
SERVICE BULLETIN

N° **139-169**

DATE: March 1, 2012

REV. : A - March 27, 2023

TITLE

ATA 33 - 2ND SEARCH LIGHT KIT P/N 4G3340F01811 INSTALLATION

REVISION LOG

Helicopters that have complied with previous issue of this Service Bulletin do not need any additional action.

Revision A is issued to introduce the retromod P/N 3G9350P04211 for the helicopters equipped with kit FLIR P/N 4G9350F00111, to update the SB to the latest standard and the installation to the latest design.

Due to the large amount of modifications introduced in this new revision, revision bars are not shown

1. PLANNING INFORMATION

A. EFFECTIVITY

All the AB/AW139 helicopters from S/N 31005 to S/N 31157 (except S/N 31007, 31224, 31234 and 31244) and from S/N 41001 to S/N 41023.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

N.A.

D. REASON

This Service Bulletin is issued in order to provide all necessary instructions to allow the installation of the 2nd search light kit P/N 4G3340F01811 (NVG compatible).

E. DESCRIPTION

The secondary search light kit introduces a second additional and independent source of light useful for several helicopter operations as landing and taxiing. Similarly to the basic landing light, the additional one can be lit on and oriented by means of the same switch on the pilot and co-pilot collective grip and it can be stowed and unstowed by a dedicated switch on the light control panel in the interseat console. The additional light is installed on the bottom surface of the helicopter, on the right side, in symmetrical position with respect to the basic landing light.

This Service Bulletin provides all necessary instructions to perform complete provision (structural and electrical) P/N 4G3340A03811 and the equipment installation P/N 3G3340A5211 of the 2nd search light kit P/N 4G3340F01811 on AB/AW139 short nose helicopters.

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

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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 ninety (90) MMH are deemed necessary.

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

H. WEIGHT AND BALANCE

WEIGHT (Kg)	ARM (mm)	MOMENT (Kgmm)
		5,9
LONGITUDINAL BALANCE	3387	19983
LATERAL BALANCE	543	3204

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM01 39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)	-
DM02 39-A-20-10-08-00A-622A-A	Electrical contacts - Crimp	-
DM03 39-A-20-10-18-00A-691A-A	Electrical wires and cables - Marking	-
DM04 39-A-24-91-01-01A-921A-A	Circuit breaker (circuit breaker panel) - Replacement (remove and install a new item)	-
DM05 39-A-25-93-03-00A-520A-K	Support-video camera group - Remove procedure	-
DM06 39-A-25-93-03-00A-720A-K	Support-video camera group - Install procedure	-
DM07 39-B-33-45-02-00A-520A-K	Light control panel - Remove procedure	-
DM08 39-B-33-45-03-00A-520A-K	External light control panel - Remove procedure	-
DM09 39-A-34-15-04-00A-520A-A	Number 2 outside air temperature sensor (OATS2) - Remove procedure	-
DM10 39-A-46-20-00-00A-750A-A	Processing and integrating - Options and setting file - Load software procedure	-

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM11 39-B-33-45-00-00A-320A-K	Secondary search light system - Operation test	-

Following Data Modules refer to CSRP:

<u>DATA MODULE</u>	<u>DESCRIPTION</u>	<u>PART</u>
DM12 CSRP-A-51-42-00-00A-720A-D	Potted inserts - Install procedure	-

2) ACRONYMS & ABBREVIATIONS

AMD	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AVCS	Active Vibration Control System
CB	Circuit Breaker
CSRP	Common structural repair publication
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
FLIR	Forward Locked InfraRed
ITEP	Illustrated Tools and Equipment Publication
LHD	Leonardo Helicopters Division
MMH	Maintenance Man Hours
NVG	Night Vision Goggles
NVIS	Night Vision Imaging System
P/N	Part Number
S/N	Serial Number

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

N.A.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	4G3340F01811		KIT SECONDARY SEARCH LANDING LIGHT	REF	.		-
2	4G3340A03811		SECONDARY SEARCH LANDING LIGHT COMPLETE PROVISION	REF	..		-
3	3G5306P22911		SECONDARY LANDING LIGHT STRUCTURAL RETROMOD	REF	...	(1)	-
4	3G5306P16351	3G5306P16351A1	Doubler	1	....		139-169L1
5	3G5306P16352	3G5306P16352A1	Plate	2	....		139-169L1
6	3G5306P16353	3G5306P16353A1	Plate	1	....		139-169L1
7	3G5306P16354	3G5306P16354A1	Cover	1	....		139-169L1
8	3G5306P16355		Bonding layer	1	....		139-169L1
9	3G5306P16356		Reinforcement	1	....		139-169L1
10	MS27039-0805		Screw	3	....		139-169L1
11	NAS1149DN832K		Washer	3	....		139-169L1
12	NAS1832C08-3M		Insert	6	....		139-169L1
13	NAS1836-08-13		Insert	8	....		139-169L1
14	3G5306P22912		SECONDARY LANDING LIGHT STRUCTURAL RETROMOD FOR AVCS	REF	...	(2)	-
15	3G5306P16352	3G5306P16352A1	Plate	2	....		139-169L2
16	3G5306P16353	3G5306P16353A1	Plate	1	....		139-169L2
17	3G5306P16354	3G5306P16354A1	Cover	1	....		139-169L2
18	3G5306P16355		Bonding layer	1	....		139-169L2
19	3G5306P16356		Reinforcement	1	....		139-169L2
20	3G5306P16357	3G5306P16357A1	Doubler	1	....		139-169L2
21	MS27039-0805		Screw	3	....		139-169L2
22	NAS1149DN832K		Washer	3	....		139-169L2
23	NAS1832C08-3M		Insert	6	....		139-169L2
24	NAS1836-08-13		Insert	7	....		139-169L2
25	3G9706P00611		SECONDARY SEARCH LANDING LIGHT VARIANT CARGO HOOK CAMERA	REF	...	(3)	-
26	3G9706P00211		CARGO HOOK CAMERA VARIANT	REF	....		-
27	AW001CL001-N6	A630A51	Stud	1	....		139-169L3
28	A631A02A		Spacer	1	....		139-169L3
29	AS21919WDG11		Clamp	2	....		139-169L3
30	3G5306P16311		CARGO HOOK CAMERA STRUCTURAL RETROMOD	REF	....	(4)	-
31	3G5306P16351	3G5306P16351A1	Doubler	1	....	(5)	139-169L4
32	3G5306P16352	3G5306P16352A1	Plate	2	....	(5)	139-169L4
33	3G5306P16353	3G5306P16353A1	Plate	1	....	(5)	139-169L4
34	3G5306P16354	3G5306P16354A1	Cover	1	....	(5)	139-169L4
35	3G5306P16355		Bonding layer	1	....	(5)	139-169L4
36	3G5306P16356		Reinforcement	1	....	(5)	139-169L4
37	3G5306P16357	3G5306P16357A1	Doubler	1	....		139-169L4
38	3G5310A09931		Cover Assy	1	....		139-169L4
39	3G5315A27631		Support Assy	2	....		139-169L4

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
40	3G5315A86951		Flange	1	.....	(5)	139-169L4
41	3G5310A10251		Flange	1	.....	(5)	139-169L4
42	AW007TE-30-111	999-5000-30-111	Insert	4	.....	(5)	139-169L4
43	NAS1149C0316B		Washer	4	.....		139-169L4
44	NAS1149D0332K		Washer	4	.....		139-169L4
45	NAS1149DN832K		Washer	3	.....		139-169L4
46	NAS1836C3-13P		Insert	4	.....	(5)	139-169L4
47	NAS1832C08-3M		Insert	6	.....	(5)	139-169L4
48	NAS1836-08-13		Insert	8	.....	(5)	139-169L4
49	NAS623-3-2		Screw	4	.....		139-169L4
50	3G5306P16312		CARGO HOOK CAMERA STRUCTURAL VARIANT FOR AVCS	REF	....	(6)	-
51	3G5306P16352	3G5306P16352A1	Plate	2	.....	(7)	139-169L5
52	3G5306P16353	3G5306P16353A1	Plate	1	.....	(7)	139-169L5
53	3G5306P16354	3G5306P16354A1	Cover	1	.....	(7)	139-169L5
54	3G5306P16355		Bonding layer	1	.....	(7)	139-169L5
55	3G5306P16356		Reinforcement	1	.....	(7)	139-169L5
56	3G5306P16357	3G5306P16357A1	Doubler	1	.....	(7)	139-169L5
57	3G5310A09931		Cover Assy	1	.....		139-169L5
58	3G5315A27631		Support Assy	2	.....		139-169L5
59	3G5310A10251		Flange	1	.....	(7)	139-169L5
60	3G5315A86951		Flange	1	.....	(7)	139-169L5
61	AW007TE-30-111	999-5000-30-111	Insert	4	.....	(7)	139-169L5
62	MS27039-0805		Screw	3	.....		139-169L5
63	MS27039-1-04		Screw	4	.....		139-169L5
64	MS27039-1-08		Screw	4	.....		139-169L5
65	NAS1149C0316B		Washer	4	.....		139-169L5
66	NAS1149D0332K		Washer	4	.....		139-169L5
67	NAS1149DN832K		Washer	3	.....		139-169L5
68	NAS1836-08-13		Insert	7	.....	(7)	139-169L5
69	NAS1836C3-13M		Insert	4	.....	(7)	139-169L5
70	NAS1832C08-3M		Insert	6	.....	(7)	139-169L5
71	3G3340A05111		SECONDARY SEARCH LANDING LIGHT ELECTRICAL PROVISION	REF	...		-
72	3G9B01A06401		Cable Assy (B1A64)	1	....		139-169L6
73	3G9B01B07101	3G3340A05111A1R	Cable Assy (B1B71)	1	....		139-169L6
74	3G9B01B07201		Cable Assy (B1B72)	1	....		139-169L6
75	A363A01		Bonding Stud	1	....		139-169L6
76	A388A3E06C		Receptacle	2	....		139-169L6
77	ED300GS71		Decal	1	....		139-169L6
78	AS21919WDG02		Clamp	2	....		139-169L6
79	AS21919WDG04		Clamp	2	....		139-169L6
80	NAS1149D0332J		Washer	2	....		139-169L6
81	NAS1190E3P5AK		Screw	2	....		139-169L6
82	MS90376-18R		Protective cap	1	....		139-169L6
83	3G2406P01711		OVERHEAD CB PANEL VARIANT	REF	...		-
84	3G2490V00158		Illuminated NVIS panel breaker (NVG)	1	....		139-169L6
85	3G9E01C04901		Overhead CB panel variant C/A (E1C49)	1	....		139-169L6
86	3G9E01C05001	3G2406P01711A1R	Overhead CB panel variant C/A (E1C50)	1	....		139-169L6
87	ED300CB313		Decal	1	....		139-169L6
88	ED300CB314		Decal	1	....		139-169L6

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
89	ED300CB4		Decal	1	....		139-169L6
90	MS25244-25		Circuit breaker	1	....		139-169L6
91	3G3340A05211		SECONDARY SEARCH LIGHT EQUIPMENT INSTALLATION	REF	..		-
92	0202644-005		Search light	1	...		139-169L6
93	3G3300V00351		Lights and landing lights control panel (NVG)	1	...		139-169L6
94	3G3340V00552		External lights control panel (NVG)	1	...		139-169L6
95	3G9B01B18701		Cabin lighting extension	1	...		139-169L6
96	999-0500-85-19		Plate assy	1	...		139-169L6
97	999-0500-85-207		Plate assy	1	...		139-169L6
98	ED300DS158		Decal	1	...		139-169L6
99	ED300PL2		Decal	1	...		139-169L6
100	ED300PL58		Decal	1	...		139-169L6
101	MS35206-243		Screw	4	...		139-169L6
102	MS35489-18		Grommet	1	...		139-169L6
103	NAS1149DN832J		Washer	4	...		139-169L6
104	3P5332A01832	3P5332A01852A1	Fairing assy	1	.		139-169L6
105	BJE147		Fuse	2	.		139-169L6
106	MS27039-0805		Screw	7	.		139-169L6
107	NAS1149DN832K		Washer	7	.		139-169L6
108	3G9350P04211		FLIR TO CB PANEL RETROMOD	REF	.	(8)	-
109	3G9B01R16001		FLIR TO CB PANEL VARIANT C/A (B1R160)	REF	..		-
110	A556A-T12		Wire	2 m	...		139-169L7
111	M23053/8-005-C		Insulation Sleeving	2 m	...		139-169L7
112	M81824/1-3		Splice	1	...		139-169L7
113	MS25036-156		Terminal lug	1	...		139-169L7

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
114	AMS-C-9084 Type VIII B Class I (cod. 900005846)	Glass fiber	AR	(9)	-
115	COMMERCIAL Code No. 900004558	Carbon fiber	AR	(9)	-
116	199-50-002 Type II Class I Code No. 900001557	Araldit LY-5138-2	AR	(9)	-
117	199-50-002 Type II Class I Code No. 900001558	Hardener XP5173	AR	(9)	-
118	199-05-002 Type II Class II (MMM-A-132) Code No. 900004603	Adhesive EA934NA (C057)	AR	(9)	-
119	199-05-002 Type I Class II (MMM-A-132) Code No. 900004603	Adhesive EA9309NA (C231)	AR	(9)	-
120	AWMS05-001	Sealant MC780 (C465)	AR	(9)	-
121	Code No. 900004953	Lacing cord	1	(9)	-
122	A582A25	Nomex Sleeve	AR		-

#	SPEC./LHD CODE NUMBER	DESCRIPTION	Q.TY	NOTE	PART
123	A523A-A02	Electrical contact	4		-
124	MS20470AD4-5	Rivet	0.1 Kg	(9)	-
125	199-24-103 Type I Class 2 Grade 1 Shape 4.8-32 Thickness 12.7 Code No. 237281120	Honeycomb	AR	(9)	-
126	EN6049-006-13-5	Self-wrap braid	AR	(9)	-

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
139-169L1	1	(1)	-
139-169L2	1	(2)	-
139-169L3	1	(3)	-
139-169L4	1	(4)	-
139-169L5	1	(6)	-
139-169L6	1	-	-
139-169L7	1	(8)	-

NOTE

- (1) Items necessary for this retromod to be ordered only if helicopter is not equipped with AVCS system and kit cargo hook camera P/N 3G9770F00111 is not installed.
- (2) Items necessary for this retromod to be ordered only if helicopter is equipped with AVCS system and kit cargo hook camera P/N 3G9770F00111 is not installed.
- (3) Variant applicable only if the helicopter is already equipped with cargo hook camera kit P/N 3G9770F00111.
- (4) Items necessary for this retromod to be ordered only if helicopter is not equipped with AVCS system and kit cargo hook camera P/N 3G9770F00111 is installed.
- (5) This item may also be supplied as part of productive P/N 3G5306P16311A1.
- (6) Items necessary for this variant to be ordered only if helicopter is equipped with AVCS and kit cargo hook camera P/N 3G9770F00111 is installed.
- (7) This item may also be supplied as part of productive P/N 3G5306P16312A1.
- (8) Item to be ordered only if helicopter is equipped with kit FLIR P/N 4G9350F00111.
- (9) Item to be procured as local supply.

