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AgustaWestland Products

SERVICE BULLETIN

N° 139-474

DATE: February 25, 2021

REV. : /

TITLE

ATA 97 – INSTALLATION OF MAX VIZ UNDER FUSELAGE

REVISION LOG

First Issue

1. PLANNING INFORMATION

A. EFFECTIVITY

All AW139 helicopters from S/N 31700 onwards and from S/N 41500 onwards.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

The helicopter has to be already equipped with kit Video Module Interface P/N 4G9310F00212.

D. REASON

This Service Bulletin is issued in order to provide all necessary instructions on how to perform the installation of the kit Max Viz Under Fuselage P/N 4G9750F00312.

E. DESCRIPTION

Leonardo Helicopter has developed this Service Bulletin to provide the necessary instructions to perform the installation of kit Max Viz Under Fuselage P/N 4G9750F00312.

Part I provide all necessary instructions on how to install the complete provision Max Viz camera 1500 P/N 4G9750A00812 and the electrical variants to allow the installation of the EVS 1500 system on helicopters:

- NOT equipped with central display;
- equipped with central display Sirio Panel P/N 4G4630F00312 and Video Module Unit (VMU);
- equipped with central display Sirio Panel P/N 4G4630F00312 and NOT equipped with Video Module Unit (VMU).

Part II provide the necessary instructions on how to perform the full installation Max Viz camera 1500 P/N 4G9750A00711.

F. APPROVAL

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

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

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

G. MANPOWER

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

Part I: approximately one-hundred and twenty-eight (128) MMH.

Part II: approximately sixteen (16) MMH.

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

H. WEIGHT AND BALANCE

PART I

WEIGHT (Kg)	1.81	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	2548	4611.88
LATERAL BALANCE	633	1145.73

PART II

WEIGHT (Kg)	2.43	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	2305	5601.15
LATERAL BALANCE	748	1817.64

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		**DESCRIPTION**	**PART**
DM01	39-A-00-20-00-00A-120A-A	Helicopter safety – Pre operation (make the helicopter safe for maintenance)	I,II
DM02	39-A-51-42-02-00A-720A-A	Potted plug and sleeve-type Inserts- Install procedure.	I

DATA MODULE		DESCRIPTION	PART
DM03	39-A-97-54-04-00A-720A-K	Video camera support - install procedure.	I
DM04	39-A-97-54-06-00A-720A-K	Power Supply Support - Install procedure.	I
DM05	39-A-97-54-03-00A-720A-K	Video camera retainer - Install procedure.	I
DM06	39-A-97-54-01-00A-720A-K	Cover - Install procedure.	I, II
DM07	39-A-11-00-01-00A-720A-A	Decal - Install procedure.	I, II
DM08	39-A-97-54-05-00A-720A-K	Power supply - Install procedure.	II
DM09	39-A-97-54-02-00A-720A-K	Video Camera - install procedure.	II
DM10	39-A-24-91-04-00A-920A-K	Integrally Light Panel Replacement.	II
DM11	39-A-97-54-00-00A-320A-K	External Video Camera system - Operation Test.	II

2) ACRONYMS

AMP	Aircraft Maintenance Publication
ASRP	Aircraft Structural Repair Publication
CSRP	Common Structural Repair Publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
IR	Infra-Red
LH	Leonardo Helicopters
MAU	Modular Avionic Unit
PSE	Product Support Engineering
VMU	Video Management Unit

3) ANNEX

N.A

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

PART I

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	**4G9750F00312**		**KIT MAX VIZ UNDER FUSELAGE**	**REF**	**.**		**-**
2	**4G9750A00812**		**COMPLETE PROVISION CAMERA MAX VIZ 1500**	**REF**	**..**		**-**
3	**3G5310A42711**		**STRUCTURAL PROVISION IR CAMERA MAX VIZ 1500**	**REF**	**...**		**-**
4	3G5315A96331		Reinforcement assy	1	....		139-474L1
5	3G5315A96431		Reinforcement assy	1	....		139-474L1
6	A255AP08D04		Insert (Plug)	4	....		139-474L1
7	A255AS08D1		Insert (Sleeve)	4	....		139-474L1
8	3G5310A35751		Cap	1	....	(1)	139-474L2
9	3G5310A35752		Sealing gasket	1	....	(1)	139-474L2
10	MS27039-0806		Screw	4	....	(1)	139-474L2
11	MS27039-1-10		Screw	8	....	(1)	139-474L2
12	NAS1149C0316R		Washer	12	....	(1)	139-474L2
13	NAS43HT3-16		Spacer	8	....		139-474L1
14	**3G9750A00411**		**SUPPORT INSTALLATION IR CAMERA MAX VIZ 1500**	**REF**	**...**		**-**
15	3G5315A83331		Keeper assy	1	....		139-474L1
16	3G5315A83752		Rubber washer	8	....		139-474L1
17	3G5315A93031		Support assy	1	....		139-474L1
18	3G5315A93151		Support	4	....		139-474L1
19	3G5315A93231		Plate assy	1	....		139-474L1
20	3G5315A93851		Cover	1	....		139-474L1
21	3G5315A94951		Plate	4	....		139-474L1
22	999-0066-06-55	AW008TZ-06-55	Washer	4	....		139-474L1
23	A146A1906CB		Gasket	1 m	....		139-474L1
24	A428A08C05		Screw	6	....		139-474L1
25	A966A080EB		Gasket	1 m	....		139-474L1
26	MS27039-0805		Screw	6	....		139-474L1
27	NAS1149C0316R		Washer	4	....		139-474L1
28	NAS1149DN832J		Washer	6	....		139-474L1
29	NAS6603H9		Bolt	4	....		139-474L1
30	NAS6603H8		Bolt	4	....		139-474L1
31	NAS6703H3		Bolt	4	....		139-474L1
32	**3G9750A00312**		**ELECTRICAL PRIVISION IR CAMERA MAX VIZ 1500**	**REF**	**...**		**-**
33	A363A01		Terminal stud	1	....		139-474L1
34	A630A31	AW001CL000A-X3	Support	1	....		139-474L1
35	A630A51	AW001CL001-N6	Mounting base	1	....		139-474L1
36	NAS813-14		Plug	1	....		139-474L1
37	3G9B01B39401	3G9B01B39401A1R or 3G9B01B39401A10R	IR camera EVS1500 C/A (B1B394)	1	....		139-474L1
38	3G9B01B47701	3G9B01B47701A1R or 3G9B01B47701A10R	IR camera EVS1500 C/A (B1B477)	1	....		139-474L1
39	A574A01-02		Insulation sleeving	1	....	(2)	139-474L3 139-474L4

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
40	M85049/93-04		Adapter	1	....	(2)	139-474L3 139-474L4
41	3G9A01B33101	3G9750A00311A1R or 3G9A01B33101A10R	IR camera EVS1500 C/A (A1B331)	1	....	(2)	139-474L3 139-474L4
42	MS25036-108		Terminal lug	1	....	(2)	139-474L3 139-474L4
43	A10099		Metallic band	15	....	(2)	139-474L3 139-474L4
44	A575A-B107	AW002XM107B	Tubolar metal braid	1 m	....	(2)	139-474L3 139-474L4
45	A582A32	EN6049-006-32-5	Sleeve met-aramid	1 m	....	(2)	139-474L3 139-474L4
46	M23053/5-108-0		Insulation sleeving	1 m	....	(2)	139-474L3 139-474L4
47	1231		Braid metal wire	1 m	....	(2)	139-474L3 139-474L4
48	**4G0606P01812**		**DISPLAY AND CAMERA MAX VIZ I/F**	**REF**	**..**	**(3)**	**-**
49	3G9A03B21501	3G9A03B21501-A	Display/Cam MAX VIZ I/F C/A (A3B215)	1	...	(3)	139-474L4
50	AW001CB07H		Clamp	1	…	(3)	139-474L4
51	**3G9310A15611**		**VIDEO INTERFACE INSTALLATION**	**REF**	**.**	**(5)**	**-**
52	3G9A03B22901		IR camera and CD I/F C/A (A3B229)	1	..	(5)	139-474L5
53	3G9A03B23001		IR camera and video m. I/F C/A (A3B230)	1	..	(5)	139-474L5
54	3G9A03B23101	3G9A03B23101-B	IR camera and video m. I/F C/A (A3B231)	1	..	(5)	139-474L5
55	KC99-20		Adapter connector	1	..	(5)	139-474L5
56	AW001CL005C01-X1		Support	1	..	(5)	139-474L5
57	A631A01A		Support	1	..	(5)	139-474L5
58	ED300CP33		Decal	1	..	(5)	139-474L5
59	AW002FT110		Grommet	1	..	(5)	139-474L5
60	AW001CL001-N6		Support	1	..	(5)	139-474L5
61	AW001TL3A06T		Anchor nut	1	..	(5)	139-474L5
62	NAS1802-3-10		Screw	1	..	(5)	139-474L5
63	NAS1149D0332J		Washer	1	..	(5)	139-474L5
64	AW001CB03H		Clamp	1	..	(5)	139-474L5
65	**3G9310A15311**		**VIDEO INTERFACE INSTALLATION**	**REF**	**.**	**(6)**	**-**
66	3G9A02A43001		EVS CAMERA AND VMU I/F C/A (A2A430)	1	..	(6)	139-474L6
67	3G9B02A59201		EVS CAMERA AND VMU I/F C/A (B2A592)	1	..	(6)	139-474L6
68	3G9B02A59401		EVS CAMERA & VMU I/F C/A (B2A594)	1	..	(6)	139-474L6
69	3G9B02A58001		CABIN CAMERA-VMU-CENT DSPL C/A (B2A580)	1	..	(6)	139-474L6
70	A631A01A		Support	5	..	(6)	139-474L6
71	AW002FT401		Grommet	4	..	(6)	139-474L6
72	KC99-20		Adapter connector	2	..	(6)	139-474L6
73	ED300CP31		Decal	1	..	(6)	139-474L6
74	AW001CL005C01-X1		Support	1	..	(6)	139-474L6
75	AW001CL001-N6		Support	3	..	(6)	139-474L6
76	AW002FT110		Grommet	6	..	(6)	139-474L6
77	MS25281-R13		Clamp	3	..	(6)	139-474L6
78	NAS1802-3-9		Screw	2	..	(6)	139-474L6
79	NAS1149D0332J		Washer	3	..	(6)	139-474L6
80	NAS43DD3-50	NAS43DD3-50N	Spacer	1	..	(6)	139-474L6

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
81	NAS1802-3-23		Screw	1	..	(6)	139-474L6
82	NAS43DD3-28N		Spacer	10	..	(6)	139-474L6
83	NAS1190E3P30AK		Screw	9	..	(6)	139-474L6
84	AW002FT112		Grommet	11	..	(6)	139-474L6
85	MS25281-R15		Clamp	11	..	(6)	139-474L6
86	NAS1190E3P26AK		Screw	2	..	(6)	139-474L6
87	NAS43DD3-75N		Spacer	1	..	(6)	139-474L6
88	NAS1802-3-33		Screw	1	..	(6)	139-474L6
89	AW002FT111		Grommet	2	..	(6)	139-474L6
90	MS25281-R14		Clamp	2	..	(6)	139-474L6
91	NAS43DD3-70N		Spacer	1	..	(6)	139-474L6
92	NAS1190E3P7AK		Screw	1	..	(6)	139-474L6
93	A388A3E24C		Support	1	..	(6)	139-474L6
94	3G2490LXXXXX		Auxiliary C/B Panel	1	.	(7)	-
95	MS27722-22		Switch	2	.		139-474L1
96	ED300S204		Decal	1	.		139-474L1
97	ED300S186		Decal	1	.		139-474L1
98	ED300CB305		Decal	1	.		139-474L1
99	MS3320-10		Circuit breaker	1	.		139-474L1
100	A529A400-2302C		Back shell	1	.		139-474L1
101	MS20995C32		Lock wire	0.45 kg	.		139-474L1
102	M81824/1-2		Splice	1	.		139-474L1
103	BJE41		Fuse	1	.		139-474L1
104	A556A-T22		Wire	1 m	.		139-474L1
105	A556A-T18		Wire	1 m	.		139-474L1
106	A556A-T12		Wire	1 m	.		139-474L1
107	MS25036-102		Electrical Contact	2	.		139-474L1
108	M39029/56-352		Electrical Contact	2	.		139-474L1
109	A523A-A02		Electrical Contact	2	.		139-474L1
110	M39029/1-102		Electrical Contact	2	.		139-474L1
111	A523A-A07		Electrical Contact	1	.		139-474L1
112	M39029/56-352		Electrical Contact	1	.		139-474L1
113	MS25036-153		Electrical Contact	1	.		139-474L1
114	MS25036-112		Electrical Contact1	1	.		139-474L1

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
115	**4G9750F00312**		**KIT MAX VIZ UNDER FUSELAGE**	**REF**	**.**		**-**
116	**4G9750A00711**		**FULL INSTALLATION IR CAMERA MAX VIZ 1500**	**REF**	**..**		**-**
117	3G9A12B00711	3G9A12B00711A1R	IR camera EVS 1500 C/A (A2B7)	1	...	(8)	139-474L7
118	756500041		Camera	1	...		139-474L7 139-474L8
119	756500042		Power supply	1	...		139-474L7 139-474L8
120	MS9596-054		Angle	1	...		139-474L7 139-474L8
121	ED300DS162		Decal	1	...		139-474L7 139-474L8
122	ED300PS43		Decal	1	...		139-474L7 139-474L8
123	MS21042L3		Nut	1	...		139-474L7 139-474L8
124	AS21919WDG07		Clamp	1	...		139-474L7 139-474L8

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
125	MS27039-0804		Screw	4	…		139-474L7 139-474L8
126	MS35190-250		Screw	6	…		139-474L7 139-474L8
127	NAS1149C0316R		Washer	4	…		139-474L7 139-474L8
128	NAS1149D0332J		Washer	5	…		139-474L7 139-474L8
128	999-0066-45-44		Washer	1	…		139-474L7 139-474L8
129	NAS1801-3-5		Screw	4	…		139-474L7 139-474L8
130	NAS1801-08-5		Screw	1	…		139-474L7 139-474L8
131	NAS1801-3-7		Screw	1	…		139-474L7 139-474L8

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

2) CONSUMABLES

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

#	Spec./LHD code number	DESCRIPTION	Q.TY	NOTE	PART
132	199-05-152 Type I, Class 1 (MIL-R-25988)	RBR Adhesive (C227)	AR	(11)	I
133	199-05-002 Type II, Class 2 (MMM-A-132)	Adhesive EA934NA (C054)	AR	(11)	I
134	199-05-002 Type I, Class 2 (MMM-A-132)	Adhesive EA9309.3NA (C021)	AR	(11)	I
135	Code No. 900001753	Fiberglass	AR	(11)	I
136	199-50-002 Type I	Resin	AR	(11)	I
137	199-50-002 Type II	Hardener XB5173	AR	(11)	I
138	900004953	Cable tie	AR	(11)	I

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

3) LOGISTIC MATRIX

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

LOGISTIC P/N	Q.TY (PER HELO)	NOTE	PART
139-474L1	1		Part I
139-474L2	1	(1)	
139-474L3	1	(4)	
139-474L4	1	(3)	
139-474L5	1	(5)	
139-474L6	1	(6)	
3G2490LXXXXX	1	(7)	
139-474L7	1	(9)	Part II
139-474L8	1	(10)	

NOTE

(1) This item has to be installed on the aircraft only if cover P/N 3G5315A93851 and support P/N 3G5315A93031 of the IR Camera have been removed before flight or if Part II of this Service Bulletin is not intended to be performed consequently to Part I.

(2) This items may be supplied as production P/N 3G9750A00311A1R for aircraft NOT equipped with the kit Central Display Sirio Panel P/N 4G4630F00312.

(3) Variant to be performed only for helicopters NOT already equipped with the kit Central Display Sirio Panel P/N 4G4630F00312.

(4) Variant to be performed only for helicopters already equipped with the kit Central Display Sirio Panel P/N 4G4630F00312.

(5) Variant to be performed only for helicopters equipped with central display Sirio Panel P/N 4G4630F00312 and NOT equipped with VMU.

(6) Variant to be performed only for helicopters equipped with central display Sirio Panel P/N 4G4630F00312 and equipped with VMU.

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

(8) Cable Assy P/N 3G9A12B00711 (A2B7) has to be ordered only for AW139 helicopters from S/N 31201 to S/N 31248, while it can be supplied as production P/N 3G9A12B00711A1R for AW139 helicopters from S/N 31249 to S/N 31398. This item may include C/A P/N 3G9A02B30501 (A2B305) and P/N 3G9A03B21401 (A3B214) with the addition of other items.

(9) Variant to be performed only for AW139 helicopters from S/N 31201 to S/N 31248. This item may include C/A P/N 3G9A02B30501 (A2B305) and P/N 3G9A03B21401 (A3B214) with the addition of other items.

(10) Variant to be performed only for AW139 helicopters from S/N 31249 to S/N 31398. This item may include C/A P/N 3G9A02B30501 (A2B305) and P/N 3G9A03B21401 (A3B214) with the addition of other items.

(11) Item to be procured as local supply.

B. SPECIAL TOOLS

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.

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

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

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

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

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

h) All lengths are in mm.

PART I

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. With reference to Figure 2, gain access to the area affected by the installation and perform the IR camera Max Viz 1500 structural provision P/N 3G5310A42711 as described in the following procedure:
   - 2.1 With reference to Figure 2 Schematic Section D-D, perform a hole Ø 40 through lower panel P/N 3P5332A00831.
   - 2.2 With reference to Figure 2 Schematic Section D-D, seal honeycomb edge of the

performed hole by means of EA934NA adhesive (C054).

