Leonardo S.p.A.
Via Giovanni Agusta, 520
21017 Cascina Costa di Samarate (VA) Italy
Tel.: +39 0331 229111 - Fax: +39 0331 229605/222595

AgustaWestland Products

SERVICE BULLETIN

N° 139-406

DATE: June 9, 2021

REV. : A - March 18, 2022

TITLE

ATA 97 - KIT EXTERNAL VIDEO CAMERA

REVISION LOG

Rev. A of this Service Bulletin has been developed to introduce a new provision of external video camera installation for helicopters Long Nose Enhanced Plus.

1. PLANNING INFORMATION

A. EFFECTIVITY

Part I: all AW139 helicopters from S/N 31201 to S/N 31398 and from S/N 41201 to S/N 41299.

Part II: all AW139 helicopters from S/N 31400 to S/N 31699 and from S/N 41300 to S/N 41499.

Part III: AW139 helicopters from S/N 31700 onwards and from S/N 41501 onwards.

Part IV: AW139 helicopters from S/N 31201 to S/N 31398 and from S/N 41201 to S/N 41299, AW139 helicopters from S/N 31400 to S/N 31699 and from S/N 41300 to S/N 41499, AW139 helicopters from S/N 31700 onwards and from S/N 41501 onwards.

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 kit external video camera P/N 4G9750F00211 or P/N 4G9750F00212 or P/N 4G9750F00213.

E. DESCRIPTION

The purpose of the External Video Camera system is to ensure, from the top of the tail, the visibility of the entire AW139 helicopter in forward direction, displaying the images on the Multifunctional display during the flight or taxing operation.

The External Video Camera system is integrated with the Honeywell Primus Epic System and includes a color camera with related power supply.

Part I, II and III provide information on how to install the External Video Camera provisions. Part IV allows the External Video Camera equipment installation.

NOTE

As a mandatory prerequisite of this Service Bulletin, the helicopter has to be already equipped with:

- Kit Video Module Interface P/N 4G9310F00211 for helicopters from S/N 31201 to S/N 31398 and from S/N 41201 to S/N 41299 (Refer to SB 139-385).

- Kit Video Module Interface P/N 4G9310F00212 for helicopters from S/N 31400 onwards and from S/N 41300 onwards (Refer to SB 139-385).

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 MMH are deemed necessary:

Part I: approximately seventy-five (75) MMH.

Part II: approximately seventy-five (75) MMH.

Part III: approximately seventy five (75) MMH.

Part IV: approximately three (3) MMH.

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

H. WEIGHT AND BALANCE

PART I

WEIGHT (Kg)	1.911	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	9206.8	17594.2
LATERAL BALANCE	-173.6	-331.7

PART II

WEIGHT (Kg)	1.650	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	9206.8	15191.2
LATERAL BALANCE	-173.6	-286.4

PART III

WEIGHT (Kg)	2.2	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	10263	22578.6
LATERAL BALANCE	-133	-292.6

PART IV

WEIGHT (Kg)	0.610	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	11016.4	6720.0
LATERAL BALANCE	-146.2	-89.2

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		DESCRIPTION	PART
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance	All
DM02	39-A-06-41-00-00A-010A-A	Access doors and panels - General data	All
DM03	39-A-11-00-01-00A-720A-A	Decal - Install procedure	All
DM04	39-A-20-10-01-00A-259A-A	Ground connections - Other procedures to protect surfaces	III
DM05	39-A-24-91-04-00A-920A-K	Integrally lighted panel - Replacement	I, II, III
DM06	39-A-52-44-01-00A-520A-A	Access panels - Remove procedure	I, II, III
DM07	39-A-52-44-01-00A-720A-A	Access panels - Install procedure	I, II, III
DM08	39-A-52-44-06-00A-520A-A	Tail gearbox fairing 360AT - Remove procedure	I, II, III
DM09	39-A-52-44-06-00A-720A-A	Tail gearbox fairing 360AT - Install procedure	I, II, III
DM10	39-A-97-51-00-00A-320A-K	External video camera system - Operation test	IV

Following Data Modules refer to CSRP:

DATA MODULE		DESCRIPTION	PART
DM11	CSRP-A-51-42-00-00A-720A-D	Potted Inserts - Install procedure	I, II

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
ATP	Acceptance Test Procedure
CB	Circuit Breaker
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
ITEP	Illustrated Tool and Equipment Publication
LHD	Leonardo Helicopters Division
MAU	Modular Avionic Unit
MMH	Maintenance Man Hours
SB	Service Bulletin

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	**4G9750F00211**		**KIT EXTERNAL VIDEO CAMERA**	**REF**	**.**		**-**
2	**4G9750A00211**		**EXTERNAL VIDEO CAMERA COMPLETE PROVISION**	**REF**	**..**		**-**
3	**3G5310A65911**		**EXTERNAL CAMERA STRUCTURAL PROVISION**	**REF**	**…**		**-**
4	3G5316A55231		Video camera support assy	1	….		139-406L1
5	3G5315A32534		Molding assy	1	….		139-406L1
6	3G5316A87851		External molding	1	….		139-406L1
7	AN525-10R11		Screw	8	….		139-406L1
8	SL10429-06-3S	TYE2202-06-7	Insert	4	….		139-406L1
9	NAS1720C5L3P		Rivet	6	….		139-406L1
10	**4G9750A00311**		**EXTERNAL VIDEO CAMERA ELECTRICAL PROVISION**	**REF**	**…**		**-**
11	222S121-25S	222S121-25C-0	Screened boot	1	….		139-406L1
12	3G9B01A35901	4G9750A00311A10R	External video camera C/A (B1A359)	1	….		139-406L1
13	3G9C01A23701		External video camera C/A (C1A237)	1	….		139-406L1
14	3G9C03A20601	3G9C03A20601A10R	External video camera C/A (C3A206)	1	….		139-406L1
15	3G9D02A20401	3G9D02A20401A12R	External video camera C/A (D2A204)	1	….		139-406L1
16	999-1700-03-1	AW002FT1	Grommet	1	….		139-406L1
17	999-1700-03-102	AW002FT102	Grommet	9	….		139-406L1
18	999-1700-03-102	AW002FT102	Grommet	6	….	(1)	-
19	999-1700-03-105	AW002FT105	Grommet	1	….		139-406L1
20	A10099		Metallic band	1	….		139-406L1
21	A366A3E12C75		Stud adhesive bonded	1	….		139-406L1
22	A388A3E08C		Standoff	3	….		139-406L1
23	A388A3E08C75		Standoff	3	….		139-406L1
24	A631A01A		Spacer	1	….		139-406L1
25	AW001CL001-N6		Cable support	1	….		139-406L1
26	AW001CL001-N6		Cable support	5	….	(1)	-
27	AW001CL002B-X1		Cable support	7	….		139-406L1
28	AW001CL509-N6		Cable support	2	….		139-406L1
29	AW001CL509-N6		Cable support	1	….	(1)	-
30	AW001TL3A08		Cable support	1	….		139-406L1
31	M85049/93-04		Shield support ring	1	….		139-406L1
32	MS21042L3		Nut	4	….		139-406L1
33	MS21919WDG2	AS21919WDG02	Clamp	23	….		139-406L1
34	MS21919WDG4	AS21919WDG04	Clamp	15	….		139-406L1
35	MS25036-108		Terminal lug	1	….		139-406L1
36	MS35207-263		Screw	1	….		139-406L1
37	MS90376-12R		Cap	1	….		139-406L1
38	MS9592-022		Bracket	1	….		139-406L1

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
39	MS9592-027		Bracket	1	....		139-406L1
40	MS9592-382		Bracket	1	....		139-406L1
41	NAS1149D0332J		Washer	15	....		139-406L1
42	NAS1190E3P10AK		Screw	1	....		139-406L1
43	NAS1190E3P14AK		Screw	3	....		139-406L1
44	NAS1190E3P20AK		Screw	1	....		139-406L1
45	NAS1190E3P28AK		Screw	1	....		139-406L1
46	NAS1190E3P5AK		Screw	4	....		139-406L1
47	NAS1801-3-10		Screw	1	....		139-406L1
48	NAS1801-3-20		Screw	2	....		139-406L1
49	NAS1801-3-24		Screw	5	....		139-406L1
50	NAS1801-3-28		Screw	8	....		139-406L1
51	NAS1801-3-8		Screw	2	....		139-406L1
52	NAS43DD3-15N		Spacer	1	....		139-406L1
53	NAS43DD3-35N		Spacer	1	....		139-406L1
54	NAS43DD3-40N		Spacer	3	....		139-406L1
55	NAS43DD3-45N		Spacer	1	....		139-406L1
56	NAS43DD3-55N		Spacer	6	....		139-406L1
57	NAS43DD3-60N		Spacer	1	....		139-406L1
58	NAS43DD3-90N		Spacer	1	....		139-406L1
59	NAS813-8		Cap	3	....		139-406L1
60	3G2490LXXXXX		Panel integrally lighted aux breaker	1	.	(2)	-
61	MS3320-1		Circuit breaker	1	.		139-406L1
62	ED300CB202		Decal	1	.		139-406L1
63	MS27722-23		Switch	1	.		139-406L1
64	ED300S137		Decal	1	.		139-406L1
65	AS46789-510	NAS1720C5L3P	Rivet	10	.		139-406L1
66	A236A02AB		Adhesive rubber	10.8 m	.		139-406L1
67	A575A-107	AW002XM107B	Tubular metal braid	10 m	.		139-406L1
68	A582A08	EN6049-006-08-5	Tubular braid	10 m	.		139-406L1
69	A556A-T20		Electrical wire	2.5 m	.		139-406L1
70	M39029/1-102		Electrical contact	2	.		139-406L1
71	M39029/56-351		Electrical contact	1	.		139-406L1
72	M39029/56-352		Electrical contact	2	.		139-406L1
73	MS25036-149		Terminal lug	1	.		139-406L1
74	A523A-A05		Electrical contact	4	.		139-406L1
75	FCC4102D		Electrical contact	1	.		139-406L1
76	M39029/56-348		Electrical contact	4	.		139-406L1
77	M39029/58-364		Electrical contact	2	.		139-406L1

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
78	**4G9750F00212**		**KIT EXTERNAL VIDEO CAMERA**	**REF**	**.**		**-**
79	**4G9750A00212**		**EXTERNAL VIDEO CAMERA COMPLETE PROVISION**	**REF**	**..**		**-**
80	**3G5310A65911**		**EXTERNAL CAMERA STRUCTURAL PROVISION**	**REF**	**...**		**-**
81	3G5316A55231		Video camera support assy	1	....		139-406L2
82	3G5315A32534		Molding assy	1	....		139-406L2
83	3G5316A87851		External molding	1	....		139-406L2
84	AN525-10R11		Screw	8	....		139-406L2
85	SL10429-06-3S	TYE2202-06-7	Insert	4	....		139-406L2
86	NAS1720C5L3P		Rivet	6	....		139-406L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
87	**4G9750A00312**		**EXTERNAL VIDEO CAMERA ELECTRICAL PROVISION**	**REF**	**…**		**-**
88	222S121-25S	222S121-25C-0	Screened boot	1	….		139-406L2
89	3G9B01A35901	3G9B01A35901A10R	External video camera C/A (B1A359)	1	….		139-406L2
90	3G9C01A23701	3G9C01A23701A10R	External video camera C/A (C1A237)	1	….		139-406L2
91	3G9C03A20601	3G9C03A20601A10R	External video camera C/A (C3A206)	1	….		139-406L2
92	3G9D02A20401	3G9D02A20401A12R	External video camera C/A (D2A204)	1	….		139-406L2
93	999-1700-03-1	AW002FT1	Grommet	1	….		139-406L2
94	999-1700-03-2	AW002FT2	Grommet	1	….		139-406L2
95	A10099		Metallic band	1	….		139-406L2
96	A366A3E12C75		Stud adhesive bonded	1	….		139-406L2
97	A388A3E08C		Standoff	1	….		139-406L2
98	A388A3E08C75		Standoff	2	….		139-406L2
99	AW001CB02H		Clamp	9	….		139-406L2
100	AW001CB03H		Clamp	7	….		139-406L2
101	AW001CB05H		Clamp	7	….		139-406L2
102	AW001CL000A-X3		Cable support	3	….		139-406L2
103	AW001CL002A-X1		Cable support	1	….		139-406L2
104	AW001CL509-N6		Cable support	2	….		139-406L2
105	M85049/93-04		Shield support ring	1	….		139-406L2
106	MS21042L3		Nut	3	….		139-406L2
107	MS25036-108		Terminal lug	1	….		139-406L2
108	MS90376-12R		Cap	1	….		139-406L2
109	MS9592-022		Bracket	1	….		139-406L2
110	MS9592-027		Bracket	1	….		139-406L2
111	NAS1149D0332J		Washer	8	….		139-406L2
112	NAS1190E3P14AK		Screw	3	….		139-406L2
113	NAS1190E3P16AK		Screw	1	….		139-406L2
114	NAS1190E3P20AK		Screw	4	….		139-406L2
115	NAS1190E3P28AK		Screw	1	….		139-406L2
116	NAS1190E3P7AK		Screw	6	….		139-406L2
117	NAS1801-3-28		Screw	1	….		139-406L2
118	NAS1801-3-8		Screw	1	….		139-406L2
119	NAS1802-3-22		Screw	1	….		139-406L2
120	NAS1802-3-24		Screw	1	….		139-406L2
121	NAS1802-3-8		Screw	1	….		139-406L2
122	NAS43DD3-15N		Spacer	1	….		139-406L2
123	NAS43DD3-35N		Spacer	1	….		139-406L2
124	NAS43DD3-40N		Spacer	3	….		139-406L2
125	NAS43DD3-45N		Spacer	2	….		139-406L2
126	NAS43DD3-60N		Spacer	2	….		139-406L2
127	NAS43DD3-90N		Spacer	1	….		139-406L2
128	NAS813-8		Cap	3	….		139-406L2
129	3G2490LXXXXX		Panel integrally lighted aux breaker	1	.	(2)	-
130	MS3320-1		Circuit breaker	1	.		139-406L2
131	ED300CB202		Decal	1	.		139-406L2
132	MS27722-23		Switch	1	.		139-406L2
133	ED300S137		Decal	1	.		139-406L2
134	A236A02AB		Adhesive rubber	10.8 m	.		139-406L2
135	A575A-107	AW002XM107B	Tubular metal braid	10 m	.		139-406L2
136	A582A08	EN6049-006-08-5	Tubular braid	10 m	.		139-406L2

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
137	A556A-T20		Electrical wire	2.5 m	.		139-406L2
138	M39029/1-102		Electrical contact	2	.		139-406L2
139	M39029/56-351		Electrical contact	1	.		139-406L2
140	M39029/56-352		Electrical contact	2	.		139-406L2
141	MS25036-149		Terminal lug	1	.		139-406L2
142	A523A-A05		Electrical contact	4	.		139-406L2
143	FCC4102D		Electrical contact	1	.		139-406L2
144	M39029/56-348		Electrical contact	4	.		139-406L2
145	M39029/58-364		Electrical contact	2	.		139-406L2

PART III

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
146	**4G9750F00213**		**KIT EXTERNAL VIDEO CAMERA**	**REF**	**.**		**-**
147	**4G9750A00214**		**EXTERNAL VIDEO CAMERA COMPLETE PROVISION**	**REF**	**..**		**-**
148	**3G5310A65914**		**EXTERNAL CAMERA STRUCTURAL PROVISION**	**REF**	**...**		**-**
149	3G5310A93831		Support Assy	1	….		139-406L4
150	3G5316A55232		Support Assy	1	….		139-406L4
151	A297A04TW03		Rivet	6	….	(3)	139-406L4
152	NAS1097AD5-6		Rivet	0,1 kg	….		139-406L4
153	**3G5355P00132**		**UP EDGE FAIRING ASSY REWORK**	**REF**	**....**		**-**
154	3G5315A32356		Transparent	1	…..		139-406L4
155	3G5316A87853		External Molding	1	…..		139-406L4
156	A407A08C1P		Anchor Nut	9	…..		139-406L4
157	AN525-832R8		Screw	9	…..		139-406L4
158	**4G9750A00313**		**EXTERNAL VIDEO CAMERA ELECTRICAL PROVISION**	**REF**	**…**		**-**
159	222S121-25C-0		Screened boot	1	….		139-406L4
160	3G9B01A35901	3G9B01A35901A10R	External video camera C/A (B1A359)	1	….		139-406L4
161	3G9C01A23701	3G9C01A23701A10R	External video camera C/A (C1A237)	1	….		139-406L4
162	3G9C03A20601	3G9C03A20601A10R	External video camera C/A (C3A206)	1	….		139-406L4
163	3G9D02A20401	3G9D02A20401A12R	External video camera C/A (D2A204)	1	….		139-406L4
164	A366A3E12C75		Stud adhesive bonded	1	….		139-406L4
165	A388A3E08C		Standoff	1	….		139-406L4
166	A388A3E08C75		Standoff	2	….		139-406L4
167	AW001CB03H		Clamp	9	….	(4)	139-406L4
168	AW001CL001-N6		Cable support	3	….		139-406L4
169	AW001CL002B-X1		Cable support	4	….		139-406L4
170	AW001CL509-N6		Cable support	2	….		139-406L4
171	AW002FT502		Grommet	28	….		139-406L4
172	MS21043-3		Nut	4	….		139-406L4
173	MS25281-R6		Clamp	25	….		139-406L4
174	MS90376-12R		Cap	1	….		139-406L4
175	MS9592-022		Bracket	1	….		139-406L4
176	MS9592-027		Bracket	1	….		139-406L4
177	MS9592-382		Bracket	1	….		139-406L4
178	NAS1149D0332J		Washer	11	….		139-406L4
179	NAS1190E3P16AK		Screw	1	….		139-406L4
180	NAS1190E3P17AK		Screw	1	….		139-406L4

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
181	NAS1190E3P20AK		Screw	1	....		139-406L4
182	NAS1190E3P23AK		Screw	4	....		139-406L4
183	NAS1190E3P26AK		Screw	5	....		139-406L4
184	NAS1190E3P28AK		Screw	1	....		139-406L4
185	NAS1190E3P8AK		Screw	6	....		139-406L4
186	NAS1802-3-10		Screw	3	....		139-406L4
187	NAS1802-3-11		Screw	1	....		139-406L4
188	NAS1802-3-18		Screw	1	....		139-406L4
189	NAS1802-3-20		Screw	1	....		139-406L4
190	NAS1802-3-23		Screw	1	....		139-406L4
191	NAS1802-3-25		Screw	2	....		139-406L4
192	NAS1802-3-29		Screw	1	....		139-406L4
193	NAS1802-3-33		Screw	1	....		139-406L4
194	NAS1802-3-35		Screw	1	....		139-406L4
195	NAS1802-3-9		Screw	1	....		139-406L4
196	NAS43DD3-15N		Spacer	1	....		139-406L4
197	NAS43DD3-35N		Spacer	2	....		139-406L4
198	NAS43DD3-40N		Spacer	3	....		139-406L4
199	NAS43DD3-45N		Spacer	1	....		139-406L4
200	NAS43DD3-49N		Spacer	1	....		139-406L4
201	NAS43DD3-50N		Spacer	2	....		139-406L4
202	NAS43DD3-52N		Spacer	1	....		139-406L4
203	NAS43DD3-55N		Spacer	2	....		139-406L4
204	NAS43DD3-60N		Spacer	1	....		139-406L4
205	NAS43DD3-70N		Spacer	5	....		139-406L4
206	NAS43DD3-80N		Spacer	1	....		139-406L4
207	NAS43DD3-90N		Spacer	1	....		139-406L4
208	NAS813-8		Cap	3	....		139-406L4
209	3G2490LXXXXX		Panel integrally lighted aux breaker	1	.	(2)	-
210	MS3320-1		Circuit breaker	1	.		139-406L4
211	ED300CB202		Decal	1	.		139-406L4
212	MS27722-23		Switch	1	.		139-406L4
213	ED300S137		Decal	1	.		139-406L4
214	A236A02AB		Adhesive rubber	10.8 m	.		139-406L4
215	A575A-107	AW002XM107B	Tubular metal braid	10 m	.		139-406L4
216	A582A08	EN6049-006-08-5	Tubular braid	10 m	.		139-406L4
217	A556A-T20		Electrical wire	2.5 m	.		139-406L4
218	M39029/1-102		Electrical contact	2	.		139-406L4
219	M39029/56-351		Electrical contact	1	.		139-406L4
220	M39029/56-352		Electrical contact	2	.		139-406L4
221	MS25036-149		Terminal lug	1	.		139-406L4
222	A523A-A05		Electrical contact	4	.		139-406L4
223	FCC4102D		Electrical contact	1	.		139-406L4
224	M39029/56-348		Electrical contact	4	.		139-406L4
225	M39029/58-364		Electrical contact	2	.		139-406L4

PART IV

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
226	**4G9750A00111**		**EXTERNAL VIDEO CAMERA FULL INSTALLATION**	**REF**	**.**		**-**
227	ED300DS117		Decal	1	..		139-406L3
228	ED300PS24		Decal	1	..		139-406L3
229	MS35206-226		Screw	4	..		139-406L3
230	MS35207-265		Screw	4	..		139-406L3

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
231	NAS1149DN616J		Washer	4	..		139-406L3
232	NAS1149DN632J		Washer	4	..		139-406L3
233	RPC-651ER/3,0		Utility camera	1	..		139-406L3
234	RPS-77E		Power supply 28VDC	1	..		139-406L3

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
235	500218739	Sealing S1125 (C373)	AR	(6)	I, II; III
236	500218745	Adhesive S1184 (C327)	AR	(6)	I, II; III
237	M23053/5-107-0	Heat shrinkable tubing	AR	(6)	I, II; III
238	MMM-A-132, Type 2, Class II 199-05-002, Type I, Class 2 Code No. 900004603	Adhesive EA934NA (C057)	AR	(6)	I, II; III
239	MMM-A-132, Type 2, Class II 199-05-002, Type I, Class 2 Code No. 900000581	Adhesive EA9309.3NA (C021)	AR	(6)	I, II; III
240	MIL-S-8802, Type II, Class B2/ Code No. 900001586 (AMS-S-8802)	Sealing compound Proseal 890B2 (C153)	AR	(6) (5)	I, II, III
241	A582A32 or EN6049-006-32-5	Nomex fiber sleeve	AR	(6)	I, II; III
242	900004953 or AW001CK03LC	Tie strap	AR	(6)	I, II; III
243	A575A-107 or AW002XM107B	Tubular metal braid	AR	(6)	I, II; III

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
139-406L1	1		I
999-1700-03-102 or AW002FT102	6	(1)	
AW001CL001-N6	5	(1)	
AW001CL509-N6	1	(1)	
3G2490LXXXXX	1	(2)	
139-406L2	1		II
3G2490LXXXXX	1	(2)	
139-406L4	1		III
3G2490LXXXXX		(2)	
139-406L3	1		IV

NOTES

(1) This item has to be supplied only if TCAS electrical provision is not installed.

(2) 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@leonardo.com) to request the new auxiliary CB panel at least three months in advance from the scheduled application of this Service Bulletin.

(3) Indicated P/N A297A04TW03 refer to a specific size. The last XX digits can be different based on the required installation (-04, -05 or equivalent).

(4) Indicated P/N AW001CB03H refer to a specific size. The 03 digits can be different based on the required installation (-03, -04 or equivalent). If needed for this installation, order also spacer P/N A631A02A (quantity AR).

(5) Adhesive MC780 B-2, Code No. 999999999000015245 can be used as a valid alternative.

(6) Item to be procured as local supply.

B. SPECIAL TOOLS

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

#	P/N	DESCRIPTION	Q.TY	NOTE	PART
244	3G5310H65911A005A	Lower Tool	1		I, II, III
245	3G5310H13212A005A	Upper Tool	1		I, II
246	3G5310H65913A005A	Upper Tool	1		III

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

C. INDUSTRY SUPPORT INFORMATION

Customization.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

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

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

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

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

e) 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. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 and 4, gain access to the area affected by the installation and perform external camera structural provision P/N 3G5310A65911 as described in the following procedure:
   2.1 With reference to Figure 1 Detail A and Section B-B, drill n°4 holes Ø 10.31÷10.39 through left panel skin and honeycomb.

2.2 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 1 Detail A and Section B-B, install n°4 inserts P/N SL10429-06-3S by means of adhesive EA934NA (C057).

2.3 In accordance with of AMP DM 39-A-52-44-06-00A-520A-A, remove the fw tail gearbox fairing assy (360AT) from the helicopter.

2.4 In accordance with of AMP DM 39-A-52-44-01-00A-520A-A, remove the two panels 360AL and 313AL from the helicopter.

2.5 With reference to Figure 4, position the lower tool P/N 3G5310H65911A005A according to the existing pilot hole present on the longeron matching it with the existing structure hole. Secure the lower tool by means of locking pin A.

2.6 With reference to Figure 2 view E and Figure 4, drill n°6 holes Ø 3.28÷3.35 through the longeron by means of lower tool P/N 3G5310H65911A005A.

NOTE

As a mandatory prerequisite for the use of upper tool,
lower tool has to be already installed.

2.7 In accordance with applicable steps of AMP DM 39-A-52-44-01-00A-720A-A, temporarily locate the up leading edge fairing assy (360AL) on the proper installation position, by means of existing hardware.

2.8 With reference to Figure 4, position the upper tool P/N 3G5310H13212A005A on the up leading edge fairing assy and assemble with lower tool by means of locking pin B.

2.9 With reference to Figure 4, drill n°2 holes Ø 2.5 through the up leading edge fairing assy in the corresponding position of the upper tool locking pins C and D.

2.10 With reference to Figure 4, secure the upper tool P/N 3G5310H13212A005A to the up leading edge fairing assy by means of locking pins C and D.

2.11 With reference to Figure 4, drill n°6 pilot holes Ø 2.5 through the up leading edge fairing assy by means of the upper tool P/N 3G5310H13212A005A.

2.12 With reference to Figure 4 and Figure 3 detail G, countermark the position of cut out on the up leading edge fairing assy by means of the upper tool P/N 3G5310H13212A005A.

2.13 With reference to Figure 4, remove the upper tool.

2.14 In accordance with applicable steps of AMP DM 39-A-52-44-01-00A-520A-A, remove the up leading edge fairing assy.

2.15 With reference to Figure 4, remove the lower tool.

2.16 With reference to Figure 3 view G, perform the previously countermarked cut out on the up leading edge fairing assy.

2.17 With reference to Figure 3 section D-D, enlarge the n°8 previously performed pilot holes to Ø 4.90 ÷ 5.03 on up leading edge fairing assy.

2.18 With reference to Figure 3 section D-D and schematic section D-D, install the molding assy P/N 3G5315A32534 and the external molding P/N 3G5316A87851 by means of n°8 screws P/N AN525-10R11 and sealing compound Proseal 890B2 (C153).

2.19 With reference to Figure 2 detail C and View E, install video camera support assy P/N 3G5316A55231 on the longeron by means of rivets P/N NAS1720C5L3P.

2.20 In accordance with of AMP DM 39-A-52-44-06-00A-720A-A, install the up leading edge fairing assy (360AT) on the helicopter.

2.21 In accordance with of AMP DM 39-A-52-44-01-00A-720A-A, install the two panels 360AL and 313AL on the helicopter.

3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 5 thru 11 gain access to the area affected by the installation and perform the external camera electrical provision P/N 4G9750A00311, as described in the following procedure:

3.1 With reference to Figure 6, at position n°1 install grommet P/N 999-1700-03-102 and spacer P/N A631A01A.

3.2 With reference to Figure 6, at positions n°2 and n°3 remove the existing grommets P/N 999-1700-03-103 and install n°2 grommets P/N 999-1700-03-102.

3.3 With reference to Figure 6, at position n°5 install grommet P/N 999-1700-03-105.

3.4 With reference to Figure 6, at position n°6 install cable support P/N AW001CL509-N6 by means of adhesive EA9309.3NA (C021) and grommet P/N 999-1700-03-102.

3.5 With reference to Figure 6, at positions n°7, 8 and 9 install n°3 cable supports P/N AW001CL002B-X1 by means of adhesive EA9309.3NA (C021) and n°3 grommets P/N 999-1700-03-102.

3.6 With reference to Figure 6 View D, at position n°10 install cable support P/N AW001CL509-N6 by means of adhesive EA9309.3NA (C021) and grommet P/N 999-1700-03-102.

3.7 With reference to Figure 6, at position n°11 install grommet P/N 999-1700-03-102 on the existing cable support P/N A630A12.

3.8 With reference to Figure 7, at position n°13 install on existing support the clamp P/N MS21919WDG2 by means of spacer P/N NAS43DD3-40N and screw P/N NAS1801-3-20.

3.9 With reference to Figure 7, at positions n°14 and n°15 install on existing support n°2 clamps P/N MS21919WDG2.

3.10 With reference to Figure 7, at position n°16 install on existing support clamp P/N MS21919WDG2 by means of spacer P/N NAS43DD3-55N and screw P/N NAS1801-3-24.

3.11 With reference to Figure 7, at positions n°17,18 and 19 install on existing hardware n°3 clamps P/N MS21919WDG2.

3.12 With reference to Figure 7, at position n°20 install on existing support the clamp P/N MS21919WDG2 by means of spacer P/N NAS43DD3-55N and screw P/N NAS1801-3-24.

3.13 With reference to Figure 7, at positions n°21 and n°22 install n°2 clamp P/N MS21919WDG2.

3.14 With reference to Figure 7, at position n°23 install on existing hardware clamp P/N MS21919WDG2 by means of spacer P/N NAS43DD3-55N and screw P/N NAS1801-3-24.

3.15 With reference to Figure 7 View F, at positions n°24 and n°25 install on existing hardware n°2 clamps P/N MS21919WDG2 by means of n°2 spacers P/N NAS43DD3-55N and n°2 screws P/N NAS1801-3-24.

NOTE

Perform the steps 3.16 and 3.17 only if TCAS electrical provision is not installed otherwise use existing supports and skip to step 3.18.

3.16 With reference to Figure 7 View F, at position 26 install plastic support P/N AW001CL509-N6 by means of adhesive EA9309.3NA (C021) and grommet P/N 999-1700-03-102.

3.17 With reference to Figure 8 View G-G, at positions n° 27, 28, 29, 30 and 31 install n°5 plastic supports P/N AW001CL001-N6 by means of adhesive EA9309.3NA (C021) and n°5 grommets P/N 999-1700-03-102.

3.18 With reference to Figure 8, at position n°32 install on existing hardware clamp P/N MS21919WDG2 by means of bracket P/N MS9592-382, screw P/N NAS1801-3-8, nut P/N MS21042L3 and n°2 washers P/N NAS1149D0332J.

3.19 With reference to Figure 8, at position n°33 install on existing hardware clamp P/N MS21919WDG2 by means of bracket P/N MS9592-022, screw P/N NAS1801-3-8, nut P/N MS21042L3 and n°2 washers P/N NAS1149D0332J.

3.20 With reference to Figure 8, at position n°34 install support P/N AW001TL3A08 by means of adhesive EA9309.3NA (C021) and clamp P/N MS21919WDG2 by means of screw P/N MS35207-263 and washer P/N NAS1149D0332J.

3.21 With reference to Figure 8, at positions n° 35, 36 and 37 install n°3 standoff P/N A388A3E08C by means of adhesive EA9309.3NA (C021) and n°3 clamps P/N MS21919WDG2 by means of n°3 screws P/N NAS1190E3P5AK and n°3 washers P/N NAS1149D0332J.

3.22 With reference to Figure 8, at position n°38 install on existing hardware clamp P/N MS21919WDG2 by means of spacer P/N NAS43DD3-45N and screw P/N NAS1801-3-20.

3.23 With reference to Figure 8, at position n°39 install grommet P/N 999-1700-03-1.

3.24 With reference to Figure 8, at position n°40 install on existing hardware clamp P/N MS21919WDG2 by means of screw P/N NAS1190E3P10AK.

3.25 With reference to Figure 8, at position n°41 install adhesive rubber P/N A236A02AB.

3.26 With reference to Figure 8, at position n°41 install stud adhesive bonded P/N A366A3E12C75, clamp P/N MS21919WDG2 and bracket P/N MS9592-027 by means of spacer NAS43DD3-15N, n°2 nuts P/N MS21042L3, screw P/N NAS1801-3-10 and n°2 washers P/N NAS1149D0332J.

3.27 With reference to Figure 10 view looking tail cone LH side, at position n°42 install on existing hardware clamp P/N MS21919WDG2 by means of spacer P/N NAS43DD3-35N and screw NAS1190E3P14AK.

3.28 With reference to Figure 10 view looking tail cone LH side, at positions n°43, 44 and 45 install n°3 supports P/N AW001CL002B-X1 by means of adhesive EA9309.3NA (C021).