B. SPECIAL TOOLS

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

C. INDUSTRY SUPPORT INFORMATION

Customization.

3. ACCOMPLISHMENT INSTRUCTIONS

GENERAL NOTES

- a) Place an identification tag on all components that are re-usable, including the attaching hardware that has been removed to gain access to the modification area and adequately protect them until their later re-use.
 - b) Shape the cables in order to prevent interference with the structure and the other existing installations, using where necessary suitable lacing cords and plastic cable tiedown.
 - c) Exercise extreme care during drilling operations to prevent instruments, cables and hoses damage.
 - d) After drilling, remove all swarf and sharp edges. Apply on bare metal a light film of primer unless the hole is used for ground connection.
 - e) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
 - f) All lengths are in mm.
1. In accordance with AMP DM 39-A-00-20-00-00A-120A-A prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.

NOTE

Comply with following step 2 only if the helicopter is not equipped with the AVCS system and the kit cargo hook camera P/N 3G9770F00111 is not installed.

2. With reference to Figure 1 and in accordance with AMP, gain access to the area affected by the modification and perform the 2nd search landing light structural provision P/N 3G5306P22911 as described in the following procedure:
 - 2.1 In accordance with AMP DM 39-A-34-15-04-00A-520A-A, remove OAT2 sensor (OATS2) and upper cover P/N 3G1860A00551 from the lower panel P/N 3P5331A02131.
 - 2.2 With reference to Figure 2 section H-H, perform a cut out (Ø 66) through internal skin and honeycomb core of lower panel P/N 3P5331A02131 to remove n°6 inserts

- for OATS2 installation.
- 2.3 With reference to Figure 2 section H-H, close the OATS2 hole by means of a plate P/N 3G5306P16353, n°2 plates P/N 3G5306P16352 and a proper dimension piece of honeycomb core by means of EA9309NA (C231). Seal the inserts holes on external skin by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 2.4 With reference to Figure 3 view A, temporarily locate the doubler P/N 3G5306P16351 on the internal side of lower panel P/N 3P5331A02131 in the relevant installation position. Countermark on the doubler the positions of existing inserts for the installation of the upper cover P/N 3G1860A00551 and on the lower panel the position and shape of light installation house.
 - 2.5 With reference to Figure 3 view A, drill n°6 holes $\varnothing 4.90 \div 5.03$ through the doubler P/N 3G5306P16351 in previously countermarked position.
 - 2.6 With reference to Figure 3 section E-E, remove internal skin and honeycomb core from lower panel P/N 3P5331A02131 in previously countermarked light house position coordinating it with the hole in the doubler. Seal cut-out edges by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 2.7 With reference to Figure 3 view A and section E-E, bond the doubler P/N 3G5306P16351 on the lower panel P/N 3P5331A02131 in the relevant installation position by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 2.8 With reference to Figure 3 section E-E, bond the reinforcement P/N 3G5306P16356 in the relevant installation position by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 2.9 With reference to Figure 2 detail C, perform the indicated light-shaped cut-out through reinforcement P/N 3G5306P16356 and A/C external skin of lower panel. Follow the existing cut-out line on the inner side of the reinforcement. Coordinate the cut-out with the 2nd search light.
 - 2.10 With reference to Figure 2 detail C and Figure 3 view A and section E-E, drill n°7 holes $\varnothing 11.48 \div 11.61$ through reinforcement, doubler and honeycomb core of the lower panel. Coordinate them with existing pilot holes on the reinforcement.
 - 2.11 With reference to Figure 3 view A and section E-E and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°7 inserts P/N NAS1836-08-13 by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
 - 2.12 With reference to Figure 3 section E-E and detail G, remove n°3 existing rivets and

bond the bonding layer P/N 3G5306P16355 in the indicated position by means of adhesive EA9309NA (C231), except in the no adhesive zone. Let adhesive cure at room temperature for at least 24 hours.

- 2.13 With reference to Figure 3 view A, drill \varnothing 4.90 \pm 5.03 hole on the bonding layer coordinating its position with previously installed inserts (consider only for reference BL 662.5 RH). Complete the installation of bonding layer by means of n°3 rivets P/N MS20470AD4-5.

NOTE

Clear the surface under the rivet head nearby the bonding layer P/N 3G5306P16355 to ensure the correct electrical bonding.

- 2.14 With reference to Figure 3 view A, drill n°4 holes 4.90 \pm 5.03 through bonding layer, doubler and external skin of lower panel P/N 3P5331A02131.
- 2.15 With reference to Figure 3 section F-F, drill a hole \varnothing 11.48 \pm 11.61 through doubler P/N 3G5306P16351 and honeycomb core of the lower panel P/N 3P5331A02131, coordinating its position with upper cover P/N 3G1860A00551.
- 2.16 With reference to Figure 3 section F-F and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install one insert P/N NAS1836-08-13 by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
- 2.17 With reference to Figure 2 section H-H, drill hole \varnothing 30.0 through doubler and lower panel in the indicated position to relocate the OATS2. Seal hole edges by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 2.18 With reference to Figure 2 detail K and section J-J, drill n°6 holes 14.25 \pm 14.38 through external skin and core in the indicated positions coordinating them with the OATS2 support assy.
- 2.19 With reference to Figure 2 detail K and section J-J and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°6 inserts P/N NAS1832C08-3M by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 2.20 With reference to Figure 3 detail D, perform the indicated cut-out on the upper cover P/N 3G1860A00551. Coordinate with the shape of the reinforcement P/N 3G5306P16356 to avoid any interference. Install the reworked upper cover in its installation position by means of the existing hardware.

NOTE

Comply with the procedure described in the following step 3 only if the helicopter is not equipped with the AVCS system and kit cargo hook camera P/N 3G9770F00111 is installed.

3. With reference to Figure 1 and in accordance with AMP, gain access to the area affected by the modification and perform the 2nd search landing light structural provision P/N 3G5306P16311 as described in the following procedure:
 - 3.1 With reference to Figure 5 and in accordance with AMP DM 39-A-25-93-03-00A-520A-K, temporary remove cargo hook camera equipment and relevant supports.
 - 3.2 With reference to Figure 5 section M-M and section L-L and in accordance with procedures given in the AMP, remove and discard from the lower panel P/N 3P5331A02131 n°2 existing supports assy P/N 3G5315A27631, upper flange P/N 3G5310A10251 and lower flange P/N 3G5315A86951.
 - 3.3 With reference to Figure 5 section M-M and section L-L and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, remove the n°4 existing installation inserts of previously removed support assemblies and seal insert holes by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
 - 3.4 With reference to Figure 5 detail P and section M-M, drill thru hole Ø 104.0 in the lower panel P/N 3P5331A02131. Seal hole edge by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
 - 3.5 Perform steps 2.1 thru 2.4.
 - 3.6 With reference to Figure 5 detail P and section M-M, temporary locate the doubler P/N 3G5306P16351 on the lower panel P/N 3P5331A02131 and countermark position of previously drilled cargo hook camera hole.
 - 3.7 With reference to Figure 5 detail P and section M-M, drill hole in the marked position.
 - 3.8 Perform steps 2.5 thru 2.17.

NOTE

Pay attention to coordinate the cut out to be performed for installation of the light with existing cargo hook hole.

- 3.9 With reference to Figure 5 section M-M, bond the upper flange P/N 3G5315A86951 in the relevant installation position by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.

- 3.10 With reference to Figure 5 section M-M, bond the lower flange P/N 3G5310A10251 in the relevant installation position by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 3.11 With reference to Figure 5 detail P and section L-L, drill in indicated positions n°4 holes \varnothing 11.48÷11.61 through upper flange, doubler and lower panel core.
- 3.12 With reference to Figure 5 detail P and section L-L and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°4 inserts P/N NAS1836C3-13P by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 3.13 With reference to Figure 5 detail P and section M-M drill in indicated positions n°4 holes \varnothing 9.50÷9.60 through upper flange, doubler, lower panel and lower flange.
- 3.14 With reference to Figure 5 detail P and section M-M and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°4 inserts P/N 999-5000-30-111 by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
- 3.15 With reference to Figure 5 section L-L and Top view, install n°2 supports assy P/N 3G5315A27631 and n°2 clamps P/N AS21919WDG11 by means of n°4 screws P/N NAS623-3-2 and n°4 washers P/N NAS1149C0316B.
- 3.16 With reference to Figure 5 Top view, install stud P/N A630A51 in the indicated position on the upper flange P/N 3G5315A86951 by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 3.17 In accordance with AMP DM 39-A-25-93-03-00A-720A-K, reinstall cargo hook camera equipment and relevant supports on the helicopter by means of existing hardware.
- 3.18 With reference to Figure 5 Top view, secure the B2B2 route by means of installed clamps.
- 3.19 With reference to Figure 5 Top view, to avoid chaffing, secure the indicated ground cable to B2B2 route and to installed stud, by means of spacer P/N A631A02A and tie-straps or lacing cord P/N 900004953.

NOTE

Comply with the procedure described in following step 4 only if the helicopter is already equipped with the AVCS system and the kit cargo hook camera P/N 3G9770F00111 is not installed.

4. With reference to Figure 1 and in accordance with AMP, gain access to the area affected by the modification and perform the 2nd search landing light structural provision

P/N 3G5306P22912 as described in the following procedure:

- 4.1 In accordance with AMP DM 39-A-34-15-04-00A-520A-A, remove the OAT2 sensor (OATS2) from the lower panel P/N 3P5331A02131.
- 4.2 With reference to Figure 2 section H-H, perform a cut out (\varnothing 66) through internal skin and honeycomb core of the lower panel P/N 3P5331A02131 to remove n°6 inserts for OATS2 installation.
- 4.3 With reference to Figure 2 section H-H, close the OATS2 hole by means of a plate P/N 3G5306P16353, n°2 plates P/N 3G5306P16352 and a proper dimension piece of honeycomb by means of adhesive EA9309NA (C231). Seal the external skin holes by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 4.4 With reference to Figure 4 section E-E, temporary locate the doubler P/N 3G5306P16357 on the lower panel P/N 3P5331A02131 in the relevant installation position and countermark position and shape of light installation house.
- 4.5 With reference to Figure 4 section E-E and section R-R, remove internal skin and honeycomb core of the lower panel P/N 3P5331A02131 in previously countermarked light house position, coordinating it with hole in the doubler. Seal edges by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 4.6 With reference to Figure 4 section E-E bond doubler P/N 3G5306P16357 on the lower panel P/N 3P5331A02131 in relevant position installation by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 4.7 With reference to Figure 4 section E-E, bond reinforcement P/N 3G5306P16356 in relevant position installation by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.

NOTE

With reference to Figure 4 Schematic section M-M, if there is a gap between the doubler and the existing cut-out on the lower panel, fill it with adhesive EA934NA (C057) and apply n°2 plies of fiber glass and n°2 plies of carbon fiber by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.

- 4.8 With reference to Figure 2 detail C, perform the indicated light-shaped cut-out through reinforcement P/N 3G5306P16356 and A/C external skin. Follow the

existing cut-out line on the inner side of the reinforcement. Coordinate with the 2nd search light and other equipment already installed.

NOTE

In accordance with following step 4.9, clear properly indicated no adhesive area to ensure the correct electrical bonding of the layer P/N 3G5306P16355.