2.3 With reference to Figure 2 schematic section D-D, apply n°2 layers of fiberglass by means of EA9309.3NA adhesive.

2.4 With reference to Figure 2 View B and Section D-D, temporarily locate sealing gasket P/N 3G5310A35752 on lower panel P/N 3P5332A00831 and countermark positions for n°4 plug and sleeve insert holes.

2.5 With reference to Figure 2 Section E-E, drill n°4 holes Ø 7.95 ÷ 8.45 through lower panel P/N 3P5332A00831 in previously marked positions.

2.6 In accordance with CSRP DM 39-A-51-42-02-00A-720A-A and with reference to Figure 2 Section E-E, install n°4 plugs P/N A255AP08D04 and n°4 sleeves P/N A255AS08D1 by means of adhesive EA934NA (C054).

2.7 With reference to Figure 2 View B and Section C-C, temporarily locate reinforcement assy P/N 3G5315A96331 on the lower panel P/N 3P5332A00831 and countermark positions for n°4 holes.

2.8 With reference to Figure 2 Section C-C, drill n°4 holes Ø 8.0 through lower panel P/N 3P5332A00831 in previously marked positions.

2.9 With reference to Figure 2 Section C-C, install n°4 bushes P/N NAS43HT3-16 by means of adhesive EA934NA (C054).

2.10 With reference to Figure 2 Section C-C, bond the reinforcement assy P/N 3G5315A96331 on the lower panel P/N 3P5332A00831 by means of adhesive EA934NA (C054). Coordinate position with existing holes.

2.11 With reference to Figure 2 Section C-C, complete the installation of reinforcement assy P/N 3G5315A96331 on the lower panel by means of n°4 washers P/N NAS1149C0316R and n°4 screws P/N MS27039-1-10.

2.12 With reference to Figure 2 View B and Section F-F, temporarily locate reinforcement assy P/N 3G5315A96431 on the lower panel P/N 3P5332A00831 and countermark positions for n°4 holes.

2.13 With reference to Figure 2 Section F-F, drill n°4 holes Ø 8.0 through lower panel P/N 3P5332A00831 in previously marked positions.

2.14 With reference to Figure 2 Section F-F, install n°4 bushes P/N NAS43HT3-16 by means of adhesive EA934NA (C054).

2.15 With reference to Figure 2 Section F-F, bond the reinforcement assy P/N 3G5315A96431 on the lower panel P/N 3P5332A00831 by means of adhesive EA934NA (C054). Coordinate position with existing holes.

2.16 With reference to Figure 2 Section F-F, complete the installation of reinforcement assy P/N 3G5315A96431 on the lower panel by means of n°4 washers P/N NAS1149C0316R and n°4 screws P/N MS27039-1-10.

NOTE

Perform the following steps only if Part II of this Service Bulletin is NOT intended to be performed consequently to Part I or if cover P/N 3G5315A93851 and support P/N 3G5315A93031 of IR has been removed before flight.

2.17 With reference to Figure 2 Section E-E, install cap P/N 3G5310A35751 and sealing gasket P/N 3G5310A35752 by means of n°4 washers P/N NAS1149C0316R and n°4 screws P/N MS27039-0806.

3. With reference to Figures 3 and 4, gain access to the area affected by the installation and perform the IR camera Max Viz 1500 support installation P/N 3G9750A00411 as described in the following procedure:

3.1 In accordance with AMP DM 39-A-97-54-04-00A-720A-K and with reference to Figure 3 Section H-H and Figure 4 Detail N, install the support assy P/N 3G5315A93031 by means of n°4 bolts P/N NAS6603H9, n°8 rubber washers P/N 3G5315A83752, n°4 washers P/N 999-0066-06-55 and n°4 plate P/N 3G5315A94951. Torque the bolts to 4Nm and secure them by means of lock-wire P/N MS20995C32.

3.2 In accordance with AMP DM 39-A-97-54-06-00A-720A-K and with reference to Figure 4 View T, install on the external fuselage skin the plate assy P/N 3G5315A93231 by means of n°4 supports P/N 3G5315A93151, n°4 bolts P/N NAS6603H8 and n°4 washers P/N NAS1149C0316R. Secure the bolts by means of lock wire P/N MS20995C32.

3.3 In accordance with AMP DM 39-A-97-54-03-00A-720A-K and with reference to Figure 3 Detail G, install on the support assy P/N 3G5315A93031 the keeper assy P/N 3G5315A83331, by means n°4 bolts P/N NAS6703H3 and n°4 washers P/N NAS1149C0316R. Lock the bolts by means of lock-wire P/N MS20995C32.

3.4 With reference to Figure 3 Section S-S, install the silicone rubber P/N A146A1906CB where indicated by means of RBR Adhesive (C227).

NOTE

If necessary for a correct installation, removal of silicone rubber and reworking of cover assy is allowed (ref step 3.5).

3.5 With reference to Figure 3 Detail R, temporarily locate the silicone rubber P/N A966A080EB where the cover assy is in contact with the external skin of the fuselage. Coordinate the cover assy with Max Viz Camera support previously

installed.

3.6 With reference to Figure 3 Detail R, install silicone rubber P/N A966A080EB by means of adhesive RBR Adhesive (C227).

NOTE

Perform the following step 3.7 only if Part II of this Service Bulletin is not intended to be performed consequently to Part I .

3.7 In accordance with AMP DM 39-A-97-54-01-00A-720A-K and with reference to Figures 3 and 6, install the cover P/N 3G5315A93851 by means of n°6 screws P/N A428A08C05.

4. In accordance with AMP and with reference to Figure 5, gain access to the area affected by the installation and perform the IR Camera Max Viz 1500 electrical provision P/N 3G9750A00312 as described in the following procedure:

NOTE

Perform the following steps 4.1 thru 4.3 only if supports and clamps are necessary. The use of existing fixing supports and clamps is allowed.

4.1 With reference to Figure 5 View V locations n°1 and 2, install n°2 supports P/N AW001CL001-N6 by means of adhesive EA9309.3NA (C021).

4.2 With reference to Figure 5 View V location n°3, install support P/N AW001CL002B-X2 in location 2 by means of adhesive EA9309.3NA (C021).

4.3 With reference to Figure 5 View V location n°4, install ground stud P/N A363A01 by means of adhesive EA9309.3NA (C021).

4.4 With reference to Figure 5, lay down following cable assemblies:

- IR Camera EVS 1500 Cable Assy P/N 3G9A01B33101 (A1B331);
- IR Camera EVS 1500 Cable Assy P/N 3G9B01B39401 (B1B394);
- IR Camera EVS 1500 Cable Assy P/N 3G9B01B47701 (B1B477).

4.5 With reference to Figure 5, to Figure 17 wiring diagram and to Figure 23, perform the electrical connection of the C/A A1B331 between power supply connector PS43P2, and connector TB108P1 and sectioning connector P120 following indicated route. Secure the cable by means of existing hardware and lacing cord.

NOTE

If the existing P200/J200 connector backshell is not P/N A529A400-2302C, the replacement with backshell P/N A529A400-2302C is allowed.

4.6 With reference to Figure 5, to Figure 17 wiring diagram and to Figure 24, perform

the electrical connection of the C/A B1B394 between sectioning connectors J120 and P200 following indicated route. Secure the cable by means of existing hardware and lacing cord.

4.7 With reference to Figure 5, to Figure 17 wiring diagram and to Figure 24, perform the electrical connection of the C/A B1B477 between sectioning connector J200 and circuit breaker panel connectors PL1P8 and PL1P4 following indicated route. Secure the cable by means of existing hardware and lacing cord.

5. With reference to Figure 5, install terminal lug P/N MS25036-108 on the ground stud P/N A363A01 previously installed in step 4.3.

NOTE

Perform following step 6 only if Central Display is NOT installed.

6. With reference to Figures 6 and 7, gain access to the area affected by the installation and perform the Display and Camera Max Viz interface P/N 4G0606P01812 as described in the following procedure:

6.1 With reference to Figure 7, install clamp P/N AW001CB07H.

6.2 With reference to Figure 7, lay down following cable assembly:

- Display and Camera Max Viz IF Cable Assy P/N 3G9A03B21501 (A3B215).

6.3 With reference to Figure 7, to Figure 19 wiring diagram and to Figure 23, perform the electrical connection of the C/A A3B215 between MAU1 connector A1-3P3 and power supply connector PS43P2.

NOTE

Perform the following step 7 only if Central Display and VMU are installed.

NOTE

Install the following support and clamps only if necessary. The use of existing fixing supports and clamps is allowed.

7. With reference to Figure 8 thru 11, gain access to the area affected by the installation and perform the Video interface installation ad described in the following procedure:

7.1 With reference to Figure 9 view looking nose LH side locations n°1, 2 and 3, install n°3 grommet P/N AW002FT401 and n°3 supports P/N A631A01A.

7.2 With reference to Figure 9 detail A, install support P/N A631A01A and T-splitter P/N KC99-20.

7.3 With reference to Figure 10 view looking interseat console RH side location n°4, install grommet P/N AW002FT401 and support P/N AW001CL005C01-X1.

7.4 With reference to Figure 10 view looking up interseat console locations n°5, 6 and 7, install n°3 grommet AW002FT110 and n°3 plastic support P/N AW001CI001-N6.

7.5 With reference to Figure 10 view looking up interseat console locations n°8 and 9, install n°2 clamps P/N MS25281-R13, n°2 grommets P/N AW002FT110 by means of n°2 screws P/N NAS1802-3-9 and n°2 washers P/N NAS1149D0332J.

7.6 With reference to Figure 11 view looking down cabin floor LH side location n°10, remove existing screw and install clamp P/N MS25281-R13, grommet P/N AW002FT110, spacer P/N NAS43DD3-50N and screw P/N NAS1802-3-23.

7.7 With reference to Figure 11 view looking down cabin floor LH side locations n°11, 13 and 15, remove existing screws and install n°3 clamps P/N MS25281-R15, n°3 grommets P/N AW002FT112, n°3 spacers P/N NAS43DD3-28N and n°3 screws P/N NAS1190E3P30AK.

7.8 With reference to Figure 11 view looking down cabin floor LH side location n°12, remove existing screw and install clamp P/N MS25281-R15, grommet P/N AW002FT112, spacer P/N NAS43DD3-75N and screw P/N NAS1190E3P26AK.

7.9 With reference to Figure 11 view looking down cabin floor LH side location n°14, remove existing screw and install clamp P/N MS25281-R15, grommet P/N AW002FT112, spacer P/N NAS43DD3-28N and screw P/N NAS1802-3-33.

7.10 With reference to Figure 11 view looking down cabin floor LH side location n°16, remove existing screw and install clamp P/N MS25281-R14, grommet P/N AW002FT111, spacer P/N NAS43DD3-70N and screw P/N NAS1190E3P26AK.

7.11 With reference to Figure 11 view looking down cabin floor LH side location n°17, remove existing screw and install support P/N A388A3E24C, clamp P/N MS25281-R14, grommet P/N AW002FT111, washer P/N NAS1149D0332J and screw P/N NAS1190E3P7AK.

NOTE

Install the following support only if necessary. The use of existing fixing supports and clamps is allowed. Ref step 7.12.

7.12 With reference to Figure 10 Detail A, install support P/N A631A01A by means of adhesive EA9309.3NA (C021).

7.13 With reference to Figure 10 Detail A, install adapter P/N KC99-20 on previously

installed support.

7.14 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 10 detail A, install Decal P/N ED300CP31.

7.15 With reference to Figures 8 thru 11, lay down following cable assemblies:

- EVS CAMERA AND VMU I/F C/ A P/N 3G9A02A43001 (A2A430);
- EVS CAMERA AND VMU I/F C/ A P/N 3G9B02A59201 (B2A592);
- EVS CAMERA & VMU I/F C/A P/N 3G9B02A59401 (B2A594);
- CABIN CAMERA-VMU-CENT DSPL C/A P/N 3G9B02A58001 (B2A580).

7.16 With reference to Figure 9, to Figure 20 wiring diagram and to Figure 23, perform electrical connection of C/A A2A430 between coupler connector CP31P2 and MAU 1 connector A1-3P3.

7.17 With reference to Figure 10, to Figure 20 wiring diagram and to Figure 24, perform electrical connection of C/A B2A594 between coupler connector CP31P3 and power module connector PS43P2.

7.18 With reference to Figures 9, 10, 11, 24 and Figure 20 wiring diagram, perform electrical connection of C/A B2A592 between coupler connector CP31P1 and VMU connector A270P2.

7.19 With reference to Figures 10, 11, 24 and Figure 21 wiring diagram, perform electrical connection of C/A B2A580 between VMU connector A270P3 and display connector A278P1.

NOTE

Perform following step only if Central Display is 8 installed and VMU is NOT installed.

NOTE

Install the following supports and clamps only if necessary. The use of existing fixing supports and clamps is allowed.

8. With reference to Figure 12 thru 15, gain access to the area affected by the installation and perform the Video interface installation ad described in the following procedure:

8.1 With reference to Figure 14 view looking cockpit A.D.O.F. location n°1, install support P/N AW001CL005C01-X1 and grommet P/N AW002FT110.

8.2 With reference to Figure 15 view looking from STA 2105 to STA 3120 RH side location n°2, install support P/N AW001CL001-N6 by means of adhesive EA9309.3NA (C021).

8.3 With reference to Figure 15 view looking from STA 2105 to STA 3120 RH side location n°3, install anchor nut P/N AW001TL3A06T by means of adhesive

EA9309.3NA (C021) and install clamp P/N AW001CB03H by means of washer P/N NAS1149D0332J and screw P/N NAS1802-3-10.

NOTE

Install the following support only if necessary. The use of existing fixing supports and clamps is allowed. Ref step 8.4.

8.4 With reference to Figure 13 detail B, install support P/N A631A01A by means of adhesive EA9309.3NA (C021).

8.5 With reference to Figure 13 detail B, install adapter P/N KC99-20 on previously installed support.

8.6 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 13 detail B, install Decal P/N ED300CP33.

8.7 With reference to Figures 12 thru 15, lay down following cable assemblies:

- IR CAMERA AND VIDEO M. I/F C/A P/N 3G9A03B23001 (A3B230);
- IR CAMERA AND CD I/F C/A P/N 3G9A03B22901 (A3B229);
- IR CAMERA AND VIDEO M. I/F C/A P/N 3G9A03B23101 (A3B231).

8.8 With reference to Figure 13, to Figure 22 wiring diagram and to Figure 23, perform electrical connection of cable assy A3B230 between coupler connector CP33P2 and MAU 1 connector A1-3P3.

8.9 With reference to Figures 13, 14, 23 and Figure 22 wiring diagram, perform electrical connection of cable assy A3B229 between coupler connector CP33P3 and central display connector A278P1.

8.10 With reference to Figures 13, 14, 15, 24 and Figure 22 wiring diagram, perform electrical connection of cable assy A3B231 between coupler connector CP33P1 and power module connector PS43P2.

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

10. Modify the auxiliary CB panel on the overhead panel, as described in the following procedure:

NOTE

Customer must contact AW139 PSE at least 3 months in advance of embodiment date of this Service Bulletin in order to collect the exact wiring diagrams applicable to helicopter configuration.

10.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead C/B panel the existing Integrally-lit panel and install the new integrally-lit panel P/N 3G2490LXXXX.

10.2 Install one circuit breaker P/N MS3320-10 in the positions indicated as IR Camera on the new integrally-lit panel P/N 3G2490LXXXX. Apply decal P/N ED300CB305 in an adjacent area.

10.3 Install one switch P/N MS27722-22 in the position indicated as IR Camera ON/OFF on the new integrally-lit panel P/N 3G2490LXXXX. Apply decal P/N ED300S186 in an adjacent area.

10.4 Install one switch P/N MS27722-22 in the position indicated as IR Camera WFOV/NFOV on the new integrally-lit panel P/N 3G2490LXXXX. Apply decal P/N ED300S204 in an adjacent area.

10.5 Perform electrical connection between pin 3 of switch S204 and pin L of overhead circuit breaker panel connector PL1J4 by means of A556A-T22 wire. Use electrical contact P/N MS25036-102 for pin 3 of S204 and electrical contact P/N M39029/56-352 for pin L of PL1J4.

10.6 Install fuse P/N BJE41 and perform electrical connection between pin 2 of switch S204 and pin 1 of fuse P/N BJE41 by means of A556A-T22 wire. Use electrical contact P/N MS25036-102 for pin 2 of S204 and electrical contact P/N A523A-A02 for pin 1 of fuse.

10.7 Perform electrical connection between pin 2 of fuse P/N BJE41, pin 3 of switch S186 and pin F of overhead circuit breaker panel connector PL1J8 by means of A556A-T22 and A556A-T18 wires and n°1 splice P/N M81824/1-2. Use electrical contact P/N A523A-A02 for pin 2 of fuse, electrical contact P/N M39029/1-102 for pin 3 of S186 and electrical contact P/N M39029/56-352 for pin F of PL1J8.

10.8 Perform electrical connection between pin Y of overhead circuit breaker panel connector PL1J8 and pin H TB504 by means of A556A-T18 wire. Use electrical contact P/N A523A-A07 for pin H of TB504 and electrical contact P/N M39029/56-352 for pin Y of PL1J8.

10.9 Perform electrical connection between pin 2 of switch S186 and pin 2 of circuit breaker CB305 by means of A556A-T18 wire. Use electrical contact P/N M39029/1-102 for pin 2 of S186 and electrical contact P/N MS25036-153 for pin 2 of CB305.

10.10 Perform electrical connection between pin 1 of CB305 and terminal board TB511-3 by means of A556A-T12 wire. Use electrical contact P/N MS25036-112 for pin 1 of CB305 and pin of TB511-3.