3.29 With reference to Figure 10 view looking tail cone LH side, at position n° 46 install on existing hardware clamp P/N MS21919WDG4 by means of spacer P/N NAS43DD3-40N and screw NAS1190E3P14AK.

3.30 With reference to Figure 10 view looking tail cone LH side, at positions n° 47 and 48, install on existing hardware n°2 clamps P/N MS21919WDG4.

3.31 With reference to Figure 11 view looking tail cone LH side, at position n° 49 install on existing hardware clamp P/N MS21919WDG4 by means of spacer P/N NAS43DD3-40N and screw P/N NAS1190E3P14AK.

3.32 With reference to Figure 11, at position n°50 install on existing hardware clamp P/N MS21919WDG4 by means of spacer P/N NAS43DD3-55N, screw P/N NAS1801-3-28 and washer P/N NAS1149D0332J.

3.33 With reference to Figure 11, at position n°51 install stud P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021) and clamp P/N MS21919WDG4 by means of spacer P/N NAS43DD3-90N, screw P/N NAS1190E3P28AK and washer P/N NAS1149D0332J.

3.34 With reference to Figure 11, at position n°52 install stud P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021) and clamp P/N MS21919WDG4 by means of spacer P/N NAS43DD3-60N, screw P/N NAS1190E3P20AK and washer P/N NAS1149D0332J.

3.35 With reference to Figure 11, at positions n°53, 54, 55, 56, 57 and n°58 install on existing hardware n°6 clamps P/N MS21919WDG4 by means of n°6 screws P/N NAS1801-3-28.

3.36 With reference to Figure 11, at position n°59 install on existing hardware clamp P/N MS21919WDG4 by means of screw P/N NAS1801-3-28.

3.37 With reference to Figure 11 View J, at position n°60 install stud P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021) and clamp P/N MS21919WDG4 by means of screw P/N NAS1190E3P5AK and washer P/N NAS1149D0332J.

3.38 With reference to Figure 11 View J, at position n°61 install cable support P/N AW001CL001-N6 by means of adhesive EA9309.3NA (C021).

3.39 With reference to Figure 11 View J, install protective rubber P/N A236A04AB154.

3.40 With reference to Figures 5 thru 11 lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:

- External video camera P/N 3G9B01A35901 (B1A359);
- External video camera P/N 3G9C01A23701 (C1A237);
- External video camera P/N 3G9C03A20601 (C3A206);
- External video camera P/N 3G9D02A20401 (D2A204).

Secure the cable by means of existing hardware and lacing cord.

3.41 With reference to Figure 9, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A B1A359 between sectioning connector J213 and circuit breaker panel connector PL1P1.

3.42 With reference to Figure 9 and Figure 10, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A C1A237 between:

- terminal board TB315;
- ground terminal by means of terminal lug P/N MS25036-108, metallic band P/N A10099, tubular metal braid P/N A575A-107, shield support ring P/N M85049/93-04 and tubular braid A582A08;
- power supply connector PS24P6 by means of tubular metal braid P/N A575A-107 and tubular braid A582A08;
- sectioning connector P213.

3.43 With reference to Figures 6 thru 8, Figure 10, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A C3A206 between MAU 1 connector A1-3P3 and power supply connector PS24P2.

3.44 With reference to Figure 10, Figure 11, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A D2A204 between:

- video camera connector DS117P1 by means of heat shrinkable tubing P/N M23053/5-107-0, screened boot 222S121-25S and adhesives S1125 and S1184;
- power supply connector PS24P7.

3.45 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 W/D applicable to helicopter configuration.

3.45.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead CB panel the existing integrally-lighted panel and install the new integrally- lighted panel P/N 3G2490LXXXXX.

3.45.2 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install n°1 circuit breaker P/N MS3320-1 in “EXTERNAL VIDEO CAMERA” position, on the new integrally- lighted panel P/N 3G2490LXXXX. Apply decal P/N ED300CB202 in an adjacent area.

3.45.3 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install n°1 switch S137 P/N MS27722-23 in “EXTERNAL VIDEO CAMERA ON OFF”, on the new integrally-lighted panel P/N 3G2490LXXXX position. Apply decal P/N ED300S137 in an adjacent area.

3.45.4 Perform electrical connection between switch S137 pin 3 and overhead circuit breaker connector PL1J1 pin Z, by means of wire P/N A556A-T20. Use electrical contact P/N M39029/1-102 for switch S137 and electrical contact P/N M39029/56-351 for sectioning connector PL1J1.

3.45.5 Perform electrical connection between switch S137 pin 1 and CB202 by means of wire P/N A556AT-20. Use terminal lug P/N MS25036-149 for pin 2 of circuit breaker CB202 and electrical contact P/N M39029/1-102 for switch S137.

3.45.6 Perform electrical connection between CB202 to 28V DC Main Bus 1.

3.46 Perform a pin-to-pin continuity check of all the electrical connections previously performed.

NOTE

Perform the following steps 3.47 and 3.48 only if Part IV of this Service Bulletin is not intended to be embodied immediately after Part I, otherwise skip to step 4.

3.47 With reference to Figure 10 Detail H, protect and stow the power supply connectors PS24P2, PS24P6 and PS24P7 as described in the following procedure:

3.47.1 Apply the applicable protective cap on the connector.

3.47.2 Cover with nomex fiber sleeves P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeves on the connector.

3.48 With reference to Figure 11 Detail L, protect and stow the video camera connector DS117P1 as described in the following procedure:

3.48.1 Apply the applicable protective cap on the connector.

3.48.2 Cover with nomex fiber sleeves P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeves on the connector.

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 I of this Service Bulletin on the helicopter logbook.

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

engineering.support.lhd@leonardo.com

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

PART II

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 1 and 4, gain access to the area affected by the installation and perform external camera structural provision P/N 3G5310A65911 as described in the following procedure:
   - 2.1 With reference to Figure 1 Detail A and Section B-B, drill n°4 holes Ø 10.31÷10.39 through left panel skin and honeycomb.
   - 2.2 In accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D and with reference to Figure 1 Detail A and Section B-B, install n°4 inserts P/N SL10429-06-3S by means of adhesive EA934NA (C057).
   - 2.3 In accordance with AMP DM 39-A-52-44-06-00A-520A-A, remove the fw tail gearbox fairing assy (360AT) from the helicopter.
   - 2.4 In accordance with AMP DM 39-A-52-44-06-00A-520A-A, remove the panels 360AL and 313AL from the helicopter.
   - 2.5 With reference to Figure 4, position the lower tool P/N 3G5310H65911A005A according to the existing pilot hole present on the longeron matching it with the existing structure hole. Secure the lower tool by means of locking pin A.
   - 2.6 With reference to Figure 2 view E and Figure 4, drill n°6 holes Ø 3.28÷3.35 through the longeron by means of lower tool P/N 3G5310H65911A005A.

NOTE

As a mandatory prerequisite for the use of upper tool,
lower tool has to be already installed.

   - 2.7 In accordance with applicable steps of AMP DM 39-A-52-44-01-00A-720A-A, temporarily locate the up leading edge fairing assy (360AL) on the proper installation position, by means of existing hardware.
   - 2.8 With reference to Figure 4, position the upper tool P/N 3G5310H13212A005A on the up leading edge fairing assy and assemble with lower tool by means of locking pin B.
   - 2.9 With reference to Figure 4, drill n°2 holes Ø 2.5 through the up leading edge fairing assy in the corresponding position of the upper tool locking pins C and D.
   - 2.10 With reference to Figure 4, secure the upper tool P/N 3G5310H13212A005A to the up leading edge fairing assy by means of locking pins C and D.
   - 2.11 With reference to Figure 4, drill n°6 pilot holes Ø 2.5 through the up leading edge fairing assy by means of the upper tool P/N 3G5310H13212A005A.

2.12 With reference to Figure 4 and Figure 3 detail G, countermark the position of cut out on the up leading edge fairing assy by means of the upper tool P/N 3G5310H13212A005A.

2.13 With reference to Figure 4, remove the upper tool.

2.14 In accordance with applicable steps of AMP DM 39-A-52-44-01-00A-520A-A, remove the up leading edge fairing assy 360AL.

2.15 With reference to Figure 4, remove the lower tool.

2.16 With reference to Figure 3 view G, perform the previously countermarked cut out on the up leading edge fairing assy.

2.17 With reference to Figure 3 section D-D, enlarge the n°8 previously performed pilot holes to Ø 4.90 ÷ 5.03 on up leading edge fairing assy.

2.18 With reference to Figure 3 section D-D and schematic section D-D, install the molding assy P/N 3G5315A32534 and the external molding P/N 3G5316A87851 by means of n°8 screws P/N AN525-10R11 and sealing compound Proseal 890B2 (C153).

2.19 With reference to Figure 2 detail C and View E, install video camera support assy P/N 3G5316A55231 on the longeron by means of rivets P/N NAS1720C5L3P.

2.20 In accordance with of AMP DM 39-A-52-44-01-00A-720A-A, install the up leading edge fairing assy (360AL) and panel 313AL on the helicopter.

2.21 In accordance steps of AMP DM 39-A-52-44-06-00A-720A-A, install the fw tail gearbox fairing assy (360AT) on the helicopter.

3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 12 thru 20, gain access to the area affected by the installation and perform the external camera electrical provision P/N 4G9750A00312 as described in the following procedure:

3.1 With reference to Figure 14 view looking floor area LH side, remove existing grommet and install grommet P/N 999-1700-03-2.

3.2 With reference to Figure 15, at position n°1 install on existing hardware clamp P/N AW001CB02H by means of bracket MS9592-022, screw P/N NAS1801-3-8, nut P/N MS21042L3 and n°2 washers P/N NAS1149D0332J.

3.3 With reference to Figure 15, at position n°2 install on existing hardware clamp P/N AW001CB02H by means of spacer P/N NAS43DD3-60N and screw P/N NAS1802-3-24.

3.4 With reference to Figure 15, at positions n°3,4 and 5 install on existing hardware n°3 clamps P/N AW001CB02H by means of n°3 screws P/N NAS1190E3P20AK.

3.5 With reference to Figure 15, at position n°6 install on existing hardware clamp P/N AW001CB02H by means of spacer P/N NAS43DD3-45N and screw P/N NAS1802-3-22.

3.6 With reference to Figure 16, at position n°7 install grommet P/N 999-1700-03-1.

3.7 With reference to Figure 16, at position n°8 install cable support P/N A388A3E08C by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB02H by means of spacer P/N NAS43DD3-40N, washer P/N NAS1149D0332J and screw P/N NAS1190E3P16AK.

3.8 With reference to Figure 16, at position n°9 install adhesive rubber P/N A236A02AB and install cable support P/N A366A3E12C75 and clamp P/N AW001CB02H by means of spacer P/N NAS43DD3-15N, bracket P/N MS9592-027, n°2 nuts P/N MS21042L3, screw P/N NAS1802-3-8 and n°3 washers P/N NAS1149D0332J.

3.9 With reference to Figure 17, at position n°10 install on existing hardware clamp P/N AW001CB02H by means of spacer P/N NAS43DD3-35N and screw P/N NAS1190E3P14AK.

3.10 With reference to Figure 17, at positions n°11, 12 and 13 install n°3 supports P/N AW001CL000A-X3 by means of adhesive EA9309.3NA (C021).

3.11 With reference to Figure 17, at position n°14 install on existing hardware clamp P/N AW001CB03H by means of spacer P/N NAS43DD3-40N and screw P/N NAS1190E3P14K.

3.12 With reference to Figure 17, at positions n°15 and 16, install on existing hardware n°2 clamps P/N AW001CB03H.

3.13 With reference to Figure 17, at position n°17 install on existing hardware clamp P/N AW001CB03H by means of spacer P/N NAS43DD3-40N and screw P/N NAS1190E3P14AK.

3.14 With reference to Figure 18, at position n°18 install on existing hardware clamp P/N AW001CB03H by means of spacer P/N NAS43DD3-45N and screw P/N NAS1801-3-28.

3.15 With reference to Figure 18, at position n°19 install adhesive stud P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB03H by means of spacer P/N NAS43DD3-90N, screw P/N NAS1190E3P28AK and washer P/N NAS1149D0332J.

3.16 With reference to Figure 18, at position n°20 install adhesive stud P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021) and clamp P/N AW001CB03H by means of spacer P/N NAS43DD3-60N, screw P/N NAS1190E3P20AK and washer P/N NAS1149D0332J.

3.17 With reference to Figure 18, at positions n°21, 22, 23, 24, 25 and n°26 install on existing hardware n°6 clamp AW001CB05H by means of n°6 screws P/N NAS1190E3P7AK.

3.18 With reference to Figure 19, at position n°27 remove existing clamp and install on existing hardware clamp P/N AW001CB05H.

3.19 With reference to Figure 19, at positions n°28 and 29 install n°2 supports P/N AW001CL509-N6 by means of adhesive EA9309.3NA (C021).

3.20 With reference to Figure 19, at position n°30 install n°1 supports P/N AW001CL002A-X1 by means of adhesive EA9309.3NA (C021).

3.21 With reference to Figures 12 thru 20 lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:

- External video camera P/N 3G9B01A35901 (B1A359);
- External video camera P/N 3G9C01A23701 (C1A237);
- External video camera P/N 3G9C03A20601 (C3A206);
- External video camera P/N 3G9D02A20401 (D2A204).

Secure the cable by means of existing hardware and lacing cord.

3.22 With reference to Figure 20, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A B1A359 between sectioning connector J213 and circuit breaker panel connector PL1P1.

3.23 With reference to Figure 16, Figure 17, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A C1A237 between:

- terminal board TB315;
- ground terminal by means of terminal lug P/N MS25036-108, metallic band P/N A10099, tubular metal braid P/N A575A-107, shield support ring P/N M85049/93-04 and tubular braid A582A08;
- power supply connector PS24P6 by means of tubular metal braid P/N A575A-107 and tubular braid A582A08;
- sectioning connector P213.

3.24 With reference to Figures 13 thru 17, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A C3A206 between MAU 1 connector A1-3P3 and power supply connector PS24P2.

3.25 With reference to Figure 17 thru 19, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A D2A204 between:

- video camera connector DS117P1 by means of heat shrinkable tubing P/N M23053/5-107-0, screened boot 222S121-25S and adhesives S1125 and S1184;
- power supply connector PS24P7.

3.26 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 W/D applicable to helicopter configuration.

3.26.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead CB panel the existing integrally-lighted panel and install the new integrally- lighted panel P/N 3G2490LXXXXX.

3.26.2 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install n°1 circuit breaker P/N MS3320-1 in “EXTERNAL VIDEO CAMERA” position, on the new integrally- lighted panel P/N 3G2490LXXXX. Apply decal P/N ED300CB202 in an adjacent area.

3.26.3 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install n°1 switch S137 P/N MS27722-23 in “EXTERNAL VIDEO CAMERA ON OFF”, on the new integrally-lighted panel P/N 3G2490LXXXX position. Apply n°1 decal P/N ED300S137 in an adjacent area.

3.26.4 Perform electrical connection between switch S137 pin 3 and overhead circuit breaker connector PL1J1 pin Z, by means of wire P/N A556A-T20. Use electrical contact P/N M39029/1-102 for switch S137 and electrical contact P/N M39029/56-351 for sectioning connector PL1J1.

3.26.5 Perform electrical connection between switch S137 pin 1 and CB202 by means of wire P/N A556AT-20. Use terminal lug P/N MS25036-149 for pin 2 of circuit breaker CB202 and electrical contact P/N M39029/1-102 for switch S137.

3.26.6 Perform electrical connection between CB202 to 28V DC Main Bus 1.

3.27 Perform a pin-to-pin continuity check of all the electrical connections previously performed.

NOTE

Perform the following step 3.28 and 3.29 only if Part IV of this Service Bulletin is not intended to be embodied immediately after Part II, otherwise skip to step 4.

3.28 With reference to Figure 17 Detail B, protect and stow the power supply connectors PS24P2, PS24P6 and PS24P7 as described in the following procedure:

3.28.1 Apply the applicable protective cap on the connector.

3.28.2 Cover with nomex fiber sleeves P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeves on the connector.

3.29 With reference to Figure 19 Detail E, protect and stow the video camera connector DS117P1 as described in the following procedure:

3.29.1 Apply the applicable protective cap on the connector.

3.29.2 Cover with nomex fiber sleeves P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeves on the connector.

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”.

PART III

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 21 thru 26, gain access to the area affected by the installation and perform external camera structural provision P/N 3G5310A65914 as described in the following procedure:
   - 2.1 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 22 Detail B, prepare indicated contact surfaces to assure the correct electrical bonding.
   - 2.2 With reference to Figure 21 Detail A, install the support assy P/N 3G5310A93831 by means of n°6 rivets P/N NAS1097AD5-6.
   - 2.3 In accordance steps of AMP DM 39-A-52-44-06-00A-520A-A, remove the fw tail gearbox fairing assy (360AT) from the helicopter.
   - 2.4 In accordance steps of AMP DM 39-A-52-44-01-00A-520A-A, remove the up leading edge fairing assy (360AL) and panel 313AL from the helicopter.
   - 2.5 With reference to Figure 26, position the lower tool P/N 3G5310H65911A005A according to the existing pilot hole present on the longeron matching it with the existing structure hole. Secure the lower tool by means of locking pin A.
   - 2.6 With reference to Figure 23 view D and Figure 4, drill n°6 holes Ø 3.28÷3.35 through the longeron by means of lower tool P/N 3G5310H65911A005A.

NOTE

As a mandatory prerequisite for the use of upper tool,
lower tool has to be already installed.

   - 2.7 With reference to Figure 26, temporarily locate the up leading edge fairing assy (360AL) on the proper installation position, by means of existing hardware.
   - 2.8 With reference to Figure 26, position the upper tool P/N 3G5310H65913A005A on the up leading edge fairing assy and assemble with lower tool by means of locking pin B.
   - 2.9 With reference to Figure 26, drill n°2 holes Ø 2.5 through the up leading edge fairing assy in the corresponding position of the upper tool locking pins C and D.
   - 2.10 With reference to Figure 26, secure the upper tool P/N 3G5310H65913A005A to the up leading edge fairing assy by means of locking pins C and D.
   - 2.11 With reference to Figure 26, drill n°7 pilot holes Ø 2.5 through the up leading edge fairing assy by means of the upper tool P/N 3G5310H65913A005A.

2.12 With reference to Figure 26 and Figure 24 Detail A, countermark the position of cut out on the up leading edge fairing assy by means of the upper tool P/N 3G5310H65913A005A.

2.13 With reference to Figure 26, remove the upper tool.

2.14 In accordance with applicable steps of AMP DM 39-A-52-44-01-00A-520A-A, remove the up leading edge fairing assy 360AL.

2.15 With reference to Figure 26, remove the lower tool.

2.16 With reference to Figure 24 Detail A, perform the previously countermarked cut out on the up leading edge fairing assy.

2.17 With reference to Figure 25 Section B-B, enlarge the n°9 previously performed pilot holes to Ø 5.15 ÷ 5.28 on up leading edge fairing assy.

2.18 With reference to Figure 25 Detail C, bond on up leading edge fairing assy n°9 nut plate P/N A407A08C1P by means of EA9309.3NA (C021).

2.19 With reference to Figure 25 Section B-B, Detail C and schematic sections D-D/E-E, install the transparent P/N 3G5315A32356 and the external molding P/N 3G5316A87853 by means of n°9 screws P/N AN525-832R8 and sealing compound Proseal 890B2 (C153).

2.20 In accordance with AMP DM 39-A-20-10-01-00A-259A-A and with reference to Figure 23 Detail C, prepare indicated contact surfaces to assure the correct electrical bonding.

2.21 With reference to Figure 23 Detail C and to Figure 24 View D, install video camera support assy P/N 3G5316A55232 on the longeron by means of n°6 rivets P/N A297A04TW03 (or equivalent).

2.22 In accordance steps of AMP DM 39-A-52-44-01-00A-720A-A, install the up leading edge fairing assy (360AL) and panel 313AL on the helicopter.

2.23 In accordance steps of AMP DM 39-A-52-44-06-00A-720A-A, install the fw tail gearbox fairing assy (360AT) on the helicopter.

3. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 27 thru 37, gain access to the area affected by the installation and perform the external camera electrical provision P/N 4G9750A00313 as described in the following procedure:

3.1 With reference to Figure 29 View C, at positions n° 1, 2 and 3, install n°3 plastic supports P/N AW001CL001-N6 by means of adhesive EA9309.3NA (C021) and n°3 grommets P/N AW002FT502.

3.2 With reference to Figure 29 View C, at position n°4, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-18 and the spacer P/N NAS43DD3-40N.

3.3 With reference to Figure 30 View D, at position n°5, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-23 and the spacer P/N NAS43DD3-50N.

3.4 With reference to Figure 30 View D, at positions n°6, 7 and 8, install on existing hardware n°3 clamps P/N MS25281-R6 by means of n°3 grommets P/N AW002FT502, n°3 screws P/N NAS1190E3P26AK and n°3 spacers P/N NAS43DD3-70N.

3.5 With reference to Figure 30 View D, at position n°9, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-33 and the spacer P/N NAS43DD3-50N.

3.6 With reference to Figure 30 View D, at positions n°10 and 11, install on existing hardware n°2 clamps P/N MS25281-R6 by means of n°2 grommets P/N AW002FT502, n°2 screws P/N NAS1190E3P26AK and n°2 spacers P/N NAS43DD3-70N.

3.7 With reference to Figure 30 View D, at position n°12, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502 and the screw P/N NAS1190E3P8AK.

3.8 With reference to Figure 30 View D, at position n°13, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502 and the screw P/N NAS1802-3-11.

3.9 With reference to Figure 30 View D, at positions n°14 and 15, install on existing hardware n°2 clamps P/N MS25281-R6 by means of n°2 grommets P/N AW002FT502 and n°2 screws P/N NAS1190E3P8AK.

3.10 With reference to Figure 30 View E, at position n°16, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-9 and the washer NAS1149D0332J.

3.11 With reference to Figure 33 View H, at position n°17, install on existing hardware the clamp P/N MS25281-R6 by means of the bracket MS9592-382, the grommet P/N AW002FT502, the screw P/N NAS1802-3-10, n°2 washers P/N NAS1149D0332J and the nut P/N MS21043-3.

3.12 With reference to Figure 33 View H, at position n°18, install on existing hardware the clamp P/N MS25281-R6 by means of the bracket MS9592-022, the grommet P/N AW002FT502, the screw P/N NAS1802-3-10, n°2 washers P/N NAS1149D0332J and the nut P/N MS21043-3.

3.13 With reference to Figure 33 View H, at position n°19, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-25 and the spacer P/N NAS43DD3-55N.

3.14 With reference to Figure 33 View H, at position n°20, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1190E3P23AK and the spacer P/N NAS43DD3-52N.

3.15 With reference to Figure 33 View H, at positions n°21, 22 and 23, install on existing hardware n°3 clamps P/N MS25281-R6 by means of n°3 grommets P/N AW002FT502 and n°3 screws P/N NAS1190E3P23AK.

3.16 With reference to Figure 33 View H, at position n°24, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-25 and the spacer P/N NAS43DD3-55N.

3.17 With reference to Figure 33 View H, at position n° 25, install the standoff P/N A388A3E08C by means of adhesive EA9309.3NA (C021). Install the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1190E3P17K, the washer P/N NAS1149D0332J and the spacer P/N NAS43DD3-40N.

3.18 With reference to Figure 33 View H, at position n° 26, install the standoff P/N A366A3E12C75 by means of adhesive EA9309.3NA (C021). Install the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502, the screw P/N NAS1802-3-10, the bracket P/N MS9595-027, n°3 washers P/N NAS1149D0332J, n°2 nuts P/N MS21043-3 and the spacer P/N NAS43DD3-15N.

3.19 With reference to Figure 34 View K, at position n°27, install on existing hardware the clamp P/N AW001CB03H by means of the screw P/N NAS1802-3-20 and the spacer P/N NAS43DD3-35N.

3.20 With reference to Figure 34 View K, at positions n°28, 29 and 30, install on existing hardware n°3 clamps P/N AW001CB03H by means of n°3 screws P/N NAS1190E3P8AK.

3.21 With reference to Figure 34 View K, at position n°31, install on existing hardware the clamp P/N AW001CB03H by means of the screw P/N NAS1802-3-35 and the spacer P/N NAS43DD3-35N.

3.22 With reference to Figure 34 View K, at position n°32, install on existing hardware the clamp P/N AW001CB03H by means of the screw P/N NAS1149E3P16AK and the spacer P/N NAS43DD3-40N.

3.23 With reference to Figure 35 Detail L, at positions n° 33, 34 and 35, install n°3 standoff P/N AW001CL002B-X1 by means of adhesive EA9309.3NA (C021). Install n°3 plug P/N NAS813-8.

3.24 With reference to Figure 35 Detail L, at position n°36, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502 and the spacer P/N NAS43DD3-49N.

3.25 With reference to Figure 35 Detail L, at position n°37, install on existing hardware the clamp P/N MS25281-R6 by means of the grommet P/N AW002FT502 and the spacer P/N NAS43DD3-50N.

3.26 With reference to Figure 36 View N, at position n°38, install on existing hardware the clamp P/N AW001CB03H by means of the screw P/N NAS1802-3-29 and the spacer P/N NAS43DD3-45N.

3.27 With reference to Figure 36 View N, at position n° 39, install the standoff P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021). Install the clamp P/N AW001CB03H by means of the screw P/N NAS1190E3P28AK, the washer P/N NAS1149D0332J and the spacer P/N NAS43DD3-90N.

3.28 With reference to Figure 36 View N, at position n° 40, install the standoff P/N A388A3E08C75 by means of adhesive EA9309.3NA (C021). Install the clamp P/N AW001CB03H by means of the screw P/N NAS1190E3P20AK, the washer P/N NAS1149D0332J and the spacer P/N NAS43DD3-60N.

3.29 With reference to Figure 37 View P, at positions n° 41 and 42, install n°2 supports P/N AW001CL509-N6 by means of adhesive EA9309.3NA (C021).

3.30 With reference to Figure 37 View P, at position n° 43, and install the support P/N AW001CL002B-X1 by means of adhesive EA9309.3NA (C021). Install the plug MS90376-12R.

3.31 With reference to Figures 27 thru 37 lay down the following cable assemblies following the existing route unless otherwise indicated on the figures:

- External video camera P/N 3G9B01A35901 (B1A359);
- External video camera P/N 3G9C01A23701 (C1A237);
- External video camera P/N 3G9C03A20601 (C3A206);
- External video camera P/N 3G9D02A20401 (D2A204).

Secure the cable by means of existing hardware and lacing cord.

3.32 With reference to Figure 32, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A B1A359 between sectioning connector J213 and circuit breaker panel connector PL1P1.

3.33 With reference to Figure 35, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A C1A237 between:

- terminal board TB315;
- power supply connector PS24P6 by means of tubular metal braid P/N A575A-107 and tubular braid A582A08;

3.34 With reference to Figures 28 and 35, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A C3A206 between MAU 1 connector A1-3P3 and power supply connector PS24P2.

3.35 With reference to Figure 37, Figure 40 wiring diagram and Figure 41, perform the electrical connection of C/A D2A204 between:

- video camera connector DS117P1 by means of heat shrinkable tubing P/N M23053/5-107-0, screened boot 222S121-25S and adhesives S1125 and S1184;
- power supply connector PS24P7.

3.36 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 W/D applicable to helicopter configuration.

3.36.1 With reference to AMP DM 39-A-24-91-04-00A-920A-K, remove from the Overhead CB panel the existing integrally-lighted panel and install the new integrally- lighted panel P/N 3G2490LXXXXX.

3.36.2 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install n°1 circuit breaker P/N MS3320-1 in “EXTERNAL VIDEO CAMERA” position, on the new integrally- lighted panel P/N 3G2490LXXXX. Apply decal P/N ED300CB202 in an adjacent area.

3.36.3 In accordance with AMP DM 39-A-11-00-01-00A-720A-A, install n°1 switch S137 P/N MS27722-23 in “EXTERNAL VIDEO CAMERA ON OFF”, on the new integrally-lighted panel P/N 3G2490LXXXX position. Apply n°1 decal P/N ED300S137 in an adjacent area.

3.36.4 Perform electrical connection between switch S137 pin 3 and overhead circuit breaker connector PL1J1 pin Z, by means of wire P/N A556A-T20. Use electrical contact P/N M39029/1-102 for switch S137 and electrical contact P/N M39029/56-351 for sectioning connector PL1J1.

3.36.5 Perform electrical connection between switch S137 pin 1 and CB202 by means of wire P/N A556AT-20. Use terminal lug P/N MS25036-149 for pin 2 of circuit breaker CB202 and electrical contact P/N M39029/1-102 for switch S137.

3.36.6 Perform electrical connection between CB202 to 28V DC Main Bus 1.

3.37 Perform a pin-to-pin continuity check of all the electrical connections previously performed.

NOTE

Perform the following step 3.38 and 3.39 only if Part IV of this Service Bulletin is not intended to be embodied immediately after Part III, otherwise skip to step 4.

3.38 With reference to Figure 35 Detail M, protect and stow the power supply connectors PS24P2, PS24P6 and PS24P7 as described in the following procedure:

3.38.1 Apply the applicable protective cap on the connector.

3.38.2 Cover with nomex fiber sleeves P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeves on the connector.

3.39 With reference to Figure 35 Detail M, protect and stow the video camera connector DS117P1 as described in the following procedure:

3.39.1 Apply the applicable protective cap on the connector.

3.39.2 Cover with nomex fiber sleeves P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeves on the connector.

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 III of this Service Bulletin on the helicopter logbook.
6. Send the attached compliance form to the following mail box:

engineering.support.lhd@leonardo.com

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

PART IV

1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with AMP DM 39-A-06-41-00-00A-010A-A and with reference to Figures 38 and 39, gain access to the area affected by the installation and perform the external video camera full installation P/N 4G9750A00111 as described in the following procedure:

NOTE

If the connectors DS117P1, PS24P2, PS24P6 and PS24P7 are protected and stowed, remove the sleeve and the protective plug (Refer to Figure 39 Detail D).

2.1 With reference to Figure 39 View A, install the power supply P/N RPS-77E by means of n°4 washers P/N NAS1149DN616J and n°4 screws P/N MS35206-226.

2.2 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 39 View A, install decal P/N ED300PS24 in an area adjacent to previously installed power supply.

2.3 With reference to Figure 39 View B, install the video camera P/N RPC-651ER/3.0 on the video camera support assy P/N 3G5316A55231 by means of n°4 washers P/N NAS1149D0332J and n°4 screws P/N MS35207-265.

2.4 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 39 View B, install decal P/N ED300DS117 in an area adjacent to previously installed video camera.

2.5 With reference to Figure 39 View A, connect the video camera connector DS117P1 to the video camera DS117.

2.6 With reference to Figure 39 View B, connect the power supply connectors PS24P2, PS24P6 and PS24P7 to the power supply PS24.

2.7 With reference to Figure 38 Detail C, gain access to the overhead circuit breaker panel and remove the lock ring P/N Y30700501 from the EXT VIEW CAMERA breaker.

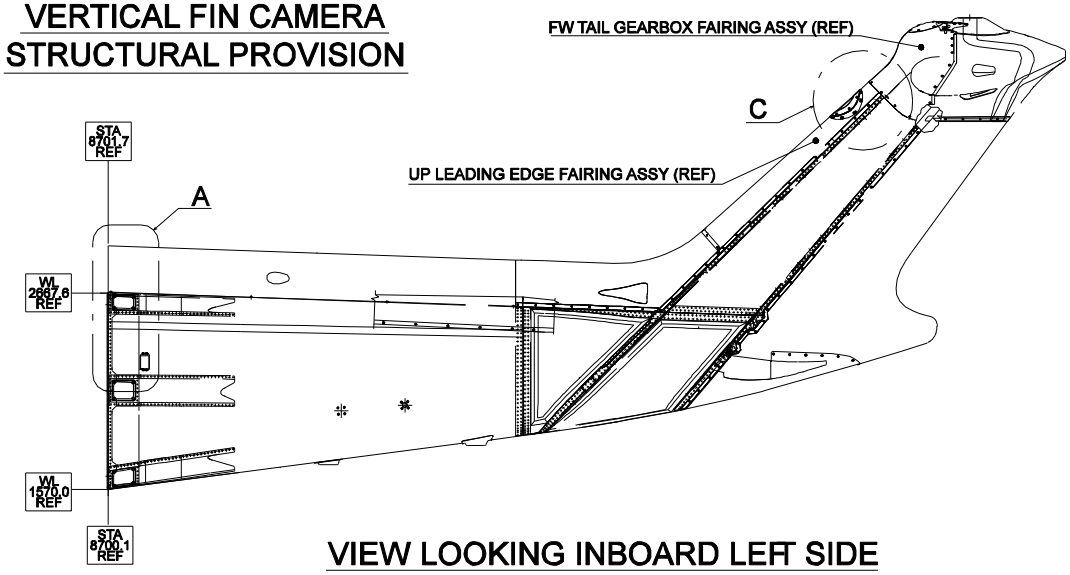
3. In accordance with AMP DM 39-A-97-51-00-00A-320A-K, perform the acceptance test procedure for the external video camera system.
4. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
5. Return the helicopter to flight configuration and record for compliance with Part IV of this Service Bulletin on the helicopter logbook.

