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AgustaWestland Products

SERVICE BULLETIN

N° 139-574

DATE: March 10, 2021

REV. : /

TITLE

ATA 24 – LH UTILITY CB PANEL RETROMOD

REVISION LOG

First Issue

1. PLANNING INFORMATION

A. EFFECTIVITY

AW139 helicopter S/N 41527.

B. COMPLIANCE

At Customer's option.

C. CONCURRENT REQUIREMENTS

This Service Bulletin must be applied in conjunction with Service Bulletin 139-553.

D. REASON

This Service Bulletin is issued in order to provide the necessary instruction on how to perform the utility CB panel LH retro modification P/N 3G2460P01212.

E. DESCRIPTION

The Utility CB panel LH retromod P/N 3G2460P01212 has been developed to allow the installation of kit radio Motorola XiR provision on S/N 41527, whose Aux CB Panel has not free positions to allow relevant CB installation.

For this reason the retromod mainly consists on the replacement of the Illuminated NVIS Utility Panel through the installation of a new Radio Tetra circuit breaker.

The accomplishment instructions of this Service Bulletin supersedes SB139-553 CB panel wiring diagram modification.

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 twelve (12) MMH are deemed necessary.

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

H. WEIGHT AND BALANCE

N.A

I. REFERENCES

1) PUBLICATIONS

DATA MODULE		DESCRIPTION	PART
DM01	39-A-00-20-00-00A-120A-A	Helicopter on ground for a safe maintenance.	
DM02	39-A-06-41-00-00A-010A-A	Access doors and panels - General data	
DM03	39-A-11-00-01-00A-720A-A	Decal – Install procedure	
DM04	39-A-20-10-08-00A-622A-A	Electrical contacts – Crimp	
DM05	39-A-20-10-18-00A-691A-A	Electrical wires and cables – Marking.	
DM06	39-A-24-93-01-00A-921A-K	Integrally lighted panel – Replacement	
DM07	39-A-24-93-02-00A-520A-K	Utility circuit breaker panel - Remove procedure	
DM08	39-A-24-93-02-00A-720A-K	Utility circuit breaker panel - Install procedure.	

2) ACRONYMS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
AR	As Required
DM	Data Module
LHD	Leonardo Spa Helicopters
MMH	Maintenance Man Hours
CB	Circuit breaker
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
ITEP	Illustrated Tool and Equipment Publication

NVIS Night Vision Imaging System

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	**3G2460P01212**		**UTILITY CB PANEL LH RETROMOD**	**REF**	**.**		**-**
2	3G2490L01360		Illuminated nvis panel aux Breaker	1	..		139-574L1
3	AW001YC01RED		locking ring,circuit breaker	1	..		139-574L1
4	ED300CB581		decal	1	..		139-574L1
5	MS3320-10		circuit breaker	1	..		139-574L1
6	**3G9E01C30102**		**UTILITY CB PANEL LH C/A (E1C301)**	**REF**	**..**		**-**
7	A556A-T16		Wire	2 m	...		139-574L1
8	M39029/56-352		Electrical contact	2	...		139-574L1
9	MS25036-153		Terminal lug	3	...		139-574L1
10	A578A03-9		Marker Sleeve	10	.		139-574L1
11	MS25036-153		Terminal lug	3	.		139-574L1

2) CONSUMABLES

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
139-574L1	1		-

B. SPECIAL TOOLS

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 protected using a layer of tectyl according to MIL-C-16173 grade I.

h) All lengths are in mm.

1. In accordance with DM 39-A-00-20-00-00A-120A-A, prepare the helicopter on ground for a safe maintenance. Disconnect the battery, all electrical power sources and/or the external power supply.
2. In accordance with DM 39-A-06-41-00-00A-010A-A and with reference to Figure 1, gain access to the area affected by the installation and perform the utility CB panel LH retro modification as described in the following procedure:
   2.1 In accordance with AMP DM 39-A-24-93-01-00A-921A-K and with reference to Figure 3, remove from breaker panel assy the Illuminated NVIS Utility Panel P/N 3G2490L03468 and retain existing hardware for later reuse.
   2.2 In accordance with AMP DM 39-A-24-93-02-00A-520A-K and with reference to

Figure 3, remove from utility CB panel LH the breaker panel assy and retain existing hardware for later reuse.