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

12. Send the attached compliance form to the following mail box:

engineering.support.lhd@leonardocompany.com

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

PART II

1. In accordance with DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP and with reference to Figure 16, gain access to the area affected by the installation and perform the Full Installation IR Camera Max Viz 1500 P/N 4G9750A00711 as described in the following procedure:

NOTE

The use of additional non-metallic washers P/N 3G5315A83752 or metallic washers P/N 999-0066-06-55 to modify view angle is allowed.

2.1 In accordance with AMP DM 39-A-97-54-05-00A-720A-K and with reference to Figure 4 Section O-O and Detail Q and Figure 16 View Z, install the power supply P/N 756500042 on the plate assy P/N 3G5315A93231 by means of n°6 screws P/N MS27039-0805 and n°6 washers P/N NAS1149DN832J.

2.2 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 16, install decal P/N ED300PS43 in an area adjacent to power supply.

2.3 In accordance with AMP DM 39-A-97-54-02-00A-720A-K and with reference to Figure 3 Detail G and Figure 16 View Z, install the IR camera Max Viz 1500 P/N 756500041 on the keeper assy P/N 3G5315A83331 by means of n°4 screws P/N MS27039-0804 and n°4 washers P/N NAS1149C0316R.

2.4 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 16, install decal P/N ED300DS162 in an area adjacent to IR camera Max Viz 1500.

2.5 With reference to Figure 16 View Z, install angle P/N MS9596-054 and a clamp P/N AS21919WDG7 by means of a screw P/N NAS1801-08-5, a screw P/N NAS1801-3-7, washer P/N NAS1149D0332J, washer P/N 999-0066-45-44 and a nut P/N MS21042L3.

2.6 With reference to Figure 16, lay down following cable assemblies:

- IR Camera EVS 1500 Cable Assy P/N 3G9A12B00711 (A2B7).

2.7 With reference to Figure 16, to Figure 18 wiring diagram and to Figure 23, perform the electrical connection of the C/A A2B7 between power supply connector PS43P1 and camera connector DS162 following indicated route. Secure the cable by means of existing hardware and lacing cord.

2.8 In accordance with AMP DM 39-A-97-54-01-00A-720A-K and with reference to Figures 3 and 16, install the cover P/N 3G5315A93851 by means of n°6 screws

P/N A428A08C05.

3. In accordance with AMP 39-A-97-54-00-00A-320A-K perform the external video camera system operational check.
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 II of this Service Bulletin on the helicopter logbook.
6. Send the attached compliance form to the following mail box:

   engineering.support.lhd@leonardocompany.com

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

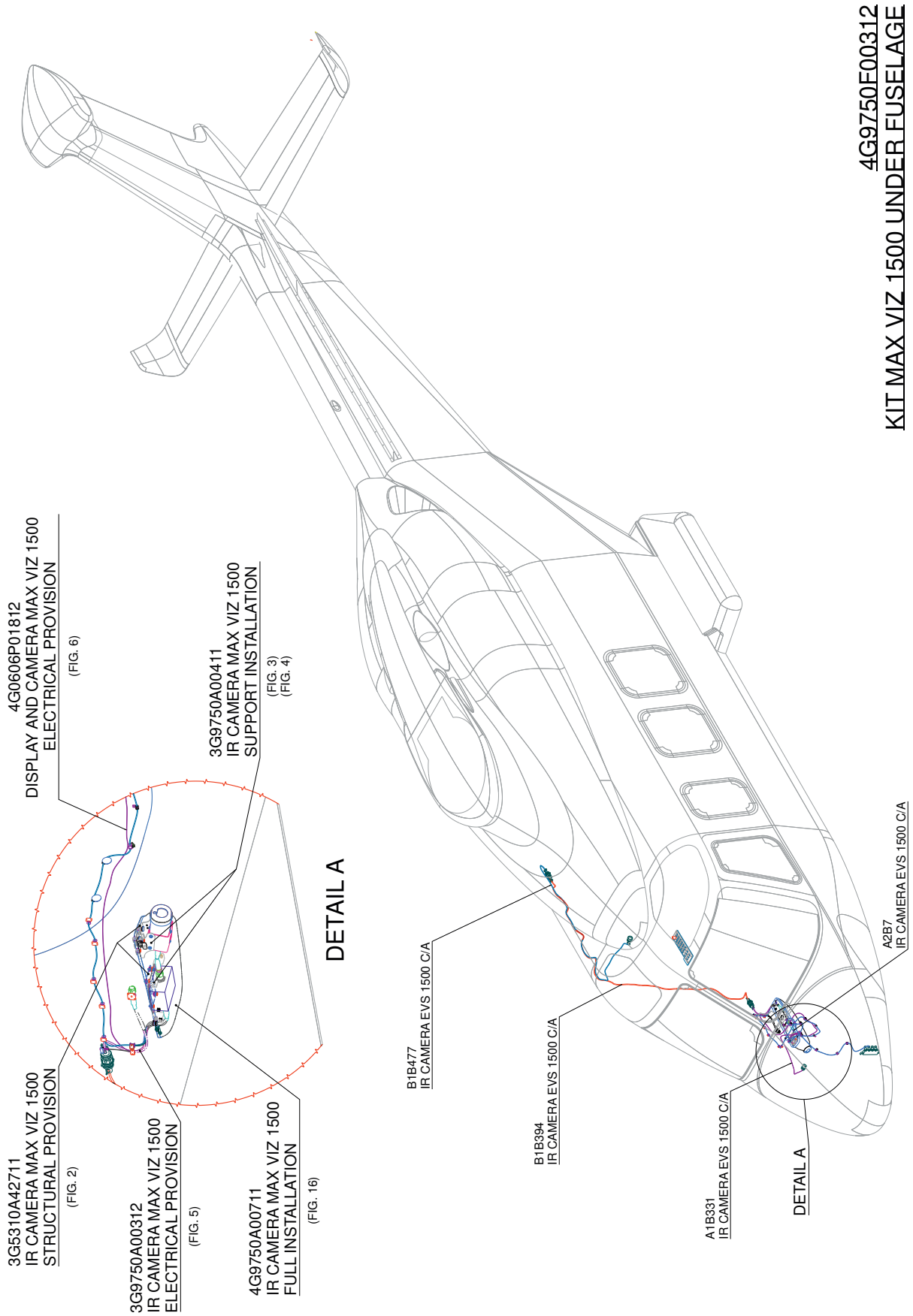

4G9750E00312
KIT MAX VIZ 1500 UNDER FUSELAGE
4G0606P01812
DISPLAY AND CAMERA MAX VIZ 1500
ELECTRICAL PROVISION
(FIG. 6)
3G9750A00411
IR CAMERA MAX VIZ 1500
SUPPORT INSTALLATION
(FIG. 3)
(FIG. 4)
DETAIL A
3G5310A42711
IR CAMERA MAX VIZ 1500
STRUCTURAL PROVISION
(FIG. 2)
3G9750A00312
IR CAMERA MAX VIZ 1500
ELECTRICAL PROVISION
(FIG. 5)
4G9750A00711
IR CAMERA MAX VIZ 1500
FULL INSTALLATION
(FIG. 16)
B1B477
IR CAMERA EVS 1500 C/A
B1B394
IR CAMERA EVS 1500 C/A
A1B331
IR CAMERA EVS 1500 C/A
A2B7
IR CAMERA EVS 1500 C/A
DETAIL A

Figure 1

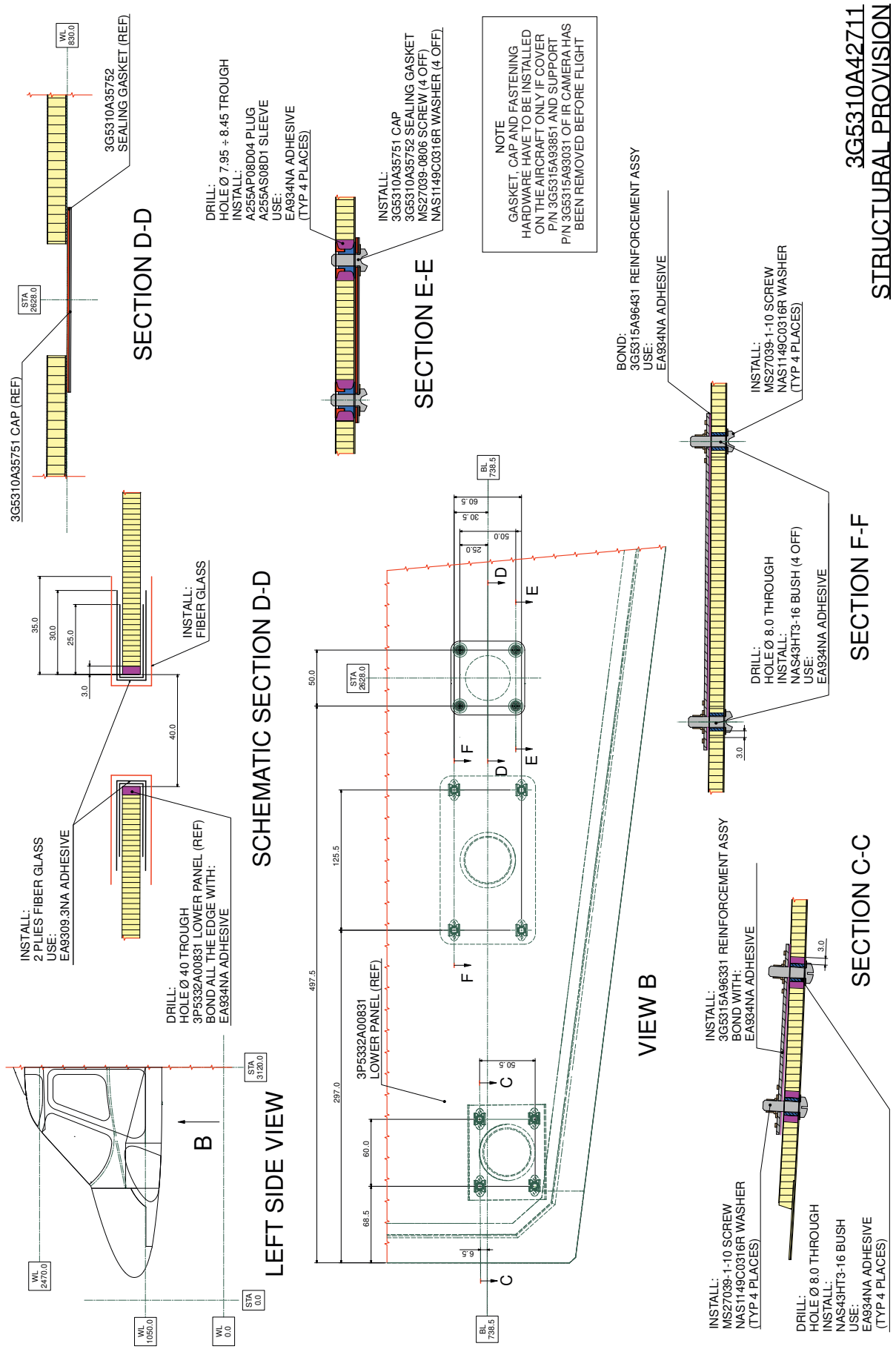

3G5310A42711
STRUCTURAL PROVISION
SECTION D-D
3G5310A35752
SEALING GASKET (REF)
3G5310A35751 CAP (REF)
DRILL:
HOLE Ø 7.95 ÷ 8.45 TROUGH
INSTALL:
A255AP08D04 PLUG
A255AS08D1 SLEEVE
USE:
EA934NA ADHESIVE
(TYP 4 PLACES)
SECTION E-E
INSTALL:
3G5310A35751 CAP
3G5310A35752 SEALING GASKET
MS27039-0806 SCREW (4 OFF)
NAS1149C0316R WASHER (4 OFF)
NOTE
GASKET, CAP AND FASTENING
HARDWARE HAVE TO BE INSTALLED
ON THE AIRCRAFT ONLY IF COVER
P/N 3G5315A93851 AND SUPPORT
P/N 3G5315A93031 OF IR CAMERA HAS
BEEN REMOVED BEFORE FLIGHT
BOND:
3G5315A96431 REINFORCEMENT ASSY
USE:
EA934NA ADHESIVE
INSTALL:
MS27039-1-10 SCREW
NAS1149C0316R WASHER
(TYP 4 PLACES)
DRILL:
HOLE Ø 8.0 THROUGH
INSTALL:
NAS43HT3-16 BUSH (4 OFF)
USE:
EA934NA ADHESIVE
SECTION F-F
INSTALL:
2 PLIES FIBER GLASS
USE:
EA9309.3NA ADHESIVE
INSTALL:
FIBER GLASS
DRILL:
HOLE Ø 40 TROUGH
3P5332A00831 LOWER PANEL (REF)
BOND ALL THE EDGE WITH:
EA934NA ADHESIVE
SCHEMATIC SECTION D-D
LEFT SIDE VIEW
3P5332A00831
LOWER PANEL (REF)
VIEW B
INSTALL:
3G5315A96331 REINFORCEMENT ASSY
BOND WITH:
EA934NA ADHESIVE
INSTALL:
MS27039-1-10 SCREW
NAS1149C0316R WASHER
(TYP 4 PLACES)
DRILL:
HOLE Ø 8.0 THROUGH
INSTALL:
NAS43HT3-16 BUSH
USE:
EA934NA ADHESIVE
(TYP 4 PLACES)
SECTION C-C

Figure 2

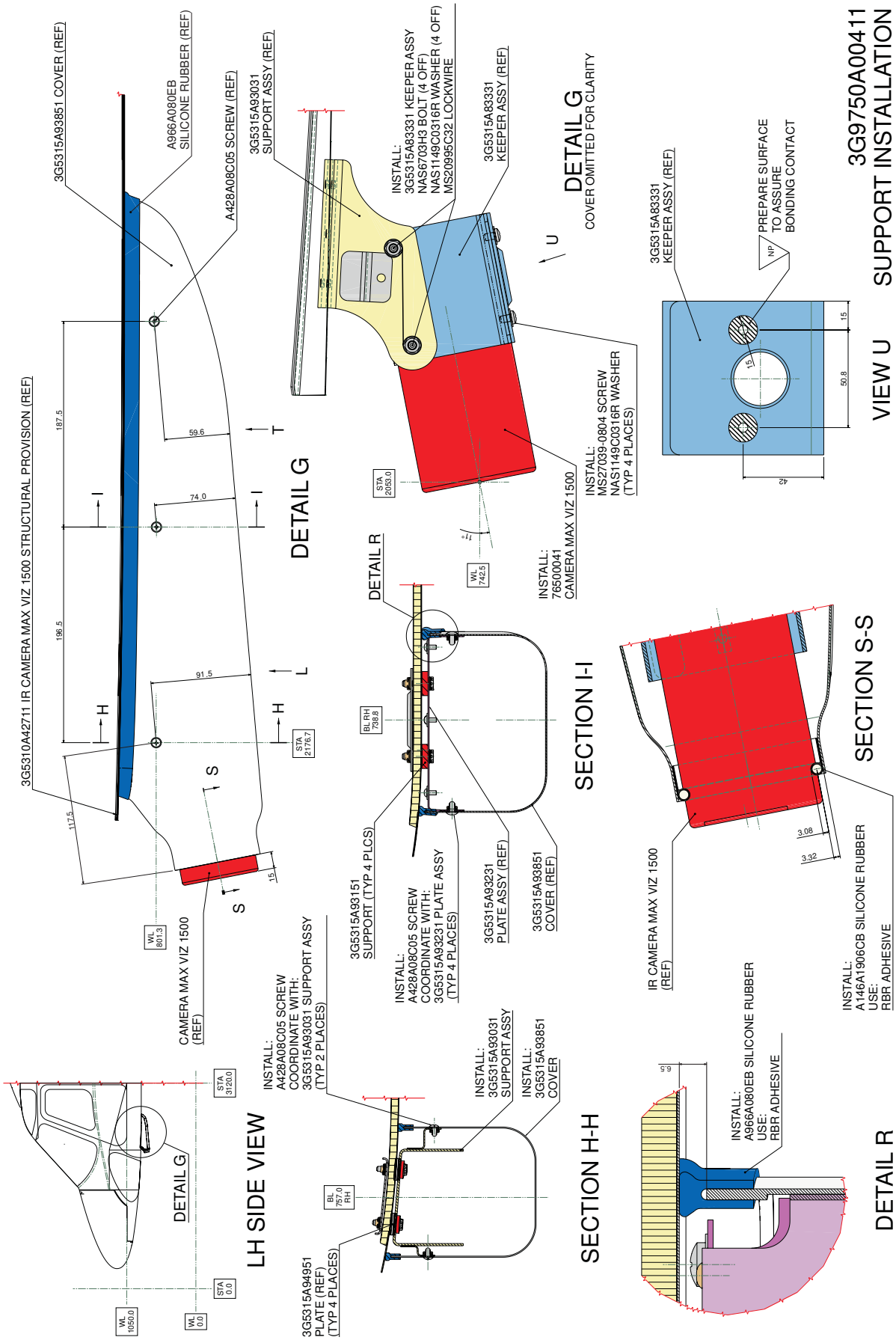

3G9750A00411
SUPPORT INSTALLATION
3G5315A93851 COVER (REF)
A966A080EB
SILICONE RUBBER (REF)
A428A08C05 SCREW (REF)
3G5315A93031
SUPPORT ASSY (REF)
3G5310A42711 IR CAMERA MAX VIZ 1500 STRUCTURAL PROVISION (REF)
CAMERA MAX VIZ 1500
(REF)
LH SIDE VIEW
DETAIL G
DETAIL G
INSTALL:
3G5315A83331 KEEPER ASSY
NAS6703H3 BOLT (4 OFF)
NAS1149C0316R WASHER (4 OFF)
MS20995C32 LOCKWIRE
3G5315A83331
KEEPER ASSY (REF)
INSTALL:
MS27039-0804 SCREW
NAS1149C0316R WASHER
(TYP 4 PLACES)
INSTALL:
76500041
CAMERA MAX VIZ 1500
DETAIL G
COVER OMITTED FOR CLARITY
VIEW U
3G5315A83331
KEEPER ASSY (REF)
PREPARE SURFACE
TO ASSURE
BONDING CONTACT
DETAIL R
3G5315A93151
SUPPORT (TYP 4 PLCS)
INSTALL:
A428A08C05 SCREW
COORDINATE WITH:
3G5315A93231 PLATE ASSY
(TYP 4 PLACES)
3G5315A93231
PLATE ASSY (REF)
3G5315A93851
COVER (REF)
SECTION I-I
INSTALL:
A428A08C05 SCREW
COORDINATE WITH:
3G5315A93031 SUPPORT ASSY
(TYP 2 PLACES)
INSTALL:
3G5315A93031
SUPPORT ASSY
INSTALL:
3G5315A93851
COVER
3G5315A94951
PLATE (REF)
(TYP 4 PLACES)
SECTION H-H
IR CAMERA MAX VIZ 1500
(REF)
INSTALL:
A146A1906CB SILICONE RUBBER
USE:
RBR ADHESIVE
SECTION S-S
INSTALL:
A966A080EB SILICONE RUBBER
USE:
RBR ADHESIVE
DETAIL R