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

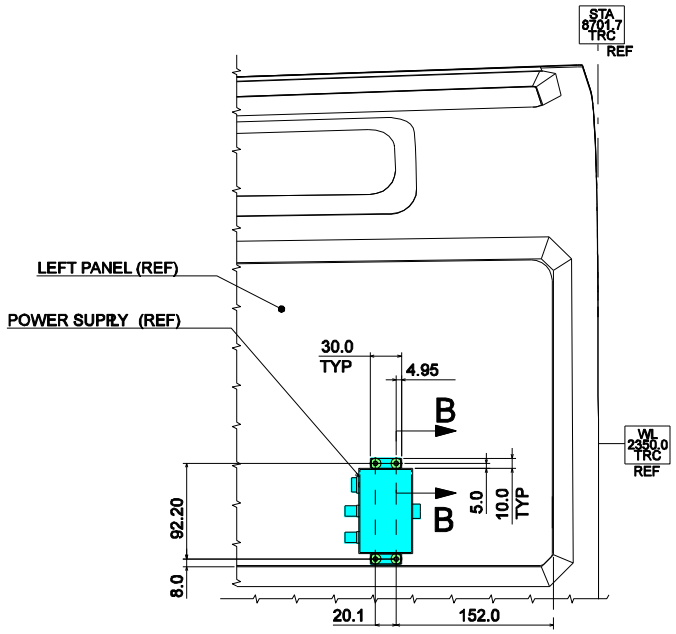
   engineering.support.lhd@leonardo.com

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

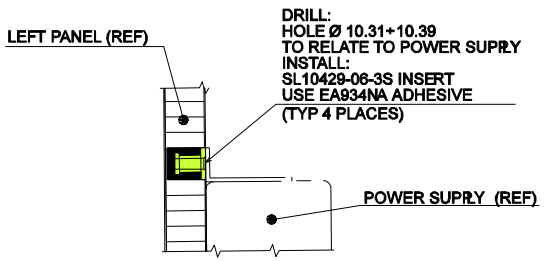
3G5310A65911
VERTICAL FIN CAMERA STRUCTURAL PROVISION



VIEW LOOKING INBOARD LEFT SIDE

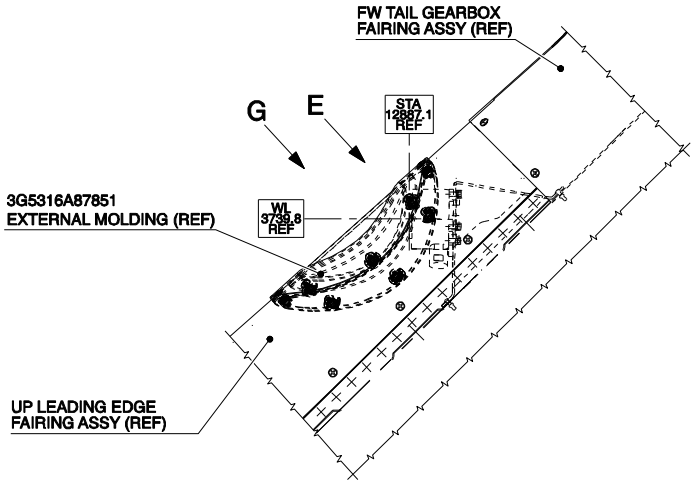


DETAIL A
LOOKING OUTBOARD LEFT SIDE
PANEL PLANE NORMAL DIRECTION



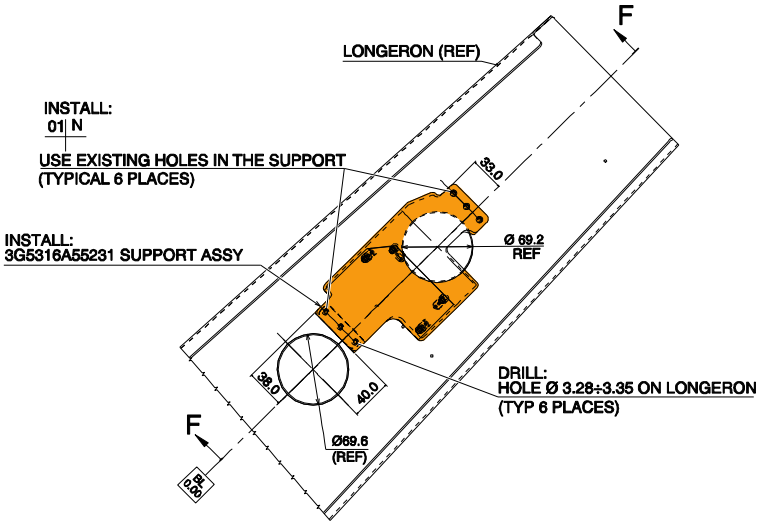
SECTION B-B
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 1



DETAIL C

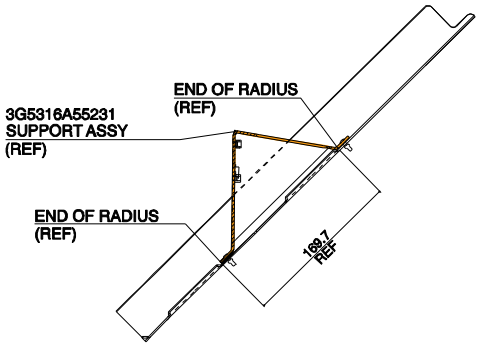
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



RIVET REFERENCE TABLE	
REF. N°	RIVET P/N
01	NAS1720C5L3P
N	PRE-FORMED HEAD IS ON NEAR SIDE
F	PRE-FORMED HEAD IS ON FAR SIDE
▽	COUNTERSINK (100° ONLY) IS ON NEAR SIDE
△	COUNTERSINK (100° ONLY) IS ON FAR SIDE

VIEW E

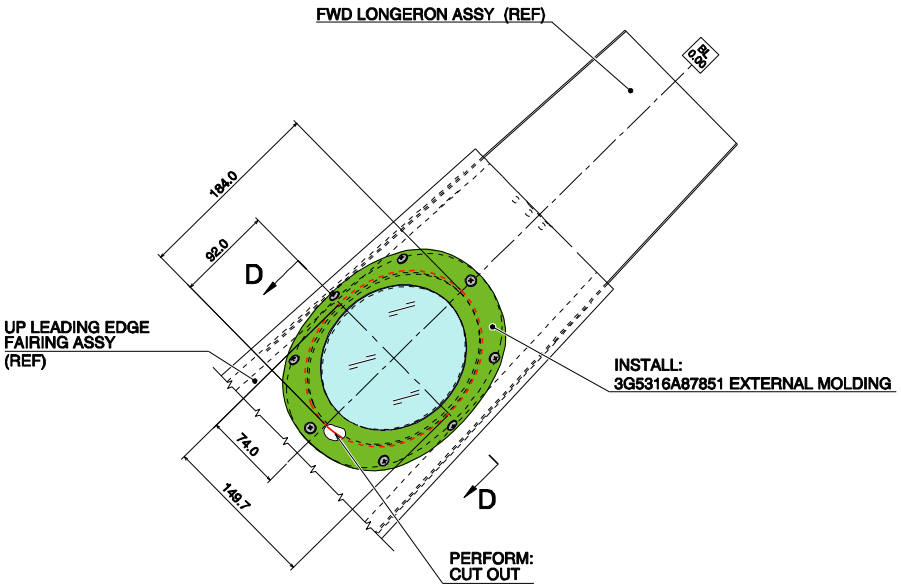
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



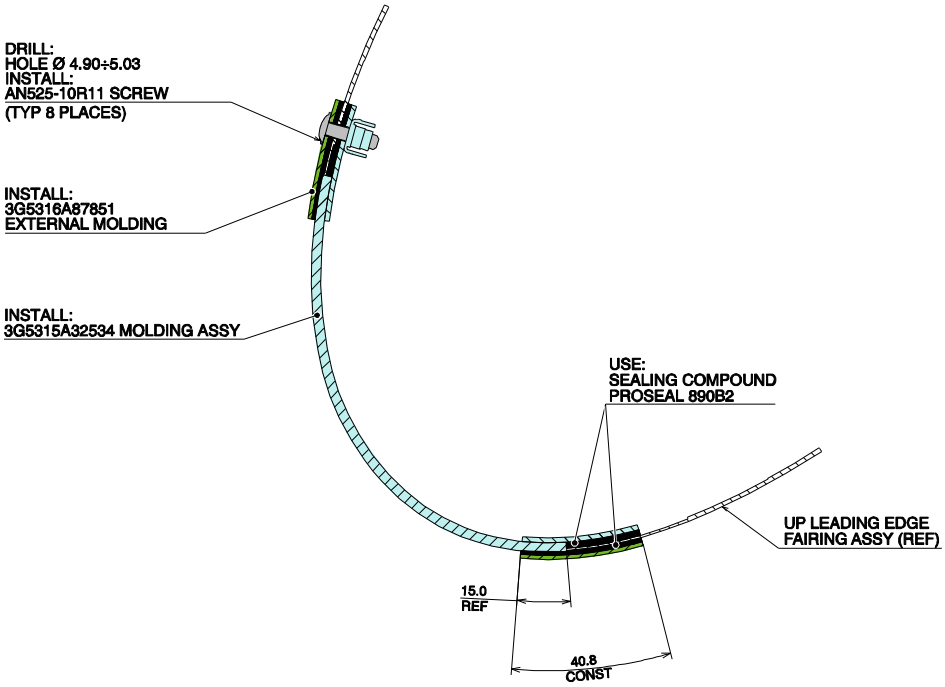
SECTION F-F

STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 2

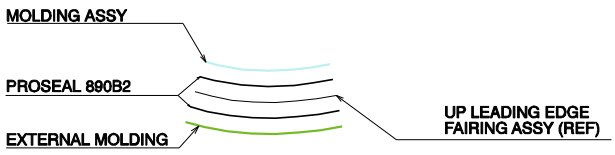


VIEW G



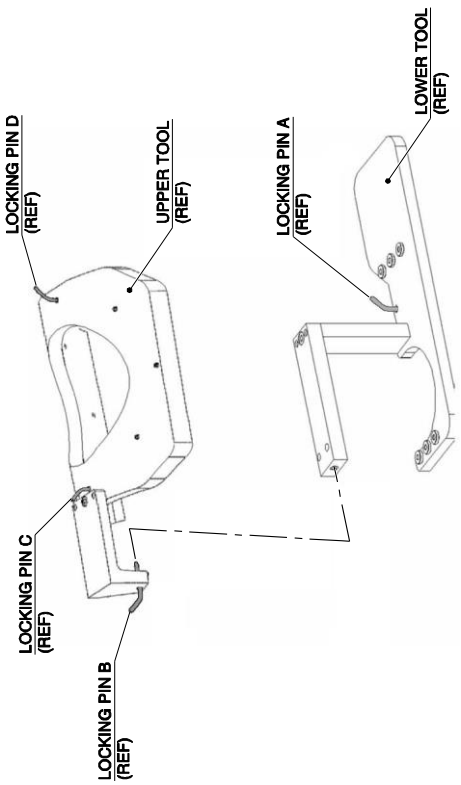
SECTION D-D

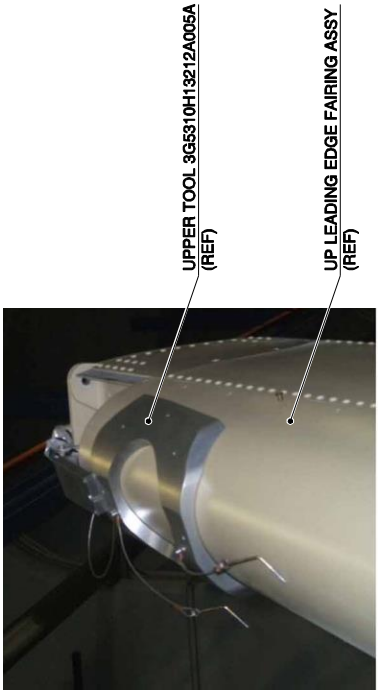
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



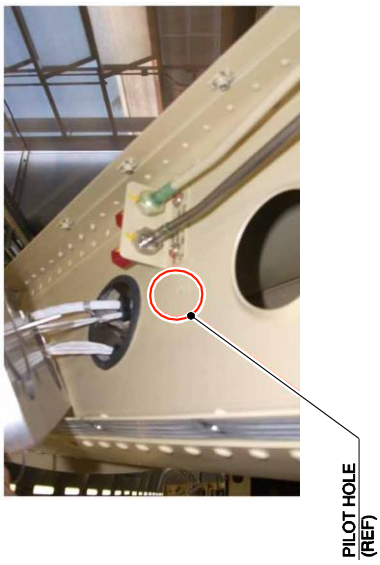
SCHEMATIC SECTION D-D

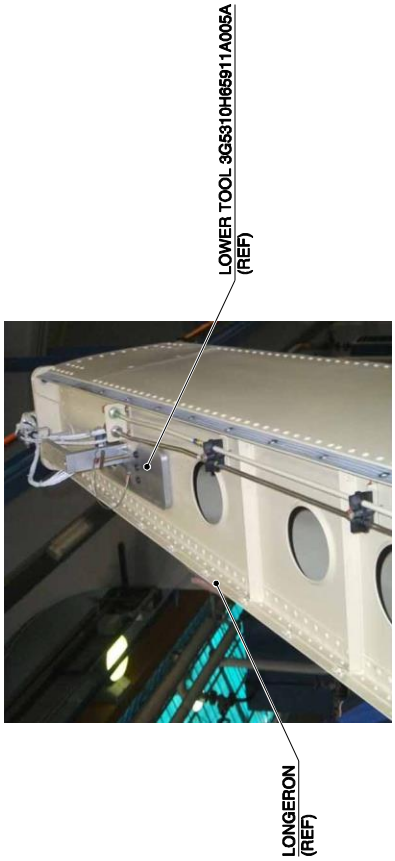
Figure 3





INSTALLATION OF UPPER TOOL





INSTALLATION OF LOWER TOOL

Figure 4

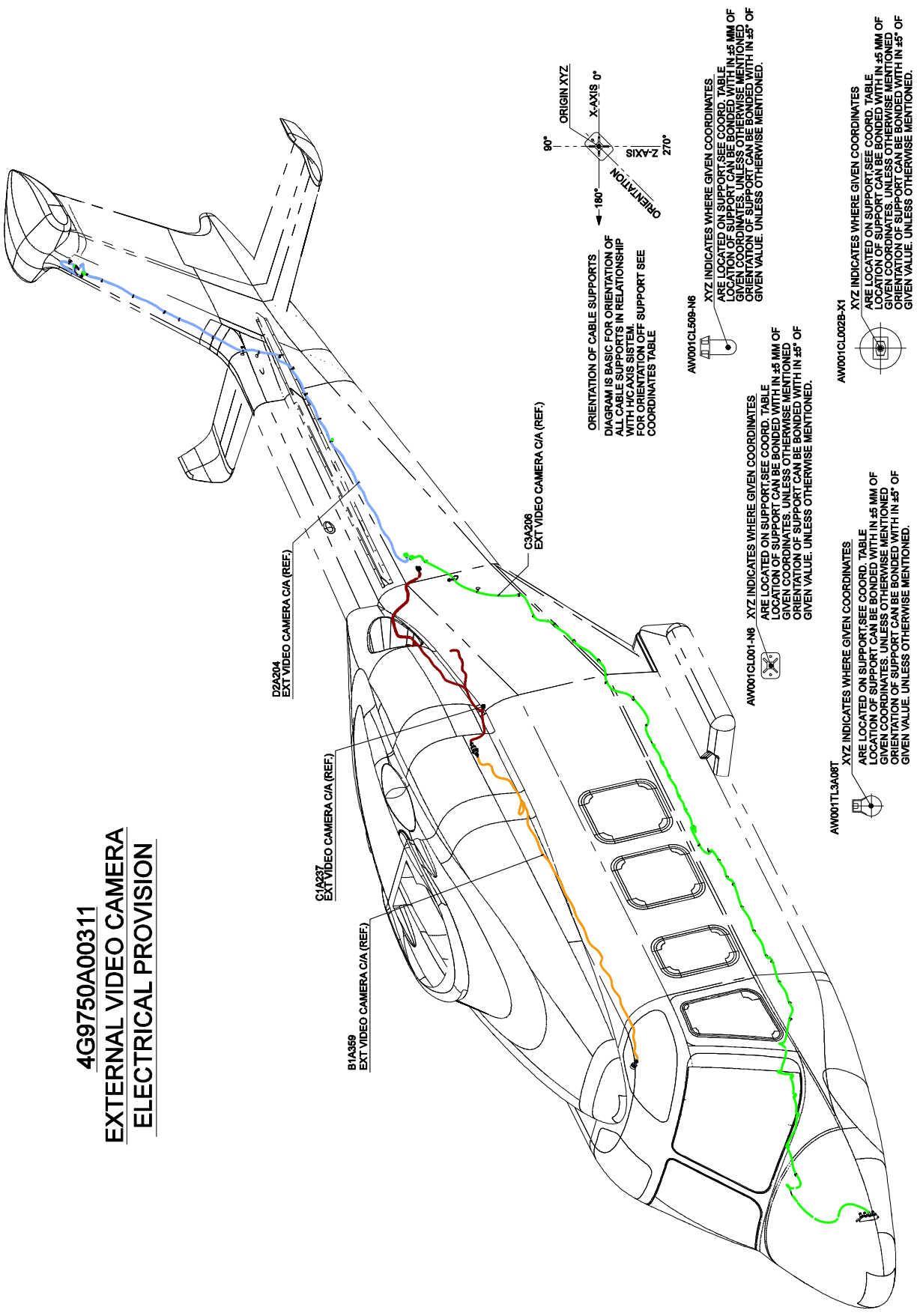
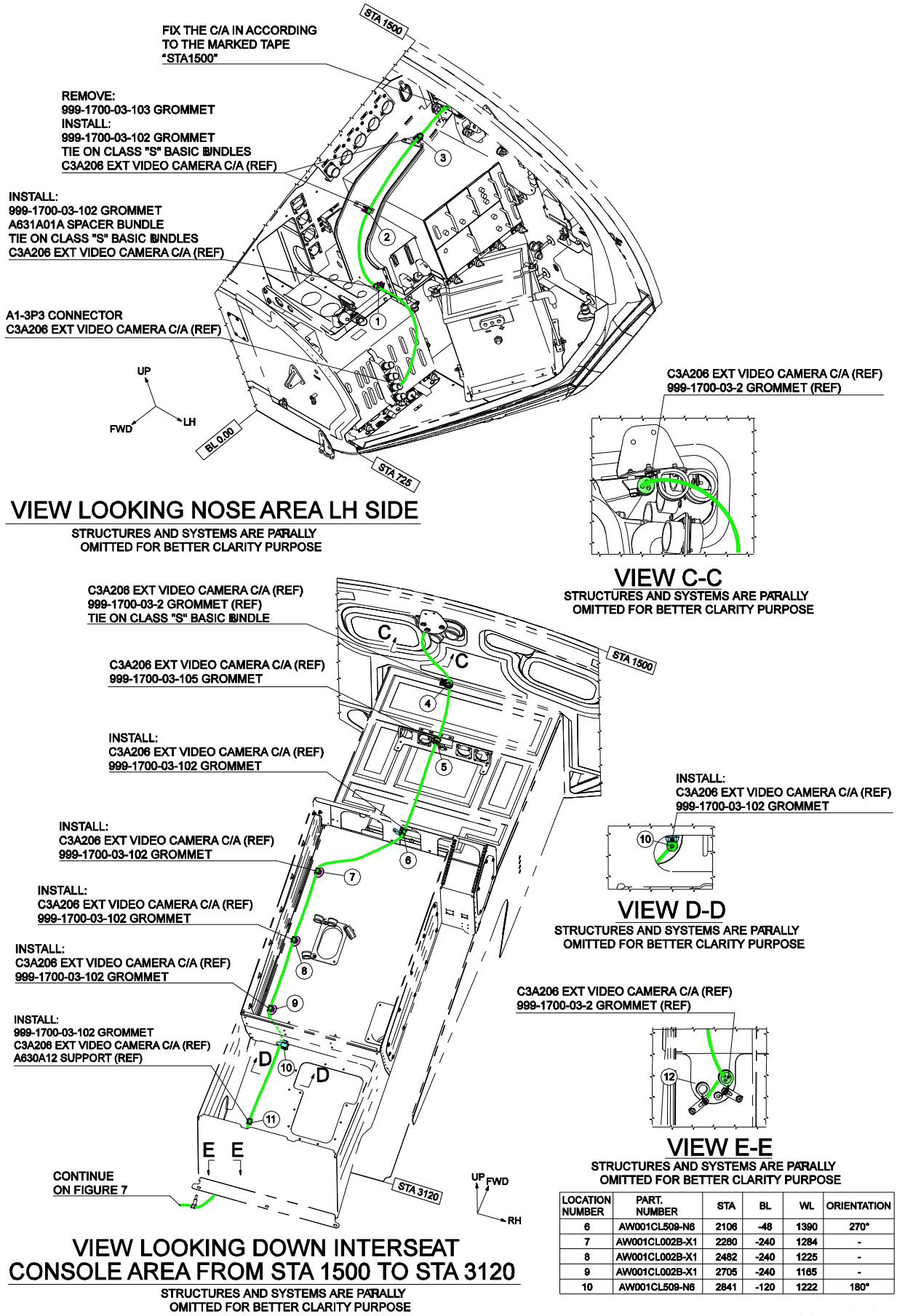

4G9750A00311
EXTERNAL VIDEO CAMERA
ELECTRICAL PROVISION
D2A204
EXT VIDEO CAMERA C/A (REF.)
C3A206
EXT VIDEO CAMERA C/A (REF.)
C1A237
EXT VIDEO CAMERA C/A (REF.)
B1A359
EXT VIDEO CAMERA C/A (REF.)
ORIGIN XYZ
X-AXIS 0°
Z-AXIS 270°
ORIENTATION 90°
180°
ORIENTATION OF CABLE SUPPORTS
DIAGRAM IS BASIC FOR ORIENTATION OF ALL CABLE SUPPORTS IN RELATIONSHIP WITH HC-AXIS SISTEM.
FOR ORIENTATION OFF SUPPORT SEE COORDINATES TABLE
AW001CL509-N6
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT.SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL001-N6
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT.SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL002B-X1
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT.SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001TL3A08T
XYZ INDICATES WHERE GIVEN COORDINATES ARE LOCATED ON SUPPORT.SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.

Figure 5



LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
6	AW001CL509-N6	2106	-48	1390	270°
7	AW001CL002B-X1	2260	-240	1284	-
8	AW001CL002B-X1	2482	-240	1225	-
9	AW001CL002B-X1	2705	-240	1165	-
10	AW001CL509-N6	2841	-120	1222	180°

Figure 6

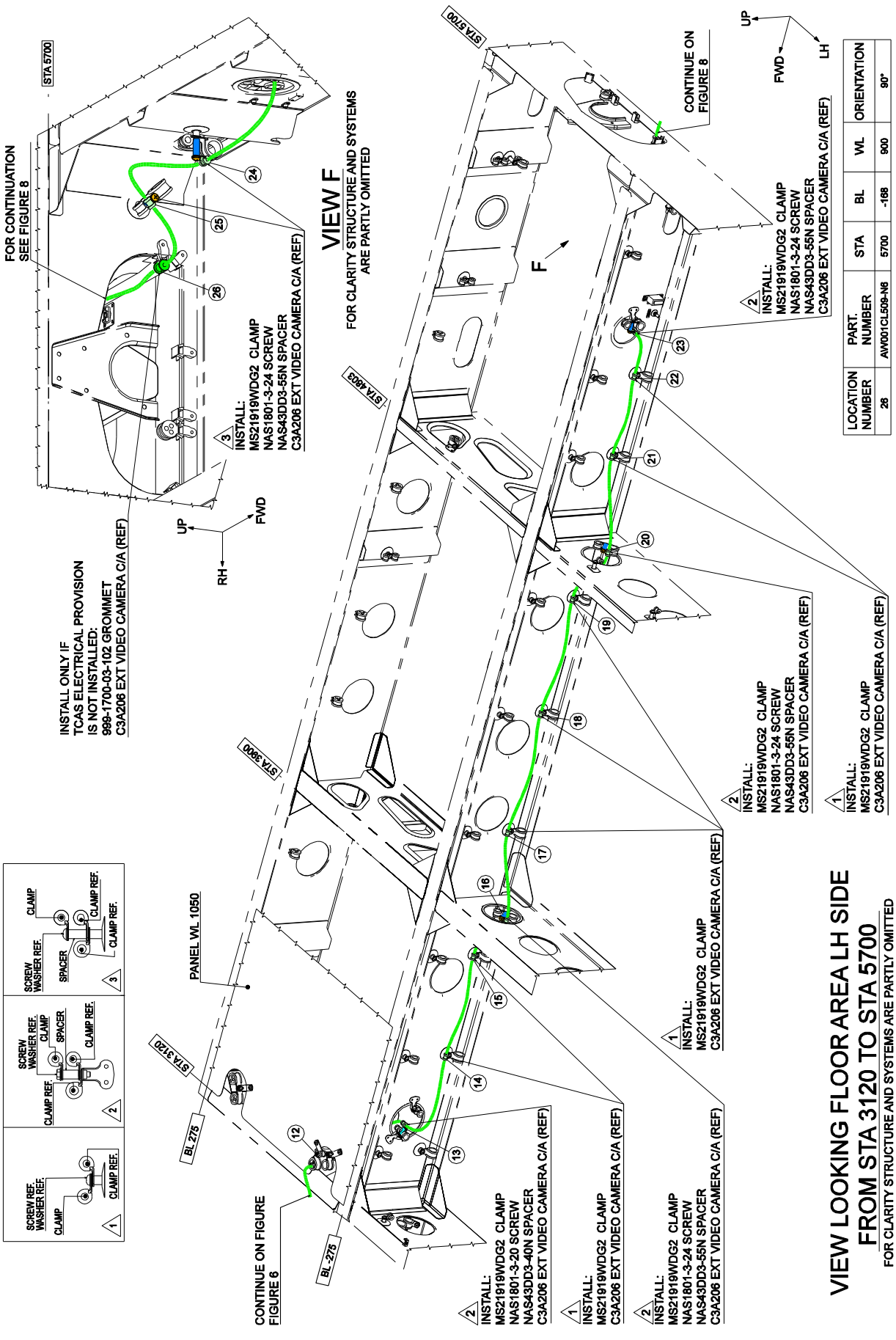
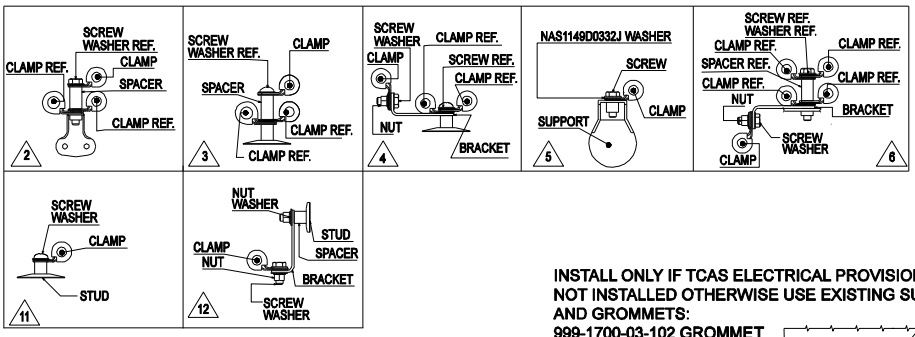

VIEW LOOKING FLOOR AREA LH SIDE
FROM STA 3120 TO STA 5700
FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED
VIEW F
FOR CLARITY STRUCTURE AND SYSTEMS
ARE PARTLY OMITTED
STA 5700
STA 4805
STA 3900
STA 3120
BL 275
BL -275
PANEL WL 1050
CONTINUE ON FIGURE 6
CONTINUE ON FIGURE 8
FOR CONTINUATION SEE FIGURE 8
INSTALL ONLY IF TCAS ELECTRICAL PROVISION IS NOT INSTALLED: 999-1700-03-102 GROMMET
C3A206 EXT VIDEO CAMERA C/A (REF)
UP
FWD
RH
LH
F
INSTALL: MS21919WDG2 CLAMP NAS1801-3-24 SCREW NAS43DD3-55N SPACER C3A206 EXT VIDEO CAMERA C/A (REF)
INSTALL: MS21919WDG2 CLAMP NAS1801-3-20 SCREW NAS43DD3-40N SPACER C3A206 EXT VIDEO CAMERA C/A (REF)
INSTALL: MS21919WDG2 CLAMP C3A206 EXT VIDEO CAMERA C/A (REF)
SCREW REF. WASHER REF. CLAMP CLAMP REF.
SCREW WASHER REF. CLAMP SPACER CLAMP REF. CLAMP REF.
SCREW WASHER REF. CLAMP SPACER CLAMP REF. CLAMP REF.
LOCATION NUMBER | PART. NUMBER | STA | BL | WL | ORIENTATION
26 | AW001CL509-N6 | 5700 | -188 | 900 | 90°

Figure 7

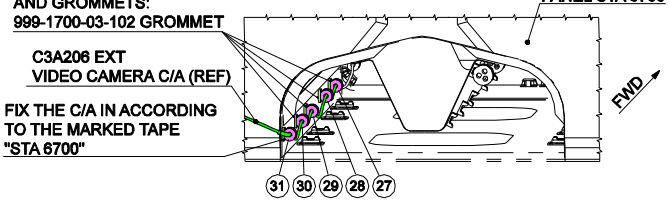


LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
27	AW001CL001-N6	5920	-154	882	90°
28	AW001CL001-N6	6080	-154	882	90°
29	AW001CL001-N6	6320	-154	882	90°
30	AW001CL001-N6	6480	-154	882	90°
31	AW001CL001-N6	6685	-154	882	90°
34	AW001TL3A08	7200	-401	1189	90°
35	A388A3E08C	7492	-407	1138	-
36	A388A3E08C	7785	-365	1246	-
37	A388A3E08C	8010	-345	1330	-
41	A366A3E12C75	8698	-315	2050	-

INSTALL ONLY IF TCAS ELECTRICAL PROVISION IS NOT INSTALLED OTHERWISE USE EXISTING SUPPORTS AND GROMMETS:
999-1700-03-102 GROMMET

