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AgustaWestland Products

SERVICE BULLETIN

OPTIONAL

N° 189-313

DATE: March 27, 2024

REV. : /

TITLE

ATA 21 - TAIL AVIONIC BAY COOLING INSTALLATION

REVISION LOG

First Issue

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

1. PLANNING INFORMATION

A. EFFECTIVITY

Part I

All AW189 helicopters S/N 49054 and from S/N 49064 to S/N 49067.

Part II, Part III, Part IV, Part V, Part VI

All AW189 helicopters S/N 49054, from S/N 49064 to S/N 49067 and from S/N 49073 to S/N 49075.

Part VII

All AW189 helicopters from S/N 49073 to S/N 49078, from S/N 49080 to S/N 49084 and S/N 49086 already equipped with the "tail avionic bay structural provisions" P/N 8G5310A43211.

Part VIII

All AW189 helicopters from S/N 49073 to S/N 49076, S/N 49078, S/N 49080, S/N 49081, S/N 49084, S/N 49085, S/N 49087 and S/N 49089 already equipped with the "avionics cooling installation" P/N 8G2120A00311 and with "HF radio" kit P/N 8G2310F01411.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the installation of the kit "tail avionic bay cooling" P/N 8G2120F00611, the "tail avionic bay retromod" P/N 8G5310P01211 and the "avionics cooling tail retromod" P/N 8G2120P00311.

LH issued this SB for the following reason:

Helicopter Reliability/Maintainability	
Product Improvement	
Obsolescence	
Customization	✓
Product/Capability Enhancement	

E. DESCRIPTION

The kit “tail avionic bay cooling” P/N 8G2120F00611, part of the cooling system, located at STA 8700 is installed in order to cool down the tail avionic cabinet bay.

The ventilation system is active typology: the fan, made of ULTEM material, extracts hot air from cabinets to cool down electrical LRUs.

The kit “tail avionic bay cooling” draws fresh air from a fresh air inlet in the under floor of the baggage bay and distributes it at avionics equipment in the tail cone.

Part I of this Service Bulletin gives information on how to perform the “tail avionic bay structural provision” P/N 8G5310A43212 and the “tail avionic bay retromod” P/N 8G5310P01211.

Part II of this Service Bulletin gives information on how to perform the tail shelf fan C/A installation P/N 8G2120A06911 which consists in the installation of four C/As.

Part III of this Service Bulletin gives information on how to perform the “tail & rear RH fan IF C/A installation” P/N 8G2120A06211 which consists in the installation of the C/A.

Part IV of this Service Bulletin gives information on how to perform the “tail fan C/A relocation” P/N 8G2120A11811 which consists in the relocation of a C/A.

Part V of this Service Bulletin gives information on how to perform the “avionics cooling installation” P/N 8G2120A00311 which consists in the installation of a coupling, a flexible duct air, a nozzle and a diffuser.

Part VI of this Service Bulletin gives information on how to perform the “tail shelf fan equipment installation” P/N 8G2120A11211 which consists in the installation of a fingerguard grid, a fan, a duct and a bonding cable assy.

Part VII of this Service Bulletin gives information on how to perform the “tail avionic bay retromod” P/N 8G5310P01211 which consists in the integration of the plate protective P/N 8G2120A09751 and conductive gasket P/N AW001GH000A into the helicopters that have already installed the tail avionic bay structural provision P/N 8G5310A43211.

Part VIII of this Service Bulletin gives information on how to remove parts from the avionics cooling installation P/N 8G2120A00311 already installed on the helicopter.

F. APPROVAL

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

G. MANPOWER

To comply with this Service Bulletin the following MMH are deemed necessary:

Part I: approximately twenty-eight (28);

Part II: approximately thirty-two (32);

Part III: approximately eight (8);

Part IV: approximately eight (8);

Part V: approximately eight (8);

Part VI: approximately sixteen (16);

Part VII: approximately sixteen (16);

Part VIII: approximately eight (8).

MMH are based on hands-on time and can change with helicopter configuration, personnel and facilities available. MMH are not comprehensive of the overall hours necessary to get access to work areas and to remove all the equipment that interferes with the application of the prescribed instructions.

H. WEIGHT AND BALANCE

PART I

WEIGHT (kg)		0,73
	ARM (mm)	**MOMENT (kg·mm)**
LONGITUDINAL BALANCE	8023,8	5857,37
LATERAL BALANCE	-275,7	-201,26

PART II

WEIGHT (kg)		0,35
	ARM (mm)	**MOMENT (kg·mm)**
LONGITUDINAL BALANCE	6096,2	2133,67
LATERAL BALANCE	-348,2	-121,87

PART III

N.A.

PART IV

N.A.

PART V

WEIGHT (kg)		0,77
	ARM (mm)	**MOMENT (kg·mm)**
LONGITUDINAL BALANCE	9037,7	6959,03
LATERAL BALANCE	-116,0	-89,32

PART VI

WEIGHT (kg)		0,71
	ARM (mm)	**MOMENT (kg·mm)**
LONGITUDINAL BALANCE	8655,6	6145,5
LATERAL BALANCE	-186,7	-132,5

PART VII

WEIGHT (kg)		0,130
	ARM (mm)	**MOMENT (kg·mm)**
LONGITUDINAL BALANCE	8540,4	1110,25
LATERAL BALANCE	-181,5	-23,6

PART VIII

WEIGHT (kg)		0,77
	ARM (mm)	**MOMENT (kg·mm)**
LONGITUDINAL BALANCE	9037,7	6959,03
LATERAL BALANCE	-116,0	-89,32

I. REFERENCES

I.1 PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		DESCRIPTION	PART
DM01	89-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	All
DM02	89-A-06-41-00-00A-010A-A	Access doors and panels – General data	All
DM03	89-A-11-00-01-00A-720A-A	Decal - Install procedure	II, VI
DM04	89-A-46-21-00-00A-750A-A	Aircraft mission management system - Load software procedure	VI
DM05	89-A-46-31-00-00A-750A-A	Cockpit display system - Load software procedure	VI
DM06	89-A-24-81-00-04A-752A-A	SSEPMS - Remote electric power units (REPUs) - Data loading	VI
DM07	89-A-24-81-00-05A-752A-A	SSEPMS - Personality modules (PMs) - Data loading	VI

Following Data Modules refer to CSRP:

DATA MODULE		DESCRIPTION	PART
DM08	CSRP-A-51-22-01-00A-258A-D	Preparation of metallic bonding surfaces - Other procedure to clean	I

DATA MODULE		DESCRIPTION	PART
DM09	CSRP-A-51-21-06-00A-644A-D	Chromate conversion treatments of alluminium alloys - Chromate	VII

Following Data Modules refer to CSPP:

DATA MODULE		DESCRIPTION	PART
DM10	CSPP-A-20-10-12-02A-920A-D	Bonded studs - Replacement	I, II, V, VIII
DM11	CSPP-A-20-10-13-00A-622A-D	Electrical contacts - Crimp	II, III, IV

I.2 ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMMC	Aircraft Mission Management Computer
AMP	Aircraft Maintenance Publication
AR	As Required
ATA	Air Transport Association
ATP	Acceptance Test Procedure
C/A	Cable Assy
CDS	Cockpit Display System
CSPP	Common Standard Practices Publication
CSRP	Common Structural Repair Publication
DM	Data Module
DOA	Design Organization Approval
EAFR	Enhanced Airborne Flight Recorder
EASA	European Aviation Safety Agency
ECDU	Electrical Control and Display Unit
EMC	Electromagnetic Compatibility
IPD	Illustrated Parts Data
ITEP	Illustrated Tool and Equipment Publication
LH	Leonardo Helicopters
LRU	Line Replaceable Unit
MMH	Maintenance Man Hours
N.A.	Not Applicable
P/N	Part Number
REPU	Remote Electric Power Unit
S/N	Serial Number
SW	Software
WD	Wiring Diagram

I.3 ANNEX

Annex A AW189 Additional Avionic Ventilation ATP

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

Software to be updated:

AMMC option file P/N 8G4640AOXXXX;

CDS option file P/N 8G4630AOXXXX;

ECDU configuration file P/N 8G4620ACXXXX;

REPU configuration file P/N 8G2460ASXXXX.

Option File and Configuration File P/Ns is depending upon helicopter configuration that can be different from the one reported in relevant helicopter “Commessa di Vendita”. Customer must contact Product Support Engineering (engineering.support.lhd@leonardo.com) to request the correct Option File at least three months in advance from the scheduled embodiment of this Service Bulletin.

SW DESCRIPTION	**S/N HELICOPTER** **P/N SW INSTALLED** **(COMPILED BY CUSTOMER)**	 **P/N SW TO BE ORDERED** **(COMPILED BY LEONARDO COMPANY)**
AMMC OPTION FILE		
CDS OPTION FILE		
ECDU CONFIG TABLE		
REPU CONFIG TABLE		

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

A.1 PARTS

PART I

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	**8G2120F00611**		**KIT TAIL AVIONIC BAY COOLING**	**REF**	**.**		**-**
2	**8G5310A43212**		**TAIL AVIONIC BAY STR PROVISION**	**REF**	**..**		**-**
3	8G5315A38051		Bracket	1	…		189-313L1
4	8G2120A04651		Lip	1	…		189-313L1
5	8G2120A04751		Closure	1	…		189-313L1
6	8G2120A04331		Wire mesh assy	1	…		189-313L1
7	NAS1149D0332K		Washer	4	…		189-313L1
8	NAS1836-3-15		Insert	9	…		189-313L1
9	MS27039-1-06		Screw	4	…		189-313L1
10	MS27039-1-09		Screw	4	…		189-313L1
11	MS27039-1-15		Screw	4	…		189-313L1
12	8G2120A04131		EMC Filter	1	…		189-313L1
13	NAS1149D0316K		Washer	8	…		189-313L1
14	MS27039C1-10		Screw	4	…		189-313L1
15	8G2120A11451		Bonding strip	1	…		189-313L1
16	A407A3C2P		Nut plate	4	…		189-313L1
17	NAS1149C0316R		Washer	4	…		189-313L1
18	8G2120A05951		AV cooling fan bracket	1	…		189-313L1
19	NAS1832-06-3		Insert	2	…		189-313L1
20	A423A3C8		Nut plate	1	…		189-313L1
21	A297A04TW01		Rivet	2	…		189-313L1
22	AW001GH000A		Conductive gasket	1	…		189-313L1
23	8G2120A09751		Plate protective	1	…		189-313L1

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
24	**8G2120F00611**		**KIT TAIL AVIONIC BAY COOLING**	**REF**	**.**		**-**
25	**8G2120A06911**		**TAIL SHELF FAN C/A INST**	**REF**	**..**		**-**
26	A388A3E08C75		Standoff	3	…		189-313L2
27	AW001TL3A08		Anchor nut	1	…		189-313L2
28	NAS1190E3P6AK		Screw	3	…		189-313L2
29	NAS1802-06-7		Screw	2	…		189-313L2
30	NAS1802-3-8		Screw	1	…		189-313L2
31	AW001CB03H		Clamp	4	…		189-313L2
32	ED300TB321		Decal	1	…		189-313L2
33	NAS1149D0332J		Washer	4	…		189-313L2
34	NAS1149DN616J		Washer	2	…		189-313L2
35	8G9A21B44601	8G9A21B44601A2R	Tail shelf fan C/A (A1B446)	1	…		189-313L2
36	8G9C21A36001	8G9C21A36001A1R or 8G9C21A36001A3R	Tail shelf fan C/A (C1A360)	1	…		189-313L2
37	8G9A21A46901	8G9A21A46901A1R	Tail shelf fan C/A (A1A469)	1	…		189-313L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
38	8G9B21A51001	8G9B21A51001A1R or 8G9B21A51001A2R	Tail shelf fan C/A (B1A510)	1	…		189-313L2
39	M39029/56-348		Electrical contact	5	…		189-313L2
40	M39029/58-360		Electrical contact	4	…		189-313L2
41	M39029/56-351		Electrical contact	1	…		189-313L2
42	M39029/56-352		Electrical contact	1	…		189-313L2
43	M39029/58-363		Electrical contact	1	…		189-313L2
44	M39029/58-364		Electrical contact	1	…		189-313L2

PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
45	**8G2120F00611**		**KIT TAIL AVIONIC BAY COOLING**	**REF**	**.**		**-**
46	**8G2120A06211**		**TAIL & REAR RH FAN IF C/A INST**	**REF**	**..**	**(5)**	**-**
47	8G9A21B44401	8G9A21B44401A1R	AVNC fan customization C/A (A1B444)	1	…		189-313L3
48	M39029/58-364		Electrical contact	1	…		189-313L3

PART IV

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
49	**8G2120F00611**		**KIT TAIL AVIONIC BAY COOLING**	**REF**	**.**		**-**
50	**8G2120A11811**		**TAIL FAN C/A RELOCATION**	**REF**	**..**		**-**
51	8G9D01A10902	8G9D01A10902A1R	EAFR (flight data recorder) C/A (D1A109)	1	…		189-313L4
52	M39029/58-363		Electrical contact	11	…		189-313L4
53	A388A3E12C75		Standoff	1	…		189-313L4
54	A388A3E20C75		Standoff	1	…		189-313L4

PART V

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
55	**8G2120F00611**		**KIT TAIL AVIONIC BAY COOLING**	**REF**	**.**		**-**
56	**8G2120A00311**		**AVIONICS COOLING INSTN**	**REF**	**..**		**-**
57	AN3-4A		Bolt	1	…		189-313L5
58	AW002CB24N-W1A		Clamp	2	…		189-313L5
59	A366A3E08C75		Stud	2	…		189-313L5
60	NAS1190E3P8AK		Screw	1	…		189-313L5
61	AW001CK06HS		Strap	2	…		189-313L5
62	MS21042L3	NAS9926-3L	Nut	2	…		189-313L5
63	NAS1149D0332J		Washer	1	…		189-313L5
64	NAS1149D0332K		Washer	3	…		189-313L5
65	NAS521-20-8		Coupling	1	…		189-313L5
66	8G2120L03351		Diffuser	1	…		189-313L5
67	8G2120A03531		Bracket assembly	1	…		189-313L5

PART VI

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
68	**8G2120F00611**		**KIT TAIL AVIONIC BAY COOLING**	**REF**	**.**		**-**
69	**8G2120A11211**		**TAIL SHELF FAN EQPT INSTL**	**REF**	**..**		**-**
70	ED300B301		Decal	1	…		189-313L6
71	70-177		Fingerguard grid	1	…		189-313L6
72	NAS1802-3-4		Screw	4	…		189-313L6
73	AW008TY-09-74A		Washer	1	…		189-313L6
74	MS27039-1-07		Screw	1	…		189-313L6
75	MS35206-228		Screw	1	…		189-313L6
76	NAS1149C0332R		Washer	8	…		189-313L6
77	NAS1149D0332J		Washer	1	…		189-313L6
78	NAS1149DN632J		Washer	2	…		189-313L6
79	NAS1802-3-6		Screw	4	…		189-313L6
80	109-0718-46-103		Fan	1	…		189-313L6
81	A601A2B16		Bonding cable assy	1	…		189-313L6
82	8G2120L03651		Duct	1	…		189-313L6
83	8G4620AOXXXX		AMMC option file	1	.	(9)(10)	-
84	8G4630AOXXXX		CDS option file	1	.	(9)(10)	-
85	8G4620ACXXXX		ECDU conf file	1	.	(9)(10)	-
86	8G2460ASXXXX		REPU conf file	1	.	(9)(10)	-

PART VII

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
87	**8G5310P01211**		**TAIL AVIONIC BAY RETROMOD**	**REF**	**.**		**-**
88	8G2120A09751		Plate protective	1	..		189-313L7
89	AW001GH000A		Conductive gasket	1	..		189-313L7

PART VIII

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
90	**8G2120A00311**		**AVIONICS COOLING, TAIL RETROMOD**	**REF**	**.**	**(6)**	**-**

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

Refer also to Annex A for the spares materials required to comply with this Service Bulletin.

A.2 CONSUMABLES

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

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
91	DTD 900/4488A Code No. 900001846	Jointing compound JC5A (C001)	AR	(4)	I, VI, VII
92	AWMS05-001 TY I, CL C, GR 1 Code No. 999999999000009854 or 999999999000009231	Sealing compound MC-780 C (C465)	AR	(4)	I, VII
93	Code No. 999999999000017311	Corrosion preventive compound Cor-Ban 27L (C075)	AR	(4)	I, VI, VII

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
94	199-05-002 TY II, CL 2 Code No. 900004603	Adhesive EA 934NA AERO (C397)	AR	(4)	I
95	Code No. 999999999000017301	Corrosion inhibitor Ardrox AV 40 (C551)	AR	(4)	I, II, III, IV, V, VI, VII
96	AWMS28-002 TY I, CL 1, GR A, Code No. /007I-X1_001 Code No. 999999999000011095	Primer Aerowave 2003 (C596)	AR	(4)	I
97	199-05-002 TY I, CL 2 Code No. 900000581	Adhesive EA9309NA (C231)	AR	(4)	I
98	Code No. 500215758	Sealant PR1428-B2	AR	(4)	I
99	MIL-DTL-81706, Class 1A & 3, Form VI, Method D	Alodine 1132 (C598)	AR	(4)	I, VII
100	ASTM-D5363 GR 3, CL2, GR 1 Code No. 900004957	LOCTITE 242 (C031)	AR	(4)	I
101	Code No. 999999999000005462	Thixoflex gray TG8494-50 (C347)	AR	(1)(4)	I, VII
102	Code No. 900002367	Scotch tape 1181	AR	(4)	I, VII
103	CCC-C-440 CL II	Cheesecloth (C916)	AR	(4)	I, VII
104	TT-I-735, Grade A	Isopropyl alcohol (C039)	AR	(2)(4)	I, VII
105	ASTM D740, TY I	MEK (C005)	AR	(4)	I, VII
106	Commercial	220 grit abrasive paper	AR	(4)	I, VII
107	Code No. 999999999000008841 or RMTL423419	Conductive sealant PR1764-B2 (C240)	AR	(3)(4)	I, VI
108	Code No. 999999999000010432	Sealant PR2200 (WHPS083,TYPEP)	AR	(4)	I, VI
109	Code No. 900001742	Filler K20 fiber bubbles	AR	(4)	I
110	Code No. 999999999000001675	Adhesive CB200-40 (C356)	AR	(4)	I, II, V
111	A236AXXAB	Edging	AR	(4)(7)	II, III, IV
112	EN6049-003-XX-5	Tubing braided	AR	(4)(8)	II, III, IV
113	EN6049-006-XX-5	Tubing braided	AR	(4)(8)	II, III, IV
114	MIL-PRF-81309 TY III, CL 1 Code No. 999999999000012912	Corrosion preventive compound Ardrox 3204	AR	(4)	II, III, IV
115	Code No. 501229065	DC-4 Lube DOW CORNING 4	AR	(4)	II, III
116	Code No. 900000262 AFS 1646 - DTD5577	Adhesive F241 (C249)	AR	(4)	V
117	AW005ME04T05505	Antifretting tape	AR	(4)	V
118	Code No. 900005604	Conductive adhesive Eccobond 57C (C634)	AR	(4)	I, VII
119	199-05-004 TY II, CL B ½ Code No. 999999999000005965	Sealant MC-780 B-1/2 (C465)	AR	(4)	I, VII
120	Code No. 999999999000000190 or MIL-PRF-16173D class 1 grade 4	Corrosion preventive PX-32 (C645).	AR	(4)	VII
121	Commercial	Tape (HT3000FR-175)	AR	(4)	I, VII

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

Refer also to Annex A for the consumable materials required to comply with this Service Bulletin.

A.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
189-313L1	1	-	Part I
189-313L2	1	-	Part II
189-313L3	1	-	Part III
189-313L4	1	-	Part IV
189-313L5	1	-	Part V
189-313L6	1	-	Part VI
AMMC option file	1	(9)(10)	Part VI
CDS option file	1	(9)(10)	Part VI
ECDU conf file	1	(9)(10)	Part VI
REPU conf file	1	(9)(10)	Part VI
189-313L7	1	-	Part VII

NOTES

(1) As alternative it is possible to use sealant PR1428-B2.

(2) As alternative it is possible to use MEK (005).

(3) As alternative it is possible to use sealant PR2200.

(4) Item to be procured as local supply.

(5) P/N 8G2120A06211 "Tail & Rear RH Fan IF C/A Inst" must be applied only if "Kit Tail Avionic Bay Cooling" P/N 8G2120F00611 is applied in conjunction with "Kit RH Avionic Bay Cooling" P/N 8G2120F00411.

(6) This retromod only contains items to be removed.

(7) Item to be ordered in qty. 1.2 m or multiples. The XX digits (01, 02, 03 or 04) of P/N A236AXXAB can be different based on the actual helicopter configuration.

(8) The XX digits can vary depending on the actual helicopter configuration.

(9) Option File P/N is depending upon helicopter configuration that can be different from the one reported in relevant helicopter “Commessa di Vendita” Customers must contact Product Support Engineering (engineering.support.lhd@leonardo.com) to request the correct Option File at least three months in advance from the scheduled application of this Service Bulletin.

(10) This software will not be supplied; as specified by Information Letter AW189-19-017, it will be available for download, along with relevant certification document, in “My Software” sub-section of Leonardo Customer Portal website https://customerportal.leonardocompany.com.

B. SPECIAL TOOLS

The following special tools, or equivalent, are necessary to accomplish this Service Bulletin:

#	P/N	DESCRIPTION	Q.TY	NOTE	PART
122	8G5310A43211A005A	Drilling Template	1		I
123	8G5310A43211A005B	Drilling Template	1		I
124	8G5310A43211A005D	Drilling Template	1		I
125	8G5310A43212A005A	Drilling Template	1		I
126	TECO5-126-1@	Special Shim 10x10 mm	1		IV, V, VI
127	TECO5-126-2@	Special Shim 15x15 mm	1		IV, V, VI
128	Commercial	DC external power (28VDC 3KW Min)	1		VI
129	Commercial	DC Voltmeter Tester	1		VI
130	Commercial	Conductor Pins and Wire Extensions	1		VI
131	Commercial	Low voltage continuity tester (Bond Meter (AOIP OM 16 or equivalent)	1		VI
132	TALL5160M1A690A	Milliohmeter	1		VI

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

Refer also to Annex A for the special tools required to comply with this Service Bulletin.

SPECIAL TOOLS NOTES

N.A.

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 and plastic cable tiedown.

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) Unless otherwise specified, protect all removable fasteners that are not fully coated with polyurethane paint, by means of corrosion inhibitor Ardrox AV 40 (C551).

h) Wet assemble fixing fastener, by means of Loctite 242 (C031) applied under the head and on the shank of fasteners. For fasteners with a torque value on the drawing, jointing compound shall be applied under the head only (not applicable to fasteners installed on click bonds).

i) All lengths are in mm.

PART I

1. In accordance with AMP DM 89-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.

NOTE

Unless otherwise specified and except for electrical bonding areas, in low/medium indirect/direct exposure areas perform the installation of riveted structural parts and riveted vendor components by means of sealant MC-780 C (C465):

- apply a layer of sealant on all faying surface;
- wet assemble fixing fasteners by means of sealant.

NOTE

Unless otherwise specified and except for electrical bonding areas, in low/medium indirect/direct exposure areas perform the installation of bolted structural parts and bolted vendor parts by means of jointing compound Cor-Ban 27L (C075) or jointing compound JC5A (C001):

- apply a layer of jointing compound on all faying surface;
- wet assemble fixing fasteners by means of jointing compound. Apply under the head and on the shank of fasteners; for fasteners with a torque apply under the head only.

2. In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figures 1 thru 7 and Figure 31, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the tail avionic bay str provision P/N 8G5310A43212 as described in the following procedure:

   2.1 With reference to Figure 1 View A, locate the drilling template P/N 8G5310A43211A005A on the lower panel assy P/N 8G5340A24331 in position as shown in figure.

   2.2 With reference to Figure 1 View A, drill n°5 blind holes Ø4.8 on the lower panel assy P/N 8G5340A24331 in accordance with the drilling template P/N 8G5310A43211A005A.

2.3 With reference to Figure 1 View A, drill the hole Ø4.8 on the lower panel assy P/N 8G5340A24331 in accordance with the drilling template P/N 8G5310A43211A005A.

2.4 With reference to Figure 1 View A, countermark the cut-out profile in accordance with the drilling template P/N 8G5310A43211A005A.

2.5 With reference to Figure 1 View A, remove the drilling template P/N 8G5310A43211A005A from the lower panel assy P/N 8G5340A24331.

2.6 With reference to Figure 2 View B, enlarge n°5 holes up to Ø11.48÷11.61 on the lower panel assy P/N 8G5340A24331.

2.7 With reference to Figure 2 View B, install n°5 inserts P/N NAS1836-3-15 on the lower panel assy P/N 8G5340A24331 by means of the adhesive EA 934NA AERO (C397).

2.8 With reference to Figure 2 View B, perform the circular cut-out (Ø100.5÷100.7) previously countermarked thru the lower panel assy P/N 8G5340A24331. After trimming, fill the opened cells of honeycomb with filler K20 fiber bubbles at 30% with adhesive EA9309NA (C231). Break the sharp edges with chamfering 1x1 or radius 10.25 mm.

2.9 With reference to Figure 2 View B1 and Figure 3 View C, disassemble the drilling template P/N 8G5310A43211A005B in two parts (internal and external).

