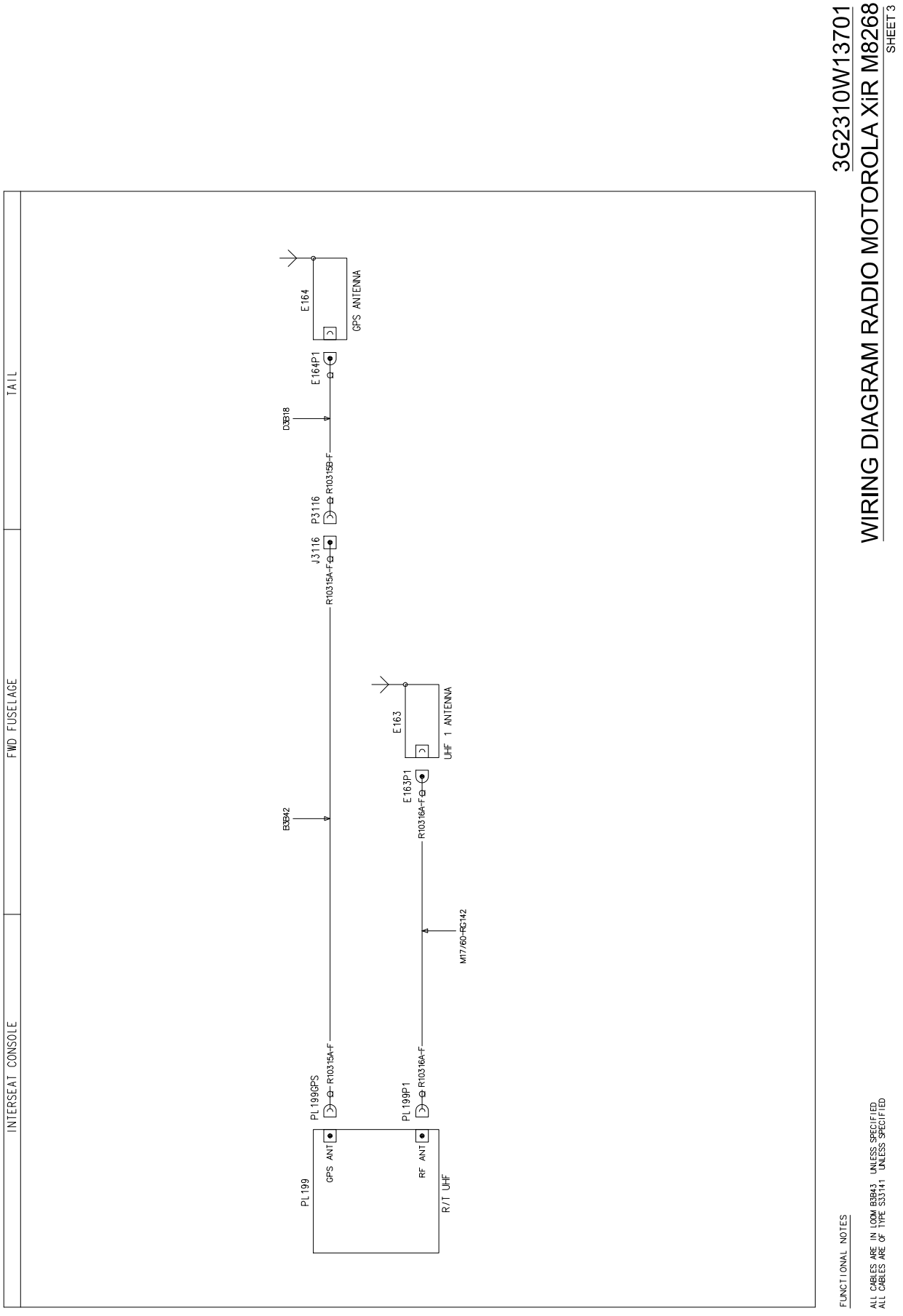

3G2310W13701
WIRING DIAGRAM RADIO MOTOROLA XiR M8268
SHEET 3
INTERSEAT CONSOLE
FWD FUSELAGE
TAIL
PL199
GPS ANT
RF ANT
R/T UHF
PL199GPS
PL199P1
R10315A-F
R10316A-F
B3842
J3116
P3116
R10315A-F
R10315B-F
D3818
E164P1
E164
GPS ANTENNA
E163P1
R10316A-F
E163
UHF 1 ANTENNA
M17/60-RG142
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B3843 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE S33141 UNLESS SPECIFIED

Figure 20

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.