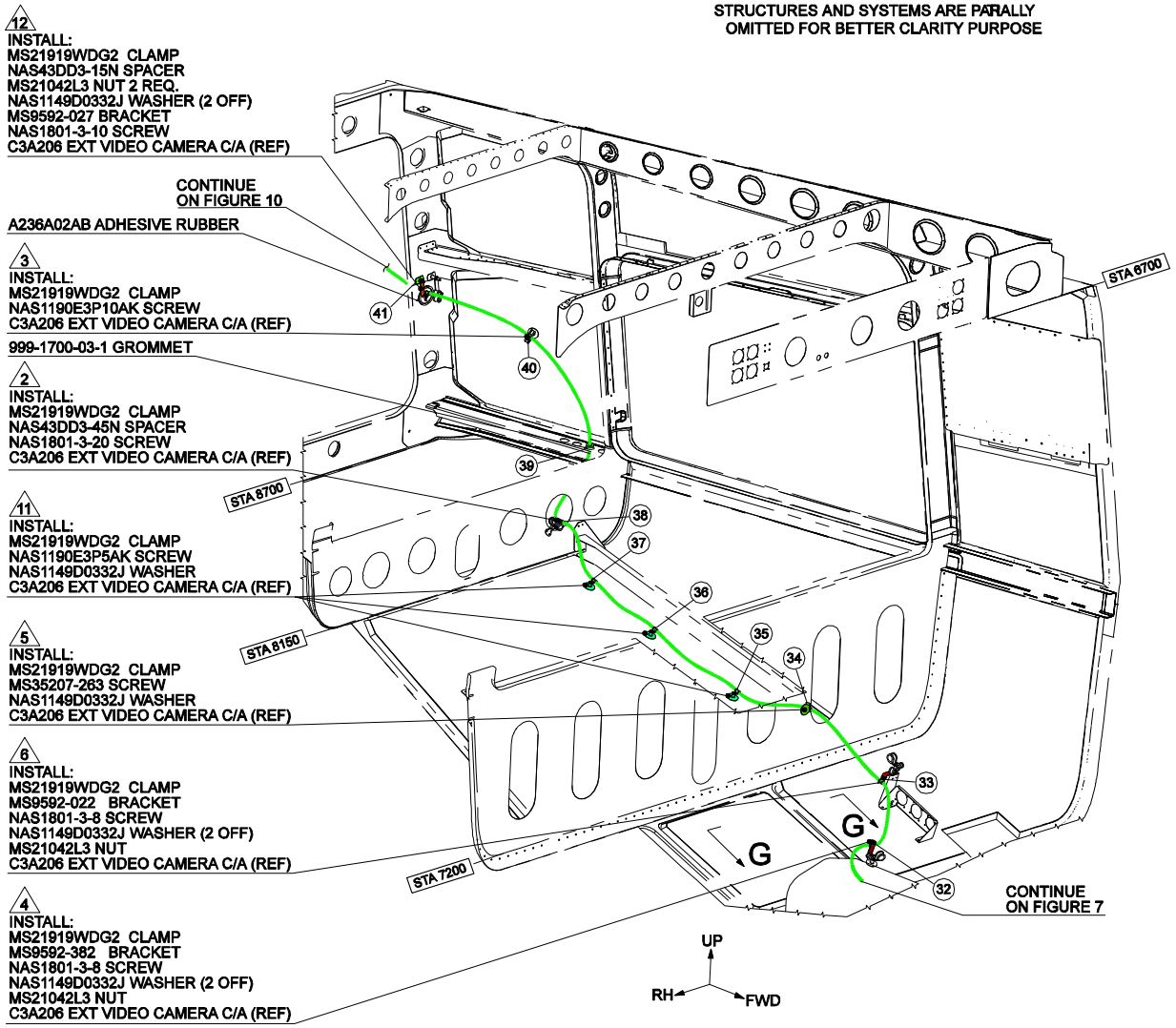
C3A206 EXT
VIDEO CAMERA C/A (REF)

FIX THE C/A IN ACCORDING TO THE MARKED TAPE "STA 6700"



VIEW G-G

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



VIEW LOOKING DOWN REAR AREA LH SIDE

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 8

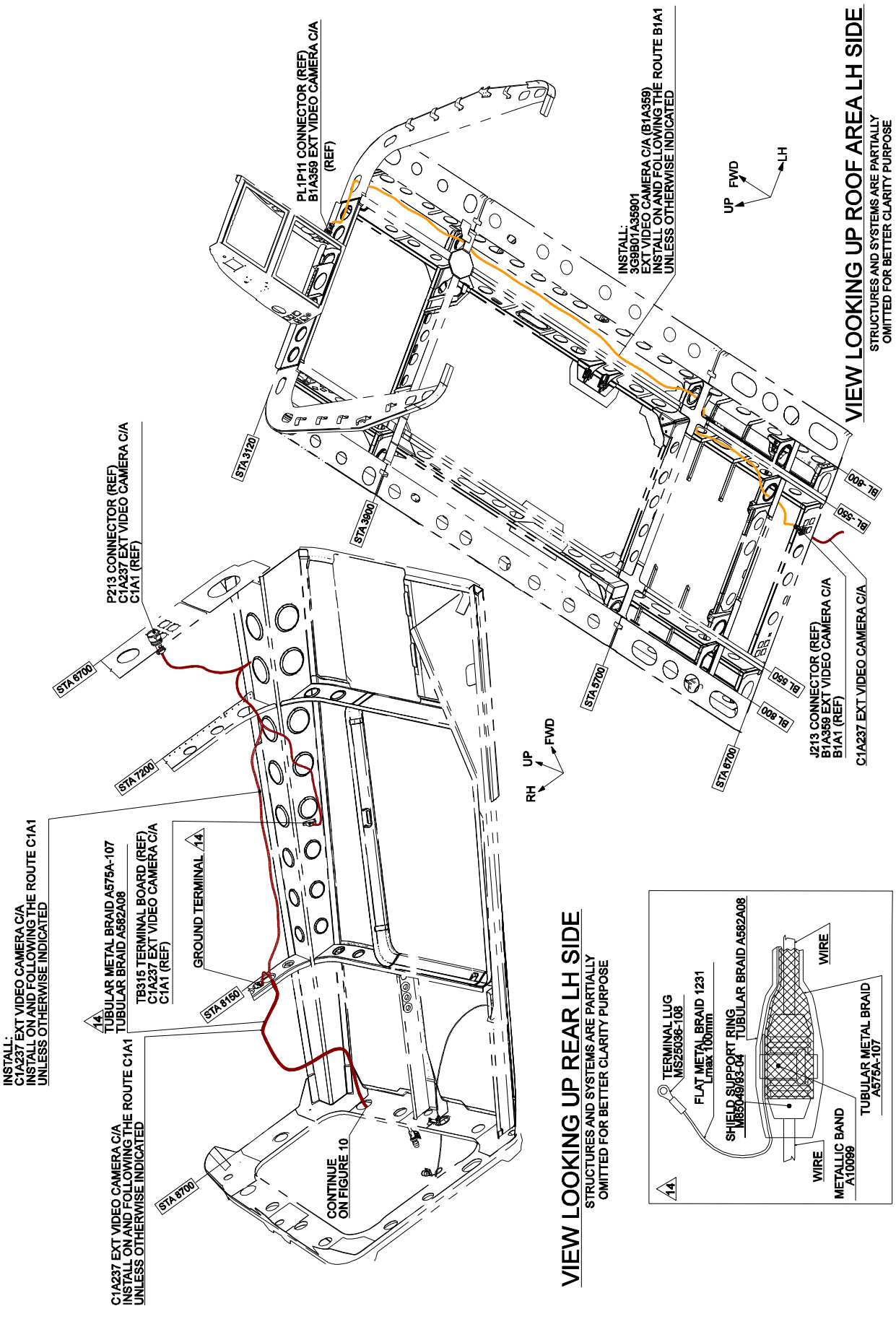

PL1P11 CONNECTOR (REF)
B1A359 EXT VIDEO CAMERA C/A
(REF)
INSTALL:
3G9B01A35901
EXT VIDEO CAMERA C/A (B1A359)
INSTALL ON AND FOLLOWING THE ROUTE B1A1
UNLESS OTHERWISE INDICATED
UP
FWD
LH
VIEW LOOKING UP ROOF AREA LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
STA 3120
STA 3900
STA 5700
STA 6700
BL -600
BL -550
BL 550
BL 600
J213 CONNECTOR (REF)
B1A359 EXT VIDEO CAMERA C/A
B1A1 (REF)
C1A237 EXT VIDEO CAMERA C/A
P213 CONNECTOR (REF)
C1A237 EXT VIDEO CAMERA C/A
C1A1 (REF)
STA 6700
STA 7200
STA 8150
INSTALL:
C1A237 EXT VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING THE ROUTE C1A1
UNLESS OTHERWISE INDICATED
14
TUBULAR METAL BRAID A575A-107
TUBULAR BRAID A582A08
TB315 TERMINAL BOARD (REF)
C1A237 EXT VIDEO CAMERA C/A
C1A1 (REF)
GROUND TERMINAL 14
C1A237 EXT VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING THE ROUTE C1A1
UNLESS OTHERWISE INDICATED
STA 6700
CONTINUE
ON FIGURE 10
RH
UP
FWD
VIEW LOOKING UP REAR LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
14
TERMINAL LUG
MS25036-108
FLAT METAL BRAID 1231
Lmax 100mm
SHIELD SUPPORT RING
M85049/93-04
TUBULAR BRAID A582A08
WIRE
WIRE
METALLIC BAND
A10099
TUBULAR METAL BRAID
A575A-107

Figure 9

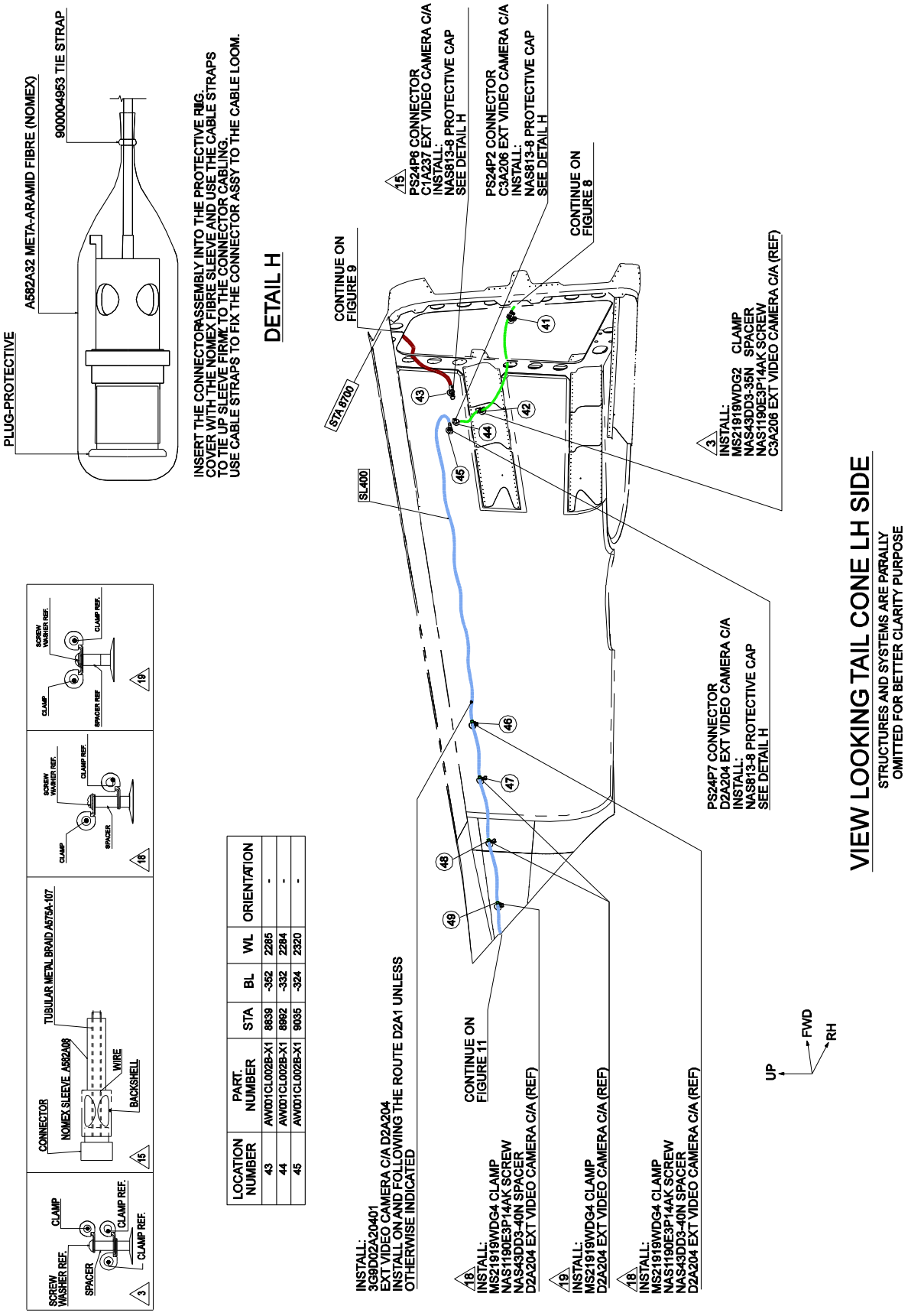

PLUG-PROTECTIVE
A582A32 META-ARAMID FIBRE (NOMEX)
900004963 TIE STRAP
INSERT THE CONNECTOR ASSEMBLY INTO THE PROTECTIVE PLUG, COVER WITH THE NOMEX FIBRE SLEEVE AND USE THE CABLE STRAPS TO TIE UP SLEEVE FIRMLY TO THE CONNECTOR CABLING. USE CABLE STRAPS TO FIX THE CONNECTOR ASSY TO THE CABLE LOOM.
DETAIL H
CONNECTOR
NOMEX SLEEVE A582A08
TUBULAR METAL BRAID A575A-107
WIRE
BACKSHELL
CLAMP
SCREW WASHER REF.
SPACER
CLAMP REF.
SPACER REF
LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
43 AW001CL002B-X1 8839 -352 2285 -
44 AW001CL002B-X1 8992 -332 2284 -
45 AW001CL002B-X1 9035 -324 2320 -
CONTINUE ON FIGURE 9
CONTINUE ON FIGURE 8
STA 8700
SL400
15 PS24P6 CONNECTOR C1A237 EXT VIDEO CAMERA C/A INSTALL: NAS813-8 PROTECTIVE CAP SEE DETAIL H
PS24P2 CONNECTOR C3A206 EXT VIDEO CAMERA C/A INSTALL: NAS813-8 PROTECTIVE CAP SEE DETAIL H
3 INSTALL: MS21919WDG2 CLAMP NAS43DD3-35N SPACER NAS1190E3P14AK SCREW C3A206 EXT VIDEO CAMERA C/A (REF)
PS24P7 CONNECTOR D2A204 EXT VIDEO CAMERA C/A INSTALL: NAS813-8 PROTECTIVE CAP SEE DETAIL H
INSTALL: 3G9D02A20401 EXT VIDEO CAMERA C/A D2A204 INSTALL ON AND FOLLOWING THE ROUTE D2A1 UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 11
16 INSTALL: MS21919WDG4 CLAMP NAS1190E3P14AK SCREW NAS43DD3-40N SPACER D2A204 EXT VIDEO CAMERA C/A (REF)
19 INSTALL: MS21919WDG4 CLAMP D2A204 EXT VIDEO CAMERA C/A (REF)
18 INSTALL: MS21919WDG4 CLAMP NAS1190E3P14AK SCREW NAS43DD3-40N SPACER D2A204 EXT VIDEO CAMERA C/A (REF)
UP
FWD
RH
VIEW LOOKING TAIL CONE LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 10

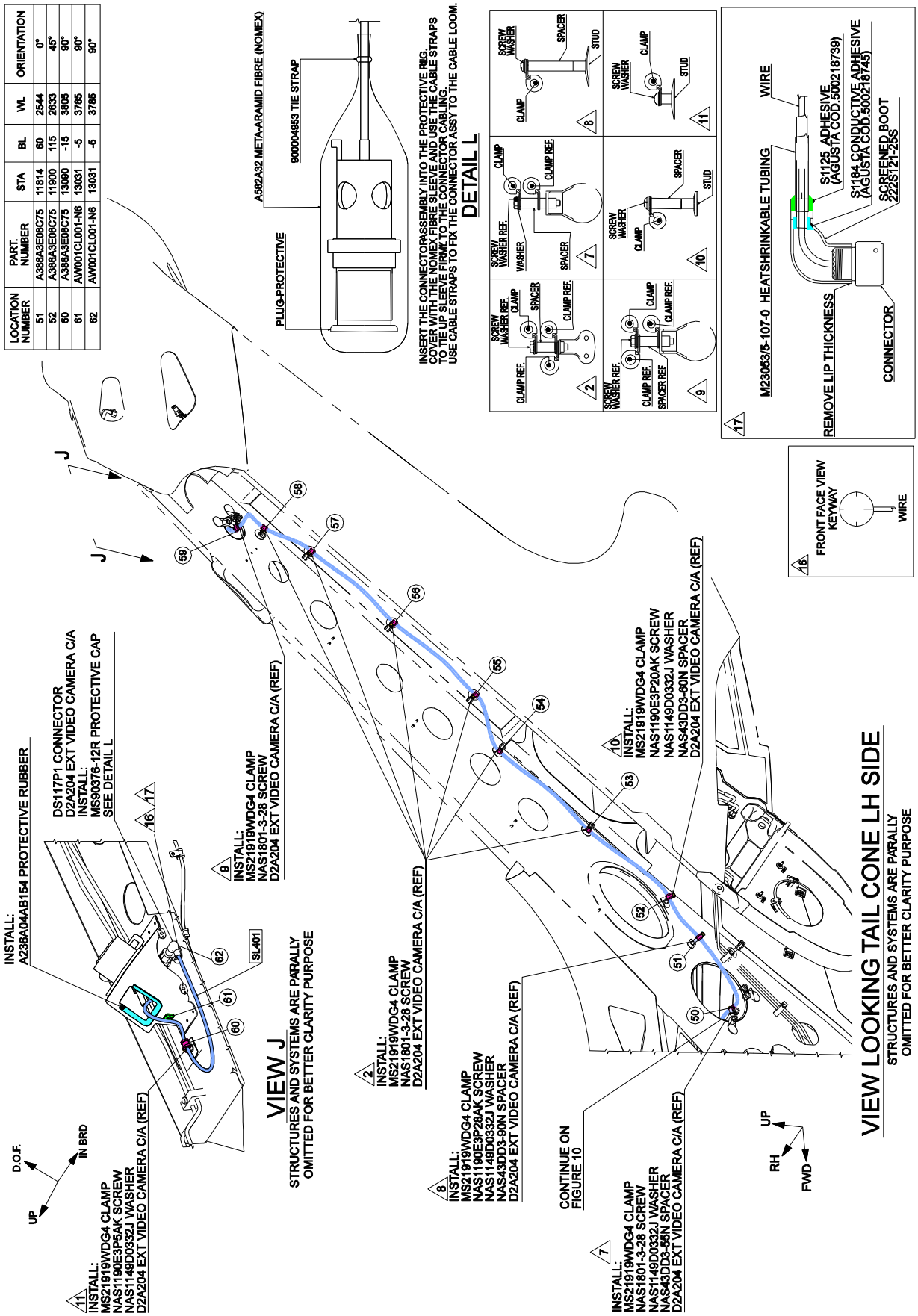

LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
51 | A388A3E08C75 | 11814 | 60 | 2544 | 0°
52 | A388A3E08C75 | 11900 | 115 | 2633 | 45°
60 | A388A3E08C75 | 13090 | -15 | 3805 | 90°
61 | AW001CL001-N6 | 13031 | -5 | 3785 | 90°
62 | AW001CL001-N6 | 13031 | -5 | 3785 | 90°
A582A32 META-ARAMID FIBRE (NOMEX)
900004863 TIE STRAP
PLUG-PROTECTIVE
INSERT THE CONNECTOR ASSEMBLY INTO THE PROTECTIVE RUG, COVER WITH THE NOMEX FIBRE SLEEVE AND USE THE CABLE STRAPS TO TIE UP SLEEVE FIRMLY TO THE CONNECTOR CABLING. USE CABLE STRAPS TO FIX THE CONNECTOR ASSY TO THE CABLE LOOM.
DETAIL L
M23053/5-107-0 HEATSHRINKABLE TUBING
WIRE
S1125 ADHESIVE (AGUSTA COD.500218739)
S1184 CONDUCTIVE ADHESIVE (AGUSTA COD.500218745)
SCREENED BOOT 222S121-25S
REMOVE LIP THICKNESS
CONNECTOR
FRONT FACE VIEW KEYWAY
WIRE
INSTALL: A236A04AB154 PROTECTIVE RUBBER
DS117P1 CONNECTOR D2A204 EXT VIDEO CAMERA C/A
INSTALL: MS90376-12R PROTECTIVE CAP SEE DETAIL L
INSTALL: MS21919WDG4 CLAMP NAS1801-3-28 SCREW D2A204 EXT VIDEO CAMERA C/A (REF)
INSTALL: MS21919WDG4 CLAMP NAS1190E3P5AK SCREW NAS1149D0332J WASHER D2A204 EXT VIDEO CAMERA C/A (REF)
VIEW J
STRUCTURES AND SYSTEMS ARE PARALLY OMITTED FOR BETTER CLARITY PURPOSE
INSTALL: MS21919WDG4 CLAMP NAS1801-3-28 SCREW D2A204 EXT VIDEO CAMERA C/A (REF)
INSTALL: MS21919WDG4 CLAMP NAS1190E3P28AK SCREW NAS1149D0332J WASHER NAS43DD3-90N SPACER D2A204 EXT VIDEO CAMERA C/A (REF)
INSTALL: MS21919WDG4 CLAMP NAS1801-3-28 SCREW NAS1149D0332J WASHER NAS43DD3-55N SPACER D2A204 EXT VIDEO CAMERA C/A (REF)
INSTALL: MS21919WDG4 CLAMP NAS1190E3P20AK SCREW NAS1149D0332J WASHER NAS43DD3-60N SPACER D2A204 EXT VIDEO CAMERA C/A (REF)
CONTINUE ON FIGURE 10
VIEW LOOKING TAIL CONE LH SIDE
STRUCTURES AND SYSTEMS ARE PARALLY OMITTED FOR BETTER CLARITY PURPOSE
D.O.F.
UP
IN BRD
RH
FWD
SL401

Figure 11

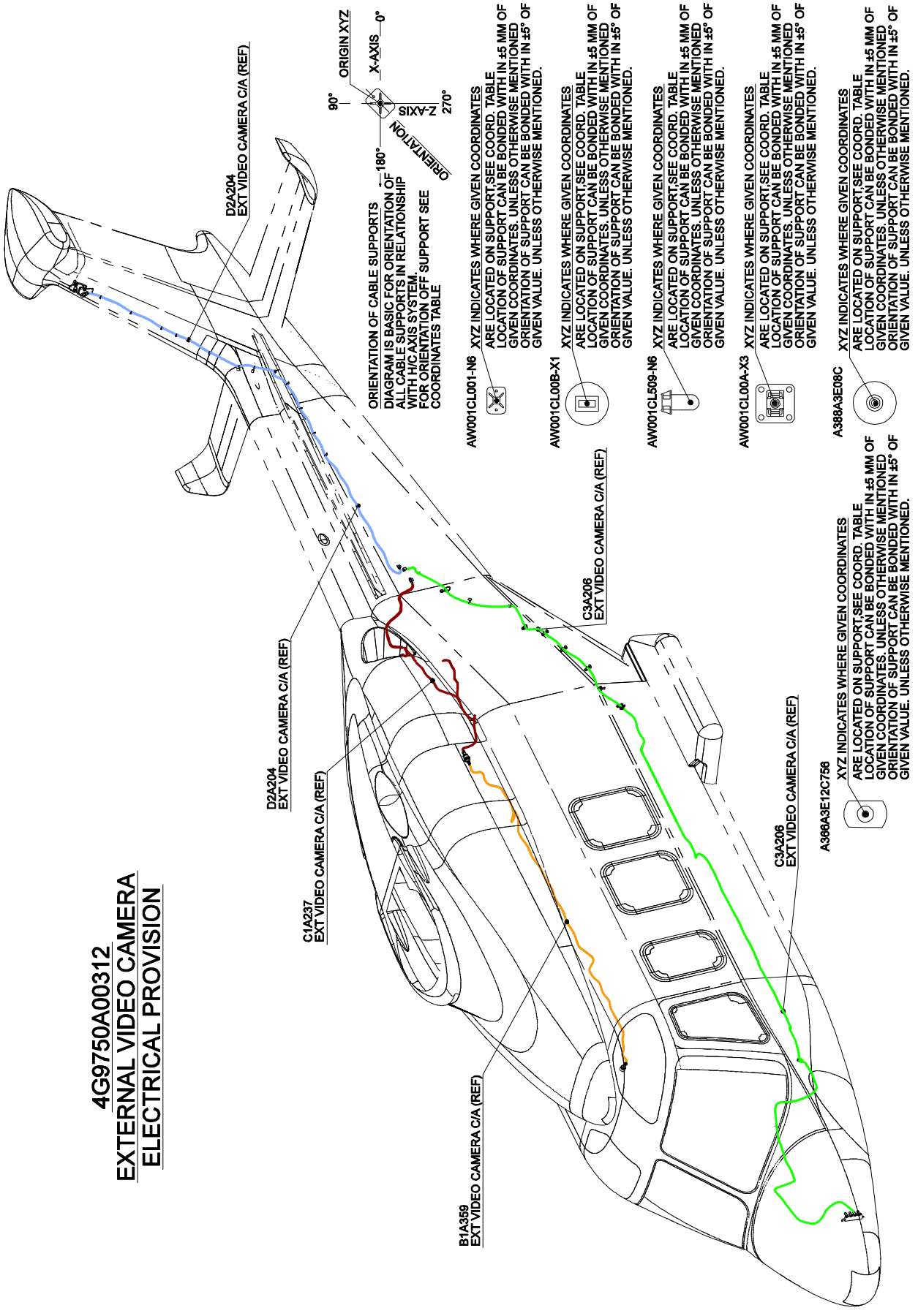

4G9750A00312
EXTERNAL VIDEO CAMERA
ELECTRICAL PROVISION
D2A204
EXT VIDEO CAMERA C/A (REF)
ORIGIN XYZ
X-AXIS 0°
Z-AXIS 270°
90°
180°
ORIENTATION
ORIENTATION OF CABLE SUPPORTS
DIAGRAM IS BASIC FOR ORIENTATION OF
ALL CABLE SUPPORTS IN RELATIONSHIP
WITH H/C AXIS SYSTEM.
FOR ORIENTATION OFF SUPPORT SEE
COORDINATES TABLE
AW001CL001-N6
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF
GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF
GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL00B-X1
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF
GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF
GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL509-N6
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF
GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF
GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL00A-X3
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF
GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF
GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A388A3E08C
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF
GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF
GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A366A3E12C756
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORD. TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF
GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF
GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
C3A206
EXT VIDEO CAMERA C/A (REF)
C1A237
EXT VIDEO CAMERA C/A (REF)
B1A359
EXT VIDEO CAMERA C/A (REF)

Figure 12

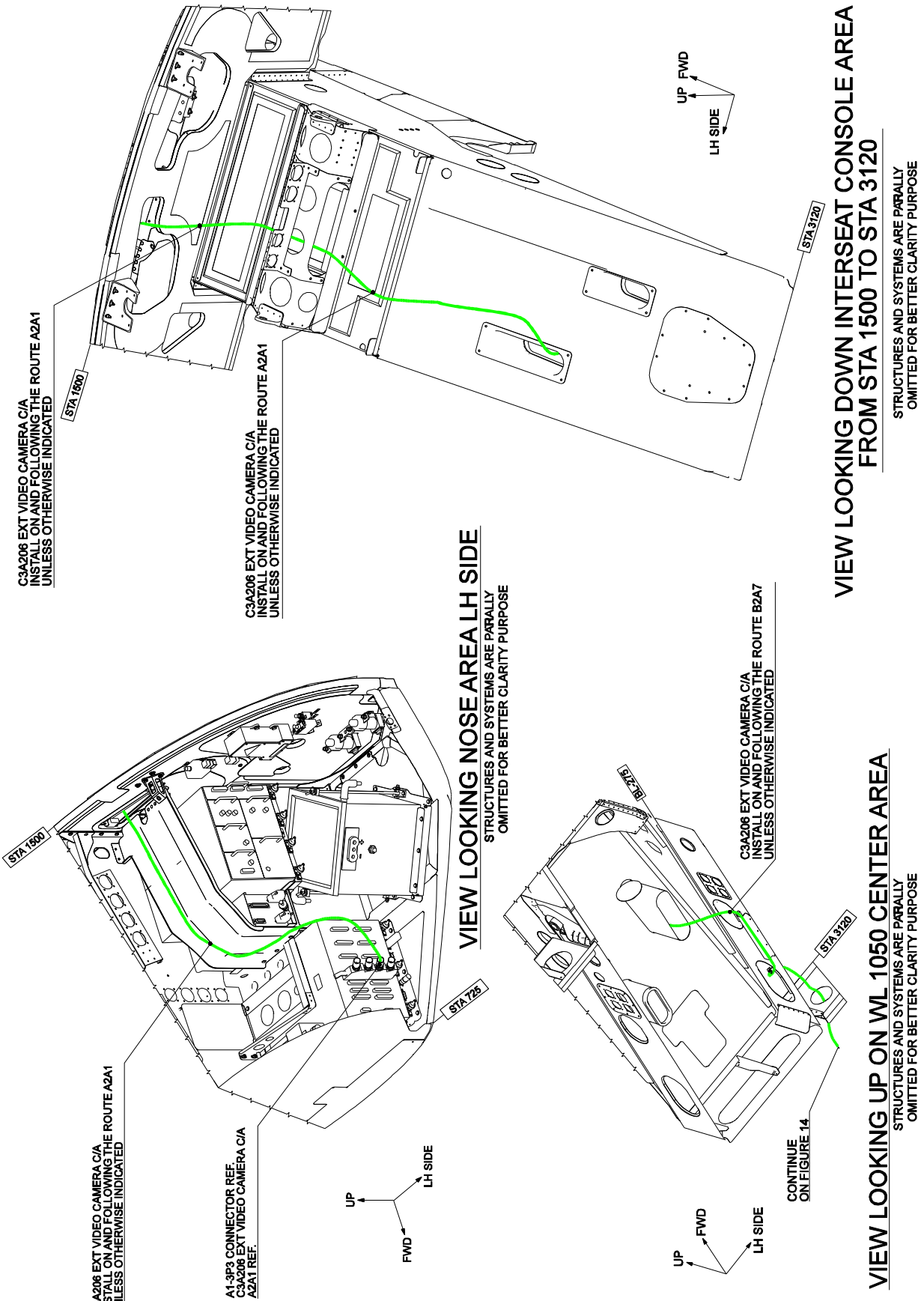

VIEW LOOKING DOWN INTERSEAT CONSOLE AREA FROM STA 1500 TO STA 3120
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
C3A206 EXT VIDEO CAMERA C/A INSTALL ON AND FOLLOWING THE ROUTE A2A1 UNLESS OTHERWISE INDICATED
STA 1500
STA 3120
UP FWD
LH SIDE
VIEW LOOKING NOSE AREA LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
STA 1500
STA 725
A1-3P3 CONNECTOR REF. C3A206 EXT VIDEO CAMERA C/A A2A1 REF.
UP
LH SIDE
FWD
VIEW LOOKING UP ON WL 1050 CENTER AREA
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
C3A206 EXT VIDEO CAMERA C/A INSTALL ON AND FOLLOWING THE ROUTE B2A7 UNLESS OTHERWISE INDICATED
BL 215
STA 3120
CONTINUE ON FIGURE 14
UP
FWD
LH SIDE

