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AgustaWestland Products

SERVICE BULLETIN

N° 139-652

DATE: December 21, 2022

REV. : /

TITLE

ATA 21 - AIR CONDITIONING KIT INSTALLATION

REVISION LOG

First Issue

1. PLANNING INFORMATION

A. EFFECTIVITY

All AW139 helicopters from S/N 31400 onwards and from S/N 41300 onwards.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

Quill Drive Assy P/N 3G6320A00733 or 3G6320A00735 or 3G6320A00736 or 3G6320A22731 (depending on the installed MGB) is necessary for the installation of kit air conditioning P/N 3G2150F00114.

If Quill Drive Assy has been previously removed from the helicopter, contact Product Support Engineering (engineering.support.lhd@leonardo.com) at least six months before the application of this Service Bulletin to receive further instructions.

D. REASON

This Service Bulletin is issued in order to provide the necessary instructions on how to perform the installation of kit air conditioning P/N 3G2150F00114.

E. DESCRIPTION

The air conditioning system keeps the temperature in the cockpit and the cabin at a satisfactory level. Also it keeps the quantity of oxygen in the air at a safe level. And it supplies the air to remove contamination, moisture and odors from the cockpit and the cabin when necessary.

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 approximately one thousand four hundred and eighty (1480) MMH are deemed necessary.

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

H. WEIGHT AND BALANCE

WEIGHT (Kg)	97.1	
	ARM (mm)	**MOMENT (kgmm)**
LONGITUDINAL BALANCE	3228.0	313438.8
LATERAL BALANCE	36.0	3495.6

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		**DESCRIPTION**	**PART**
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	-
DM02	39-A-06-41-00-00A-010A-A	Access doors and panels - General data.	-
DM03	39-A-11-00-01-00A-720A-A	Decal – Install procedure	-
DM04	39-A-21-90-00-00A-320A-K	Integrated environmental control system (ECS) - Operation test	-
DM05	39-A-21-90-01-00A-720A-K	ECS control panel - Install procedure	-
DM06	39-A-21-90-02-00A-720A-K	Number 1 ECS control box - Install procedure	-
DM07	39-A-21-90-03-00A-720A-K	Number 2 ECS control box - Install procedure	-
DM08	39-A-21-90-05-00A-720A-K	Cockpit temperature sensor - Install procedure	-
DM09	39-A-21-90-06-00A-720A-K	Cabin temperature sensor - Install procedure	-
DM10	39-A-21-90-07-00A-720A-K	Number 1 cockpit fan - Install procedure	-
DM11	39-A-21-90-08-00A-720A-K	Number 2 cockpit fan - Install procedure	-
DM12	39-A-21-90-09-00A-720A-K	Number 1 cockpit flapper valve - Install procedure	-

DATA MODULE		DESCRIPTION	PART
DM13	39-A-21-90-10-00A-720A-K	Number 2 cockpit flapper valve - Install procedure	-
DM14	39-A-21-90-11-00A-720A-K	Temperature switch S93 - Install procedure	-
DM15	39-A-21-90-12-00A-720A-K	Temperature switch S92 - Install procedure	-
DM16	39-A-21-90-13-00A-720A-K	High pressure switch MT20 - Install procedure	-
DM17	39-A-21-90-14-00A-720A-K	Low pressure switch MT21 - Install procedure	-
DM18	39-A-21-90-15-00A-720A-K	Number 1 cockpit evaporator assembly - Install procedure	-
DM19	39-A-21-90-16-00A-720A-K	Number 2 cockpit evaporator assembly - Install procedure	-
DM20	39-A-21-90-17-00A-720A-K	Number 1 fluid reservoir and filter - Install procedure	-
DM21	39-A-21-90-18-00A-720A-K	Number 2 fluid reservoir and filter - Install procedure	-
DM22	39-A-21-90-19-00A-720A-K	Number 1 cabin fan - Install procedure	-
DM23	39-A-21-90-20-00A-720A-K	Number 2 cabin fan - Install procedure	-
DM24	39-A-21-90-21-00A-720A-K	Cabin evaporator assembly - Install procedure	-
DM25	39-A-21-90-22-00A-720A-K	Compressor pack - Install procedure	-
DM26	39-A-21-90-23-00A-720A-K	Cabin flapper valve - Install procedure	-
DM27	39-A-21-90-24-00A-720A-K	Temperature switch S94 - Install procedure	-
DM28	39-A-21-90-25-00A-720A-K	High pressure switch MT19 - Install procedure	-
DM29	39-A-21-90-26-00A-720A-K	Low pressure switch MT18 - Install procedure	-
DM30	39-A-21-90-27-00A-720A-K	Condenser assembly - Install procedure	-
DM31	39-A-21-90-28-00A-921A-K	Filling tube - Replacement	-
DM32	39-A-21-90-29-00A-921A-K	Relay K27 - Replacement	
DM33	39-A-21-90-30-00A-921A-K	Relay K28 - Replacement	-
DM34	39-A-21-90-31-00A-921A-K	Relay K29 - Replacement	
DM35	39-A-21-90-32-00A-921A-K	Relay K30 - Replacement	-
DM36	39-A-20-10-08-00A-622A-A	Electrical contacts - Crimp	-
DM37	39-A-20-10-18-00A-691A-A	Electrical wires and cables - Marking	-

DATA MODULE		DESCRIPTION	PART
DM38	39-A-21-90-00-00A-364A-K	Integrated environmental control system (ECS) - Leak check	-
DM39	39-A-12-11-11-00A-218A-K	Integrated environmental control system (ECS) (LIEBHERR) - Fill with other liquid	-

Following Data Modules refer to CSRP:

DATA MODULE		DESCRIPTION	PART
DM40	CSRP-A-51-42-00-00A-720A-D	Potted Inserts - Install procedure	-

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
ECS	Environmental Control System
IPD	Illustrated Part Data
ITEP	Illustrated tool and equipment publication
LH	Leonardo Helicopters
MMH	Maintenance Man Hours
N.A.	Not Applicable
P/N	Part Number
SB	Service Bulletin
S/N	Serial Number

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	**3G2150F00114**		**KIT AIR CONDITIONING**	**REF**	**.**		**-**
2	**4G2150A00111**		**AIR CONDITIONING EQUIPMENT INSTALLATION**	**REF**	**..**		**-**
3	3G2150L00151		Gasket	1	…		139-652L1
4	3G2150L00451		Connection Strap	2	…	(1)	
5	3G2150V00252		Air Conditioning Controlbox	2	…		139-652L1
6	3G2150V00353		Air Conditioning Cockpit Control Panel-Crew	1	…	(2)	-
7	3G2150V00354		Air Conditioning Cockpit Control Panel-Crew NVG	1	…	(3)	-
8	3G2150V00554		Evaporator Cockpit Fan	2	…		139-652L1
9	3G2150V00653		Air Cond Cockpit Flapper VALVE + NRV	2	…		139-652L1
10	3G2150V00755		Cockpit Evaporator LH	1	…		139-652L1
11	3G2150V00855		Cockpit Evaporator RH	1	…		139-652L1
12	3G2150V00955		Cabin Evaporator	1	…		139-652L1
13	3G2150V01052		Condenser Pack	1	…		139-652L1
14	3G2150V01251		Ventilated Temperature Sensor	2	…		139-652L1
15	3G2150V01352		Cabin Flapper Valve	1	…		139-652L1
16	**3G2150V01437**		**AIR CONDITIONING KIT**	**REF**	**…**		**-**
17	14315C010000		Refrigerant hose	1	….		139-652L1
18	14316C010000		Refrigerant hose	1	….		139-652L1
19	14317C010000		Refrigerant hose	1	….		139-652L1
20	14323C010000		Refrigerant hose	1	….		139-652L1
21	14328C010000		Refrigerant hose	1	….		139-652L1
22	14329C010000		Refrigerant hose	1	….		139-652L1
23	14330C010000		Refrigerant hose	1	….		139-652L1
24	14331D010000		Refrigerant hose	1	….		139-652L1
25	14332C010000		Refrigerant hose	1	….		139-652L1
26	14338C010000		Refrigerant hose	1	….		139-652L1
27	14339C010000		Refrigerant hose	1	….		139-652L1
28	14342D010000		Refrigerant hose	1	….		139-652L1
29	14343C010000		Refrigerant hose	1	….		139-652L1
30	14344C010000		Refrigerant hose	1	….		139-652L1
31	14345C010000		Refrigerant hose	1	….		139-652L1
32	14358A010001		Rigid duct	1	….		139-652L1
33	14359A010001		Rigid duct	1	….		139-652L1
34	20204-0106		HP port	2	….		139-652L1
35	20204-0107		LP port	2	….		139-652L1
36	20204-0108		Pipe assy	4	….		139-652L1
37	20204-020		S/E bloc Y mod6	1	….		139-652L1
38	20204-030		Bloc y mod6	1	….		139-652L1
39	20204-061		Dryer receiver	2	….		139-652L1
40	20204-071		High pressure switch	1	….		139-652L1
41	20204-072		High pressure switch	1	….		139-652L1
42	20204-081		Block assy	2	….		139-652L1
43	20204-096		Support filter drier	2	….		139-652L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
44	20204-097		Fan bracket	2	....		139-652L1
45	20204-28		Adapter mod 6	1	....		139-652L1
46	20204-29		Adapter mod 10	1	....		139-652L1
47	20204-76		Fan bracket	2	....		139-652L1
48	20204-87		Support feedthrough	1	....		139-652L1
49	20204-88		Support feedthrough	1	....		139-652L1
50	9834D010000		Cockpit recirc inlet RH	1	....		139-652L1
51	9836B020000		LH recirc duct	1	....		139-652L1
52	9837C010000		Cabin recirc plenum	1	....		139-652L1
53	9838B020000		RH recirc duct	1	....		139-652L1
54	9848D010000		Duct assy	1	....		139-652L1
55	9905E010000	3G2150A03831	Duct assy RH	1	....		139-652L1
56	9906E010000	3G2150A03731	Duct assy LH	1	....		139-652L1
57	9907B010001		Naca intake assy	1	....		139-652L1
58	9923C010000		Duct assy	2	....		139-652L1
59	9925E010000		Duct assy RH	1	....		139-652L1
60	9926E010000		Duct assy LH	1	....		139-652L1
61	9928C010000		Sleeve	4	....		139-652L1
62	9932B010000		Slv cabin evap outlet	1	....		139-652L1
63	9933C010000		Water separator assy	1	....		139-652L1
64	9934B010000		Recirc duct half LH	1	....		139-652L1
65	9935C010000		Recirc duct half LH	1	....		139-652L1
66	9936B010000		Duct evap to u. deck	1	....		139-652L1
67	AW001CK06HS		Strap	25	....		139-652L1
68	S756DE05310015		Spacer	12	....		139-652L1
69	3G2150V01551		Fire Blanket	1	...		139-652L1
70	3G2150V01651		Fire Blanket	1	...		139-652L1
71	3G2150V01751		Fire Blanket	1	...		139-652L1
72	3G2150V01851		Fire Blanket	1	...		139-652L1
73	3G2150V01951		Fire Blanket	1	...		139-652L1
74	3G2150V02252		Cabin Fan	2	...		139-652L1
75	3G2150V02551		Compressor Pack	1	...		139-652L1
76	AW002FT103		Grommet	3	...		139-652L1
77	A008B0525A	AW003TY0525A	Washer Earthing	1	...		139-652L1
78	A115A4464AB		Strip Silicone RBR Sponge	0,5 m	...		139-652L1
79	A366A3E10C75		Stud	2	...		139-652L1
80	A366A3E30C		Stud	3	...		139-652L1
81	A366A3E32C		Stud	1	...		139-652L1
82	A415A205B205A		Support	1	...		139-652L1
83	A499AHH130E01J06		Decal	2	...		139-652L1
84	A499AHH140E01J06		Decal	2	...		139-652L1
85	A499AHL110E01J06		Decal	2	...		139-652L1
86	A499AHL120E01J06		Decal	2	...		139-652L1
87	A601A325	A601A3B25	Bonding And Earthing Cable Assy	1	...		139-652L1
88	A601A3B20		Bonding Cable Assy	1	...		139-652L1
89	A601A3B25		Bonding Cable Assy	1	...		139-652L1
90	A601A3B30		Bonding Cable Assy	1	...		139-652L1
91	A601A3B31		Bonding And Earthing Cable Assy	1	...		139-652L1
92	A601A3B40		Bonding Cable Assy	1	...		139-652L1
93	A601A3B45		Bonding Cable Assy	1	...		139-652L1
94	A629A01HS	AW001CK01HS	Strap Tiedown	8	...		139-652L1
95	A629A04HS	AW001CK04HS	Strap Tiedown	4	...		139-652L1
96	AN3-4A		Bolt	1	...		139-652L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
97	AN3C10A		Bolt	4	...		139-652L1
98	AN3C11A		Bolt	1	...		139-652L1
99	AN3C14A		Bolt	6	...		139-652L1
100	AN3C3A		Bolt	38	...		139-652L1
101	AN3C4A		Bolt	21	...		139-652L1
102	AN3C5A		Bolt	35	...		139-652L1
103	AN3H6A		Bolt	8	...		139-652L1
104	AS21919WDG03		Clamp	2	...		139-652L1
105	AS21919WDG06		Clamp	2	...		139-652L1
106	AS21919WDG07		Clamp	2	...		139-652L1
107	AS21919WDG10		Clamp	2	...		139-652L1
108	AS21919WDG11		Clamp	7	...		139-652L1
109	AS21919WDG12		Clamp	4	...		139-652L1
110	AS21919WDG21		Clamp	13	...		139-652L1
111	AS21919WDG32		Clamp	5	...		139-652L1
112	AW001CL002B-X1		Support	4	...		139-652L1
113	BAS243MH5	NAS1922-0400-3H	Clamp	2	...		139-652L1
114	BAS243N3	NAS1922-0275-3H	Clamp	2	...		139-652L1
115	MS21043-3		Nut	19	...		139-652L1
116	MS21043-6		Nut	4	...		139-652L1
117	MS24693-BB50		Screw	3	...		139-652L1
118	MS27039-1-09		Screw	8	...		139-652L1
119	MS3367-6-0	AW001CK06HS	Strap	3	...		139-652L1
120	MS51957-46B		Screw	3	...		139-652L1
121	AS3209-117		Packing	1	...		139-652L1
122	NAS1149C0316R		Washer	1	...		139-652L1
123	NAS1149C0332R		Washer	157	...		139-652L1
124	NAS1149C0363R		Washer	14	...		139-652L1
125	NAS1149C0632R		Washer	4	...		139-652L1
126	NAS1149D0332J		Washer	2	...		139-652L1
127	NAS1149D0632K		Washer	4	...		139-652L1
128	NAS1149DN832J		Washer	8	...		139-652L1
129	NAS1351C3H10		Screw	4	...		139-652L1
130	NAS1802-08-6		Screw	8	...		139-652L1
131	NAS1802-3-7		Screw	6	...		139-652L1
132	NAS1802-3-8		Screw	12	...		139-652L1
133	NAS1922-0350-3H		Clamp	2	...		139-652L1
134	NAS43DD3-35N		Spacer	3	...		139-652L1
135	NAS43DD3-81N		Spacer	1	...		139-652L1
136	NAS43DD3-83N		Spacer	2	...		139-652L1
137	NAS43DD3-90N		Spacer	1	...		139-652L1
138	**4G2150A00212**		**AIR CONDITIONING COMPLETE PROVISION**	**REF**	**..**		**-**
139	MS27039-1-06		Screw	3	...		139-652L1
140	**3G2150A00511**		**COMPRESSOR DRAIN INSTALLATION**	**REF**	**...**		
141	A381AB1A00B0342X		Hose Assy	1	....		139-652L1
142	M83248/1-903	AS3208-03	O-Ring	1	....		139-652L1
143	MS21902J3		Union Flareless Tube	1	....		139-652L1
144	**3G2150A00612**		**AIR CONDITIONING DRAIN INSTALLATION**	**REF**	**...**		**-**
145	3G2150A02231		Pipe Assy LH	1	....		139-652L1
146	3G2150A02331		Pipe Assy RH	1	....		139-652L1
147	3G2150A02831		Pipe Assy LH	1	....		139-652L1
148	3G2150A02931		Pipe Assy RH	1	....		139-652L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
149	A091A08		Hose	4 m	....		139-652L1
150	A388A3E08C		Standoff	4	....		139-652L1
151	AGS3925-2	NAS1922-0075-3H	Clamp	8	....		139-652L1
152	AN3C3A		Bolt	6	....		139-652L1
153	AN525-10R8		Screw	8	....		139-652L1
154	MS21919WDG13	AS21919WDG13	Clamp	4	....		139-652L1
155	NAS1149C0332R		Washer	10	....		139-652L1
156	NAS1149D0363K		Washer	8	....		139-652L1
157	NAS1801-3-13		Screw	4	....		139-652L1
158	NAS43DD3-28N		Spacer	4	....		139-652L1
159	3G2150A01531		FWD temp sensor support assy	1	...		139-652L1
160	**3G2150A01713**		**ECS FUSELAGE C/A INSTALLATION KIT**	**REF**	**...**		**-**
161	3G9A01A24701	3G9A01A24701A10R	ECS C/A (A1A247)	1	....		139-652L1
162	3G9A01B25301	3G9A01B25301A10R	ECS C/A (A1B253)	1	....		139-652L1
163	3G9B01A25201	3G9B01A25201A10R	ECS C/A (B1A252)	1	....		139-652L1
164	3G9B01A26501	3G9B01A26501A10R	ECS C/A (B1A265)	1	....		139-652L1
165	3G9B01B26201	3G9B01B26201A10R	ECS C/A (B1B262)	1	....		139-652L1
166	3G9B01B26501	3G9B01B26501A10R	ECS C/A (B1B265)	1	....		139-652L1
167	3G9B11A01412		ECS C/A (B1A14)	1	....	(6)	139-652L1
168	3G9B11B01213		ECS C/A (B1B12)	1	....	(7)	139-652L1
169	3G9B11B01313		ECS C/A (B1B13)	1	....	(8)	139-652L1
170	A363A01		Terminal Stud	1	....		139-652L1
171	A363A02		Terminal Stud	2	....		139-652L1
172	A366A3E08C		Stud	2	....		139-652L1
173	A388A3E10C		Standoff	1	....		139-652L1
174	A584A02		Nipple	4	....		139-652L1
175	A593A-B06		Terminal Board	1	....		139-652L1
176	A608A03		Heat Sink	1	....		139-652L1
177	A616A1A50		Circuit Breaker	2	....		139-652L1
178	AW001CB02H		Clamp	1	....		139-652L1
179	AW001CB03H		Clamp	1	....		139-652L1
180	AW001CB06H		Clamp	2	....		139-652L1
181	AW001CL000A-X3		Support	2	....		139-652L1
182	AW001CL009-CM		Support	3	....		139-652L1
183	AW001CL509-N6		Support	1	....		139-652L1
184	AW001TL3A08T		Anchor Nut	1	....		139-652L1
185	ED300A72		Decal	1	....		139-652L1
186	ED300A73		Decal	1	....		139-652L1
187	ED300ECS;AFT		Decal	1	....		139-652L1
188	ED300ECS;FWD		Decal	1	....		139-652L1
189	ED300GS216		Decal	1	....		139-652L1
190	ED300GS218		Decal	1	....		139-652L1
191	ED300J152		Decal	1	....		139-652L1
192	ED300J153		Decal	1	....		139-652L1
193	ED300J230		Decal	1	....		139-652L1
194	ED300J232		Decal	1	....		139-652L1
195	ED300K27		Decal	1	....		139-652L1
196	ED300K28		Decal	1	....		139-652L1
197	ED300K29		Decal	1	....		139-652L1
198	ED300K30		Decal	1	....		139-652L1
199	ED300MT21J1		Decal	1	....		139-652L1
200	ED300S88		Decal	1	....		139-652L1
201	ED300S89		Decal	1	....		139-652L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
202	ED300S90		Decal	1	....		139-652L1
203	ED300S91		Decal	1	....		139-652L1
204	ED300S92J1		Decal	1	....		139-652L1
205	ED300S93J1		Decal	1	....		139-652L1
206	M12883/53-001		Retainer	2	....		139-652L1
207	M230E4N003		Relay	2	....		139-652L1
208	M24308/26-1F		Screw	4	....		139-652L1
209	M83536/2-028M		Relay	2	....		139-652L1
210	M85049/95-10A-A		Plate	3	....		139-652L1
211	M85049/95-24B-A		Plate	1	....		139-652L1
212	M85049/95-28A-A		Plate	1	....		139-652L1
213	MS21043-3		Nut	2	....		139-652L1
214	NAS1149D0332J		Washer,	4	....		139-652L1
215	NAS1149DN416J		Washer	16	....		139-652L1
216	NAS1149DN616J		Washer	6	....		139-652L1
217	NAS1149DN832J		Washer	4	....		139-652L1
218	NAS1190E3P5AK		Screw	1	....		139-652L1
219	NAS1802-04-5		Screw	12	....		139-652L1
220	NAS1802-06-6		Screw	2	....		139-652L1
221	NAS1802-06-7		Screw	8	....		139-652L1
222	NAS1802-08-6		Screw	4	....		139-652L1
223	NAS1802-3-18		Screw	1	....		139-652L1
224	NAS1802-3-9		Screw	1	....		139-652L1
225	NAS5312E08-8		Screw Shear	4	....		139-652L1
226	SK3000-3-S879	SK3000/-3	Plug	2	....		139-652L1
227	SK3000-4-S879	SK3000/-4	Dust Cover	2	....		139-652L1
228	**3G2150A01811**		**ECS UPPER DECK ELECTRICAL PROVISION**	**REF**	**...**		**-**
229	**3G5310A06311**		**STRUCTURAL PROVISION FOR ECS SUPPORTS**	**REF**	**....**		**-**
230	3G5315A16152		Support	2	.....		139-652L1
231	3G5315A16251		Support	1	.....		139-652L1
232	MS21069L3		Nut	1	.....		139-652L1
233	MS27039C1-04		Screw	2	.....		139-652L1
234	NAS1149C0332R		Washer	2	.....		139-652L1
235	NAS1720H5L2A		Rivet	4	.....		139-652L1
236	NAS1832C3-4M		Insert	2	.....		139-652L1
237	3G9F01A22101		ECS C/A (F1A221)	REF	....	(4)	-
238	3G9F11B00411		ECS C/A (F1B4)	1	....	(9)	139-652L1
239	3G9F11B00911		ECS C/A (F1B9)	1	....	(10)	139-652L1
240	A366A3E18C		Stud	1	....		139-652L1
241	ED300A15J1		Decal	1	....		139-652L1
242	ED300A16J1		Decal	1	....		139-652L1
243	ED300J230		Decal	1	....		139-652L1
244	ED300J232		Decal	1	....		139-652L1
245	ED300MT18J1		Decal	1	....		139-652L1
246	ED300MT19J1		Decal	1	....		139-652L1
247	ED300MT20J1		Decal	1	....		139-652L1
248	ED300S94J1		Decal	1	....		139-652L1
249	M85049/95-10A-A		Plate	6	....		139-652L1
250	MS20995C32		Lock wire	0.45 kg	....		139-652L1
251	MS21042L3		Nut	9	....		139-652L1
252	MS21919WDG13	AS21919WDG13	Clamp	1	....		139-652L1
253	MS21919WDG21	AS21919WDG21	Clamp	6	....		139-652L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
254	MS21919WDG5	AS21919WDG05	Clamp	2	....		139-652L1
255	MS21919WDG7	AS21919WDG07	Clamp	2	....		139-652L1
256	MS21919WDG8	AS21919WDG08	Clamp	4	....		139-652L1
257	MS35207-262		Screw	7	....		139-652L1
258	NAS1149D0332J		Washer	18	....		139-652L1
259	NAS1149DN416J		Washer	24	....		139-652L1
260	NAS1801-3-10		Screw	1	....		139-652L1
261	NAS1801-3-9		Screw	1	....		139-652L1
262	NAS1802-04-6		Screw	24	....		139-652L1
263	NAS43DD3-40N		Spacer	1	....		139-652L1
264	**3P7106P00211**		**ECS SERVICE DOOR RETRO MODIFICATION**	**REF**	**...**		**-**
265	3P7106P00251		Plate	1	....		139-652L1
266	3P7106P00252		Bracket	1	....		139-652L1
267	A813A3AM		Insert	2	....		139-652L1
268	NAS1832-3-3M		Insert	2	....		139-652L1
269	NAS1833-3-310M		Insert	2	....		139-652L1
270	MS20426AD4-7		Rivet	0.1 kg	....		139-652L1
271	MS20470AD4-7		Rivet	0.1 kg	....		139-652L1
272	MS27039-1-04		Screw	2	....		139-652L1
273	MS27039-1-05		Screw	4	....		139-652L1
274	NAS1149C0332R		Washer	2	....		139-652L1

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

2) CONSUMABLES

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

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
275	999999999000001059	Liquid Refrigerating R134A (C136)	AR	(5)	-
276	Magnalube-G	Grease (C562)	AR	(5)	-
277	AFS 1646 - DTD5577	Adhesive Bondmaster F241 (C249)	AR	(5)	-
278	Commercial	Adhesive CB200-40 (C356)	AR	(5)	-
279	MMM-A-132, Type II, Class 2 199-05-002 Type I, Class 2	Adhesive EA9309.3NA (C021)	AR	(5)	-
280	MMM-A-132, Type I, Class 3 199-05-002 Type II, Class 2	Adhesive EA934NA (C057)	AR	(5)	-
281	MMM-A-121 199-05-107, Type 1, Class 1	Adhesive EC1357 (C455)	AR	(5)	-
282	199-05-152, Type I, Class 2	Adhesive RTV732 (C126)	AR	(5)	-
283	MIL-R-46082, Type III	Adhesive Loctite 638 (C045)	AR	(5)	-
284	199-05-003 Type I, Class 2, Form I	Sealant PTFE GO-AS-0068	AR	(5)	-
285	AWMS05-001 Type 1, Class A, Grade 2	Sealant MC-780 A (C465)	AR	(5)	-
286	AWMS05-001 Type 1, Class B, Grade 2	Sealant MC-780 B (C465)	AR	(5)	-
287	AWMS05-001 Type 1, Class C, Grade 1	Sealant MC-780 C (C465)	AR	(5)	-
288	MIL-A-46106 199-05-152, Type III	Sealant RTV 730 (C125)	AR	(5)	-
289	AMS-S-8802 Type II, Class B-2	Sealing compound Proseal 890 (C004)	AR	(5)	-
290	A236A02AB	Nonmetallic Channel	AR	(5)	-

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
291	A236A03AB	Edging	AR	(5)	-
292	Commercial	Tape Permacel P-306 (C374)	AR	(5)	-
293	900004953	Tape	AR	(5)	-
294	999-2701-01-119	Identification Tape	AR	(5)	-
295	999-2701-01-22	Identification Tape	AR	(5)	-
296	999-2701-01-40	Identification Tape	AR	(5)	-
297	999-2701-01-7	Identification Tape	AR	(5)	-
298	A582A32 or EN6049-006-32-5	Nomex	AR	(5)	-
299	A582A05 or EN6049-006-05-5	Nomex	AR	(5)	-
300	A582A08 or EN6049-006-08-5	Nomex	AR	(5)	-
301	A582A12 or EN6049-006-13-5	Nomex	AR	(5)	-
302	M23053/5-106-0	Insulation Sleeving	AR	(5)	-
303	MS21266-1N	Grommet	AR	(5)	-
304	MS21266-3N	Grommet	AR	(5)	-
305	A578A01-9	Sleeve, Marker, Cable	AR	(5)(11)	-
306	MDS/N1335V	Thread, Meta-Aramid	AR	(5)	-
307	PAN6480K09 or VG95343T05D009A	Heatshrink tube	AR	(5)	-

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

3) LOGISTIC MATRIX

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

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-652L1	1		-
3G2150V00353	1	(2)	-
3G2150V00354	1	(3)	-

NOTES

(1) Item to be supplied only for helicopters equipped with fire blanket P/N 3G2150V02052.

(2) Item to be supplied only for helicopters NOT in NVG configuration.

(3) Item to be supplied only for helicopters in NVG configuration.

(4) ECS C/A F1A221 is obtained reworking the C/A F1A200 (route F1A1) as shown on Figure 69.

(5) Item to procured as local supply.

(6) P/N 3G9B11A01412 contains ECS C/A (B1A281) P/N 3G9B01A28101.

(7) P/N 3G9B11B01213 contains ECS C/A (B1B267) P/N 3G9B01B26701.

(8) P/N 3G9B11B01313 contains ECS C/A (B1B307) P/N 3G9B01B30701.

(9) P/N 3G9F11B00411 contains ECS C/A (F1B210) P/N 3G9F01B21001.

(10) P/N 3G9F11B00911 contains ECS C/A (F1B213) P/N 3G9F01B21301.

(11)Indicated P/N refer to a specific size. The last two digits before the dash A578A***XX***-9 can be different based on the actual required installation.

B. SPECIAL TOOLS

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

C. INDUSTRY SUPPORT INFORMATION

Customization.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

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

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

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

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

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

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

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

h) All lengths are in mm.

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 and 27, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation.
3. With reference to Figures 49 thru 52, perform the structural provision for ECS supports P/N 3G5310A06311 as described in the following procedure:

   3.1 With reference to Figures 49 and 50, install n°2 supports P/N 3G5315A16152 by means of n°4 rivets P/N NAS1720H5L2A in the indicated positions.

3.2 With reference to Figures 49 and 51 Section B-B, temporarily locate the support P/N 3G5315A16251 and countermark the positions of n°2 insert holes.

3.3 With reference to Figure 51 Section D-D, drill n°2 holes Ø 14.25 ÷ 14.38 in correspondence of the previously marked positions.

3.4 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 51 Section D-D, install n°2 inserts P/N NAS1832C3-4M by means of adhesive EA934NA (C057).

3.5 With reference to Figure 51, install support P/N 3G5315A16251 by means of n°2 screws P/N MS27039C1-04 and n°2 washers P/N NAS1149C0332R.

3.6 With reference to Figure 51, drill hole Ø 4.90 ÷ 5.03 in the indicated position on the support P/N A415A205B205A.

3.7 With reference to Figure 51, install nut plate P/N MS21069L3 by means of n°2 rivets P/N MS20426AD3 on the support P/N A415A205B205A.

4. With reference to Figures 57 thru 59, perform the ECS service door retro modification P/N 3P7106P00211 as described in the following procedure:

4.1 With reference to Figure 57 Detail A1, perform the indicated cut out on the forward cowling P/N 3P7111A00234.

4.2 With reference to Figure 57 Detail A1, temporarily locate the plate P/N 3P7106P00251 and countermark the positions of n°4 insert holes.

4.3 With reference to Figure 57 Section B-B, drill n°4 holes Ø 14.24 ÷ 14.37 in correspondence of the previously marked positions.

4.4 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 57 Section B-B, install n°2 inserts P/N NAS1832-3-3M and n°2 inserts P/N NAS1832-3-310M by means of adhesive EA934NA (C057) on the forward cowling P/N 3P7111A00234.

4.5 With reference to Figure 57 Detail A2, install the plate P/N 3P7106P00251 by means of n°4 screws P/N MS27039-1-05 on the forward cowling P/N 3P7111A00234. Use sealant PTFE GO-AS-0068 all around the plate.

4.6 With reference to Figure 58 Detail E, drill out n°3 existing rivets from upper forward panel P/N 3P5333A01432 in the indicated positions.

4.7 With reference to Figure 59 Section G-G, drill out n°5 existing rivets from upper forward panel P/N 3P5333A01432 in the indicated positions.

4.8 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 58 Section H-H, install n°2 inserts P/N A813A3AM by means of adhesive EA934NA (C057) on the upper forward panel P/N 3P5333A01432.

4.9 With reference to Figures 58 Detail E and 59 View F, install the bracket P/N 3P7106P00252 by means of n°2 screws P/N MS27039-1-04, n°2 washers P/N NAS1149C0332R, n°3 rivets P/N MS20426AD4-7 and n°5 rivets P/N MS20470AD4-7 on the upper forward panel P/N 3P5333A01432.

NOTE

- For all penetrations through the upper deck, prior to installation, interpose a layer sealant between the flange and the structure, install the part and fill any gaps using the same sealant ensuring that a seal is obtained to prevent any water, oil etc. from entering the cabin. Use sealant MC-780 C (C465).
- Install the refrigerant connections with Grease Magnalube-G (C562).
- Install thermal and pressure switches with adhesive Loctite 638 (C045).

NOTE

Unless otherwise specified and except for electrical bonding areas, in high level exposure zones, perform the installation of structural brackets and vendor components as follows:

- Apply a layer of sealant MC-780 C (C465) on all faying surfaces;
- Wet assemble fixing fasteners using sealant MC-780 C (C465), applied under the head and on the shank of fasteners; for fasteners with a torque value on the drawing sealant shall be applied under the head only (not applicable to fasteners installed on click bonds);
- Apply a fillet all-around the mating surfaces boundary using sealant MC-780 B (C465).

5. With reference to Figures 1 thru 34 perform the air conditioning equipment installation P/N 4G2150A00111, the compressor drain installation P/N 3G2150A00511 and the air conditioning drain installation P/N 3G2150A00612 as described in the following procedure:

5.1 With reference to Figure 33 Section D-D, drill n°2 holes Ø 6.0 and hole Ø 13.0 in the indicated positions on the LH side of the helicopter.

5.2 With reference to Figure 33 Section E-E, drill n°2 holes Ø 6.0 and hole Ø 13.0 in the indicated positions on the LH side of the helicopter.

5.3 With reference to Figures 31 and 33 Detail C, install pipe assemblies LH P/N 3G2150A02231 and P/N 3G2150A02831 by means of n°4 screws P/N AN525-10R8 and n°4 washers P/N NAS1149D0363K. Seal using sealing compound Proseal 890 (C004).

5.4 With reference to Figure 32, install n°2 studs P/N A388A3E08C by means of adhesive Bondmaster F241 (C249) or adhesive CB200-40 (C356) on the indicated positions.

5.5 In accordance with applicable steps of AMP DM 39-A-21-90-15-00A-720A-K and with reference to Figures 9 Section J-J, 12 and 13, install cockpit evaporator LH P/N 3G2150V00755 by means of n°3 bolts P/N AN3C5A, n°3 washers P/N NAS1149C0332R, n°2 bolts P/N AN3C3A and n°2 washers P/N NAS1149C0332R.

5.6 With reference to Figures 8 and 9, prepare indicated surfaces to assure correct electrical bonding.

5.7 With reference to Figures 8 and 9, install the fan bracket P/N 20204-097 by means of n°4 bolts P/N AN3C3A and n°4 washers P/N NAS1149C0332R.

5.8 In accordance with applicable steps of AMP DM 39-A-21-90-07-00A-720A-K and with reference to Figure 7 Section G-G, install sleeve P/N 9928C010000 and evaporator cockpit fan P/N 3G2150V00554. Secure sleeve using n°2 straps P/N AW001CK06HS.

5.9 In accordance with applicable steps of AMP DM 39-A-21-90-09-00A-720A-K and with reference to Figures 7 and 8, install cockpit flapper valve P/N 3G2150V00653 by means of n°4 bolts P/N AN3C5A, n°4 washers P/N NAS1149C0332R, n°2 bolts P/N AN3C4A and n°2 washers P/N NAS1149C0332R.

5.10 In accordance with applicable steps of AMP DM 39-A-21-90-09-00A-720A-K and with reference to Figures 6, 8 and 9 Section J-J, install duct assy P/N 9923C010000 by means of n°3 bolts P/N AN3C4A and n°3 washers P/N NAS1149C0332R. Secure duct using n°2 straps P/N AW001CK06HS.

5.11 With reference to Figure 9 Section J-J, install bonding cable assy P/N A601A325 by means of bolt P/N AN3C5A and washer P/N NAS1149C0332J.

5.12 In accordance with applicable steps of AMP DM 39-A-21-90-09-00A-720A-K and with reference to Figure 7 Section G-G, install duct assy P/N 9926E010000 by means of n°3 nuts P/N MS21043-3 and n°3 washers P/N NAS1149C0332R.

5.13 With reference to Figure 8 Section H-H, install duct assy P/N 9906E010000 by means of n°3 bolts P/N AN3C3A and n°3 washers P/N NAS1149C0332R. Secure duct assy P/N 9906E010000 to duct assy P/N 9926E010000 using strap P/N AW001CK06HS.

NOTE

Seal all connections between flexible tubes and rigid pipes using sealant MC-780 A (C465) (Ref. steps 5.14 and 5.15).

5.14 With reference to Figures 32 and 33 Detail C, install flex tube P/N A091A08 by means of n°2 clamps P/N AGS3925-2.

5.15 With reference to Figures 31 and 32, install flex tube P/N A091A08 by means of n°3 clamps P/N AGS3925-2.

5.16 With reference to Figures 32, secure the flex tube P/N A091A08 to the previously installed studs by means of n°2 clamp P/N MS21919WDG13, n°2 spacer P/N NAS43DD3-28N, n°2 screws P/N NAS1801-3-13 and n°2 washers P/N NAS1149C0332R.

5.17 With reference to Figures 28 View A, install FWD temp sensor support assy P/N 3G2150A01531 by means of n°3 screws P/N MS27039-1-06 and n°3 washers P/N NAS1149C0332R.

5.18 In accordance with applicable steps of AMP DM 39-A-21-90-05-00A-720A-K and with reference to Figures 3 View AL and View B, install temperature sensor P/N 3G2150V01251 by means of n°3 screws P/N MS24693-BB50 on the FWD temp sensor support assy P/N 3G2150A01531.

5.19 With reference to Figure 33 Section D-D, drill n°2 holes Ø 6.0 and hole Ø 13.0 in the indicated positions on the RH side of the helicopter.

5.20 With reference to Figure 33 Section E-E, drill n°2 holes Ø 6.0 and hole Ø 13.0 in the indicated positions on the RH side of the helicopter.

5.21 With reference to Figures 31 and 33 Detail C, install pipe assemblies RH P/N 3G2150A02331 and P/N 3G2150A02931 by means of n°4 screws P/N AN525-10R8 and n°4 washers P/N NAS1149D0363K. Seal using sealing compound Proseal 890 (C004).

5.22 With reference to Figure 34, install n°2 studs P/N A388A3E08C by means of adhesive Bondmaster F241 (C249) or adhesive CB200-40 (C356) on the indicated positions.

5.23 In accordance with applicable steps of AMP DM 39-A-21-90-16-00A-720A-K and with reference to Figures 9 Section J-J, 12 and 13, install cockpit evaporator RH P/N 3G2150V00855 by means of n°3 bolts P/N AN3C5A, n°3 washers P/N NAS1149C0332R, n°2 bolts P/N AN3C3A and n°2 washers P/N NAS1149C0332R.

5.24 With reference to Figures 8 and 9, prepare indicated surfaces to assure correct electrical bonding.

5.25 With reference to Figures 8 and 9, install the fan bracket P/N 20204-097 by means of n°4 bolts P/N AN3C3A and n°4 washers P/N NAS1149C0332R.

5.26 In accordance with applicable steps of AMP DM 39-A-21-90-08-00A-720A-K and with reference to Figure 7 Section G-G, install sleeve P/N 9928C010000 and evaporator cockpit fan P/N 3G2150V00554. Secure sleeve using n°2 straps P/N AW001CK06HS.

5.27 In accordance with applicable steps of AMP DM 39-A-21-90-10-00A-720A-K and with reference to Figures 7 and 8, install cockpit flapper valve P/N 3G2150V00653 by means of n°4 bolts P/N AN3C5A, n°4 washers P/N NAS1149C0332R, n°2 bolts P/N AN3C4A and n°2 washers P/N NAS1149C0332R.

5.28 In accordance with applicable steps of AMP DM 39-A-21-90-10-00A-720A-K and with reference to Figures 6, 8 and 9 Section J-J, install duct assy P/N 9923C010000 by means of n°3 bolts P/N AN3C4A and n°3 washers P/N NAS1149C0332R. Secure duct using n°2 straps P/N AW001CK06HS.

5.29 With reference to Figure 9 Section J-J, install bonding cable assy P/N A601A325 by means of bolt P/N AN3C5A and washer P/N NAS1149C0332J.

5.30 In accordance with applicable steps of AMP DM 39-A-21-90-10-00A-720A-K and with reference to Figure 7 Section G-G, install duct assy P/N 9925E010000 by means of n°3 nuts P/N MS21043-3 and n°3 washers P/N NAS1149C0332R.

5.31 With reference to Figure 8 Section H-H, install duct assy P/N 9905E010000 by means of n°3 bolts P/N AN3C3A and n°3 washers P/N NAS1149C0332R. Secure duct assy P/N 9905E010000 to duct assy P/N 9925E010000 using strap P/N AW001CK06HS.

NOTE

Seal all connections between flexible tubes and rigid pipes using sealant MC-780 A (C465) (Ref. steps 5.14 and 5.15).

5.32 With reference to Figures 33 Detail C and 34, install flex tube P/N A091A08 by means of n°2 clamps P/N AGS3925-2.

5.33 With reference to Figures 31 and 34, install flex tube P/N A091A08 by means of n°3 clamps P/N AGS3925-2.

5.34 With reference to Figures 34, secure the flex tube P/N A091A08 to the previously installed studs by means of n°2 clamp P/N MS21919WDG13, n°2 spacer P/N NAS43DD3-28N, n°2 screws P/N NAS1801-3-13 and n°2 washers P/N NAS1149C0332R.

5.35 In accordance with applicable steps of AMP DM 39-A-21-90-15-00A-720A-K and with reference to Figure 12, install refrigerant hoses P/N 14343C010000 and P/N 14344C010000 to the cockpit evaporator LH P/N 3G2150V00755.

5.36 In accordance with applicable steps of AMP DM 39-A-21-90-16-00A-720A-K and with reference to Figure 12, install refrigerant hoses P/N 14342D010000 and P/N 14345CO10000 to the cockpit evaporator RH P/N 3G2150V00855.

5.37 With reference to Figure 12, secure refrigerant hoses P/N 14343C010000 and P/N 14342D010000 to the block assy P/N 20204-081.

NOTE

Block assy P/N 20204-020 may be rotated to avoid chafing with cable assemblies.

5.38 With reference to Figure 12, secure refrigerant hoses P/N 14344C010000 and P/N 14345CO10000 to the block assy P/N 20204-020.

5.39 With reference to Figures 10 and 12, install refrigerant hoses P/N 14358A010001 and P/N 14359A010001 as required.

5.40 With reference to Figures 10 and 12 Detail K, cut refrigerant hoses sheath as indicated.

5.41 With reference to Figures 10 and 12 View L, install n°2 stud P/N A366A3E10C75 by means of adhesive CB200-40 (C356) in the indicated positions.

5.42 With reference to Figures 10 and 12 View L, secure refrigerant hoses P/N 14358A010001 and P/N 14359A010001 by means of n°2 clamps P/N AS21919WDG06, n°2 clamps P/N AS21919WDG10, n°2 nuts P/N MS21043-3 and n°2 washers P/N NAS1149C0332R.

5.43 With reference to Figure 12, install adapters P/N 20204-28 and P/N 20204-29 as required.

5.44 With reference to Figures 12 and 23, connect refrigerant hoses P/N 14315C010000 and P/N 14323C010000 to the adapters previously installed.

5.45 With reference to Figure 10 Section M-M, secure refrigerant hoses P/N 14315C010000 and P/N 14323C010000 by means of clamp P/N AS21919WDG21, clamp P/N AS21919WDG12, n°2 bolts P/N AN3C5A, n°2 nuts P/N MS21043-3 and n°2 washers P/N NAS1149C0332R.

5.46 With reference to Figure 11 View N, install supports P/N 20204-87 and P/N 20204-88 by means of n°6 screws P/N NAS1802-3-7 and n°6 washers P/N NAS1149C0332R.

5.47 With reference to Figure 11 View N, install n°2 strips P/N A115A4464AB070 by means of sealant RTV 730 (C125).

5.48 With reference to Figure 23, install heat-shrinkable sleeve P/N PAN6480K09.

5.49 With reference to Figure 3, install n°3 supports P/N AW001CL002BX1 by means of adhesive CB200-40 (C356) in the indicated positions.

5.50 In accordance with applicable steps of AMP DM 39-A-21-90-02-00A-720A-K and DM 39-A-21-90-03-00A-720A-K and with reference to Figure 3, install n°2 air conditioning control box P/N 3G2150V00252, bonding cable assemblies P/N A601A3B40 and P/N A601A3B31 by means of n°8 screws P/N NAS1802-08-6 and n°8 washers P/N NAS1149DN832J.

5.51 With reference to Figure 3, secure bonding cable assemblies previously installed by means of n°3 tiedown straps P/N A629A04HS.

5.52 In accordance with applicable steps of AMP DM 39-A-21-90-06-00A-720A-K and with reference to Figure 5 View E, install temperature sensor P/N 3G2150V01251 by means of n°3 screws P/N MS51957-46B and n°3 washers P/N NAS1149C0332R.

5.53 With reference to Figures 15, 16, 17 and 22, install LH recirc duct assy P/N 9836B020000 and RH recirc duct assy P/N 9838B020000 by means of n°6 screws P/N NAS1802-3-8, n°6 washers P/N NAS1149C0363R, n°6 screws P/N NAS1802-3-8 and n°6 washers P/N NAS1149C0332R.

5.54 With reference to Figures 15, 17 and 21 Detail S, install duct evap P/N 9936B010000, gasket P/N BA207102-3 and water separator assy P/N 9933C010000 by means of the following existing fasteners:

- n°5 bolts P/N AN3C4A;
- n°3 bolts P/N AN3C5A;
- n°5 washers P/N NAS1149C0332R;

- n°3 washers P/N NAS1149C0363R.

NOTE

Install fire blanket p/n 3G2150V02052 with buttons for adjustment towards evaporator and do not on upper deck side.

5.55 With reference to Figure 21 Detail S, install fire blanket P/N 3G2150V02052 to the duct evap P/N 9936B010000.

5.56 With reference to Figures 15, 17 and 22, install duct assemblies P/N 9848D010000 and P/N 9837C010000 by means of by means of n°3 bolts P/N AN3C5A, n°3 washers P/N NAS1149C0363R, bolt P/N AN3C4A and washer P/N NAS1149C0316R.

5.57 With reference to Figure 17, install recirc duct half LH P/N 9935C010000 by means of n°2 bolts P/N AN3C5A and n°2 washers P/N NAS1149C0332R.

5.58 With reference to Figure 17, install recirc duct half LH P/N 9934B010000 by means of n°2 straps P/N MS3367-6-0.

5.59 With reference to Figure 17, install recirc duct half RH P/N 9834D010000 by means of n°2 bolts P/N AN3C5A, n°2 washers P/N NAS1149C0332R and strap P/N MS3367-6-0.

5.60 With reference to Figure 17, install fire blanket P/N 3G2150V01851 to the duct assy P/N 9848D010000.

5.61 With reference to Figures 22, 24 Section AB-AB, 25 Section AD-AD and Section AH-AH install n°3 studs P/N A366A3E30C and stud P/N A366A3E32C by means of adhesive EA9309.3NA (C021) in the indicated positions.

5.62 With reference to Figures 15 Detail R, 20 and 22, prepare indicated surfaces to assure correct electrical bonding.

5.63 In accordance with applicable steps of AMP DM 39-A-21-90-23-00A-720A-K and with reference to Figures 15, 17 and 22, install cabin flapper valve P/N 3G2150V01352 and fire blanket P/N 3G2150V01551 by means of n°5 bolts P/N AN3C3A, n°5 washers P/N NAS1149C0332R.

5.64 With reference to Figure 17, install fire blankets P/N 3G2150V01651 and P/N 3G2150V01751 to the LH recirc duct assy P/N 9836B020000 and the RH recirc duct assy P/N 9838B020000. Secure duct assemblies to cabin flapper valve P/N 3G2150V01352 by means of n°2 clamps P/N BAS243N3.

5.65 With reference to Figure 17, install Naca intake assy P/N 9907B010001 by means of n°3 bolts P/N AN3C3A, n°3 washers P/N NAS1149C0332R, bolt P/N AN3C4A and washer P/N NAS1149C0332R.

5.66 With reference to Figure 17, secure n°2 sleeves P/N 9928C010000 by means of n°2 straps P/N MS3367-6-0 to the cabin flapper valve.

5.67 In accordance with applicable steps of AMP DM 39-A-21-90-19-00A-720A-K and DM 39-A-21-90-20-00A-720A-K and with reference to Figures 17 and 20, install n°2 cabin Fan P/N 3G2150V02252 and n°2 fan bracket P/N 20204-76 to the cabin evaporator assy P/N 3G2150V00955 by means of n°6 bolts P/N AN3C5A, n°6 bolts P/N AN3C4A and n°12 washers P/N NAS1149C0332R.

5.68 With reference to Figure 17, install sleeve cabin evap outlet P/N 9932B010000 by means of n°2 straps P/N MS3367-6-0.

5.69 With reference to Figure Figures 17, install fire blanket P/N 3G2150V01951 to the cabin evaporator assy P/N 3G2150V00955.

5.70 In accordance with applicable steps of AMP DM 39-A-21-90-21-00A-720A-K and with reference to Figure Figures 17 and 22, install cabin evaporator assy P/N 3G2150V00955 by means of n°9 bolts P/N AN3C3A and n°9 washers P/N NAS1149C0332R.

5.71 With reference to Figure 22, install bonding cable assemblies P/N A601A3B45, P/N A601A3B20, P/N A601A3B30 and P/N A601A3B25 by means of n°3 bolts P/N AN3C4A, bolt P/N AN3C3A, bolt P/N AN3-4A, washer P/N NAS1149C0363R, n°4 washers P/N NAS1149C0332R and washer P/N A008B0525A.

NOTE

Perform the following step only for helicopters equipped with fire blanket P/N 3G2150V02052

5.72 With reference to Figure 18 and 19, install n°2 connection straps P/N 3G2150L00451.

5.73 With reference to Figure 17, secure sleeves P/N 9928C010000 by means of n°2 straps P/N MS3367-6-0 to the cabin fans.

5.74 With reference to Figures 22, 23 and 24 Section AB-AB, install support P/N 20204-096 by means of n°4 spacer P/N S756DE05310015, n°4 bolts P/N AN3C10A, n°4 washers P/N NAS1149C0332R and n°4 washers P/N NAS1149C0363R.

5.75 With reference to Figure 24 Section AB-AB, install grommet P/N MS21266-3N by means of adhesive EC1357 (C455) to the previously installed support.

5.76 With reference to Figure 24 Section AB-AB, install grommet P/N MS21266-1N by means of adhesive RTV732 (C126) to the previously installed support.

NOTE

Interpose insulation sleeving P/N M23053/5-106-0 between dryer receiver and the clamp.

5.77 In accordance with applicable steps of AMP DM 39-A-21-90-18-00A-720A-K and with reference to Figure 24 Section AB-AB, install dryer receiver P/N 20204-061 by means of clamp P/N NAS1922-0350-3H.

5.78 In accordance with applicable steps of AMP DM 39-A-21-90-13-00A-720A-K and with reference to Figures 20, 24 Section AB-AB, install high pressure switch P/N 20204-072.

5.79 With reference to Figures 22, 23 and 24 Section AC-AC, install support P/N 20204-096 by means of n°4 spacer P/N S756DE05310015, n°4 bolts P/N AN3C14A and n°4 washers P/N NAS1149C0332R.

5.80 With reference to Figure 24 Section AC-AC, install grommet P/N MS21266-3N by means of adhesive EC1357 (C455) to the previously installed support.

NOTE

Interpose insulation sleeving P/N M23053/5-106-0 between dryer receiver and the clamp.

5.81 In accordance with applicable steps of AMP DM 39-A-21-90-17-00A-720A-K and with reference to Figure 24 Section AC-AC, install dryer receiver P/N 20204-061 by means of clamp P/N NAS1922-0350-3H.

NOTE

During installation of pressure switch P/N 20204-071 place the cable inside the evaporator fire blanket and fix it to existing evaporator wiring using strap tiedown P/N A629A01HS (Ref. Figures 17 and 20).

5.82 In accordance with applicable steps of AMP DM 39-A-21-90-25-00A-720A-K and with reference to Figures 20, 24 Section AC-AC, install high pressure switch P/N 20204-071.

5.83 With reference to Figure 4 View D, install support P/N A415A205B205A by means of n°4 screws P/N NAS1351C3H10 and n°4 washers P/N NAS1149C0332R to the condenser pack P/N 3G2150V01052. Secure with lockwire P/N MS20995C32.

5.84 With reference to Figure 22 Detail AN, prepare indicated surfaces to assure correct electrical bonding.

NOTE

Clean upper deck and the base of condenser supports.

After condenser pack installation seal along support profiles using sealing compound Proseal 890 (C004).

5.85 In accordance with applicable steps of AMP DM 39-A-21-90-27-00A-720A-K and with reference to Figures 17 and 22, install the condenser pack P/N 3G2150V01052 by means of n°8 bolts P/N AN3H6A and n°8 washers P/N NAS1149C0332R. Secure with lockwire P/N MS20995C32.

5.86 In accordance with applicable steps of AMP DM 39-A-21-90-22-00A-720A-K and with reference to Figures 17 and 21 View U and Section V-V, install the compressor pack assy P/N 3G2150V02551, O-ring P/N AS3209-117 and gasket P/N 3G2150L00151 by means of n°4 nuts P/N MS21043-6, n°4 washers P/N NAS1149D0632K and n°4 washers P/N NAS1149C0632R.

5.87 With reference to Figures 23 and 26 Section AM-AM, install the refrigerant hoses P/N 14339C010000, P/N 14338C010000, P/N 14332C010000 and P/N 14316C010000. Use straps P/N MS3367-6-0 on the ends of insulated ducts.

5.88 With reference to Figures 23, install the refrigerant hoses P/N 14331D010000, P/N 14330C010000 and the block assy P/N 20204-081. Use straps P/N MS3367-6-0 on the ends of insulated ducts.