- 4.9 With reference to Figure 4 section E-E and detail G, remove n°3 existing rivets and bond the bonding layer P/N 3G5306P16355 in the indicated position by means of adhesive EA9309NA (C231), except in the no adhesive area. Let adhesive cure at room temperature for at least 24 hours. Drill a hole \varnothing 4.90÷5.03 on the bonding layer coordinating its position with previously installed inserts (consider only for reference BL 662.5 RH). Complete the installation of the bonding layer by means of n°3 rivets P/N MS20470AD4-5.
- 4.10 With reference to Figure 4 section E-E, drill n°7 holes \varnothing 11.48÷11.61 through reinforcement, doubler and honeycomb core of the lower panel. Coordinate them with existing pilot holes on the reinforcement.
- 4.11 With reference to Figure 4 section E-E and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°7 inserts P/N NAS1836-08-13 by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
- 4.12 With reference to Figure 4 section A-A, drill n°4 holes 4.90÷5.03 through bonding layer, doubler and external skin of lower panel P/N 3P5331A02131.
- 4.13 With reference to Figure 2 section H-H, drill hole \varnothing 30.0 through doubler and lower panel in the indicated position to relocate the OATS2. Seal hole edges by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 4.14 With reference to Figure 2 detail K and section J-J, drill n°6 holes 14.25÷14.38 through external skin and core in the indicated positions coordinating them with OATS2 support assy.
- 4.15 With reference to Figure 2 section J-J and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°6 inserts P/N NAS1832C08-3M by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.

NOTE

Comply with the procedure described in step 5 only if the helicopter is already equipped with the AVCS system and kit cargo hook camera P/N 3G9770F00111 is installed.

5. In accordance with procedures given in the AMP, gain access to the area affected by the modification and perform the 2nd search landing light structural provision P/N 3G5306P16312 as described in the following procedure:
 - 5.1 With reference to Figure 5 and in accordance with AMP DM 39-A-25-93-03-00A-520A-K, temporary remove cargo hook camera equipment and relevant supports.
 - 5.2 In accordance with procedure given in the AMP, remove and discard from the lower panel P/N 3P5331A02131 existing n°2 supports assy P/N 3G5315A27631 and upper and lower flange P/N 3G5315A86951 and P/N 3G5310A10251.
 - 5.3 With reference to Figure 5 section M-M and section L-L and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, remove the n°4 existing installation inserts of previously removed support assemblies and seal insert holes by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
 - 5.4 With reference to Figure 5 detail P and section M-M, drill thru hole \varnothing 104.0 in the lower panel P/N 3P5331A02131. Seal hole edge by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
 - 5.5 Perform steps 4.1 thru 4.4.
 - 5.6 With reference to Figure 5 detail P and section M-M, temporary locate the doubler P/N 3G5306P16357 on the lower panel P/N 3P5331A02131 and countermark position of previously drilled cargo hook camera hole.
 - 5.7 With reference to Figure 5 detail P and section M-M, drill hole in the marked position.
 - 5.8 Perform steps 4.5 thru 4.13.
 - 5.9 With reference to Figure 5 section M-M, bond the upper flange P/N 3G5315A86951 in the relevant installation position by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 5.10 With reference to Figure 5 section M-M, bond the lower flange P/N 3G5310A10251 in the relevant installation position by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 5.11 With reference to Figure 5 detail P and section L-L, drill n°4 holes \varnothing 11.48÷11.61 through upper flange and lower panel core.

- 5.12 With reference to Figure 5 section L-L and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°4 inserts P/N NAS1836C3-13P by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
- 5.13 With reference to Figure 5 section M-M, drill n°4 holes Ø 9.50±9.60 through upper flange, lower panel and lower flange.
- 5.14 With reference to Figure 5 section M-M and in accordance with CSRP DM CSRP-A-51-42-00-00A-720A-D, install n°4 inserts P/N 999-5000-30-111 by means of adhesive EA934NA (C057). Let adhesive cure at room temperature for at least 24 hours.
- 5.15 With reference to Figure 5 section L-L and Top view, install the n°2 supports assy P/N 3G5315A27631 and n°2 clamps P/N AS21919WDG11 by means of n°4 screws P/N NAS623-3-2 and washers P/N NAS1149C0316B.
- 5.16 With reference to Figure 5 Top view, install stud P/N A630A51 in the indicated position on the upper flange P/N 3G5315A86951 by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
- 5.17 In accordance with AMP DM 39-A-25-93-03-00A-720A-K, reinstall cargo hook camera equipment and relevant supports on the helicopter by means of existing hardware.
- 5.18 With reference to Figure 5 Top view and 3D isoview, secure the B2B2 route by means of installed clamps.
- 5.19 With reference to Figure 5 Top view and 3D isoview, to avoid chaffing, secure the indicated ground cable to B2B2 route and to installed stud, by means of spacer P/N A631A02A and tie-straps or lacing cord P/N 900004953.

NOTE

The use of pins different from the indicated ones is allowed after a confirmation from AW139 PSE.

NOTE

Comply with the procedure described in step 6 only if the helicopter is equipped with kit FLIR P/N 4G9350F00111.

6. Perform the FLIR to CB panel retromod P/N 3G9350P04211 as described in the following procedure:
 - 6.1 With reference to Figure 15 wiring diagram (WAS), remove or disconnect and stow the electrical connections between sectioning connectors PL1P8 and splice SP1024.

- 6.2 With reference to Figure 15 wiring diagram (WAS), remove or disconnect and stow the electrical connections between sectioning connectors PL1J8 and pin 2 of circuit breaker CB203.
- 6.3 With reference to Figure 10 and Figure 15 wiring diagram (BECOMES), assemble FLIR to CB panel variant C/A (B1R160) P/N 3G9B01R16001 as described in the following procedure:
 - 6.3.1 With reference to Figure 10 and Figure 15 wiring diagram (BECOMES), cut a wire P/N A556A-T12 of adequate length and lay it down between splice SP1024 and SP1512-G-ME following the existing routes as shown.
 - 6.3.2 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 15 wiring diagram (BECOMES), mark wire as T2312A12-G-ME by means of marker sleeves.
 - 6.3.3 With reference to Figure 10 and Figure 15 wiring diagram (BECOMES), cut a wire P/N A556A-T12 of adequate length and lay it down between splice SP1512-G-ME and circuit breaker CB203 following the existing routes as shown.
 - 6.3.4 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 10 and Figure 15 wiring diagram (BECOMES), crimp on wire the terminal lug P/N MS25036-156 (CB203 side) by means of proper crimping tool.
 - 6.3.5 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 15 wiring diagram (BECOMES), mark wire as T2312B12-G-ME by means of marker sleeve.
- 6.4 With reference to Figure 10 and Figure 15 wiring diagram (BECOMES), perform the electrical connections of the FLIR to CB panel variant C/A (B1R160) between the circuit breaker CB203, the splices SP1054 and SP1512-ME (P/N M81824/1-3). Use n°3 insulation sleeving P/N M23053/8-005-C.
- 6.5 Perform a pin-to-pin continuity check of all the electrical connections made.
7. Perform the overhead CB panel variant P/N 3G2406P01711 as described in the following procedure:
 - 7.1 With reference to Figure 8 and in accordance with AMP DM 39-A-24-91-01-01A-921A-A, remove the integrally light circuit breaker panel P/N 3G2490V00152 and install the new integrally light circuit breaker panel P/N 3G2490V00158.
 - 7.2 With reference to Figure 8 and Figure 11 wiring diagram, remove or stow indicated

wires of E1C3 cable assy.

- 7.3 With reference to Figure 8 and Figure 11 wiring diagram, disconnect circuit breaker CB4 P/N MS3320-5 from the 28V DC NON ESS BUS 1 W11A and from PL1J10.
- 7.4 With reference to Figure 8 and Figure 11 wiring diagram, disconnect circuit breaker CB8 P/N MS3320-5 from the 28V DC MAIN BUS 2 W22A and from PL1J4.
- 7.5 With reference to Figure 8 and Figure 11 wiring diagram, disconnect circuit breaker CB10 P/N MS25244-25 from the 28V DC MAIN BUS 2 W22A and from PL1J8.
- 7.6 With reference to Figure 8 and Figure 11 wiring diagram, install the circuit breaker CB4 P/N MS3320-5 and decal P/N ED300CB4 in indicated position and connect it to 28V DC MAIN BUS 2 W22A. Complete installation of CB4 connecting indicated wire of E1C49 cable assy to connector PL1J10. Follow route E1C3.
- 7.7 With reference to Figure 8 and Figure 11 wiring diagram, install the circuit breaker CB314 P/N MS25244-25 and decal P/N ED300CB314 in indicated position and connect it to 28V DC MAIN BUS 2 W22A. Complete installation of CB314 connecting indicated wires of E1C49 cable assy to the connectors PL1J12 and PL1J8.

NOTE

If not already existing, in accordance with Figure 11 wiring diagram, install a fuse P/N BJE147 between CB314 and connector PL1J12.

- 7.8 With reference to Figure 8 and Figure 11 wiring diagram, install the circuit breaker CB313 P/N MS25244-25 and decal P/N ED300C313 in the indicated position and connect it to 28V DC NON ESS BUS 1 W11A by means of the E1C50 cable assy. Complete installation of CB313 connecting indicated wires of E1C49 cable assy to connectors PL1J8 and PL1J4.

NOTE

If not already existing, in accordance with Figure 11 wiring diagram, install a fuse P/N BJE147 between CB313 and connector PL1J4.

8. In accordance with procedures given in the AMP, gain access to the area affected by the modification and perform the 2nd search landing light electrical provision P/N 3G3340A05111 as described in the following procedure:
 - 8.1 With reference to Figure 9 and in accordance with AMP DM 39-B-33-45-02-00A-520A-K and DM 39-B-33-45-03-00A-520A-K, remove the PL58 external lights control panel (NVG) P/N 3G3340V00551 and the PL2 cabin light control panel (NVG) P/N 3G3320V00454.

- 8.2 With reference to Figure 7 view S-S, install in the indicated position GS71 ground stud P/N A363A01. Apply decal P/N ED300GS71 in an adjacent area.
 - 8.3 With reference to Figure 7 view S-S, install n°2 studs P/N A388A3E06C by means of adhesive EA9309NA (C231). Let adhesive cure at room temperature for at least 24 hours.
 - 8.4 With reference to Figure 7 view S-S, install n°2 clamps P/N AS21919WDG02 and n°2 clamps P/N AS21919WDG04 by means of n°2 screws P/N NAS1190E3P5AK and n°2 washers P/N NAS1149D0332J.
 - 8.5 With reference to Figures 6 and 7, route the cable assy B1B71 from connectors PL1P8 of the circuit breaker panel to ground stud GS71 and to the 2nd search light location, following the route B1B2. Secure cable assy B1B71 to existing cable by means of existing clamps and lacing cord P/N 900004953.
 - 8.6 With reference to Figures 6 and 7, route the cable assy B1B72 from PL2 light cabin control panel to 2nd search light installation location, to interseat console connectors PL2P2, PL2P3 and PL13P2 and to cockpit connectors A32P1, TB20P1, TB30P1 and TB34P1, following the route B1B2. Secure cable assy B1B72 to existing cable by means of existing clamps and lacing cord P/N 900004953.
 - 8.7 With reference to Figures 6 and 7, route the cable assy B1A64 from the connector A33P1 to splices SP1131 and SP1128 area following route B1B2. Secure cable assy B1A64 to existing cable by means of existing clamps and lacing cord P/N 900004953.
 - 8.8 With reference to Figure 12 wiring diagram, disconnect and stow or remove all indicated cables from the connectors PL2P2, TB20P1, TB30P1 and DS4 secondary landing light.
 - 8.9 With reference to Figure 13 wiring diagram, perform the electrical connection of the C/A B1B72 between light panel connector PL2P3 and connector TB30P1, lamp test connector PL13P2, pilot display control connector A32P1, connector TB34P1 and circuit breaker panel connector PL1P12.
 - 8.10 With reference to Figure 13 wiring diagram, perform the electrical connection of the C/A B1A64 between splices SP1128 and SP1131 and the co-pilot display control connector A33P1.
 - 8.11 With reference to Figure 14 wiring diagram, perform the electrical connection of the C/A B1B72 between light panel connectors PL2P2 and PL2P3 and connectors TB20P1 and TB30P1.
9. Perform the 2nd search landing light equipment installation P/N 3G3340A05211 as described in the following procedure:

- 9.1 With reference to Figure 9, relocate the OATS2 in the new installation position by means of the existing hardware.
 - 9.2 With reference to Figure 9, install the PL2 lights and landing light control panel (NVG) P/N 3G3300V00351 in the indicated position. Apply decal P/N ED300PL2 in an adjacent area.
 - 9.3 With reference to Figure 9, install the PL58 external light control panel (NVG) P/N 3G3340V00552 in the indicated position. Apply decal P/N ED300PL58 in an adjacent area.
 - 9.4 With reference to Figure 9, install the plate assy P/N 999-0500-85-207 and the plate assy P/N 999-0500-85-19 in the indicated position if necessary.
 - 9.5 With reference to Figure 9, install the DS158 2nd search landing light (NVG) P/N 0202644-005 by means of n°4 screws P/N MS35206-243 and n°4 washers P/N NAS1149DN832J. Apply decal P/N ED300DS158 in an adjacent area.
 - 9.6 With reference to Figure 9, install the grommet P/N MS35489-18 on the 2nd search landing light fairing P/N 3G5332A01852 and route the cable assy B1B71 and B1B72 through the installed grommet.
 - 9.7 With reference to Figure 9 and Figure 13 wiring diagram, perform the electrical connection of the C/A B1B71 between circuit breaker panel connector PL1P8 and ground stud GS71 and DS158 2nd search landing light (NVG).
 - 9.8 With reference to Figure 9 and Figure 13 wiring diagram, perform the electrical connection of the C/A B1B72 between light panel connector PL2P3 and DS158 2nd search landing light (NVG).
 - 9.9 With reference to Figure 14 wiring diagram, perform the electrical connection of the C/A B1B72 between light panel connectors PL2P2 and PL2P3 and DS4 secondary landing light (NVG).
 - 9.10 With reference to Figure 9 install 2nd search landing light fairing P/N 3G5332A01852 by means of n°7 washers P/N NAS1149DN832K and N°7 screws P/N MS27039-0805.
 - 9.11 With reference to Figure 9 view Z-Z, remove the indicated lock ring P/N Y30700501 from the main overhead CB panel breakers.
10. In accordance with AMP DM 39-A-46-20-00-00A-750A-A enable 2nd search light as follows:
 - 10.1 Set CAS Message 7: RH LDG LT2 SEL.
 - 10.2 Set CAS Message 8: LH LDG LT2 SEL.
 - 10.3 Complete properly setting file loading and restore initial condition.
 11. In accordance with AMP DM 39-B-33-45-00-00A-320A-K, perform 2nd search light operational check.

12. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
13. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
14. 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".

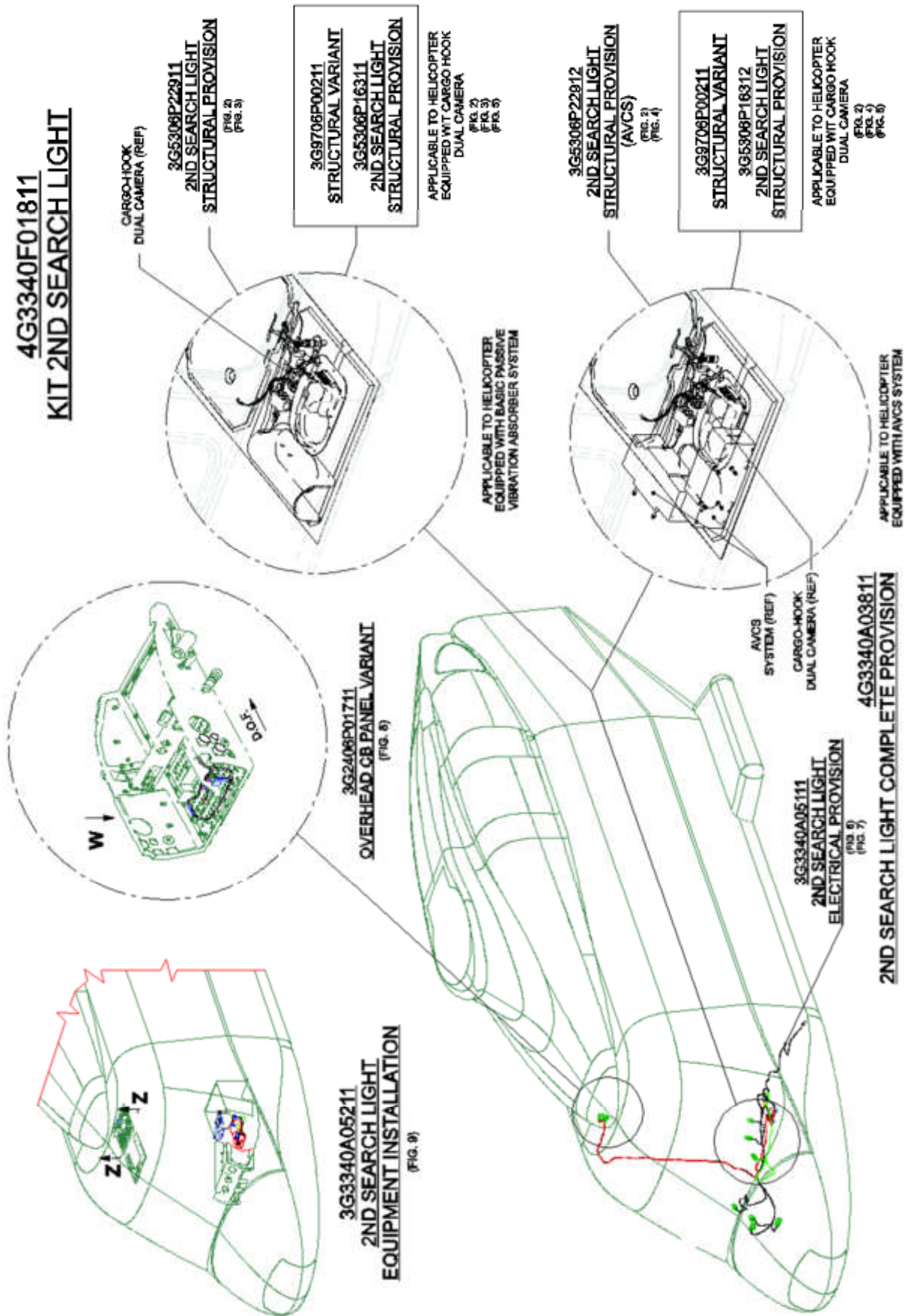


Figure 1

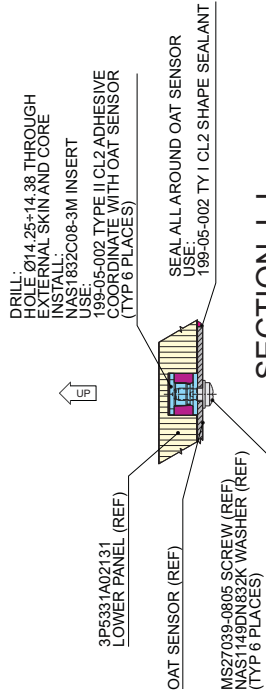
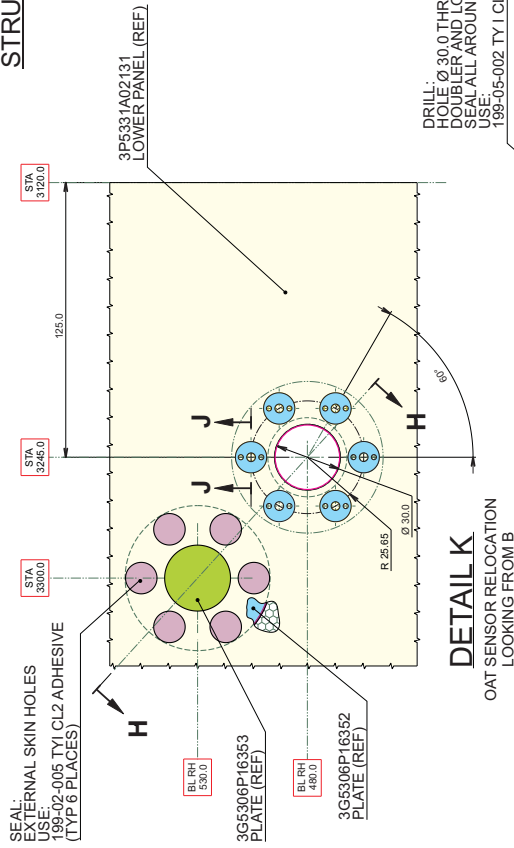
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DATE: March 1, 2012

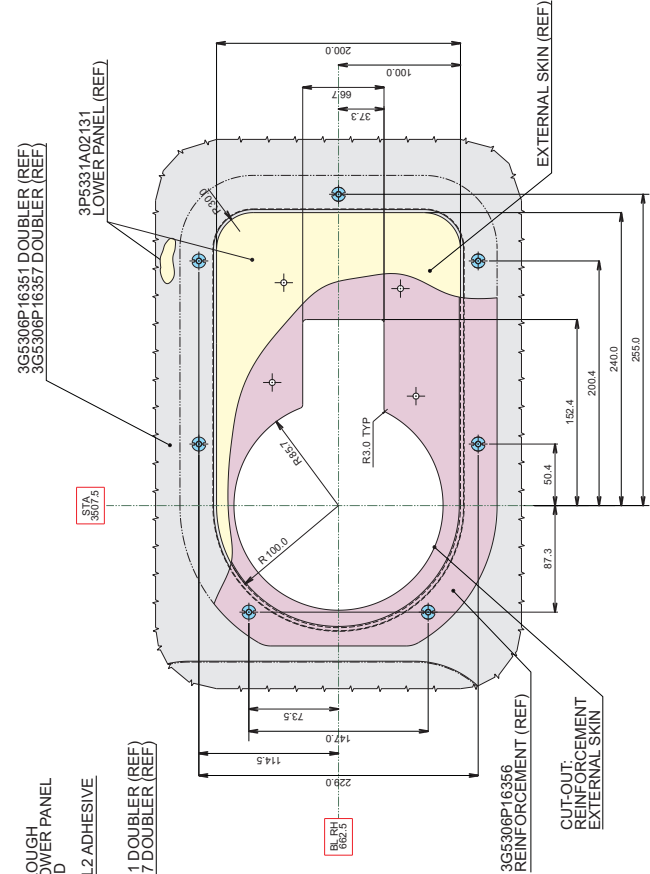
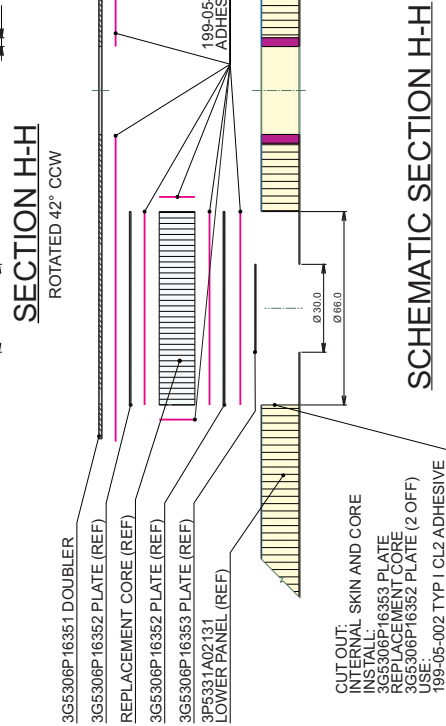
REVISION: A - March 27, 2023

- 3G5306P22911 [AVCS]
 3G5306P22912 [CARGO-HOOK CAMERA]
 3G5306P16311 [AVCS] + [CARGO-HOOK CAMERA]
 3G5306P16312 [AVCS] + [CARGO-HOOK CAMERA]

**2ND SEARCH LIGHT
 STRUCTURAL PROVISION**
 APPLICABLE TO:



DRILL: Ø30.0 THROUGH DOUBLER AND LOWER PANEL SEAL ALL AROUND
 USE: 199-05-002 TY I CL2 ADHESIVE



DETAIL C
 DETAIL OF REINFORCEMENT AND EXTERNAL SKIN CUT-OUT
 BONDING LAYER OMITTED FOR CLARITY
 (SEE FIG. 3-4)