Figure 3

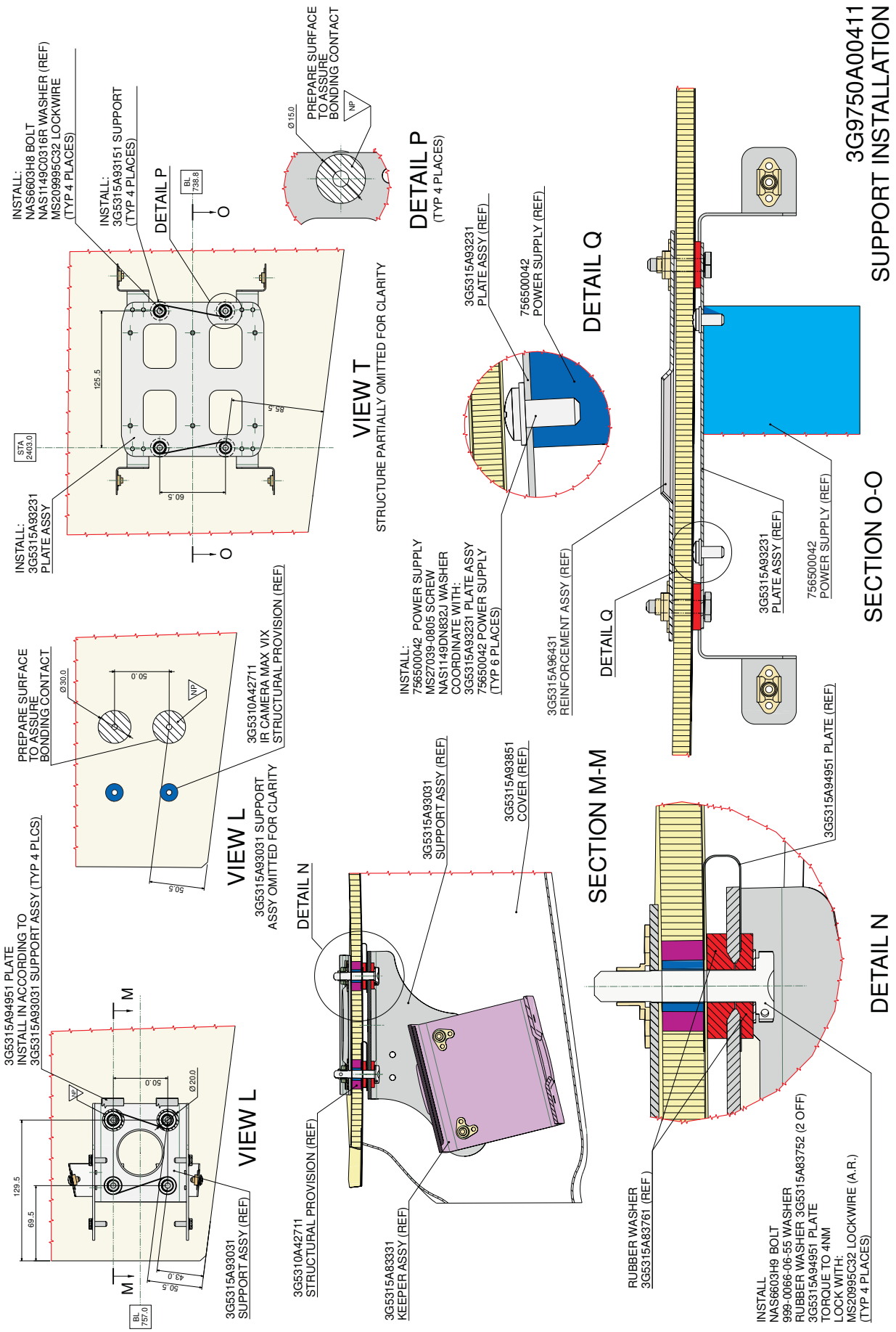
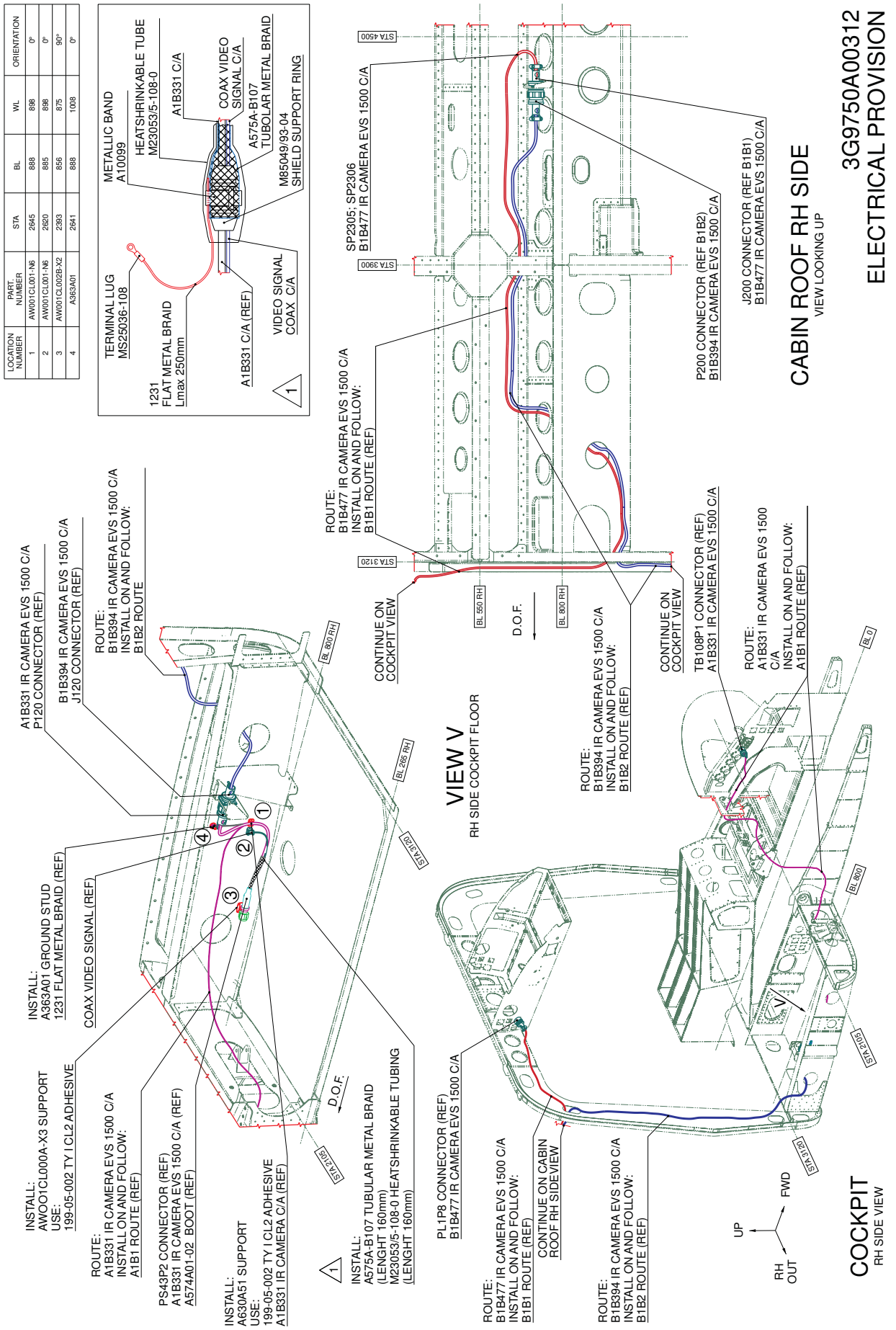

3G9750A00411
SUPPORT INSTALLATION
INSTALL:
NAS6603H8 BOLT
NAS1149C0316R WASHER (REF)
MS20995C32 LOCKWIRE
(TYP 4 PLACES)
INSTALL:
3G5315A93151 SUPPORT
(TYP 4 PLACES)
DETAIL P
BL 738.8
PREPARE SURFACE
TO ASSURE
BONDING CONTACT
Ø15.0
NP
DETAIL P
(TYP 4 PLACES)
VIEW T
STRUCTURE PARTIALLY OMITTED FOR CLARITY
STA 2403.0
INSTALL:
3G5315A93231
PLATE ASSY
125.5
85.5
60.5
INSTALL:
756500042 POWER SUPPLY
MS27039-0805 SCREW
NAS1149DN832J WASHER
COORDINATE WITH:
3G5315A93231 PLATE ASSY
7565042 POWER SUPPLY
(TYP 6 PLACES)
3G5315A93231
PLATE ASSY (REF)
756500042
POWER SUPPLY (REF)
DETAIL Q
SECTION O-O
3G5315A96431
REINFORCEMENT ASSY (REF)
DETAIL Q
3G5315A93231
PLATE ASSY (REF)
756500042
POWER SUPPLY (REF)
PREPARE SURFACE
TO ASSURE
BONDING CONTACT
Ø30.0
NP
50.0
50.5
VIEW L
3G5315A93031 SUPPORT
ASSY OMITTED FOR CLARITY
3G5310A42711
IR CAMERA MAX VIX
STRUCTURAL PROVISION (REF)
DETAIL N
3G5315A93031
SUPPORT ASSY (REF)
3G5315A93851
COVER (REF)
SECTION M-M
3G5315A94951 PLATE
INSTALL IN ACCORDING TO
3G5315A93031 SUPPORT ASSY (TYP 4 PLCS)
M
NP
50.0
Ø20.0
129.5
69.5
43.0
50.5
BL 757.0
VIEW L
3G5315A93031
SUPPORT ASSY (REF)
3G5310A42711
STRUCTURAL PROVISION (REF)
3G5315A83331
KEEPER ASSY (REF)
3G5315A94951 PLATE (REF)
RUBBER WASHER
3G5315A83761 (REF)
INSTALL
NAS6603H9 BOLT
999-0066-06-55 WASHER
RUBBER WASHER 3G5315A83752 (2 OFF)
3G5315A94951 PLATE
TORQUE TO 4NM
LOCK WITH:
MS20995C32 LOCKWIRE (A.R.)
(TYP 4 PLACES)
DETAIL N

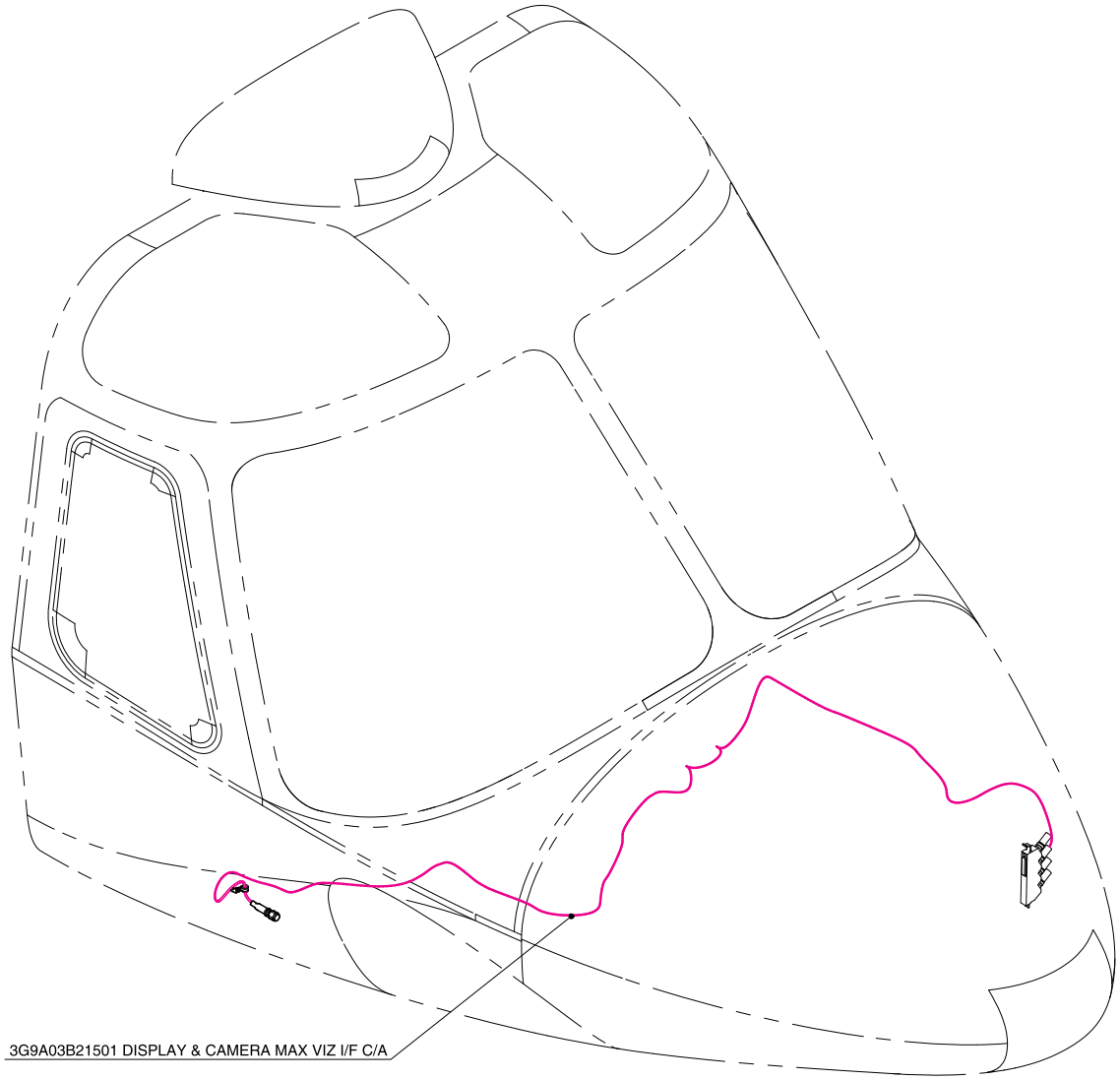
Figure 4



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
1	AW001CL001-N6	2645	888	898	0°
2	AW001CL001-N6	2620	885	898	0°
3	AW001CL002B-X2	2393	856	875	90°
4	A363A01	2641	888	1008	0°