5.89 With reference to Figures 23, install the block assy P/N 20204-030 and the refrigerant hoses P/N 14317C010000, P/N 14328C010000 and P/N 14329C010000

5.90 With reference to Figures 15, 23 thru 26, secure refrigerant hoses previously installed at steps 5.87 thru 5.89 by means of the following fasteners:

- n°2 clamps P/N AS21919WDG03, n°2 clamps P/N AS21919WDG07, n°2 bolts P/N AN3C3A, n°4 washers P/N NAS1149C0332R and n°2 nuts P/N MS21043-3 (Ref. Figure 15 View AW);
- n°2 clamps P/N AS21919WDG21, spacer P/N NAS43DD3-90N, washer P/N NAS1149C0332R and nut P/N MS21043-3 (Ref. Figure 24 Section AB-AB);
- n°2 clamps P/N AS21919WDG21, n°2 clamps P/N AS21919WDG11, n°2 spacers P/N NAS43DD3-83N, n°2 washers P/N NAS1149C0332R and n°2 nuts P/N MS21043-3 (Ref. Figure 25 Section AD-AD);
- n°4 clamps P/N AS21919WDG21, n°2 clamps P/N AS21919WDG32, n°2 clamps P/N AS21919WDG11, n°4 bolts P/N AN3C14A, n°4 washers P/N NAS1149C0332R and n°2 nuts P/N MS21043-3 (Ref. Figure 25 Section AE-AE);

- n°2 clamps P/N AS21919WDG32, n°2 clamps P/N AS21919WDG11, n°2 bolts P/N AN3C5A, n°4 washers P/N NAS1149C0332R and n°2 nuts P/N MS21043-3 (Ref. Figure 25 Section AF-AF);
- clamp P/N AS21919WDG21, spacer P/N NAS43DD3-81N, washer P/N NAS1149C0332R and nut P/N MS21043-3 (Ref. Figure 25 Section AH-AH);
- clamp P/N AS21919WDG32, clamp P/N AS21919WDG11, bolt P/N AN3C11A, spacer P/N NAS43DD3-35N, n°2 washers P/N NAS1149C0332R and nut P/N MS21043-3 (Ref. Figure 25 Section AP-AP);
- clamp P/N AS21919WDG12, clamp P/N AS21919WDG21, bolt P/N AN3C5A, n°2 washers P/N NAS1149C0332R and nut P/N MS21043-3 (Ref. Figure 25 Section AM-AM);
- n°2 clamps P/N AS21919WDG12, bolt P/N AN3C5A, n°2 washers P/N NAS1149C0332R and nut P/N MS21043-3 (Ref. Figure 25 Section AM-AM);
- n°2 clamps P/N AS21919WDG21, bolt P/N AN3C5A, n°2 washers P/N NAS1149C0332R and nut P/N MS21043-3 (Ref. Figure 23).

5.91 With reference to Figure 26 View W, install n°2 HP ports P/N 20204-0106 and n°2 LP ports P/N 20204-0107 by means of n°8 screws P/N MS27039-1-09 and n°8 washers P/N NAS1149C0332R.

5.92 In accordance with applicable steps of AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 26 View W, install decals P/N A499AHL110E01J06, P/N A499AHH130E01J06, P/N A499AHL120E01J06 and P/N A499AHH140E01J06 to the bracket in an area adjacent to previously installed HP and LP ports.

5.93 In accordance with applicable steps of AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 26 View AG, install decals P/N A499AHL110E01J06, P/N A499AHH130E01J06, P/N A499AHL120E01J06 and P/N A499AHH140E01J06 to the compressor.

5.94 In accordance with applicable steps of AMP DM 39-A-21-90-28-00A-921A-K and with reference to Figure 26 View W, install n°4 pipe assemblies P/N 20204-0108 to the compressor and the HP and LP ports previously installed.

5.95 With reference to Figure 26 View W, install n°3 P/N AW002FT103 and n°3 straps P/N A629A01HS.

5.96 With reference to Figure 29, perform the compressor drain installation P/N 3G2150A00511 as described in the following procedure:

5.96.1 With reference to Figure 29 Detail A, remove cap P/N MS21914-4J.

5.96.2 With reference to Figure 29 View looking inboard RHS, install flexible hose P/N A381AB1A00B0342X, union P/N MS21902J3 and O-ring P/N M83248/1-903.

5.96.3 With reference to Figure 29 View looking inboard RHS, install the identification tapes P/N 999-2701-01-7, P/N 999-2701-01-22, P/N 999-2701-01-40 and P/N 999-2701-01-119 on the flexible hose P/N A381AB1A00B0342X.

5.97 In accordance with applicable steps of AMP DM 39-A-21-90-28-00A-921A-K and with reference to Figure 4 View C, install air conditioning control panel-crew P/N 3G2150V00353.

6. With reference to Figures 35 thru 48, perform the ECS fuselage C/A installation kit P/N 3G2150A01713 as described in the following procedure:

6.1 With reference to Figure 38, at location n°1, install support P/N AW001CL000A-X3 by means of adhesive EA9309.3NA (C021).

6.2 With reference to Figure 39 Detail E, at locations n°2-3-4, install n°3 supports P/N AW001CL009-CM by means of EA9309.3NA adhesive.

6.3 With reference to Figure 42 View M, at location n°5, install support P/N A366A3E08C by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB06H by means of nut P/N MS21043-3 and washer P/N NAS1149D0332J.

6.4 With reference to Figure 42 View M, at location n°6, install support P/N AW001TL3A08T by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB03H by means of screw P/N NAS1802-3-9 and washer P/N NAS1149D0332J.

6.5 With reference to Figure 42 View N, at location n°7, install support P/N AW001CL000A-X3 by means of adhesive EA9309.3NA (C021).

6.6 With reference to Figure 42 View M, at location n°8, install the ground stud P/N A363A01 by means of n°2 rivets P/N MS20426AD3A.

6.7 With reference to Figure 43, at location n°10, install support P/N AW001CL509-N6.

6.8 With reference to Figure 43, at location n°11, install support P/N A388A3E10C by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB05H by means of screw P/N NAS1190E3P5AK and washer P/N NAS1149D0332J.

NOTE

If circuit breaker P/N A616A1A50 interferes with other parts already installed in the same zone, it is possible to slightly move its position in order to avoid the interference.

6.9 With reference to Figure 43 View S-S, at location n°13, install circuit breaker P/N A616A1A50 by means of n°2 screws P/N NAS1802-08-6 and n°2 washers P/N NAS1149DN832J.

6.10 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 43 View S-S, install decal P/N ED300S89 in an adjacent area to the previously installed circuit breaker.

6.11 With reference to Figure 44 Detail V, at location n°14, install support P/N A366A3E08C by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB06H by means of nut P/N MS21043-3 and washer P/N NAS1149D0332J.

6.12 With reference to Figure 45 Detail P, at location n°15, install the ground stud P/N A363A02 and plate P/N A608A02 by means of n°6 rivets P/N MS20426AD3 and n°2 rivets P/N MS20470AD4.

6.13 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 45 Detail P, install decal P/N ED300GS216 in an adjacent area to the previously installed ground stud.

6.14 With reference to Figure 45 Detail T, at location n°16, install the ground stud P/N A363A02 and plate P/N A608A03 by means of n°6 rivets P/N MS20426AD3 and n°2 rivets P/N MS20470AD4.

6.15 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 45 Detail T, install decal P/N ED300GS218 in an adjacent area to the previously installed ground stud.

6.16 With reference to Figure 45 View Z-Z, at location n°17, install circuit breaker P/N A616A1A50 by means of n°2 screws P/N NAS1802-08-6 and n°2 washers P/N NAS1149DN832J.

6.17 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 45 View Z-Z, install decal P/N ED300S88 in an adjacent area to the previously installed circuit breaker.

6.18 With reference to Figure 48, at location n°21, remove existing screw and install on existing hardware the clamp P/N AW001CB03H by means of screw P/N NAS1802-3-18.

6.19 With reference to Figure 41 View L, install mounting rail P/N M12883/53-001 by means of n°2 screws P/N NAS5312E08-8.

6.20 In accordance with applicable steps of AMP DM 39-A-21-90-30-00A-921A-K and DM 39-A-21-90-32-00A-921A-K and with reference to Figure 41 View L, install relay P/N M83536/2-028M and relay P/N M230E4N003 on the previously installed mounting rail.

6.21 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 41 View L, install decals P/N ED300K28 and P/N ED300K30 in an adjacent area to the previously installed relays.

6.22 With reference to Figure 41 View J, install mounting rail P/N M12883/53-001 by means of n°2 screws P/N NAS5312E08-8.

6.23 In accordance with applicable steps of AMP DM 39-A-21-90-29-00A-921A-K and DM 39-A-21-90-31-00A-921A-K and with reference to Figure 41 View J, install relay P/N M83536/2-028M and relay P/N M230E4N003 on the previously installed mounting rail.

6.24 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 41 View J, install decals P/N ED300K27 and P/N ED300K29 in an adjacent area to the previously installed relays.

NOTE

Use edging P/N A236A on metallic edges which can damage cable assemblies and where abrasion may occur.

Use braided tubing P/N A582A where cable assemblies chafing or contact with structure may occur.

Secure the cables by means of previously installed fixing hardware and existing hardware. If necessary replace existing clamps with suitable clamps.

6.25 With reference to Figures 35 thru 48, lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:

- P/N 3G9B01A28101 ECS C/A (B1A281);
- P/N 3G9B01B26701 ECS C/A (B1B267);
- P/N 3G9B01B30701 ECS C/A (B1B307).

NOTE

Modify connector B1P1 connections as shown into Figure 70 wiring diagram.

6.26 With reference to Figures 37 thru 40, 47, 48, table on Figure 71 and Figures 61, 64, 67 and 70 wiring diagrams, assemble the ECS C/A (A1A247) P/N 3G9A01A24701 as described in the following procedure:

6.26.1 Cut wires of adequate length and lay down between the following electrical components following the existing route as shown:

- MAU 1 connector A1-1P3;
- Cockpit flapper valve 2 connector B1P1;
- Sectioning connectors J101, J109 and P127;
- Sectioning connector J153 P/N M24308/4-2 (backshell P/N M85049/48-3-2);
- FWD LP connector MT21J1 P/N D38999/20WA98PB (backshell P/N A532A400-0902C);
- VENT/HTR control panel connector PL6P1;
- Ground stud S91GS1;
- FWD TEMP sensor connector S91P1 P/N M24308/1-1F (backshell P/N M85049/48-1-1);
- FWD TS1 connector S93J1 P/N D38999/20WA98PN (backshell P/N A532A400-0902C);
- Terminal board connectors TB115P1 and TB127P1;
- Terminal boards TB111 and TB143/1.

6.26.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to table on Figure 71 and Figures 61, 64, 67 and 70 wiring diagrams, crimp on wires by means of proper crimping tool the electrical contacts required.

6.26.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to table on Figure 71 and Figures 61, 64, 67 and 70 wiring diagrams, mark wire as indicated by means of marker sleeves P/N A578A.

NOTE

Modify connector B2P1 connections as shown into Figure 70 wiring diagram.

6.27 With reference to Figures 36, 39 thru 41, 47, 48, table on Figure 72 and Figures 61, 62, 64, 67 and 70 wiring diagrams, assemble the ECS C/A (A1B253) P/N 3G9A01B25301 as described in the following procedure:

6.27.1 Cut wires of adequate length and lay down between the following electrical components following the existing route as shown:

- MAU 2 connectors A2-1P2 and A2-1P3;
- Cockpit flapper valve 1/2 connector B2P1;
- Sectioning connectors P101, P109, P111 and P114;
- Sectioning connector J152 P/N M24308/4-2 (backshell P/N M85049/48-3-2);
- VENT/HTR control panel connector PL6P2 P/N D38999/26JC35SN (backshell P/N A529A400-1302C09);
- FWD TS2 connector S92J1 P/N D38999/20WA98PA (backshell P/N A532A400-0902C);
- Terminal board connector TB132P1;
- Terminal board TB112.

6.27.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to table on Figure 72 and Figures 61, 62, 64, 67 and 70 wiring diagrams, crimp on wires by means of proper crimping tool the electrical contacts required.

6.27.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to table on Figure 72 and Figures 61, 62, 64, 67 and 70 wiring diagrams, mark wire as indicated by means of marker sleeves P/N A578A.

6.28 With reference to Figures 40 thru 43, 45, 48, table on Figure 71 and Figures 60 and 66 wiring diagrams, assemble the ECS C/A (B1A252) P/N 3G9B01A25201 as described in the following procedure:

6.28.1 Cut wires of adequate length and lay down between the following electrical components following the existing route as shown:

- Sectioning connector P201;
- Relay connectors K27P1 P/N M12883/52-001 and K29P1 P/N M12883/52-003;
- Circuit breaker panel connector PL1P9;

- Splice SP208 P/N M81824/1-1;
- Splice SP210 P/N M81824/1-1;
- Splice SP227 P/N M81824/1-2.

6.28.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to table on Figure 71 and Figures 60 and 66 wiring diagrams, crimp on wires by means of proper crimping tool the electrical contacts required.

6.28.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to table on Figure 71 and Figures 60 and 66 wiring diagrams, mark wire as indicated by means of marker sleeves P/N A578A.

6.29 With reference to Figures 40, 42, 43, 45, 46, 48, table on Figure 73 and Figures 60 thru 62, 64 thru 67 and 70 wiring diagrams, assemble the ECS C/A (B1A265) P/N 3G9B01A26501 as described in the following procedure:

6.29.1 Cut wires of adequate length and lay down between the following electrical components following the existing route as shown:

- ACCB 1 connector A73P1 P/N D38999/26JE35SN (backshell P/N A529A400-1702C13);
- Sectioning connectors J127, J201 and J203;
- Circuit breaker panel connector PL1P3;
- Splices SP225, SP229, SP231, SP233 and SP235 P/N M81824/1-1;
- RCCB 1 S89;
- Ground studs A73GS1;
- Terminal board connector TB209P1;
- Terminal board TB213/1.

6.29.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to table on Figure 73 and Figures 60 thru 62, 64 thru 67 and 70 wiring diagrams, crimp on wires by means of proper crimping tool the electrical contacts required.

6.29.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to table on Figure 73 and Figures 60 thru 62, 64 thru 67 and 70 wiring diagrams, mark wire as indicated by means of marker sleeves P/N A578A.

6.30 With reference to Figures 40 thru 43, 45, 48 table on Figure 72 and Figures 60 and 66 wiring diagrams, assemble the ECS C/A (B1B262) P/N 3G9B01B26201 as described in the following procedure:

6.30.1 Cut wires of adequate length and lay down between the following electrical components following the existing route as shown:

- Sectioning connector P200;
- Relay connectors K28P1 P/N M12883/52-001 and K30P1 P/N M12883/52-003;
- Circuit breaker panel connector PL1P6;
- Splices SP208 and SP210;
- Splice SP214 P/N M81824/1-2.

6.30.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to table on Figure 72 and Figures 60 and 66 wiring diagrams, crimp on wires by means of proper crimping tool the electrical contacts required.

6.30.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to table on Figure 72 and Figures 60 and 66 wiring diagrams, mark wire as indicated by means of marker sleeves P/N A578A.

6.31 With reference to Figures 40 thru 45, 48, table on Figure 74 and Figures 60 thru 63 and 65 thru 70 wiring diagrams, assemble the ECS C/A (B1B265) P/N 3G9B01B26501 as described in the following procedure:

6.31.1 Cut wires of adequate length and lay down between the following electrical components following the existing route as shown:

- ACCB 2 connector A72P1 P/N D38999/26JE35SN (backshell P/N A529A400-1702C13);
- Sectioning connectors J114, J200 and P203;
- Sectioning connector J230 P/N MS3450W28-11S (backshell P/N M85049/31-28W);
- Circuit breaker panel connector PL1P8;
- Splices SP212, SP218, SP220 and SP222 P/N M81824/1-1;
- RCCB 2 S88;
- Ground studs GS218, A72GS1 and S90GS1;
- AFT TEMP sensor connector S90P1 P/N M24308/1-1F (backshell P/N M85049/48-1-1 and P/N D20419-21);
- Terminal board connector TB208P1;
- Terminal board TB212/1 P/N A593A-B06.

6.31.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to table on Figures 74 and Figures 60 thru 63 and 65 thru 70

wiring diagrams, crimp on wires by means of proper crimping tool the electrical contacts required.

6.31.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to table on Figure 74 and Figures 60 thru 63 and 65 thru 70 wiring diagrams, mark wire as indicated by means of marker sleeves P/N A578A.

6.32 With reference to Figure 43 and Figure 60 wiring diagram, perform the electrical connections of C/A B1A281 between RCCB 1 S89 and PDP 1 A3.

6.33 With reference to Figure 42, 43, 45 and Figure 60 wiring diagram, perform the electrical connections of C/A B1B267 between ground stud GS216, sectioning connector J232, RCCB 1 S89 and RCCB 2 S88.

6.34 With reference to Figures 43, 45 and Figure 60 wiring diagram, perform the electrical connections of C/A B1B307 between RCCB 2 S88 and PDP 2 A4.

6.35 With reference to Figures 37 thru 40, 47, 48 and Figures 61, 64, 67 and 70 wiring diagrams, perform the electrical connections of ECS C/A A1A247 previously assembled between electrical components indicated at step 6.26.1.

6.36 With reference to Figures 36, 39 thru 41, 47, 48 and Figures 61, 62, 64, 67 and 70 wiring diagrams, perform the electrical connections of ECS C/A A1B253 previously assembled between electrical components indicated at step 6.27.1.

6.37 With reference to Figures 40 thru 43, 45, 48 and Figures 60 and 66 wiring diagrams, perform the electrical connections of ECS C/A B1A252 previously assembled between electrical components indicated at step 6.28.1.

6.38 With reference to Figures 40, 42, 43, 45, 46, 48 and Figures 60 thru 62, 64 thru 67 and 70 wiring diagrams, perform the electrical connections of ECS C/A B1A265 previously assembled between electrical components indicated at step 6.29.1.

6.39 With reference to Figures 40 thru 43, 45 and Figures 60 and 66 wiring diagrams, perform the electrical connections of ECS C/A B1B262 previously assembled between electrical components indicated at step 6.30.1.

6.40 With reference to Figures 40 thru 45, 48 and Figures 60 thru 63 and 65 thru 70 wiring diagrams, perform the electrical connections of ECS C/A B1B265 previously assembled between electrical components indicated at step 6.31.1.

6.41 Perform a pin-to-pin continuity check of all the electrical connections made.

6.42 With reference to Figure 36, install J152 connector, dust cover P/N SK3000-3-S879, n°2 screws P/N NAS1802-06-6, n°2 washers P/N NAS1149DN616J and n°2 screw locks P/N M24308/26-1.

6.43 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 36, install decals P P/N ED300J152 and P/N ED300ECS;AFT in an area adjacent to previously installed J152 connector.

6.44 With reference to Figure 37, install J153 connector, dust cover P/N SK3000-3-S879, n°2 screws P/N NAS1802-06-6, n°2 washers P/N NAS1149DN616J and n°2 screw locks P/N M24308/26-1.

6.45 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 37, install decals P/N ED300J153 and P/N ED300ECS;FWD in an area adjacent to previously installed J153 connector.

6.46 With reference to Figure 39 Detail E and Figures 64 and 67 wiring diagram, connect the connector S91P1 to the FWD TEMP sensor S91.

6.47 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 39 Detail E, install decal P/N ED300S91 in an area adjacent to FWD TEMP sensor S91.

6.48 With reference to Figure 42 View M, at location n°9, install sectioning connector J232 by means of the flange P/N M85049/95-24B-A, n°4 screws P/N NAS1802-06-7 and n°4 washers P/N NAS1149DN616J.

6.49 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 42 View M, install decal P/N ED300J232 in an area adjacent to previously installed sectioning connector J232.

6.50 With reference to Figure 43, at location n°12, install sectioning connector J230 by means of the flange P/N M85049/95-28A-A, n°4 screws P/N NAS1802-06-7 and n°4 washers P/N NAS1149DN416J.

6.51 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 43, install decal P/N ED300J230 in an area adjacent to previously installed sectioning connector J230.

6.52 With reference to Figure 47 Detail H, at location n°18, install S93J1 connector by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-5 and n°4 washers P/N NAS1149DN416J.

6.53 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 47 Detail H, install decal P/N ED300S93J1 in an area adjacent to previously installed S93J1 connector.

6.54 With reference to Figure 47 Detail H, at location n°19, install MT21J1 connector by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-5 and n°4 washers P/N NAS1149DN416J.

6.55 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 47 Detail H, install decal P/N ED300MT21J1 in an area adjacent to previously installed MT21J1 connector.

6.56 With reference to Figure 47 Detail AC, at location n°20, install S92J1 connector by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-5 and n°4 washers P/N NAS1149DN416J.

6.57 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 47 Detail AC, install decal P/N ED300S92J1 in an area adjacent to previously installed S92J1 connector.

6.58 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 44 Detail AF, install decal P/N ED300A72 in an area adjacent to refrigeration unit control box A72.

6.59 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 44 Detail W, install decal P/N ED300S90 in an area adjacent to temperature sensor S90.

7. With reference to Figures 53 thru 56, perform the ECS upper deck electrical provision P/N 3G2150A01811 as described in the following procedure:

7.1 With reference to Figure 54, at locations n°1-2, install n°2 clamps P/N MS21919WDG5 and n°2 clamps P/N MS21919WDG21 by means of n°2 screw P/N NAS1801-3-10, n°2 washer P/N NAS1149D0332J and n°2 nut P/N MS21042L3.

7.2 With reference to Figure 54, at locations n°3-4, install n°2 clamps P/N MS21919WDG8 and n°2 clamps P/N MS21919WDG21 by means of n°2 screw P/N NAS1801-3-10, n°2 washer P/N NAS1149D0332J and n°2 nut P/N MS21042L3.

7.3 With reference to Figure 55 View D, at locations n°5-8, install n°2 clamps P/N MS21919WDG8 and n°2 clamps P/N MS21919WDG21 by means of n°2 screw P/N NAS1801-3-10, n°2 washer P/N NAS1149D0332J and n°2 nut P/N MS21042L3.

7.4 With reference to Figure 55 View D, at location n°6, install clamp P/N MS21919WDG7 on existing hardware.

7.5 With reference to Figure 55 View D, at location n°7, install support P/N A366A3E18C by means of adhesive EA9309.3NA (C021), install clamp P/N MS21919WDG7 and spacer P/N NAS43DD3-40N by means of nut P/N MS21042L3 and washer P/N NAS1149D0332J.

7.6 With reference to Figure 56 View E, at location n°9, remove existing screw P/N NAS1801-3-8 and install clamp P/N MS21919WDG13 by means of screw P/N NAS1801-3-9 and washer P/N NAS1149D0332J.

NOTE

Use edging P/N A236A on metallic edges which can damage cable assemblies and where abrasion may occur.

Use braided tubing P/N A582A where cable assemblies chafing or contact with structure may occur.

Secure the cables by means of previously installed fixing hardware and existing hardware. If necessary replace existing clamps with suitable clamps.

7.7 With reference to Figures 53 thru 56, lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:

- P/N 3G9F01B21001 ECS C/A (F1B210);
- P/N 3G9F01B21301 ECS C/A (F1B213).

7.8 With reference to Figures 54 thru 56 and Figures 63, 65 thru 69 wiring diagrams, perform the electrical connections of C/A F1B210 between the following electrical components:

- A15J1 and A16J1 connectors;
- Ground stud B12GS1;
- Cabin fan 2 connector B12P1;
- MT18J1, MT19J1, MT20J1 and S94J1 connectors;
- Sectioning connector P230;
- Splices SP226, SP230 and SP234.

7.9 With reference to Figures 54 and 56 and Figure 60 wiring diagram, perform the electrical connections of C/A F1B213 between the following electrical components:

- Ground studs B10GS1 and B11GS1;
- FWD COND fan connector B10P1;
- AFT COND fan connector B11P1;
- Sectioning connector P232.

7.10 With reference to Figure 56 and Figure 69 wiring diagram, rework the C/A F1A200 (route F1A1) to obtain ECS C/A F1A221 as required.

7.11 Perform a pin-to-pin continuity check of all the electrical connections made.

7.12 With reference to Figure 55 Detail B, remove n°4 screws P/N MS35206-214 and install S94J1 connector of the C/A F1B4 by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.

7.13 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 55 Detail B, install decal P/N ED300S94J1 in an area adjacent to previously installed S94J1 connector.

7.14 With reference to Figure 55 Detail B, remove n°4 screws P/N MS35206-214 and install MT18J1 connector of the C/A F1B4 by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.

7.15 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 55 Detail B, install decal P/N ED300MT18J1 in an area adjacent to previously installed MT18J1 connector.

7.16 With reference to Figure 55 Detail B, remove n°4 screws P/N MS35206-214 and install MT19J1 connector of the C/A F1B4 by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.

7.17 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 55 Detail B, install decal P/N ED300MT19J1 in an area adjacent to previously installed MT19J1 connector.

7.18 With reference to Figure 55 Detail B, remove n°4 screws P/N MS35206-214 and install MT20J1 connector of the C/A F1B4 by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.

7.19 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 55 Detail B, install decal P/N ED300MT20J1 in an area adjacent to previously installed MT20J1 connector.

7.20 With reference to Figure 56 Detail E, remove n°4 screws P/N MS35206-214 and install A15J1 connector of the C/A F1B4 by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.

7.21 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 56 Detail E, install decal P/N ED300A15J1 in an area adjacent to previously installed A15J1 connector.

7.22 With reference to Figure 56 Detail E, remove n°4 screws P/N MS35206-214 and install A16J1 connector of the C/A F1B4 by means of the flange P/N M85049/95-10A-A, n°4 screws P/N NAS1802-04-6 and n°4 washers P/N NAS1149DN416J.

7.23 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 56 Detail E, install decal P/N ED300A16J1 in an area adjacent to previously installed A16J1 connector.

7.24 With reference to Figure 54 View A, if necessary remove cover P/N MS25043-24DA and connect sectioning connector P230 to sectioning connector J230.

7.25 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 54 View A, install decal P/N ED300J230 in an area adjacent to previously installed sectioning connector P230.

7.26 With reference to Figure 56 View C, if necessary remove cover P/N MS25043-28DA and connect sectioning connector P232 to sectioning connector J232.

7.27 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 56 View C, install decal P/N ED300J232 in an area adjacent to previously installed sectioning connector P232.

7.28 With reference to Figure 55 View D and Figure 69 wiring diagram, connect the connector B12P1 to the cabin fan 2.

7.29 With reference to Figures 54, 56 and Figure 60 wiring diagram, connect the connector B10P1 to the FWD COND fan.

7.30 With reference to Figures 54, 56 and Figure 60 wiring diagram, connect the connector B11P1 to the AFT COND fan.

8. With reference to AMP DM 39-A-21-90-00-00A-364A-K, perform the leak check of the ECS.
9. With reference to AMP DM 39-A-12-11-11-00A-218A-K, fill the installed system with fluid.
10. With reference to AMP DM 39-A-21-90-00-00A-320A-K, do the operational test of the ECS.
11. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
12. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.
13. Send the attached compliance form to the following mail box:

    engineering.support.lhd@leonardo.com

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

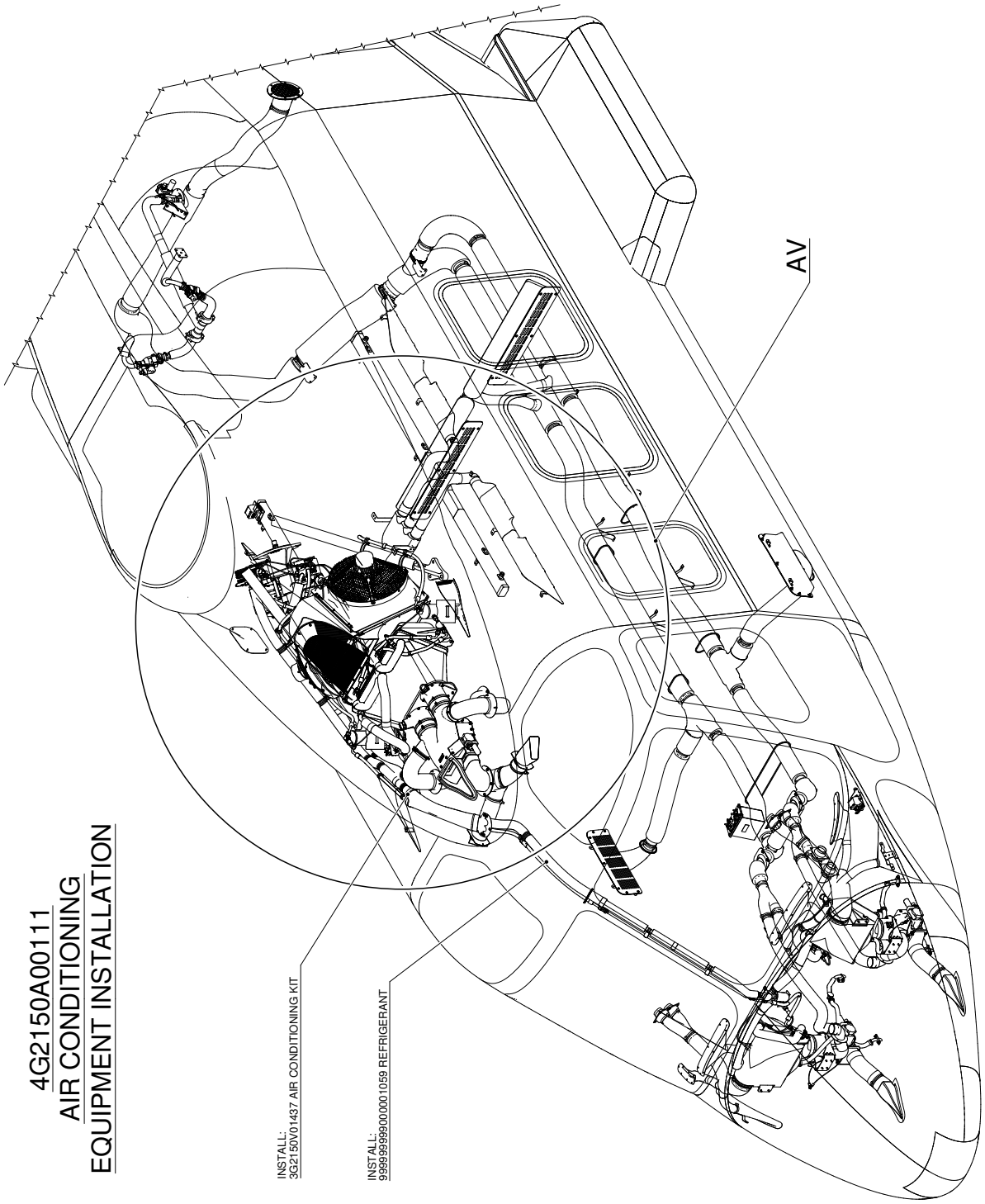

4G2150A00111
AIR CONDITIONING
EQUIPMENT INSTALLATION
INSTALL:
3G2150V01437 AIR CONDITIONING KIT
INSTALL:
9999999990000001059 REFRIGERANT
AV

Figure 1

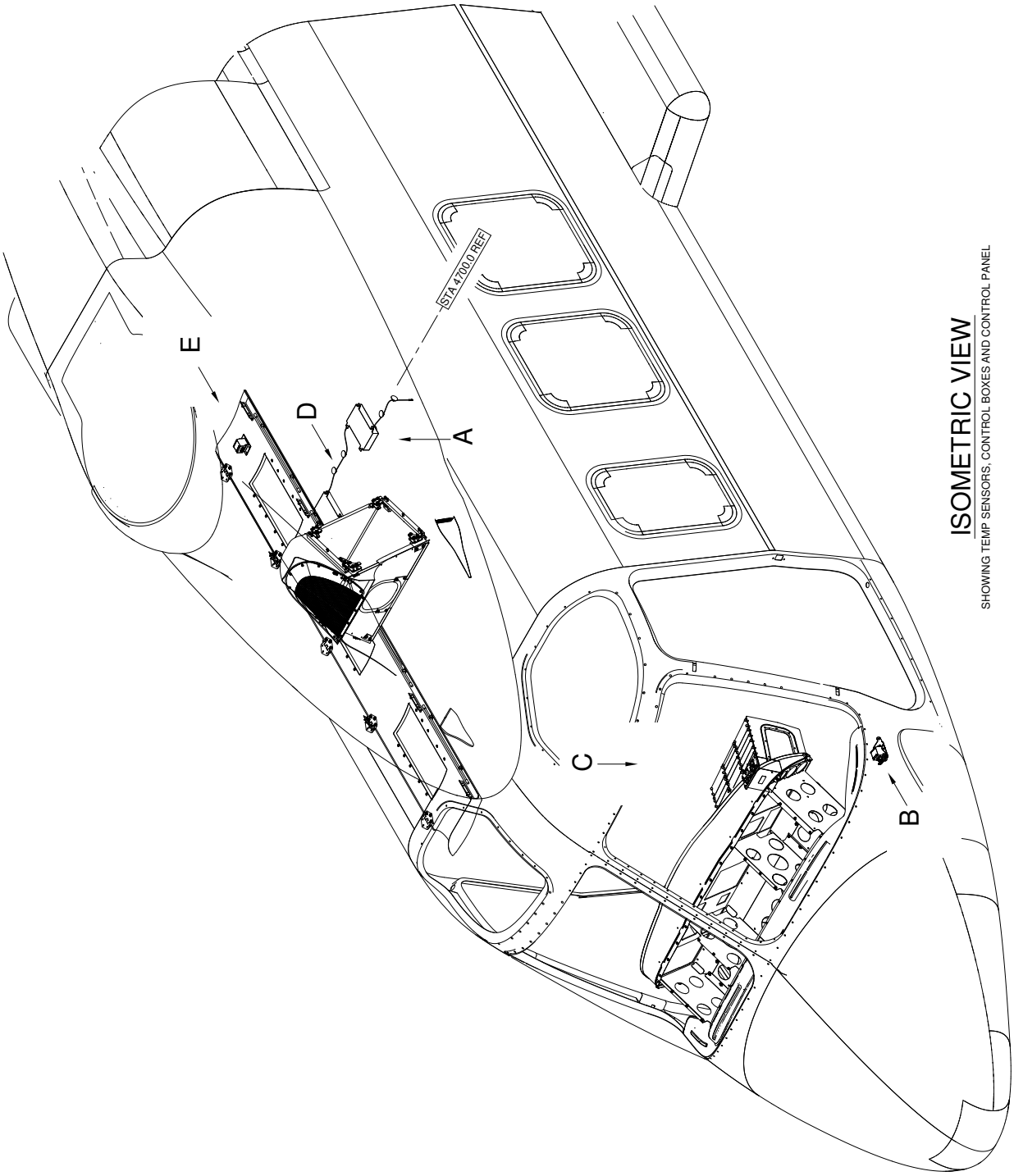

ISOMETRIC VIEW
SHOWING TEMP SENSORS, CONTROL BOXES AND CONTROL PANEL
STA 4700.0 REF
A
B
C
D
E

Figure 2

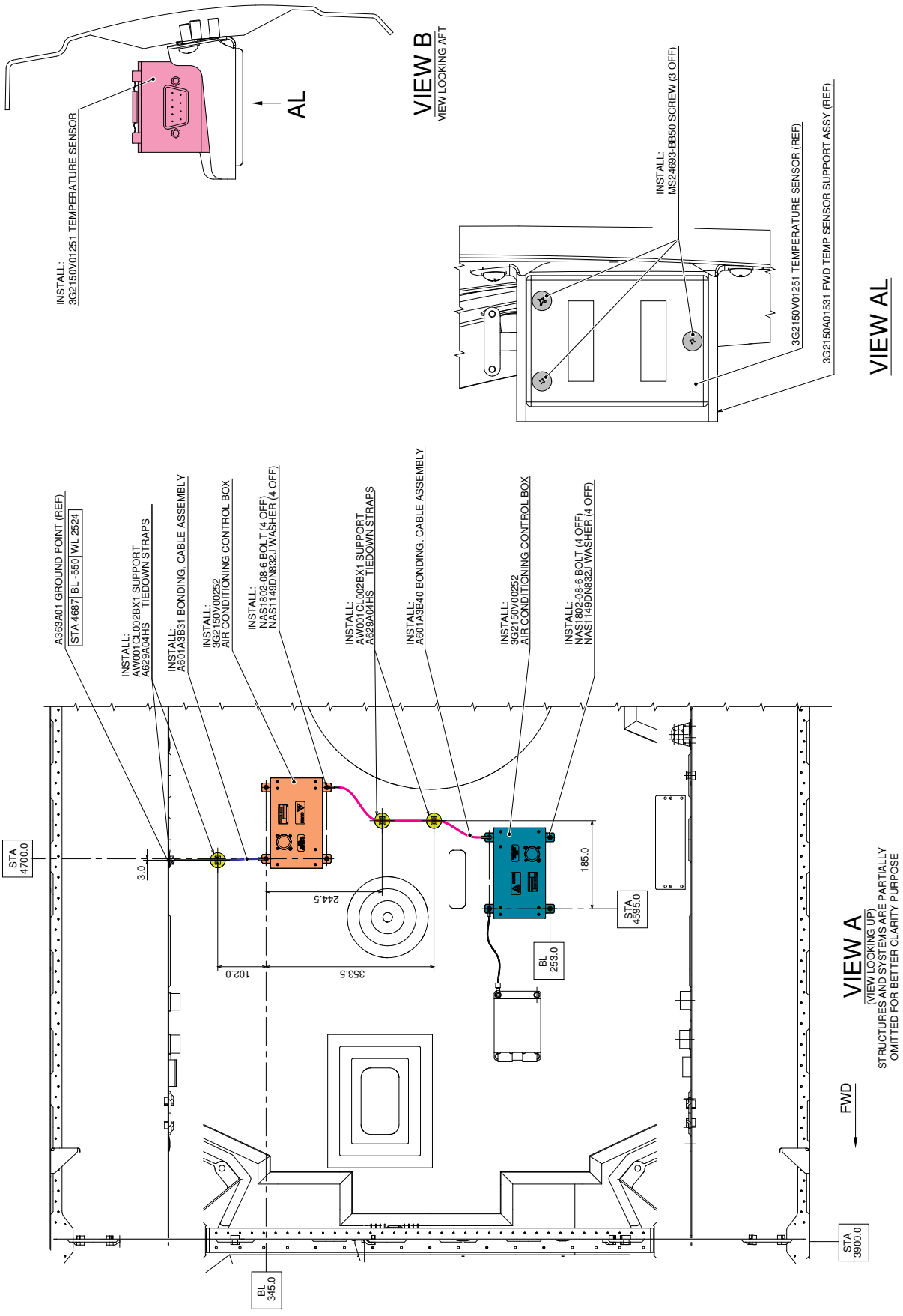
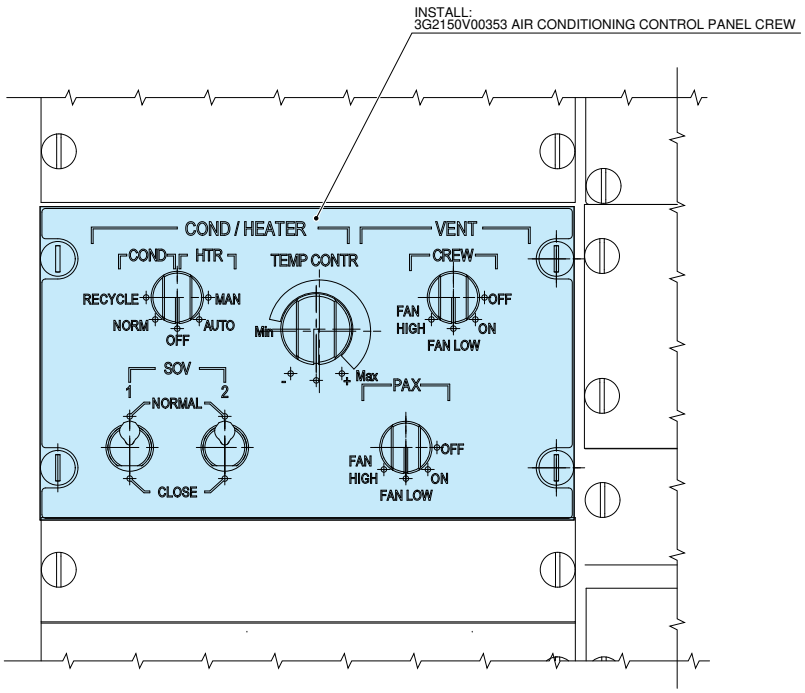
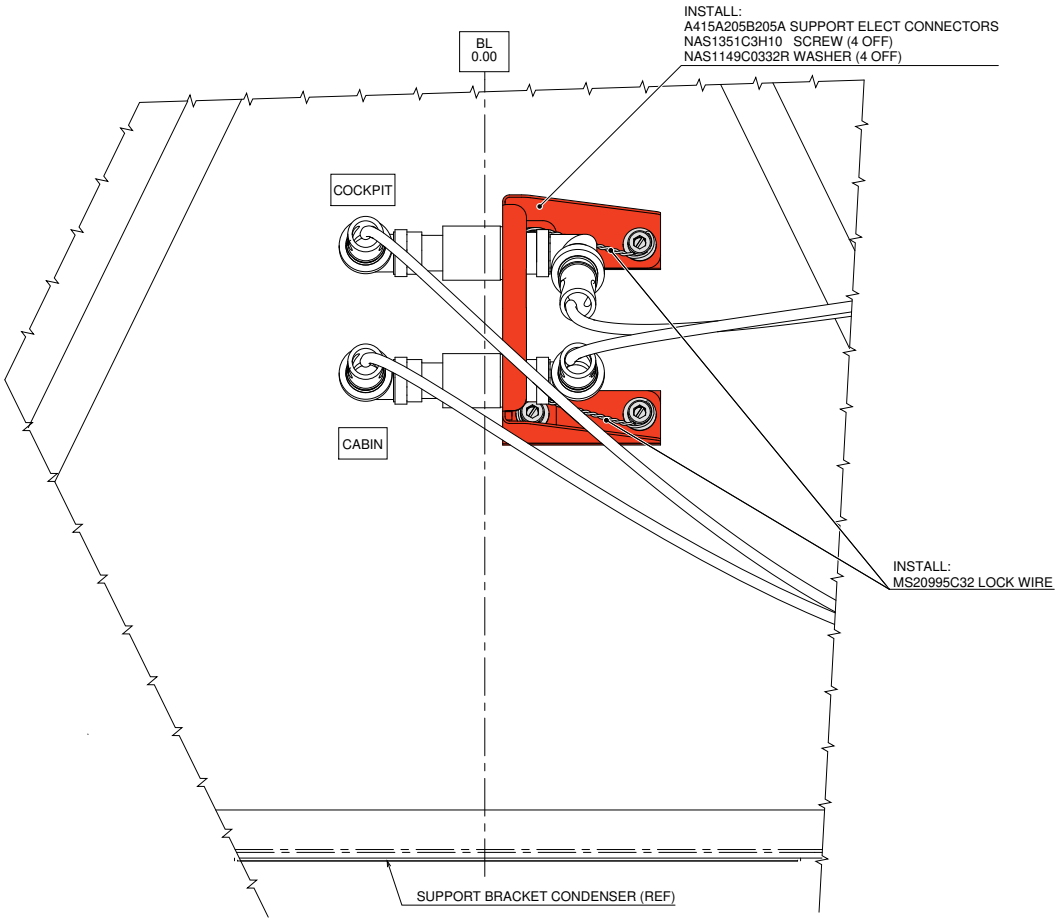

INSTALL:
3G2150V01251 TEMPERATURE SENSOR
AL
VIEW B
VIEW LOOKING AFT
INSTALL:
MS24693-BB50 SCREW (3 OFF)
3G2150V01251 TEMPERATURE SENSOR (REF)
3G2150A01531 FWD TEMP SENSOR SUPPORT ASSY (REF)
VIEW AL
A363A01 GROUND POINT (REF)
STA 4687 | BL -550 | WL 2524
INSTALL:
AW001CL002BX1 SUPPORT
A629A04HS TIEDOWN STRAPS
INSTALL:
A601A3B31 BONDING, CABLE ASSEMBLY
INSTALL:
3G2150V00252
AIR CONDITIONING CONTROL BOX
INSTALL:
NAS1802-08-6 BOLT (4 OFF)
NAS1149DN832J WASHER (4 OFF)
INSTALL:
AW001CL002BX1 SUPPORT
A629A04HS TIEDOWN STRAPS
INSTALL:
A601A3B40 BONDING, CABLE ASSEMBLY
INSTALL:
3G2150V00252
AIR CONDITIONING CONTROL BOX
INSTALL:
NAS1802-08-6 BOLT (4 OFF)
NAS1149DN832J WASHER (4 OFF)
STA 4700.0
3.0
244.5
102.0
353.5
185.0
STA 4595.0
BL 253.0
BL 345.0
STA 3900.0
FWD
VIEW A
(VIEW LOOKING UP)
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 3



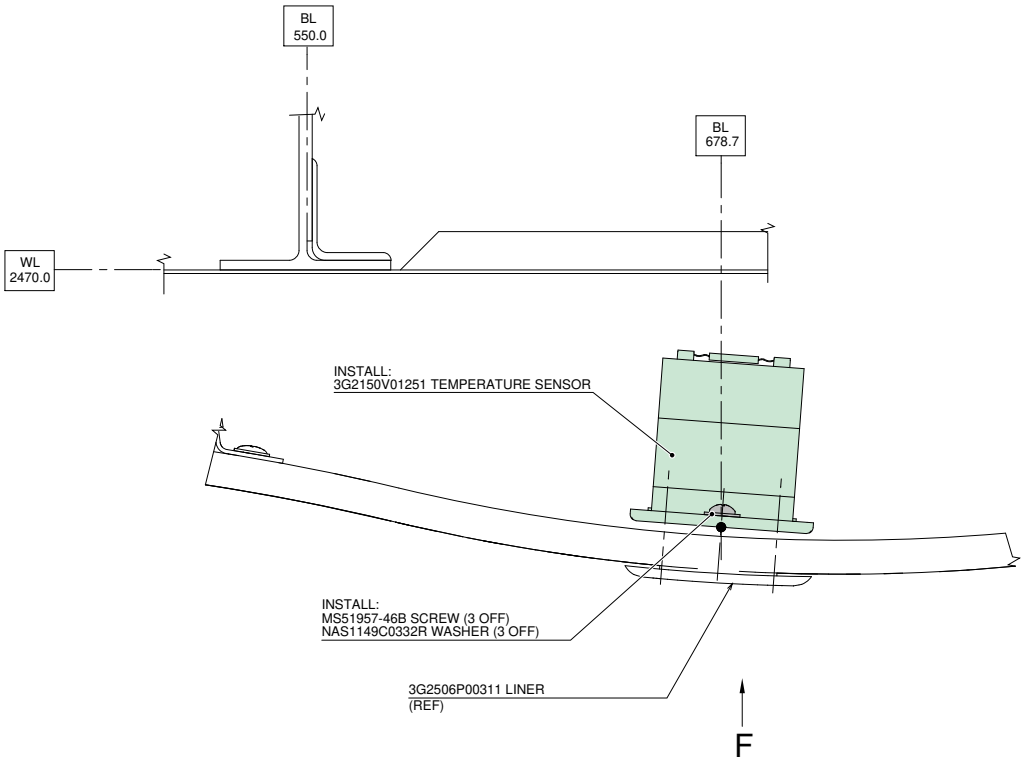
VIEW C

(SEE 3G2150A00311 FOR INSTALLATION)

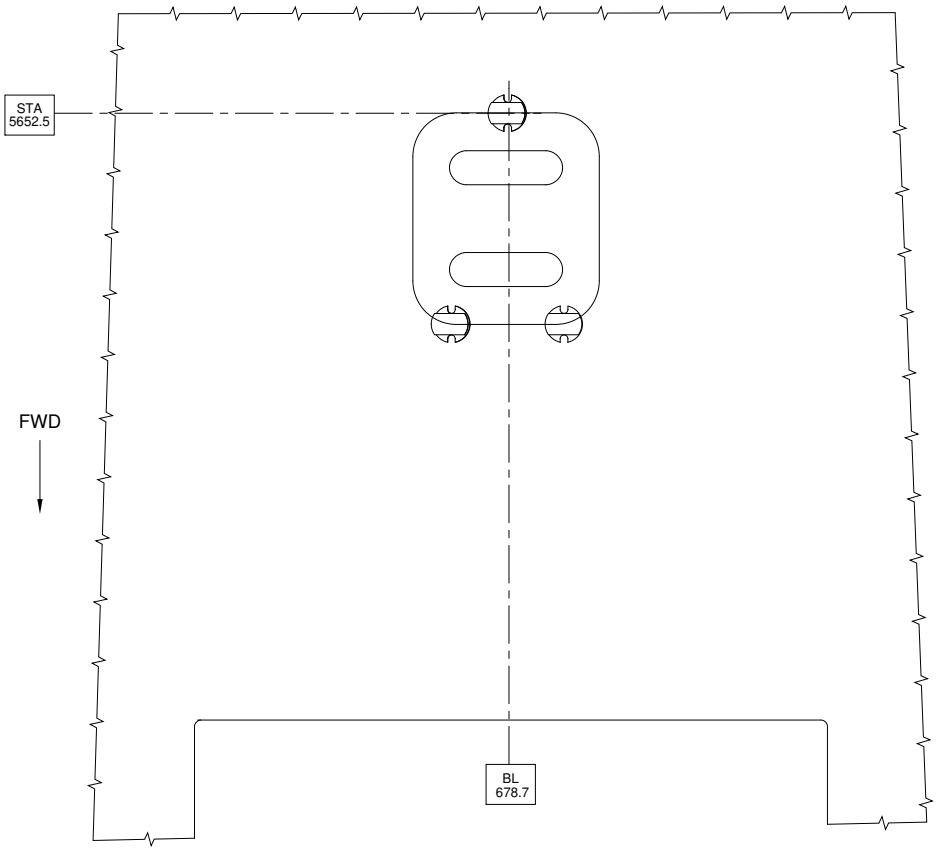


VIEW D

Figure 4



VIEW E
(VIEW LOOKING FWD)



VIEW F
(VIEW LOOKING UP)

Figure 5

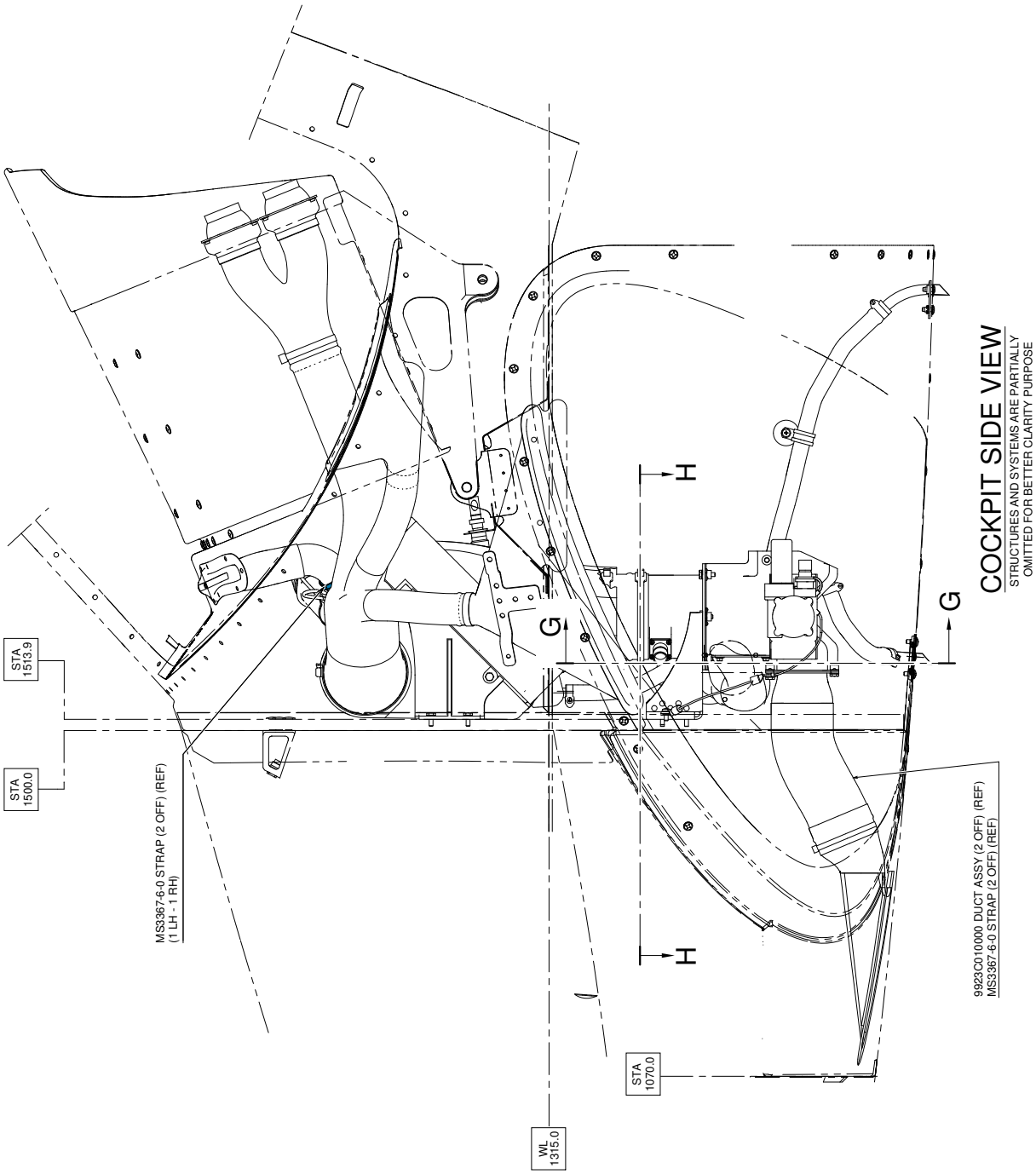

COCKPIT SIDE VIEW
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
STA 1513.9
STA 1500.0
MS3367-6-0 STRAP (2 OFF) (REF) (1 LH - 1 RH)
9923C010000 DUCT ASSY (2 OFF) (REF)
MS3367-6-0 STRAP (2 OFF) (REF)
STA 1070.0
WL 1315.0
G
G
H
H

