
SERVICE BULLETIN

N° 139-623

DATE: May 27, 2021

REV. : /

TITLE

ATA 00 – MISCELLANEOUS RETROFIT

REVISION LOG

First Issue

An appropriate entry should be made in the aircraft log book upon accomplishment.
If ownership of aircraft has changed, please, forward to new owner.

1. PLANNING INFORMATION

A. EFFECTIVITY

Part I:

AW139 helicopters from S/N 41801 thru S/N 41804.

Part II:

AW139 helicopters from S/N 41801 thru S/N 41805.

Part III:

AW139 helicopters from S/N 41801 thru S/N 41804.

Part IV:

AW139 helicopters from S/N 41801 thru S/N 41806.

Part V:

AW139 helicopters from S/N 41801 thru S/N 41806.

Part VI:

AW139 helicopters from S/N 41801 thru S/N 41806.

Part VII:

AW139 helicopters from S/N 41801 thru S/N 41806.

Part VIII:

AW139 helicopters from S/N 41801 thru S/N 41806.

Part IX:

AW139 helicopters from S/N 41801 thru S/N 41806.

Part X:

AW139 helicopters S/N 41805 and S/N 41806.

Part XI:

AW139 helicopters from S/N 41801 thru S/N 41805.

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 upgrade of extendable fast rope and rappelling structural provision from P/N 3G5311A32411 to P/N 3G5311A32412 (Part I);

- the structural variant to move a fairing, P/N 3G5320P02311 (Part II);
- the electrical variant for the Aural Warning System, P/N 3G2350P05711 (Part III);
- the electrical provision P/N 3G9340A01611 and structural provision P/N 3G5311A34611 (Part IV);
- the modification of the electrical installation P/N 3G9350A08011, of the structural provision P/N 3G5311A34811 and of the structural provision P/N 3G5311A34611 (Part V).
- the modification of the TA-24 GPS C/A C1A362 (Part VI);
- the modification of the ICS audio customization structural provision P/N 3G5311A35211 (Part VII);
- the modification of the cable cutter installation variant P/N 3G2560P01311 (Part VIII);
- the modification of the provision C/A installation P/N 3G4600A14311 (Part IX);
- the modification of the cockpit door complete provision P/N 3G5311A32512 (Part X);
- the removal and replacement of two cable assemblies (Part XI).

E. DESCRIPTION

The Service Bulletin is divided in 11 Parts and each of these parts provides the instructions for different retromods and modifications.

Part I gives instruction to perform the upgrade of extendable fast rope and rappelling (kit P/N 4G2590F00611) structural provision from P/N 3G5311A32411 to P/N 3G5311A32412. This consists in interposing the adhesive between the structure and the two peeling shims P/N 3G2590A05551 and P/N 3G2590A04951, also to be installed on the helicopter.

Part II gives the instruction to perform the structural variant (P/N 3G5320P02311) for the replacement of the central fairing assy P/N 3G5320A02735 with the central fairing assy P/N 3G5320A18831.

Part III gives the instruction for the electrical modification for the installation of the AWG cabin variant (P/N 3G2350P05711). This consists in the replacement of n°4 cable assy.

Part IV gives the instructions for the electrical modification of the IFF BAE AN/DPX7 electrical provision (P/N 3G9340A01611) and structural provision (P/N 3G5311A34611). Mainly it consists in an upgrade to the latest drawing revision of the electrical provision and structural provision for each helicopter affected.

Part V gives the instructions for the electrical modification of the ASE electrical installation (P/N 3G9350A08011), the ASE structural provision (P/N 3G5311A34811) and the structural provision (P/N 3G5311A34611). It mainly consists in an upgrade to

the latest drawing revision of the electrical provision and structural provision for each helicopter affected.

Part VI gives instructions for the electrical modification of the TA-24 GPS military C/A C1A362. In particular, the removal of the wire marked as “R10822A24N-G” from the C/A C1A362.

Part VII gives instructions to upgrade the ICS audio customization structural provision P/N 3G5311A35211 to the latest drawing revision according to the S/N.

Part VIII gives instructions to upgrade the cable cutter installation variant P/N 3G2560P01311 to the latest drawing revision according to the S/N.

Part IX gives instructions to upgrade the misc-crypto panel provision C/A installation P/N 3G4600A14311 to the latest drawing revision according to S/N.

Part X gives instructions to upgrade the cockpit door armour complete provision from P/N 3G5311A32511 to P/N 3G5311A32512.

Part XI gives instructions to remove and replace the connectors E184P1 and E185P1 of the C/A C3B298 and C/A D3B246.

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, the following MMH are deemed necessary:

Part I: approximately eight (8) MMH.

Part II: approximately thirty (30) MMH.

Part III: approximately forty (40) MMH.

Part IV: approximately fifty (50) MMH.

Part V: approximately two-hundred (200) MMH.

Part VI: approximately six (6) MMH.

Part VII: approximately sixteen (16) MMH.

Part VIII: approximately ten (10) MMH.

Part IX: approximately forty (40) MMH.

Part X: approximately twelve (12) MMH.

Part XI: approximately forty (40) MMH.

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

H. WEIGHT AND BALANCE

PART I

N.A.

PART II

N.A.

PART III

N.A.

PART IV

	WEIGHT (kg)	0.5
	ARM (mm)	MOMENT (kgmm)
LONGITUDINAL BALANCE	4378	2189
LATERAL BALANCE	-83	-41.5

PART V

N.A.

PART VI

N.A.

PART VII

N.A.

PART VIII

WEIGHT (kg)	2.6	
	ARM (mm)	MOMENT (kgmm)
LONGITUDINAL BALANCE	4185	10881
LATERAL BALANCE	16	15.6

PART IX

N.A.

PART X

N.A.

PART XI

N.A.

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	All
DM02 39-A-06-41-00-00A-010A-A	Access door panel remove procedure	All
DM03 39-A-20-10-08-00A-622A-A	Electrical contacts - Crimp	III, IV, V, IX
DM04 39-A-20-10-18-00A-691A-A	Electrical wires and cables – Marking	III, IV, V, IX
DM05 39-A-11-00-01-00A-720A-A	Decal - Install procedure	IV, V, VIII

2) ACRONYMS & ABBREVIATIONS

AMD	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
ASE	Aircraft Survivability Equipment
C/A	Cable Assy
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency

GPS	Global Positioning System
ICS	Intercommunication System
IFF	Identification Friend or Foe
IPD	Illustrated Parts Data
ITEP	Illustrated Tool and Equipment Publication
LH	Leonardo Helicopters
MMH	Maintenance Man Hours
P/N	Part Number
S/N	Serial Number
TACAN	Tactical Air Navigation

3) ANNEX

Annex A Misc-Sw Crypto Panel Acceptance Test Procedure

Annex B Electrical Provision for L3 TACAN+ System Acceptance Test Procedure.

J. PUBLICATIONS AFFECTED

AW139 IPD

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

PART I

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	3G5311A32412		EXT FAST ROPE AND RAPELLING STRUCT PROVISION	REF	.		-
2	3G2590A04951		Peeling Shim	1	..		-
3	3G2590A05551		Peeling Shim	1	..		-
4	AN525-10R14		Screw	6	..		-
5	AN525-10R12		Screw	2	..		-

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
6	3G5320P02311		PILOT AND COPILOT FAIRING VARIANT	REF	.		-
7	3G5320A18831	3G5320A18831M01	Central Fairing Assy	1	..		139-623L1
8	3G5320A19051	3G5320A19051M01	Cover	1	..		139-623L1
9	A407A3C2P		Anchor Nut	1	..		139-623L1
10	A966A080EB		Extrusion Nonmetallic	2 m	..		139-623L1
11	NAS5310V3-2		Screw	2	..		139-623L1

PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
12	3G2350P05711		AWG CABIN VARIANT C/A INSTALLATION	REF	.		-
13	3G9A01A71001		AWG CABIN VARIANT C/A (A1A710)	REF	..		-
14	A556A-T22		Wire	4.5 m	...		139-623L2
15	M39029/56-351		Contact	2	...		139-623L2
16	M39029/57-354		Contact	2	...		139-623L2
17	3G9A01B65101		AWG CABIN VARIANT C/A (A1B651)	REF	..		-
18	A556A-T22		Wire	9 m		139-623L2
19	M39029/57-354		Contact	6		139-623L2
20	M39029/58-363		Contact	2		139-623L2
21	3G9A02A63801		AWG CABIN VARIANT C/A (A2A638)	REF	..		-
22	A561A-T2-24		Wire	4.5 m	...		139-623L2
23	A583A2418C		Cap, Wire end and Contact	2	...		139-623L2
24	M23053/8-004-C		Insulation sleeve	4 m	...		139-623L2
25	M39029/56-348		Contact	2	...		139-623L2
26	M39029/57-354		Contact	2	...		139-623L2
27	M39029/57-357		Contact	2	...		139-623L2
28	3G9A02B61701		AWG CABIN VARIANT C/A (A2B617)	REF	..		-
29	A561A-T2-24		Wire	6.5 m	...		139-623L2
30	A583A2418C		Cap, Wire end and Contact	2	...		139-623L2
31	M23053/8-004-C		Insulation sleeve	6 m	...		139-623L2
32	M39029/56-348		Contact	2	...		139-623L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
33	M39029/57-354		Contact	2	...		139-623L2
34	M39029/57-357		Contact	2	...		139-623L2

PART IV

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
35	3G9340A01611		IFF BAE AN/DPX7 ELECTRICAL PROVISION	REF	.	(2)	-
36	3G5315A30352		Plate	1	..		139-623L3
37	3G5316A89951		Plate splitter	1	..		139-623L3
38	3G9A03B26101		IFF BAE AN/DPX7 C/A (A3B261)	REF	..	(2)	-
39	S33141		Wire	1.2 m	...		139-623L3
40	190308		Connector	1	...		139-623L3
41	190309		Connector	1	...		139-623L3
42	M23053/8-005-C		Insulation sleeve	2	...		139-623L3
43	3G9A03B26201		IFF BAE AN/DPX7 C/A (A3B262)	REF	..	(2)	-
44	S86208		Wire	1.5 m	...		139-623L3
45	190809		Connector	1	...		139-623L3
46	27-1090-2202B		Contact	1	...		139-623L3
47	M23053/8-005-C		Insulation sleeve	2	...		139-623L3
48	P22R1B		Connector	1	...		139-623L3
49	3G9A03B26301		IFF BAE AN/DPX7 C/A (A3B263)	REF	..		-
50	S33141		Wire	1.3 m	...	(2)	139-623L3
51	190309		Connector	2	...	(2)	139-623L3
52	M23053/8-005-C		Insulation sleeve	2	...	(2)	139-623L3
53	7-397-3-3		Splitter	1	..	(2)	139-623L3
54	A647A01		Relay	1	..	(1)	-
55	AW001CL001-N6		Support	1	..	(2)	139-623L3
56	ED300CP91		Decal	1	..	(2)	139-623L3
57	MS21043-3		Nut	2	..	(2)	139-623L3
58	MS24693-S4		Screw	4	..	(2)	139-623L3
59	NAS1149D0332J		Washer	2	..	(2)	139-623L3
60	NAS1149DN832J		Washer	2	..	(2)	139-623L3
61	NAS1802-08-6		Screw	2	..	(2)	139-623L3
62	NAS43DD3-12N		Spacer	4	..	(2)	139-623L3
63	NAS5312V3A10		Screw	2	..	(2)	139-623L3
64	A556A-T22		Wire	5 m	.	(2)	139-623L3
65	M81824/1-1		Splice	1	.	(2)	139-623L3
66	3G9A01B60701		IFF BAE AN/DPX7 C/A (A1B607)	REF	..		-
67	A825A01A-A1		Bracket	1	..		-
68	3G5311A34611		IFF BAE AN/DPX7 STRUCTURAL PROVISION	REF	.		-
69	NAS1832C08-3M		Insert	2	..	(2)	139-623L3
70	3G5315A23836		AHRS RH bracket assy	1	..	(1)	-
71	NAS1836-3-07		Insert	2	..		-

PART V

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
72	3G9350A08011		ASE ELECTRICAL C/A INSTALLATION	REF	.		-
73	A537A01AA04-0240		Cable Lightning Conductor assy	2	..		139-623L4 139-623L5 139-623L6

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
74	A649A01		Relay	2	..		139-623L4 139-623L5 139-623L6
75	ED300K455		Decal	1	..		139-623L4 139-623L5 139-623L6
76	ED300K456		Decal	1	..		139-623L4 139-623L5 139-623L6
77	M83536/2-028M		Relay	1	..		139-623L4 139-623L5 139-623L6
78	ED300K457		Decal	1	..		139-623L4 139-623L5 139-623L6
79	NAS1149D0416J		Washer	2	..		139-623L4 139-623L5 139-623L6
80	NAS1802-4-9		Screw	2	..		139-623L4 139-623L5 139-623L6
81	A601A4B40		Bonding cable assy	2	..	(2)	139-623L4 139-623L5
82	NAS1802-3-8		Screw	2	..	(2)	139-623L4 139-623L5
83	NAS1149D0332J		Washer	5	..	(2)	139-623L4 139-623L5
84	MS21042L3		Nut	2	..	(2)	139-623L4 139-623L5
85	AW001CB06H		Clamp	1	..	(1)	139-623L4 139-623L5
86	AW001CB08H		Clamp	1	..	(1)	139-623L5
87	NAS1190E3P7AK		Screw	1	..	(1)	139-623L5
88	AW001CB04H		Clamp	6	..	(1)	139-623L5
89	NAS1802-3-36		Screw	1	..	(1)	139-623L5
90	NAS43DD3-40N		Spacer	1	..	(1)	139-623L5
91	3G9C01B33901		ASE C/A (C1B339)	REF	..		-
92	A561A-T1-14		Wire	3 m	...		139-623L4 139-623L5 139-623L6
93	A561A-T1-16		Wire	4 m	...		139-623L4 139-623L5 139-623L6
94	A556A-T16		Wire	8 m	...		139-623L4 139-623L5 139-623L6
95	A556A-T22		Wire	2 m	...		139-623L4 139-623L5 139-623L6
96	A556A-T20		Wire	6 m	...		139-623L4 139-623L5 139-623L6
97	A556A-T14		Wire	1 m	...		139-623L4 139-623L5 139-623L6
98	A561A-T1-20		Wire	5 m	...		139-623L4 139-623L5 139-623L6
99	A561A-T1-22		Wire	6 m	...		139-623L4 139-623L5 139-623L6
100	M81824/1-3		Splice	2	...		139-623L4 139-623L5 139-623L6
101	MS27473T10B35SA		Connector	1	...		139-623L4

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
							139-623L5 139-623L6
102	A532A100-1002T		Backshell	2	...		139-623L4 139-623L5 139-623L6
103	MS27473T10B35S		Connector	1	...		139-623L4 139-623L5 139-623L6
104	M39029/58-364		Contact	1	...		139-623L4 139-623L5 139-623L6
105	A523A-B04		Contact	1	...		139-623L4 139-623L5 139-623L6
106	M81824/1-2		Splice	2	...		139-623L4 139-623L5 139-623L6
107	M81824/1-1		Splice	2	...		139-623L4 139-623L5 139-623L6
108	M23053/8-004-C		Insulation sleeving	8	...		139-623L4 139-623L5 139-623L6
109	M39029/57-354		Contact	3	...		139-623L4 139-623L5 139-623L6
110	3G9A01A65101		ASE C/A (A1A651)	REF	..		-
111	A556A-T22		Wire	20 m	...		139-623L4 139-623L5 139-623L6
112	M81824/1-1		Splice	3	...		139-623L4 139-623L5 139-623L6
113	M39029/56-348		Contact	4	...		139-623L4 139-623L5 139-623L6
114	A523A-A01		Contact	5	...		139-623L4 139-623L5 139-623L6
115	M39029/57-357		Contact	1	...		139-623L4 139-623L5 139-623L6
116	3G9A01B60401		ASE C/A (A1B604)	REF	..		-
117	A556A-T22		Wire	48 m	...		139-623L4 139-623L5 139-623L6
118	A561A-T1-22		Wire	33 m	...		139-623L4 139-623L5 139-623L6
119	AW001YD03		Diode	5	...		139-623L4 139-623L5 139-623L6
120	A523A-B02		Contact	17	...		139-623L4 139-623L5 139-623L6
121	A523A-A02		Contact	10	...		139-623L4 139-623L5 139-623L6
122	M39029/57-357		Contact	1	...		139-623L4 139-623L5 139-623L6
123	M81824/1-1		Splice	5	...		139-623L4 139-623L5 139-623L6
124	M39029/101-553		Contact	4	...		139-623L4 139-623L5

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
							139-623L6
125	M39029/56-348		Contact	4	...		139-623L4 139-623L5 139-623L6
126	M12883/52-001		Connector	2	...		139-623L4 139-623L5 139-623L6
127	A651A02		Connector	2	...		139-623L4 139-623L5 139-623L6
128	MS27473T14B15S		Connector	1	...		139-623L4 139-623L5 139-623L6
129	A532A100-1402T		Backshell	1	...		139-623L4 139-623L5 139-623L6
130	M39029/58-360		Contact	3	...		139-623L4 139-623L5 139-623L6
131	A523A-A01		Contact	1	...		139-623L4 139-623L5 139-623L6
132	M23053/8-004-C		Insulation sleeving	1	...		139-623L4 139-623L5 139-623L6
133	3G5311A34811		ASE STRUCTURAL PROVISION	REF	.		-
134	3G5317A30951		Sequencer support assy	1	..	(5)	139-623L5
135	NAS1802-3-6		Screw	4	..	(5)	139-623L5
136	MS20470AD3-7		Rivet	0.1 kg	..	(5)	139-623L5
137	3G3110A05753		Support	1	..	(5)	139-623L5
138	3G5318A28131		Support	1	..	(5)	139-623L5
139	A297A04TW02		Rivet	9	..	(5)	139-623L5
140	MS20426AD4-6		Rivet	0.1 kg	..	(5)	139-623L5
141	MS20470AD4-6		Rivet	0.1 kg	..	(5)	139-623L5
142	MS21069L06		Nut plate	2	..	(2)	139-623L4 139-623L5
143	NAS1399C3-3		Rivet	0.1 kg	..	(2)	139-623L4 139-623L5
144	3G5318A13131		Programmer support assy	1	..		139-623L4 139-623L5 139-623L6
145	3G5311A37611		CHAFF AND FLARE STRUCTURAL PROVISION	REF	.		-
146	A297A04TW02		Rivet	8	..	(2)	139-623L4 139-623L5
147	A604A08CCR01RC		Dummy connector	2	..	(2)	139-623L4 139-623L5
148	M38999/10-16B		Electrical dummy connector	2	..	(1)	139-623L5
149	MS20426T3-5		Rivet	4	..	(2)	139-623L4 139-623L5
150	MS20470AD4-4-5		Rivet	4	..	(1)	139-623L5
151	MS21076L4N		Nut plate	2	..	(2)	139-623L4 139-623L5
152	MS27511B16R		Dust cap cover	2	..	(1)	139-623L5
153	NAS5318E3-4		Bolt	84	..	(1)	139-623L5
154	NAS1720C4L1W		Rivet	4	..	(1)	139-623L5

PART VI

N.A.

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PART VII

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
155	3G5311A35211		ICS AUDIO CUSTOMIZATION STRUCT PROVISION	REF	.		-
156	3G2590A06351		Shim rubber	1	..		-
157	MS24694-C2		Screw	1	..		-
158	NAS1169C8		Washer	1	..		-

PART VIII

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
159	3G2560P01311		CABLE CUTTER INSTALLATION VARIANT	REF	.		-
160	3G5318A32651		Omega bracket	1	..		-
161	A244A549E11		Decal	1	..	(1)	139-623L7
162	MS20426AD3-7		Rivet	0.1 kg	..	(4)	139-623L7
163	MS21069L3		Nut plate	4	..	(4)	139-623L7
164	MS27039-1-11		Screw	1	..	(1)	139-623L7
165	MS27039-1-10		Screw	3	..	(4)	139-623L7
166	NAS1149C0332R		Washer	3	..	(4)	139-623L7

PART IX

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
167	3G4600A14311		MISC-CRYPTO PANEL PROVISION C/A INSTALLATION	REF	.		-
168	3G9C01A20022		HEATING C/A (C1A200)	REF	..		-
169	A523A-A05		Electrical contact	9	...	(2)	139-623L8
170	A529A400-1702C11		Backshell	1	...	(2)	139-623L8
171	A529A445-1702		Adapter	1	...	(2)	139-623L8
172	A532A400-1702C11		Backshell	1	...	(2)	139-623L8
173	A556A-T22		Wire	65.0 m	...	(2)	139-623L8
174	A556A-T24		Wire	2.5 m	...	(2)	139-623L8
175	A561A-T3-24		Wire	4.5 m	...	(2)	139-623L8
176	D38999/20WE26SN		Electrical connector	1	...	(2)	139-623L8
177	D38999/26JE35SN		Electrical connector	1	...	(2)	139-623L8
178	M23053/8-004-C		Insulation sleeving	4	...	(2)	139-623L8
179	M39029/56-348		Electrical contact	25	...	(2)	139-623L8
180	M39029/56-351		Electrical contact	7	...	(2)	139-623L8
181	M39029/58-363		Electrical contact	25	...	(2)	139-623L8
182	AW001CL001-N6		Support	2	..	(2)	139-623L8
183	A651A01		Relay	2	..	(2)	139-623L8
184	A647A01		Relay	1	..	(1)	139-623L8
185	3G9A01A64901		MISC-CRYPTO PANEL PROVISION C/A (A1A649)	REF	..		-
186	A556A-T22		Wire	10 m	...		139-623L8 139-623L9
187	A523A-A01		Electrical contact	1	...		139-623L8 139-623L9
188	A523A-A02		Electrical contact	7	...		139-623L8 139-623L9
189	M39029/56-351		Electrical contact	1	...		139-623L8 139-623L9
190	AW001YD03		Diode assembly	3	...		139-623L8 139-623L9
191	3G9A02B57201		MISC-CRYPTO PANEL PROVISION C/A (A2B572)	REF	..		-

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
192	GC329		Connector	1	...		139-623L8 139-623L9
193	M23053/8-004-C		Insulation sleeving	3	...		139-623L8 139-623L9

PART X

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
194	3G5311A32512		COCKPIT DOOR ARMOUR COMPLETE PROVISION	REF	.		-
195	A428A3C05		Screw	4	..		-
196	NAS1836-3-13		Insert	2	..		-

PART XI

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
197	3G9C03B29801		L-3 AS TACAN C/A (C3B298)	REF	.		-
198	190410		Electrical connector	1	..		-
199	3G9D03B24601		L-3 AS TACAN C/A (D3B246)	REF	.		-
200	190411		Coaxial connector	1	..		-

2) CONSUMABLES

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

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
201	199-05-002 TY I, CL 2	Adhesive C231	AR	(6)	I, V, VII
202	AWMS05-001 TY I, CL A, GR 2	Adhesive	AR	(6)	I
203	199-05-152 TY I, CL 1	Adhesive	AR	(6)	II
204	199-05-0 TY II, CL 1	Adhesive	AR	(6)	II
205	199-05-002 TY II, CL 2	Adhesive C397	AR	(6)	IV, V, VII, VIII, X
206	AWTR033	Fiberglass 20823 1200 (C557)	AR	(6)	V
207	199-05-002 TY II, CL 3	Adhesive EA956NA (C193)	AR	(6)	V
208	Commercial	Fiberglass	AR	(6)	V
209	EN6049-006-08-5	Nomex	AR	(6)	V
210	EN6049-006-32-5	Nomex	AR	(6)	IV, IX
211	EN6049-006-25-5	Nomex	AR	(6)	IX
212	EN6049-006-25-2	Nomex	AR	(6)	IX
213	AW001CK03LC	Tie strap	AR	(6)	IV, IX
214	A236A01AB	Edging	AR	(6)	IX
215	900004953	Tie strap	AR	(6)	V
216	AWMS05-001 TY I, CL B, GR 2	Sealant MC-780 B-2 (C465)	AR	(6)	V
217	199-05-107 TY II, CL 5	Adhesive C111	AR	(6)	VII, VIII
218	A305A38B2Y	Velcro pile	AR	(6)	VIII
219	Commercial	Adhesion promoter 86A (C198)	AR	(6)	VIII
220	Commercial	Velcro hook SJ3572	AR	(6)	VIII
221	Commercial	Velcro pile SJ3571	AR	(6)	VIII

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
3G2590A04951	1		
3G2590A05551	1		I
AN525-10R14	2		
AN525-10R12	6		
139-623L1	1		II
139-623L2	1		III
139-623L3	1	(2)	
A647A01	1	(1)	
3G5315A23836	1	(1)	IV
A825A01A-A1	1		
NAS1836-3-07	2		
139-623L4	1	(3)	
139-623L5	1	(5)	V
139-623L6	1	(7)	
3G2590A06351			
MS24694-C2			VII
NAS1169C8			
3G5318A32651	1		
139-623L7	1	(4)	VIII
139-623L8	1	(2)	
139-623L9	1	(7)	IX
A428A3C05	4		
NAS1836-3-13	2		X
190410	1		
190411	1		XI

NOTE

- (1) Item to be ordered only for helicopter S/N 41801.
- (2) Item to be ordered only for helicopters S/N 41801 thru S/N 41804.
- (3) Item to be ordered only for helicopters S/N 41803 and S/N 41804
- (4) Item to be ordered only for helicopters S/N 41801 thru S/N 41805.
- (5) Item to be ordered only for helicopters S/N 41801 and S/N 41802.
- (6) Item to be procured as local supply.
- (7) Item to be ordered only for helicopters S/N 41805 and S/N 41806.

B. SPECIAL TOOLS

Refer also 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) Let the adhesive cure at room temperature for at least 24 hours, unless otherwise specified.
- f) All lengths are in mm.

PART I

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 and 2, gain access to the area affected and perform the upgrade of extendable fast rope and rappelling structural provision from P/N 3G5311A32411 up to P/N 3G5311A32412 as described in the following procedure:

NOTE

Interpose adhesive between the structure and the peeling shim.

- 2.1 With reference to Figure 1 Section A-A and Figure 2 Section B-B, install the peeling shim P/N 3G2590A04951 in position on the panel by means of adhesive 199-05-002 Type I, Class 2.
- 2.2 With reference to Figure 1 Section A-A, fill all around the peeling shim P/N 3G2590A04951 by means of adhesive AWMS05-001 Type I, Grade 2, Class A.

- 2.3 With reference to Figure 1 Section A-A and Figure 2 Section C-C, repeat steps 2.1 and 2.2 for the peeling shim P/N 3G2590A05551.
- 2.4 With reference to Figure 1, remove n°8 screws P/N AN525-10R18 and install n°6 screws P/N AN525-10R14 and n°2 screws P/N AN525-10R12 in the positions shown.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
5. 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".

PART II

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 3 thru 5, gain access to the area affected by the installation and perform the pilot and copilot fairing variant P/N 3G5320P02311 as described in the following procedure:
 - 2.1 With reference to Figure 3 View A, remove the cover P/N 3G5320A10752 and the existing hardware. Retain the existing hardware for later reuse.
 - 2.2 With reference to Figure 4 View B, remove and retain for later reuse the RH cover P/N 3G5320A02954 and the existing hardware.
 - 2.3 With reference to Figure 3 View A and Figure 4 View B, remove and retain for later reuse the cover P/N 3G5320A16851 and the existing hardware.
 - 2.4 With reference to Figure 3 View A, remove the central fairing assy P/N 3G5320A02735 and the existing hardware. Retain the existing hardware for later reuse.
 - 2.5 With reference to Figure 4 View B, temporarily locate central fairing assy P/N 3G5320A18831 on the floor panel and countermark the hole in accordance with P/N 3G6700A03153.
 - 2.6 With reference to Figure 5 Detail C, drill the hole $\varnothing 5.74 \div 5.87$ on the central fairing assy P/N 3G5320A18831 in the previously countermarked hole.
 - 2.7 With reference to Figure 4 Section F-F, counterdrill n°2 holes $\varnothing 5.54 \div 5.64$ on the central fairing assy P/N 3G5320A18831.
 - 2.8 With reference to Figure 5 Detail C, install the anchor nut P/N A407A3C2P by means of adhesive 199-05-002 Type II, Class 1.
 - 2.9 With reference to Figure 3 View A, Figure 4 View B and Figure 5 View D and Section E-E, install the central fairing assy P/N 3G5320A18831 by means of the screw P/N NAS5310V3-2 and the existing hardware previously removed.

NOTE

If necessary, it is permitted to cut the rubber extrusion non-metallic P/N A966A080EB to reach the correct dimension.

- 2.10 With reference to Figure 3 View A, install the silicon rubber P/N A966A080EB on the cover P/N 3G5320A16851 by means of adhesive 199-05-152 Type I, Class 1.
- 2.11 With reference to Figure 3 View A and Figure 4 View B, reinstall the cover

P/N 3G5320A16851 on the central fairing assy P/N 3G5320A18831 by means of existing hardware.

2.12 With reference to Figure 3 View A and Figure 4 View B, reinstall the RH cover P/N 3G5320A02954 by means of the existing hardware.

2.13 With reference to Figure 3 View A and Figure 4 View B, install the cover P/N 3G5320A19051 by means of the existing hardware.

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
5. 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".

PART III

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 6 thru 9, gain access to the area affected by the installation and perform the AWG cabin variant C/A installation P/N 3G2350P05711 as described in the following procedure:
 - 2.1 With reference to Figure 17 and Figure 18 Wiring diagram, remove the C/A P/N A1P165, C/A P/N A1P166, C/A P/N A1P130 and C/A P/N AP131.
 - 2.2 With reference to Figure 17 Wiring diagram, assemble the AWG cabin variant C/A (A1A710) P/N 3G9A01A71001 as described in the following procedure:
 - 2.2.1 With reference to Figure 17 Wiring diagram, cut n°2 wires P/N A556A-T22 of adequate length and lay down between connector A7-6P1 and connector J109.
 - 2.2.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 17 Wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/57-354 (A7-6P1 side) and n°2 electrical contacts P/N M39029/56-351 (J109 side) by means of proper crimping tool.
 - 2.2.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 17 Wiring diagram, mark wires as R12748B22-G and R12747B22-G by means of marker sleeve.
 - 2.2.4 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 17 Wiring diagram mark the cable assembly so obtained as A1A710 by means of marker sleeve.
 - 2.3 With reference to Figure 17 Wiring diagram, assemble the AWG cabin variant C/A (A1B651) P/N 3G9A01B65101 as described in the following procedure:
 - 2.3.1 With reference to Figure 17 Wiring diagram, cut n°2 wire P/N A556A-T22 of adequate length and lay down between connector A2-3P1 and connector P109.
 - 2.3.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 17 Wiring diagram, crimp on wire n°2 electrical contact P/N M39029/57-354 (A2-3P1 side) and n°2 electrical contact P/N M39029/58-363 (P109 side) by means of proper crimping tool.
 - 2.3.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 17 Wiring diagram, mark wires as R12747A22-G and R12748A22-G by means of marker sleeve.

- 2.3.4 With reference to Figure 17 Wiring diagram, cut n°2 wire P/N A556A-T22 of adequate length and lay down between connector A2-3P2 and connector A8-6P1.
- 2.3.5 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 17 Wiring diagram, crimp on wire n°2 electrical contact P/N M39029/57-354 (A2-3P2 side) and n°2 electrical contact P/N M39029/57-354 (A8-6P1 side) by means of proper crimping tool.
- 2.3.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 17 Wiring diagram, mark wires as R12746A22-G and R12745A22-G by means of marker sleeve.
- 2.3.7 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 17 Wiring diagram mark the cable assembly so obtained as A1B651 by means of marker sleeve.
- 2.4 With reference to Figure 18 Wiring diagram, assemble the AWG cabin variant C/A (A2A638) P/N 3G9A02A63801 as described in the following procedure:
 - 2.4.1 With reference to Figure 18 Wiring diagram, cut n°2 wire P/N A561A-T2-24 of adequate length and lay down between connector PL8P2 and connector J113 and leave wiring cap and stowed.
 - 2.4.2 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°2 electrical contact P/N M39029/57-357 (PL8P2 side) by means of proper crimping tool.
 - 2.4.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 Wiring diagram, mark wires as S105F24-S (white) and S105F24-S (blue) by means of marker sleeve.
 - 2.4.4 With reference to Figure 18 Wiring diagram, cut n°2 wire P/N A561A-T2-24 of adequate length and lay down between connector J113 and connector A7-6P1.
 - 2.4.5 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°2 electrical contact P/N M39029/56-348 (J113 side) and n°2 electrical contact P/N M39029/57-354 (A7-6P1 side) by means of proper crimping tool.
 - 2.4.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 Wiring diagram, mark wires as R12750A24-S (white) and R12750A24-S (blue) by means of marker sleeve.
 - 2.4.7 With reference to Figure 18 Wiring diagram, install n°4 insulation sleeving P/N M23053/8-004-C on the C/A.

- 2.4.8 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 Wiring diagram mark the cable assembly so obtained as A2A638 by means of marker sleeve.
- 2.5 With reference to Figure 18 Wiring diagram, assemble the AWG cabin variant C/A (A2B617) P/N 3G9A02B61701 as described in the following procedure:
- 2.5.1 With reference to Figure 18 Wiring diagram, cut n°2 wire P/N A561A-T2-24 of adequate length and lay down between connector TB106P1 and connector A8-6P1.
- 2.5.2 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°2 electrical contact P/N M39029/56-348 (TB106P1 side) and n°2 electrical contact P/N M39029/57-354 (A8-6P1 side) by means of proper crimping tool.
- 2.5.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 Wiring diagram, mark wires as R12749A24-S (white) and R12749A24-S (blue) by means of marker sleeve.
- 2.5.4 With reference to Figure 18 Wiring diagram, cut n°2 wire P/N A561A-T2-24 of adequate length and lay down between connector PL24P2 and connector CE1381 and the connector CE1382.
- 2.5.5 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°2 electrical contact P/N M39029/57-357 (PL24P2 side) by means of proper crimping tool.
- 2.5.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 Wiring diagram, mark wires as S105D24-S (white) and S105D24-S (blue) by means of marker sleeve.
- 2.5.7 With reference to Figure 18 Wiring diagram, install n°4 insulation sleeving P/N M23053/8-004-C on the C/A.
- 2.5.8 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 18 Wiring diagram mark the cable assembly so obtained as A2B617 by means of marker sleeve.
- 2.6 With reference to Figures 6 thru 9, lay down the following cable assemblies on the existing routes unless otherwise indicated on the figures:
- 3G9A01A71001 AWG cabin variant C/A (A1A710)
 - 3G9A01B65101 AWG cabin variant C/A (A1B651)
 - 3G9A02A63801 AWG cabin variant C/A (A2A638)
 - 3G9A02B61701 AWG cabin variant C/A (A2B617)

- 2.7 With reference to Figures 6 thru 9, secure the cable assemblies laid down at the previous step by means of existing hardware and lacing cords.
 - 2.8 With reference to Figure 7 View looking nose LH side from STA 725 to STA 1500, to Figure 8 View looking cabin RH side from STA 1500 to STA 3120 and to Figure 17 Wiring diagram, perform the electrical connection of the C/A A1A710 to the connector A7-6P1 and to the connector J109.
 - 2.9 With reference to Figure 7 View looking nose RH side from STA 725 to STA 1500, to Figure 8 View looking cabin RH side from STA 1500 to STA 3120 and to Figure 17 Wiring diagram, perform the electrical connection of the C/A A1B651 to the connector A2-3P1, to the connector A2-3P2, to the connector A8-6P1 and to the connector P109.
 - 2.10 With reference to Figure 7 View looking nose LH side from STA 725 to STA 1500, to Figure 9 View looking cabin LH side and to Figure 18 Wiring diagram, perform the electrical connection of the C/A A2A638 to the connector A7-6P1, to the wire end P/N A583A2418C (CE1383), to the wire end P/N A583A2418C (CE1384), to the connector J113 and to the connector PL8P2.
 - 2.11 With reference to Figure 7 View looking nose RH side from STA 725 to STA 1500, to Figure 8 View looking cabin RH side from STA 1500 to STA 3120 and to Figure 18 Wiring diagram, perform the electrical connection of the C/A A2B617 to the connector A8-6P1, to the wire end P/N A583A2418C (CE1381), to the wire end P/N A583A2418C (CE1382), to the connector PL24P2 and to the connector TB106P1.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
 4. Return the helicopter to flight configuration and record for compliance with Part III of this Service Bulletin on the helicopter logbook.
 5. 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".

PART IV

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 38, 42, 82 and 83, get access to the area affected by the installation and perform the IFF BAE AN/DPX7 structural provision upgrade P/N 3G5311A34611 as described in the following procedure:

NOTE

The following step 2.1 is applicable only for the helicopter S/N 41801.

- 2.1 With reference to Figure 42 View H-H, remove the AHRS RH bracket assy P/N 3G5315A23835 and install the new AHRS RH bracket assy P/N 3G5315A23836 in accordance with the new dimensions shown.

NOTE

The following steps 2.2 and 2.3 are applicable only for the helicopters from S/N 41801 thru S/N 41804.

- 2.2 With reference to Figure 38 View J and Section K-K, drill n°2 holes Ø14.25÷14.38 on the bonded panel assy (STA 1500) in accordance with the plate of the splitter P/N 7-397-3-3 and with the dimensioning shown.
- 2.3 With reference to Figure 38 View J and Section K-K, install n° 2 inserts P/N NAS1832C08-3M on the bonded panel assy (STA 1500) by means of Adhesive 199-05-002 Type II, Class 2.
- 2.4 With reference to Figure 82 Detail C, remove n°2 existing inserts P/N NAS1836-3-07M from the right vertical panel.
- 2.5 With reference to Figure 82 Detail C, install n°2 new inserts P/N NAS1836-3-07 in the same positions on the right vertical panel by means of adhesive C397.
- 2.6 With reference to Figure 82 Detail C and Section E-E, remove and retain the support relay and the existing fixing hardware from the right vertical panel.
- 2.7 With reference to Figure 82 Detail C and Section E-E, remove and retain n°2 inserts P/N NAS1836-3-07 from the right vertical panel. Fill n°2 indicated holes by means of adhesive C397.
- 2.8 With reference to Figure 82 Detail C and Section E-E, drill n°2 holes Ø11.48÷11.61 on the right vertical panel in accordance with the new dimensions shown.
- 2.9 With reference to Figure 82 Detail C, clean and prepare the indicated surface to assure ground contact.

- 2.10 With reference to Figure 82 Detail C and Section E-E, re-install n°2 inserts P/N NAS1836-3-07 on the right vertical panel by means of adhesive C397.
- 2.11 With reference to Figure 82 Detail C and Section E-E, re-install the relay support by means of the existing hardware previously removed at step 2.6.
- 2.12 With reference to Figure 83 View D-D and Section G-G, remove and retain the bracket and the existing fixing hardware.
- 2.13 With reference to Figure 83 View D-D, clean and prepare the indicated surface to assure ground contact.
- 2.14 With reference to Figure 83 View D-D and Section G-G, re-install the bracket by means of the existing hardware previously removed at step 2.12.

NOTE

The steps below are to be intended applicable for the helicopters S/N 41801 thru S/N 41806 unless otherwise indicated.

3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 10 thru 12 and Figures 19 thru 25 and 45 Wiring Diagram, gain access to the area affected by the installation and perform the IFF BAE AN/DPX7 P/N 3G9340A01611 electrical provision upgrade as described in the following procedure:

NOTE

If needed, to reach the correct length of wires, use wire P/N A556A-T22.

NOTE

The following steps from 3.1 thru 3.14 are applicable only for helicopters S/N 41801 and S/N 41802.

- 3.1 With reference to Figure 21 and Figure 22 Wiring diagram, remove the wire marked as S1577C22-G from the pin N of the connector P112 and the pin 2 of the splice SP10482.
- 3.2 With reference to Figure 19 thru Figure 22 Wiring diagram, disconnect the wire marked as S1577A22-G from the pin 1 of the splice SP10482 and connect it to the pin N of the connector P112.
- 3.3 With reference to Figure 21 and Figure 22 Wiring diagram, disconnect the wire marked as S1580A22-G from the pin P of the connector P112 and connect it to the pin 1 of the splice SP10482.
- 3.4 With reference to Figure 21 and Figure 22 Wiring diagram, connect the wire to the pin 2 of the splice SP10482 and to the pin P of the connector P112.
- 3.5 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to

- Figure 21 and Figure 22 Wiring diagram, mark the wire as S1580C22-G by means of the marker sleeve.
- 3.6 With reference to Figure 21 and Figure 22 Wiring diagram, disconnect the wire marked as S1584D22-G from the pin A2 of the connector K398P1 and connect it to the pin 1 of the splice SP10482.
 - 3.7 With reference to Figure 21 and Figure 22 Wiring diagram, remove the wire marked as S1576B22-G from the pin X1 of the connector K398P1.
 - 3.8 With reference to Figure 21 and Figure 22 Wiring diagram, remove the wire marked as S1583A22-G from the pin X2 of the connector K398P1.
 - 3.9 With reference to Figure 21 and Figure 22 Wiring diagram, disconnect the wire marked as S1582A22N-G from the connector TB108P1 and connect it to the pin 2 of the splice SP10482.
 - 3.10 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 21 and Figure 22 Wiring diagram, mark the wire as S1580D22-G by means of the marker sleeve.
 - 3.11 With reference to Figure 21 and Figure 22 Wiring diagram, remove the wire marked as S1581B22-G from the pin A3 of the connector K399P1 to the pin i of the connector P112.
 - 3.12 With reference to Figure 21 and Figure 22 Wiring diagram, disconnect the wire marked as S1585A22N-G from the pin A3 of the connector K398P1 and connect it to the pin A3 of the connector K399P1.
 - 3.13 With reference to Figure 21 and Figure 22 Wiring diagram, disconnect the wire marked as S1579A22-G from the pin 76 of the connector A641P1 and connect it to the connector TB108P1.
 - 3.14 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 21 and Figure 22 Wiring diagram, mark the wire as S1582A22N-G by means of the marker sleeve.

NOTE

The following steps from 3.15 thru 3.32 are applicable
only for helicopters S/N 41801 thru S/N 41804.

- 3.15 With reference to Figure 23 and Figure 24 Wiring diagram, remove the wire marked as S1598D22-G from the pin 2 of the splice SP10489 and the pin 48 of the connector PL213P1.
- 3.16 With reference to Figure 23 and Figure 24 Wiring diagram, disconnect the wire marked as S1597B22-G from the pin 75 of the connector A641P1 and connect it to the splice P/N M81824/1-1 (SP10641).

- 3.17 With reference to Figure 23 and Figure 24 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between the pin 48 of the connector A641P1 and the splice SP10641.
- 3.18 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 23 and Figure 24 Wiring diagram, mark wire as R1597F22-G by means of marker sleeve.
- 3.19 With reference to Figure 11 View looking nose RH side, install the support P/N AW001CL001-N6 at location n°8.
- 3.20 With reference to Figure 25 Wiring diagram, assemble the IFF BAE AN/DPX-7 C/A (A3B261) P/N 3G9A03B26101 as described in the following procedure:
 - 3.20.1 With reference to Figure 25 Wiring diagram, cut n°1 wire P/N S33141 of adequate length and lay down between connector A727GPS and connector CE1381 and the connector CP91P2.
 - 3.20.2 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 25 Wiring diagram, mark wire as R13201A-F by means of marker sleeve.
 - 3.20.3 With reference to Figure 25 Wiring diagram, install n°2 insulation sleeving P/N M23053/8-005-C on the C/A.
 - 3.20.4 Perform the electrical connection of the wire marked as R13201A-F and the connector P/N 190308 (A727GPS) and the connector P/N 190309 (CP91P2).
 - 3.20.5 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 25 Wiring diagram mark the cable assembly so obtained as A3B261 by means of marker sleeve.
- 3.21 With reference to Figure 25 Wiring diagram, assemble the IFF BAE AN/DPX-7 C/A (A3B262) P/N 3G9A03B26201 as described in the following procedure:
 - 3.21.1 With reference to Figure 25 Wiring diagram, cut n°1 wire P/N S86208 of adequate length and lay down between connector A2-9P2 and connector CP91P3.
 - 3.21.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 25 Wiring diagram, crimp on wire n°1 electrical contact P/N 27-1090-2202B (A2-9P2 side) by means of proper crimping tool.
 - 3.21.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 25 Wiring diagram, mark wire as R13200A-F by means of marker sleeve.

- 3.21.4 With reference to Figure 25 Wiring diagram, install n°2 insulation sleeving P/N M23053/8-005-C on the C/A.
- 3.21.5 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 25 Wiring diagram mark the cable assembly so obtained as A3B262 by means of marker sleeve.
- 3.22 With reference to Figure 25 Wiring diagram, assemble the IFF BAE AN/DPX-7 C/A (A3B263) P/N 3G9A03B26301 as described in the following procedure:
 - 3.22.1 With reference to Figure 25 Wiring diagram, cut n°1 wire P/N S33141 of adequate length and lay down between connector CP91P1 and connector P168.
 - 3.22.2 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 25 Wiring diagram, mark wire as R13202A-F by means of marker sleeve.
 - 3.22.3 With reference to Figure 25 Wiring diagram, install n°2 insulation sleeving P/N M23053/8-005-C on the C/A.
 - 3.22.4 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 25 Wiring diagram mark the cable assembly so obtained as A3B263 by means of marker sleeve.
- 3.23 With reference to Figure 10, disconnect and remove the IFF BAE AN/DPX-7 (C/A A3P7) P/N 3G9A03P00701.
- 3.24 With reference to Figures 10 thru 12 lay down the following cable assemblies on the existing routes unless otherwise indicated on the figures:
 - 3G9A03B26101 IFF BAE AN/DPX-7 C/A (A3B261)
 - 3G9A03B26201 IFF BAE AN/DPX-7 C/A (A3B262)
 - 3G9A03B26301 IFF BAE AN/DPX-7 C/A (A3B263)
- 3.25 With reference to Figures 10 thru 12, secure the cable assemblies laid down at the previous step by means of existing hardware and lacing cords.
- 3.26 With reference to Figure 11 View looking nose RH side and Figure 12 Detail H, install the plate splitter P/N 3G5316A89951 by means of n°2 screws P/N NAS1802-08-6 and n°2 washers P/N NAS1149DN832J.
- 3.27 With reference to Figure 11 View looking nose RH side and Figure 12 Detail H, install the splitter (CP91) P/N 7-397-3-3 by means of n°2 screws P/N NAS5312V3A10, n°2 washers P/N NAS1149D0332J and n°2 nut P/N MS21043-3.
- 3.28 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 11 View looking nose RH side and Figure 12 Detail H, install the decal

P/N ED300CP91 in an adjacent area to the splitter CP91.

- 3.29 With reference to Figure 12 View C, disconnect the connectors from the coax relay assembly P/N A151A001.
- 3.30 With reference to Figure 12 View C, remove n°4 screws P/N MS24693-S2 and install the plate P/N 3G5315A30352 by means of n°4 screws MS24693-S4 and n°4 spacers P/N NAS43DD3-12N.
- 3.31 With reference to Figure 12 View C, relocate all the connectors in the correct positions on the coax relay assembly P/N A151A001.
- 3.32 With reference to Figure 12 View D, re-locate as shown the click bond P/N A388A3E08C75 on route A2B1 C/A by means of existing hardware.

NOTE

The following steps 3.33 and 3.34 are applicable only to the helicopters S/N 41801 and S/N 41802.

- 3.33 With reference to Figure 12 View C, remove the relay P/N TDH8070-1001P from the bracket.
- 3.34 With reference to Figure 12 View C, install the relay P/N A647A01 in the same position on the bracket.

NOTE

The following steps from 3.35 and 3.36 are applicable only for helicopters S/N 41801 thru S/N 41804.

- 3.35 With reference to Figure 25 Wiring diagram, Figure 11 View looking nose RH side and Figure 12 Detail H, perform the electrical connection of the C/A A3B261 with the connector P/N 190308 (A727GPS) and with the connector P/N 190309 (CP91P2).

NOTE

Perform the following step 3.36 only if the connector A727GPS is not intended to be connected immediately.

- 3.36 With reference to Figure 11 Detail B, protect and stow the connector A727GPS as described in the following procedure:
 - 3.36.1 Cover with Meta-Aramid Fibre (Nomex) P/N EN6049-006-32-5 the connector.
 - 3.36.2 Use tie straps P/N AW001CK03LC to firmly tie down the Nomex coverage.
 - 3.36.3 Fasten the connector assembly with cable straps.
- 3.37 With reference to Figure 45 Wiring diagram, disconnect the wire marked as S1597B22-G from the pin 75 of the connector A641P1.

- 3.38 With reference to Figure 45 Wiring diagram and Figure 11 View looking nose RH side, install the cap CE1410 on the end of the wire marked as S1597B22-G.
- 3.39 With reference to Figure 11 Detail G, protect and stow the cap CE1410 near the connector A641P1 on A1B1 C/A as described in the following procedure:
 - 3.39.1 Cover with Meta-Aramid Fibre (Nomex) P/N EN6049-006-32-5 the connector.
 - 3.39.2 Use tie straps P/N AW001CK03LC to firmly tie down the Nomex coverage.
 - 3.39.3 Fasten the connector assembly with cable straps.
- 3.40 With reference to Figure 12 View C, remove the relays K399 and K400 and the socket relays K399P1 and K400P1 from the bracket P/N A824A03A-A1.
- 3.41 With reference to Figure 12 View C, remove the bracket P/N A824A03A-A1, n°4 screws P/N MS1802-3-4 and n°4 washers P/N NAS1149D0332J. Retain the hardware for later reuse.
- 3.42 With reference to Figure 12 View C, install the new bracket P/N A825A01A-A1 by means of the hardware removed in the previously step: n°4 screws P/N MS1802-3-4 and n°4 washers P/N NAS1149D0332J.
- 3.43 With reference to Figure 12 View C, re-install the relays K399 and K400 and the socket relays K399P1 and K400P1 in the same positions on the new bracket P/N A825A01A-A1.

NOTE

The following steps from 3.44 thru 3.49 are applicable
only for helicopters S/N 41801 thru S/N 41804.

- 3.44 With reference to Figure 25 Wiring diagram, connect the connector A727GPS with the GPS applique A727.
- 3.45 With reference to Figure 25 Wiring diagram, connect the connector CP91P2 to the splitter CP91.
- 3.46 With reference to Figure 25 Wiring diagram, Figure 11 View looking nose RH side and Figure 12 Detail H, perform the electrical connection of the C/A A3B262 with the connector P/N P22R1B (A2-9P2) and with the connector P/N 190809 (CP91P3).
- 3.47 With reference to Figure 25 Wiring diagram, connect the connector A2-9P2 to the MAU 2 (A2) and the connector CP91P3 to the splitter CP91.
- 3.48 With reference to Figure 25 Wiring diagram, Figure 11 View looking nose RH side and Figure 12 Detail H, perform the electrical connection of the C/A A3B263 with the connector P/N 190309 (CP91P1) and with the connector P/N 190309 (P168).

- 3.49 With reference to Figure 25 Wiring diagram, connect the connector CP91P1 to the splitter CP91 and the connector P168 to the connector J168.
4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
 5. Return the helicopter to flight configuration and record for compliance with Part IV of this Service Bulletin on the helicopter logbook.
 6. 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".

PART V

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 39 thru 41 and Figures 51 thru 54, gain access to the area affected by the installation and perform the structural provision P/N 3G5311A34811 as described in the following procedure:

NOTE

Perform steps 2.1 thru 2.16 only for the helicopters
S/N 41801 and S/N 41802.

- 2.1 With reference to Figure 51 View P and Section R-R, remove n°4 screws P/N MS27039-1-05 and n°4 washers P/N NAS1149D0332J from the sequencer support assy P/N 3G5317A30931. Retain n°4 washers for later reuse.
- 2.2 With reference to Figure 51 View P and Section R-R, remove the sequencer support assy P/N 3G5317A30931 from the upper panel assy RH.
- 2.3 With reference to Figure 51 Section R-R, remove and retain n°4 inserts P/N NAS1836-3-13 from the upper panel assy RH. Fill the existing holes by means of the adhesive C397.
- 2.4 With reference to Figure 51 View P and Section R-R, temporarily locate the new sequencer support assy P/N 3G5317A30951 on the upper panel assy RH in accordance with the new dimensions shown and countermark n°4 hole positions.
- 2.5 With reference to Figure 51 View P and Section R-R, drill n°4 holes $\varnothing 11.48 \div 11.61$ on the upper panel assy RH.
- 2.6 With reference to Figure 51 Section R-R, re-install n°4 inserts P/N NAS1836-3-13 on the upper panel assy RH by means of the adhesive C397.
- 2.7 With reference to Figure 51 Section R-R, prepare the shown surface to assure ground contact.
- 2.8 With reference to Figure 51 View P and Section R-R, drill n°4 holes $\varnothing 5.50 \div 5.65$ thru the sequencer support assy P/N 3G5317A30951.
- 2.9 With reference to Figure 51 View P and Section R-R, install the new sequencer support assy P/N 3G5317A30951 on the upper panel assy RH by means of n°4 screws P/N NAS1802-3-6 and n°4 existing washers P/N NAS1149D0332J previously removed at step 2.1.
- 2.10 With reference to Figure 51 View U and Section V-V, remove n°2 screws P/N MS27039-0806 and n°2 washers P/N NAS1149DN832K from the connector

- bracket P/N 3G5317A37951. Retain the hardware for later reuse.
- 2.11 With reference to Figure 51 View U and Section V-V, remove and retain the connector bracket P/N 3G5317A37951 from the frame STA 7200.
 - 2.12 With reference to Figure 51 Section V-V, remove and retain n°2 nut plates P/N MS21069L08 from the frame STA 7200.
 - 2.13 With reference to Figure 51 View U and Section V-V, drill n°2 holes $\text{Ø}4.50\pm 4.65$ thru the frame STA 7200 in accordance with the new dimensions shown.
 - 2.14 With reference to Figure 51 View U and Section V-V, prepare the surface to assure ground contact.
 - 2.15 With reference to Figure 51 Section V-V, re-install n°2 nut plates P/N MS21069L08 on the structure by means of n°4 rivets P/N MS20470AD3-7.
 - 2.16 With reference to Figure 51 View U and Section V-V, re-install the connector bracket P/N 3G5317A37951 in the new position on the structure by means of n°2 screws P/N MS27039-0806 and n°2 washers P/N NAS1149DN832K previously removed at step 2.10.

NOTE

Perform the steps 2.17 and 2.18 only for the helicopters
S/N 41801 thru S/N 41804.

- 2.17 With reference to Figure 52 View AA and View AB, remove n°10 screws P/N NAS1802-08-8 and n°10 washers P/N NAS1149CN832R from the rectangular support assy P/N 3G5317A79631. Retain the hardware for later reuse.
- 2.18 With reference to Figure 52 View AA, remove and retain the rectangular support assy P/N 3G5317A79631 from the rear lower panel P/N 3P5340A43931.

NOTE

Perform the following step only for the helicopters
S/N 41801 and S/N 41802.

- 2.19 With reference to Figure 52 View AB and Schematic Section AE-AE, perform the indicated cut-out thru the rear lower panel P/N 3P5340A43931 in accordance with the dimensions shown. Seal all around the cut-out edges by means of the adhesive C397.

NOTE

Perform the following step only for the helicopters
S/N 41803 and S/N 41804.

- 2.20 With reference to Figure 52 Schematic Section AE-AE, remove n°3 plies of fiberglass C932 from the cut-out edges.

NOTE

Perform the steps 2.21 and 2.22 only for the helicopters
S/N 41801 thru S/N 41804.

- 2.21 With reference to Figure 52 Schematic Section AE-AE, apply n°3 plies of fiberglass C557 on the cut-out edges in accordance with the dimensions shown. Bond the plies by means of the adhesive C193.
- 2.22 With reference to Figure 52 View AA and View AB, re-install the rectangular support assy P/N 3G5317A79631 on the rear lower panel P/N 3P5340A43931 by means of n°10 existing screws P/N NAS1802-08-8 and n°10 existing washers P/N NAS1149CN832R previously removed at step 0.

NOTE

Perform steps 2.23 thru 2.35 only for the helicopters
S/N 41803 and S/N 41804.

- 2.23 With reference to Figure 51 View P and Section R-R, remove n°4 screws P/N NAS1802-3-6 and n°4 washers P/N NAS1149D0332J from the sequencer support assy P/N 3G5317A30951. Retain the hardware for later reuse.
- 2.24 With reference to Figure 51 View P and Section R-R, remove and retain the sequencer support assy P/N 3G5317A30951 from the upper panel assy RH.
- 2.25 With reference to Figure 51 Section R-R, remove and retain n°4 inserts P/N NAS1836-3-13 from the upper panel assy RH. Fill the existing holes by means of the adhesive C397.
- 2.26 With reference to Figure 51 View P and Section R-R, temporarily locate the sequencer support assy P/N 3G5317A30951 on the upper panel assy RH in accordance with the new dimensions shown and countermark n°4 hole positions.
- 2.27 With reference to Figure 51 View P and Section R-R, drill n°4 holes $\varnothing 11.48 \div 11.61$ on the upper panel assy RH.
- 2.28 With reference to Figure 51 Section R-R, re-install n°4 inserts P/N NAS1836-3-13 on the upper panel assy RH by means of the adhesive C397.
- 2.29 With reference to Figure 51 Section R-R, prepare the shown surface to assure ground contact.
- 2.30 With reference to Figure 51 View P and Section R-R, re-install the sequencer support assy P/N 3G5317A30951 on the upper panel assy RH by means of existing n°4 screws P/N NAS1802-3-6 and n°4 existing washers P/N NAS1149D0332J previously removed at step 2.23.
- 2.31 With reference to Figure 40 Section AR-AR, remove existing rivets from the receptacle P/N A350A-R010.

- 2.32 With reference to Figure 40 View C and Section AP-AP, remove and retain the receptacle P/N A350A-R005 and n°4 existing rivets P/N MS20470AD4-5-5 from the support LH P/N 3G3110A05752 and the support P/N 3G5317A88451.
- 2.33 With reference to Figure 40 View C, remove the support P/N 3G5317A88451 and n°5 existing rivets P/N MS20426AD4-6 from the instrument plate P/N 3G3110A00256 and the support LH P/N 3G3110A05752.
- 2.34 With reference to Figure 40 View C, remove the support LH P/N 3G3110A05752.
- 2.35 With reference to Figure 40 View C, Section AF-AF and Section AR-AR, install the new support LH P/N 3G3110A05753 and the new support assy P/N 3G5318A28131 and re-install the receptacle P/N A350A-R005 in the correct order and positions by means of the rivets listed below:
- n°5 rivets P/N A297A04TW02 thru P/N 3G5318A28131 and P/N A350A-R010;
 - n°2 rivets P/N MS20470AD4-6 thru P/N 3G5318A28131, P/N 3G3110A05753 and P/N A350A-R010;
 - n°4 rivets P/N A297A04TW02 thru P/N A350A-R005 and P/N 3G5318A28131;
 - n°4 rivets P/N MS20426AD4-6 thru P/N 3G5318A28131 and P/N 3G3110A00256.

NOTE

Perform steps 2.36 thru 2.47 only for the helicopters
S/N 41801 thru S/N 41804.

- 2.36 With reference to Figure 53 View G, View H and Section J-J, remove and retain n°2 connector bracket assemblies P/N 3G5317A37331, n°4 screws P/N MS27039-08-06 and n°4 washers P/N NAS1149DN832K from the LH and RH upper sheet metal plate.
- 2.37 With reference to Figure 53 View G and View H, prepare the indicated surface to assure ground contact.
- 2.38 With reference to Figure 53 View G, View H and Section J-J, re-install n°2 connector bracket assemblies P/N 3G5317A37331, n°4 screws P/N MS27039-08-06 and n°4 washers P/N NAS1149DN832K in the same position on the LH and RH upper sheet metal plate.
- 2.39 With reference to Figure 54 View K and Section N-N, remove n°4 screws P/N MS27039-1-05 and n°4 washers P/N NAS1149D0332J from the controller support assy P/N 3G5315A21736. Retain hardware for later reuse.
- 2.40 With reference to Figure 54 View K, remove the controller support assy P/N 3G5315A21736 from the RH panel assy P/N 3G5315A49131.
- 2.41 With reference to Figure 54 View K, temporarily locate the programmer support

- assy P/N 3G5318A13131 on the RH panel assy P/N 3G5315A49131 and countermark n°4 hole positions in accordance with the dimensions shown.
- 2.42 With reference to Figure 54 View K and Section N-N, drill n°4 holes $\varnothing 4.90 \div 5.05$ thru the programmer support assy P/N 3G5318A13131. Prepare the indicated surface to assure ground contact
 - 2.43 With reference to Figure 54 View K and Section N-N, install the programmer support assy P/N 3G5318A13131 on the RH panel assy P/N 3G5315A49131 by means of n°4 screws P/N MS27039-1-05 and n°4 washers P/N NAS1149D0332J previously removed at step 2.39.
 - 2.44 With reference to Figure 41 View AN, drill n°2 holes $\varnothing 5.74 \div 5.86$ thru the structure in accordance with the dimensions shown.
 - 2.45 With reference to Figure 41 View AN, install n°2 nut plates P/N MS21069L06 by means of n°4 rivets P/N NAS1399C3-3 in accordance with the dimensions shown.
 - 2.46 With reference to Figure 41 View AS, rework the existing hole. Protect the reworked surface and prepare to assure a ground contact in accordance with the dimensions shown.
 - 2.47 With reference to Figure 41 View S and Section T-T, remove the connector support P/N A414A02V209E1, n°2 screws NAS1802-3-6 and n°2 washers P/N NAS1149D0332J from the LH lower panel assy. Fill the empty insert holes by means of the adhesive C397.

NOTE

Perform the steps 2.48 and 2.49 only for the helicopters
S/N 41805 and S/N 41806.

- 2.48 With reference to Figure 39 Detail AL and Section AM-AM, remove n°4 existing inserts P/N NAS1836-3-07 from the panel.
 - 2.49 With reference to Figure 39 Detail AL and Section AM-AM, fill n°4 existing holes by means of adhesive C397.
3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 13 thru 16, Figures 26 thru 36 and Figure 43 Wiring diagrams, gain access to the area affected by the installation and perform the electrical installation P/N 3G9350A08011 as described in the following procedure:
 - 3.1 With reference to Figure 43, remove the C/A A1P206.

NOTE

With reference to the following step and to Figure 34, it is recommended to use AWG14 cable for the most of the route, being sure that junctions are as closest as possible to the extremity.

- 3.2 With reference to Figure 26, Figure 27, Figure 30, Figure 31 and Figure 34 Wiring diagrams, modify the C/A C1B339 as described in the following procedure:
 - 3.2.1 With reference to Figure 14 “View Looking Cockpit and Interseat Console Zone”, replace the splice SP21369 and the splice SP21372 in the correct positions on the C/A B1L83.
 - 3.2.2 With reference to Figure 15 “View Inside LH Rear Zone”, and Figure 27 Wiring Diagram, replace the splice SP3656 in the correct position on the C/A C1B339.
 - 3.2.3 With reference to Figure 34 Wiring diagram, assemble the connectors S389P1 by means of the electrical connector P/N MS27473T10B35SA and the backshell P/N A532A100-1002T.
 - 3.2.4 With reference to Figure 34 Wiring diagram, assemble the connectors S389P2 by means of the electrical connector P/N MS27473T10B35S and the backshell P/N A532A100-1002T.
 - 3.2.5 With reference to Figure 30 Wiring diagram, remove the wires marked as A212D16-G, A212E20-G, A212F22-G, A216A22-G, A216B20-G and A216C16-G between the pin AA of the connector P212 and the pin B2 of the connector K396P1.
 - 3.2.6 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between the pin AA of the connector P212 and the pin B2 of the connector K396P1.
 - 3.2.7 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 31 Wiring diagram, crimp on wire the electrical contact P/N M39029/58-364 (P212 side) and the electrical contact P/N A523A-B04 (K396P1 side) by means of proper crimping tool.
 - 3.2.8 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A212D16-G by means of marker sleeve.
 - 3.2.9 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A212D16-G to connector P212 and to connector K396P1.

- 3.2.10 With reference to Figure 30 Wiring diagram, remove the wire marked as A211J14-G between the pin 2 of the splice SP3658 and the pin A1 of the connector K395P1.
- 3.2.11 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between the pin 4 of the connector S389P2 and the pin 1 of the splice SP3766.
- 3.2.12 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 31 Wiring diagram, crimp on wire the electrical contact P/N M39029/57-354 by means of proper crimping tool.
- 3.2.13 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A373A22-G by means of marker sleeve.
- 3.2.14 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A373A22-G to connector S389P2 and to splice SP3766 P/N M81824/1-1.
- 3.2.15 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between the pin 2 of the splice SP3766 and the pin 1 of the splice SP3767.
- 3.2.16 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A373B20-G by means of marker sleeve.
- 3.2.17 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A373B20-G to splice SP3766 and to splice SP3767 P/N M81824/1-2.
- 3.2.18 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and lay down between the pin 2 of the splice SP3767 and the pin 1 of the splice SP3768.
- 3.2.19 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A373C16-G by means of marker sleeve.
- 3.2.20 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A373C16-G to splice SP3767 and to splice SP3768 P/N M81824/1-3.
- 3.2.21 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T14 of adequate length and lay down between the pin 2 of the splice SP3768 and the pin A1 of the connector K395P1.

- 3.2.22 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A373D14-G by means of marker sleeve.
- 3.2.23 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A373D14-G to splice SP3768 and to connector K395P1.
- 3.2.24 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between the pin 7 of the connector S389P1 and the pin 2 of the splice SP3769.
- 3.2.25 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 31 Wiring diagram, crimp on wire the electrical contact P/N M39029/57-354 by means of proper crimping tool.
- 3.2.26 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A211K22-G by means of marker sleeve.
- 3.2.27 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A211K22-G to connector S389P1 and to splice SP3769 P/N M81824/1-1.
- 3.2.28 With reference to Figure 31 Wiring diagram, cut n°1 wire P/N A556A-T20 of adequate length and lay down between the pin 1 of the splice SP3769 and the pin 2 of the splice SP3658.
- 3.2.29 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 31 Wiring diagram, mark the wire as A211J20-G by means of marker sleeve.
- 3.2.30 With reference to Figure 31 Wiring diagram, perform the electrical connection of the wire marked as A211J20-G to splice SP3769 and to splice SP3658 P/N M81824/1-2.
- 3.2.31 With reference to Figure 26 and Figure 27 Wiring diagrams disconnect the wire marked as A204B16-G from the pin 1 of the splice SP3649 and connect to the pin 1 of the splice SP3770 P/N M81824/1-2.
- 3.2.32 With reference to Figure 27 Wiring diagram, cut n°1 wire P/N A561A-T1-20 of adequate length and lay down between splice SP3770 and splice SP3649.
- 3.2.33 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 27 Wiring diagram, mark the wire as A204D20-G by means of marker sleeve.