Figure 2

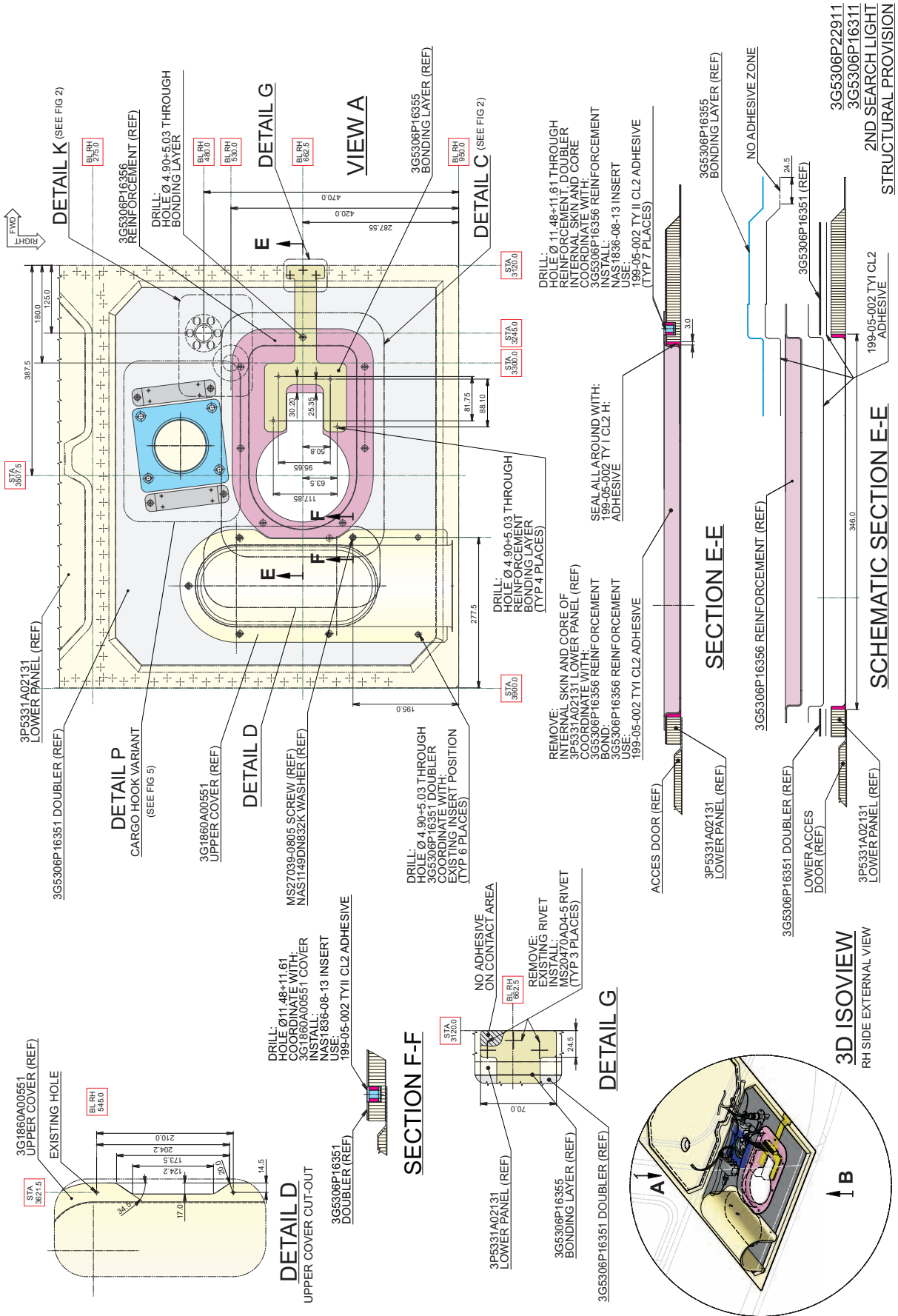


Figure 3

S.B. N°139-169

DATE: March 1, 2012

REVISION: A - March 27, 2023

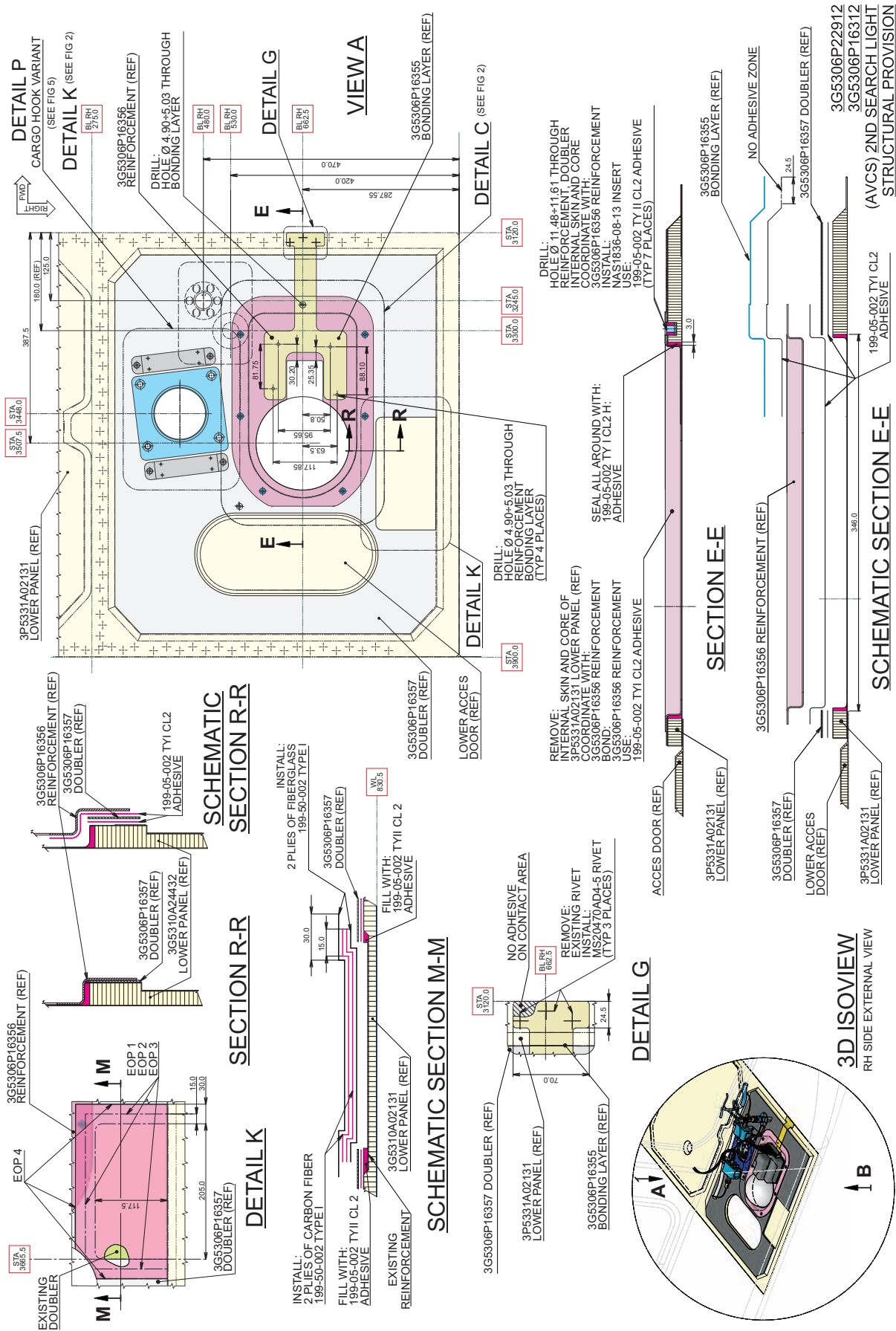


Figure 4

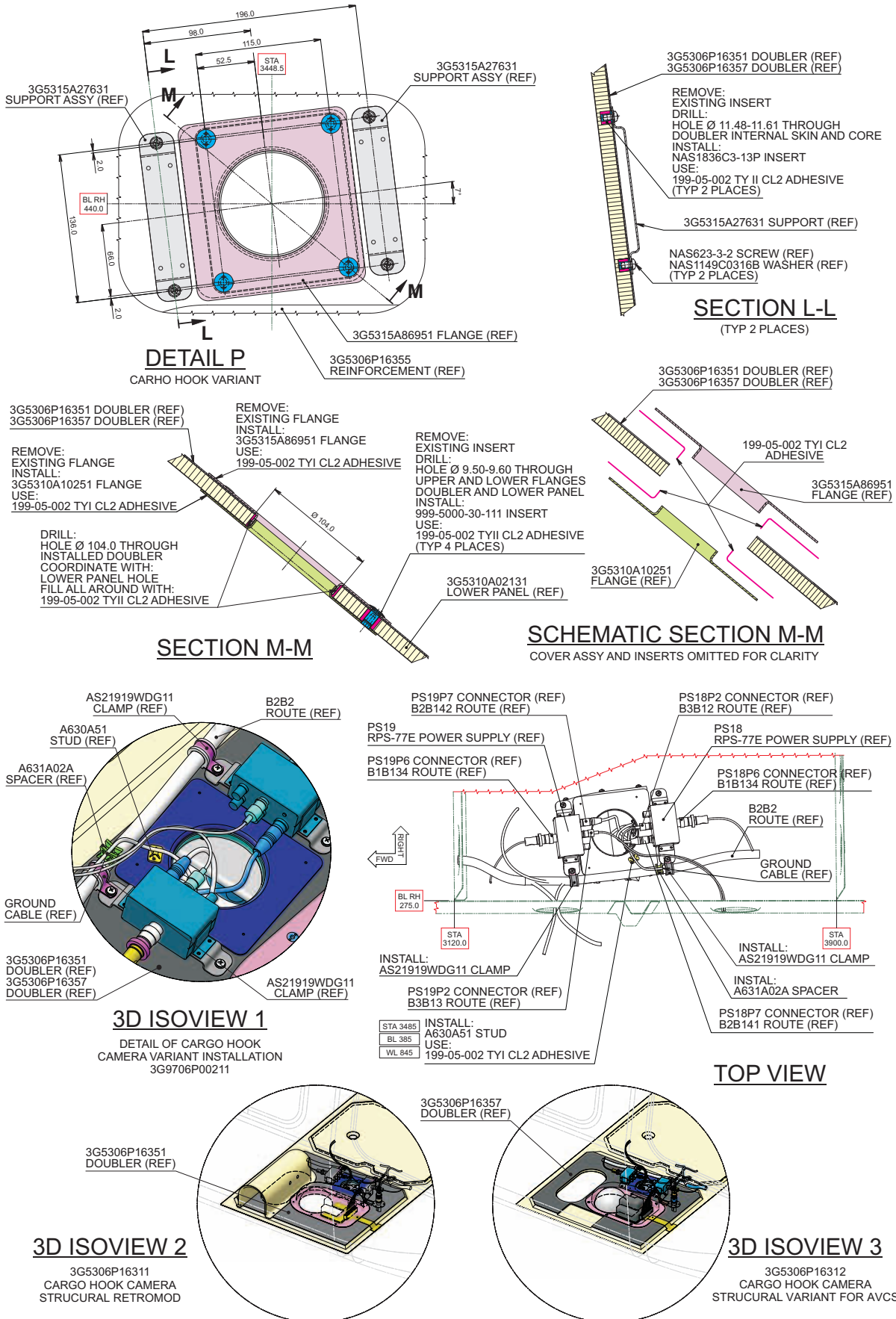


Figure 5

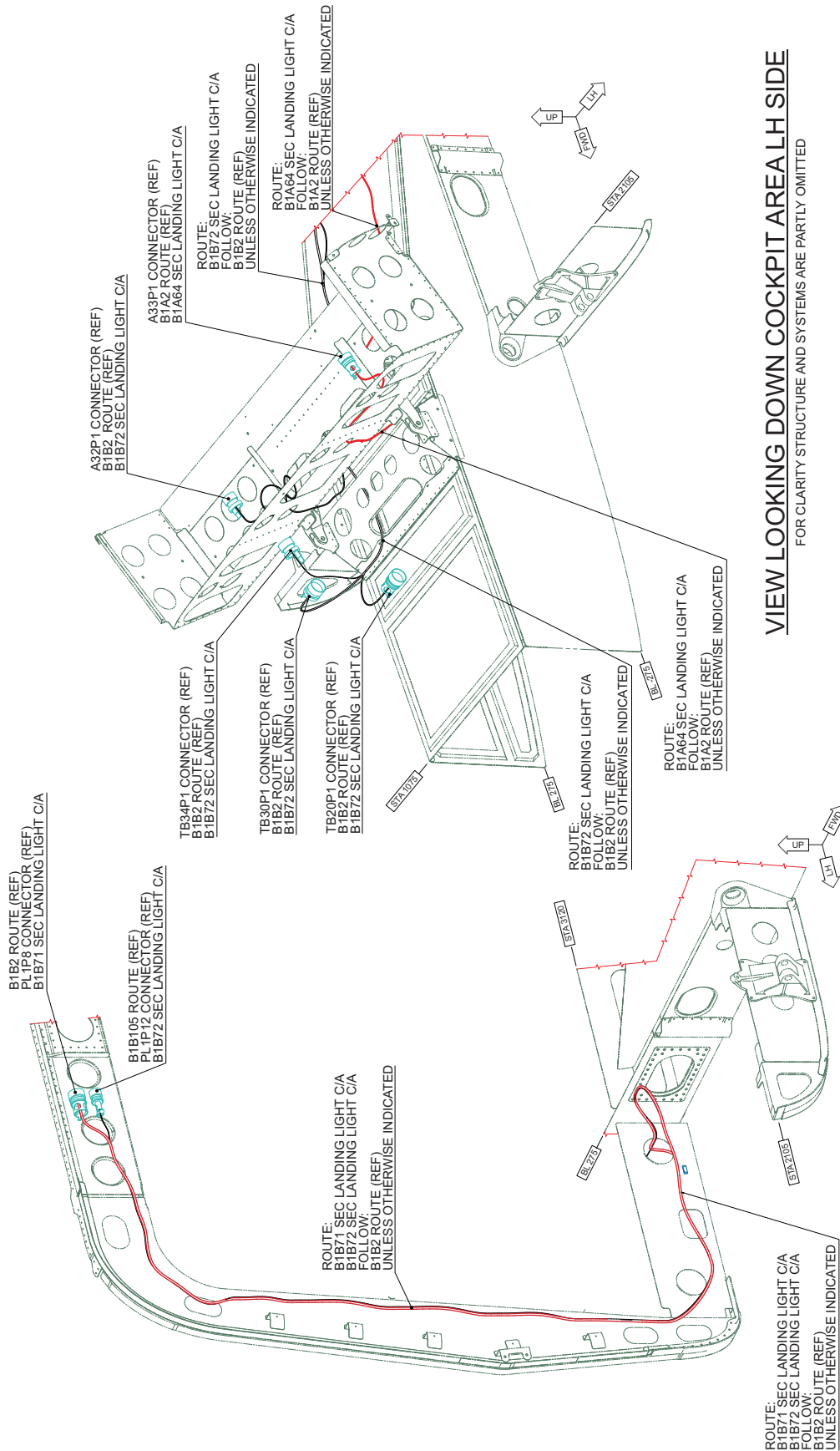
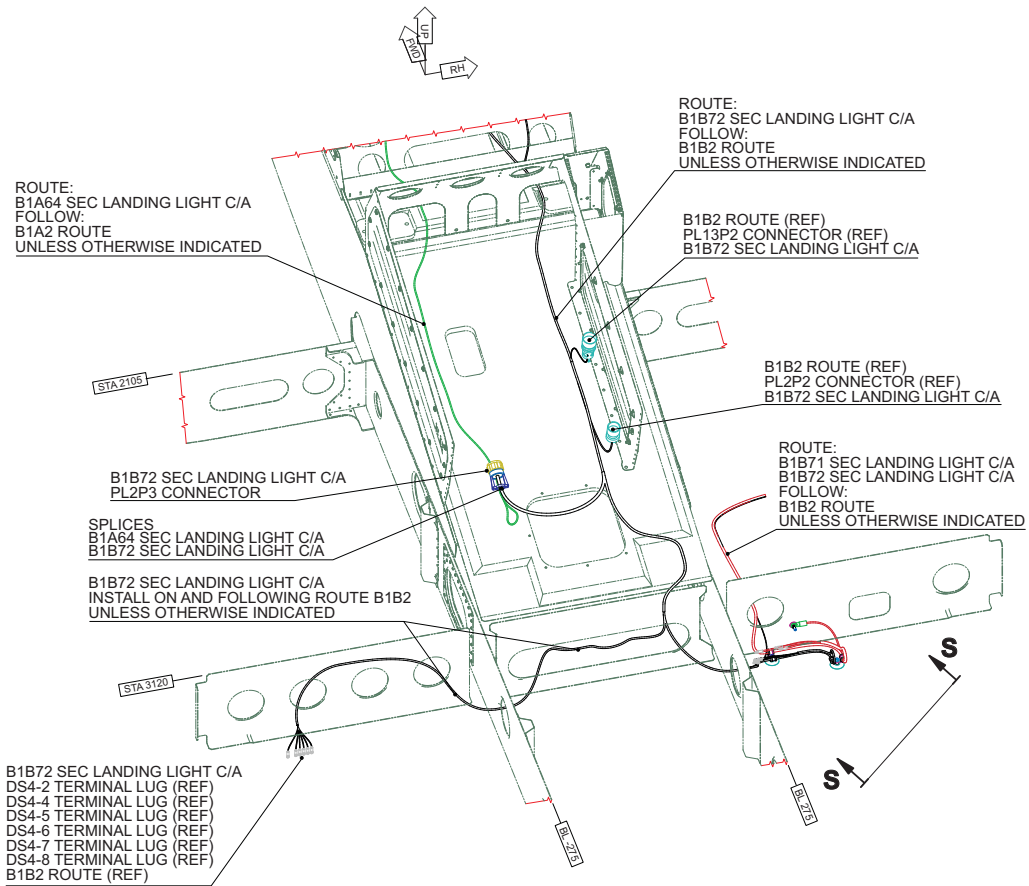


