
SERVICE BULLETIN

N° 139-710

DATE: July 15, 2022

REV. : /

TITLE

ATA 23 - SATCOM FLIGHTCELL IMPROVEMENT

REVISION LOG

First Issue

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

1. PLANNING INFORMATION

A. EFFECTIVITY

Part I:

AW139 helicopters equipped with kit Satcom Flightcell DZMX/4G P/N 4G4390F00811.

Part II:

AW139 helicopters equipped with kit Satcom Flightcell Wireless Router P/N 4G4390F00911 that complied with Part I.

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 to perform the Satcom Flightcell DZMX (4G) retromod P/N 3G4390P00812 and Satcom Flightcell wireless router retromod P/N 3G4390P01011.

E. DESCRIPTION

Due to logistic issues with P/N DZP_04-800 (part of P/N 4G4390F00811), this Service Bulletin provides instructions to install the new transceiver P/N DZP_04-800-BEW (or alternative P/N depending on region of operation) in case of in-service replacement of P/N DZP_04-800.

Part I provides instructions to replace the transceiver P/N DZP_04-800 with P/N DZP_04-800-BEW (or alternatives).

Part II provides instructions to remove the Wi-Fi router P/N 910-00014-503 part of kit 4G4390F00911. Differently from P/N DZP_04-800, the new transceiver P/N DZP_04-800-BEW (or alternatives), installed with Part I, is equipped with an internal Wi-Fi router. For this reason, when the new transceiver is installed, external router P/N 910-00014-503 is no longer required to provide Wi-Fi connection capabilities.

F. APPROVAL

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

EASA states mandatory compliance with inspections, modifications or technical directives and related time of compliance by means of relevant Airworthiness Directives. If an aircraft listed in the effectivity embodies a modification or repair not LHD certified and affecting the content of this Service Bulletin, it is responsibility of the Owner/Operator to obtain a formal approval by Aviation Authority having jurisdiction on the aircraft, for any adaptation necessary before incorporation of the present Service Bulletin.

G. MANPOWER

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

Part I: approximately two (2) MMH;

Part II: approximately thirty (30) MMH.

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

H. WEIGHT AND BALANCE

PART I

N.A.

PART II

	WEIGHT (Kg)	ARM (mm)	MOMENT (Kgmm)
			-0.44
LONGITUDINAL BALANCE		2776	-1221.44
LATERAL BALANCE		-625	275

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 on ground for a safe maintenance.	I, II
DM02 39-A-06-41-00-00A-010A-A	Access doors and panels – General data.	I, II
DM03 39-E-23-97-00-00A-320A-A	Airborne telephone transceiver – Operation test.	I
DM04 39-E-23-97-01-00A-720A-A	Telephone transceiver - Install procedure.	I
DM05 39-C-23-98-01-00A-520A-K	Wireless router – Remove procedure	II

2) ACRONYMS & ABBREVIATIONS

AMDI	Aircraft Material Data Information
AMP	Aircraft Maintenance Publication
APAC	Asia Pacific
CB	Circuit Breaker
DM	Data Module
DOA	Design Organization Approval
EASA	European Aviation Safety Agency
LHD	Leonardo Helicopters Division
MMH	Maintenance Man Hours
P/N	Part Number
S/N	Serial Number
Wi-Fi	Wireless Fidelity

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

AW139 AMP

AW139 IPD

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	3G4390P00812		SATCOM FLIGHTCELL DZMX (4G) RETROMOD	REF	.		-
2	DZP_04-800-BEW	DZP_04-800-BFW DZP_04-800-BJW DZP_04-800-BPW	Transceiver	1	..	(1)	-

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
3	3G4390P01011		SATCOM FLIGHTCELL WIRELESS RETROMOD	REF	.		-
4	AW001CL001-N6		Support	1	..		139-710L1
5	AW001YC01RED		Locking ring	1	..		139-710L1
6	AW002SC310A		Blank plate	1	..		139-710L1
7	NAS813-18		Plug	1	..		139-710L1