2.3 With reference to Figures 4 detail B, remove from breaker panel assy the plug P/N AS44417-B12 and retain for later reuse.

2.4 With reference to Figures 4, install n°1 circuit breaker P/N MS3320-10 where indicated to the breaker panel assy.

2.5 With reference to Figure 4, install lock ring P/N AW001YC01RED on circuit breaker CB581.

2.6 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 4 detail B, install n°1 decal P/N ED300CB581 in an area adjacent to the circuit breaker previously installed.

2.7 With reference to Figures 2 thru 4 and Figure 5 wiring diagram, assemble the utility CB panel LH C/A P/N 3G9E01C30102 (E1C301) as described in the following procedure:

2.7.1 With reference to Figures 2 thru 4 and Figure 5 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate lenght and lay down between circuit breaker panel connector PL1J1 and circuit breaker CB581 following the existing route as shown.

2.7.2 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figure 5 wiring diagram, crimp on wire n°1 electrical contact P/N M39029/56-352 (PL1J1 side) and n°1 terminal lug P/N MS25036-153 (CB581 side) by means of proper crimping tool.

2.7.3 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 5 wiring diagram, mark wire as P850A16-G by means of marker sleeves P/N A578A03-9.

2.7.4 In accordance with AMP DM 39-A-20-10-08-00A-622A-A and with reference to Figures 5 wiring diagram, cut n°1 wire P/N A556A-T16 of adequate length and crimp on wire n°1 terminal lug P/N MS25036-153 (CB581 side) and n°1 terminal lug P/N MS25036-153 (CB522 side) by means of proper crimping tool.

2.7.5 In accordance with AMP DM 39-A-20-10-18-00A-691A-A and with reference to Figure 5 wiring diagram, mark wire as P851A16-G by means of marker sleeves P/N A578A03-9.

2.8 With reference to Figure 4 view A-A and Figure 5 wiring diagram, perform the electrical connection of utility CB panel LH C/A (E1C301) between CB522 pin 2 and CB581 pin 1.

2.9 With reference to Figures 2, 3, 4 and Figure 5 wiring diagram, perform the

electrical connection of utility CB panel LH C/A (E1C301) between CB581 pin 2 and circuit breaker panel connector PL1J1 pin T.

2.10 In accordance with AMP DM 39-A-24-93-02-00A-720A-K, install the breaker panel assy by means of previously removed hardware.

2.11 In accordance with AMP DM 39-A-24-93-01-00A-921A-K and with reference to Figure 3, install n°1 Illuminated NVIS Utility Panel P/N 3G2490L01360 by means of previously removed hardware.

2.12 Perform a pin to pin continuity check of the performed electrical connections.

3. Return the helicopter to flight configuration and record for compliance with this Service Bulletin on the helicopter logbook.

4. 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”.