2.10 With reference to Figure 2 View B1, locate the internal part of the drilling template inside the cut-out of the lower panel assy P/N 8G5340A24331 in accordance with the two existing holes previously performed.

2.11 With reference to Figure 3 View C, assemble the external part of the drilling template with the internal part by means of the existing bolts.

2.12 With reference to Figure 3 View C, drill n°4 blind holes Ø4.8 on the lower panel assy P/N 8G5340A24331 in accordance with the drilling template P/N 8G5310A43211A005B.

2.13 With reference to Figure 2 View B1 and Figure 3 View C, remove the drilling template P/N 8G5310A43211A005B (internal and external part).

2.14 With reference to Figure 2 View B, prepare the indicated areas for electrical bonding by means of Alodine 1200S (C597).

2.15 With reference to Figure 3 View C1, countermark n°4 holes positions on the closure P/N 8G2120A04751 in accordance with the position of n°4 blind holes previously performed.

2.16 With reference to Figure 3 View C1, apply two coats of primer Aerowave 2003 (C596) on the exposed surface to allow the sealant adhesion.

2.17 With reference to Figure 3 View C1 and Figure 31 Detail M, install the closure P/N 8G2120A04751 on the lower panel assy P/N 8G5340A24331 inside the performed cut-out by means of adhesive EA9309NA (C231).

2.18 With reference to Figure 2 View B, apply a fillet of sealant PR1428-B2 on the closure perimeter internal side.

2.19 With reference to Figure 3 View C1, enlarge n°4 holes up to Ø11.48÷11.61 on the closure P/N 8G2120A04751 and lower panel assy P/N 8G5340A24331.

NOTE

Install the four inserts flush with the closure.

2.20 With reference to Figure 3 View C1, install n°4 inserts P/N NAS1836-3-15 on the closure P/N 8G2120A04751 and lower panel assy P/N 8G5340A24331 by means of the adhesive EA 934NA AERO (C397).

2.21 With reference to Figure 3 View C2, carefully abrade the closure P/N 8G2120A04751 using 220 grit garnet or “scotch brite” pad until the bare metal surface of the lower panel is exposed.

2.22 In accordance with CSRP DM CSRP-A-51-22-01-00A-258A-D and with reference to Figure 3 View C2, clean the indicated area by means of Isopropyl alcohol (C039) or MEK (C005) and a clean cheesecloth (C916).

2.23 With reference to Figure 3 View C2, protect the indicated area by means of Alodine 1132 (C598).

NOTE

To achieve a satisfactory bond result, it is necessary to have a sufficient and permanent pressure in the joint areas during adhesive cure time.

2.24 With reference to Figure 3 View C2 and Figure 31 Detail M, install the plate protective P/N 8G2120A09751 on the lower panel assy P/N 8G5340A24331 by means of conductive adhesive Eccobond 57C.

2.25 With reference to Figure 3 View C2, seal around the perimeter of the plate protective P/N 8G2120A09751 to prevent corrosion or worsening of transition resistance by means of Sealant MC-780 B-1/2 (C465).

2.26 With reference to Figure 4 View H, prepare the indicated area for electrical bonding by means of Alodine 1200S (C597).

2.27 With reference to Figure 4 View G, cut the Scotch tape 1181 in accordance with the dimension shown and apply the Scotch tape 1181 to the lower panel assy P/N 8G5340A24331 around the existing cut-out.

2.28 With reference to Figure 4 View G, drill n°4 holes in the Scotch tape 1181 in accordance with the existing insert holes in the lower panel assy.

2.29 With reference to Figure 4 View H, repeat the steps 2.27 to 2.28 on the external side of the lower panel assy.

CAUTION

Do not damage the central band of the tape.

2.30 With reference to Figure 4 TEMPLATE, cut the Scotch tape 1181 in accordance with the dimension shown.

NOTE

Insert the scotch tape into the existing cut out with the shorter fringes towards the internal side of the lower panel assy.

NOTE

Bond first the central band of the scotch tape to the internal wall of the cut-out.

2.31 With reference to Figure 4 View G1 and View H1 and Figure 31, apply the Scotch tape 1181 previously shaped to the lower panel assy P/N 8G5340A24331.

2.32 With reference to Figure 4 View G1 and View H1, drill n°8 holes in the Scotch tape 1181 in accordance with the existing insert holes in the lower panel assy.

2.33 In accordance with CSRP DM CSRP-A-51-22-01-00A-258A-D and with reference to Figure 5 View C3, clean the indicated area by means of Isopropyl alcohol (C039) or MEK (C005) and a clean cheesecloth (C916).

2.34 With reference to Figure 5 detail J, cut the tape HT3000FR-175 in accordance with the dimensions shown.

2.35 With reference to Figure 5 View C3 and Figure 31 Detail L, apply the tape HT3000FR-175.

2.36 With reference to Figure 5 View C3 and Figure 31 Detail L, install the wire mesh assy P/N 8G2120A04331 and the lip P/N 8G2120A04651 on the closure P/N 8G2120A04751 by means of n°4 screws P/N MS27039-1-07 and n°4 washers P/N NAS1149D0316K. Apply a fillet on the closure perimeter internal side by means of the sealant PR1428-B2.

2.37 In accordance with CSRP DM CSRP-A-51-22-01-00A-258A-D and with reference to Figure 5 View A1, clean the indicated area by means of Isopropyl alcohol (C039) or MEK (C005) and a clean cheesecloth (C916).

2.38 With reference to Figure 5 View A1 and Figure 31 Detail L, install the conductive gasket P/N AW001GH000A as follows:

NOTE

The conductive gasket must not be damaged and must have the metal mesh suspended within the gel layer of the gasket, without exposure of the metal mesh outside of the gel layer, and without areas of the gel layer missing.

2.38.1 Perform a visual inspection of the gasket prior the installation.

2.38.2 Prepare and clean the contact surface surfaces from paint, dust, oil, grease, fingerprints and other contamination prior to installation. Use a clean, solvent dampened cloth using isopropyl alchol or mek, followed immediately by wiping with a clean dry cloth.

2.38.3 If necessary carefully trim the perimeter of the gasket and perform the interfacing fastener holes required within the gasket.

NOTE

The conductive gaskets are supplied with protective release film on both sides of the gasket. leave the release film in place until ready to install the gasket.

2.38.4 Remove the gasket from the protective packaging, taking care not to fold or bend it and install the conductive gasket.

2.39 With reference to Figure 5 View A1, apply two coats of primer Aerowave 2003 (C596) on the exposed surface to allow the sealant adhesion.

2.40 With reference to Figure 5 View A1 and Figure 31 Detail L, install the EMC filter P/N 8G2120A04131 by means of n°4 screws P/N MS27039-1-14 and n°4 washers P/N NAS1149D0316K. Apply a fillet of sealant PR1428-B2.

2.41 With reference to Figure 5 View E, locate the drilling template P/N 8G5310A43212A005A on the lower panel assy P/N 8G5340A24331 in accordance with the existing holes.

2.42 With reference to Figure 5 View E, drill n°2 holes Ø4.8 on lower panel assy P/N 8G5340A24331 in accordance with the drilling template P/N 8G5310A43212A005A.

2.43 With reference to Figure 5 View E, remove the drilling template P/N 8G5310A43212A005A from the lower panel assy P/N 8G5340A24331.

2.44 With reference to Figure 5 View E, enlarge n°2 holes up to Ø14.25÷14.38 on the lower panel assy P/N 8G5340A24331.

2.45 With reference to Figure 5 View E, install n°2 insert P/N NAS1832-06-3 by means of the adhesive EA 934NA AERO (C397).

2.46 With reference to Figure 6 View F, locate the drilling template P/N 8G5310A43211A005D on the frame assy STA 8701.6 P/N 8G5350A03731 in position in accordance with the existing holes as shown in figure.

2.47 With reference to Figure 6 View F, drill n°4 holes Ø4.8 thru the frame assy STA 8701.6 P/N 8G5350A03731 in accordance with the drilling template P/N 8G5310A43211A005D.

2.48 With reference to Figure 6 View F, countermark the cut-out profile in accordance with the drilling template P/N 8G5310A43211A005D.

2.49 With reference to Figure 6 View F, remove the drilling template P/N 8G5310A43211A005D from the frame assy STA 8701.6 P/N 8G5350A03731.

2.50 With reference to Figure 6 View F1, enlarge n°4 holes up to Ø6.20÷6.35 only thru the frame assy STA 8701.6 P/N 8G5350A03731.

2.51 With reference to Figure 2 View B, enlarge n°4 holes up to Ø11.0 only thru the STA8700 frame bonded assy P/N 8G5340A01132.

2.52 With reference to Figure 6 View F1, perform the circular cut-out (Ø90.0) previously countermarked thru the frame assy STA 8701.6 P/N 8G5350A03731.

2.53 With reference to Figure 6 View F1, remove the glass cloth layer and resin to expose the copper foil. Degrease and abrade using 220 grit garnet or “scotch brite” pad.

2.54 With reference to Figure 6 View F1, clean and restore the protective treatment of any cut edges.

NOTE

To achieve a satisfactory bond result, it is necessary to have a sufficient and permanent pressure in the joint areas during adhesive cure time.

2.55 With reference to Figure 6 View F1, install the bonding strip P/N 8G2120A11451 on the frame assy STA 8701.6 P/N 8G5350A03731 by means of adhesive EA9309NA (C231) and conductive sealant PR1764-B2 (C240).

2.56 With reference to Figure 6 View F1, install n°4 nut plates P/N A407A3C2P on the bonding strip P/N 8G2120A11451 by means of adhesive EA9309NA (C231).

2.57 With reference to Figure 2 View B1, install the AV cooling fan bracket P/N 8G2120A05951 on the STA8700 frame bonded assy P/N 8G5340A01132 by means of n°4 screws P/N MS27039C1-10 and n°4 washers P/N NAS1149C0316R.

2.58 With reference to Figure 7 Detail D, remove the existing bracket from lower panel assy P/N 8G5340A24331.

2.59 With reference to Figure 7 View K, drill n°2 holes Ø3.2 on the side of the bracket P/N 8G5315A38051 in accordance with the dimensions shown.

2.60 With reference to Figure 7 Detail D, install the nutplate P/N A423A3C8 on the bracket P/N 8G5315A38051 by means of n°2 rivet A297A04TW01.

2.61 In case interference is detected between the bracket 8G5315A38051 in its final position and existing bonding plate:

2.61.1 In accordance to Figure 26, move the bond strip two pitches in the direction shown (blue arrow, away from the bracket) to remove interference. Make sure to reuse the end two rivet holes circled in the image. Re-install bond strip with NAS1720C4L1W blind rivets.

2.61.2 Blank the unused rivet holes with suitable length NAS1399C4-3 rivets. If the panel skin is too thin on the first two holes to use rivets, fill the first two holes by means of adhesive EA9309NA (C231).

2.62 With reference to Figure 7 Detail D, prepare the contact surface between the bracket P/N 8G5315A38051 and the lower panel assy P/N 8G5340A24331.

2.63 With reference to Figure 7 Detail D, install the bracket P/N 8G5315A38051 on lower panel assy P/N 8G5340A24331 by means of n°4 screws P/N MS27039-1-06 and n°4 washers P/N NAS1149D0332K.

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

   As an alternative, send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardo.com

   and (for North, Central and South America) also to:

   AWPC.Engineering.Support@leonardocompany.us

PART II

1. In accordance with AMP DM 89-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 89-A-06-41-00-00A-010A-A and with reference to Figures 8 thru 12, 17 and 24 remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the tail shelf fan C/A inst P/N 8G2120A06911 as described in the following procedure:
   2.1 In accordance with the CSPP DM CSPP-A-20-10-12-02A-920A-D (applicable steps) and with reference to Figure 12 View E, install n°3 standoffs P/N A388A3E08C75 on the lower panel assy P/N 8G5340A24331 by means of adhesive CB200-40 (C356).
   2.2 With reference to Figure 12 Detail G, install the anchor nut P/N AW001TL3A08 on the structure on STA 8150 by means of adhesive CB200-40 (C356).

NOTE

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

NOTE

Install the tubing braided P/N EN6049-003 and/or P/N EN6049-006 where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

NOTE

When necessary, replace existing clamp with suitable clamp.

NOTE

To ensure a proper installation, it is allowed to use:

- clamps (diameter only) two dash greater or lesser than the nominal one;
- bolts (length only) two dash shorter or longer than the nominal one;
- screws (length only) two dash shorter or longer than the nominal one;

- washers (thickness only) two dash greater or lesser than the nominal one;
- spacers (length only) two dash shorter or longer than the nominal one.

2.3 With reference to Figure 8 thru 12, lay down the following cable assemblies on the existing routes unless otherwise indicated on the figures:

- 8G9A21B44601 tail shelf fan C/A (A1B446)
- 8G9C21A36001 tail shelf fan C/A (C1A360)
- 8G9A21A46901 tail shelf fan C/A (A1A469)
- 8G9B21A51001 tail shelf fan C/A (B1A510)

2.4 With reference to Figures 8 thru 12, secure the cable assemblies laid down at the previous step by means of existing hardware and lacing cords.

2.5 With reference to Figure 12 View E, install n°3 clamps P/N AW001CB03H on the C/A C1A360 by means of n°3 screws P/N NAS1190E3P6AK and n°3 washers P/N NAS1149D0332J.

NOTE

In case anchor nut with clamp is already fitted on the aircraft, it is allowed to change the existing clamp with a double one.

2.6 With reference to Figure 12 Detail G, install the clamp P/N AW001CB03H on the C/A C1A360 by means of the screw P/N NAS1802-3-8 and the washer P/N NAS1149D0332J.

NOTE

If connectors P/J103 installed on the Aircraft have only 100 slots (J103 P/N D38999/26JH35SN and P103 P/N D38999/26JH35PN) instead of 128 slots (J103 P/N D38999/20MJ35SN and P103 P/N D38999/26MJ35PN) perform the following connection as follows:

- Connect wire 2120-127-22G to pin 94 (instead of pin 120) in connector P103
- Connect wire 2120-128-22G to pin 94 (instead of pin 120) in connector J103
- Connect wire 2120-134-22G to pin 95 (instead of pin 103) in connector P103

- Connect wire 2120-135-22G to pin 95 (instead of pin 103) in connector J103

2.7 In accordance with CSPP DM CSPP-A-20-10-13-00A-622A-D and with reference to Figure 18 Wiring Diagram and Figure 24 Table, perform the electrical connections of the C/A A1B446 to the connector P103, to the connector A2P1 and to the splice SP1480.

2.8 In accordance with CSPP DM CSPP-A-20-10-13-00A-622A-D and with reference to Figure 18 Wiring Diagram and Figure 24 Table, perform the electrical connections of the C/A C1A360 to the connector P207.

NOTE

If connectors P/J103 installed on the Aircraft have only 100 slots (J103 P/N D38999/26JH35SN and P103 P/N D38999/26JH35PN) instead of 128 slots (J103 P/N D38999/20MJ35SN and P103 P/N D38999/26MJ35PN) perform the following connection as follows:

- Connect wire 2120-127-22G to pin 94 (instead of pin 120) in connector P103
- Connect wire 2120-128-22G to pin 94 (instead of pin 120) in connector J103
- Connect wire 2120-134-22G to pin 95 (instead of pin 103) in connector P103
- Connect wire 2120-135-22G to pin 95 (instead of pin 103) in connector J103

2.9 In accordance with CSPP DM CSPP-A-20-10-13-00A-622A-D and with reference to Figure 18 Wiring Diagram and Figure 24 Table, perform the electrical connections of the C/A A1A469 to the connector P117 and to connector J103.

2.10 In accordance with CSPP DM CSPP-A-20-10-13-00A-622A-D and with reference to Figure 18 Wiring Diagram and Figure 24 Table, perform the electrical connections of the C/A B1A510 to the connector J117 and to connector J207.

2.11 With reference to Figure 11 Detail F, connect the TB321 to the structure STA 7200 by means of n°2 screws P/N NAS1802-06-7 and n°2 washers P/N NAS1149DN616J.

2.12 In accordance with AMP DM 89-A-11-00-01-00A-720A-A and with reference to Figure 11 Detail F, install the decal P/N ED300TB321 on the structure STA 7200 in an area adjacent the TB321.

2.13 Apply the corrosion preventive compound Ardrox 3204 (or equivalent) on the connectors, backshells or any metallic accessory. Additional protection by tape or tubing heat shrinkable to improve the salt spray resistance (corrosion).

2.14 Apply the compound DC-4 (or equivalent) for the protection of the internal part of electical connectors from entry of water or liquid.

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

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

   As an alternative, send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardo.com

   and (for North, Central and South America) also to:

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PART III

1. In accordance with AMP DM 89-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.

NOTE

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

NOTE

Install the tubing braided P/N EN6049-003 and/or P/N EN6049-006 where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

NOTE

When necessary, replace existing clamp with suitable clamp.

NOTE

To ensure a proper installation, it is allowed to use:

- clamps (diameter only) two dash greater or lesser than the nominal one;
- bolts (length only) two dash shorter or longer than the nominal one;
- screws (length only) two dash shorter or longer than the nominal one;
- washers (thickness only) two dash greater or lesser than the nominal one;
- spacers (length only) two dash shorter or longer than the nominal one.

2. In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figures 13, 14, 19 and 24, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the tail & rear RH fan IF C/A inst P/N 8G2120A06211 as described in the following procedure:

2.1 With reference to Figure 19 Wiring Diagram WAS, remove the wire marked as 2120-100-20G of the C/A A1B143 from the splice SP1480 and the connector Q2PA7 pin “C”.

2.2 With reference to Figure 13 Detail A, lay down the avionic fan customization C/A (A1B444) P/N 8G9A21B44401 on the existing routes unless otherwise indicated on the figures.

2.3 With reference to Figures 13 Detail A, secure the cable assy laid down at the previous step by means of existing hardware and lacing cords.

2.4 In accordance with CSPP DM CSPP-A-20-10-13-00A-622A-D and with reference to Figure 19 Wiring Diagram and Figure 24 Table, perform the electrical connections between to the connector Q2PA7 and to the splice SP1480.

2.5 Apply the corrosion preventive compound Ardrox 3204 (or equivalent) on the connectors, backshells or any metallic accessory. Additional protection by tape or tubing heat shrinkable to improve the salt spray resistance (corrosion).

2.6 Apply the compound DC-4 (or equivalent) for the protection of the internal part of electical connectors from entry of water or liquid.

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

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part III of this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

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   and (for North, Central and South America) also to:

   AWPC.Engineering.Support@leonardocompany.us

PART IV

1. In accordance with AMP DM 89-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 89-A-06-41-00-00A-010A-A and with reference to Figures 6, 13, 14 and 22 thru 24, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the tail fan C/A relocation P/N 8G2120A11811 as described in the following procedure:
   2.1 With reference to Figure 14 View B, remove and retain for later reuse the existing fixings.
   2.2 With reference to Figure 13, remove the EAFR (flight data recorder) C/A (D1A109) P/N 8G9D01A10901 from the helicopter.
   2.3 In accordance with the CSPP DM CSPP-A-20-10-12-02A-920A-D (applicable steps) and with reference to Figure 6 View F1, remove n°2 studs P/N A366A3E20C from the frame assy STA 8701.6 P/N 8G5350A03731.
   2.4 In accordance with the CSPP DM CSPP-A-20-10-12-02A-920A-D (applicable steps) and with reference to Figure 6 View F1, install the standoff P/N A388A3E12C75 and the standoff P/N A388A3E20C75 on the frame assy STA 8701.6 P/N 8G5350A03731 in accordance with the dimensions shown by means of adhesive CB200-40 (C356).

NOTE

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

NOTE

Install the tubing braided P/N EN6049-003 and/or P/N EN6049-006 where protection against chafing and prevention of contact with structure may occur, but the tubing protection is not substitute for good routing practice.

NOTE

When necessary, replace existing clamp with suitable clamp.

NOTE

To ensure a proper installation, it is allowed to use:

- clamps (diameter only) two dash greater or lesser than the nominal one;
- bolts (length only) two dash shorter or longer than the nominal one;
- screws (length only) two dash shorter or longer than the nominal one;
- washers (thickness only) two dash greater or lesser than the nominal one;
- spacers (length only) two dash shorter or longer than the nominal one.

2.5 With reference to Figures 13 and 14 and Figures 20 thru 23 Wiring Diagram, lay down the EAFR (flight data recorder) C/A (D1A109) P/N 8G9D01A10902 on the existing routes unless otherwise indicated on the figures.

2.6 Secure the cable assy laid down at the previous step by means of existing hardware and lacing cords.

2.7 With reference to Figure 14 View B, re-install the fixings previously removed at step 2.1 on the cable assemblies in the new position as shown in the Figure.

2.8 In accordance with CSPP DM CSPP-A-20-10-13-00A-622A-D and with reference to Figures 20 thru 23 Wiring Diagram and Figure 24 Table, perform the electrical connections to the connector J305.

2.9 With reference to Figures 20 thru 23 Wiring Diagram and Figure 24 Table, perform the electrical connection of the C/A D1A109 to the DC PWR GND TB400, to the main recording unit A401 and to the rips PS5.

2.10 Apply the corrosion preventive compound Ardrox 3204 (or equivalent) on the connectors, backshells or any metallic accessory.

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

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).

4. Return the helicopter to flight configuration and record for compliance with Part IV of this Service Bulletin on the helicopter logbook.

5. Gain access to My Communications section on Leonardo WebPortal and compile the "Service Bulletin Application Communication".

   As an alternative, send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardo.com

   and (for North, Central and South America) also to:

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PART V

1. In accordance with AMP DM 89-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.

NOTE

To ensure a proper installation, it is allowed to use:

- bolts (length only) two dash shorter or longer than the nominal one;
- screws (length only) two dash shorter or longer than the nominal one;
- washers (thickness only) two dash greater or lesser than the nominal one;
- spacers (length only) two dash shorter or longer than the nominal one.

2. In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figures 15, 16, 25 and 27, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the avionics cooling installation P/N 8G2120A00311 as described in the following procedure:

2.1 In accordance with the CSPP DM CSPP-A-20-10-12-02A-920A-D (applicable steps) and with reference to Figure 15 View A, install n°2 studs P/N A366A3E08C75 by means of adhesive CB200-40 (C356) (or adhesive F241 (C249) in accordance with the dimensions shown.

2.2 With reference to Figure 16 Detail D, install the bracket assembly P/N 8G2120A03531 by means of n°2 nuts P/N MS21042L3 and n°2 washers P/N NAS1149D0332K.

2.3 With reference to Figure 16 View B, install the coupling P/N NAS521-20-8 and the diffuser P/N 8G2120L03351 in positions by means of n°2 straps P/N AW001CK06HS.

2.4 With reference to Figure 16 Detail D, fix the diffuser P/N 8G2120L03351 on the bracket assembly P/N 8G2120A03531 by means of the clamp P/N AW002CB24N-W1A, the bolt P/N AN3-4A and the washer P/N NAS1149D0332K.

2.5 With reference to Figure 16 view B, install the clamp P/N AW002CB24N-W1A by means of screw P/N NAS1190E3P8AK and washer P/N NAS1149D0332J.

2.6 With reference to Figure 16, 25 and 27, if necessary, apply antifretting tape P/N AW005ME04T05505 to the duct in the areas affected by interference.

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

   As an alternative, send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardo.com

   and (for North, Central and South America) also to:

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PART VI

1. In accordance with AMP DM 89-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.

NOTE

Apply the corrosion preventive compound Cor-Ban 27L (C075) or the jointing compound JC5A (C001) on all faying surface and for wet assemble fixing fasteners (applied under the head of fasteners).

2. In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figure 17, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the tail shelf fan eqpt instl P/N 8G2120A11211 as described in the following procedure:

   2.1 With reference to Figure 17 Detail A, remove and retain the AV cooling fan bracket P/N 8G2120A05951 and the existing hardware.

   2.2 With reference to Figure 17 Detail A, install the fingerguard grid P/N 70-177 on the fan P/N 109-0718-46-103 by means of n°4 screws P/N NAS1802-3-4 and n°4 washers P/N NAS1149C0332R.

   2.3 With reference to Figure 17 Detail A and Detail B, install the duct P/N 8G2120L03651 and the fan (B301) P/N 109-0718-46-103 on the AV cooling fan bracket P/N 8G2120A05951 by means of n°4 screws P/N NAS1802-3-6 and n°4 washers P/N NAS1149C0332R. Tighten the screws to 3.40÷4.50 Nm value.

   2.4 With reference to Figure 17 Detail A, re-install the AV cooling fan bracket P/N 8G2120A05951 on the STA8700 frame bonded assy P/N 8G5340A01132 by means of the existing hardware.

   2.5 In accordance with AMP DM 89-A-11-00-01-00A-720A-A and with reference to Figure 17 Detail A, install the decal P/N ED300B301 on the AV cooling fan bracket P/N 8G2120A05951 in an area adjacent the fan B301.

   2.6 With reference to Figure 17 Detail A, install the bonding cable assy P/N A601A2B16 by means of the screw P/N MS35206-228 and n°2 washers P/N NAS1149DN632J (fan B301 side) and the screw P/N MS27039-1-07, the washer P/N NAS1149D0332J and the washer P/N AW008TY-09-74A (rear lower panel side). Apply conductive sealant PR1764-B2 (C240).