Figure 13

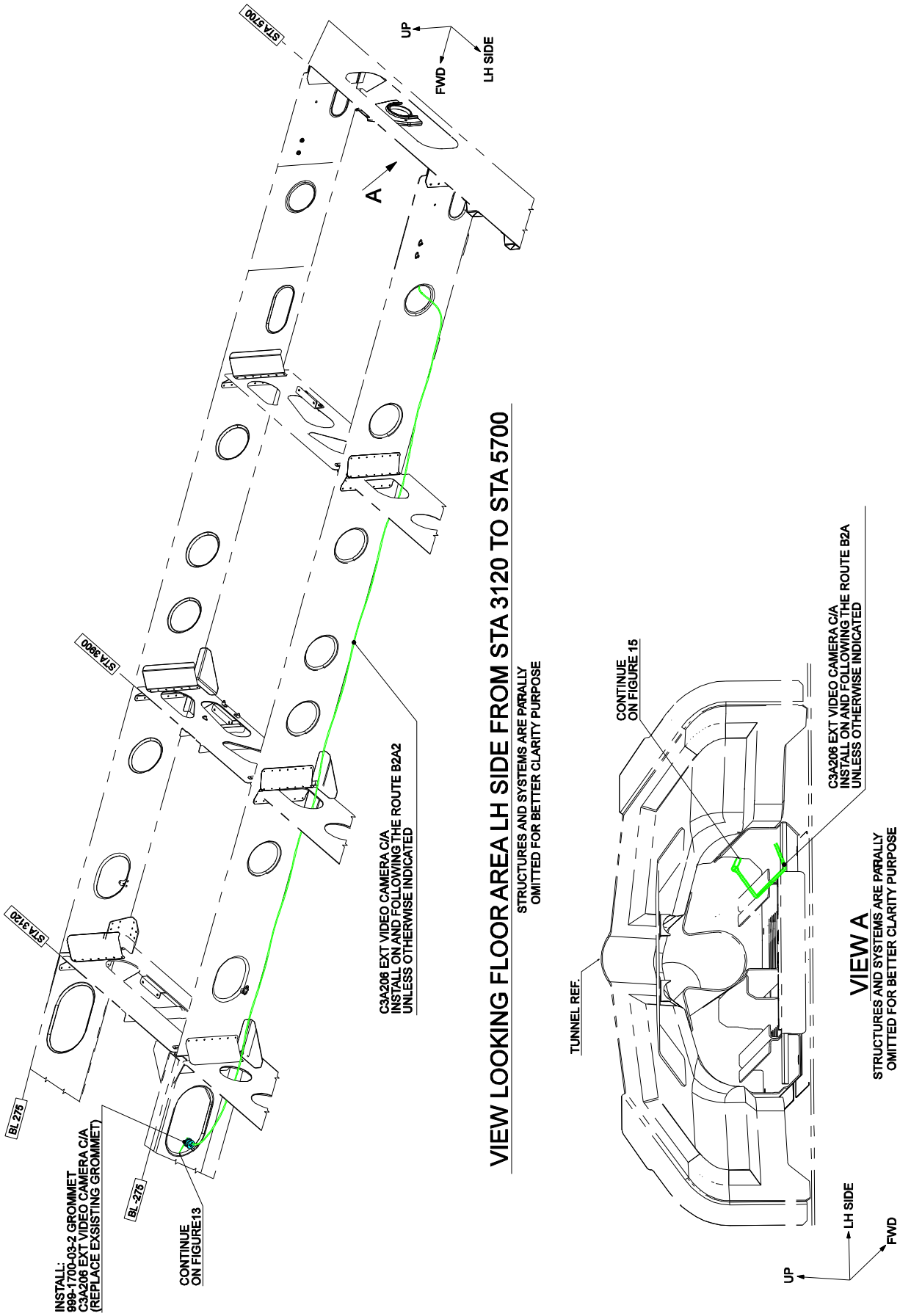
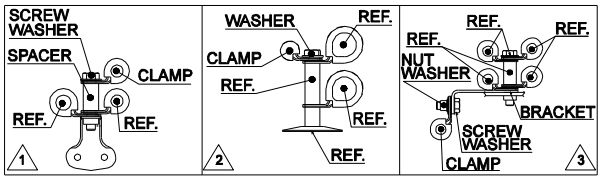
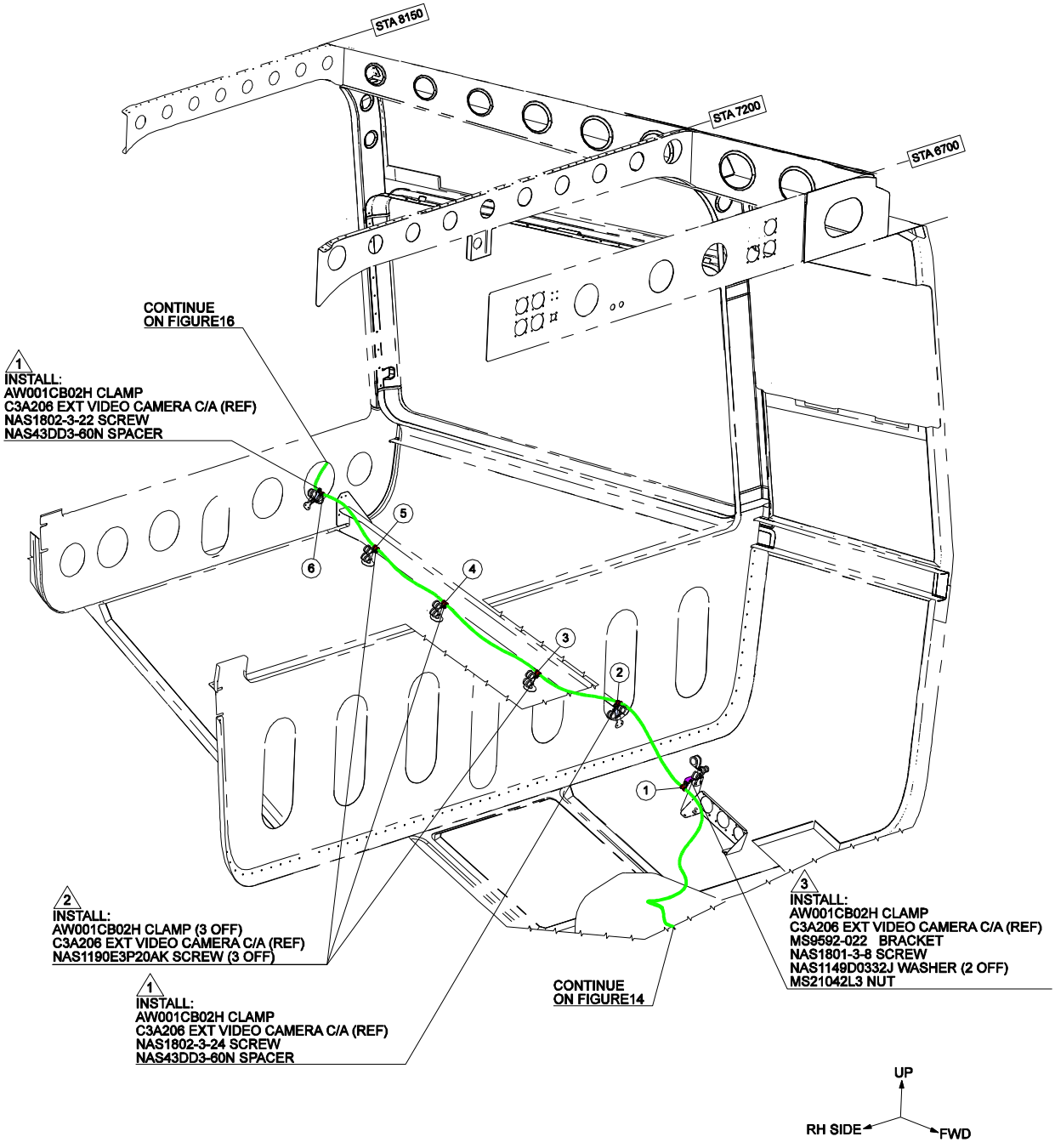

STA 5700
UP
FWD
LH SIDE
A
STA 3800
STA 3120
BL 276
BL 275
INSTALL:
999-1700-03-2 GROMMET
C3A206 EXT VIDEO CAMERA C/A
(REPLACE EXSISTING GROMMET)
CONTINUE
ON FIGURE 13
C3A206 EXT VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING THE ROUTE B2A2
UNLESS OTHERWISE INDICATED
VIEW LOOKING FLOOR AREA LH SIDE FROM STA 3120 TO STA 5700
STRUCTURES AND SYSTEMS ARE PARALLY
OMITTED FOR BETTER CLARITY PURPOSE
CONTINUE
ON FIGURE 15
TUNNEL REF.
C3A206 EXT VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING THE ROUTE B2A
UNLESS OTHERWISE INDICATED
VIEW A
STRUCTURES AND SYSTEMS ARE PARALLY
OMITTED FOR BETTER CLARITY PURPOSE
UP
LH SIDE
FWD

Figure 14





VIEW LOOKING DOWN REAR AREA LH SIDE

STRUCTURES AND SYSTEMS ARE PARALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 15

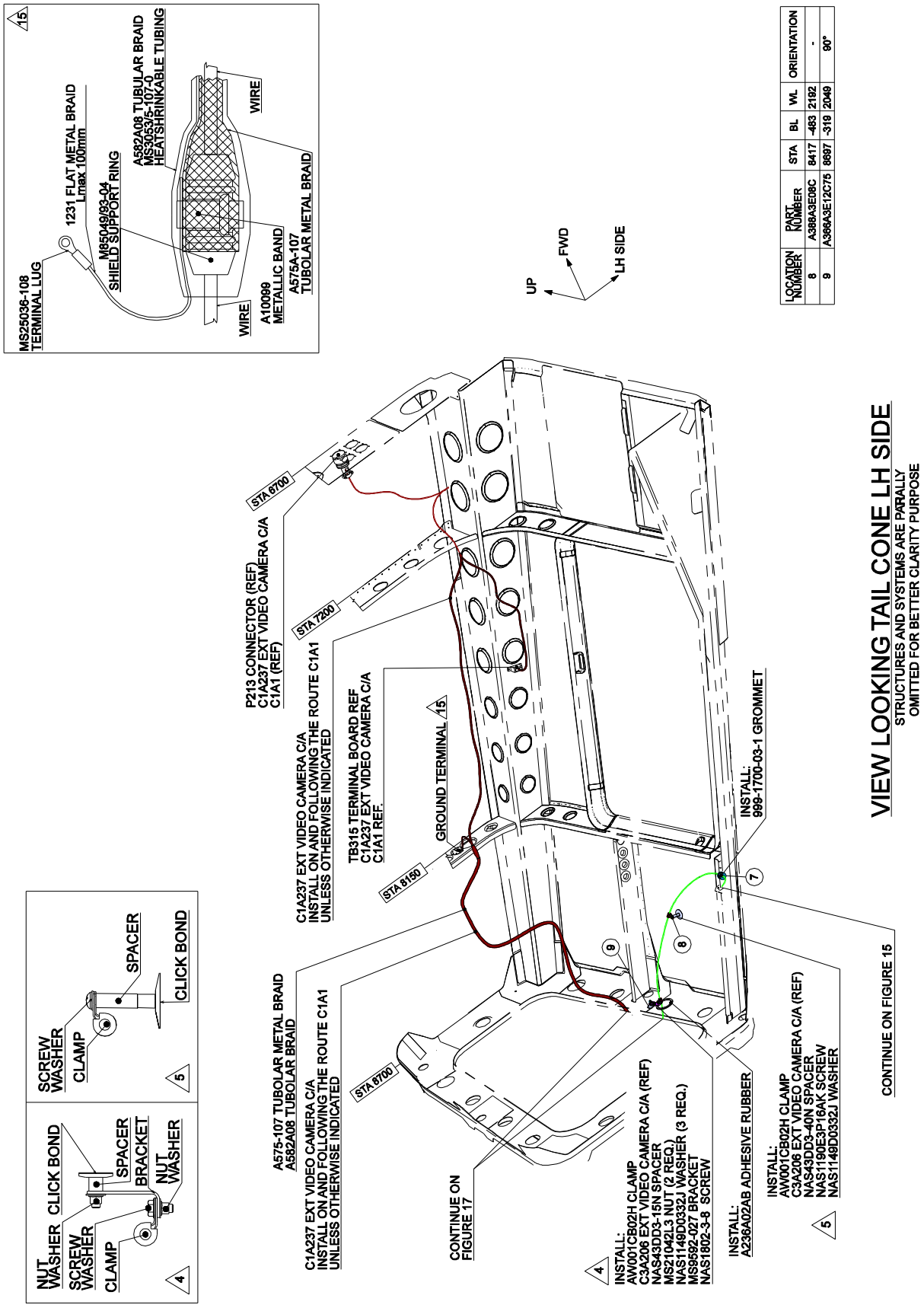

VIEW LOOKING TAIL CONE LH SIDE
STRUCTURES AND SYSTEMS ARE PARALLY OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
LH SIDE
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
8 | A368A3E08C | 8417 | -483 | 2192 | -
9 | A368A3E12C75 | 8697 | -319 | 2049 | 90°
15
MS25036-108 TERMINAL LUG
1231 FLAT METAL BRAID Lmax 100mm
M85049/93-04 SHIELD SUPPORT RING
A582A08 TUBULAR BRAID MS3053/5-107-0 HEATSHRINKABLE TUBING
WIRE
WIRE
A10099 METALLIC BAND
A575A-107 TUBOLAR METAL BRAID
NUT WASHER CLICK BOND
SCREW WASHER
CLAMP
SPACER
BRACKET
NUT WASHER
4
SCREW WASHER
CLAMP
SPACER
CLICK BOND
5
P213 CONNECTOR (REF) C1A237 EXT VIDEO CAMERA C/A C1A1 (REF)
STA 6700
STA 7200
C1A237 EXT VIDEO CAMERA C/A INSTALL ON AND FOLLOWING THE ROUTE C1A1 UNLESS OTHERWISE INDICATED
TB315 TERMINAL BOARD REF C1A237 EXT VIDEO CAMERA C/A C1A1 REF.
GROUND TERMINAL 15
STA 8150
INSTALL: 999-1700-03-1 GROMMET
7
A575-107 TUBOLAR METAL BRAID A582A08 TUBOLAR BRAID
C1A237 EXT VIDEO CAMERA C/A INSTALL ON AND FOLLOWING THE ROUTE C1A1 UNLESS OTHERWISE INDICATED
STA 6700
CONTINUE ON FIGURE 17
9
8
4
INSTALL: AW001CB02H CLAMP C3A206 EXT VIDEO CAMERA C/A (REF) NAS43DD3-15N SPACER MS21042L3 NUT (2 REQ.) NAS1149D0332J WASHER (3 REQ.) MS9592-027 BRACKET NAS1802-3-8 SCREW
INSTALL: A236A02AB ADHESIVE RUBBER
INSTALL: AW001CB02H CLAMP C3A206 EXT VIDEO CAMERA C/A (REF) NAS43DD3-40N SPACER NAS1190E3P16AK SCREW NAS1149D0332J WASHER
5
CONTINUE ON FIGURE 15

Figure 16

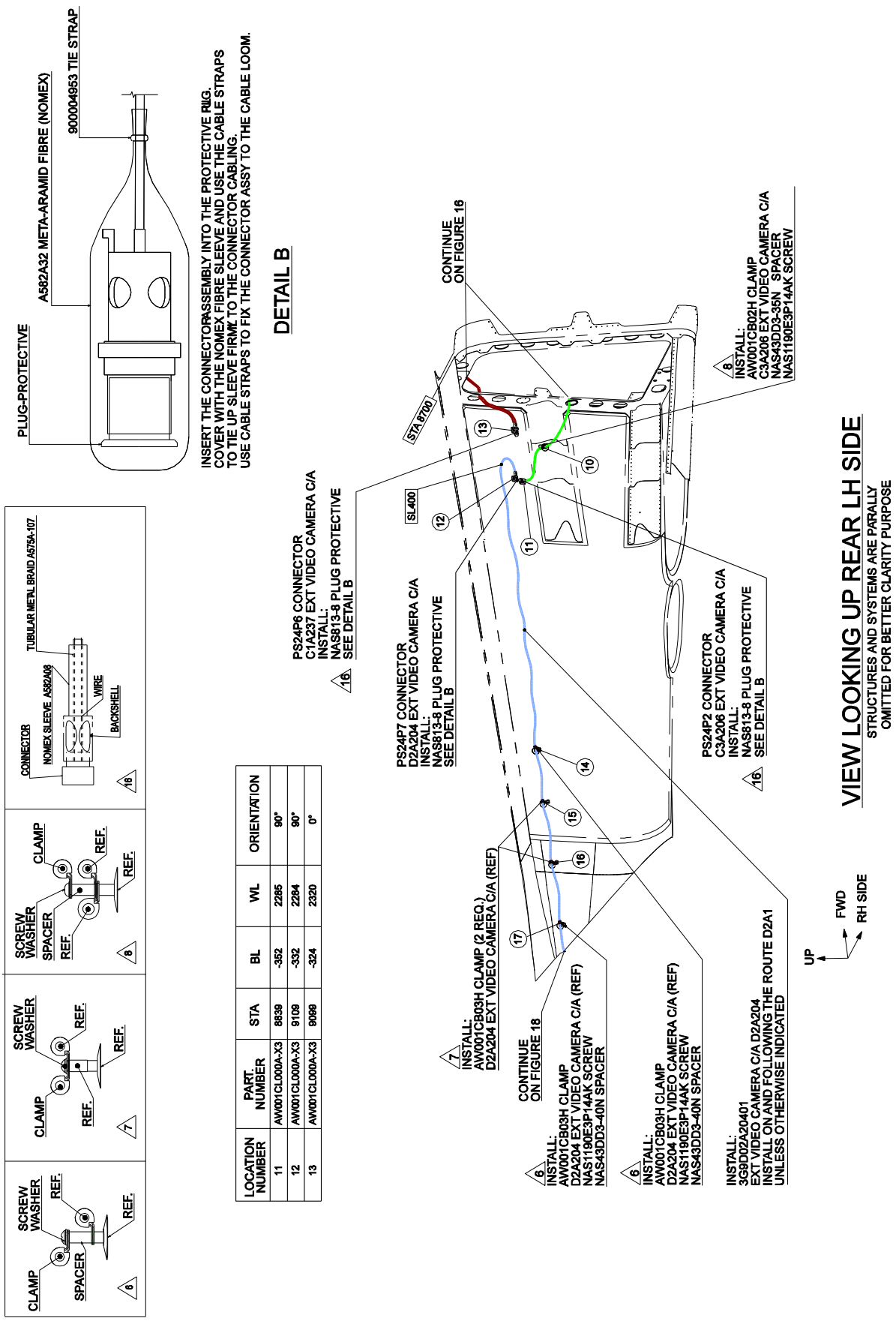

PLUG-PROTECTIVE
A582A32 META-ARAMID FIBRE (NOMEX)
900004953 TIE STRAP
INSERT THE CONNECTOR ASSEMBLY INTO THE PROTECTIVE PLUG.
COVER WITH THE NOMEX FIBRE SLEEVE AND USE THE CABLE STRAPS
TO TIE UP SLEEVE FIRMLY TO THE CONNECTOR CABLING.
USE CABLE STRAPS TO FIX THE CONNECTOR ASSY TO THE CABLE LOOM.
DETAIL B
CONNECTOR
NOMEX SLEEVE A582A08
TUBULAR METAL BRAID A575A-107
WIRE
BACKSHELL
16
SCREW
WASHER
CLAMP
REF.
SPACER
8
7
6
LOCATION NUMBER
PART NUMBER
STA
BL
WL
ORIENTATION
11
AW001CL000A-X3
8839
-352
2285
90°
12
AW001CL000A-X3
9109
-332
2284
90°
13
AW001CL000A-X3
9069
-324
2320
0°
PS24P6 CONNECTOR
C1A237 EXT VIDEO CAMERA C/A
INSTALL:
NAS813-8 PLUG PROTECTIVE
SEE DETAIL B
16
PS24P7 CONNECTOR
D2A204 EXT VIDEO CAMERA C/A
INSTALL:
NAS813-8 PLUG PROTECTIVE
SEE DETAIL B
CONTINUE
ON FIGURE 16
STA 8700
SL400
7
INSTALL:
AW001CB03H CLAMP (2 REQ.)
D2A204 EXT VIDEO CAMERA C/A (REF)
CONTINUE
ON FIGURE 18
6
INSTALL:
AW001CB03H CLAMP
D2A204 EXT VIDEO CAMERA C/A (REF)
NAS1190E3P14AK SCREW
NAS43DD3-40N SPACER
6
INSTALL:
AW001CB03H CLAMP
D2A204 EXT VIDEO CAMERA C/A (REF)
NAS1190E3P14AK SCREW
NAS43DD3-40N SPACER
INSTALL:
3G9D02A20401
EXT VIDEO CAMERA C/A D2A204
INSTALL ON AND FOLLOWING THE ROUTE D2A1
UNLESS OTHERWISE INDICATED
PS24P2 CONNECTOR
C3A206 EXT VIDEO CAMERA C/A
INSTALL:
NAS813-8 PLUG PROTECTIVE
SEE DETAIL B
16
8
INSTALL:
AW001CB02H CLAMP
C3A206 EXT VIDEO CAMERA C/A
NAS43DD3-35N SPACER
NAS1190E3P14AK SCREW
VIEW LOOKING UP REAR LH SIDE
STRUCTURES AND SYSTEMS ARE PARALLY
OMITTED FOR BETTER CLARITY PURPOSE
UP
FWD
RH SIDE

Figure 17

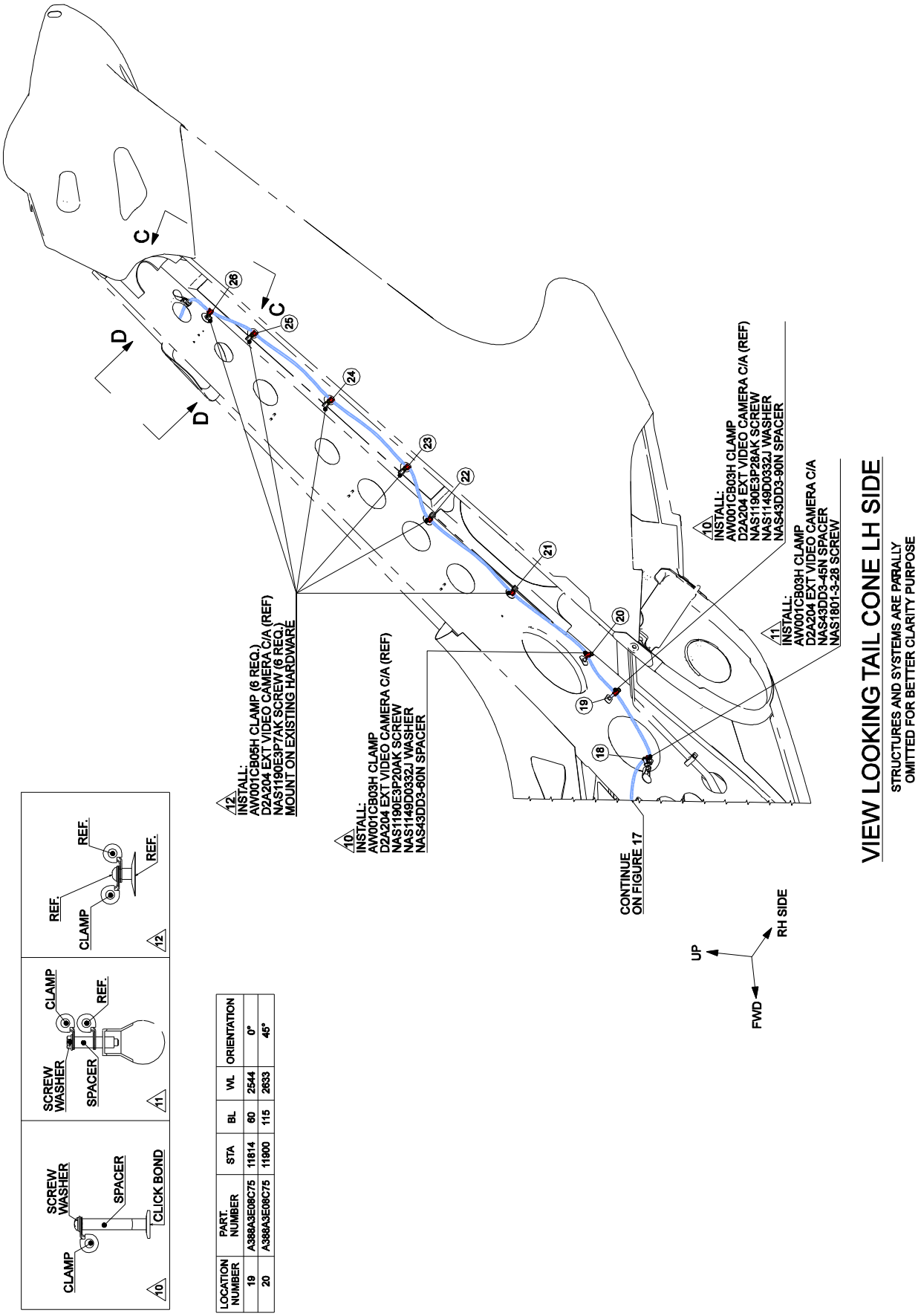
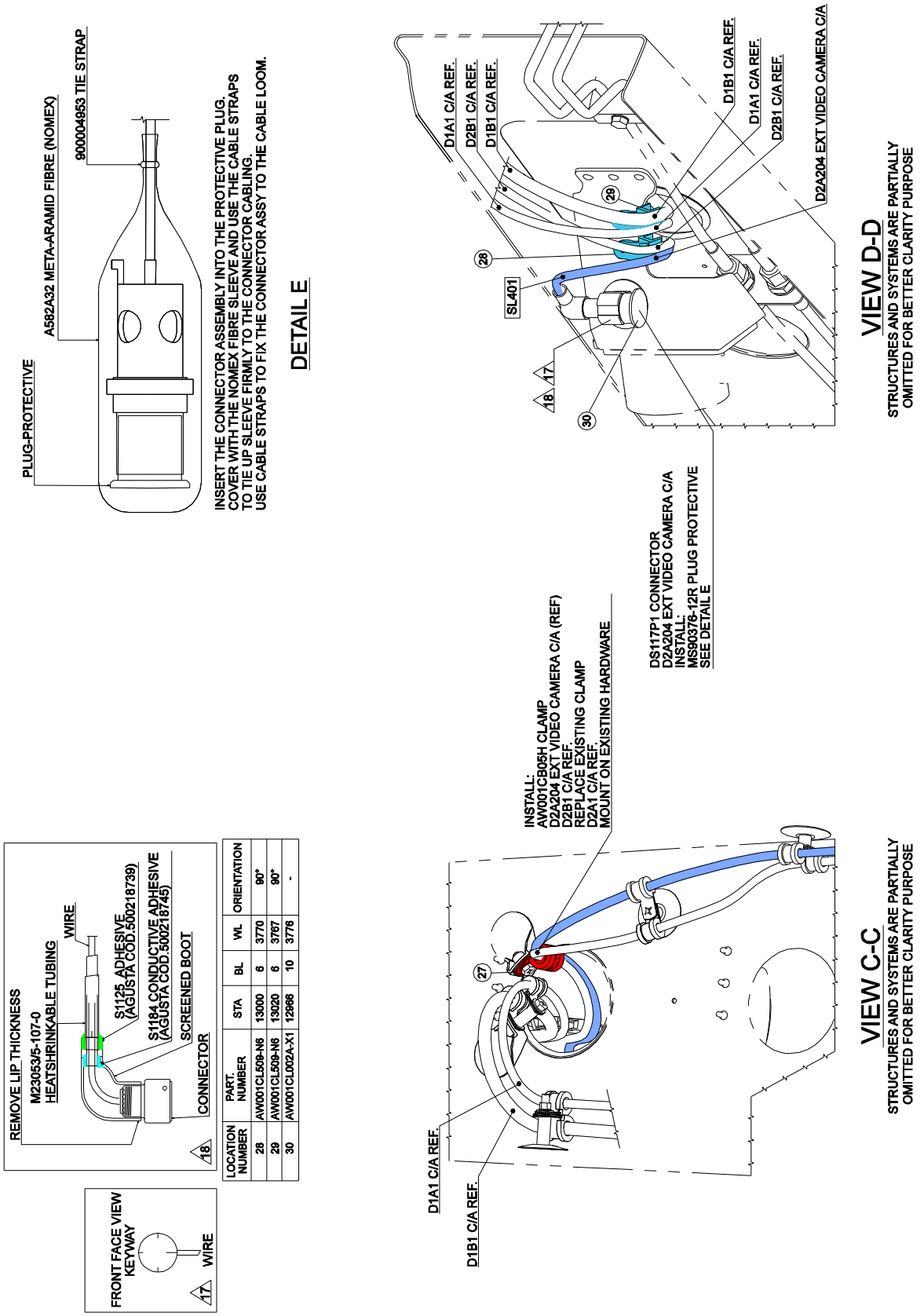

VIEW LOOKING TAIL CONE LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
12 INSTALL: AW001CB05H CLAMP (6 REQ.) D2A204 EXT VIDEO CAMERA C/A (REF) NAS1190E3P7AK SCREW (6 REQ.) MOUNT ON EXISTING HARDWARE
10 INSTALL: AW001CB03H CLAMP D2A204 EXT VIDEO CAMERA C/A (REF) NAS1190E3P20AK SCREW NAS1149D0332J WASHER NAS43DD3-90N SPACER
10 INSTALL: AW001CB03H CLAMP D2A204 EXT VIDEO CAMERA C/A (REF) NAS1190E3P28AK SCREW NAS1149D0332J WASHER NAS43DD3-90N SPACER
11 INSTALL: AW001CB03H CLAMP D2A204 EXT VIDEO CAMERA C/A NAS43DD3-45N SPACER NAS1801-3-28 SCREW
CONTINUE ON FIGURE 17
UP
FWD
RH SIDE
CLAMP
SCREW WASHER
SPACER
CLICK BOND
REF.
CLAMP
SCREW WASHER
SPACER
REF.
REF.
REF.
CLAMP
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
19 | A388A3E08C75 | 11814 | 60 | 2544 | 0°
20 | A388A3E08C75 | 11900 | 115 | 2633 | 45°

Figure 18



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
28	AW001CL509-N6	13000	6	3770	90°
29	AW001CL509-N6	13020	6	3767	90°
30	AW001CL002A-X1	12966	10	3778	-

Figure 19

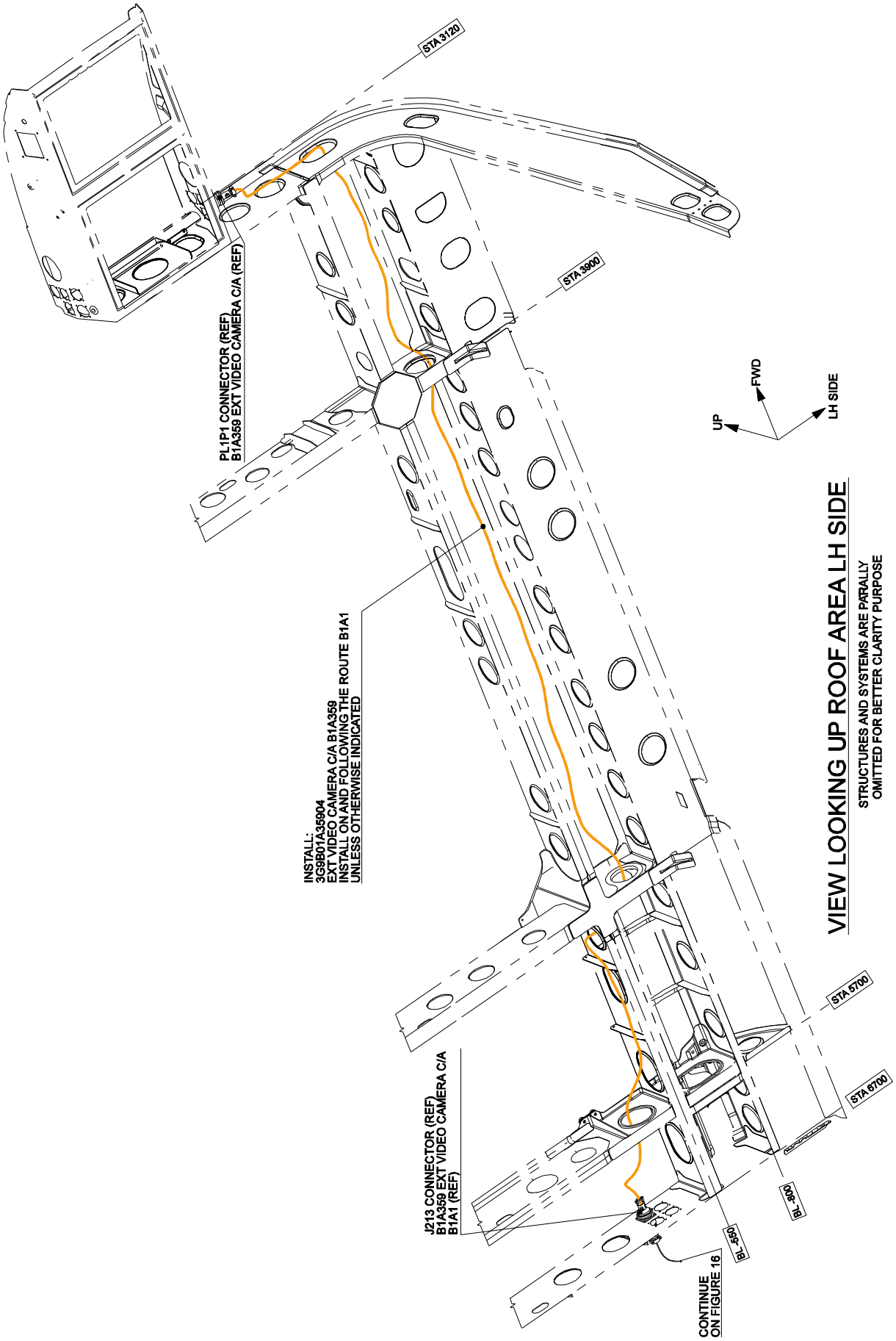

STA 3120
STA 3900
STA 5700
STA 6700
BL -900
BL -550
PL1P1 CONNECTOR (REF)
B1A359 EXT VIDEO CAMERA C/A (REF)
INSTALL:
3G9B01A35904
EXT VIDEO CAMERA C/A B1A359
INSTALL ON AND FOLLOWING THE ROUTE B1A1
UNLESS OTHERWISE INDICATED
J213 CONNECTOR (REF)
B1A359 EXT VIDEO CAMERA C/A
B1A1 (REF)
CONTINUE
ON FIGURE 16
UP
FWD
LH SIDE
VIEW LOOKING UP ROOF AREA LH SIDE
STRUCTURES AND SYSTEMS ARE PARALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 20