- 3.2.34 With reference to Figure 27 Wiring diagram, perform the electrical connection of the wire marked as A204D20-G to splice SP3770 and splice SP3649 P/N M81824/1-1.
- 3.2.35 With reference to Figures 26 and 27 Wiring diagram, disconnect the wires marked as A204C22-G from the pin 35 and A204D22-G from the pin 54 of the connector A651P3.
- 3.2.36 With reference to Figure 34 Wiring diagram, perform the electrical connection of the wire marked as A204C22-G to the pin 5 of the connector S389P1.
- 3.2.37 With reference to Figure 34 Wiring diagram, cut n°1 wire P/N A561A-T1-22 of adequate length and lay down between connector S389P2 and splice SP3755 P/N M81824/1-2.
- 3.2.38 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 34 Wiring diagram, crimp on the wire the electrical contacts P/N M39029/57-354 by means of proper crimping tool.
- 3.2.39 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 34 Wiring diagram, mark the wire as A350A22-G by means of marker sleeve.
- 3.2.40 With reference to Figure 34 Wiring diagram, perform the electrical connection of the wire as A350A22-G to connector S389P2 and to splice SP3755.
- 3.2.41 With reference to Figure 34 Wiring diagram, cut n°1 wire P/N A561A-T1-20 of adequate length and lay down between splice SP3755 and splice SP3771 P/N M81824/1-2.
- 3.2.42 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 34 Wiring diagram, mark the wire as A350H20-G by means of marker sleeve.
- 3.2.43 With reference to Figure 34 Wiring diagram, perform the electrical connection of wire marked as A350H20-G to splice SP3755 and to splice SP3771.
- 3.2.44 With reference to Figure 34 Wiring diagram, cut n°1 wire P/N A561A-T1-16 of adequate length and lay down between splice SP3771 and splice SP3756 P/N M81824/1-3.
- 3.2.45 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 34 Wiring diagram, mark the wire as A350C16-G by means of marker sleeve.

- 3.2.46 With reference to Figure 34 Wiring diagram, perform the electrical connection of the wire marked as A350C16-G to splice SP3771 and to splice SP3756.
- 3.2.47 With reference to Figure 34 Wiring diagram, cut n°1 wire P/N A561A-T1-14 of adequate length and lay down between splice SP3756 and splice SP3757 P/N M81824/1-3.
- 3.2.48 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 34 Wiring diagram, mark the wire as A350D14-G by means of marker sleeve.
- 3.2.49 With reference to Figure 34 Wiring diagram, perform the electrical connection of wire marked as A350D14-G to splice SP3756 and to splice SP3757.
- 3.2.50 With reference to Figure 34 Wiring diagram, cut n°1 wire P/N A561A-T1-16 of adequate length and lay down between splice SP3757 and splice SP3758 P/N M81824/1-2.
- 3.2.51 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 34 Wiring diagram, mark the wire as A350E16-G by means of marker sleeve.
- 3.2.52 With reference to Figure 34 Wiring diagram, perform the electrical connection of wires marked as A350E16-G to splice SP3757 and splice SP3758.
- 3.2.53 With reference to Figure 34 Wiring diagram, cut n°2 wire P/N A561A-T1-22 of adequate length and lay down between splice SP3758 and pin 35 and pin 54 of connector A651P3.
- 3.2.54 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 34 Wiring diagram, crimp on the wires the electrical contacts P/N M39029/57-354 (A651P3 side) by means of proper crimping tool.
- 3.2.55 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 34 Wiring diagram, mark the wires as A350F22-G and A350G22- G by means of marker sleeve.
- 3.2.56 With reference to Figure 34 Wiring diagram perform the electrical connection of the wires marked as A350F22-G and A350G22-G to splice SP3758 and connector A651P3.
- 3.2.57 With reference to Figure 27, Figure 31 and Figure 34 Wiring diagram, install n°8 insulation sleeving P/N M23053/8-004-C on the C/A.

3.3 With reference to Figure 32 and Figure 33 Wiring diagrams, modify the

C/A A1B604 and the C/A A1A651 as described in the following procedure:

NOTE

The following steps from 3.3.1 thru 3.3.7 are applicable only for helicopters S/N 41805 and S/N 41806.

- 3.3.1 With reference to Figure 32 Wiring diagram, remove the wire marked as A311B22-G between the pin 49 of the connector PL215P1 and the pin 1 of the splice SP10656.
- 3.3.2 With reference to Figure 32 Wiring diagram, remove the wire marked as A311A22-G between the pin K of the connector TB136-4 and the pin 2 of the splice SP10656.
- 3.3.3 With reference to Figure 32 Wiring diagram, remove the wire marked as A311C22-G between the connector PL214P1 and the splice SP10656.
- 3.3.4 With reference to Figure 32 Wiring diagram, remove the wire marked as A312A22N-G between the pin 64 of the connector PL215P1 and the pin G of the connector TB183.
- 3.3.5 With reference to Figure 32 Wiring diagram, remove the wires marked as A313A22-G and the wire marked as A313B22-G between the pin 43 and the pin 50 of the connector PL215P1 and the pin 1 of the splice SP10502.
- 3.3.6 With reference to Figure 32 Wiring diagram, remove the wire marked as A314A22-G between the pin 51 of the connector PL215P1 and the pin 2 of the splice SP10502.
- 3.3.7 With reference to Figure 32 Wiring diagram, remove the wire marked as A313C22N-G between the pin F of the connector TB183 and the pin 2 of the splice SP10502.

NOTE

The following steps from 3.3.8 thru 3.3.12 are applicable only for helicopters from S/N 41801 thru S/N 41804.

- 3.3.8 With reference to Figure 46 Wiring diagram, remove the wire marked as A311A22-G between the pin K of the connector TB136-4 and the pin 49 of the connector PL215P1.
- 3.3.9 With reference to Figure 46 Wiring diagram, remove the wire marked as A312A22N-G between the pin 64 of the connector PL215P1 and the pin G of the connector TB183.
- 3.3.10 With reference to Figure 46 Wiring diagram, remove the wires marked as A313A22-G and the wire marked as A313B22-G between the pin 43

- and the pin 50 of the connector PL215P1 and the pin 1 of the splice SP10502.
- 3.3.11 With reference to Figure 46 Wiring diagram, remove the wire marked as A314A22-G between the pin 51 of the connector PL215P1 and the pin 2 of the splice SP10502.
 - 3.3.12 With reference to Figure 46 Wiring diagram, remove the wire marked as A313C22N-G between the pin F of the connector TB183 and the pin 2 of the splice SP10502.
 - 3.3.13 With reference to Figure 33 wiring diagram, cut n°2 wire P/N A556A-T22 of adequate length and lay down between connector PL215P1 and splice SP10693 P/N M81824/1-1.
 - 3.3.14 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 33 Wiring diagram, crimp on the wires the electrical contacts P/N M39029/56-348 (PL215P1 side) by means of proper crimping tool.
 - 3.3.15 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 33 Wiring diagram, mark the wire as A351A22-G and A351B22-G by means of marker sleeve.
 - 3.3.16 With reference to Figure 33 Wiring diagram perform the electrical connection of the wires marked as A351A22-G and A351B22-G to splice SP10693 and connector PL215P1.
 - 3.3.17 With reference to Figure 33 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin G of the connector TB183 and the splice SP10693.
 - 3.3.18 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 33 Wiring diagram, crimp on the wire the electrical contact P/N A523A-A01 (TB183 side) by means of proper crimping tool.
 - 3.3.19 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 33 Wiring diagram, mark the wire as A351C22N-G by means of marker sleeve.
 - 3.3.20 With reference to Figure 33 Wiring diagram, perform the electrical connection of the wires marked as A351C22N-G to the splice SP10693 and connector PL215P1.
- 3.4 With reference to Figure 28, Figure 29 and Figure 35 Wiring diagrams, modify the C/A A1B604 and the C/A A1A651 as described in the following procedure:
- 3.4.1 With reference to Figure 35 Wiring diagram, assemble the connector K455P1 by means of the socket P/N A649A02.

- 3.4.2 With reference to Figure 35 Wiring diagram, assemble the connector K456P1 by means of the socket P/N A649A02.
- 3.4.3 With reference to Figure 35 Wiring diagram, assemble the connector PL214P1 by means of the connector P/N MS27473T14B15S and backshell P/N A532A100-1402T.
- 3.4.4 With reference to Figure 14 "View Looking Cockpit and Interseat Console Zone", replace the splice SP10513 in the correct position on the C/A A1B604.
- 3.4.5 With reference to Figure 28 and Figure 29 Wiring diagram, disconnect the wire marked as A209C22-G from the pin F of the connector PL214P1 and connect it to the pin 2 of the splice SP10692 P/N M81824/1-1.
- 3.4.6 With reference to Figure 29 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector PL214P1 and the pin 1 of splice SP10692.
- 3.4.7 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 29 Wiring diagram, crimp on the wire the electrical contact P/N M39029/57-357 (PL214P1 side) by means of proper crimping tool.
- 3.4.8 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 29 Wiring diagram, mark the wire as A209D22-G by means of marker sleeve.
- 3.4.9 With reference to Figure 29 Wiring diagram, perform the electrical connection of the wire marked as A209D22-G to the splice SP10692 and the connector PL214P1.
- 3.4.10 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 2 of splice SP10692 and pin 2 of splice SP10694 P/N M81824/1-1.
- 3.4.11 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A209F22-G by means of marker sleeve.
- 3.4.12 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A209F22-G to splice SP10692 and splice SP10694.
- 3.4.13 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin X1 of connector K455P1 and pin 2 of splice SP10692.

- 3.4.14 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-B02 (K455P1 side) by means of proper crimping tool.
- 3.4.15 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A209E22-G by means of marker sleeve.
- 3.4.16 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A209E22-G to the splice SP10692 and the connector K455P1.
- 3.4.17 With reference to Figure 35 Wiring diagram, cut n°2 wire P/N A556A-T22 of adequate length and lay down between pin A3 and pin X1 of connector K456P1 and pin 2 of splice SP10694.
- 3.4.18 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contact P/N A523A-B02 (K456P1 side) by means of proper crimping tool.
- 3.4.19 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wires as A209H22-G and A209G22-G by means of marker sleeve.
- 3.4.20 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wires marked as A209H22-G and A209G22-G to the splice SP10694 and the connector K456P1.
- 3.4.21 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A561A-T1-22 of adequate length and lay down between pin A3 of connector K455P1 and pin B2 of connector K456P1.
- 3.4.22 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contact P/N A523A-B02 by means of proper crimping tool.
- 3.4.23 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A353A22-G by means of marker sleeve.
- 3.4.24 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A353A22-G to the connector K455P1 and the connector K456P1.

- 3.4.25 With reference to Figure 35 Wiring diagram, cut n°1 wires P/N A556A-T22 of adequate length and lay down between pin B3 of connector K455P1 and pin B2 of connector K456P1.
- 3.4.26 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contact P/N A523A-B02 by means of proper crimping tool.
- 3.4.27 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A354A22-G by means of marker sleeve.
- 3.4.28 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A354A22-G to the connector K455P1 and the connector K456P1.
- 3.4.29 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin C3 of connector K455P1 and pin T of connector PL19P1.
- 3.4.30 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N A523A-B02 (K455P1 side) and P/N M39029/56-351 (PL19P1 side) by means of proper crimping tool.
- 3.4.31 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A355A22-G by means of marker sleeve.
- 3.4.32 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A355A22-G to the connector K455P1 and the connector PL19P1.
- 3.4.33 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A561A-T1-22 of adequate length and lay down between pin A2 of connector K456P1 and pin C of connector PL214P1.
- 3.4.34 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-B02 (K456P1 side) and n°1 electrical contact P/N M39029/57-357 (PL214P1 side) by means of proper crimping tool.
- 3.4.35 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A352A22-G by means of marker sleeve.

- 3.4.36 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A352A22-G to the connector K456P1 and the connector PL214P1.
- 3.4.37 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A561A-T1-22 of adequate length and lay down between pin A2 of connector K455P1 and pin 49 of connector PL215P1.
- 3.4.38 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N A523A-B02 (K455P1 side) and P/N M39029/56-348 (PL215P1 side) by means of proper crimping tool.
- 3.4.39 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A364A22-G by means of marker sleeve.
- 3.4.40 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A364A22-G to the connector K455P1 and the connector PL215P1.
- 3.4.41 With reference to Figure 35 Wiring diagram, cut n°2 wire P/N A556A-T22 of adequate length and lay down between pin B2 and pin C2 of connector K455P1 and pin 50 pin 43 of connector PL215P1.
- 3.4.42 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N A523A-B02 (K455P1 side) and n°2 electrical contacts P/N M39029/56-348 (PL215P1 side) by means of proper crimping tool.
- 3.4.43 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A363A22-G and A362A22-G by means of marker sleeve.
- 3.4.44 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A363A22-G and A362A22-G to the connector K455P1 and the connector PL215P1.
- 3.4.45 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin X2 of connector K455P1 and diode CR1302 P/N AW001YD03.
- 3.4.46 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N A523A-B02 (A360A22-G side) and P/N A523A-A02 (CR1302 side) by means of proper crimping tool.

- 3.4.47 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A360A22-G by means of marker sleeve.
- 3.4.48 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A360A22-G to the connector K455P1 and diode CR1302.
- 3.4.49 With reference to Figure 35 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin k of diode CR1302 and pin 42 of connector P111.
- 3.4.50 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/58-360 (P111 side) and P/N A523A-A02 (CR1302 side) by means of proper crimping tool.
- 3.4.51 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A361A22-G by means of marker sleeve.
- 3.4.52 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A361A22-G to diode CR1302 and connector P111.
- 3.4.53 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 42 of connector J111 and pin A of connector TB143-2.
- 3.4.54 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/56-348 (J111 side) and P/N A523A-A01 (TB143-2 side) by means of proper crimping tool.
- 3.4.55 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A361B22-G by means of marker sleeve.
- 3.4.56 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A361B22-G to connector J111 connector TB143-2.
- 3.4.57 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin B1 of connector K456P1 and pin 43 of connector P111.
- 3.4.58 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical

- contacts P/N A523A-B02 (K456P1 side) and P/N M39029/58-360 (P111 side) by means of proper crimping tool.
- 3.4.59 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A359A22-G by means of marker sleeve.
- 3.4.60 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A359A22-G to connector K456P1 and connector P111.
- 3.4.61 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 43 of connector J111 and pin H of connector TB183.
- 3.4.62 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/56-348 (J111 side) and P/N A523A-A01 (TB183 side) by means of proper crimping tool.
- 3.4.63 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A359B22N-G by means of marker sleeve.
- 3.4.64 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A359B22N-G to connector J111 and connector TB183.
- 3.4.65 With reference to Figure 35 wiring diagram, cut n°2 wire P/N A561A-T1-22 of adequate length and lay down between pin C1 and A1 of connector K456P1 and pin 1 of splice SP10656 P/N M81824/1-1.
- 3.4.66 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contact P/N A523A-B02 (K456P1 side) by means of proper crimping tool.
- 3.4.67 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wires as A358B22-G and A358C22-G by means of marker sleeve.
- 3.4.68 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wires marked as A358B22-G and A358C22-G to connector K456P1 and splice SP10656.
- 3.4.69 With reference to Figure 35 wiring diagram, cut n°1 wire P/N A561AT1-22 of adequate length and lay down between pin K of connector TB136-4 and pin 2 of splice SP10656.

- 3.4.70 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire the electrical contact P/N A523A-A01 (TB136-4 side) by means of proper crimping tool.
- 3.4.71 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A358A22-G by means of marker sleeve.
- 3.4.72 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A358A22-G to connector TB136-4 and splice SP10656.
- 3.4.73 With reference to Figure 35 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin X2 of connector K456P1 and pin a of diode CR1304 P/N AW001YD03.
- 3.4.74 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N A523A-B02 (K456P1 side) and P/N A523A-A02 (CR1304 side) by means of proper crimping tool.
- 3.4.75 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A356A22-G by means of marker sleeve.
- 3.4.76 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A356A22-G to connector K456P1 and diode CR1304.
- 3.4.77 With reference to Figure 35 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 44 of connector P111 and pin k of diode CR1304.
- 3.4.78 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°2 electrical contacts P/N M39029/58-360 (P111 side) and P/N A523A-A02 (CR1304 side) by means of proper crimping tool.
- 3.4.79 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A357A22-G by means of marker sleeve.
- 3.4.80 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A357A22-G to connector P111 and diode CR1304.

- 3.4.81 With reference to Figure 35 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 44 of connector J111 and the pin 1 of splice SP10695 P/N M81824/1-1.
- 3.4.82 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-348 (J111 side) by means of proper crimping tool.
- 3.4.83 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A357B22-G by means of marker sleeve.
- 3.4.84 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A357B22-G to connector J111 and splice SP10695.
- 3.4.85 With reference to Figure 35 Wiring diagram (WAS), remove the wire L2303B24-G from the pin J of connector TB129-4 and the pin D of the connector PL19P1.
- 3.4.86 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin J of connector TB129-4 and pin 1 of the splice SP10695.
- 3.4.87 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A01 (TB129-4 side) by means of proper crimping tool.
- 3.4.88 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A357C22-G by means of marker sleeve.
- 3.4.89 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A357C22-G to connector TB129-4 and splice SP10695.
- 3.4.90 With reference to Figure 35 wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin D of connector PL19P1 and pin 2 of splice SP10695.
- 3.4.91 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-351 (PL19P1 side) by means of proper crimping tool.

- 3.4.92 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A357D22-G by means of marker sleeve.
- 3.4.93 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A357D22-G to connector PL19P1 and splice SP10695.
- 3.4.94 With reference to Figure 35 Wiring diagram (WAS), remove the wire L27A22N-G from the pin t of connector TB128P1 and the pin R of the connector PL19P2.
- 3.4.95 With reference to Figure 35 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin j of connector PL19P2 and pin F of connector TB183.
- 3.4.96 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 35 Wiring diagram, crimp on wire the electrical contact P/N M39029/56-351 (PL19P2 side) and the electrical contact P/N A523A-A01 (TB183 side) by means of proper crimping tool.
- 3.4.97 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 35 Wiring diagram, mark the wire as A359A22N-G by means of marker sleeve.
- 3.4.98 With reference to Figure 35 Wiring diagram, perform the electrical connection of the wire marked as A359A22N-G to connector PL19P2 and splice TB183.
- 3.5 With reference to Figure 36 and Figure 37 Wiring diagrams, modify the C/A A1B604 as described in the following procedure:
 - 3.5.1 With reference to Figure 37 Wiring diagram, assemble n°2 connectors K457P1 by means of the connectors P/N M12883/52-001.
 - 3.5.2 With reference to Figure 37 Wiring diagram cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin X2 of connector K457P1 and pin A of diode CR1320 P/N AW001YD03.
 - 3.5.3 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/101-553 (K457P1 side) and n°1 electrical contact P/N A523A-A02 (CR1320 side) by means of proper crimping tool.
 - 3.5.4 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wire as A370A22-G by means of marker sleeve.

- 3.5.5 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A370A22-G to connector K457P1 and to diode CR1320.
- 3.5.6 With reference to Figure 37 Wiring diagram cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin K of diode CR1320 and pin 2 of splice SP1452 P/N M81824/1-1.
- 3.5.7 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A02 (CR1320 side) by means of proper crimping tool.
- 3.5.8 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wire as A344E22-G by means of marker sleeve.
- 3.5.9 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A344E22-G to connector diode CR1320 and to splice SP1452.
- 3.5.10 With reference to Figure 36 and Figure 37 Wiring diagram, disconnect the wire marked as A344C22-G from splice SP10509 and from connector PL163P1.
- 3.5.11 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A02 (CR1324 side) by means of proper crimping tool.
- 3.5.12 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A344C22-G to the pin 1 of the splice SP1452 and to the pin K of the diode CR1324 P/N AW001YD03.
- 3.5.13 With reference to Figure 37 Wiring diagram cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 9 of the connector PL163P1 and pin a of the diode CR1324.
- 3.5.14 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-348 (PL163P1 side) and n°1 electrical contact P/N A523A-A02 (CR1324 side) by means of proper crimping tool.
- 3.5.15 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wire as A372A22-G by means of marker sleeve.

- 3.5.16 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A372A22-G to diode CR1324 and to connector PL163P1 SP1452.
- 3.5.17 With reference to Figure 37 Wiring diagram cut n°2 wires P/N A556A-T22 of adequate length and lay down between pin A1 and X1 of connector K457P1 and pin 1 of splice SP1453 P/N M81824/1-1.
- 3.5.18 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wires n°2 electrical contact P/N M39029/101-553 (K457P1 side) by means of proper crimping tool.
- 3.5.19 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wires as A344G22-G and A344H22-G by means of marker sleeve.
- 3.5.20 With reference to Figure 37 Wiring diagram, perform the electrical connection of wires marked A344G22-G and A344H22-G to connector K457P1 and splice SP1453.
- 3.5.21 With reference to Figure 37 Wiring diagram cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 1 of splice SP10694 P/N M81824/1-1 and pin 2 of splice SP1453 P/N M81824/1-1.
- 3.5.22 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wire as A344I22-G by means of marker sleeve.
- 3.5.23 With reference to Figure 37 Wiring diagram, perform the electrical connection of wires marked A344I22-G to connector SP10694 and splice SP1453.
- 3.5.24 With reference to Figure 37 Wiring diagram cut n°1 wires P/N A556A-T22 of adequate length and lay down between pin A2 of connector K457P1 and pin 31 of connector PL215P1.
- 3.5.25 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wires n°2 electrical contact P/N M39029/101-553 (K457P1 side) and P/N M39029/56-348 (PL215P1 side) by means of proper crimping tool.
- 3.5.26 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wires as A344F22-G by means of marker sleeve.

- 3.5.27 With reference to Figure 37 Wiring diagram, perform the electrical connection of wires marked A344F22-G to connector K457P1 and connector PL215P1.
- 3.5.28 With reference to Figure 36 and Figure 37 Wiring diagram, disconnect the wire marked as A344A22-G from the connector PL214P1.
- 3.5.29 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A02 (CR1322 side) by means of proper crimping tool.
- 3.5.30 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A344A22-G to the pin K of the diode CR1322 P/N AW001YD03.
- 3.5.31 With reference to Figure 37 Wiring diagram cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin A of connector PL214P1 and pin A of diode CR1322 P/N AW001YD03.
- 3.5.32 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 37 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/101-553 (PL214P1 side) and n°1 electrical contact P/N A523A-A02 (CR1322 side) by means of proper crimping tool.
- 3.5.33 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wire as A371A22-G by means of marker sleeve.
- 3.5.34 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A371A22-G to connector PL214P1 and to diode CR1322.
- 3.5.35 With reference to Figure 37 Wiring diagram cut n°1 wire P/N A556A-T22 of adequate length and lay down between pin 1 of splice SP10509 and pin 2 of splice SP1452.
- 3.5.36 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 37 Wiring diagram, mark the wire as A344D22-G by means of marker sleeve.
- 3.5.37 With reference to Figure 37 Wiring diagram, perform the electrical connection of wire marked A344D22-G to splice SP10509 and to splice SP1452.
- 3.5.38 With reference to Figure 37 Wiring diagram, install n°1 insulation sleeving P/N M23053/8-004-C on the C/A.

NOTE

The following step 3.6 is applicable only for helicopters from S/N 41801 thru S/N 41804.

- 3.6 With reference to Figure 47 and Figure 48 Wiring diagrams, modify the C/A B2B727 and C/A B2L57 as described in the following procedure:
 - 3.6.1 With reference to Figure 47 and Figure 48 Wiring diagrams disconnect the wire marked as A320H22-S from the pin M of the connector P251 and connect to the pin HH of the connector P251.
 - 3.6.2 With reference to Figure 47 and Figure 48 Wiring diagrams disconnect the wire marked as A321H22-S from the pin L of the connector P251 and connect to the pin JJ of the connector P251.
 - 3.6.3 With reference to Figure 47 and Figure 48 Wiring diagrams disconnect the wire marked as A320J22-S from the pin M of the connector J251 and connect to the pin H of the connector J251.
 - 3.6.4 With reference to Figure 47 and Figure 48 Wiring diagrams disconnect the wire marked as A321J22-S from the pin L of the connector J251 and connect to the pin J of the connector J251.
- 3.7 With reference to Figure 49 and Figure 50 Wiring diagrams, modify the C/A A1B604 as described in the following procedure:
 - 3.7.1 With reference to Figure 49 and Figure 50 Wiring diagrams disconnect the wire marked as A210A20-G from the pin B of the connector PL214P1 and connect to the pin D of the connector PL214P1.
 - 3.7.2 With reference to Figure 49 and Figure 50 Wiring diagrams disconnect the wire marked as A211A20-G from the pin D of the connector PL214P1 and connect to the pin B of the connector PL214P1.
- 3.8 With reference to Figure 13 View looking cockpit area from right side and View V, install n°2 relays P/N A649A01 and the relay P/N M83536/2-028M.
- 3.9 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 13 View looking cockpit area from right side and View V, install the decals P/N ED300K455, P/N ED300K456 and P/N ED300K457 in an adjacent area.
- 3.10 With reference to Figure 16 View looking rear LH side, install the cable lightning conductor assy P/N A537A01AA04-0240 by means of n°1 washer NAS1149D0416J and n°1 screw P/N NAS1802-4-9.
- 3.11 With reference to Figure 16 View looking rear LH side, connect the cable lightning conductor assy to the dummy connector.
- 3.12 With reference to Figure 16 View looking rear RH side, install the cable lightning conductor assy P/N A537A01AA04-0240 by means of n°1 washer

NAS1149D0416J and n°1 screw P/N NAS1802-4-9.

- 3.13 With reference to Figure 16 View looking rear RH side, connect the cable lightning conductor assy to the dummy connector.

NOTE

The following steps from 3.14 thru 3.15 are applicable
only for helicopter to S/N 41801 thru S/N 41804.

- 3.14 With reference to Figure 44 View looking tail from cockpit of inspection, install n°2 bonding cable assy P/N A601A4B40 by means n°2 screw P/N NAS1802-3-8, n°4 washer P/N NAS1149D0332J and n°2 nut P/N MS21042L3.
- 3.15 With reference to Figure 44 View looking vertical tail, connect n°2 bonding cable assy P/N A601A4B40 to the ground stud P/N A363A01.

NOTE

The following steps from 3.16 thru 3.18 are applicable
only for helicopter S/N 41801.

- 3.16 With reference to Figure 44 View looking tail LH side, remove n°5 clamp P/N AW001CB06H and install n°5 clamp P/N AW001CB04H by means existing hardware.
 - 3.17 With reference to Figure 44 View looking tail LH side, install the clamp P/N AW001CB04H and the spacer P/N NAS43DD3-40N by means the screw P/N NAS1802-3-36.
 - 3.18 With reference to Figure 44 View T, remove n°2 clamps P/N AW001CB09H and install the clamp P/N AW001CB06H and the clamp P/N AW001CB08H by means the washer P/N NAS1149D0332J and the screw P/N NAS1190E3P7AK.
 - 3.19 Perform a functional test and a pin to pin check to make sure that all the installed components, the wires and the connections are efficient.
4. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 55 thru 57, gain access to the area affected by the installation and perform the modification of the chaff and flare structural provision P/N 3G5311A37611 as described in the following procedure:

NOTE

Perform steps 4.1 thru 4.12 only for the helicopter
S/N 41801.

- 4.1 With reference to Figure 57 Detail C Was, remove the bonding layer P/N 3G5318A01951 and n°2 rivets P/N NAS1720C4L1W. Retain the bonding layer for later reuse.
- 4.2 With reference to and Figure 57 Detail C Becomes and Section D-D, perform the

indicated cut-out in accordance with the new dimensions shown.

NOTE

Omit fiberglass on panel surface in contact with bonding layer to assure ground contact.

- 4.3 With reference to Figure 57 Section D-D, seal around cut-out edges by means of adhesive C397 and apply n°1 ply of fiberglass by means of adhesive C231.

NOTE

Prepare panel surface in contact with bonding layer to assure ground contact.

- 4.4 With reference to Figure 55 View A and Figure 57 Detail C Becomes and Section D-D, re-install the bonding layer P/N 3G5318A01951 in position in accordance with the new dimensions shown by means of n°2 rivets P/N NAS1720C4L1W and the adhesive C231.
- 4.5 With reference to Figure 56 View B, install the electrical dummy connector P/N M38999/10-16B on the external doubler P/N 3G5317A97451 in accordance with the dimensions shown by means of n°4 rivets P/N MS20470AD4-4-5.

NOTE

Install on the bottom aft rivet location.

- 4.6 With reference to Figure 55 View A, install the dust cap cover P/N MS27511B16R on the electrical dummy connector P/N M38999/10-16B.
- 4.7 With reference to Figure 56 View B, install the dummy connector P/N A604A08CCR01RC on the structure P/N 3P5340A01233 in accordance with the dimensions shown by means of n°4 rivets P/N A297A04TW02.
- 4.8 With reference to Figure 56 View B and Section E-E, remove n°42 bolts P/N NAS5318E3-2, n°8 nuts P/N MS21042L3 and n°50 washers P/N NAS1149F0332P from the two omega brackets assemblies P/N 3G5317A97331 on the LH side. Retain the nuts and the washers for later reuse.
- 4.9 With reference to Figure 56 View B, prepare the indicated surface to assure ground contact in accordance with the dimensions shown.
- 4.10 With reference to Figure 56 View B and Section F-F, drill the hole $\varnothing 7.42 \div 7.57$ thru the omega bracket assy P/N 3G5317A97331 in accordance with the dimensions shown.
- 4.11 With reference to Figure 56 Section F-F, install the nut plate P/N MS21076L4N on the omega bracket assy P/N 3G5317A97331 by means of n°2 rivets P/N MS20426T3-5.

- 4.12 With reference to Figure 56 View B and Section E-E, re-install the two omega brackets assemblies P/N 3G5317A97331 on the external doubler P/N 3G5317A97451 on the LH side by means of n°42 new bolts NAS5318E3-4 and the existing hardware removed in the previously step 4.8: n°8 nuts P/N MS21042L3 and n°50 washers P/N NAS1149F0332P.

NOTE

Perform steps 4.13 thru 4.17 only for the S/N 41802 thru S/N 41804.

- 4.13 With reference to Figure 56 View B and Section E-E, remove n°21 bolts P/N NAS5318E3-4, n°4 nuts P/N MS21042L3 and n°25 washers P/N NAS1149F0332P from the omega bracket assy P/N 3G5317A97331 on the LH side. Retain hardware for later reuse.
- 4.14 With reference to Figure 56 View B, prepare the indicated surface to assure ground contact in accordance with the dimensions shown.
- 4.15 With reference to Figure 56 View B and Section F-F, drill the hole $\varnothing 7.42 \div 7.57$ thru the omega bracket assy P/N 3G5317A97331 in accordance with the dimensions shown.
- 4.16 With reference to Figure 56 Section F-F, install the nut plate P/N MS21076L4N on the omega bracket assy P/N 3G5317A97331 by means of n°2 rivets P/N MS20426T3-5.
- 4.17 With reference to Figure 56 View B and Section E-E, re-install the omega bracket assy P/N 3G5317A97331 on the external doubler P/N 3G5317A97451 on the LH side by means of existing hardware removed in the previously step 4.13: n°21 bolts P/N NAS5318E3-4, n°4 nuts P/N MS21042L3 and n°25 washers P/N NAS1149F0332P.
- 4.18 With reference to Figure 56 View B, prepare the indicated surface to assure ground contact.
- 4.19 Repeat step from 4.1 to step 4.18 for the RH side.
5. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
6. Return the helicopter to flight configuration and record for compliance with Part V of this Service Bulletin on the helicopter logbook.
7. Send the attached compliance form to the following mail box:

engineering.support.lhd@leonardocompany.com

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

PART VI

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 Figure 65 Wiring Diagram, gain access to the area affected and perform the electrical modification of the TA-24 GPS military C/A P/N 3G9C01A36201.
3. With reference to Figure 65 Wiring Diagram, disconnect and remove the wire marked as “R10822A24N-G” of the C/A C1A362 from the connector A624P2 (pin “32”) and the terminal board TB437 (pin “C”).
4. Return the helicopter to flight configuration and record for compliance with Part VI of this Service Bulletin on the helicopter logbook.
5. 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”.

PART VII

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 58 thru 61, gain access to the area affected and perform the upgrade of the ICS audio customization struct provision P/N 3G5311A35211 as described in the following procedure:
 - 2.1 With reference to Figure 59 Detail E and Section F-F, remove n°4 screws P/N MS27039-08-05 and n°4 washers P/N NAS1149DN816K from the ICS support P/N 3G5315A69652. Retain n°3 screws and n°3 washers for later reuse.
 - 2.2 With reference to Figure 58 View A-A, remove and retain the ICS support P/N 3G5315A69652 with the bonding layer P/N 3G5315A94751 and the ICS annunciator P/N LED-6A-45-KA-40497 from the lower middle panel P/N 3P5333A37231.
 - 2.3 With reference to Figure 59 Section F-F, enlarge and countersink 100° the indicated hole of the ICS support P/N 3G5315A69652 up to Ø 9.0.
 - 2.4 With reference to Figure 59 Detail E and Section F-F, temporarily locate the shim rubber P/N 3G2590A06351 on the ICS support P/N 3G5315A69652 and countermark the hole position.
 - 2.5 With reference to Figure 59 Section F-F, drill the hole Ø10.5 thru the shim rubber P/N 3G2590A06351.
 - 2.6 With reference to Figure 59 Detail E, perform the cut-out of the shim rubber P/N 3G2590A06351 in accordance with the dimensions shown.
 - 2.7 With reference to Figure 59 Section F-F, install the washer P/N NAS1169C8 on the ICS support P/N 3G5315A69652 by means of the adhesive C231.
 - 2.8 With reference to Figure 59 Detail E, install the shim rubber P/N 3G2590A06351 on the ICS support P/N 3G5315A69652 by means of adhesive C111.
 - 2.9 With reference to Figure 58 View A-A and Figure 59 Detail E and Section F-F, re-install the ICS annunciator P/N LED-6A-45-KA-40497 and the ICS support P/N 3G5315A69652 by means of the screw P/N MS24694-C2 and the existing hardware previously removed at step 2.1.

NOTE

Perform steps 2.10 thru 2.14 only for the helicopter
S/N 41801.

- 2.10 With reference to Figure 60 Section B-B, remove and retain n°4 inserts P/N AW007TE-30-109 and n°4 washers P/N AW008TY-06-95 from the upper

panel LH bay.

- 2.11 With reference to Figure 60 Section G-G, fill the existing holes of the upper panel LH bay by means of adhesive C397.
- 2.12 With reference to Figure 60 Section K-K, prepare the surface to assure ground contact in accordance with the new dimensions shown.
- 2.13 With reference to Figure 60 Section B-B and Section G-G, drill n°4 holes $\varnothing 9.50 \div 9.60$ on the upper panel LH bay in accordance with the new dimensions shown.
- 2.14 With reference to Figure 60 Section B-B and Section G-G, re-install n°4 inserts P/N AW007TE-30-109 and n°4 washers P/N AW008TY-06-95 (previously removed at step 2.10) by means of adhesive C397.

NOTE

Perform steps 2.15 thru 2.20 only for the helicopters
S/N 41801 thru S/N 41804.

- 2.15 With reference to Figure 58 Section D-D, remove n°2 nut plates P/N MS21069L08 from the upper sheet metal plate P/N 3P5335AA10751.
 - 2.16 With reference to Figure 61 Section C-C Was, remove and retain n°2 inserts P/N NAS1832-06-3 from the panel.
 - 2.17 With reference to Figure 61 Section C-C Was, fill the existing holes of the panel by means of adhesive C397.
 - 2.18 With reference to Figure 61 Section C-C Becomes and Section H-H, drill n°2 holes $\varnothing 14.25 \div 14.38$ on the panel in accordance with the new dimensions shown.
 - 2.19 With reference to Figure 61 Section C-C Becomes, prepare the indicated surface to assure ground contact.
 - 2.20 With reference to Figure 61 Section B-B Becomes and Section H-H, re-install n°2 inserts P/N NAS1832-06-3 (previously removed at step 2.16) by means of adhesive C397.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
 4. Return the helicopter to flight configuration and record for compliance with Part VII of this Service Bulletin on the helicopter logbook.
 5. 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".

PART VIII

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 62 thru 64, gain access to the area affected and perform the upgrade of the cable cutter installation variant P/N 3G2560P01311 as described in the following procedure:

NOTE

Perform steps 2.1 and 2.2 only for the helicopter
S/N 41801.

- 2.1 With reference to Figure 62 View looking outboard right side, remove the decal P/N A244A550E11.
- 2.2 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 62 View looking outboard right side, install the decal P/N A244A549E11 in the same position.
- 2.3 With reference to Figure 62 View A, get access to the hoist cable cutter Zephyr P/N ZL-1000-1.

NOTE

Perform step 2.4 only for the helicopter S/N 41806.

- 2.4 With reference to Figure 62 View A, remove n°3 screws P/N MS27039-1-10 and n°3 washers P/N NAS1149C0332R from the cable cutter soft cover P/N A001A015-K2C597-1. Retain hardware for later reuse.
- 2.5 With reference to Figure 62 View A, remove and retain the cable cutter soft cover P/N A001A015-K2C597-1.

NOTE

Perform steps 2.6 thru 2.8 only for the helicopters from
S/N 41801 thru S/N 41805.

- 2.6 With reference to Figure 62 View A and Figure 64 Section G-G, temporarily locate the cable cutter soft cover P/N A001A015-K2C597-1 in position on the central beam P/N 3G5333A02852 and countermark n°3 hole positions in accordance with the dimensions shown.
- 2.7 With reference to Figure 64 Section G-G, drill n°3 holes $\text{Ø}4.90 \div 5.05$ thru the cable cutter soft cover P/N A001A015-K2C597-1 and the central beam P/N 3G5333A02852.
- 2.8 With reference to Figure 64 Section G-G, install n°3 nut plates P/N MS21069L3 on the central beam P/N 3G5333A02852 by means of n°6 rivets

P/N MS20426AD3-7.

NOTE

Perform step 2.9 only for the helicopter S/N 41801.

- 2.9 With reference to Figure 62 View A, remove n°2 screws P/N MS27039-1-07 and n°2 washers P/N NAS1149C0332R from the cable cutter soft cover P/N A001A015-K2C597-0. Retain n°1 screw and n°2 washers for later reuse.

NOTE

Perform step 2.10 only for the helicopters from S/N 41802 thru S/N 41806.

- 2.10 With reference to Figure 62 View A, remove n°1 screw P/N MS27039-1-07, n°1 screw P/N MS27039-1-11 and n°2 washers P/N NAS1149C0332R from the cable cutter soft cover P/N A001A015-K2C597-0. Retain hardware for later reuse.
- 2.11 With reference to Figure 62 View A, remove and retain the cable cutter soft cover P/N A001A015-K2C597-0.
- 2.12 With reference to Figure 63 Detail C, remove the two quick-release pins that safety the cable cutter Zephyr P/N ZL-1000-1 to the two lock-springs.
- 2.13 With reference to Figure 63 Detail C, remove and retain the cable cutter Zephyr P/N ZL-1000-1 from the two lock-springs.

NOTE

Perform steps 2.14 thru 2.21 only for the helicopter S/N 41801.

NOTE

Remember to properly clean the surface from adhesive residues.

- 2.14 With reference to Figure 63 Detail C, remove the velcro pile P/N A305A38B2Y650.
- 2.15 With reference to Figure 63 Detail C, install the new velcro pile P/N A305A38B2Y in accordance with the new dimensions shown by means of the adhesive C111.
- 2.16 With reference to Figure 63 Detail F Was, remove and retain for later reuse the insert P/N NAS1832C3-3M. Fill the existing hole by means of adhesive C397.
- 2.17 With reference to Figure 63 Detail B, drill the hole $\varnothing 14.25 \div 14.38$ in accordance with the new dimensions shown.
- 2.18 With reference to Figure 63 Detail B, re-install the insert P/N NAS1832C3-3M in the new position by means of adhesive C397.
- 2.19 With reference to Figure 63 Detail F Was, remove the insert P/N NAS1832C3-3M.

Fill the existing hole by means of adhesive C397.

- 2.20 With reference to Figure 63 Detail B, remove the existing rivet and enlarge the hole up to $\varnothing 5.16 \div 5.28$ in accordance with the new dimensions shown.
- 2.21 With reference to Figure 63 Detail B, install the nut plate P/N MS21069L3 in the same position by means of n°2 rivets P/N MS20426AD3-7.
- 2.22 With reference to Figure 64 Detail D, remove n°4 indicated screws and n°4 indicated washers from the central beam P/N 3G5333A02852. Retain hardware for later reuse.
- 2.23 With reference to Figure 64 Detail D, temporarily locate the omega bracket P/N 3G5318A32651 on the central beam P/N 3G5333A02852.
- 2.24 With reference to Figure 64 Detail D, drill n°4 holes $\varnothing 4.90 \div 5.05$ thru the omega bracket P/N 3G5318A32651 in accordance with the dimensions shown.
- 2.25 With reference to Figure 64 Detail D and Section E-E, install the omega bracket P/N 3G5318A32651 on the central beam P/N 3G5333A02852 by means of n°4 existing screws and n°4 existing washers previously removed at step 2.22.

NOTE

If necessary, for constructions reason the velcro can be trimmed during the installation.

- 2.26 With reference to Figure 64 Detail D and Section E-E, install the Velcro hook SJ3572 on the omega bracket P/N 3G5318A32651 and the Velcro pile SJ3571 on the Zephyr P/N ZL-1000-1 in accordance with the dimensions shown by means of adhesion promoter 86A (C198).
- 2.27 With reference to Figure 62 View A and Figure 63 Detail C, re-install the cable cutter Zephyr P/N ZL-1000-1 in its correct position on the two lock-springs.
- 2.28 With reference to Figure 63 Detail C, re-install the two quick-release pins that safety the cable cutter Zephyr P/N ZL-1000-1 to the two lock-springs.

NOTE

Perform step 2.29 only for the helicopter S/N 41801.

- 2.29 With reference to Figure 62 View A and Figure 63 Detail C, re-install the cable cutter soft cover P/N A001A015-K2C597-0 by means of the screw P/N MS27039-1-11, the existing velcro pile P/N A305A25B2Y160 and the hardware previously removed at step 2.9: the screw P/N MS27039-1-07 and n°2 washers P/N NAS1149C0332R.

NOTE

Perform step 2.30 only for the helicopters from S/N 41802 thru S/N 41806.

- 2.30 With reference to Figure 62 View A and Figure 63 Detail C, re-install the cable cutter soft cover P/N A001A015-K2C597-0 by means of the existing velcro pile P/N A305A25B2Y160 and the hardware previously removed at step 2.10: the screw P/N MS27039-1-07, the screw P/N MS27039-1-11 and n°2 washers P/N NAS1149C0332R.

NOTE

Perform step 2.31 only for the helicopter S/N 41806.

- 2.31 With reference to Figure 62 View A and Figure 63 Detail C, re-install the cable cutter soft cover P/N A001A015-K2C597-1 by means of the velcro pile P/N A305A38B2Y and the hardware previously removed at step 2.4: n°3 screws P/N MS27039-1-10 and n°3 washers P/N NAS1149C0332R.

NOTE

Perform step 2.32 only for the helicopters from S/N 41801 thru S/N 41805.

- 2.32 With reference to Figure 62 View A, Figure 63 Detail C and Figure 64 Section G-G, re-install the cable cutter soft cover P/N A001A015-K2C597-1 by means of the velcro pile P/N A305A38B2Y, n°3 screws P/N MS27039-1-10 and n°3 washers P/N NAS1149C0332R.

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part VIII of this Service Bulletin on the helicopter logbook.
5. 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".

PART IX

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 66 thru 72 and Figures 73 thru 79 Wiring Diagram, gain access to the area affected and perform the misc-crypto panel provision C/A installation P/N 3G4600A14311 as described in the following procedure:
 - 2.1 With reference to Figure 67 and Figure 76 Wiring Diagram (Was and Becomes), perform the modifications of the misc-crypto panel provision C/A (A2B572) P/N 3G9A02B57201 as described in the following procedure:
 - 2.1.1 With reference to Figure 67 Detail B Was and Figure 76 Wiring Diagram (Was), remove n°6 caps CE1263, CE1264, CE1265, CE1266, CE1267, CE1268 from the end of the wires of the C/A A2B572 marked as R11164A22-S (WH and BL), R11165A22-S (WH and BL) and R11166A22-S (WH and BL).
 - 2.1.2 With reference to Figure 76 Wiring Diagram (Becomes), perform the electrical connections of the C/A A2B572 to the connector A752P1 by means of the connector P/N GC329. Apply n°3 insulations sleeving P/N M23053/8-004-C.
 - 2.2 With reference to Figure 76 View looking nose RH side and Detail A, stow and protect the connector A752P1 by means of the plug-protective, the nomex P/N EN6049-006-32-5 and the tie strap P/N AW001CK03LC.
 - 2.3 With reference to Figures 73 and 76 Wiring Diagram (Was and Becomes), perform the modifications of the misc-crypto panel provision C/A (A1A649) P/N 3G9A01A64901 as described in the following procedure:

NOTE

Perform the following step 2.3.1 only for the helicopters
S/N 41805 and S/N 41806.

- 2.3.1 With reference to Figure 73 Wiring Diagram (Was), remove the wire marked as R11137A22-G from pin E of the terminal board TB143-2 and cut of adequate length.

NOTE

Perform the following step 2.3.2 only for the helicopters from S/N 41801 thru S/N 41804.

- 2.3.2 With reference to Figure 73 Wiring Diagram (Was), remove the wire marked as R11137A22-G from pin A of the terminal board TB143-2 and cut of adequate length.
- 2.3.3 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 73 Wiring Diagram (Becomes), crimp on wire n°1 electrical contact P/N A523A-A02 (CR3015 side) by means of a proper crimping tool.
- 2.3.4 With reference to Figure 73 Wiring Diagram (Becomes), cut n°1 wire P/N A556A-T22 of adequate length and lay down between the terminal board TB143-2 and the diode assembly CR3015.
- 2.3.5 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 73 Wiring Diagram (Becomes), crimp on wire n°1 electrical contact P/N A523A-A01 (TB143-2 side) and n°1 electrical contact P/N A523A-A02 (CR3015 side) by means of a proper crimping tool.
- 2.3.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 73 Wiring diagram (Becomes), mark wires as R13360A22-G by means of marker sleeve.
- 2.3.7 With reference to Figure 73 Wiring Diagram (Becomes), perform the electrical connections between wires marked as R11137A22-G and R13360A22-G by means of the diode assembly (CR3015) P/N AW001YD03.
- 2.3.8 With reference to Figure 73 Wiring Diagram (Was), remove the wire marked as R11136A22-G from pin L of the terminal board TB136-2 and cut of adequate length.
- 2.3.9 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 73 Wiring Diagram (Becomes), crimp on wire n°1 electrical contact P/N A523A-A02 (CR3011 side) by means of a proper crimping tool.
- 2.3.10 With reference to Figure 73 Wiring Diagram (Becomes), cut n°1 wire P/N A556A-T22 of adequate length and lay down between the terminal board TB129-4 and the diode assembly CR3011.
- 2.3.11 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 73 Wiring Diagram (Becomes), crimp on wire n°1

- electrical contact P/N A523A-A02 (TB129-4 side) and n°1 electrical contact P/N A523A-01 (CR3011 side) by means of a proper crimping tool.
- 2.3.12 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 73 Wiring diagram (Becomes), mark wires as R11167A22-G by means of marker sleeve.
- 2.3.13 With reference to Figure 73 Wiring Diagram (Becomes), perform the electrical connections between wires marked as R11136A22-G and R11167A22-G by means of the diode assembly (CR3011) P/N AW001YD03.
- 2.3.14 With reference to Figure 76 Wiring Diagram (Was), remove the wire marked as R11162A22-G from pin G of the connector PL13P2 and cut of adequate length.
- 2.3.15 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 76 Wiring Diagram (Becomes), crimp on wire n°1 electrical contact P/N A523A-A02 (CR3017 side) by means of a proper crimping tool.
- 2.3.16 With reference to Figure 76 Wiring Diagram (Becomes), cut n°1 wire P/N A556A-T22 of adequate length and lay down between the connector PL13P2 and the diode assembly CR3017.
- 2.3.17 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 76 Wiring Diagram (Becomes), crimp on wire n°1 electrical contact P/N M39029/56-351 (PL13P2 side) and n°1 electrical contact P/N A523A-A02 (CR3017 side) by means of a proper crimping tool.
- 2.3.18 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 76 Wiring diagram (Becomes), mark wires as R13361A22-G by means of marker sleeve.
- 2.3.19 With reference to Figure 76 Wiring Diagram (Becomes), perform the electrical connections between wires marked as R11162A22-G and R13361A22-G by means of the diode assembly (CR3017) P/N AW001YD03.

NOTE

Perform step 2.4 only for the helicopters from S/N 41802 thru S/N 41804.

- 2.4 With reference to Figure 72 Detail F and Figure 73 Wiring Diagram, remove n°2

relays P/N A653A01 (K392 and K391) from the support relay and replace in the same positions with n°2 new relays P/N A651A01.

NOTE

Perform steps 2.5 thru 2.11 only for the helicopters from
S/N 41801 thru S/N 41804.

- 2.5 With reference to Figure 66, remove the heating C/A (C1A200) P/N 3G9C01A20021 from the helicopter.

NOTE

Perform the following steps from 2.6 thru 2.8 only when
equipment is NOT installed.

- 2.6 With reference to Figure 72 View E, install n°2 supports P/N AW001CL001-N6 in the indicated positions.
- 2.7 With reference to Figure 69 Detail G and Figure 72 View E, stow and protect the connector A624P2 by means of the plug-protective, the nomex P/N EN6049-006-25-5 and the tie strap P/N AW001CK03LC.
- 2.8 With reference to Figure 69 Detail H and Figure 72 View E, stow and protect the connector A624P4 by means of the nomex P/N EN6049-006-25-2 and the tie strap P/N AW001CK03LC.
- 2.9 With reference to Figure 66 and Figures 77 thru 79 Wiring diagram, assemble and lay down the new heating C/A (C1A200) P/N 3G9C01A20022 as described in the following procedure:
- 2.9.1 With reference to Figure 77 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector HR4P1 and terminal board TB309/2.
- 2.9.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-348 (HR4P1 side) and n°1 electrical contact P/N A523A-A05 (TB309/2 side) by means of proper crimping tool.
- 2.9.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wire as H10D22-G by means of marker sleeve.
- 2.9.4 With reference to Figure 79 Wiring diagram, cut n°8 wires P/N A556A-T22 of adequate length and lay down between connector HR4P1 and connector P213.
- 2.9.5 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 79 Wiring diagram, crimp on wires n°8 electrical

- contacts P/N M39029/56-348 (HR4P1 side) and n°8 electrical contacts P/N M39029/58-363 (P213 side) by means of proper crimping tool.
- 2.9.6 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 79 Wiring diagram, mark wires as H24C22-G, H25C22-G, H26C22-G, H27C22-G, H28C22-G, H29C22-G, H30C22-G and H31C22-G by means of marker sleeve.
- 2.9.7 With reference to Figure 77 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector HR4P1 and connector J331.
- 2.9.8 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-348 (HR4P1 side) and n°1 electrical contact P/N M39029/56-351 (J331 side) by means of proper crimping tool.
- 2.9.9 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 8 Wiring diagram, mark wire as H33B22-G by means of marker sleeve.
- 2.9.10 With reference to Figure 77 Wiring diagram, cut n°2 wires P/N A556A-T22 of adequate length and lay down between connector HR4P1 and terminal board TB303.
- 2.9.11 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wires n°2 electrical contacts P/N M39029/56-348 (HR4P1 side) and n°2 electrical contacts P/N A523A-A05 (TB303 side) by means of proper crimping tool.
- 2.9.12 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wires as H35A22N-G and H34A22N-G by means of marker sleeve.
- 2.9.13 With reference to Figure 78 Wiring diagram, cut n°2 wires P/N A556A-T22 of adequate length and lay down between connector J301 and terminal board TB309/2.
- 2.9.14 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 78 Wiring diagram, crimp on wires n°2 electrical contacts P/N M39029/56-351 (J301 side) and n°2 electrical contacts P/N A523A-A05 (TB309/2 side) by means of proper crimping tool.
- 2.9.15 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 78 Wiring diagram, mark wires as H20D22-G and H20E22-G by means of marker sleeve.

- 2.9.16 With reference to Figure 77 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector P213 and terminal board TB309/2.
- 2.9.17 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P213 side) and n°1 electrical contact P/N A523A-A05 (TB309/2 side) by means of proper crimping tool.
- 2.9.18 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wire as H10C22-G by means of marker sleeve.
- 2.9.19 With reference to Figure 77 Wiring diagram, cut n°3 wires P/N A561A-T3-24 of adequate length and lay down between connector P213 and connector J331.
- 2.9.20 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wires n°3 electrical contacts P/N M39029/58-363 (P213 side) and n°3 electrical contacts P/N M39029/56-351 (J331 side) by means of proper crimping tool. Apply n°2 insulations sleeving P/N M23053/8-004-C.
- 2.9.21 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wires as H12C24-G (WH), H12C24-G (OR) and H12C24-G (BL) by means of marker sleeve.
- 2.9.22 With reference to Figure 77 Wiring diagram, cut n°8 wires P/N A556A-T22 of adequate length and lay down between connector HR4P1 and connector P213.
- 2.9.23 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wires n°8 electrical contacts P/N M39029/56-348 (HR4P1 side) and n°8 electrical contacts P/N M39029/58-363 (P213 side) by means of proper crimping tool.
- 2.9.24 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wires as H18D22-G, H1B22-G, H4C22-G, H5C22-G, H6C22-G, H7C22-G, H8C22-G and H9C22-G by means of marker sleeve.
- 2.9.25 With reference to Figure 78 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between connector P213 and terminal board TB309/2.
- 2.9.26 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 78 Wiring diagram, crimp on wire n°1 electrical

- contact P/N M39029/58-363 (P213 side) and n°1 electrical contact P/N A523A-A05 (TB309/2 side) by means of proper crimping tool.
- 2.9.27 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 78 Wiring diagram, mark wire as H23C22-G by means of marker sleeve.
- 2.9.28 With reference to Figure 79 Wiring diagram, cut n°1 wire P/N A556A-T24 of adequate length and lay down between connector P213 and connector HR4P1.
- 2.9.29 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 79 Wiring diagram, crimp on wire n°1 electrical contact P/N M39029/58-363 (P213 side) and n°1 electrical contact P/N M39029/56-348 (HR4P1 side) by means of proper crimping tool.
- 2.9.30 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 79 Wiring diagram, mark wire as H36A24-G by means of marker sleeve.
- 2.9.31 With reference to Figure 77 Wiring diagram, cut n°3 wires P/N A561A-T3-24 of adequate length and lay down between connector P213 and connector HR4P1.
- 2.9.32 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wires n°3 electrical contacts P/N M39029/58-363 (P213 side) and n°3 electrical contacts P/N M39029/56-348 (HR4P1 side) by means of proper crimping tool. Apply n°2 insulations sleeving P/N M23053/8-004-C.
- 2.9.33 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wires as H3C24-G (WH), H3C24-G (OR) and H3C24-G (BL) by means of marker sleeve.
- 2.9.34 With reference to Figure 77 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between terminal board TB309/2 and connector J331.
- 2.9.35 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 77 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A05 (TB309/2 side) and n°1 electrical contact P/N M39029/56-351 (J331 side) by means of proper crimping tool.
- 2.9.36 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 77 Wiring diagram, mark wires as H11A22-G by means of marker sleeve.

- 2.9.37 With reference to Figure 78 Wiring diagram, cut n°1 wire P/N A556A-T22 of adequate length and lay down between terminal board TB309/2 and connector HR4P1.
- 2.9.38 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 78 Wiring diagram, crimp on wire n°1 electrical contact P/N A523A-A05 (TB309/2 side) and n°1 electrical contact P/N M39029/56-348 (HR4P1 side) by means of proper crimping tool.
- 2.9.39 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 78 Wiring diagram, mark wires as H21A22-G by means of marker sleeve.
- 2.9.40 With reference to Figure 72 View Looking Rear Fuselage and Figures 82 and 84 Wiring Diagram, assemble the connector HR4P1 on the C/A C1A200 by means of the electrical connector P/N D38999/26JE35SN, the backshell P/N A529A400-1702C11 and the adapter P/N A529A445-1702.
- 2.9.41 With reference to Figure 71 View Looking Up Rear Zone LH Side and Figure 77 Wiring Diagram, assemble the connector J331 on the C/A C1A200 by means of the electrical connector P/N D38999/20WE26SN and the backshell P/N A532A400-1702C11.
- 2.9.42 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figures 77 thru 79 Wiring Diagram mark the cable assembly so obtained as C1A200 by means of marker sleeve.

NOTE

Use the edging P/N A236A on edges which are liable to cause damage to cable assemblies or where abrasion may occur.

NOTE

Install nomex P/N EN6049-006-32-5 where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

NOTE

When necessary replace existing clamp with suitable clamp.

- 2.10 With reference to Figures 70 thru 72, fix the C/A C1A200 on the existing routes

unless otherwise indicated on the figures. Secure the cable assy by means of existing hardware and lacing cords

- 2.11 With reference to Figure 75 Wiring Diagram (Was and Becomes), perform the modifications of the misc-crypto panel provision C/A (A2A583) P/N 3G9A02A58301 as described in the following procedure:
 - 2.11.1 With reference to Figure 75 Wiring Diagram (Was), remove the wires marked as R11150C22-S (WH and BL) and R11151C22-S (WH and BL) from the connector PL212P5.
 - 2.11.2 With reference to Figure 75 Wiring Diagram (Was), remove the wires marked as R11152C22-S (WH and BL) and R11153C22-S (WH and BL) from the connector PL212P3.
 - 2.11.3 With reference to Figure 75 Wiring Diagram (Becomes), perform the electrical connections of the wires marked as R11150C22-S (WH and BL) and R11151C22-S (WH and BL) previously removed to the connector PL212P3.
 - 2.11.4 With reference to Figure 75 Wiring Diagram (Becomes), perform the electrical connections of the wires marked as R11152C22-S (WH and BL) and R11153C22-S (WH and BL) previously removed to the connector PL212P5.

NOTE

Perform steps 2.12 thru 2.16 only for the helicopter
S/N 41801.

- 2.12 With reference to Figures 68 thru 70, remove the metal braid P/N AW002XM101B and the nomex P/N EN6049-006-08-5 from the C/A B2L56.
 - 2.13 With reference to Figure 68, remove the metal braid P/N AW002XM101B and the nomex EN6049-006-08-5 from the C/A A2A583.
 - 2.14 With reference to Figure 70, remove the metal braid P/N AW002XM101B and the nomex EN6049-006-08-5 from the C/A C2A424.
 - 2.15 With reference to Figure 72 Detail F and Figure 74 Wiring Diagram, remove the relay P/N A467A01 (K393) and n°2 relays P/N A465301 (K391 and K392) from the support relay.
 - 2.16 With reference to Figure 72 Detail F and Figure 74 Wiring Diagram, install the new relay P/N A647A01 (K393) and n°2 relays P/N A651A01 (K391 and K392) in positions on the support relay.
3. Perform misc-sw crypto panel acceptance test procedure in accordance with Annex A.
 4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight

Manual, Part II, section 6).

5. Return the helicopter to flight configuration and record for compliance with Part IX of this Service Bulletin on the helicopter logbook.
6. 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”.

PART X

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 Figure 80, gain access to the area affected and perform the upgrade of the cockpit door armour complete provision from the P/N 3G5311A32511 to the P/N 3G5311A32512 as described in the following procedure:
 - 2.1 With reference to Figure 80 Internal View pilot door LH side, remove and retain the cover LH P/N 3G5211A05952 and the fixing hardware from the LH pilot door assy high visibility P/N 3G5211A03233.

NOTE

If present remove the existing insert use to install the ballistic protection.