   2.7 With reference to Figure 17 Detail A, perform the electrical connection of the connector B301P1 to the fan B301.

3. In accordance with the applicable steps of AMP DM 89-A-46-21-00-00A-750A-A, perform the load software procedure of the AMMC.
4. In accordance with the applicable steps of AMP DM 89-A-46-31-00-00A-750A-A, perform the load software procedure of the CDS.
5. In accordance with the applicable steps of AMP DM 89-A-24-81-00-05A-752A-A, perform the load software procedure of the ECDU.
6. In accordance with the applicable steps of AMP DM 89-A-24-81-00-04A-752A-A, perform the load software procedure of the REPU.
7. In accordance with Annex A, perform the AW189 additional avionic ventilation ATP.
8. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
9. Return the helicopter to flight configuration and record for compliance with Part VI of this Service Bulletin on the helicopter logbook.
10. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.
    As an alternative, send the attached compliance form to the following mail box:
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PART VII

1. In accordance with AMP DM 89-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.

NOTE

Unless otherwise specified and except for electrical bonding areas, in low/medium indirect/direct exposure areas perform the installation of riveted structural parts and riveted vendor components by means of sealant MC-780 C (C465):

- apply a layer of sealant on all faying surface;
- wet assemble fixing fasteners by means of sealant.

NOTE

Unless otherwise specified and except for electrical bonding areas, in low/medium indirect/direct exposure areas perform the installation of bolted structural parts and bolted vendor parts by means of jointing compound Cor-Ban 27L (C075) or jointing compound JC5A (C001):

- apply a layer of jointing compound on all faying surface;
- wet assemble fixing fasteners by means of jointing compound. Apply under the head and on the shank of fasteners; for fasteners with a torque apply under the head only.

2. In accordance with AMP DM 89-A-06-41-00-00A-010A-A and with reference to Figures 28 thru 31, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the tail avionic bay retromod P/N 8G5310P01211 as described in the following procedure:

NOTE

Parts shall be safely stored for re-installation after the work detailed in the following steps.

2.1 With reference to Figure 28 View A, remove the EMC filter P/N 8G2120A04131 and the relative fixing fasteners (n°4 screws P/N MS27032-1-14 and n°4 washers P/N NAS1149D0316K).

NOTE

Parts shall be safely stored for re-installation after the work detailed in the following steps.

2.2 With reference to Figure 29 View C3, remove the lip P/N 8G2120A04651, the wire mesh assy P/N 8G2120A04331 and the relative fixing fasteners (n°4 screws P/N MS27039-1-07 and n°4 washers P/N NAS1149D0316K).

2.3 With reference to Figure 29 View C1, carefully abrade the closure P/N 8G2120A04751 using 220 grit garnet or “scotch brite” pad until the closure surface is entirely removed and the bare metal surface of the aircraft skin is exposed.

2.4 In accordance with CSRP DM CSRP-A-51-21-06-00A-644A-D (applicable steps) and with reference to Figure 29 View C2, clean and prepare the surface for electrical bonding by means of chromate conversion coating Alodine.

NOTE

To achieve a satisfactory bond result, it is necessary to have a sufficient and permanent pressure in the joint areas during adhesive cure time.

2.5 With reference to Figure 29 View C2 and Figure 31 Detail M, install the plate protective P/N 8G2120A09751 on the lower panel assy P/N 8G5340A24331 by means of conductive adhesive Eccobond 57C.

2.6 With reference to Figure 29 View C2, seal around the perimeter of the plate protective P/N 8G2120A09751 to prevent corrosion or worsening of transition resistance by means of Sealant MC-780 B-1/2 (C465).

CAUTION

Do not damage the central band of the tape.

2.7 With reference to Figure 30 Template, cut the Scotch tape 1181 in accordance with the dimension shown.

2.8 With reference to Figure 30 View B and View D and Figure 31 Detail M, temporarily locate the Scotch tape 1181 to the lower panel assy P/N 8G5340A24331 around the internal and external existing cut-out.

2.9 With reference to Figure 30 View B and View D, drill n°8 holes Ø5.40 in the Scotch tape 1181 in accordance with the existing insert holes in the lower panel assy.

NOTE

Insert the scotch tape into the existing cut out with the shorter fringes towards the internal side of the lower panel assy.

NOTE

Bond first the central band of the scotch tape to the internal wall of the cut-out.

2.10 With reference to Figure 30 View B and View D and Figure 31 Detail M, apply the Scotch tape 1181 previously shaped to the lower panel assy P/N 8G5340A24331.

2.11 With reference to Figure 30 View B and View D, to prevent corrosion or worsening of transition resistance seal the Scotch tape 1181 that is not in contact with the external plate or the internal filter, using Sealant MC-780 B-1/2 (C465), and cover the entire bonding area with the corrosion preventive PX-32 (C645).

2.12 In accordance with CSRP DM CSRP-A-51-22-01-00A-258A-D and with reference to Figure 29 View C3, clean the indicated area by means of Isopropyl alcohol (C039) or MEK (C005) and a clean cheesecloth (C916).

2.13 With reference to Figure 30 Detail E, cut the tape HT3000FR-175 in accordance with the dimensions shown.

2.14 With reference to Figure 29 View C3 and Figure 31 Detail L, apply the tape HT3000FR-175 on the surface as indicated.

2.15 With reference to Figure 28 View A and Figure 31 Detail L, install the conductive gasket P/N AW001GH000A as follows:

NOTE

The conductive gasket must not be damaged and must have the metal mesh suspended within the gel layer of the gasket, without exposure of the metal mesh outside of the gel layer, and without areas of the gel layer missing.

2.15.1 Perform a visual inspection of the gasket prior the installation.

2.15.2 Prepare and clean the contact surface surfaces from paint, dust, oil, grease, fingerprints and other contamination prior to installation. Use a clean, solvent dampened cloth using isopropyl alchol or mek, followed immediately by wiping with a clean dry cloth.

2.15.3 If necessary carefully trim the perimeter of the gasket and perform the interfacing fastener holes required within the gasket.

NOTE

The conductive gaskets are supplied with protective release film on both sides of the gasket. leave the release film in place until ready to install the gasket.

2.15.4 Remove the gasket from the protective packaging, taking care not to fold or bend it and install the conductive gasket.

2.16 With reference to Figure 29 View C3 and Figure 31 Detail L, re-install the wire mesh assy P/N 8G2120A04331 and the lip P/N 8G2120A04651 on the closure P/N 8G2120A04751 by means of existing n°4 screws P/N MS27039-1-07 and n°4 washers P/N NAS1149D0316K. Apply a fillet on the closure perimeter internal side by means of the sealant PR1428-B2.

2.17 With reference to Figure 29 View C3 and Figure 31 Detail L, re-install the EMC filter P/N 8G2120A04131 by means of existing n°4 screws P/N MS27032-1-14 and n°4 washers P/N NAS1149D0316K. Apply a fillet on the closure perimeter internal side by means of the sealant PR1428-B2.

3. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
4. Return the helicopter to flight configuration and record for compliance with Part VII of this Service Bulletin on the helicopter logbook.
5. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

   As an alternative, send the attached compliance form to the following mail box:

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PART VIII

1. In accordance with AMP DM 89-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 89-A-06-41-00-00A-010A-A and with reference to Figures 15 and 16, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform the avionics cooling tail retromod P/N 8G2120P00311 as described in the following procedure:
   - 2.1 With reference to Figure 16 View B and Detail C, remove n°2 straps P/N AW001CK06HS from the flexible duct P/N NAS1375A06CA066.
   - 2.2 With reference to Figure 16 Detail C, remove the bolt P/N AN3-3A, n°2 washers P/N NAS1149D0332K and the nut P/N MS21042L3 that fix the clamp P/N AW002CB24N-W1A to the bracket P/N MS9592-011. Remove the clamp P/N AW002CB24N-W1A from the nozzle P/N 8G2120L03451.
   - 2.3 With reference to Figure 16 Detail C, remove the nozzle P/N 8G2120L03451 from the flexible duct P/N NAS1375A06CA066.
   - 2.4 With reference to Figure 16 Detail C, remove the washer P/N NAS1149D0332K, the nut P/N MS21042L3 and the spacer P/N NAS43DD3-40N that fix the bracket P/N MS9592-011 to the stud P/N A366A3E18C. Remove the bracket P/N MS9592-011.
   - 2.5 With reference to Figure 16 View B, remove the bolt P/N AN3-3A, n°2 washers P/N NAS1149D0332K and the nut P/N MS21042L3 that fix the clamp P/N AW002CB28N-W1A to the bracket P/N MS9592-011. Remove the clamp P/N AW002CB28N-W1A from the flexible duct P/N NAS1375A06CA066.
   - 2.6 With reference to Figure 16 View B, remove the washer P/N NAS1149D0332K, the nut P/N MS21042L3 and the spacer P/N NAS43DD3-40N that fix the bracket P/N MS9592-011 to the stud P/N A366A3E18C. Remove the bracket P/N MS9592-011.
   - 2.7 With reference to Figure 16 View B, remove the washer P/N NAS1149D0332K, the nut P/N MS21042L3 and the spacer P/N NAS43DD3-40N that fix the clamp P/N AW002CB28N-W1A to the stud P/N A366A3E20C. Remove the clamp P/N AW002CB28N-W1A from the flexible duct P/N NAS1375A06CA066.
   - 2.8 With reference to Figure 16 View B, remove the flexible duct P/N NAS1375A06CA066 from the diffuser P/N 8G2120L03351.

3. In accordance with the CSPP DM CSPP-A-20-10-12-02A-920A-D (applicable steps) and with reference to Figure 15 View A, remove n°2 studs P/N A366A3E18C and the stud P/N A366AE20C from the structure.
4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
5. Return the helicopter to flight configuration and record for compliance with Part VIII of this Service Bulletin on the helicopter logbook.
6. Gain access to My Communications section on Leonardo WebPortal and compile the “Service Bulletin Application Communication”.

   As an alternative, send the attached compliance form to the following mail box:

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   and (for North, Central and South America) also to:

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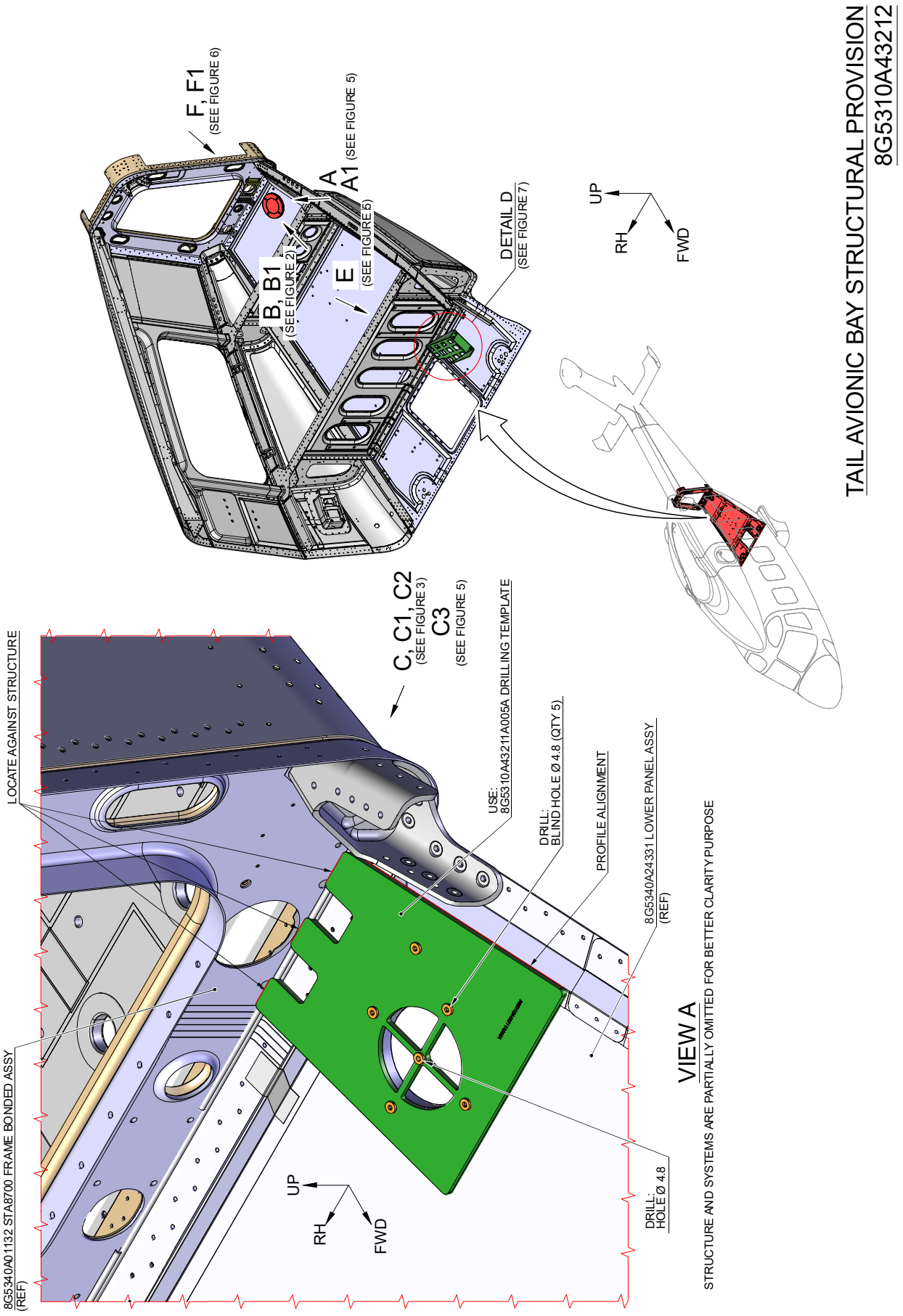

F, F1
(SEE FIGURE 6)
A
A1
(SEE FIGURE 5)
B, B1
(SEE FIGURE 2)
E
(SEE FIGURE 5)
DETAIL D
(SEE FIGURE 7)
UP
RH
FWD
C, C1, C2
(SEE FIGURE 3)
C3
(SEE FIGURE 5)
LOCATE AGAINST STRUCTURE
USE:
8G5310A43211A005A DRILLING TEMPLATE
DRILL:
BLIND HOLE Ø 4.8 (QTY 5)
PROFILE ALIGNMENT
8G5340A24331 LOWER PANEL ASSY
(REF)
8G5340A01132 STA8700 FRAME BONDED ASSY
(REF)
DRILL:
HOLE Ø 4.8
UP
RH
FWD
VIEW A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 1

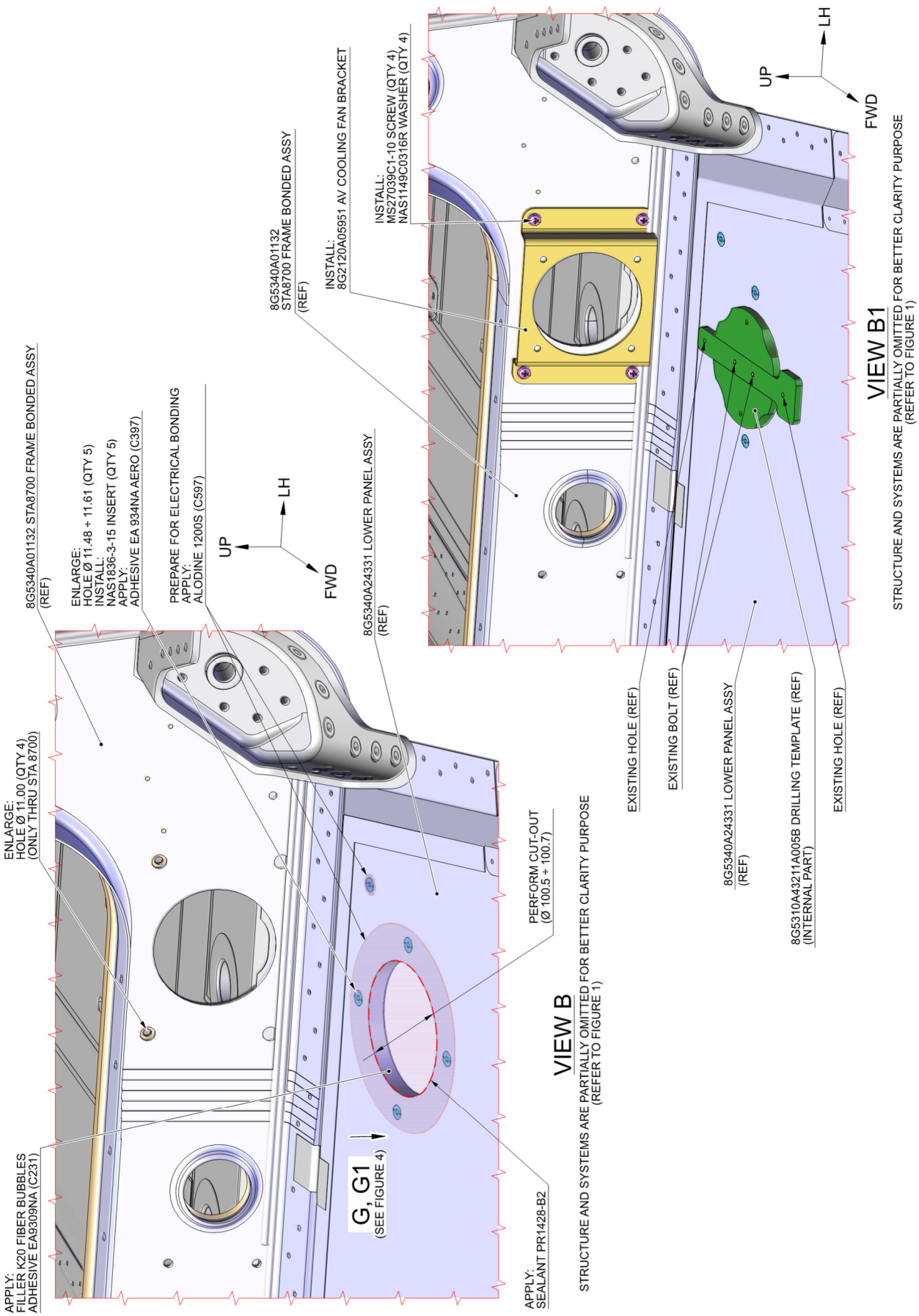

8G5340A01132 STA8700 FRAME BONDED ASSY (REF)
INSTALL: 8G2120A05951 AV COOLING FAN BRACKET
INSTALL: MS27039C1-10 SCREW (QTY 4) NAS1149C0316R WASHER (QTY 4)
UP
LH
FWD
VIEW B1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE (REFER TO FIGURE 1)
EXISTING HOLE (REF)
EXISTING BOLT (REF)
8G5340A24331 LOWER PANEL ASSY (REF)
8G5310A43211A005B DRILLING TEMPLATE (REF) (INTERNAL PART)
EXISTING HOLE (REF)
8G5340A01132 STA8700 FRAME BONDED ASSY (REF)
ENLARGE: HOLE Ø 11.48 ÷ 11.61 (QTY 5) INSTALL: NAS1836-3-15 INSERT (QTY 5) APPLY: ADHESIVE EA 934NA AERO (C397)
PREPARE FOR ELECTRICAL BONDING APPLY: ALODINE 1200S (C597)
8G5340A24331 LOWER PANEL ASSY (REF)
ENLARGE: HOLE Ø 11.00 (QTY 4) (ONLY THRU STA 8700)
APPLY: FILLER K20 FIBER BUBBLES ADHESIVE EA9309NA (C231)
G, G1 (SEE FIGURE 4)
PERFORM CUT-OUT (Ø 100.5 ÷ 100.7)
APPLY: SEALANT PR1428-B2
VIEW B
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE (REFER TO FIGURE 1)

Figure 2

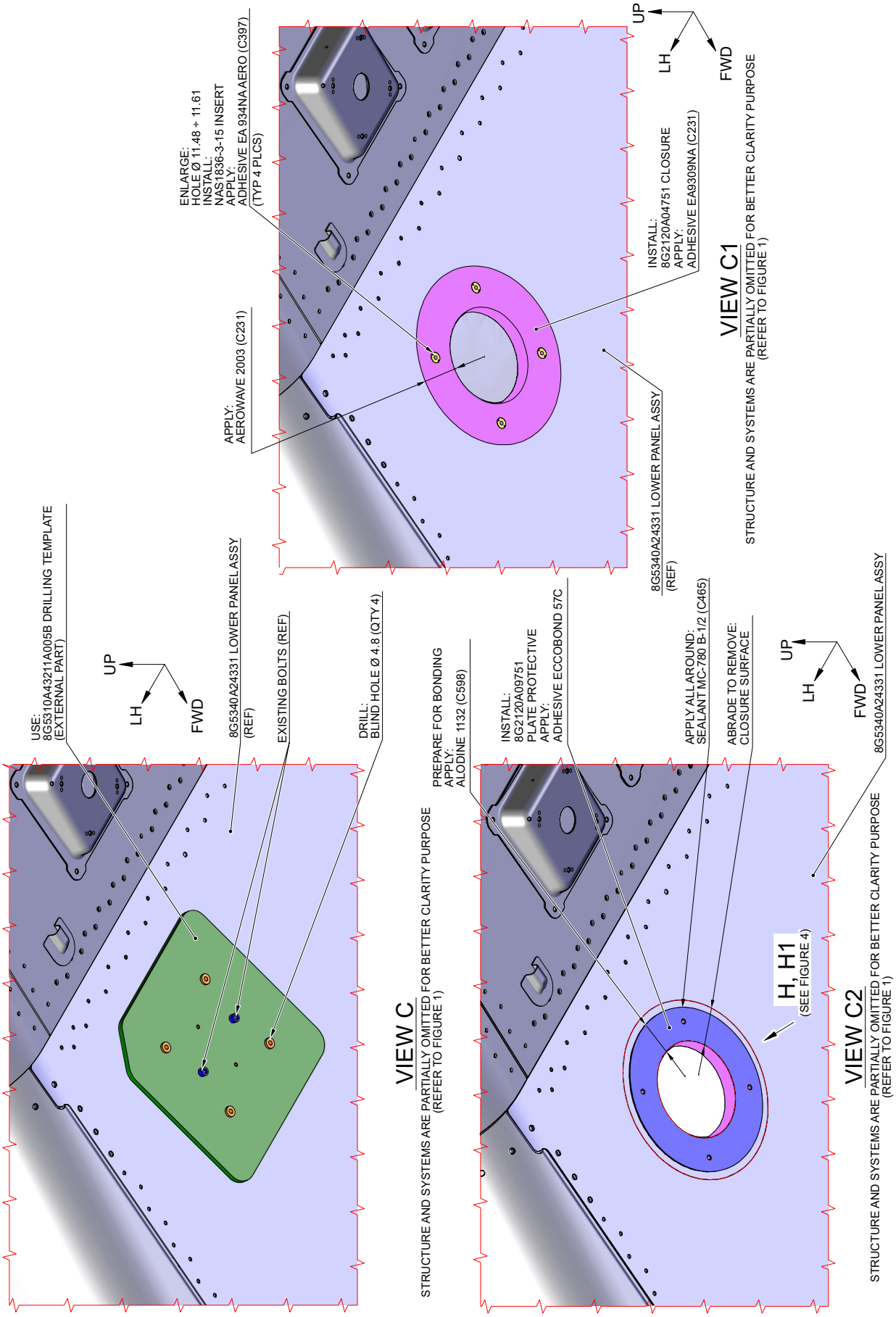

ENLARGE:
HOLE Ø 11.48 ÷ 11.61
INSTALL:
NAS1836-3-15 INSERT
APPLY:
ADHESIVE EA 934NA AERO (C397)
(TYP 4 PLCS)
APPLY:
AEROWAVE 2003 (C231)
INSTALL:
8G2120A04751 CLOSURE
APPLY:
ADHESIVE EA9309NA (C231)
8G5340A24331 LOWER PANEL ASSY
(REF)
UP
LH
FWD
VIEW C1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
USE:
8G5310A43211A005B DRILLING TEMPLATE
(EXTERNAL PART)
8G5340A24331 LOWER PANEL ASSY
(REF)
EXISTING BOLTS (REF)
DRILL:
BLIND HOLE Ø 4.8 (QTY 4)
VIEW C
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
PREPARE FOR BONDING
APPLY:
ALODINE 1132 (C598)
INSTALL:
8G2120A09751
PLATE PROTECTIVE
APPLY:
ADHESIVE ECCOBOND 57C
APPLY ALLAROUND:
SEALANT MC-780 B-1/2 (C465)
ABRADE TO REMOVE:
CLOSURE SURFACE
H, H1
(SEE FIGURE 4)
VIEW C2
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
8G5340A24331 LOWER PANEL ASSY