Figure 6

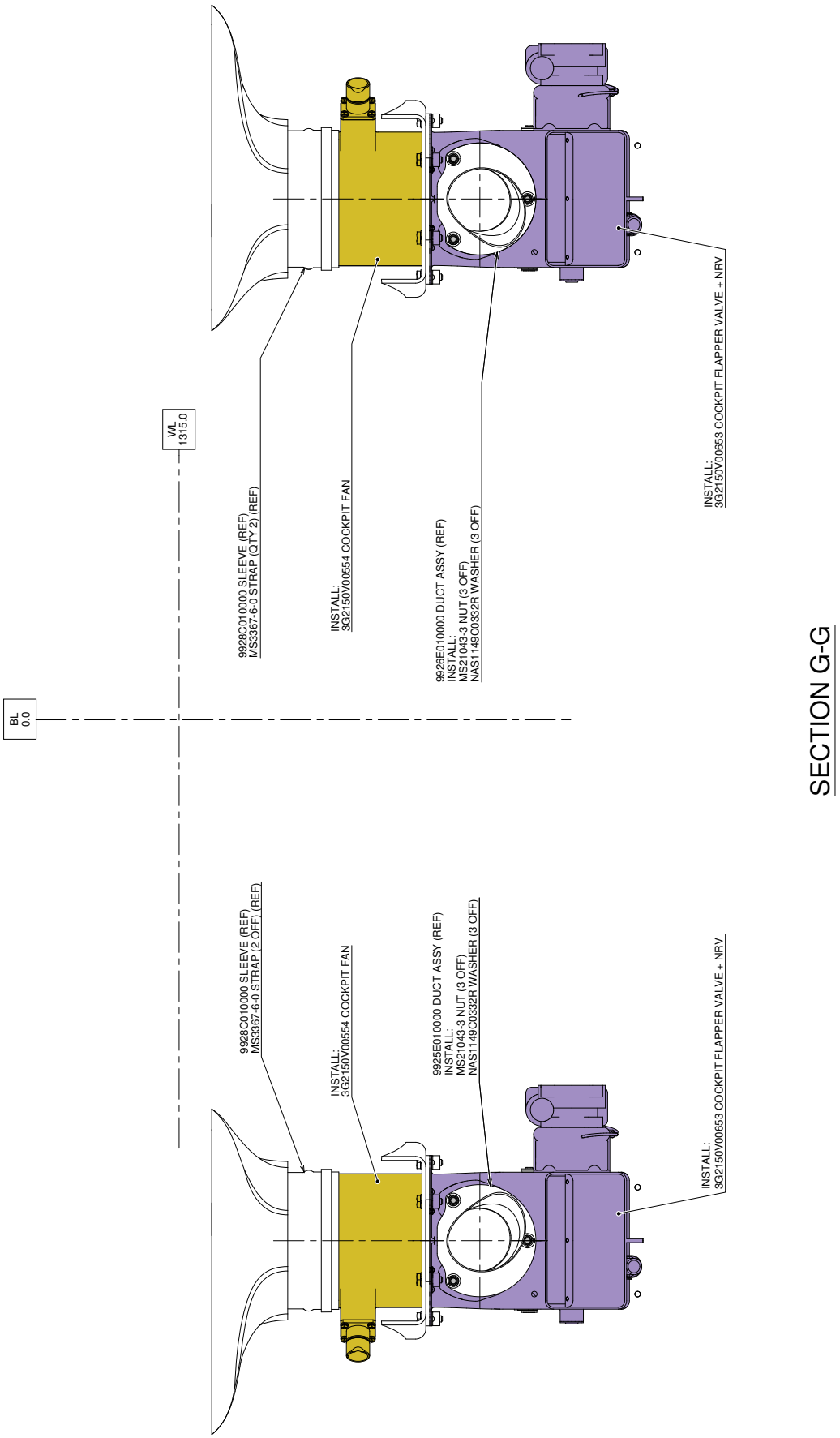

WL
1315.0
BL
0.0
9928C010000 SLEEVE (REF)
MS3367-6-0 STRAP (QTY 2) (REF)
INSTALL:
3G2150V00554 COCKPIT FAN
9926E010000 DUCT ASSY (REF)
INSTALL:
MS21043-3 NUT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
INSTALL:
3G2150V00653 COCKPIT FLAPPER VALVE + NRV
9928C010000 SLEEVE (REF)
MS3367-6-0 STRAP (2 OFF) (REF)
INSTALL:
3G2150V00554 COCKPIT FAN
9925E010000 DUCT ASSY (REF)
INSTALL:
MS21043-3 NUT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
INSTALL:
3G2150V00653 COCKPIT FLAPPER VALVE + NRV
SECTION G-G

Figure 7

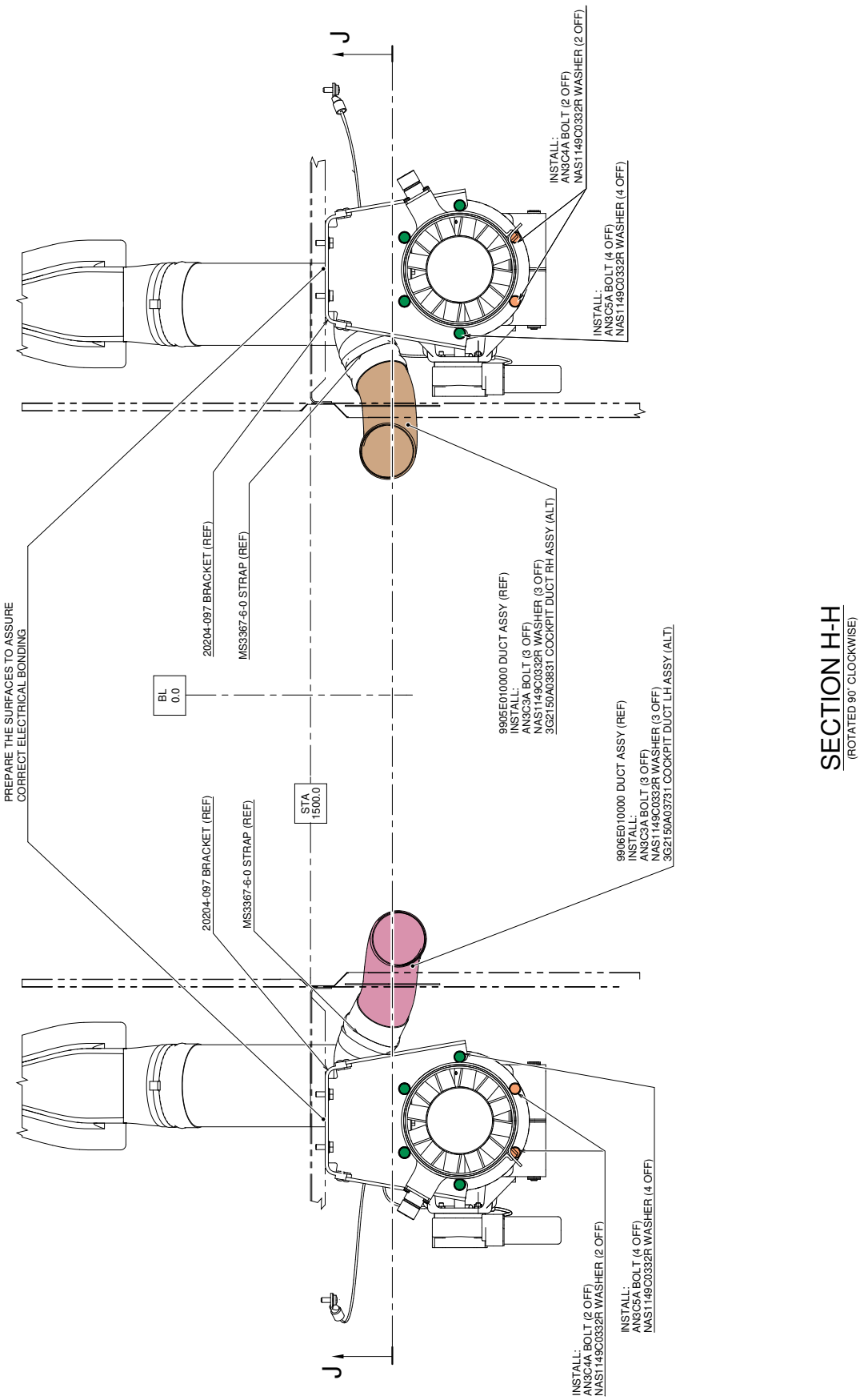

J
INSTALL:
AN3C4A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
INSTALL:
AN3C5A BOLT (4 OFF)
NAS1149C0332R WASHER (4 OFF)
PREPARE THE SURFACES TO ASSURE
CORRECT ELECTRICAL BONDING
20204-097 BRACKET (REF)
MS3367-6-0 STRAP (REF)
BL
0.0
9905E010000 DUCT ASSY (REF)
INSTALL:
AN3C3A BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
3G2150A03831 COCKPIT DUCT RH ASSY (ALT)
STA
1500.0
20204-097 BRACKET (REF)
MS3367-6-0 STRAP (REF)
9906E010000 DUCT ASSY (REF)
INSTALL:
AN3C3A BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
3G2150A03731 COCKPIT DUCT LH ASSY (ALT)
INSTALL:
AN3C4A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
INSTALL:
AN3C5A BOLT (4 OFF)
NAS1149C0332R WASHER (4 OFF)
J
SECTION H-H
(ROTATED 90° CLOCKWISE)

Figure 8

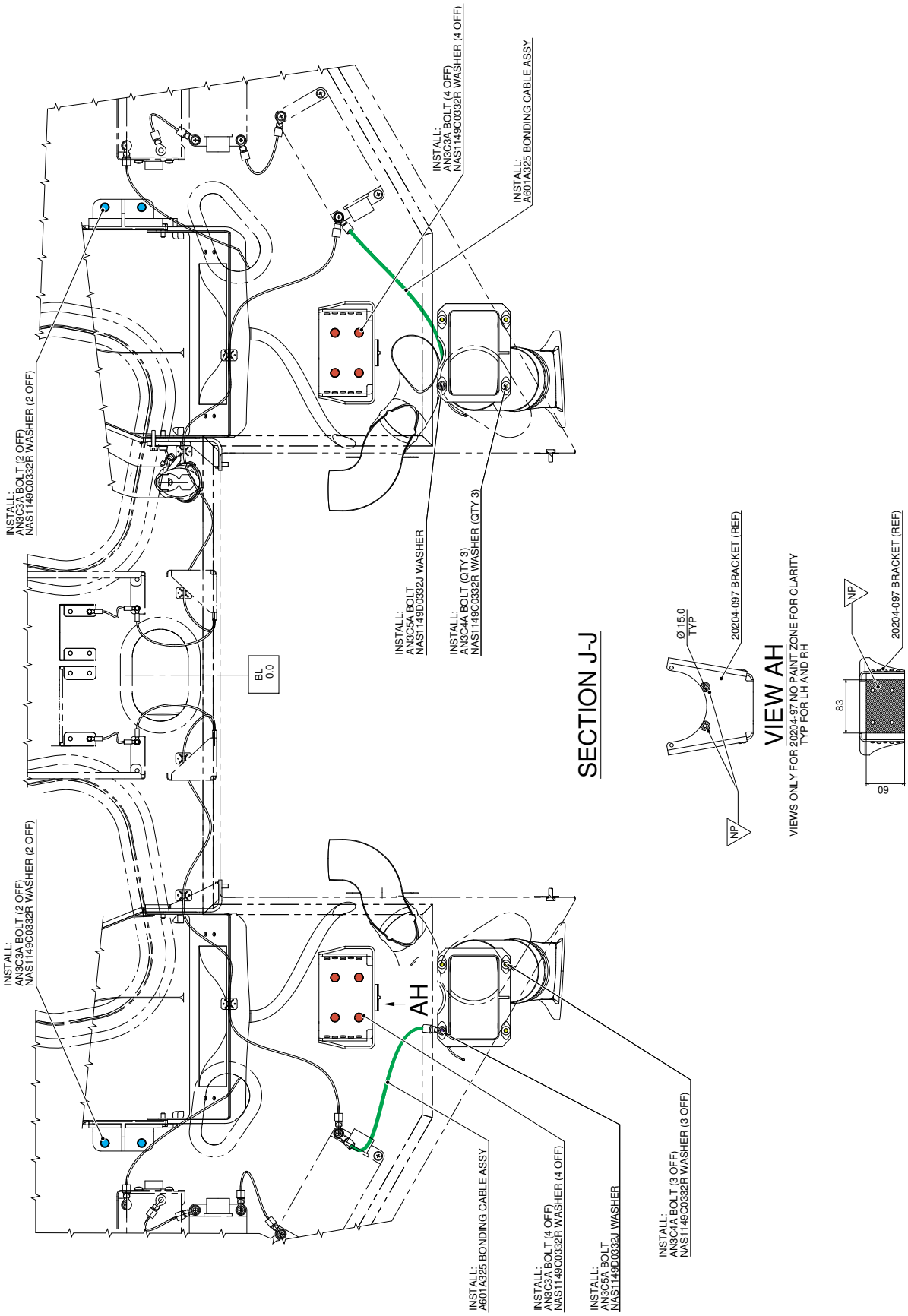

INSTALL:
AN3C3A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
INSTALL:
AN3C3A BOLT (4 OFF)
NAS1149C0332R WASHER (4 OFF)
INSTALL:
A601A325 BONDING CABLE ASSY
INSTALL:
AN3C5A BOLT
NAS1149D0332J WASHER
INSTALL:
AN3C4A BOLT (QTY 3)
NAS1149C0332R WASHER (QTY 3)
BL
0.0
AH
SECTION J-J
Ø 15.0
TYP
20204-097 BRACKET (REF)
NP
VIEW AH
VIEWS ONLY FOR 20204-97 NO PAINT ZONE FOR CLARITY
TYP FOR LH AND RH
NP
20204-097 BRACKET (REF)
83
09
INSTALL:
A601A325 BONDING CABLE ASSY
INSTALL:
AN3C3A BOLT (4 OFF)
NAS1149C0332R WASHER (4 OFF)
INSTALL:
AN3C5A BOLT
NAS1149D0332J WASHER
INSTALL:
AN3C4A BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)

Figure 9

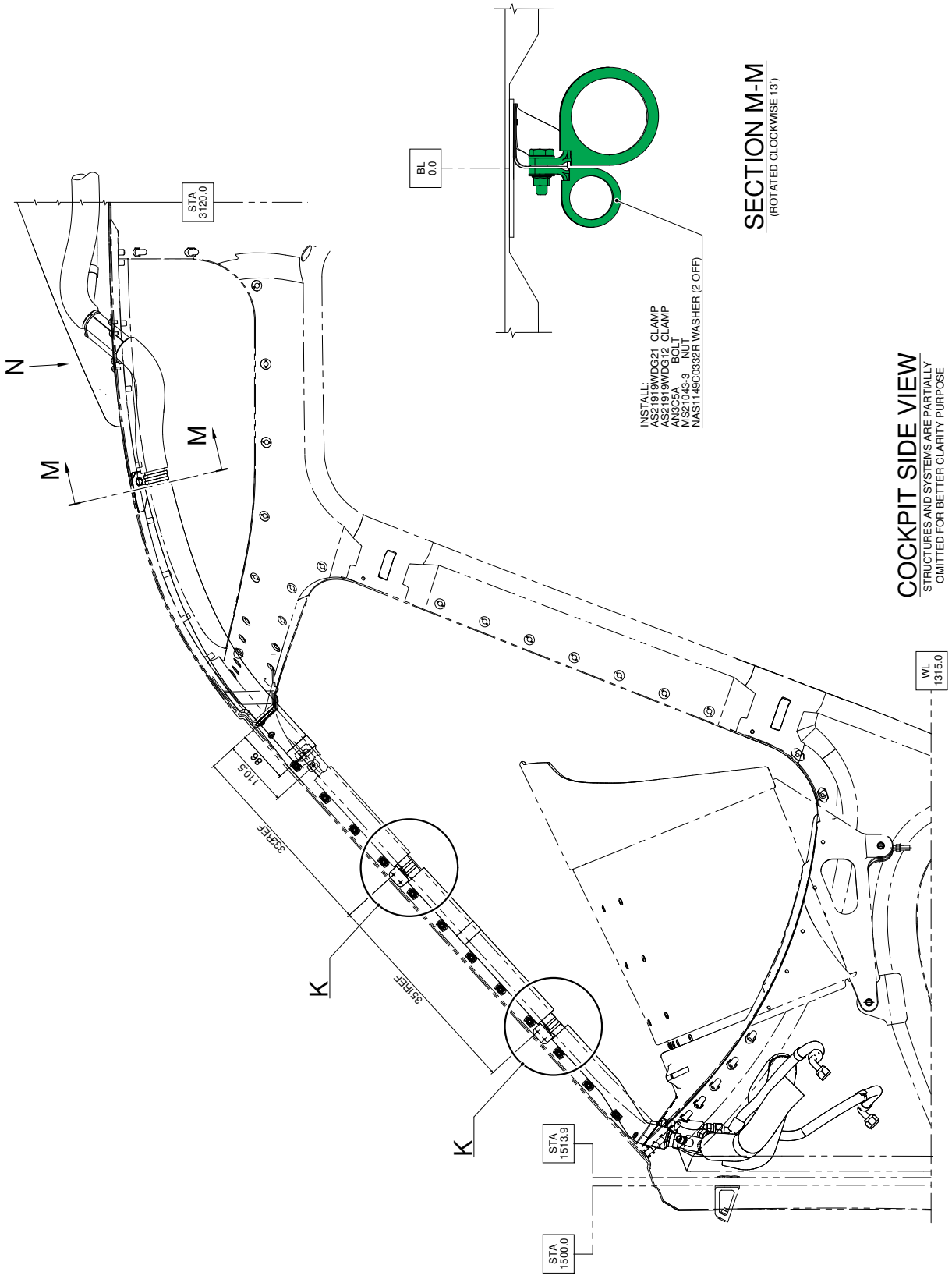
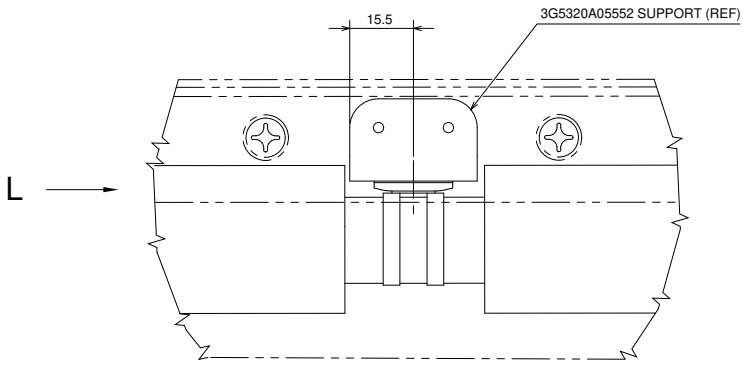
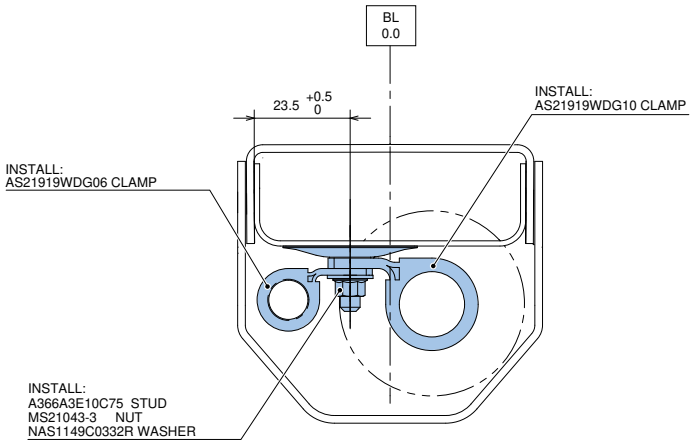

COCKPIT SIDE VIEW
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
SECTION M-M
(ROTATED CLOCKWISE 13°)
INSTALL:
AS21919WDG21 CLAMP
AS21919WDG12 CLAMP
AN3C5A BOLT
MS21043-3 NUT
NAS1149C0332R WASHER (2 OFF)
BL 0.0
STA 3120.0
STA 1513.9
STA 1500.0
WL 1315.0
N
M
K
110.5
98
338REF
356REF

Figure 10

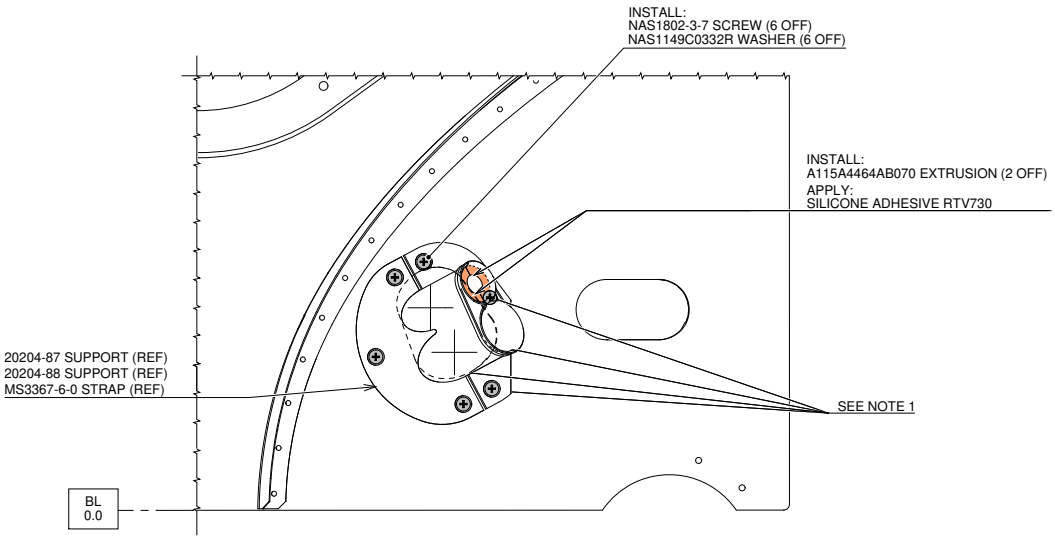


DETAIL K
(TYP 2 PLACES)
ROTATED CLOCKWISE 42.5°



NOTE 1
FOR ALL PENETRATIONS THROUGH THE UPPER DECK:
PRIOR TO INSTALLATION, INTERPOSE A LAYER SEALANT BETWEEN THE FLANGE AND THE STRUCTURE, INSTALL THE PART AND FILL ANY GAPS USING THE SAME SEALANT ENSURING THAT A SEAL IS OBTAINED TO PREVENT ANY WATER, OIL ETC. FROM ENTERING THE CABIN. USE AS SEALANT MC-780 C.

VIEW L
FREON OMITTED FOR CLARITY



VIEW N

Figure 11

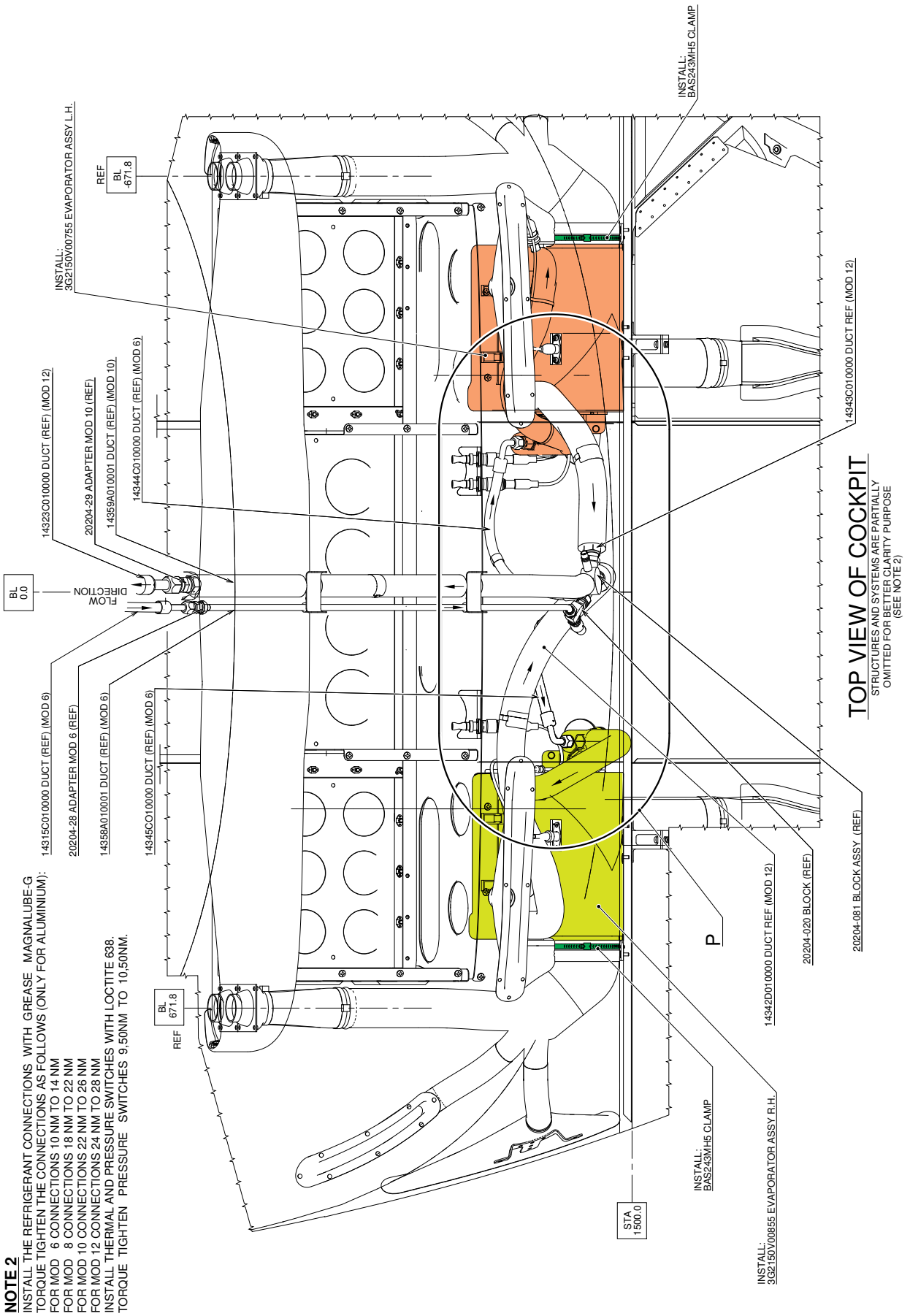

TOP VIEW OF COCKPIT
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE (SEE NOTE 2)
INSTALL: BAS243MH5 CLAMP
INSTALL: 3G2150V00755 EVAPORATOR ASSY L.H.
REF BL -671.8
14323C010000 DUCT (REF) (MOD 12)
20204-29 ADAPTER MOD 10 (REF)
14359A010001 DUCT (REF) (MOD 10)
14344C010000 DUCT (REF) (MOD 6)
14343C010000 DUCT REF (MOD 12)
BL 0.0
FLOW DIRECTION
14315C010000 DUCT (REF) (MOD 6)
20204-28 ADAPTER MOD 6 (REF)
14358A010001 DUCT (REF) (MOD 6)
14345CO100000 DUCT (REF) (MOD 6)
20204-081 BLOCK ASSY (REF)
P
20204-020 BLOCK (REF)
14342D010000 DUCT REF (MOD 12)
BL 671.8
REF
INSTALL: BAS243MH5 CLAMP
INSTALL: 3G2150V00855 EVAPORATOR ASSY R.H.
STA 1500.0
NOTE 2
INSTALL THE REFRIGERANT CONNECTIONS WITH GREASE MAGNALUBE-G
TORQUE TIGHTEN THE CONNECTIONS AS FOLLOWS (ONLY FOR ALUMINIUM):
FOR MOD 6 CONNECTIONS 10 NM TO 14 NM
FOR MOD 8 CONNECTIONS 18 NM TO 22 NM
FOR MOD 10 CONNECTIONS 22 NM TO 26 NM
FOR MOD 12 CONNECTIONS 24 NM TO 28 NM
INSTALL THERMAL AND PRESSURE SWITCHES WITH LOCTITE 638.
TORQUE TIGHTEN PRESSURE SWITCHES 9,50NM TO 10,50NM.

Figure 12

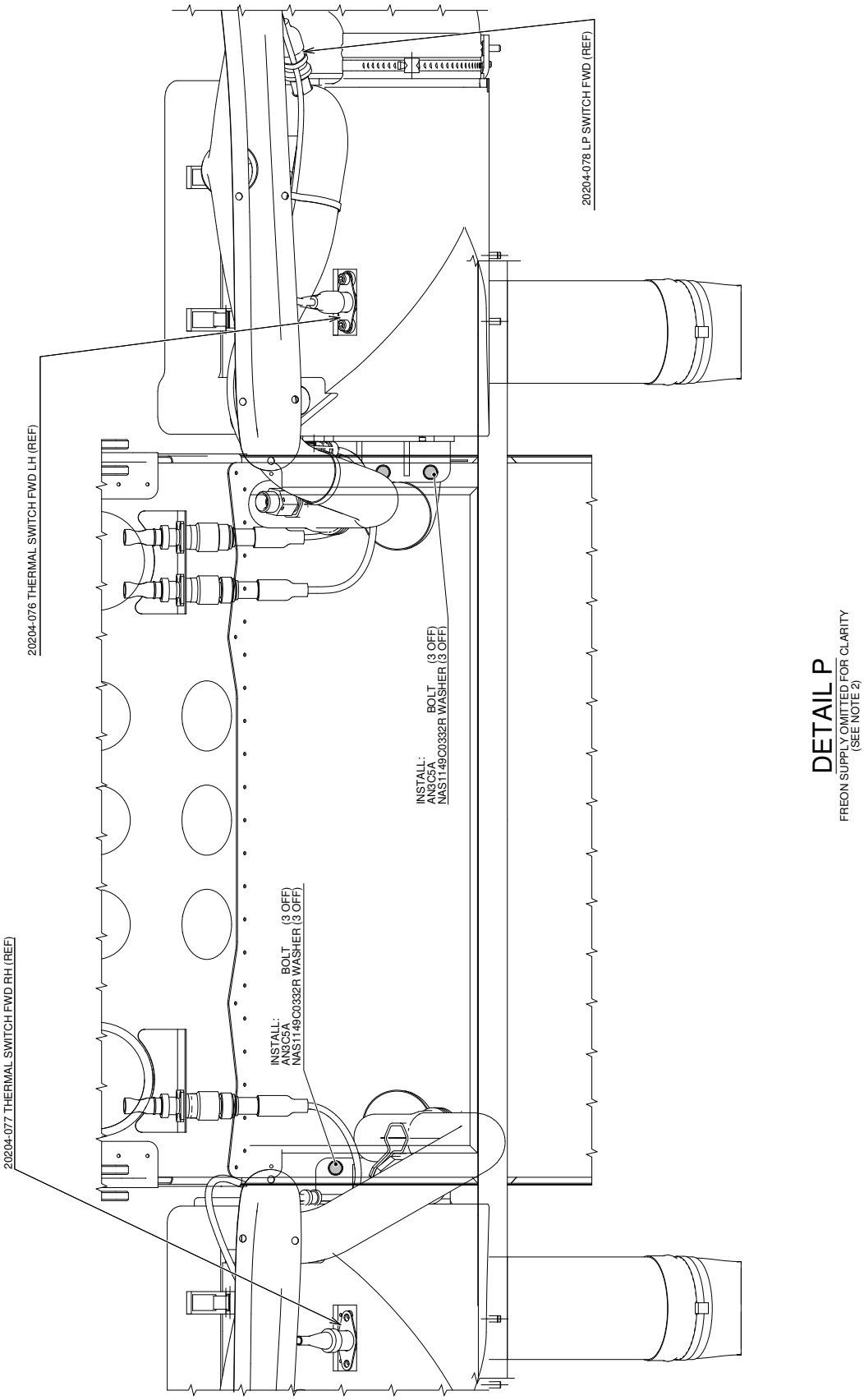

20204-078 LP SWITCH FWD (REF)
20204-076 THERMAL SWITCH FWD LH (REF)
INSTALL:
AN3C5A
NAS1149C0332R WASHER (3 OFF)
BOLT (3 OFF)
INSTALL:
AN3C5A
NAS1149C0332R WASHER (3 OFF)
BOLT (3 OFF)
20204-077 THERMAL SWITCH FWD RH (REF)
DETAIL P
FREON SUPPLY OMITTED FOR CLARITY
(SEE NOTE 2)

Figure 13

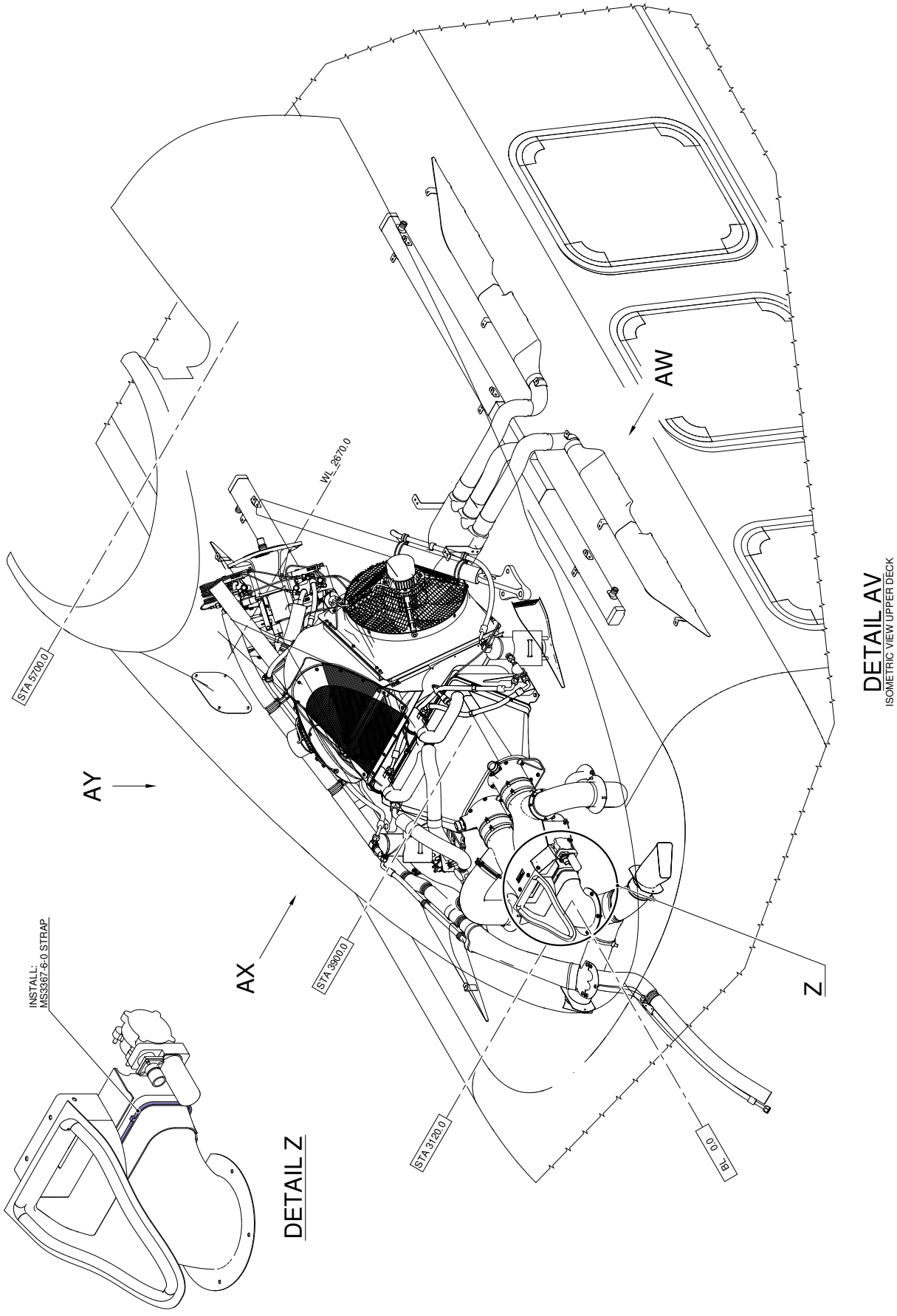

DETAIL AV
ISOMETRIC VIEW UPPER DECK
AW
AY
AX
Z
WL 2670.0
STA 5700.0
STA 3900.0
STA 3120.0
BL 0.0
DETAIL Z
INSTALL:
MS3367-6-0 STRAP

Figure 14

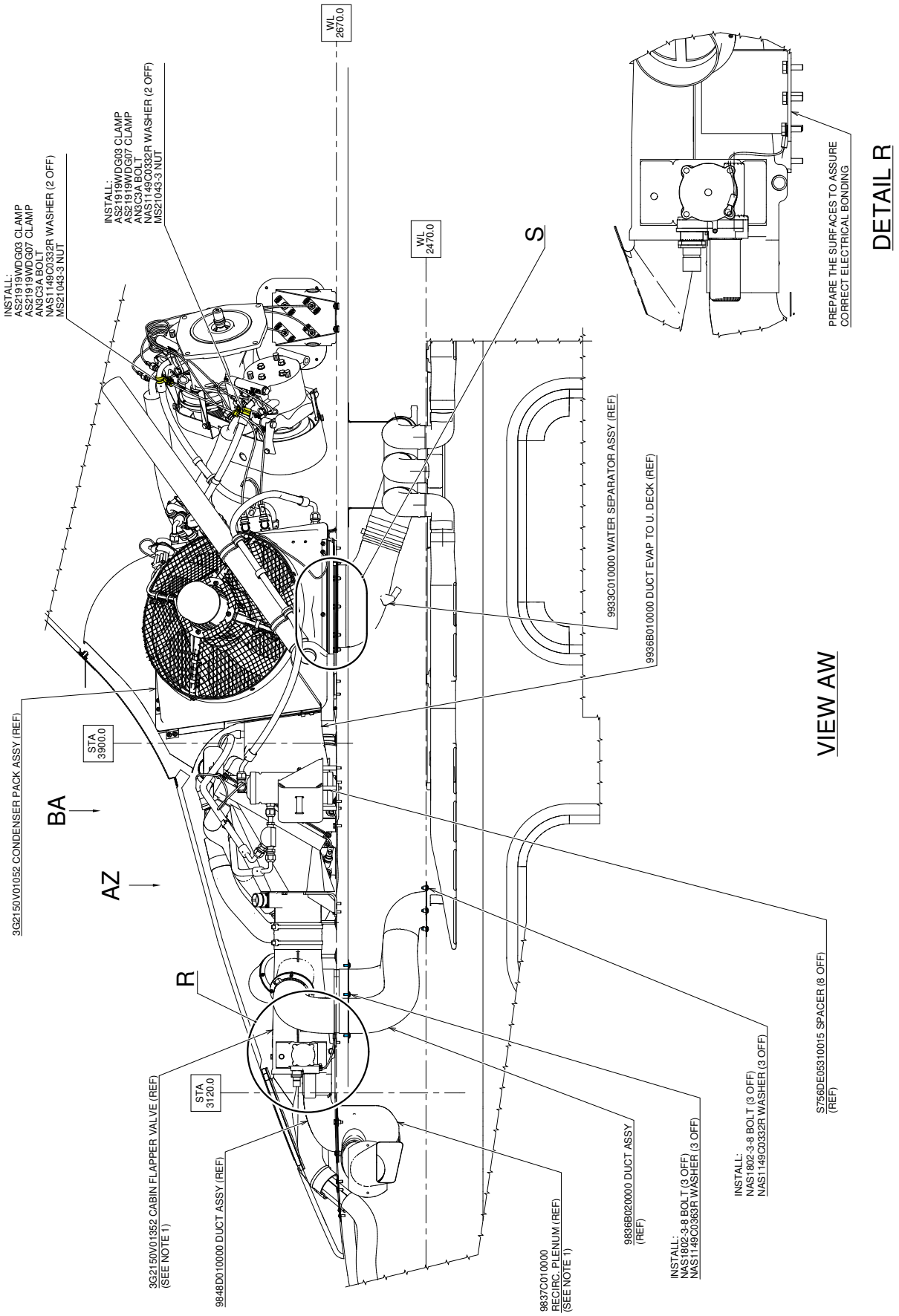

WL 2670.0
WL 2470.0
STA 3900.0
STA 3120.0
BA
AZ
R
S
VIEW AW
DETAIL R
INSTALL:
AS21919WDG03 CLAMP
AS21919WDG07 CLAMP
AN3C3A BOLT
NAS1149C0332R WASHER (2 OFF)
MS21043-3 NUT
INSTALL:
AS21919WDG03 CLAMP
AS21919WDG07 CLAMP
AN3C3A BOLT
NAS1149C0332R WASHER (2 OFF)
MS21043-3 NUT
PREPARE THE SURFACES TO ASSURE CORRECT ELECTRICAL BONDING
3G2150V01052 CONDENSER PACK ASSY (REF)
9933C010000 WATER SEPARATOR ASSY (REF)
9936B010000 DUCT EVAP TO U. DECK (REF)
S756DE053100015 SPACER (8 OFF) (REF)
INSTALL:
NAS1802-3-8 BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
9836B020000 DUCT ASSY (REF)
INSTALL:
NAS1802-3-8 BOLT (3 OFF)
NAS1149C0363R WASHER (3 OFF)
9837C010000
RECIRC. PLENUM (REF)
(SEE NOTE 1)
9848D010000 DUCT ASSY (REF)
3G2150V01352 CABIN FLAPPER VALVE (REF)
(SEE NOTE 1)

Figure 15

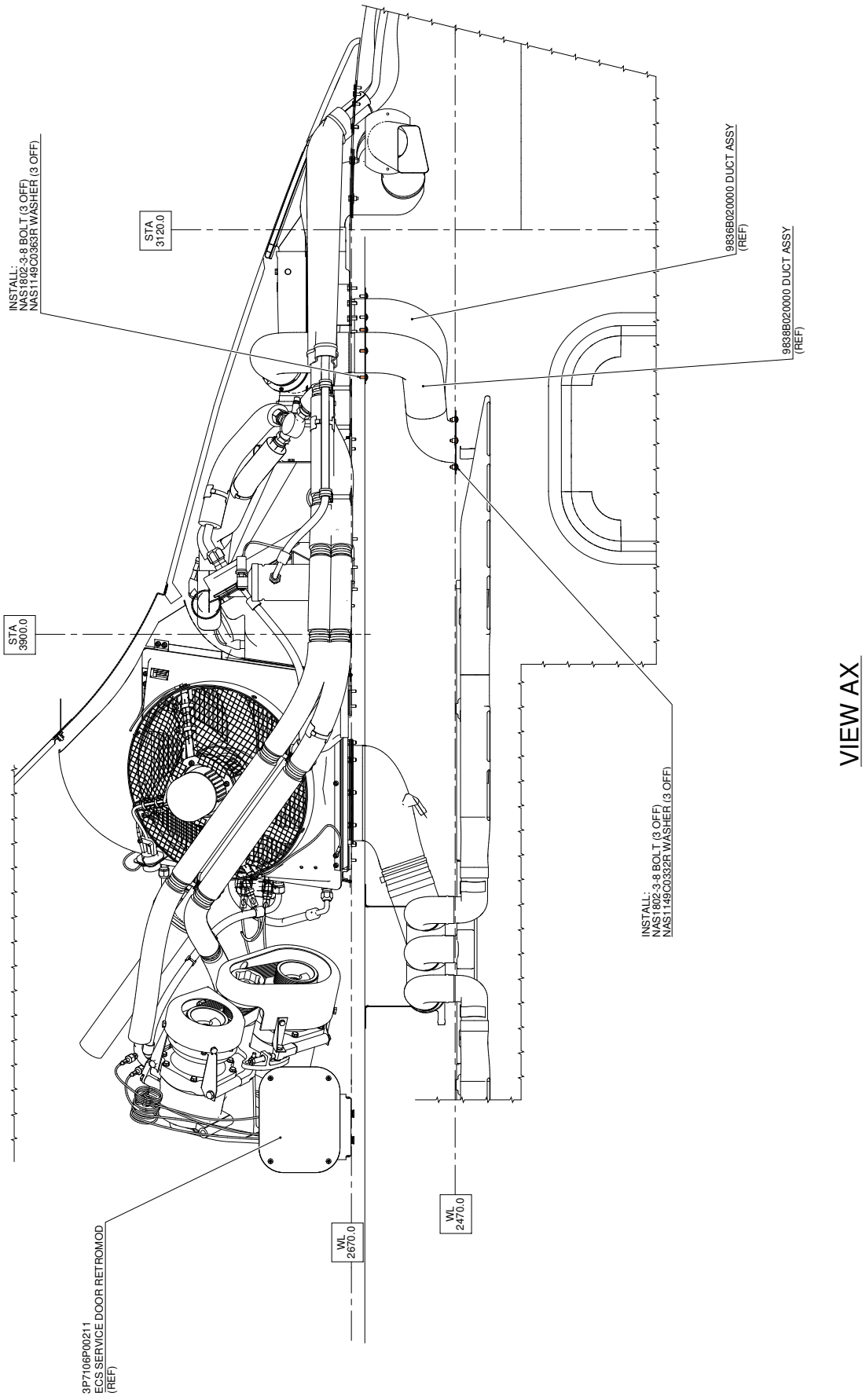

INSTALL:
NAS1802-3-8 BOLT (3 OFF)
NAS1149C0363R WASHER (3 OFF)
STA
3120.0
9836B020000 DUCT ASSY
(REF)
9838B020000 DUCT ASSY
(REF)
STA
3900.0
INSTALL:
NAS1802-3-8 BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
WL
2470.0
WL
2670.0
3P7106P00211
ECS SERVICE DOOR RETROMOD
(REF)
VIEW AX

Figure 16

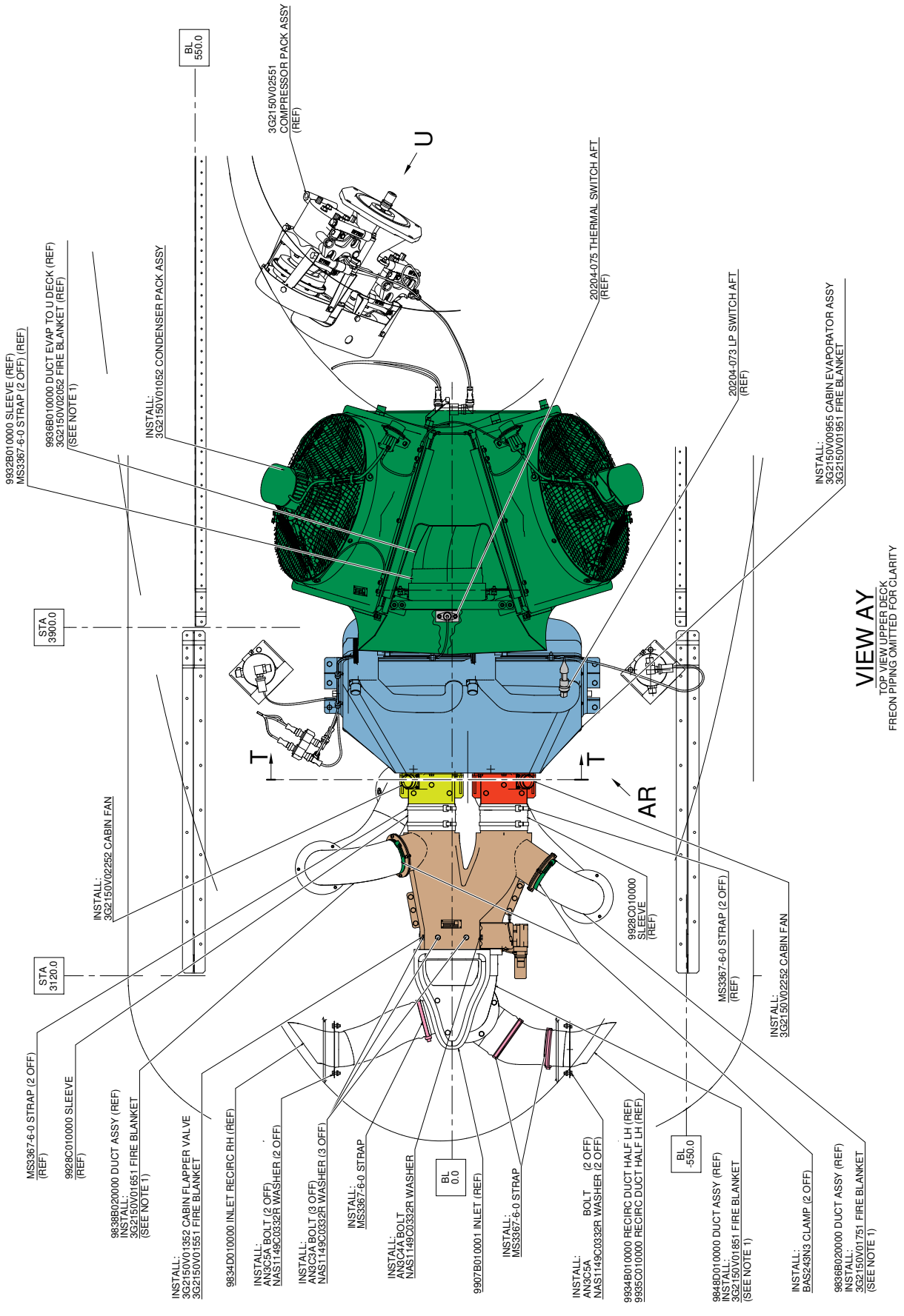

VIEW AY
TOP VIEW UPPER DECK
FREON PIPING OMITTED FOR CLARITY
U
T
T
AR
BL 550.0
STA 3900.0
STA 3120.0
BL 0.0
BL -550.0
3G2150V02551 COMPRESSOR PACK ASSY (REF)
20204-075 THERMAL SWITCH AFT (REF)
20204-073 LP SWITCH AFT (REF)
INSTALL: 3G2150V01052 CONDENSER PACK ASSY
INSTALL: 3G2150V00955 CABIN EVAPORATOR ASSY
INSTALL: 3G2150V01951 FIRE BLANKET
9932B010000 SLEEVE (REF)
MS3367-6-0 STRAP (2 OFF) (REF)
9936B010000 DUCT EVAP TO U DECK (REF)
3G2150V02052 FIRE BLANKET (REF)
(SEE NOTE 1)
INSTALL: 3G2150V02252 CABIN FAN
MS3367-6-0 STRAP (2 OFF) (REF)
9928C010000 SLEEVE (REF)
9839B020000 DUCT ASSY (REF)
INSTALL: 3G2150V01651 FIRE BLANKET
(SEE NOTE 1)
INSTALL: 3G2150V01352 CABIN FLAPPER VALVE
3G2150V01551 FIRE BLANKET
9834D010000 INLET RECIRC RH (REF)
INSTALL: AN3C5A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
INSTALL: AN3C3A BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
INSTALL: MS3367-6-0 STRAP
INSTALL: AN3C4A BOLT
NAS1149C0332R WASHER
9907B010001 INLET (REF)
INSTALL: MS3367-6-0 STRAP
INSTALL: AN3C5A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
9934B010000 RECIRC DUCT HALF LH (REF)
9935C010000 RECIRC DUCT HALF LH (REF)
9928C010000 SLEEVE (REF)
MS3367-6-0 STRAP (2 OFF) (REF)
INSTALL: 3G2150V02252 CABIN FAN
9849D010000 DUCT ASSY (REF)
INSTALL: 3G2150V01851 FIRE BLANKET
(SEE NOTE 1)
INSTALL: BAS243N3 CLAMP (2 OFF)
9836B020000 DUCT ASSY (REF)
INSTALL: 3G2150V01751 FIRE BLANKET
(SEE NOTE 1)