- 2.2 With reference to Figure 80 Internal View pilot door LH side, drill the hole $\varnothing 11.48 \div 11.61$ thru the LH pilot door assy high visibility P/N 3G5211A03233 in the indicated position (location n°1).
 - 2.3 With reference to Figure 80 Internal View pilot door LH side and Section A-A, install the insert P/N NAS1836-3-13 at location n°1 by means of adhesive C397.
 - 2.4 With reference to Figure 80 Internal View pilot door LH side, Section A-A and Section B-B, re-install the cover LH P/N 3G5211A05952 by means of n°2 screws P/N A428A3C05 (locations n°1 and n°2) and the existing fixing hardware previously removed.
 - 2.5 Repeat steps from 2.1 thru 2.4 for the RH door assy high visibility P/N 3G5211A03333 and the cover RH P/N 3G5211A06052.
3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part X of this Service Bulletin on the helicopter logbook.
5. Send the attached compliance form to the following mail box:

engineering.support.lhd@leonardocompany.com

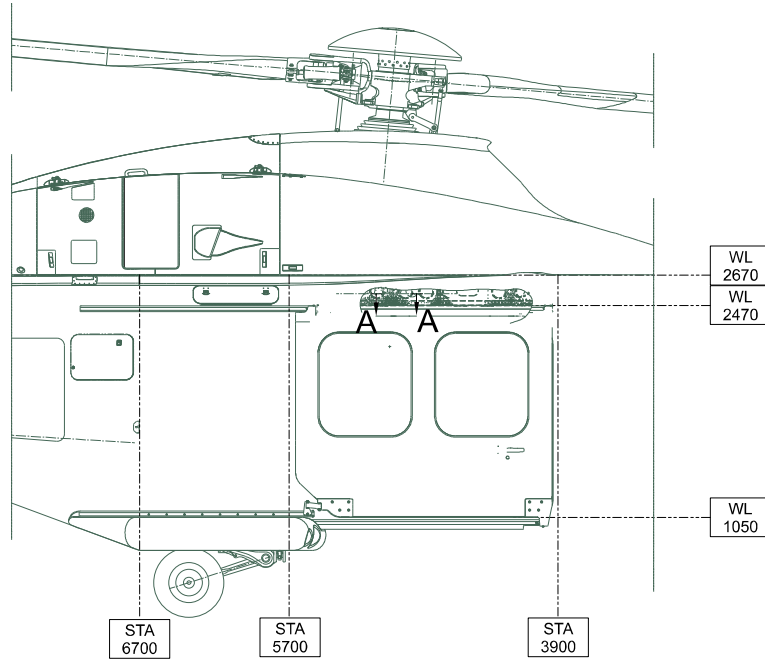
As an alternative, gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

PART XI

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 Figure 81 Wiring Diagram, gain access to the area affected and perform the modification of the L-3 AS TACAN C/A (C3B298) P/N 3G9C03B29801 as described in the following procedure:
 - 2.1 With reference to Figure 81 Wiring Diagram, disconnect the connector E184P1 of the C/A C3B298 from the antenna E184. Remove and replace the coaxial connector P/N 190310 with the new electrical connector P/N 190410.
 - 2.2 With reference to Figure 81 Wiring Diagram, perform the electrical connection of the new connector E184P1 (C/A C3B298) to the antenna E184.
3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figure 81 Wiring Diagram, gain access to the area affected and perform the modification of the L-3 AS TACAN C/A (D3B246) P/N 3G9D03B24601 as described in the following procedure:
 - 3.1 With reference to Figure 81 Wiring Diagram, disconnect the connector E185P1 of the C/A D3B246 from the antenna E185. Remove and replace the coaxial connector P/N 190311 with the new coaxial connector P/N 190411.
 - 3.2 With reference to Figure 81 Wiring Diagram, perform the electrical connection of the new connector E185P1 (C/A D3B246) to the antenna E185.
4. Perform electrical provision Tacan system acceptance test procedure in accordance with Annex B.
5. Return the helicopter to flight configuration and record for compliance with Part XI of this Service Bulletin on the helicopter logbook.
6. Send the attached compliance form to the following mail box:

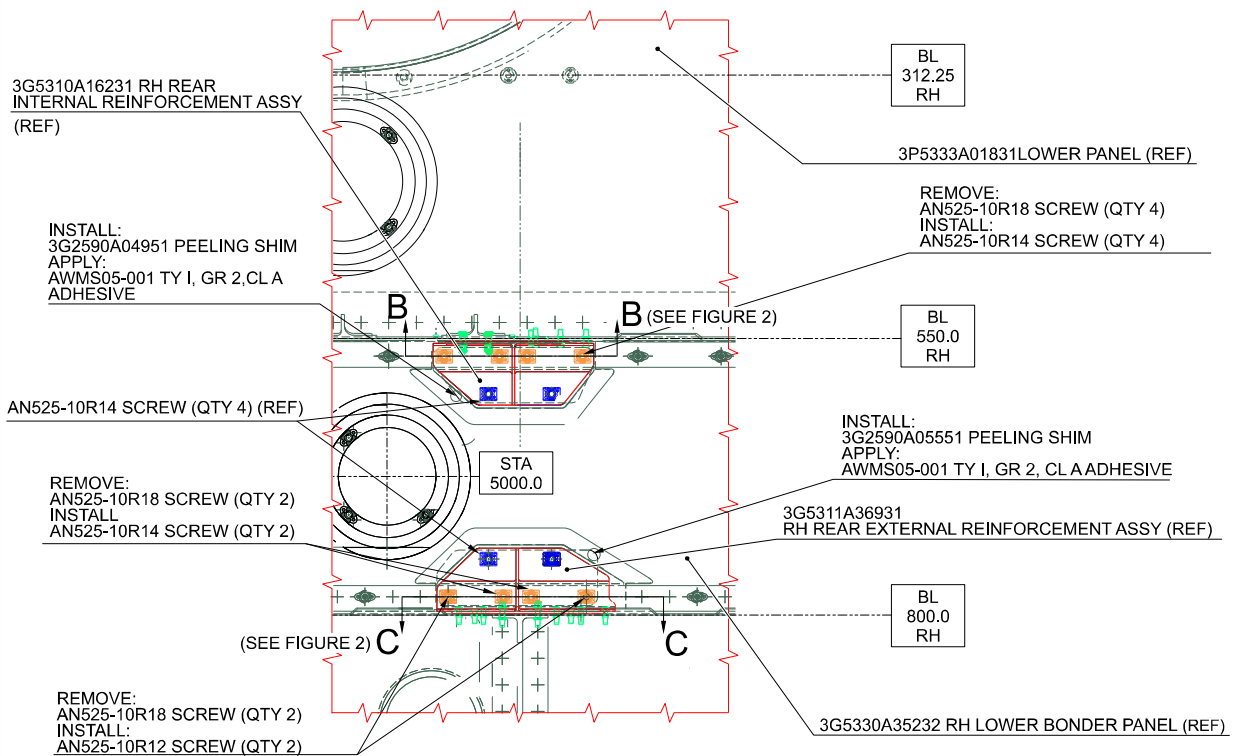
engineering.support.lhd@leonardocompany.com

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



VIEW LOOKING INBOARD RIGHT SIDE

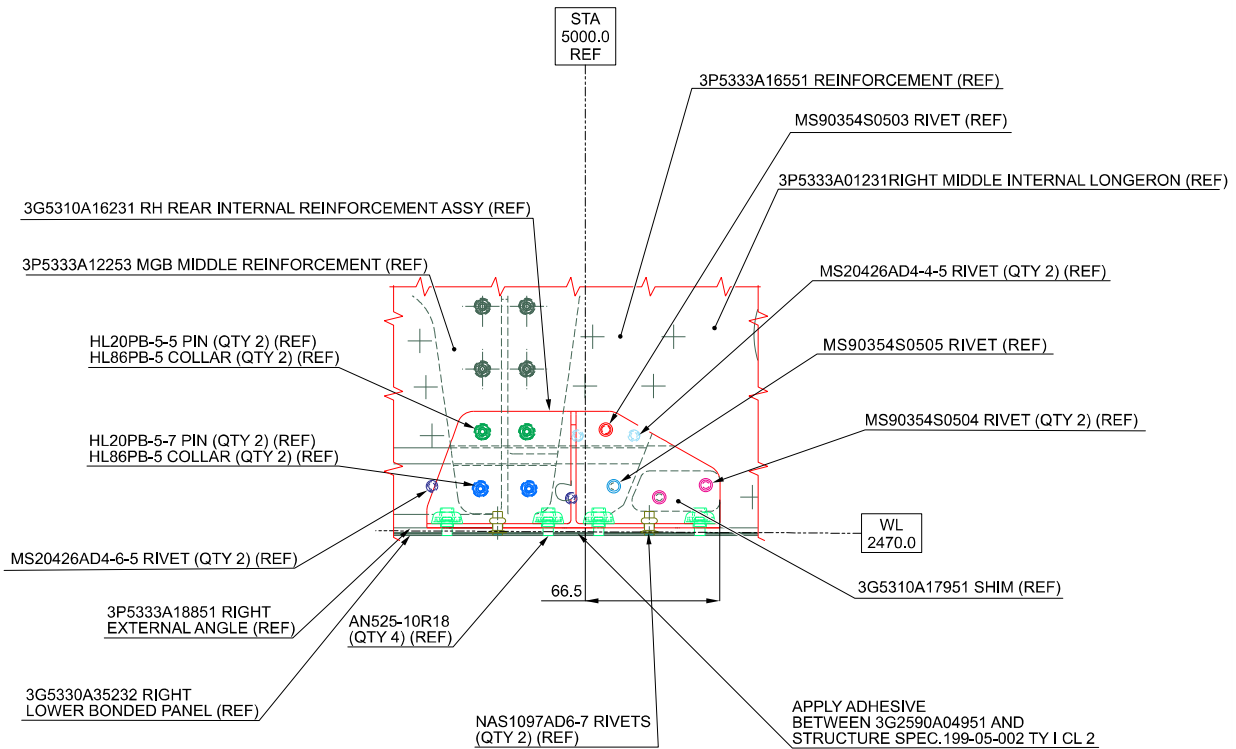
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



SECTION A-A

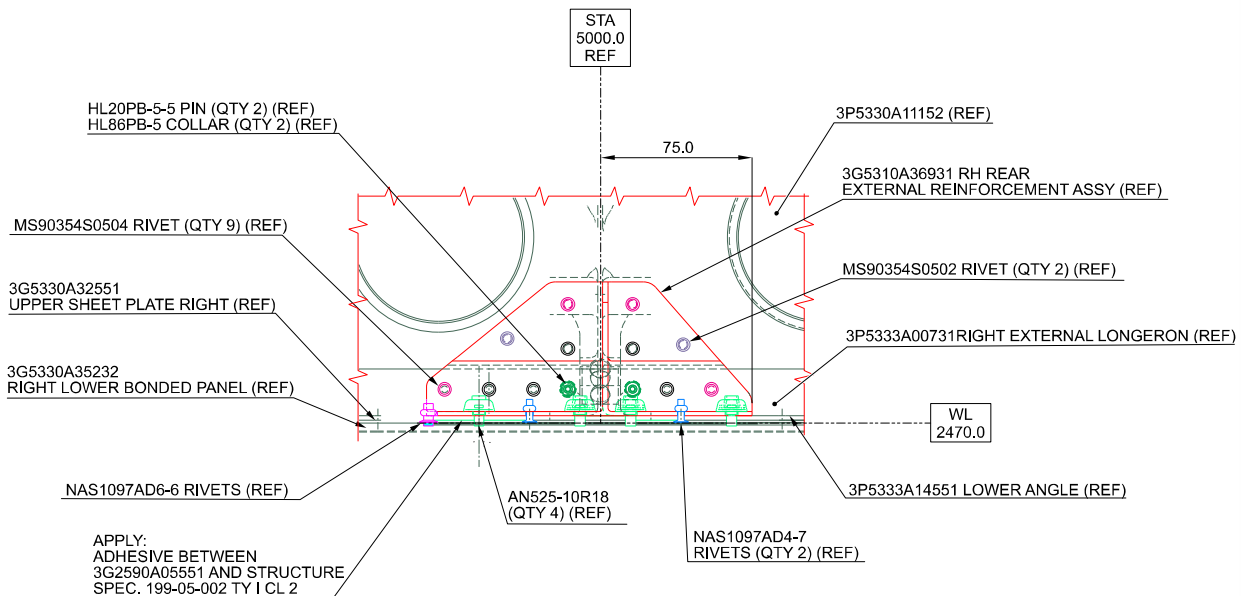
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 1



SECTION B-B

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)

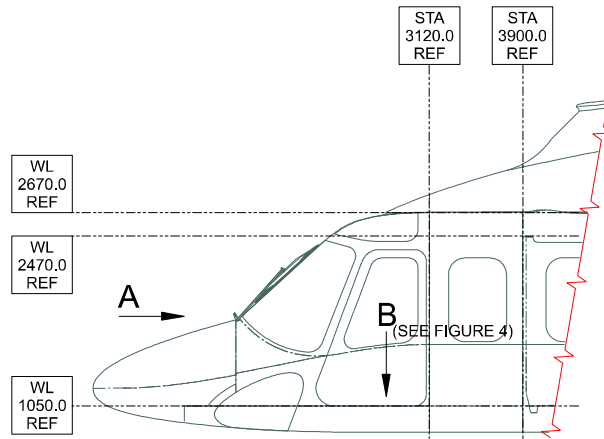


SECTION C-C

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)

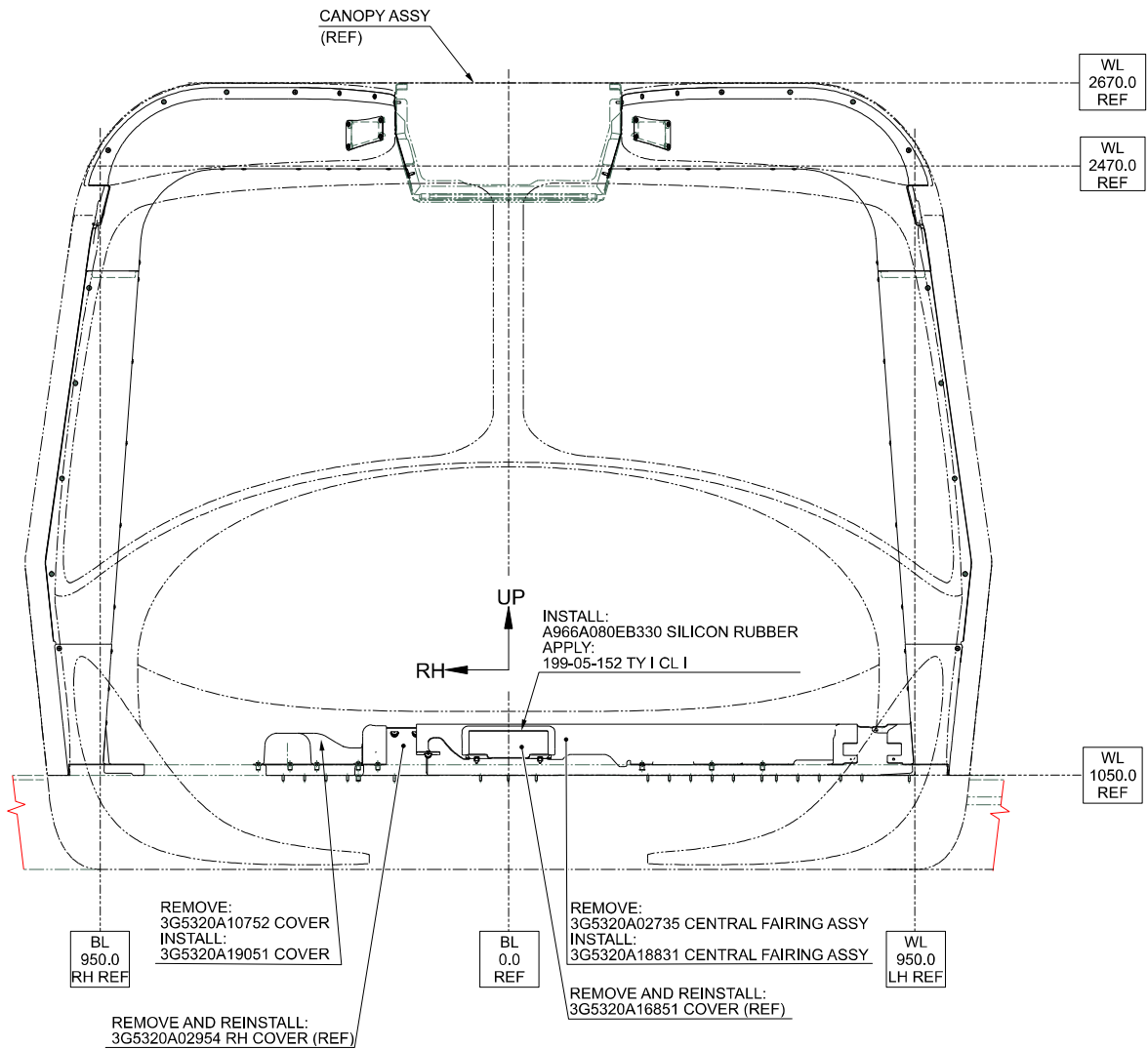
Figure 2

S.B. N°139-623
DATE: May 27, 2021
REVISION: /



VIEW LOOKING INBOARD LEFT SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



VIEW A

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 3

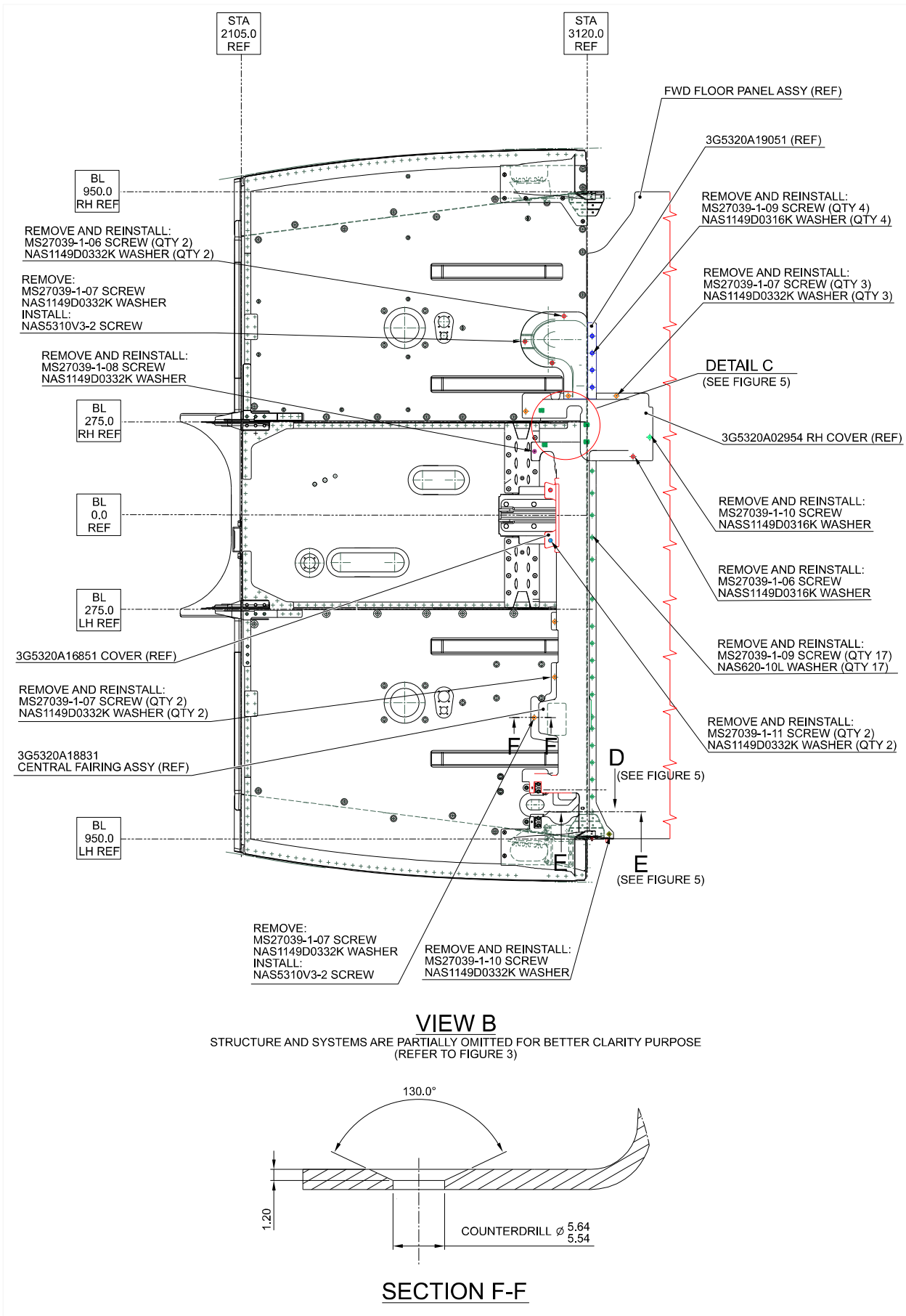


Figure 4

S.B. N°139-623
DATE: May 27, 2021
REVISION: /

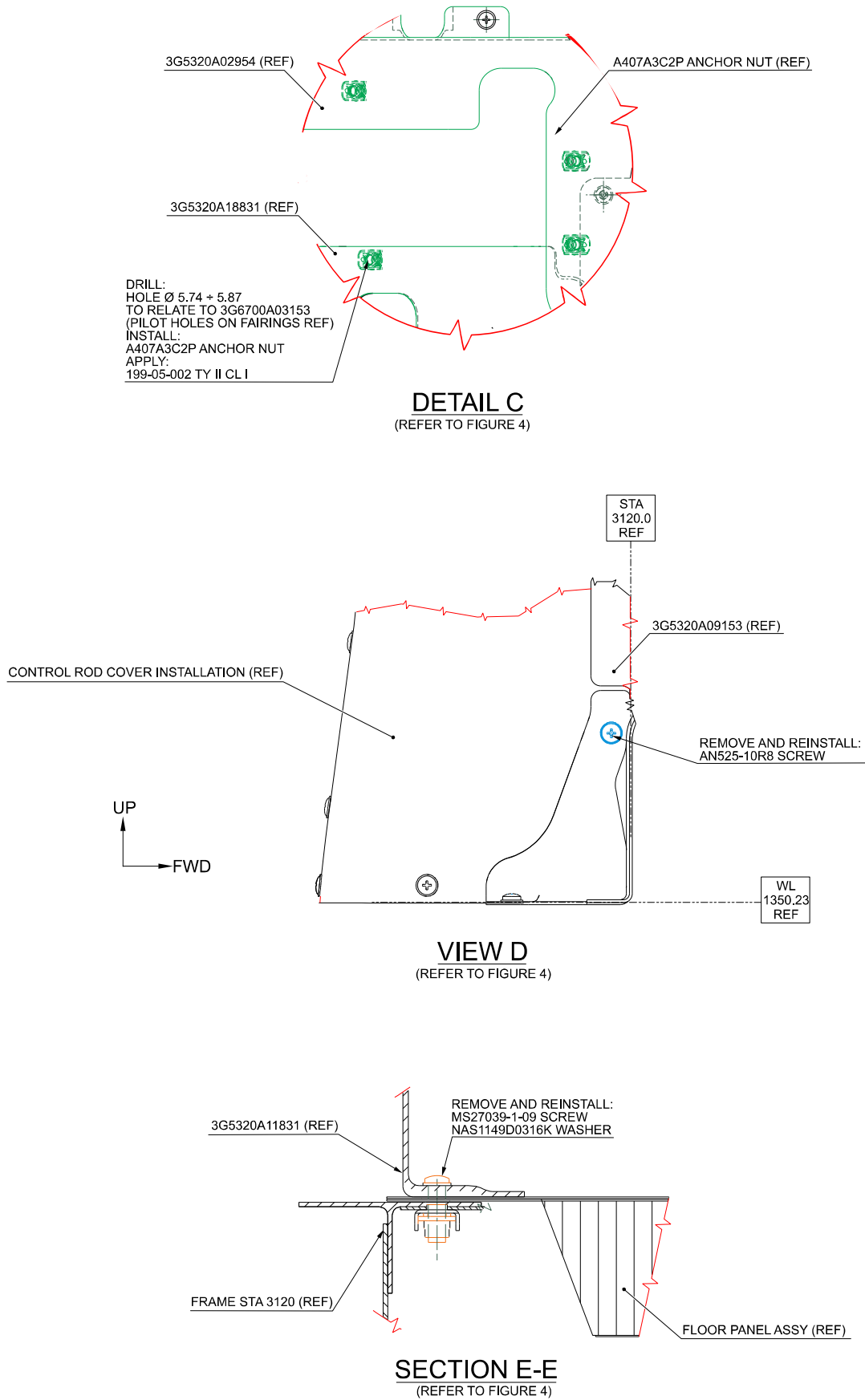
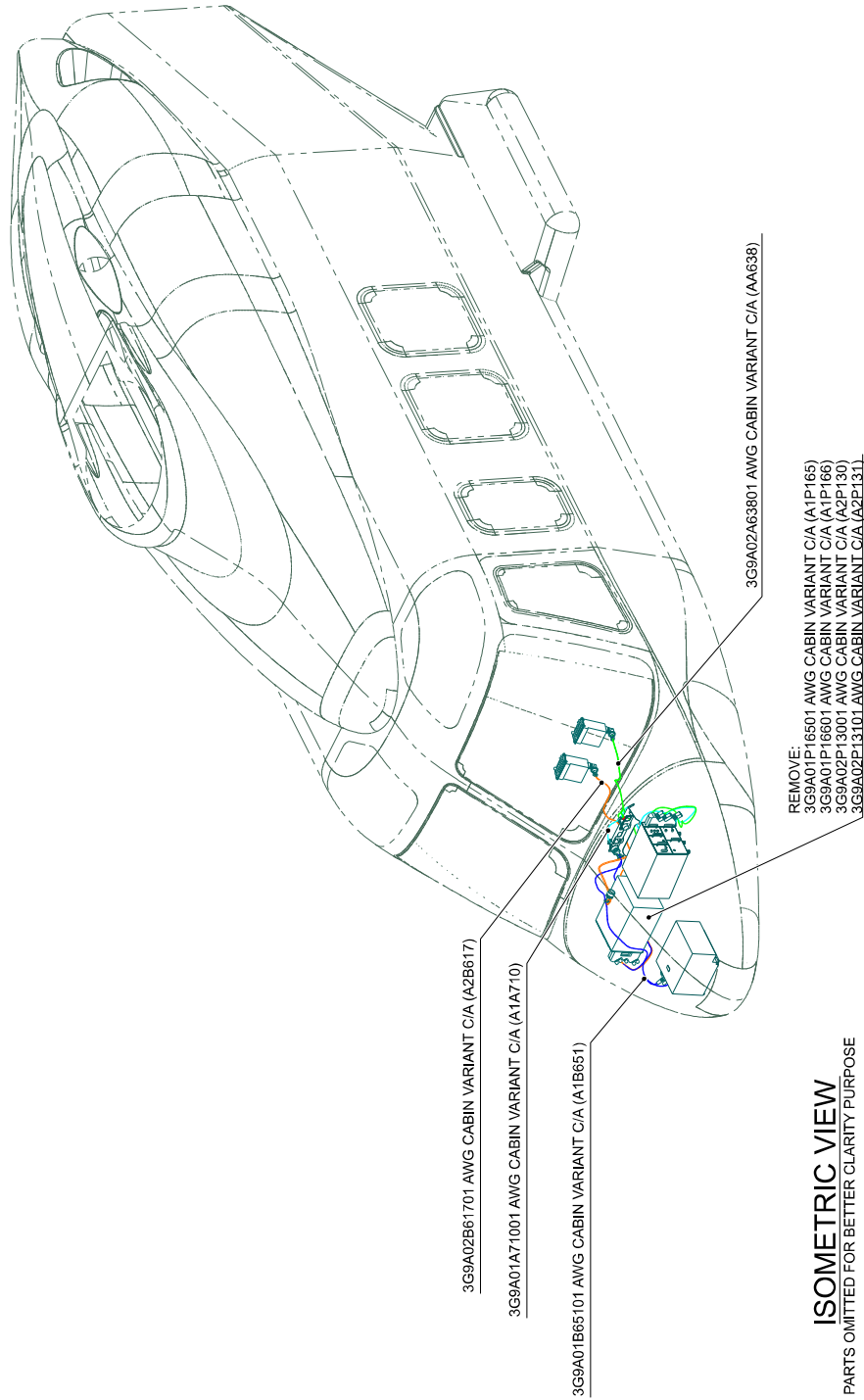
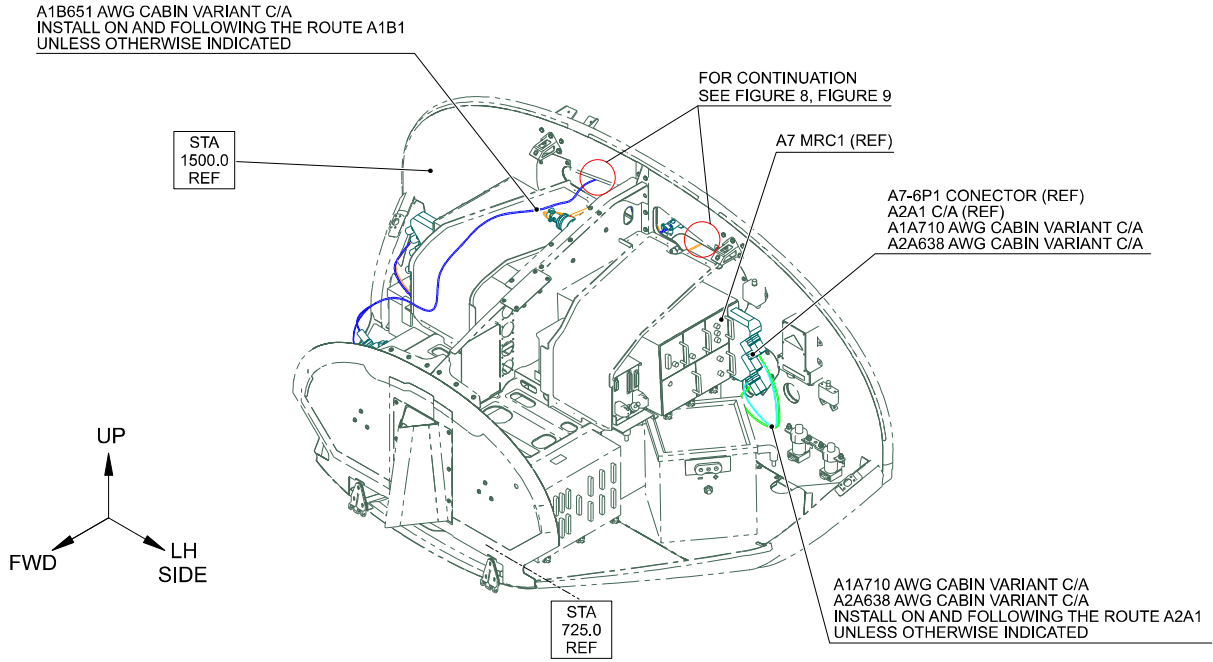


Figure 5



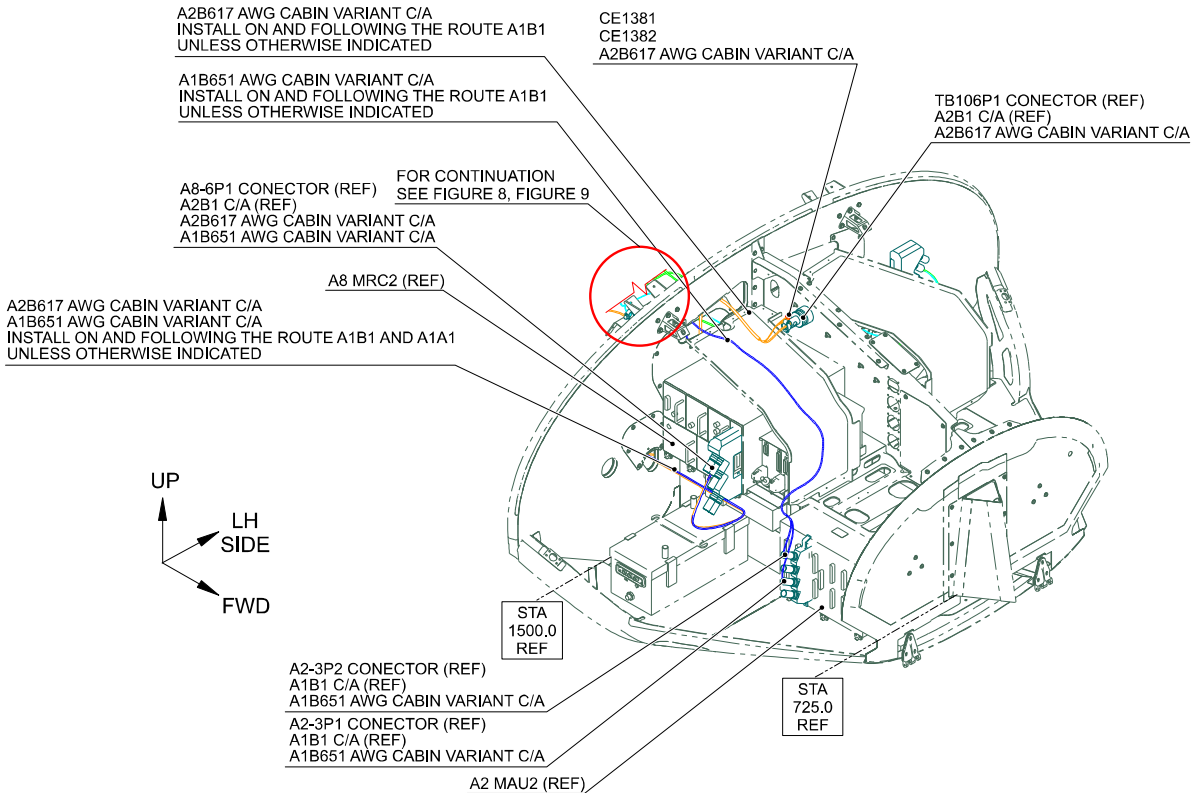
AWG CABIN VARIANT C/A INSTL
3G2350P05711

Figure 6



VIEW LOOKING NOSE FROM STA 725 TO STA 1500

LH SIDE
PARTS OMITTED FOR BETTER CLARITY PURPOSE



VIEW LOOKING NOSE FROM STA 725 TO STA 1500

RH SIDE
PARTS OMITTED FOR BETTER CLARITY PURPOSE

Figure 7

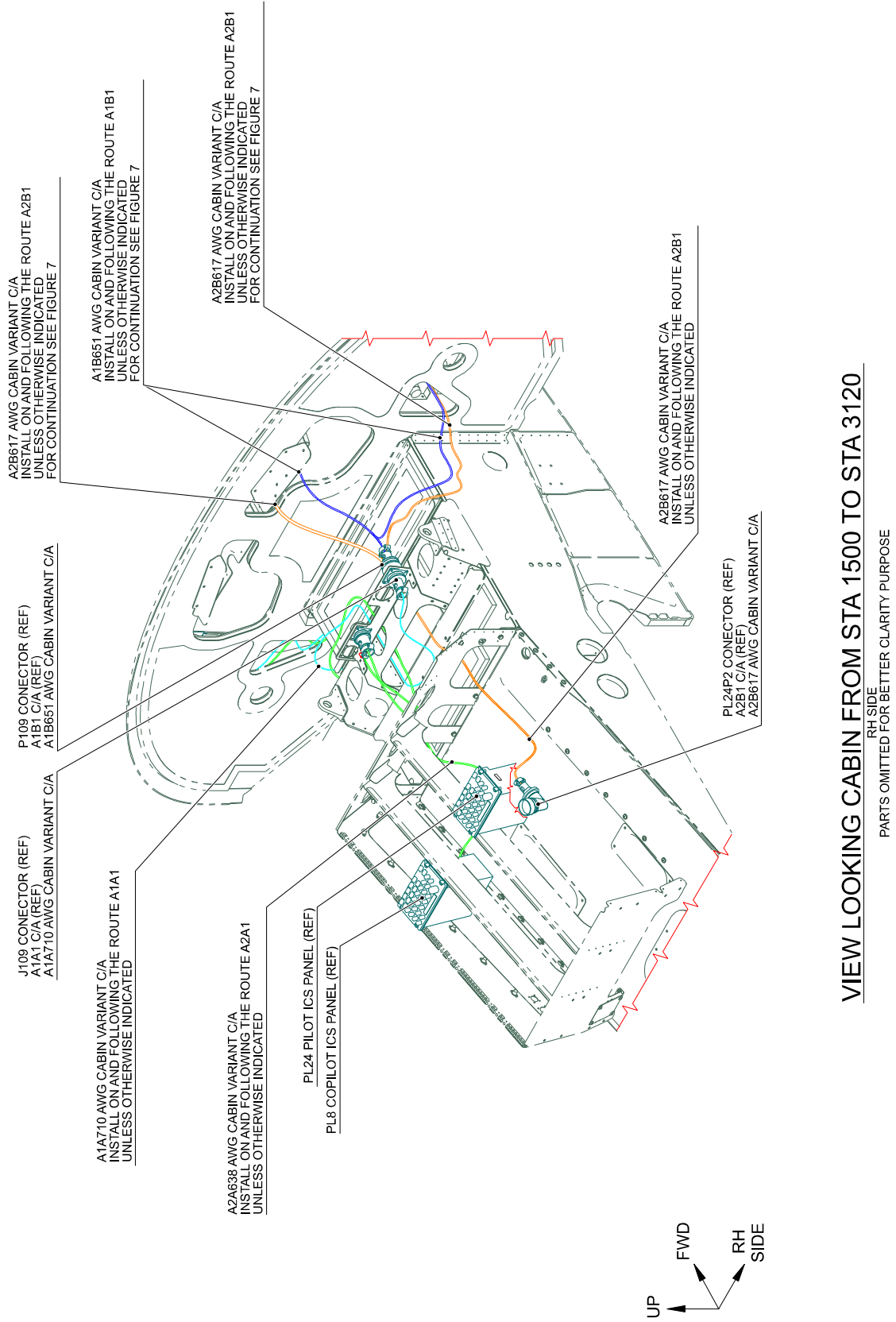


Figure 8

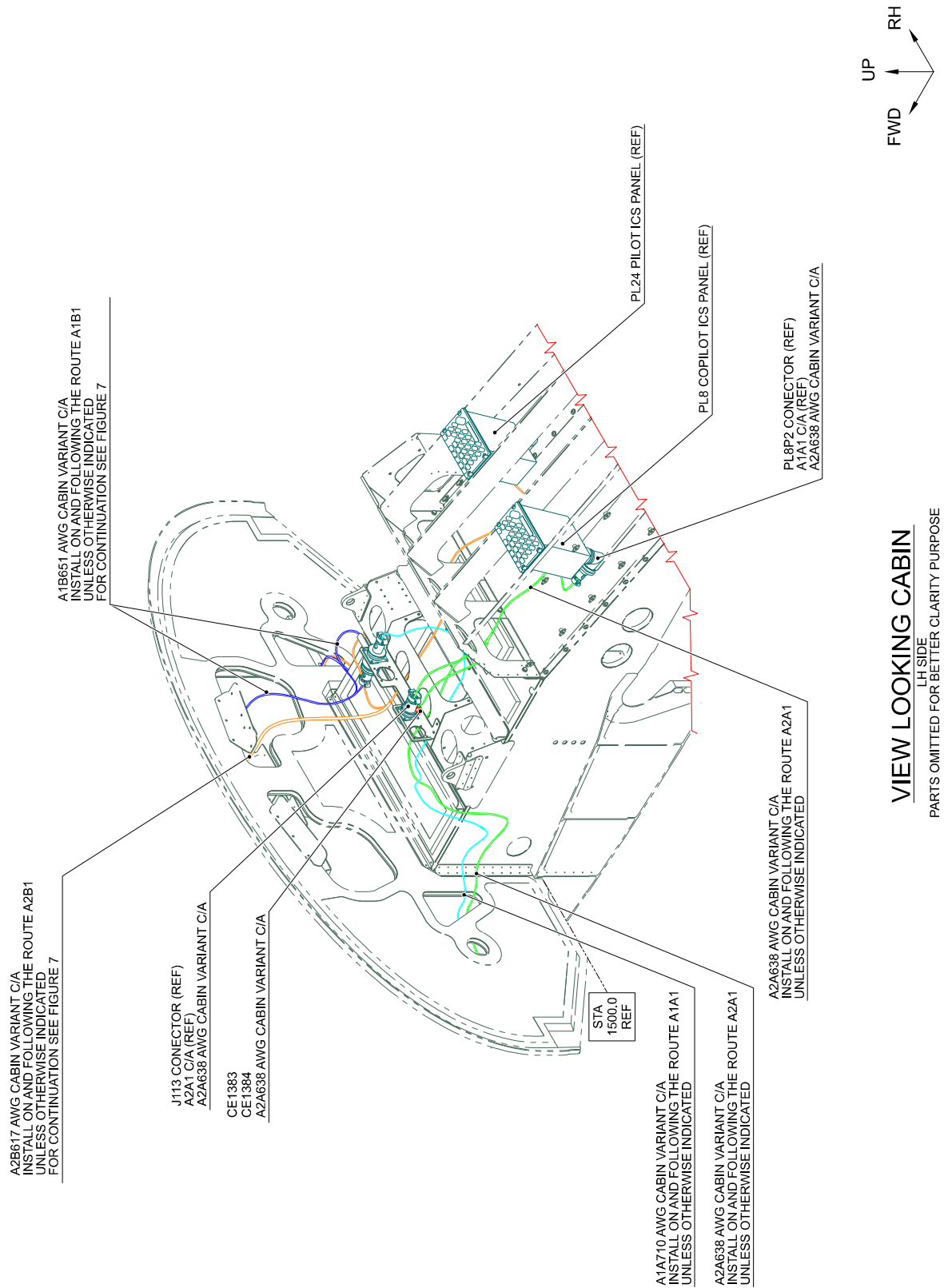
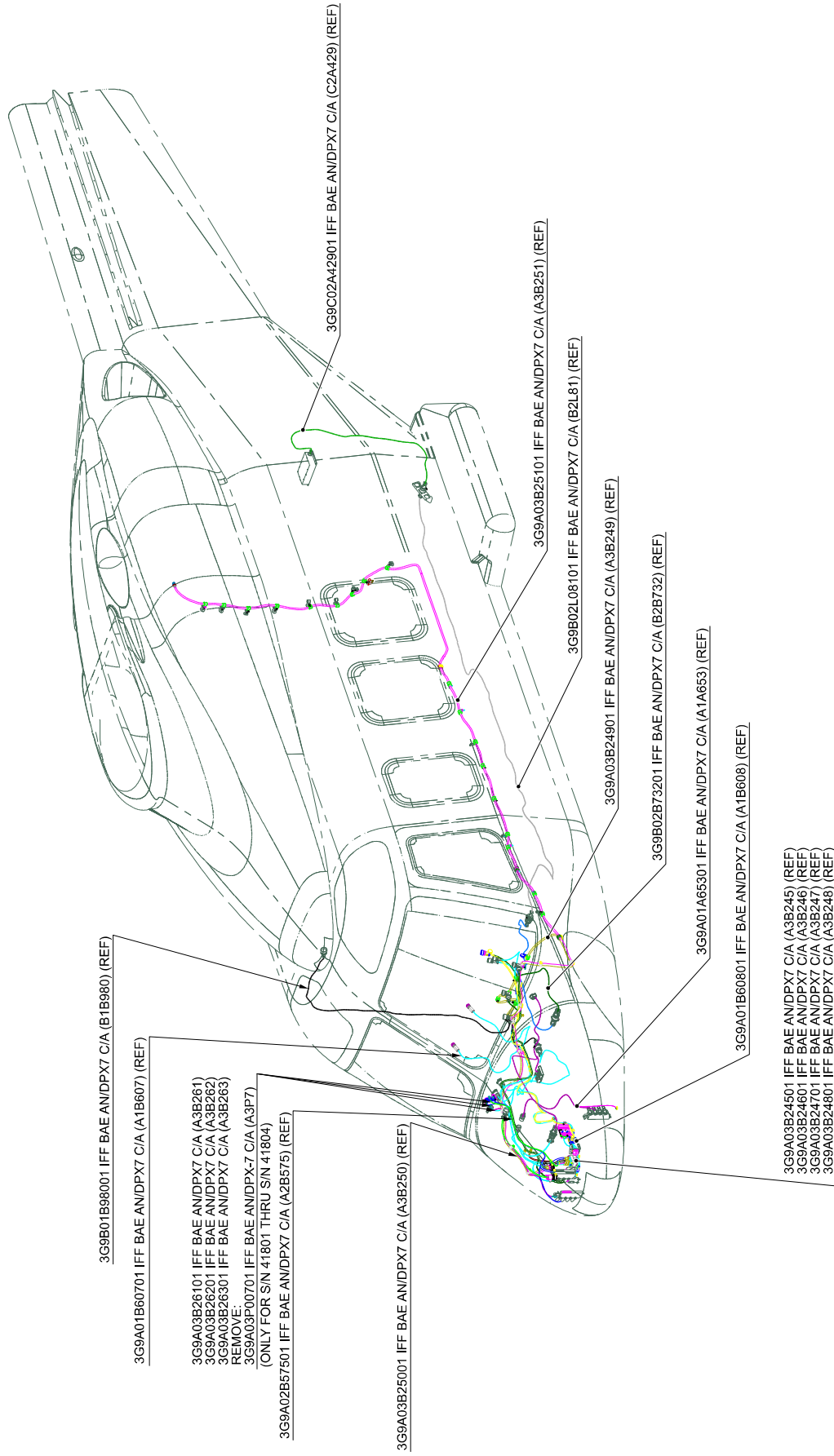


Figure 9



IFF BAE AN/DPX7 ELECTRICAL PROVISION
3G9340A01611

ISOMETRIC VIEW

Figure 10

INSTALL:
 A3B261 IFF BAE AN/DPX7 C/A
 A3B262 IFF BAE AN/DPX7 C/A
 INSTALL ON AND FOLLOWING THE ROUTE A2B1
 UNLESS OTHERWISE SPECIFIED
 (ONLY FOR S/N 41801 THRU S/N 41804)

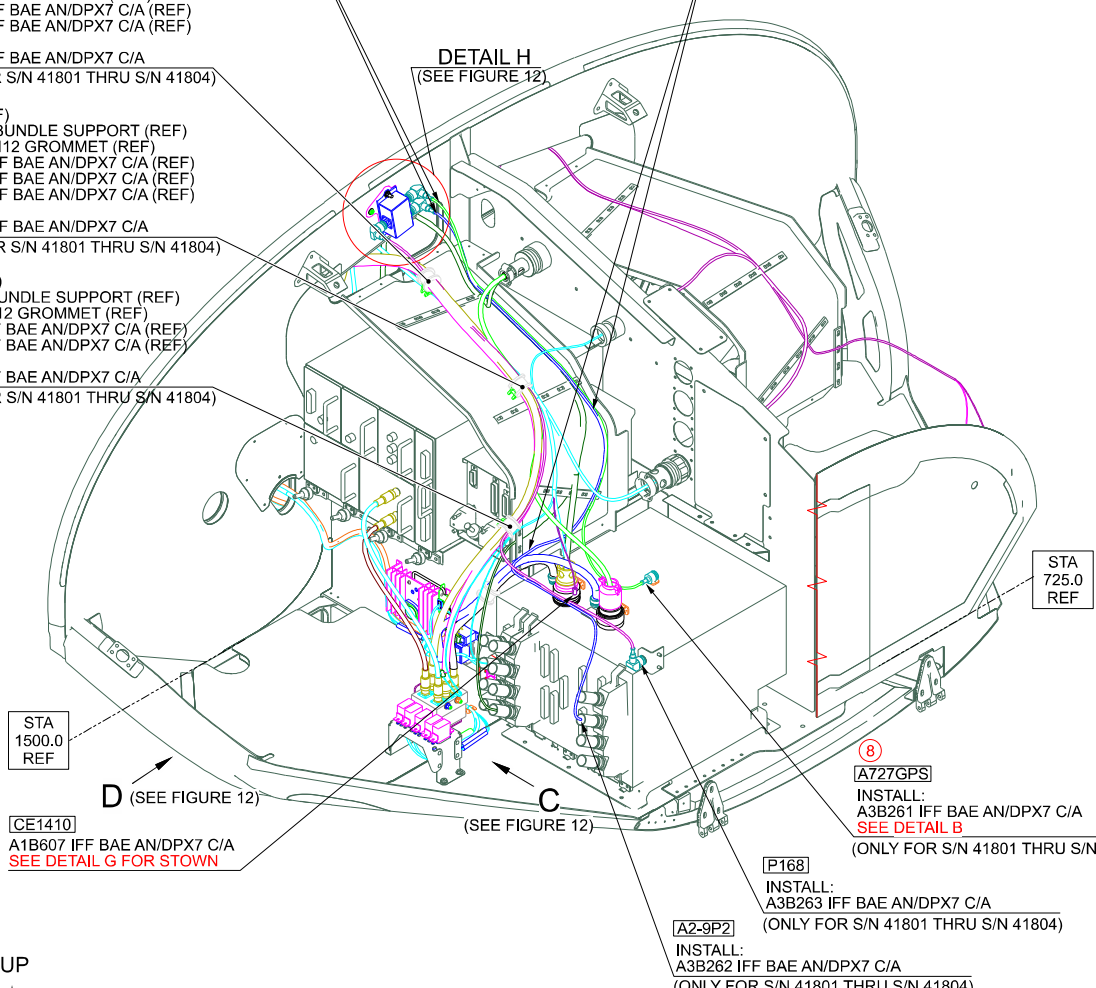
INSTALL:
 A3B261 IFF BAE AN/DPX7 C/A
 A3B262 IFF BAE AN/DPX7 C/A
 INSTALL ON AND FOLLOWING THE ROUTE A2B1
 UNLESS OTHERWISE SPECIFIED
 (ONLY FOR S/N 41801 THRU S/N 41804)

A1B1 (REF)
 A631A02 BUNDLE SUPPORT (REF)
 AW002FT112 GROMMET (REF)
 A3B249 IFF BAE AN/DPX7 C/A (REF)
 A3B251 IFF BAE AN/DPX7 C/A (REF)
 INSTALL:
 A3B263 IFF BAE AN/DPX7 C/A
 (ONLY FOR S/N 41801 THRU S/N 41804)

DETAIL H
 (SEE FIGURE 12)

A1B1 (REF)
 A631A02 BUNDLE SUPPORT (REF)
 AW002FT112 GROMMET (REF)
 A3B249 IFF BAE AN/DPX7 C/A (REF)
 A3B250 IFF BAE AN/DPX7 C/A (REF)
 A3B251 IFF BAE AN/DPX7 C/A (REF)
 INSTALL:
 A3B263 IFF BAE AN/DPX7 C/A
 (ONLY FOR S/N 41801 THRU S/N 41804)

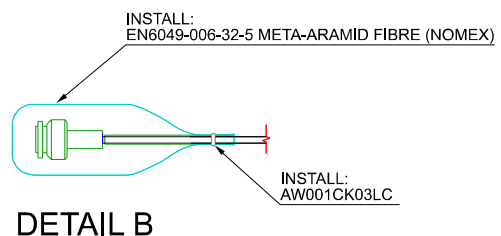
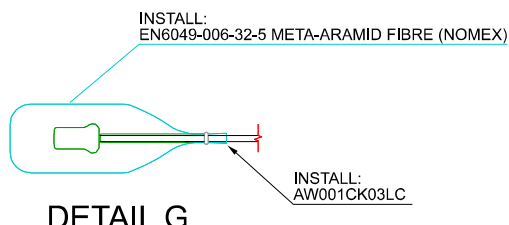
A1B1 (REF)
 A631A02 BUNDLE SUPPORT (REF)
 AW002FT112 GROMMET (REF)
 A3B249 IFF BAE AN/DPX7 C/A (REF)
 A3B251 IFF BAE AN/DPX7 C/A (REF)
 INSTALL:
 A3B263 IFF BAE AN/DPX7 C/A
 (ONLY FOR S/N 41801 THRU S/N 41804)



UP
 LH SIDE
 FWD

VIEW LOOKING NOSE 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
⑧	AW001CL001-N6	897	186	1316	-

Figure 11

[CP91]

INSTALL:
7-397-3-3 SPLITTER
NAS5312V3A10 SCREW (QTY 2)
NAS1149D0332J WASHER (QTY 2)
MS21043-3 NUT (QTY 2)
ED300CP91 DECAL
3G5316A89951 PLATE SPLITTER
NAS1802-08-6 SCREW (QTY 2)
NAS1149DN832J WASHER (QTY 2)

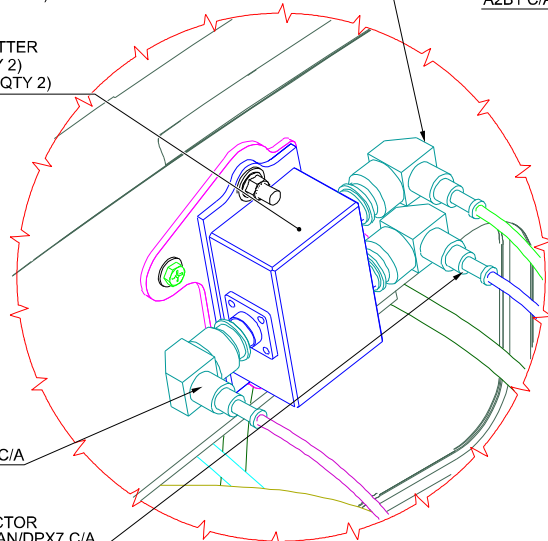
INSTALL:
CP91P2 CONNECTOR
A3B261 IFF BAE AN/DPX7 C/A

⑤
RELOCATE AS SHOWN:
A388A3E08C75 CLICK BOND
USE EXISTING HARDWARE:
A2B1 C/A (REF)

UP
FWD
RH

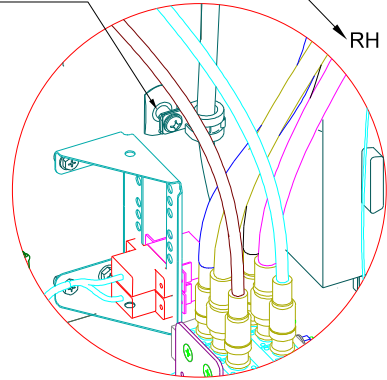
INSTALL:
CP91P1 CONNECTOR
A3B263 IFF BAE AN/DPX7 C/A

INSTALL:
CP91P3 CONNECTOR
A3B262 IFF BAE AN/DPX7 C/A



DETAIL H

ONLY FOR S/N 41801 THRU S/N 41804
(REFER TO FIGURE 11)



VIEW D

ONLY FOR S/N 41801 THRU S/N 41804
(REFER TO FIGURE 11)

LOCATION NUMBER	PART. NUMBER	STA	BL	WL
⑤	A388A3E08C75	1100	276	1132

K397P1-K1
A3B245 IFF BAE AN/DPX7 C/A
(REF)

A151A001 COAX RELAY ASSY (REF)
ED300K397 DECAL (REF)
NAS1802-08-5 SCREW (QTY 2) (REF)
NAS1149DN832J WASHER (QTY 2) (REF)
REMOVE:
MS24693-S2 SCREW (QTY 4)
INSTALL:
3G5315A30352 PLATE
NAS43DD3-12N SPACER (QTY 4)
MS24693-S4 SCREW (QTY 4)
(ONLY FOR S/N 41801 THRU S/N 41804)

K397P-IN-K1
A3B249 IFF BAE AN/DPX7 C/A
(REF)

K397P2-K1
A3B248 IFF BAE AN/DPX7 C/A
(REF)

REMOVE:
A824A03A-A1 BRACKET
REMOVE AND RE-INSTALL:
MS1802-3-4 SCREW (QTY 4)
NAS1149D0332J WASHER (QTY 4)
INSTALL:
A825A01A-A1 BRACKET

A647A01 RELAY (K399)
ED300K399 DECAL
K399P1 RELAY SOCKET
A1B607 IFF BAE AN/DPX7 C/A
(REF)

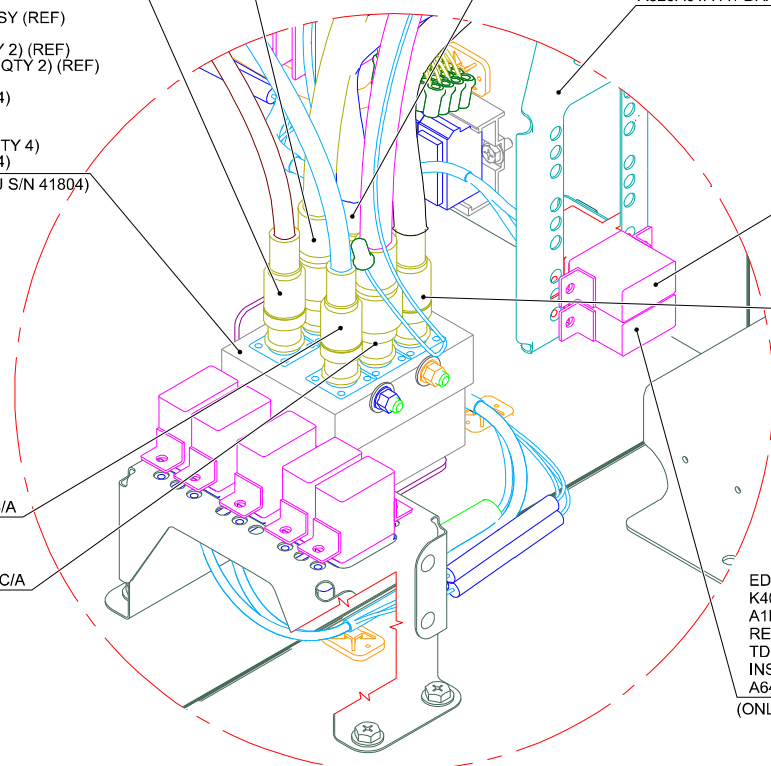
K397P2-K2
A3B247 IFF BAE AN/DPX7 C/A
(REF)

K397P1-K2
A3B246 IFF BAE AN/DPX7 C/A
(REF)

K397P-IN-K2
A3B251 IFF BAE AN/DPX7 C/A
(REF)

ED300K400 DECAL (REF)
K400P1 RELAY SOCKET (REF)
A1B607 IFF BAE AN/DPX7 C/A (REF)
REMOVE:
TDH8070-1001P RELAY
INSTALL:
A647A01 RELAY (K400)
(ONLY FOR S/N 41801 AND S/N 41802)

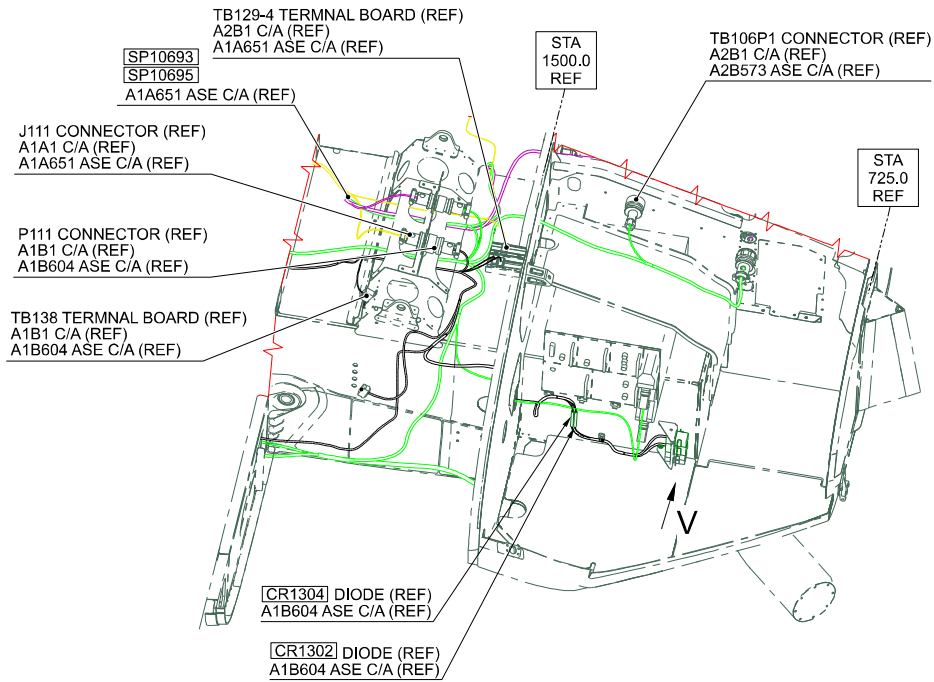
UP
LH
FWD



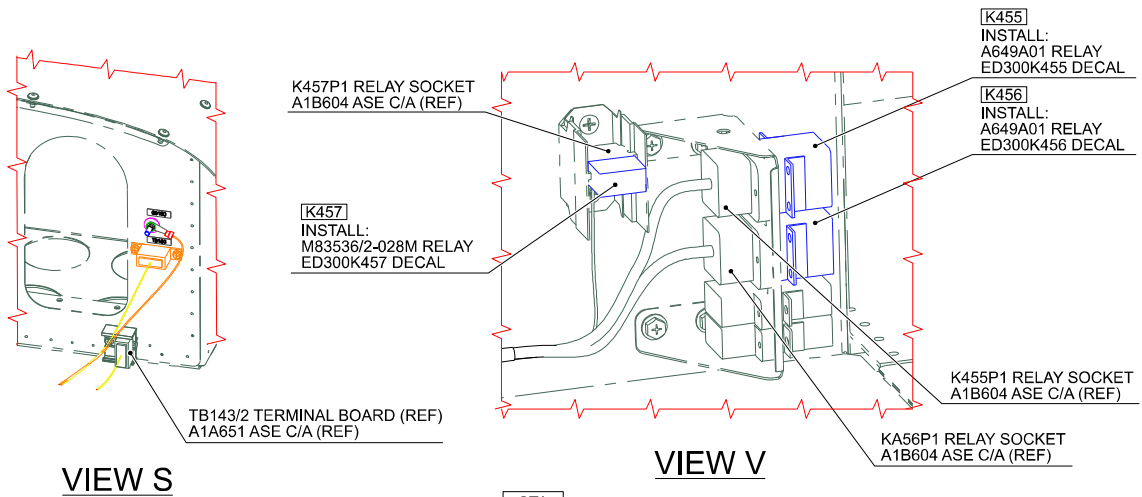
VIEW C

(REFER TO FIGURE 11)

Figure 12

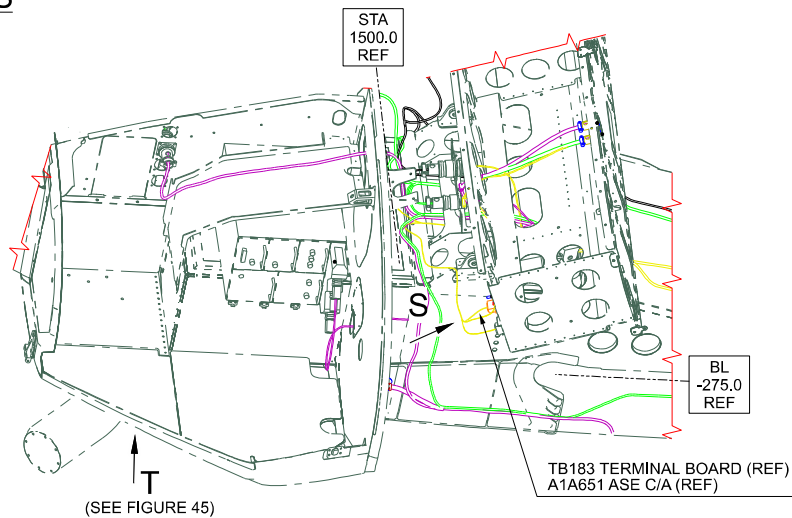


VIEW LOOKING COCKPIT AREA FROM RIGHT SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



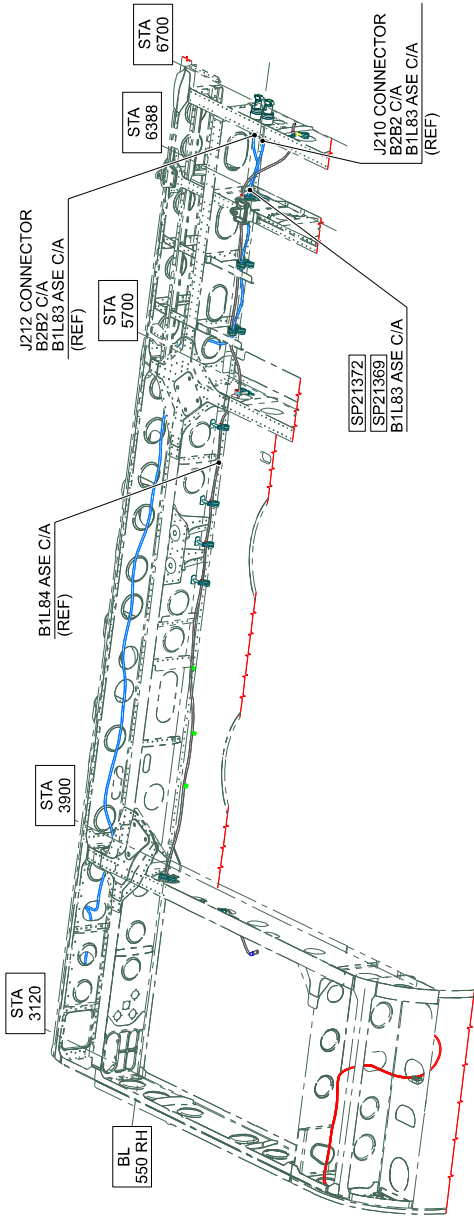
VIEW S

VIEW V



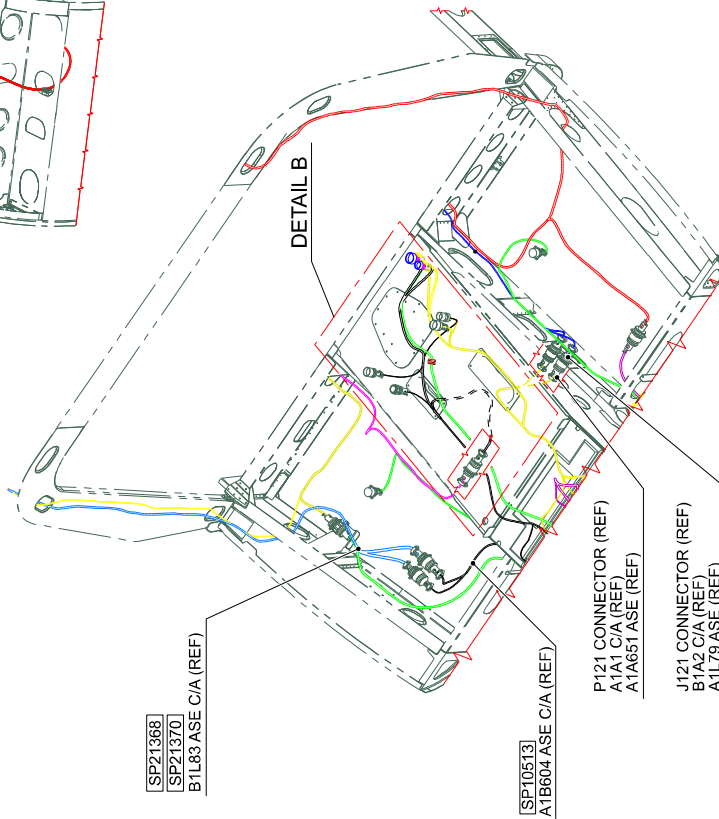
VIEW LOOKING COCKPIT AREA FROM LEFT SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 13



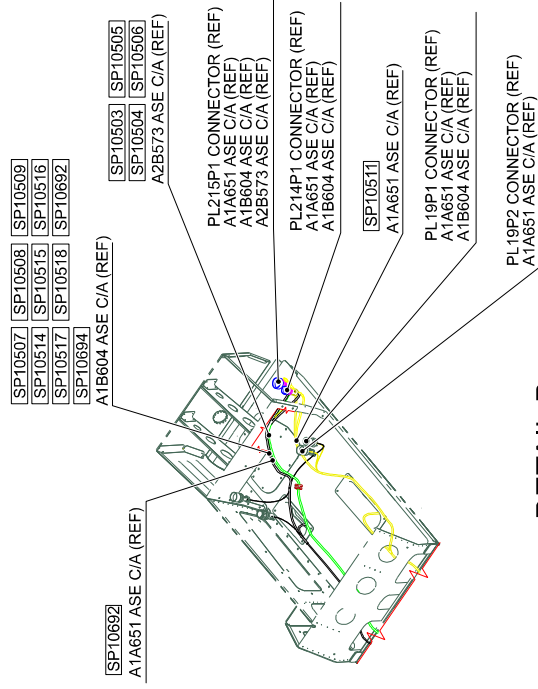
VIEW LOOKING DOWN CABIN ROOF RH SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



VIEW LOOKING COCKPIT AND INTERSEAT CONSOLE ZONE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



DETAIL B

PARTS OMITTED FOR BETTER CLARITY PURPOSE

Figure 14

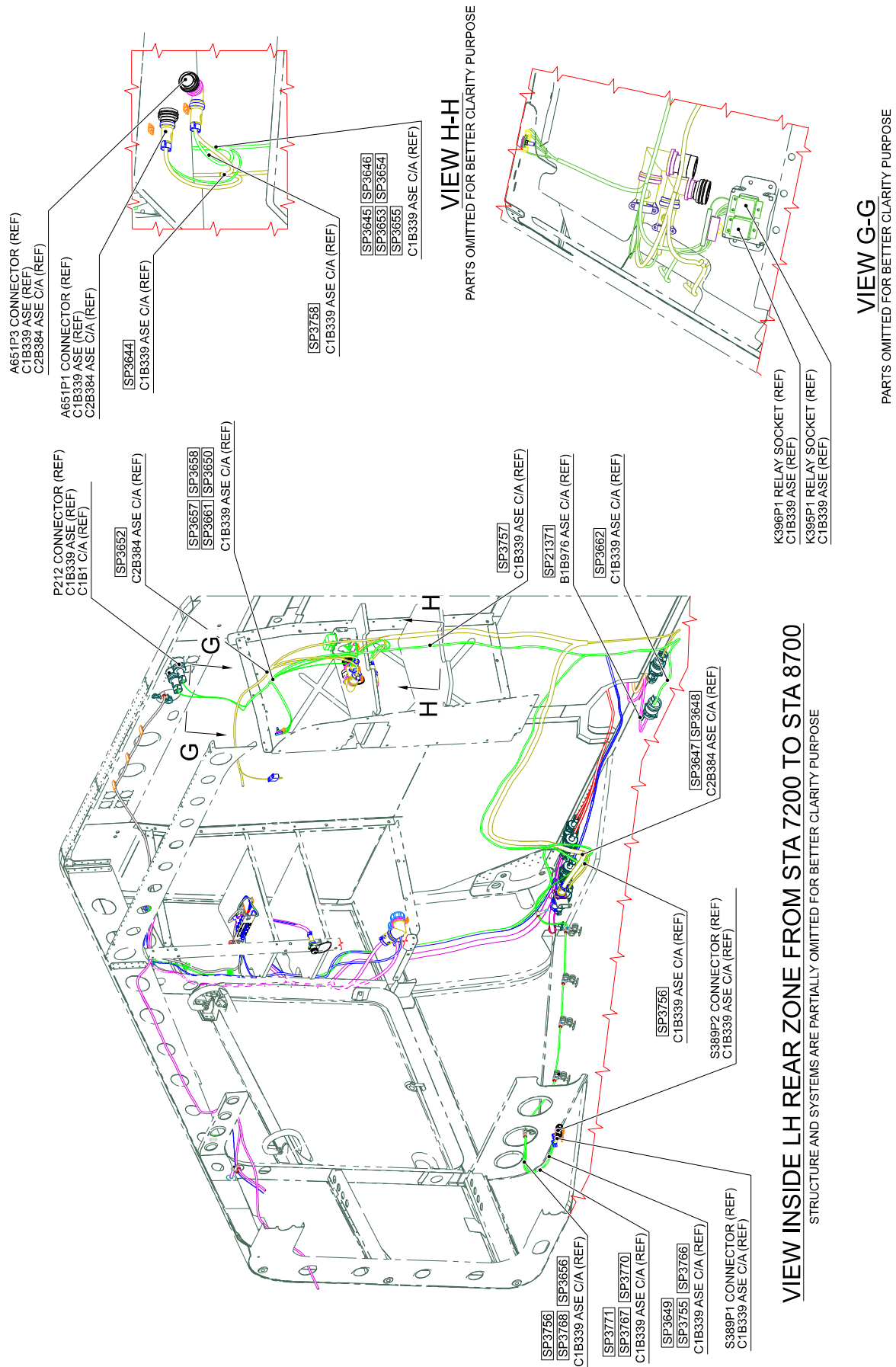
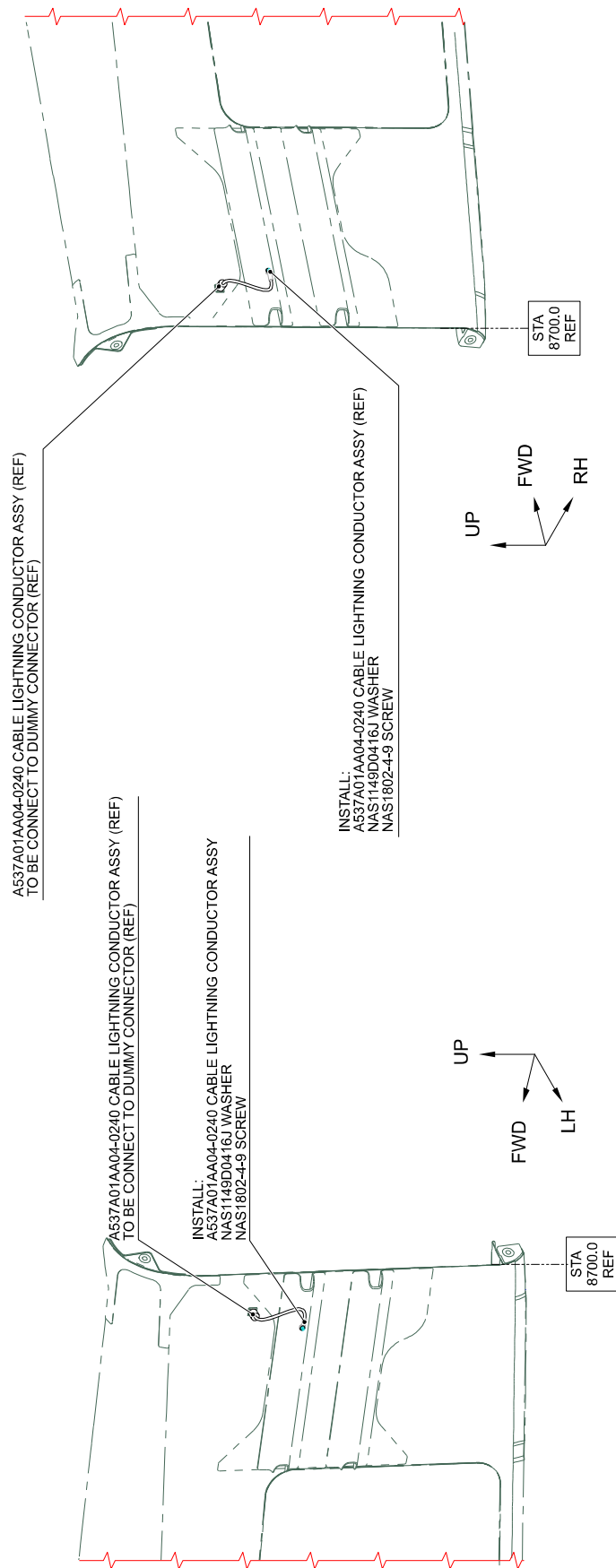


Figure 15



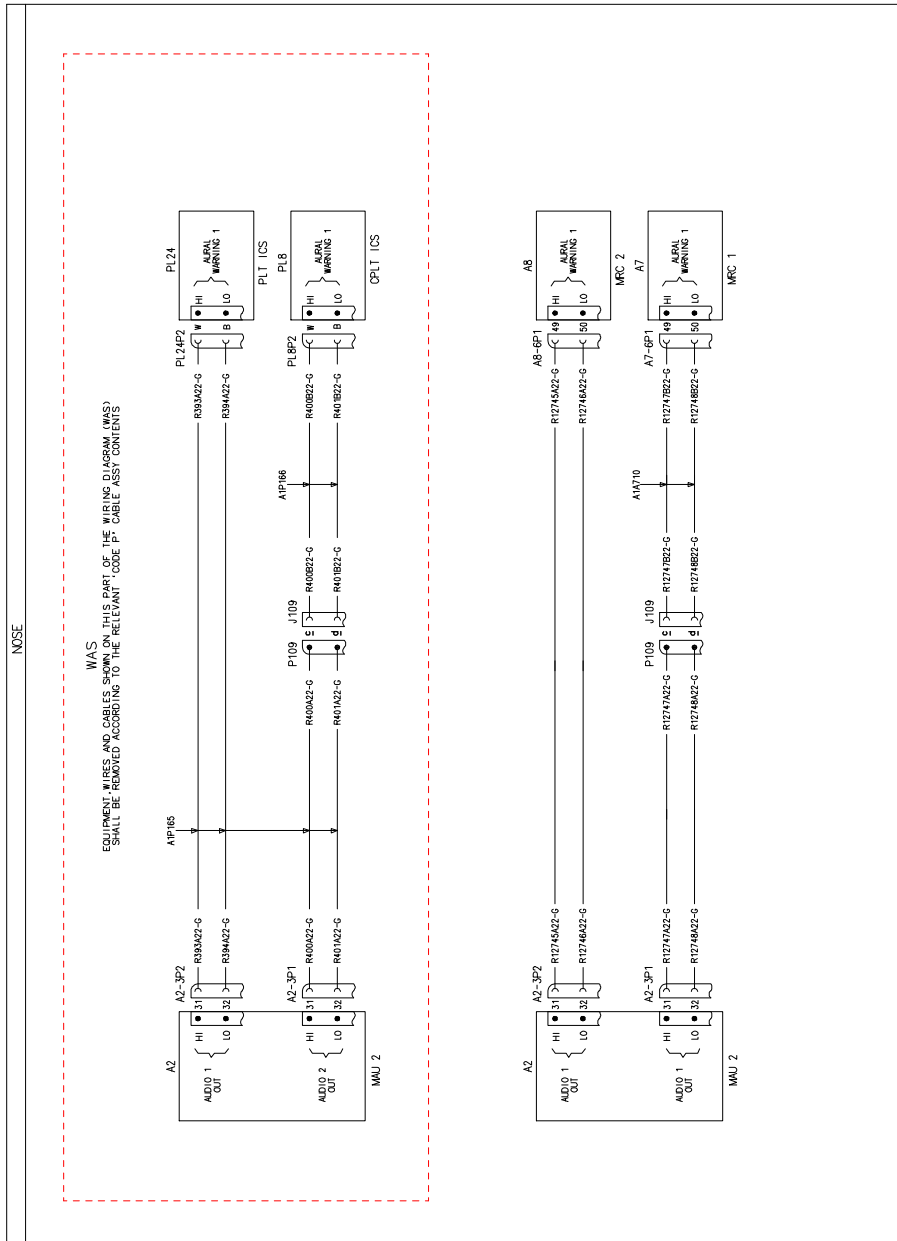
VIEW LOOKING REAR RH SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

VIEW LOOKING REAR LH SIDE

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 16



FUNCTIONAL NOTES

ALL CABLES ARE IN LOW AMBER UNLESS SPECIFIED.
ALL CABLES ARE OF THE ASSM122 UNLESS SPECIFIED.