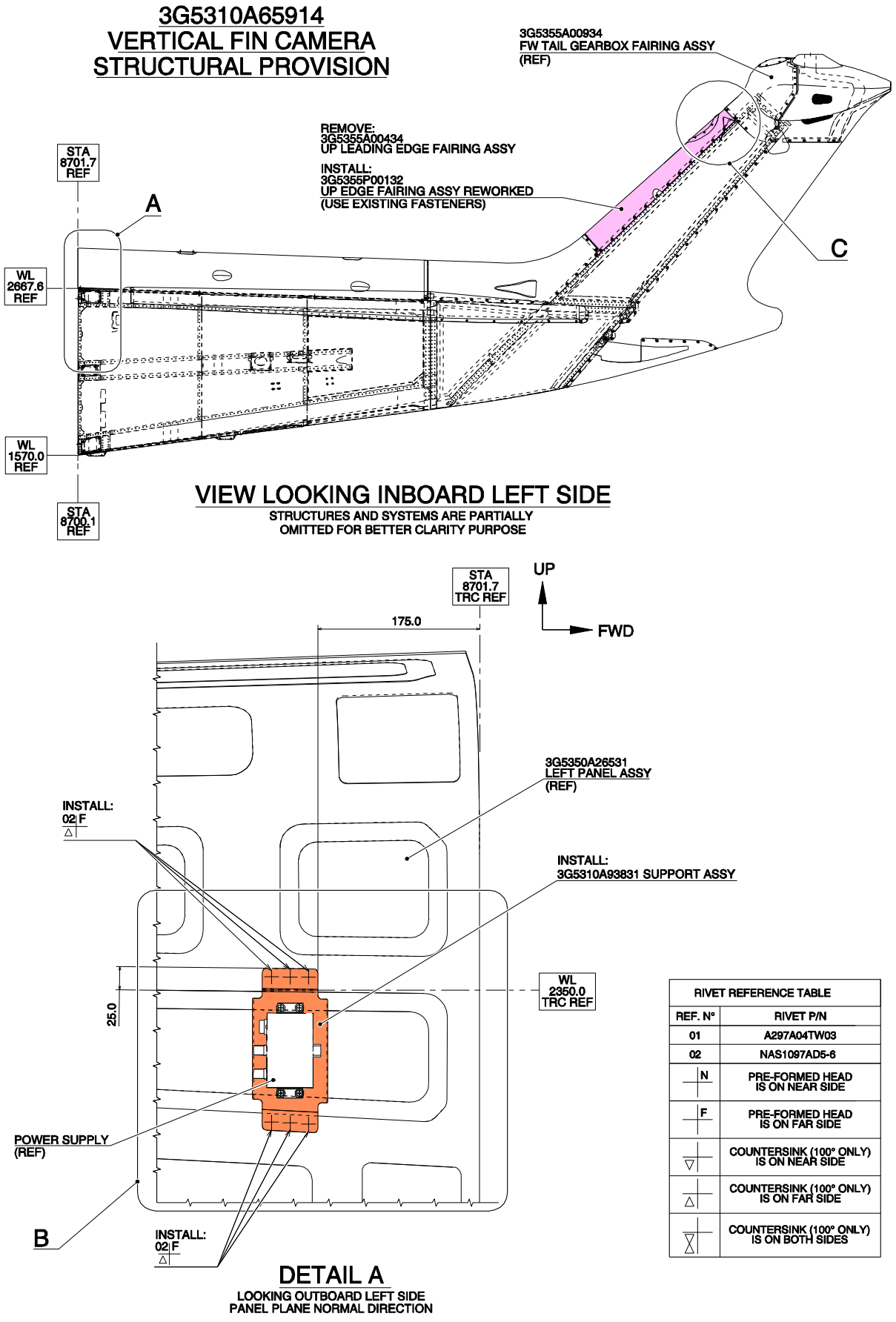
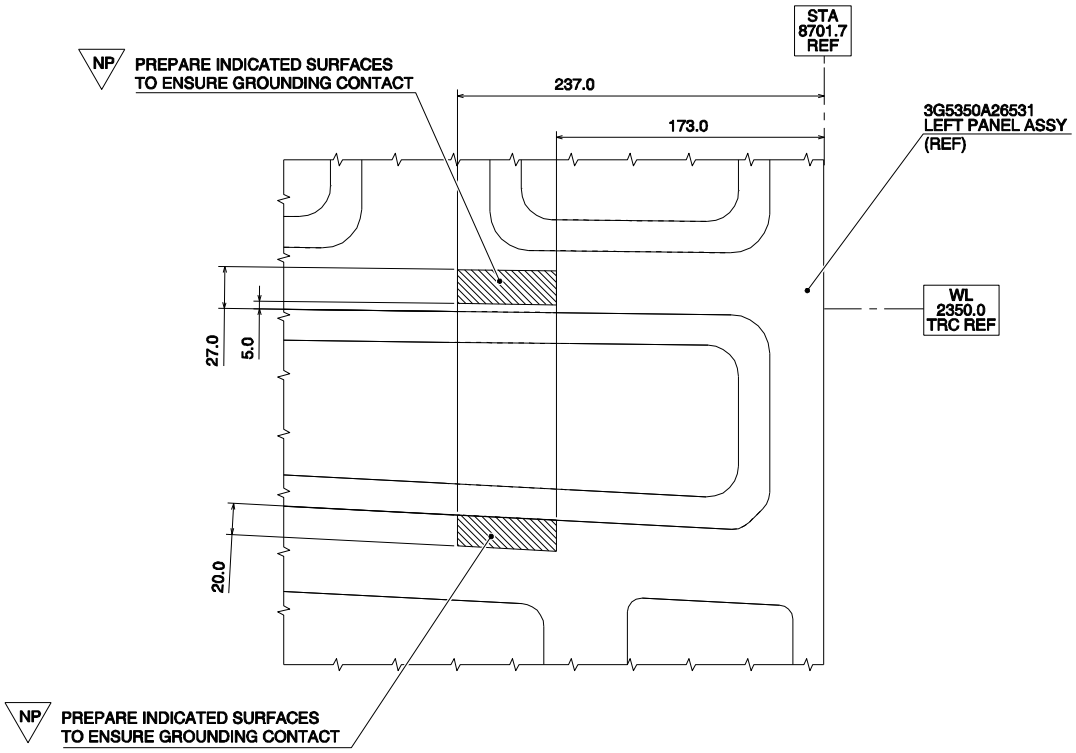
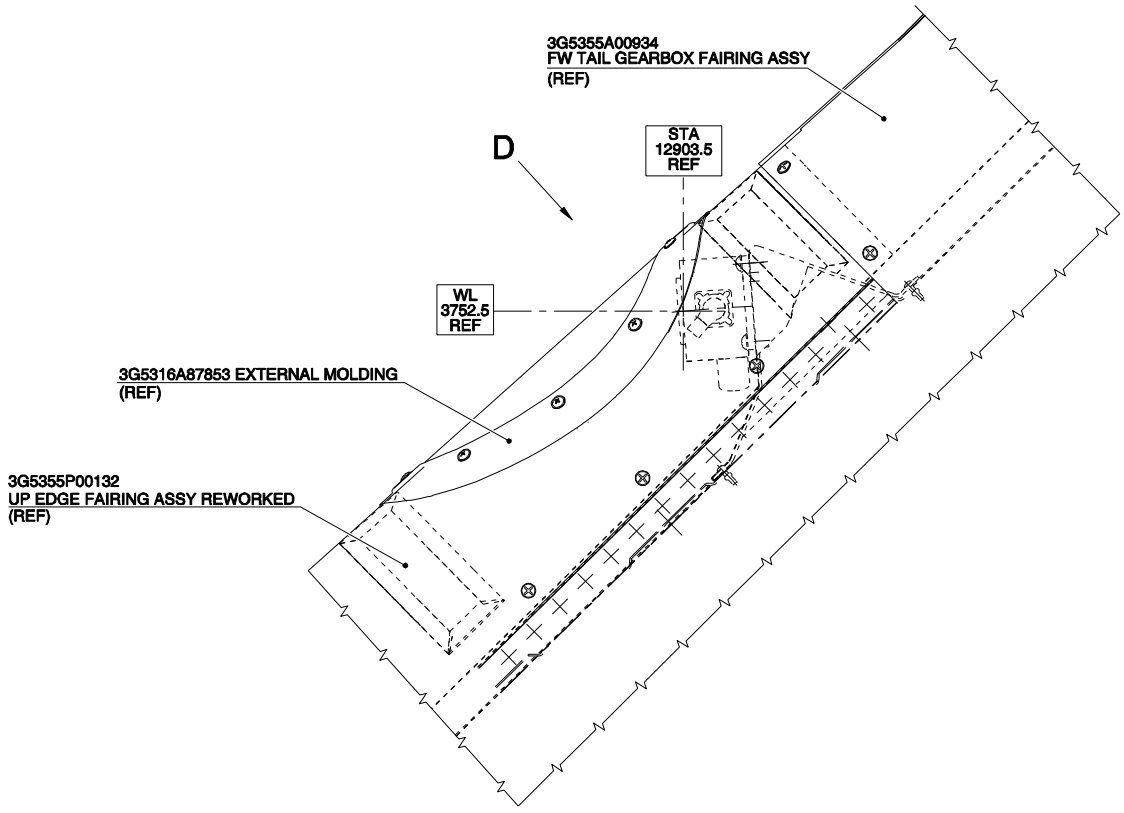

3G5310A65914
VERTICAL FIN CAMERA
STRUCTURAL PROVISION
3G5355A00934
FW TAIL GEARBOX FAIRING ASSY
(REF)
REMOVE:
3G5355A00434
UP LEADING EDGE FAIRING ASSY
INSTALL:
3G5355P00132
UP EDGE FAIRING ASSY REWORKED
(USE EXISTING FASTENERS)
STA
8701.7
REF
A
C
WL
2667.6
REF
WL
1570.0
REF
STA
8700.1
REF
VIEW LOOKING INBOARD LEFT SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
STA
8701.7
TRC REF
UP
FWD
175.0
3G5350A26531
LEFT PANEL ASSY
(REF)
INSTALL:
02 F
INSTALL:
3G5310A93831 SUPPORT ASSY
WL
2350.0
TRC REF
25.0
POWER SUPPLY
(REF)
B
INSTALL:
02 F
DETAIL A
LOOKING OUTBOARD LEFT SIDE
PANEL PLANE NORMAL DIRECTION
RIVET REFERENCE TABLE
REF. N°
RIVET P/N
01
A297A04TW03
02
NAS1097AD5-6
N
PRE-FORMED HEAD
IS ON NEAR SIDE
F
PRE-FORMED HEAD
IS ON FAR SIDE
COUNTERSINK (100° ONLY)
IS ON NEAR SIDE
COUNTERSINK (100° ONLY)
IS ON FAR SIDE
COUNTERSINK (100° ONLY)
IS ON BOTH SIDES

Figure 21



DETAIL B

3G5310A93831 SUPPORT ASSY, STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



DETAIL C

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 22

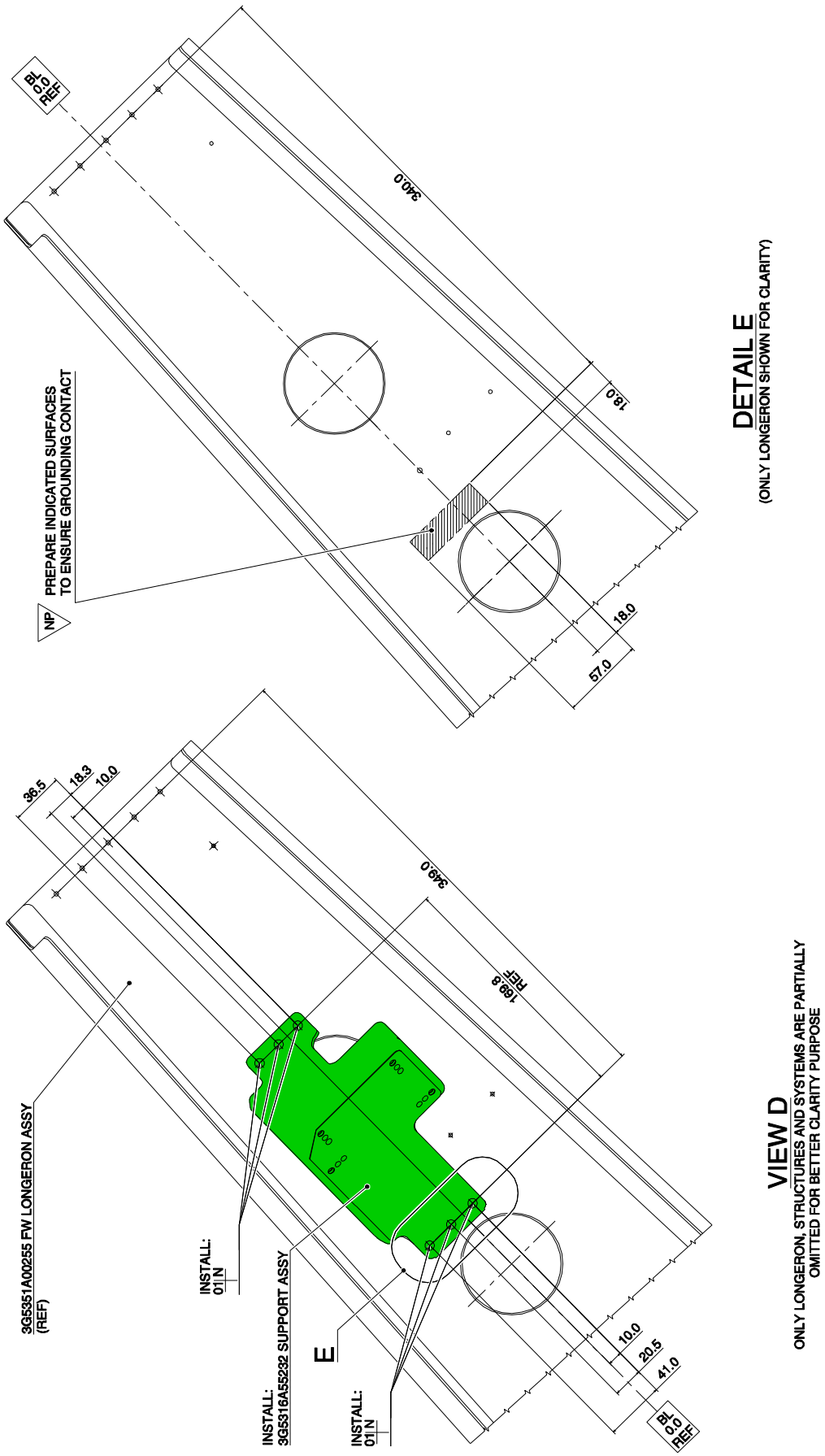

BL 0.0 REF
340.0
18.0
PREPARE INDICATED SURFACES TO ENSURE GROUNDING CONTACT
NP
18.0
57.0
DETAIL E
(ONLY LONGERON SHOWN FOR CLARITY)
36.5
18.3
10.0
349.0
168.8 REF
3G5351A00255 FW LONGERON ASSY (REF)
INSTALL: 01 N
INSTALL: 3G5316A55232 SUPPORT ASSY
E
INSTALL: 01 N
10.0
20.5
41.0
BL 0.0 REF
VIEW D
ONLY LONGERON, STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 23

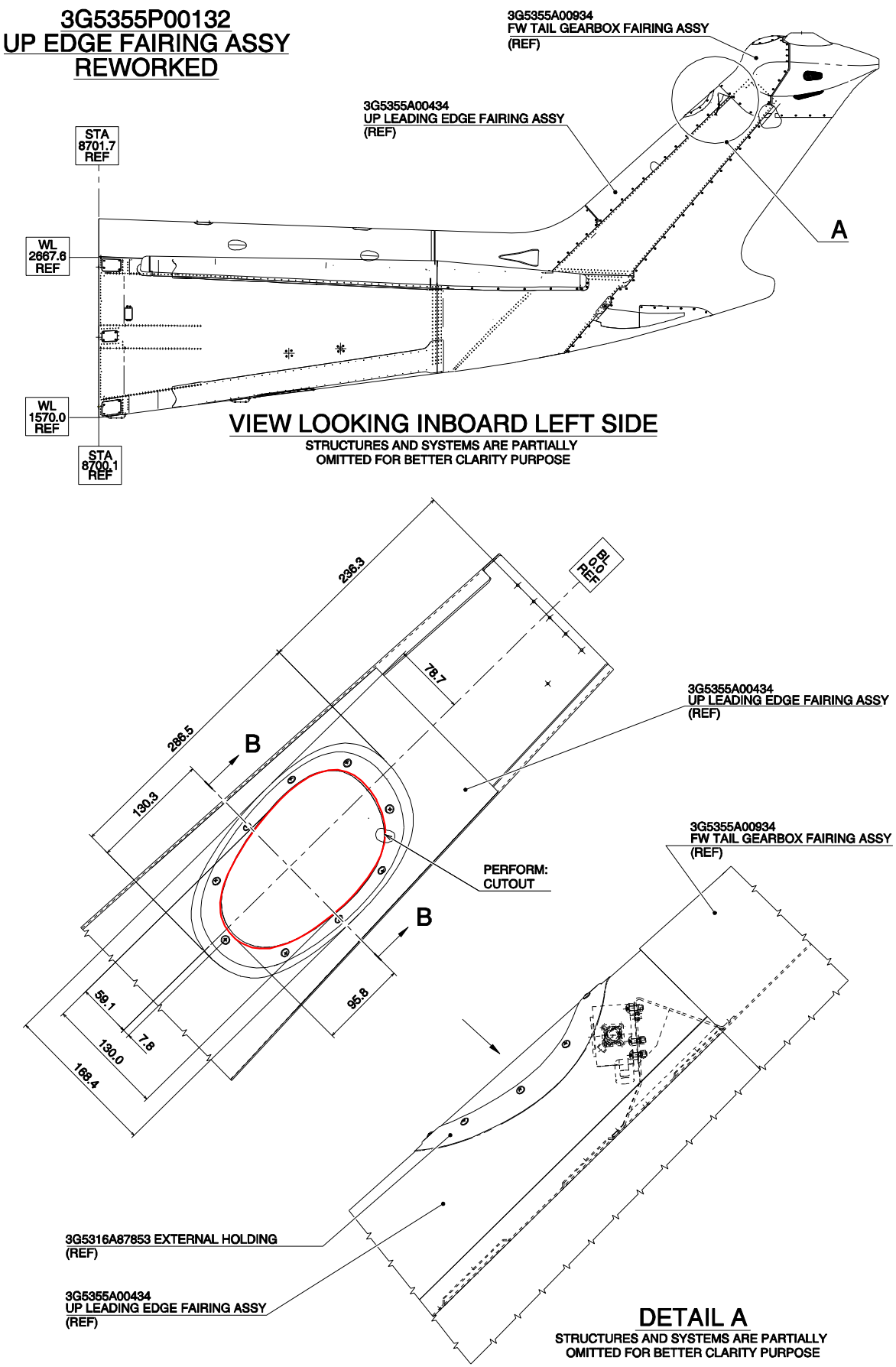
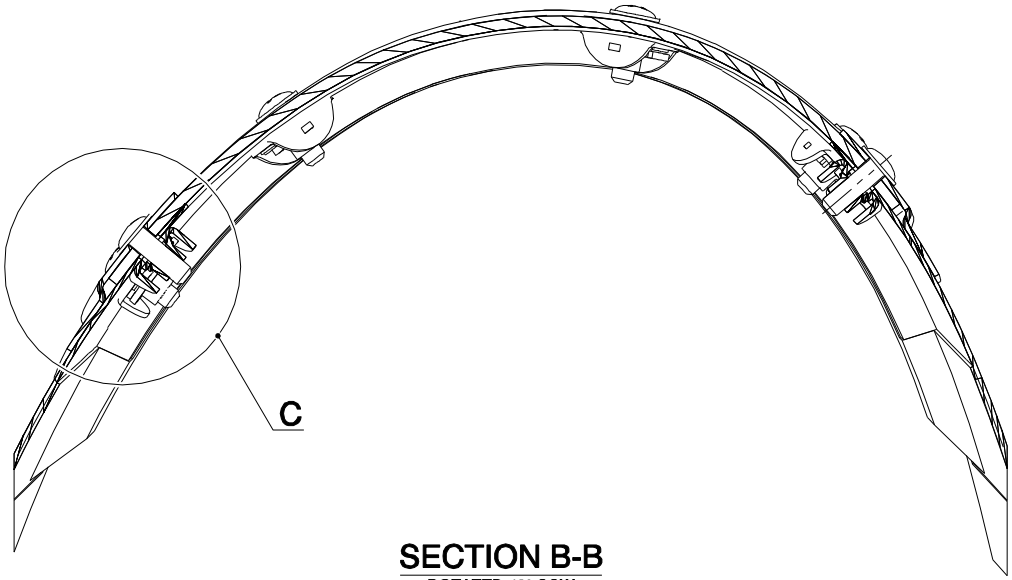
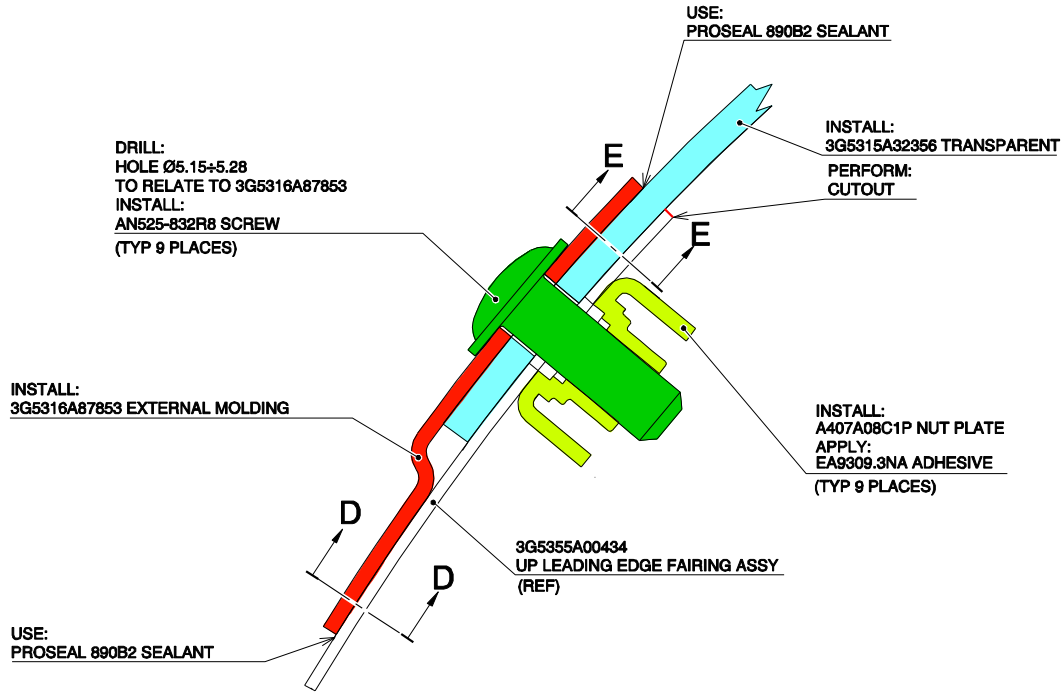

3G5355P00132
UP EDGE FAIRING ASSY
REWORKED
3G5355A00934
FW TAIL GEARBOX FAIRING ASSY
(REF)
3G5355A00434
UP LEADING EDGE FAIRING ASSY
(REF)
STA
8701.7
REF
WL
2667.6
REF
WL
1570.0
REF
STA
8700.1
REF
A
VIEW LOOKING INBOARD LEFT SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
236.3
286.5
130.3
78.7
B
B
PERFORM:
CUTOUT
59.1
7.8
130.0
168.4
95.8
3G5316A87853 EXTERNAL HOLDING
(REF)
DETAIL A
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

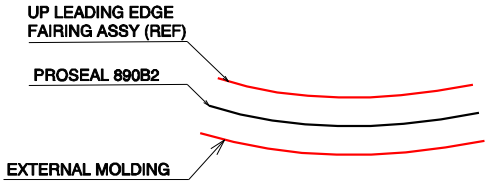
Figure 24



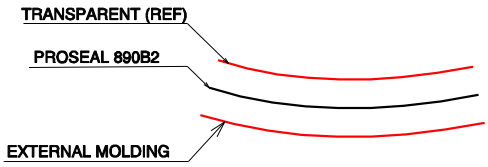
SECTION B-B
ROTATED 48° CCW
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



DETAIL C
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

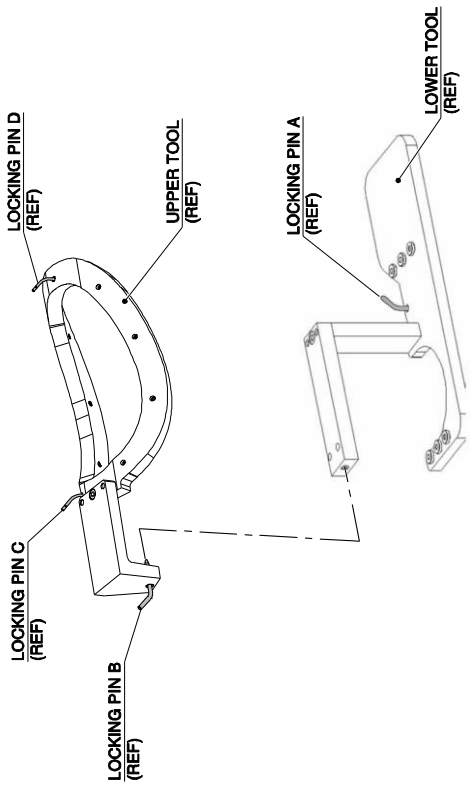


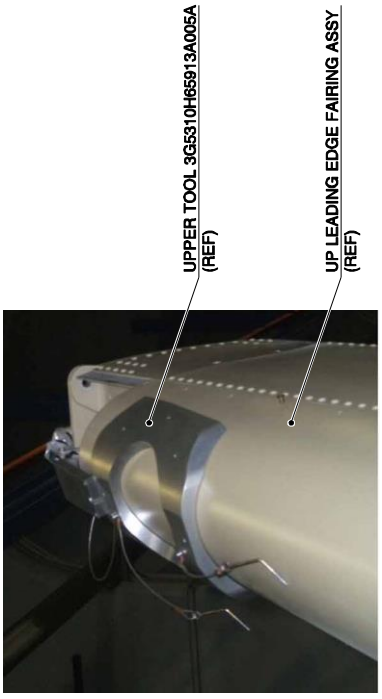
SCHEMATIC SECTION D-D



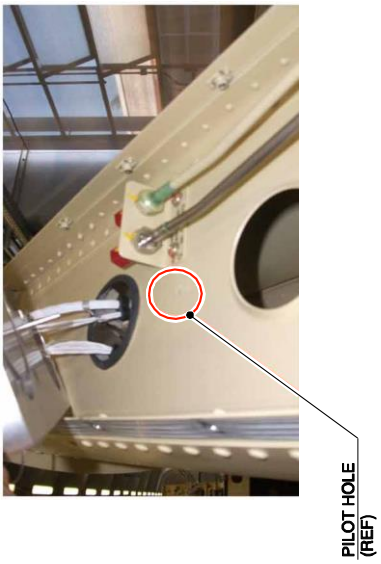
SCHEMATIC SECTION E-E

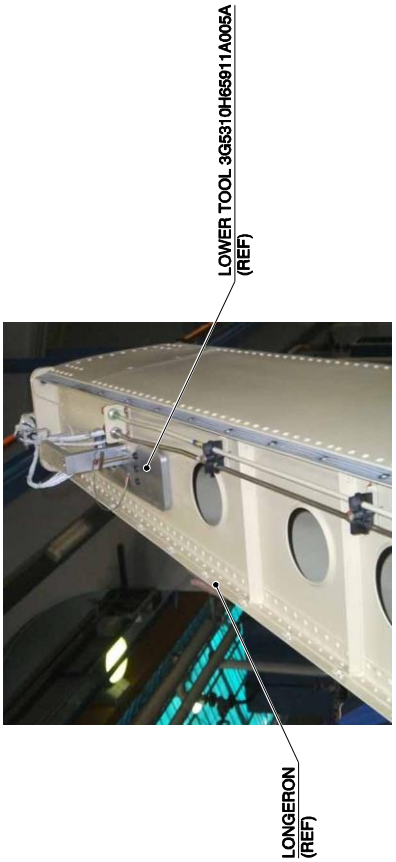
Figure 25





INSTALLATION OF UPPER TOOL





INSTALLATION OF LOWER TOOL

Figure 26

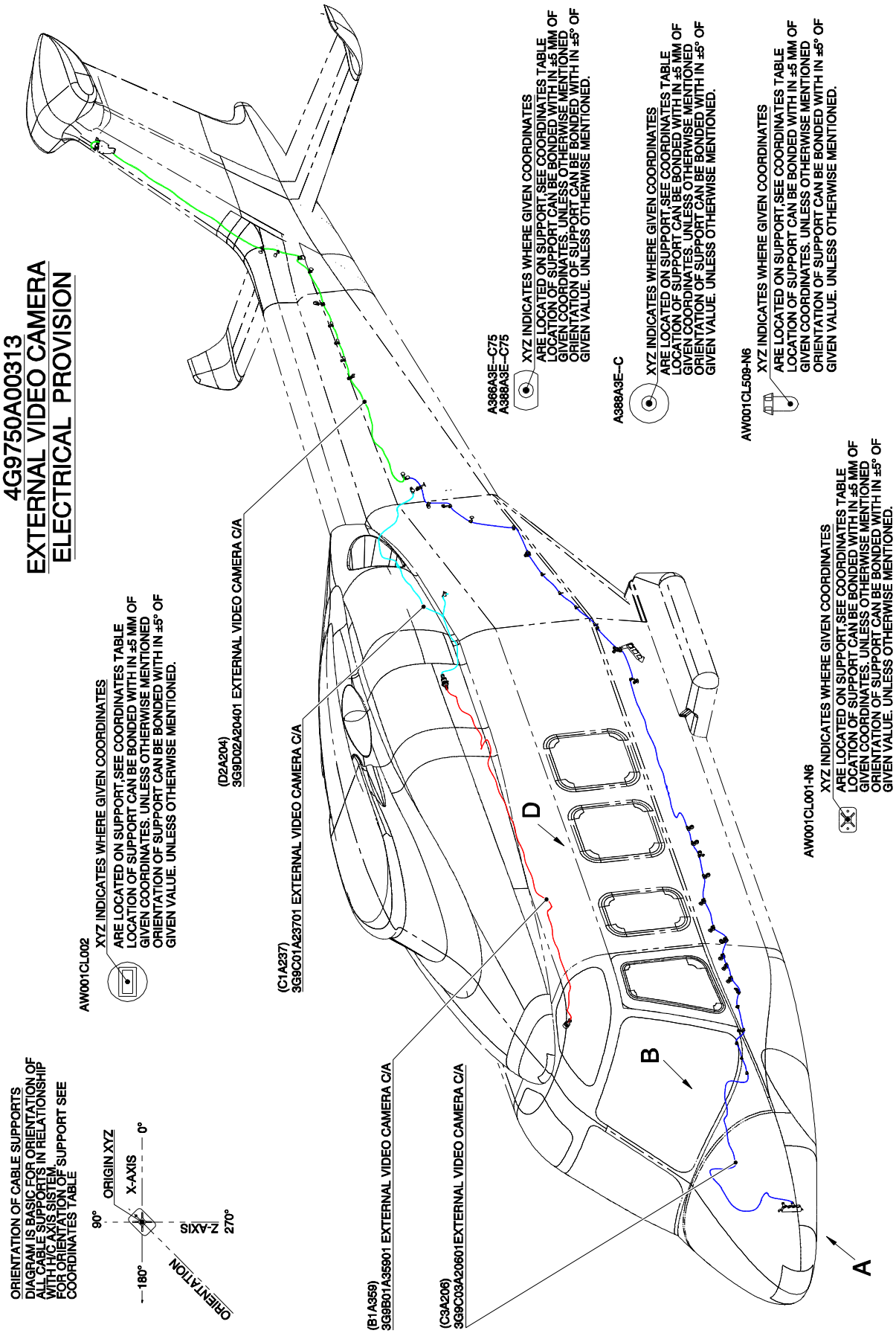

4G9750A00313
EXTERNAL VIDEO CAMERA
ELECTRICAL PROVISION
ORIENTATION OF CABLE SUPPORTS
DIAGRAM IS BASIC FOR ORIENTATION OF ALL CABLE SUPPORTS IN RELATIONSHIP WITH H/C AXIS SISTEM.
FOR ORIENTATION OF SUPPORT SEE COORDINATES TABLE
90°
ORIGIN XYZ
X-AXIS
0°
180°
Z-AXIS
270°
ORIENTATION
AW001CL002
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORDINATES TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
(D2A204)
3G9D02A20401 EXTERNAL VIDEO CAMERA C/A
(C1A237)
3G9C01A23701 EXTERNAL VIDEO CAMERA C/A
(B1A359)
3G9B01A35901 EXTERNAL VIDEO CAMERA C/A
(C3A206)
3G9C03A20601EXTERNAL VIDEO CAMERA C/A
A366A3E–C75
A388A3E–C75
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORDINATES TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
A388A3E–C
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORDINATES TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL509-N6
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORDINATES TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
AW001CL001-N6
XYZ INDICATES WHERE GIVEN COORDINATES
ARE LOCATED ON SUPPORT,SEE COORDINATES TABLE
LOCATION OF SUPPORT CAN BE BONDED WITH IN ±5 MM OF GIVEN COORDINATES. UNLESS OTHERWISE MENTIONED
ORIENTATION OF SUPPORT CAN BE BONDED WITH IN ±5° OF GIVEN VALUE. UNLESS OTHERWISE MENTIONED.
D
B
A