Figure 3

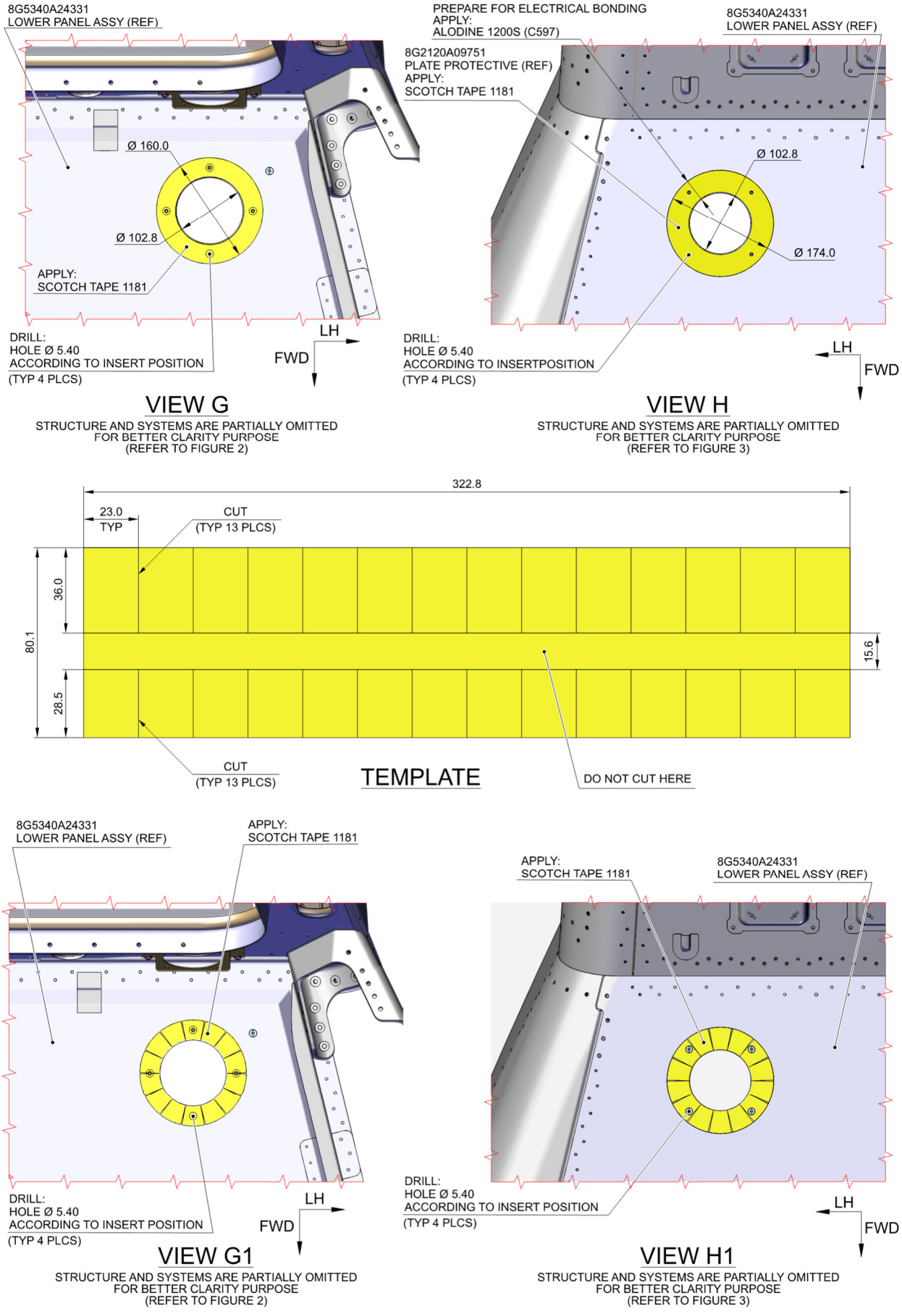

8G5340A24331
LOWER PANEL ASSY (REF)
Ø 160.0
Ø 102.8
APPLY:
SCOTCH TAPE 1181
DRILL:
HOLE Ø 5.40
ACCORDING TO INSERT POSITION
(TYP 4 PLCS)
LH
FWD
VIEW G
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 2)
PREPARE FOR ELECTRICAL BONDING
APPLY:
ALODINE 1200S (C597)
8G2120A09751
PLATE PROTECTIVE (REF)
APPLY:
SCOTCH TAPE 1181
8G5340A24331
LOWER PANEL ASSY (REF)
Ø 102.8
Ø 174.0
DRILL:
HOLE Ø 5.40
ACCORDING TO INSERTPOSITION
(TYP 4 PLCS)
LH
FWD
VIEW H
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 3)
322.8
23.0
TYP
CUT
(TYP 13 PLCS)
36.0
80.1
28.5
15.6
CUT
(TYP 13 PLCS)
TEMPLATE
DO NOT CUT HERE
8G5340A24331
LOWER PANEL ASSY (REF)
APPLY:
SCOTCH TAPE 1181
DRILL:
HOLE Ø 5.40
ACCORDING TO INSERT POSITION
(TYP 4 PLCS)
LH
FWD
VIEW G1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 2)
APPLY:
SCOTCH TAPE 1181
8G5340A24331
LOWER PANEL ASSY (REF)
DRILL:
HOLE Ø 5.40
ACCORDING TO INSERT POSITION
(TYP 4 PLCS)
LH
FWD
VIEW H1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 3)

Figure 4

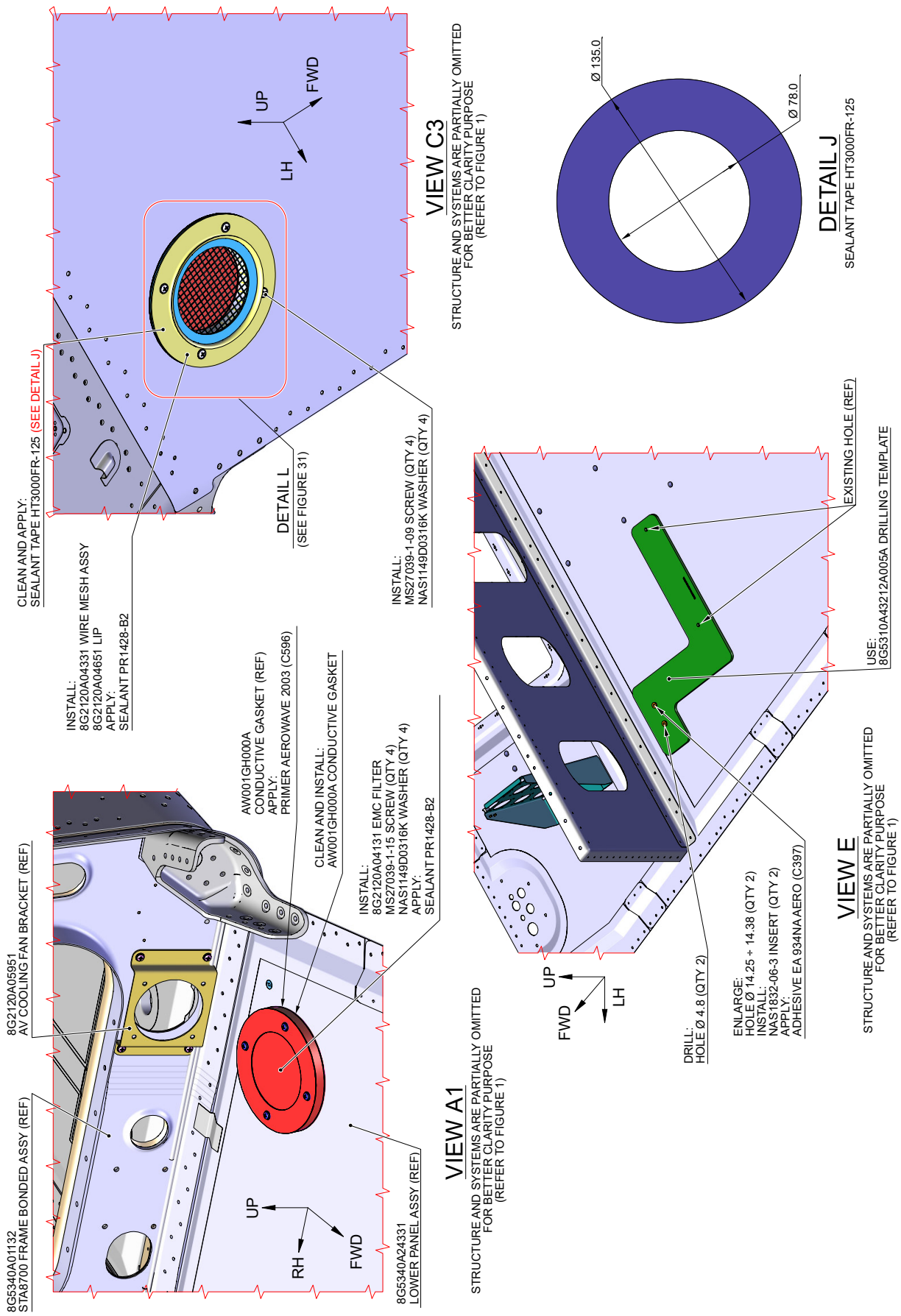

VIEW C3
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
UP
FWD
LH
CLEAN AND APPLY:
SEALANT TAPE HT3000FR-125 (SEE DETAIL J)
INSTALL:
8G2120A04331 WIRE MESH ASSY
8G2120A04651 LIP
APPLY:
SEALANT PR1428-B2
DETAIL L
(SEE FIGURE 31)
INSTALL:
MS27039-1-09 SCREW (QTY 4)
NAS1149D0316K WASHER (QTY 4)
Ø 135.0
Ø 78.0
DETAIL J
SEALANT TAPE HT3000FR-125
EXISTING HOLE (REF)
USE:
8G5310A43212A005A DRILLING TEMPLATE
VIEW E
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
UP
FWD
LH
DRILL:
HOLE Ø 4.8 (QTY 2)
ENLARGE:
HOLE Ø 14.25 ÷ 14.38 (QTY 2)
INSTALL:
NAS1832-06-3 INSERT (QTY 2)
APPLY:
ADHESIVE EA 934NA AERO (C397)
8G2120A05951
AV COOLING FAN BRACKET (REF)
AW001GH000A
CONDUCTIVE GASKET (REF)
APPLY:
PRIMER AEROWAVE 2003 (C596)
CLEAN AND INSTALL:
AW001GH000A CONDUCTIVE GASKET
INSTALL:
8G2120A04131 EMC FILTER
MS27039-1-15 SCREW (QTY 4)
NAS1149D0316K WASHER (QTY 4)
APPLY:
SEALANT PR1428-B2
8G5340A01132
STA8700 FRAME BONDED ASSY (REF)
8G5340A24331
LOWER PANEL ASSY (REF)
VIEW A1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
UP
RH
FWD

Figure 5

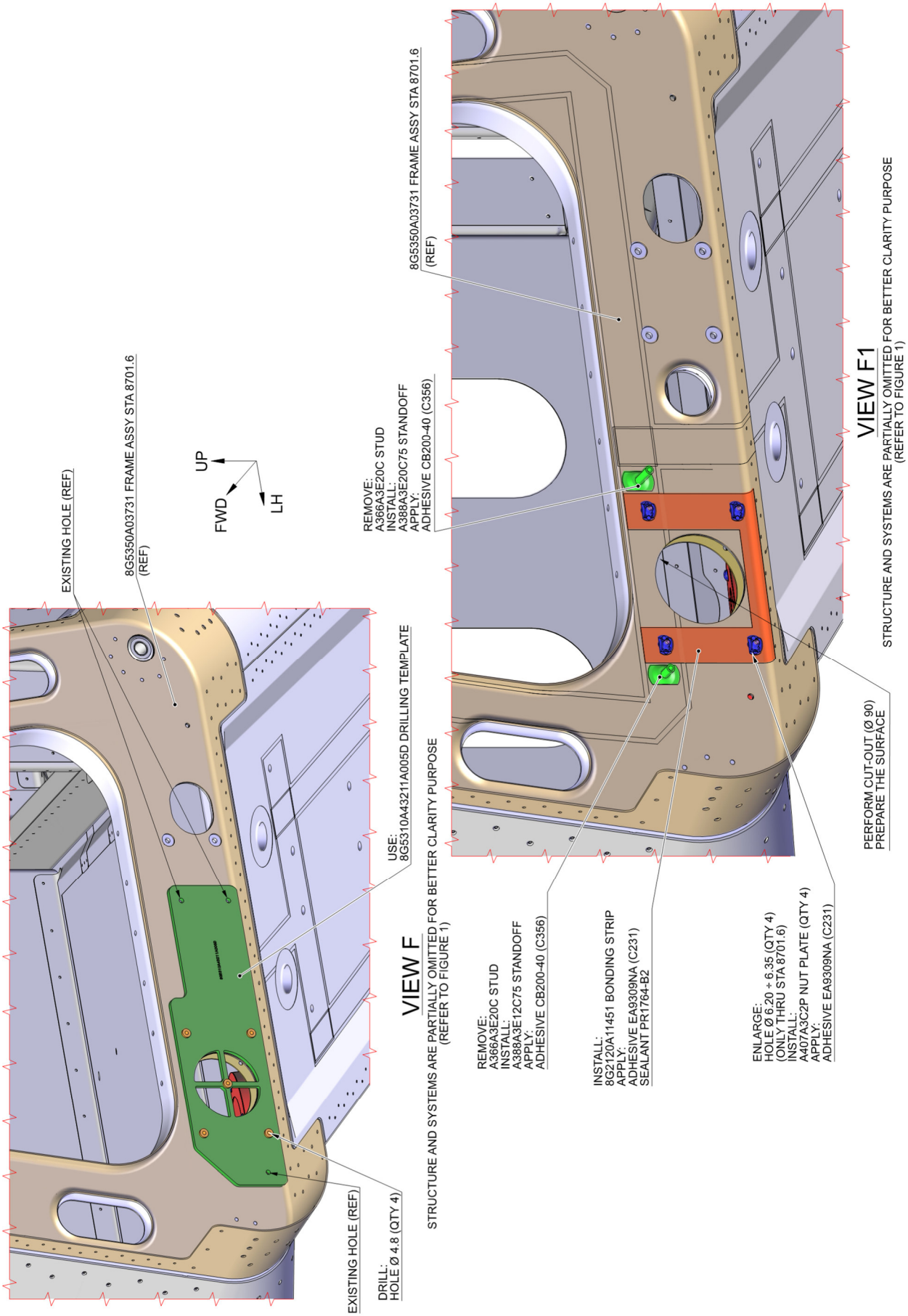

EXISTING HOLE (REF)
8G5350A03731 FRAME ASSY STA 8701.6
(REF)
UP
FWD
LH
8G5350A03731 FRAME ASSY STA 8701.6
(REF)
REMOVE:
A366A3E20C STUD
INSTALL:
A388A3E20C75 STANDOFF
APPLY:
ADHESIVE CB200-40 (C356)
VIEW F1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
PERFORM CUT-OUT (Ø 90)
PREPARE THE SURFACE
USE:
8G5310A43211A005D DRILLING TEMPLATE
VIEW F
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
REMOVE:
A366A3E20C STUD
INSTALL:
A388A3E12C75 STANDOFF
APPLY:
ADHESIVE CB200-40 (C356)
INSTALL:
8G2120A11451 BONDING STRIP
APPLY:
ADHESIVE EA9309NA (C231)
SEALANT PR1764-B2
ENLARGE:
HOLE Ø 6.20 ÷ 6.35 (QTY 4)
(ONLY THRU STA 8701.6)
INSTALL:
A407A3C2P NUT PLATE (QTY 4)
APPLY:
ADHESIVE EA9309NA (C231)
EXISTING HOLE (REF)
DRILL:
HOLE Ø 4.8 (QTY 4)

Figure 6

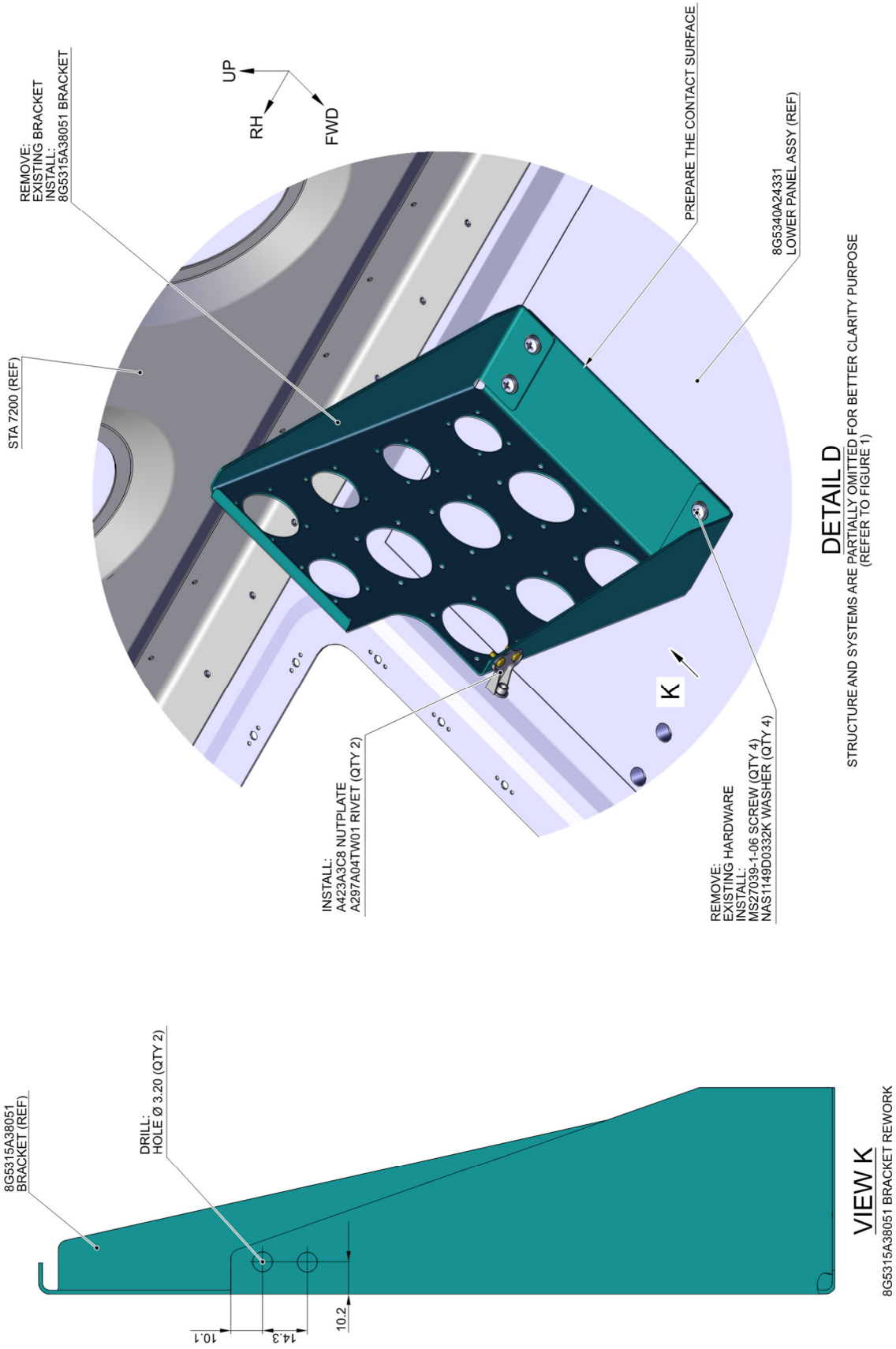

UP
RH
FWD
REMOVE:
EXISTING BRACKET
INSTALL:
8G5315A38051 BRACKET
STA 7200 (REF)
PREPARE THE CONTACT SURFACE
8G5340A24331
LOWER PANEL ASSY (REF)
K
INSTALL:
A423A3C8 NUTPLATE
A297A04TW01 RIVET (QTY 2)
REMOVE:
EXISTING HARDWARE
INSTALL:
MS27039-1-06 SCREW (QTY 4)
NAS1149D0332K WASHER (QTY 4)
DETAIL D
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 1)
8G5315A38051
BRACKET (REF)
DRILL:
HOLE Ø 3.20 (QTY 2)
10.1
14.3
10.2
VIEW K
8G5315A38051 BRACKET REWORK

Figure 7

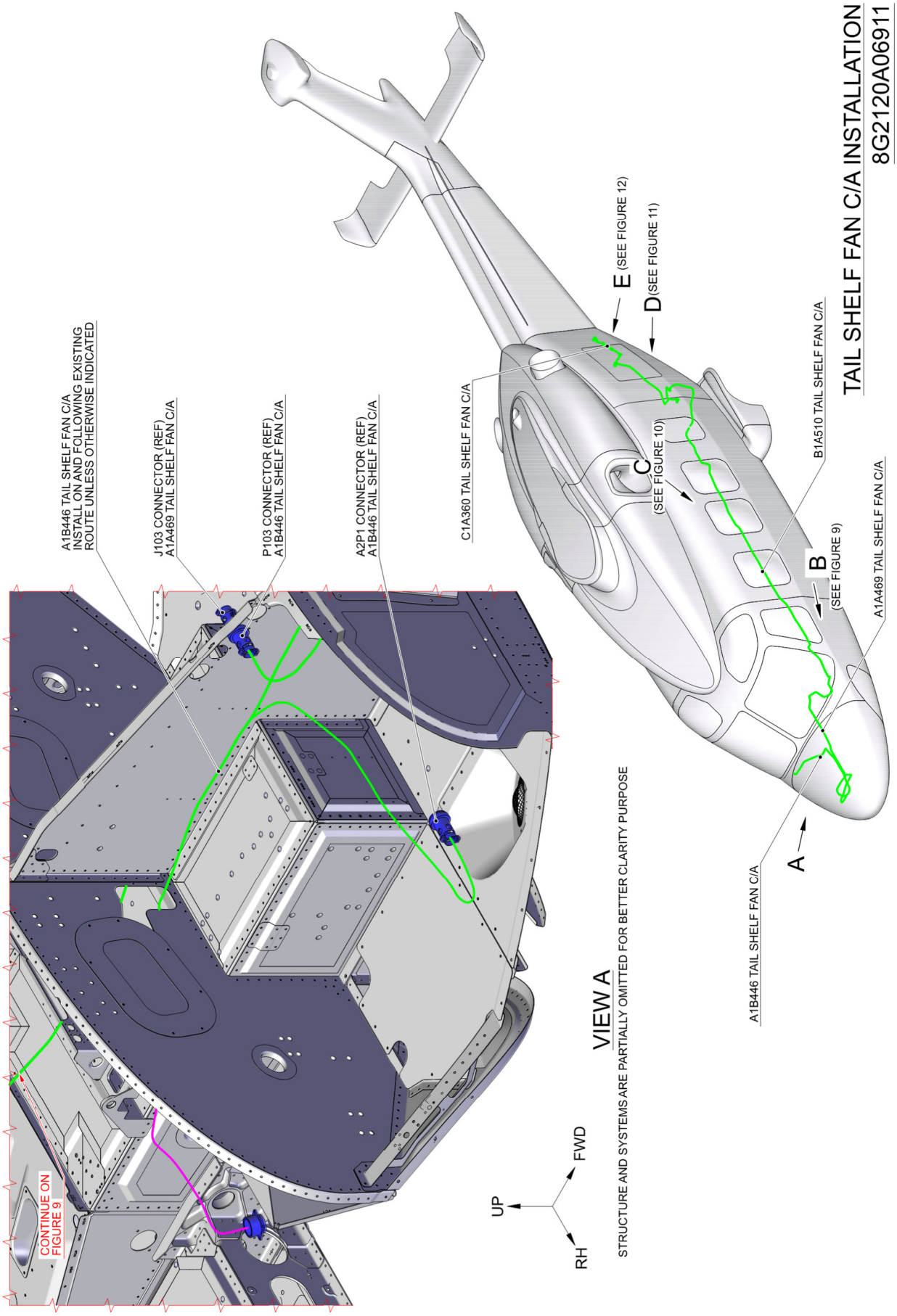

TAIL SHELF FAN C/A INSTALLATION
8G2120A06911
A1B446 TAIL SHELF FAN C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
J103 CONNECTOR (REF)
A1A469 TAIL SHELF FAN C/A
P103 CONNECTOR (REF)
A1B446 TAIL SHELF FAN C/A
A2P1 CONNECTOR (REF)
A1B446 TAIL SHELF FAN C/A
C1A360 TAIL SHELF FAN C/A
E (SEE FIGURE 12)
D (SEE FIGURE 11)
C
(SEE FIGURE 10)
B1A510 TAIL SHELF FAN C/A
B
(SEE FIGURE 9)
A1A469 TAIL SHELF FAN C/A
A
A1B446 TAIL SHELF FAN C/A
CONTINUE ON
FIGURE 9
VIEW A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
RH