9. 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 18 thru 20 wiring diagrams as reference documents.	☐
10. Verify that the PRIMUS EPIC® S/W 4.8 or following release is installed.	☐
11. 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)	☐

12. 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 3G2310A17312.	☐

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	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 18 thru 20 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 18 thru 20 wiring diagrams.	☐

1.5.3 **CONTROL BUS AND AUDIO PIN TO PIN CHEC**K

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	**A8-6P3-82**	☐	**A589P1-16**	**A8-6P3-83**	☐
A589P1-4	**A8-6P1-77**	☐	**A589P1-17**	**A8-6P1-77**	☐
A589P1-7	**A8-6P3-86**	☐			

Audio Interface vs RT

A589P1-5	TB1128-1A	☐	A589P1-18	TB1130-1A	☐
A589P1-6	TB1132-1A	☐	A589P1-19	TB1134-1A	☐
A589P1-9	TB1136-1A	☐	A589P1-10	TB1138-1A	☐
A589P1-23	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.	☐
7.	Reconnect the RF cable to the relevant antenna and push in the radio CB (**CB581**).	☐

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

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

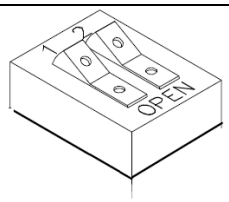
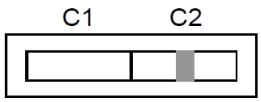
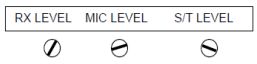
Using instrument ref[6] § 1.3 or equivalent, select the VNA mode and set the RF limits as follows: ● Start frequency: 1565 MHz. ● Stop frequency: 1586 MHz.	☐
Perform Instrument calibration, if necessary.	☐

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 level1. 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			
0	REQUIRED TOOLS			
1.4	ELECTRICAL SETTINGS			
1.5	PRELIMINARY CHECKS			
1.6	XiR 8268 RADIO ANTENNA'S CABLE AND VSWR TESTS			
0	UNIVERSAL RADIO INTERFACE SETTINGS			
Engineering dpt signature (if required):				
Quality dpt approval:				