Figure 17

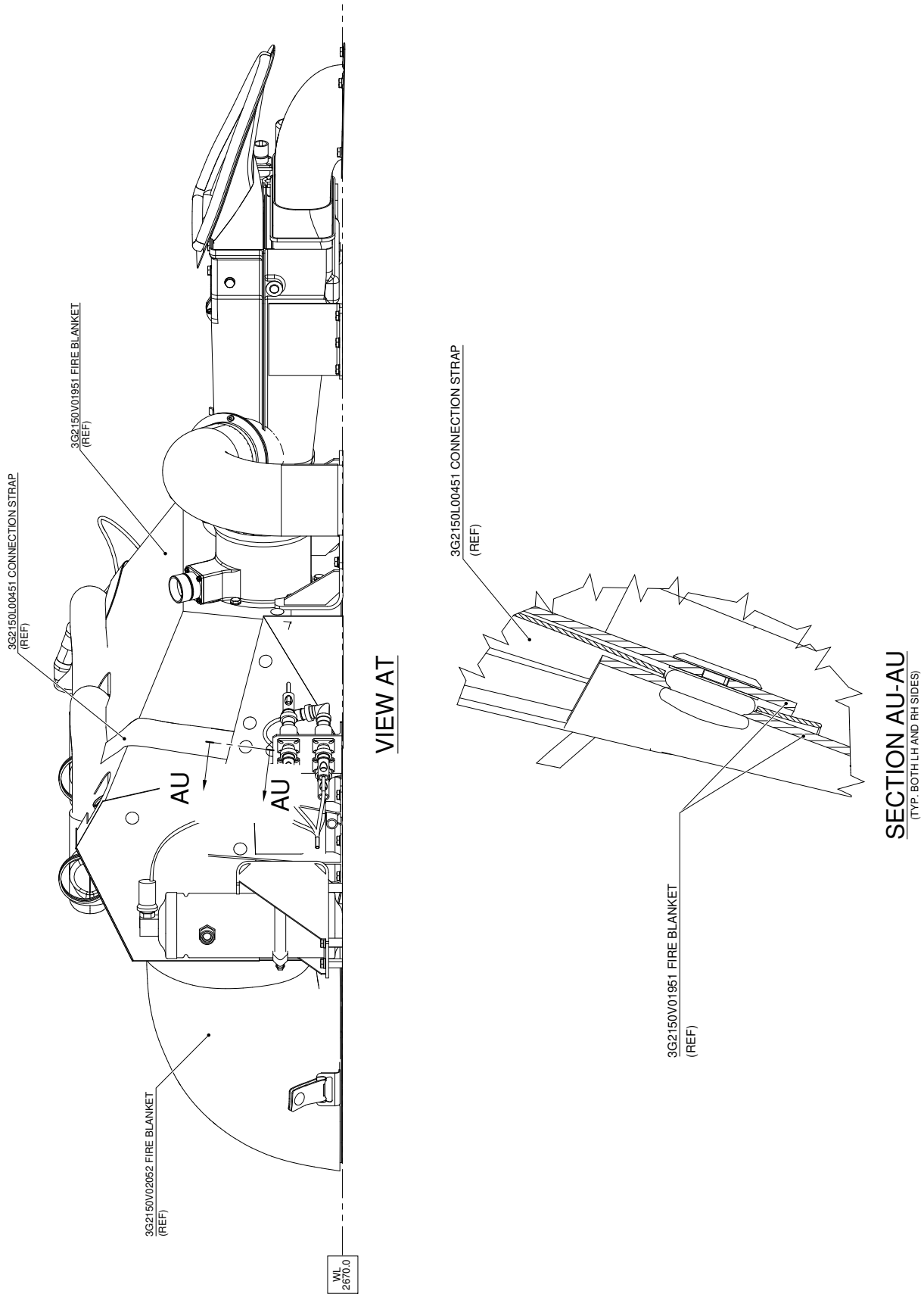
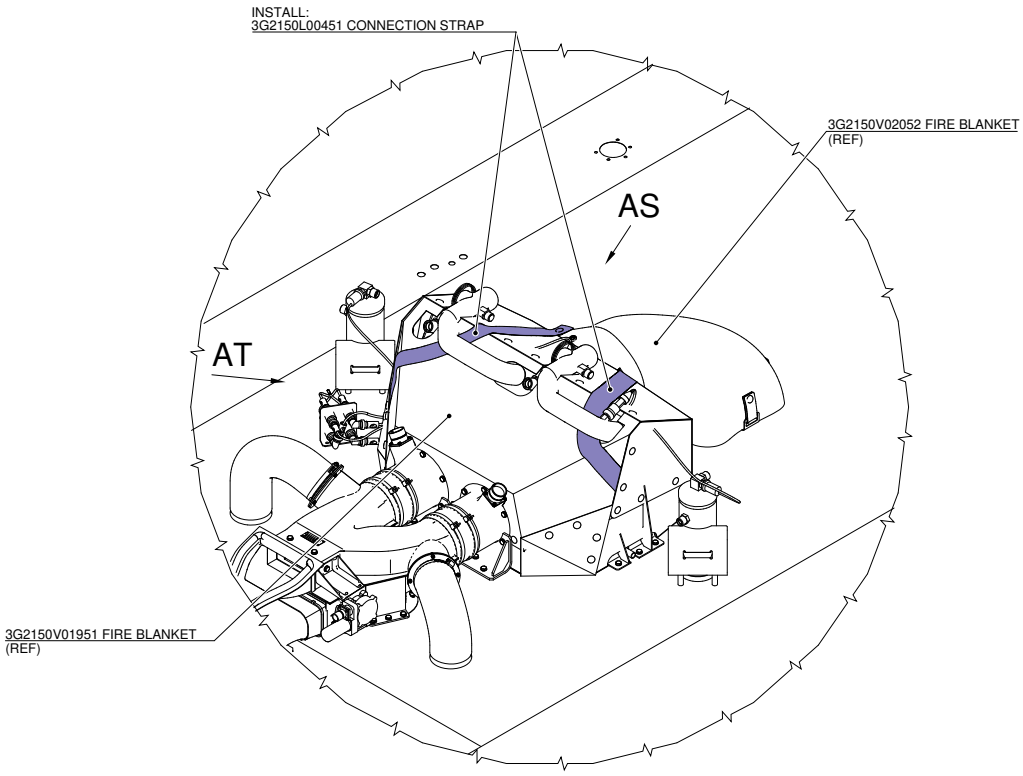
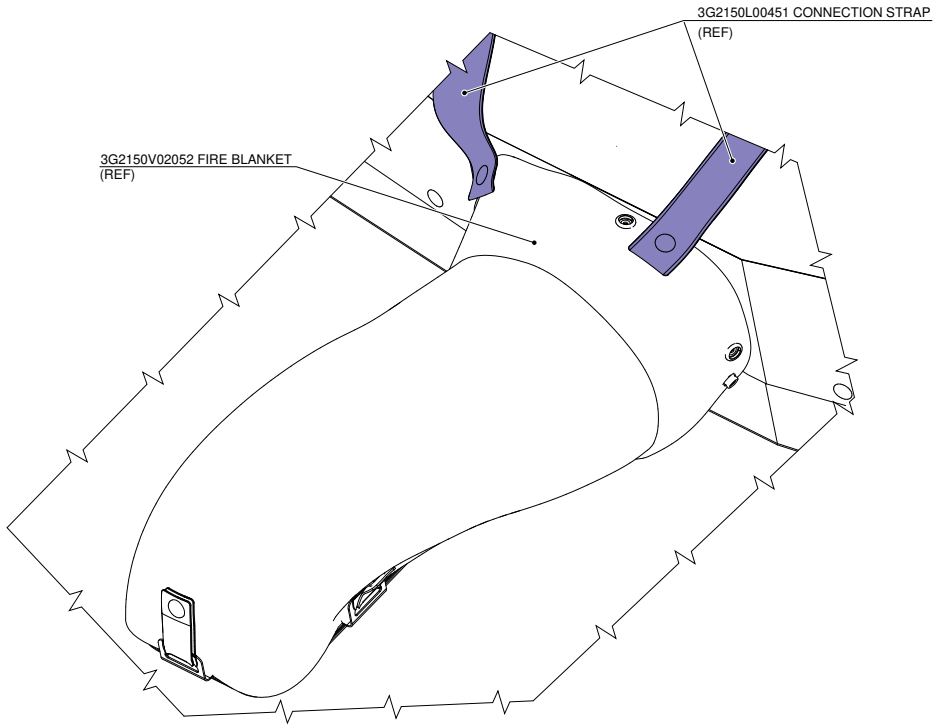

3G2150L00451 CONNECTION STRAP
(REF)
3G2150V01951 FIRE BLANKET
(REF)
AU
AU
VIEW AT
3G2150V02052 FIRE BLANKET
(REF)
WL
2670.0
3G2150L00451 CONNECTION STRAP
(REF)
3G2150V01951 FIRE BLANKET
(REF)
SECTION AU-AU
(TYP. BOTH LH AND RH SIDES)

Figure 18

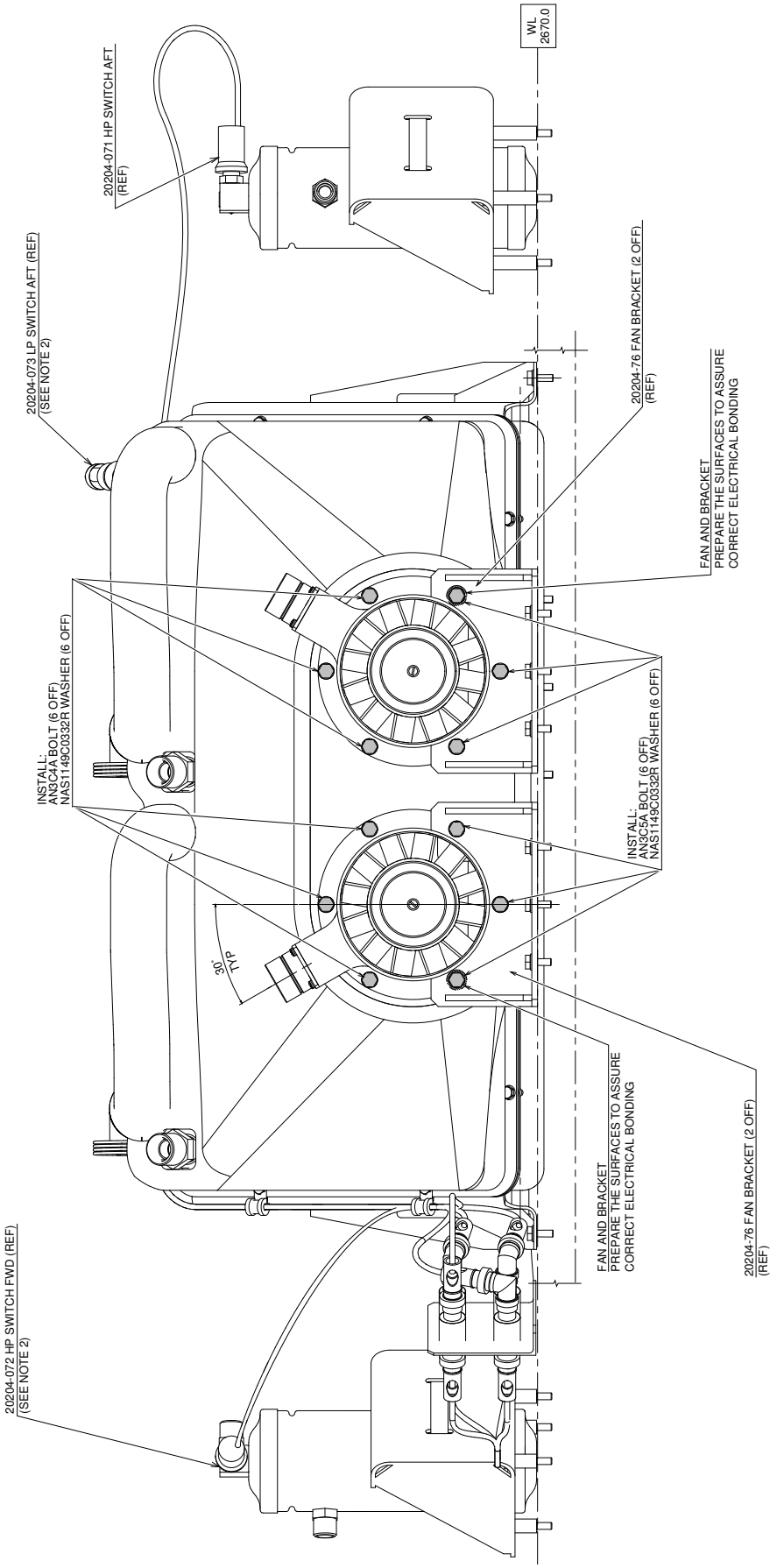


DETAIL AR



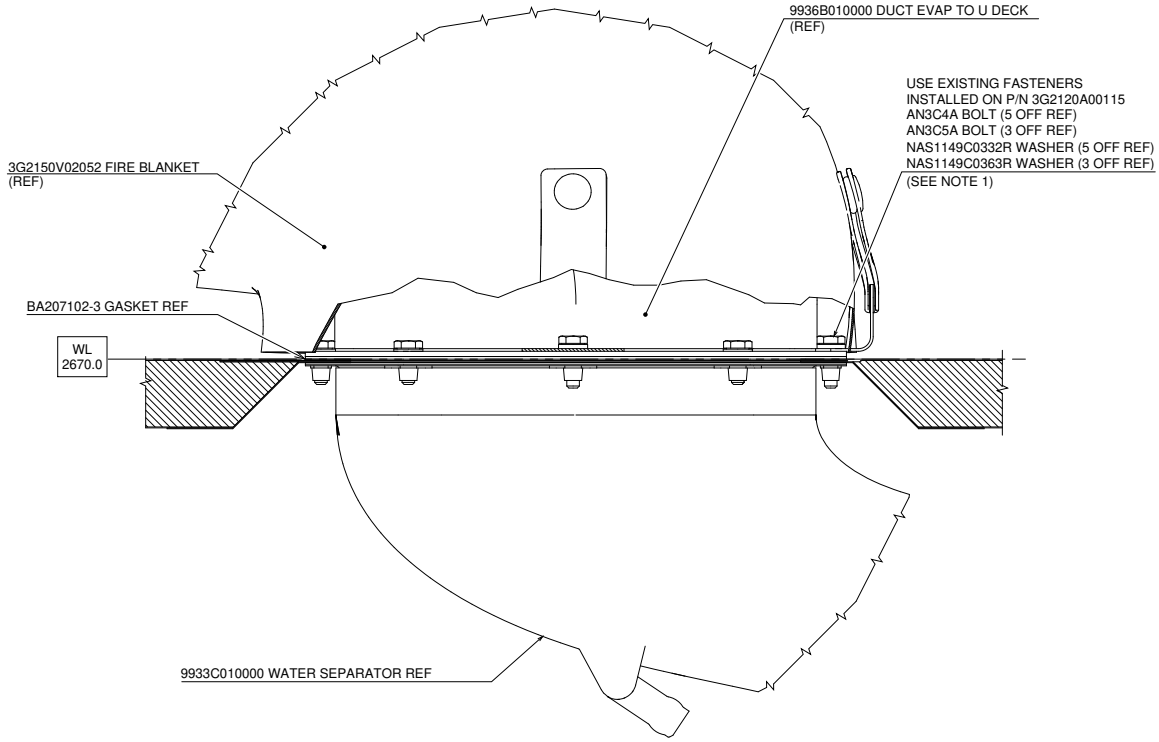
DETAIL AS

Figure 19

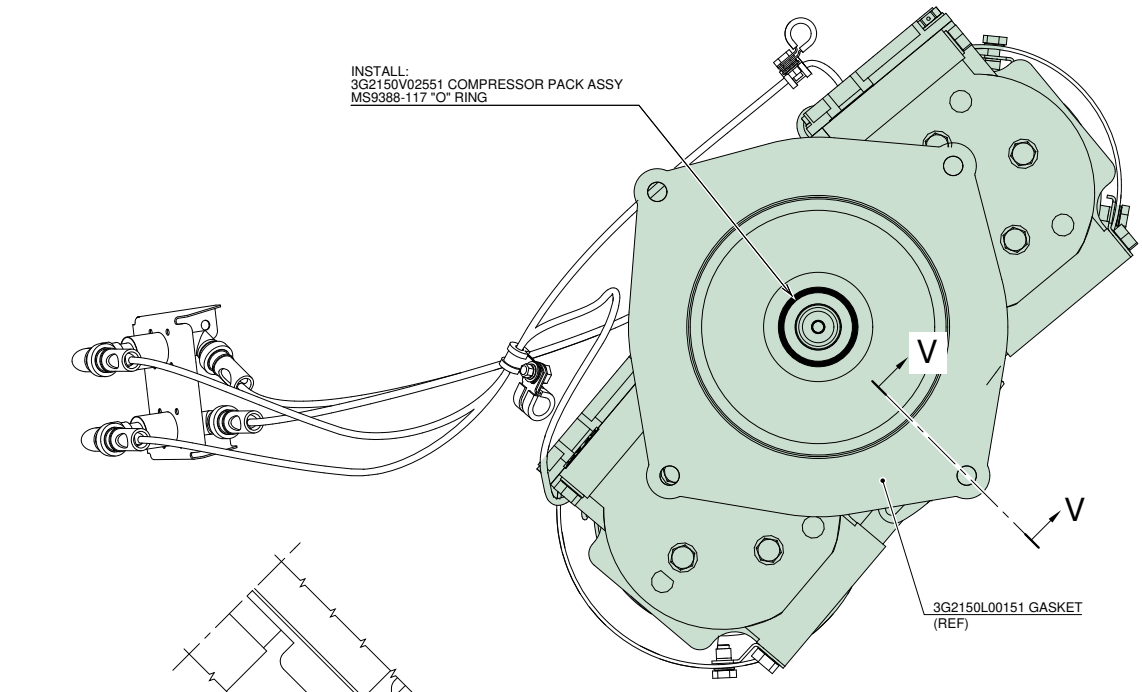


PARTIAL SECTION T-T

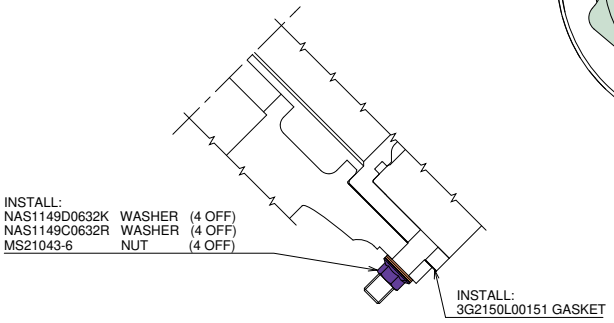
Figure 20



DETAIL S



PARTIAL VIEW U



PARTIAL SECTION V-V

Figure 21

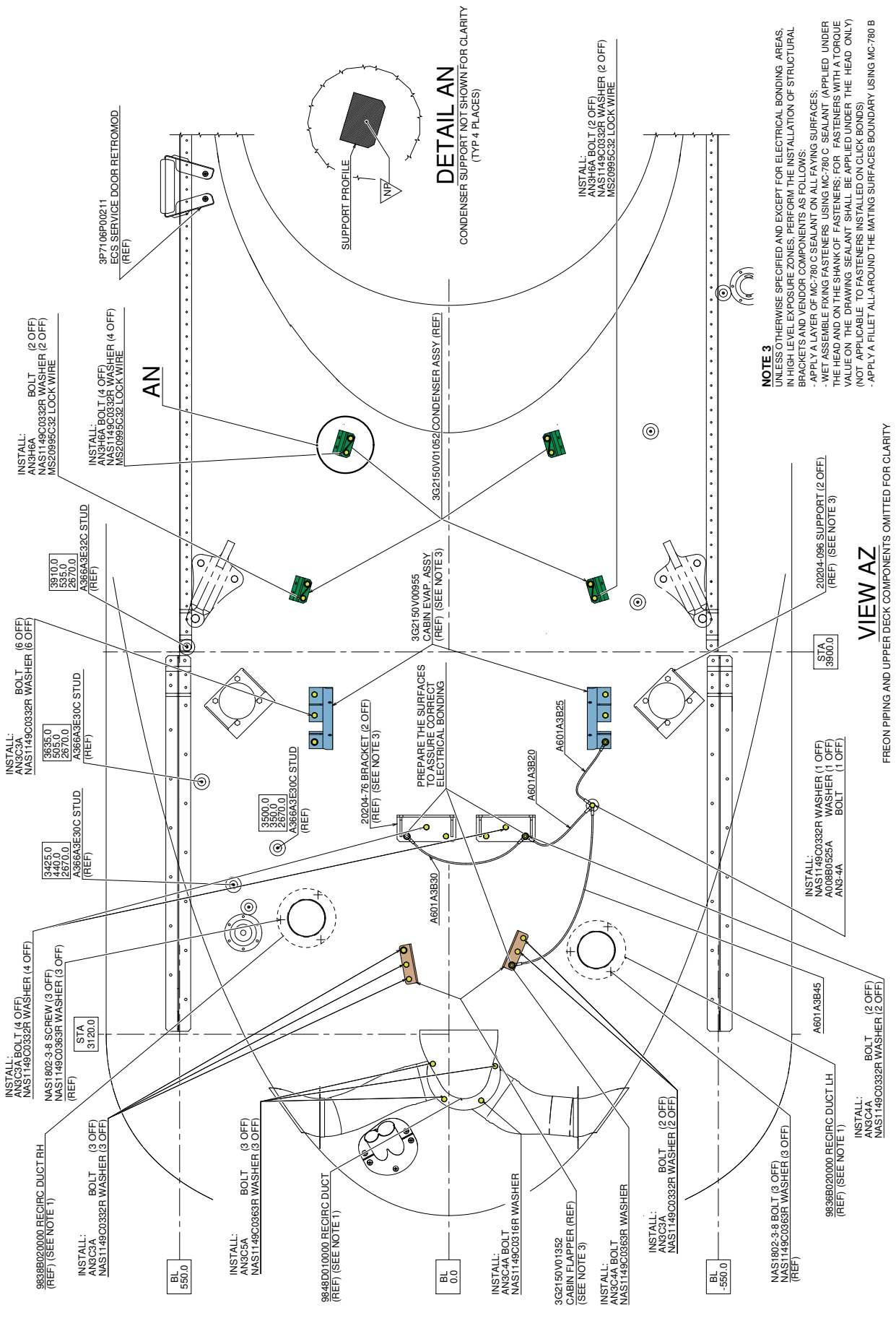

DETAIL AN
CONDENSER SUPPORT NOT SHOWN FOR CLARITY
(TYP 4 PLACES)
SUPPORT PROFILE
NP
AN
VIEW AZ
FREON PIPING AND UPPER DECK COMPONENTS OMITTED FOR CLARITY
3P7106P00211
ECS SERVICE DOOR RETROMOD
(REF)
INSTALL:
AN3H6A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
MS20995C32 LOCK WIRE
INSTALL:
AN3H6A BOLT (4 OFF)
NAS1149C0332R WASHER (4 OFF)
MS20995C32 LOCK WIRE
3G2150V01052 CONDENSER ASSY (REF)
INSTALL:
AN3H6A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
MS20995C32 LOCK WIRE
NOTE 3
UNLESS OTHERWISE SPECIFIED AND EXCEPT FOR ELECTRICAL BONDING AREAS, IN HIGH LEVEL EXPOSURE ZONES, PERFORM THE INSTALLATION OF STRUCTURAL BRACKETS AND VENDOR COMPONENTS AS FOLLOWS:
- APPLY A LAYER OF MC-780 C SEALANT ON ALL FAYING SURFACES;
- WET ASSEMBLE FIXING FASTENERS USING MC-780 C SEALANT (APPLIED UNDER THE HEAD AND ON THE SHANK OF FASTENERS; FOR FASTENERS WITH A TORQUE VALUE ON THE DRAWING SEALANT SHALL BE APPLIED UNDER THE HEAD ONLY) (NOT APPLICABLE TO FASTENERS INSTALLED ON CLICK BONDS)
- APPLY A FILLET ALL-AROUND THE MATING SURFACES BOUNDARY USING MC-780 B
INSTALL:
AN3C3A BOLT (6 OFF)
NAS1149C0332R WASHER (6 OFF)
3635.0
3670.0
2670.0
A366A3E30C STUD
(REF)
3425.0
3460.0
2670.0
A366A3E30C STUD
(REF)
3910.0
535.0
2670.0
A366A3E32C STUD
(REF)
3500.0
350.0
2670.0
A366A3E30C STUD
(REF)
20204-76 BRACKET (2 OFF)
(REF) (SEE NOTE 3)
PREPARE THE SURFACES
TO ENSURE CORRECT
ELECTRICAL BONDING
3G2150V00955
CABIN EVAP ASSY
(REF) (SEE NOTE 3)
A601A3B30
A601A3B20
A601A3B25
A601A3B45
20204-096 SUPPORT (2 OFF)
(REF) (SEE NOTE 3)
STA
3900.0
INSTALL:
NAS1149C0332R WASHER (1 OFF)
A0088D0525A WASHER (1 OFF)
AN3-4A BOLT (1 OFF)
INSTALL:
AN3C3A BOLT (4 OFF)
NAS1149C0332R WASHER (4 OFF)
NAS1802-3-8 SCREW (3 OFF)
NAS1149C0363R WASHER (3 OFF)
(REF)
STA
3120.0
9838B020000 RECIRC DUCT RH
(REF) (SEE NOTE 1)
INSTALL:
AN3C3A BOLT (3 OFF)
NAS1149C0332R WASHER (3 OFF)
INSTALL:
AN3C5A BOLT (3 OFF)
NAS1149C0363R WASHER (3 OFF)
9848D010000 RECIRC DUCT
(REF) (SEE NOTE 1)
INSTALL:
AN3C4A BOLT
NAS1149C0316R WASHER
3G2150V01352
CABIN FLAPPER (REF)
(SEE NOTE 3)
INSTALL:
AN3C4A BOLT
NAS1149C0369R WASHER
INSTALL:
AN3C3A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
INSTALL:
AN3C4A BOLT (2 OFF)
NAS1149C0332R WASHER (2 OFF)
9838B020000 RECIRC DUCT LH
(REF) (SEE NOTE 1)
NAS1802-3-8 BOLT (3 OFF)
NAS1149C0363R WASHER (3 OFF)
(REF)
BL
550.0
BL
0.0
BL
-550.0

Figure 22

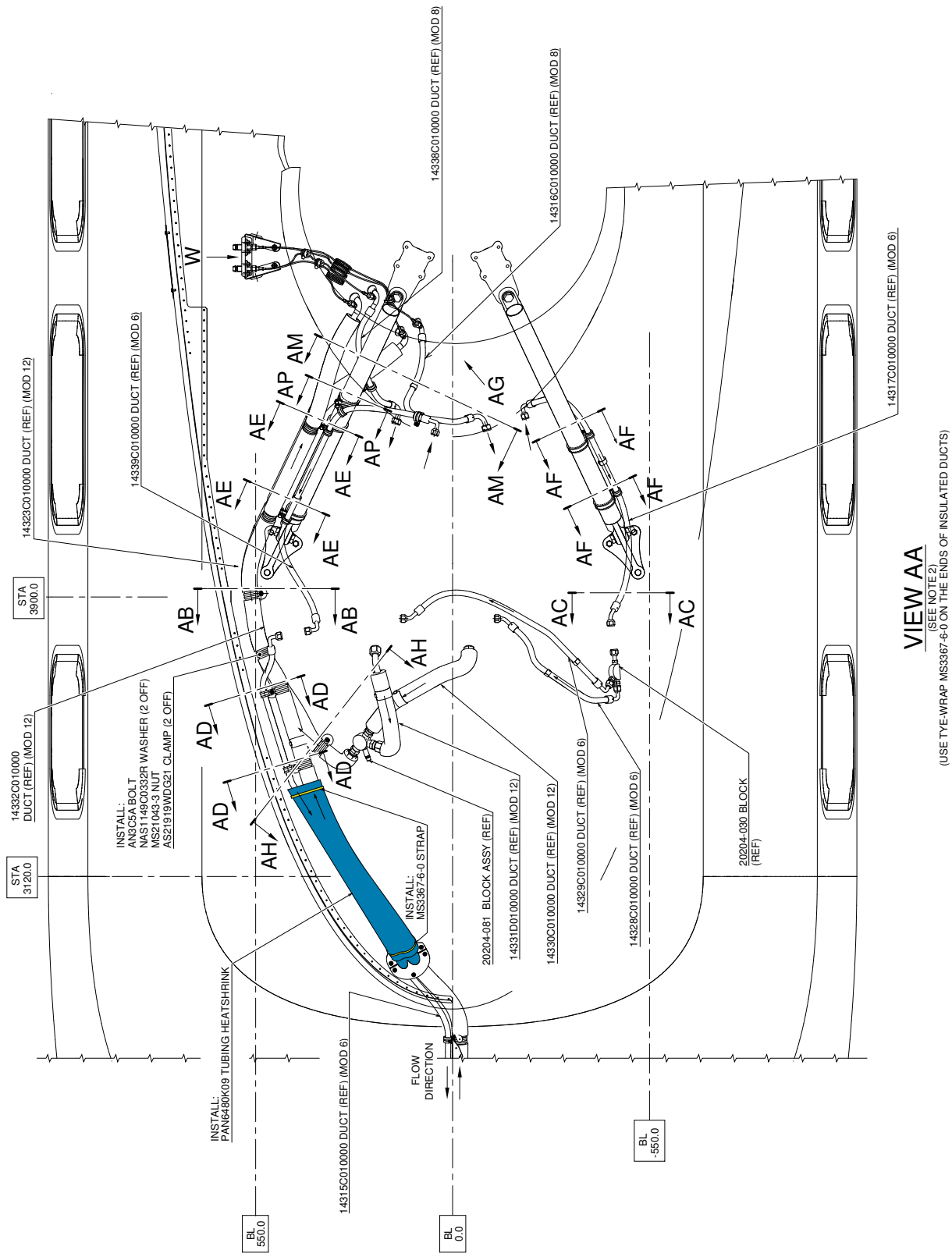
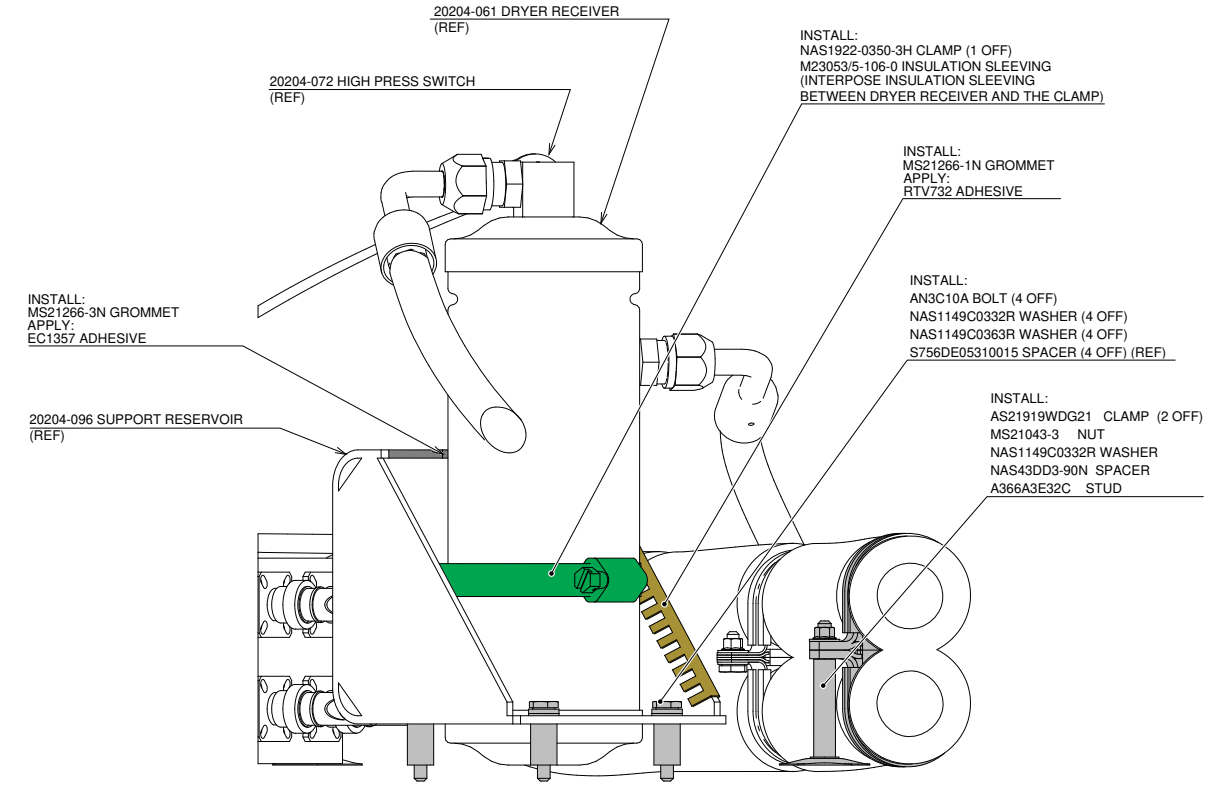
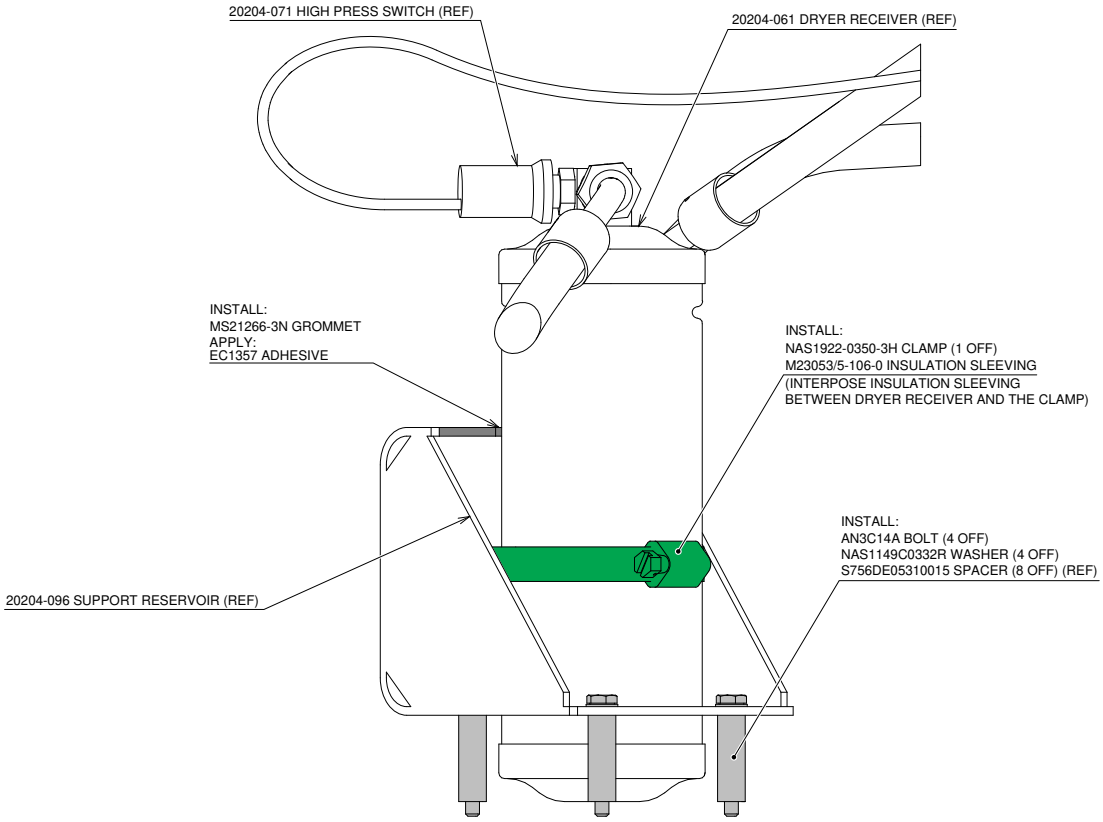

14338C010000 DUCT (REF) (MOD 8)
14316C010000 DUCT (REF) (MOD 8)
14323C010000 DUCT (REF) (MOD 12)
14339C010000 DUCT (REF) (MOD 6)
14317C010000 DUCT (REF) (MOD 6)
STA 3900.0
STA 3120.0
14332C010000 DUCT (REF) (MOD 12)
INSTALL:
AN3C5A BOLT
NAS1149C0332R WASHER (2 OFF)
MS21043-3 NUT
AS21919WDG21 CLAMP (2 OFF)
INSTALL:
PAN6480K09 TUBING HEATSHRINK
14315C010000 DUCT (REF) (MOD 6)
INSTALL:
MS3367-6-0 STRAP
20204-081 BLOCK ASSY (REF)
14331D010000 DUCT (REF) (MOD 12)
14330C010000 DUCT (REF) (MOD 12)
14329C010000 DUCT (REF) (MOD 6)
14328C010000 DUCT (REF) (MOD 6)
20204-030 BLOCK (REF)
FLOW DIRECTION
BL 550.0
BL 0.0
BL -550.0
W
AB
AC
AD
AE
AF
AG
AH
AM
AP
VIEW AA
(SEE NOTE 2)
(USE TYE-WRAP MS3367-6-0 ON THE ENDS OF INSULATED DUCTS)

Figure 23

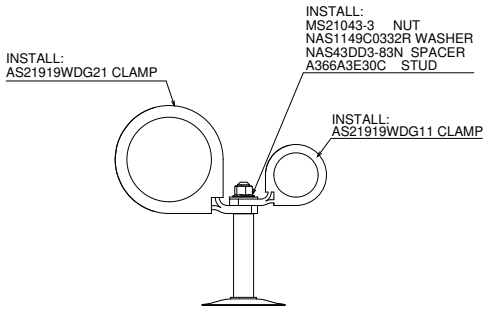


SECTION AB-AB

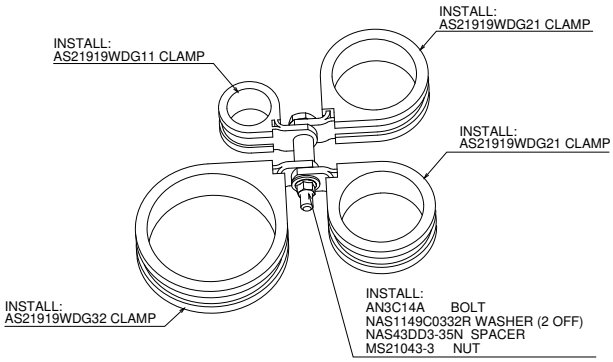


SECTION AC-AC

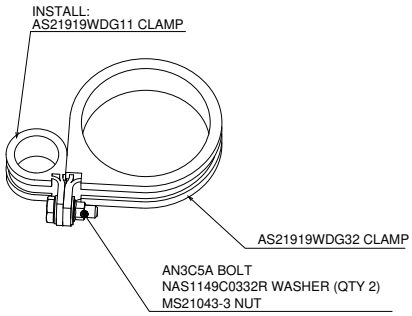
Figure 24



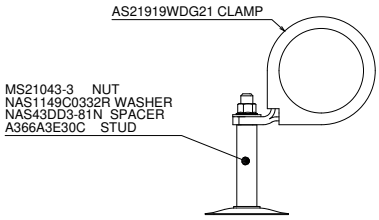
SECTION AD-AD
(TYP 2 PLACES)



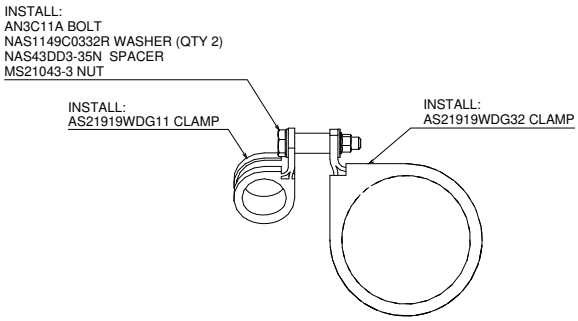
SECTION AE-AE
(TYP 2 PLACES)



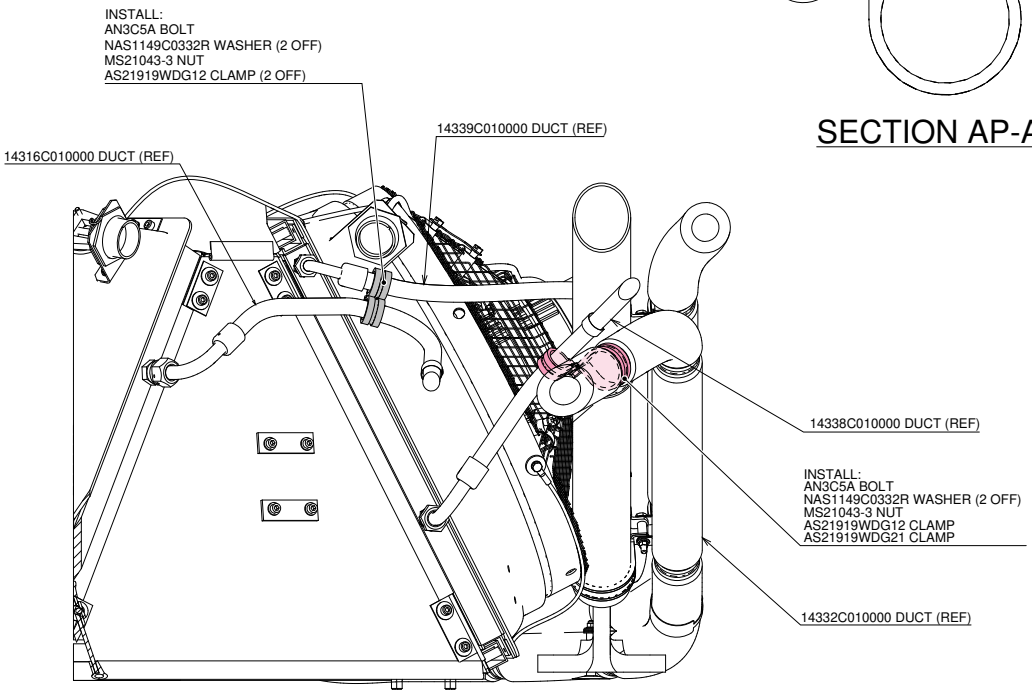
SECTION AF-AF
(TYP 2 PLACES)



SECTION AH-AH

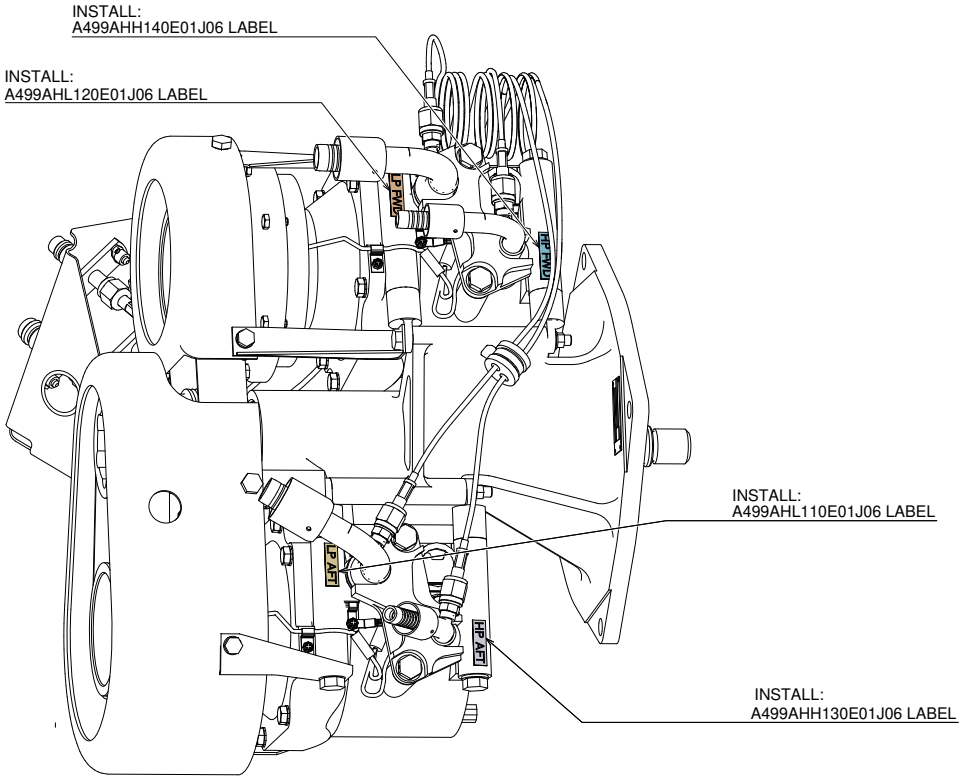


SECTION AP-AP

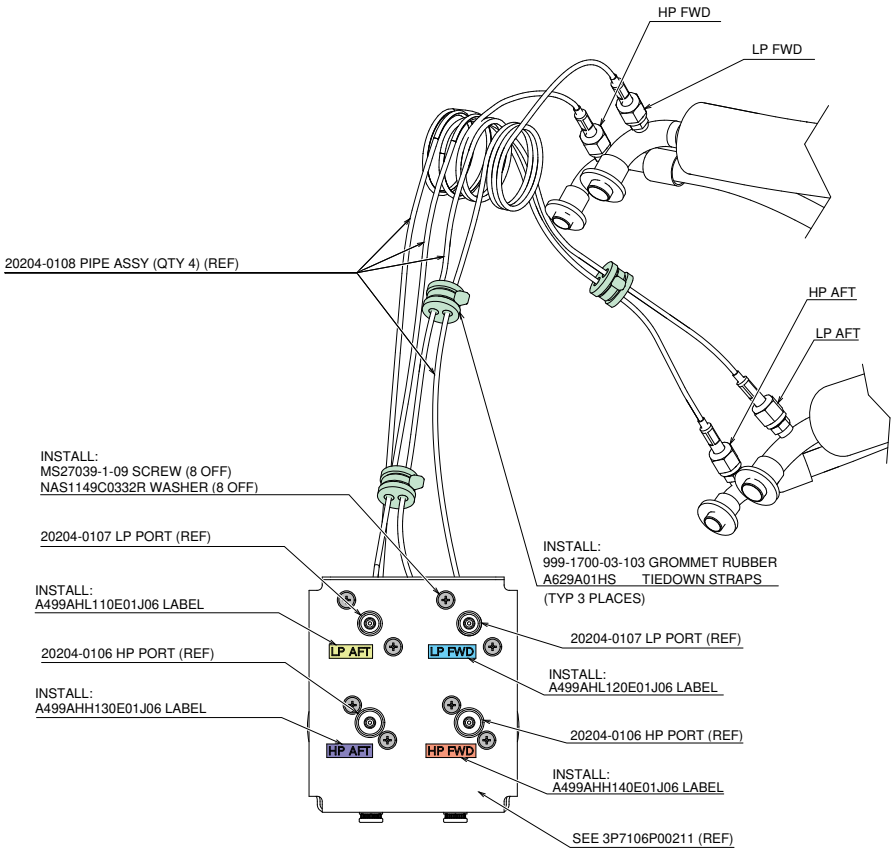


SECTION AM-AM

Figure 25



VIEW AG



VIEW W
ROTATED 180°

Figure 26

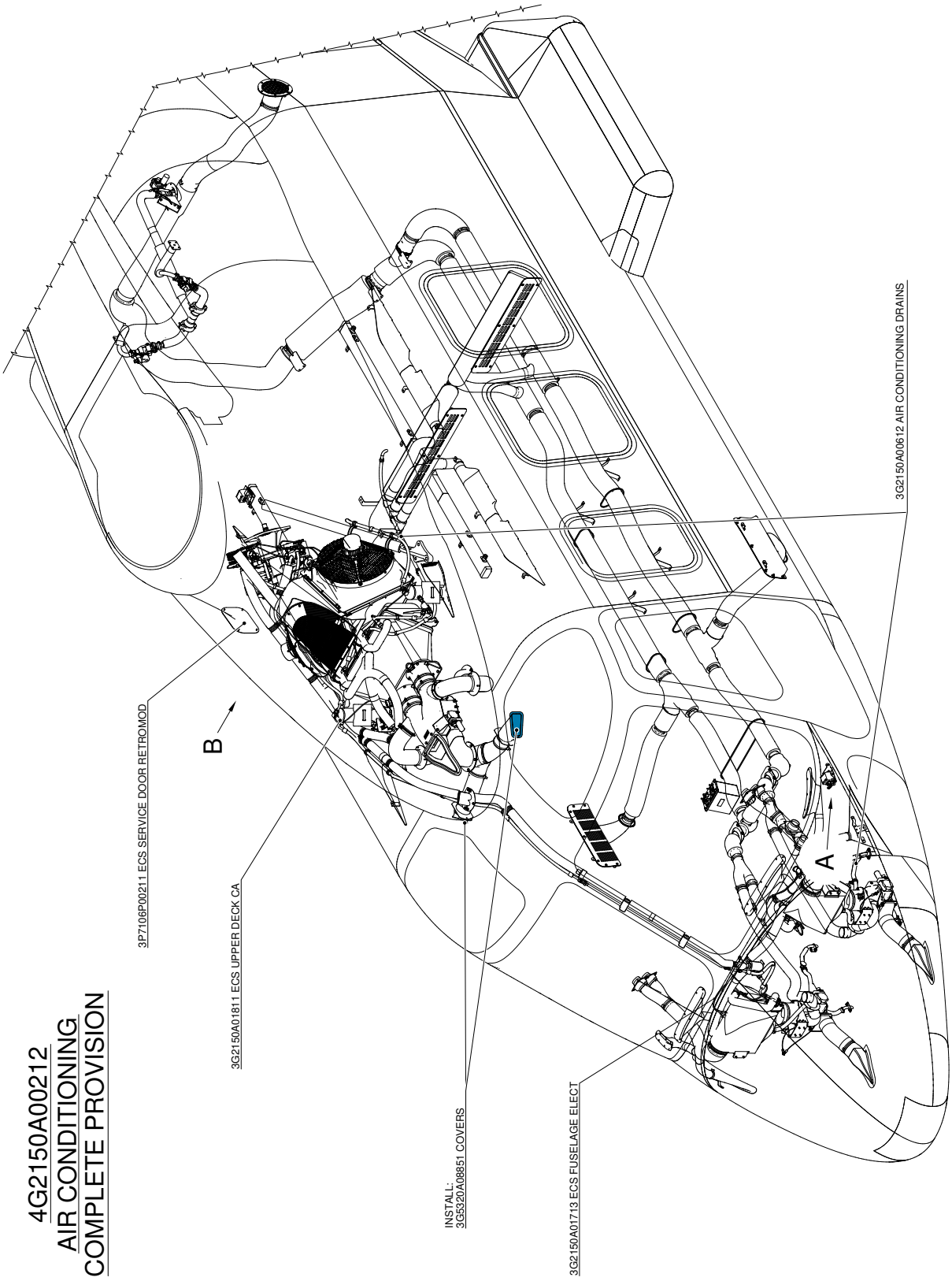
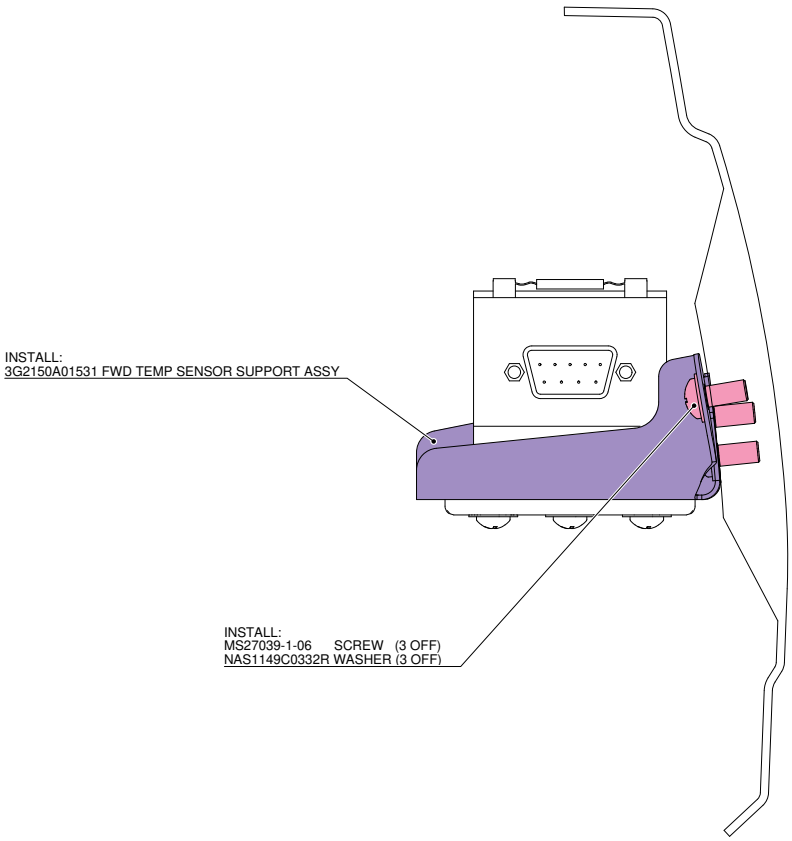
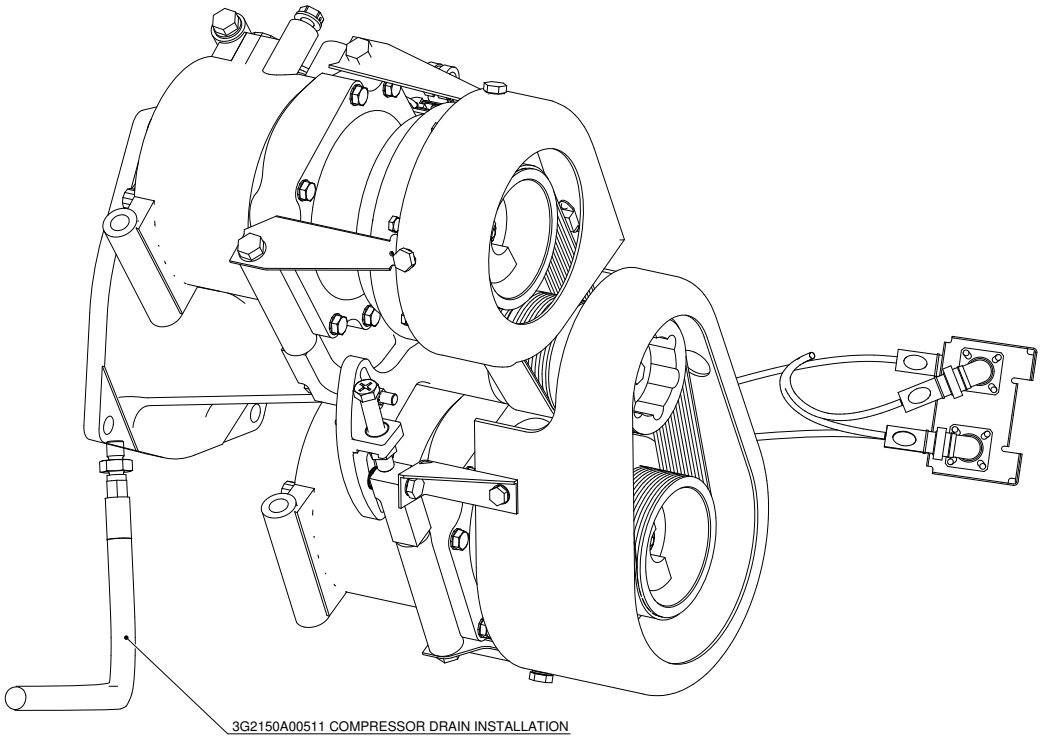

4G2150A00212
AIR CONDITIONING
COMPLETE PROVISION
3P7106P00211 ECS SERVICE DOOR RETROMOD
B
3G2150A01811 ECS UPPER DECK CA
INSTALL:
3G5320A08851 COVERS
3G2150A01713 ECS FUSELAGE ELECT
A
3G2150A00612 AIR CONDITIONING DRAINS