Figure 5

4G0606P01812
DISPLAY AND CAMERA MAX VIZ I/F



VARIANT TO BE PERFORMED ONLY
FOR HELICOPTERS NOT EQUIPPED
WITH CENTRAL DISPLAY

Figure 6

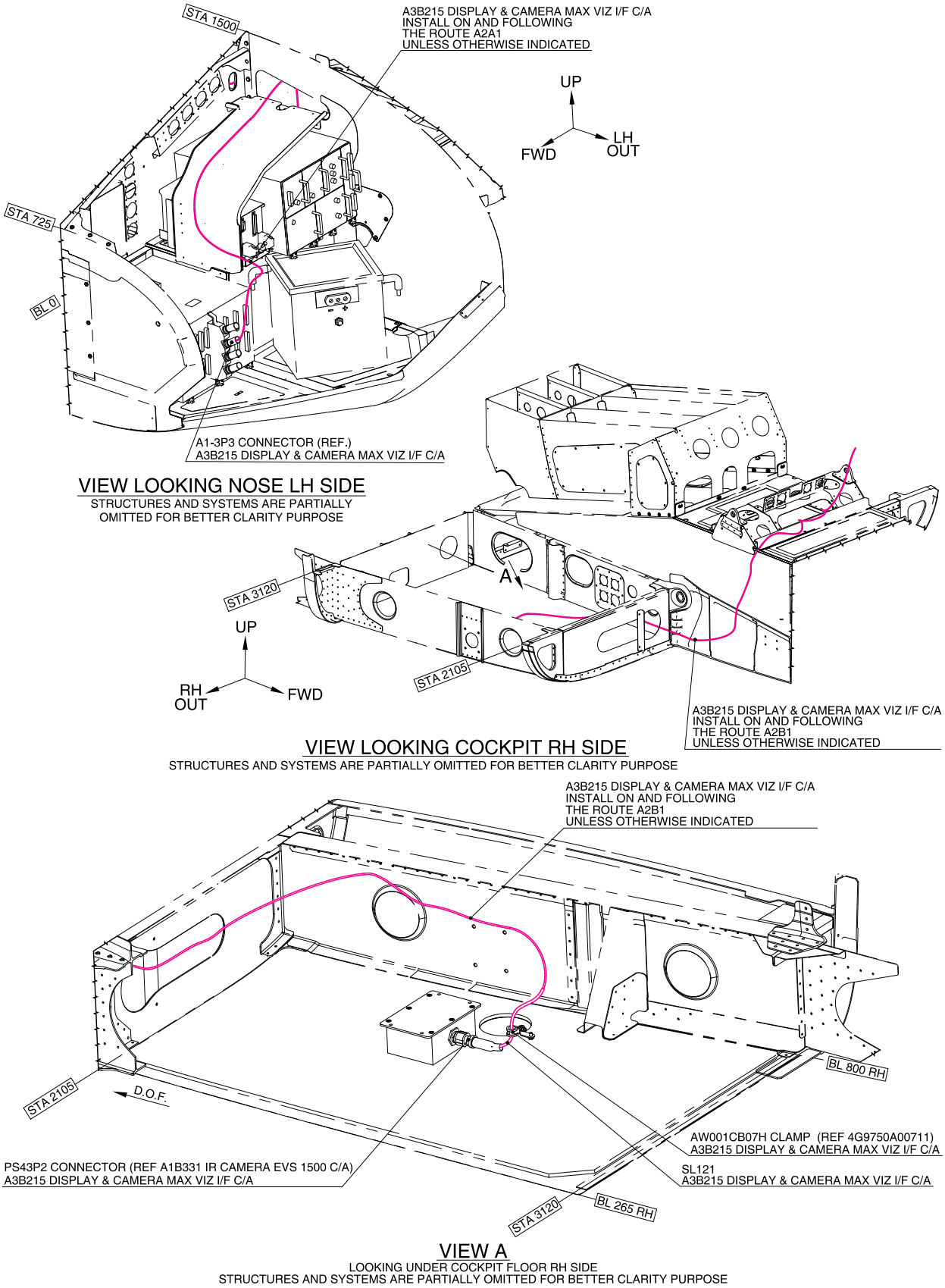
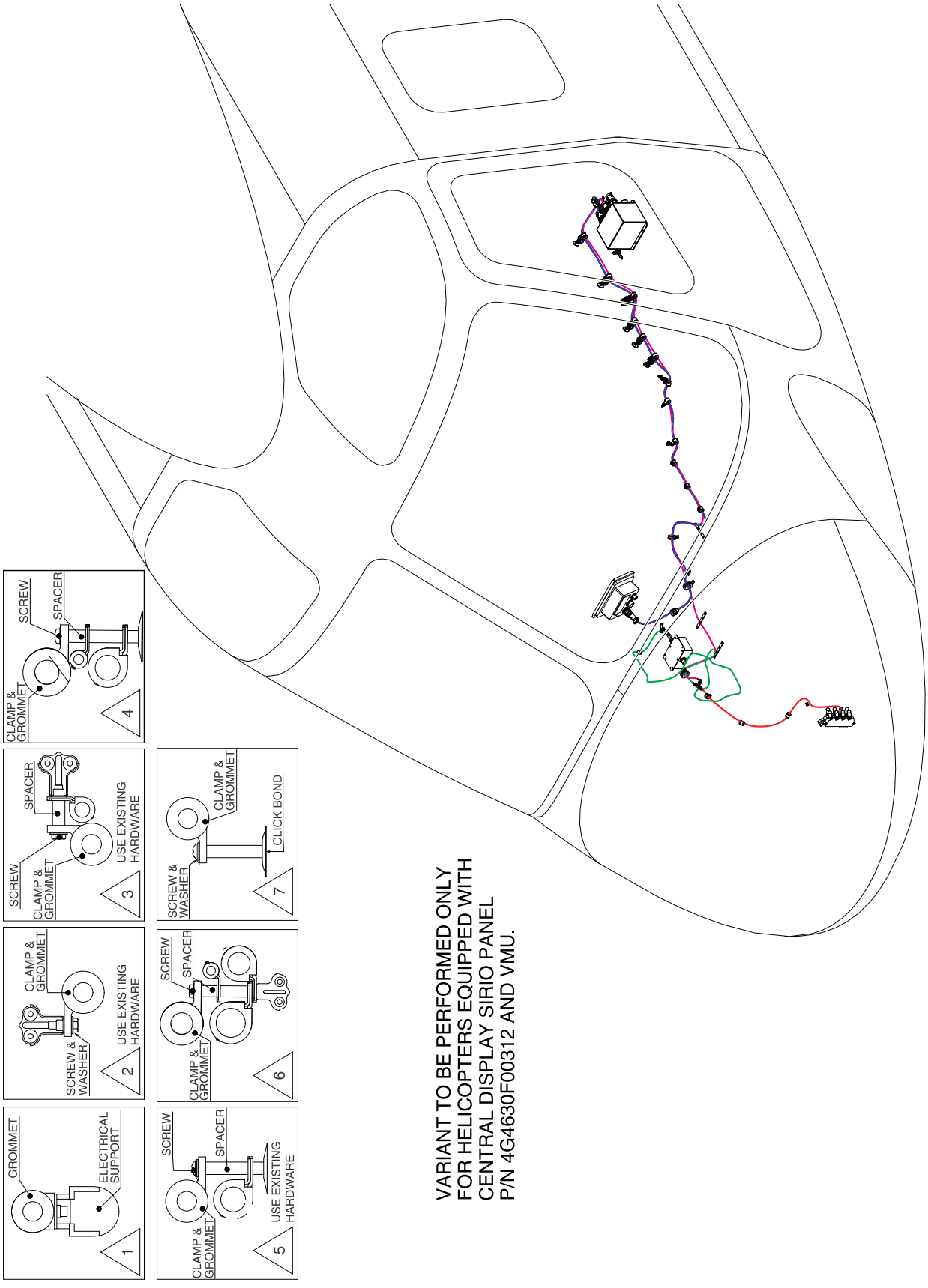

STA 1500
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
INSTALL ON AND FOLLOWING
THE ROUTE A2A1
UNLESS OTHERWISE INDICATED
UP
FWD
LH
OUT
STA 725
BL 0
A1-3P3 CONNECTOR (REF.)
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
VIEW LOOKING NOSE LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
STA 3120
A
UP
RH
OUT
FWD
STA 2105
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
INSTALL ON AND FOLLOWING
THE ROUTE A2B1
UNLESS OTHERWISE INDICATED
VIEW LOOKING COCKPIT RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
INSTALL ON AND FOLLOWING
THE ROUTE A2B1
UNLESS OTHERWISE INDICATED
STA 2105
D.O.F.
BL 800 RH
AW001CB07H CLAMP (REF 4G9750A00711)
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
PS43P2 CONNECTOR (REF A1B331 IR CAMERA EVS 1500 C/A)
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
SL121
A3B215 DISPLAY & CAMERA MAX VIZ I/F C/A
STA 3120
BL 265 RH
VIEW A
LOOKING UNDER COCKPIT FLOOR RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 7



VARIANT TO BE PERFORMED ONLY
FOR HELICOPTERS EQUIPPED WITH
CENTRAL DISPLAY SIRIO PANEL
P/N 4G4630F00312 AND VMU.

Figure 8

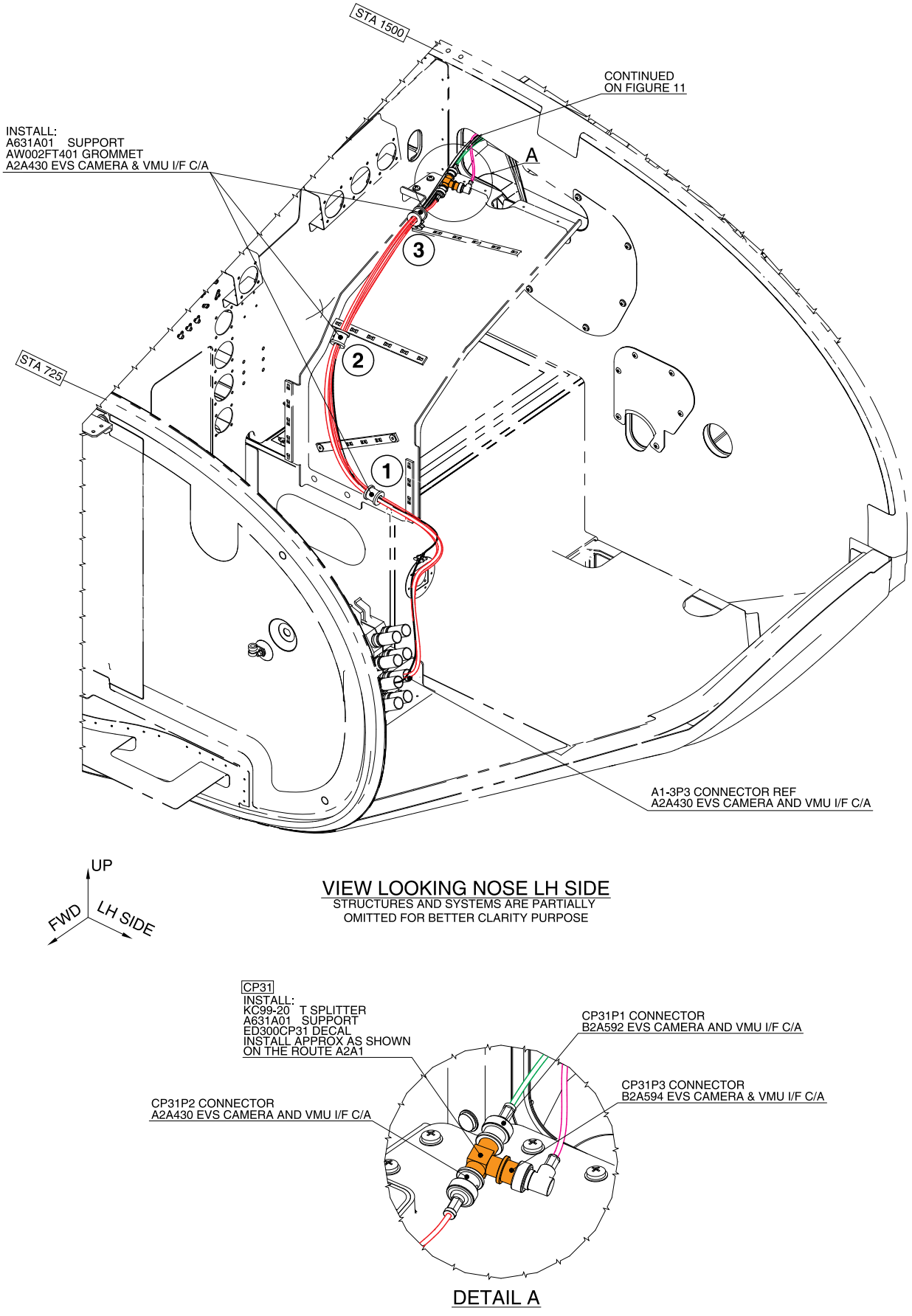

STA 1500
CONTINUED
ON FIGURE 11
INSTALL:
A631A01 SUPPORT
AW002FT401 GROMMET
A2A430 EVS CAMERA & VMU I/F C/A
A
3
2
1
STA 725
A1-3P3 CONNECTOR REF
A2A430 EVS CAMERA AND VMU I/F C/A
UP
FWD
LH SIDE
VIEW LOOKING NOSE LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
CP31
INSTALL:
KC99-20 T SPLITTER
A631A01 SUPPORT
ED300CP31 DECAL
INSTALL APPROX AS SHOWN
ON THE ROUTE A2A1
CP31P1 CONNECTOR
B2A592 EVS CAMERA AND VMU I/F C/A
CP31P3 CONNECTOR
B2A594 EVS CAMERA & VMU I/F C/A
CP31P2 CONNECTOR
A2A430 EVS CAMERA AND VMU I/F C/A
DETAIL A

Figure 9

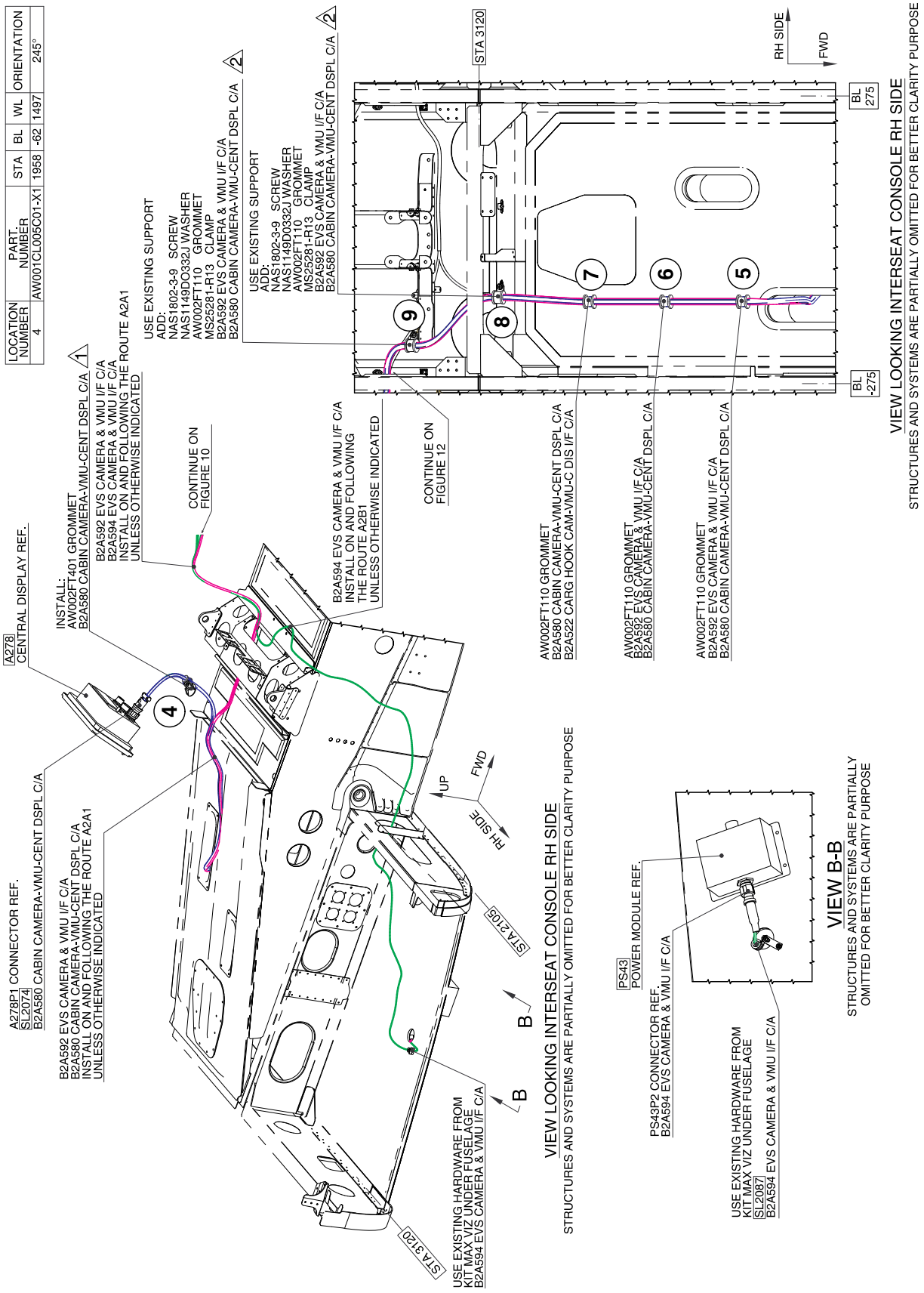

LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
4
AW001CL005C01-X1
1958
-62
1497
245°
A278
CENTRAL DISPLAY REF.
A278P1 CONNECTOR REF.
SL2074
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
B2A592 EVS CAMERA & VMU I/F C/A
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
INSTALL ON AND FOLLOWING THE ROUTE A2A1
UNLESS OTHERWISE INDICATED
INSTALL:
AW002FT401 GROMMET
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
1
B2A592 EVS CAMERA & VMU I/F C/A
B2A594 EVS CAMERA & VMU I/F C/A
INSTALL ON AND FOLLOWING THE ROUTE A2A1
UNLESS OTHERWISE INDICATED
USE EXISTING SUPPORT
ADD:
NAS1802-3-9 SCREW
NAS1149D0332J WASHER
AW002FT110 GROMMET
MS25281-R13 CLAMP
B2A592 EVS CAMERA & VMU I/F C/A
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
2
USE EXISTING SUPPORT
ADD:
NAS1802-3-9 SCREW
NAS1149D0332J WASHER
AW002FT110 GROMMET
MS25281-R13 CLAMP
B2A592 EVS CAMERA & VMU I/F C/A
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
2
CONTINUE ON FIGURE 10
B2A594 EVS CAMERA & VMU I/F C/A
INSTALL ON AND FOLLOWING THE ROUTE A2B1
UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 12
AW002FT110 GROMMET
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
B2A522 CARG HOOK CAM-VMU-C DIS I/F C/A
AW002FT110 GROMMET
B2A592 EVS CAMERA & VMU I/F C/A
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
AW002FT110 GROMMET
B2A592 EVS CAMERA & VMU I/F C/A
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A
STA 3120
RH SIDE
FWD
BL 275
BL -275
VIEW LOOKING INTERSEAT CONSOLE RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
4
5
6
7
8
9
UP
FWD
RH SIDE
STA 2105
STA 3120
B
B
USE EXISTING HARDWARE FROM
KIT MAX VIZ UNDER FUSELAGE
B2A594 EVS CAMERA & VMU I/F C/A
VIEW LOOKING INTERSEAT CONSOLE RH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
PS43
POWER MODULE REF.
PS43P2 CONNECTOR REF.
B2A594 EVS CAMERA & VMU I/F C/A
VIEW B-B
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
USE EXISTING HARDWARE FROM
KIT MAX VIZ UNDER FUSELAGE
SL2087
B2A594 EVS CAMERA & VMU I/F C/A