Figure 8

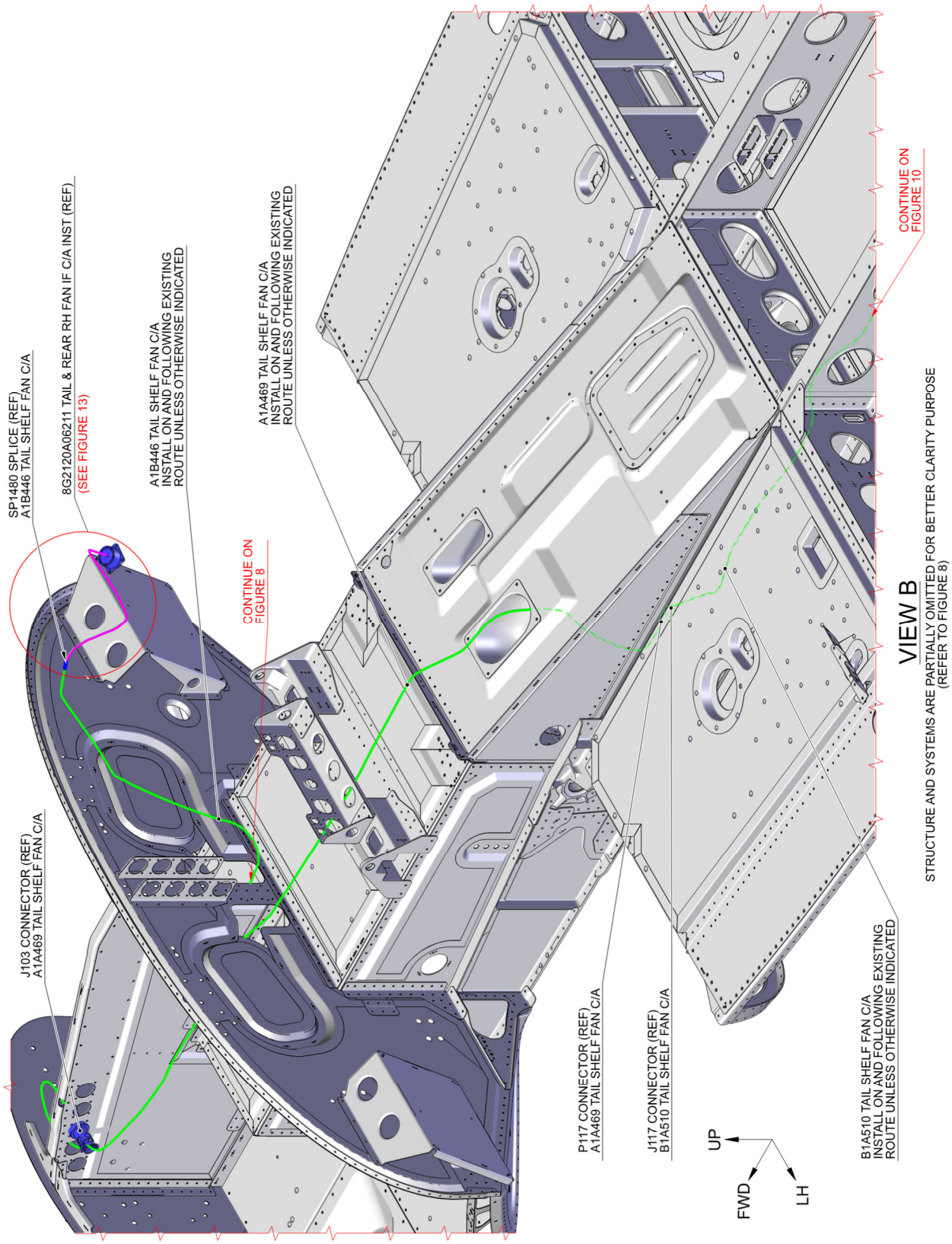

SP1480 SPLICE (REF)
A1B446 TAIL SHELF FAN C/A
8G2120A06211 TAIL & REAR RH FAN IF C/A INST (REF)
(SEE FIGURE 13)
A1B446 TAIL SHELF FAN C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
A1A469 TAIL SHELF FAN C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
CONTINUE ON
FIGURE 8
CONTINUE ON
FIGURE 10
VIEW B
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 8)
J103 CONNECTOR (REF)
A1A469 TAIL SHELF FAN C/A
P117 CONNECTOR (REF)
A1A469 TAIL SHELF FAN C/A
J117 CONNECTOR (REF)
B1A510 TAIL SHELF FAN C/A
B1A510 TAIL SHELF FAN C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
UP
FWD
LH

Figure 9

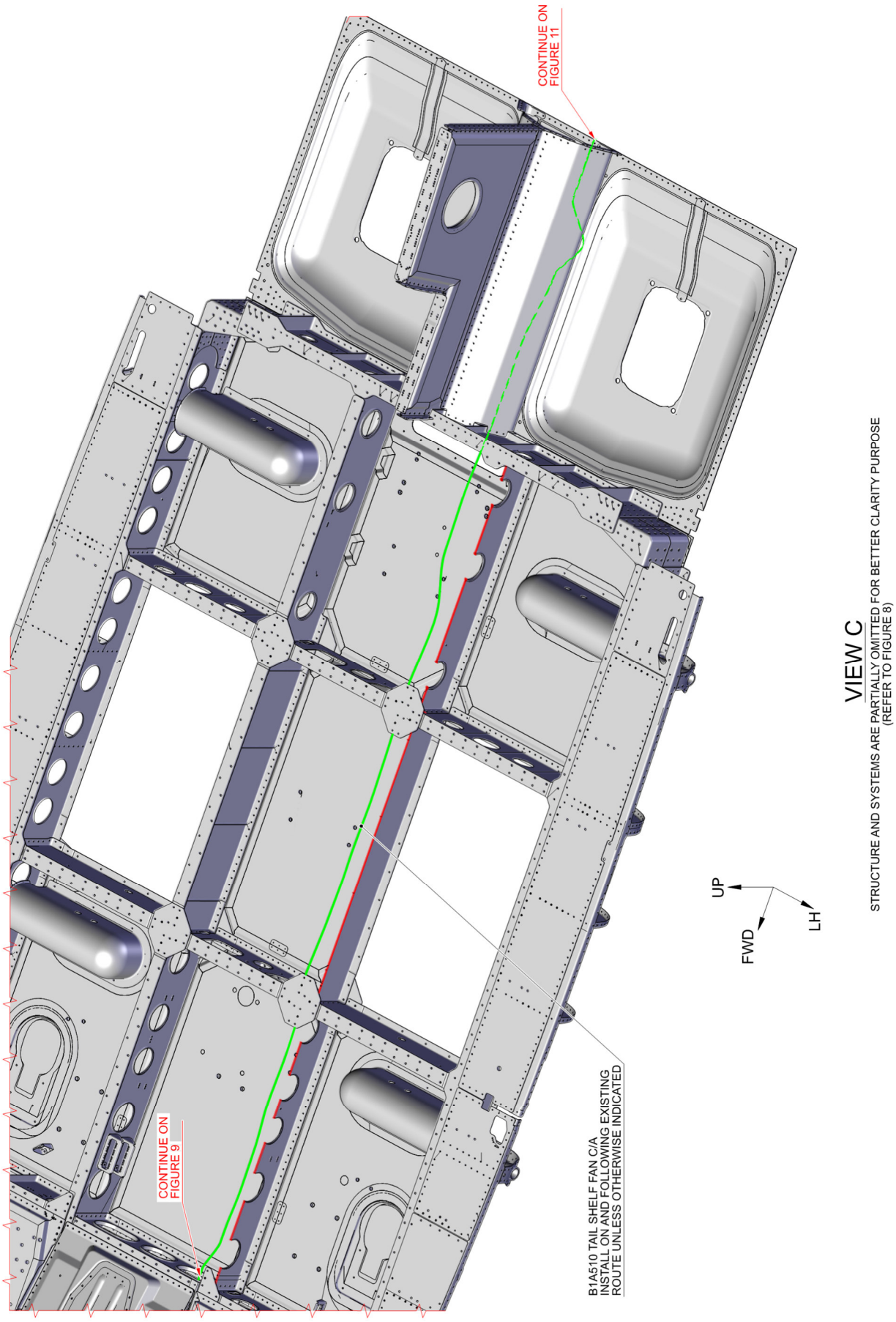

CONTINUE ON FIGURE 11
CONTINUE ON FIGURE 9
B1A510 TAIL SHELF FAN C/A INSTALL ON AND FOLLOWING EXISTING ROUTE UNLESS OTHERWISE INDICATED
UP
FWD
LH
VIEW C
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 8)

Figure 10

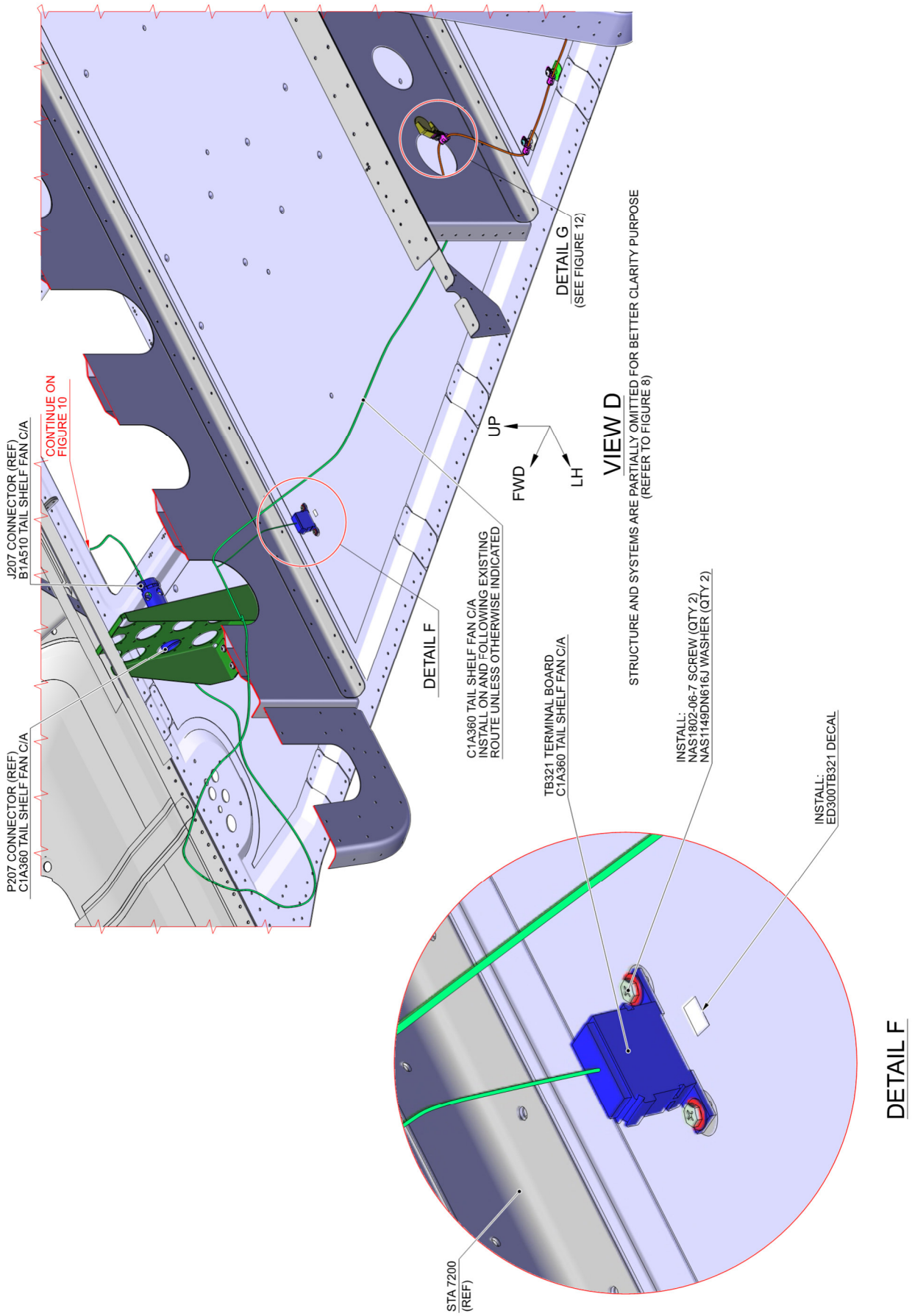

J207 CONNECTOR (REF)
B1A510 TAIL SHELF FAN C/A
CONTINUE ON
FIGURE 10
P207 CONNECTOR (REF)
C1A360 TAIL SHELF FAN C/A
DETAIL F
C1A360 TAIL SHELF FAN C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
UP
FWD
LH
VIEW D
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 8)
DETAIL G
(SEE FIGURE 12)
TB321 TERMINAL BOARD
C1A360 TAIL SHELF FAN C/A
INSTALL:
NAS1802-06-7 SCREW (QTY 2)
NAS1149DN616J WASHER (QTY 2)
INSTALL:
ED300TB321 DECAL
STA 7200
(REF)
DETAIL F

Figure 11

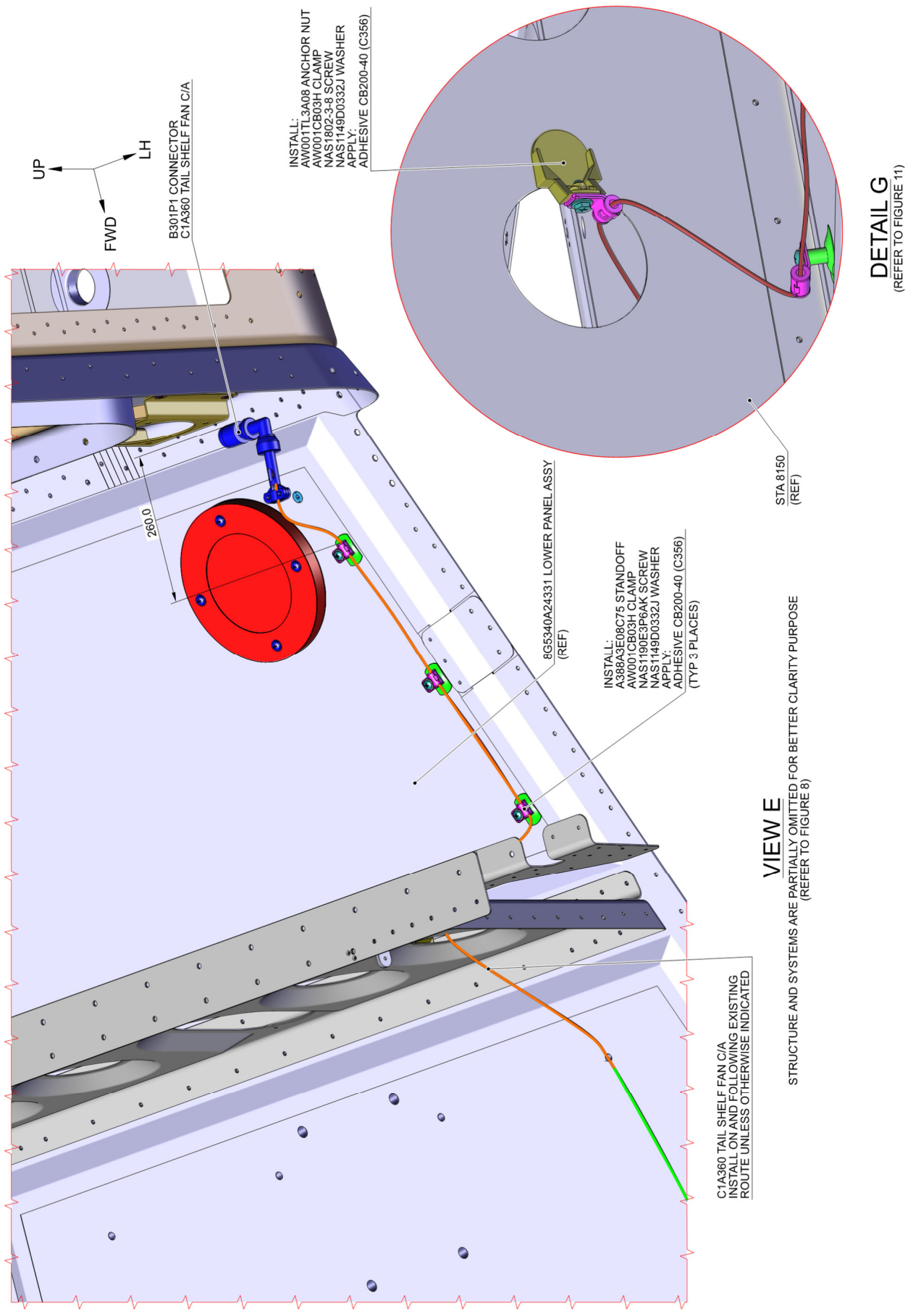

UP
LH
FWD
B301P1 CONNECTOR
C1A360 TAIL SHELF FAN C/A
INSTALL:
AW001TL3A08 ANCHOR NUT
AW001CB03H CLAMP
NAS1802-3-8 SCREW
NAS1149D0332J WASHER
APPLY:
ADHESIVE CB200-40 (C356)
DETAIL G
(REFER TO FIGURE 11)
260.0
8G5340A24331 LOWER PANEL ASSY
(REF)
INSTALL:
A388A3E08C75 STANDOFF
AW001CB03H CLAMP
NAS1190E3P6AK SCREW
NAS1149D0332J WASHER
APPLY:
ADHESIVE CB200-40 (C356)
(TYP 3 PLACES)
STA 8150
(REF)
VIEW E
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 8)
C1A360 TAIL SHELF FAN C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED

Figure 12

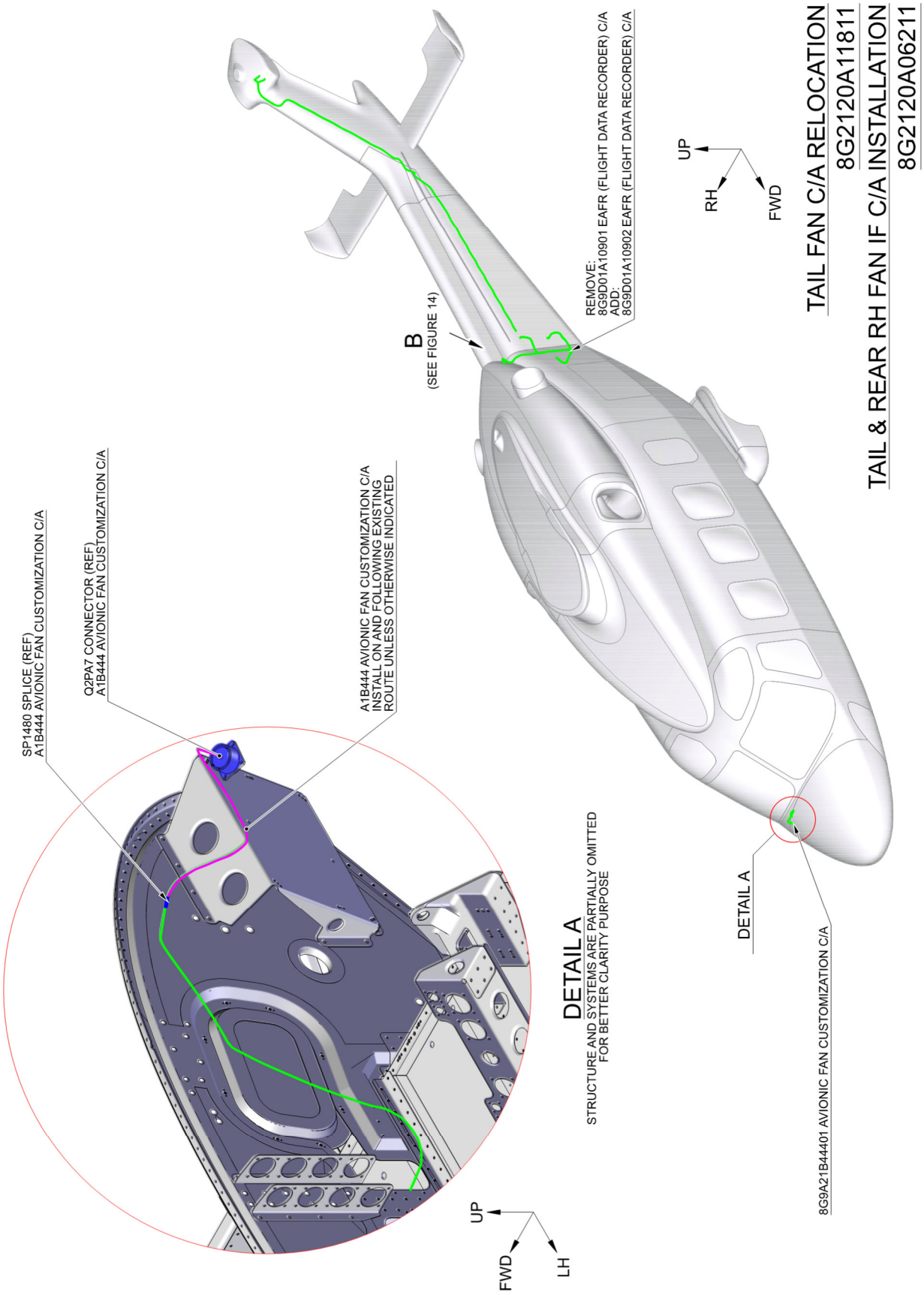

TAIL FAN C/A RELOCATION
8G2120A11811
TAIL & REAR RH FAN IF C/A INSTALLATION
8G2120A06211
B
(SEE FIGURE 14)
REMOVE:
8G9D01A10901 EAFR (FLIGHT DATA RECORDER) C/A
ADD:
8G9D01A10902 EAFR (FLIGHT DATA RECORDER) C/A
UP
RH
FWD
DETAIL A
8G9A21B44401 AVIONIC FAN CUSTOMIZATION C/A
SP1480 SPLICE (REF)
A1B444 AVIONIC FAN CUSTOMIZATION C/A
Q2PA7 CONNECTOR (REF)
A1B444 AVIONIC FAN CUSTOMIZATION C/A
A1B444 AVIONIC FAN CUSTOMIZATION C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
DETAIL A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
UP
FWD
LH

Figure 13

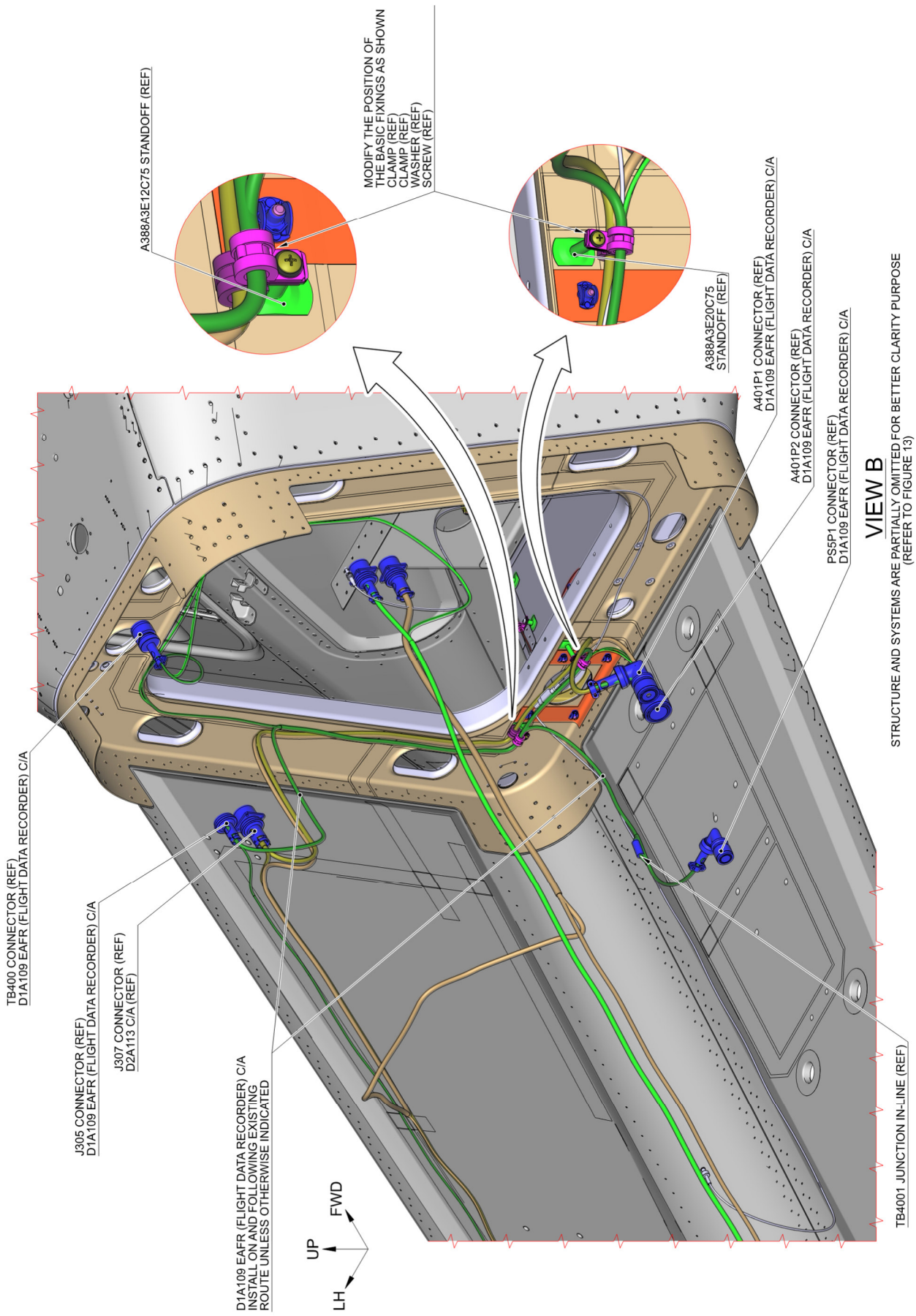

A388A3E12C75 STANDOFF (REF)
MODIFY THE POSITION OF
THE BASIC FIXINGS AS SHOWN
CLAMP (REF)
CLAMP (REF)
WASHER (REF)
SCREW (REF)
A388A3E20C75
STANDOFF (REF)
A401P1 CONNECTOR (REF)
D1A109 EAFR (FLIGHT DATA RECORDER) C/A
A401P2 CONNECTOR (REF)
D1A109 EAFR (FLIGHT DATA RECORDER) C/A
PS5P1 CONNECTOR (REF)
D1A109 EAFR (FLIGHT DATA RECORDER) C/A
VIEW B
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 13)
TB400 CONNECTOR (REF)
D1A109 EAFR (FLIGHT DATA RECORDER) C/A
J305 CONNECTOR (REF)
D1A109 EAFR (FLIGHT DATA RECORDER) C/A
J307 CONNECTOR (REF)
D2A113 C/A (REF)
D1A109 EAFR (FLIGHT DATA RECORDER) C/A
INSTALL ON AND FOLLOWING EXISTING
ROUTE UNLESS OTHERWISE INDICATED
TB4001 JUNCTION IN-LINE (REF)
FWD
UP
LH