Figure 6

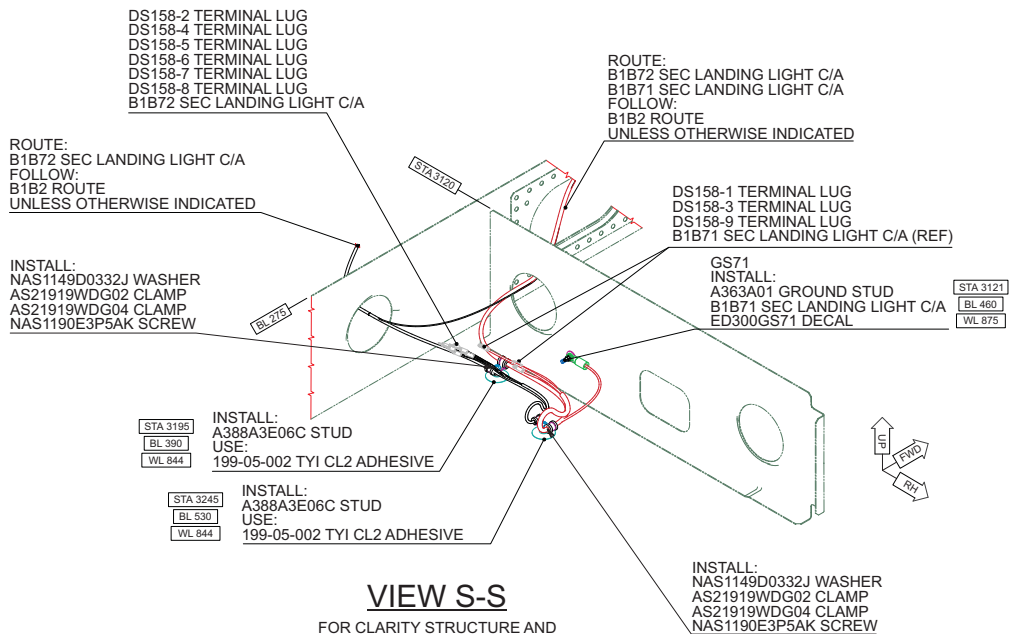
VIEW LOOKING DOWN UNDER PILOT SEAT RH SIDE
FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED

VIEW LOOKING DOWN COCKPIT AREA LH SIDE
FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED



VIEW LOOKING DOWN INTERSEAT CONSOLE AREA

FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED



VIEW S-S

FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED

3G3340A05111
2ND SEARCH LIGHT ELECTRICAL PROVISION

Figure 7

S.B. N°139-169

DATE: March 1, 2012

REVISION: A - March 27, 2023

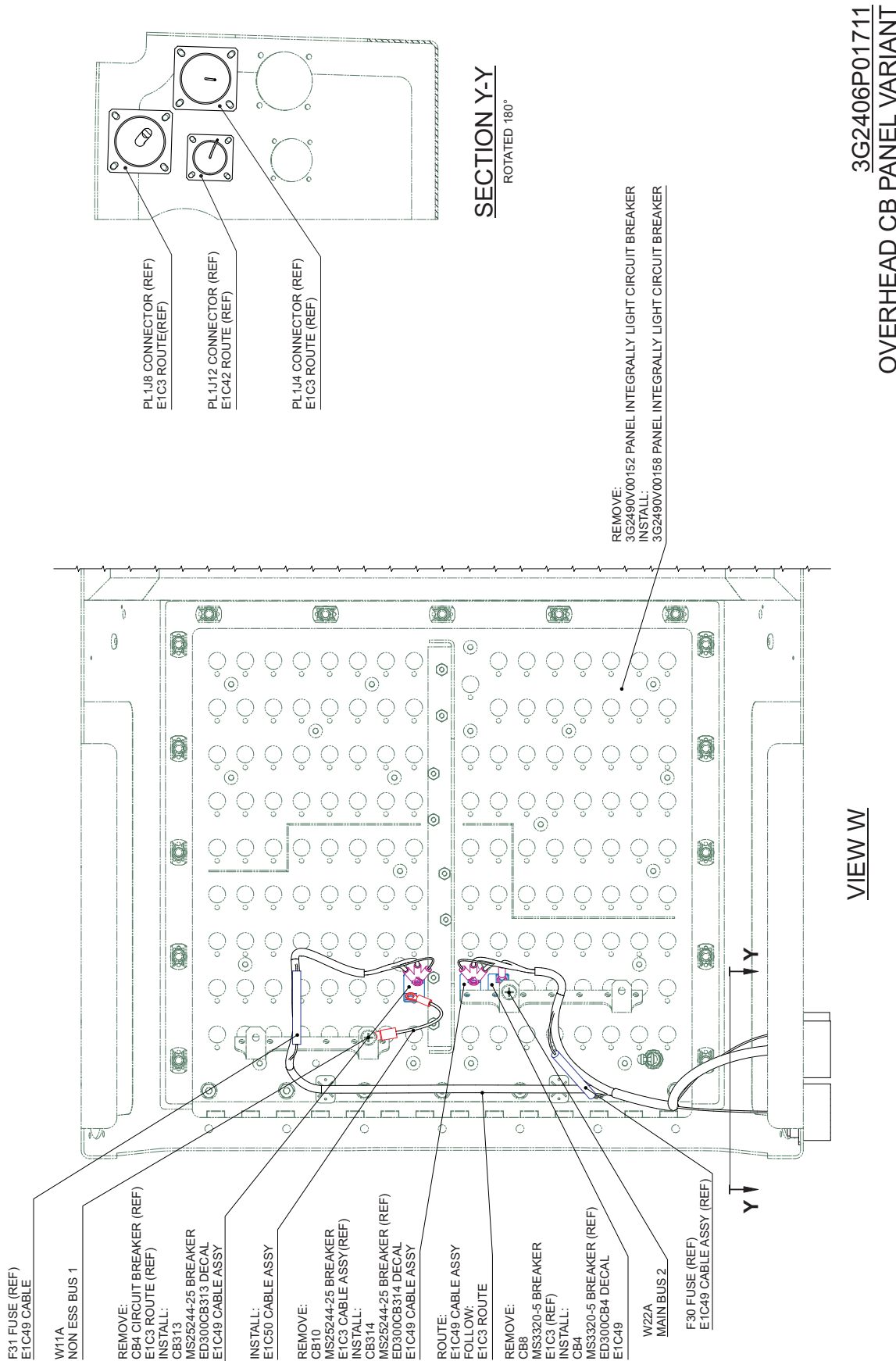
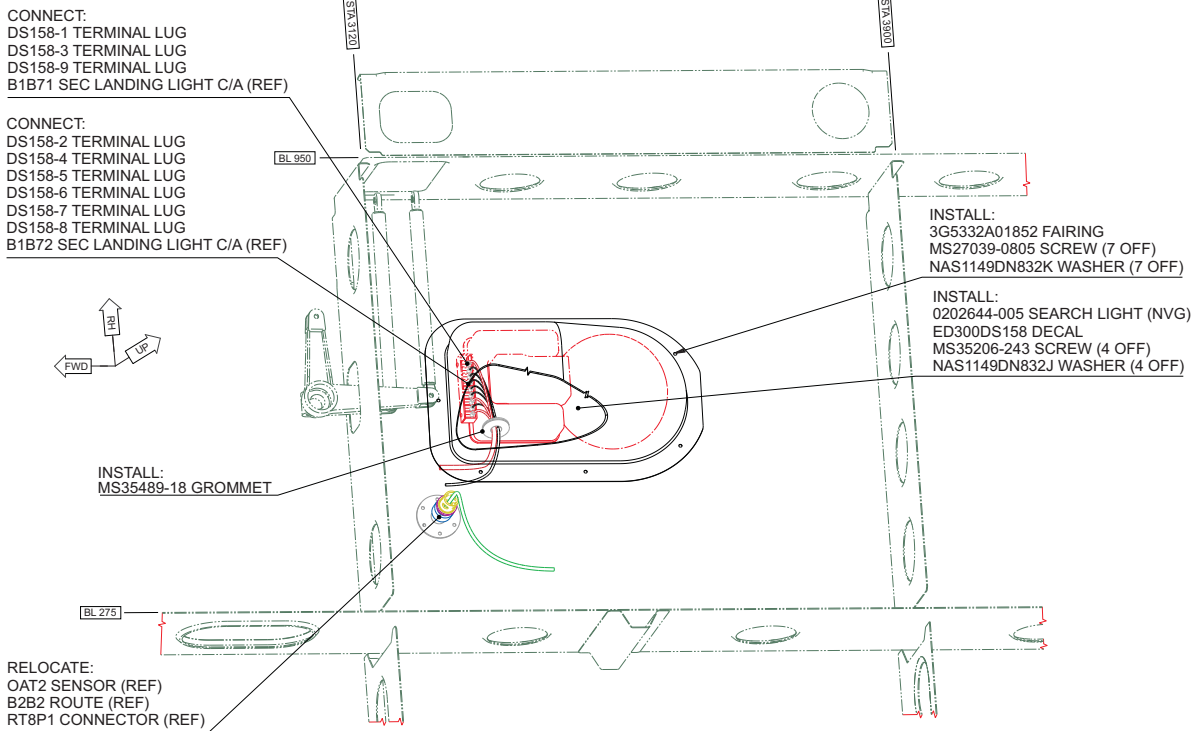
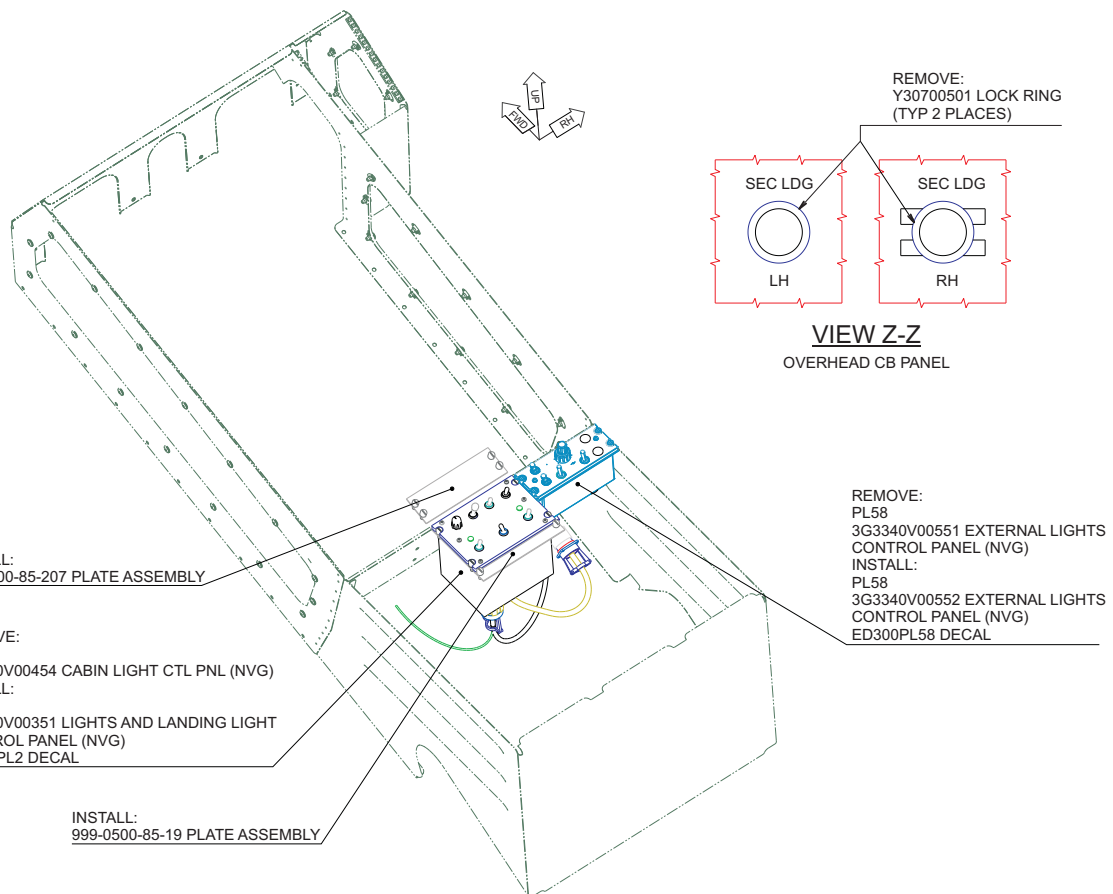