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
8	AW001CK03LC	Lacing cord	2,5 m	(2)	II
9	EN6049-006-25-5	Self wrap braid	2,5 m	(2)	II
10	199-05-002 Type I, Class 2	Adhesive Hysol EA9309 NA (C231)	AR	(2)	II

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
DZP_04-800-BEW	1	(1)	Part I
139-710L1	1		Part II

NOTE

(1) The P/N of the DZMX transceiver changes according to the region of operation:

REGION	P/N
Europe/APAC	DZP_04-800-BEW
Americas	DZP_04-800-BFW
APAC/South America	DZP_04-800-BPW
Japan	DZP_04-800-BJW

(2) Item to be procured as local supply.

B. SPECIAL TOOLS

N.A.

C. INDUSTRY SUPPORT INFORMATION

Configuration change.

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) During the installation of bonding braids or components requiring grounding, clean the surface structure in order to obtain a good ground contact.
- d) Let adhesive cure at room temperature for at least 24 hours unless otherwise specified.
- e) Exposed thread surface and nut must be protected using a layer of tectyl according to MIL-C-16173 grade I.
- f) 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 Figure 1, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform Satcom Flightcell DZMX (4G) retromod P/N 3G4390P00812 as described in the following procedure:
 - 2.1 With reference to Figure 1, remove the transceiver P/N DZP-04-800 from the interseat console.

NOTE

Depending on the geographic area, alternative P/Ns can be installed (Refer to Note (1)).

- 2.2 With reference to Figure 1 and in accordance with AMP DM 39-E-23-97-01-00A-720A-A, install the transceiver

P/N DZP-04-800-BEW on the interseat console.

3. In accordance with AMP DM 39-E-23-97-00-00A-320A-A, perform the airborne telephone transceiver operational test.
4. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
5. 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”.