Figure 27



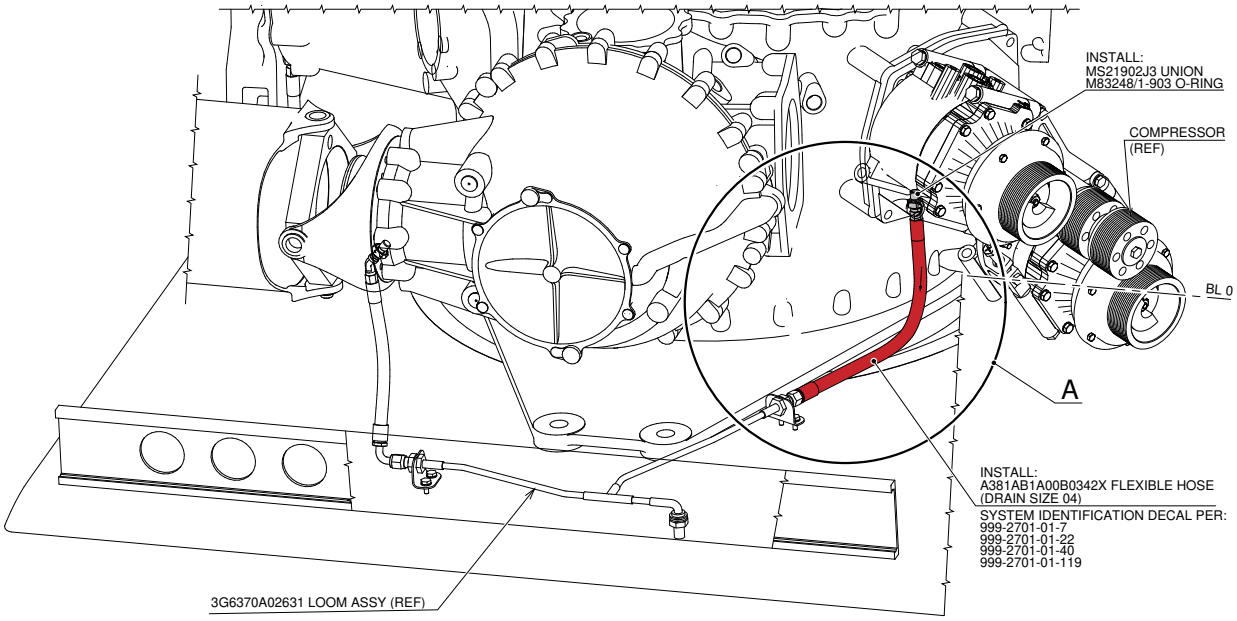
VIEW A
VIEW LOOKING AFT



VIEW B
FREON, STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

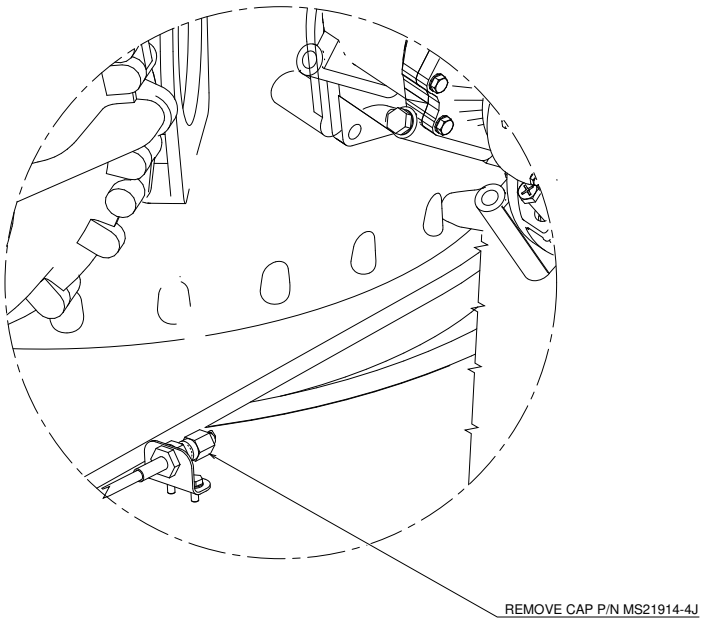
Figure 28

3G2150A00511
COMPRESSOR DRAIN
INSTALLATION



VIEW LOOKING INBOARD RHS

STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



DETAIL A

Figure 29

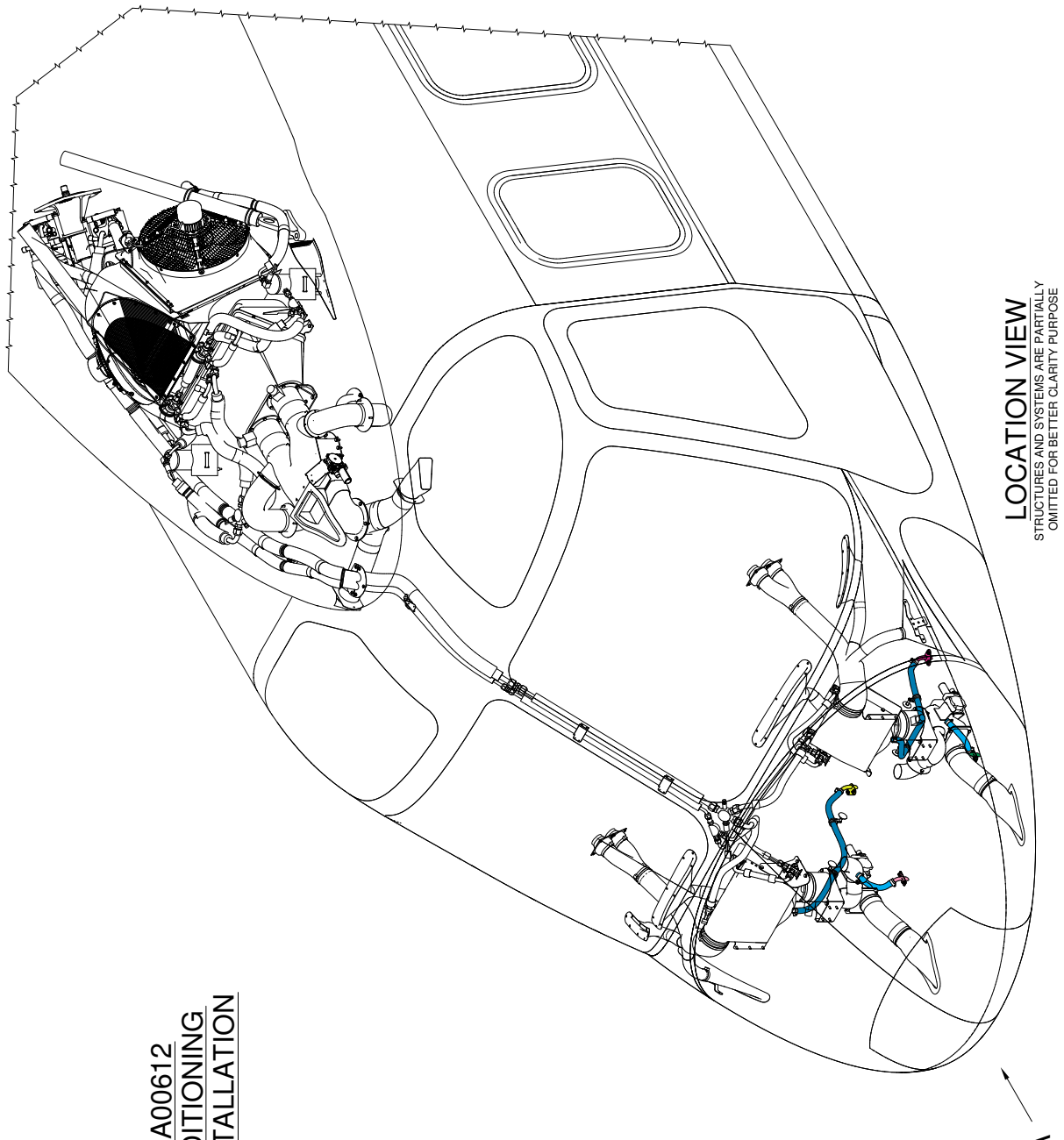

LOCATION VIEW
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
A
3G2150A00612
AIR CONDITIONING
DRAIN INSTALLATION

Figure 30

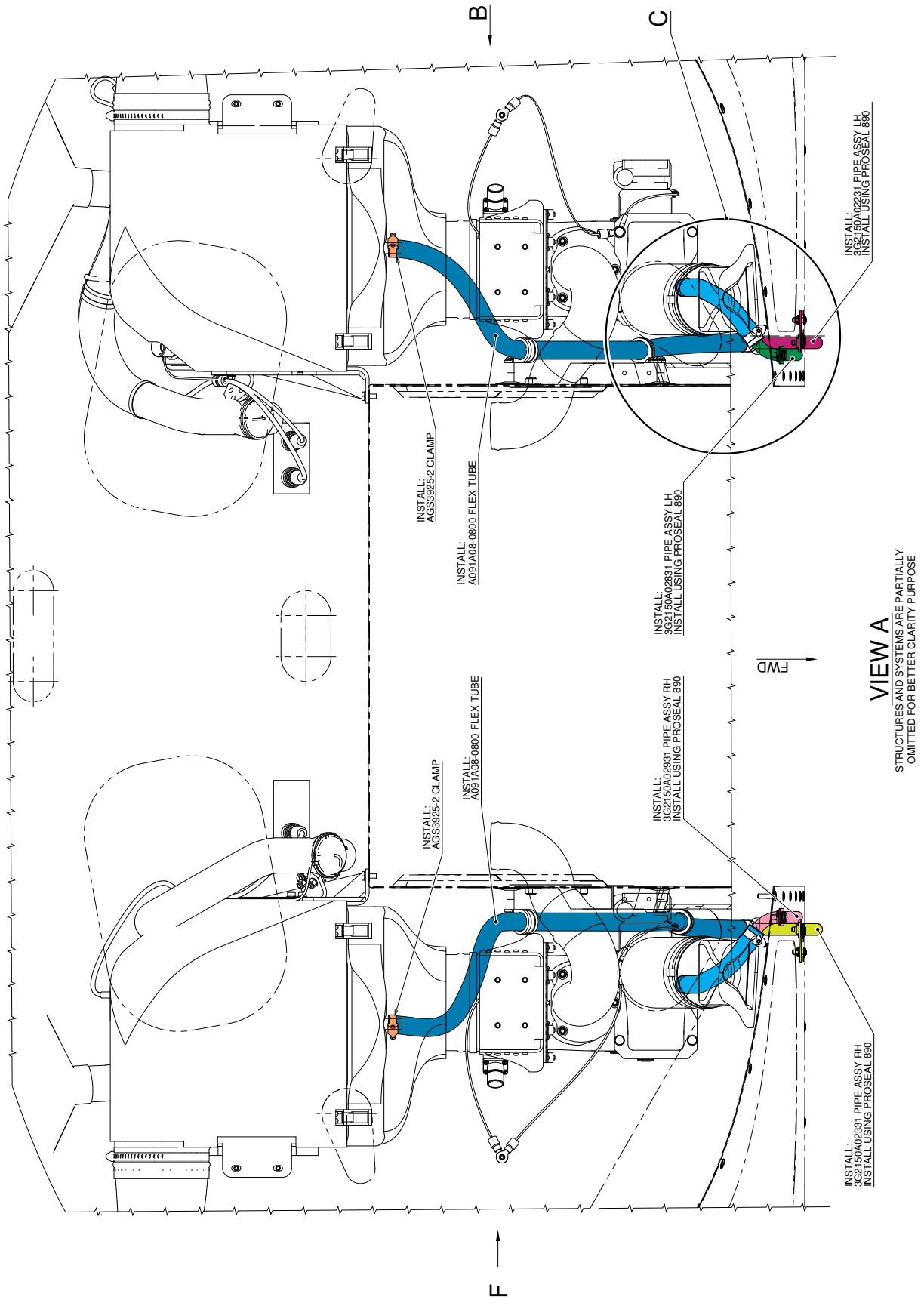

B
C
F
INSTALL:
3G2150A02231 PIPE ASSY LH
INSTALL USING PROSEAL 890
INSTALL:
AGS3925-2 CLAMP
INSTALL:
A091A08-0800 FLEX TUBE
INSTALL:
3G2150A02831 PIPE ASSY LH
INSTALL USING PROSEAL 890
FWD
VIEW A
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
INSTALL:
AGS3925-2 CLAMP
INSTALL:
A091A06-0800 FLEX TUBE
INSTALL:
3G2150A02931 PIPE ASSY RH
INSTALL USING PROSEAL 890
INSTALL:
3G2150A02231 PIPE ASSY RH
INSTALL USING PROSEAL 890

Figure 31

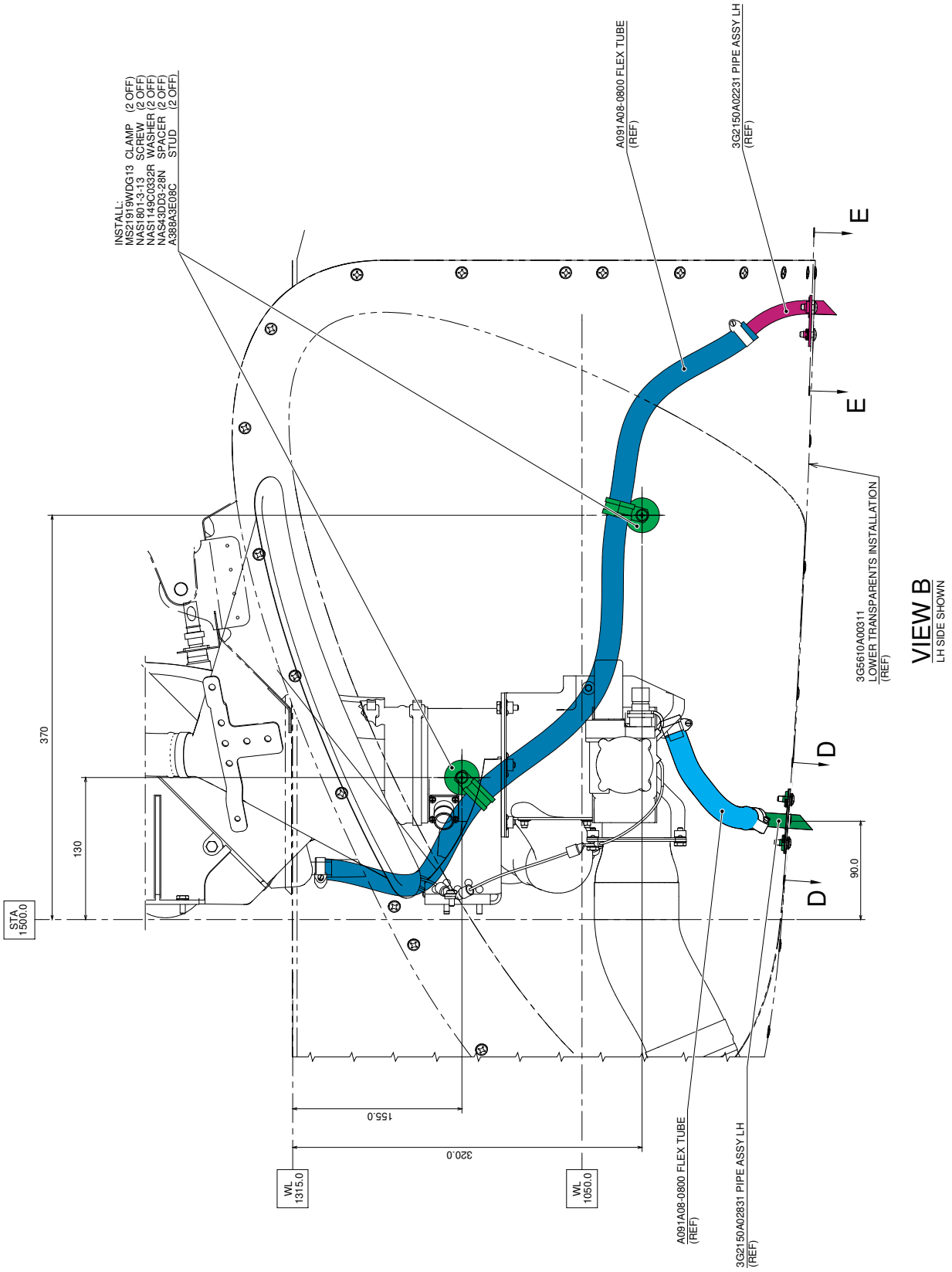
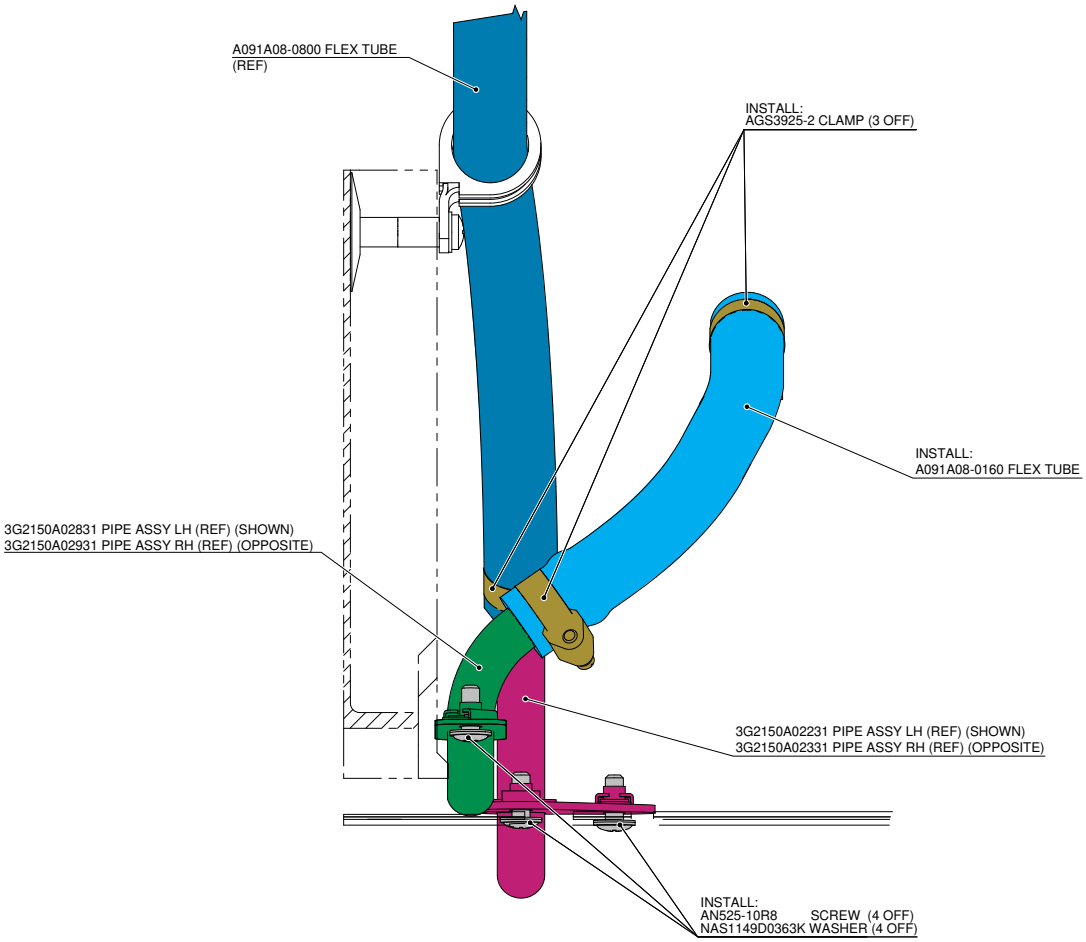
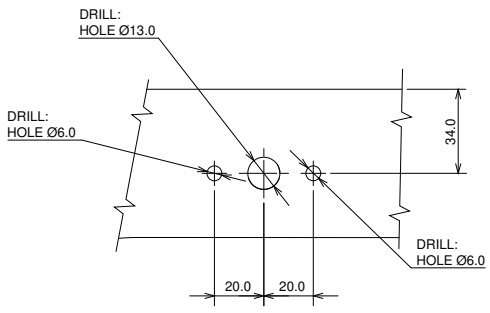

INSTALL:
MS21919WDG13 CLAMP (2 OFF)
NAS1801-3-13 SCREW (2 OFF)
NAS1149C0332R WASHER (2 OFF)
NAS43DD3-28N SPACER (2 OFF)
A388A3E08C STUD (2 OFF)
A091A08-0800 FLEX TUBE (REF)
3G2150A02231 PIPE ASSY LH (REF)
E
E
3G5610A00311 LOWER TRANSPARENTS INSTALLATION (REF)
VIEW B
LH SIDE SHOWN
D
D
90.0
370
130
STA 1500.0
155.0
320.0
WL 1315.0
WL 1050.0
A091A08-0800 FLEX TUBE (REF)
3G2150A02831 PIPE ASSY LH (REF)

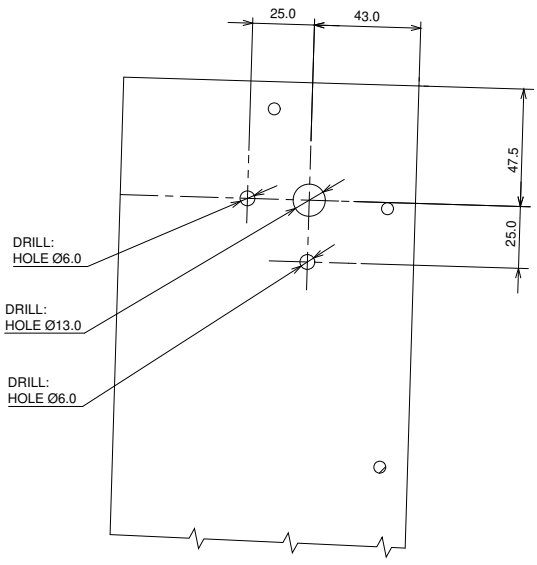
Figure 32



DETAIL C
LH SIDE SHOWN
TYP OPPOSITE SIDE



SECTION D-D
LH SIDE REPRESENTED
RH SIDE SYMMETRICAL



SECTION E-E
LH SIDE REPRESENTED
RH SIDE SYMMETRICAL

Figure 33

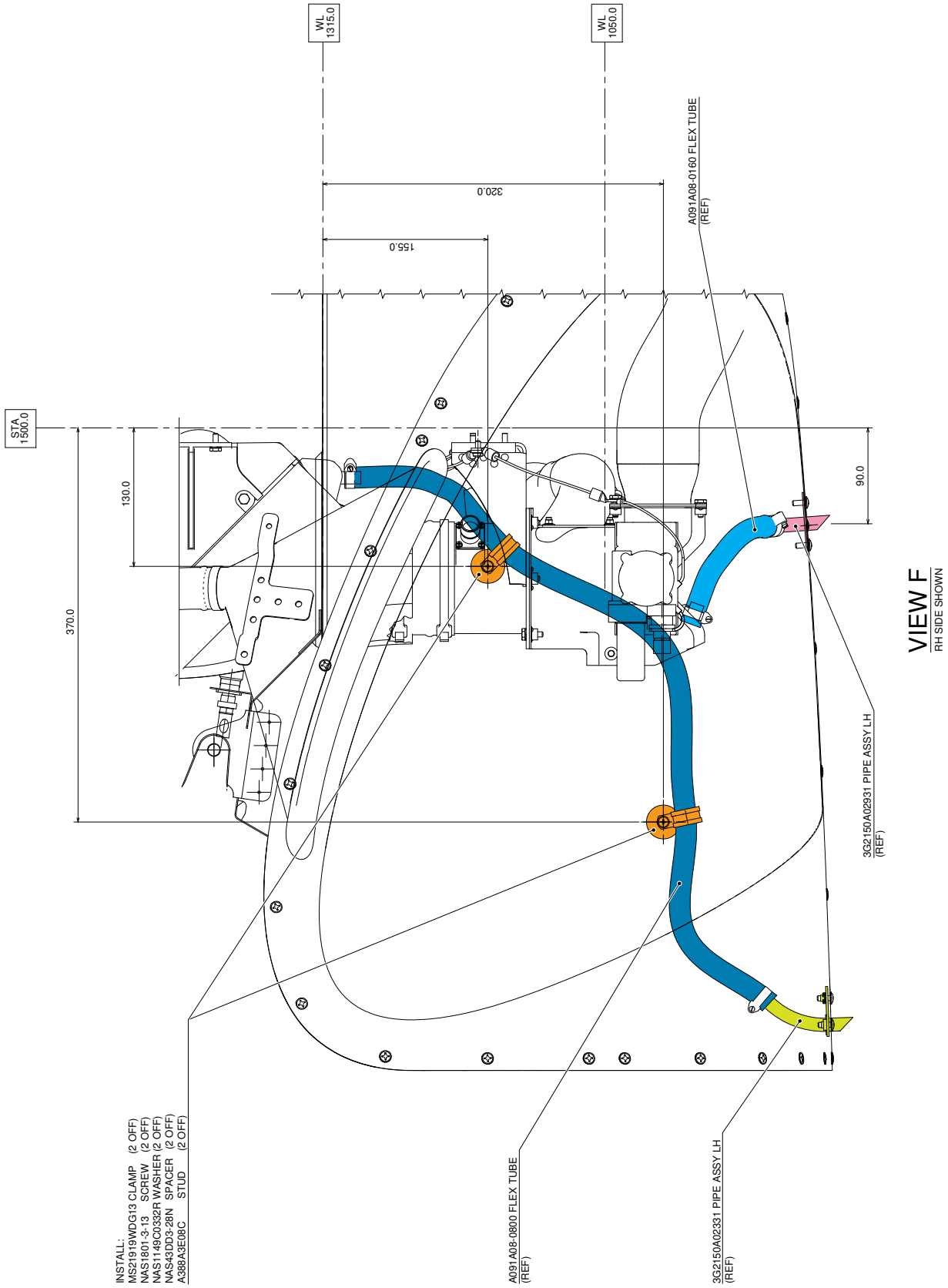

WL 1315.0
WL 1050.0
320.0
155.0
A091A08-0160 FLEX TUBE (REF)
STA 1500.0
130.0
370.0
90.0
VIEW F
RH SIDE SHOWN
3G2150A02931 PIPE ASSY LH (REF)
INSTALL:
MS21919WDG13 CLAMP (2 OFF)
NAS1801-3-13 SCREW (2 OFF)
NAS1149C0332R WASHER (2 OFF)
NAS43DD3-28N SPACER (2 OFF)
A388A3E08C STUD (2 OFF)
A091A08-0800 FLEX TUBE (REF)
3G2150A02331 PIPE ASSY LH (REF)

Figure 34

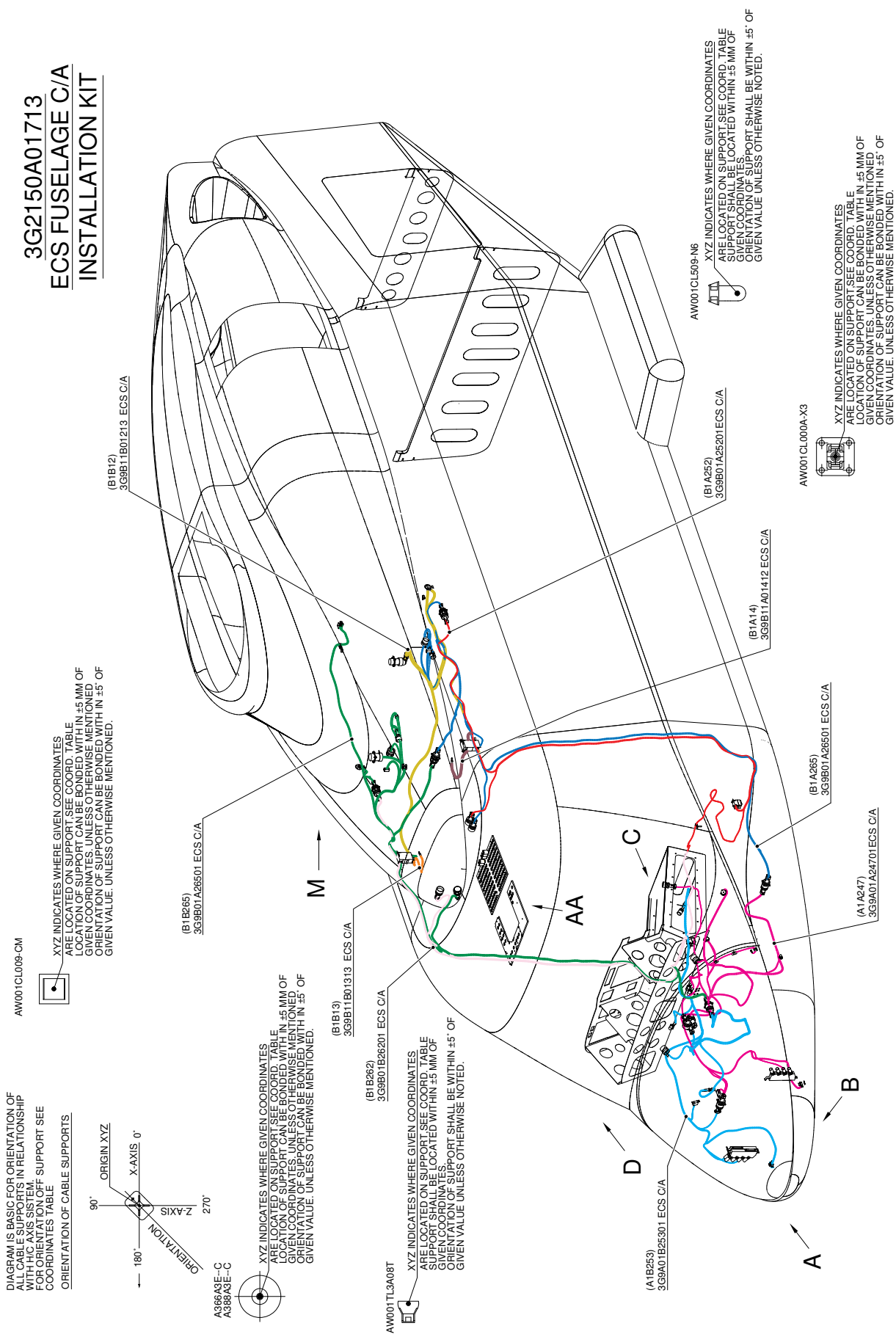

3G2150A01713
ECS FUSELAGE C/A
INSTALLATION KIT
DIAGRAM IS BASIC FOR ORIENTATION OF ALL CABLE SUPPORTS IN RELATIONSHIP WITH H/C AXIS SISTEM.
FOR ORIENTATION OFF SUPPORT SEE COORDINATES TABLE
ORIENTATION OF CABLE SUPPORTS
ORIGIN XYZ
X-AXIS 0°
Z-AXIS 270°
90°
180°
ORIENTATION
AW001CL009-CM
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT.SEE COORD. TABLE LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A366A3E--C
A388A3E--C
(B1B12) 3G9B11B01213 ECS C/A
(B1B265) 3G9B01A26501 ECS C/A
(B1B13) 3G9B11B01313 ECS C/A
(B1B262) 3G9B01B26201 ECS C/A
AW001TL3A08T
(A1B253) 3G9A01B25301 ECS C/A
AW001CL509-N6
(B1A252) 3G9B01A25201 ECS C/A
(B1A14) 3G9B11A01412 ECS C/A
AW001CL000A-X3
(B1A265) 3G9B01A26501 ECS C/A
(A1A247) 3G9A01A24701 ECS C/A
M
AA
C
D
A
B

Figure 35

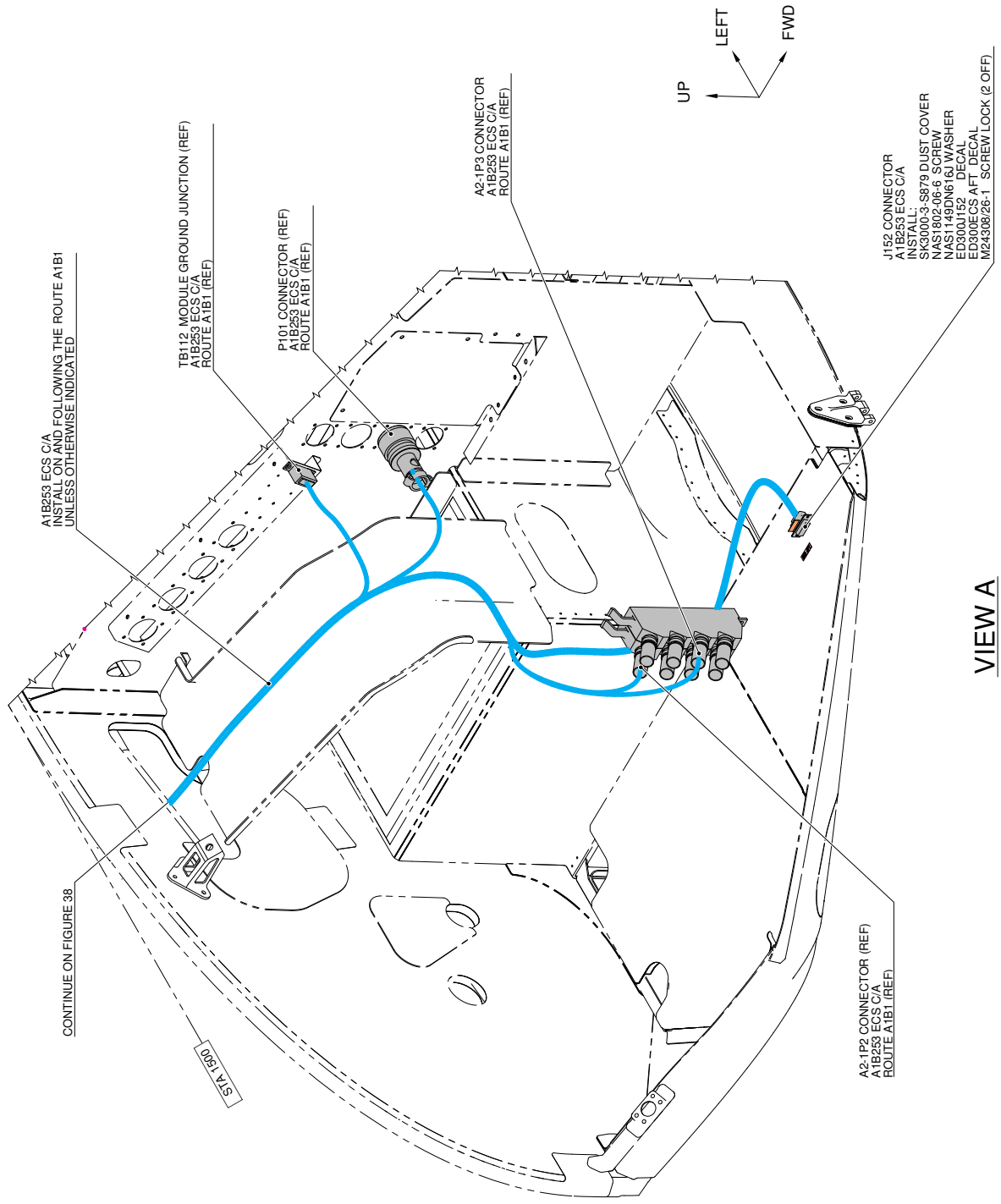

UP
LEFT
FWD
A1B253 ECS C/A
INSTALL ON AND FOLLOWING THE ROUTE A1B1
UNLESS OTHERWISE INDICATED
TB112 MODULE GROUND JUNCTION (REF)
A1B253 ECS C/A
ROUTE A1B1 (REF)
P101 CONNECTOR (REF)
A1B253 ECS C/A
ROUTE A1B1 (REF)
A2-1P3 CONNECTOR
A1B253 ECS C/A
ROUTE A1B1 (REF)
J152 CONNECTOR
A1B253 ECS C/A
INSTALL:
SK3000-3-S879 DUST COVER
NAS1802-06-6 SCREW
NAS1149DN616J WASHER
ED300J152 DECAL
ED300ECS AFT DECAL
M24308/26-1 SCREW LOCK (2 OFF)
CONTINUE ON FIGURE 38
STA 1500
A2-1P2 CONNECTOR (REF)
A1B253 ECS C/A
ROUTE A1B1 (REF)
VIEW A
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 36

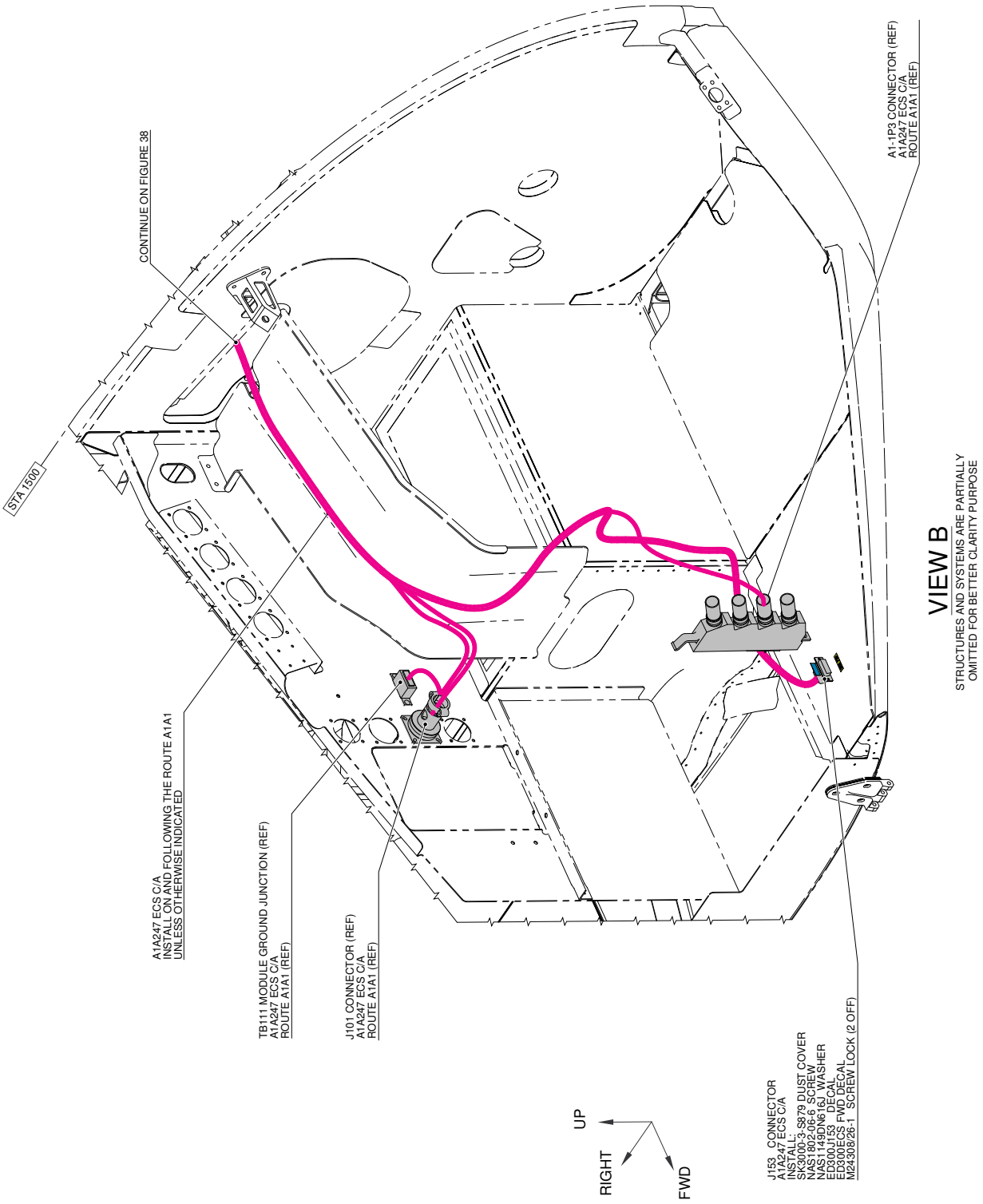

CONTINUE ON FIGURE 38
STA 1500
A1A247 ECS C/A
INSTALL ON AND FOLLOWING THE ROUTE A1A1
UNLESS OTHERWISE INDICATED
TB111 MODULE GROUND JUNCTION (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
J101 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
A1-1P3 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
J153 CONNECTOR
A1A247 ECS C/A
INSTALL
SK10013-5879 DUST COVER
NAS1802-06-6 SCREW
NAS1149DN616J WASHER
ED300J153 DECAL
ED300ECS FWD DECAL
M24308/26-1 SCREW LOCK (2 OFF)
UP
RIGHT
FWD
VIEW B
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 37

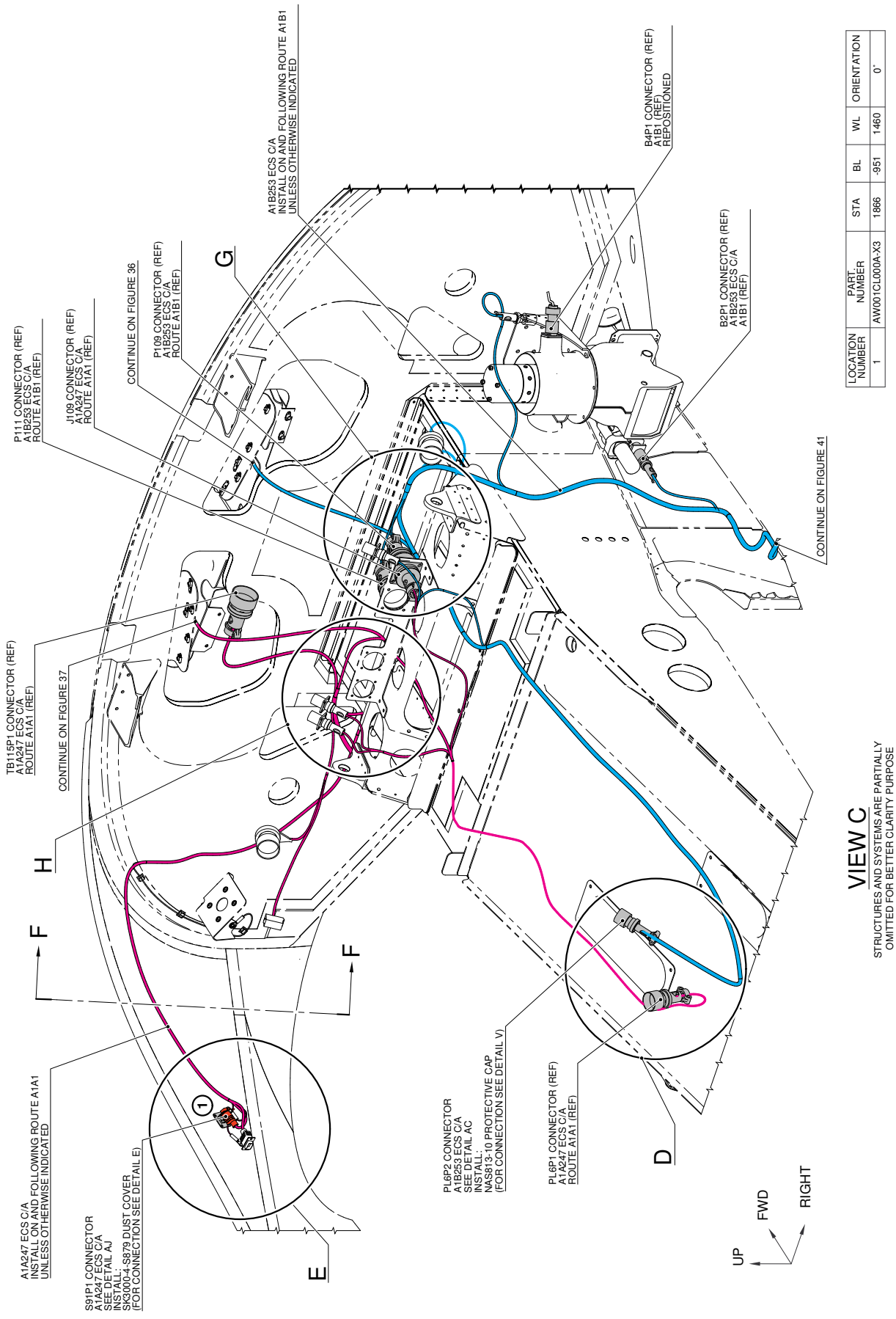
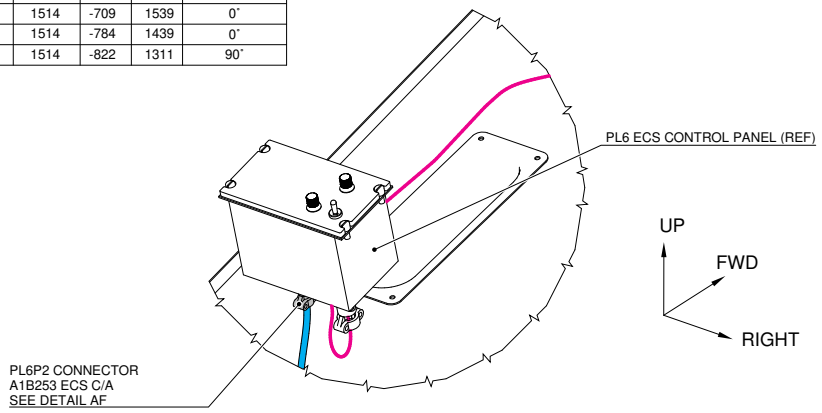
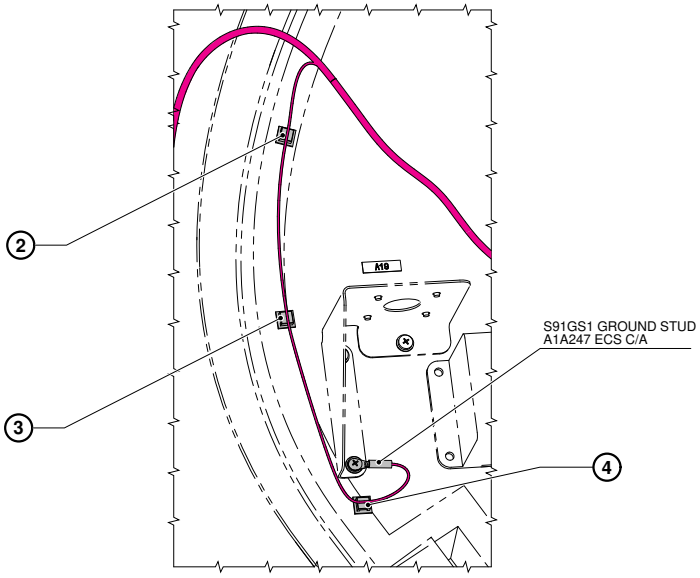

A1B253 ECS C/A
INSTALL ON AND FOLLOWING ROUTE A1B1
UNLESS OTHERWISE INDICATED
B4P1 CONNECTOR (REF)
A1B1 (REF)
REPOSITIONED
B2P1 CONNECTOR (REF)
A1B253 ECS C/A
A1B1 (REF)
P111 CONNECTOR (REF)
A1B253 ECS C/A
ROUTE A1B1 (REF)
J109 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
CONTINUE ON FIGURE 36
P109 CONNECTOR (REF)
A1B253 ECS C/A
ROUTE A1B1 (REF)
CONTINUE ON FIGURE 41
TB115P1 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
CONTINUE ON FIGURE 37
A1A247 ECS C/A
INSTALL ON AND FOLLOWING ROUTE A1A1
UNLESS OTHERWISE INDICATED
S91P1 CONNECTOR
A1A247 ECS C/A
SEE DETAIL AJ
INSTALL:
SK3000-4-S879 DUST COVER
(FOR CONNECTION SEE DETAIL E)
PL6P2 CONNECTOR
A1B253 ECS C/A
SEE DETAIL AC
INSTALL:
NAS813-10 PROTECTIVE CAP
(FOR CONNECTION SEE DETAIL V)
PL6P1 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
VIEW C
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
RIGHT
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
1 | AW001CL000A-X3 | 1866 | -951 | 1460 | 0°

Figure 38

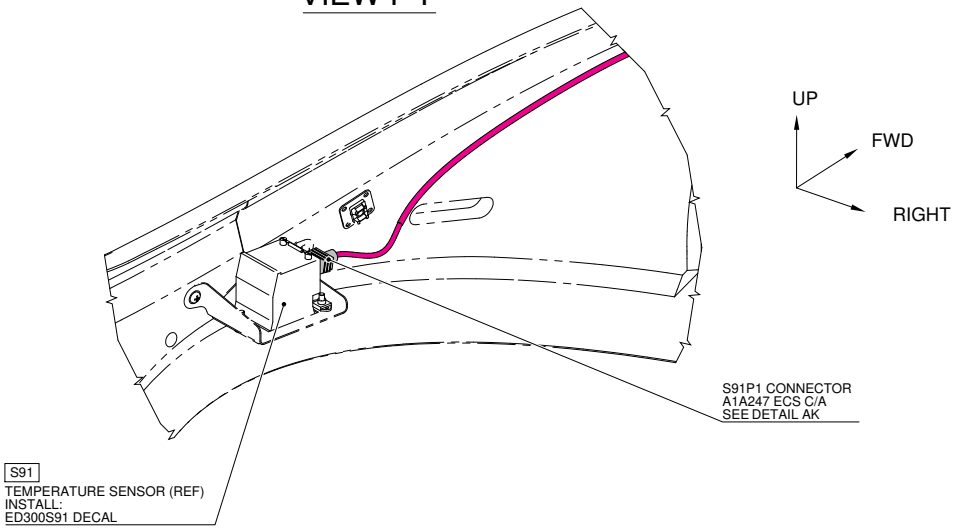
LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
2	AW001CL009-CM	1514	-709	1539	0°
3	AW001CL009-CM	1514	-784	1439	0°
4	AW001CL009-CM	1514	-822	1311	90°



DETAIL D



VIEW F-F



DETAIL E

Figure 39

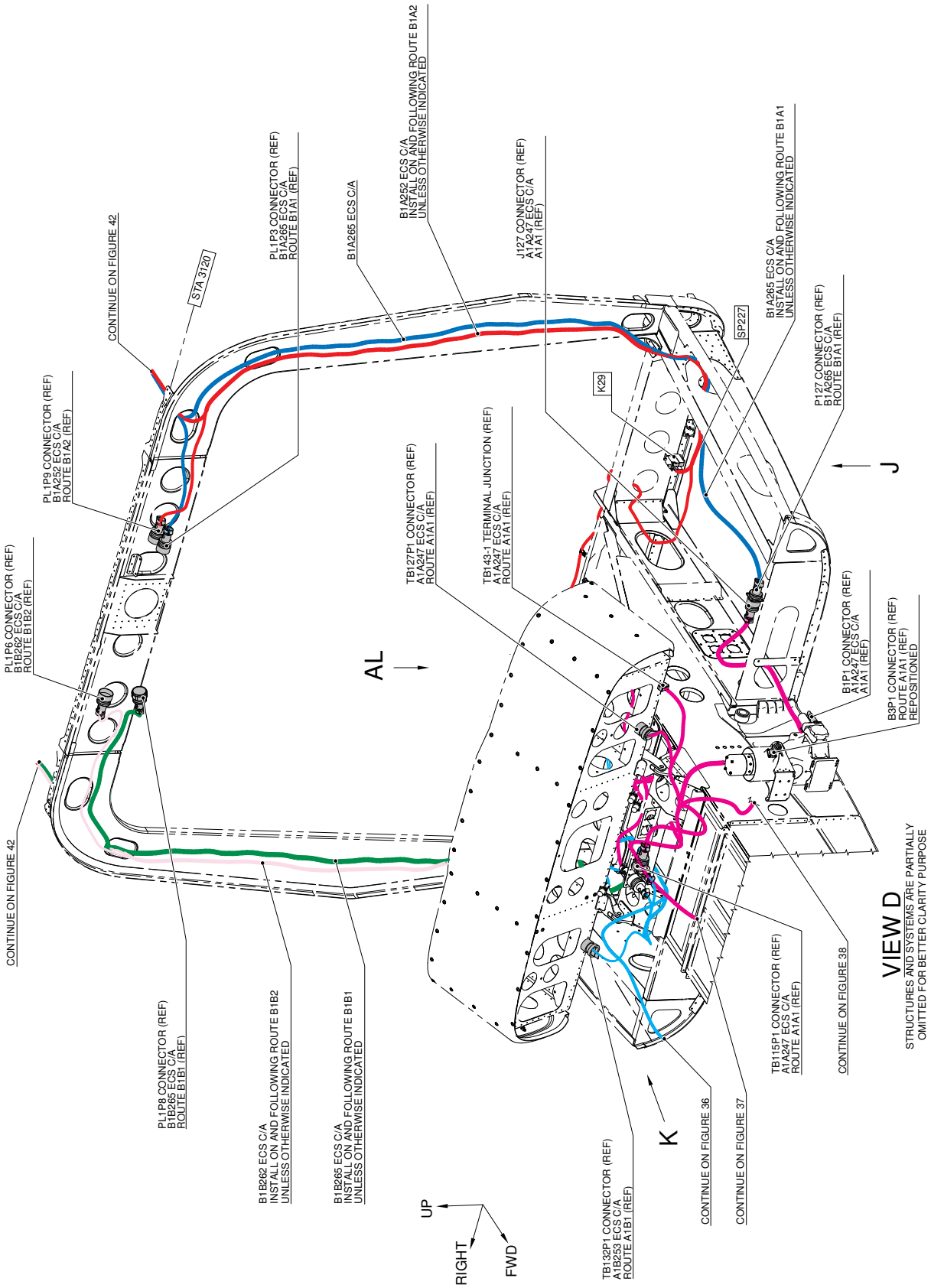

CONTINUE ON FIGURE 42
STA 3120
PL1P3 CONNECTOR (REF)
B1A265 ECS C/A
ROUTE B1A1 (REF)
B1A265 ECS C/A
B1A252 ECS C/A
INSTALL ON AND FOLLOWING ROUTE B1A2
UNLESS OTHERWISE INDICATED
J127 CONNECTOR (REF)
A1A247 ECS C/A
A1A1 (REF)
SP227
B1A265 ECS C/A
INSTALL ON AND FOLLOWING ROUTE B1A1
UNLESS OTHERWISE INDICATED
P127 CONNECTOR (REF)
B1A265 ECS C/A
ROUTE B1A1 (REF)
PL1P9 CONNECTOR (REF)
B1A252 ECS C/A
ROUTE B1A2 (REF)
K29
J
TB127P1 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
TB143-1 TERMINAL JUNCTION (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
PL1P6 CONNECTOR (REF)
B1B262 ECS C/A
ROUTE B1B2 (REF)
AL
B1P1 CONNECTOR (REF)
A1A247 ECS C/A
A1A1 (REF)
B3P1 CONNECTOR (REF)
ROUTE A1A1 (REF)
REPOSITIONED
CONTINUE ON FIGURE 42
PL1P8 CONNECTOR (REF)
B1B265 ECS C/A
ROUTE B1B1 (REF)
B1B262 ECS C/A
INSTALL ON AND FOLLOWING ROUTE B1B2
UNLESS OTHERWISE INDICATED
B1B265 ECS C/A
INSTALL ON AND FOLLOWING ROUTE B1B1
UNLESS OTHERWISE INDICATED
TB115P1 CONNECTOR (REF)
A1A247 ECS C/A
ROUTE A1A1 (REF)
CONTINUE ON FIGURE 38
VIEW D
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
TB132P1 CONNECTOR (REF)
A1B253 ECS C/A
ROUTE A1B1 (REF)
K
CONTINUE ON FIGURE 36
CONTINUE ON FIGURE 37
UP
RIGHT
FWD