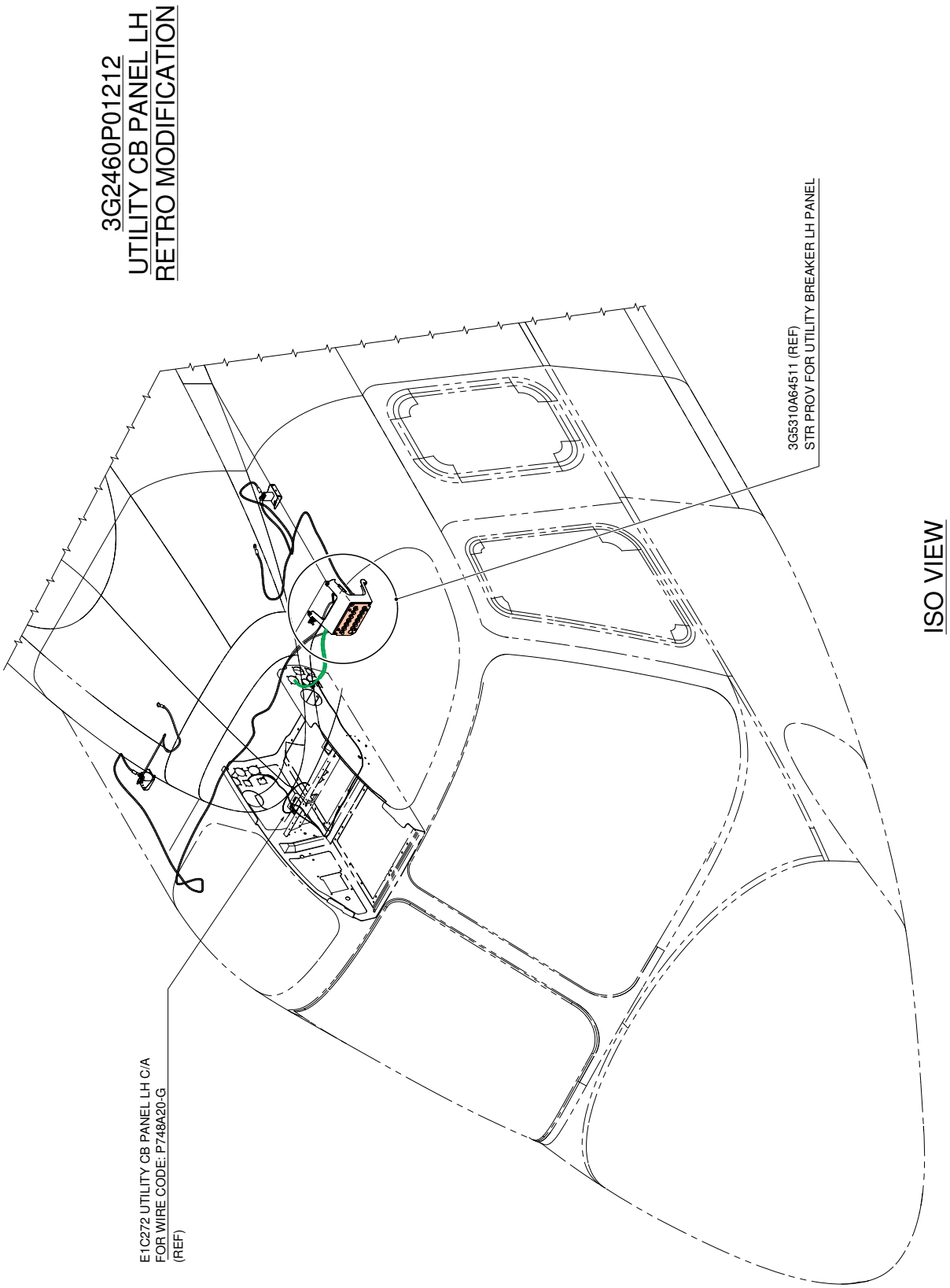
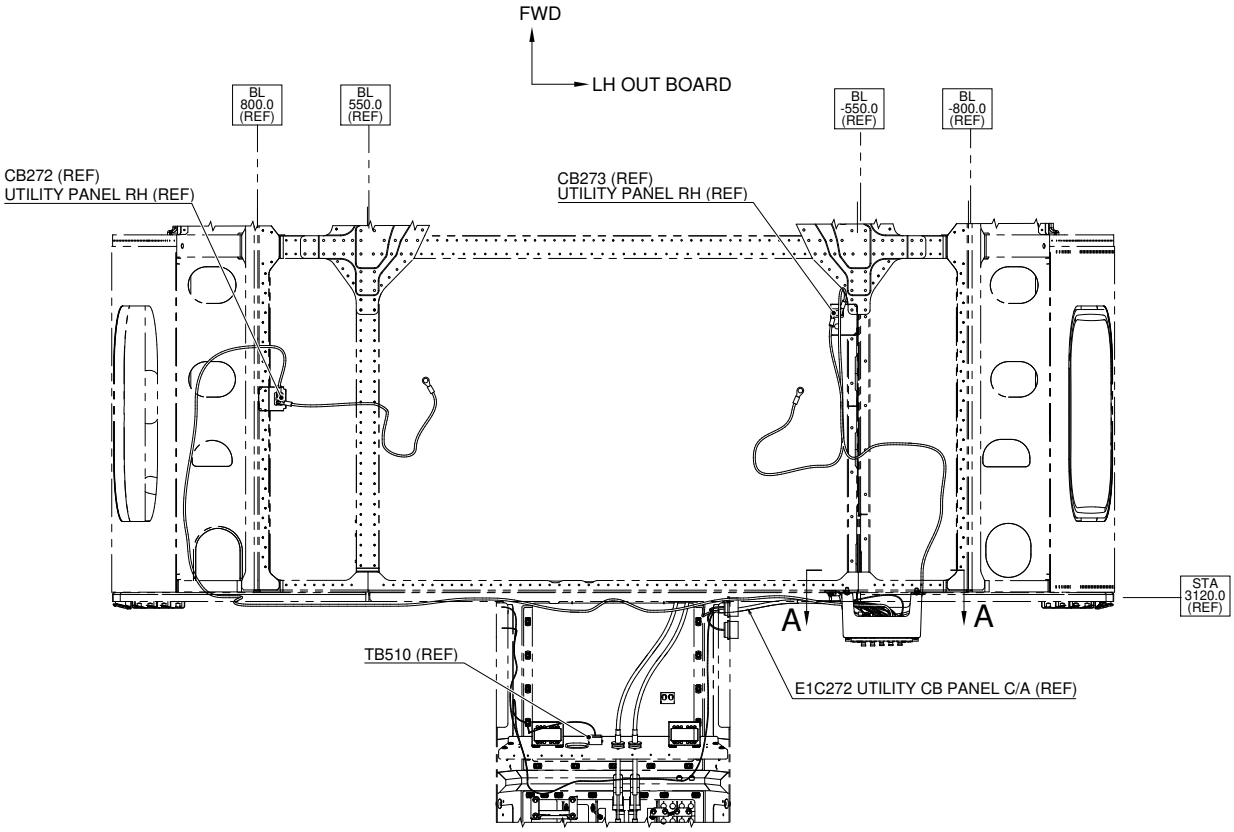