Figure 8



VIEW LOOKING DOWN CABIN UNDER FLOOR RH SIDE

FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED



VIEW LOOKING DOWN INTERSEAT CONSOLE AREA

FOR CLARITY STRUCTURE AND SYSTEMS ARE PARTLY OMITTED

Figure 9

S.B. N°139-169

DATE: March 1, 2012

REVISION: A - March 27, 2023

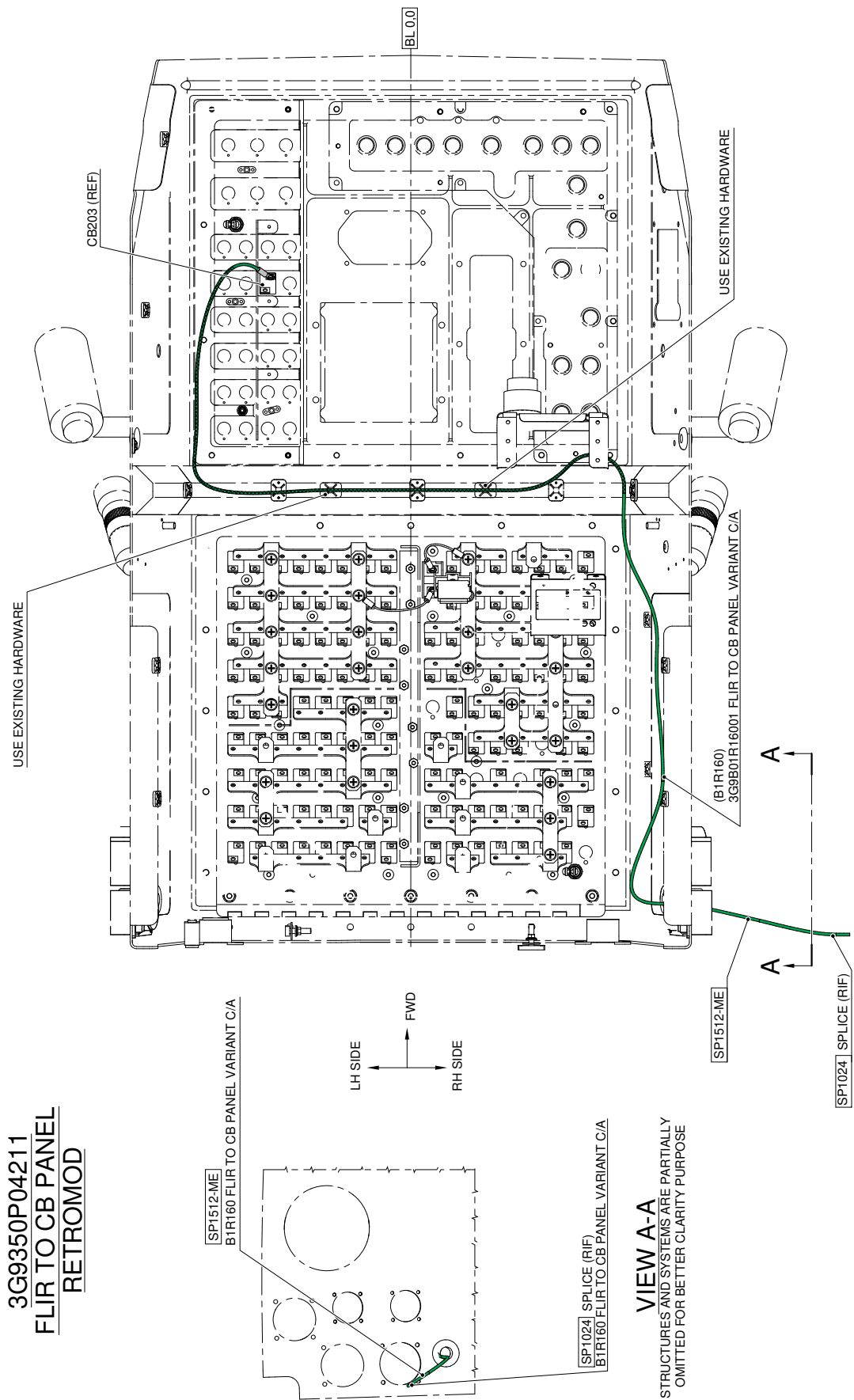
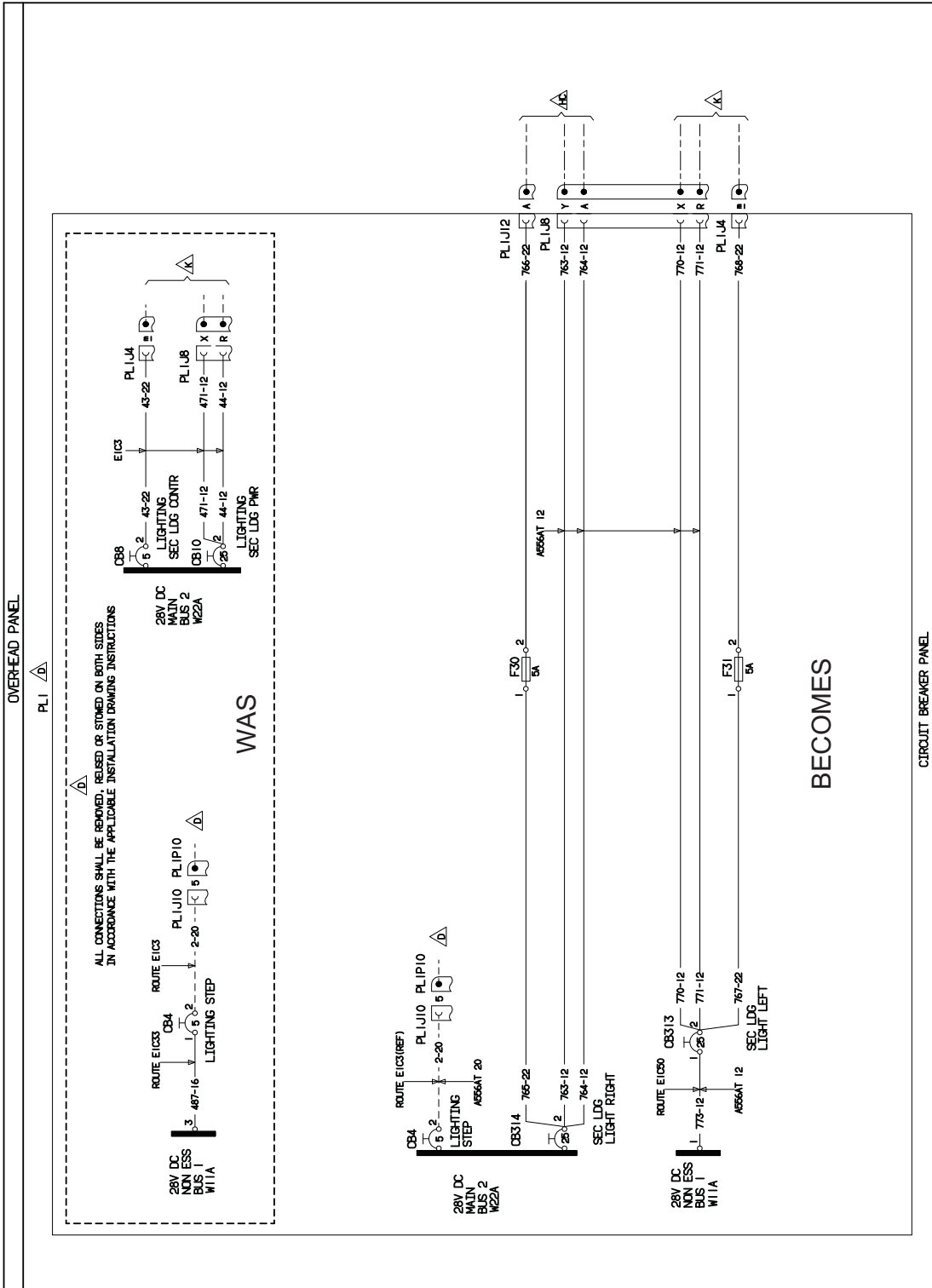


Figure 10



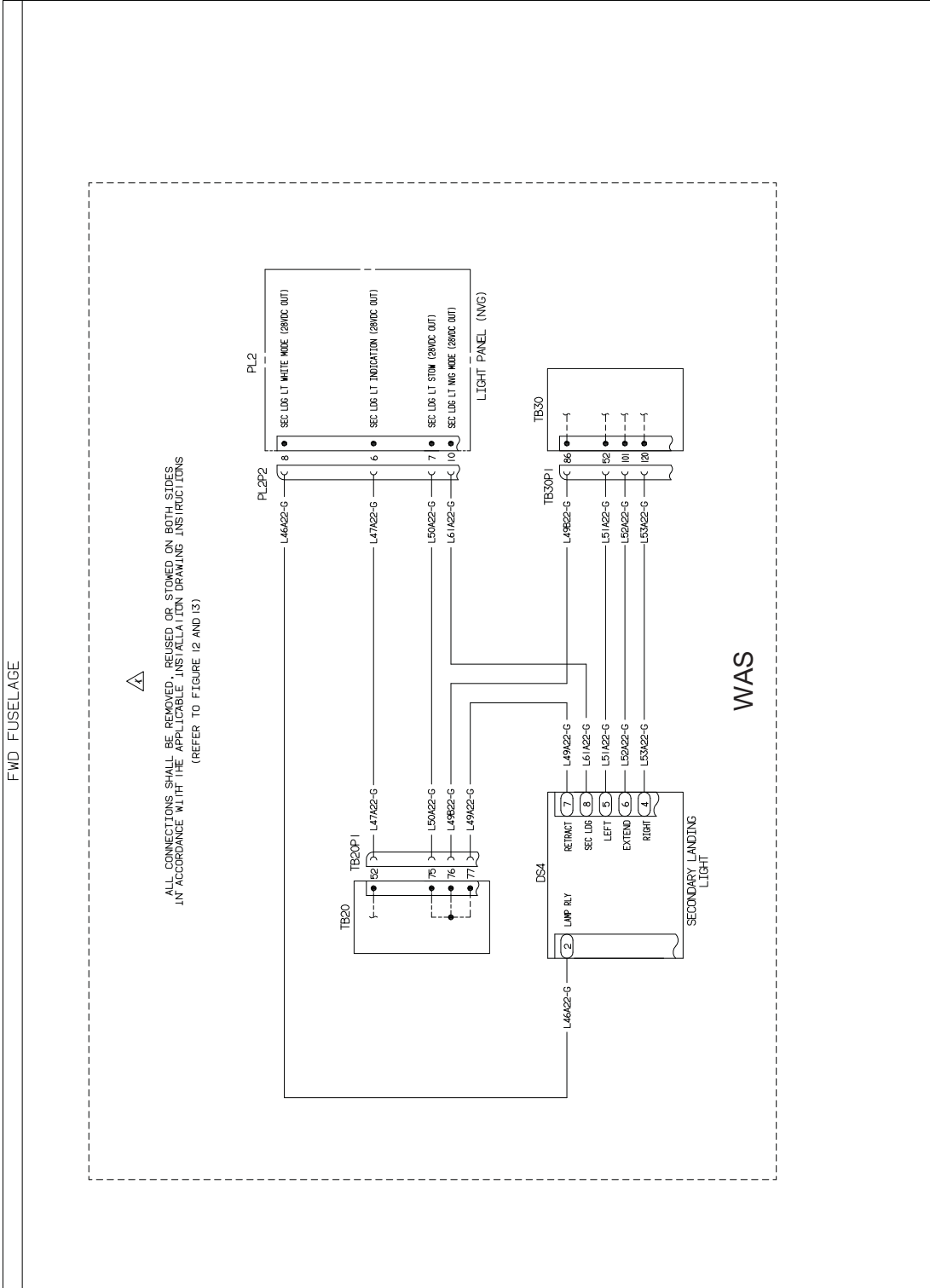
DRAWING REF. KEY

- FEEDER BUS BARS 3232460001**
- EXTERNAL LIGHT 533346001**
- SECONDARY LANDING LIGHTS (DOUBLE) 323246003**

FUNCTIONAL NOTES
ALL CABLES ARE IN LOCH ROUTE E1049 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A656AT 22 UNLESS SPECIFIED