Figure 40

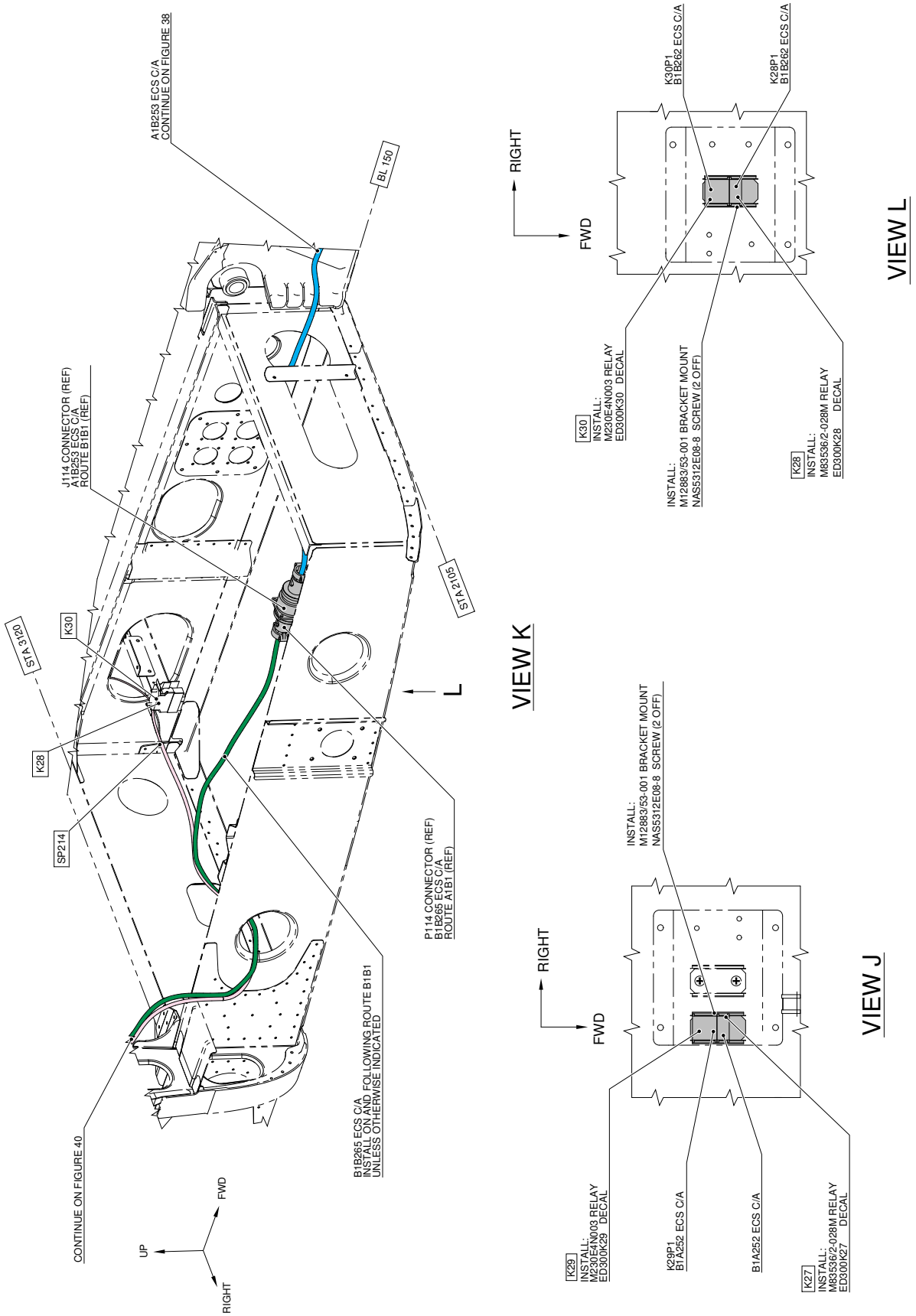
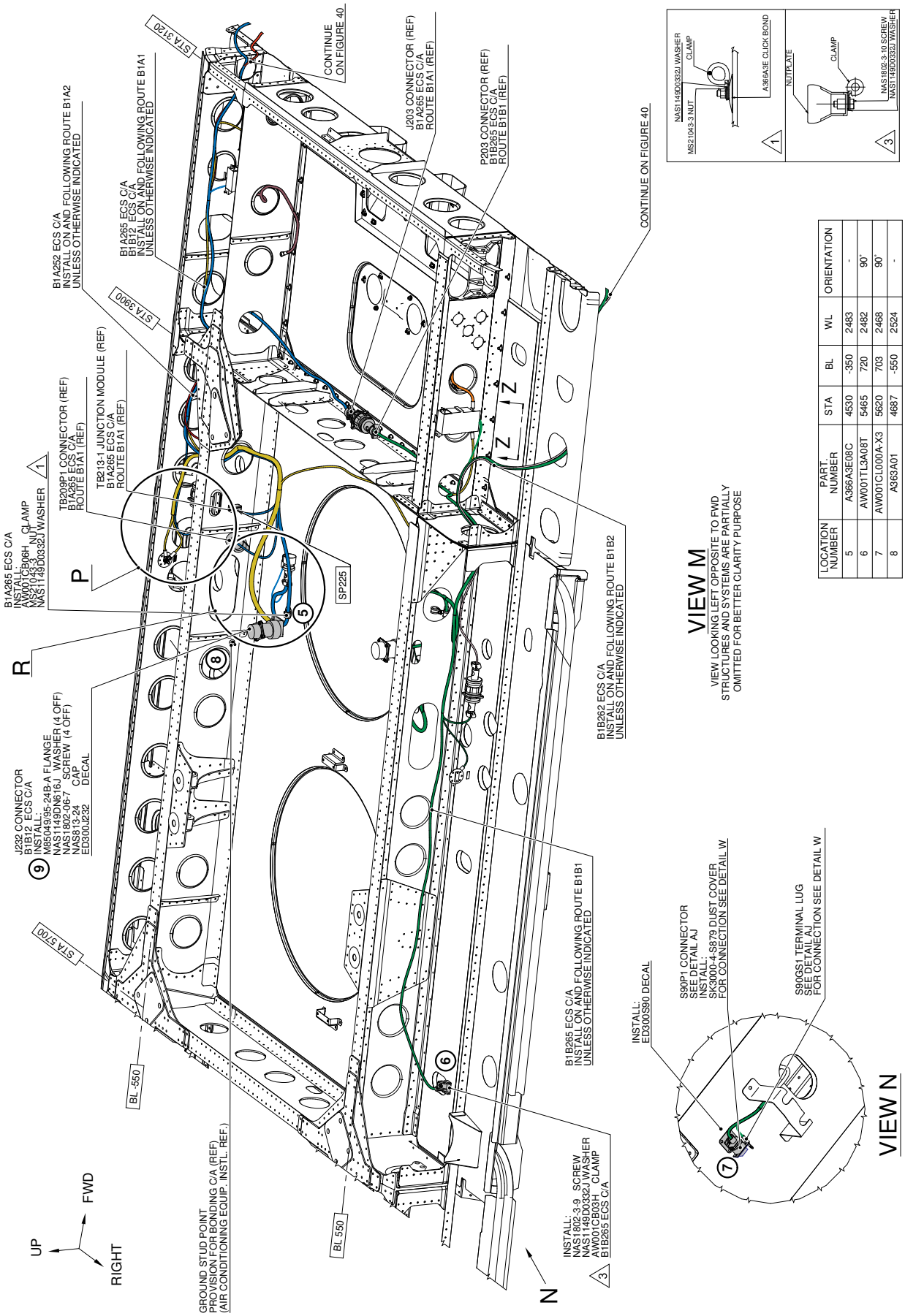
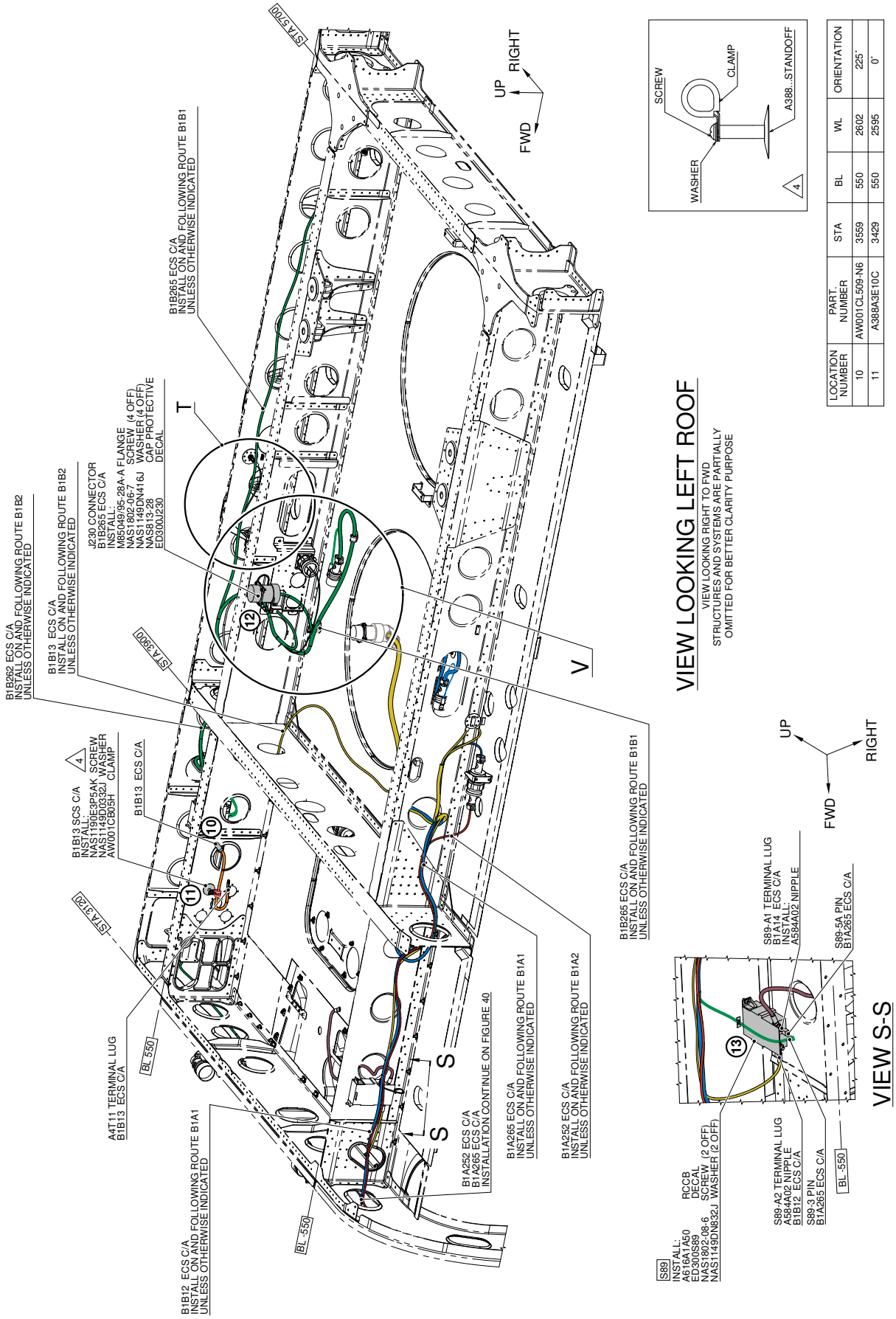

A1B253 ECS C/A
CONTINUE ON FIGURE 38
BL 150
STA 2105
STA 3120
K30
K28
SP214
J114 CONNECTOR (REF)
A1B253 ECS C/A
ROUTE B1B1 (REF)
P114 CONNECTOR (REF)
B1B265 ECS C/A
ROUTE A1B1 (REF)
B1B265 ECS C/A
INSTALL ON AND FOLLOWING ROUTE B1B1
UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 40
L
UP
FWD
RIGHT
VIEW K
RIGHT
FWD
K30P1
B1B262 ECS C/A
K28P1
B1B262 ECS C/A
K30
INSTALL:
M230E4N003 RELAY
ED300K30 DECAL
INSTALL:
M12883/53-001 BRACKET MOUNT
NAS5312E08-8 SCREW (2 OFF)
K28
INSTALL:
M83536/2-028M RELAY
ED300K28 DECAL
VIEW L
RIGHT
FWD
INSTALL:
M12883/53-001 BRACKET MOUNT
NAS5312E08-8 SCREW (2 OFF)
K29
INSTALL:
M230E4N003 RELAY
ED300K29 DECAL
K29P1
B1A252 ECS C/A
B1A252 ECS C/A
K27
INSTALL:
M83536/2-028M RELAY
ED300K27 DECAL
VIEW J

Figure 41



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
5	A366A3E08C	4530	-350	2483	-
6	AW001TL3A08T	5465	720	2482	90°
7	AW001CL000A-X3	5620	703	2468	90°
8	A363A01	4687	-550	2524	-

Figure 42



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
10	AW001CL509-N6	3559	550	2602	225°
11	A388A3E10C	3429	550	2595	0°

Figure 43

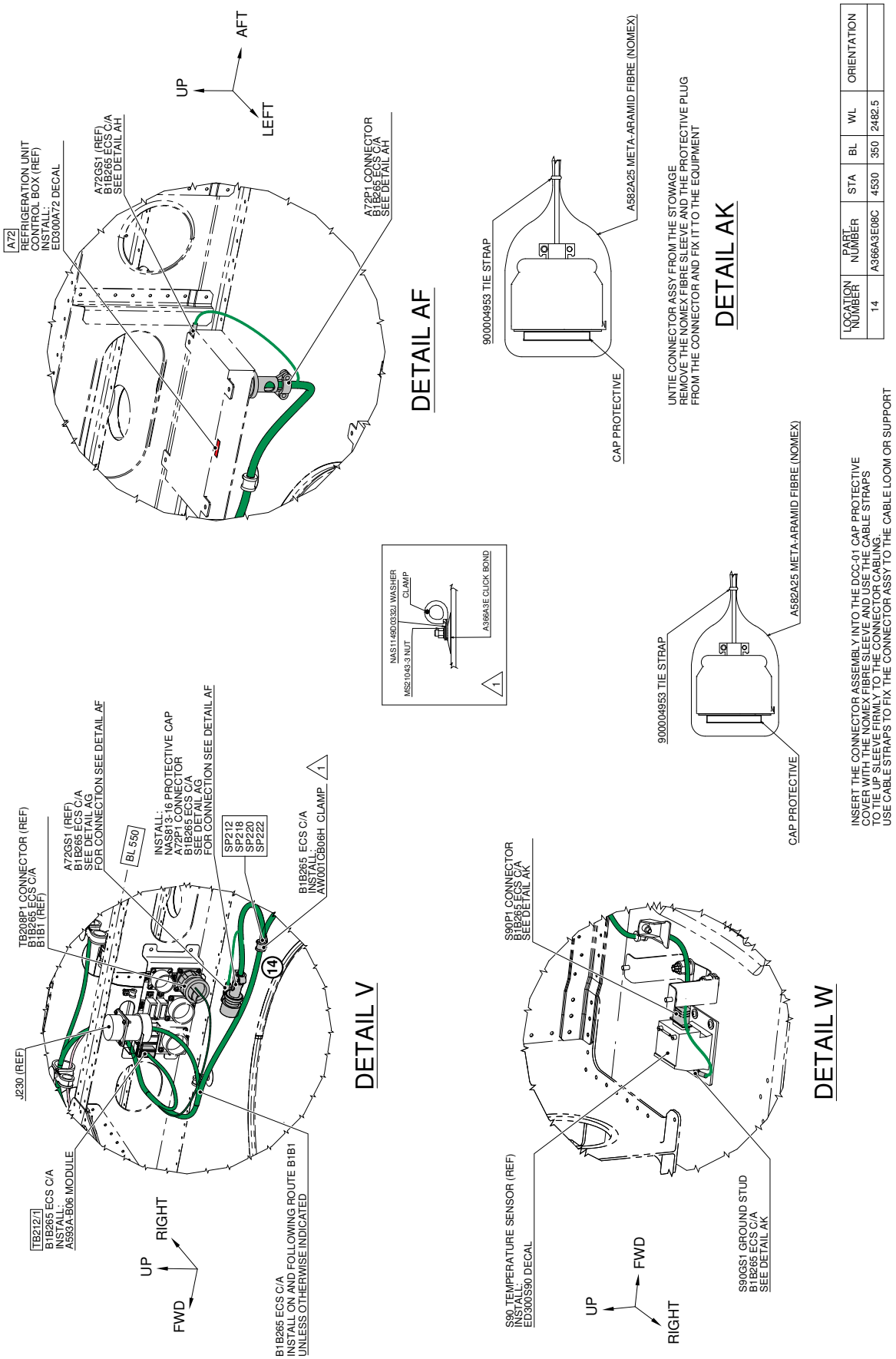

A72
REFRIGERATION UNIT
CONTROL BOX (REF)
INSTALL:
ED300A72 DECAL
A72GS1 (REF)
B1B265 ECS C/A
SEE DETAIL AH
A72P1 CONNECTOR
B1B265 ECS C/A
SEE DETAIL AH
UP
AFT
LEFT
DETAIL AF
900004953 TIE STRAP
A582A25 META-ARAMID FIBRE (NOMEX)
CAP PROTECTIVE
UNTIE CONNECTOR ASSY FROM THE STOWAGE
REMOVE THE NOMEX FIBRE SLEEVE AND THE PROTECTIVE PLUG
FROM THE CONNECTOR AND FIX IT TO THE EQUIPMENT
DETAIL AK
LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
14
A366A3E08C
4530
350
2482.5
NAS1149D0332J WASHER
CLAMP
MS21043-3 NUT
A366A3E CLICK BOND
1
TB208P1 CONNECTOR (REF)
B1B265 ECS C/A
B1B1 (REF)
A72GS1 (REF)
B1B265 ECS C/A
SEE DETAIL AG
FOR CONNECTION SEE DETAIL AF
BL 550
INSTALL:
NAS813-16 PROTECTIVE CAP
A72P1 CONNECTOR
B1B265 ECS C/A
SEE DETAIL AG
FOR CONNECTION SEE DETAIL AF
SP212
SP218
SP220
SP222
B1B265 ECS C/A
INSTALL:
AW001CB06H CLAMP
J230 (REF)
TB212/1
B1B265 ECS C/A
INSTALL:
A593A-B06 MODULE
UP
RIGHT
FWD
B1B265 ECS C/A
INSTALL ON AND FOLLOWING ROUTE B1B1
UNLESS OTHERWISE INDICATED
DETAIL V
900004953 TIE STRAP
A582A25 META-ARAMID FIBRE (NOMEX)
CAP PROTECTIVE
INSERT THE CONNECTOR ASSEMBLY INTO THE DCC-01 CAP PROTECTIVE
COVER WITH THE NOMEX FIBRE SLEEVE AND USE THE CABLE STRAPS
TO TIE UP SLEEVE FIRMLY TO THE CONNECTOR CABLING
USE CABLE STRAPS TO FIX THE CONNECTOR ASSY TO THE CABLE LOOM OR SUPPORT
DETAIL AJ
S90P1 CONNECTOR
B1B265 ECS C/A
SEE DETAIL AK
S90 TEMPERATURE SENSOR (REF)
INSTALL:
ED300S90 DECAL
S90GS1 GROUND STUD
B1B265 ECS C/A
SEE DETAIL AK
UP
FWD
RIGHT
DETAIL W

Figure 44

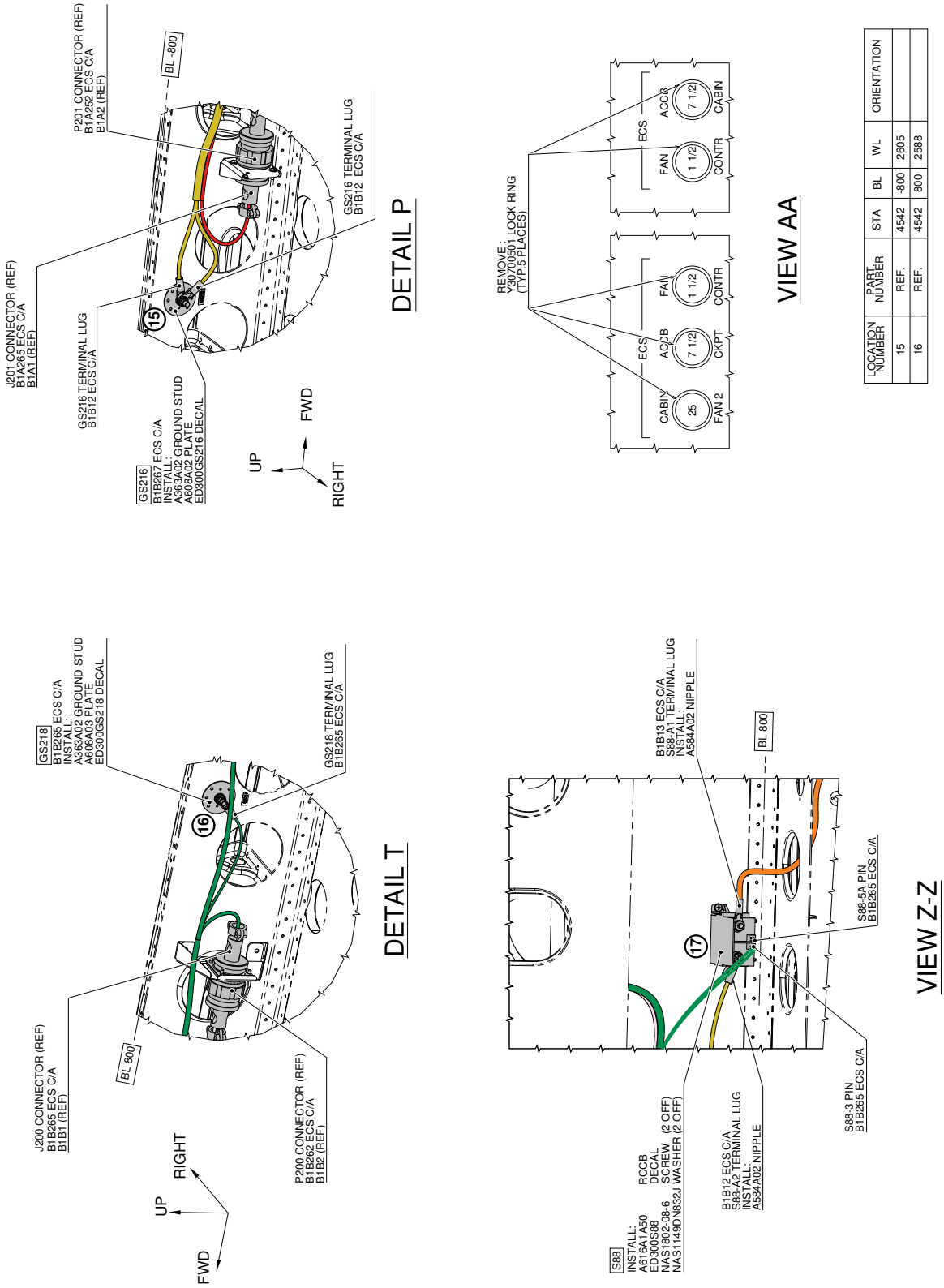

P201 CONNECTOR (REF)
B1A252 ECS C/A
B1A2 (REF)
BL -800
J201 CONNECTOR (REF)
B1A265 ECS C/A
B1A1 (REF)
GS216 TERMINAL LUG
B1B12 ECS C/A
GS216 TERMINAL LUG
B1B12 ECS C/A
15
GS216
B1B267 ECS C/A
INSTALL:
A363A02 GROUND STUD
A608A02 PLATE
ED300GS216 DECAL
UP
FWD
RIGHT
DETAIL P
REMOVE:
Y307005011 LOCK RING
(TYP.5 PLACES)
ECS
CABIN
ACCA
FAN
CONTR
25
7 1/2
1 1/2
FAN 2
CKPT
VIEW AA
LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
15
REF.
4542
-800
2605
16
REF.
4542
800
2588
GS218
B1B265 ECS C/A
INSTALL:
A363A02 GROUND STUD
A608A03 PLATE
ED300GS218 DECAL
GS218 TERMINAL LUG
B1B265 ECS C/A
16
J200 CONNECTOR (REF)
B1B265 ECS C/A
B1B1 (REF)
BL 800
P200 CONNECTOR (REF)
B1B262 ECS C/A
B1B2 (REF)
UP
RIGHT
FWD
DETAIL T
B1B13 ECS C/A
S88-A1 TERMINAL LUG
INSTALL:
A584A02 NIPPLE
BL 800
17
S88-5A PIN
B1B265 ECS C/A
S88
INSTALL:
A616A1A50
ED300S88
NAS1802-08-6
NAS1149DN832J WASHER (2 OFF)
RCCB
DECAL
SCREW (2 OFF)
B1B12 ECS C/A
S88-A2 TERMINAL LUG
INSTALL:
A584A02 NIPPLE
S88-3 PIN
B1B265 ECS C/A
VIEW Z-Z

Figure 45

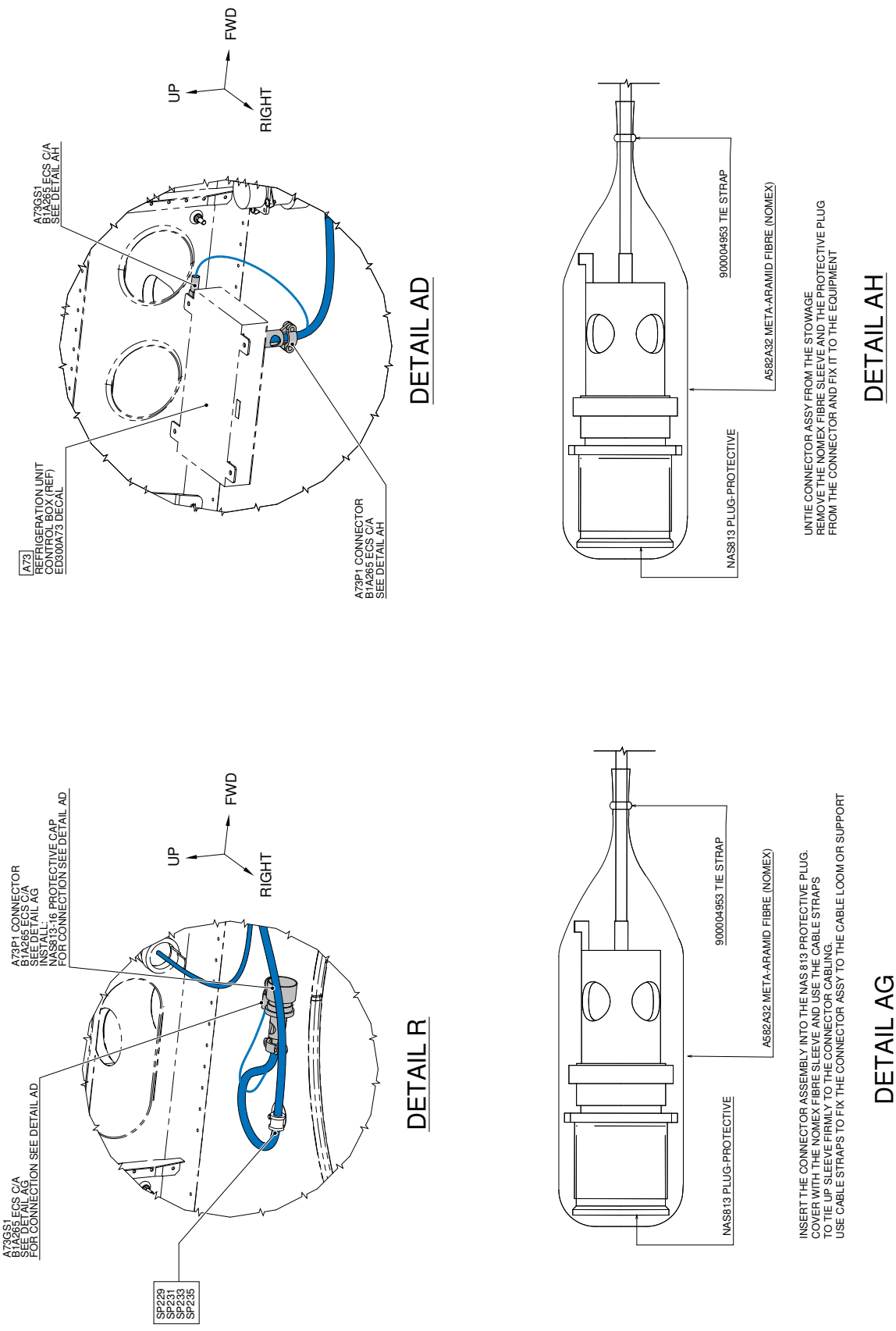

FWD
UP
RIGHT
A73GS1
B1A265 ECS C/A
SEE DETAIL AH
A73
REFRIGERATION UNIT
CONTROL BOX (REF)
ED300A73 DECAL
A73P1 CONNECTOR
B1A265 ECS C/A
SEE DETAIL AH
DETAIL AD
9000004953 TIE STRAP
A582A32 META-ARAMID FIBRE (NOMEX)
NAS813 PLUG-PROTECTIVE
UNTIE CONNECTOR ASSY FROM THE STOWAGE
REMOVE THE NOMEX FIBRE SLEEVE AND THE PROTECTIVE PLUG
FROM THE CONNECTOR AND FIX IT TO THE EQUIPMENT
DETAIL AH
FWD
UP
RIGHT
A73P1 CONNECTOR
B1A265 ECS C/A
SEE DETAIL AG
NAS813-16 PROTECTIVE CAP
FOR CONNECTION SEE DETAIL AD
A73GS1
B1A265 ECS C/A
SEE DETAIL AG
FOR CONNECTION SEE DETAIL AD
SP229
SP231
SP233
SP235
DETAIL R
9000004953 TIE STRAP
A582A32 META-ARAMID FIBRE (NOMEX)
NAS813 PLUG-PROTECTIVE
INSERT THE CONNECTOR ASSEMBLY INTO THE NAS 813 PROTECTIVE PLUG.
COVER WITH THE NOMEX FIBRE SLEEVE AND USE THE CABLE STRAPS
TO TIE UP SLEEVE FIRMLY TO THE CONNECTOR CABLING.
USE CABLE STRAPS TO FIX THE CONNECTOR ASSY TO THE CABLE LOOM OR SUPPORT
DETAIL AG

Figure 46

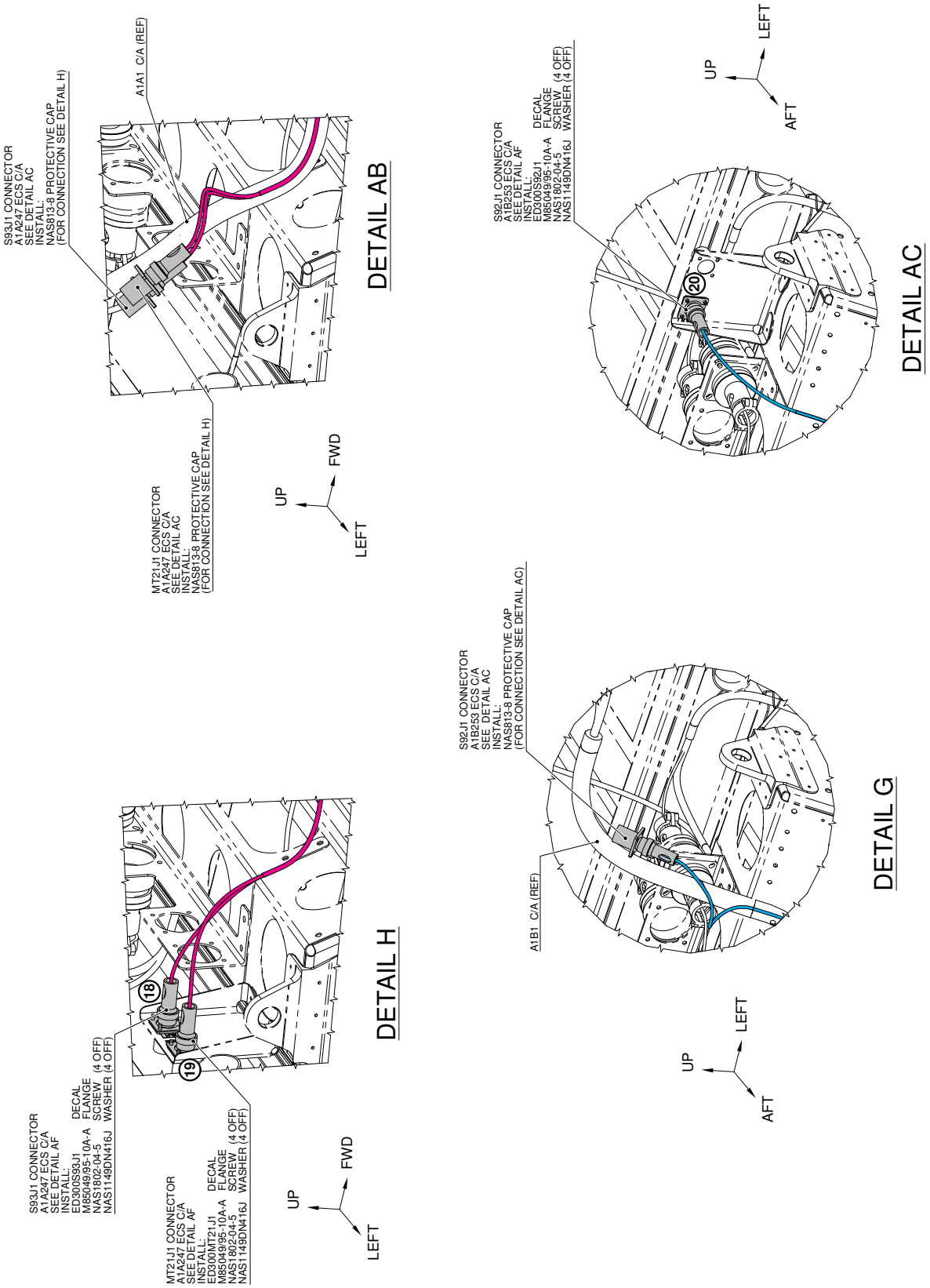

S93J1 CONNECTOR
A1A247 ECS C/A
SEE DETAIL AC
INSTALL:
NAS813-8 PROTECTIVE CAP
(FOR CONNECTION SEE DETAIL H)
A1A1 C/A (REF)
MT21J1 CONNECTOR
A1A247 ECS C/A
SEE DETAIL AC
INSTALL:
NAS813-8 PROTECTIVE CAP
(FOR CONNECTION SEE DETAIL H)
UP
FWD
LEFT
DETAIL AB
S92J1 CONNECTOR
A1B253 ECS C/A
SEE DETAIL AF
INSTALL:
ED300S92J1 DECAL
M85049/95-10A-A FLANGE
NAS1802-04-5 SCREW (4 OFF)
NAS1149DN416J WASHER (4 OFF)
20
UP
LEFT
AFT
DETAIL AC
S93J1 CONNECTOR
A1A247 ECS C/A
SEE DETAIL AF
INSTALL:
ED300S93J1 DECAL
M85049/95-10A-A FLANGE
NAS1802-04-5 SCREW (4 OFF)
NAS1149DN416J WASHER (4 OFF)
18
19
MT21J1 CONNECTOR
A1A247 ECS C/A
SEE DETAIL AF
INSTALL:
ED300MT21J1 DECAL
M85049/95-10A-A FLANGE
NAS1802-04-5 SCREW (4 OFF)
NAS1149DN416J WASHER (4 OFF)
UP
FWD
LEFT
DETAIL H
S92J1 CONNECTOR
A1B253 ECS C/A
SEE DETAIL AC
INSTALL:
NAS813-8 PROTECTIVE CAP
(FOR CONNECTION SEE DETAIL AC)
A1B1 C/A (REF)
UP
LEFT
AFT
DETAIL G

Figure 47

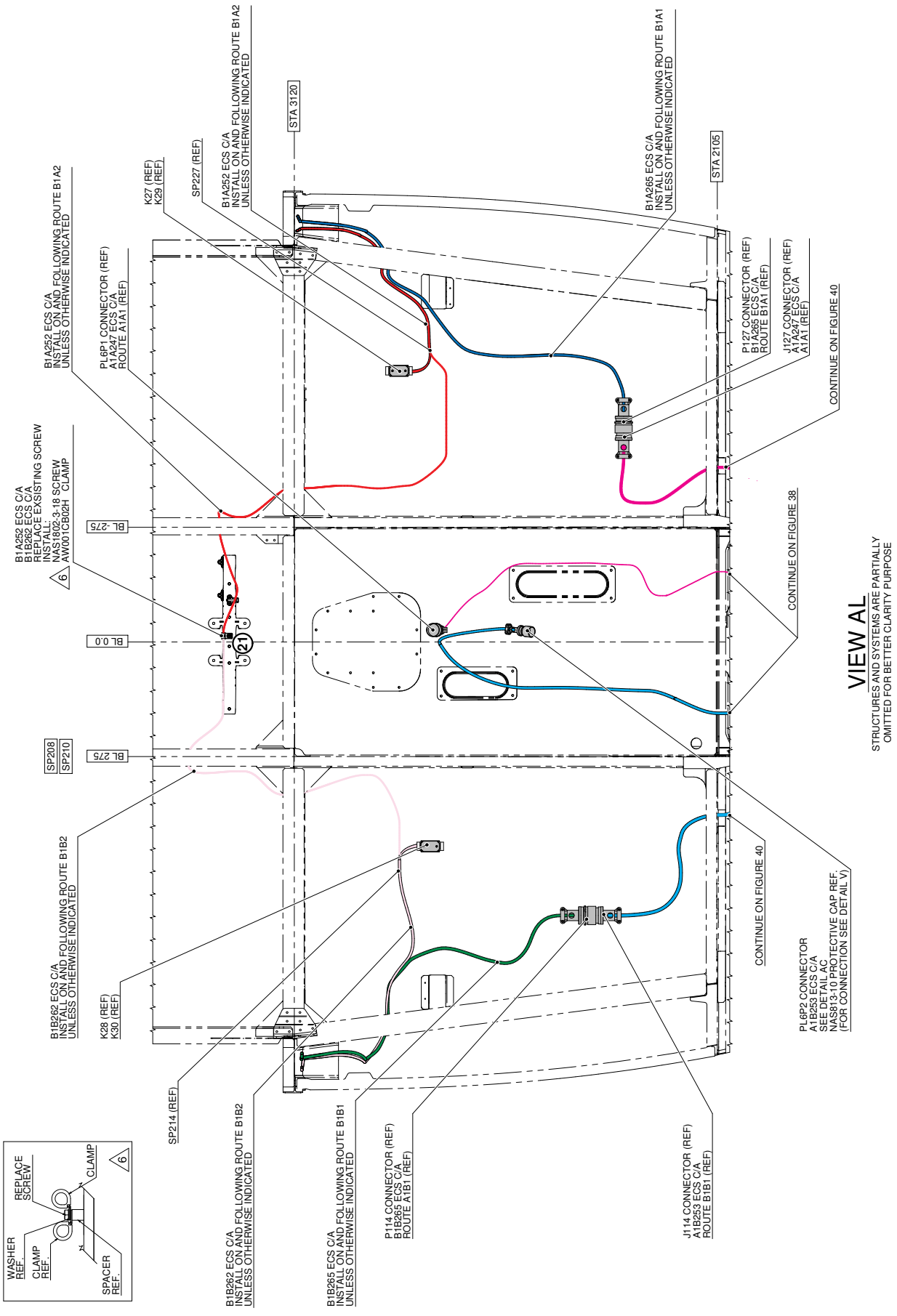

VIEW AL
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
STA 3120
STA 2105
BL -275
BL 0.0
BL 275
SP208
SP210
B1A252 ECS C/A INSTALL ON AND FOLLOWING ROUTE B1A2 UNLESS OTHERWISE INDICATED
B1A265 ECS C/A INSTALL ON AND FOLLOWING ROUTE B1A1 UNLESS OTHERWISE INDICATED
B1B262 ECS C/A INSTALL ON AND FOLLOWING ROUTE B1B2 UNLESS OTHERWISE INDICATED
B1B265 ECS C/A INSTALL ON AND FOLLOWING ROUTE B1B1 UNLESS OTHERWISE INDICATED
B1A252 ECS C/A B1B262 ECS C/A REPLACE EXISTING SCREW INSTALL NAS1802-3-18 SCREW AW001CB02H CLAMP
PL6P1 CONNECTOR (REF) A1A247 ECS C/A ROUTE A1A1 (REF)
P127 CONNECTOR (REF) B1A265 ECS C/A ROUTE B1A1 (REF)
J127 CONNECTOR (REF) A1A247 ECS C/A A1A1 (REF)
P114 CONNECTOR (REF) B1B265 ECS C/A ROUTE A1B1 (REF)
J114 CONNECTOR (REF) A1B253 ECS C/A ROUTE B1B1 (REF)
PL6P2 CONNECTOR A1B253 ECS C/A SEE DETAIL AC NAS813-10 PROTECTIVE CAP REF. (FOR CONNECTION SEE DETAIL V)
K27 (REF) K29 (REF)
K28 (REF) K30 (REF)
SP227 (REF)
SP214 (REF)
CONTINUE ON FIGURE 40
CONTINUE ON FIGURE 38
CONTINUE ON FIGURE 40
6
21
WASHER REF.
REPLACE SCREW
CLAMP REF.
CLAMP
SPACER REF.

Figure 48

3G5310A06311
STRUCTURAL PROVISION
FOR ECS SUPPORTS

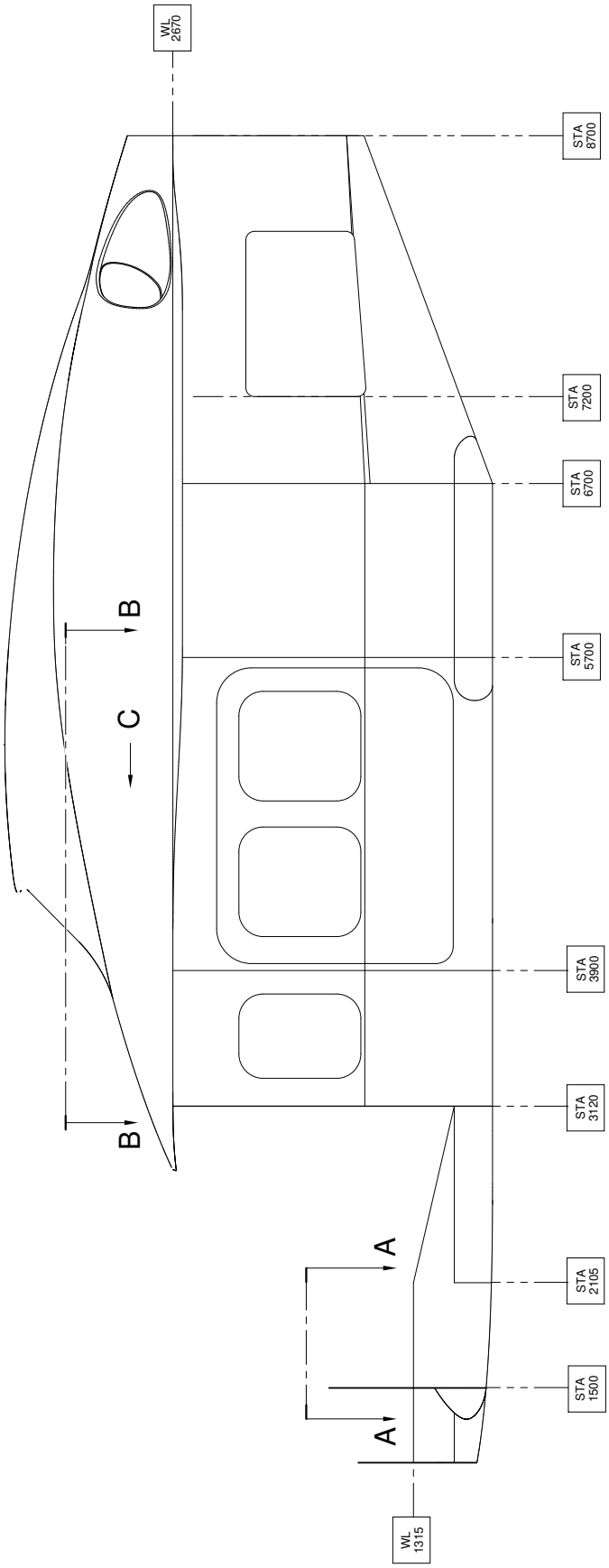
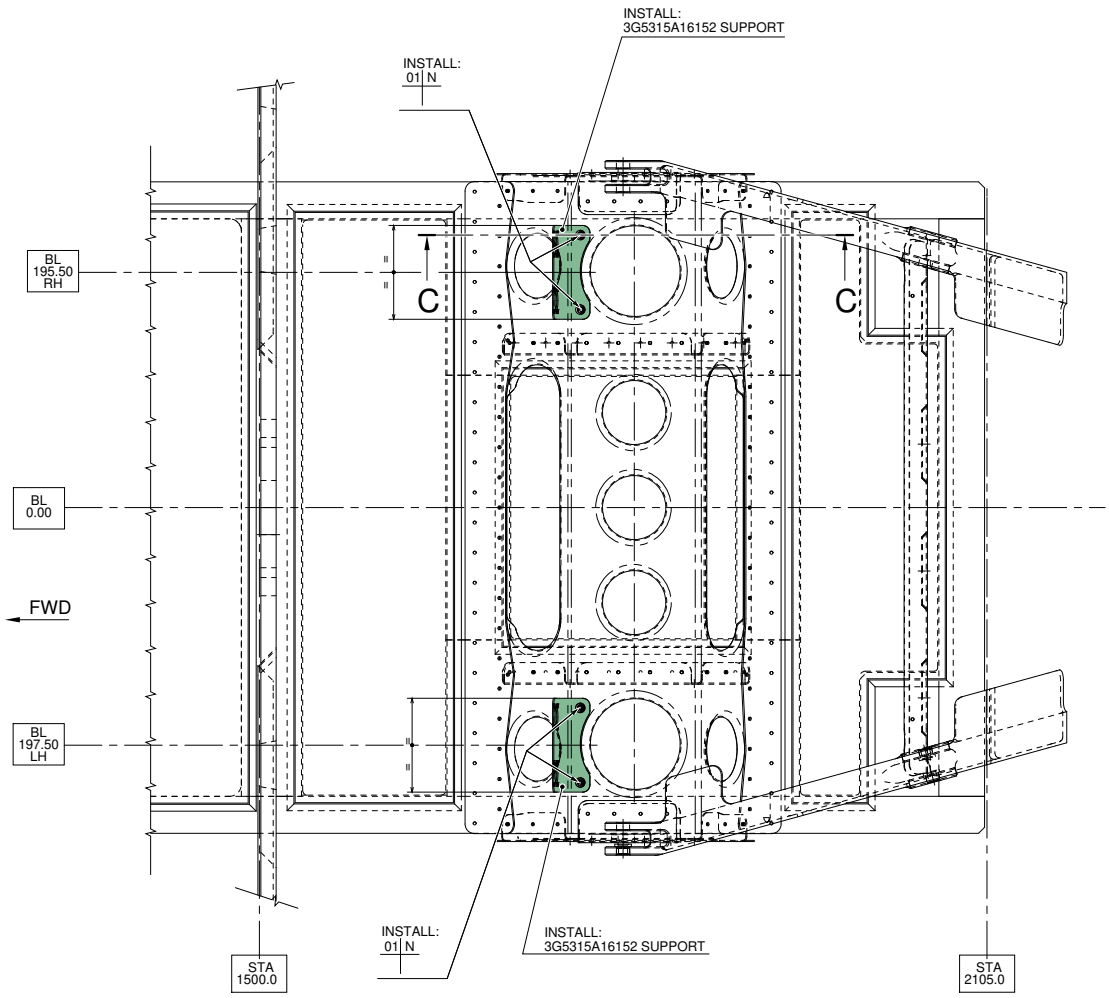


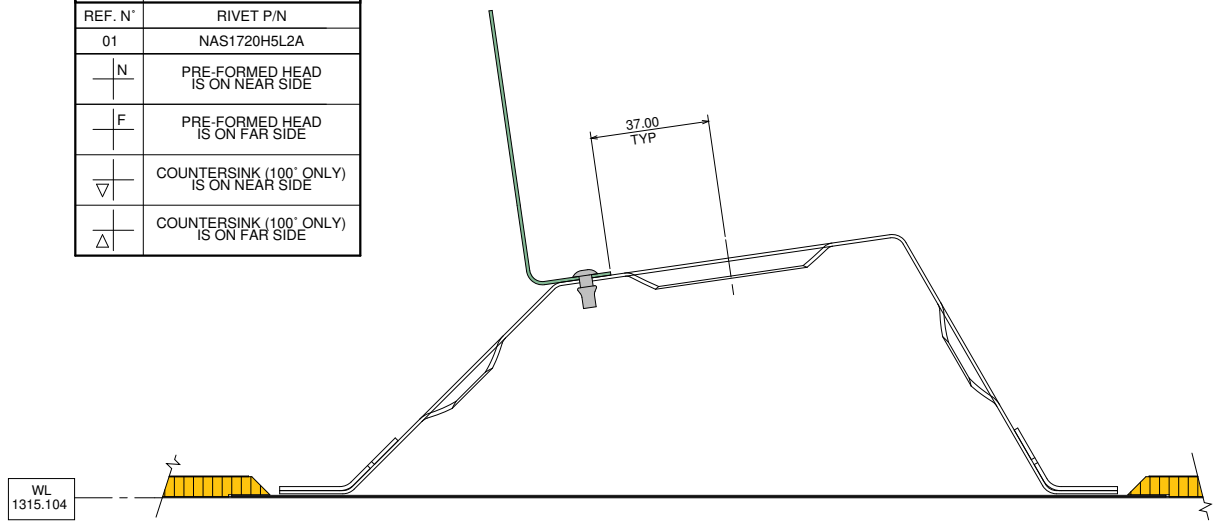
Figure 49



SECTION A-A

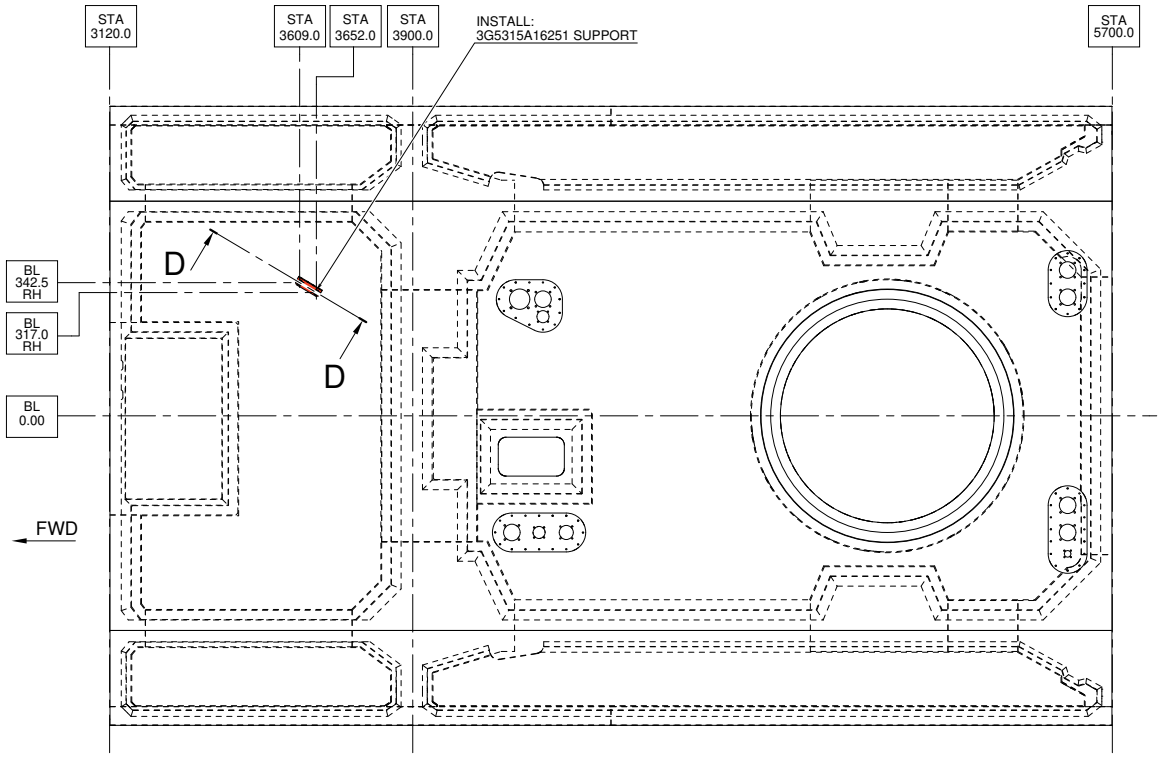
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