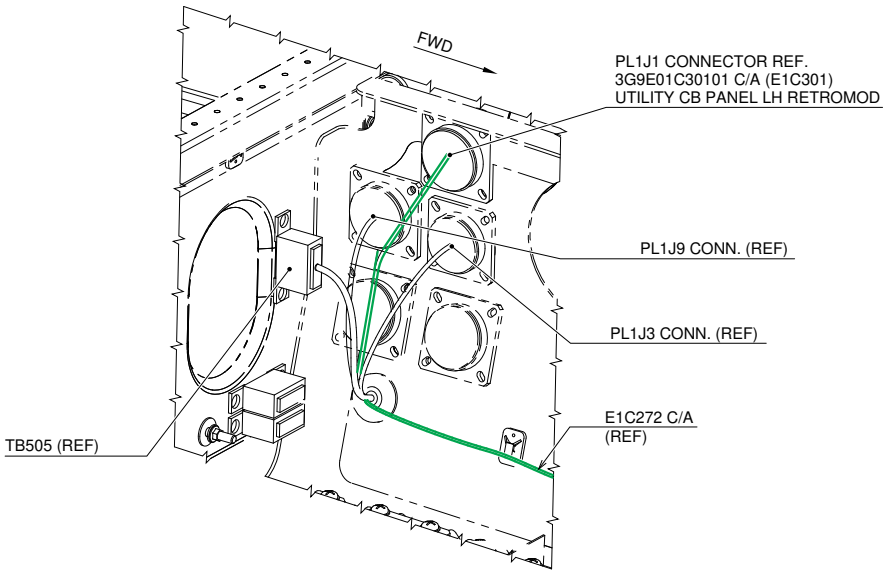