Figure 11

DRAWING REF. KEY
EXTERNAL LIGHT
353240001**



FUNCTIONAL NOTES

ALL CABLES ARE IN LOM B182 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A856AT 22 UNLESS SPECIFIED

Figure 12

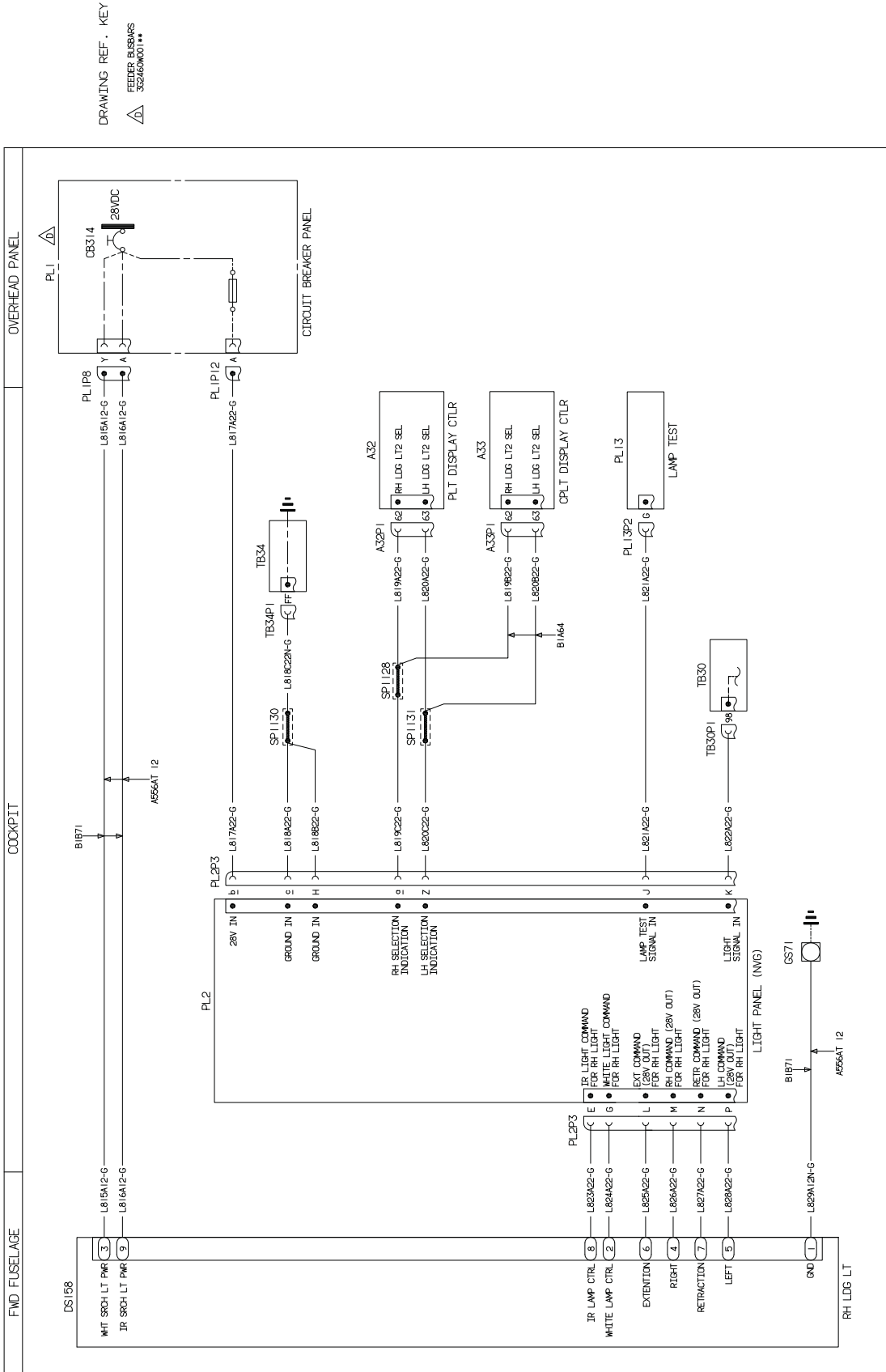
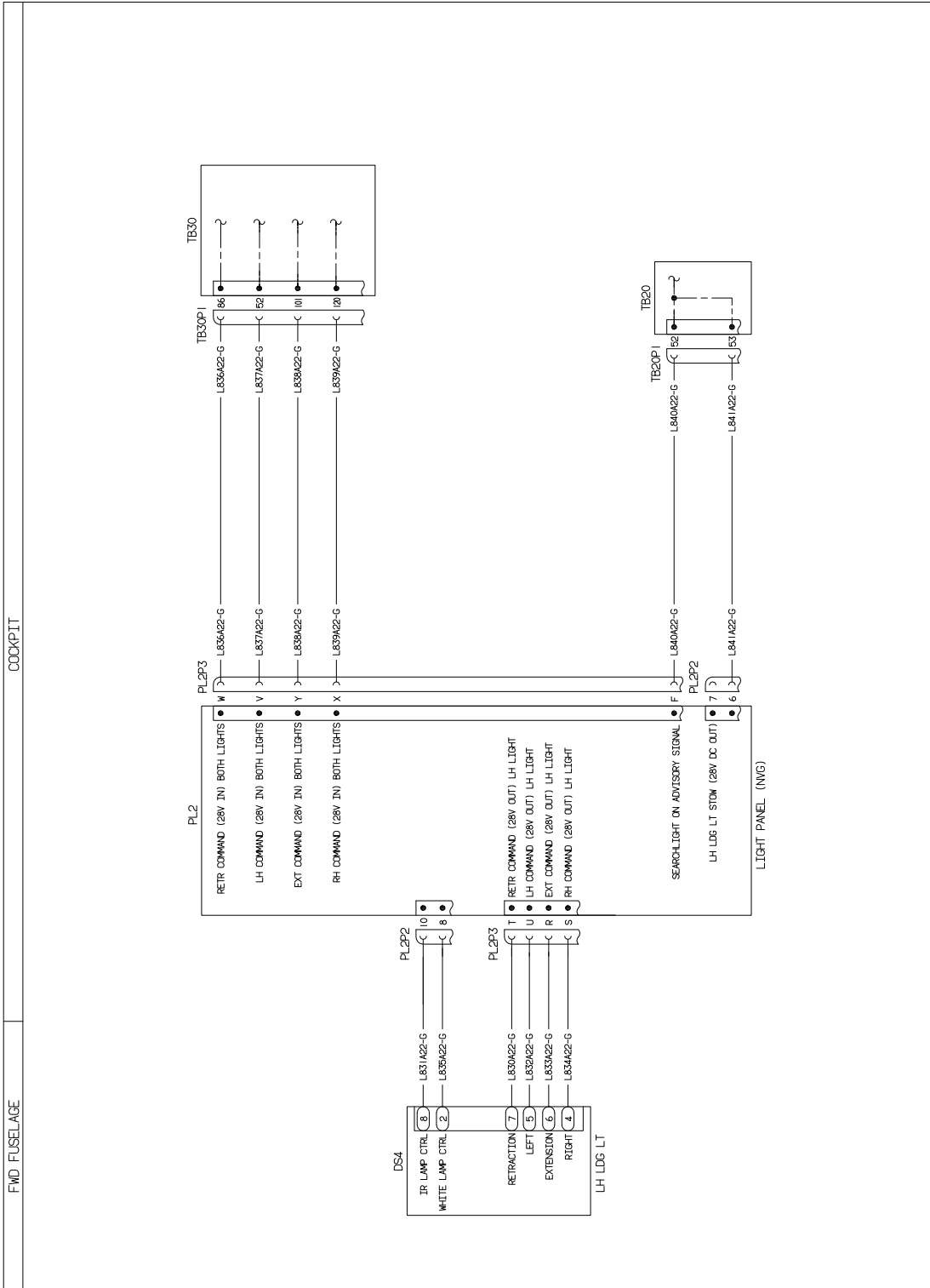


Figure 13

S.B. N°139-169

DATE: March 1, 2012

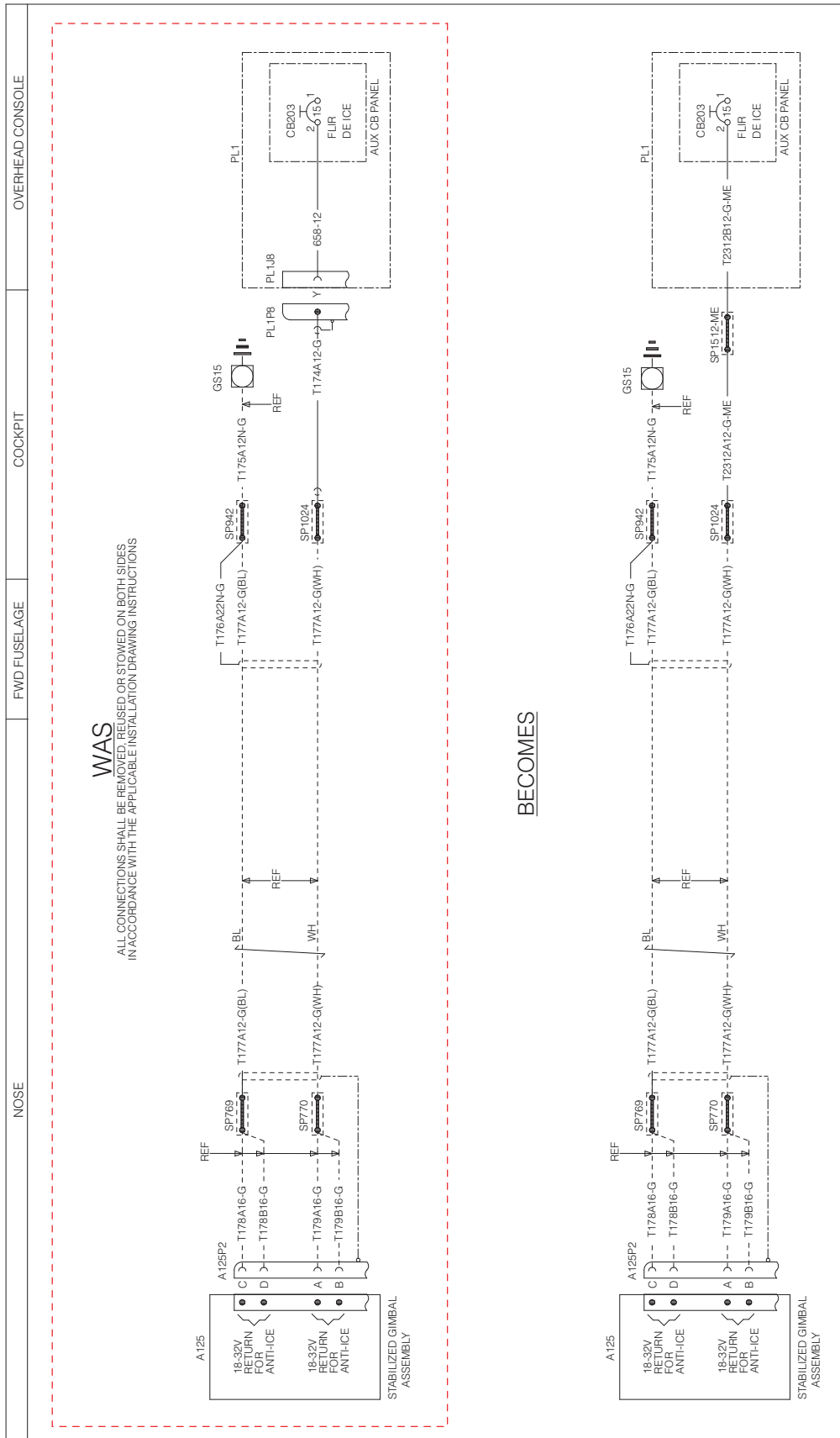
REVISION: A - March 27, 2023



DRAWING REF. KEY

FUNCTIONAL NOTES
ALL CABLES ARE IN LODM B1872 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A956AT 22 UNLESS SPECIFIED

Figure 14



FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM B1B184 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

3G9350W08701
WIRING DIAGRAM FLIR TO CB PANEL VARIANT

Figure 15

S.B. N°139-169
DATE: March 1, 2012
REVISION: A - March 27, 2023

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.					