Figure 17

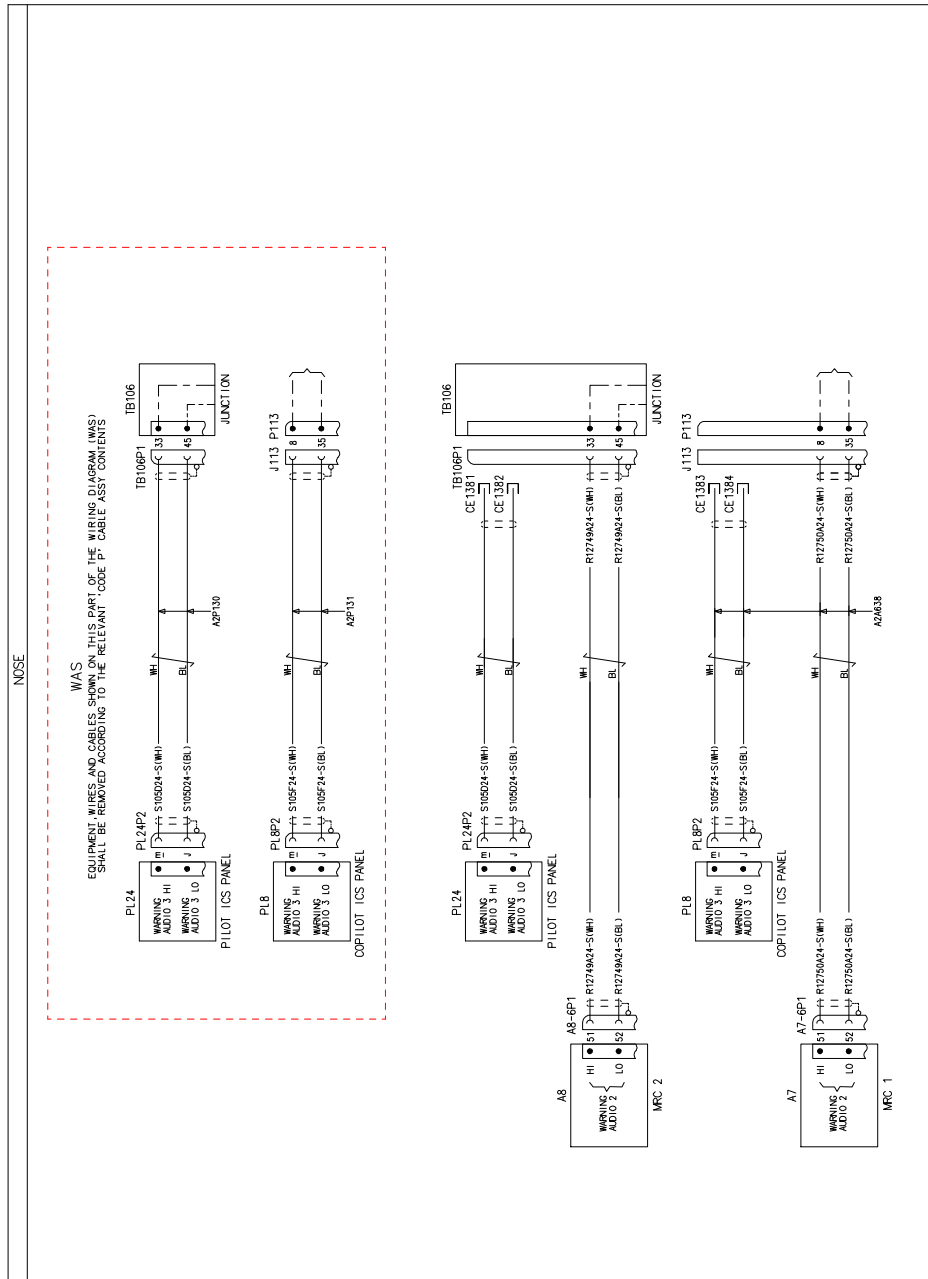
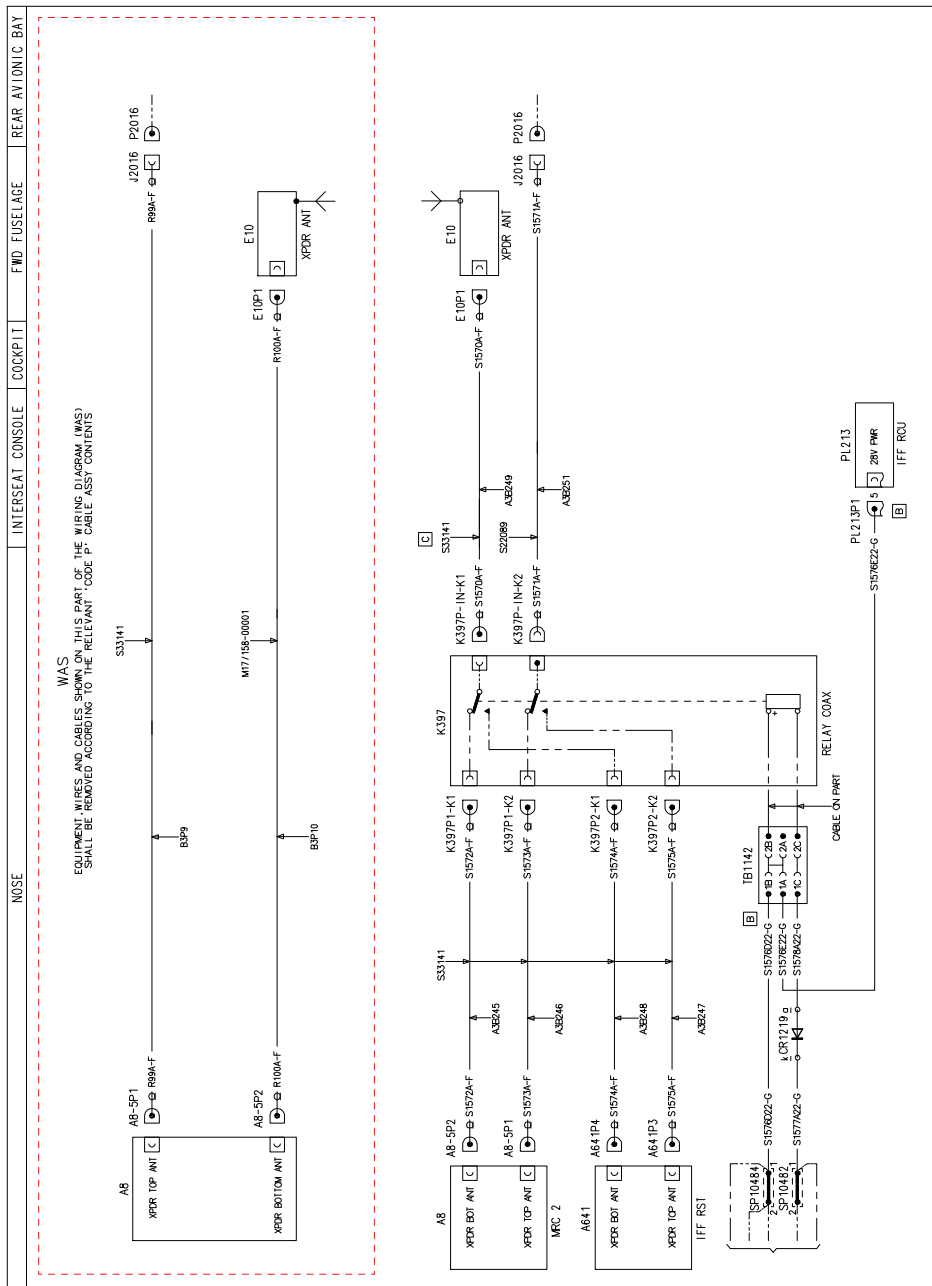


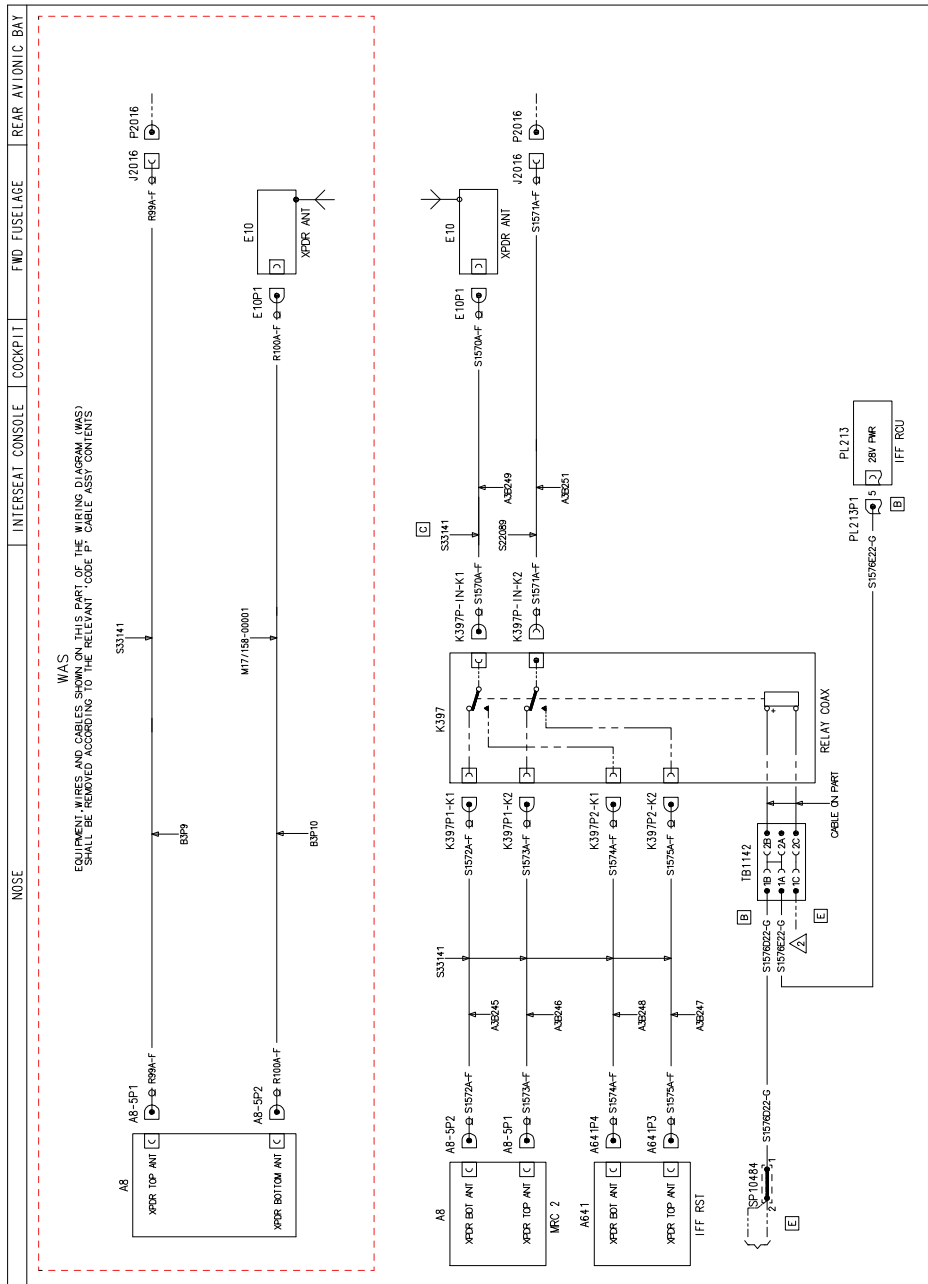
Figure 18



FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM A19607 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE ASS6AT 22 UNLESS SPECIFIED

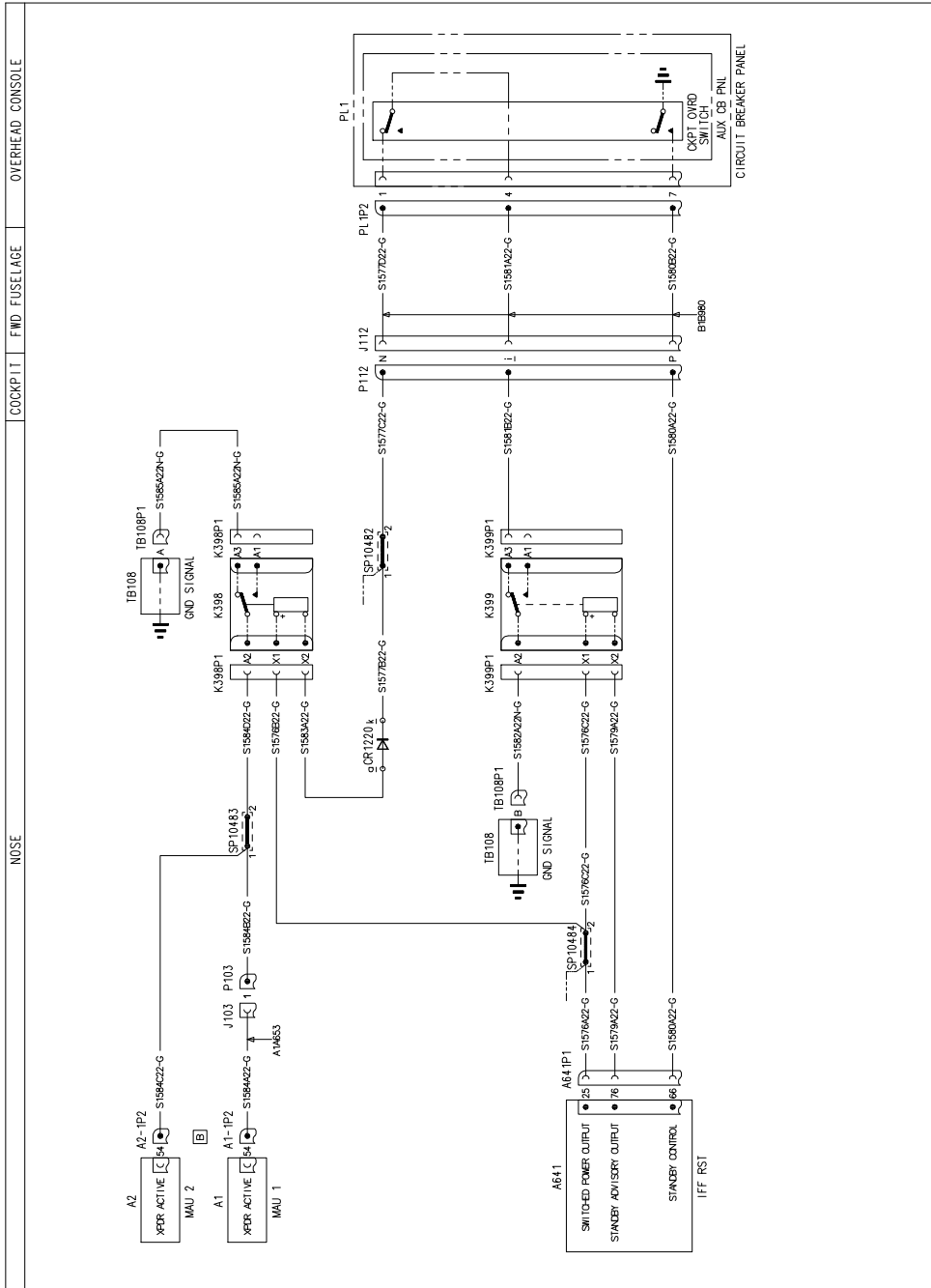
Figure 19



WAS
EQUIPMENT WIRES AND CABLES SHOWN ON THIS PART OF THE WIRING DIAGRAM (WAS) SHALL BE REMOVED ACCORDING TO THE RELEVANT CODE P. CABLE ASSY CONTENTS

FUNCTIONAL NOTES
ALL CABLES ARE IN LOW RESISTANCE UNLESS SPECIFIED
ALL CABLES ARE OF TYPE ABB601 UNLESS SPECIFIED

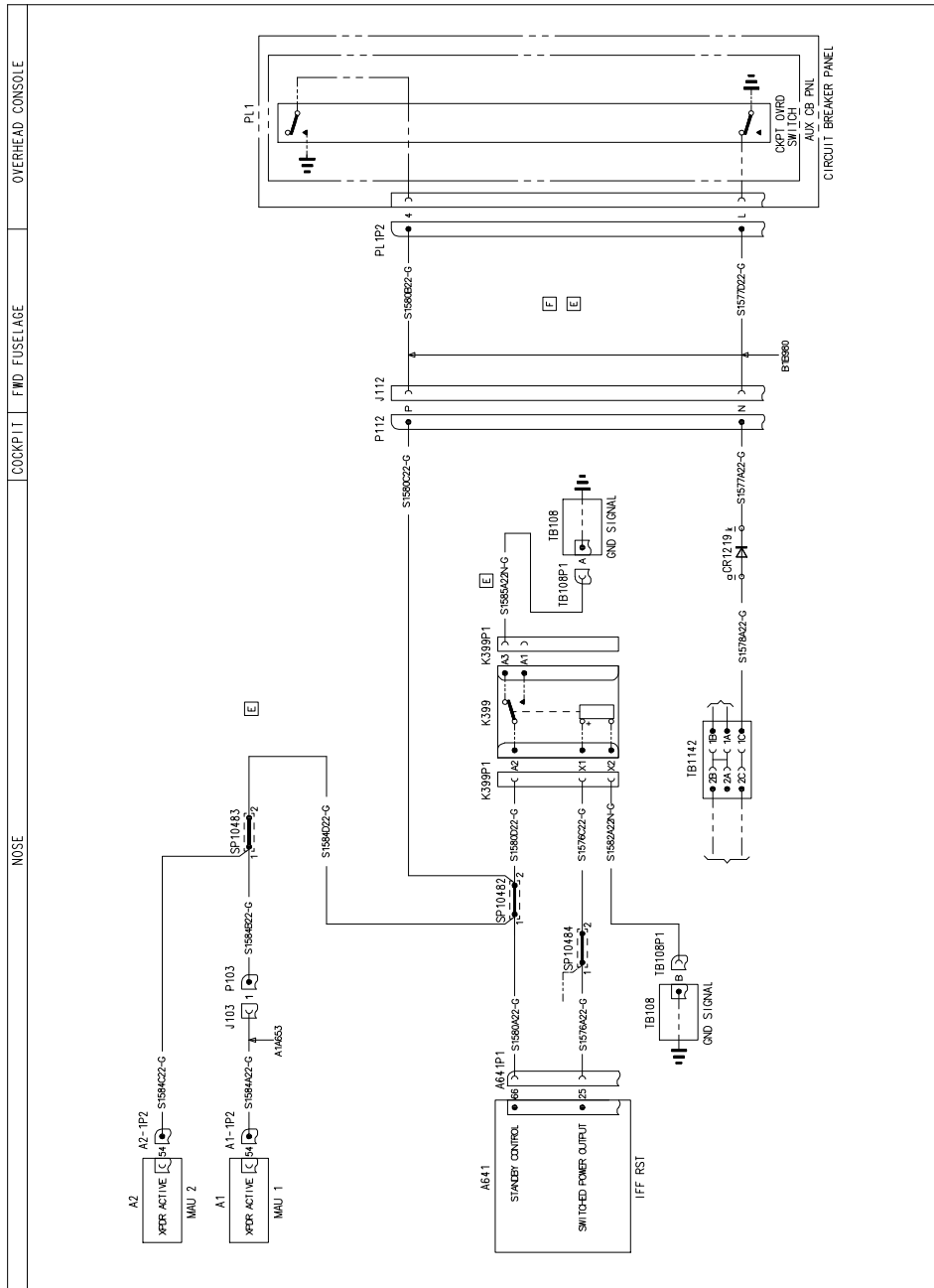
Figure 20



FUNCTIONAL NOTES

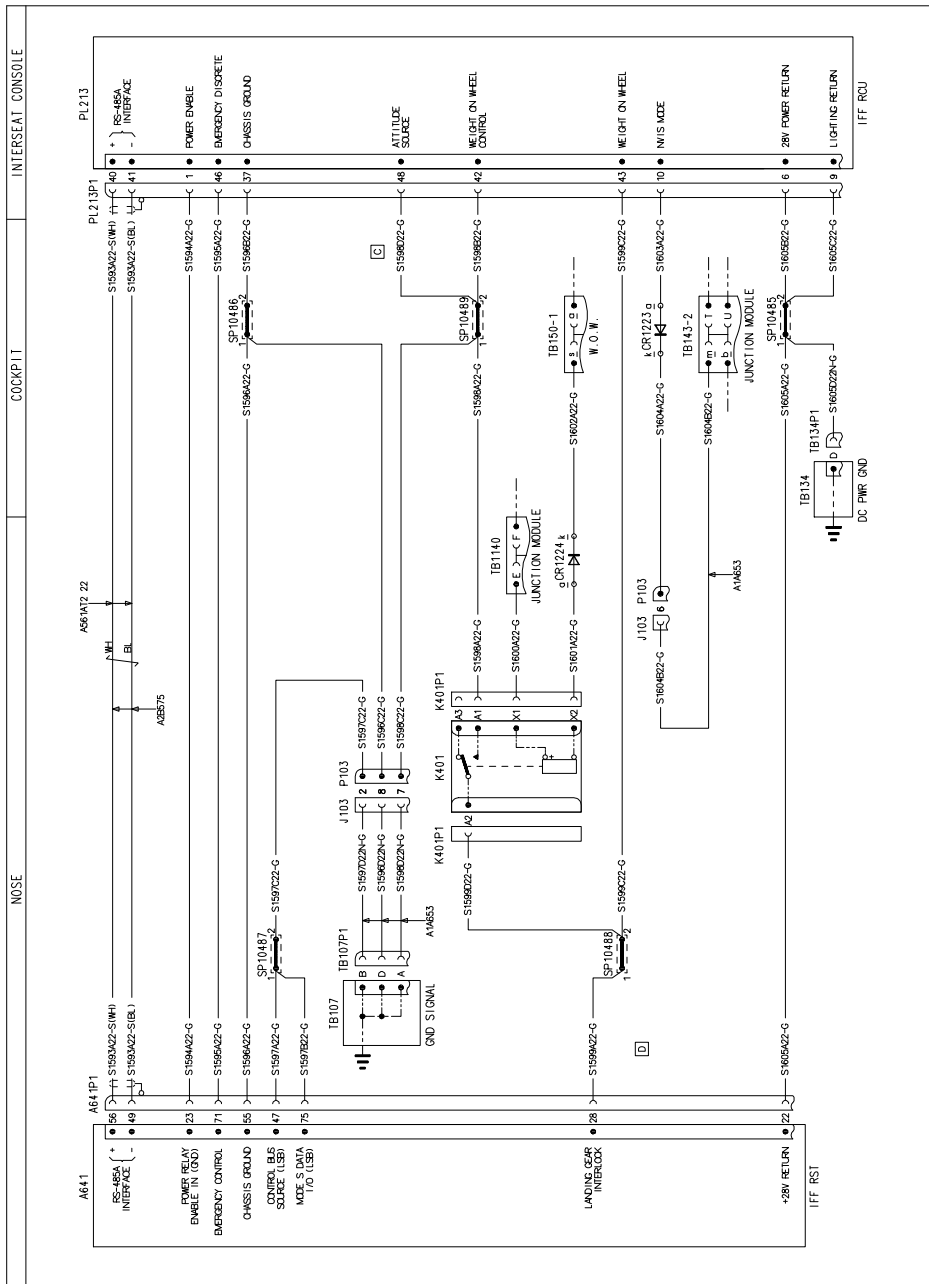
ALL CABLES ARE IN LODM A18007 UNLESS SPECIFIED.
ALL CABLES ARE OF THE ASSAN 22 UNLESS SPECIFIED

Figure 21



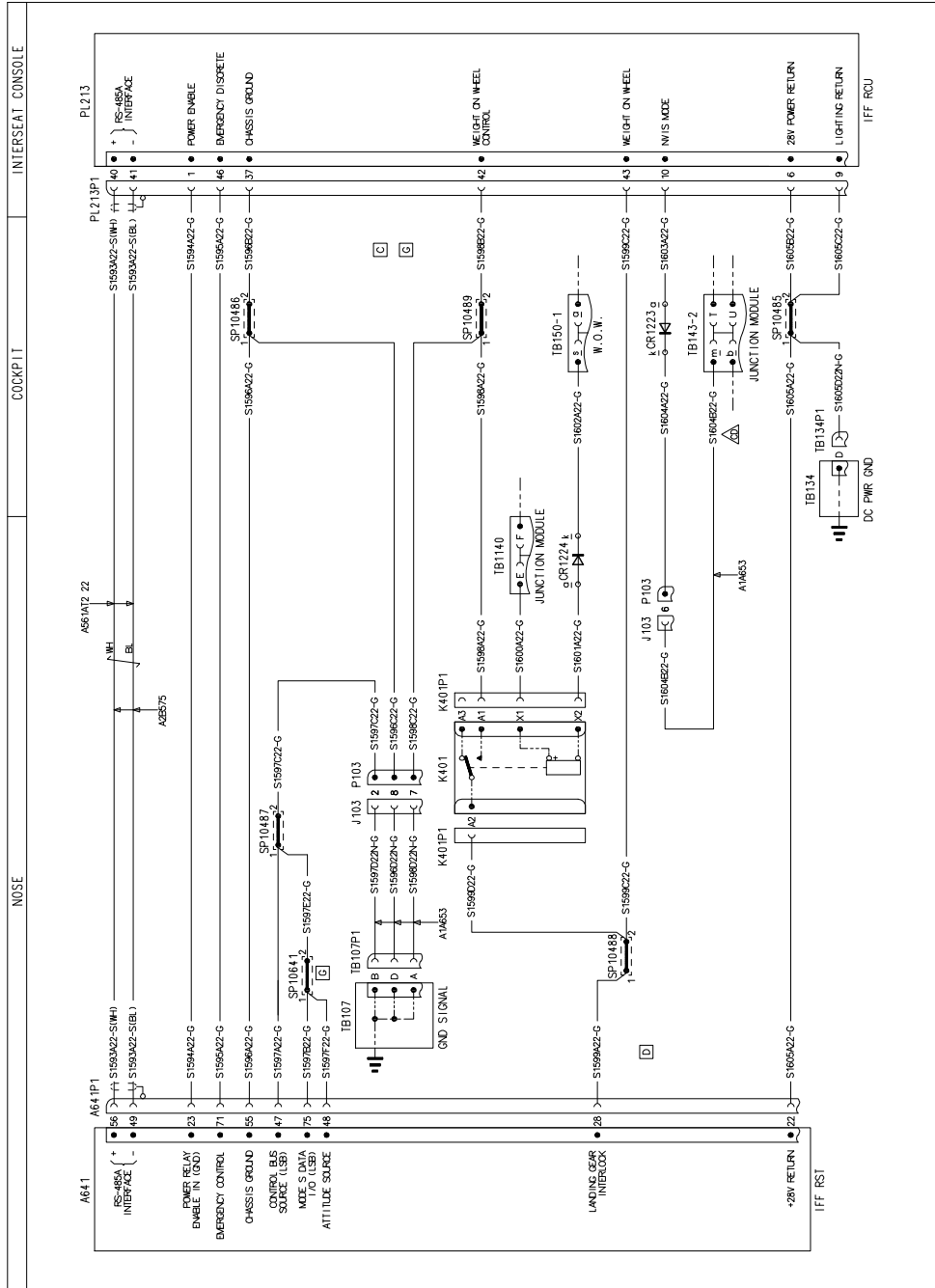
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A18607 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE AS5847 27 UNLESS SPECIFIED

Figure 22



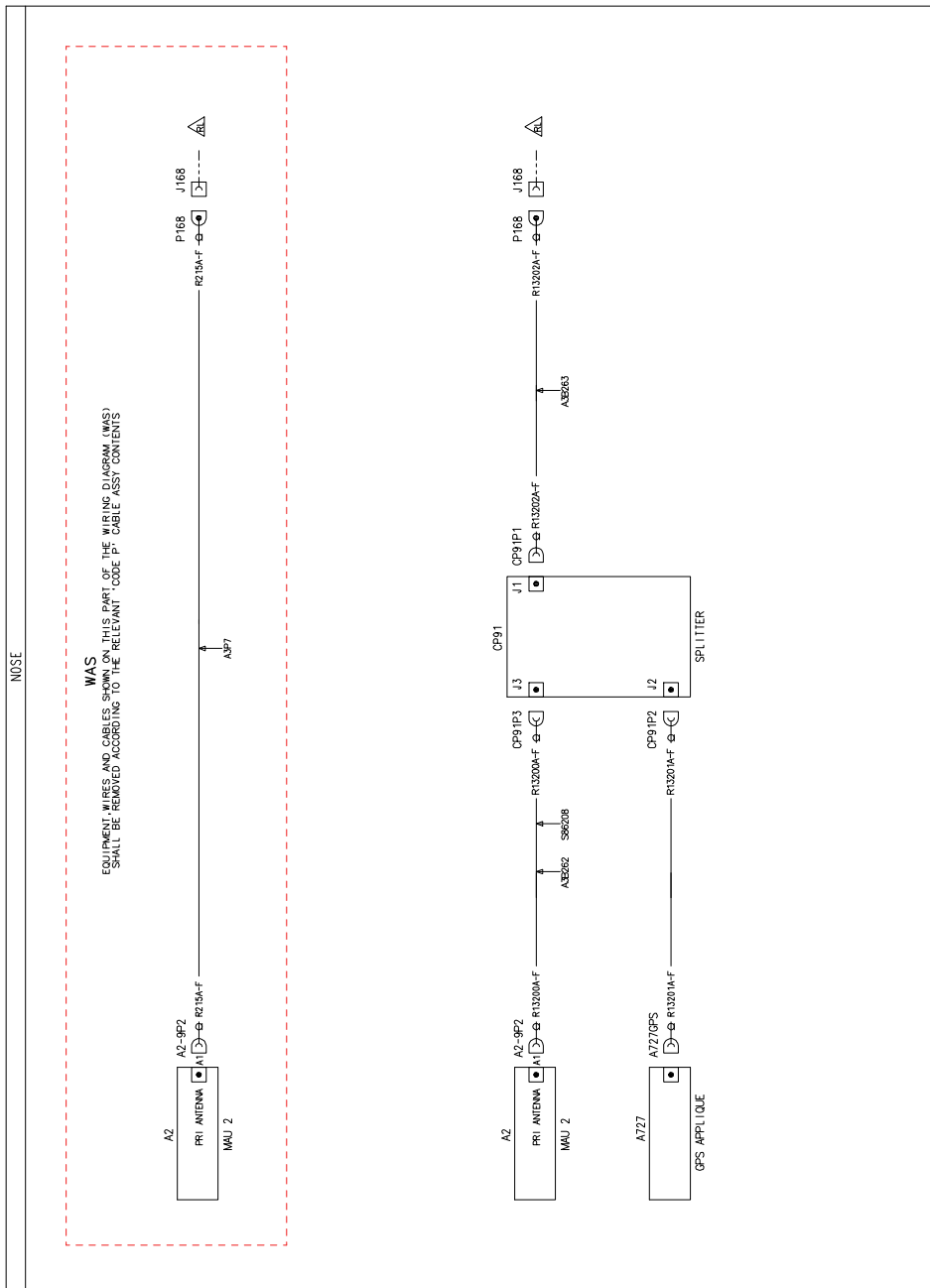
FUNCTIONAL NOTES
ALL CABLES ARE IN CONFORMITY UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A3864 22 UNLESS SPECIFIED

Figure 23



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A18607 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A55AT 22 UNLESS SPECIFIED.

Figure 24



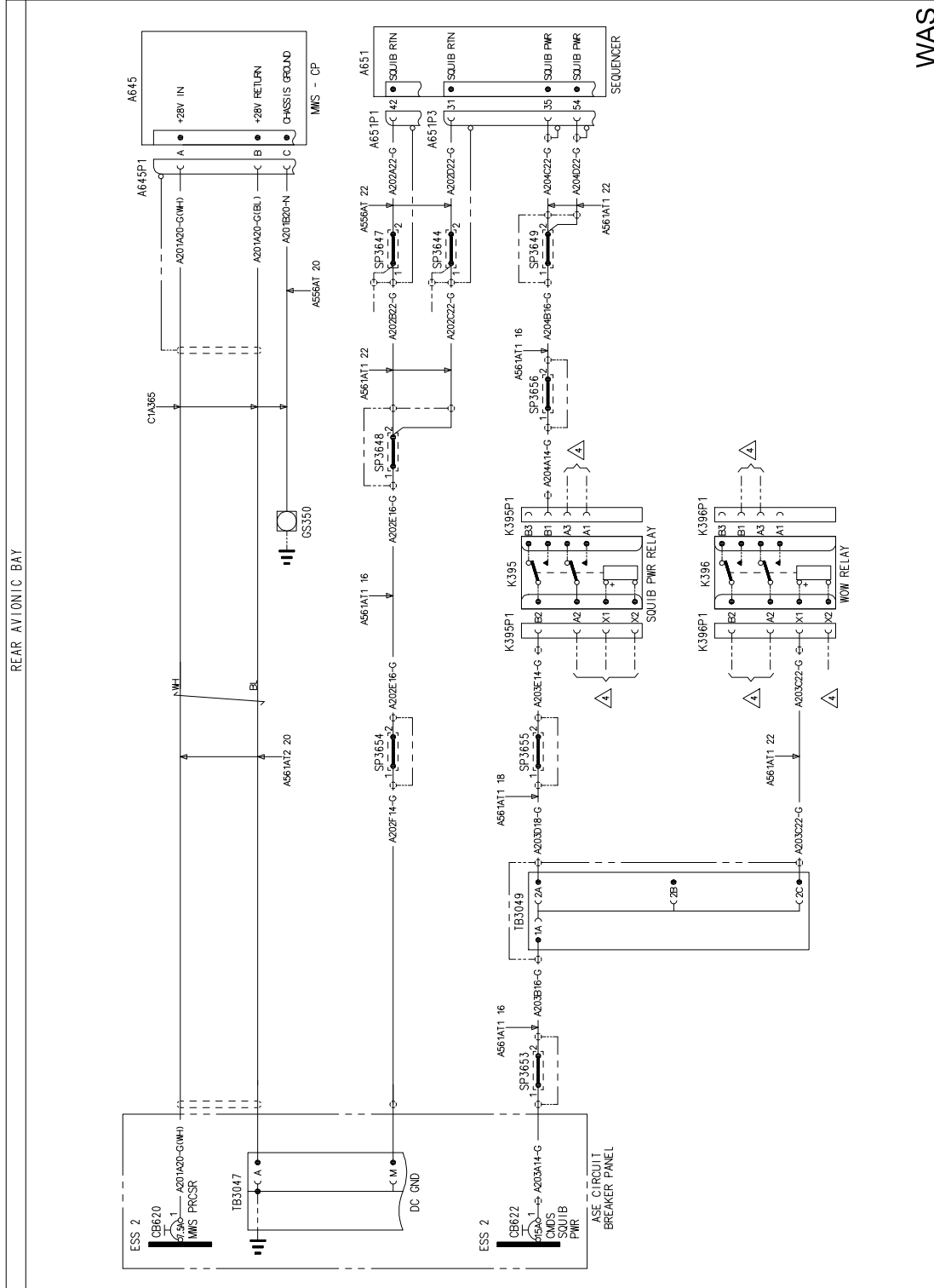
FUNCTIONAL NOTES

ALL CABLES ARE IN COM A38631 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE 253144 UNLESS SPECIFIED

Figure 25

DRAWING REF. KEY

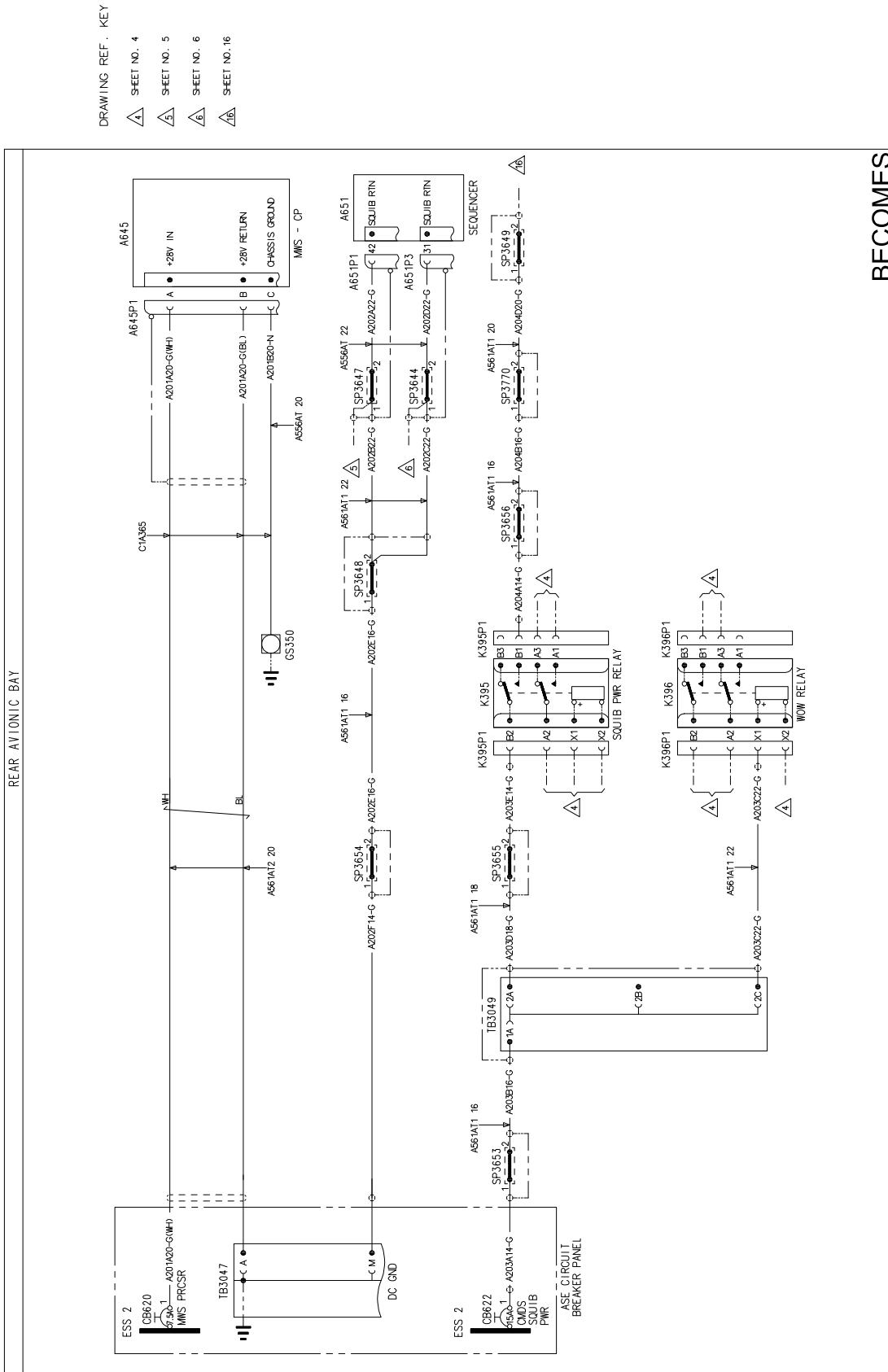
△ SHEET NO. 4



FUNCTIONAL NOTES

ALL CABLES ARE IN LOW CIB339 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A661A114 UNLESS SPECIFIED.

Figure 26



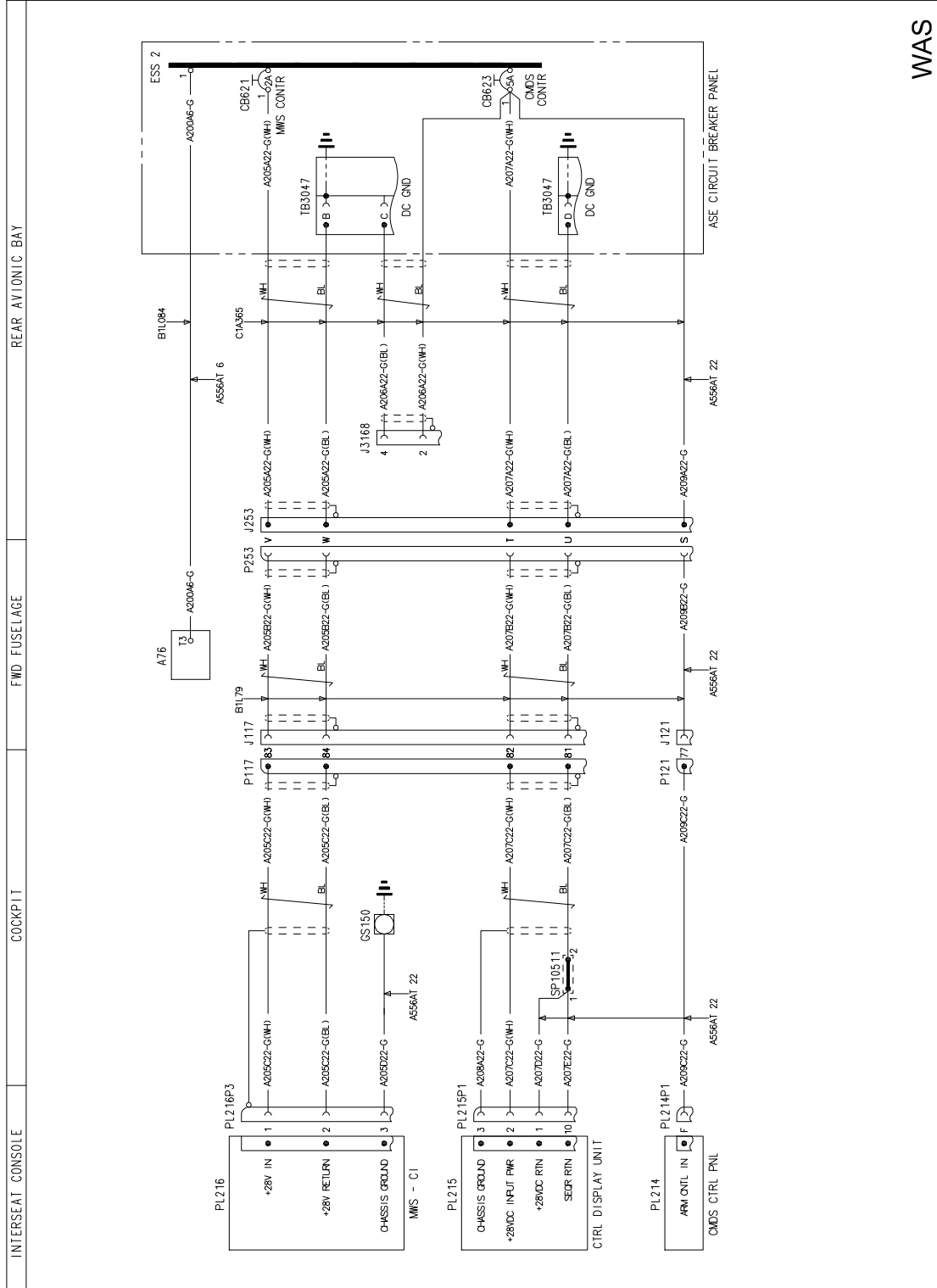
- DRAWING REF. KEY
- △ SHEET NO. 4
 - △ SHEET NO. 5
 - △ SHEET NO. 6
 - △ SHEET NO. 16

BECOMES

FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM C18310, UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A561A11, UNLESS SPECIFIED.

Figure 27



WAS

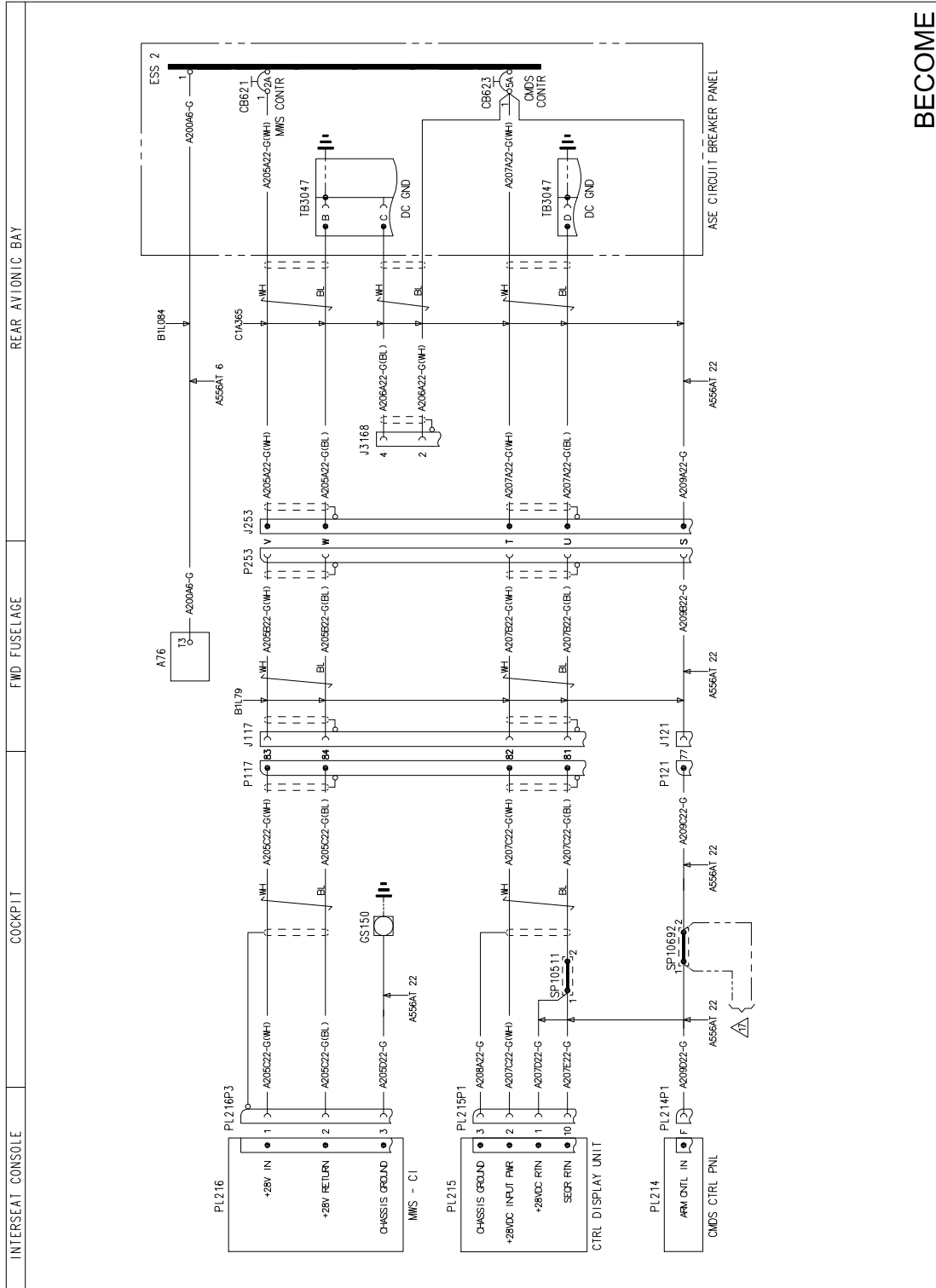
FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM A14651 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A657A12 Z2 UNLESS SPECIFIED

Figure 28

S.B. N°139-623
DATE: May 27, 2021
REVISION: /

DRAWING REF. KEY
SHEET NO. 17



BECOME

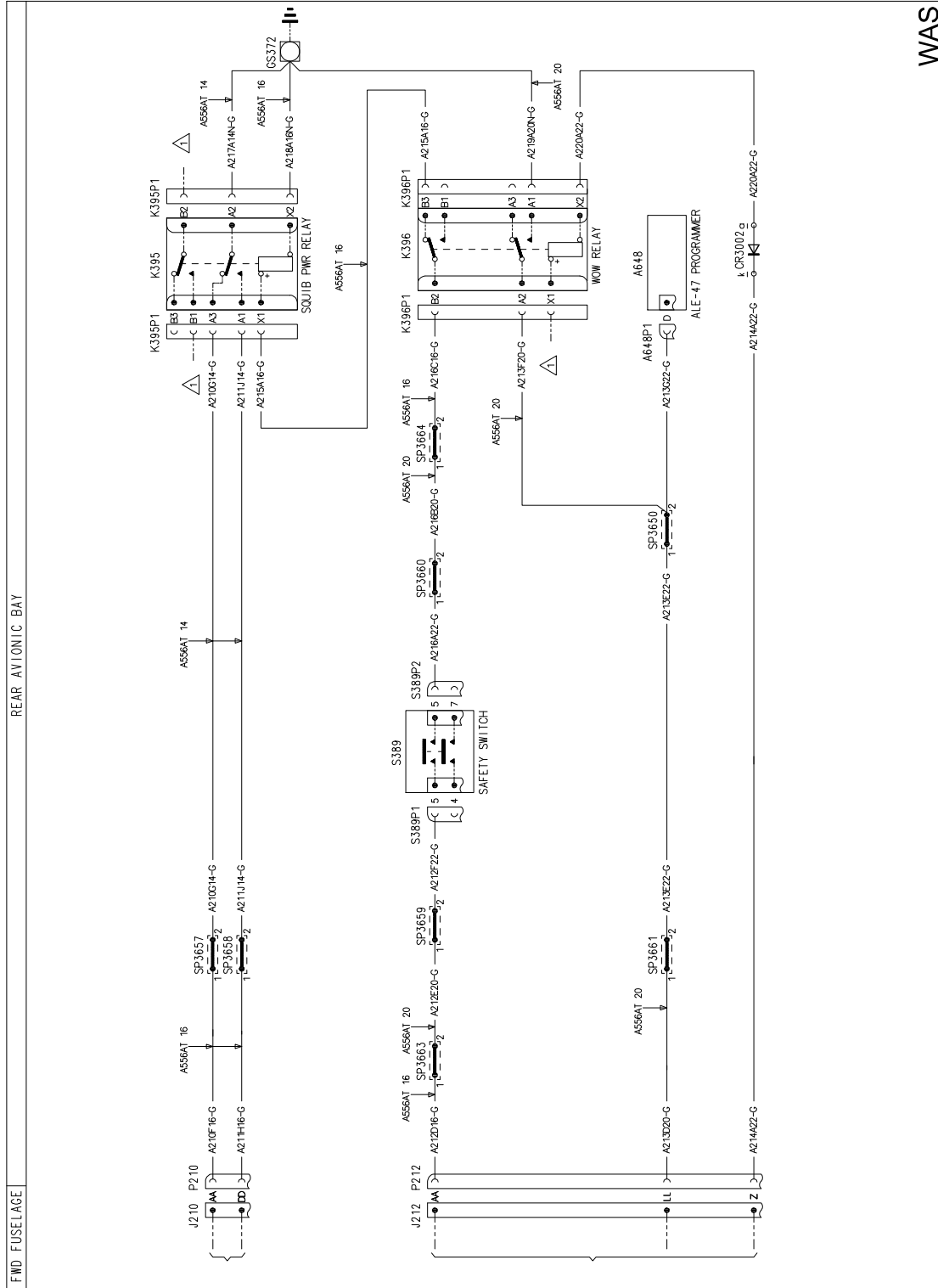
FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM A1A651 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A61A12 22 UNLESS SPECIFIED

Figure 29

DRAWING REF. KEY

SHEET NO.1



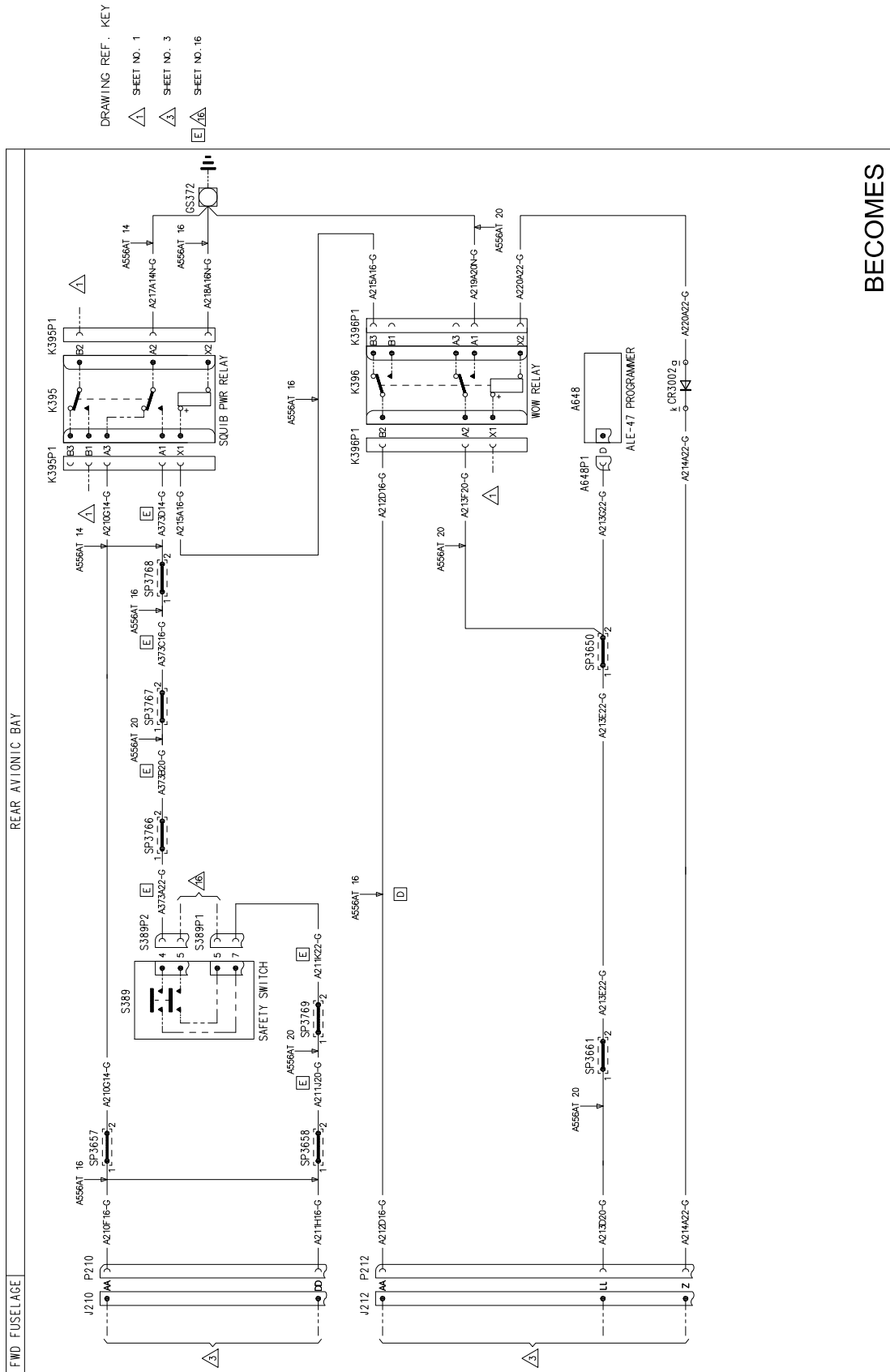
WAS

FUNCTIONAL NOTES

ALL CABLES ARE IN L00M C18339 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

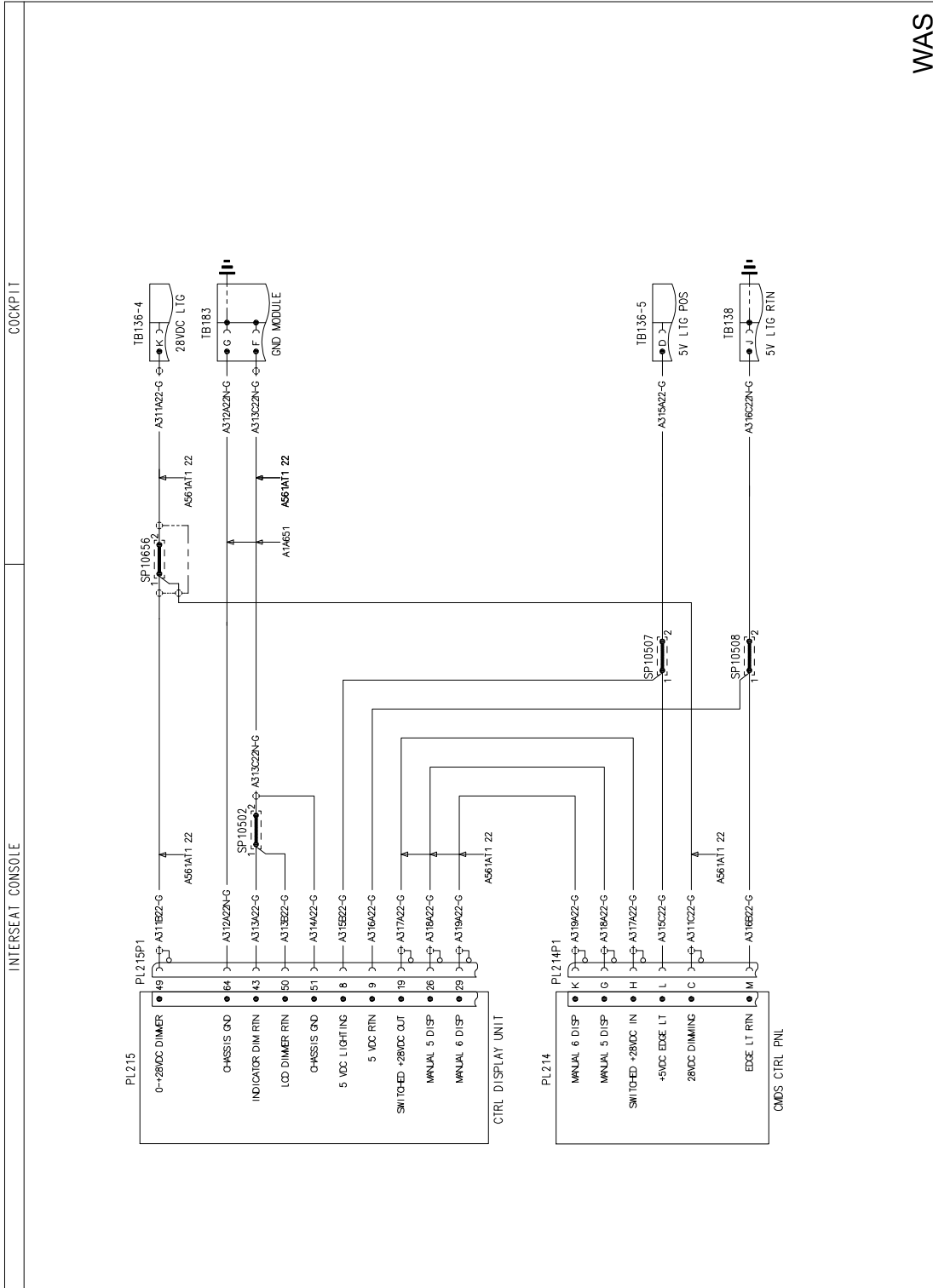
Figure 30

S.B. N°139-623
DATE: May 27, 2021
REVISION: /



DRAWING REF. KEY
 △ SHEET NO. 1
 ▽ SHEET NO. 3
 □ SHEET NO. 16

Figure 31



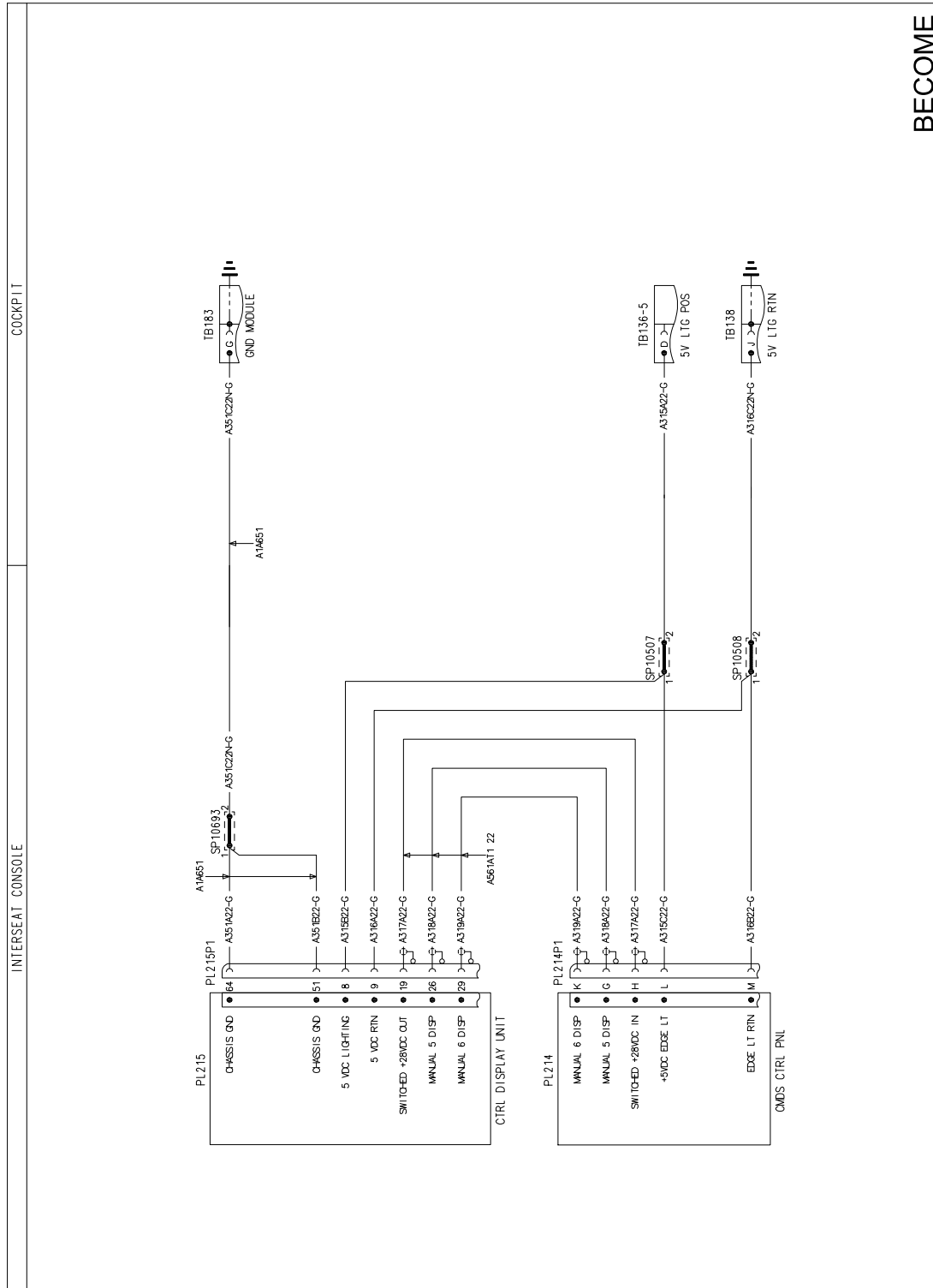
WAS

FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM A1804 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A308A1 Z2 UNLESS SPECIFIED