Figure 14

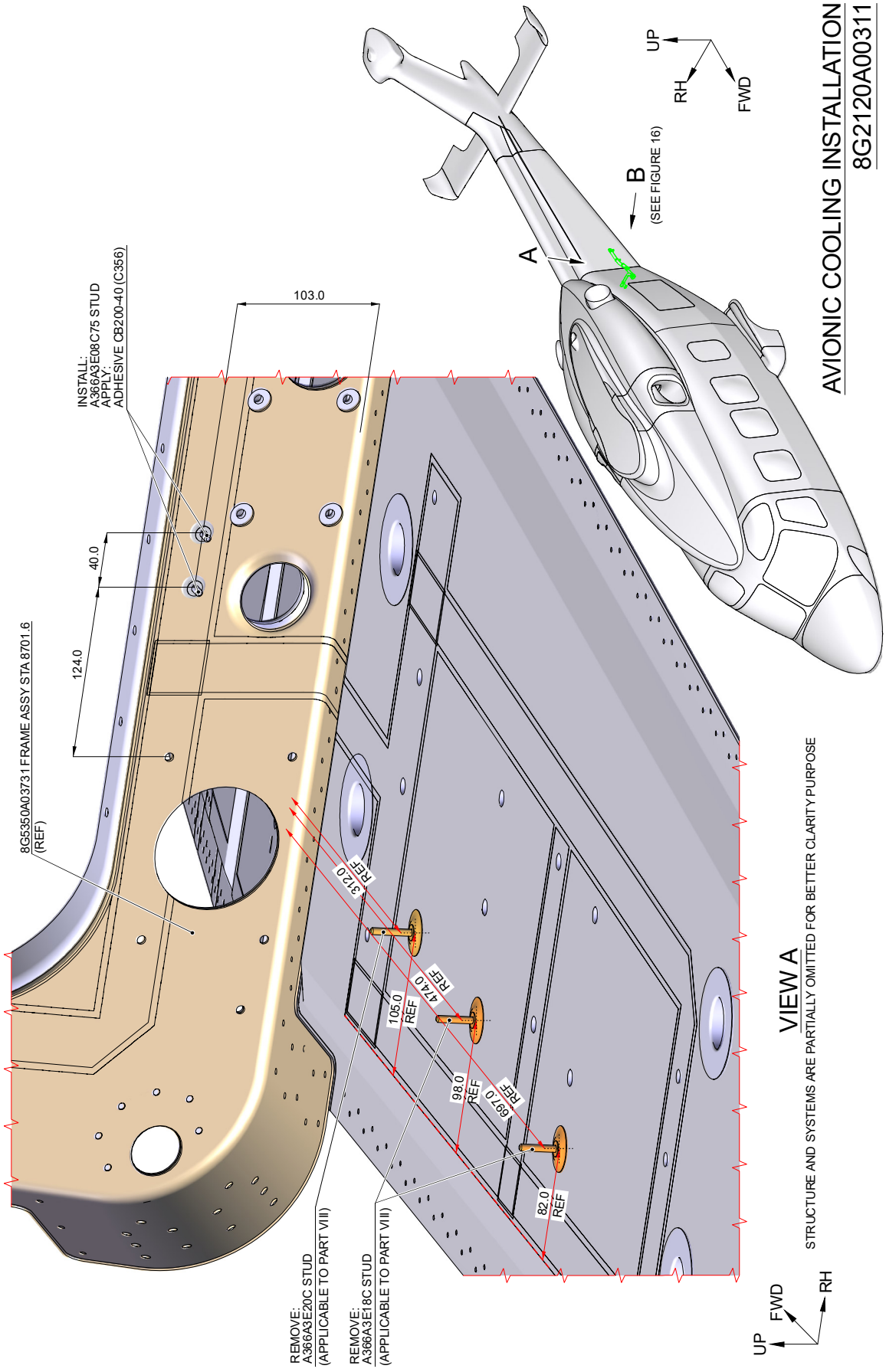

UP
RH
FWD
B
(SEE FIGURE 16)
A
INSTALL:
A366A3E08C75 STUD
APPLY:
ADHESIVE CB200-40 (C356)
103.0
40.0
124.0
8G5350A03731 FRAME ASSY STA 8701.6
(REF)
312.0 REF
447.0 REF
105.0 REF
697.0 REF
98.0 REF
82.0 REF
REMOVE:
A366A3E20C STUD
(APPLICABLE TO PART VIII)
REMOVE:
A366A3E18C STUD
(APPLICABLE TO PART VIII)
VIEW A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
RH

Figure 15

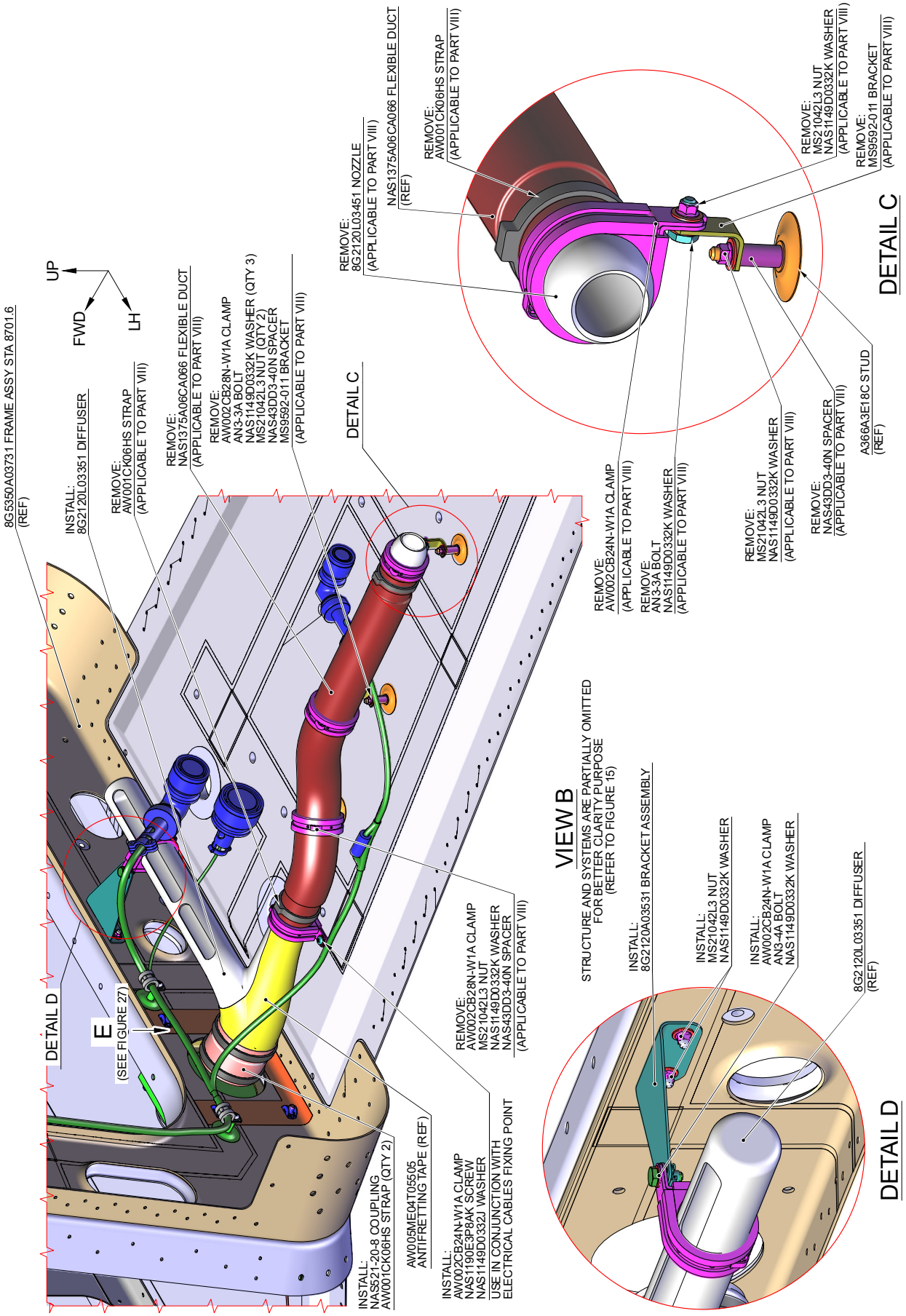

8G5350A03731 FRAME ASSY STA 8701.6
(REF)
INSTALL:
8G2120L03351 DIFFUSER
REMOVE:
AW001CK06HS STRAP
(APPLICABLE TO PART VIII)
REMOVE:
NAS13375A06CA066 FLEXIBLE DUCT
(APPLICABLE TO PART VIII)
REMOVE:
AW002CB28N-W1A CLAMP
AN3-3A BOLT
NAS1149D0332K WASHER (QTY 3)
MS21042L3 NUT (QTY 2)
NAS43DD3-40N SPACER
MS9592-011 BRACKET
(APPLICABLE TO PART VIII)
UP
FWD
LH
DETAIL C
REMOVE:
8G2120L03451 NOZZLE
(APPLICABLE TO PART VIII)
NAS13375A06CA066 FLEXIBLE DUCT
(REF)
REMOVE:
AW001CK06HS STRAP
(APPLICABLE TO PART VIII)
REMOVE:
MS21042L3 NUT
NAS1149D0332K WASHER
(APPLICABLE TO PART VIII)
REMOVE:
MS9592-011 BRACKET
(APPLICABLE TO PART VIII)
DETAIL C
REMOVE:
AW002CB24N-W1A CLAMP
(APPLICABLE TO PART VIII)
REMOVE:
AN3-3A BOLT
NAS1149D0332K WASHER
(APPLICABLE TO PART VIII)
REMOVE:
MS21042L3 NUT
NAS1149D0332K WASHER
(APPLICABLE TO PART VIII)
REMOVE:
NAS43DD3-40N SPACER
(APPLICABLE TO PART VIII)
A366A3E18C STUD
(REF)
DETAIL D
E
(SEE FIGURE 27)
INSTALL:
NAS521-20-8 COUPLING
AW001CK06HS STRAP (QTY 2)
AW005ME04T05505
ANTIFRETTING TAPE (REF)
INSTALL:
AW002CB24N-W1A CLAMP
NAS1190E3P8AK SCREW
NAS1149D0332J WASHER
USE IN CONJUNCTION WITH
ELECTRICAL CABLES FIXING POINT
REMOVE:
AW002CB28N-W1A CLAMP
MS21042L3 NUT
NAS1149D0332K WASHER
NAS43DD3-40N SPACER
(APPLICABLE TO PART VIII)
VIEW B
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 15)
INSTALL:
8G2120A03531 BRACKET ASSEMBLY
INSTALL:
MS21042L3 NUT
NAS1149D0332K WASHER
INSTALL:
AW002CB24N-W1A CLAMP
AN3-4A BOLT
NAS1149D0332K WASHER
8G2120L03351 DIFFUSER
(REF)
DETAIL D

Figure 16

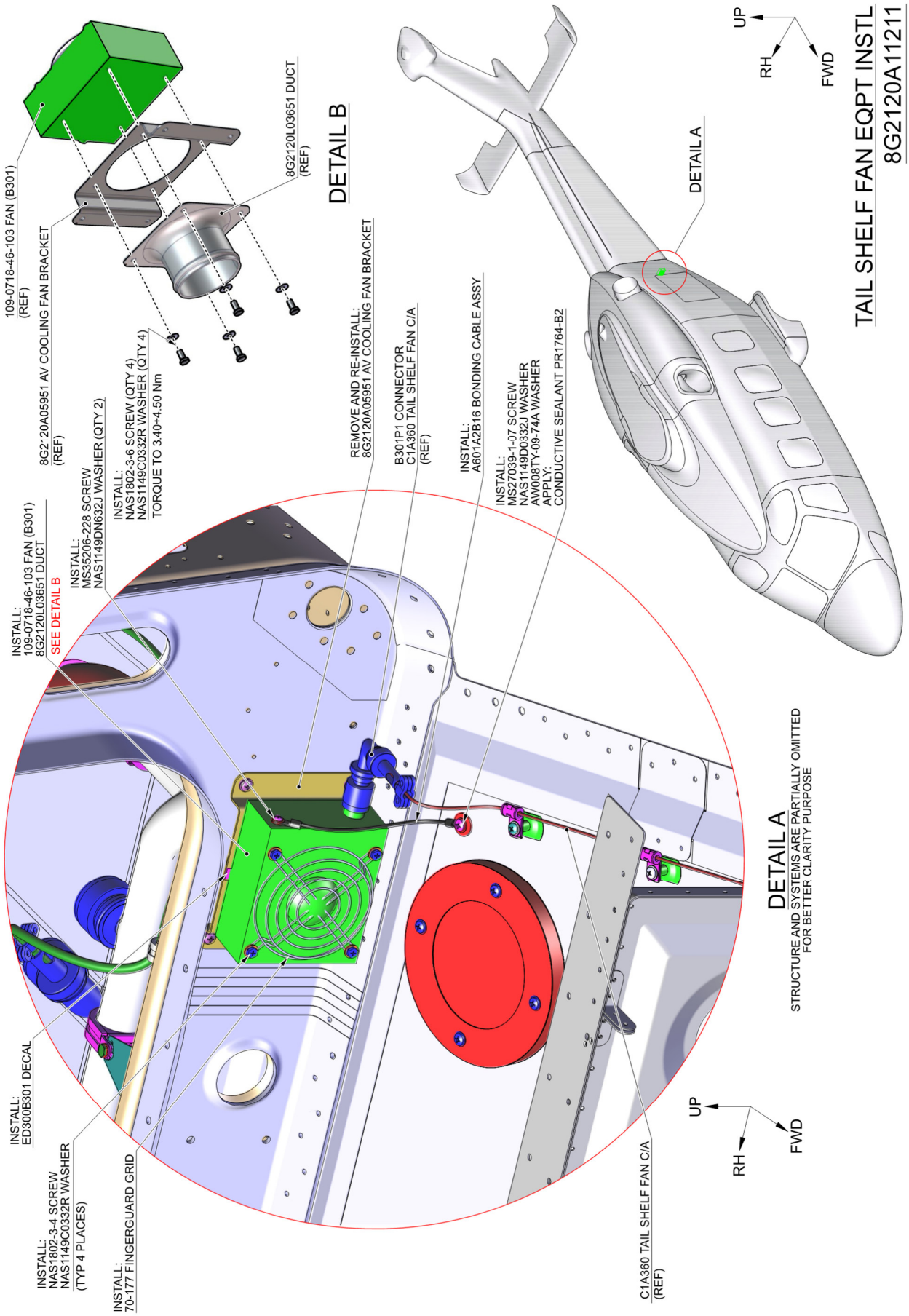

TAIL SHELF FAN EQPT INSTL
8G2120A11211
UP
RH
FWD
DETAIL A
DETAIL B
109-0718-46-103 FAN (B301)
(REF)
8G2120A05951 AV COOLING FAN BRACKET
(REF)
8G2120L03651 DUCT
(REF)
INSTALL:
NAS1802-3-6 SCREW (QTY 4)
NAS1149C0332R WASHER (QTY 4)
TORQUE TO 3.40÷4.50 Nm
INSTALL:
MS35206-228 SCREW
NAS1149DN632J WASHER (QTY 2)
INSTALL:
109-0718-46-103 FAN (B301)
8G2120L03651 DUCT
SEE DETAIL B
REMOVE AND RE-INSTALL:
8G2120A05951 AV COOLING FAN BRACKET
B301P1 CONNECTOR
C1A360 TAIL SHELF FAN C/A
(REF)
INSTALL:
A601A2B16 BONDING CABLE ASSY
INSTALL:
MS27039-1-07 SCREW
NAS1149D0332J WASHER
AW0008T Y-09-74A WASHER
APPLY:
CONDUCTIVE SEALANT PR1764-B2
INSTALL:
ED300B301 DECAL
INSTALL:
NAS1802-3-4 SCREW
NAS1149C0332R WASHER
(TYP 4 PLACES)
INSTALL:
70-177 FINGERGUARD GRID
C1A360 TAIL SHELF FAN C/A
(REF)
DETAIL A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
UP
RH
FWD

Figure 17

8G2120W00601

WIRING DIAGRAM TAIL SHELF FAN

SHEET 1

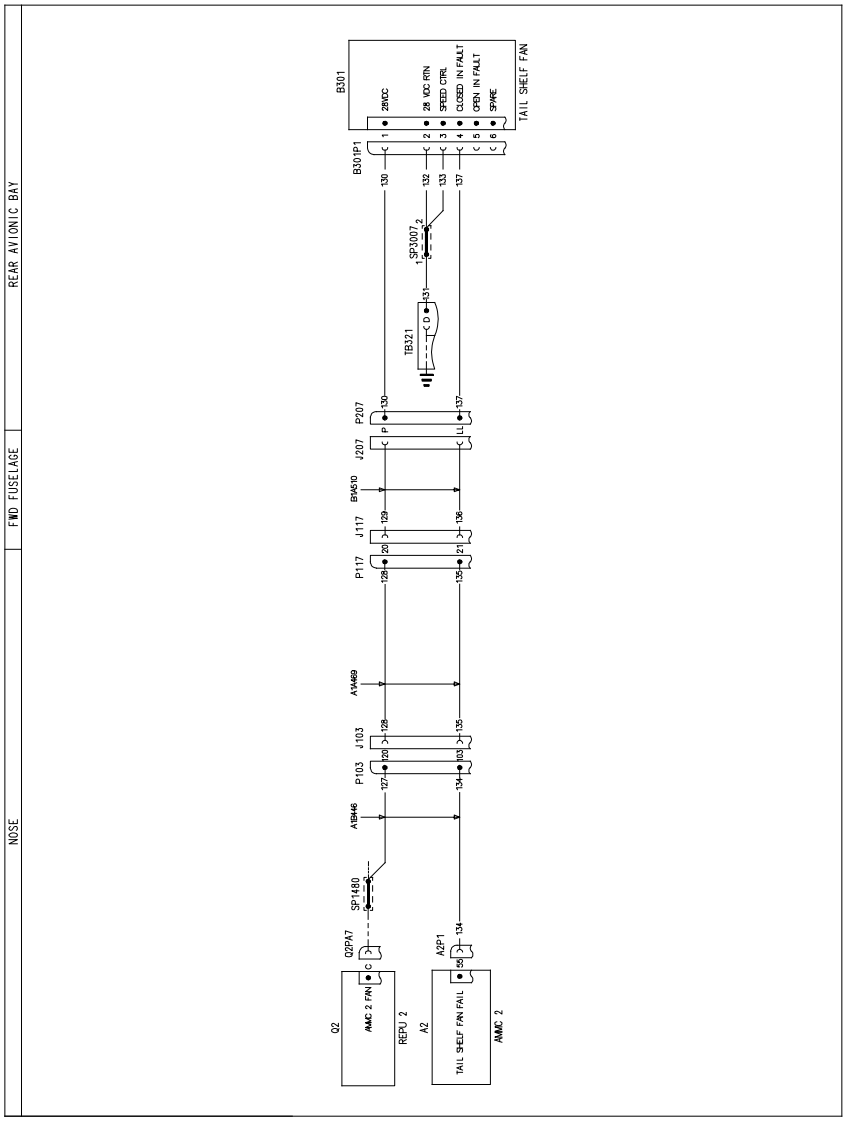


Figure 18

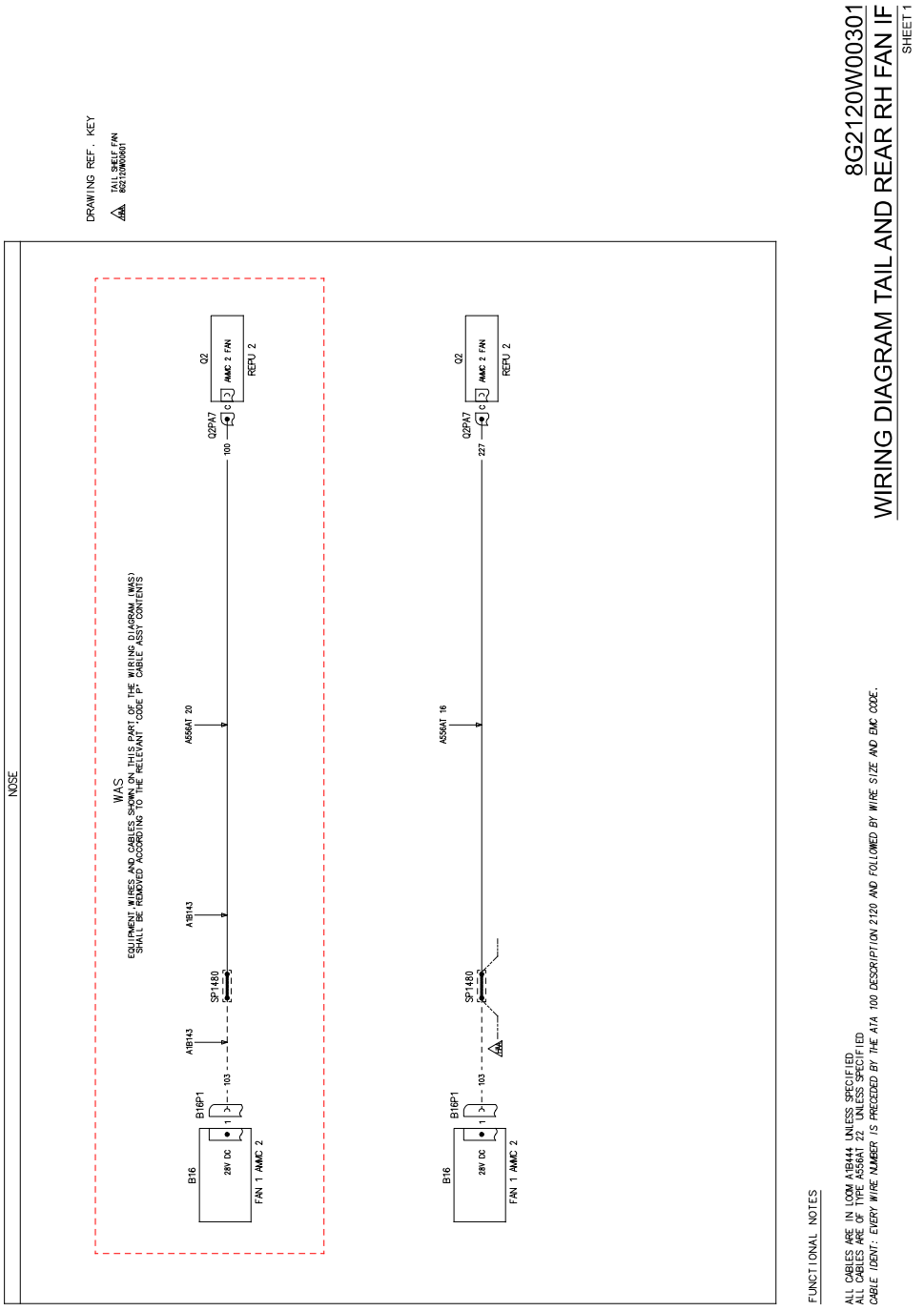

8G2120W00301
WIRING DIAGRAM TAIL AND REAR RH FAN IF
SHEET 1
DRAWING REF. KEY
TAIL SHELF FAN
8G2120W00001
NOSE
WAS
EQUIPMENT WIRES AND CABLES SHOWN ON THIS PART OF THE WIRING DIAGRAM (WAS)
SHALL BE REMOVED ACCORDING TO THE RELEVANT "CODE P" CABLE ASSY CONTENTS
A56AT 20
A1B143
SP1480
B16P1
B16
28V DC
FAN 1 AMC 2
Q2PA7
Q2
AMC 2 FAN
REFU 2
100
103
1
A56AT 16
227
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1B444 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED
CABLE IDENT: EVERY WIRE NUMBER IS PRECEDED BY THE ATA 100 DESCRIPTION 2120 AND FOLLOWED BY WIRE SIZE AND EMC CODE.