Figure 27

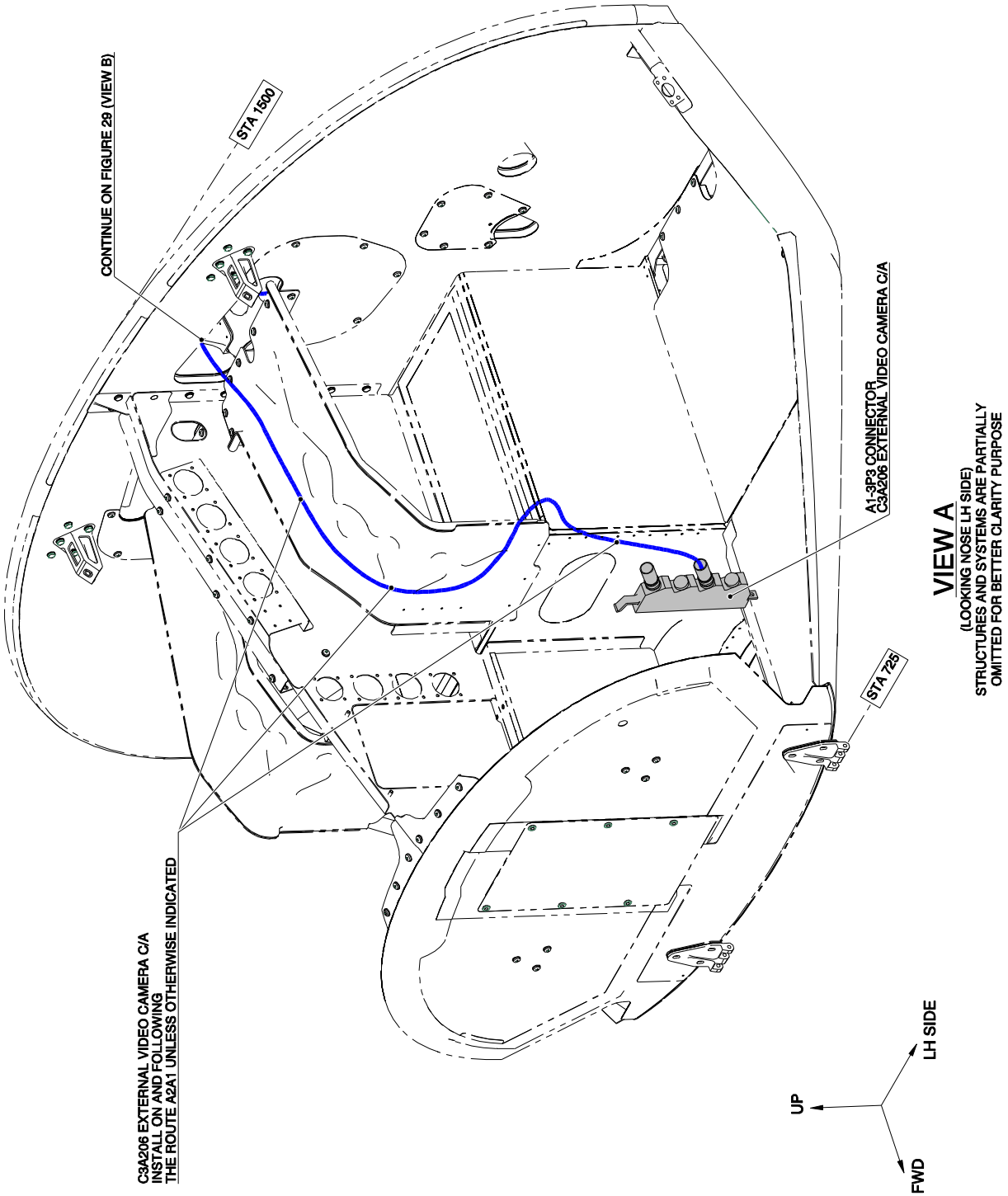
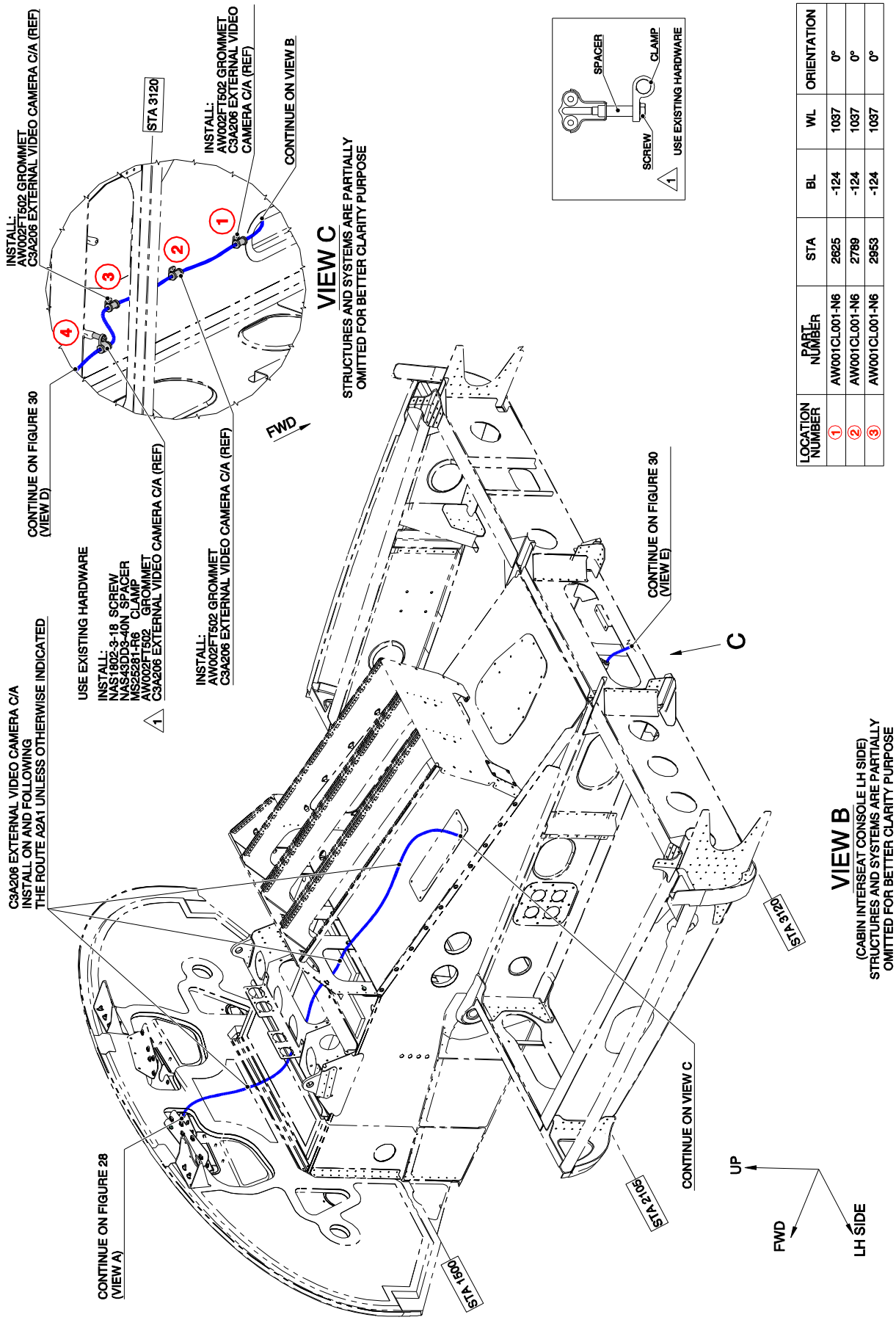

CONTINUE ON FIGURE 29 (VIEW B)
STA 1500
STA 725
A1-3P3 CONNECTOR
C3A206 EXTERNAL VIDEO CAMERA C/A
C3A206 EXTERNAL VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING
THE ROUTE A2A1 UNLESS OTHERWISE INDICATED
VIEW A
(LOOKING NOSE LH SIDE)
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
UP
LH SIDE
FWD

Figure 28



LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
①	AW001CL001-N6	2625	-124	1037	0°
②	AW001CL001-N6	2789	-124	1037	0°
③	AW001CL001-N6	2953	-124	1037	0°

Figure 29

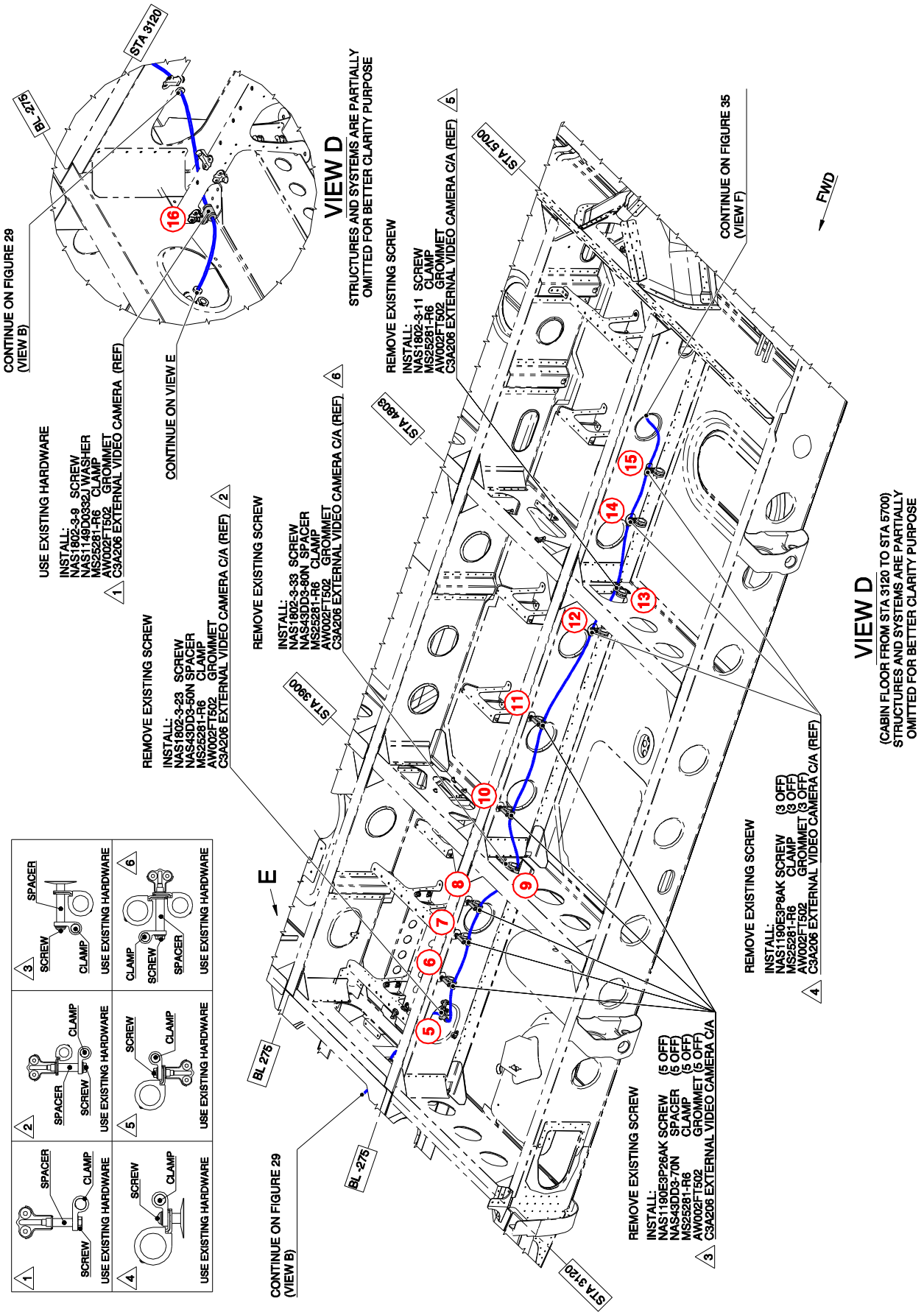

VIEW D
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
VIEW D
(CABIN FLOOR FROM STA 3120 TO STA 5700)
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
CONTINUE ON FIGURE 29 (VIEW B)
CONTINUE ON VIEW E
CONTINUE ON FIGURE 35 (VIEW F)
CONTINUE ON FIGURE 29 (VIEW B)
USE EXISTING HARDWARE
INSTALL:
NAS1802-3-9 SCREW
NAS1149D0332J WASHER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-23 SCREW
NAS43DD3-50N SPACER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-33 SCREW
NAS43DD3-60N SPACER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-11 SCREW
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1190E3P8AK SCREW (3 OFF)
MS25281-R6 CLAMP (3 OFF)
AW002FT502 GROMMET (3 OFF)
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1190E3P26AK SCREW (5 OFF)
NAS43DD3-70N SPACER (5 OFF)
MS25281-R6 CLAMP (5 OFF)
AW002FT502 GROMMET (5 OFF)
C3A206 EXTERNAL VIDEO CAMERA C/A
USE EXISTING HARDWARE
SCREW
SPACER
CLAMP
BL 275
BL -275
STA 3120
STA 3900
STA 4803
STA 5700
FWD
E

Figure 30

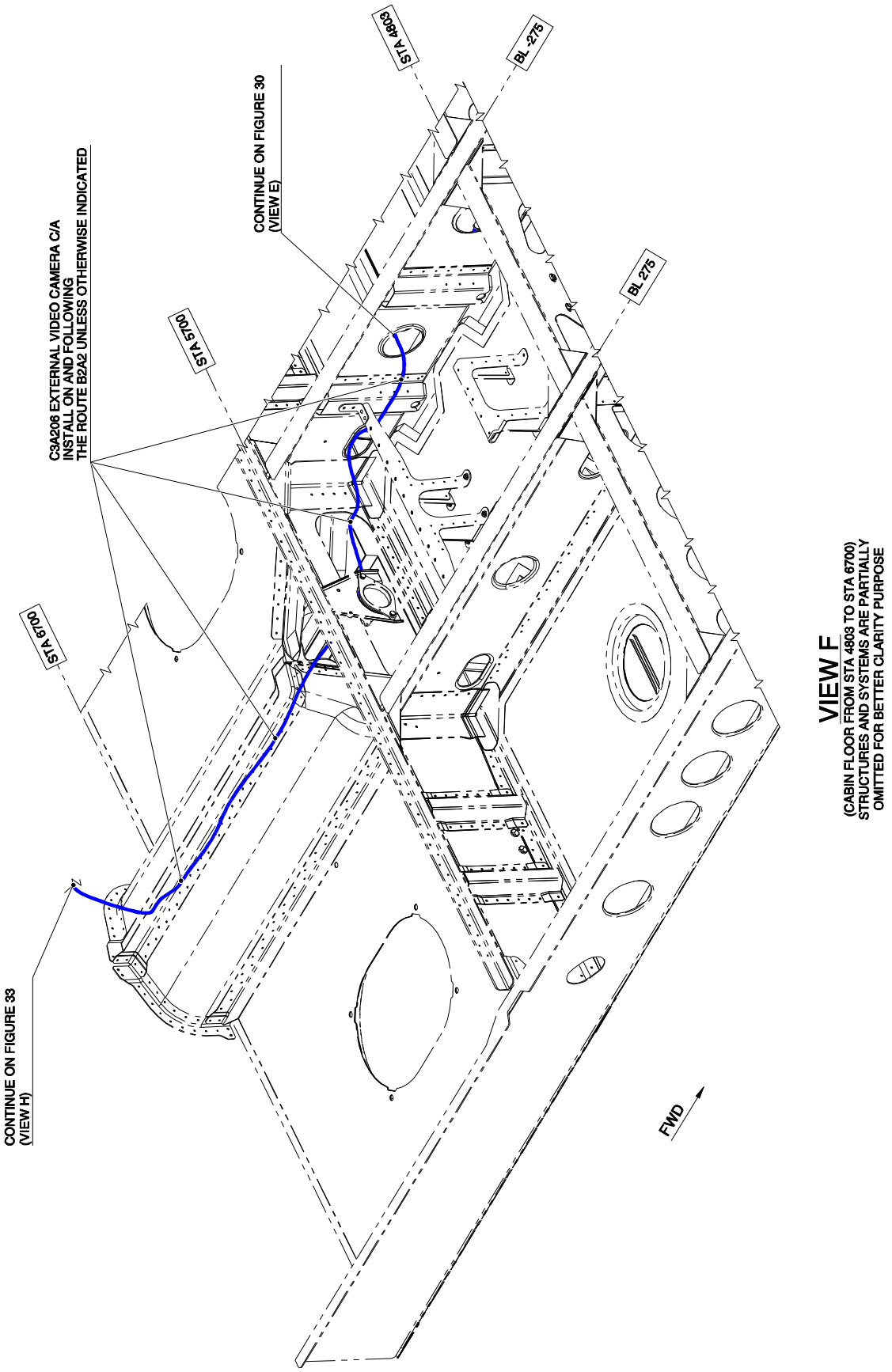

VIEW F
(CABIN FLOOR FROM STA 4803 TO STA 6700)
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
C3A206 EXTERNAL VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING
THE ROUTE B2A2 UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 30
(VIEW E)
CONTINUE ON FIGURE 33
(VIEW H)
STA 4803
STA 6700
STA 6700
BL -275
BL 275
FWD

Figure 31

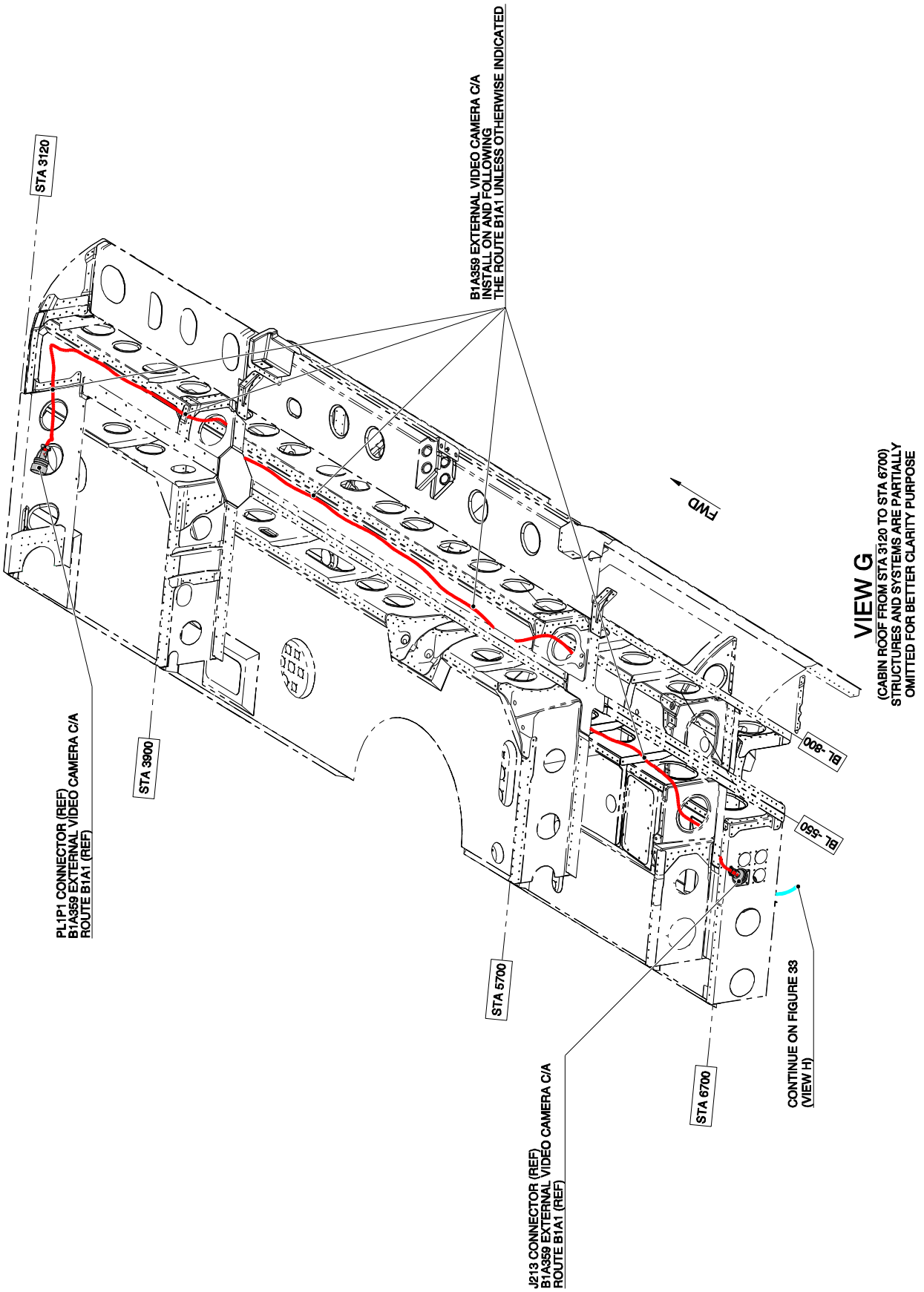

VIEW G
(CABIN ROOF FROM STA 3120 TO STA 6700)
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
B1A359 EXTERNAL VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING
THE ROUTE B1A1 UNLESS OTHERWISE INDICATED
STA 3120
STA 3900
STA 5700
STA 6700
BL -800
BL -560
FWD
PL1P1 CONNECTOR (REF)
B1A359 EXTERNAL VIDEO CAMERA C/A
ROUTE B1A1 (REF)
J213 CONNECTOR (REF)
B1A359 EXTERNAL VIDEO CAMERA C/A
ROUTE B1A1 (REF)
CONTINUE ON FIGURE 33
(VIEW H)

Figure 32

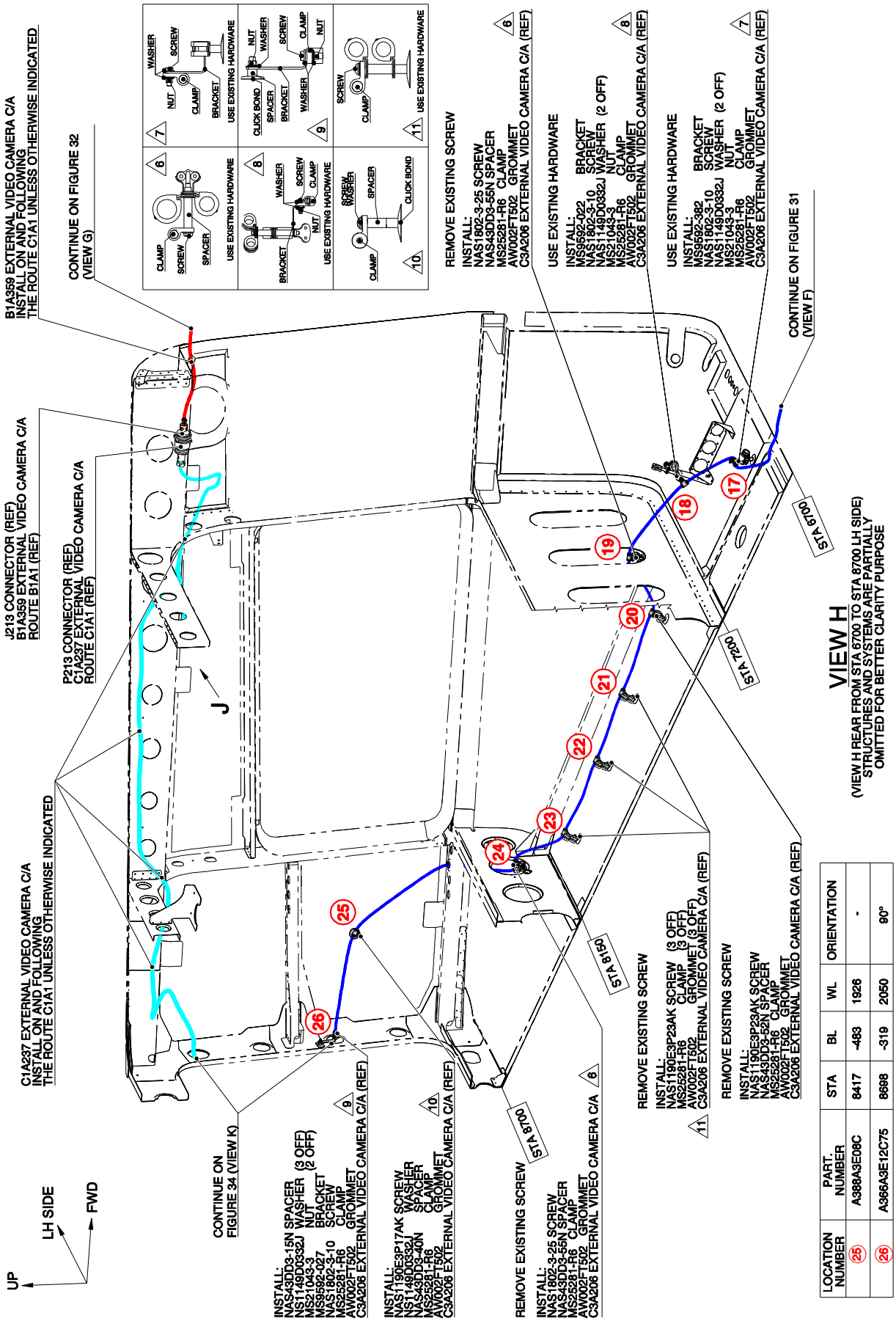

B1A359 EXTERNAL VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING
THE ROUTE C1A1 UNLESS OTHERWISE INDICATED
CONTINUE ON FIGURE 32
(VIEW G)
J213 CONNECTOR (REF)
B1A359 EXTERNAL VIDEO CAMERA C/A
ROUTE B1A1 (REF)
P213 CONNECTOR (REF)
C1A237 EXTERNAL VIDEO CAMERA C/A
ROUTE C1A1 (REF)
C1A237 EXTERNAL VIDEO CAMERA C/A
INSTALL ON AND FOLLOWING
THE ROUTE C1A1 UNLESS OTHERWISE INDICATED
CONTINUE ON
FIGURE 34 (VIEW K)
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-25 SCREW
NAS43DD3-55N SPACER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
USE EXISTING HARDWARE
INSTALL:
MS9592-022 BRACKET
NAS1802-3-10 SCREW
NAS1149D0332J WASHER (2 OFF)
MS21043-3 NUT
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
USE EXISTING HARDWARE
INSTALL:
MS9592-382 BRACKET
NAS1802-3-10 SCREW
NAS1149D0332J WASHER (2 OFF)
MS21043-3 NUT
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
CONTINUE ON FIGURE 31
(VIEW F)
VIEW H
(VIEW H REAR FROM STA 6700 TO STA 8700 LH SIDE)
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
STA 6700
STA 7200
STA 8150
STA 8700
INSTALL:
NAS1190E3P17AK SCREW
NS1149D0332J WASHER
NAS43DD3-40N SPACER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-25 SCREW
NAS43DD3-55N SPACER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A
REMOVE EXISTING SCREW
INSTALL:
NAS1190E3P23AK SCREW (3 OFF)
MS25281-R6 CLAMP (3 OFF)
AW002FT502 GROMMET (3 OFF)
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
REMOVE EXISTING SCREW
INSTALL:
NAS1190E3P23AK SCREW
NAS43DD3-52N SPACER
MS25281-R6 CLAMP
AW002FT502 GROMMET
C3A206 EXTERNAL VIDEO CAMERA C/A (REF)
UP
LH SIDE
FWD
J
LOCATION NUMBER
PART. NUMBER
STA
BL
WL
ORIENTATION
25
A388A3E08C
8417
-483
1926
-
26
A366A3E12C75
8698
-319
2050
90°

Figure 33

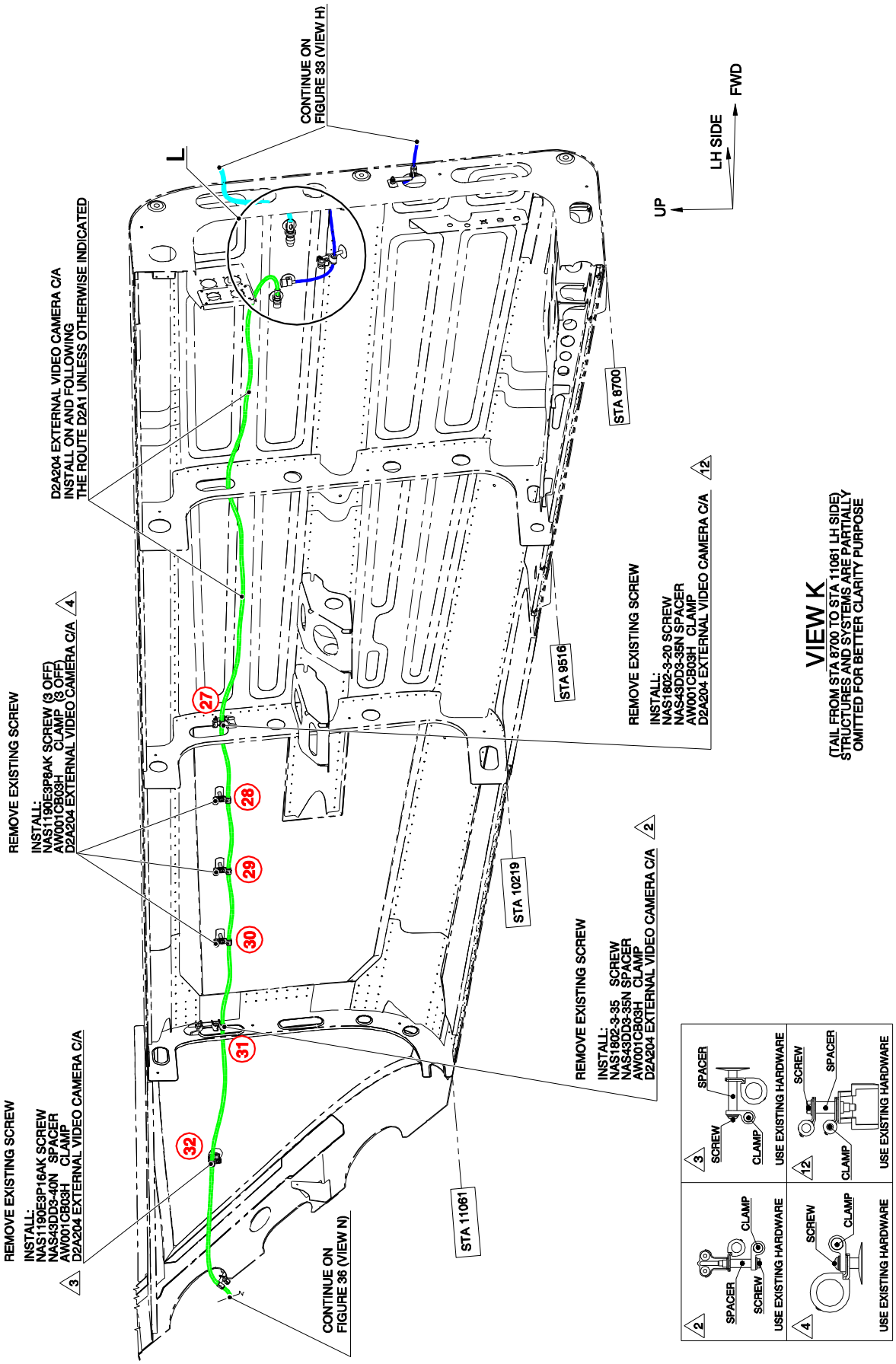
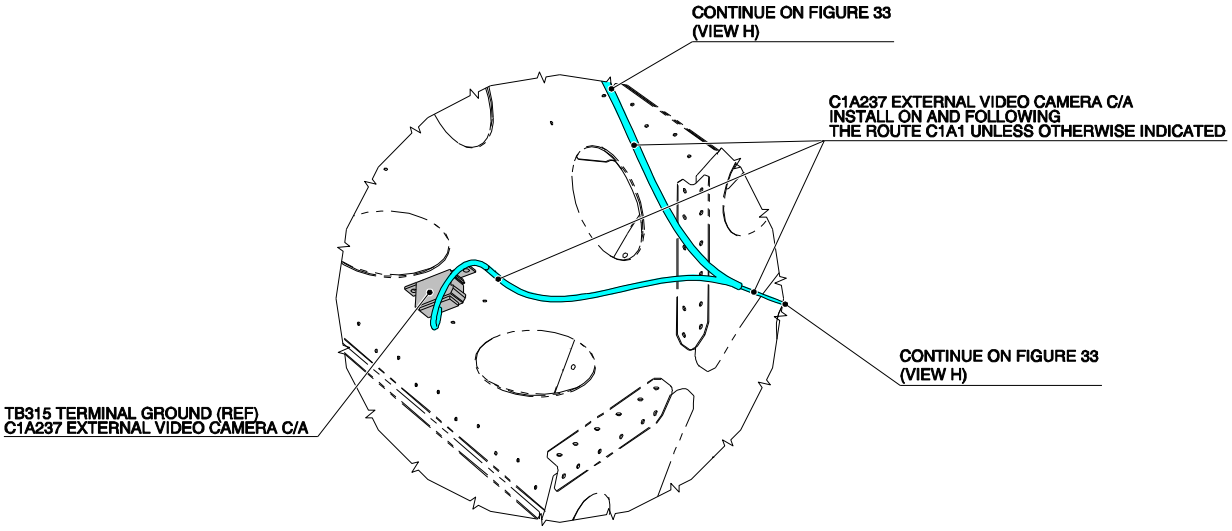
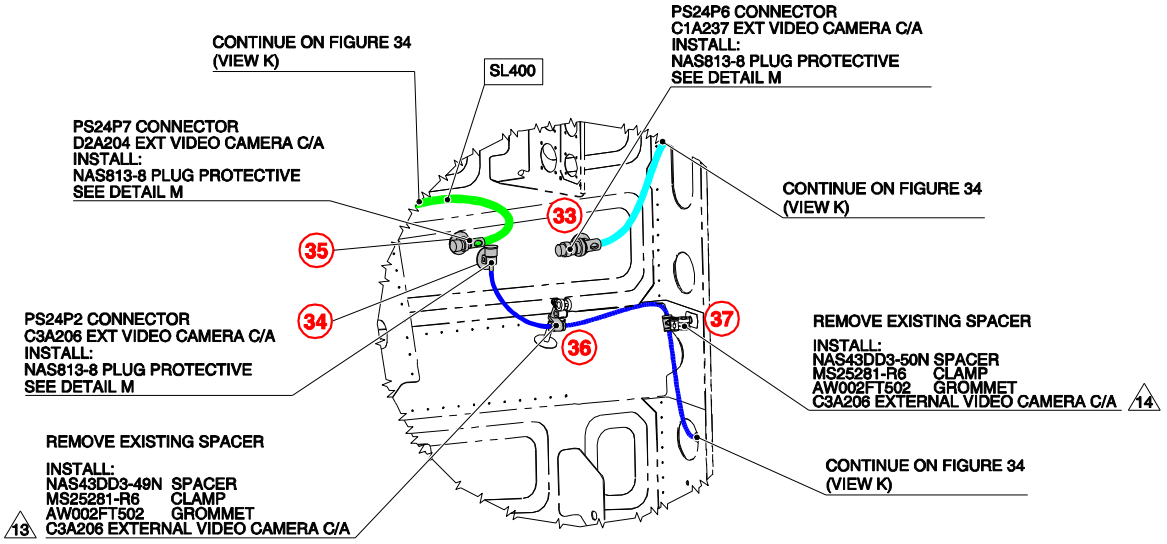