Figure 32

S.B. N°139-623
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REVISION: /



BECOME

FUNCTIONAL NOTES
ALL CABLES ARE IN LOW ITEM04 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE ASS041 22 UNLESS SPECIFIED

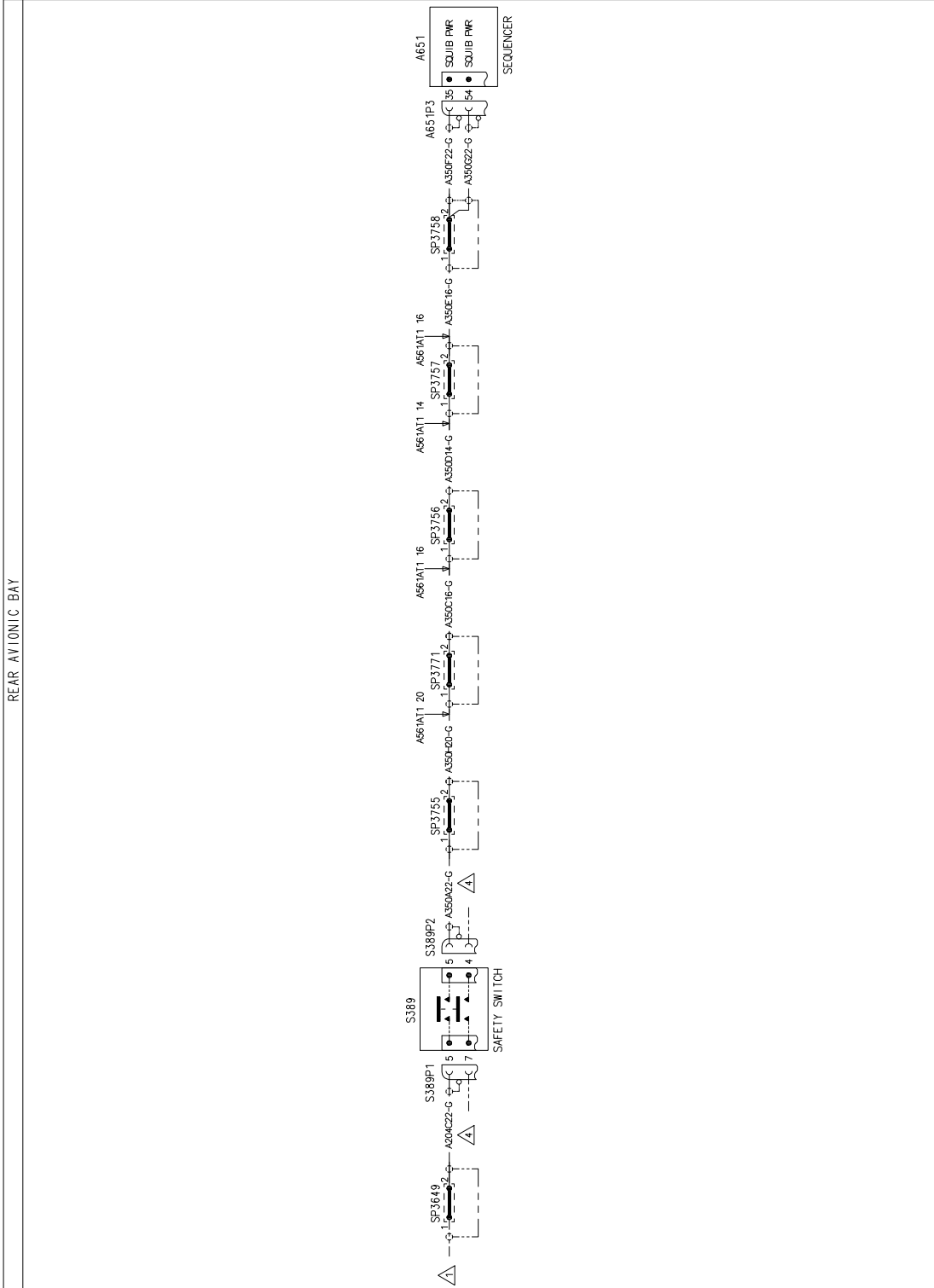
Figure 33

DRAWING REF. KEY

△ SHEET NO. 1

△ SHEET NO. 4

REAR AVIONIC BAY

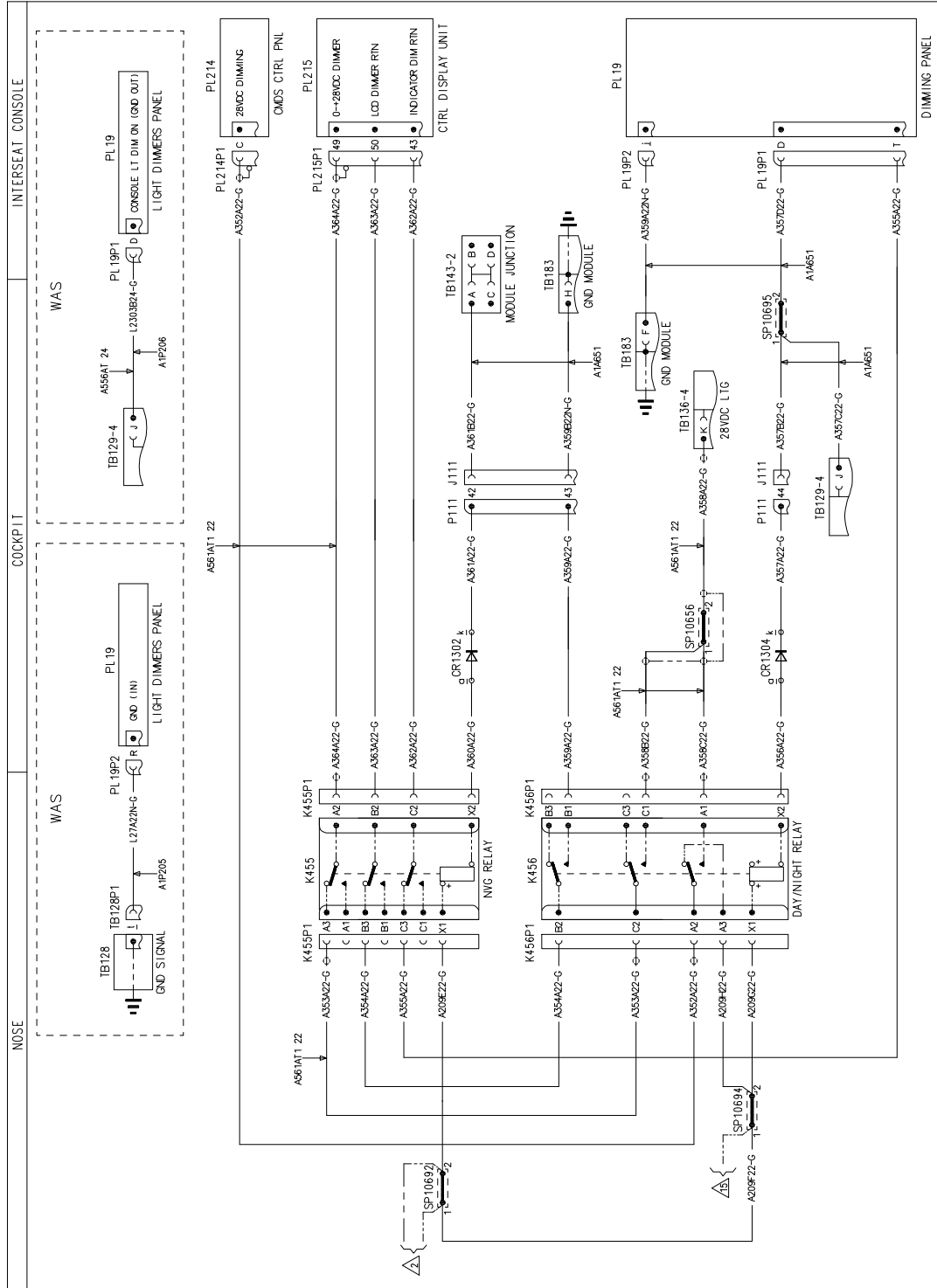


FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM C18339 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A361A11 22 UNLESS SPECIFIED

Figure 34

S.B. N°139-623
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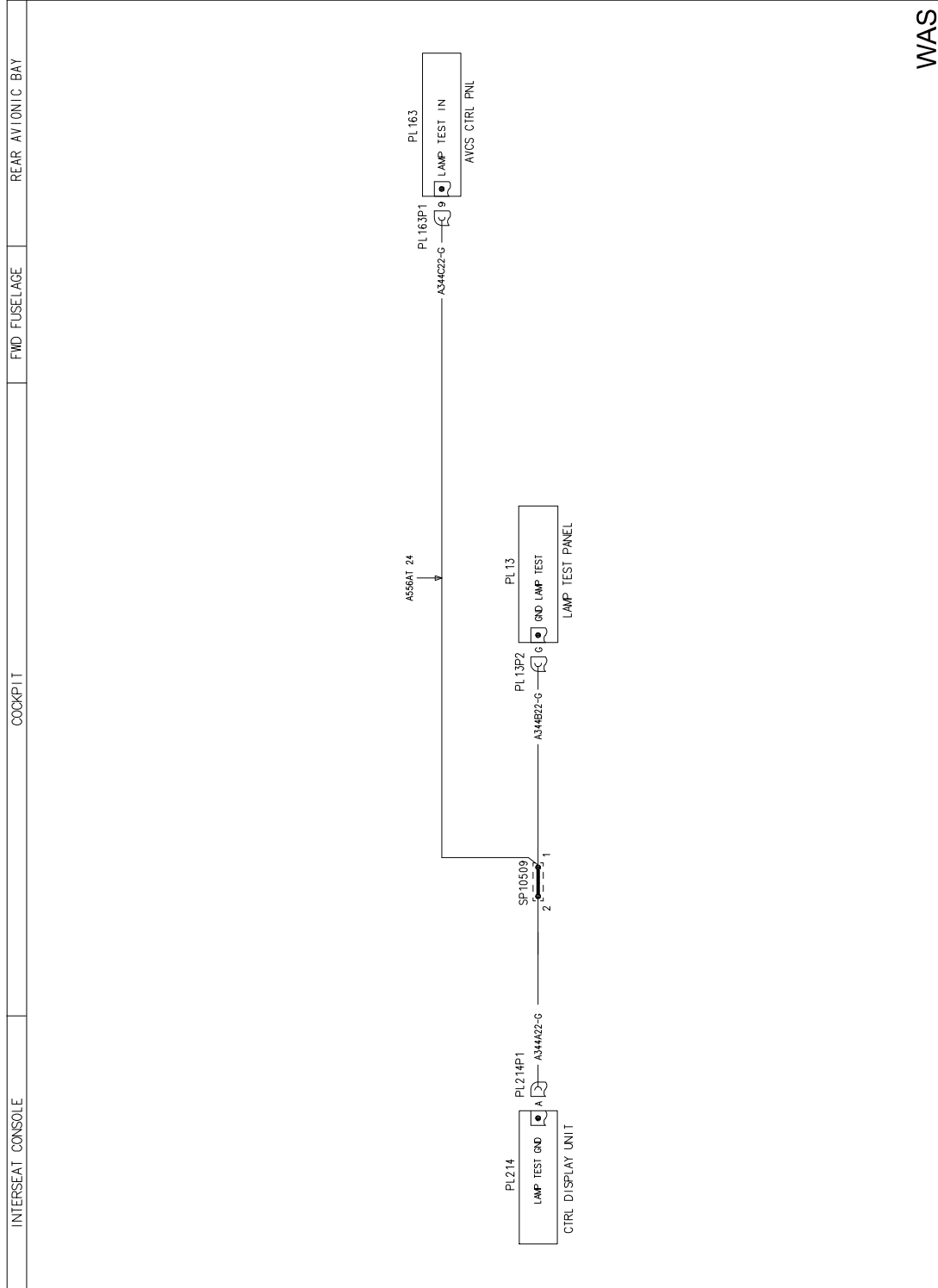


DRAWING REF. KEY
SHEET NO. 2

FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM A18604 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 35



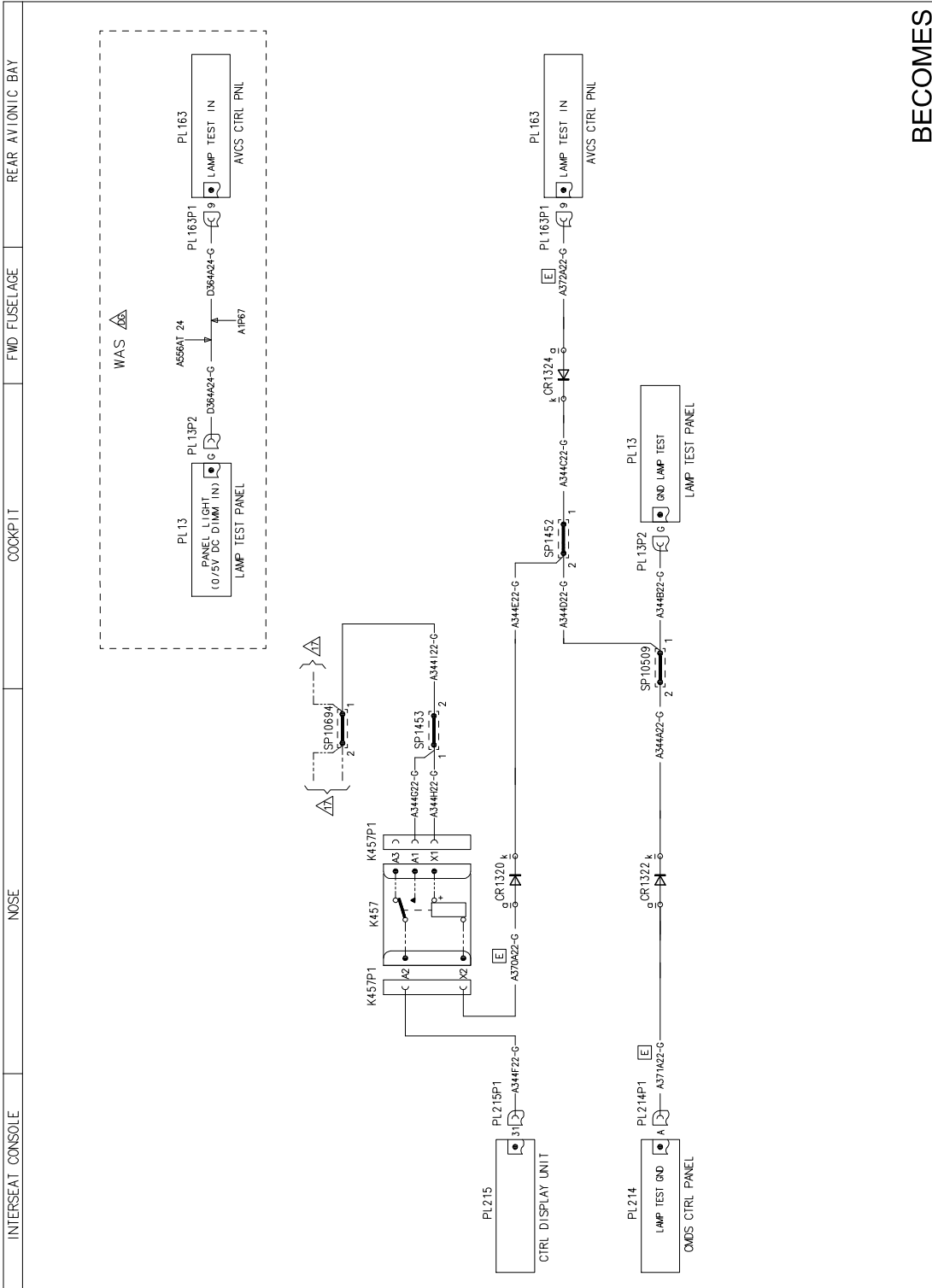
WAS

FUNCTIONAL NOTES

ALL CABLES ARE IN LCOM A18604 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE AS56AT 22 UNLESS SPECIFIED

Figure 36

S.B. N°139-623
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REVISION: /



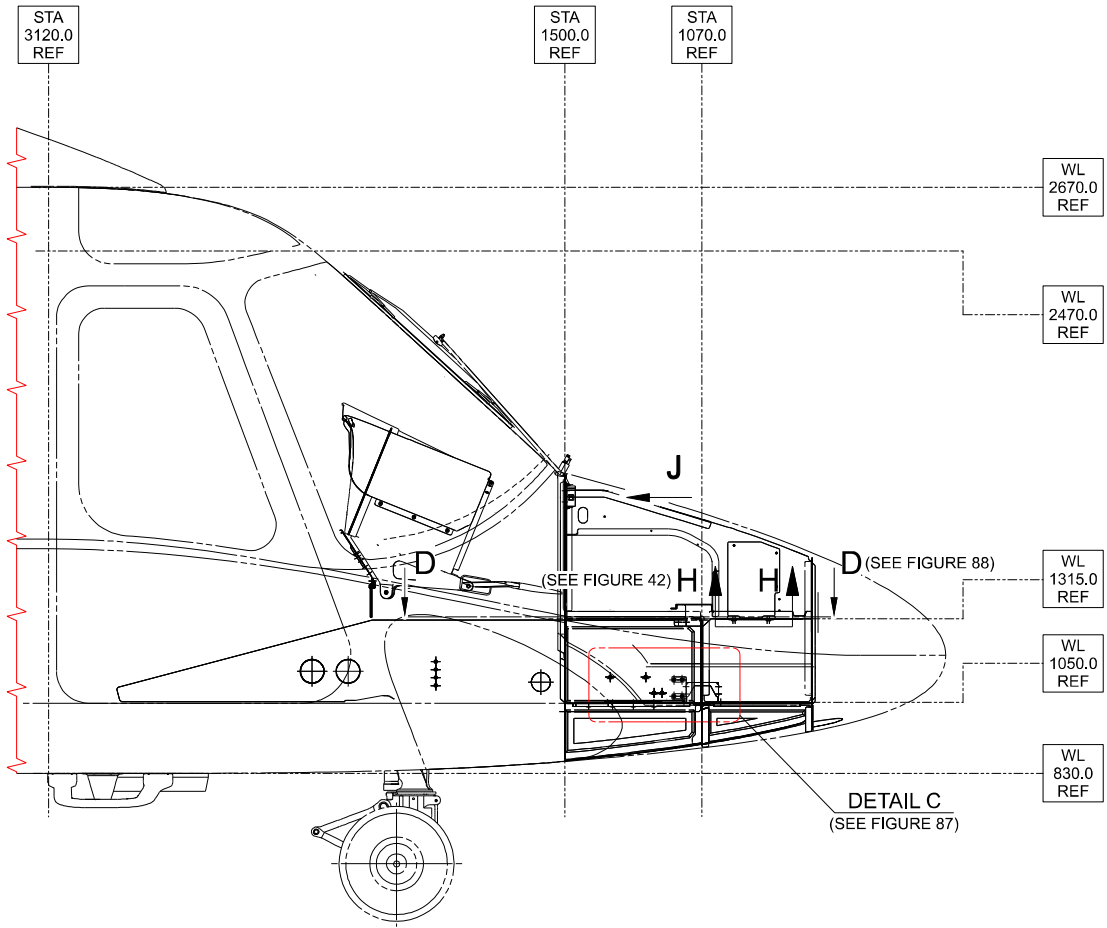
DRAWING REF. KEY
ACTIVE VIBRATION CONTROL SYSTEM
361630W041

BECOMES

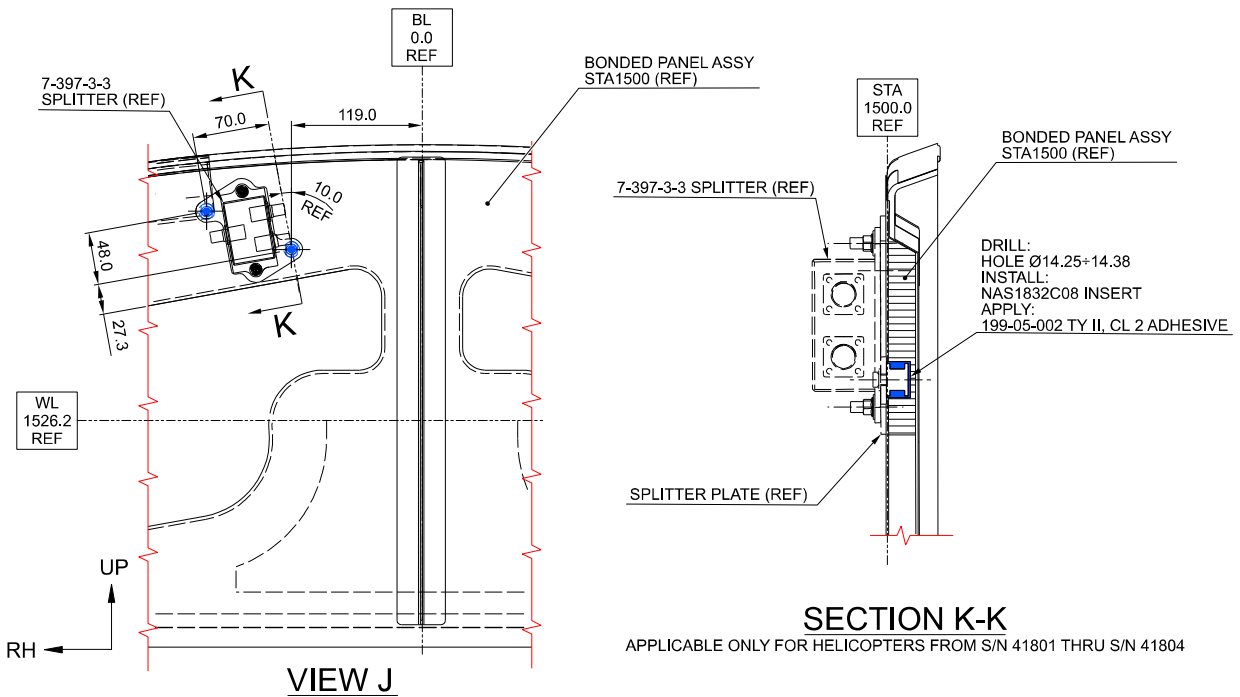
3G9350W05911
WIRING DIAGRAM ASE
SHEET 15

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A18604 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 37



VIEW LOOKING INBOARD RIGHT SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



SECTION K-K

APPLICABLE ONLY FOR HELICOPTERS FROM S/N 41801 THRU S/N 41804

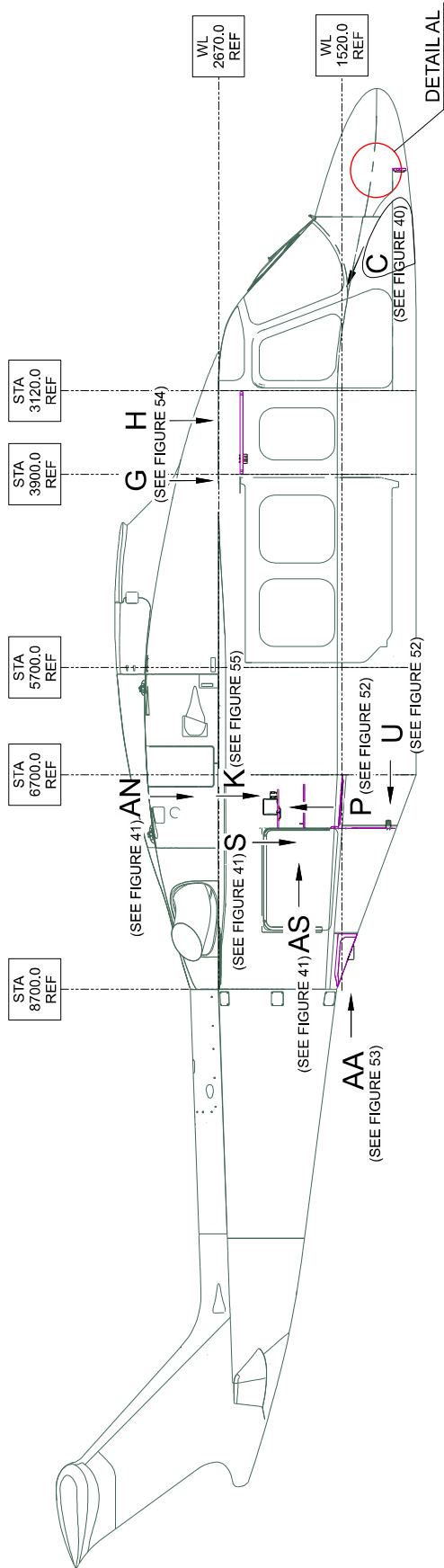
APPLICABLE ONLY FOR HELICOPTERS FROM S/N 41801 THRU S/N 41804
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

3G5311A34611

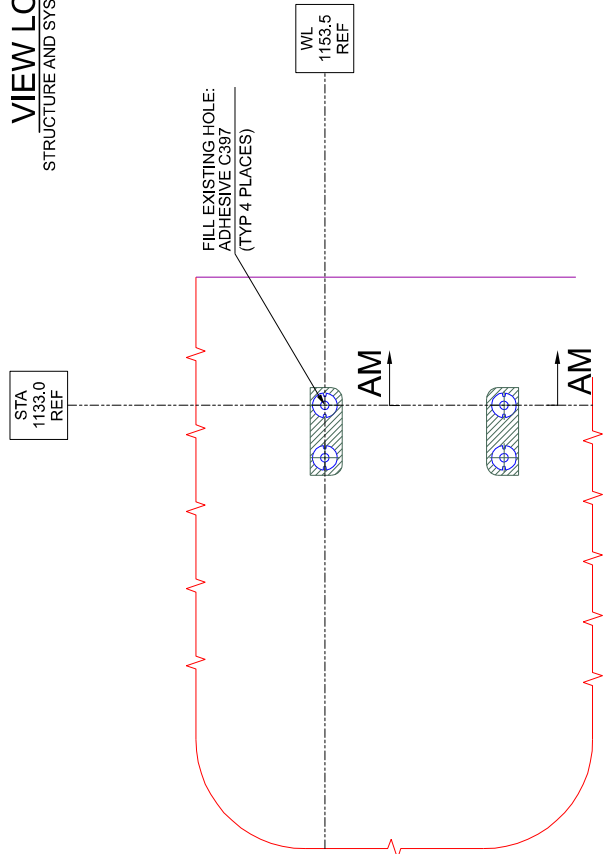
IFF BAE AN/DPX7 STRUCTURAL PROVISION

Figure 38

S.B. N°139-623
DATE: May 27, 2021
REVISION: /



VIEW LOOKING INBOARD RIGHT SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



SECTION AM-AM

APPLICABLE ONLY FOR S/N 41805 AND S/N 41806 EXCEPT WHERE INDICATED

DETAIL AL

APPLICABLE ONLY FOR S/N 41805 AND S/N 41806 EXCEPT WHERE INDICATED
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

ASE STRUCTURAL PROVISION
3G5311A34811

Figure 39

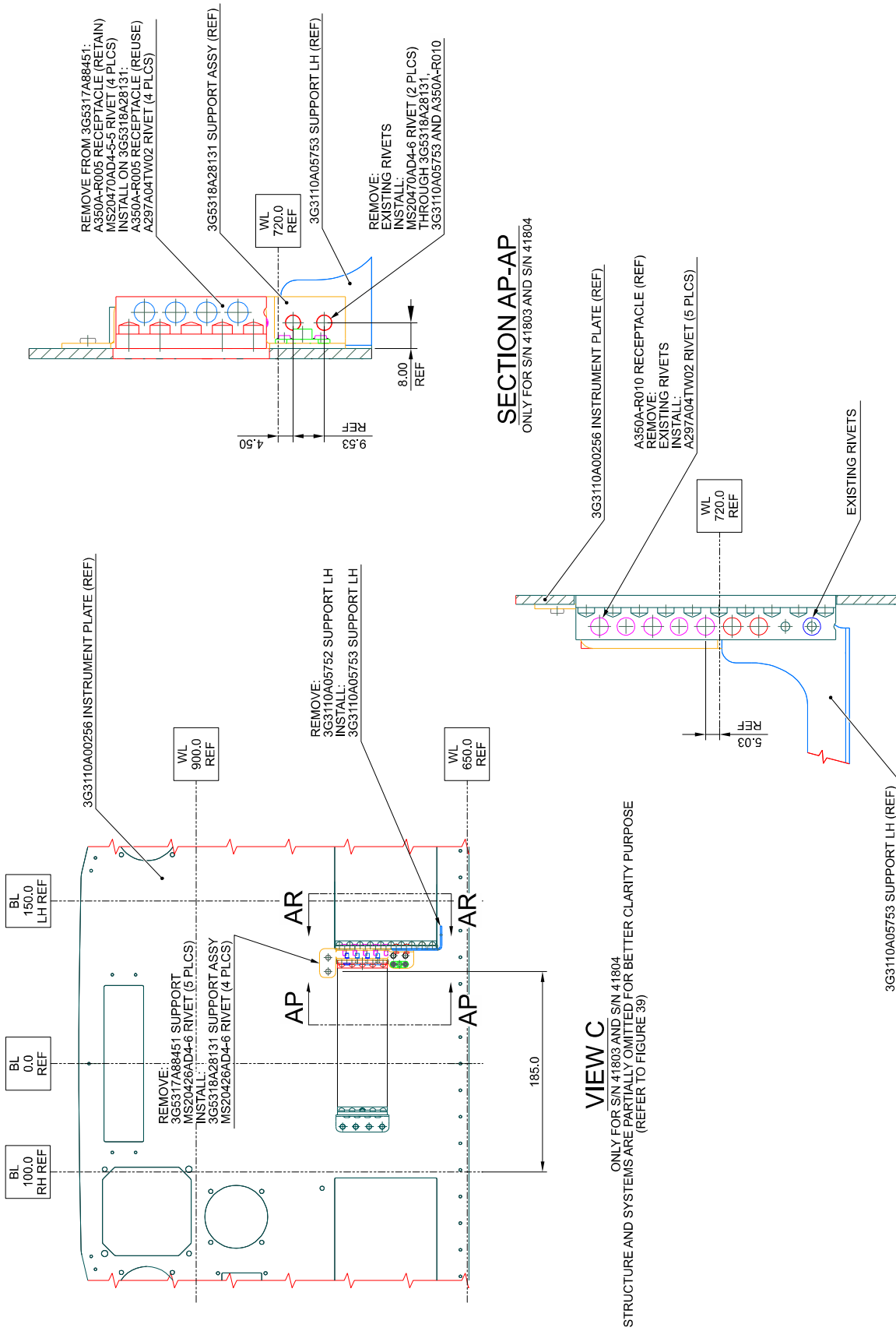


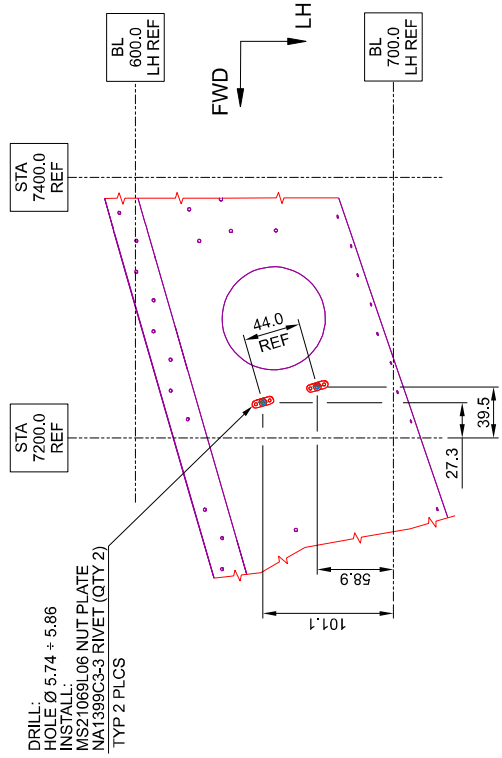
Figure 40

ASE STRUCTURAL PROVISION
3G5311A34811

SECTION AR-AR
ONLY FOR S/N 41803 AND S/N 41804

SECTION AP-AP
ONLY FOR S/N 41803 AND S/N 41804

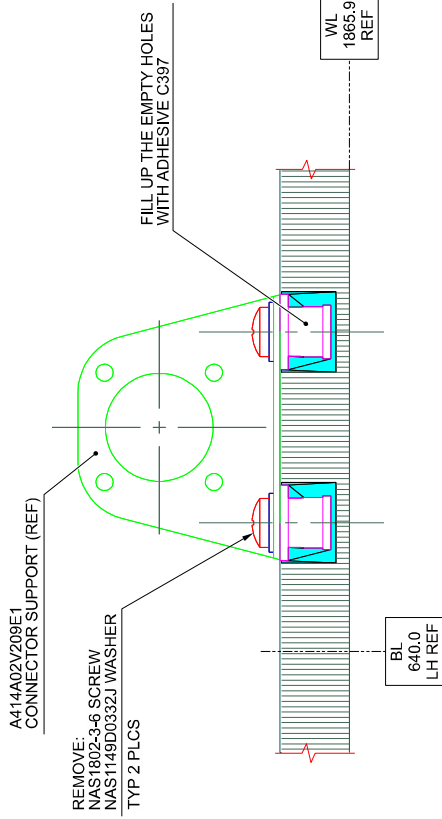
VIEW C
ONLY FOR S/N 41803 AND S/N 41804
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)



DRILL:
HOLE Ø 5.74 + 5.86
INSTALL:
MS21069L06 NUT PLATE
NA1399C3-3 RIVET (QTY 2)
TYP 2 PLCS

VIEW AN

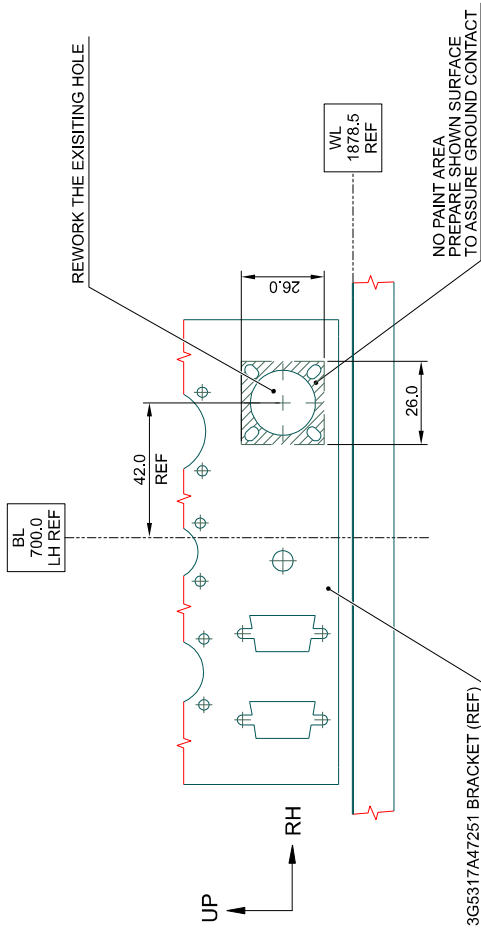
APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
LOOKING DOWN LH SIDE - BAGGAGE AREA
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)



SECTION T-T

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED

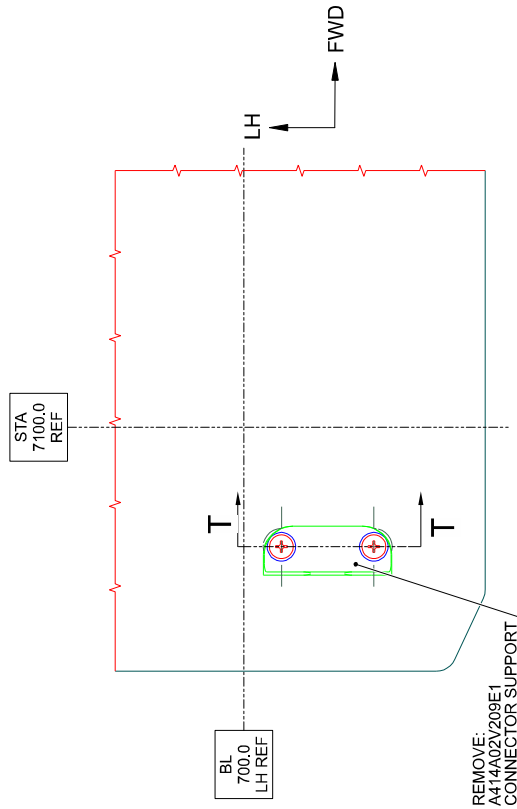
ASE STRUCTURAL PROVISION
3G5311A34811



VIEW AS

NO PAINT AREA
PREPARE SHOWN SURFACE
TO ASSURE GROUND CONTACT

3G5317A47251 BRACKET (REF)

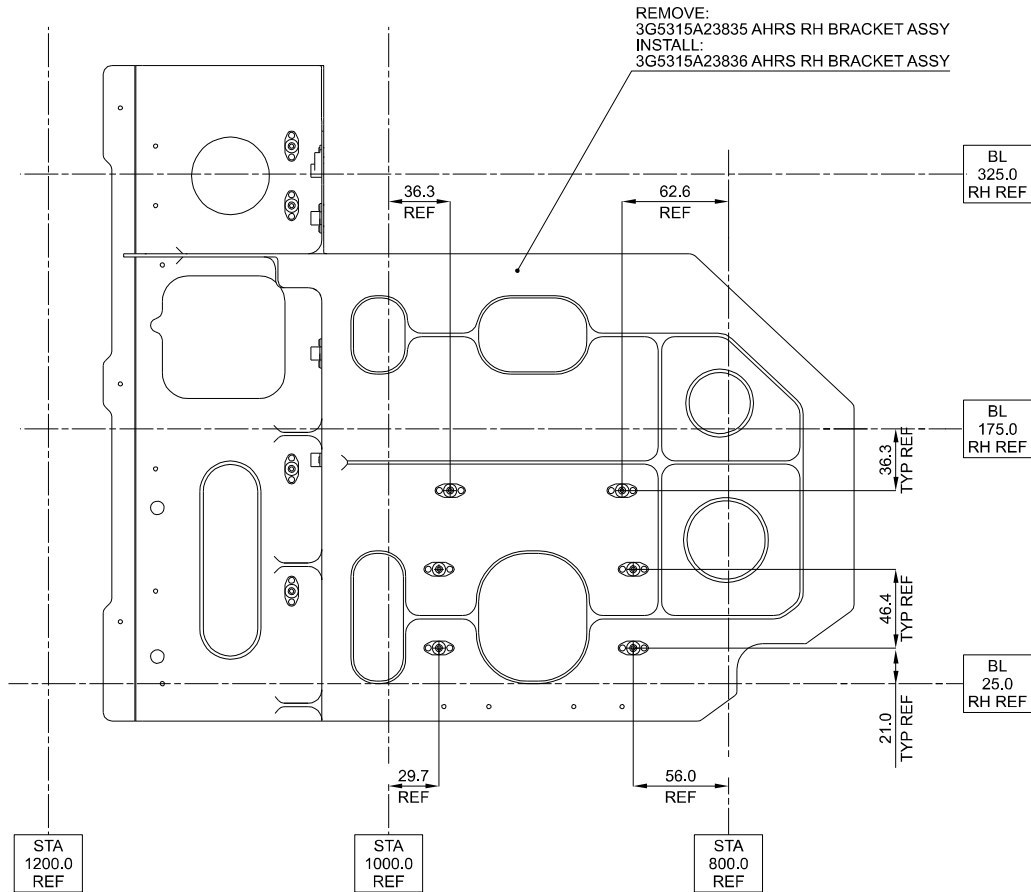


VIEW S

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)

REMOVE:
A414A02V209E1
CONNECTOR SUPPORT

Figure 41



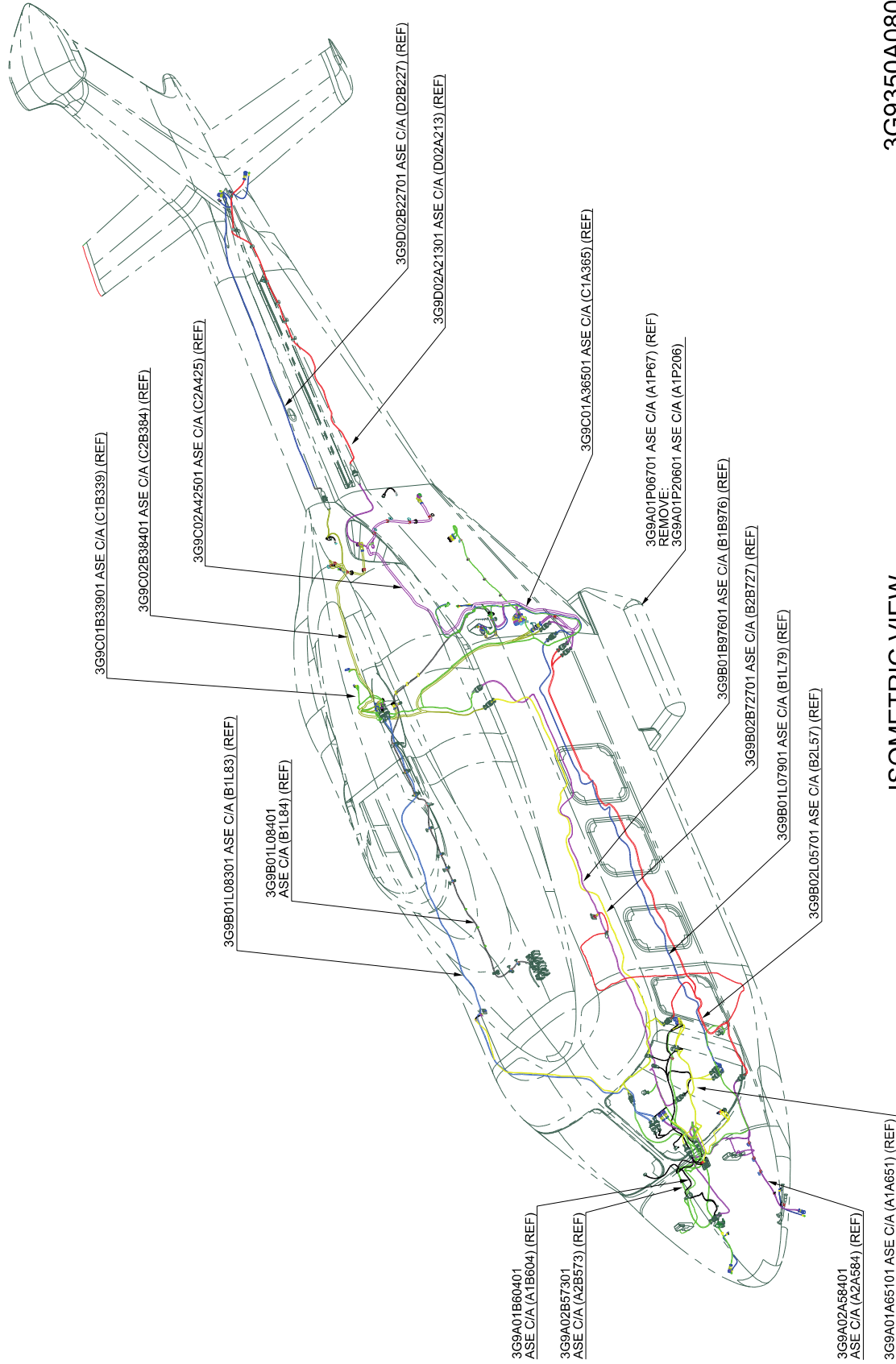
VIEW H-H

APPLICABLE ONLY FOR HELICOPTER S/N 41801
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 38)

3G5311A34611
IFF BAE AN/DPX7 STRUCTURAL PROVISION

Figure 42

S.B. N°139-623
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REVISION: /



3G9350A08011
ASE ELECTRICAL C/A INSTL

ISOMETRIC VIEW

Figure 43

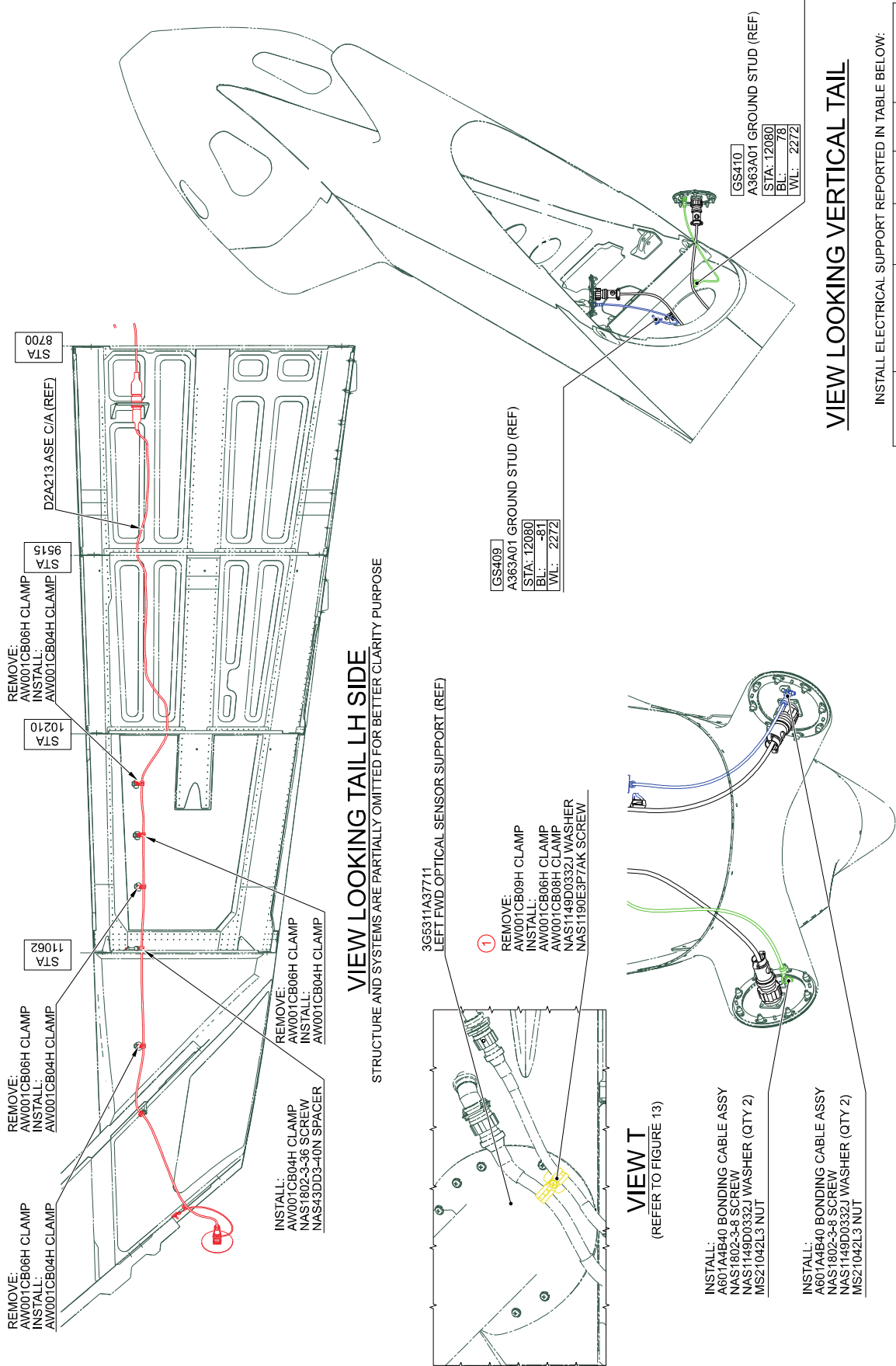
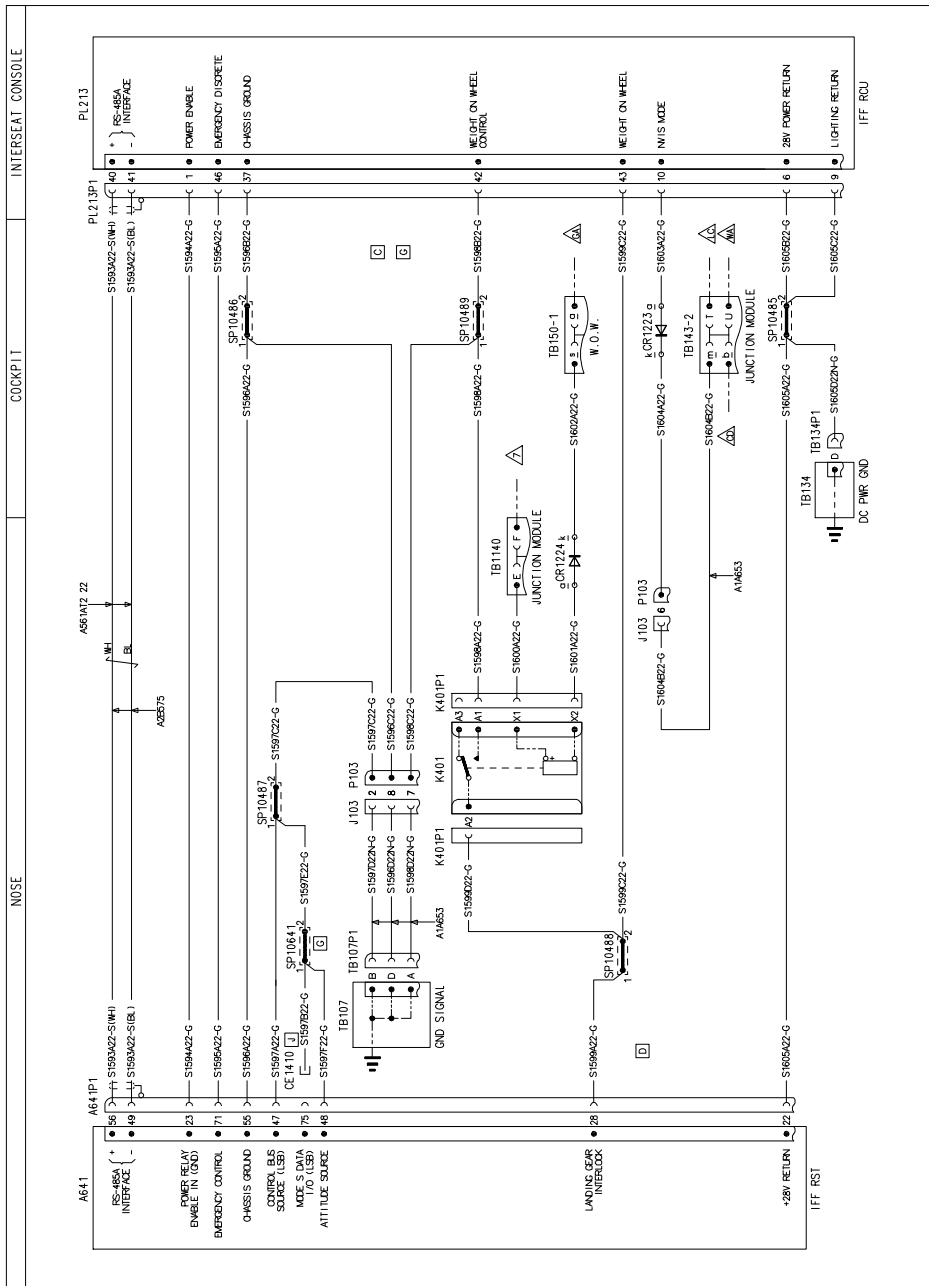
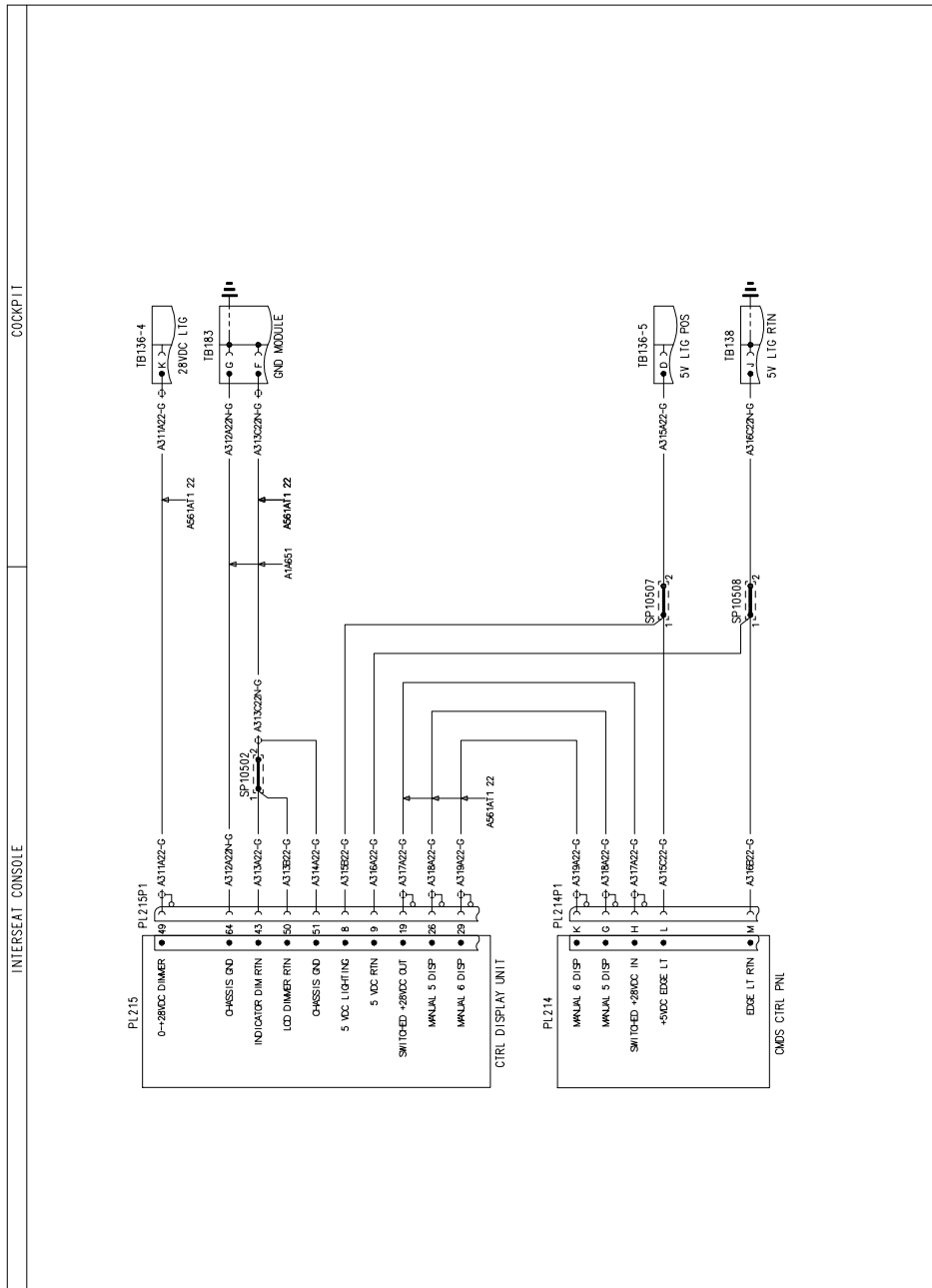


Figure 44



FUNCTIONAL NOTES
ALL CABLES ARE IN LOW AIRWAY UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A65007 Z2 UNLESS SPECIFIED

Figure 45

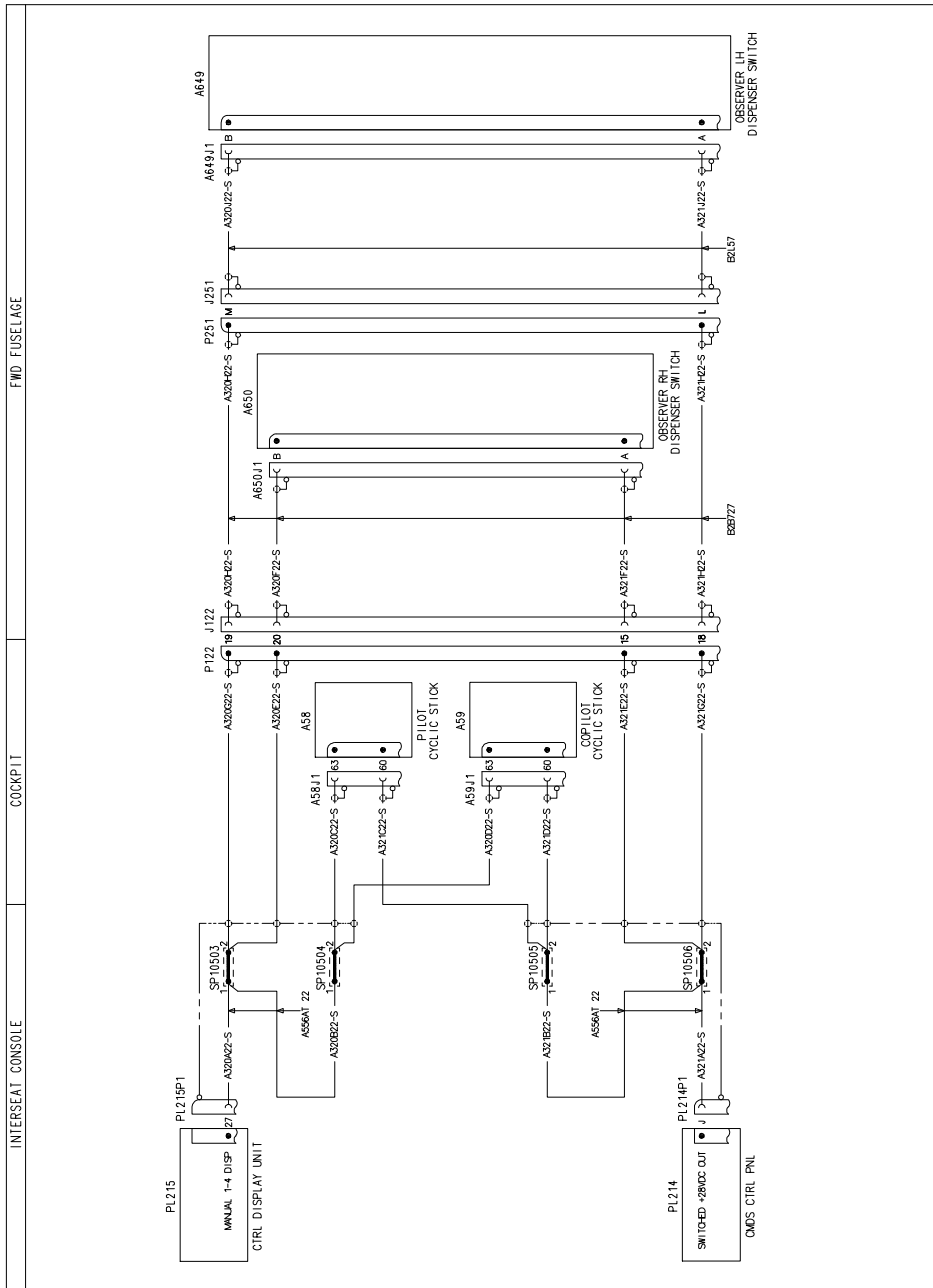


FUNCTIONAL NOTES

ALL CABLES ARE IN LOM A15604 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE A3564 22 UNLESS SPECIFIED.