3G2460P01212
UTILITY CB PANEL LH
RETRO MODIFICATION
ISO VIEW
3G5310A64511 (REF)
STR PROV FOR UTILITY BREAKER LH PANEL
E1C272 UTILITY CB PANEL LH C/A
FOR WIRE CODE: P748A20-G
(REF)

Figure 1



VIEW LOOKING DOWN COCKPIT AREA
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE



LOOKING O/H PANEL LH SIDE
STRUCTURES AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 2

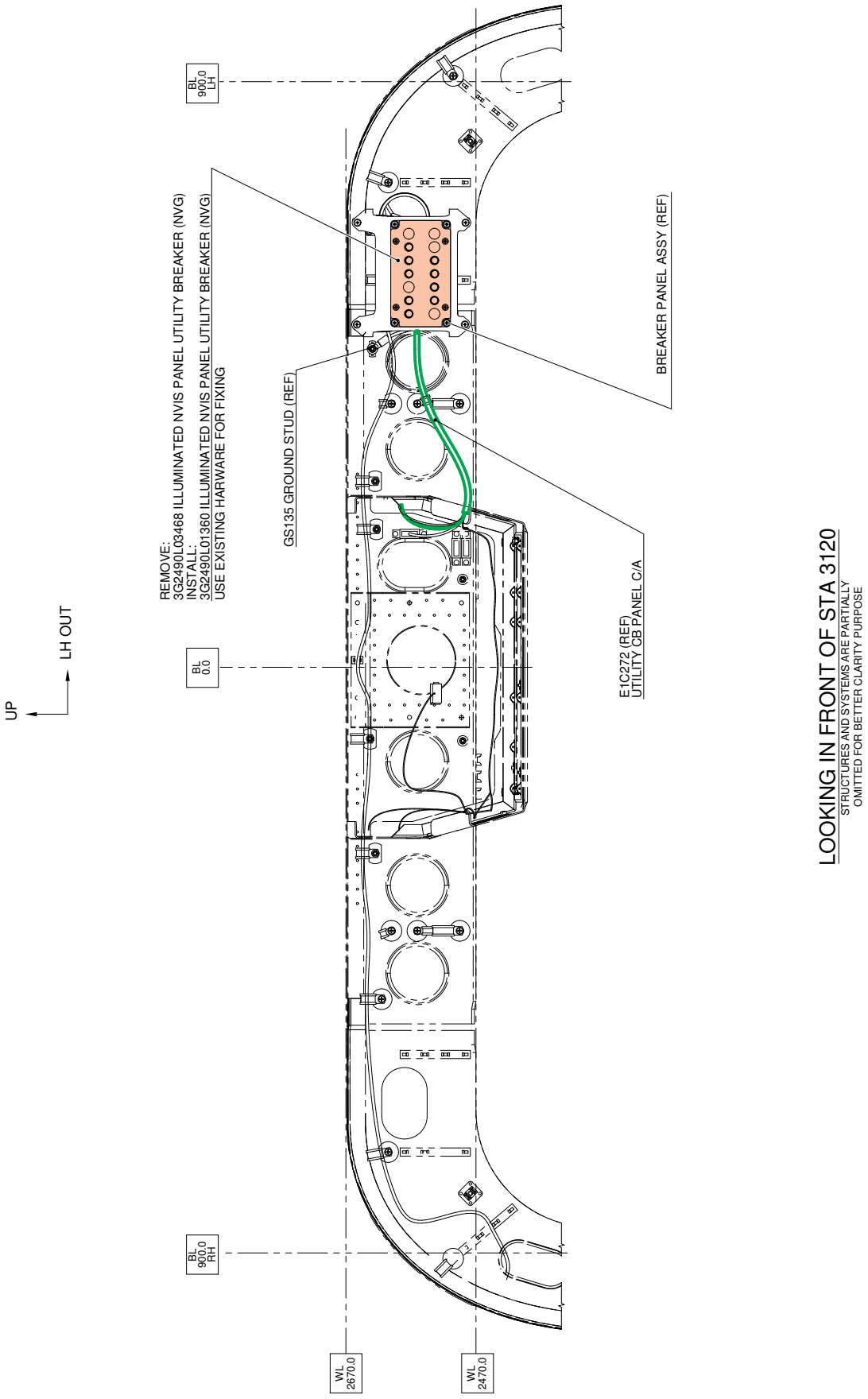
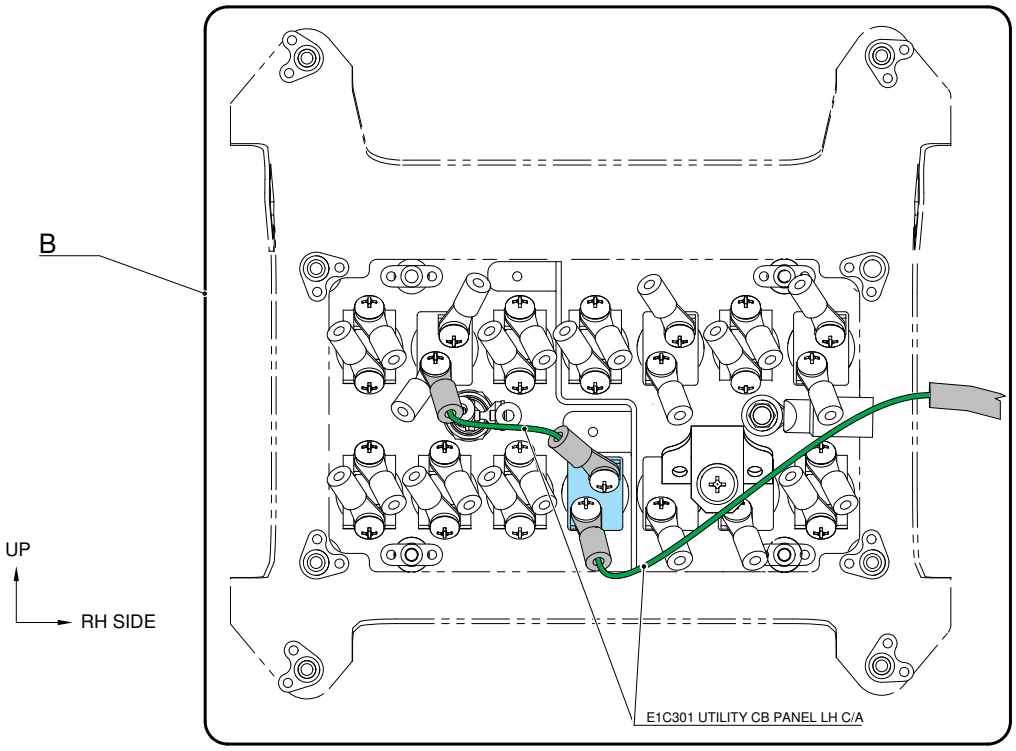
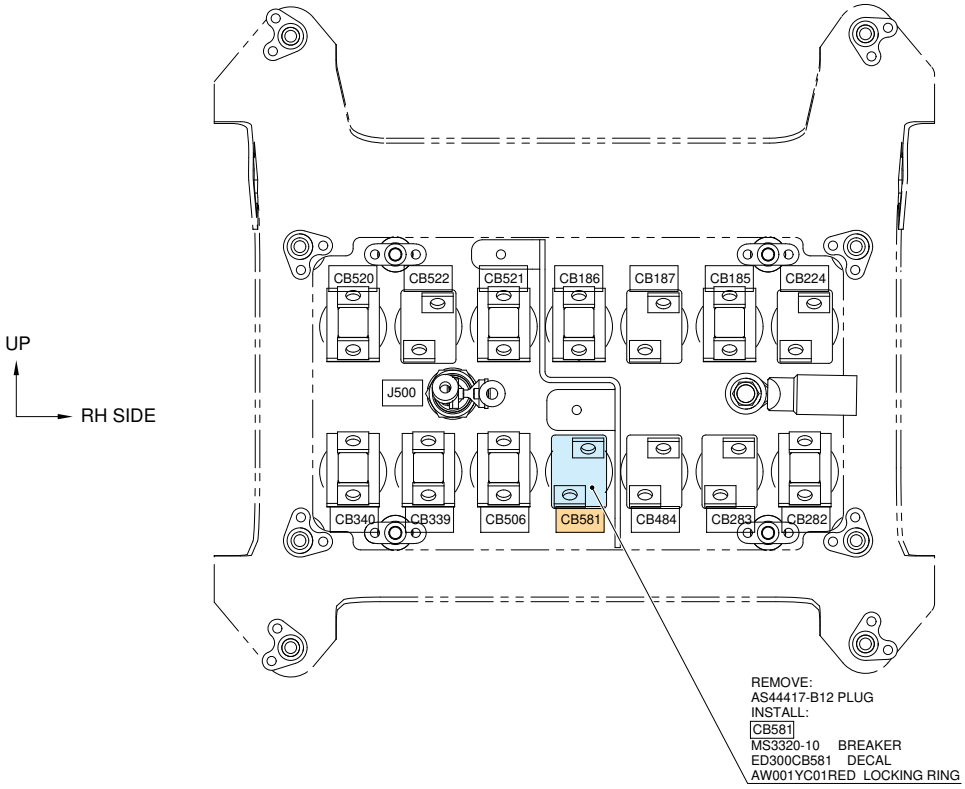