Figure 10

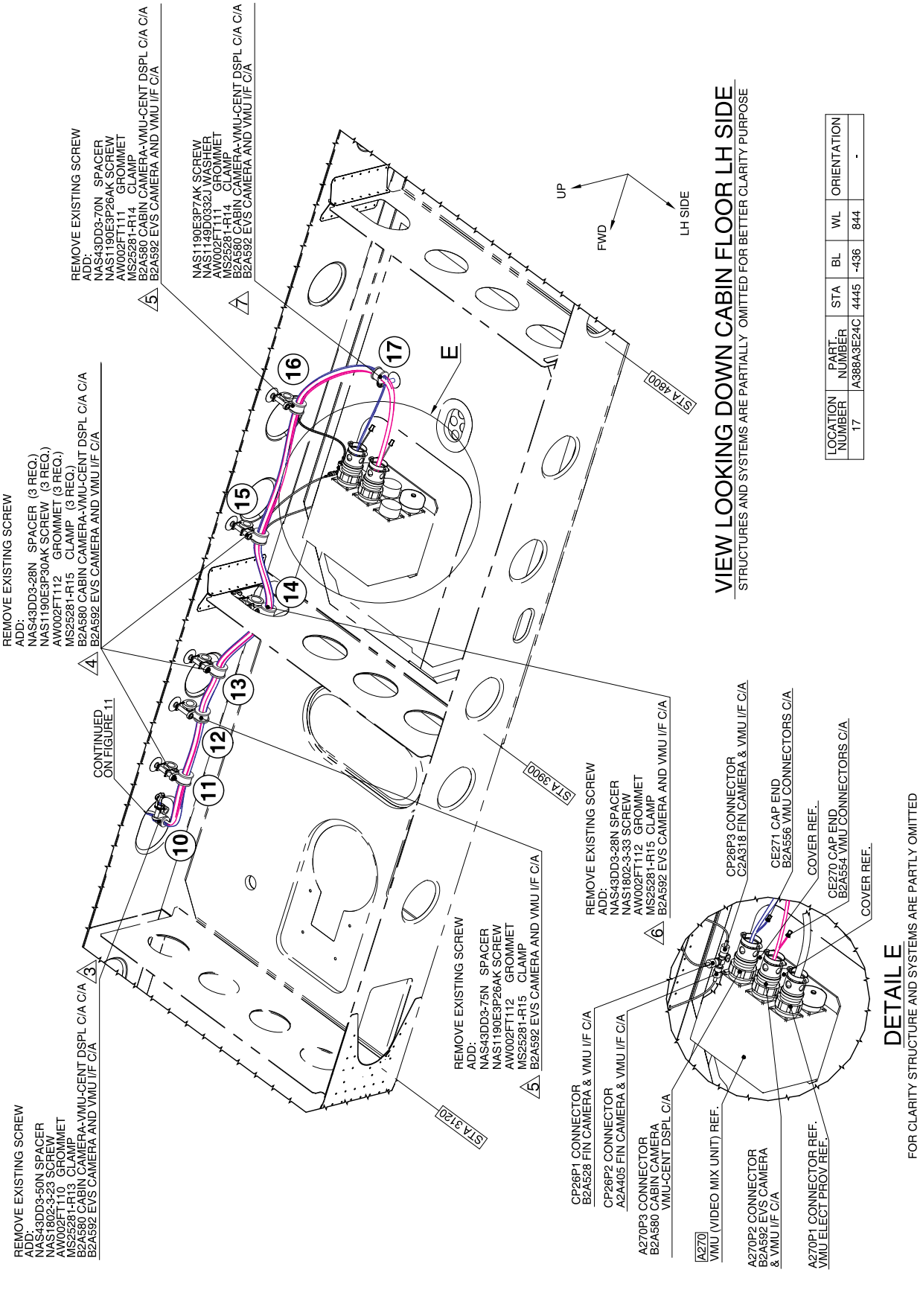

VIEW LOOKING DOWN CABIN FLOOR LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
17 | A388A3E24C | 4445 | -436 | 844 | -
UP
FWD
LH SIDE
STA 4800
STA 3900
STA 3120
CONTINUED ON FIGURE 11
REMOVE EXISTING SCREW
ADD:
NAS43DD3-28N SPACER (3 REQ.)
NAS1190E3P30AK SCREW (3 REQ.)
AW002FT112 GROMMET (3 REQ.)
MS25281-R15 CLAMP (3 REQ.)
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A C/A
B2A592 EVS CAMERA AND VMU I/F C/A
4
REMOVE EXISTING SCREW
ADD:
NAS43DD3-50N SPACER
NAS1802-3-23 SCREW
AW002FT110 GROMMET
MS25281-R13 CLAMP
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A C/A
B2A592 EVS CAMERA AND VMU I/F C/A
3
REMOVE EXISTING SCREW
ADD:
NAS43DD3-70N SPACER
NAS1190E3P26AK SCREW
AW002FT111 GROMMET
MS25281-R14 CLAMP
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A C/A
B2A592 EVS CAMERA AND VMU I/F C/A
5
NAS1190E3P7AK SCREW
NAS1149D0332J WASHER
AW002FT111 GROMMET
MS25281-R14 CLAMP
B2A580 CABIN CAMERA-VMU-CENT DSPL C/A C/A
B2A592 EVS CAMERA AND VMU I/F C/A
7
REMOVE EXISTING SCREW
ADD:
NAS43DD3-75N SPACER
NAS1190E3P26AK SCREW
AW002FT112 GROMMET
MS25281-R15 CLAMP
B2A592 EVS CAMERA AND VMU I/F C/A
5
REMOVE EXISTING SCREW
ADD:
NAS43DD3-28N SPACER
NAS1802-3-33 SCREW
AW002FT112 GROMMET
MS25281-R15 CLAMP
B2A592 EVS CAMERA AND VMU I/F C/A
6
CP26P1 CONNECTOR
B2A528 FIN CAMERA & VMU I/F C/A
CP26P2 CONNECTOR
A2A405 FIN CAMERA & VMU I/F C/A
A270P3 CONNECTOR
B2A580 CABIN CAMERA
VMU-CENT DSPL C/A
A270
VMU (VIDEO MIX UNIT) REF.
A270P2 CONNECTOR
B2A592 EVS CAMERA
& VMU I/F C/A
A270P1 CONNECTOR REF.
VMU ELECT PROV REF.
CP26P3 CONNECTOR
C2A318 FIN CAMERA & VMU I/F C/A
CE271 CAP END
B2A556 VMU CONNECTORS C/A
COVER REF.
CE270 CAP END
B2A554 VMU CONNECTORS C/A
COVER REF.
DETAIL E
FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED

Figure 11

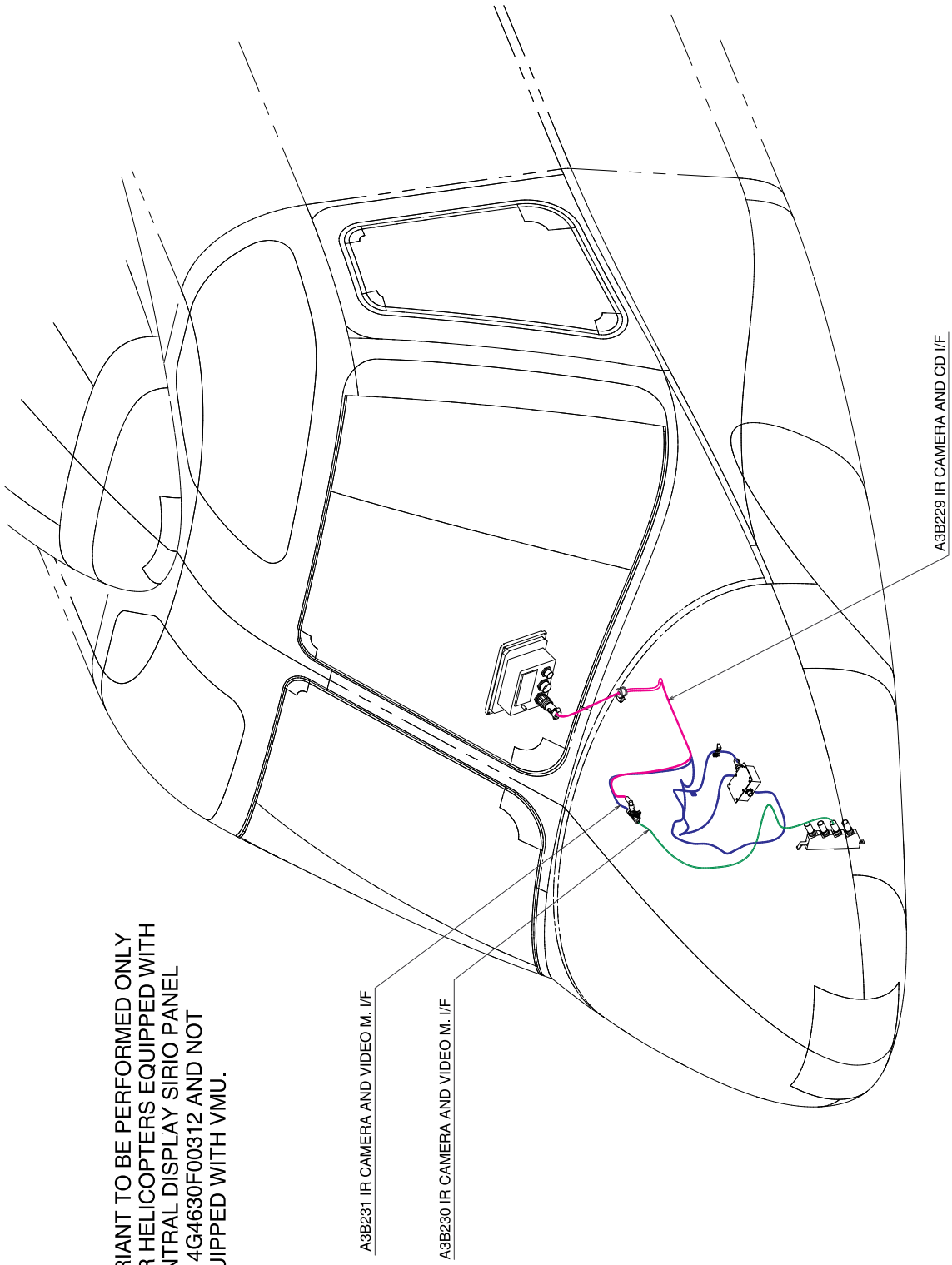
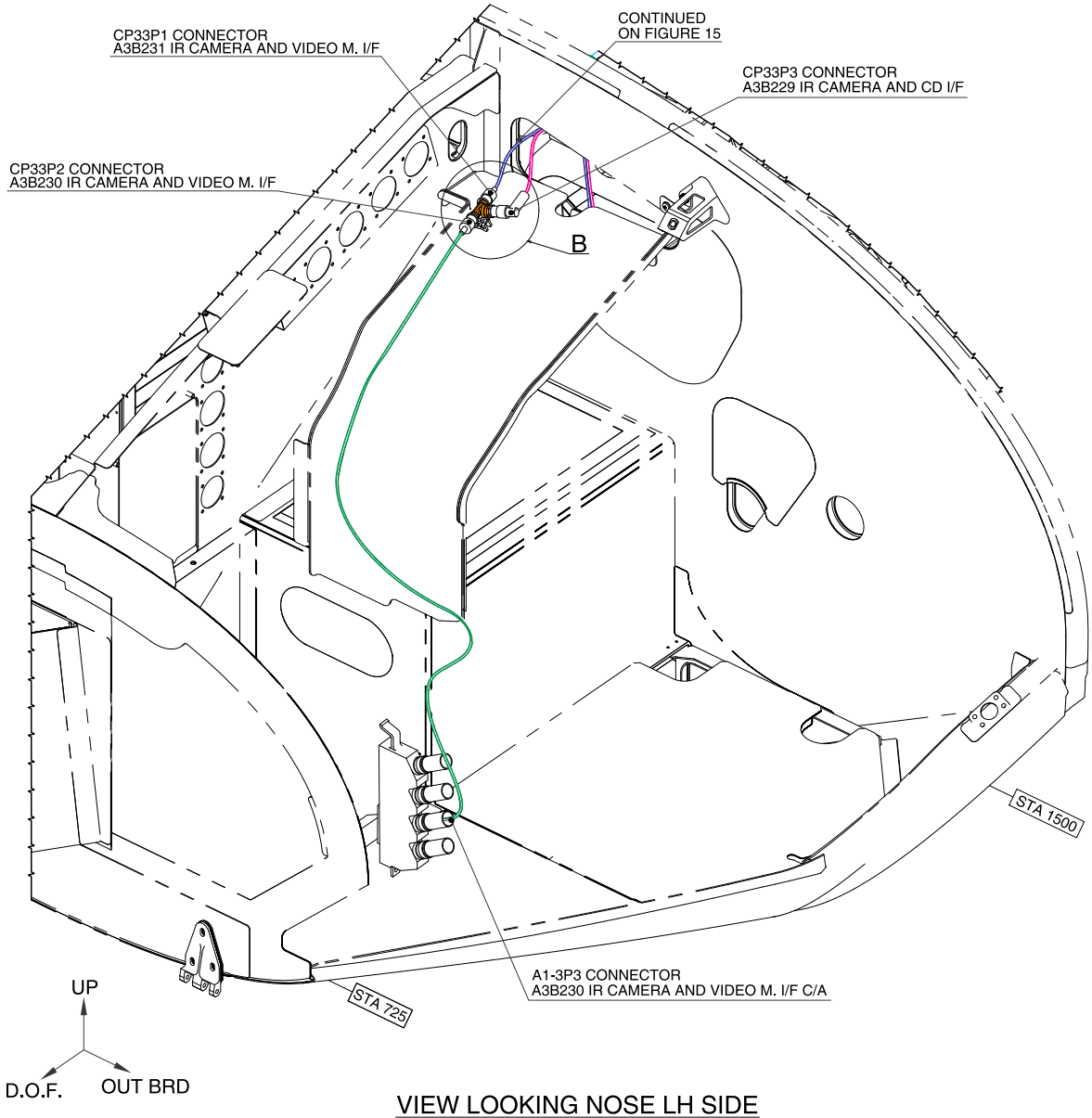
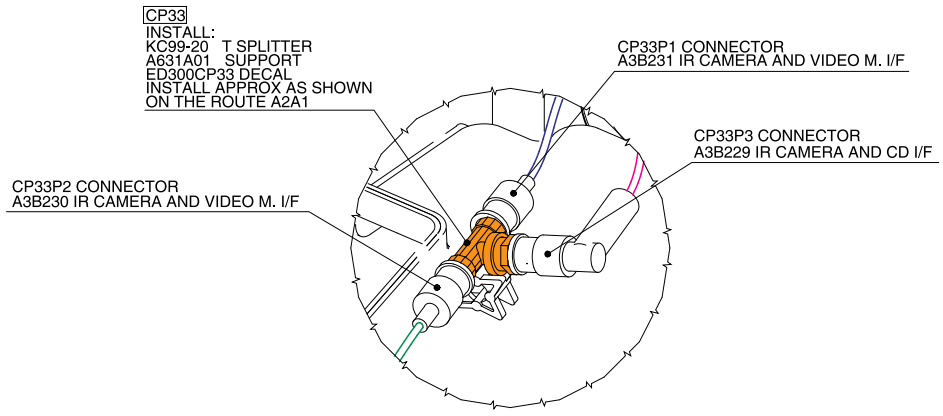

A3B229 IR CAMERA AND CD I/F
A3B231 IR CAMERA AND VIDEO M. I/F
A3B230 IR CAMERA AND VIDEO M. I/F
VARIANT TO BE PERFORMED ONLY
FOR HELICOPTERS EQUIPPED WITH
CENTRAL DISPLAY SIRIO PANEL
P/N 4G4630F00312 AND NOT
EQUIPPED WITH VMU.