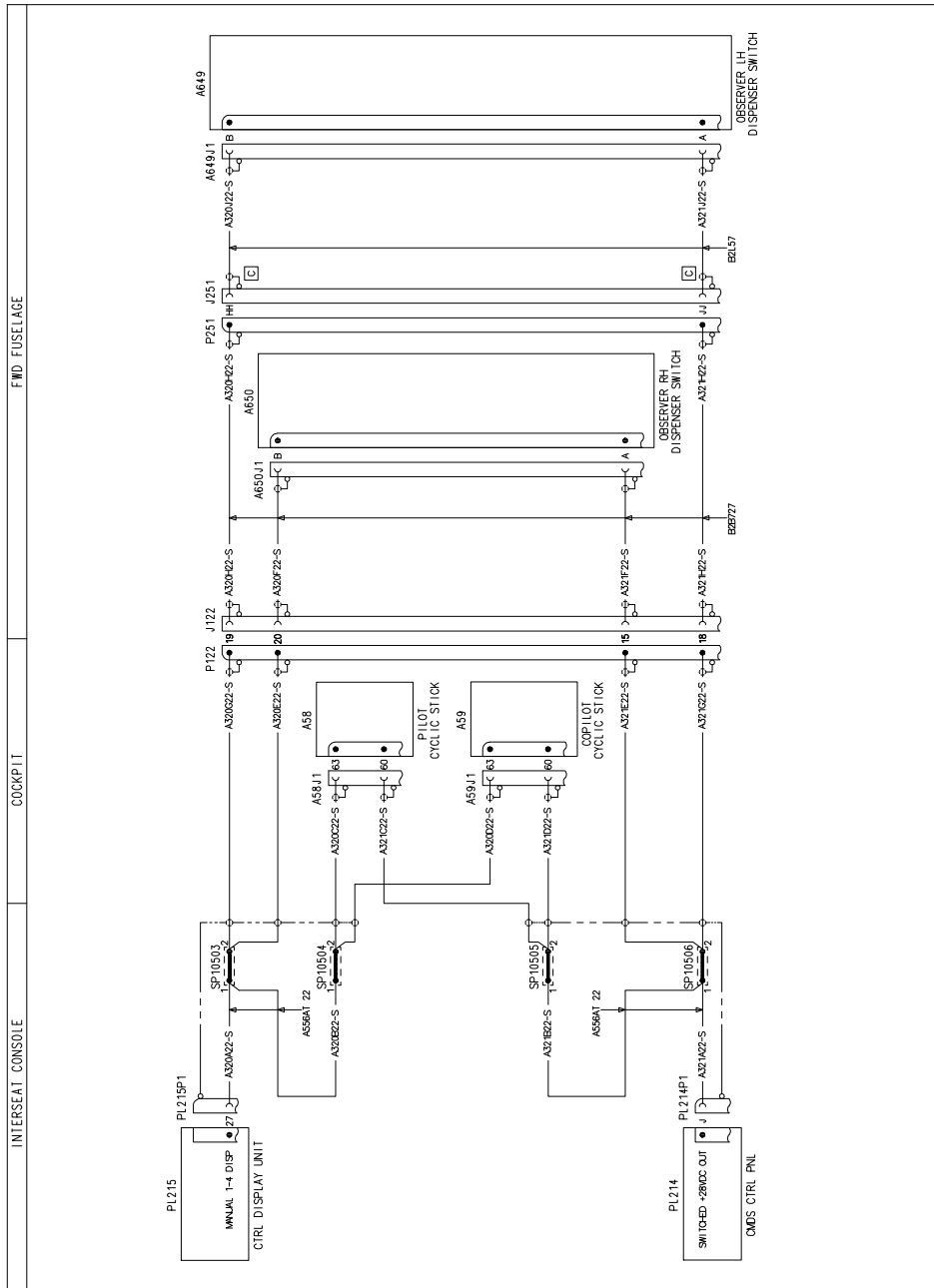
Figure 46

S.B. N°139-623
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REVISION: /



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A28572 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A58A11 22 UNLESS SPECIFIED

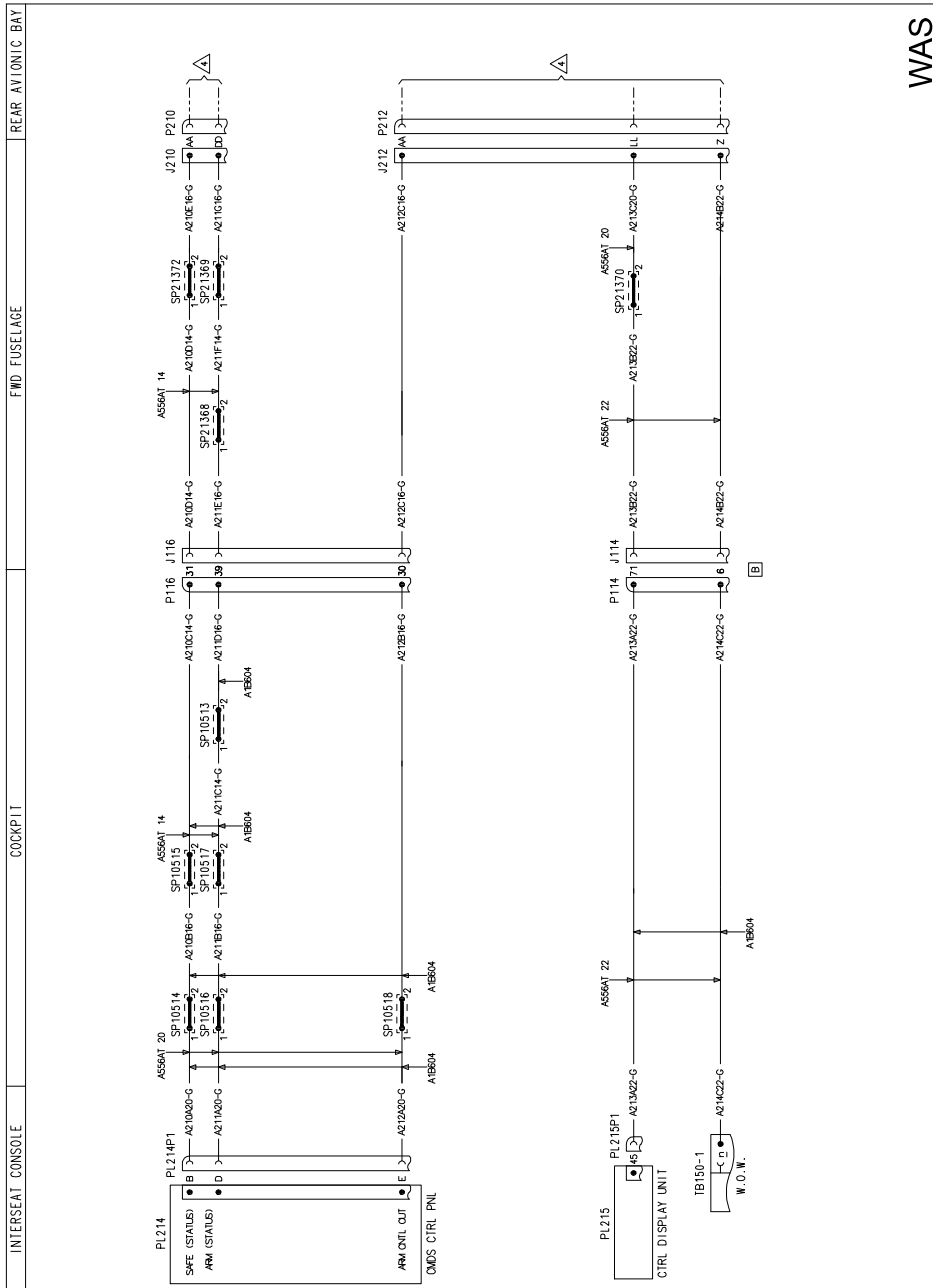
Figure 47



FUNCTIONAL NOTES
ALL SERIES ARE IN COM ASSEMBY UNLESS SPECIFIED
ALL SERIES ARE OF TYPE A58JA11 22 UNLESS SPECIFIED

Figure 48

DRAWING REF. KEY
△ SHEET NO. 4



WAS

FUNCTIONAL NOTES
ALL CABLES ARE IN LOW BUILD UNLESS SPECIFIED
ALL CABLES ARE OF TYPE ASS6AT 10 UNLESS SPECIFIED

Figure 49

DRAWING REF. KEY
△ SHEET NO. 4

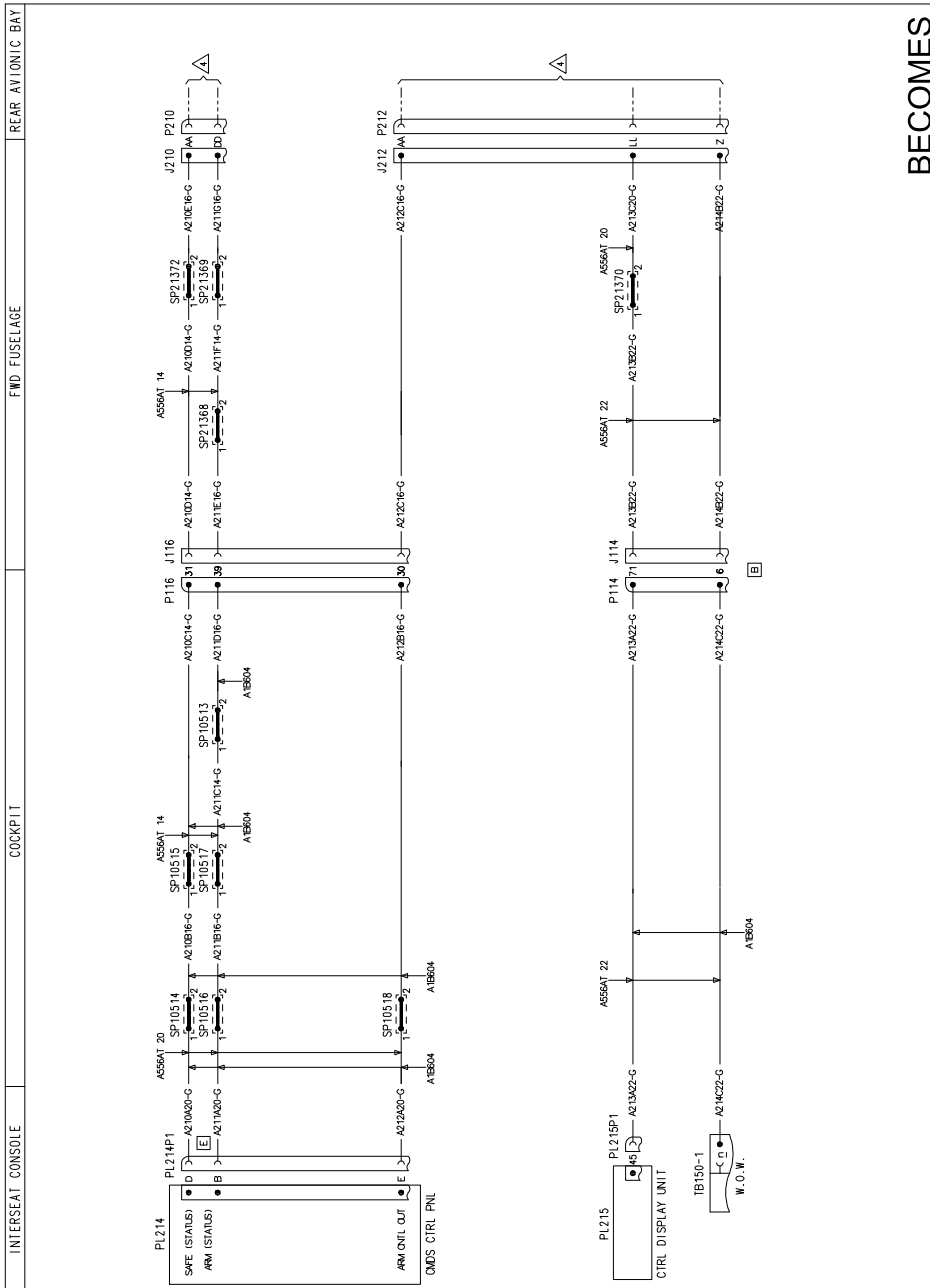


Figure 50

S.B. N°139-623
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ASE STRUCTURAL PROVISION
3G5311A34811

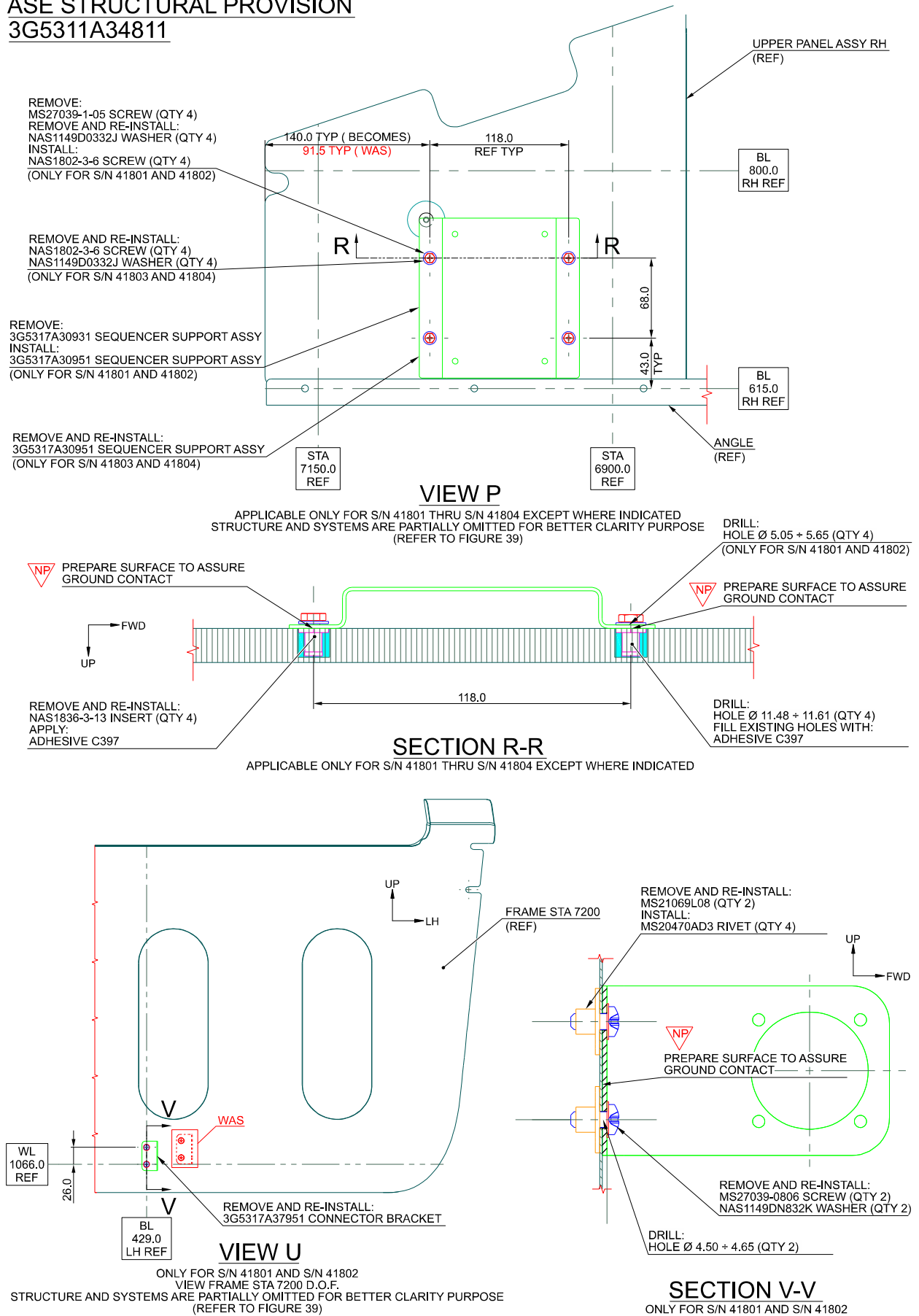
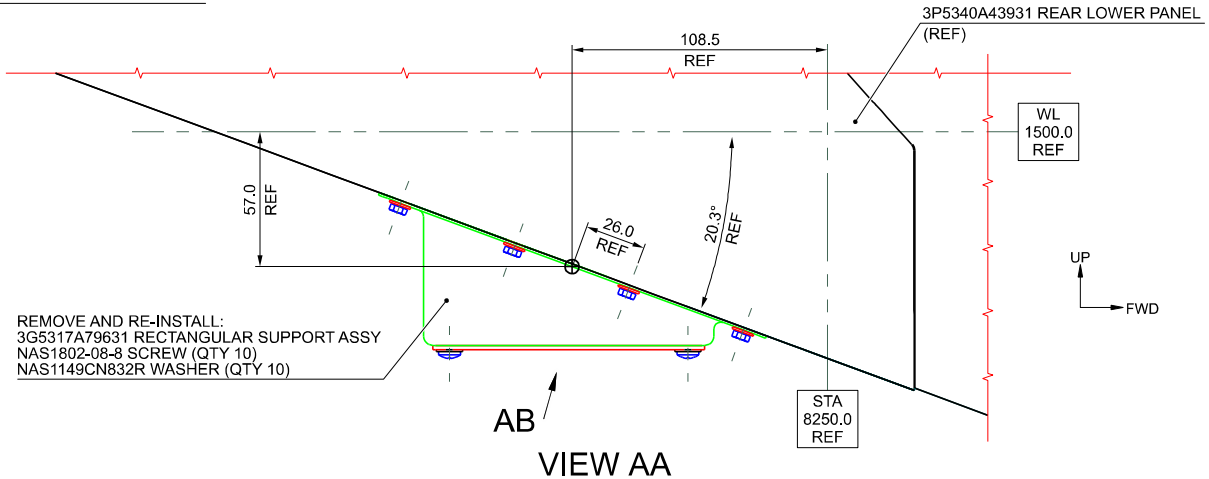
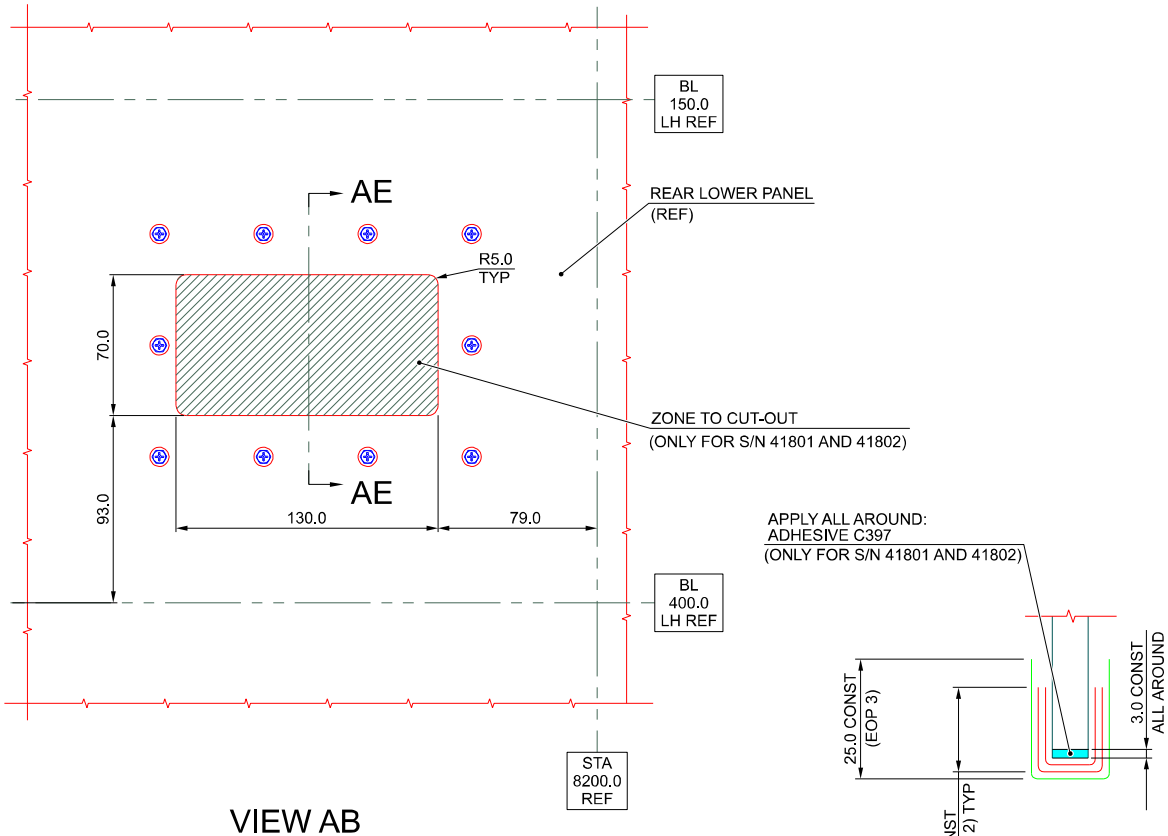


Figure 51

ASE STRUCTURAL PROVISION
3G5311A34811



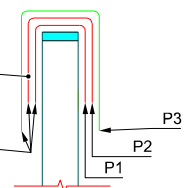
APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
LH SHOWN (RH OPPOSITE)
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)



APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
3G5317A79631 RECTANGULAR SUPPORT ASSY OMITTED FOR CLARITY

REMOVE:
FIBERGLASS C932 (n°3 PLIES)
ONLY FOR S/N 41803 AND 41804

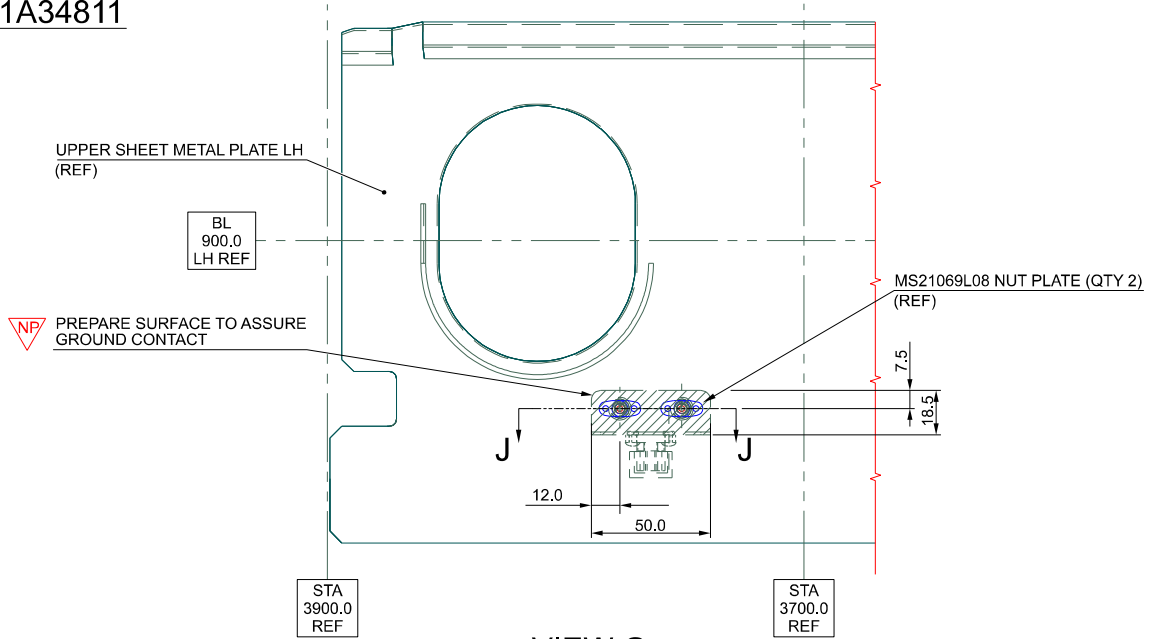
APPLY:
FIBERGLASS C557 (n°3 PLIES)
ADHESIVE C193



APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED

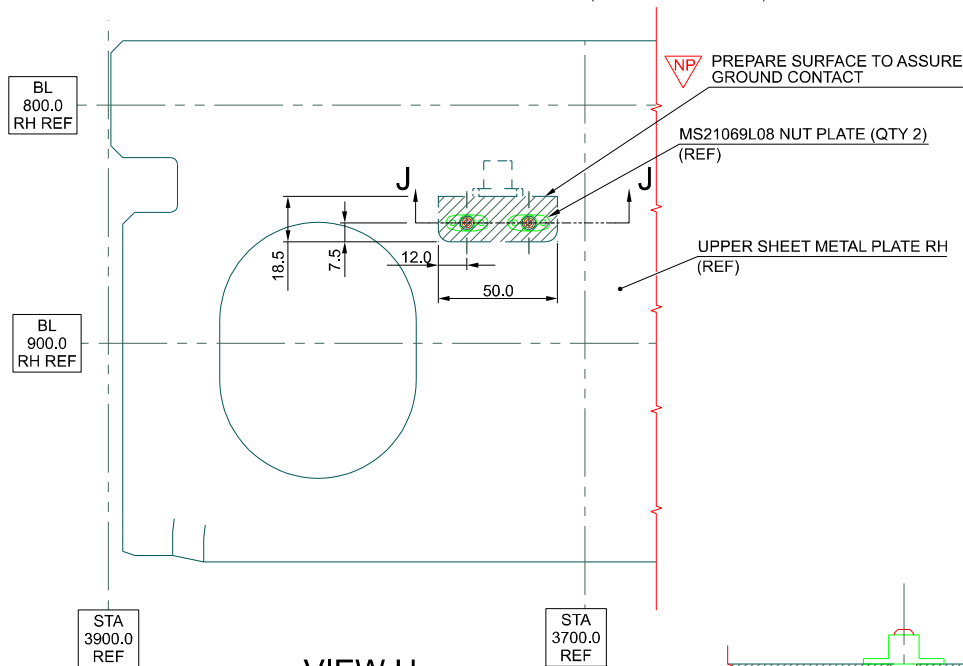
Figure 52

ASE STRUCTURAL PROVISION
3G5311A34811



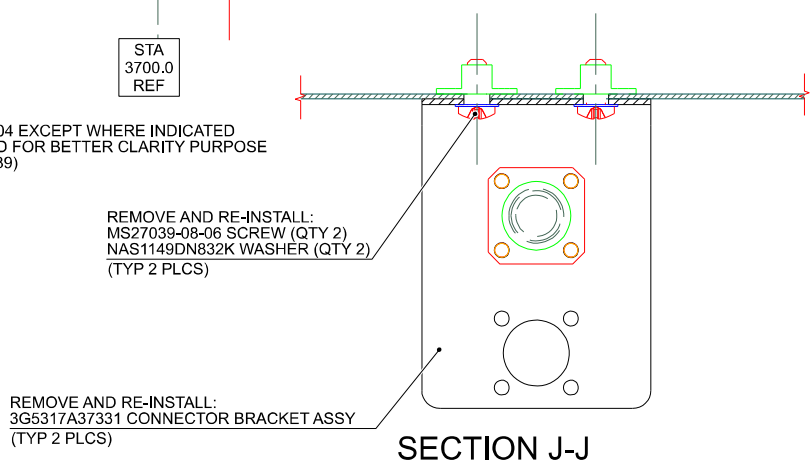
VIEW G

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)



VIEW H

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)

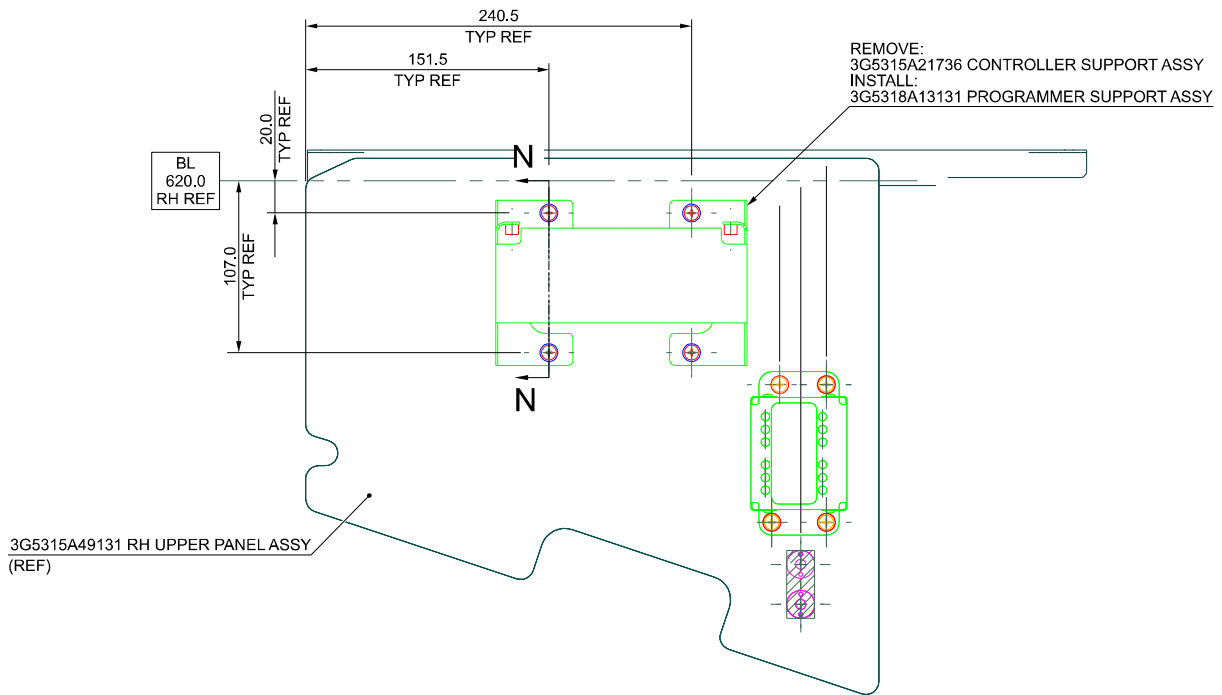


SECTION J-J

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED

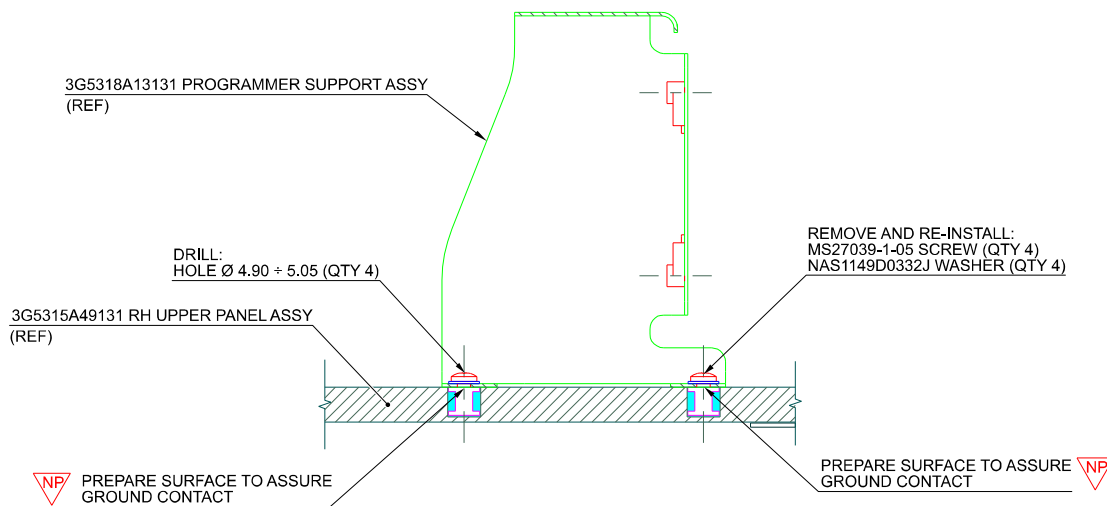
Figure 53

ASE STRUCTURAL PROVISION
3G5311A34811



VIEW K

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 39)



SECTION N-N

APPLICABLE ONLY FOR S/N 41801 THRU S/N 41804 EXCEPT WHERE INDICATED
ROTATED 90° CW

Figure 54

S.B. N°139-623
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CHAFF AND FLARE STRUCTURAL PROVISION
3G5311A37611

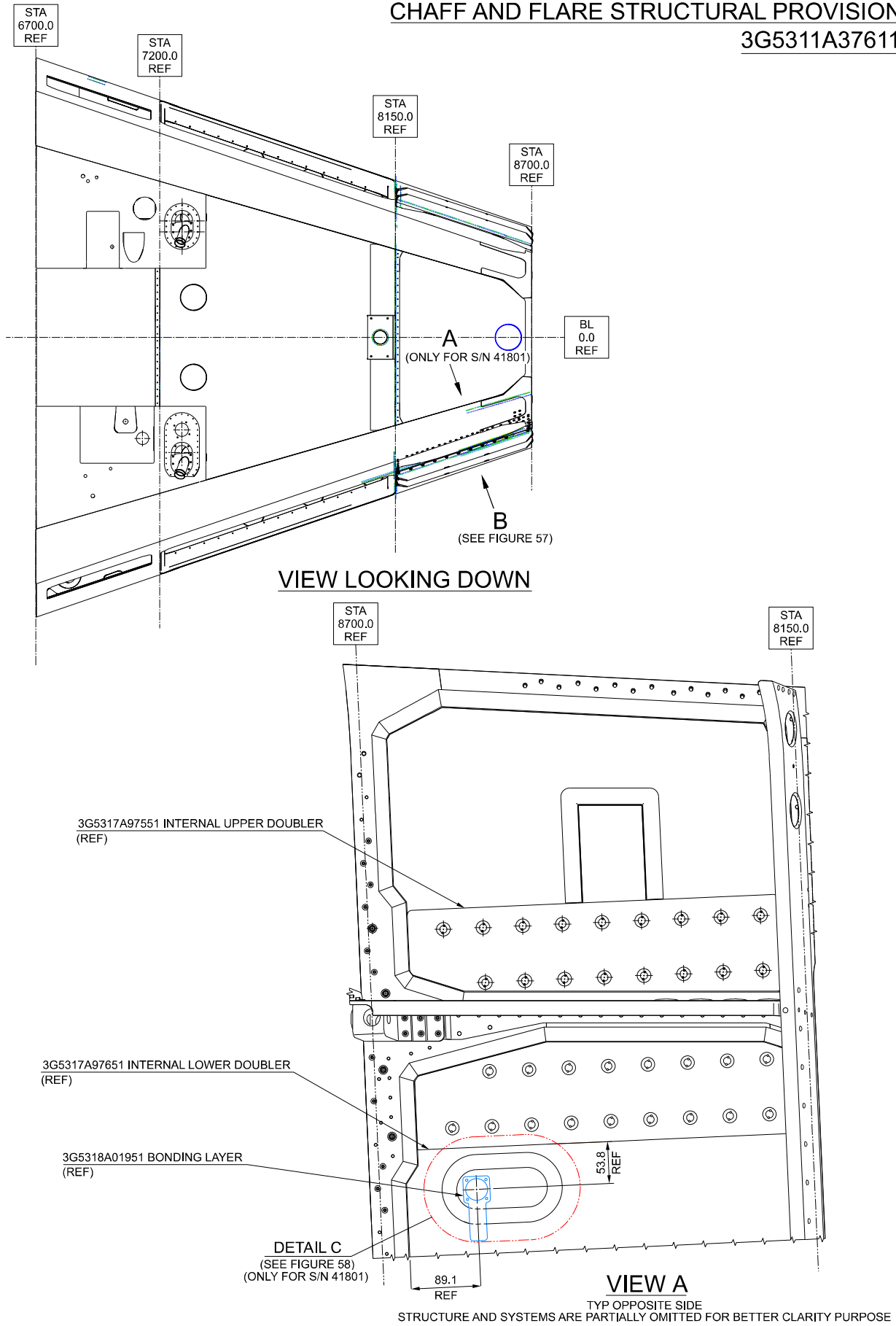
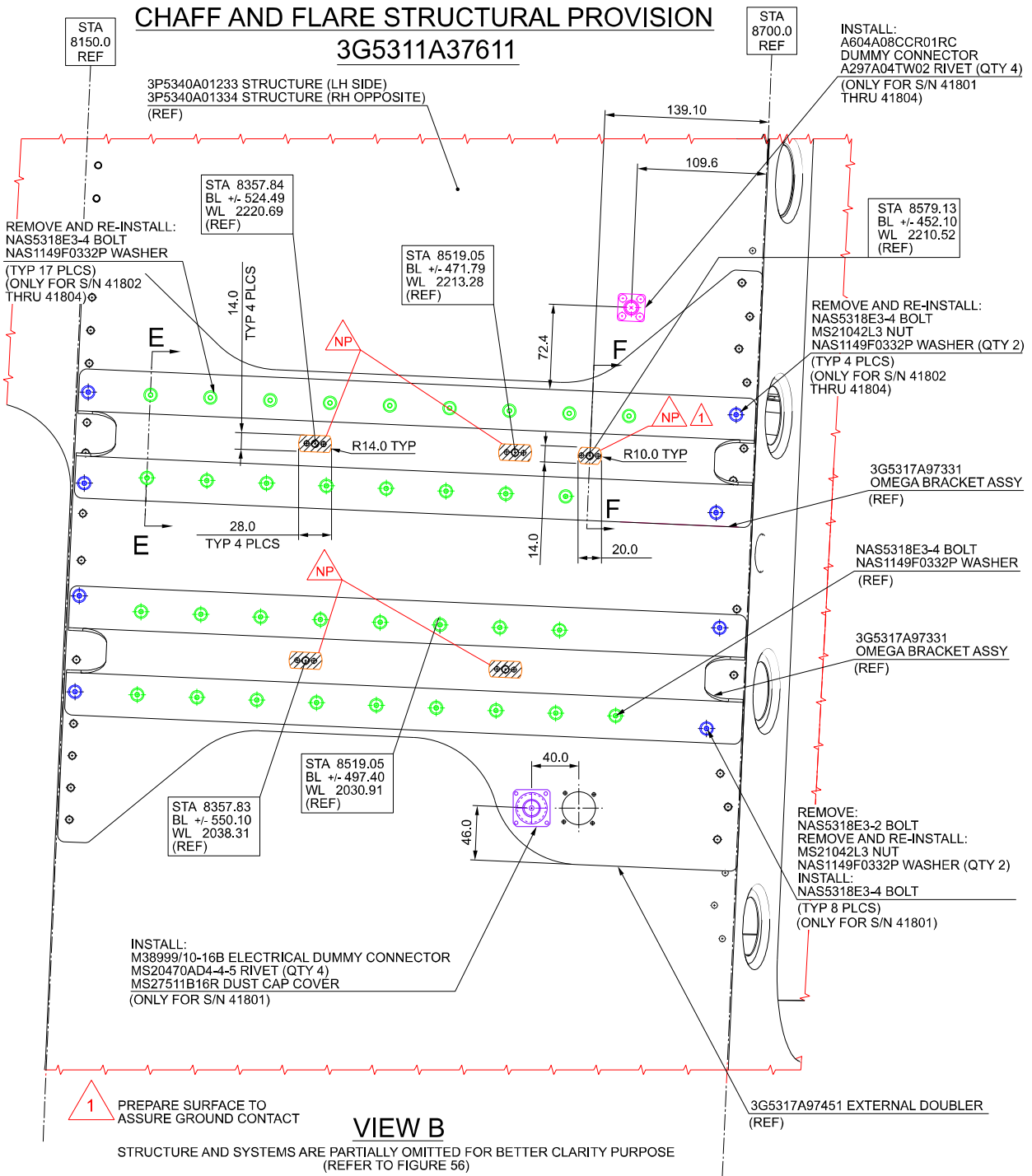
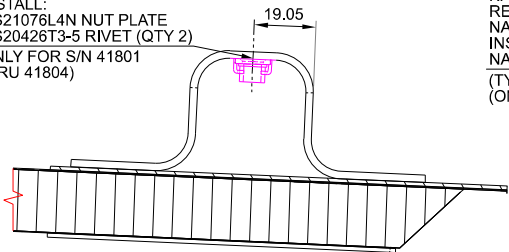


Figure 55

CHAFF AND FLARE STRUCTURAL PROVISION
3G5311A37611



DRILL:
HOLE Ø 7.57 + 7.42
INSTALL:
MS21076L4N NUT PLATE
MS20426T3-5 RIVET (QTY 2)
(ONLY FOR S/N 41801
THRU 41804)



REMOVE:
NAS5318E3-2 BOLT
REMOVE AND RE-INSTALL:
NAS1149F0332P WASHER
INSTALL:
NAS5318E3-4 BOLT
(TYP 17 PLCS)
(ONLY FOR S/N 41801)

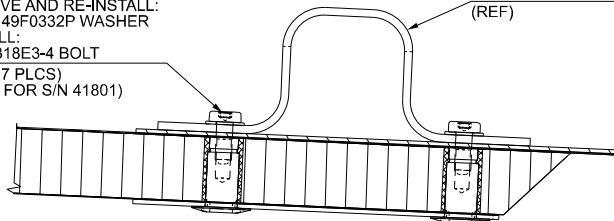
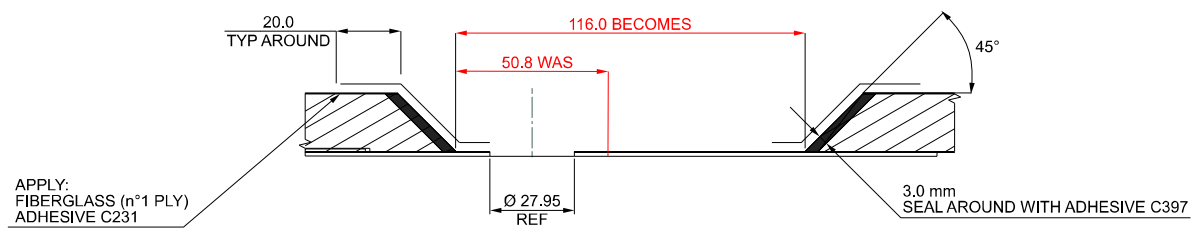
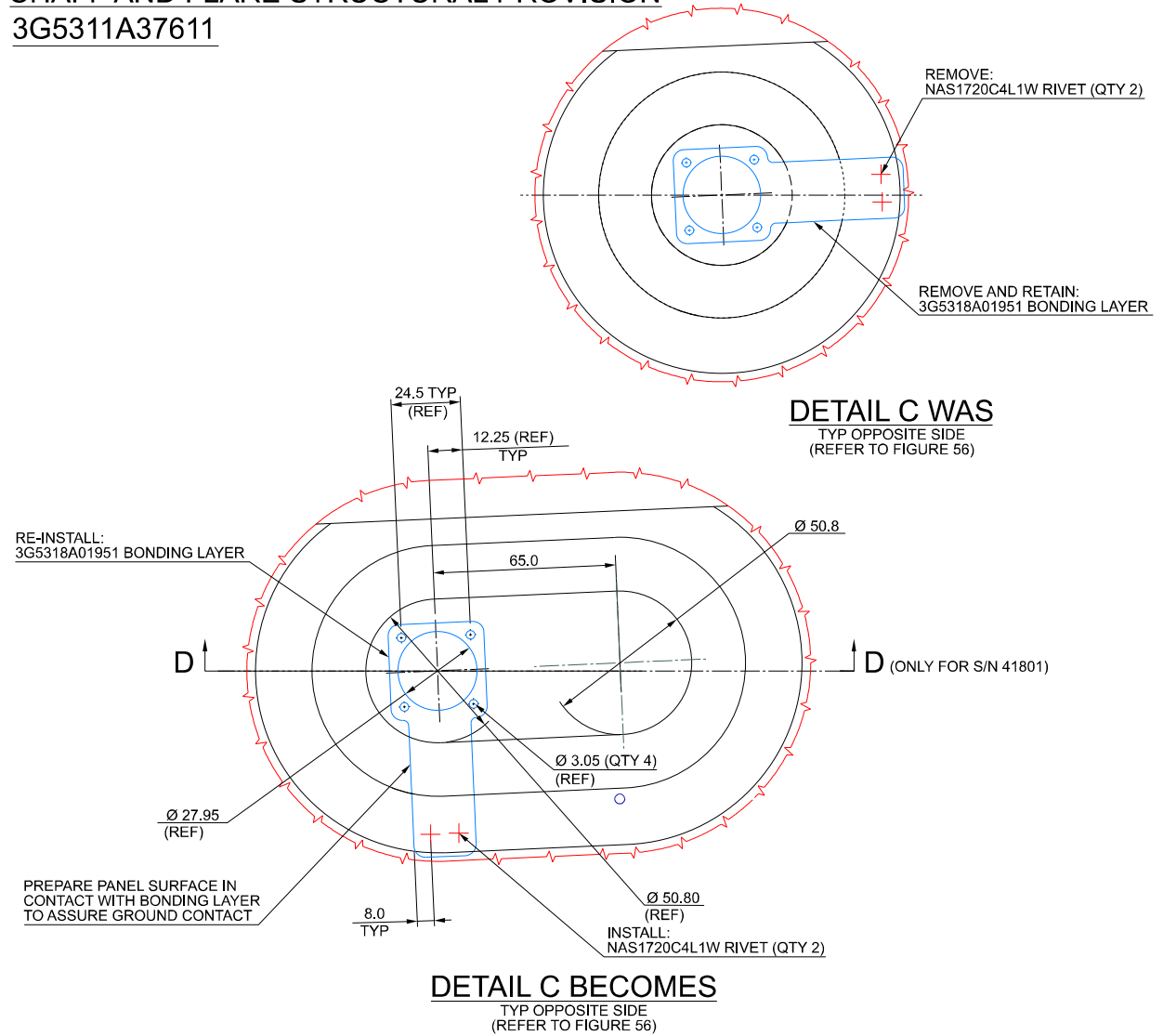


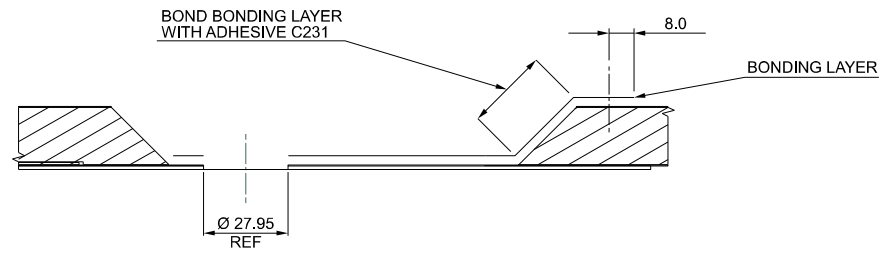
Figure 56

S.B. N°139-623
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REVISION: /

CHAFF AND FLARE STRUCTURAL PROVISION
3G5311A37611



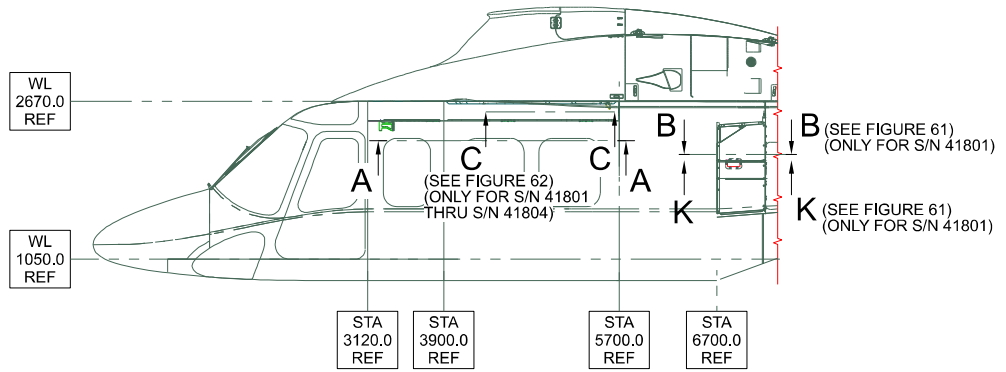
SECTION D-D



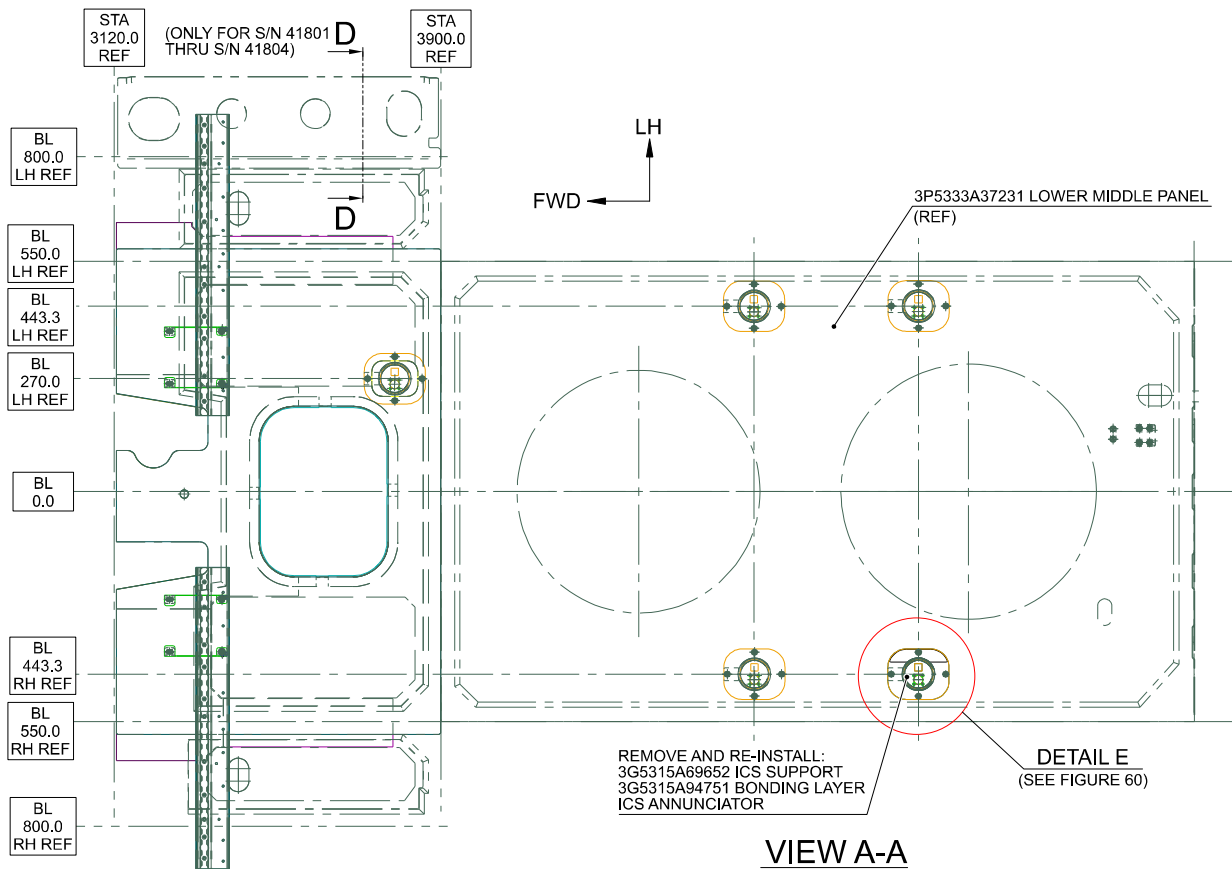
SECTION D-D

Figure 57

ICS AUDIO CUSTOMIZATION STRUCT PROVISION
3G5311A35211

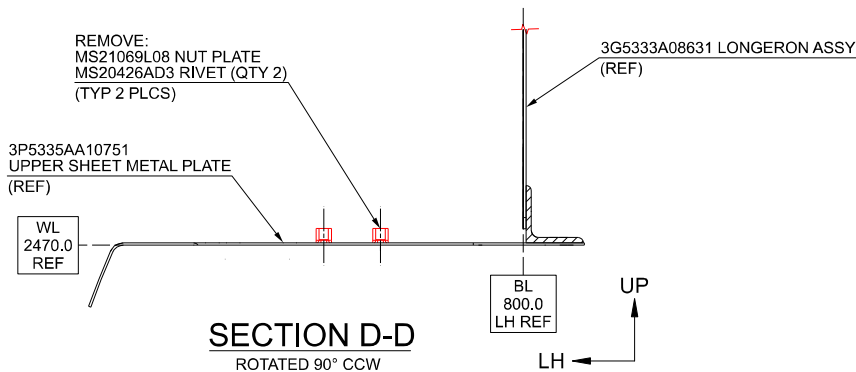


VIEW LOOKING INBOARD LEFT SIDE



VIEW A-A

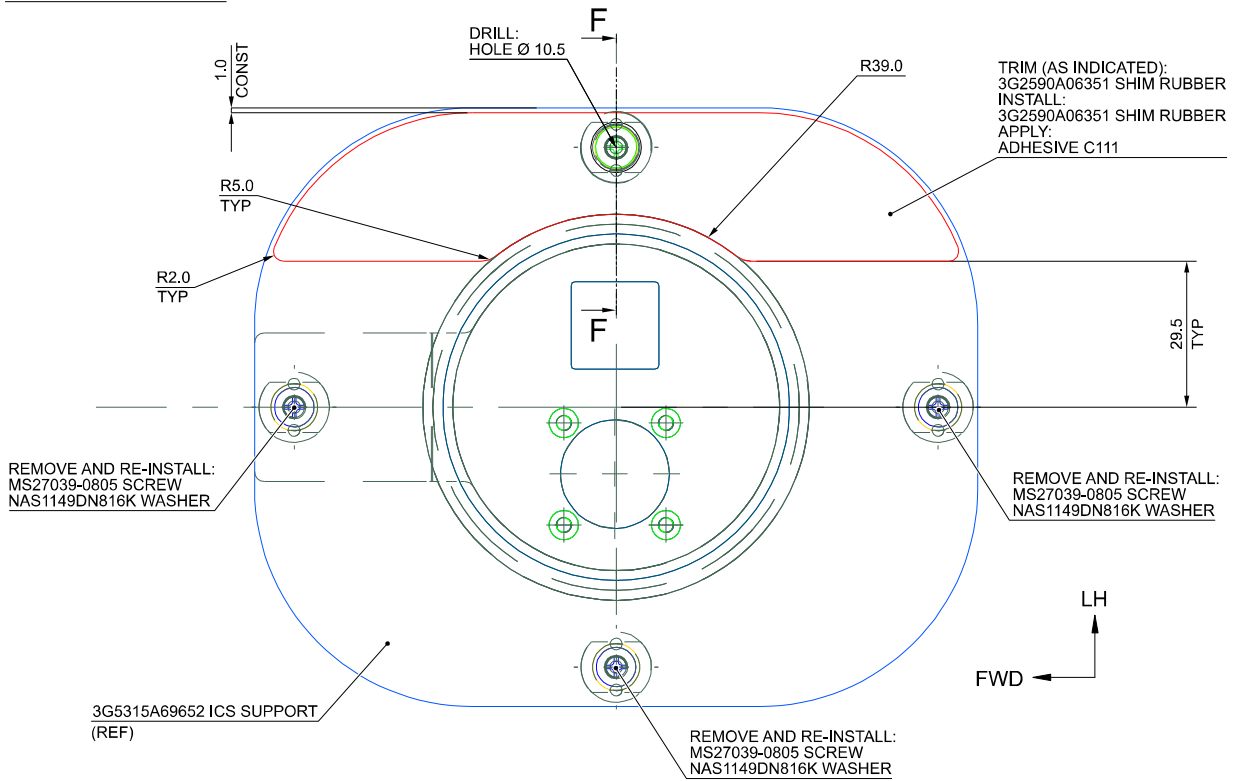
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



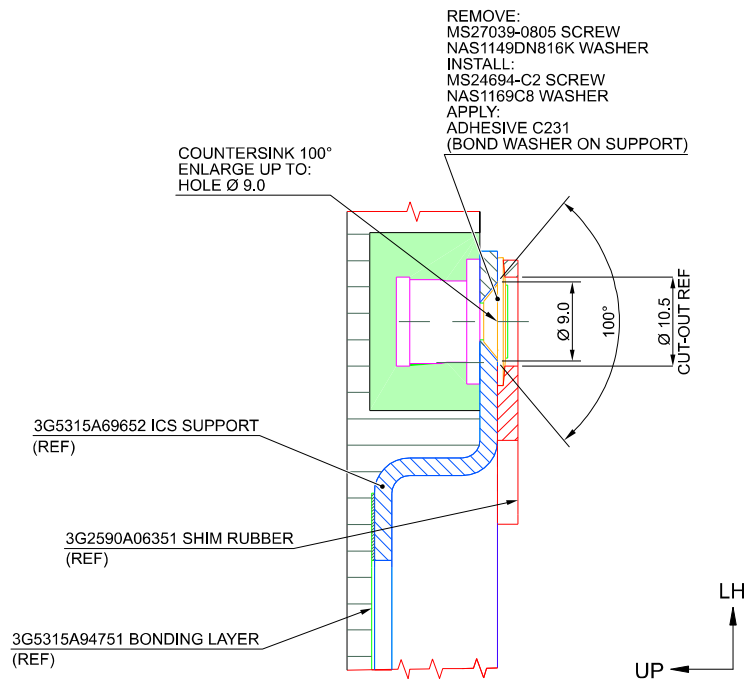
SECTION D-D
ROTATED 90° CCW

Figure 58

ICS AUDIO CUSTOMIZATION STRUCT PROVISION
3G5311A35211



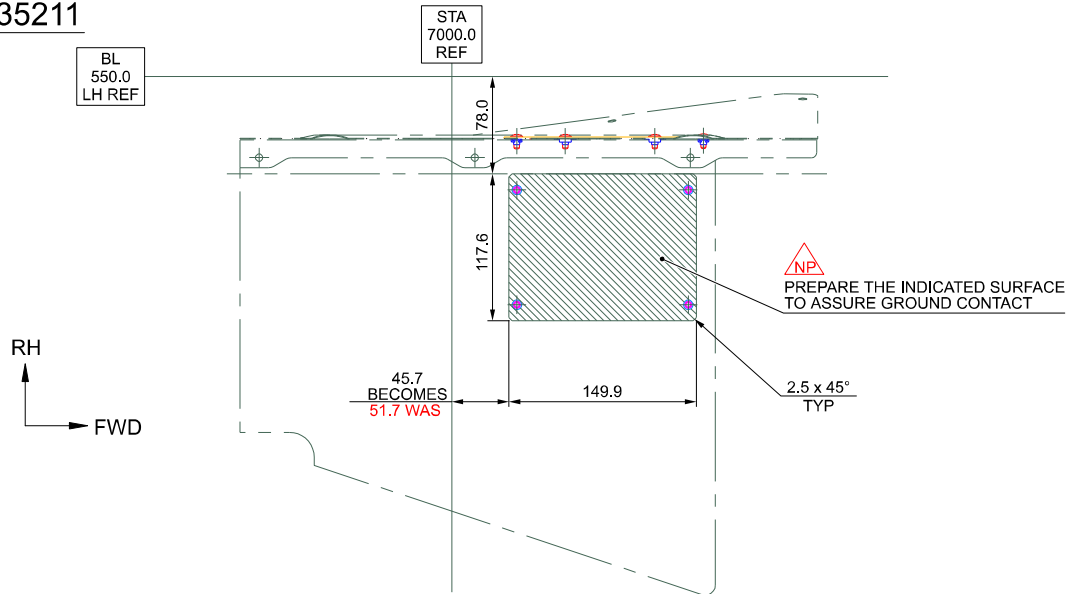
DETAIL E
(REFER TO FIGURE 59)



SECTION F-F

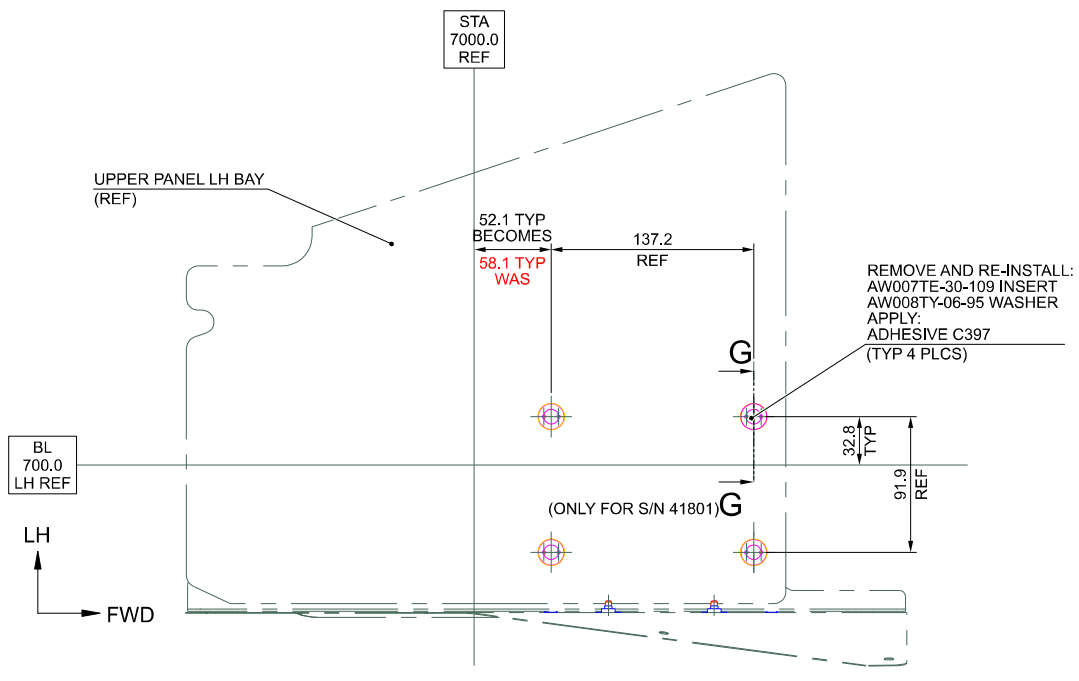
Figure 59

ICS AUDIO CUSTOMIZATION STRUCT PROVISION
3G5311A35211



SECTION K-K

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 59)



SECTION B-B

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 59)

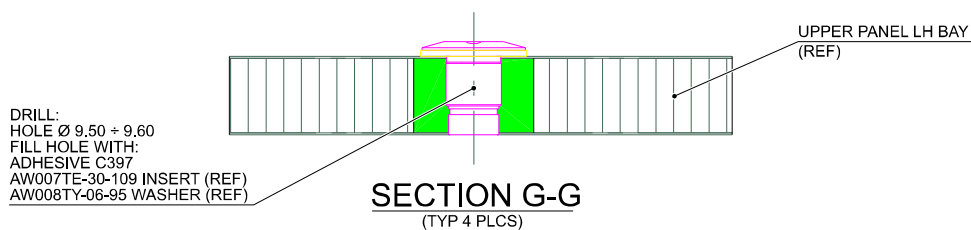
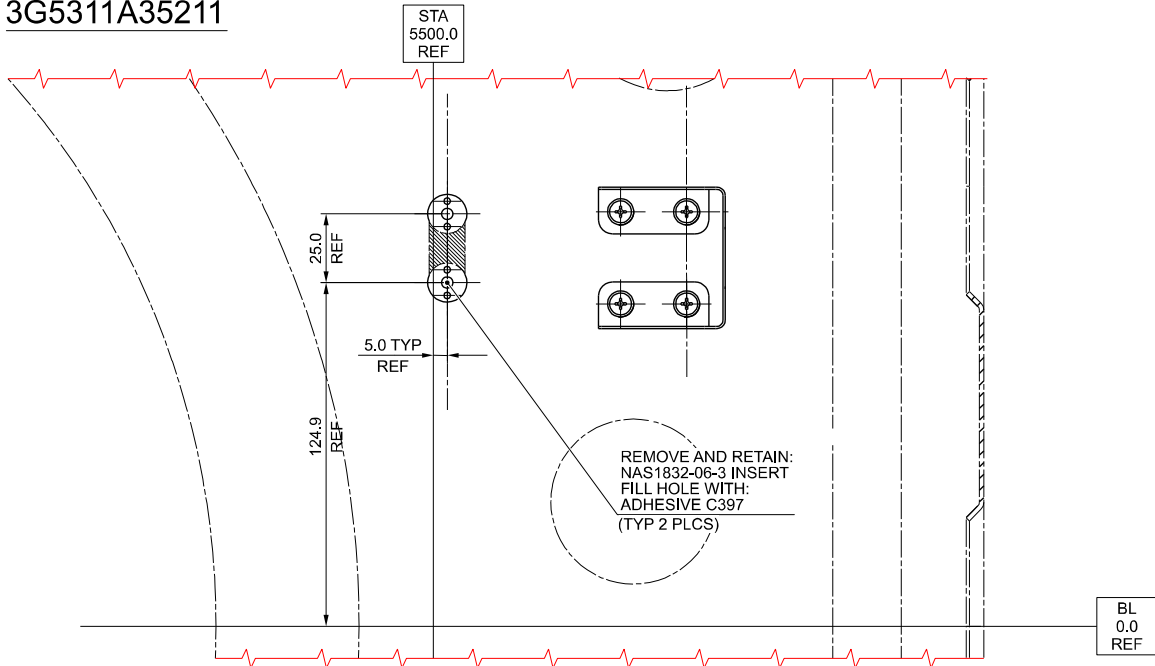


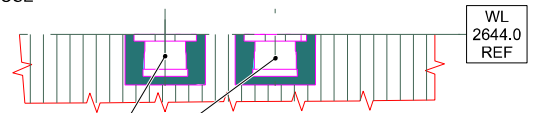
Figure 60

ICS AUDIO CUSTOMIZATION STRUCT PROVISION
3G5311A35211



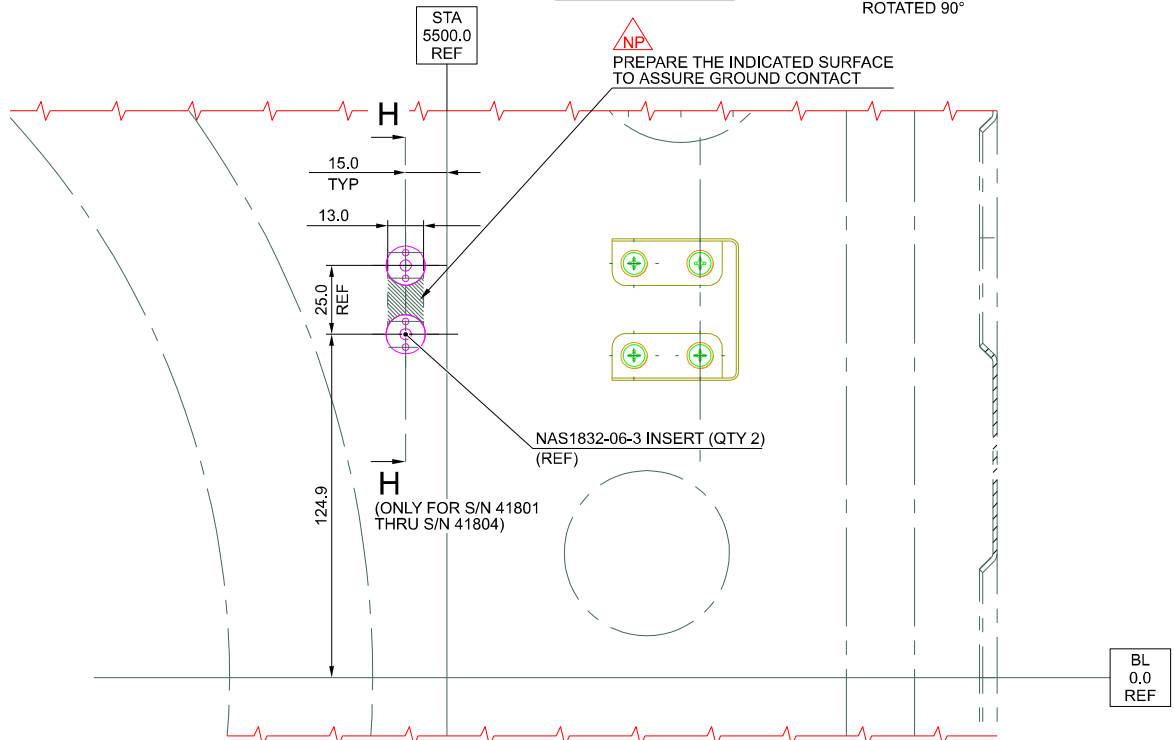
SECTION C-C WAS

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 59)



DRILL:
HOLE Ø 14.25 + 14.38
RE-INSTALL:
NAS1832-06-3 INSERT
APPLY:
ADHESIVE C397

SECTION H-H
ROTATED 90°

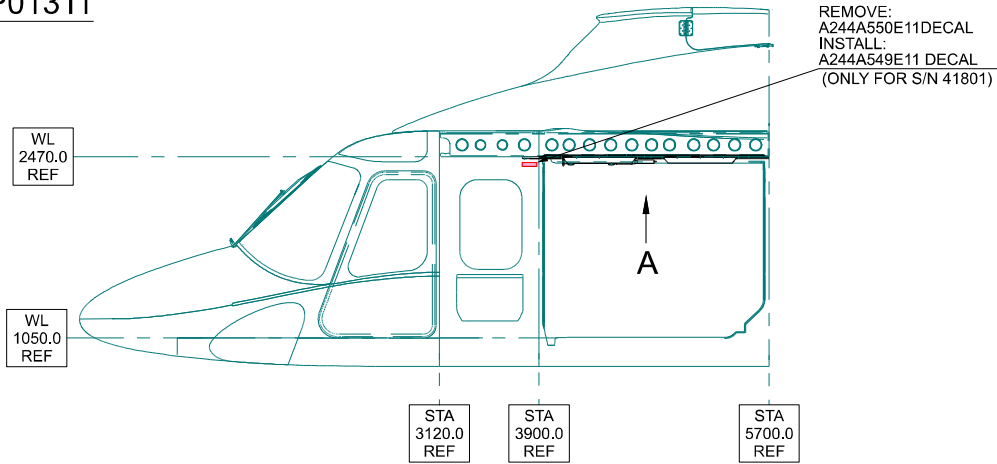


SECTION C-C BECOMES

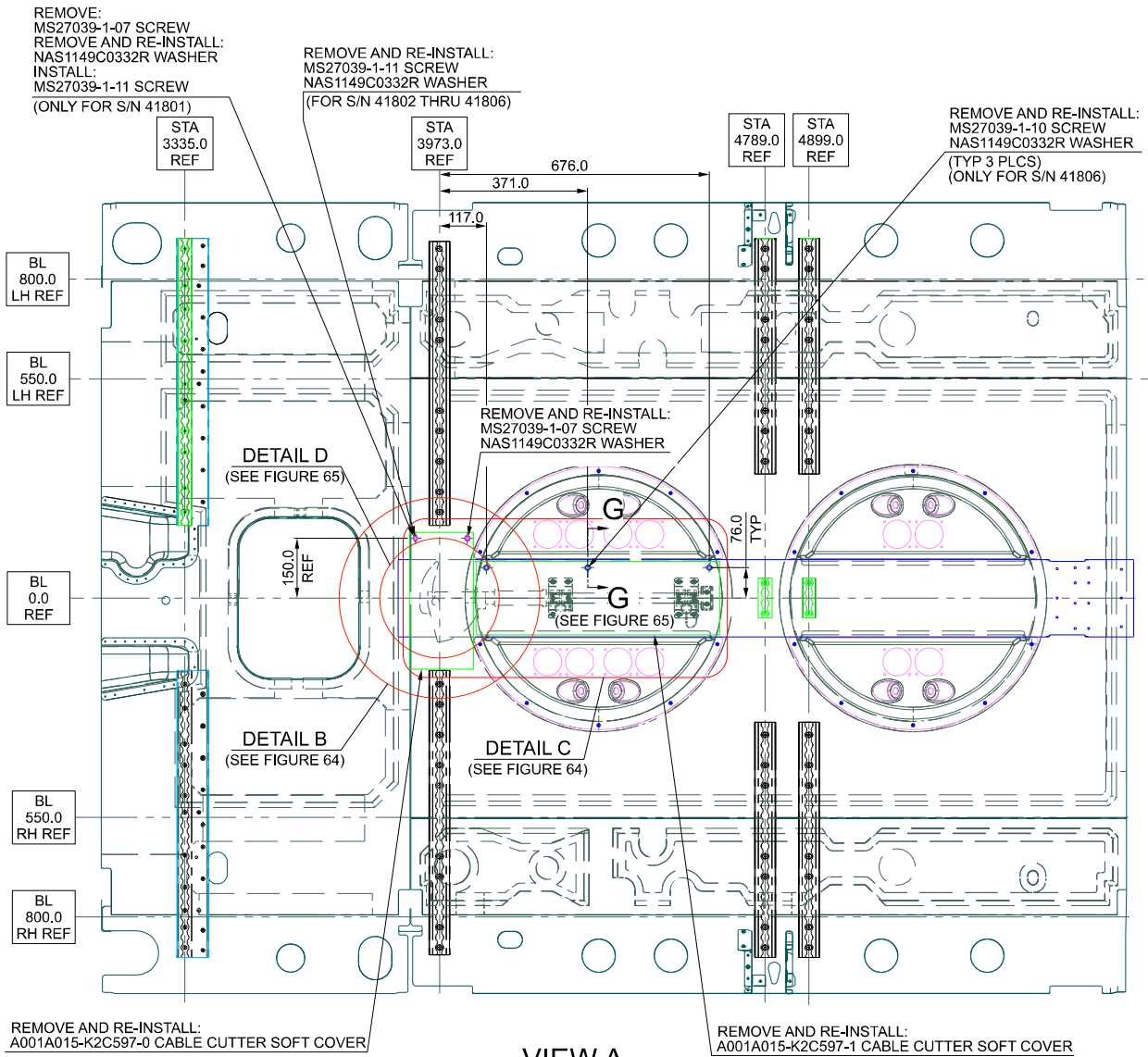
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 59)