Figure 19

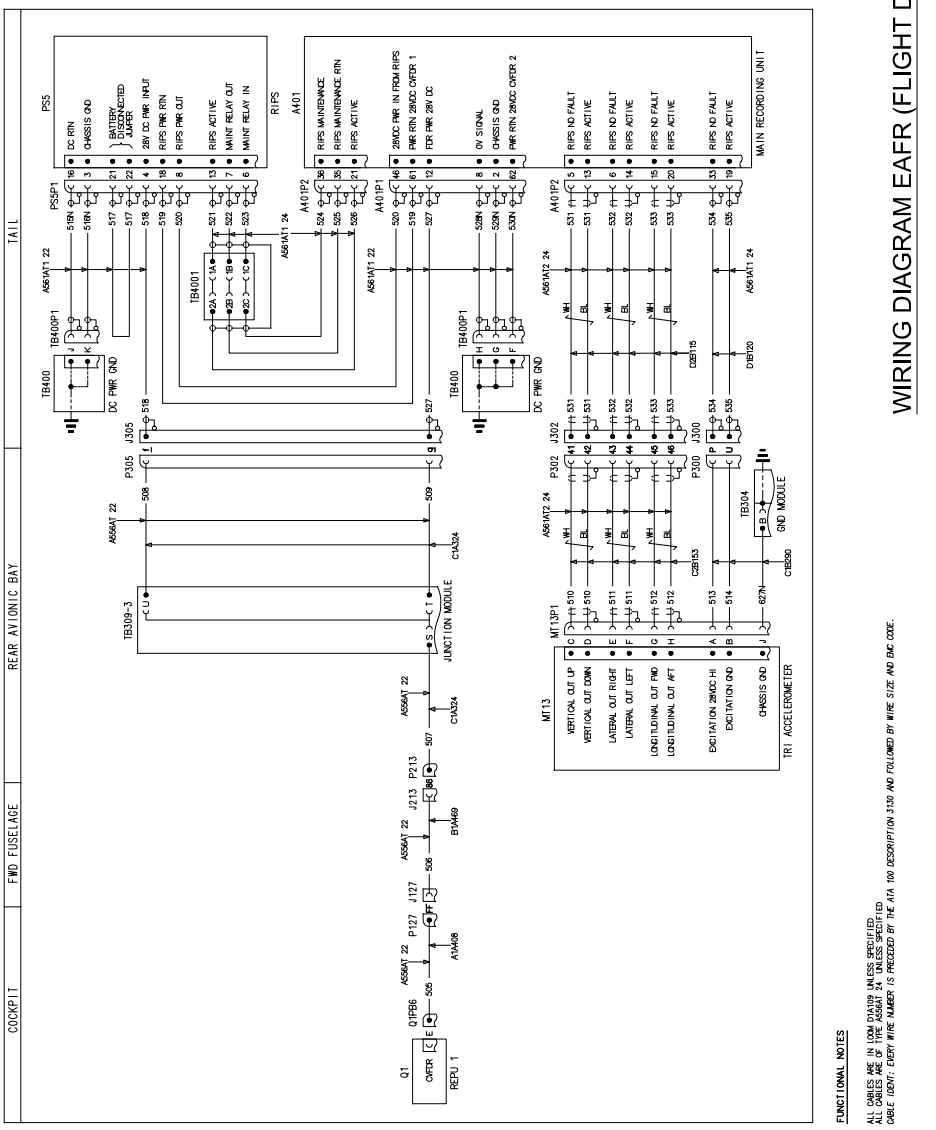

8G3130W00501
WIRING DIAGRAM EAFR (FLIGHT DATA RECORDER)
SHEET 1
COCKPIT
FWD FUSELAGE
REAR AVIONIC BAY
TAIL
PS5
RIPS
MAIN RECORDING UNIT
JUNCTION MODULE
TR1 ACCELEROMETER
GND MODULE
FUNCTIONAL NOTES

Figure 20

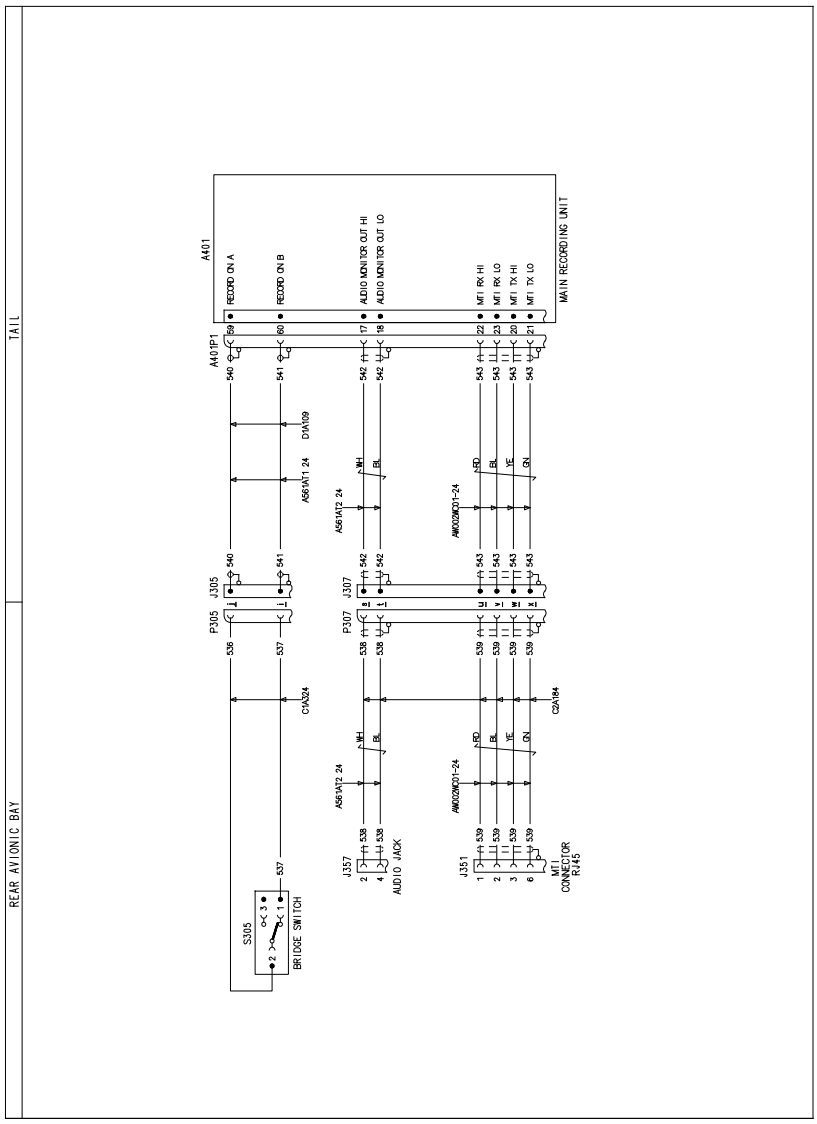

8G3130W00501
WIRING DIAGRAM EAFR (FLIGHT DATA RECORDER)
SHEET 2
TAIL
REAR AVIONIC BAY
A401
MAIN RECORDING UNIT
RECORD GN A
RECORD GN B
AUDIO MONITOR OUT HI
AUDIO MONITOR OUT LO
MFI RX HI
MFI RX LO
MFI TX HI
MFI TX LO
A401P1
P305
J305
P307
J307
J357
AUDIO JACK
J351
MFI CONNECTOR RJ45
S305
BRIDGE SWITCH
C1A024
C2A184
D1A109
A561AT1 24
A561AT2 24
AWG22MC01-24
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM 02A113 UNLESS SPECIFIED
ALL CABLES ARE TYPE M22759/34 UNLESS SPECIFIED
CABLE IDENT: EVERY WIRE NUMBER IS PRECEDED BY THE ATA 100 DESCRIPTION J139 AND FOLLOWED BY WIRE SIZE AND EMC CODE.

Figure 21

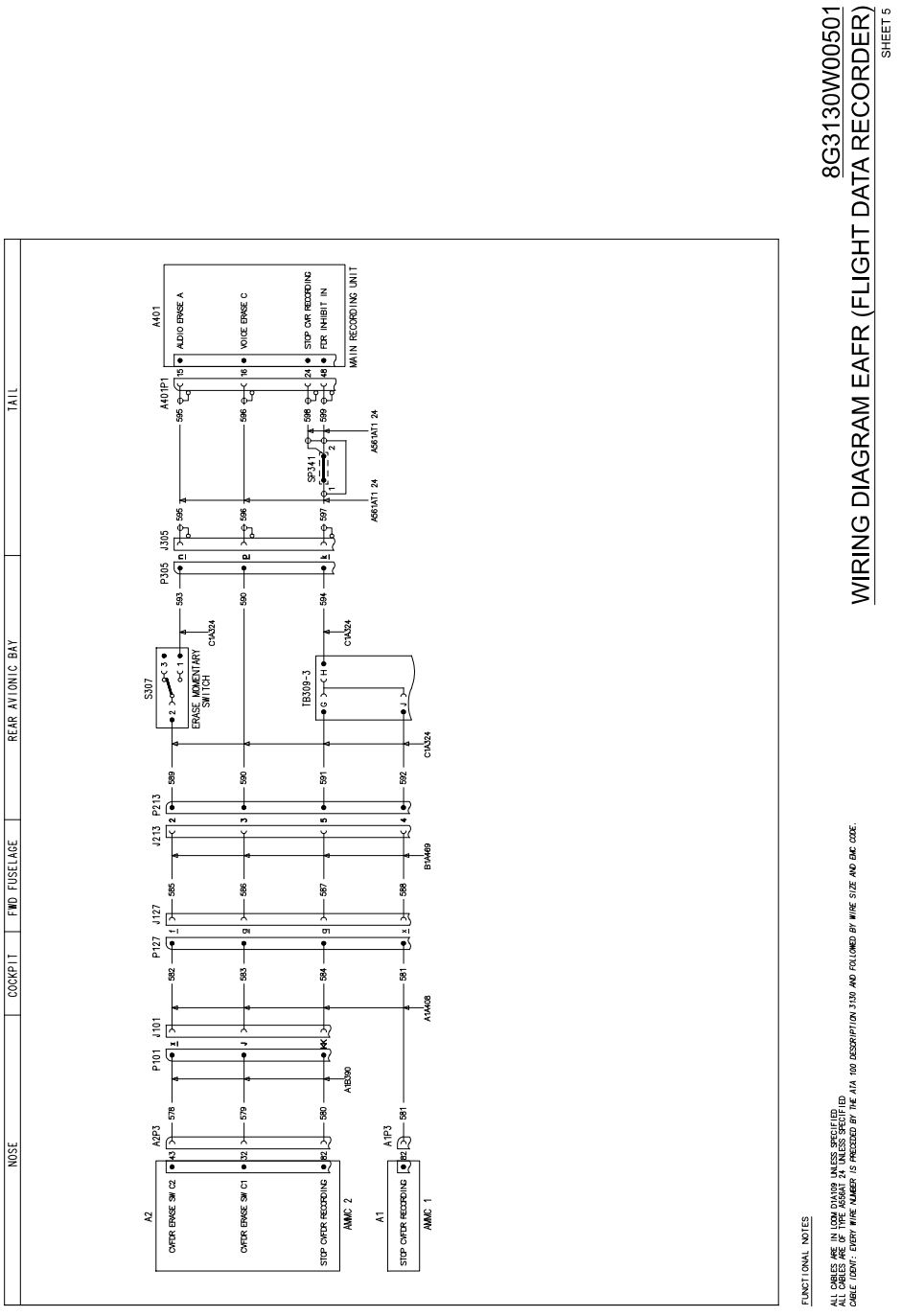

8G3130W00501
WIRING DIAGRAM EAFR (FLIGHT DATA RECORDER)
SHEET 5
NOSE
COCKPIT
FWD FUSELAGE
REAR AVIONIC BAY
TAIL
A2
CVFDR ERASE SW C2
CVFDR ERASE SW C1
STOP CVFDR RECORDING
AMMC 2
A1
STOP CVFDR RECORDING
AMMC 1
A401
AUDIO ERASE A
VOICE ERASE C
STOP CVR RECORDING
FDR INHIBIT IN
MAIN RECORDING UNIT
S307
ERASE MOMENTARY SWITCH
SP341
TB309-3
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM DIA109 UNLESS SPECIFIED
ALL CABLES OF TYPE M27500 UNLESS SPECIFIED
CABLE IDENT.: EVERY WIRE NUMBER IS PRECEDED BY THE A/A 100 DESCRIPTION, 3130 AND FOLLOWED BY WIRE SIZE AND EMC CODE.

Figure 22

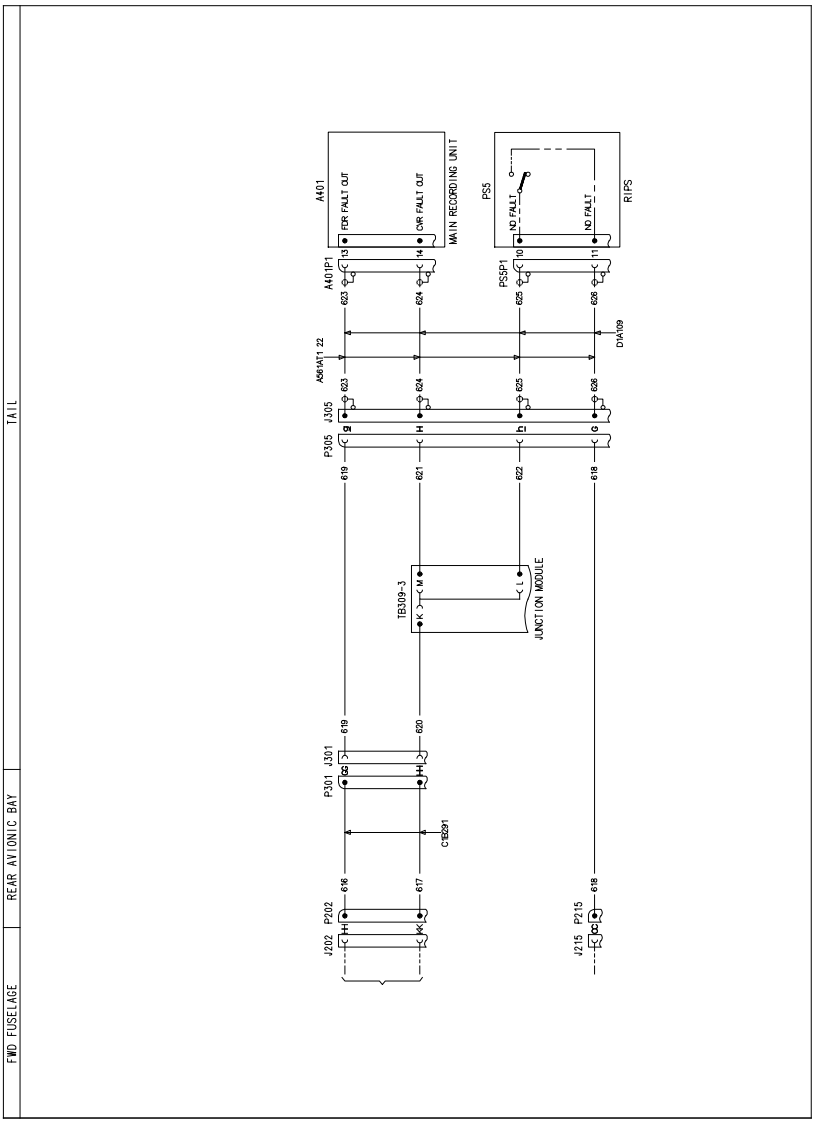
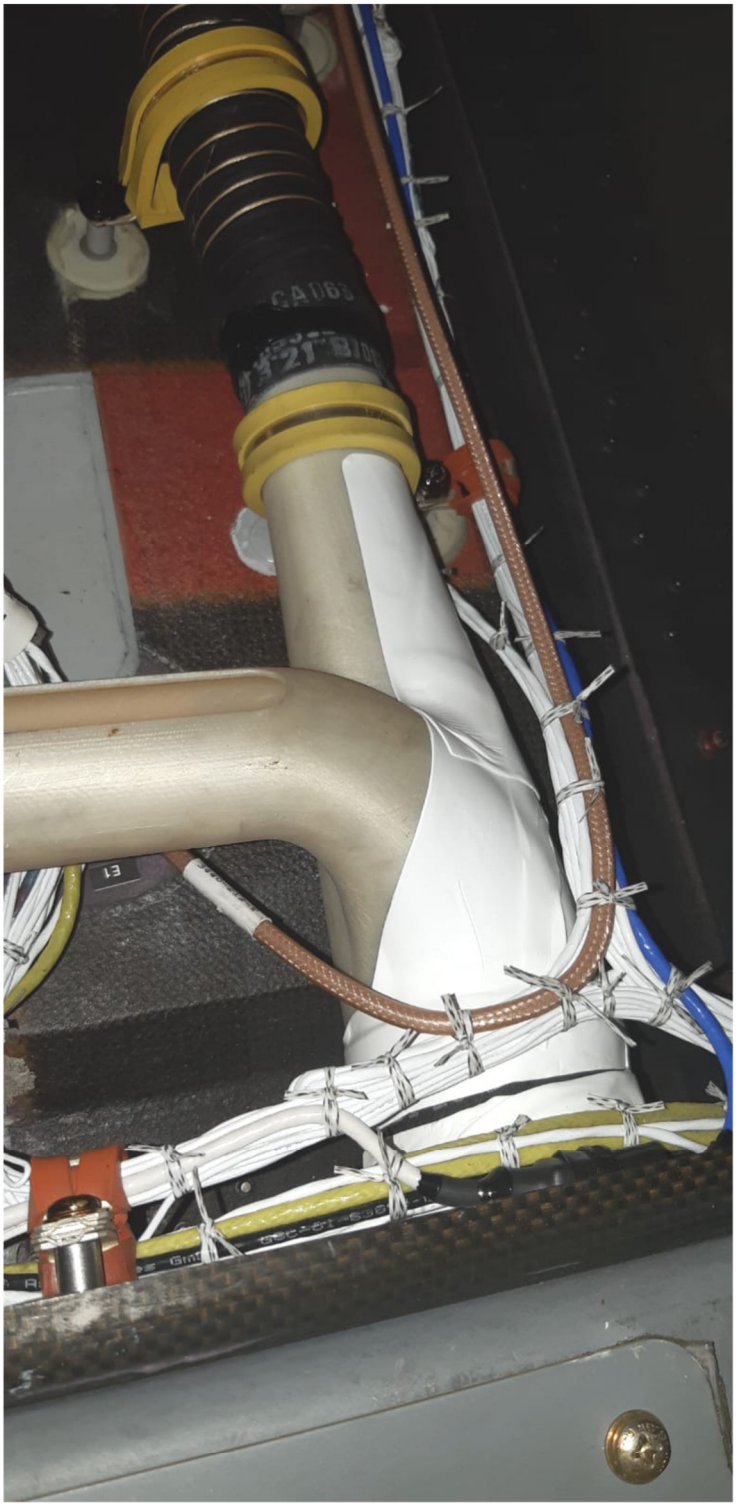

8G3130W00501
WIRING DIAGRAM EAFR (FLIGHT DATA RECORDER)
SHEET 7
FWD FUSELAGE
REAR AVIONIC BAY
TAIL
A401
FDR FAULT OUT
CVR FAULT OUT
MAIN RECORDING UNIT
PSS
NO FAULT
NO FAULT
RIPS
A401P1
PSSP1
A661A1 22
D1A109
J305
P305
TB309-3
JUNCTION MODULE
J301
P301
C18291
J202
P202
J215
P215
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM C1A324 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A5AA1 22 UNLESS SPECIFIED
CABLE IDENT: EVERY WIRE NUMBER IS PRECEDED BY THE A1A 100 DESCRIPTION J130 AND FOLLOWED BY WIRE SIZE AND ENC CODE.

Figure 23

CABLE ASSY	WIRE ID	WIRE COL.	FROM REF-DES	ELECTRICAL CONTACT	TO REF-DES	ELECTRICAL CONTACT
8G9D01A10902 (D1A109)	3130-518-22G	-	J305	M39029/58-363	PS5P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-527-22G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-540-24G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-541-24G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-595-24G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-596-24G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-597-24G	-	J305	M39029/58-363	SP341	-
8G9D01A10902 (D1A109)	3130-623-22G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-624-22G	-	J305	M39029/58-363	A401P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-625-22G	-	J305	M39029/58-363	PS5P1	M39029/56-348 (REF)
8G9D01A10902 (D1A109)	3130-626-22G	-	J305	M39029/58-363	PS5P1	M39029/56-348 (REF)
8G9A21B44401 (A1B444)	2120-227-16G	-	SP1480	-	Q2PA7	M39029/58-364
8G9A21B44601 (A1B446)	2120-134-22G	-	A2P1	M39029/56-348	P103	M39029/58-360
8G9A21B44601 (A1B446)	2120-127-22G	-	SP1480	-	P103	M39029/58-360
8G9C21A36001 (C1A360)	2120-130-22G	-	P207	M39029/58-363	B301P1	M39029/56-348 (REF)
8G9C21A36001 (C1A360)	2120-137-22G	-	P207	M39029/58-364	B301P1	M39029/56-348 (REF)
8G9A21A46901 (A1A469)	2120-128-22G	-	J103	M39029/56-348	P117	M39029/58-360
8G9A21A46901 (A1A469)	2120-135-22G	-	J103	M39029/56-348	P117	M39029/58-360
8G9B21A51001 (B1A510)	2120-129-22G	-	J117	M39029/56-348	J207	M39029/56-351
8G9B21A51001 (B1A510)	2120-136-22G	-	J117	M39029/56-348	J207	M39029/56-352

TABLE
CRIMP ON WIRES THE ELECTRICAL CONTACT INIDICATED

Figure 24



DETAIL DUCT

IF NECESSARY, APPLY ANTIFRETTING TAPE P/N AW005ME04T05505
TO THE DUCT IN THE AREAS AFFECTED BY INTERFERENCE

Figure 25

Figure 26

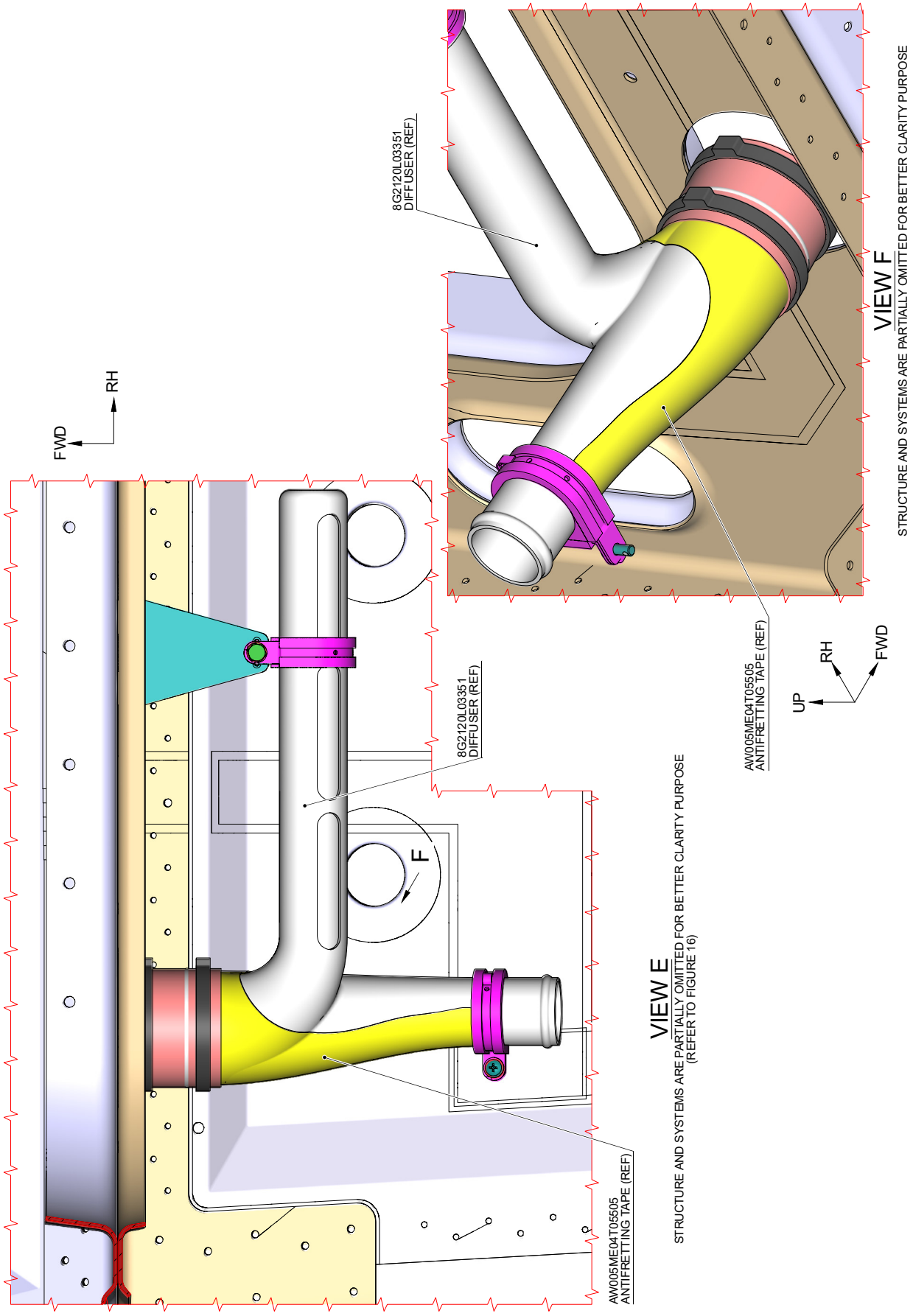

8G2120L03351
DIFFUSER (REF)
VIEW F
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
AW005ME04T05505
ANTIFRETTING TAPE (REF)
UP
RH
FWD
FWD
RH
8G2120L03351
DIFFUSER (REF)
F
VIEW E
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 16)
AW005ME04T05505
ANTIFRETTING TAPE (REF)