3 COMMUNICATION TEST AND AUDIO TUNING

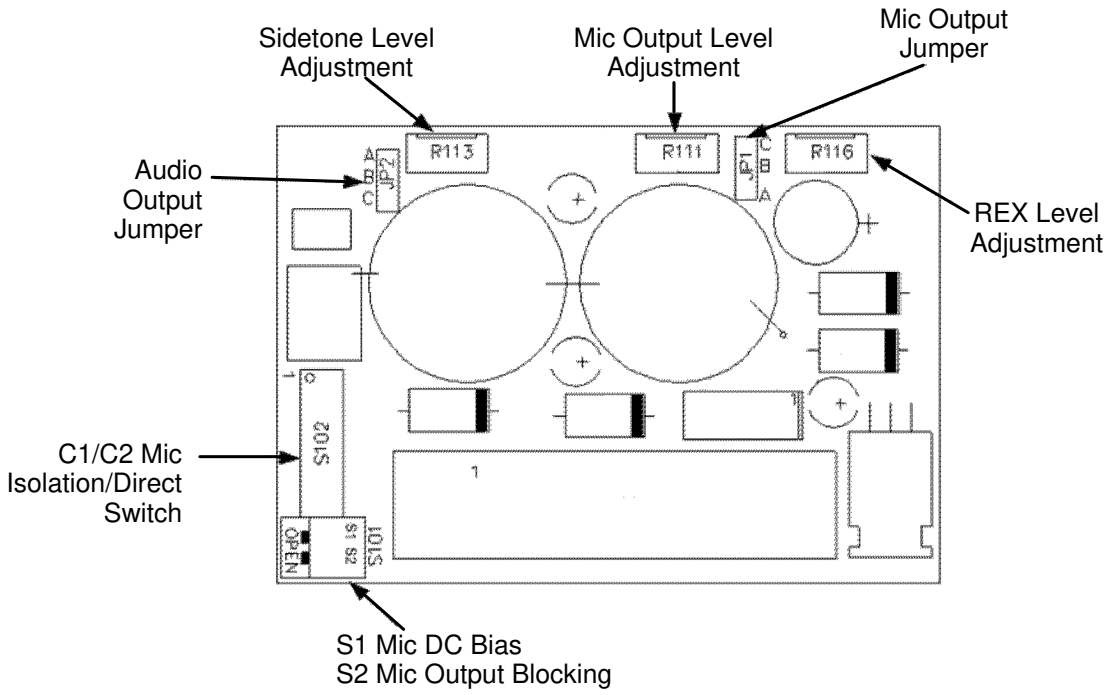
In order to properly assess the correct functioning of the installed provision and correctly perform the adjustments required in ref [5] § 1.7 a Motorola XiR 8268 Radio should be installed as test equipment. To install the above mentioned Radio see Figure 18 thru 20 wiring diagrams.

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.	☐

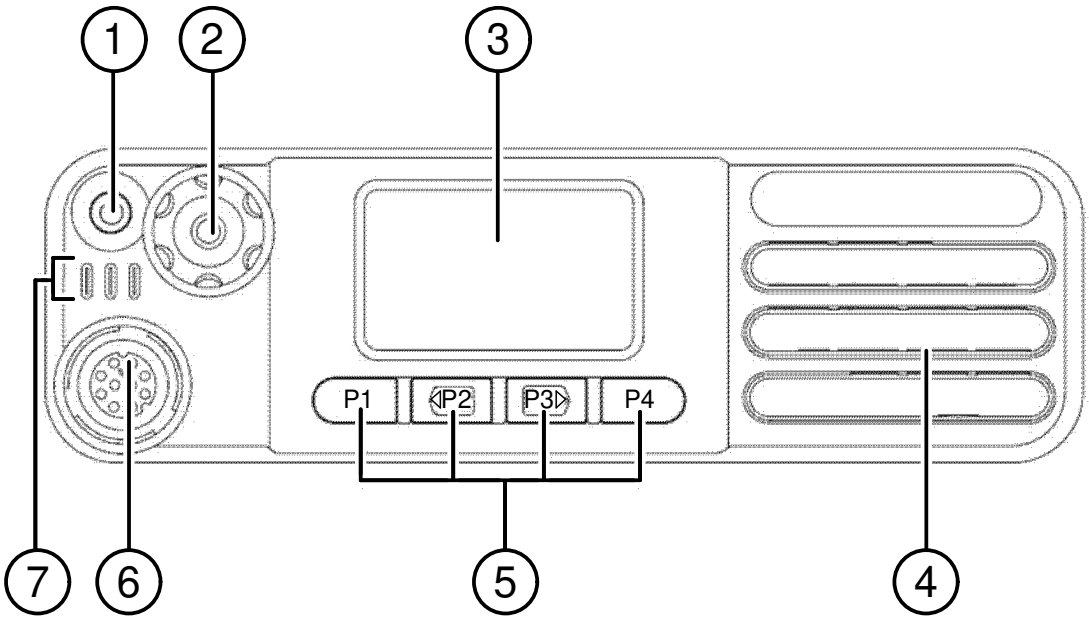
For detailed information regarding the configuration of the radio and its functions refer to the XiR 8268 Series User Guide.

[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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	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.