Figure 61

**CABLE CUTTER INSTL VARIANT
3G2560P01311**



VIEW LOOKING OUTBOARD RIGHT SIDE



VIEW A

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 62

S.B. N°139-623
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CABLE CUTTER INSTL VARIANT
3G2560P01311

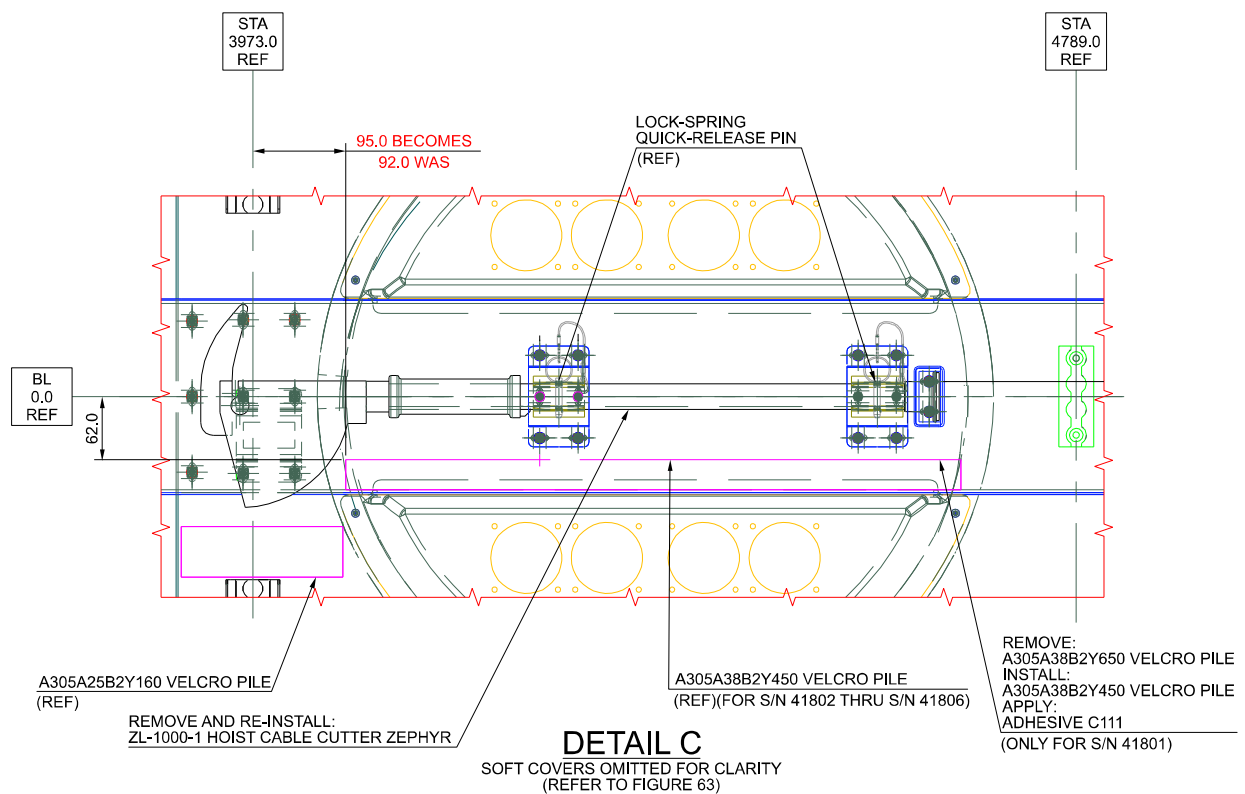
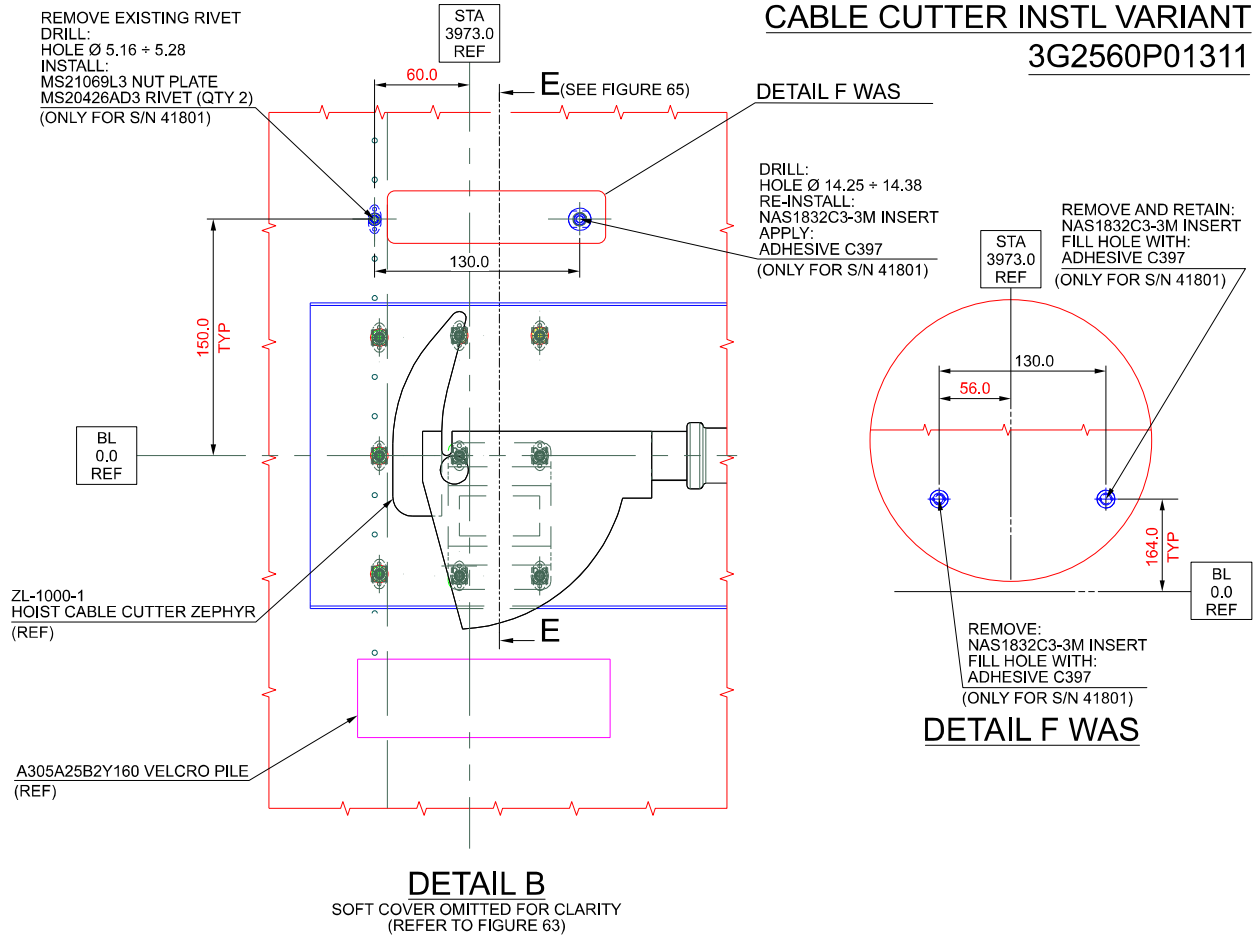
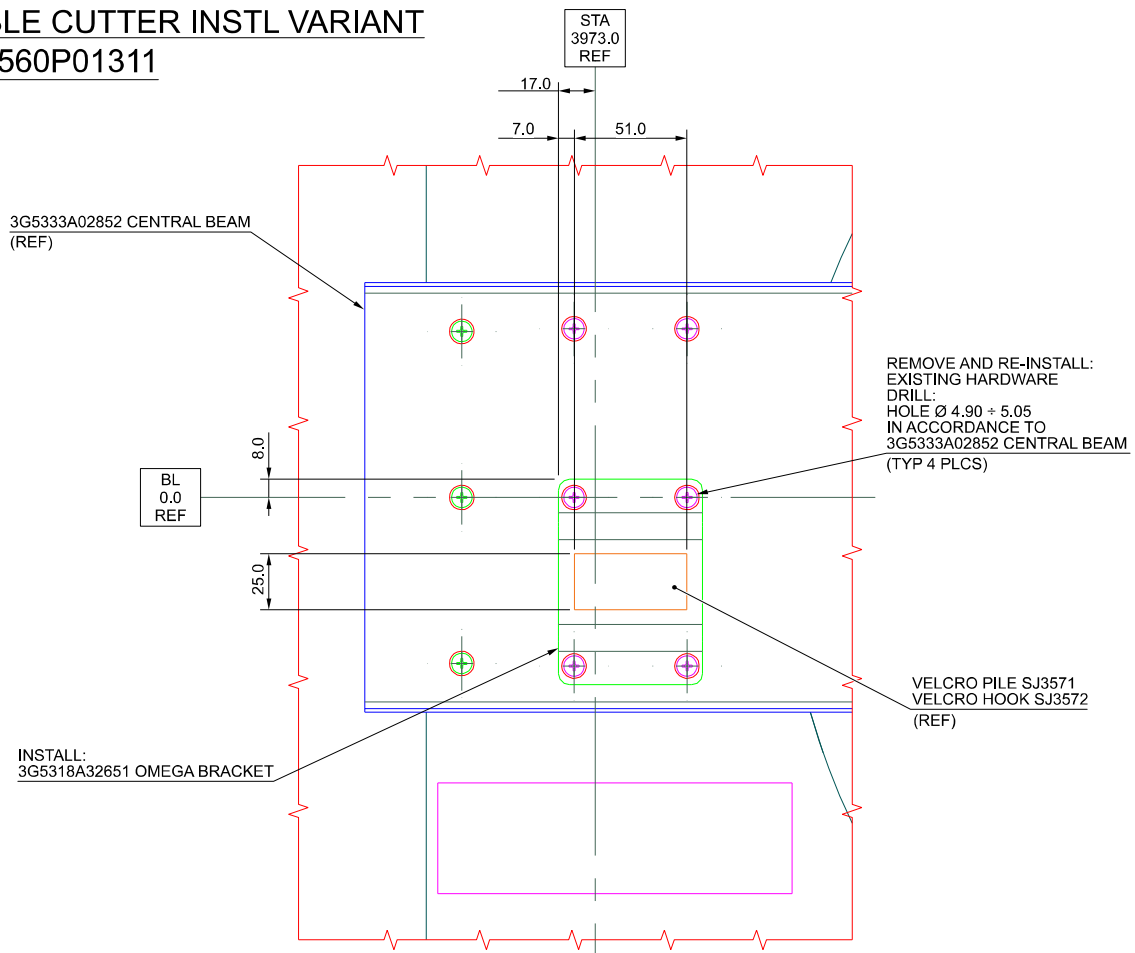


Figure 63

CABLE CUTTER INSTL VARIANT
3G2560P01311



DETAIL D

SOFT COVER AND HOIST CABLE CUTTER OMITTED FOR CLARITY (REFER TO FIGURE 63)

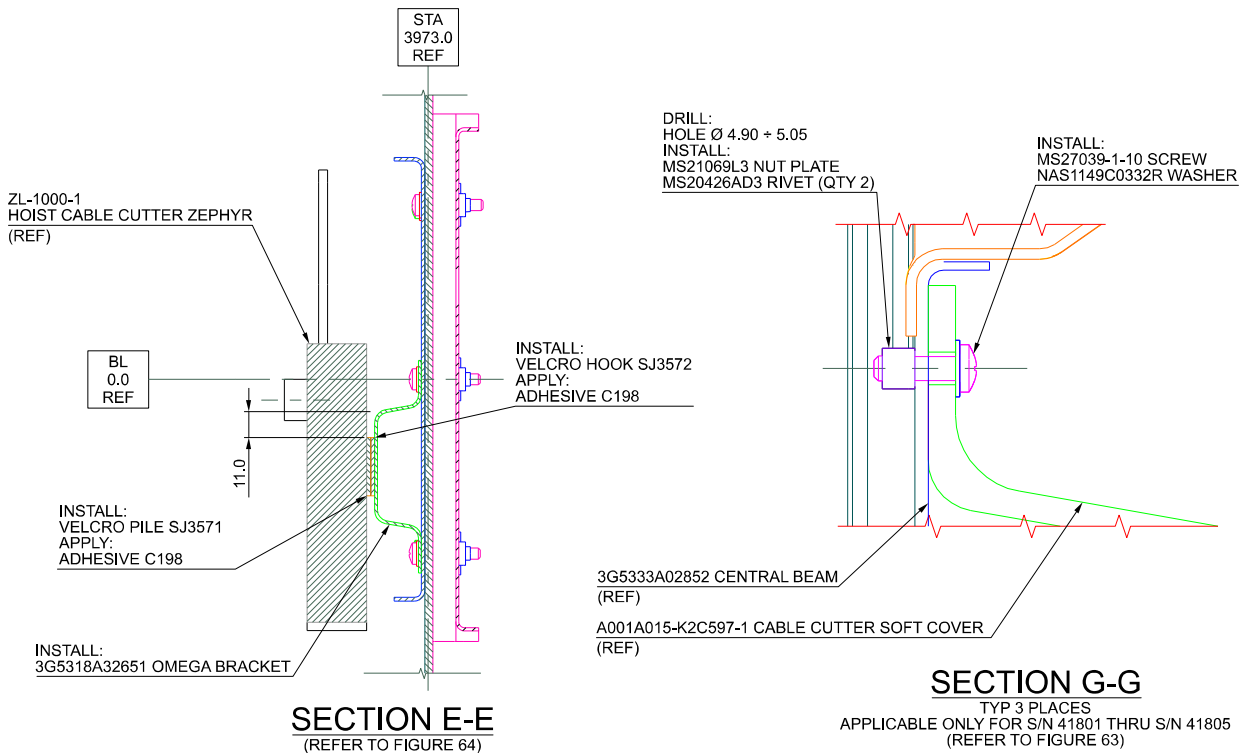
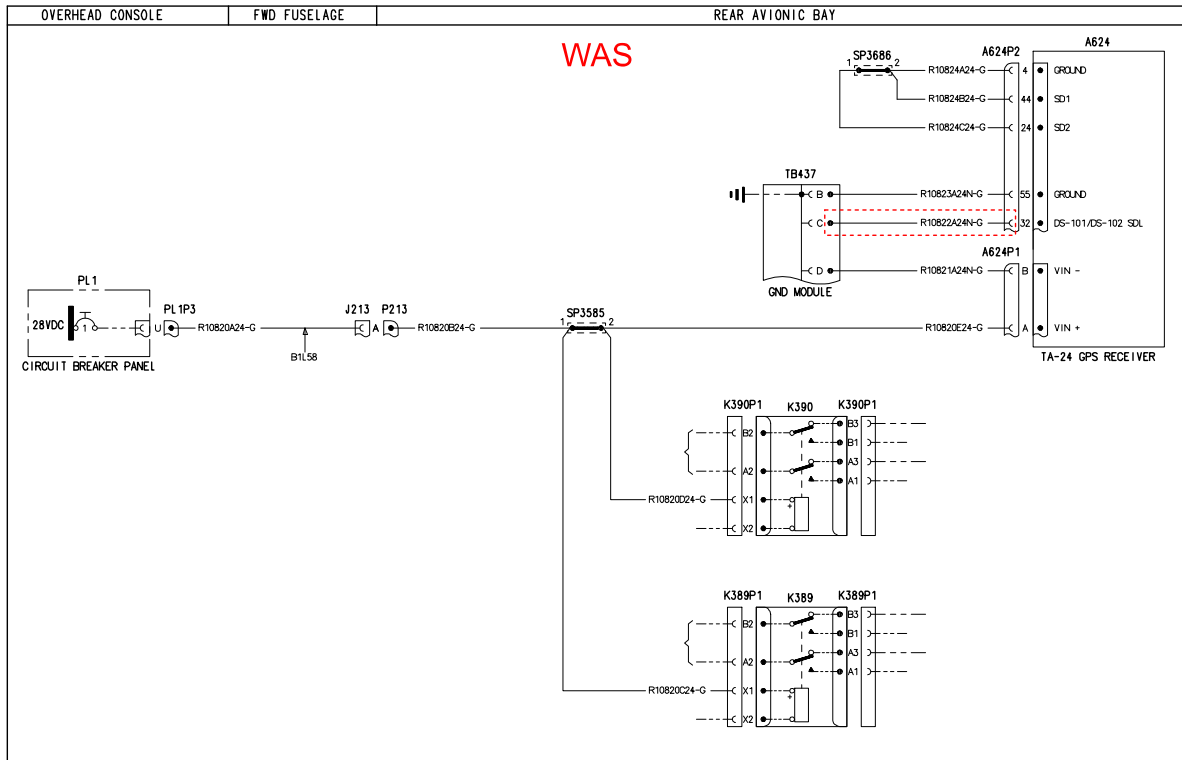


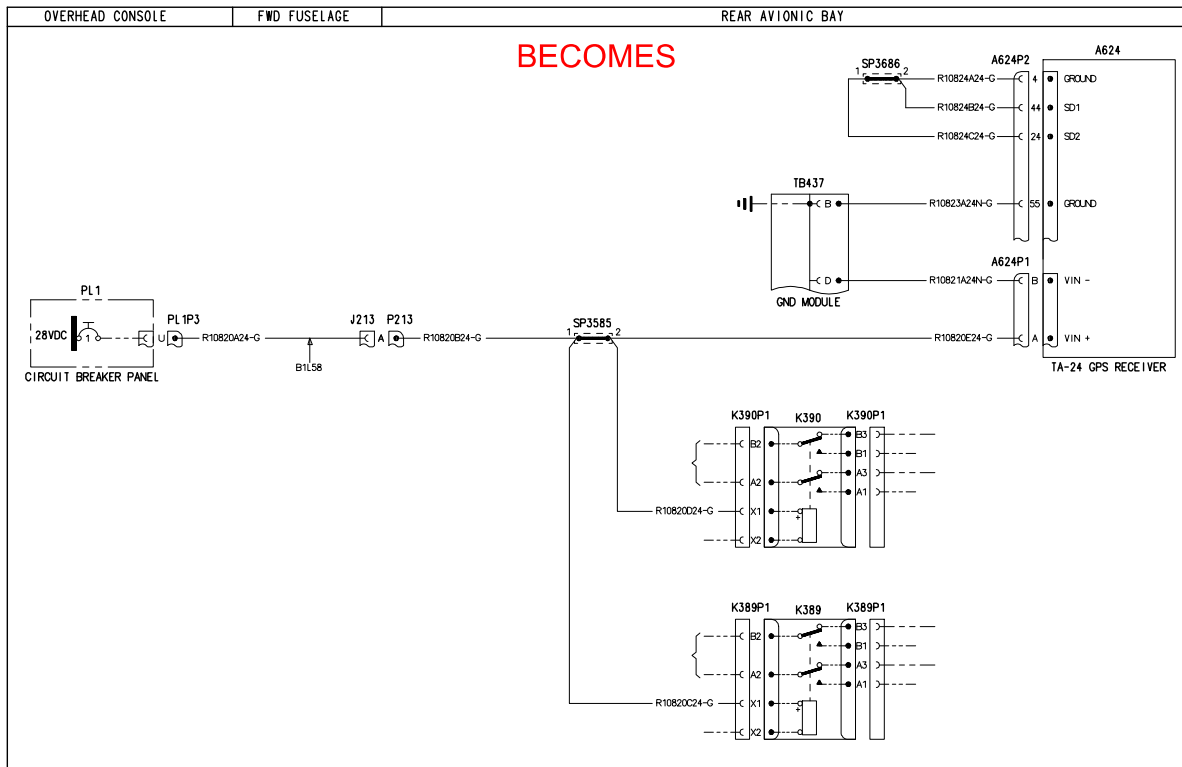
Figure 64

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FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM C1A362 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE ASS6AT 24 UNLESS SPECIFIED



FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM C1A362 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE ASS6AT 24 UNLESS SPECIFIED

3G3450W04811
WIRING DIAGRAM TA-24 GPS MILITARY

Figure 65

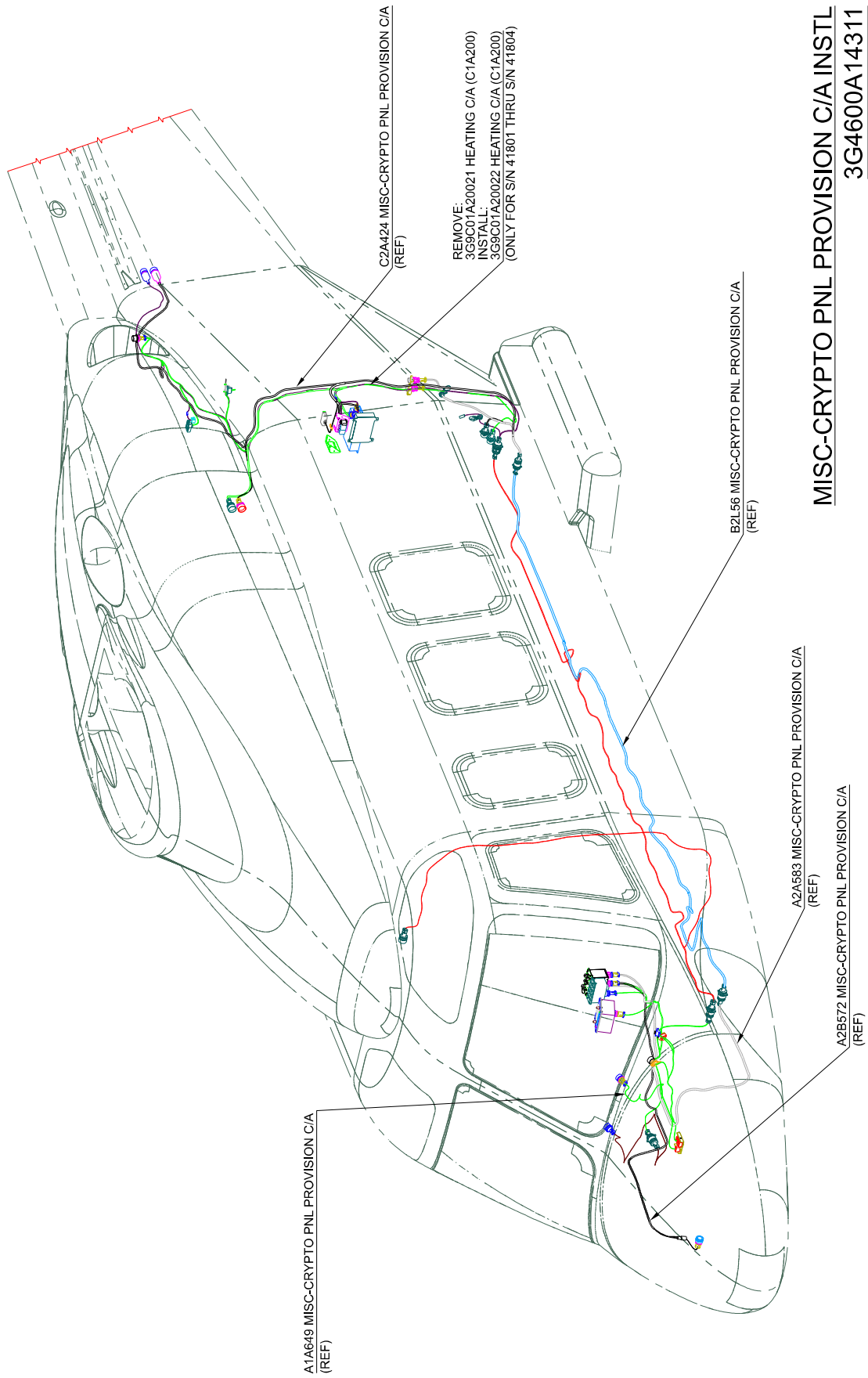


Figure 66

S.B. N°139-623
DATE: May 27, 2021
REVISION: /

MISC-CRYPTO PNL PROVISION C/A INSTL
3G4600A14311

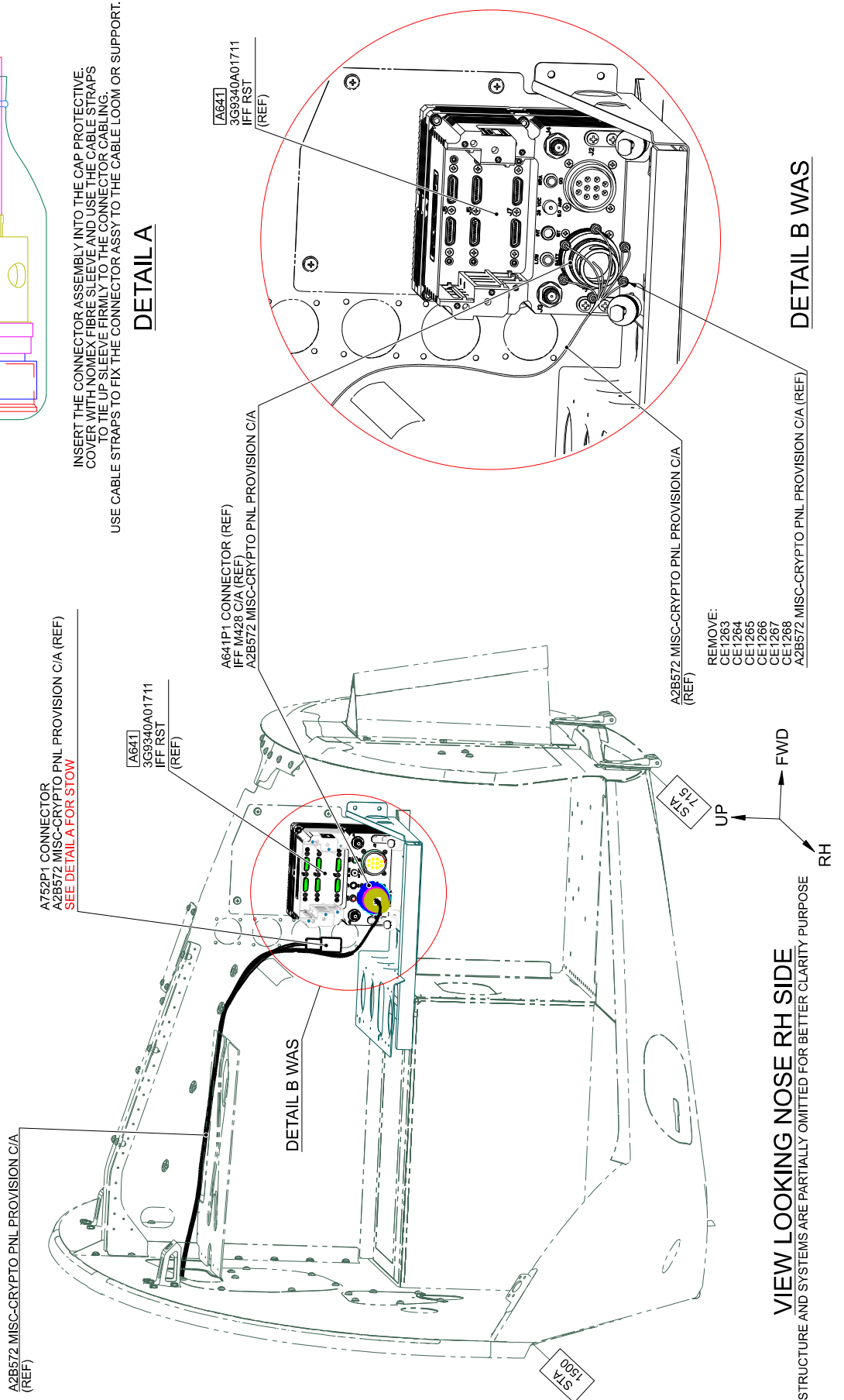
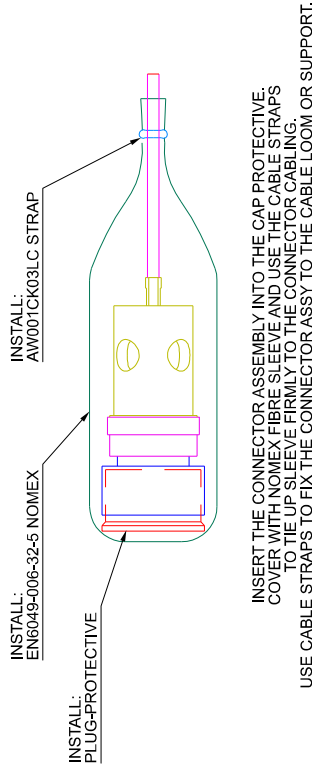


Figure 67

MISC-CRYPTO PNL PROVISION C/A INSTL
3G4600A14311

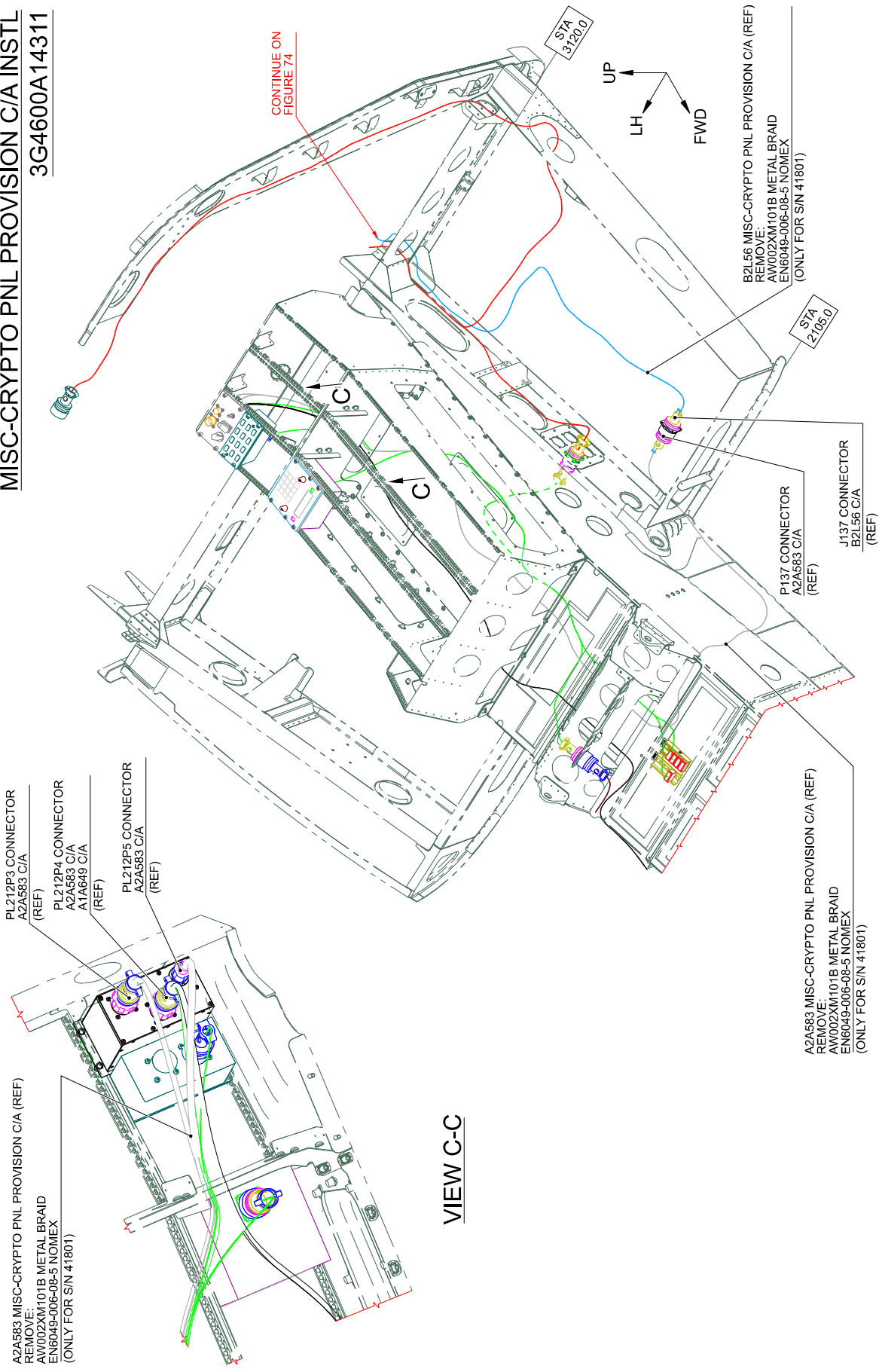


Figure 68

MISC-CRYPTO PNL PROVISION C/A INSTL
3G4600A14311

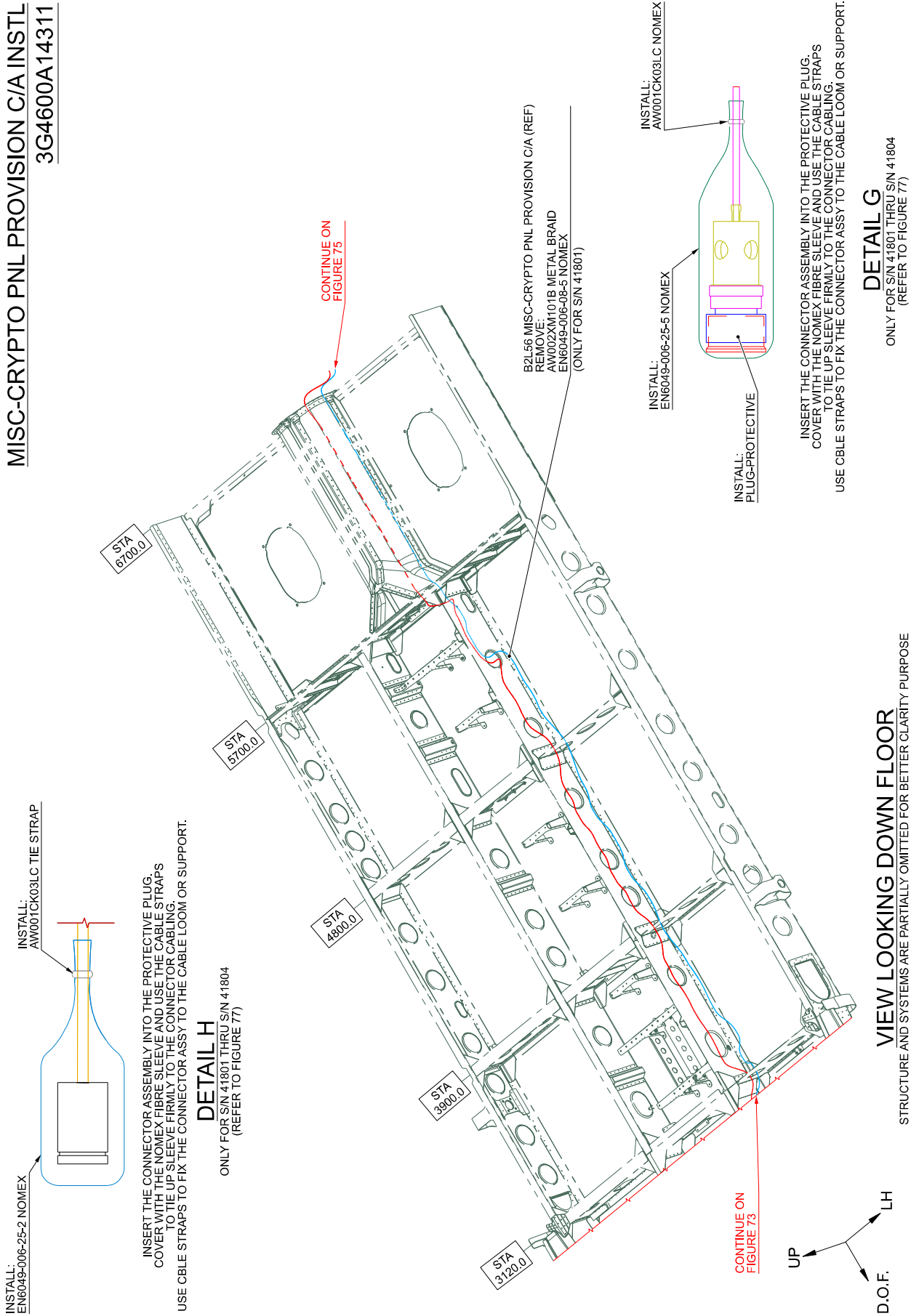


Figure 69

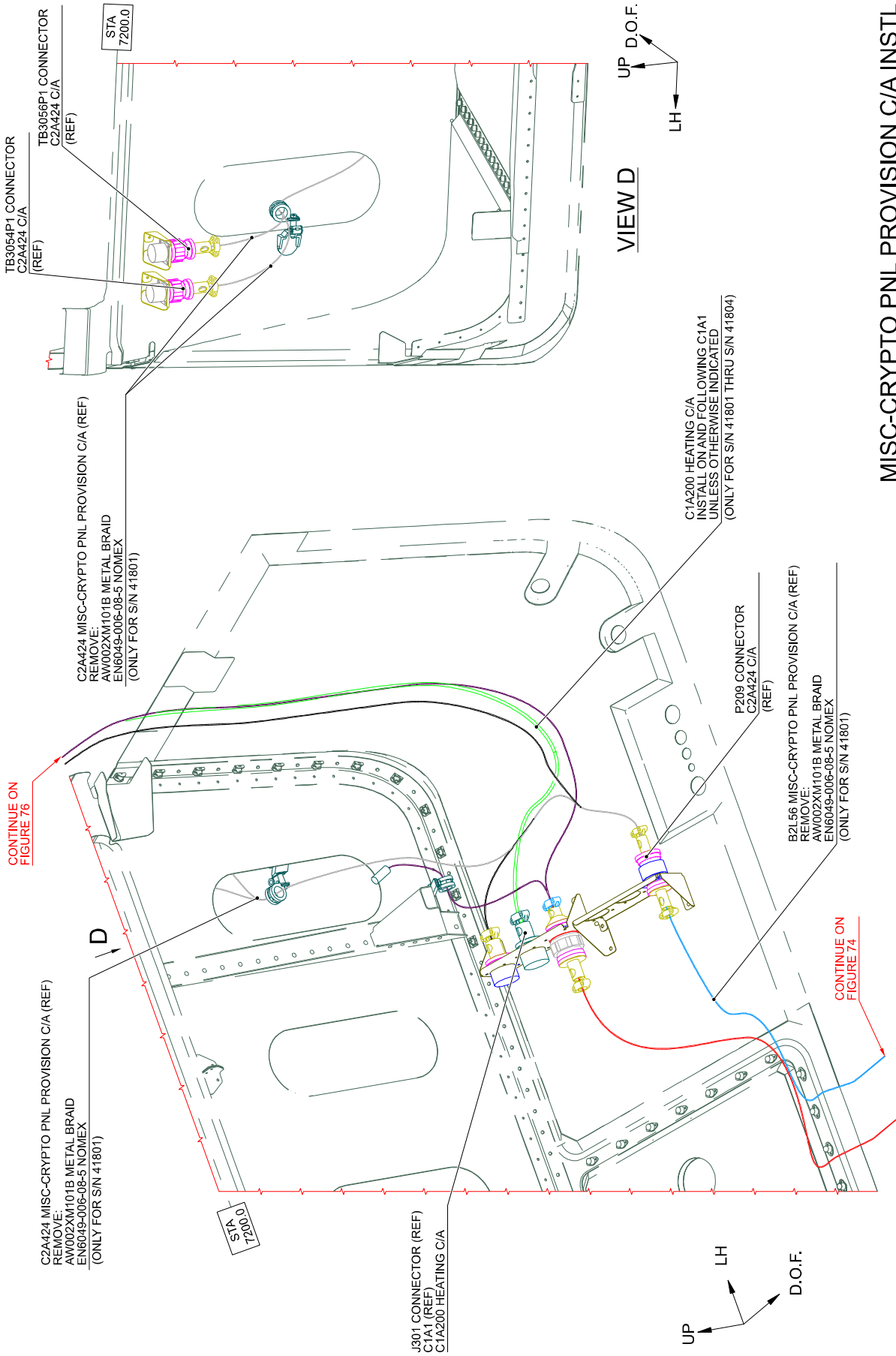
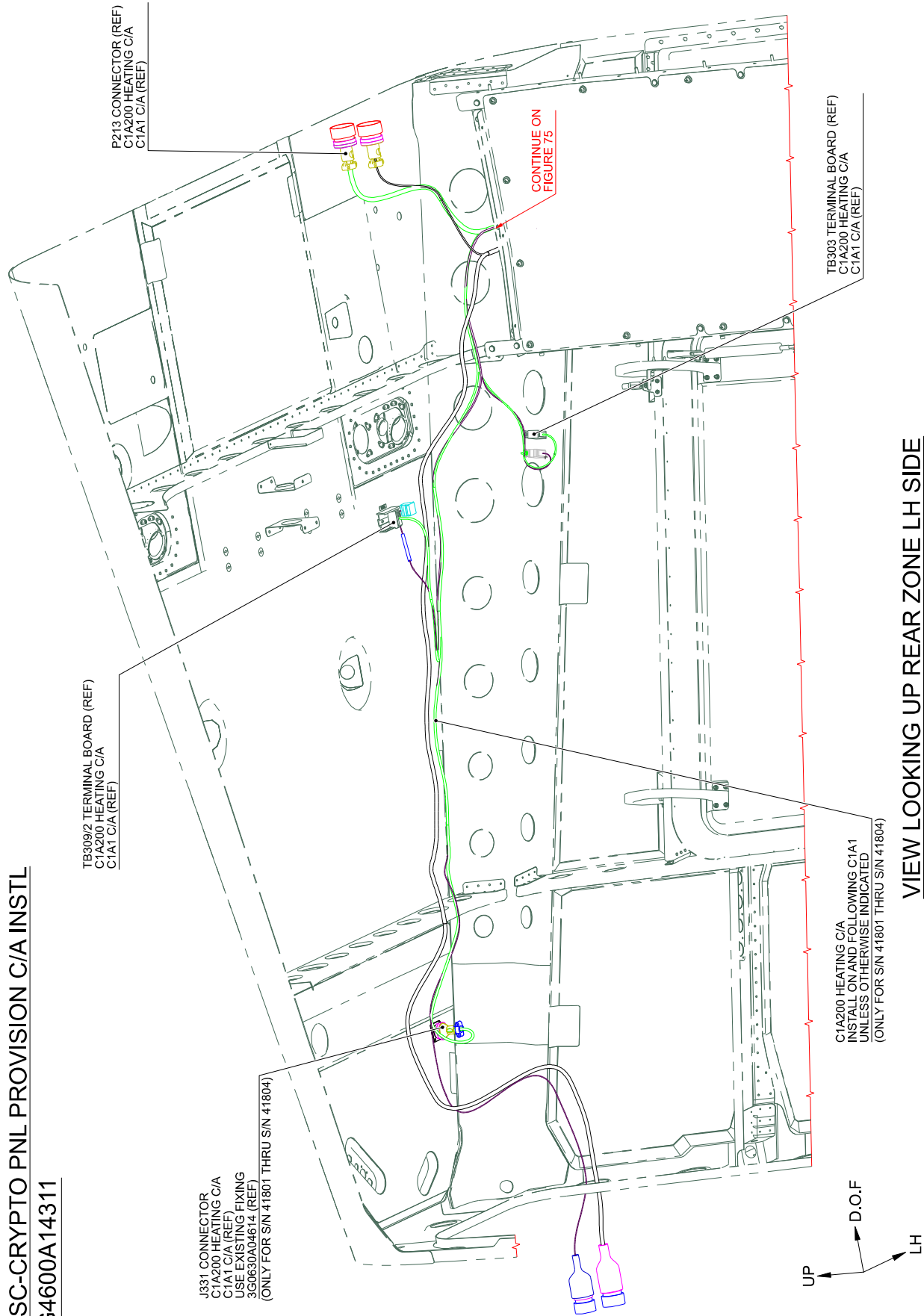


Figure 70

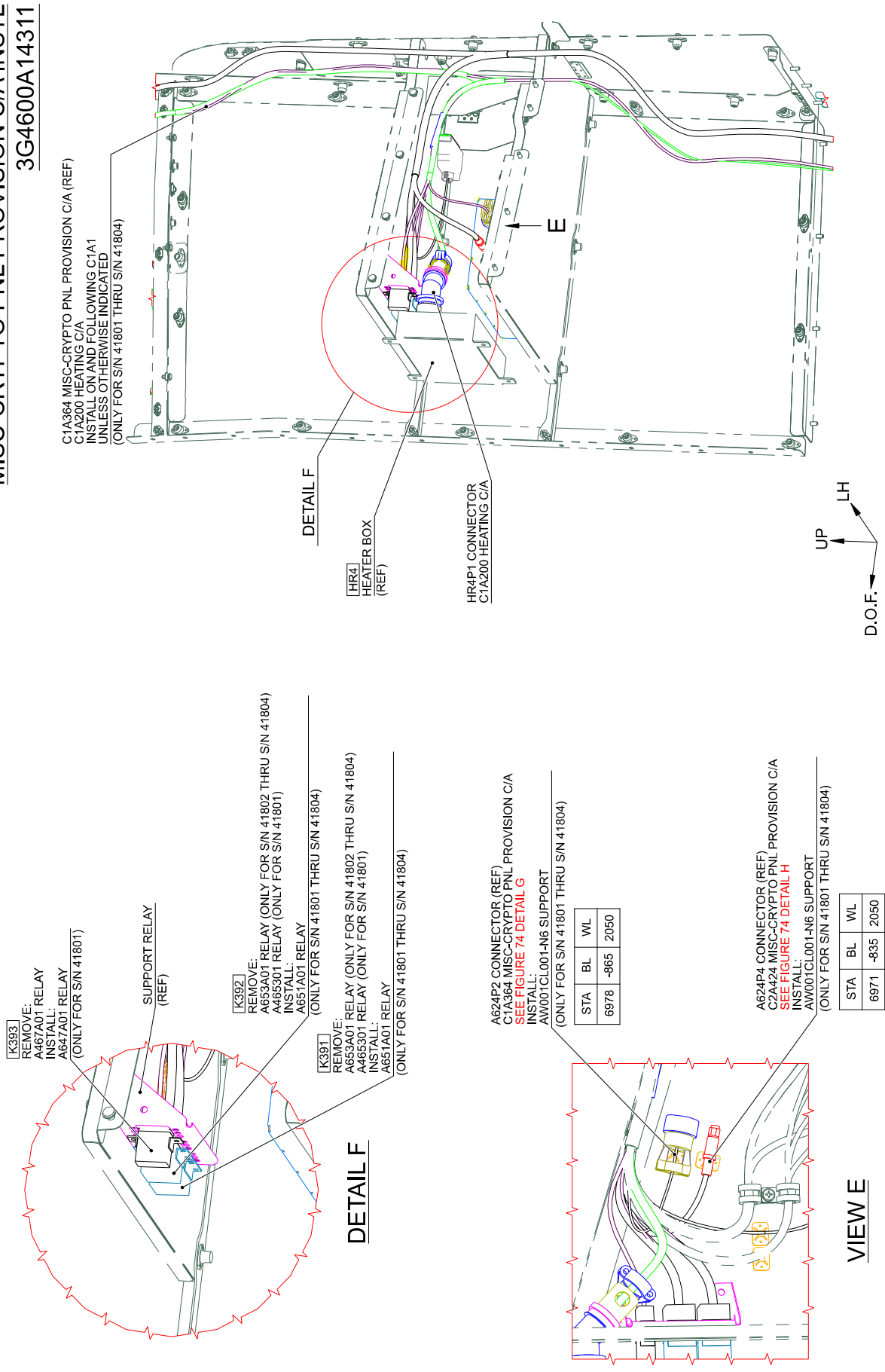
MISC-CRYPTO PNL PROVISION C/A INSTL
3G4600A14311



VIEW LOOKING UP REAR ZONE LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

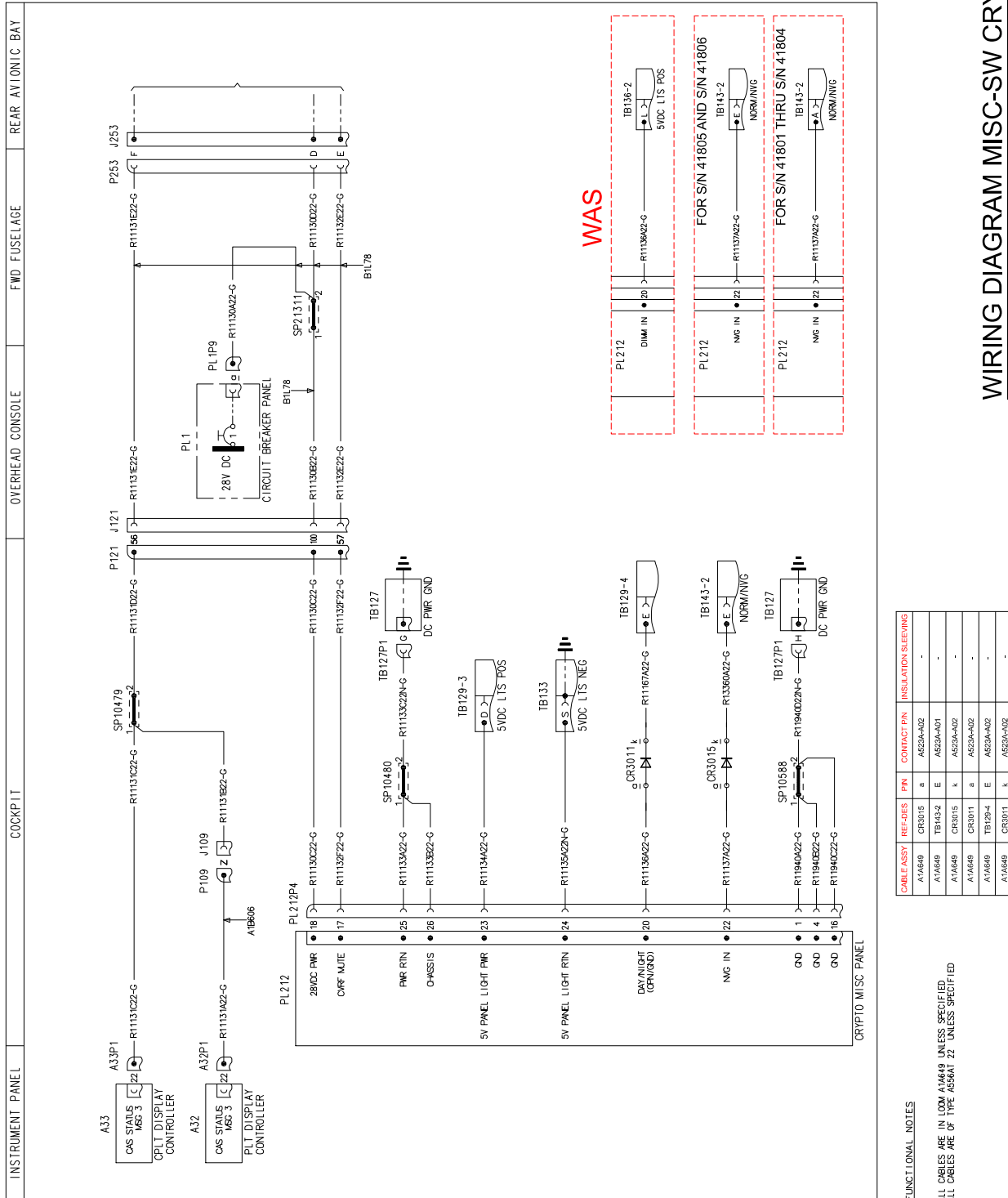
Figure 71

MISC-CRYPTO PNL PROVISION C/A INSTL
3G4600A14311



VIEW LOOKING REAR FUSELAGE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 72



CABLE ASSY	REF-DES	PN	CONTACT P/N	INSULATION SLEEVING
A7A649	CR3015	b	A523A-A02	-
A7A649	TB1432	E	A523A-A01	-
A7A649	CR3015	k	A523A-A02	-
A7A649	CR3011	b	A523A-A02	-
A7A649	TB129-4	E	A523A-A02	-
A7A649	CR3011	k	A523A-A02	-

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A7A649 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE ASS041 ZZ UNLESS SPECIFIED

Figure 73

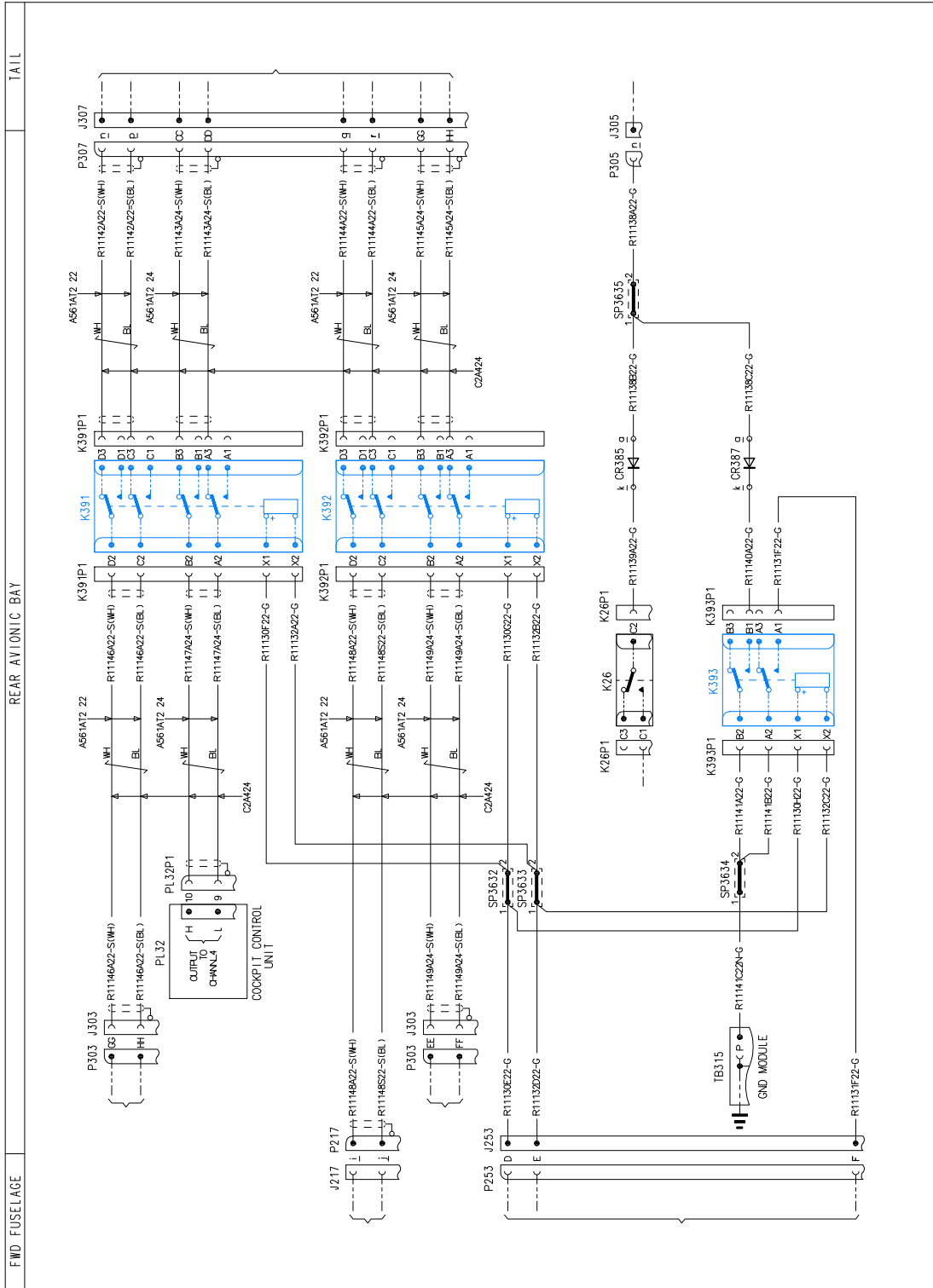
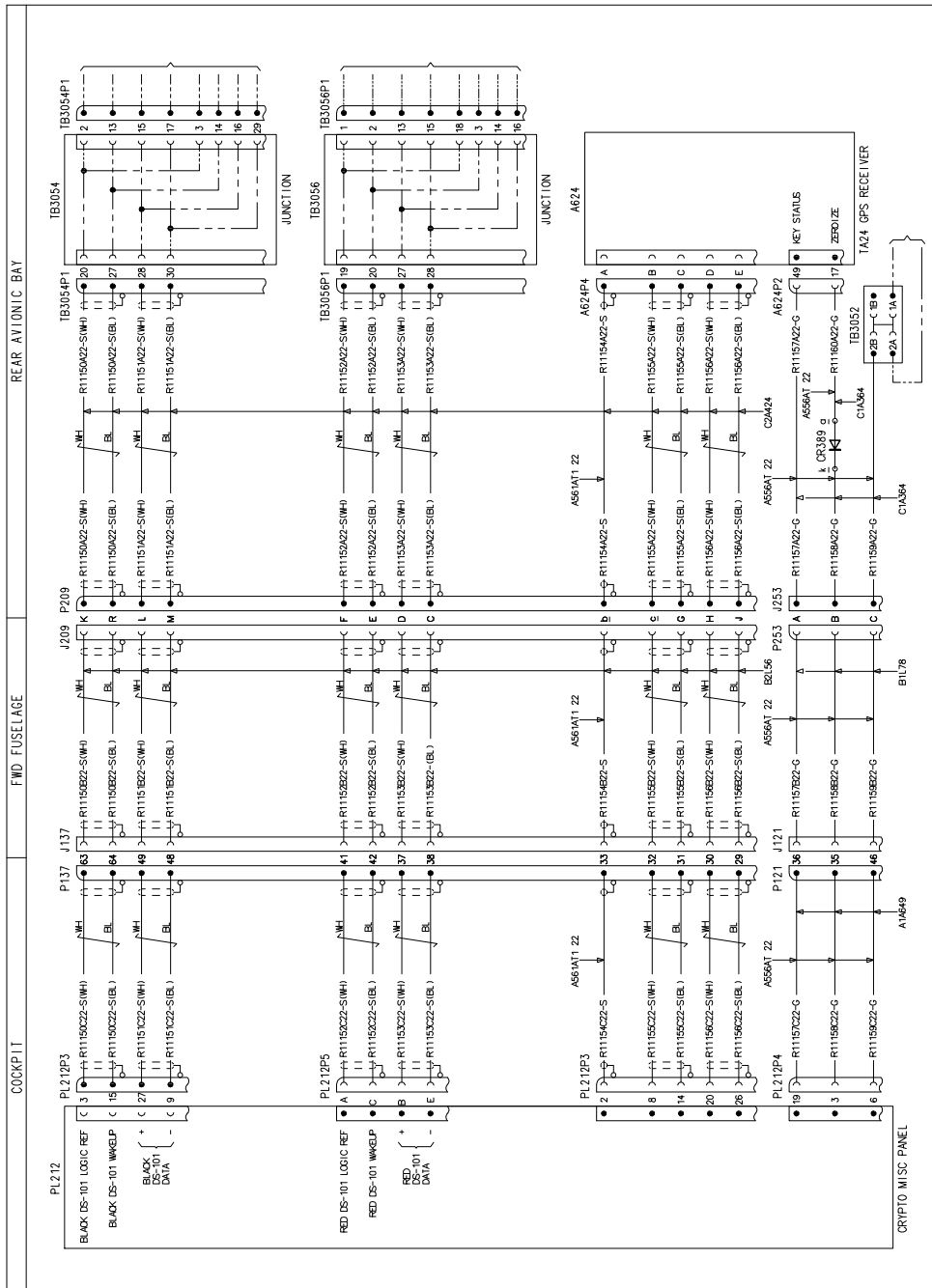


Figure 74

FUNCTIONAL NOTES

ALL CABLES ARE IN UOM C14184. UNLESS SPECIFIED, ALL CABLES ARE OF TYPE A558AT 22. UNLESS SPECIFIED

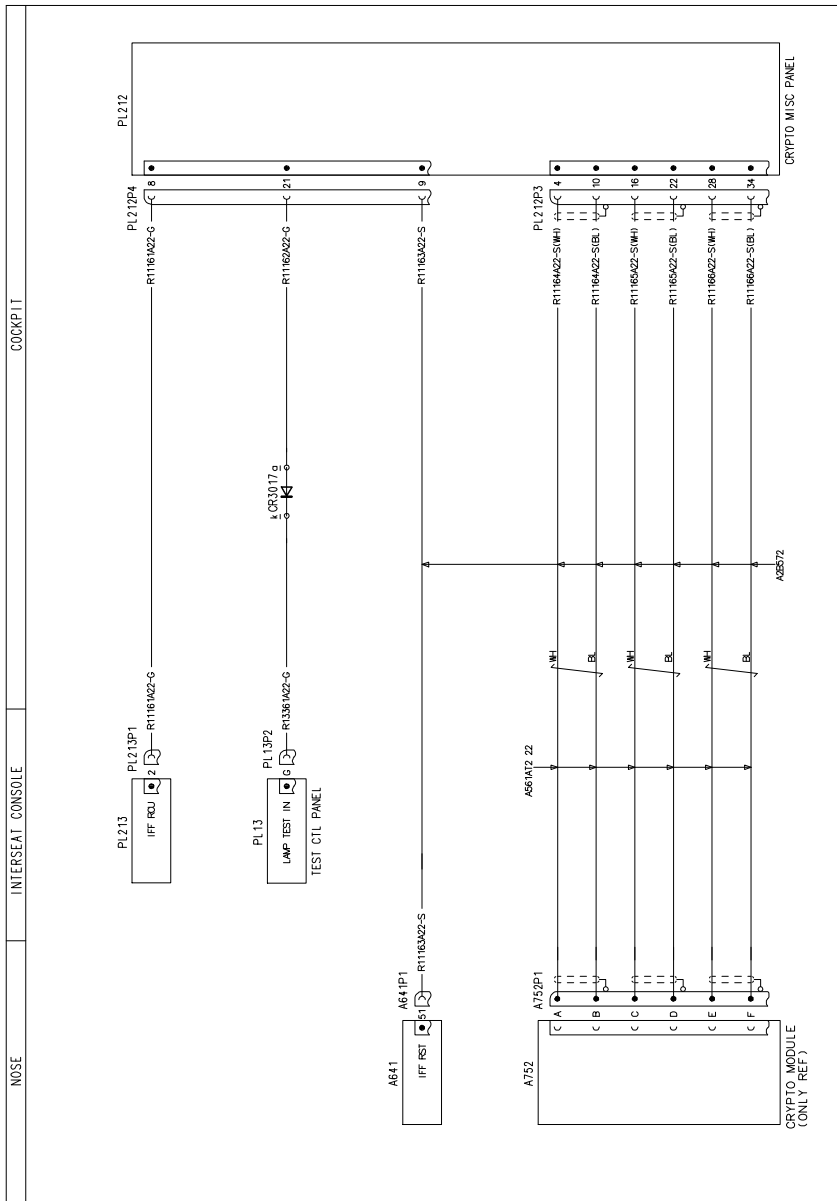


FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM A24583 UNLESS SPECIFIED.
 ALL CABLES ARE OF TYPE A56AT7 22 UNLESS SPECIFIED.