Figure 27

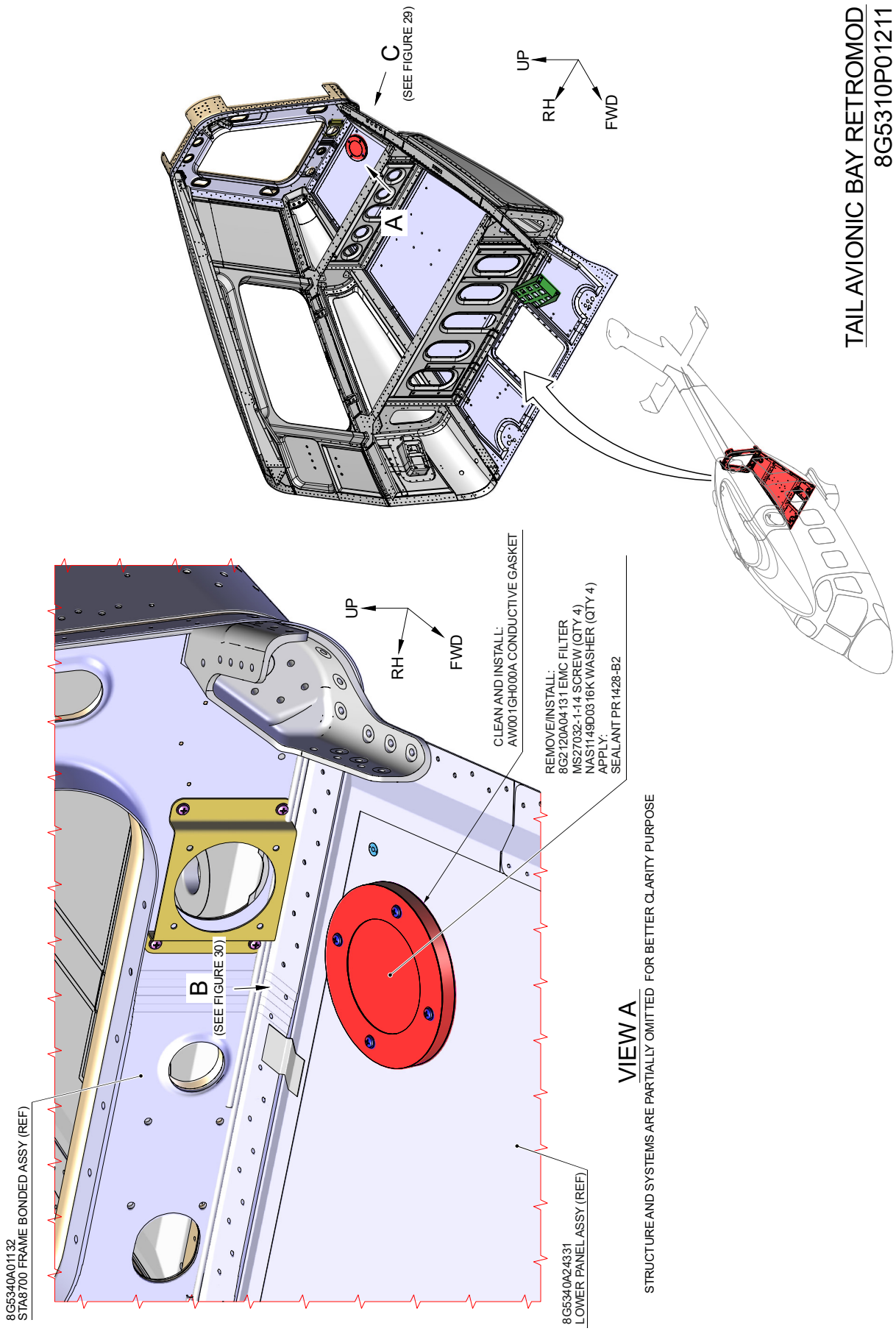

TAIL AVIONIC BAY RETROMOD
8G5310P01211
C
(SEE FIGURE 29)
A
UP
RH
FWD
B
(SEE FIGURE 30)
CLEAN AND INSTALL:
AW001GH000A CONDUCTIVE GASKET
REMOVE/INSTALL:
8G2120A04131 EMC FILTER
MS27032-1-14 SCREW (QTY 4)
NAS1149D0316K WASHER (QTY 4)
APPLY:
SEALANT PR1428-B2
8G5340A01132
STA8700 FRAME BONDED ASSY (REF)
8G5340A24331
LOWER PANEL ASSY (REF)
VIEW A
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 28

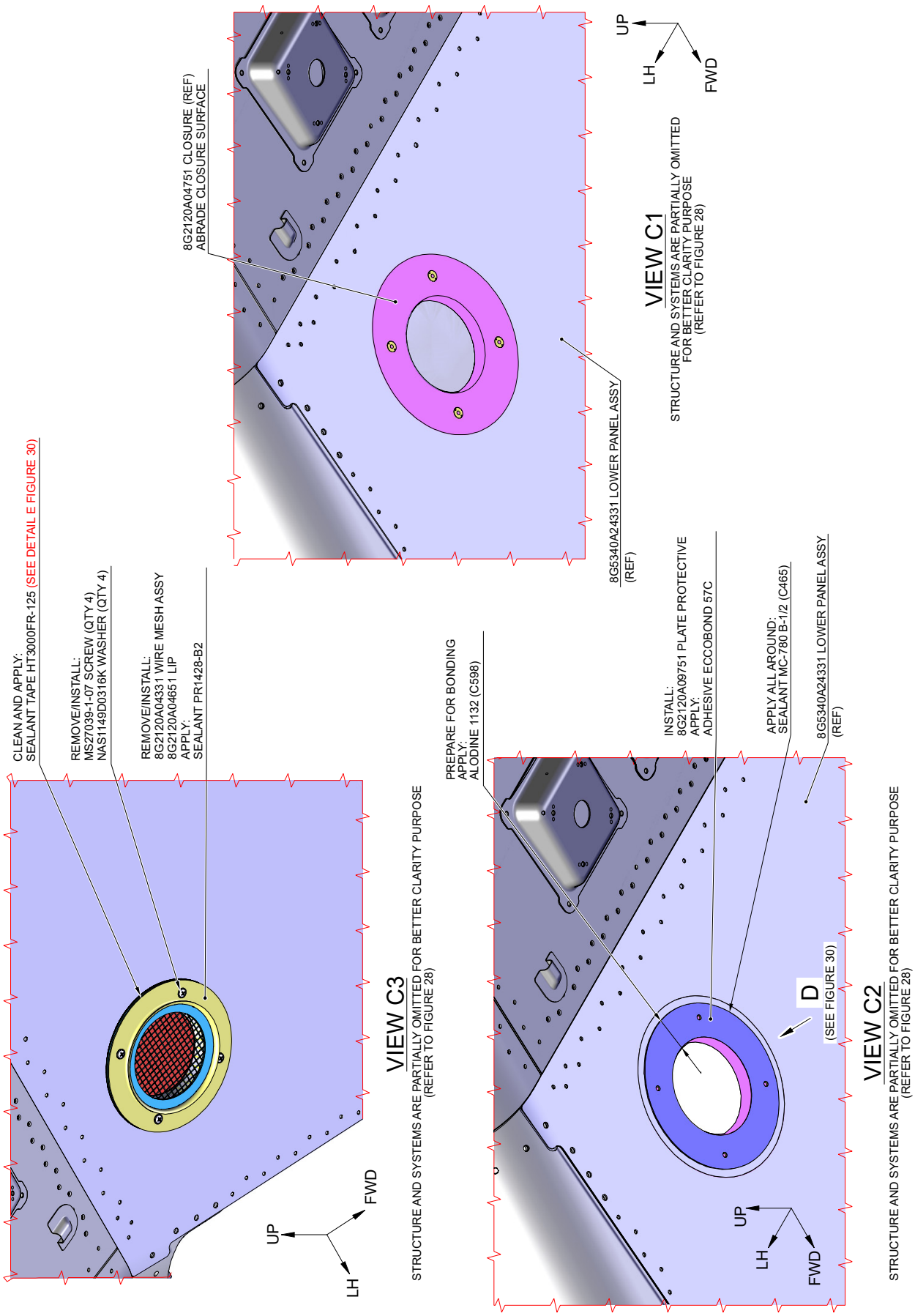
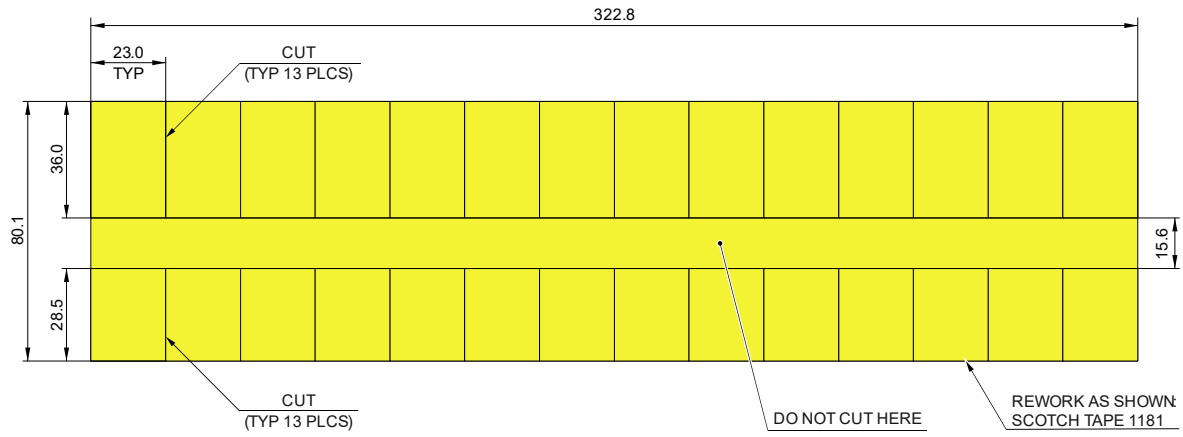
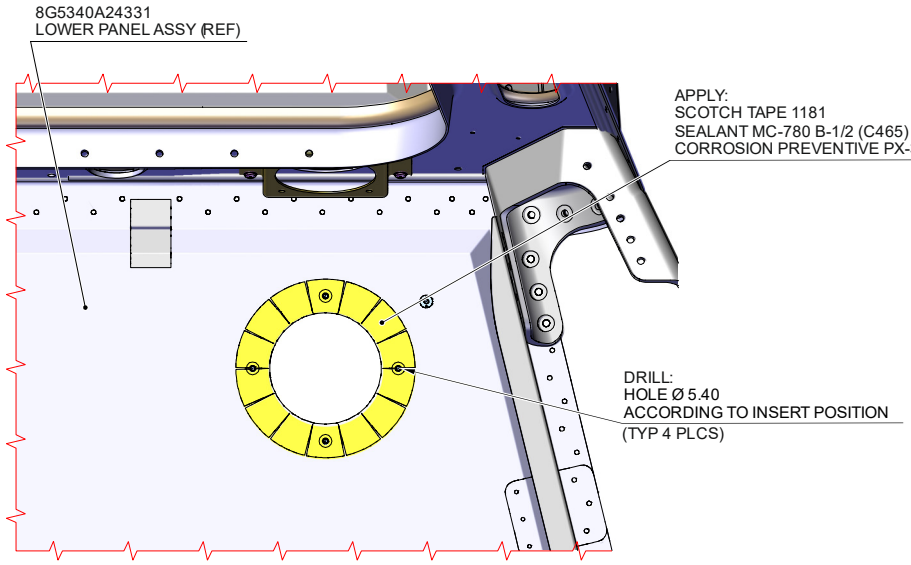
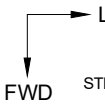

8G2120A04751 CLOSURE (REF)
ABRADE CLOSURE SURFACE
8G5340A24331 LOWER PANEL ASSY
(REF)
UP
LH
FWD
VIEW C1
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 28)
CLEAN AND APPLY:
SEALANT TAPE HT3000FR-125 (SEE DETAIL E FIGURE 30)
REMOVE/INSTALL:
MS27039-1-07 SCREW (QTY 4)
NAS1149D0316K WASHER (QTY 4)
REMOVE/INSTALL:
8G2120A04331 WIRE MESH ASSY
8G2120A04651 LIP
APPLY:
SEALANT PR1428-B2
UP
FWD
LH
VIEW C3
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 28)
PREPARE FOR BONDING
APPLY:
ALODINE 1132 (C598)
INSTALL:
8G2120A09751 PLATE PROTECTIVE
APPLY:
ADHESIVE ECCOBOND 57C
APPLY ALL AROUND:
SEALANT MC-780 B-1/2 (C465)
8G5340A24331 LOWER PANEL ASSY
(REF)
D
(SEE FIGURE 30)
UP
LH
FWD
VIEW C2
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 28)

Figure 29



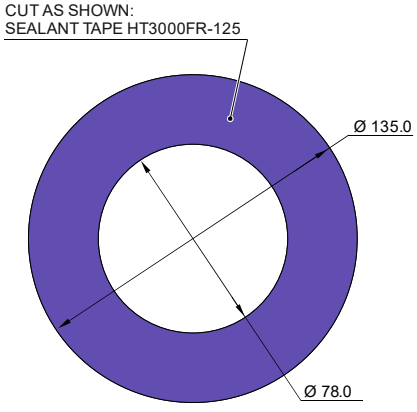
TEMPLATE





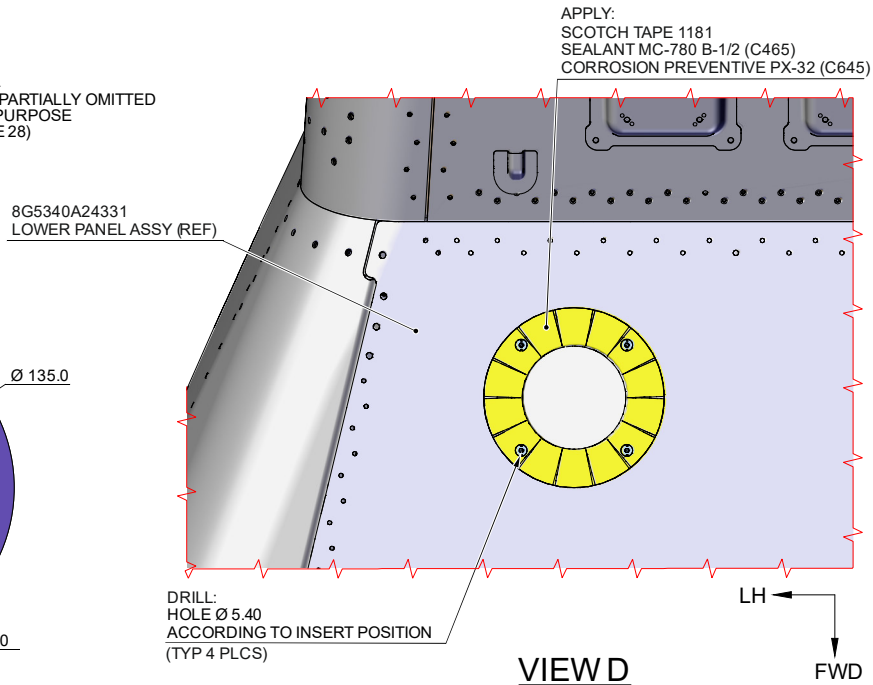
VIEW B

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 28)



DETAIL E

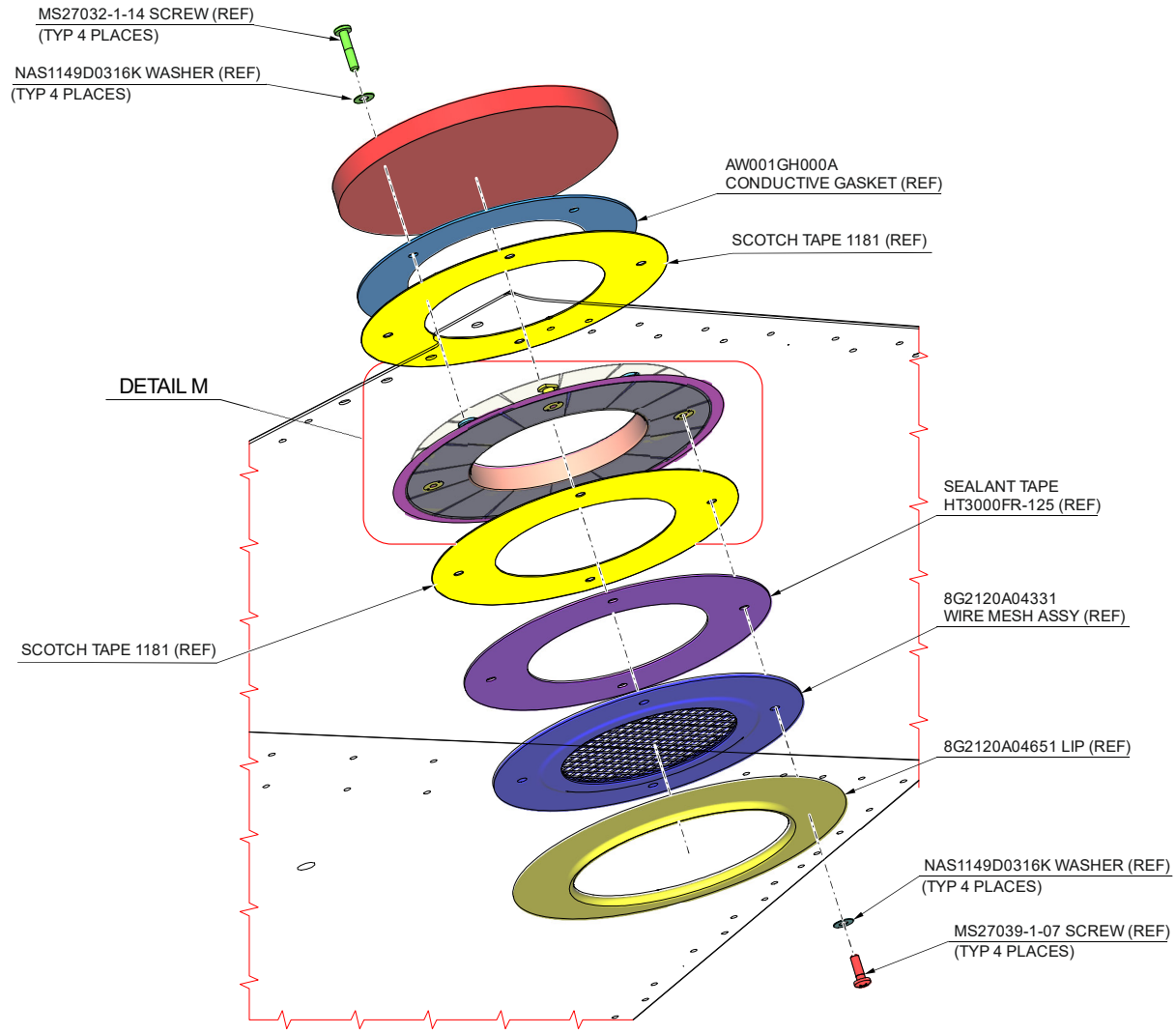
(REFER TO FIGURE 29)



VIEW D

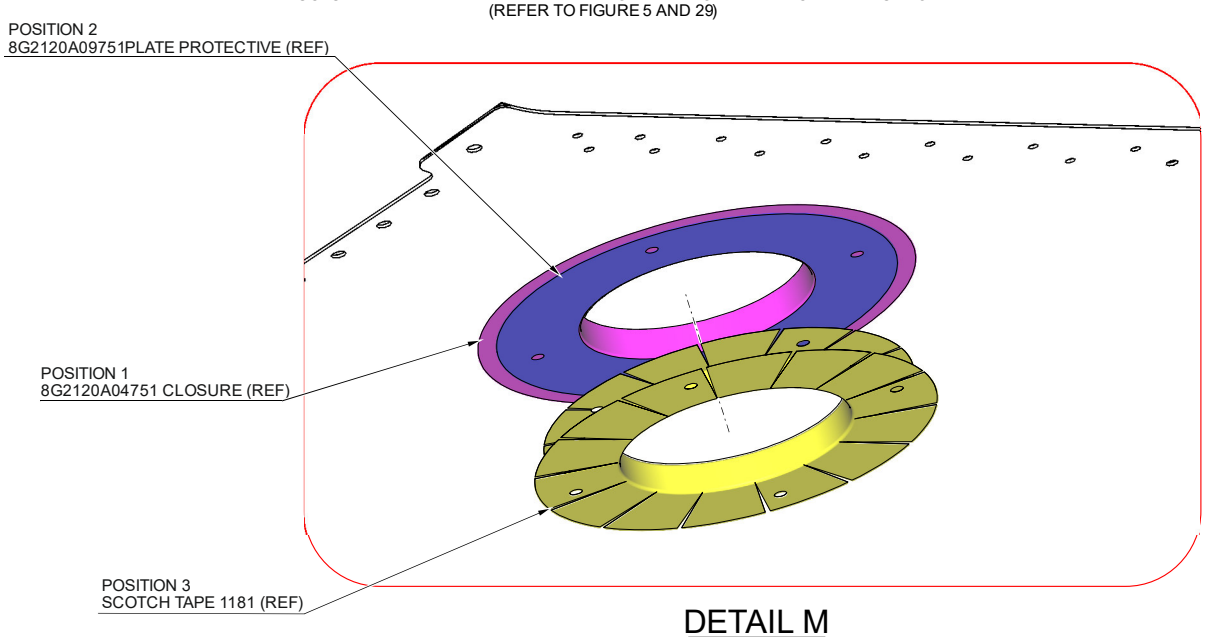
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED
FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 29)

Figure 30



DETAIL L

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
(REFER TO FIGURE 5 AND 29)



DETAIL M

STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 31

ANNEX A

AW189 ADDITIONAL AVIONIC VENTILATION
ACCEPTANCE TEST PROCEDURE

1 PRELIMINARY TEST

1.1 SAFETY PROVISION

- When required, for continuity testing a low voltage tester may be used.
- When it is required testing at pins and sockets of plug and receptacles connectors, contact is to be made by means of the correct mating socket or pin.
- No electrical Power Supply applied to the aircraft before starting with the Test Procedure.
- The ATP is to be performed with External Power.

Under no circumstances must be used any other form of probe.

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

1.2 EXPERIMENTAL EQUIPMENT

- DC external Power (28VDC 3KW Min)
- DC Voltmeter Tester for troubleshooting operations
- Conductor Pins and Wire Extensions for troubleshooting operation
- Low voltage continuity tester (Bond Meter (AOIP OM 16 or equivalent)
- Milliohmmeter (Bondimeter).

1.3 TEST PREREQUISITES

The following requirements shall be fulfilled prior to proceeding with the test procedures described within this document**:**

CAUTION: ***Do not handle plug/receptacle connectors while voltage is on.***

	TEST DESCRIPTION	PASS/FAIL
1.	The electrical wiring harness installation has been successfully tested by DIT-MCO checking the correct electrical voltage, end-points continuity (pin-to-pin) and proper insulation resistance.	
2.	The following system shall be operative: EPGDS, AMMS and ECDU.	
3.	Before all the test procedures verify that the External Power Bench is operative and set to the appropriate Voltage (28 VDC);	
4.	**During test with helicopter, both ENG 1 & 2 selector installed on ENG CNTR PNL called "ENG MODE" are in OFF position.**	

2 FUNCTIONAL TESTS

2.1 TAIL SHELF FAN

2.1.1 BONDING CHECK

Phase	Test Description	Check	Pass/Fail
1	Ensure the helicopter is powered OFF		
2	Disconnect the external power		
3	Disconnect external grounding cable		
4	Measure the TAIL SHELF FAN (B301) bonding value between FAN Bonding Point and local H/C structure on which it is bonded through bonding cable		
5	Register the value in the table below		
6	Re-Connect external grounding cable		
7	Re-Connect the external power		

LRU	Ref. Des.	Measured Value	Max value
TAIL SHELF FAN	B301		≤ 6mΩ

2.1.2 INSTALLATION

THE ELECTRICAL CHECK CAN BE AVOIDED ONLY IF THE AIRCRAFT HARNESS HAS BEEN TESTED WITH DT-MCO.

Select "ON" the electrical generation system by the DC external power.

Phase	Test Description	Check	Pass/Fail
1	Visually verify the proper installation of the TAIL SHELF FAN		
2	Turn OFF the following CB: NOSE FAN 2		

3	Disconnect B301P1 connector from B301 FAN		
4	Disconnect A2P1 connector from AMMC2		
5	Verify the continuity between TAIL SHELF FAN (B301P1) and AMMC2 connector (A2P1).	Check the continuity between the following pin: - B301P1 pin 4 to A2P1 pin 55	
6	Verify Pin Strapping on TAIL SHELF FAN (B301P1) Connector	Check the continuity between the following pin: - B301P1 PIN 2 to B301P1 PIN 3	
7	Connect A2P1 connector to AMMC2		
8	Turn ON the following CB: NOSE FAN 2		
9	Verify the presence of power supply	- Check with a voltmeter the 28 VDC signal on following pin of B301P1 TAIL SHELF FAN connector: - PIN 1 (+); - Check with a voltmeter the GND signal on following pin of B301P1 TAIL SHELF FAN connector: - PIN 2 (-);	
10	Turn OFF the following CB: NOSE FAN 2		
11	Connect B301P1 connector to B301 FAN		
12	Turn ON the following CB: NOSE FAN 2		
13	Verify FAN functionality	Visually check that the fan is working properly (the fan is spinning)	

14	Turn OFF the following CB: NOSE FAN 2		

3 TEST RESULT

TEST RESULT SUMMARY ***A/C N°:***

189H2120D002

AW189 ADDITIONAL AVIONIC VENTILATION ATP

REF.	***DESCRIPTION***		***OPERATOR***	***DATE***	***REMARKS***
1.1	*Safety provisions*				
1.2	*Experimental Equipment*				
1.3	*Test Prerequisites*				
2.1.1	*Bonding Check*				
2.1.2	*Installation and Power Supplies check (*)*	*DT-MCO*			
		ATP			
Engineering dept signature (if required):----------					
Quality dept approval:----------					

(*) Specify whether DT-MCO or ATP have been carried out to cover Power Supply checks.

LEONARDO
HELICOPTERS

AgustaWestland Products

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

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

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

Remarks:

Information:

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