CONTINUE ON FIGURE 33 (VIEW H)
L
UP
LH SIDE
FWD
D2A204 EXTERNAL VIDEO CAMERA C/A INSTALL ON AND FOLLOWING THE ROUTE D2A1 UNLESS OTHERWISE INDICATED
REMOVE EXISTING SCREW
INSTALL:
NAS1190E3P8AK SCREW (3 OFF)
CLAMP (3 OFF)
AW001CB03H
D2A204 EXTERNAL VIDEO CAMERA C/A 4
REMOVE EXISTING SCREW
INSTALL:
NAS1190E3P16AK SCREW
NAS43DD3-40N SPACER
AW001CB03H CLAMP
D2A204 EXTERNAL VIDEO CAMERA C/A 3
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-35 SCREW
NAS43DD3-35N SPACER
AW001CB03H CLAMP
D2A204 EXTERNAL VIDEO CAMERA C/A 2
REMOVE EXISTING SCREW
INSTALL:
NAS1802-3-20 SCREW
NAS43DD3-35N SPACER
AW001CB03H CLAMP
D2A204 EXTERNAL VIDEO CAMERA C/A 12
STA 8700
STA 9516
STA 10219
STA 11061
27
28
29
30
31
32
CONTINUE ON FIGURE 36 (VIEW N)
VIEW K
(TAIL FROM STA 8700 TO STA 11061 LH SIDE)
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
SPACER
SCREW
CLAMP
USE EXISTING HARDWARE
SCREW
SPACER
CLAMP
USE EXISTING HARDWARE
SPACER
SCREW
CLAMP
USE EXISTING HARDWARE
SCREW
CLAMP
USE EXISTING HARDWARE

Figure 34



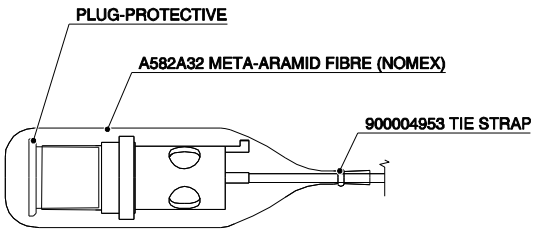
VIEW J

STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

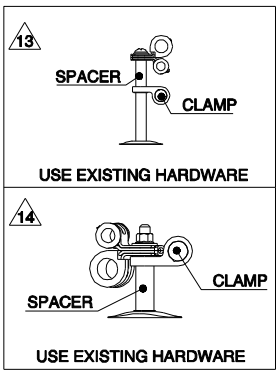


DETAIL L

STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



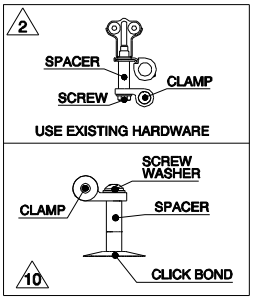
INSERT THE CONNECTOR ASSEMBLY INTO THE PROTECTIVE PLUG.
COVER WITH THE NOMEX FIBRE SLEEVE AND USE THE CABLE STRAPS
TO TIE UP SLEEVE FIRMLY TO THE CONNECTOR CABLING.
USE CABLE STRAPS TO FIX THE CONNECTOR ASSY TO THE CABLE LOOM.



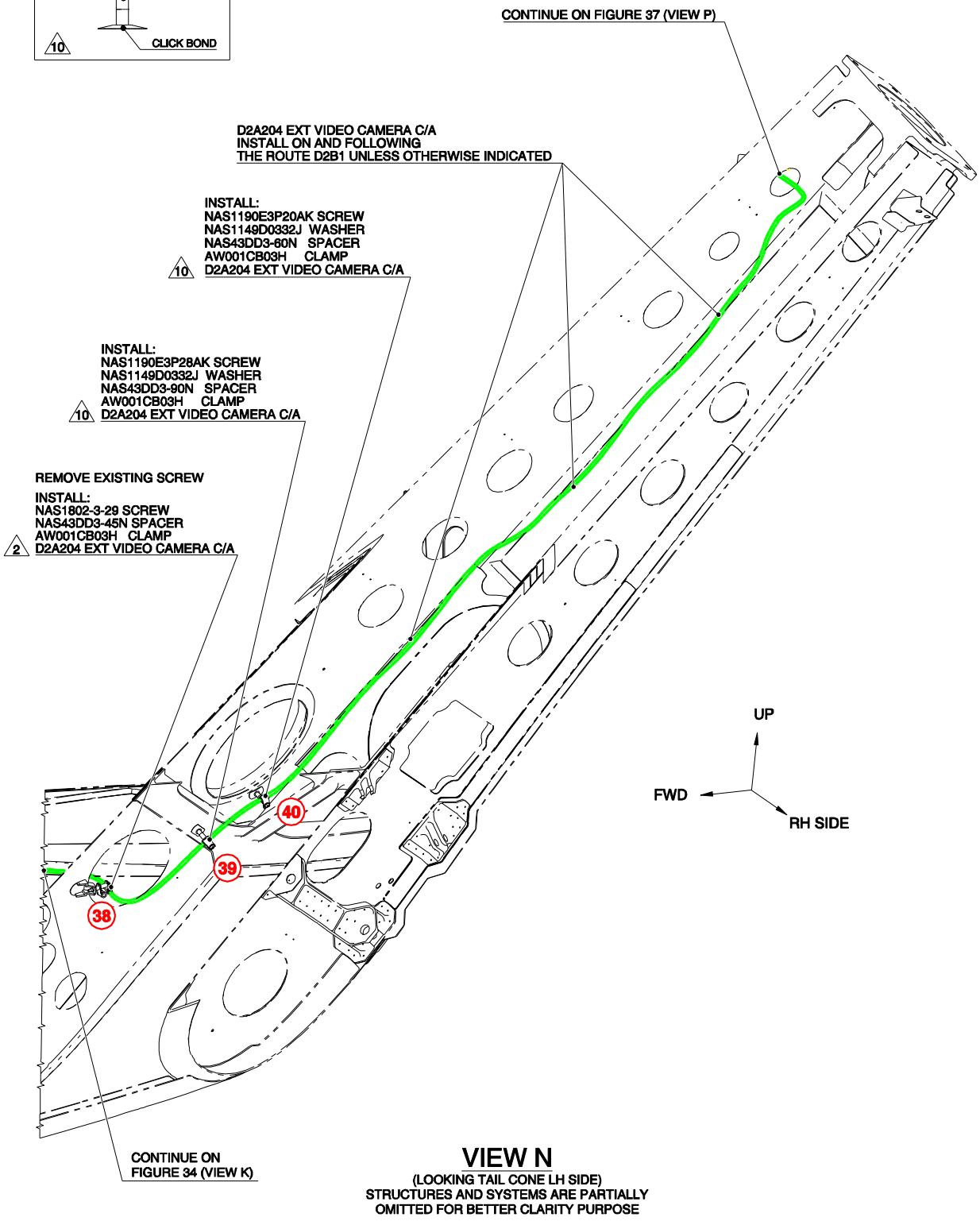
DETAIL M

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
33	AW001CL002B-X1	8839	-352	2285	-
34	AW001CL002B-X1	8992	-344	2285	-
35	AW001CL002B-X1	9036	-338	2312	-

Figure 35



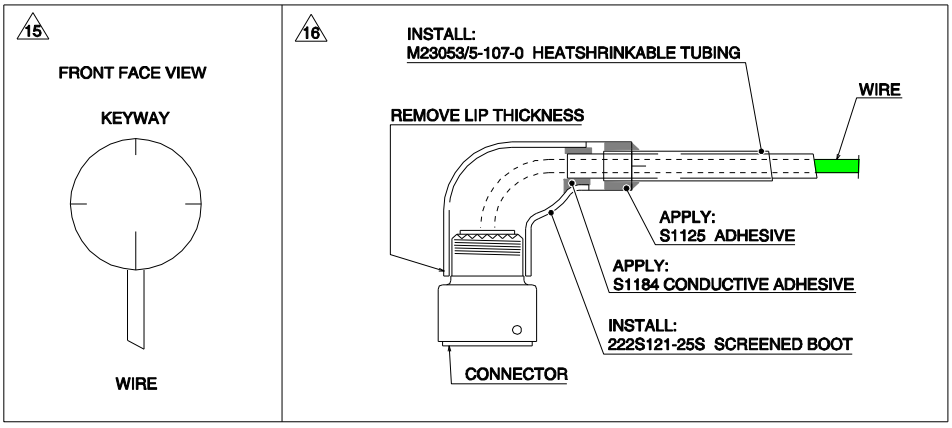
LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
39	A388A3E08C75	11814	60	2544	0°
40	A388A3E08C75	11901	115	2633	45°



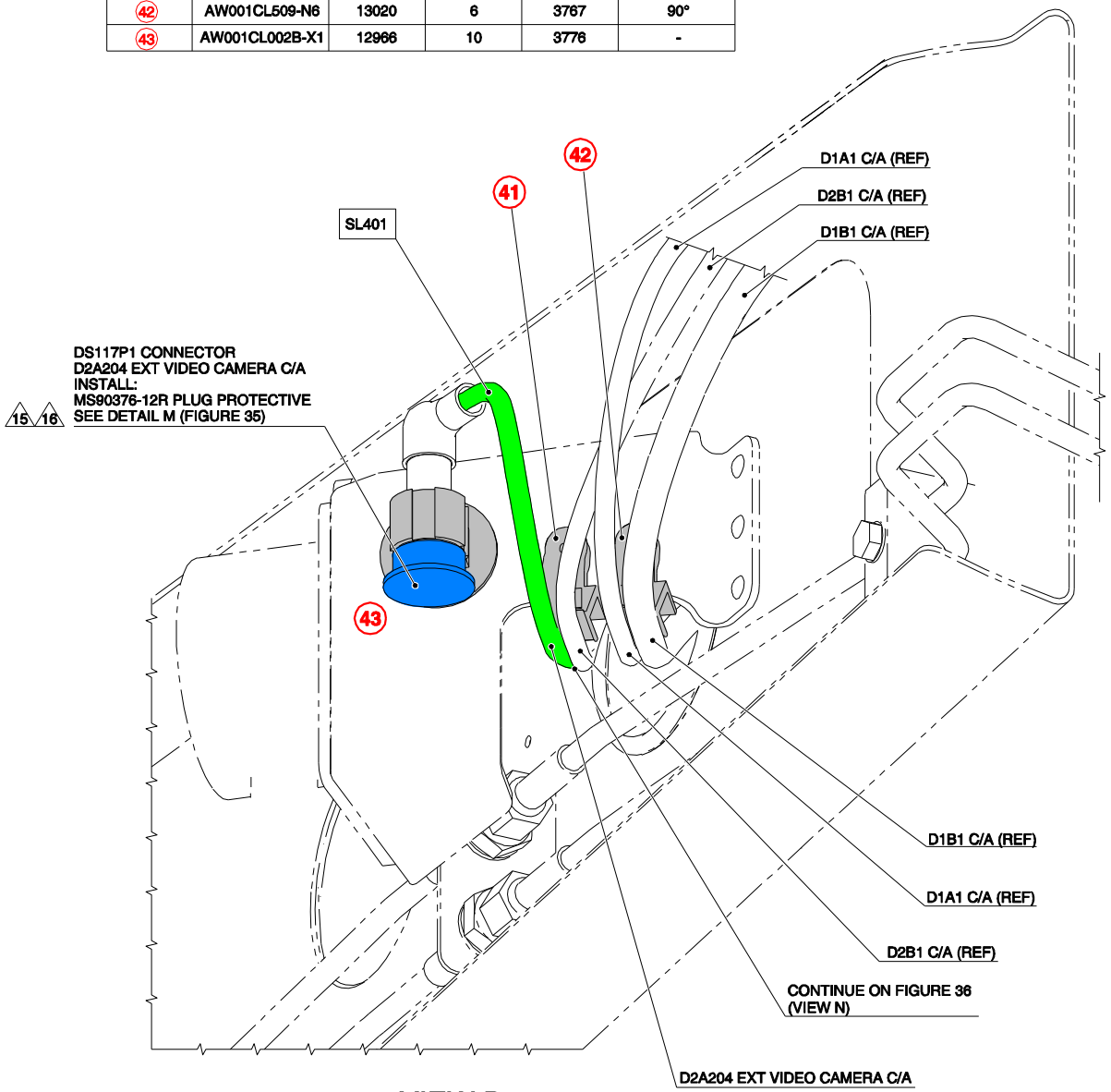
VIEW N

(LOOKING TAIL CONE LH SIDE)
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 36



LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
41	AW001CL509-N6	13000	6	3770	90°
42	AW001CL509-N6	13020	6	3767	90°
43	AW001CL002B-X1	12966	10	3776	-



VIEW P

STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 37

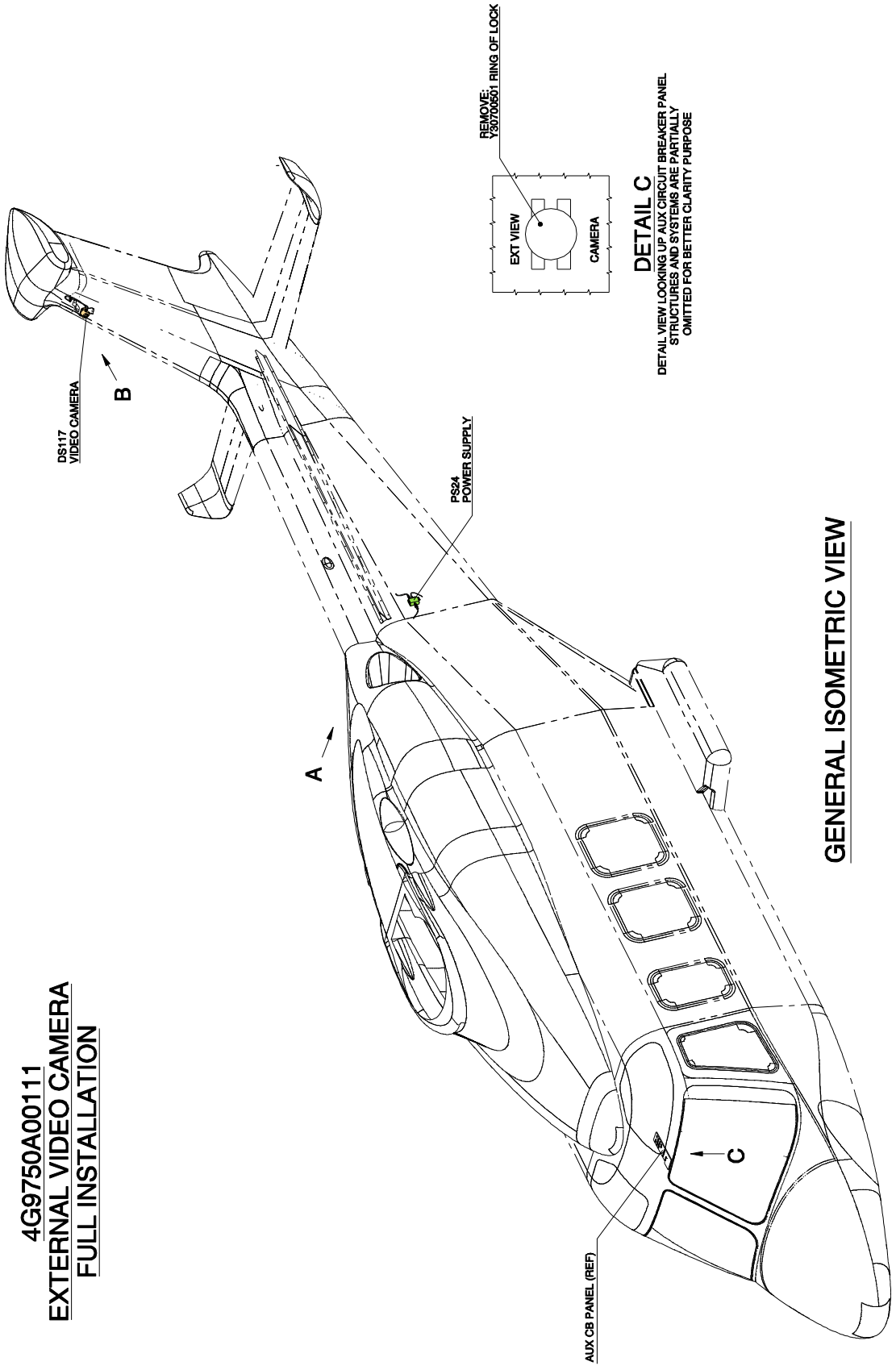

4G9750A00111
EXTERNAL VIDEO CAMERA
FULL INSTALLATION
GENERAL ISOMETRIC VIEW
DS117
VIDEO CAMERA
B
PS24
POWER SUPPLY
A
C
AUX CB PANEL (REF)
REMOVE:
Y907006501 RING OF LOCK
EXT VIEW
CAMERA
DETAIL C
DETAIL VIEW LOOKING UP AUX CIRCUIT BREAKER PANEL
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 38

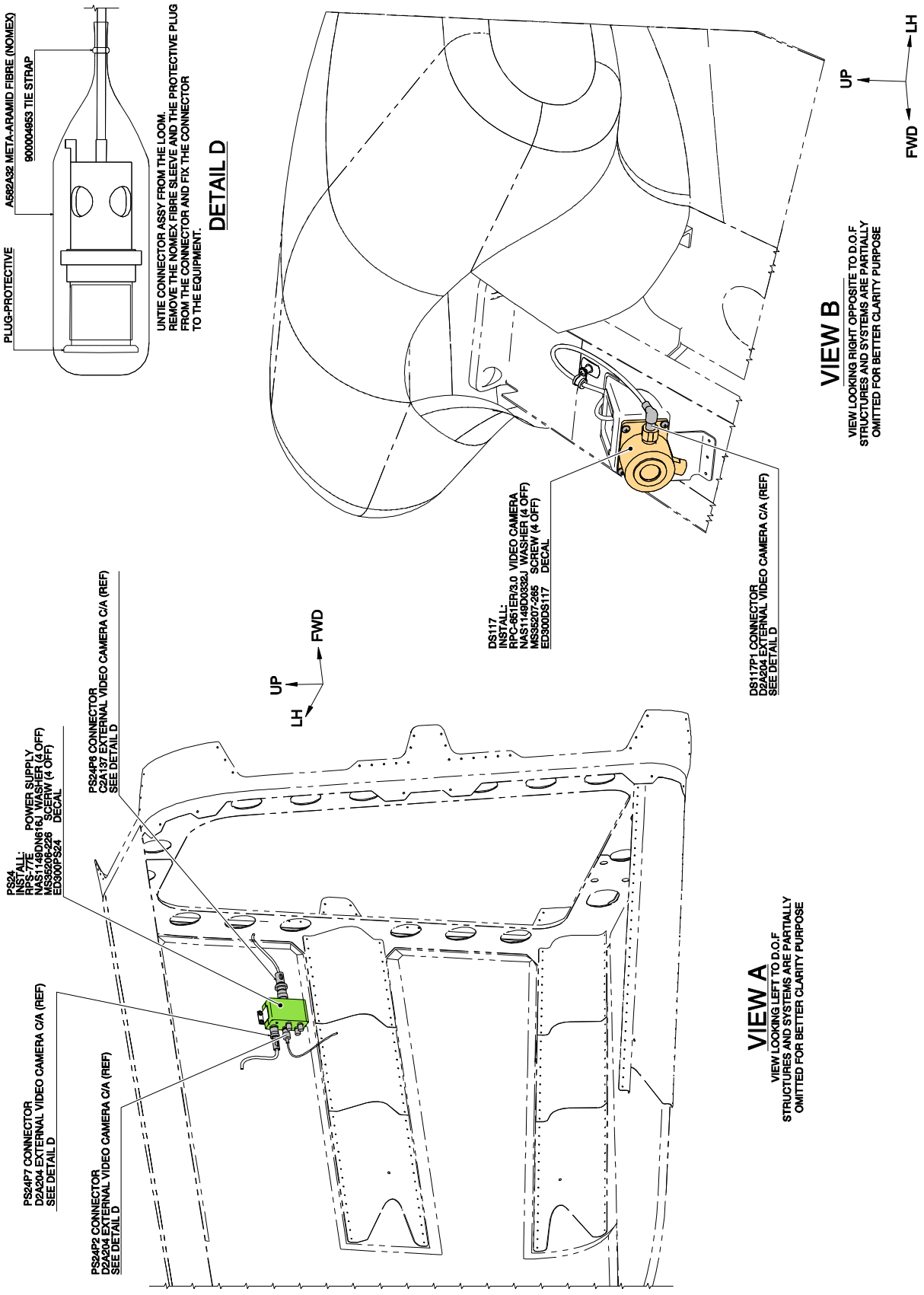

A582A32 META-ARAMID FIBRE (NOMEX)
900004863 TIE STRAP
PLUG-PROTECTIVE
UNTIE CONNECTOR ASSY FROM THE LOOM.
REMOVE THE NOMEX FIBRE SLEEVE AND THE PROTECTIVE PLUG
FROM THE CONNECTOR AND FIX THE CONNECTOR
TO THE EQUIPMENT.
DETAIL D
VIEW B
VIEW LOOKING RIGHT OPPOSITE TO D.O.F
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
UP
LH
FWD
DS117
INSTALL:
RPC-451ER/9.0 VIDEO CAMERA
NAS1149D0332J WASHER (4 OFF)
MS35207-265 SCREW (4 OFF)
ED300DS117 DECAL
DS117P1 CONNECTOR
D2A204 EXTERNAL VIDEO CAMERA C/A (REF)
SEE DETAIL D
PS24P6 CONNECTOR
C2A137 EXTERNAL VIDEO CAMERA C/A (REF)
SEE DETAIL D
PS24
INSTALL:
RPS-77E POWER SUPPLY
NAS1149D0616J WASHER (4 OFF)
MS35206-226 SCERW (4 OFF)
ED300PS24 DECAL
PS24P7 CONNECTOR
D2A204 EXTERNAL VIDEO CAMERA C/A (REF)
SEE DETAIL D
PS24P2 CONNECTOR
D2A204 EXTERNAL VIDEO CAMERA C/A (REF)
SEE DETAIL D
VIEW A
VIEW LOOKING LEFT TO D.O.F
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 39

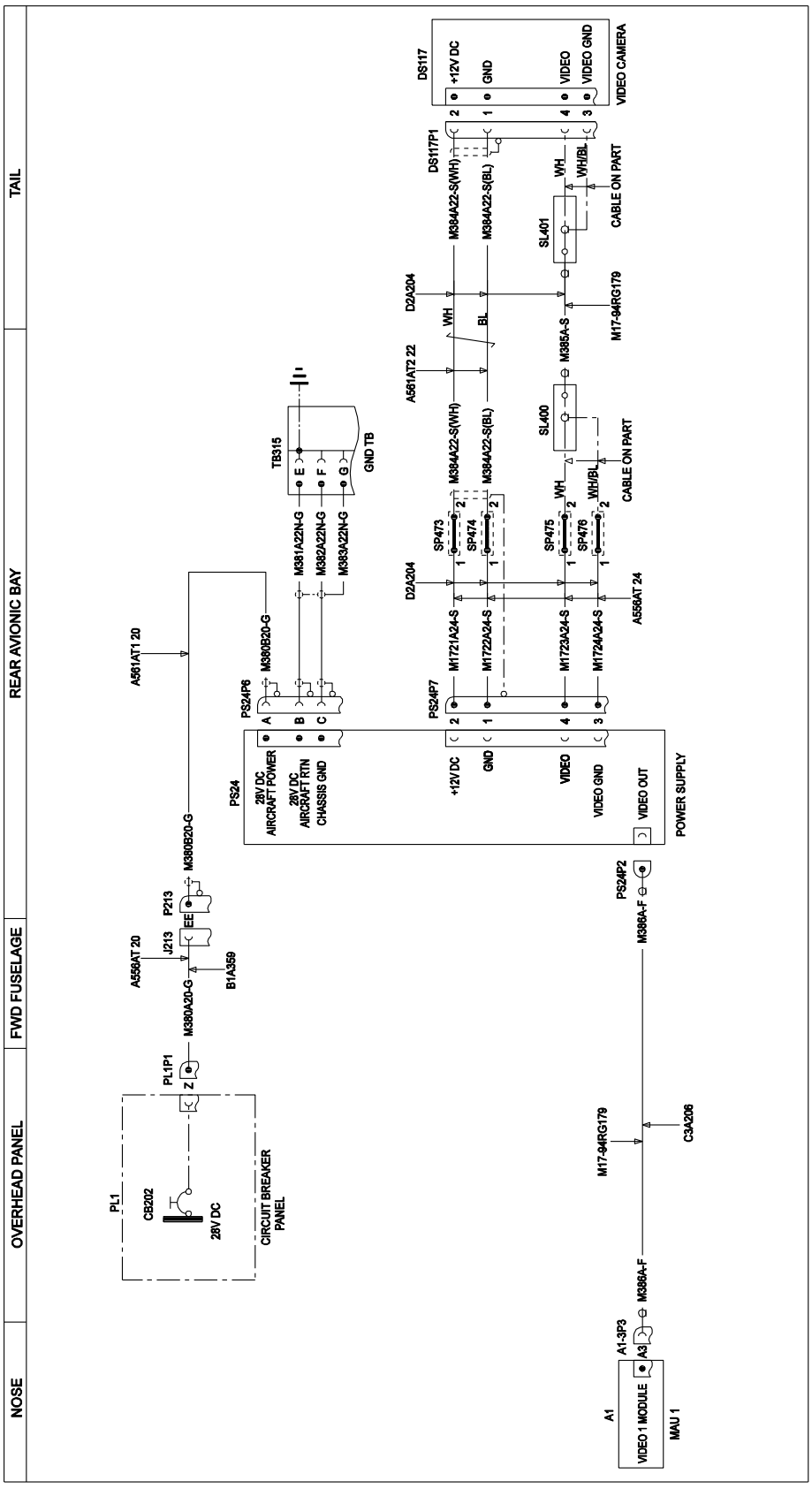

3G9750W00111
WIRING DIAGRAM EXTERNAL VIDEO CAMERA
NOSE
OVERHEAD PANEL
FWD FUSELAGE
REAR AVIONIC BAY
TAIL
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM C1A237 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A561AT1 22 UNLESS SPECIFIED
DS117
+12V DC
GND
VIDEO
VIDEO GND
VIDEO CAMERA
DS117P1
M384A22-S(WH)
M384A22-S(BL)
CABLE ON PART
SL401
M385A-S
M17-94RG179
D2A204
A561AT2 22
SL400
A556AT 24
SP473
SP474
SP475
SP476
M1721A24-S
M1722A24-S
M1723A24-S
M1724A24-S
PS24P7
PS24P6
PS24P2
M380B20-G
M381A22N-G
M382A22N-G
M383A22N-G
TB315
GND TB
PS24
28V DC AIRCRAFT POWER
28V DC AIRCRAFT RTN
CHASSIS GND
POWER SUPPLY
VIDEO OUT
A561AT1 20
A558AT 20
J213
P213
M380A20-G
B1A359
PL1P1
PL1
CB202
28V DC
CIRCUIT BREAKER PANEL
M386A-F
C3A206
A1-3P3
A1
VIDEO 1 MODULE
MAU 1

Figure 40

KIT EXTERNAL VIDEO CAMERA						
Cable Assy	Wire		From	Electrical Contact	To	Electrical Contact
	ID	Col.	Ref Des		Ref Des	
3G9B01A35901 (B1A359)	M380A20-G		PL1P1	M39029/58-364	J213	M39029/56-352
3G9C01A23701 (C1A237)	M380B20-G		PS24P6	N.A.	P213	M39029/58-364
	M381A22N-G		PS24P6	N.A.	TB315	A523A-A05
	M382A22N-G		PS24P6	N.A.	TB315	A523A-A05
	M383A22N-G		TB315	A523A-A05	TB315	A523A-A05
3G9C03A20601 (C3A206)	M386A-F		A1-3P3	FCC4102D	PS24P2	N.A.
3G9D02A20401 (D2A204)	M1721A24-S		PS24P7	N.A.	SP473	N.A.
	M1722A24-S		PS24P7	N.A.	SP474	N.A.
	M1723A24-S		PS24P7	N.A.	SP475	N.A.
	M1724A24-S		PS24P7	N.A.	SP476	N.A.
	M384A22-S	WH	SP473	N.A.	DS117P1	M39029/56-348
		BL	SP474	N.A.	DS117P1	M39029/56-348
	M385A-S		SL400	N.A.	SL401	N.A.
	NO-MARKED	WH	SL400	N.A.	SP475	N.A.
	NO-MARKED	WHBL	SL400	N.A.	SP476	N.A.
	NO-MARKED	WH	SL401	N.A.	DS117P1	M39029/56-348
	NO-MARKED	WHBL	SL401	N.A.	DS117P1	M39029/56-348

Figure 41

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.