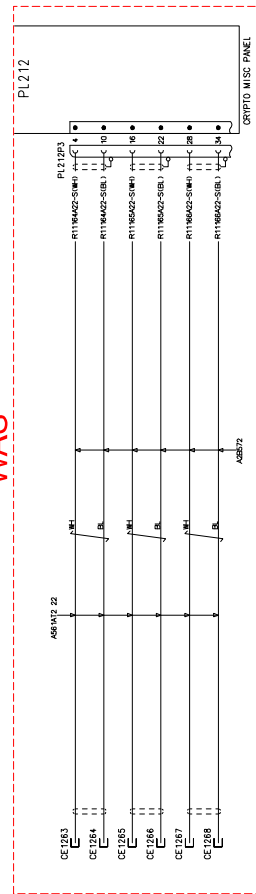
Figure 75

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CABLE ASSY	REF-DES	PIN	CONTACT PAN	INSULATION SLEEVING
A1A549	CR3017	B	A823A-A02	-
A1A549	PL13P2	G	M802B/36-SF1	-
A1A549	CR3017	K	A823A-A02	-
A2B572	A752P1	A	-	M230S/38-004-C
A2B572	A752P1	B	-	M230S/38-004-C
A2B572	A752P1	C	-	M230S/38-004-C
A2B572	A752P1	D	-	M230S/38-004-C
A2B572	A752P1	E	-	M230S/38-004-C
A2B572	A752P1	F	-	M230S/38-004-C

WAS



WAS



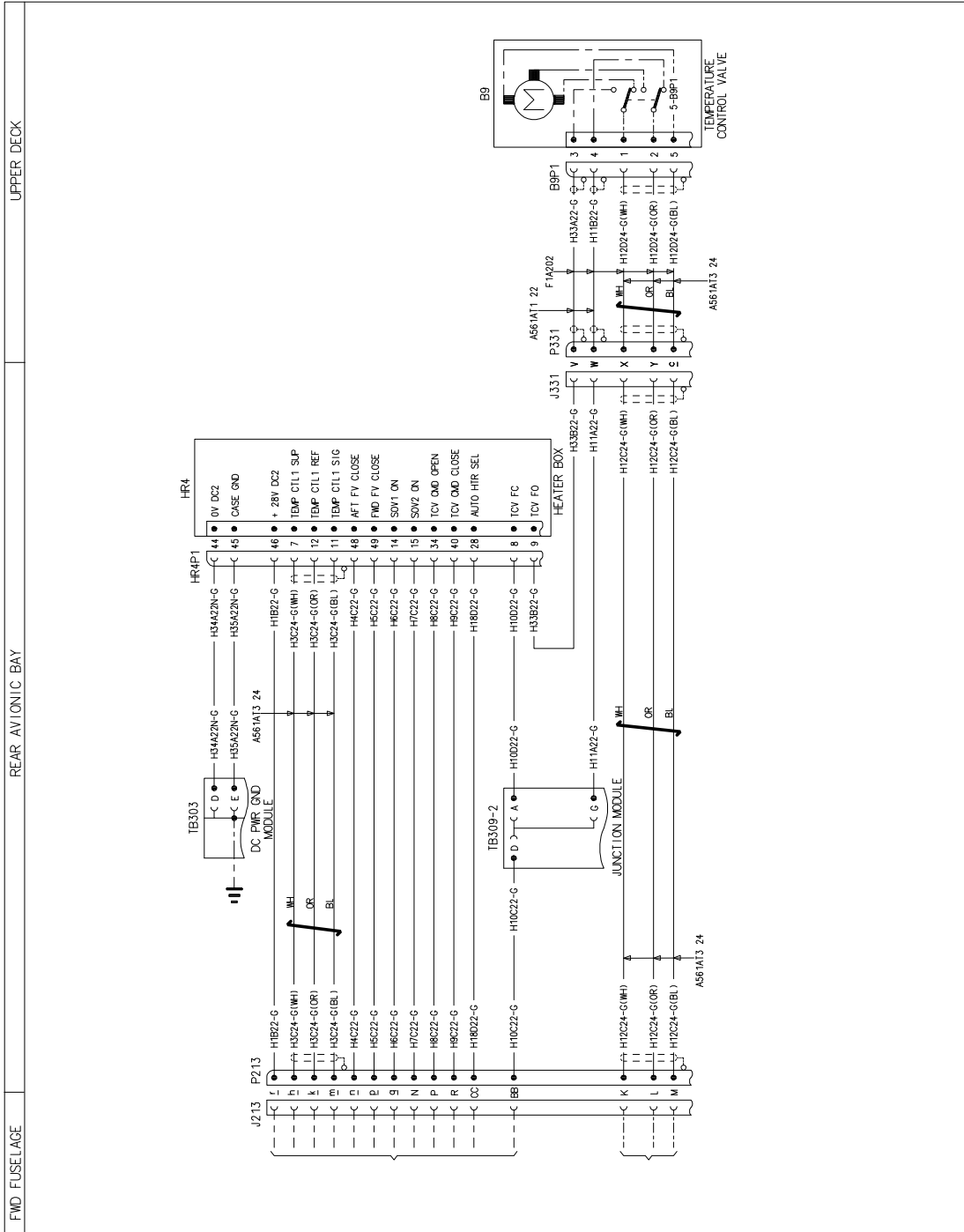
FUNCTIONAL NOTES

ALL CABLES ARE IN LOBBY UNLESS SPECIFIED
ALL CABLES ARE OF TYPE AUSA8AT 22 UNLESS SPECIFIED

3G4600W13711

WIRING DIAGRAM MISC-SW CRYPTO PNL PROVISION
SHEET 5

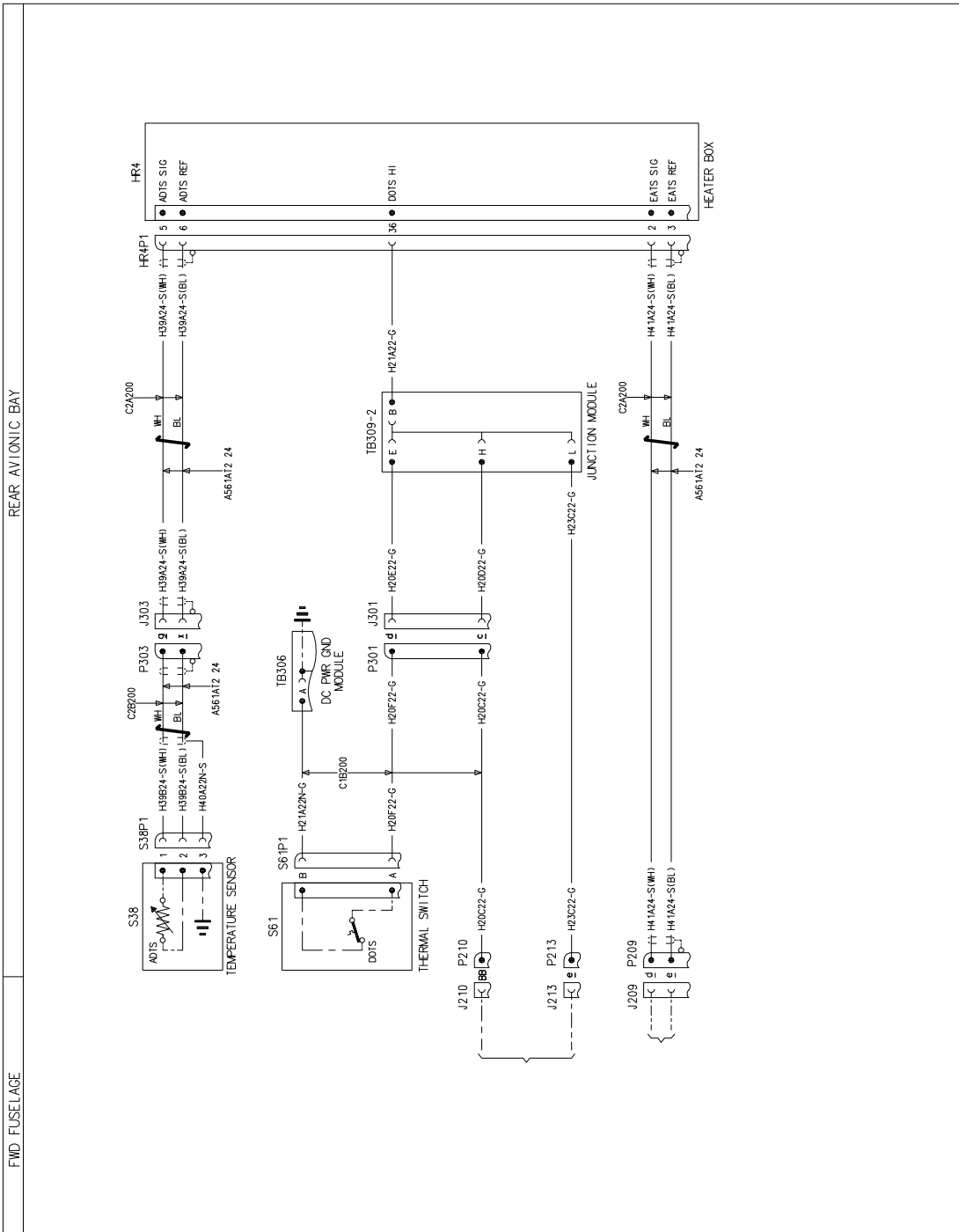
Figure 76



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM C1A200 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A55A1 22 UNLESS SPECIFIED

CABLE ASSY	REF-DES	PIN	CONTACT PIN	INSULATION SLEEVING
C1A200	HR4P1	8	M3902065-348	-
C1A200	TB3062	A	A523A-A05	-
C1A200	HR4P1	9	M3902065-348	-
C1A200	J331	V	M3902065-351	-
C1A200	HR4P1	45	M3902065-348	-
C1A200	TB303	E	A523A-A05	-
C1A200	P213	BB	M3902065-383	-
C1A200	TB3062	D	A523A-A05	-
C1A200	P213	K	M3902065-383	M230538-004-C
C1A200	J331	X	M3902065-351	M230538-004-C
C1A200	P213	L	M3902065-383	M230538-004-C
C1A200	J331	Y	M3902065-351	M230538-004-C
C1A200	P213	M	M3902065-383	M230538-004-C
C1A200	J331	G	M3902065-351	M230538-004-C
C1A200	P213	CC	M3902065-383	-
C1A200	HR4P1	28	M3902065-348	-
C1A200	P213	T	M3902065-383	-
C1A200	HR4P1	46	M3902065-348	-
C1A200	P213	H	M3902065-383	M230538-004-C
C1A200	HR4P1	7	M3902065-348	M230538-004-C
C1A200	P213	K	M3902065-383	M230538-004-C
C1A200	HR4P1	12	M3902065-348	M230538-004-C
C1A200	P213	M	M3902065-383	M230538-004-C
C1A200	HR4P1	11	M3902065-348	M230538-004-C
C1A200	P213	N	M3902065-383	-
C1A200	HR4P1	48	M3902065-348	-
C1A200	P213	P	M3902065-383	-
C1A200	HR4P1	4B	M3902065-348	-
C1A200	HR4P1	4B	M3902065-348	-
C1A200	P213	Q	M3902065-383	-
C1A200	HR4P1	14	M3902065-348	-
C1A200	P213	N	M3902065-383	-
C1A200	HR4P1	15	M3902065-348	-
C1A200	P213	P	M3902065-383	-
C1A200	HR4P1	3I	M3902065-348	-
C1A200	P213	R	M3902065-383	-
C1A200	HR4P1	40	M3902065-348	-
C1A200	TB303	D	A523A-A05	-
C1A200	HR4P1	44	M3902065-348	-
C1A200	TB3062	G	A523A-A05	-
C1A200	J331	W	M3902065-351	-

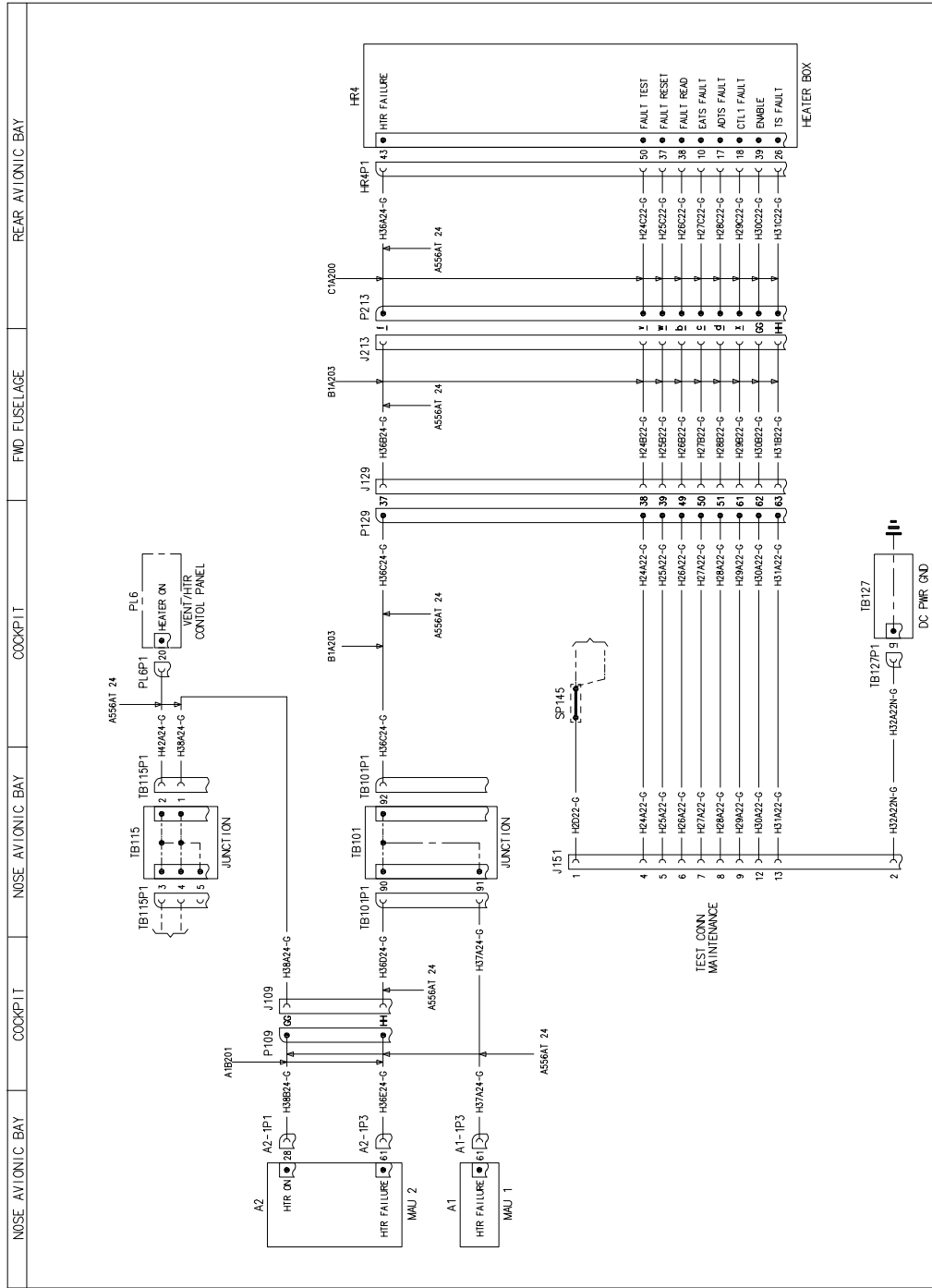
Figure 77



CABLE ASSY	REF-JES	PIN	CONTACT PIN	INSULATION SLEEVING
C1A200	J301	c	M39029R6C451	-
C1A200	TB3092	H	A522A-A05	-
C1A200	J301	d	M39029R6C451	-
C1A200	TB3092	E	A522A-A05	-
C1A200	P213	e	M39029R6C453	-
C1A200	TB3092	L	A522A-A05	-
C1A200	TB3092	B	A522A-A05	-
C1A200	HR4P1	3B	M39029R6C448	-

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM C1A200 UNLESS SPECIFIED.
ALL CABLES ARE OF TYPE ASS6AT 22 UNLESS SPECIFIED.

Figure 78



CABLE/ASSY	REF-DES	PIN	CONTACT PIN	INSULATION SLEEVING
C/A200	HRAP1	50	M3002916B-348	-
C/A200	P213	v	M3002916B-348	-
C/A200	HRAP1	37	M3002916B-348	-
C/A200	P213	w	M3002916B-348	-
C/A200	HRAP1	38	M3002916B-348	-
C/A200	P213	t	M3002916B-348	-
C/A200	HRAP1	10	M3002916B-348	-
C/A200	P213	g	M3002916B-348	-
C/A200	HRAP1	17	M3002916B-348	-
C/A200	P213	d	M3002916B-348	-
C/A200	HRAP1	18	M3002916B-348	-
C/A200	P213	x	M3002916B-348	-
C/A200	HRAP1	39	M3002916B-348	-
C/A200	P213	gg	M3002916B-348	-
C/A200	HRAP1	26	M3002916B-348	-
C/A200	P213	hh	M3002916B-348	-
C/A200	P213	i	M3002916B-348	-
C/A200	HRAP1	43	M3002916B-348	-

Figure 79

FUNCTIONAL NOTES
 ALL CABLES ARE IN LOOM A1A20 UNLESS SPECIFIED.
 ALL CABLES ARE OF TYPE ASS6AT 22 UNLESS SPECIFIED.

COCKPIT DOOR ARMOUR COMPLETE PROVISION 3G5311A32512

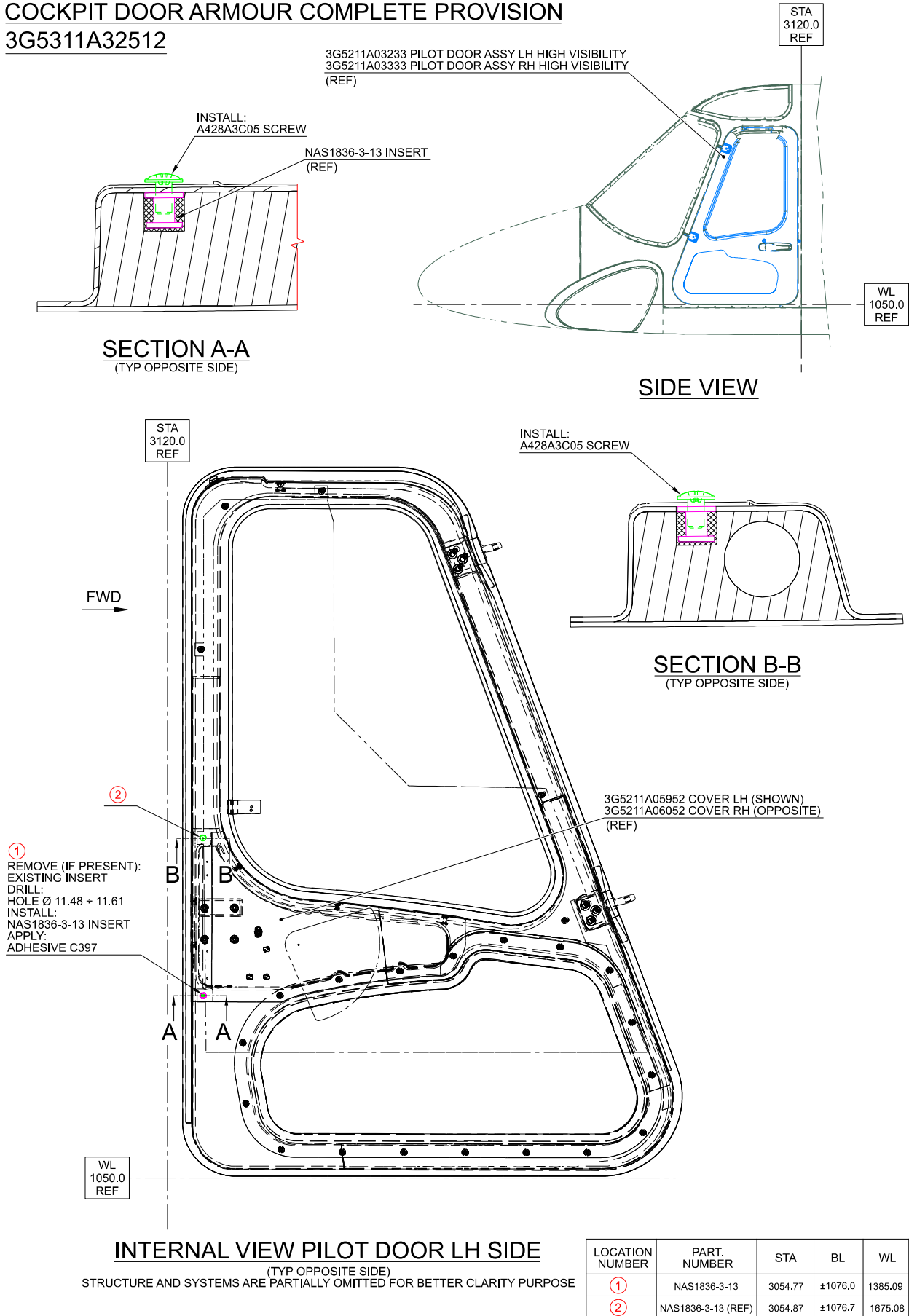
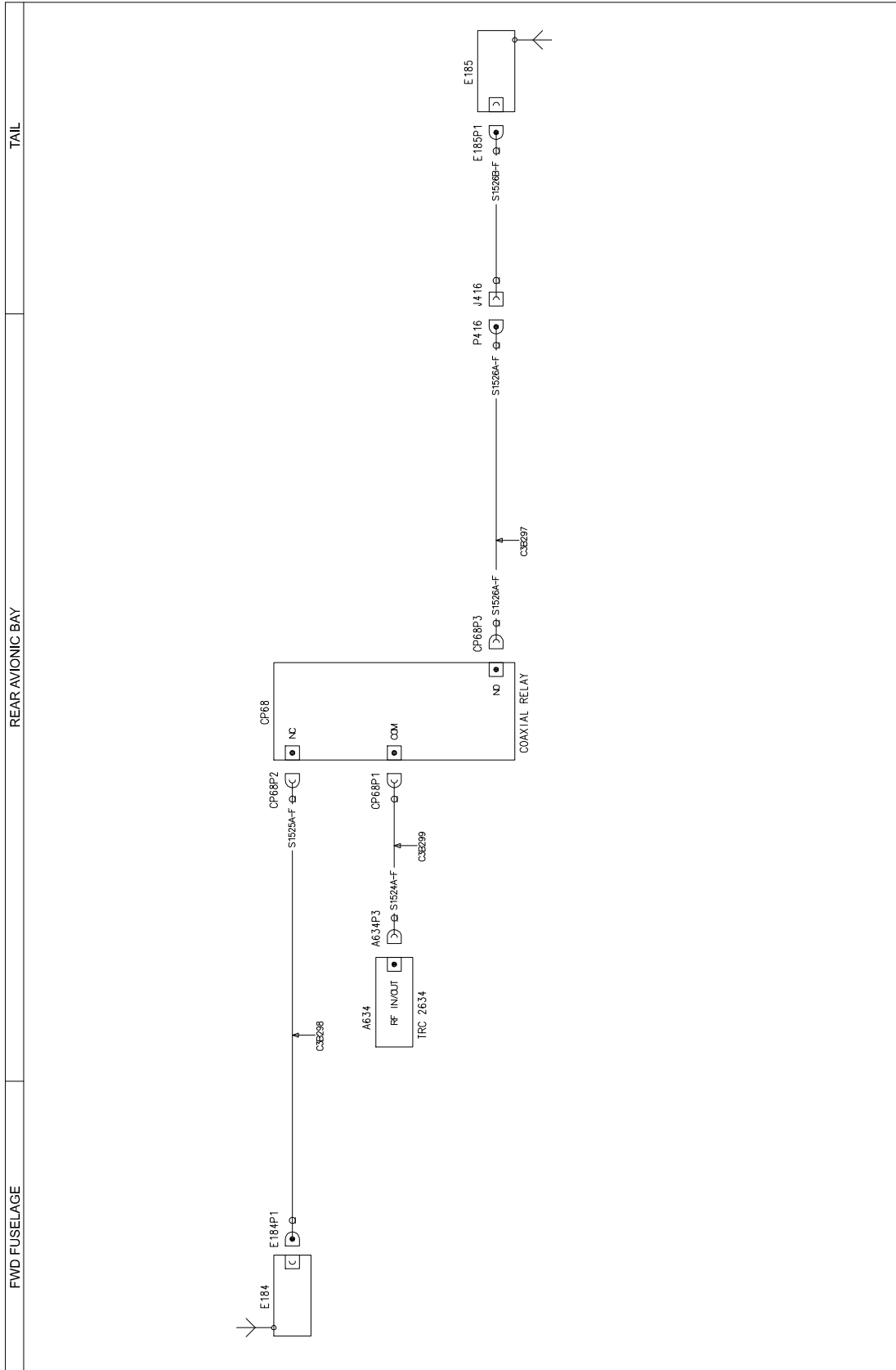


Figure 80

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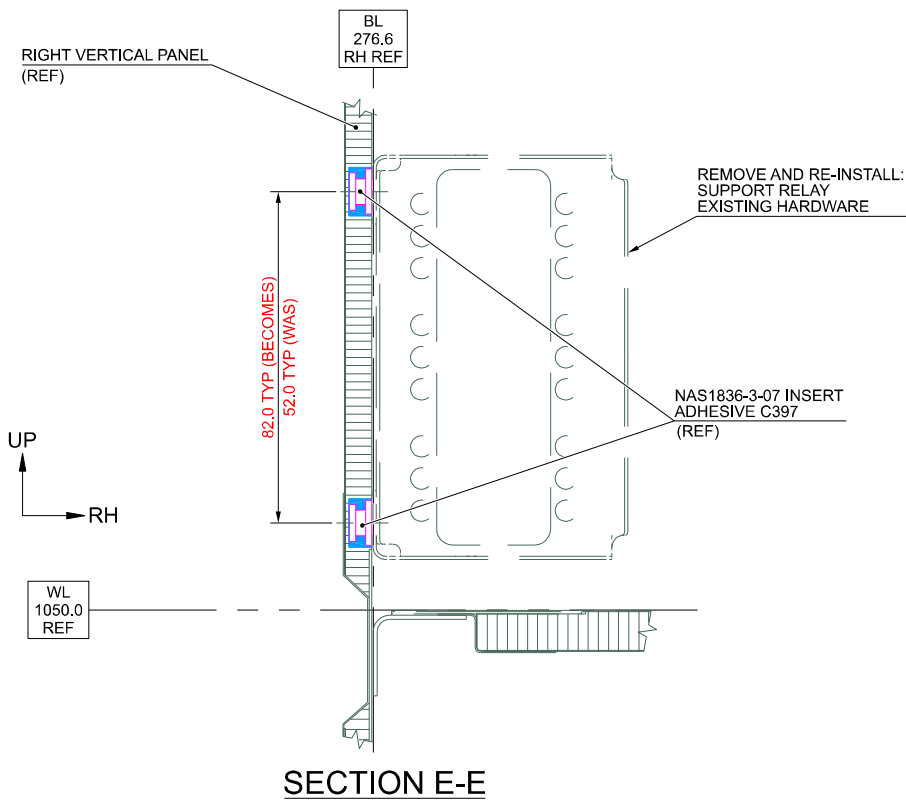
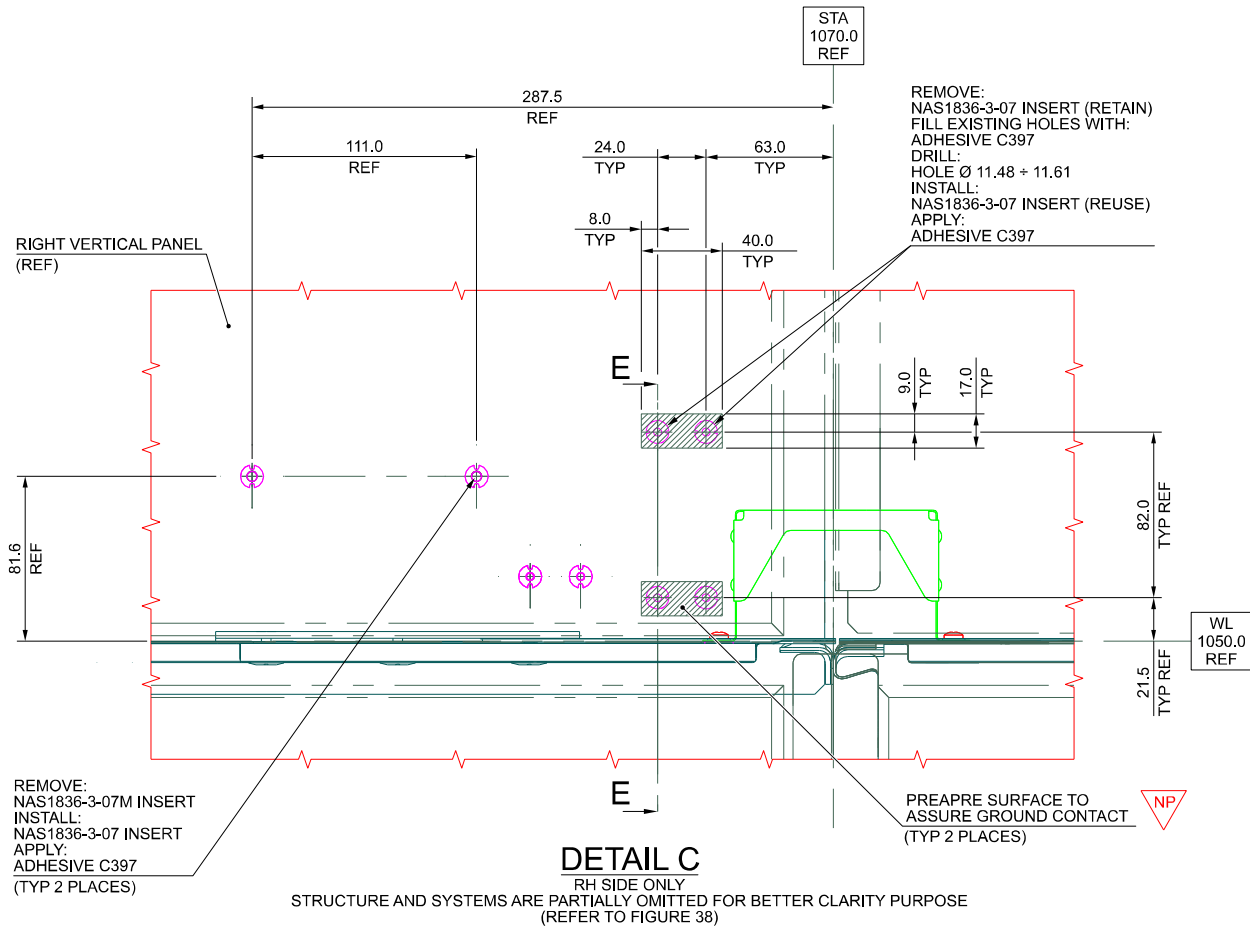


FUNCTIONAL NOTES

ALL CABLES ARE IN LOOM DBR246 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE S22089 UNLESS SPECIFIED

3G3450W04911
WIRING DIAGRAM L-3 AS TACAN

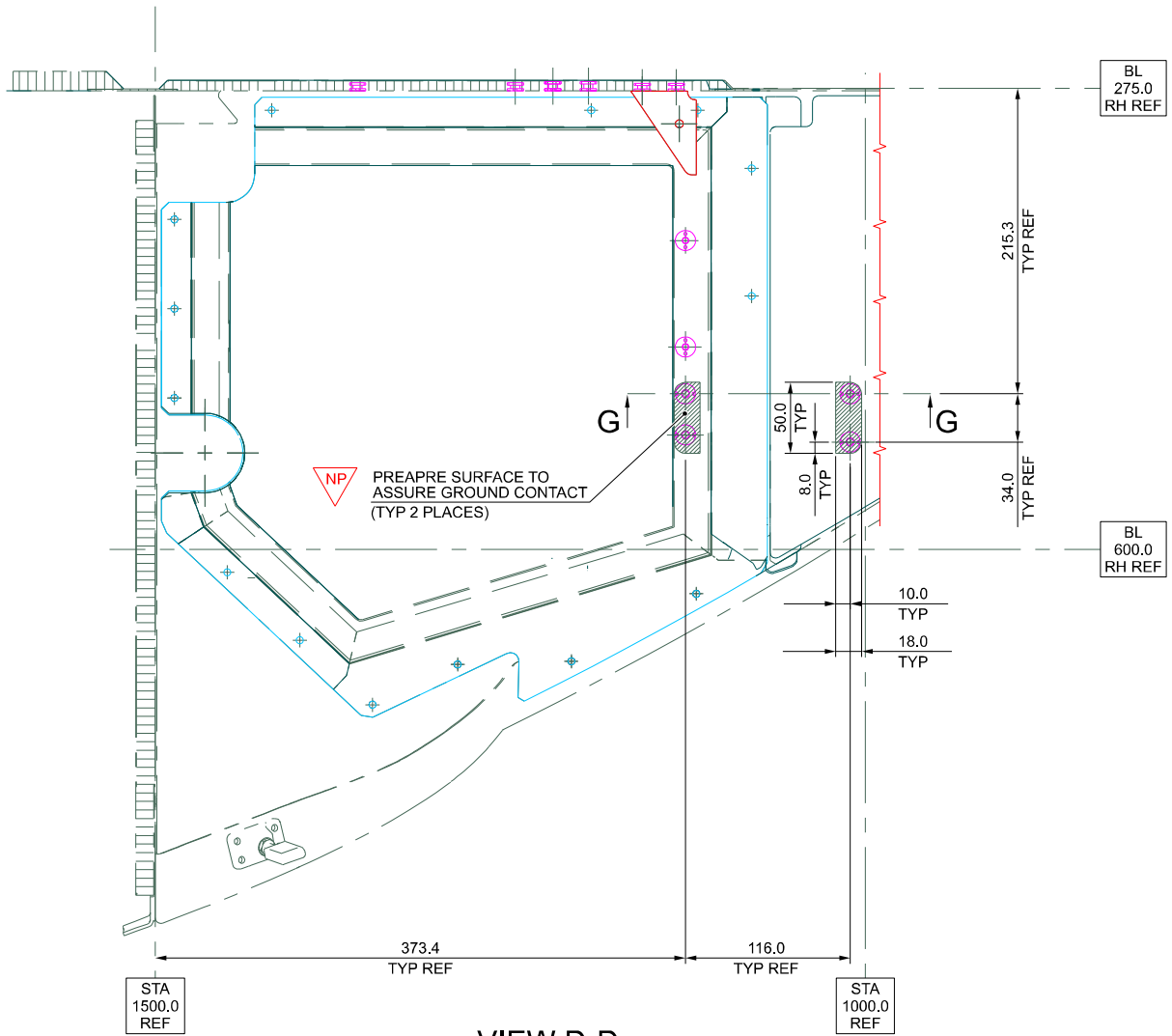
Figure 81



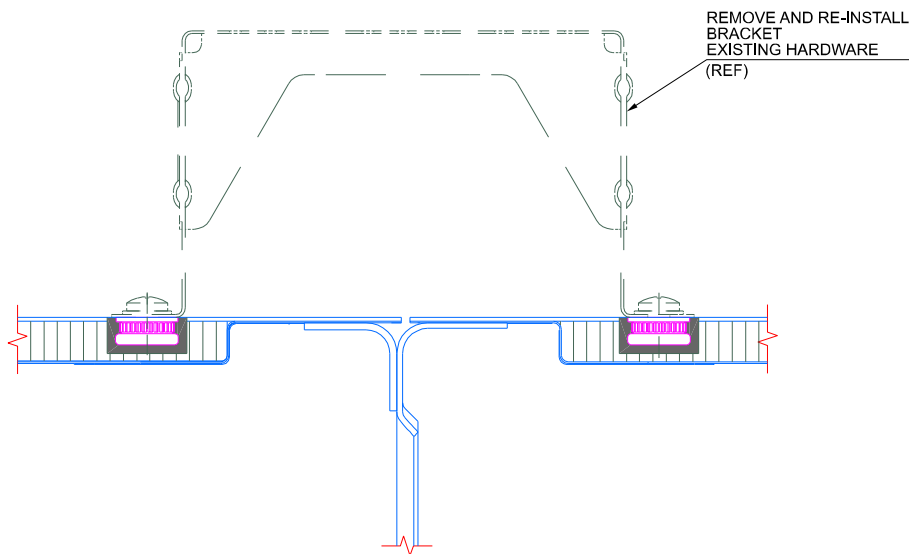
3G5311A34611
IFF BAE AN/DPX7 STRUCTURAL PROVISION

Figure 82

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STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE (REFER TO FIGURE 38)



3G5311A34611
IFF BAE AN/DPX7 STRUCTURAL PROVISION

Figure 83

ANNEX A

MISC-SW CRYPTO PANEL ACCEPTANCE TEST PROCEDURE

6 SYSTEM TEST

This section describes the TEST PROCEDURE to be applied, on ground, on Helicopters where the MISC SW Crypto Panel Provision 3G4600A14311 is installed.

6.1 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 (EEDs) 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.



ATTENTION: Do not handle and operate plug/receptacle connectors with voltage presence.

1. Visually verify the proper installation of all the components. Check the correct mechanical installation and fixing; Check the Electrical wires installation; Check that all the connectors are properly plugged and fastened. Use the drawing in ref. [B] as reference documents.
NOTE: If this test step is performed under Part 21 privileges, MISC-SW CRYPTO PANEL will not be installed. Check of the mechanical installation and electrical wiring will be limited to the provisions for the MISC-SW CRYPTO PANEL.
2. AW139 - AVIONICS ACCEPTANCE TEST PROCEDURE, ref. [C] successfully completed.
3. Verify that the Primus Epic S/W 7.17 or higher is installed (refer to [E]).
4. During the test with helicopter electrically powered, the "IGN #1/2" and "START #1/2" breakers shall be pulled out.
5. Verify MH139 PRIMUS EPIC SW LOAD ACCEPTANCE TEST PROCEDURE (refer to [D]) has been successfully completed

6.1.1 REQUIRED TOOLS

- DC External Power Bench (28VDC).
- DC Voltmeter (range 0-32 VDC).
- Conductor Pins and Wire Extensions for troubleshooting operation.
- High Impedance Headset with extension for CVFDR control panel.
- WOW Switch

INSTRUMENT PRECISION: +/- 2% MIN

6.1.2 ELECTRICAL SETTINGS

1. Verify that all the Electrical Power Distribution System Circuit Breakers are pushed in.
2. Verify that all the Avionic Devices Circuit Breakers are pushed in.
3. The helicopter external power port shall be connected to the External Power Bench set to 28 VDC output. Power up the External Power Bench before starting with the test procedure.

6.2 TESTS TO BE PERFORMED

Tests described in this section and relative sub-sections, shall be performed under FAA Part 145 privileges (e.g. at AWPC premises in Philadelphia).

During these tests, the Crypto Panel shall be installed: scope of this test is to verify the correct electrical integration of the MISC-SW Crypto Panel on the MH139 helicopter.

6.2.1 BONDING CHECKS

1. Ensure CB630 is pulled out.
2. Disconnect all connectors
3. Verify the proper bonding of the following components:

REF. DES.	DESCRIPTION	LIMIT VALUE [mΩ]	REFERENCE POINT	REGISTERED VALUE [mΩ]
PL212	MISC-SW CRYPTO PANEL	10	Local Structure	

4. Push in CB630 and reconnect all connectors of the LRU under test.

6.2.2 SYSTEM TEST PROCEDURE

6.2.2.1 MISC-SW CRYPTO PANEL FUNCTIONAL TEST

1. Ensure CB632, CB633, CB616, CB617 and CB631 are pulled out.
2. Disconnect following connectors belonging to the LRUs listed below:

System	Connector
Mil GPS	A624 P2
ARC/210	A639 P7
	A637 P7
IFF	PL213 P1
	A641P1-51

3. Set Zeroize switch on PL212 to normal position (Not Zeroize)
4. Verify Pin A624P2-17 is open.
5. Set Zeroize switch on PL212 to Zeroize position.

6. Perform a diode test between Pin A624P2-17 and ground.
7. Set Zeroize switch on PL212 to normal position (Not Zeroize)
8. Verify Pin A639P7-8 is open.
9. Verify Pin A637P7-8 is open.
10. Set Zeroize switch on PL212 to Zeroize position.
11. Perform a diode test between A639P7-8 and ground.
12. Perform a diode test between Pin A637P7-8 and ground.
13. Set Zeroize switch on PL212 to normal position (Not Zeroize)
14. Verify there is electrical continuity between PL213P1-2 and A641P1-51.
15. Set Zeroize switch on PL212 to Zeroize position.
16. Verify there is no electrical continuity between PL213P1-2 and A641P1-51.
17. Set Zeroize switch on PL212 to normal position (Not Zeroize)
NOTE: if Zeroize switch is not correctly set to normal position, upon execution of following test point, Military GPS Unit, ARC210 and IFF may be Zeroized.
18. Reconnect all connectors and terminal lugs belonging to the following LRU:
Military GPS UNIT, ARC 210, IFF
19. Ensure CB632, CB633, CB616, CB617 and CB631 are pushed in.
20. Verify that, rotating the Cockpit Dimming Console Knob, the brightness of MISC-SW Crypto Panel varies accordingly.
21. Check that 1&2 "START" and "IGN" CBs are pulled OUT. Set at least one Engine control Knob set to IDLE or WOW switches set to flight position.
22. Set the CVFR MUTE to normal position (non muting) and verify CVR MUTE status message is not displayed in CAS list.
23. Connect the high impedance headset to the FDR control panel. Speak in the cockpit and check the Audio input.
24. Speak in Pilot's Headset and Check the audio input on the high impedance headset.
25. Speak in Co-Pilot's Headset and Check the audio input on the high impedance headset.
26. Speak in Hoist Operator's Headset (3rd AV900) and Check the audio input on the high impedance headset.
27. Set the CVFR MUTE switch to MUTE position and verify CVR MUTE status message is displayed in CAS list.
28. Speak in the cockpit and check from the high impedance headset that no Audio input is present the high impedance headset.
29. Speak in Pilot's Headset and Check that no Audio input is present on the high impedance headset.

30. Speak in Co-Pilot's Headset and Check that no Audio input is present on the high impedance headset.
31. Speak in Hoist Operator's Headset (3rd AV900) and Check that no Audio input is present on the high impedance headset.
32. Set Engine control Knob or WOW switches to initial positions.
33. Verify that GPS Key Status led is illuminated steady yellow if Crypto Keys are not loaded on Military GPS unit (otherwise, if Crypto Keys are loaded and valid on TA-24 GPS unit, the GPS Key Status led shall be steady green).
34. Press the LAMP test button on lighting test panel and verify the GPS Key LOAD led lits both green and yellow. Release the LAMP test button and verify the GPS Key LOAD led remains steady yellow if Crypto Keys are not loaded on Military GPS unit (otherwise, if Crypto Keys are loaded and valid on TA-24 GPS unit, the GPS Key Status led shall be steady green).

6.3 TESTS RESULTS

TABLE 4 – ATP RESULTS

ACCEPTANCE TEST PROCEDURE					
<i>REF</i>	<i>DESCRIPTION</i>	<i>OPERATOR</i>	<i>DATE</i>	<i>PASS</i>	<i>FAIL</i>
6.1	TEST PREREQUISITES AND SAFETY PROVISION				
6.1.2	ELECTRICAL SETTINGS				
6.2.1	BONDING CHECKS				
6.2.2.1	MISC-SW CRYPTIO PANEL FUNCTIONAL TEST				

ANNEX B

ELECTRICAL PROVISION TACAN SYSTEM ACCEPTANCE TEST PRCOEDURE

5. TEST PREREQUISITES

5.1 SAFETY PROVISION

CHECK		
1.	Disconnect (if installed) the connectors from the fire extinguishing bottles and suitably stow them. If other Electro-Explosive Devices (EEDs) are fitted, ensure that they are electrically disconnected.	<input type="checkbox"/>
2.	When required for continuity testing, a low voltage tester shall be used.	<input type="checkbox"/>
3.	No other form of probe is allowed under no circumstances.	<input type="checkbox"/>
4.	When testing at pins and sockets of plug and receptacle connectors is required, the contact shall be made by means of the correct mating socket or pin.	<input type="checkbox"/>
5.	Do not handle and operate plug/receptacle connectors with voltage presence.	<input type="checkbox"/>
6.	During the test (with the helicopter electrically powered) the "IGN #1/2" and "START #1/2" CBs shall be pulled OUT.	<input type="checkbox"/>

WARNING

Verify that no one is standing on the ground close to the transponder bottom antenna (1 meter radius) while the TACAN transponder is transmitting, in order to avoid exposure to transmitted RF power. Do not operate the TACAN system while the aircraft is being re-fuelled.

5.2 PRELIMINARY CHECKS

CHECK		Result						
1.	Check that all the TACAN configuration P/Ns are correct. Fill the following Table. <table border="1" style="margin-left: 20px; width: 50%;"> <thead> <tr> <th>ITEM</th> <th>PART NUMBER</th> <th>Check</th> </tr> </thead> <tbody> <tr> <td>Antenna Switch</td> <td>402-2303</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	ITEM	PART NUMBER	Check	Antenna Switch	402-2303	<input type="checkbox"/>	<input type="checkbox"/>
ITEM	PART NUMBER	Check						
Antenna Switch	402-2303	<input type="checkbox"/>						
2.	The electrical wiring harness shall have been successfully tested for proper isolation resistance, electrical voltage and continuity between end points. In the event of a system failure or system malfunction, perform a pin-to-pin check (the applicable wiring diagram is ref. [1] in the table 3-1) to confirm that all wires terminate in their proper location, the power and ground are applied only where required and all data/audio bus connections are shielded and properly grounded.	<input type="checkbox"/>						
3.	Ensure that the D.C. Electrical Power Generation and Distribution System ATP has been successfully completed.	<input type="checkbox"/>						
4.	Ensure that the Avionic System ATP (ref. [2] in the Table 3-1) has been successfully completed.	<input type="checkbox"/>						

6. TOOLS REQUIRED

Tool		
1.	DC External Power Bench (28VDC).	<input type="checkbox"/>
2.	Multimeter, conductor pins and wire extensions for troubleshooting operations. <u>INSTRUMENT PRECISION: +/- 2% MIN</u>	<input type="checkbox"/>
3.	Cable and Antenna Analyzer S332D or equivalent.	<input type="checkbox"/>
4.	Bondimeter.	<input type="checkbox"/>
5.	Conductor pins and wire extensions for troubleshooting operation	<input type="checkbox"/>
6.	DMNI24-10 Antenna.	<input type="checkbox"/>

NOTE: THE TOOLS SHALL BE CALIBRATED BEFORE USING.

7. BONDING CHECKS

The bonding values need to be measured in according with the LHD rules detailed in ref. [4].

CHECK		Result															
1.	Make sure that helicopter is powered off.	<input type="checkbox"/>															
2.	Disconnect the external DC power bench.	<input type="checkbox"/>															
3.	Remove the BOTTOM Antenna cover.	<input type="checkbox"/>															
4.	Install the DMNI24-10 Antenna on the BOTTOM side.	<input type="checkbox"/>															
5.	Use the micro-ohmmeter to measure the bonding resistance between the device (connector shell if not otherwise stated) and the specified reference point. Record the measured value in the table.	<input type="checkbox"/>															
<table border="1"> <thead> <tr> <th>UUT</th> <th>Description</th> <th>UUT test point</th> <th>Ref. Point</th> <th>LIMIT VALUE [mΩ]</th> <th>Result [mΩ]</th> </tr> </thead> <tbody> <tr> <td>DMNI24-10</td> <td>BOTTOM Antenna</td> <td>Connect or Shell</td> <td>Negative on the external power lug</td> <td>2.5</td> <td></td> </tr> </tbody> </table>						UUT	Description	UUT test point	Ref. Point	LIMIT VALUE [mΩ]	Result [mΩ]	DMNI24-10	BOTTOM Antenna	Connect or Shell	Negative on the external power lug	2.5	
UUT	Description	UUT test point	Ref. Point	LIMIT VALUE [mΩ]	Result [mΩ]												
DMNI24-10	BOTTOM Antenna	Connect or Shell	Negative on the external power lug	2.5													
6.	Remove DMNI24-10 Antenna.	<input type="checkbox"/>															
7.	Reinstall the BOTTOM Antenna cover.	<input type="checkbox"/>															
8.	Remove the TOP Antenna cover.	<input type="checkbox"/>															
9.	Install the DMNI24-10 Antenna on the TOP side.	<input type="checkbox"/>															
10.	Use the micro-ohmmeter to measure the bonding resistance between the device (connector shell if not otherwise stated) and the specified reference point. Record the measured value in the table.	<input type="checkbox"/>															
<table border="1"> <thead> <tr> <th>UUT</th> <th>Description</th> <th>UUT test point</th> <th>Ref. Point</th> <th>LIMIT VALUE [mΩ]</th> <th>Result [mΩ]</th> </tr> </thead> <tbody> <tr> <td>DMNI24-10</td> <td>TOP Antenna</td> <td>Connect or Shell</td> <td>Negative on the external power lug</td> <td>10</td> <td></td> </tr> </tbody> </table>						UUT	Description	UUT test point	Ref. Point	LIMIT VALUE [mΩ]	Result [mΩ]	DMNI24-10	TOP Antenna	Connect or Shell	Negative on the external power lug	10	
UUT	Description	UUT test point	Ref. Point	LIMIT VALUE [mΩ]	Result [mΩ]												
DMNI24-10	TOP Antenna	Connect or Shell	Negative on the external power lug	10													
11.	Remove DMNI24-10 Antenna.	<input type="checkbox"/>															

CHECK		Result
12.	Reinstall the TOP Antenna cover.	<input type="checkbox"/>

8. ELECTRICAL TEST

8.1 CIRCUIT BREAKER'S CHECK

CHECK		Result
Verify the presence and the correct rating of the following CBs:		<input type="checkbox"/>
REF. DES.	LIMIT VALUE [A]	
CB618	3	
LOCATION		
OVERHEAD CONSOLE		

8.2 GROUNDING CHECKS AND POWER SUPPLY CHECKS

CHECK		Result
1.	Pull OUT the TACAN CB (CB618).	<input type="checkbox"/>
2.	Verify the <u>grounding</u> of the following pins:	<input type="checkbox"/>
TRC 2634 (A634)		
A634P1-1	<input type="checkbox"/>	
A634P1-2	<input type="checkbox"/>	
A634P1-63	<input type="checkbox"/>	
Tacan CTRL Unit (PL209)		
PL209P1-S		<input type="checkbox"/>
3.	Verify the continuity of the core of coaxial cable between A634P3 and E184P1 . Verify isolation between the core and shield.	<input type="checkbox"/>
4.	Verify continuity between A634P1-26 and PL209P1-R .	<input type="checkbox"/>
5.	Connect a jumper between A634P1-48 and ground. With the helicopter electrically powered, push IN the TACAN CB (CB618). Verify the continuity of the core of coaxial RF cable between A634P3 and E185P1 . Verify isolation between the core and shield.	<input type="checkbox"/>

CHECK		Result				
6.	Verify the voltage $28 \pm 10\%$ VDC between the following couple of pins: TRC 2634 (A634) <table border="1" data-bbox="571 309 975 405" style="margin-left: auto; margin-right: auto;"> <tr> <td>A634P1-3 (+) vs A634P1-1 (-)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>A634P1-4 (+) vs A634P1-2 (-)</td> <td><input type="checkbox"/></td> </tr> </table>	A634P1-3 (+) vs A634P1-1 (-)	<input type="checkbox"/>	A634P1-4 (+) vs A634P1-2 (-)	<input type="checkbox"/>	<input type="checkbox"/>
A634P1-3 (+) vs A634P1-1 (-)	<input type="checkbox"/>					
A634P1-4 (+) vs A634P1-2 (-)	<input type="checkbox"/>					
7.	Pull OUT Tacan CB (CB618) Turn off power to the helicopter's busses and remove external power.	<input type="checkbox"/>				

8.3 PIN TO PIN CHECK

CHECK		Result
1.	Pull OUT the TACAN CB (CB618).	<input type="checkbox"/>
2.	Check there is continuity between <ul style="list-style-type: none"> • A634P1-12 and PL209P1-A • A634P1-34 and PL209P1-C • A634P1-13 and PL209P1-G • A634P1-35 and PL209P1-E • A634P1-14 and PL209P1-F • A634P1-36 and PL209P1-H • A634P1-15 and PL209P1-M • A634P1-37 and PL209P1-K • A634P1-16 and PL209P1-L • A634P1-38 and PL209P1-N • A634P1-62 and PL209P1-V • A634P1-17 and PL209P1-T • A634P1-81 and PL209P1-Y • A634P1-102 and PL209P1-X 	<input type="checkbox"/>
3.	Check there is continuity between the pin 44 of the Tacan Transceiver mating connector A634P1 and the pin 7 of PL1P2 (Tacan Pilot Test switch).	<input type="checkbox"/>
4.	Check there is continuity between the pin 98 of the Tacan Transceiver mating connector A634P1 and the pin X of PL1P2 (Tacan Pilot Test switch).	<input type="checkbox"/>
5.	Check there is continuity between <ul style="list-style-type: none"> • the pin 69 of the Tacan Transceiver mating connector A634P1 and the pin 45 of the MAU 2 (A2) mating connector A2-3P2. • the pin 69 of the Tacan Transceiver mating connector A634P1 and the pin 45 of the MAU 1 (A1) mating connector A1-3P2. 	<input type="checkbox"/>

CHECK	Result
<ul style="list-style-type: none"> the pin 90 of the Tacan Transceiver mating connector A634P1 and the pin 46 of the MAU 2 (A2) mating connector A2-3P2. the pin 90 of the Tacan Transceiver mating connector A634P1 and the pin 46 of the MAU 1 (A1) mating connector A1-3P2. 	
6. Check there is continuity between <ul style="list-style-type: none"> the pin Z of the Tacan Control Panel mating connector PL209P1 and the pin 96 of the MRC1 (A7) mating connector A7-6P3. the pin X of the Tacan Control Panel mating connector PL209P1 and the pin 97 of the MRC1 (A7) mating connector A7-6P3. 	<input type="checkbox"/>

9. COAXIAL CABLE TESTS

CHECK	results
1. Using instrument ref.[3] § Error! Reference source not found. or equivalent, select cable loss mode and set the RF limits as follows: <ul style="list-style-type: none"> Start frequency: 962 MHz. Stop frequency: 1213 MHz. 	<input type="checkbox"/>
2. Perform Instrument calibration, if necessary.	<input type="checkbox"/>

9.1 TOP ANTENNA CABLE ATTENUATION

CHECK	Result
1. Select the Cable loss – one port applicable measure on the instrument ref. [3] §6.	<input type="checkbox"/>
2. Verify that the TACAN circuit breaker (CB618) is pulled out.	<input type="checkbox"/>
3. Connect a jumper between A638P1-48 and ground.	<input type="checkbox"/>
4. Connect the antenna plug A634P3 connector to the Cable & Antenna Analyzer S332E or equivalent.	<input type="checkbox"/>
5. Connect an enclosed precision "short" (of Calibration Tool) at the end of the RF coaxial transmission line (E185P1).	<input type="checkbox"/>
6. Apply external power to the helicopter's busses and push IN the Tacan CB (CB618).	<input type="checkbox"/>

CHECK	Result					
7. Perform the cable loss and record the maximum value, determined in the selected frequency range, in the table below. <table border="1" style="margin-left: 40px; margin-top: 10px;"> <thead> <tr> <th style="background-color: #cccccc;">ANTENNA</th> <th rowspan="2" style="background-color: #cccccc;">PASS/FAIL</th> </tr> </thead> <tbody> <tr> <td style="background-color: #cccccc;">Line Attenuation or Cable Loss Attenuation [dB]</td> </tr> <tr> <td></td> <td style="text-align: center;">PASS if A<2 dB ±0.1 dB</td> </tr> </tbody> </table>	ANTENNA	PASS/FAIL	Line Attenuation or Cable Loss Attenuation [dB]		PASS if A<2 dB ±0.1 dB	<input type="checkbox"/>
ANTENNA	PASS/FAIL					
Line Attenuation or Cable Loss Attenuation [dB]						
	PASS if A<2 dB ±0.1 dB					
8. Pull CB out and remove the jumper between A634P1-48 and ground.	<input type="checkbox"/>					
9. Remove the precision "short" (of calibration Tool) from the end of the coaxial transmission line (E185P1).	<input type="checkbox"/>					

9.2 BOTTOM ANTENNA CABLE ATTENUATION

Perform the CALIBRATION procedure on S332E Analyzer.

CHECK	Result					
1. Select the Cable loss – one port applicable measure on the instrument ref. [3] §6.	<input type="checkbox"/>					
2. Verify that the TACAN circuit breaker (CB618) is pulled out.	<input type="checkbox"/>					
3. Connect the antenna plug A634P3 connector to the Cable & Antenna Analyzer S332E or equivalent.	<input type="checkbox"/>					
4. Connect an enclosed precision "short" (of Calibration Tool) at the end of the coaxial transmission line (E184P1).	<input type="checkbox"/>					
1. Perform the cable loss and record the maximum value, determined in the selected frequency range, in the table below. <table border="1" style="margin-left: 40px; margin-top: 10px;"> <thead> <tr> <th style="background-color: #cccccc;">ANTENNA</th> <th rowspan="2" style="background-color: #cccccc;">PASS/FAIL</th> </tr> </thead> <tbody> <tr> <td style="background-color: #cccccc;">Line Attenuation or Cable Loss Attenuation [dB]</td> </tr> <tr> <td></td> <td style="text-align: center;">PASS if A<1.7 dB ±0.1 dB</td> </tr> </tbody> </table>	ANTENNA	PASS/FAIL	Line Attenuation or Cable Loss Attenuation [dB]		PASS if A<1.7 dB ±0.1 dB	<input type="checkbox"/>
ANTENNA	PASS/FAIL					
Line Attenuation or Cable Loss Attenuation [dB]						
	PASS if A<1.7 dB ±0.1 dB					
5. Remove the precision "short" (of calibration Tool) at the end of the coaxial transmission line (E184P1).	<input type="checkbox"/>					

9.3 TOP ANTENNA DIRECT VSWR

Note: If structural panels need to be removed to access the antenna's connector, don't alter bonding and ground plane of the antenna. Ensure that there are no metallic objects in the area around the tacan antenna.

CHECK		Result						
1.	Ensure helicopter is powered off.	<input type="checkbox"/>						
2.	Select VSWR mode on the Antenna analyzer and connect the cable of the instrument's kit.	<input type="checkbox"/>						
3.	Set the following frequency range boundaries: Start frequency: 962 MHz Stop frequency: 1213 MHz	<input type="checkbox"/>						
4.	Perform an Open, Short and load calibration for the selected frequency range according to the analyzer instructions.	<input type="checkbox"/>						
5.	Remove the TOP Antenna cover.	<input type="checkbox"/>						
6.	Install DMNI24-10 Antenna on the top side.	<input type="checkbox"/>						
7.	Connect the Cable & Antenna Analyzer S332E (or equivalent) to the antenna's connector.	<input type="checkbox"/>						
8.	Measure the VSWR between the frequency range boundaries specified in the step 3 and make sure the highest value recorded inside the band is less than the requirement. Record the highest value inside the band in the following table. <table border="1" data-bbox="445 943 1165 1095" style="margin-left: 40px;"> <thead> <tr> <th>VSWR value</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td></td> <td>PASS if VSWR is not higher than 2.1:1 in the band specified in the step 3</td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	VSWR value	Result		PASS if VSWR is not higher than 2.1:1 in the band specified in the step 3			<input type="checkbox"/>
VSWR value	Result							
	PASS if VSWR is not higher than 2.1:1 in the band specified in the step 3							
9.	Take a record (picture) of the results visible on the Analyzer display to be attached to Result Test Card.	<input type="checkbox"/>						
10.	Remove DMNI24-10 Antenna.	<input type="checkbox"/>						
11.	Reinstall the TOP Antenna cover.	<input type="checkbox"/>						

9.4 BOTTOM ANTENNA DIRECT VSWR

Note: If structural panels need to be removed to access the antenna's connector, don't alter bonding and ground plane of the antenna. Ensure that there are no metallic objects in the area around the tacan antenna.

CHECK		Result						
1.	Ensure helicopter is powered off.	<input type="checkbox"/>						
2.	Select VSWR mode on the Antenna analyzer and connect the cable of the instrument's kit.	<input type="checkbox"/>						
3.	Set the following frequency range boundaries: <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Start frequency: 962 MHz Stop frequency: 1213 MHz </div>	<input type="checkbox"/>						
4.	Perform an Open, Short and load calibration for the selected frequency range according to the analyzer instructions.	<input type="checkbox"/>						
5.	Remove the BOTTOM Antenna cover.	<input type="checkbox"/>						
6.	Install DMNI24-10 Antenna on the bottom side.	<input type="checkbox"/>						
7.	Connect the Cable & Antenna Analyzer S332E (or equivalent) to the antenna's connector.	<input type="checkbox"/>						
8.	<p>Measure the VSWR between the frequency range boundaries specified in the step 3 and make sure the highest value recorded inside the band is less than the requirement. Record the highest value inside the band in the following table.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">VSWR value</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td>PASS if VSWR is not higher than 2.1:1 in the band specified in the step 3</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> </tr> </tbody> </table>	VSWR value	Result		PASS if VSWR is not higher than 2.1:1 in the band specified in the step 3			<input type="checkbox"/>
VSWR value	Result							
	PASS if VSWR is not higher than 2.1:1 in the band specified in the step 3							
9.	Take a record (picture) of the results visible on the Analyzer display to be attached to Result Test Card.	<input type="checkbox"/>						
10.	Remove DMNI24-10 Antenna.	<input type="checkbox"/>						
11.	Reinstall the BOTTOM Antenna cover.	<input type="checkbox"/>						

9.5 TOP ANTENNA FULL INSTALLATION ROUTE VSWR

Note: the helicopter must be fully build (all the panels and bulkhead installed) before starting with the following tests. Ensure that there are no metallic objects in the area around the tacan antenna.

CHECK	results						
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.	<input type="checkbox"/>						
2. Verify that the Tacan is not powered. Pull the circuit breaker (CB618) out if necessary.	<input type="checkbox"/>						
3. Select VSWR mode on the Antenna analyzer and connect the cable of the instrument's kit.	<input type="checkbox"/>						
4. Set the following frequency range boundaries: Start frequency: 962 MHz. Stop frequency: 1213 MHz.	<input type="checkbox"/>						
5. Perform an Open, Short and Load calibration for the selected frequency range according to the analyzer instructions.	<input type="checkbox"/>						
6. Remove the TOP Antenna cover and install the DMNI24-10 Antenna on the TOP side.	<input type="checkbox"/>						
7. Connect DMNI24-10 Antenna and E185P1 connector.	<input type="checkbox"/>						
8. Connect a jumper between A634P1-48 and ground. (to select TOP Antenna is necessary to ground the relay's pin connected to A634P1-48).	<input type="checkbox"/>						
9. Connect the A634P3 connector to the Cable & Antenna Analyzer S332E or equivalent.	<input type="checkbox"/>						
10. Push in the TACAN CB (CB618).	<input type="checkbox"/>						
11. Measure the VSWR between the frequency range boundaries specified in the item 4 and make sure the highest value recorded inside the band is less than the requirement. Record the highest value recorded inside the band in the following table. <table border="1" style="margin: 10px auto; width: 60%;"> <thead> <tr> <th style="text-align: center;">VSWR value</th> <th style="text-align: center;">Result</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td style="text-align: center;">PASS if VSWR is not higher than 2.5:1 in the band specified in the item 4</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> </tr> </tbody> </table>	VSWR value	Result		PASS if VSWR is not higher than 2.5:1 in the band specified in the item 4			<input type="checkbox"/>
VSWR value	Result						
	PASS if VSWR is not higher than 2.5:1 in the band specified in the item 4						
12. Take a record (picture) of the results visible on the Analyzer display to be attached to Result Test Card.	<input type="checkbox"/>						
13. Disconnect DMNI24-10 Antenna.	<input type="checkbox"/>						
14. Reinstall the TOP Antenna cover.	<input type="checkbox"/>						

9.6 BOTTOM ANTENNA FULL INSTALLATION ROUTE VSWR

Note: the helicopter must be fully build (all the panels and bulkhead installed) before starting with the following tests. Ensure that there are no metallic objects in the area around the tacan antenna.

CHECK	results						
1. Verify that the Tacan is not powered. Pull the circuit breaker (CB618) out if necessary.	<input type="checkbox"/>						
2. Select VSWR mode on the Antenna analyzer and connect the cable of the instrument's kit.	<input type="checkbox"/>						
3. Set the following frequency range boundaries: Start frequency: 962 MHz. Stop frequency: 1213 MHz.	<input type="checkbox"/>						
4. Perform an Open, Short and Load calibration for the selected frequency range according to the analyzer instructions.	<input type="checkbox"/>						
5. Remove the BOTTOM Antenna cover and install the DMNI24-10 Antenna on the BOTTOM side.	<input type="checkbox"/>						
6. Connect DMNI24-10 Antenna and E184P1 connector.	<input type="checkbox"/>						
7. Verify that the A634P1-PIN 48 is open (to select BOTTOM Antenna is necessary to remove the ground connection in the Pin 48 previously used).	<input type="checkbox"/>						
8. Connect the antenna plug A634P3 connector to the Cable & Antenna Analyzer S332E or equivalent.	<input type="checkbox"/>						
9. Measure the VSWR between the frequency range boundaries specified in the item 3 and make sure the highest value recorded inside the band is less than the requirement. Record the highest value recorded inside the band in the following table.	<input type="checkbox"/>						
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">VSWR value</th> <th style="text-align: center;">Result</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td style="text-align: center;">PASS if VSWR is not higher than 2.5:1 in the band specified in the item 3</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> </tr> </tbody> </table>	VSWR value	Result		PASS if VSWR is not higher than 2.5:1 in the band specified in the item 3			
VSWR value	Result						
	PASS if VSWR is not higher than 2.5:1 in the band specified in the item 3						
10. Take a record (picture) of the results visible on the Analyzer display to be attached to Result Test Card.	<input type="checkbox"/>						
11. Disconnect the Cable & Antenna Analyzer from A634P3 Connector.	<input type="checkbox"/>						
12. Disconnect DMNI24-10 Antenna.	<input type="checkbox"/>						
13. Reinstall the BOTTOM Antenna cover.	<input type="checkbox"/>						

10. TEST RESULTS

Table 10-1: Electrical provision for TACAN+ - Test Results

139G3450D019 Helicopter S/N: _____ Electrical provision for TACAN + Acceptance Test Procedure				
<i>REF.</i>	<i>DESCRIPTION</i>	<i>OPERATOR</i>	<i>DATE</i>	<i>REMARKS</i>
5	<i>Test Prerequisites</i>			
6	<i>Tools Required</i>			
7	<i>Bonding Checks</i>			
8.1	<i>Circuit Breaker's Check</i>			
8.2	<i>Grounding Check and power supply checks</i>			
8.3	<i>Pin to Pin check</i>			
9.1 9.2	<i>Antenna Cable Attenuation</i>			
9.3 9.4	<i>Antenna Direct VSWR</i>			
9.5 9.6	<i>Antenna Full Installation Route VSWR</i>			
Engineering dpt signature(if required):				
Quality dpt approval:				

Please send to the following address: LEONARDO S.p.A. CUSTOMER SUPPORT & SERVICES - ITALY PRODUCT SUPPORT ENGINEERING & LICENSES DEPT. Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA) - ITALY Tel.: +39 0331 225036 Fax: +39 0331 225988		SERVICE BULLETIN COMPLIANCE FORM		Date:
		Number:		
		Revision:		
Customer Name and Address:		Telephone:		
		Fax:		
		B.T. Compliance Date:		
Helicopter Model	S/N	Total Number	Total Hours	T.S.O.
Remarks:				
Information: We request your cooperation in filling this form, in order to keep out statistical data relevant to aircraft configuration up-to-date. The form should be filled in all its parts and sent to the above address or you can communicate the application also via Technical Bulletin Application Communication Section placed in Leonardo AW Customer Portal - MyCommunications Area. We thank you beforehand for the information given.				