RIVET REFERENCE TABLE	
REF. N°	RIVET P/N
01	NAS1720H5L2A
N	PRE-FORMED HEAD IS ON NEAR SIDE
F	PRE-FORMED HEAD IS ON FAR SIDE
▽	COUNTERSINK (100° ONLY) IS ON NEAR SIDE
△	COUNTERSINK (100° ONLY) IS ON FAR SIDE



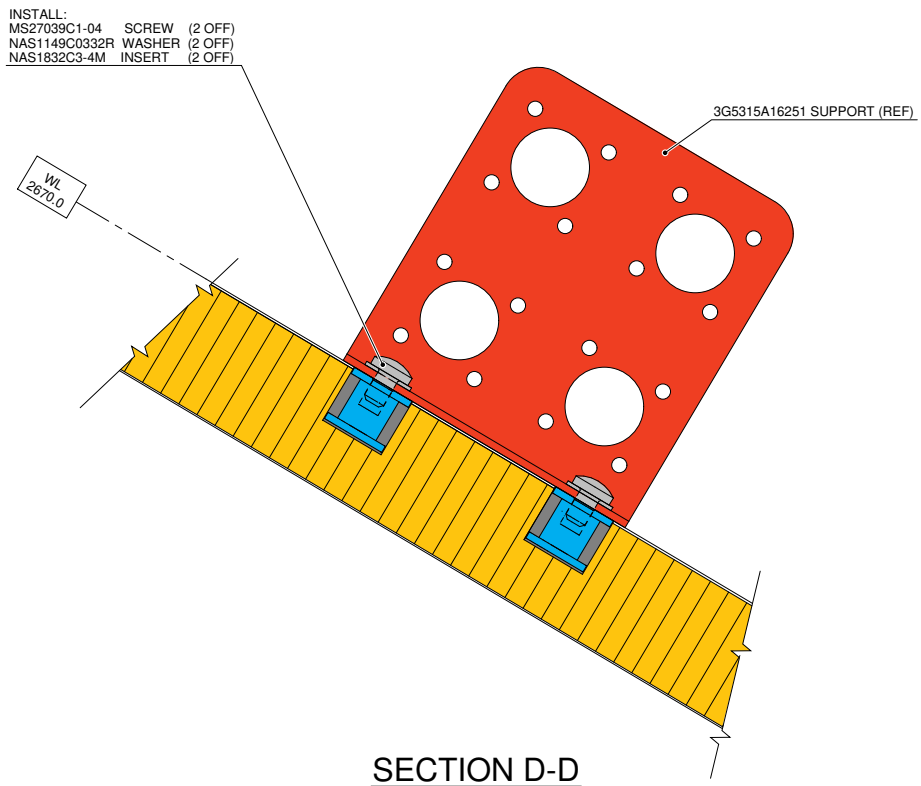
SECTION C-C

Figure 50



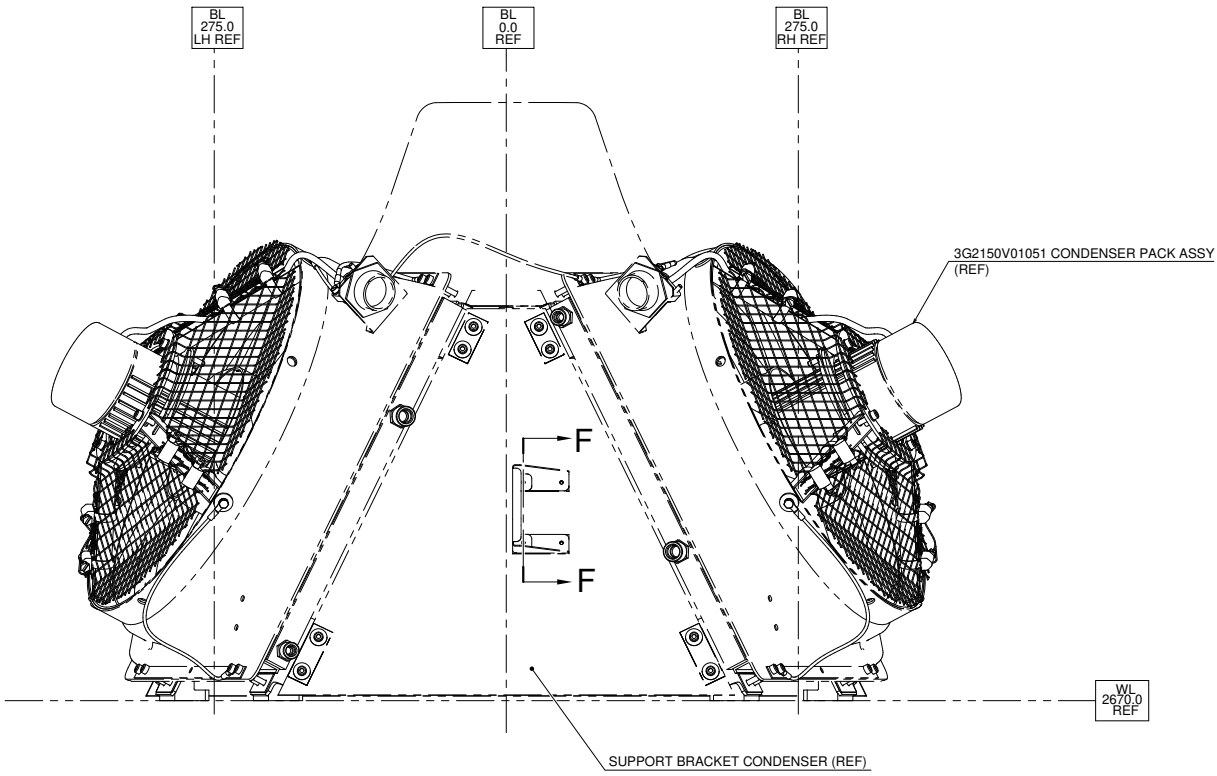
SECTION B-B

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



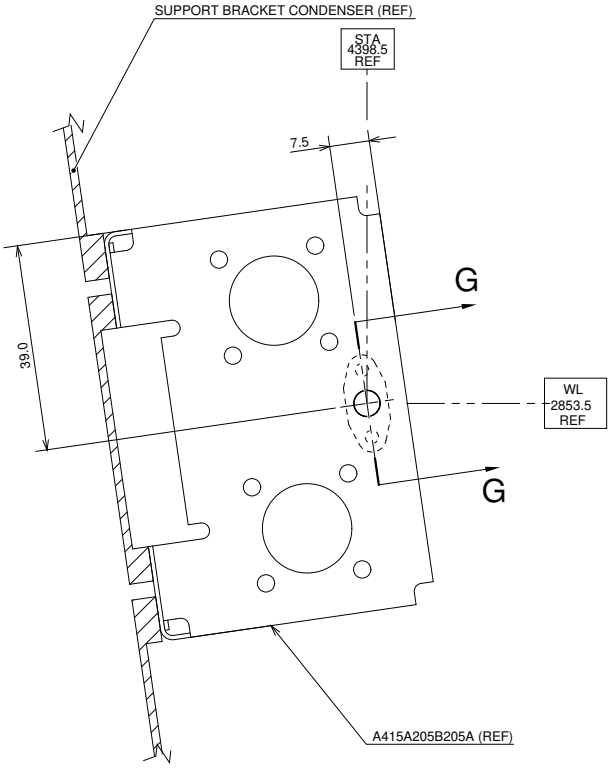
SECTION D-D

Figure 51

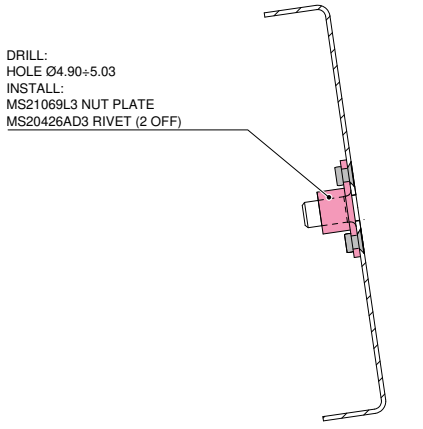


VIEW C

STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



SECTION F-F



SECTION G-G

Figure 52

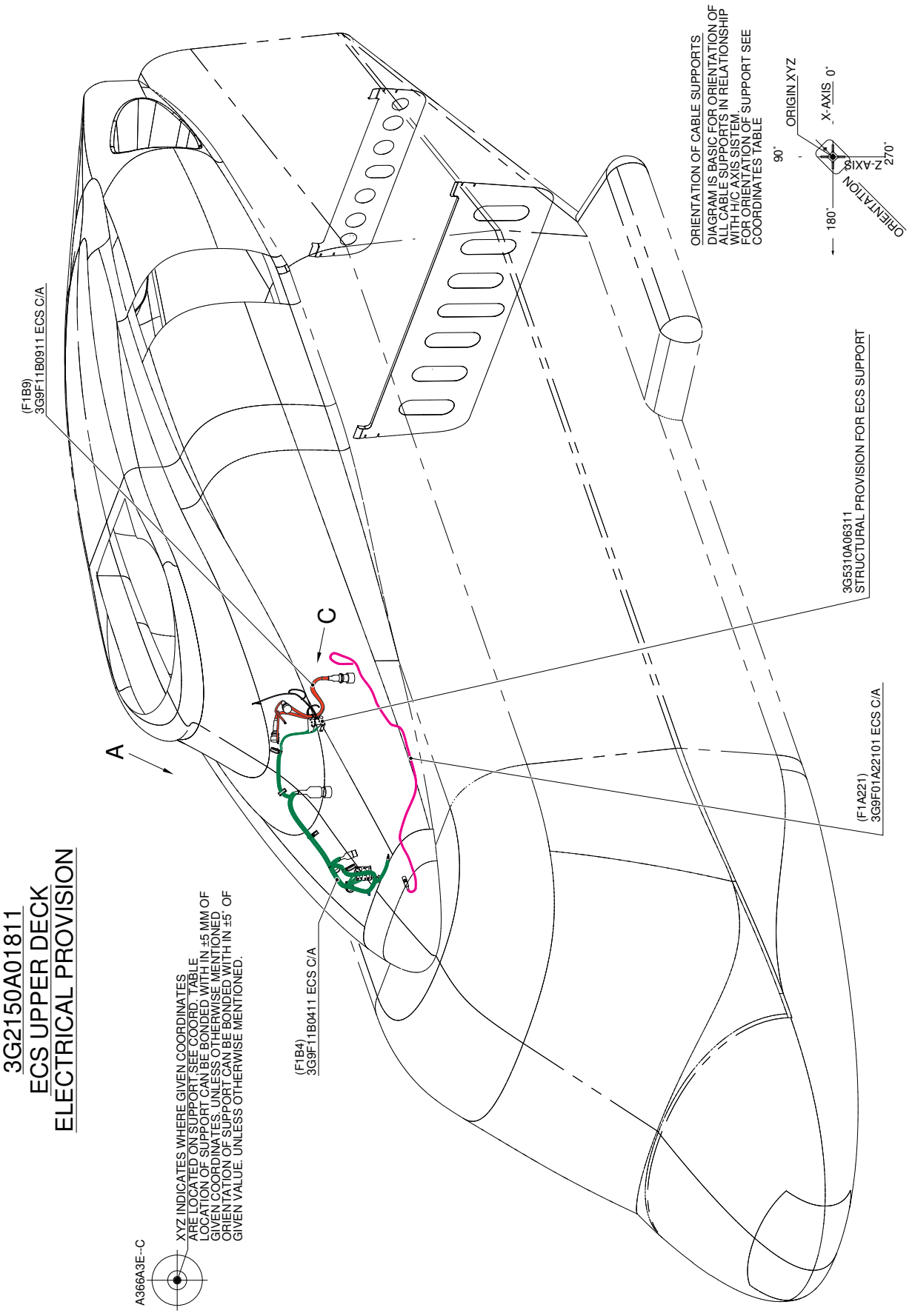

3G2150A01811
ECS UPPER DECK
ELECTRICAL PROVISION
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A366A3E--C
(F1B9)
3G9F11B0911 ECS C/A
(F1B4)
3G9F11B0411 ECS C/A
3G5310A06311
STRUCTURAL PROVISION FOR ECS SUPPORT
(F1A221)
3G9F01A22101 ECS C/A
ORIENTATION OF CABLE SUPPORTS
DIAGRAM IS BASIC FOR ORIENTATION OF ALL CABLE SUPPORTS IN RELATIONSHIP WITH H/C AXIS SISTEM.
FOR ORIENTATION OF SUPPORT SEE COORDINATES TABLE
ORIGIN XYZ
X-AXIS 0°
Z-AXIS 270°
ORIENTATION
90°
180°
A
C

Figure 53

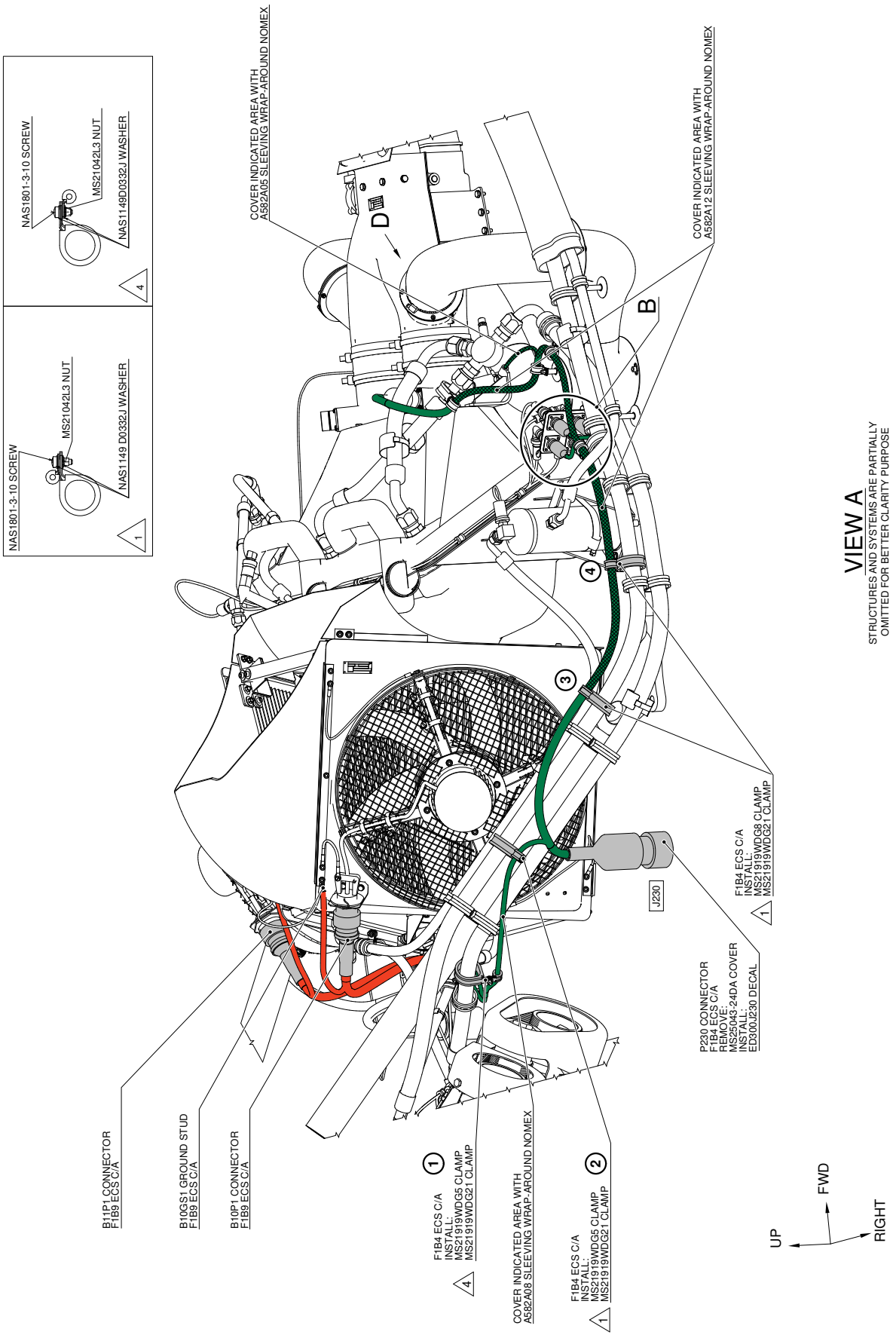
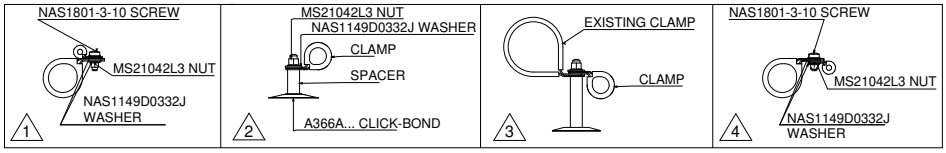
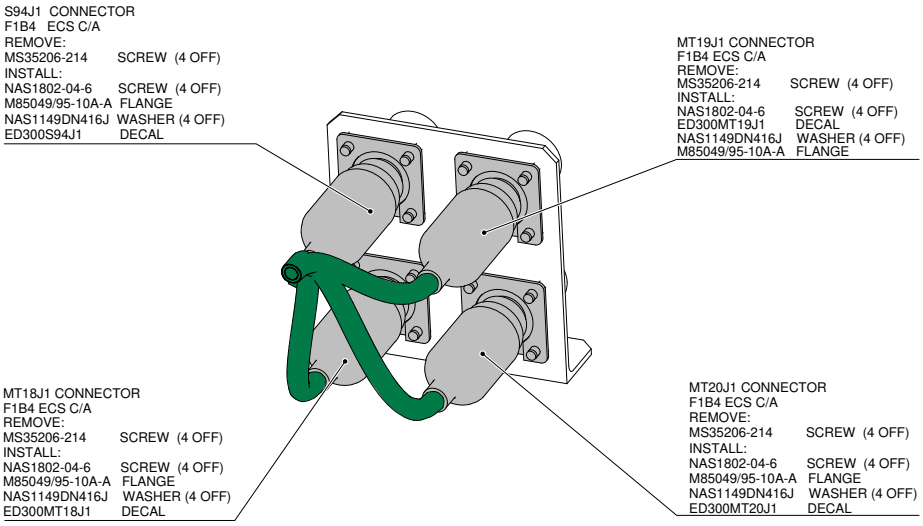
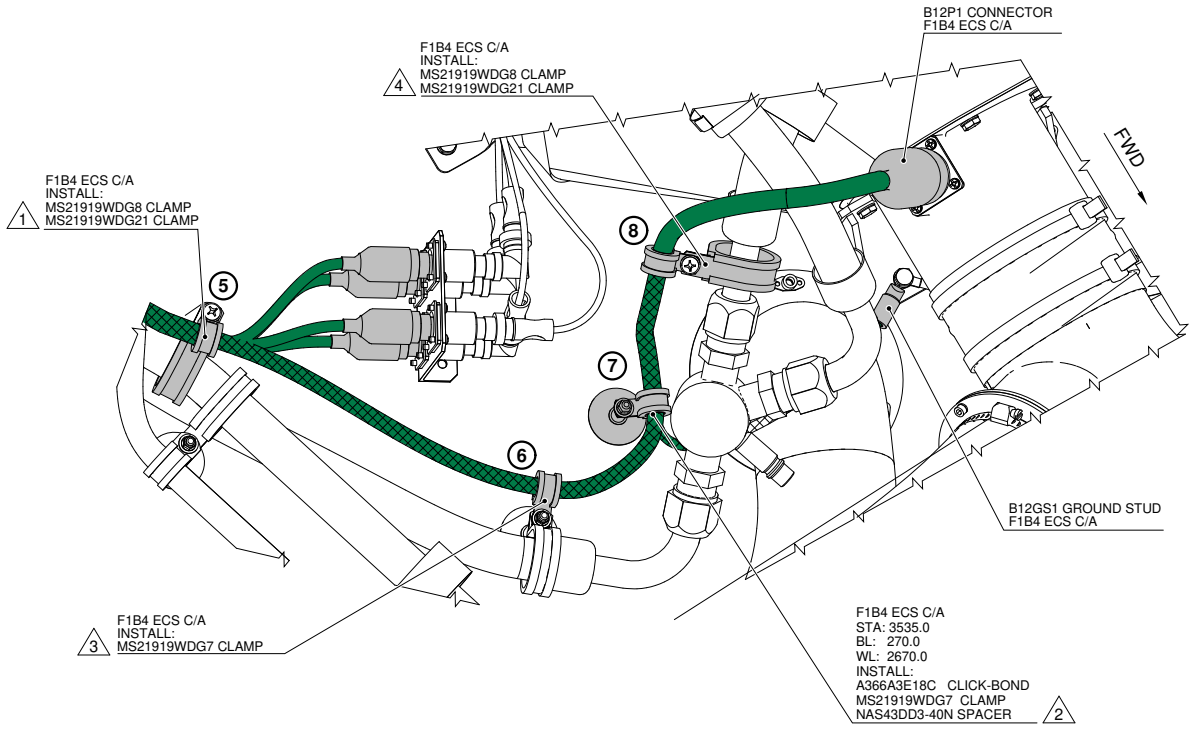

NAS1801-3-10 SCREW
MS21042L3 NUT
NAS1149D0332J WASHER
4
NAS1801-3-10 SCREW
MS21042L3 NUT
NAS1149 D0332J WASHER
1
COVER INDICATED AREA WITH A582A05 SLEEVING WRAP-AROUND NOMEX
COVER INDICATED AREA WITH A582A12 SLEEVING WRAP-AROUND NOMEX
D
B
VIEW A
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
B11P1 CONNECTOR F1B9 ECS C/A
B10GS1 GROUND STUD F1B9 ECS C/A
B10P1 CONNECTOR F1B9 ECS C/A
F1B4 ECS C/A INSTALL: MS21919WDG5 CLAMP MS21919WDG21 CLAMP
4
COVER INDICATED AREA WITH A582A08 SLEEVING WRAP-AROUND NOMEX
F1B4 ECS C/A INSTALL: MS21919WDG5 CLAMP MS21919WDG21 CLAMP
1
J230
P230 CONNECTOR F1B4 ECS C/A REMOVE: MS25043-24DA COVER INSTALL: ED300J230 DECAL
F1B4 ECS C/A INSTALL: MS21919WDG8 CLAMP MS21919WDG21 CLAMP
1
UP
FWD
RIGHT

Figure 54





DETAIL B



VIEW D

Figure 55

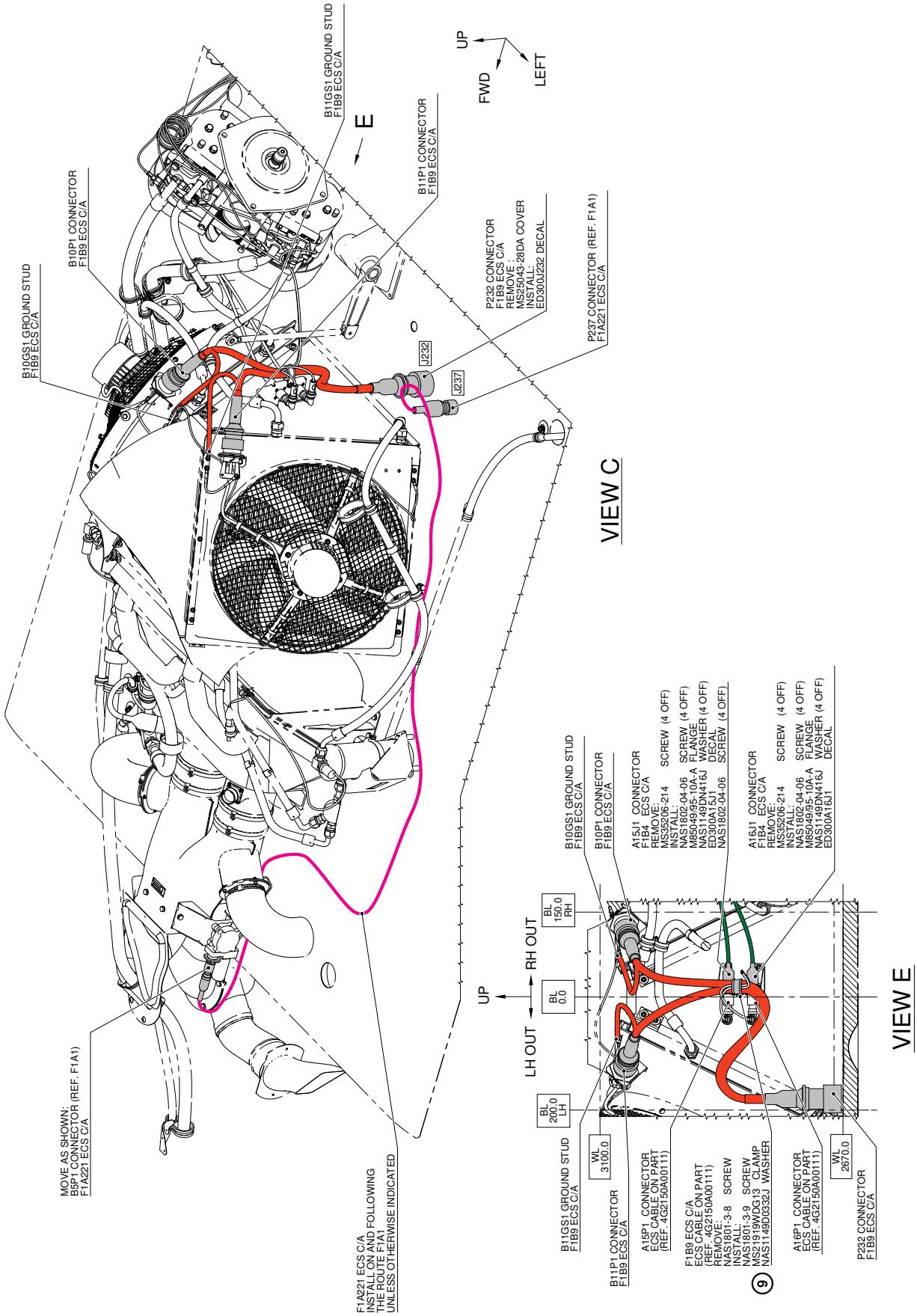

B10GS1 GROUND STUD
F1B9 ECS C/A
B10P1 CONNECTOR
F1B9 ECS C/A
B11GS1 GROUND STUD
F1B9 ECS C/A
B11P1 CONNECTOR
F1B9 ECS C/A
E
UP
FWD
LEFT
P232 CONNECTOR
F1B9 ECS C/A
REMOVE:
MS25043-28DA COVER
INSTALL:
ED300J232 DECAL
P237 CONNECTOR (REF. F1A1)
F1A221 ECS C/A
J232
J237
VIEW C
MOVE AS SHOWN:
B5P1 CONNECTOR (REF. F1A1)
F1A221 ECS C/A
F1A221 ECS C/A
INSTALL ON AND FOLLOWING
THE ROUTE F1A1
UNLESS OTHERWISE INDICATED
UP
RH OUT
LH OUT
BL 150.0 RH
BL 0.0
BL 200.0 LH
WL 3100.0
WL 2670.0
B10GS1 GROUND STUD
F1B9 ECS C/A
B10P1 CONNECTOR
F1B9 ECS C/A
A15J1 CONNECTOR
F1B4 ECS C/A
REMOVE:
MS35206-214 SCREW (4 OFF)
INSTALL:
NAS1802-04-06 SCREW (4 OFF)
M85049/95-10A-A FLANGE
NAS1149DN416J WASHER (4 OFF)
ED300A15J1 DECAL
NAS1802-04-06 SCREW (4 OFF)
A16J1 CONNECTOR
F1B4 ECS C/A
REMOVE:
MS35206-214 SCREW (4 OFF)
INSTALL:
NAS1802-04-06 SCREW (4 OFF)
M85049/95-10A-A FLANGE
NAS1149DN416J WASHER (4 OFF)
ED300A16J1 DECAL
B11GS1 GROUND STUD
F1B9 ECS C/A
B11P1 CONNECTOR
F1B9 ECS C/A
A15P1 CONNECTOR
ECS CABLE ON PART
(REF. 4G2150A00111)
F1B9 ECS C/A
ECS CABLE ON PART
(REF. 4G2150A00111)
REMOVE:
NAS1801-3-8 SCREW
INSTALL:
NAS1801-3-9 SCREW
MS21919WDG13 CLAMP
NAS1149D0332J WASHER
9
A16P1 CONNECTOR
ECS CABLE ON PART
(REF. 4G2150A00111)
P232 CONNECTOR
F1B9 ECS C/A
VIEW E

Figure 56

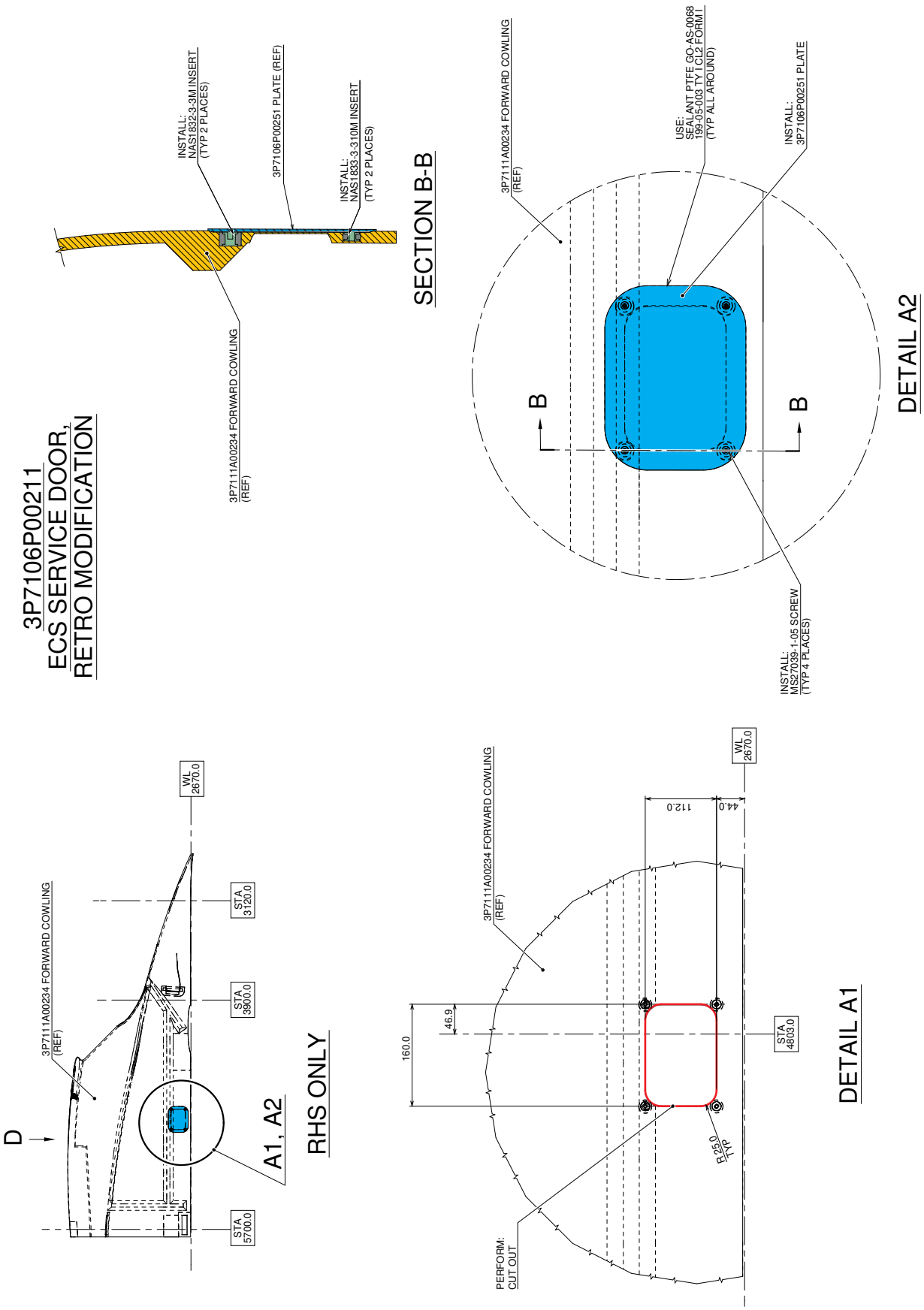

3P7106P00211
ECS SERVICE DOOR,
RETRO MODIFICATION
SECTION B-B
INSTALL:
NAS1832-3-3M INSERT
(TYP 2 PLACES)
3P7106P00251 PLATE (REF)
INSTALL:
NAS1833-3-310M INSERT
(TYP 2 PLACES)
3P7111A00234 FORWARD COWLING
(REF)
DETAIL A2
3P7111A00234 FORWARD COWLING
(REF)
USE:
SEALANT PTFE GO-AS-0068
199-05-003 TY I CL2 FORM I
(TYP ALL AROUND)
INSTALL:
3P7106P00251 PLATE
B
B
INSTALL:
MS27039-1-05 SCREW
(TYP 4 PLACES)
A1, A2
RHS ONLY
D
3P7111A00234 FORWARD COWLING
(REF)
WL
2670.0
STA
3120.0
STA
3900.0
STA
5700.0
DETAIL A1
3P7111A00234 FORWARD COWLING
(REF)
WL
2670.0
112.0
44.0
46.9
160.0
STA
4803.0
R25.0
TYP
PERFORM:
CUT OUT

Figure 57

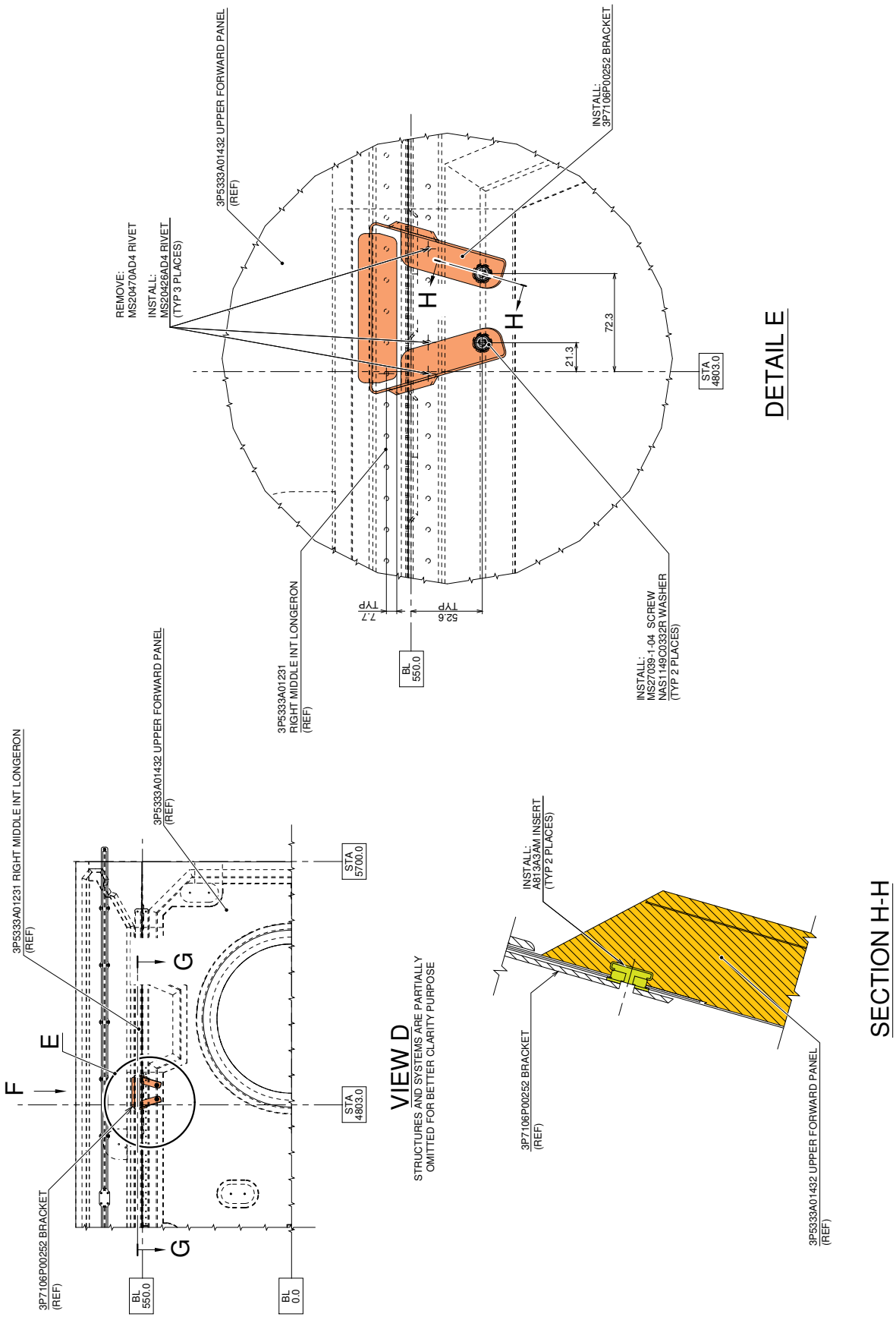
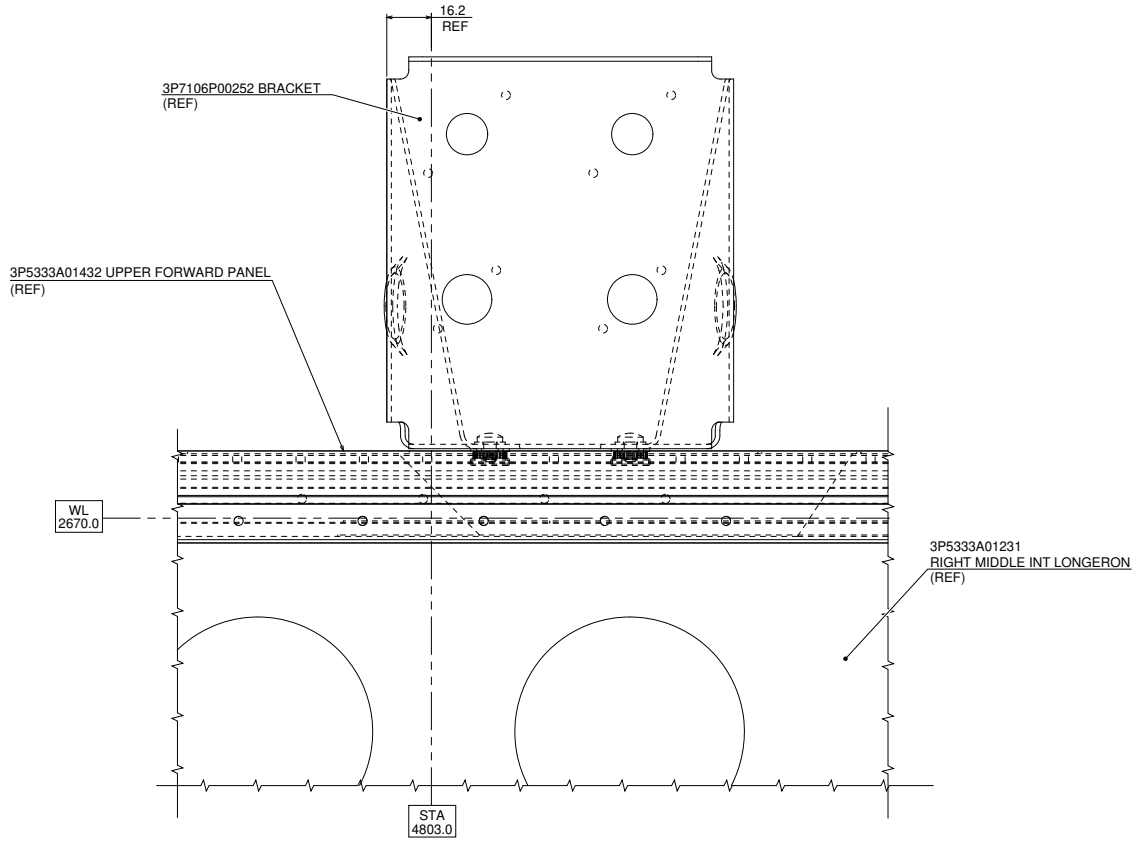
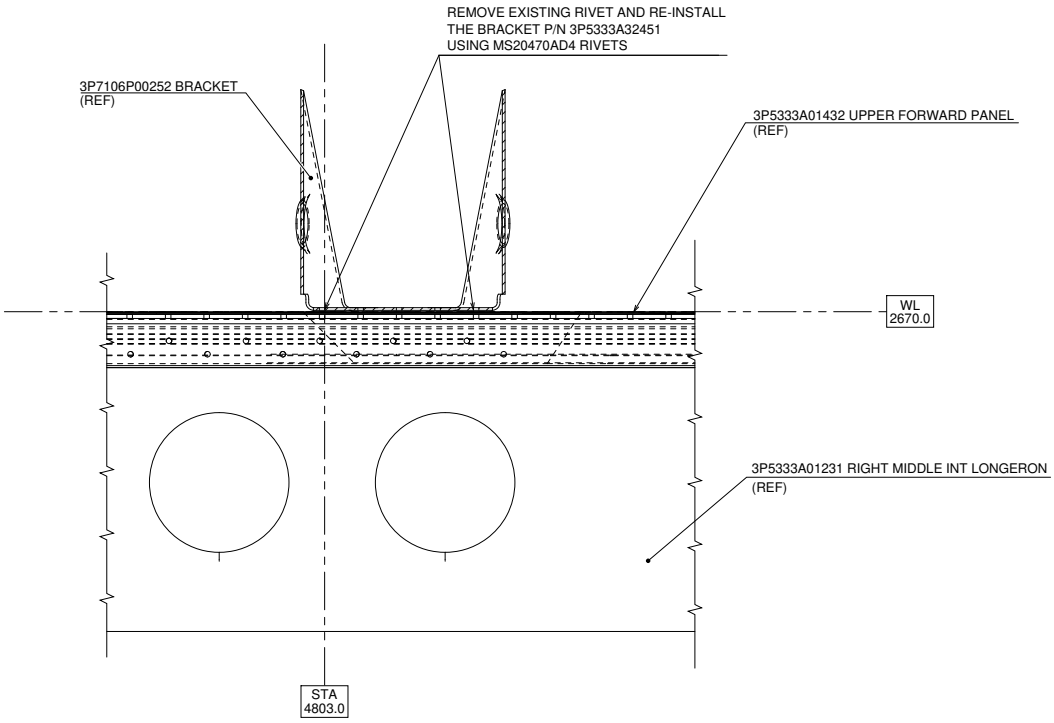

3P5333A01432 UPPER FORWARD PANEL
(REF)
REMOVE:
MS20470AD4 RIVET
INSTALL:
MS20426AD4 RIVET
(TYP 3 PLACES)
INSTALL:
3P7106P00252 BRACKET
H
H
72.3
21.3
STA
4803.0
DETAIL E
3P5333A01231
RIGHT MIDDLE INT LONGERON
(REF)
7.7
TYP
52.6
TYP
BL
550.0
INSTALL:
MS27039-1-04 SCREW
NAS1149C0332R WASHER
(TYP 2 PLACES)
3P5333A01231 RIGHT MIDDLE INT LONGERON
(REF)
3P5333A01432 UPPER FORWARD PANEL
(REF)
STA
5700.0
F
E
G
G
STA
4803.0
VIEW D
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
3P7106P00252 BRACKET
(REF)
BL
550.0
BL
0.0
INSTALL:
A813A3AM INSERT
(TYP 2 PLACES)
3P7106P00252 BRACKET
(REF)
3P5333A01432 UPPER FORWARD PANEL
(REF)
SECTION H-H

Figure 58



VIEW F



SECTION G-G

Figure 59

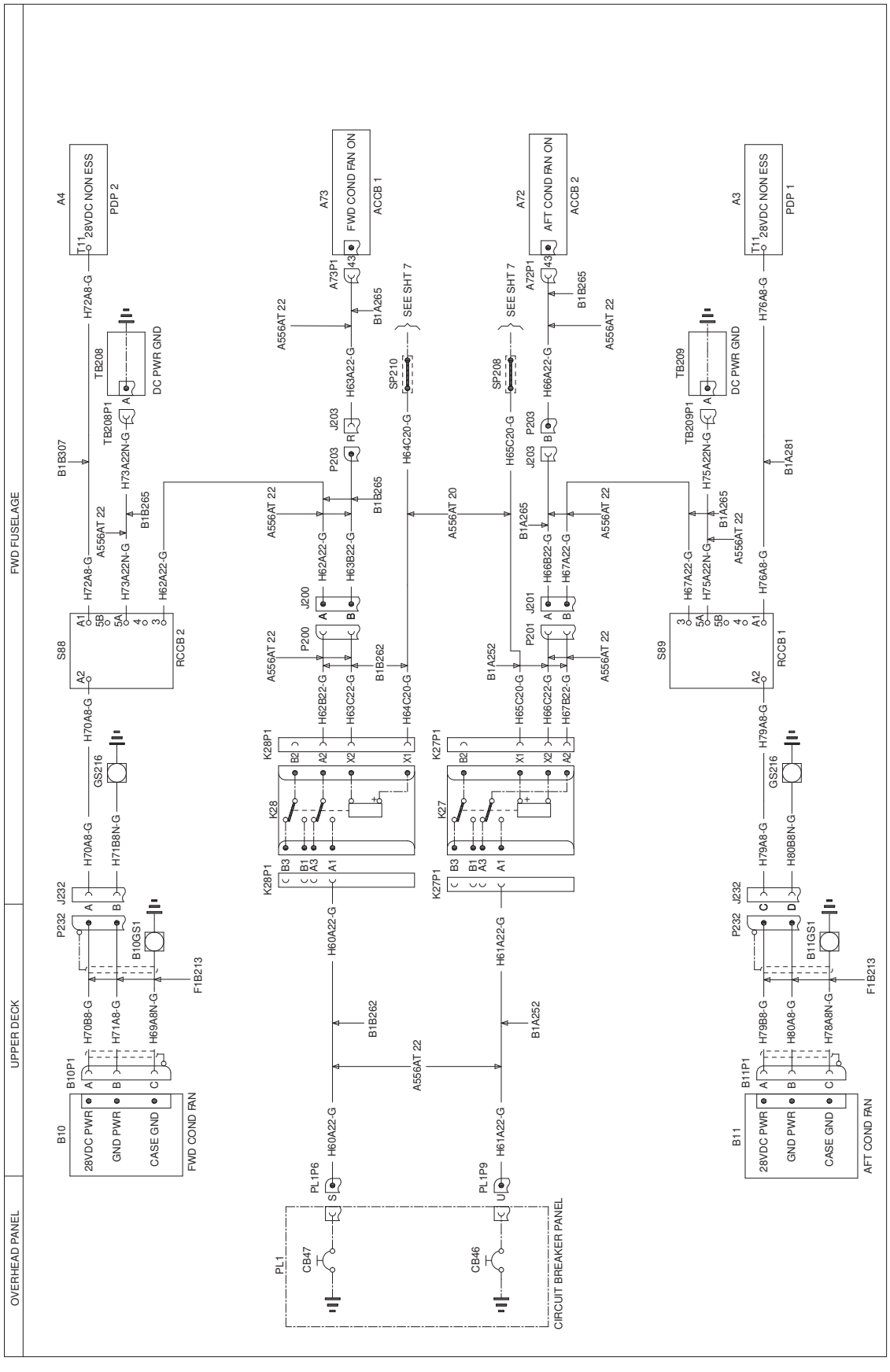
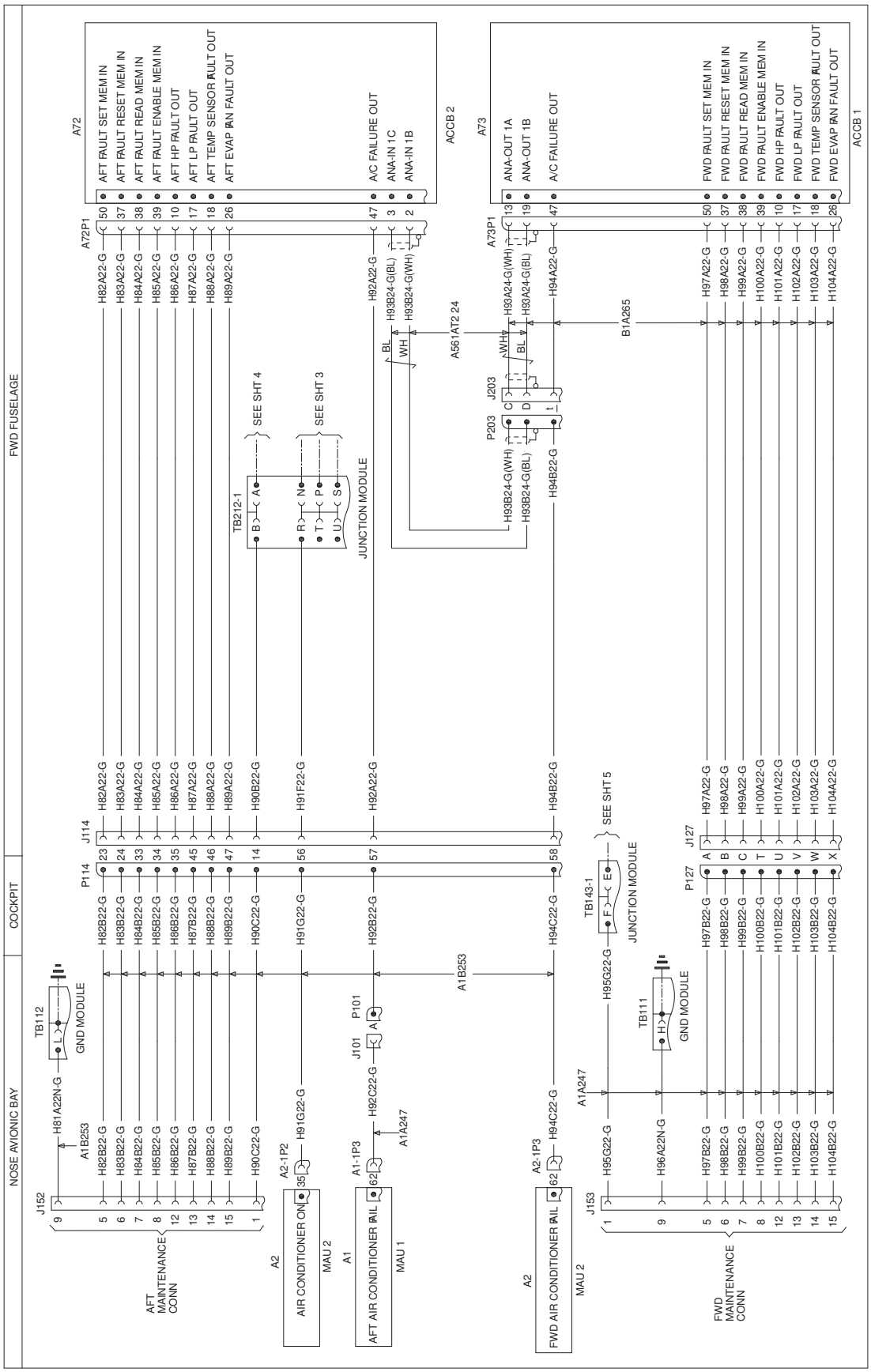
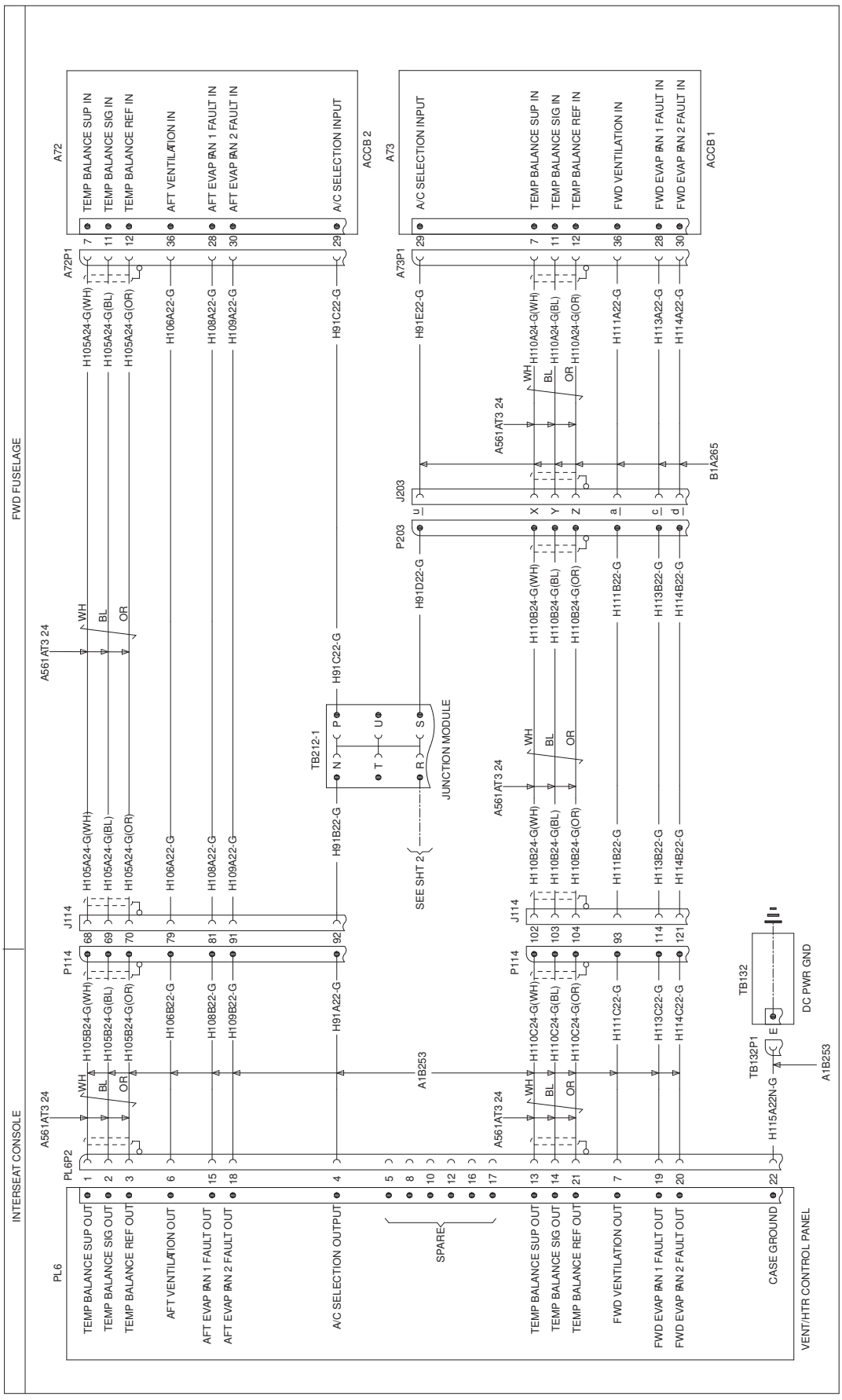