REMOVE:
3G2490L03468 ILLUMINATED NVIS PANEL UTILITY BREAKER (NVG)
INSTALL:
3G2490L01360 ILLUMINATED NVIS PANEL UTILITY BREAKER (NVG)
USE EXISTING HARWARE FOR FIXING
GS135 GROUND STUD (REF)
BREAKER PANEL ASSY (REF)
E1C272 (REF)
UTILITY CB PANEL C/A
BL 900.0 LH
BL 0.0
BL 900.0 RH
WL 2670.0
WL 2470.0
UP
LH OUT
LOOKING IN FRONT OF STA 3120
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE

Figure 3



VIEW A-A

ROTATE OF 180°
CONNECTION ALREADY INSTALLED AND
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE



DETAIL B

Figure 4

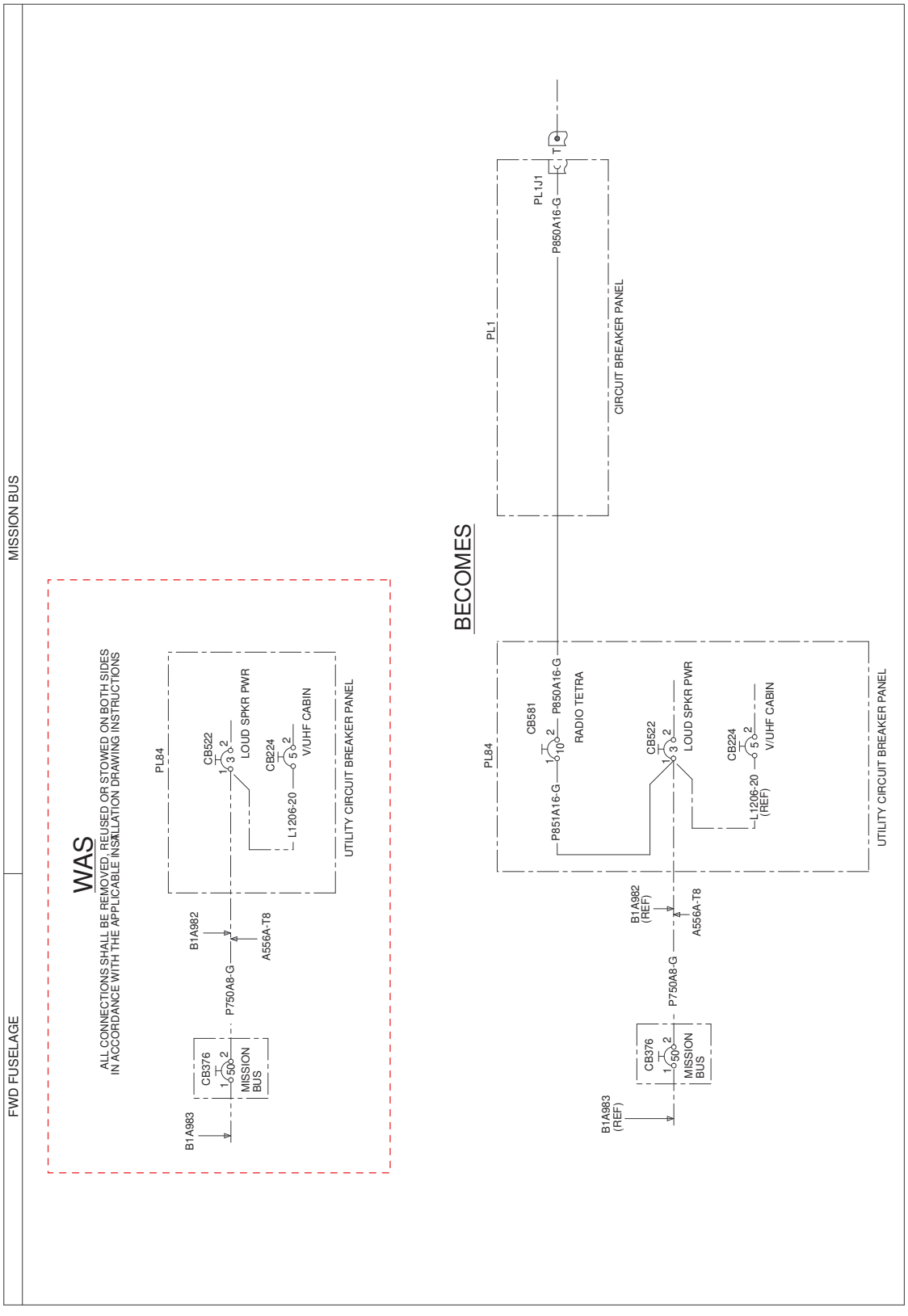

3G2460W09202
WIRING DIAGRAM UTILITY CB PANEL LH RETROMOD
FWD FUSELAGE
MISSION BUS
WAS
ALL CONNECTIONS SHALL BE REMOVED, REUSED OR STOWED ON BOTH SIDES IN ACCORDANCE WITH THE APPLICABLE INSTALLATION DRAWING INSTRUCTIONS
PL84
CB522
LOUD SPKR PWR
CB224
V/UHF CABIN
L1206-20
UTILITY CIRCUIT BREAKER PANEL
B1A982
P750A8-G
A556A-T8
B1A983
CB376
MISSION BUS
BECOMES
PL1
PL1J1
P850A16-G
CIRCUIT BREAKER PANEL
PL84
CB581
P850A16-G
RADIO TETRA
P851A16-G
CB522
LOUD SPKR PWR
CB224
V/UHF CABIN
L1206-20 (REF)
UTILITY CIRCUIT BREAKER PANEL
B1A982 (REF)
A556A-T8
P750A8-G
B1A983 (REF)
CB376
MISSION BUS
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOME1C301 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556A-T16 UNLESS SPECIFIED

Figure 5

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.