Figure 12



VIEW LOOKING NOSE LH SIDE

STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



DETAIL B

Figure 13

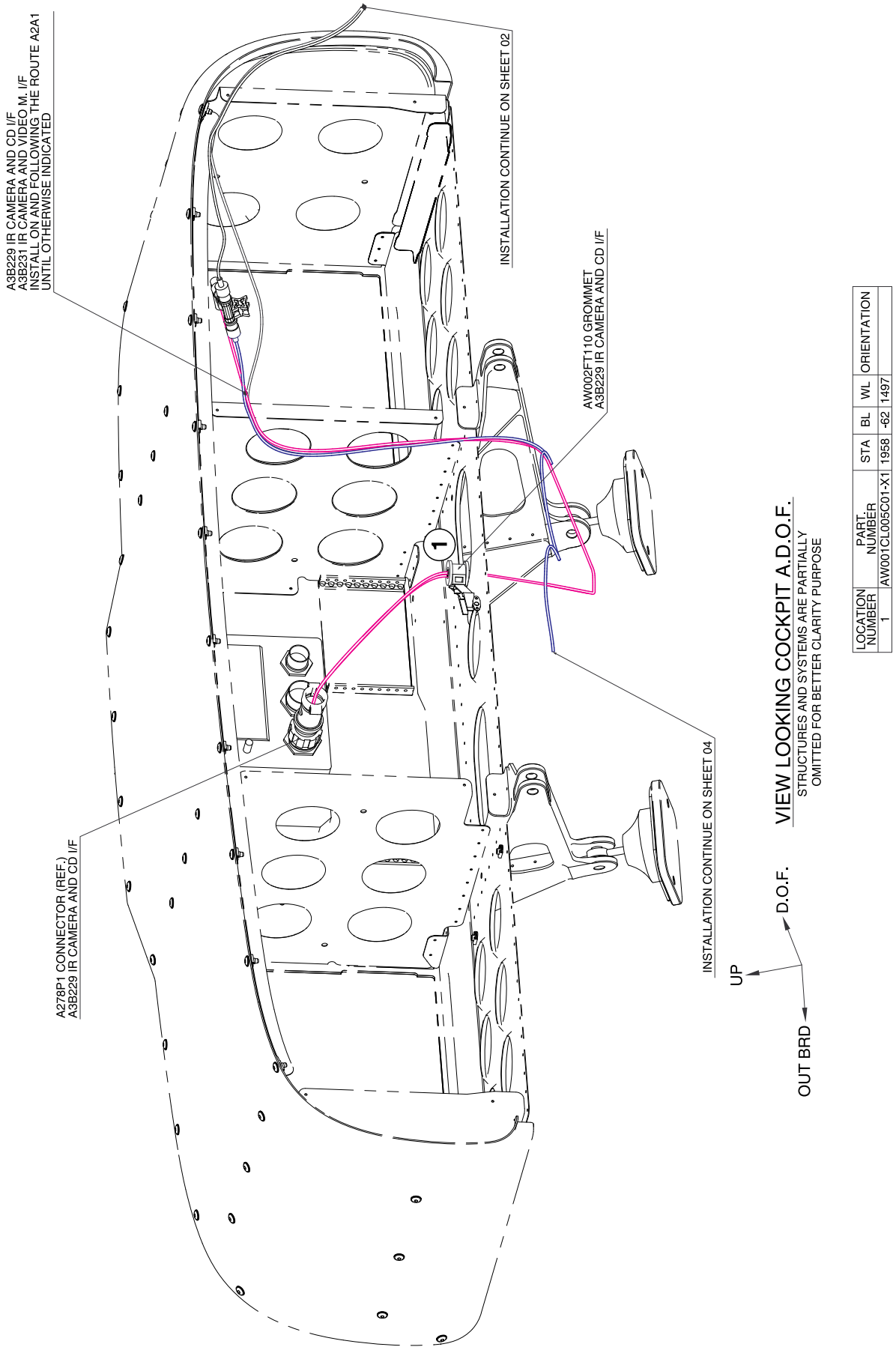
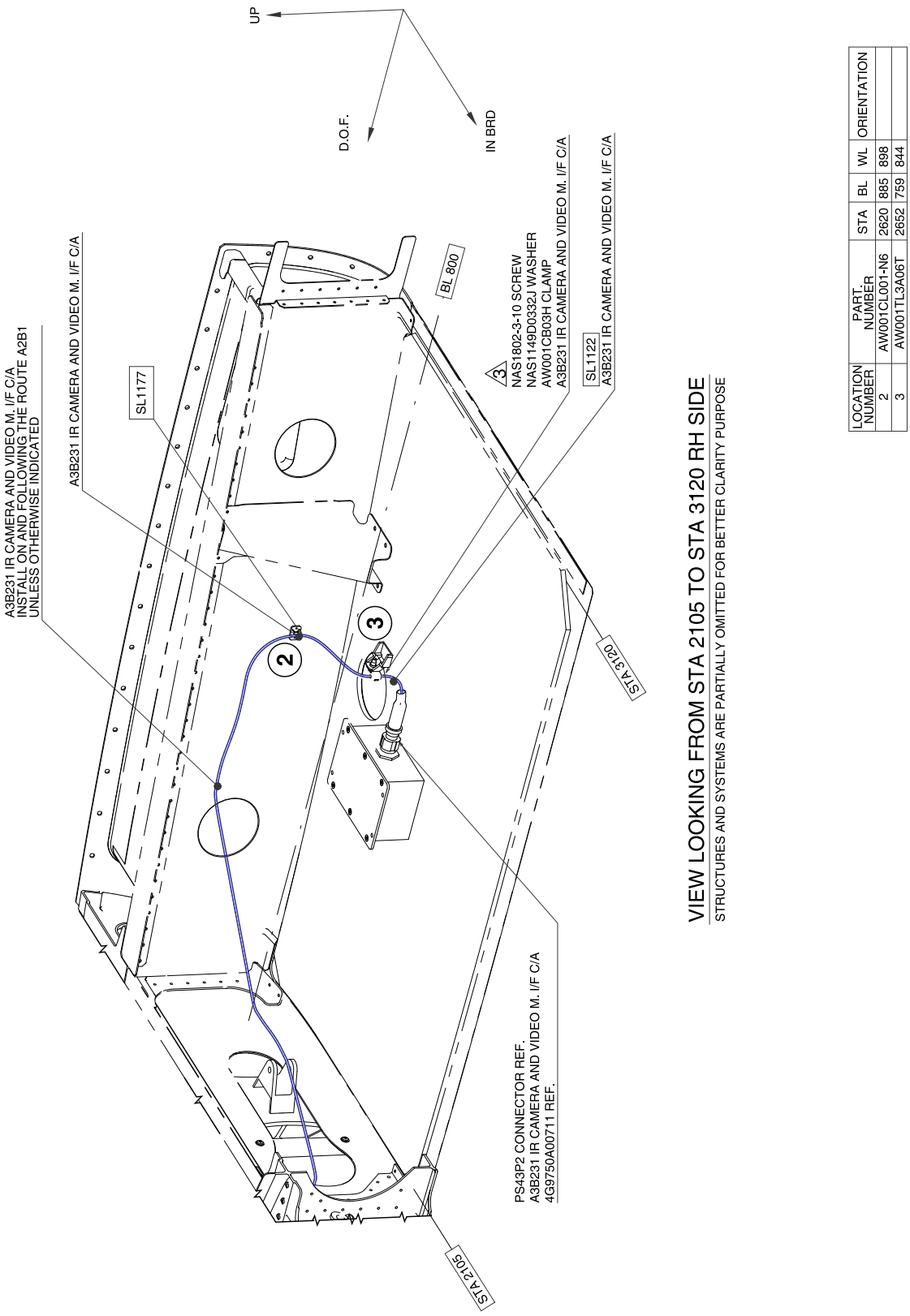

A3B229 IR CAMERA AND CD I/F
A3B231 IR CAMERA AND VIDEO M. I/F
INSTALL ON AND FOLLOWING THE ROUTE A2A1
UNTIL OTHERWISE INDICATED
INSTALLATION CONTINUE ON SHEET 02
AW002FT110 GROMMET
A3B229 IR CAMERA AND CD I/F
A278P1 CONNECTOR (REF.)
A3B229 IR CAMERA AND CD I/F
INSTALLATION CONTINUE ON SHEET 04
1
UP
D.O.F.
OUT BRD
VIEW LOOKING COCKPIT A.D.O.F.
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
1
AW001CL005C01-X1
1958
-62
1497

Figure 14



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
2	AW001CL001-N6	2620	885	898	
3	AW001TL3A06T	2652	759	844	

Figure 15

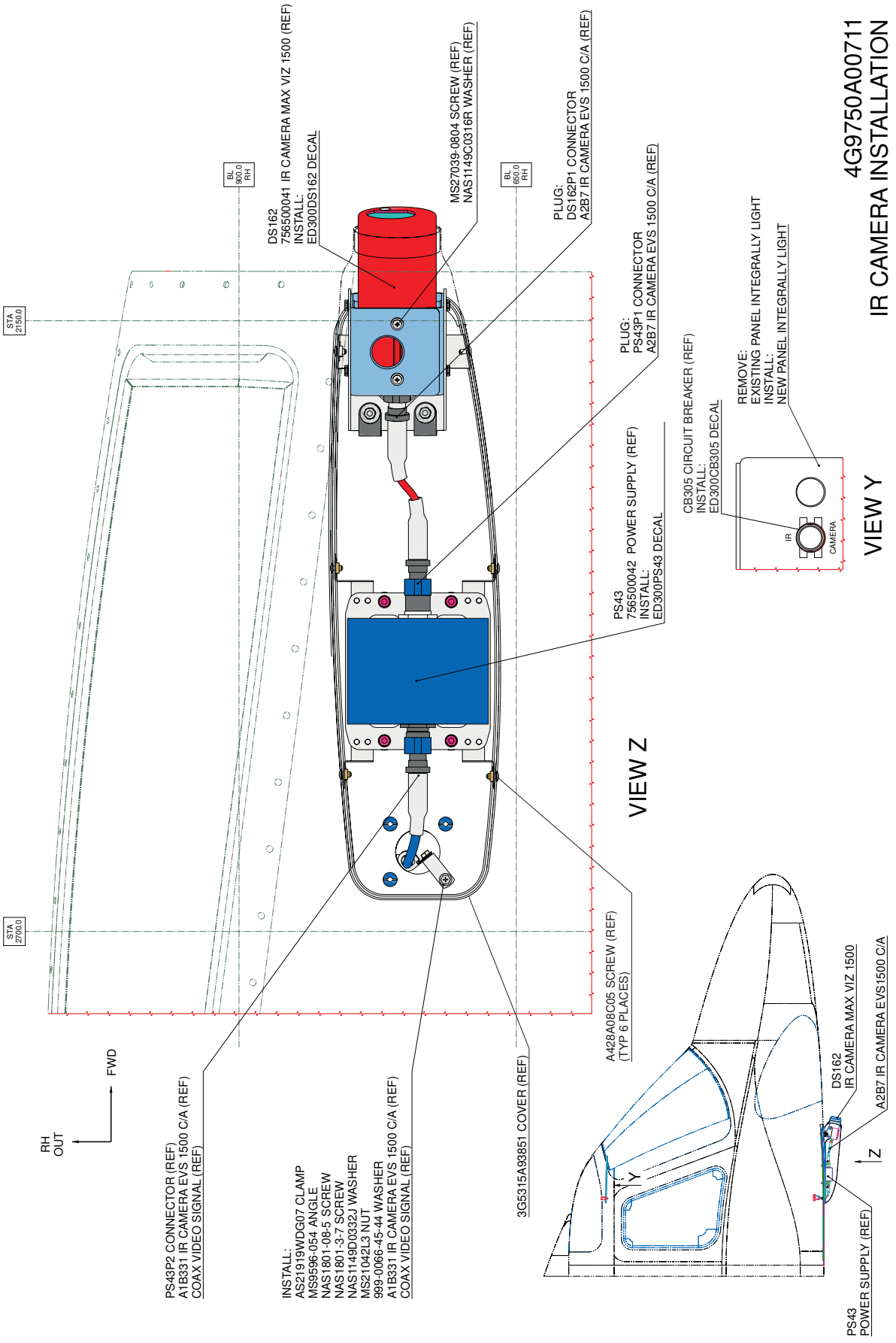
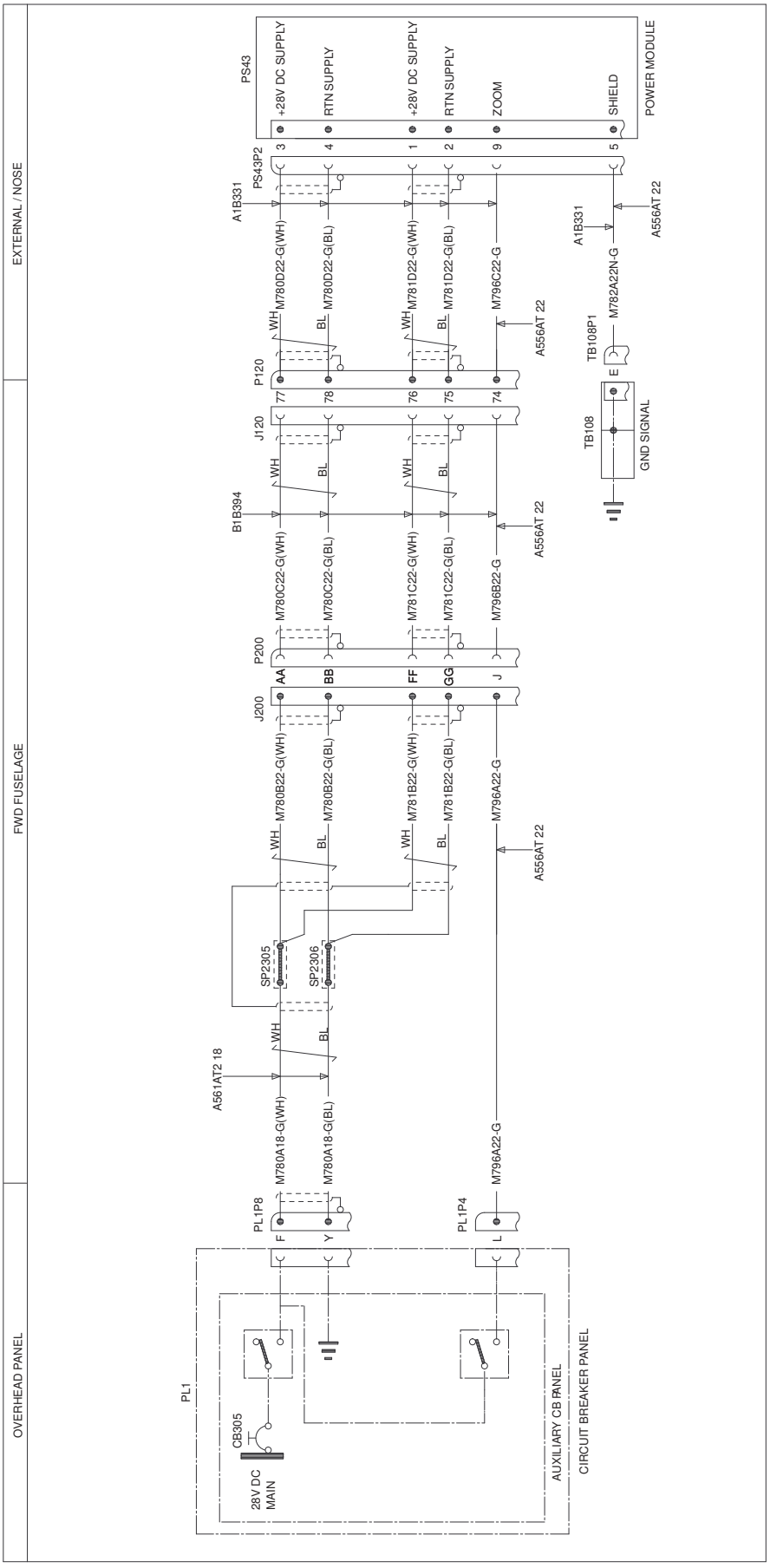

4G9750A00711
IR CAMERA INSTALLATION
VIEW Y
VIEW Z
DS162
756500041 IR CAMERA MAX VIZ 1500 (REF)
INSTALL:
ED300DS162 DECAL
MS27039-0804 SCREW (REF)
NAS1149C0316R WASHER (REF)
PLUG:
DS162P1 CONNECTOR
A2B7 IR CAMERA EVS 1500 C/A (REF)
PLUG:
PS43P1 CONNECTOR
A2B7 IR CAMERA EVS 1500 C/A (REF)
PS43
756500042 POWER SUPPLY (REF)
INSTALL:
ED300PS43 DECAL
CB305 CIRCUIT BREAKER (REF)
INSTALL:
ED300CB305 DECAL
REMOVE:
EXISTING PANEL INTEGRALLY LIGHT
INSTALL:
NEW PANEL INTEGRALLY LIGHT
IR
CAMERA
BL 900.0 RH
BL 650.0 RH
STA 2150.0
STA 2700.0
FWD
RH
OUT
PS43P2 CONNECTOR (REF)
A1B331 IR CAMERA EVS 1500 C/A (REF)
COAX VIDEO SIGNAL (REF)
INSTALL:
AS21919WDG07 CLAMP
MS9596-054 ANGLE
NAS1801-08-5 SCREW
NAS1801-3-7 SCREW
NAS1149D0332J WASHER
MS21042L3 NUT
999-0066-45-44 WASHER
A1B331 IR CAMERA EVS 1500 C/A (REF)
COAX VIDEO SIGNAL (REF)
3G5315A93851 COVER (REF)
A428A08C05 SCREW (REF)
(TYP 6 PLACES)
DS162
IR CAMERA MAX VIZ 1500
A2B7 IR CAMERA EVS1500 C/A
PS43
POWER SUPPLY (REF)
Y
Z