3G2150W00111
WIRING DIAGRAM ECS
SHEET 1
OVERHEAD PANEL
UPPER DECK
FWD FUSELAGE
A4
28VDC NON ESS
PDP 2
A73
FWD COND FAN ON
ACCB 1
A72
AFT COND FAN ON
ACCB 2
A3
28VDC NON ESS
PDP 1
TB208
DC PWR GND
TB209
DC PWR GND
S88
RCCB 2
S89
RCCB 1
K28P1
K28
K27P1
K27
GS216
B10
28VDC PWR
GND PWR
CASE GND
FWD COND FAN
B11
28VDC PWR
GND PWR
CASE GND
AFT COND FAN
B10GS1
B11GS1
F1B213
PL1
CB47
CB46
CIRCUIT BREAKER PANEL
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB1B267 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 8 UNLESS SPECIFIED

Figure 60



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B1B265 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 61



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB1B265 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 22 UNLESS SPECIFIED

Figure 62

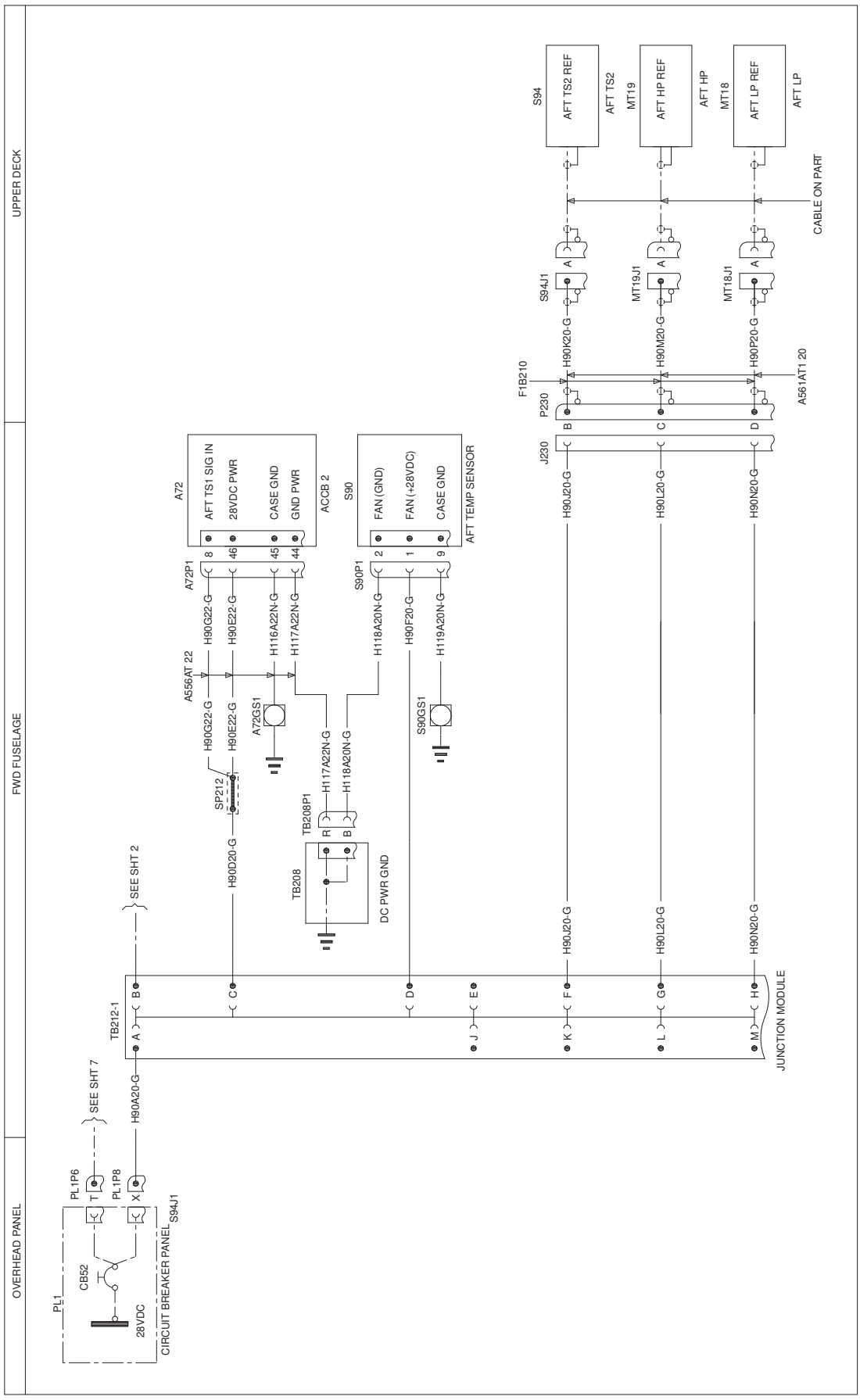
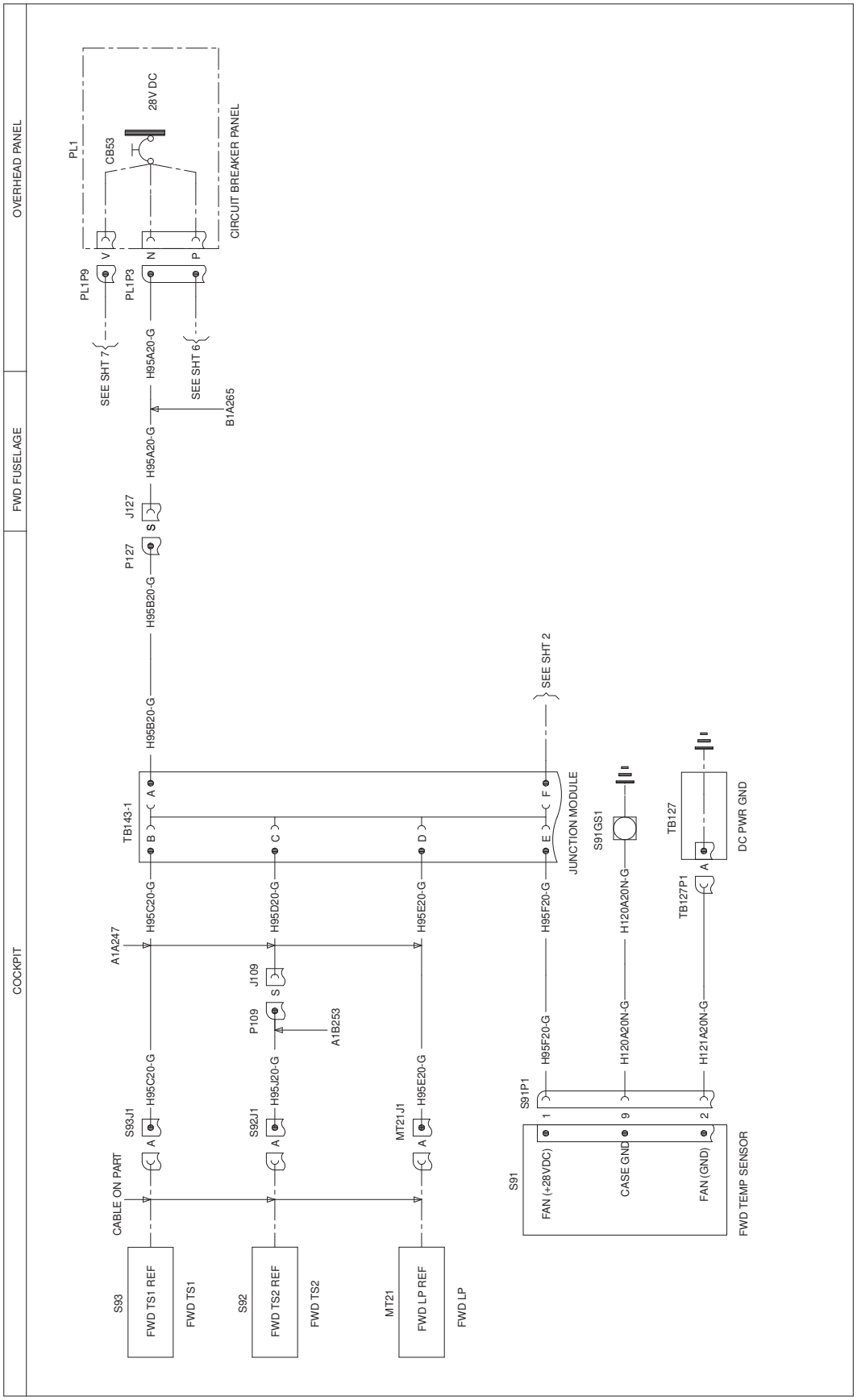
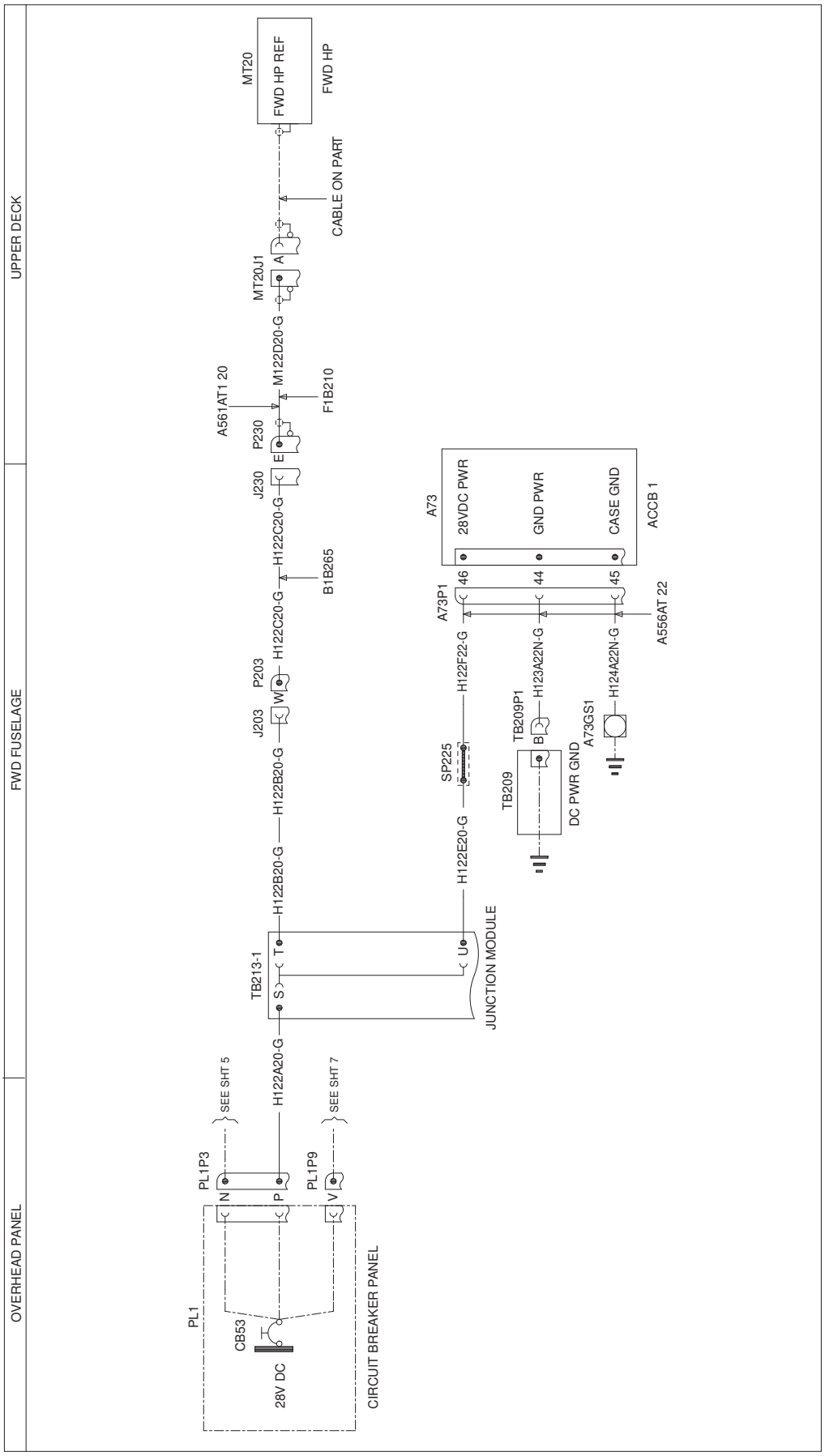

OVERHEAD PANEL
FWD FUSELAGE
UPPER DECK
3G2150W00111
WIRING DIAGRAM ECS
SHEET 4
CIRCUIT BREAKER PANEL
PL1
CB52
28VDC
PL1P6
PL1P8
S94J1
SEE SHT 7
H90A20-G
TB212-1
SEE SHT 2
H90D20-G
TB208
TB208P1
DC PWR GND
A72
AFT TS1 SIG IN
28VDC PWR
CASE GND
GND PWR
ACCB 2
A72P1
A556AT 22
H90G22-G
H90E22-G
H116A22N-G
H117A22N-G
A72GS1
SP212
S90
FAN (GND)
FAN (+28VDC)
CASE GND
AFT TEMP SENSOR
S90P1
H118A20N-G
H90F20-G
H119A20N-G
S90GS1
H117A22N-G
H118A20N-G
JUNCTION MODULE
H90J20-G
H90L20-G
H90N20-G
F1B210
P230
J230
A561AT1 20
S94
AFT TS2 REF
AFT TS2
MT19
AFT HP REF
AFT HP
MT18
AFT LP REF
AFT LP
S94J1
MT19J1
MT18J1
H90K20-G
H90M20-G
H90P20-G
CABLE ON PART
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB1B265 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 20 UNLESS SPECIFIED

Figure 63



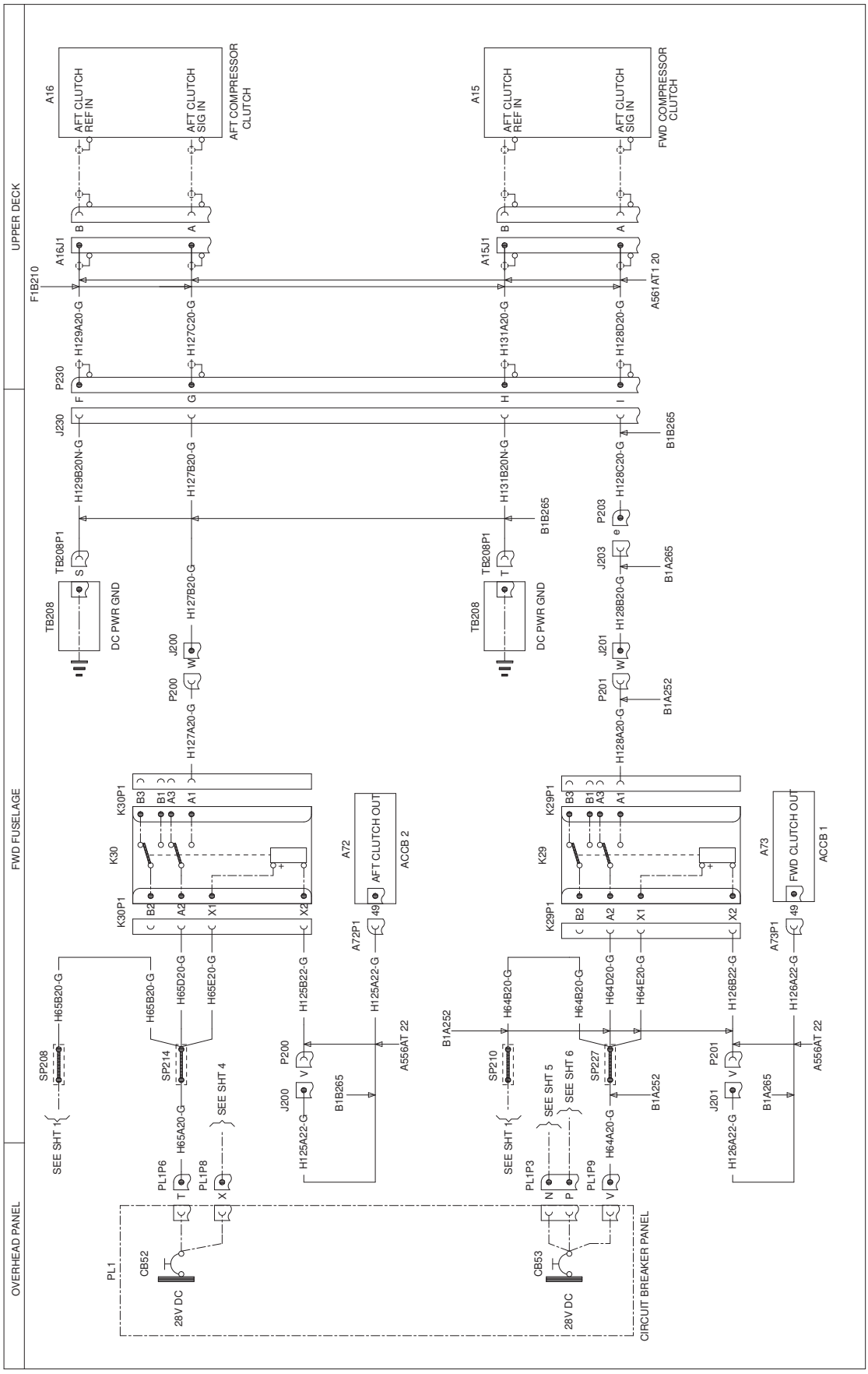
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1A247 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 20 UNLESS SPECIFIED

Figure 64



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB1A265 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 20 UNLESS SPECIFIED

Figure 65



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB1B262 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 20 UNLESS SPECIFIED

Figure 66

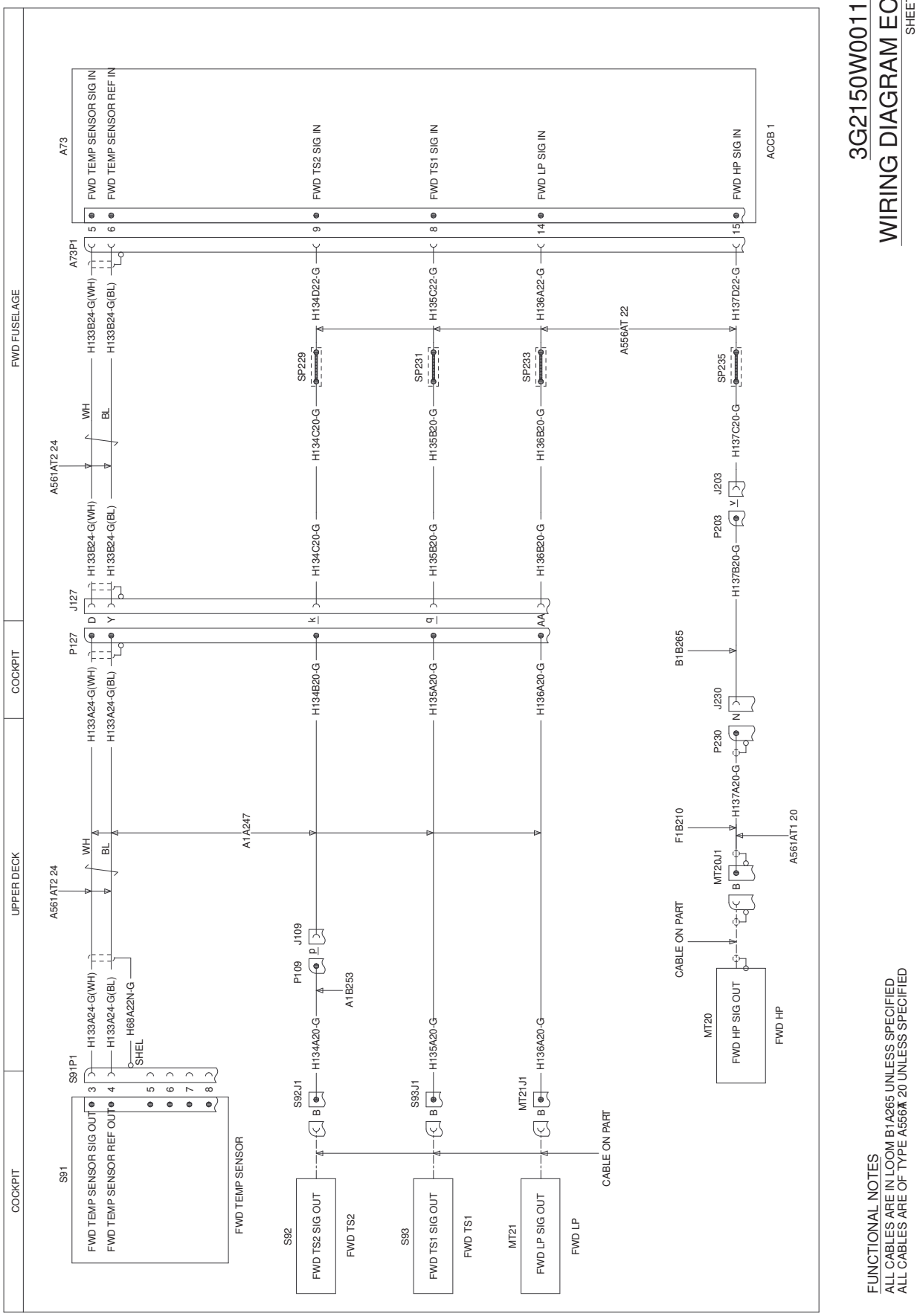
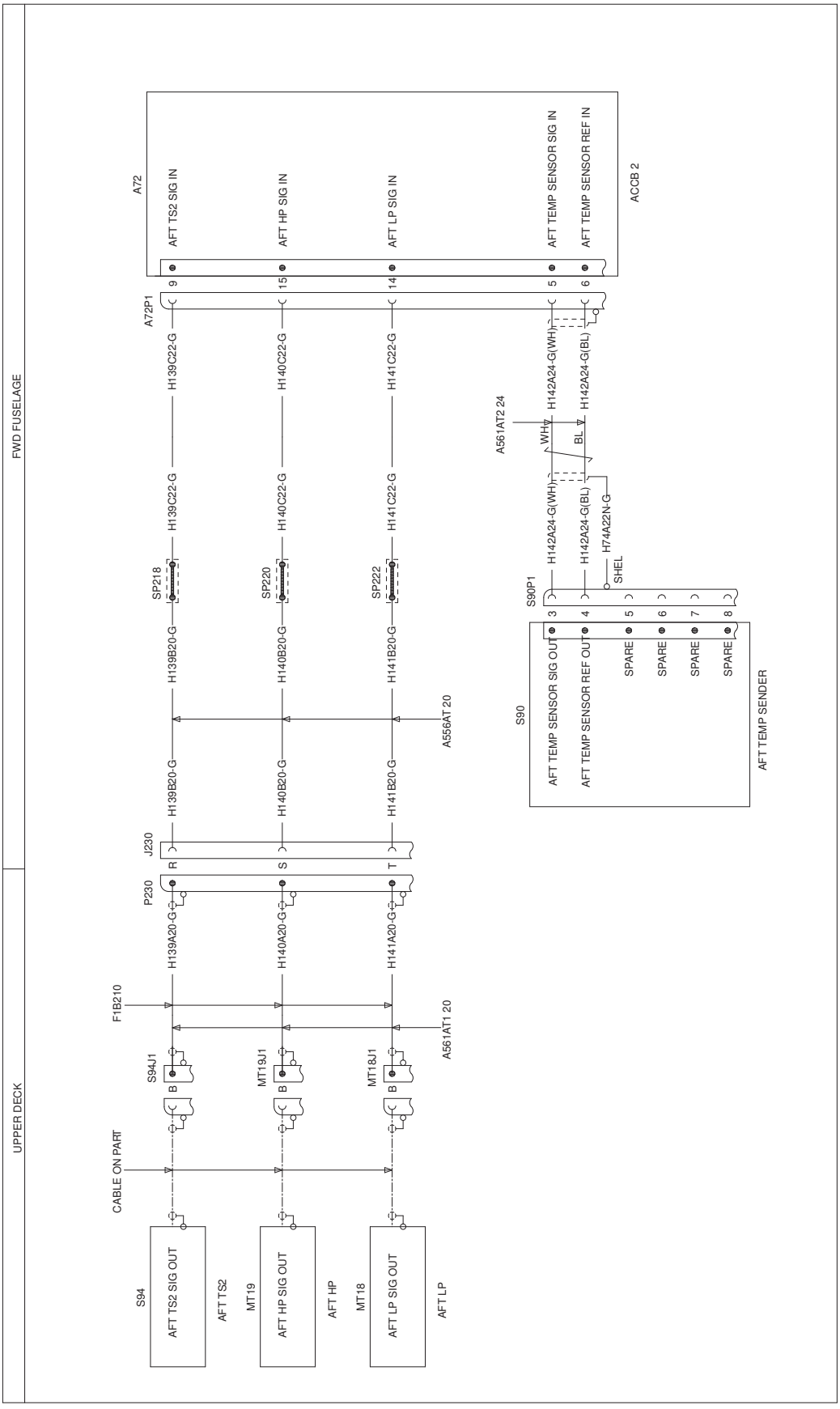

3G2150W00111
WIRING DIAGRAM ECS
SHEET 8
COCKPIT
UPPER DECK
COCKPIT
FWD FUSELAGE
A73
FWD TEMP SENSOR SIG IN
FWD TEMP SENSOR REF IN
FWD TS2 SIG IN
FWD TS1 SIG IN
FWD LP SIG IN
FWD HP SIG IN
ACCB 1
A73P1
A561AT2 24
A556AT 22
A561AT1 20
A1A247
A1B253
B1B265
F1B210
CABLE ON PART
S91
S91P1
FWD TEMP SENSOR SIG OUT
FWD TEMP SENSOR REF OUT
SHEL
H68A22N-G
FWD TEMP SENSOR
S92
S92J1
FWD TS2 SIG OUT
FWD TS2
S93
S93J1
FWD TS1 SIG OUT
FWD TS1
MT21
MT21J1
FWD LP SIG OUT
FWD LP
MT20
MT20J1
FWD HP SIG OUT
FWD HP
P127
J127
P109
J109
P230
J230
P203
J203
SP229
SP231
SP233
SP235
H133A24-G(WH)
H133A24-G(BL)
H133B24-G(WH)
H133B24-G(BL)
H134A20-G
H135A20-G
H136A20-G
H137A20-G
H134B20-G
H135B20-G
H136B20-G
H137B20-G
H134C20-G
H135C20-G
H136C20-G
H137C20-G
H134D22-G
H135C22-G
H136A22-G
H137D22-G
WH
BL
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B1A285 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556A 20 UNLESS SPECIFIED

Figure 67



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB1B265 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 22 UNLESS SPECIFIED

Figure 68

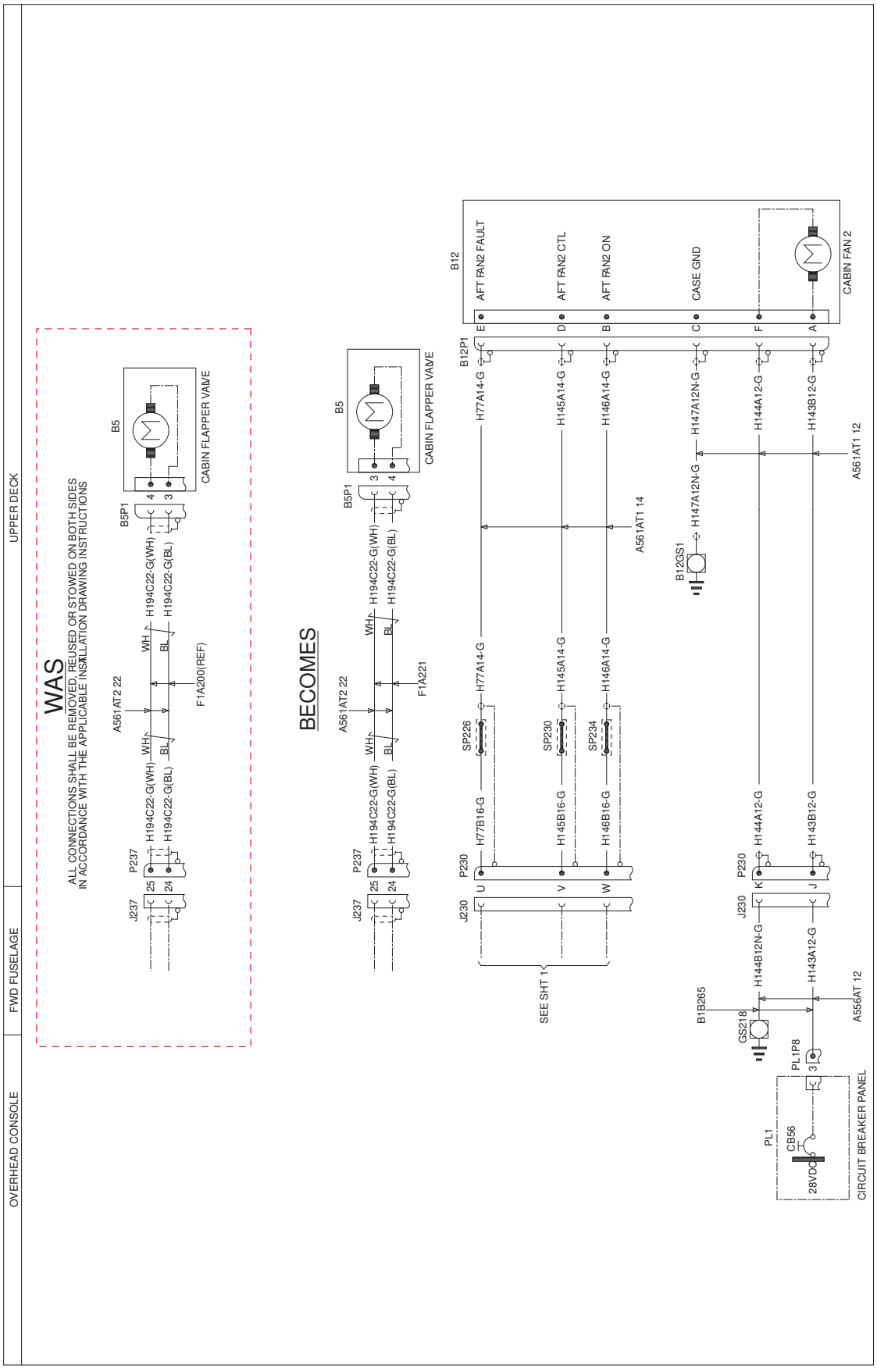

3G2150W00111
WIRING DIAGRAM ECS
SHEET 10
OVERHEAD CONSOLE
FWD FUSELAGE
UPPER DECK
WAS
ALL CONNECTIONS SHALL BE REMOVED, REUSED OR STOWED ON BOTH SIDES IN ACCORDANCE WITH THE APPLICABLE INSTALLATION DRAWING INSTRUCTIONS
BECOMES
B5
CABIN FLAPPER VALVE
B5P1
A561AT2 22
P237
J237
H194C22-G(WH)
H194C22-G(BL)
WH
BL
F1A200(REF)
F1A221
B12
AFT FAN2 FAULT
AFT FAN2 CTL
AFT FAN2 ON
CASE GND
CABIN FAN 2
B12P1
H77A14-G
H145A14-G
H146A14-G
H147A12N-G
H144A12-G
H143B12-G
A561AT1 14
A561AT1 12
B12GS1
H147A12N-G
SP226
SP230
SP234
H77A14-G
H145A14-G
H146A14-G
P230
J230
H77B16-G
H145B16-G
H146B16-G
H144A12-G
H143B12-G
U
V
W
K
J
SEE SHT 1
B1B265
GS218
H144B12N-G
H143A12-G
A556AT 12
PL1P8
PL1
CB56
28VDC
CIRCUIT BREAKER PANEL
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMF1B210 UNLESS SPECIFIED
ALL CABLES ARE OF TYPEA556AT 16 UNLESS SPECIFIED
SB139-652-066-01

Figure 69

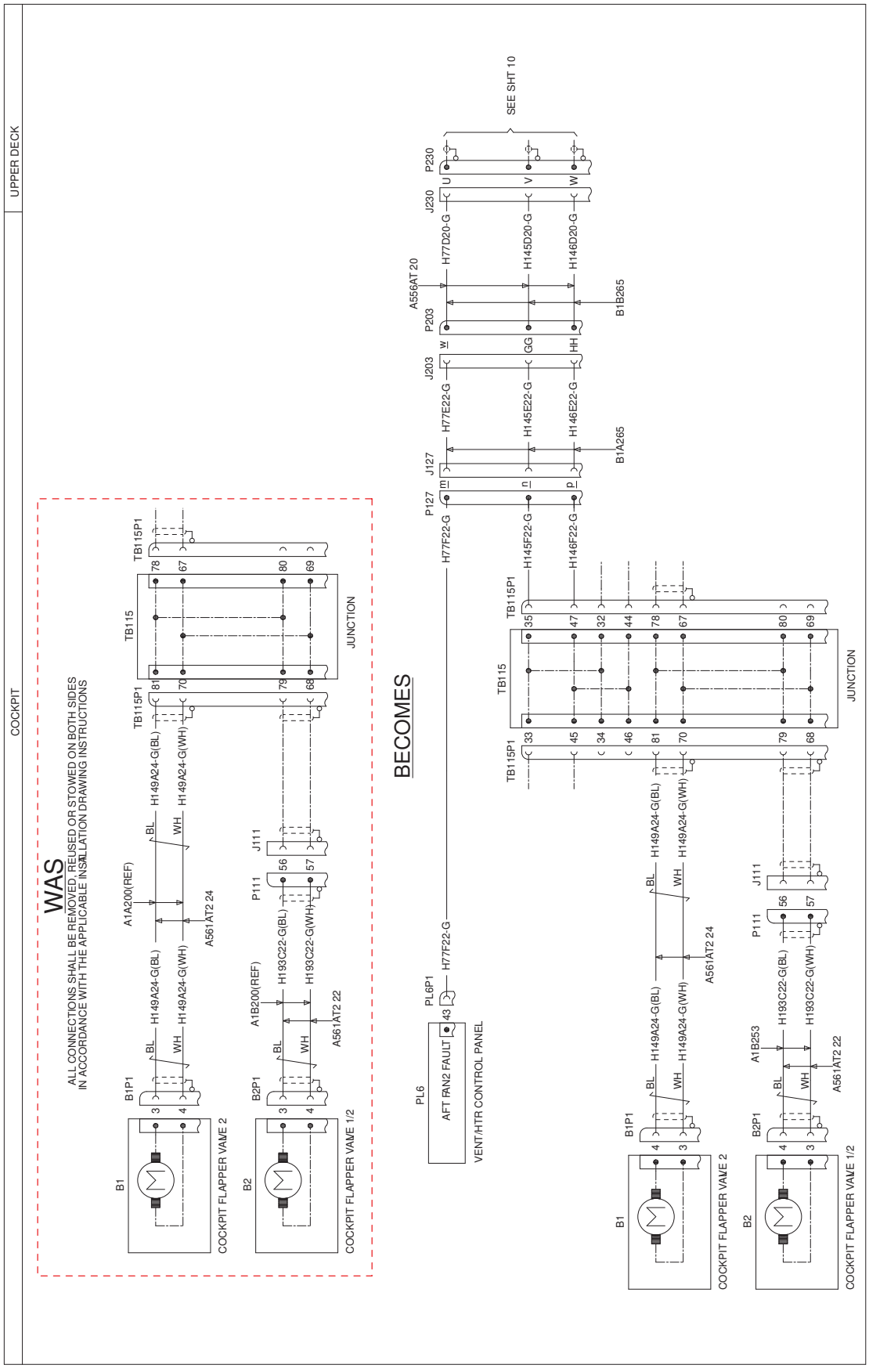

3G2150W00111
WIRING DIAGRAM ECS
SHEET 11
COCKPIT
UPPER DECK
WAS
ALL CONNECTIONS SHALL BE REMOVED, REUSED OR STOWED ON BOTH SIDES IN ACCORDANCE WITH THE APPLICABLE INSTALLATION DRAWING INSTRUCTIONS
BECOMES
SEE SHT 10
JUNCTION
TB115
TB115P1
COCKPIT FLAPPER VALVE 2
COCKPIT FLAPPER VALVE 1/2
AFT FAN2 FAULT
VENT/HTR CONTROL PANEL
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1A247 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 70

Cable Assy	Wire		From Ref Des	Pin From	Electrical Contact	To Ref Des	Pin To	Electrical Contact
	ID	Col.						
3G9A01A24701 (A1A247)	H100B22-G		J153	8	M39029/64-369	P127	T	M39029/58-363
	H101B22-G		P127	U	M39029/58-363	J153	12	M39029/64-369
	H102B22-G		J153	13	M39029/64-369	P127	V	M39029/58-363
	H103B22-G		P127	W	M39029/58-363	J153	14	M39029/64-369
	H104B22-G		J153	15	M39029/64-369	P127	X	M39029/58-363
	H120A20N-G		S91GS1	*	MS25036-103	S91P1	9	N.A.
	H121A20N-G		S91P1	2	N.A.	TB127P1	A	M39029/56-351
	H133A24-G	WH	P127	D	M39029/58-363	S91P1	3	N.A.
		BL	P127	Y	M39029/58-363	S91P1	4	N.A.
	H134B20-G		P127	k	M39029/58-363	J109	p	M39029/56-351
	H135A20-G		P127	q	M39029/58-363	S93J1	B	M39029/58-363
	H136A20-G		P127	AA	M39029/58-363	MT21J1	B	M39029/58-363
	H145F22-G		TB115P1	35	M39029/56-348	P127	n	M39029/58-363
	H146F22-G		TB115P1	47	M39029/56-348	P127	p	M39029/58-363
	H149A24-G	WH	B1P1	3	M39029/56-348	TB115P1	70	M39029/56-348
		BL	B1P1	4	M39029/56-348	TB115P1	81	M39029/56-348
	H68A22N-G		S91P1	VSER	MS25036-148	S91P1	°	N.A.
	H77F22-G		PL6P1	43	M39029/56-348	P127	m	M39029/58-363
	H92C22-G		A1-1P3	62	M39029/57-354	J101	A	M39029/56-351
	H95B20-G		TB143/1	A	001104-203-02	P127	S	M39029/58-363
	H95C20-G		S93J1	A	M39029/58-363	TB143/1	B	001104-203-02
	H95D20-G		J109	S	M39029/56-351	TB143/1	C	001104-203-02
	H95E20-G		MT21J1	A	M39029/58-363	TB143/1	D	001104-203-02
	H95F20-G		S91P1	1	N.A.	TB143/1	E	001104-203-02
	H95G22-G		J153	1	M39029/64-369	TB143/1	F	001104-202-02
	H96A22N-G		J153	9	M39029/64-369	TB111	H	001104-200-02
	H97B22-G		P127	A	M39029/58-363	J153	5	M39029/64-369
	H98B22-G		J153	6	M39029/64-369	P127	B	M39029/58-363
	H99B22-G		P127	C	M39029/58-363	J153	7	M39029/64-369
3G9B01A25201 (B1A252)	H126B22-G		P201	V	M39029/56-351	K29P1	X2	M39029/101-553
	H128A20-G		P201	W	M39029/56-351	K29P1	A1	M39029/101-554
	H61A22-G		K27P1	A1	M39029/101-553	PL1P9	U	M39029/58-363
	H64A20-G		PL1P9	V	M39029/58-363	SP227	*	N.A.
	H64B20-G		SP227	*	N.A.	SP210	*	N.A.
	H64D20-G		SP227	*	N.A.	K29P1	A2	M39029/101-554
	H64E20-G		SP227	*	N.A.	K29P1	X1	M39029/101-553
	H65C20-G		K27P1	X1	M39029/101-553	SP208	*	N.A.
	H66C22-G		K27P1	X2	M39029/101-553	P201	A	M39029/56-351
	H67B22-G		K27P1	A2	M39029/101-553	P201	B	M39029/56-351

Figure 71

Cable Assy	Wire		From Ref Des	Pin From	Electrical Contact	To Ref Des	Pin To	Electrical Contact
	ID	Col.						
3G9A01B25301 (A1B253)	H105B24-G	WH	PL6P2	1	M39029/56-348	P114	68	M39029/58-360
		BL	PL6P2	2	M39029/56-348	P114	69	M39029/58-360
		OR	PL6P2	3	M39029/56-348	P114	70	M39029/58-360
	H106B22-G		PL6P2	6	M39029/56-348	P114	79	M39029/58-360
	H108B22-G		PL6P2	15	M39029/56-348	P114	81	M39029/58-360
	H109B22-G		PL6P2	18	M39029/56-348	P114	91	M39029/58-360
	H110C24-G	WH	PL6P2	13	M39029/56-348	P114	102	M39029/58-360
		BL	PL6P2	14	M39029/56-348	P114	103	M39029/58-360
		OR	PL6P2	21	M39029/56-348	P114	104	M39029/58-360
	H111C22-G		PL6P2	7	M39029/56-348	P114	93	M39029/58-360
	H113C22-G		PL6P2	19	M39029/56-348	P114	114	M39029/58-360
	H114C22-G		PL6P2	20	M39029/56-348	P114	121	M39029/58-360
	H115A22N-G		PL6P2	22	M39029/56-348	TB132P1	E	M39029/56-351
	H134A20-G		P109	p	M39029/58-363	S92J1	B	M39029/58-363
	H193C22-G	WH	B2P1	3	M39029/56-348	P111	57	M39029/58-360
		BL	B2P1	4	M39029/56-348	P111	56	M39029/58-360
	H81A22N-G		J152	9	M39029/64-369	TB112	L	001104-202-02
	H82B22-G		P114	23	M39029/58-360	J152	5	M39029/64-369
	H83B22-G		J152	6	M39029/64-369	P114	24	M39029/58-360
	H84B22-G		P114	33	M39029/58-360	J152	7	M39029/64-369
	H85B22-G		J152	8	M39029/64-369	P114	34	M39029/58-360
	H86B22-G		P114	35	M39029/58-360	J152	12	M39029/64-369
	H87B22-G		J152	13	M39029/64-369	P114	45	M39029/58-360
	H88B22-G		P114	46	M39029/58-360	J152	14	M39029/64-369
	H89B22-G		J152	15	M39029/64-369	P114	47	M39029/58-360
	H90C22-G		J152	1	M39029/64-369	P114	14	M39029/58-360
	H91A22-G		PL6P2	4	M39029/56-348	P114	92	M39029/58-360
	H91G22-G		A2-1P2	35	M39029/57-354	P114	56	M39029/58-360
	H92B22-G		P101	A	M39029/58-363	P114	57	M39029/58-360
	H94C22-G		A2-1P3	62	M39029/57-354	P114	58	M39029/58-360
	H95J20-G		P109	S	M39029/58-363	S92J1	A	M39029/58-363
3G9B01B26201 (B1B262)	H125B22-G		P200	V	M39029/56-351	K30P1	X2	M39029/101-553
	H127A20-G		P200	W	M39029/56-351	K30P1	A1	M39029/101-554
	H60A22-G		K28P1	A1	M39029/101-553	PL1P6	S	M39029/58-363
	H62B22-G		K28P1	A2	M39029/101-553	P200	A	M39029/56-351
	H63C22-G		K28P1	X2	M39029/101-553	P200	B	M39029/56-351
	H64C20-G		K28P1	X1	M39029/101-553	SP210	*	N.A.
	H65A20-G		PL1P6	T	M39029/58-363	SP214	*	N.A.
	H65B20-G		SP214	*	N.A.	SP208	*	N.A.
	H65D20-G		SP214	*	N.A.	K30P1	A2	M39029/101-554
	H65E20-G		SP214	*	N.A.	K30P1	X1	M39029/101-553

Figure 72

Cable Assy	Wire		From Ref Des	Pin From	Electrical Contact	To Ref Des	Pin To	Electrical Contact
	ID	Col.						
3G9B01A26501 (B1A265)	H100A22-G		A73P1	39	M39029/56-348	J127	T	M39029/56-351
	H101A22-G		J127	U	M39029/56-351	A73P1	10	M39029/56-348
	H102A22-G		A73P1	17	M39029/56-348	J127	V	M39029/56-351
	H103A22-G		J127	W	M39029/56-351	A73P1	18	M39029/56-348
	H104A22-G		A73P1	26	M39029/56-348	J127	X	M39029/56-351
	H110A24-G	WH	J203	X	M39029/56-351	A73P1	7	M39029/56-348
		BL	J203	Y	M39029/56-351	A73P1	11	M39029/56-348
		OR	J203	Z	M39029/56-351	A73P1	12	M39029/56-348
	H111A22-G		J203	a	M39029/56-351	A73P1	36	M39029/56-348
	H113A22-G		J203	c	M39029/56-351	A73P1	28	M39029/56-348
	H114A22-G		J203	d	M39029/56-351	A73P1	30	M39029/56-348
	H122A20-G		PL1P3	P	M39029/58-363	TB213/1	S	001104-203-02
	H122B20-G		TB213/1	T	001104-203-02	J203	W	M39029/56-351
	H122E20-G		TB213/1	U	001104-203-02	SP225	*	N.A.
	H122F22-G		SP225	*	N.A.	A73P1	46	M39029/56-348
	H123A22N-G		TB209P1	B	M39029/56-351	A73P1	44	M39029/56-348
	H124A22N-G		A73GS1	*	MS25036-103	A73P1	45	M39029/56-348
	H126A22-G		J201	V	M39029/58-363	A73P1	49	M39029/56-348
	H128B20-G		J201	W	M39029/58-363	J203	e	M39029/56-351
	H133B24-G	WH	J127	D	M39029/56-351	A73P1	5	M39029/56-348
		BL	J127	Y	M39029/56-351	A73P1	6	M39029/56-348
	H134C20-G		J127	k	M39029/56-351	SP229	*	N.A.
	H134D22-G		SP229	*	N.A.	A73P1	9	M39029/56-348
	H135B20-G		J127	q	M39029/56-351	SP231	*	N.A.
	H135C22-G		SP231	*	N.A.	A73P1	8	M39029/56-348
	H136A22-G		SP233	*	N.A.	A73P1	14	M39029/56-348
	H136B20-G		J127	AA	M39029/56-351	SP233	*	N.A.
	H137C20-G		J203	v	M39029/56-351	SP235	*	N.A.
	H137D22-G		SP235	*	N.A.	A73P1	15	M39029/56-348
	H145E22-G		J127	n	M39029/56-351	J203	GG	M39029/56-351
	H146E22-G		J127	p	M39029/56-351	J203	HH	M39029/56-351
	H63A22-G		J203	R	M39029/56-351	A73P1	43	M39029/56-348
	H66B22-G		J203	B	M39029/56-351	J201	A	M39029/58-363
	H67A22-G		J201	B	M39029/58-363	S89	3	M39029/1-100
	H75A22N-G		S89	5A	M39029/1-100	TB209P1	A	M39029/56-351
	H77E22-G		J127	m	M39029/56-351	J203	w	M39029/56-351
	H91E22-G		J203	u	M39029/56-351	A73P1	29	M39029/56-348
	H93A24-G	WH	A73P1	13	M39029/56-351	J203	C	M39029/56-348
		BL	A73P1	19	M39029/56-348	J203	D	M39029/56-351
	H94A22-G		J203	t	M39029/56-351	A73P1	47	M39029/56-348
	H95A20-G		J127	S	M39029/56-351	PL1P3	N	M39029/58-363
	H97A22-G		A73P1	50	M39029/56-348	J127	A	M39029/56-351
	H98A22-G		J127	B	M39029/56-351	A73P1	37	M39029/56-348
	H99A22-G		A73P1	38	M39029/56-348	J127	C	M39029/56-351

Figure 73

Cable Assy	Wire ID	Wire Col.	From Ref Des	Pin From	Electrical Contact	To Ref Des	Pin To	Electrical Contact
3G9B01B26501 (B1B265)	H105A24-G	BL	A72P1	11	M39029/56-348	J114	69	M39029/56-348
		OR	A72P1	12	M39029/56-348	J114	70	M39029/56-348
		WH	A72P1	7	M39029/56-348	J114	68	M39029/56-348
	H106A22-G		J114	79	M39029/56-348	A72P1	36	M39029/56-348
	H108A22-G		J114	81	M39029/56-348	A72P1	28	M39029/56-348
	H109A22-G		J114	91	M39029/56-348	A72P1	30	M39029/56-348
	H110B24-G	WH	P203	X	M39029/58-363	J114	102	M39029/56-348
		BL	P203	Y	M39029/58-363	J114	103	M39029/56-348
		OR	P203	Z	M39029/58-363	J114	104	M39029/56-348
	H111B22-G		J114	93	M39029/56-348	P203	a	M39029/58-363
	H113B22-G		J114	114	M39029/56-348	P203	c	M39029/58-363
	H114B22-G		J114	121	M39029/56-348	P203	d	M39029/58-363
	H116A22N-G		A72GS1	*	MS25036-103	A72P1	45	M39029/56-348
	H117A22N-G		TB208P1	R	M39029/56-351	A72P1	44	M39029/56-348
	H118A20N-G		S90P1	2	N.A.	TB208P1	B	M39029/56-351
	H119A20N-G		S90GS1	*	MS25036-103	S90P1	9	N.A.
	H122C20-G		P203	W	M39029/58-363	J230	E	M39029/30-218
	H125A22-G		J200	V	M39029/58-363	A72P1	49	M39029/56-348
	H127B20-G		J200	W	M39029/58-363	J230	G	M39029/30-218
	H128C20-G		P203	e	M39029/58-363	J230	I	M39029/30-218
	H129B20N-G		TB208P1	S	M39029/56-351	J230	F	M39029/30-218
	H131B20N-G		TB208P1	T	M39029/56-351	J230	H	M39029/30-218
	H137B20-G		J230	N	M39029/30-218	P203	v	M39029/58-363
	H139B20-G		J230	R	M39029/30-218	SP218	*	N.A.
	H139C22-G		SP218	*	N.A.	A72P1	9	M39029/56-348
	H140B20-G		J230	S	M39029/30-218	SP220	*	N.A.
	H140C22-G		SP220	*	N.A.	A72P1	15	M39029/56-348
	H141B20-G		J230	T	M39029/30-218	SP222	*	N.A.
	H141C22-G		SP222	*	N.A.	A72P1	14	M39029/56-348
	H142A24-G	WH	A72P1	5	M39029/56-348	S90P1	3	M39029/56-348
		BL	A72P1	6	M39029/56-348	S90P1	4	M39029/56-348
	H143A12-G		J230	J	M39029/30-219	PL1P8	3	M39029/58-365
	H144B12N-G		J230	K	M39029/30-219	GS218	*	MS25036-157
	H145D20-G		P203	GG	M39029/58-363	J230	V	M39029/30-218
	H146D20-G		P203	HH	M39029/58-363	J230	W	M39029/30-218
	H62A22-G		J200	A	M39029/58-363	S88	3	M39029/1-100
	H63B22-G		J200	B	M39029/58-363	P203	R	M39029/58-363
	H66A22-G		P203	B	M39029/58-363	A72P1	43	M39029/56-348
	H73A22N-G		TB208P1	A	M39029/56-351	S88	5A	M39029/1-100
	H74A22N-G		S90P1	VSER	MS25036-148	S90P1	°	N.A.
	H77D20-G		P203	w	M39029/58-363	J230	U	M39029/30-218
	H82A22-G		J114	23	M39029/56-348	A72P1	50	M39029/56-348
	H83A22-G		A72P1	37	M39029/56-348	J114	24	M39029/56-348
	H84A22-G		A72P1	38	M39029/56-348	J114	33	M39029/56-348
	H85A22-G		A72P1	39	M39029/56-348	J114	34	M39029/56-348
	H86A22-G		A72P1	10	M39029/56-348	J114	35	M39029/56-348
	H87A22-G		A72P1	17	M39029/56-348	J114	45	M39029/56-348
	H88A22-G		A72P1	18	M39029/56-348	J114	46	M39029/56-348
	H89A22-G		A72P1	26	M39029/56-348	J114	47	M39029/56-348
	H90A20-G		PL1P8	X	M39029/58-363	TB212/1	A	001104-203-02
	H90B22-G		J114	14	M39029/56-348	TB212/1	B	001104-202-02
	H90D20-G		SP212	*	N.A.	TB212/1	C	001104-203-02
	H90E22-G		SP212	*	N.A.	A72P1	46	M39029/56-348
	H90F20-G		S90P1	1	N.A.	TB212/1	D	001104-203-02
	H90G22-G		SP212	*	N.A.	A72P1	8	M39029/56-348
	H90J20-G		J230	B	M39029/30-218	TB212/1	F	001104-203-02
	H90L20-G		J230	C	M39029/30-218	TB212/1	G	001104-203-02
	H90N20-G		J230	D	M39029/30-218	TB212/1	H	001104-203-02
	H91B22-G		J114	92	M39029/56-348	TB212/1	N	001104-202-02
	H91C22-G		TB212/1	P	001104-202-02	A72P1	29	M39029/56-348
	H91D22-G		P203	u	M39029/58-363	TB212/1	S	001104-202-02
	H91F22-G		J114	56	M39029/56-348	TB212/1	R	001104-202-02
	H92A22-G		J114	57	M39029/56-348	A72P1	47	M39029/56-348
	H93B24-G	WH	P203	C	M39029/58-363	A72P1	2	M39029/56-348
		BL	P203	D	M39029/58-363	A72P1	3	M39029/56-348
	H94B22-G		J114	58	M39029/56-348	P203	t	M39029/58-363

Figure 74

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AgustaWestland Products

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

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

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

Remarks:

Information:

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