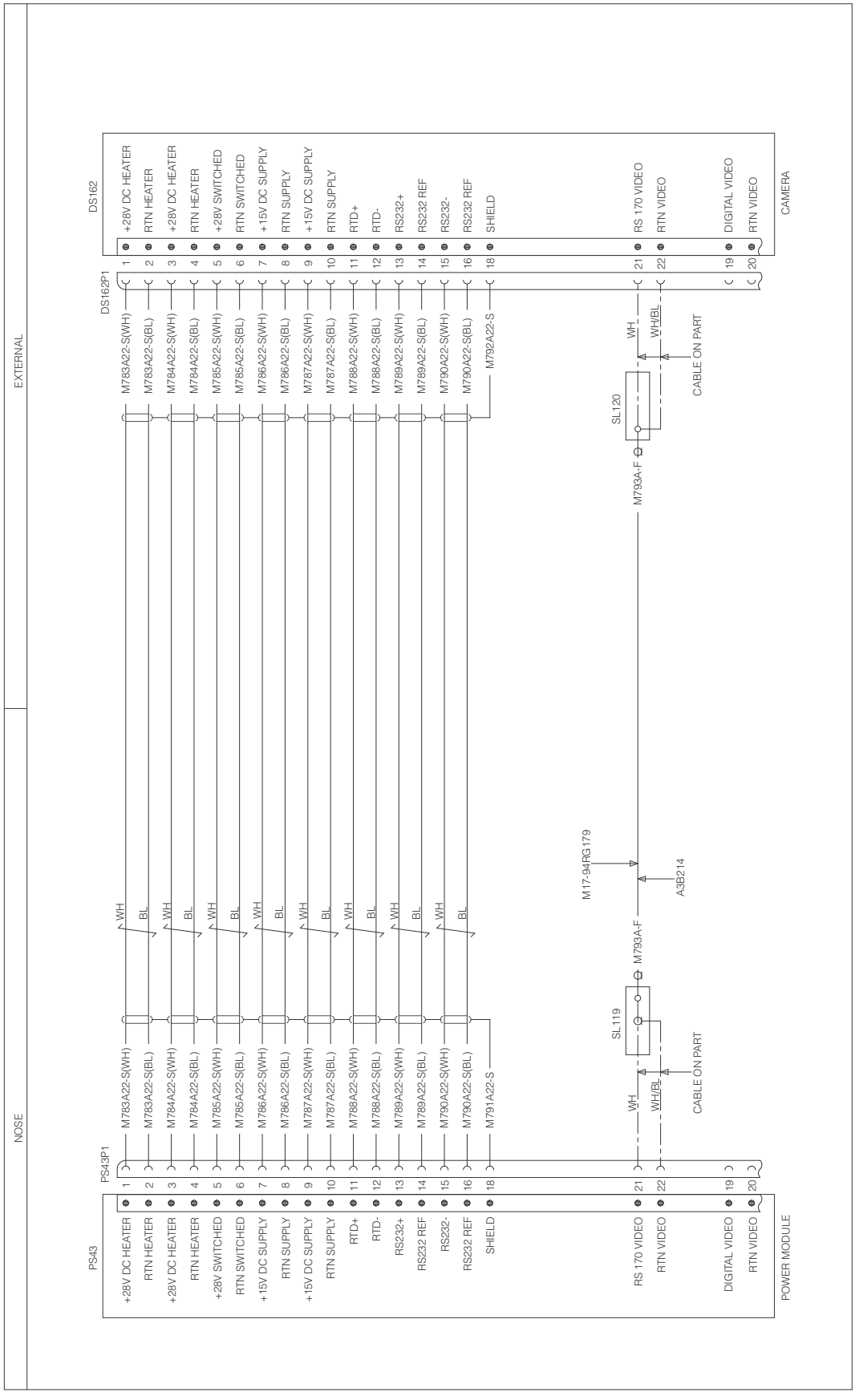
Figure 16



3G9750W00311
WIRING DIAGRAM IR CAMERA EVS1500
SHEET 1

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B1B477 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A561AT2 22 UNLESS SPECIFIED

Figure 17



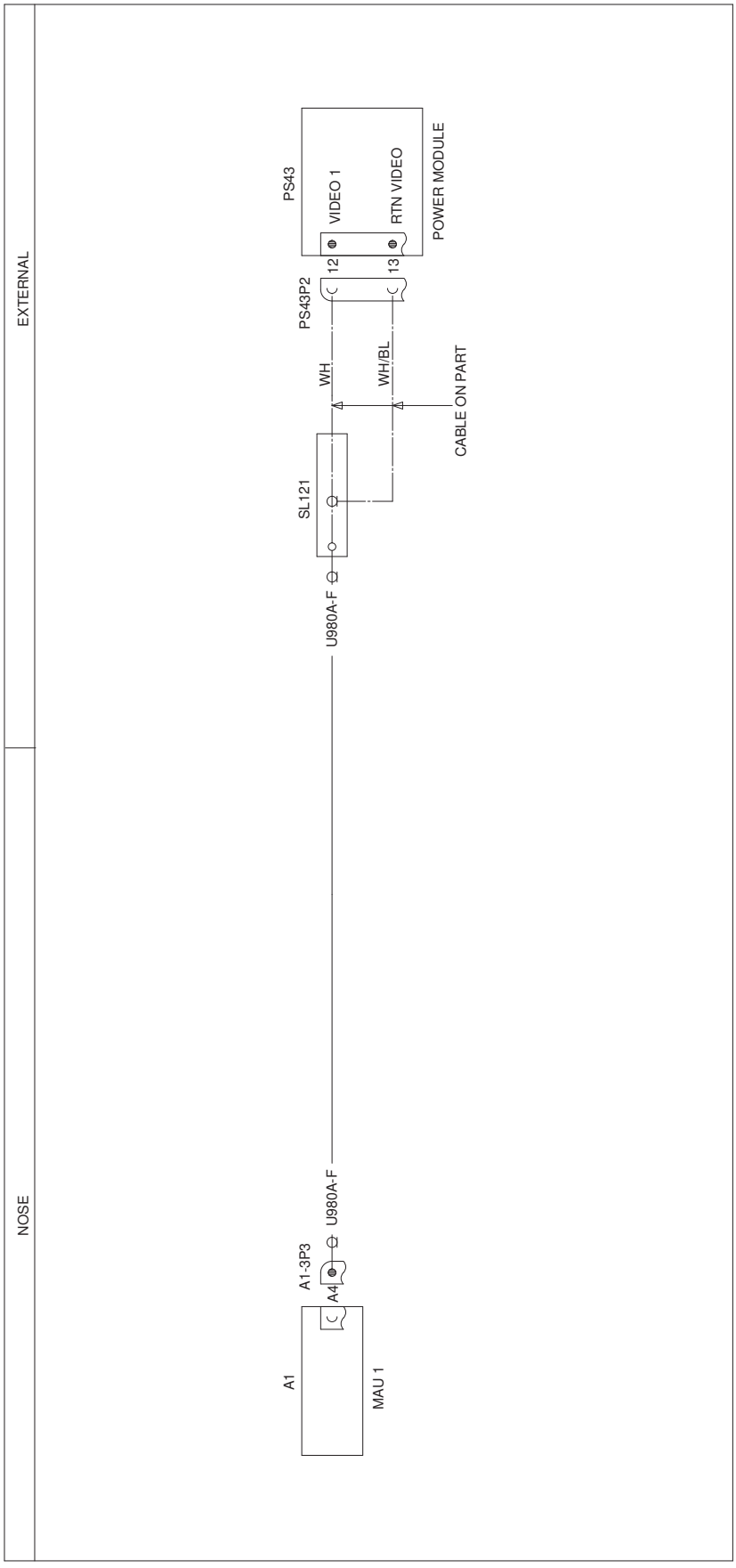
3G9750W00311

WIRING DIAGRAM IR CAMERA EVS1500

SHEET 2

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A2B305 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A561AT2 22 UNLESS SPECIFIED

Figure 18

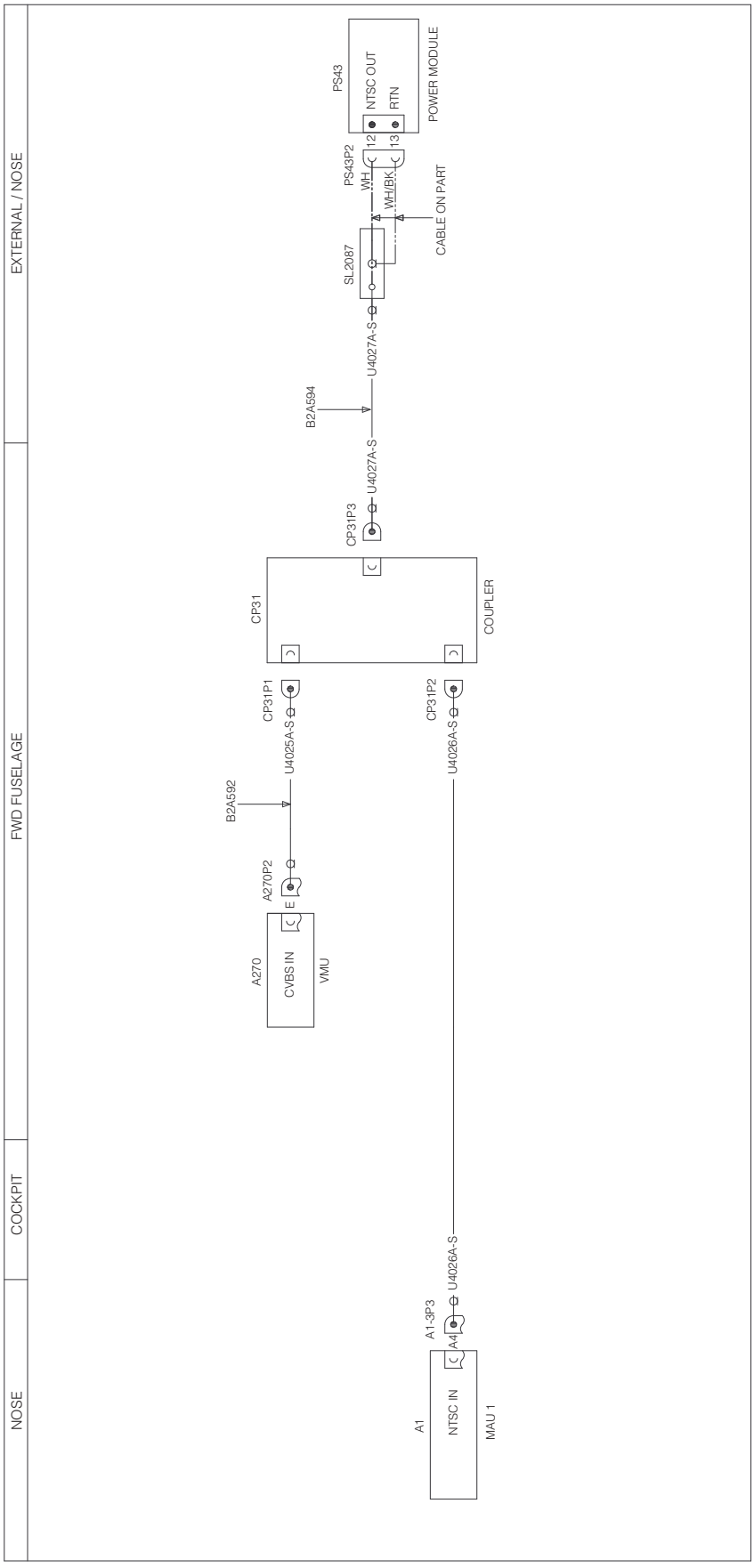


3G4600W01911

WIRING DIAGRAM DISPLAY & CAMERA MAX VIZ I/F

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A3B215 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE M17-94RG179 UNLESS SPECIFIED

Figure 19



3G9310W10411

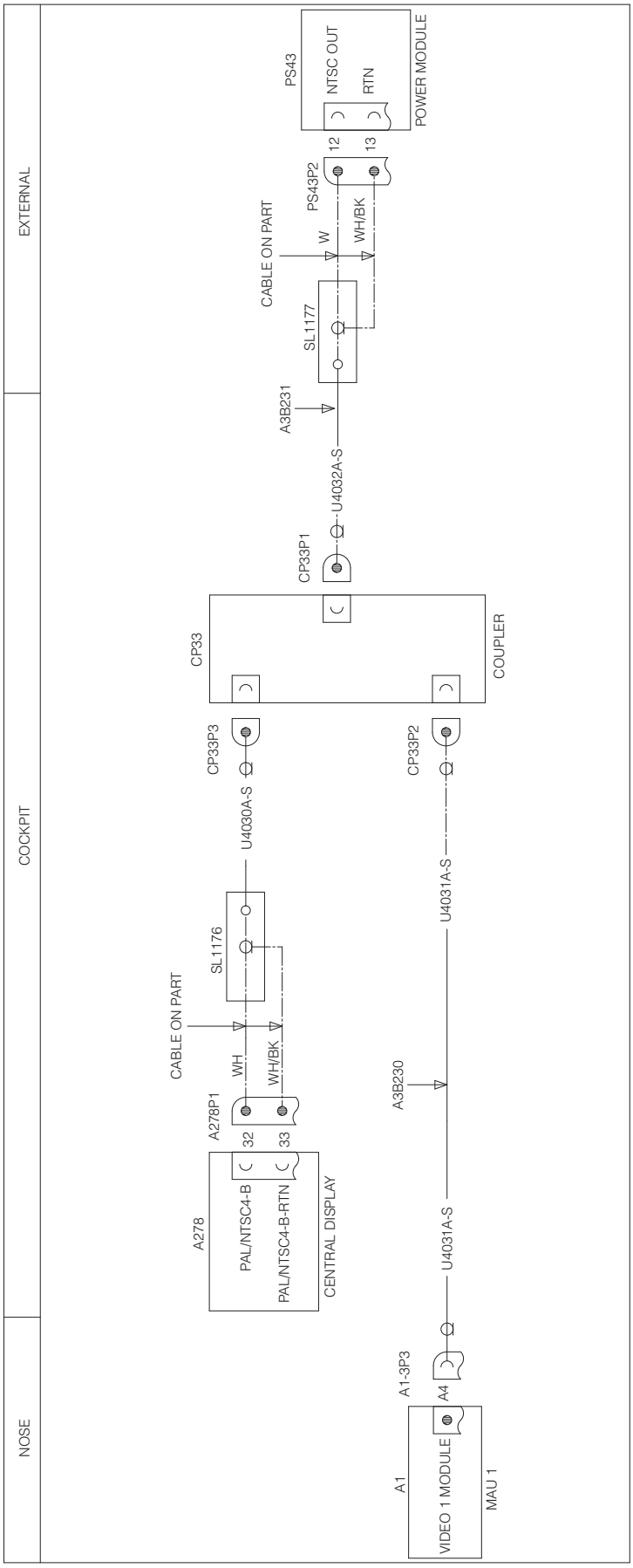
WIRING DIAGRAM EVS CAMERA & VMU I/F

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A2A430 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE M17-94RG179 UNLESS SPECIFIED

Figure 20

3G9310W08711
WIRING DIAGRAM CABIN CAMERA - VMU - CENT DSPL I/F
FWD FUSELAGE
COCKPIT
A270
CVBS OUT
VMU
A270P3
N
U3923A-S
SL2074
U3923A-S
A278P1
WH
WH/BK
32
33
CABLE ON PART
A278
PAL/NTSC4_B
PAL/NTSC4_B_RTN
DISPLAY
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOMB2A580 UNLESS SPECIFIED
ALL CABLES ARE OF TYPBM17-94RG179 UNLESS SPECIFIED

Figure 21



WIRING DIAGRAM IR CAMERA & CENTRAL DISPLAY I/F

FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A3B229 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE M17-94RG179 UNLESS SPECIFIED

Figure 22

Cable Assy	From Ref Des	Pin n°	Electrical Contact	To Ref Des	Pin n°	Electrical Contact
A1B331	PS43P2	3	M39029/56-348	P120	77	M39029/58-360
		4	M39029/56-348		78	M39029/58-360
		1	M39029/56-348		76	M39029/58-360
		2	M39029/56-348		75	M39029/58-360
		9	M39029/56-348		74	M39029/58-360
		5	M39029/56-348	TB108P1	E	M39029/56-351
A2A430	A1-3P3	A4	FCC4102D	CP31P2	//	//
A2B305	DS162P1	18	M39029/56-348	DS162P1	Ç	//
	PS43P1	1	M39029/56-348		1	M39029/56-348
		2	M39029/56-348		2	M39029/56-348
		3	M39029/56-348		3	M39029/56-348
		4	M39029/56-348		4	M39029/56-348
		5	M39029/56-348		5	M39029/56-348
		6	M39029/56-348		6	M39029/56-348
		7	M39029/56-348		7	M39029/56-348
		8	M39029/56-348		8	M39029/56-348
		10	M39029/56-348		10	M39029/56-348
		9	M39029/56-348		9	M39029/56-348
		11	M39029/56-348		11	M39029/56-348
		12	M39029/56-348		12	M39029/56-348
		13	M39029/56-348		13	M39029/56-348
		14	M39029/56-348		14	M39029/56-348
		15	M39029/56-348		15	M39029/56-348
		16	M39029/56-348		16	M39029/56-348
		18	M39029/56-348		Ç	M39029/56-348
A3B215	SL121	WH	//	PS43P2	12	M39029/56-348
		WHBL	//		13	M39029/56-348
		*	//	A1-3P3	A4	FCC4102D
A3B229	SL1176	WH	//	A278P1	32	M39029/56-348
		WHBL	//		33	M39029/56-348
		*	//	CP33P3	*	//
A3B230	A1-3P3	A4	FCC4102D	CP33P2	*	//

Figure 23

Cable Assy	From Ref Des	Pin n°	Electrical Contact	To Ref Des	Pin n°	Electrical Contact
A3B231	SL1177	WH	//	PS43P2	12	M39029/56-348
		WHBL	//		13	M39029/56-348
		*	//	CP33P1	*	//
B1B394	J120	77	M39029/56-348	P200	AA	M39029/56-351
		78	M39029/56-348		BB	M39029/56-351
		75	M39029/56-348		GG	M39029/56-351
		76	M39029/56-348		FF	M39029/56-351
		74	M39029/56-348		J	M39029/56-351
B1B477	J200	AA	M39029/58-363	SP2305	*	//
		BB	M39029/58-363	SP2306	*	//
		FF	M39029/58-363	SP2305	*	//
		GG	M39029/58-363	SP2306	*	//
		J	M39029/58-363	PL1P4	L	M39029/58-363
	PL1P8	F	M39029/58-364	SP2305	*	//
		Y	M39029/58-364	SP2306	*	//
B2A580	A270P3	N	M39029/77-428	SL2074	*	//
	SL2074	WH	//	A278P1	32	M39029/56-348
		WHBL	//		33	M39029/56-348
B2A592	A270P2	E	M39029/77-428	CP31P1	*	//
B2A594	SL2087	WH	//	PS43P2	12	M39029/56-348
		WHBL	//	PS43P2	13	M39029/56-348
		*	//	CP31P3	*	//

Figure 24

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.