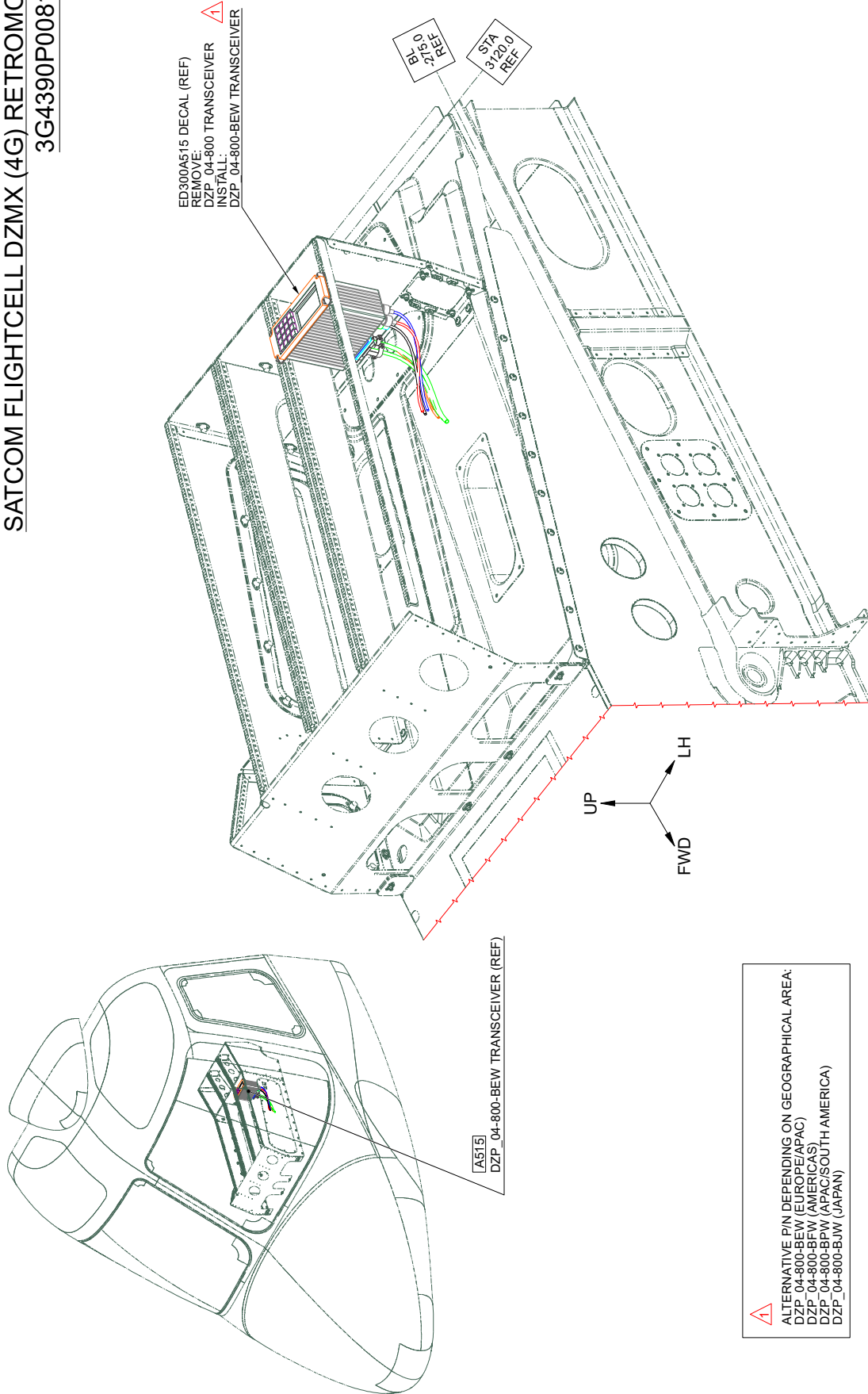
PART II

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 2 thru 4, remove all external panels, internal panels and internal liners as required to gain access to the area affected by the installation and perform Satcom Flightcell wireless retromod P/N 3G4390P01011 as described in the following procedure:
 - 2.1 With reference to Figure 2 View A, install the locking ring P/N AW001YC01RED on the CB panel.
 - 2.2 With reference to Figure 3, remove the Wi-Fi router dummy plate P/N 3G5315P03751 and install blank plate P/N AW002SC310A.
 - 2.3 With reference to Figure 3, disconnect the connector P1107.
 - 2.4 With reference to Figure 3, install the support P/N AW001CL001-N6 by means of Adhesive Hysol EA9309 NA (C231) on the interseat console.
 - 2.5 With reference to Figure 3 Detail B, stow the connector P1107 with protective plug P/N NAS813-18, fibre sleeve (Nomex) P/N EN6049-006-25-5 and tie strap P/N AW001CK03LC.
 - 2.6 With reference to Figure 4, disconnect the connector A603P1 from the Wi-Fi router P/N 910-00014-503.
 - 2.7 With reference to Figure 4 and in accordance with AMP DM 39-C-23-98-01-00A-520A-K, remove the Wi-Fi router P/N 910-00014-503 (including Wi-Fi antenna P/N 117-00003-001) from the structure by means of n°6 screws P/N NAS1802-3-6, n°6 washers P/N NAS1149D0332J and the bonding C/A P/N A601A3B32, and remove the decal P/N ED300A603.
 - 2.8 With reference to Figure 4 Detail, install the support P/N AW001CL001-N6 by means of Adhesive Hysol EA9309 NA (C231).
 - 2.9 With reference to Figure 4 Detail C, stow the connector A603P1 with protective plug (if available), fibre sleeve (Nomex) P/N EN6049-006-25-5 and tie strap P/N AW001CK03LC.
3. In accordance with AMP DM 39-E-23-97-00-00A-320A-A, perform the airborne telephone transceiver operational test.
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@leonardo.com

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

**SATCOM FLIGHTCELL DZMX (4G) RETROMOD
3G4390P00812**



VIEW LOOKING INTERSEAT CONSOLE LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 1

SATCOM FLIGHTCELL WIRELESS RETROMOD
3G4390P01011

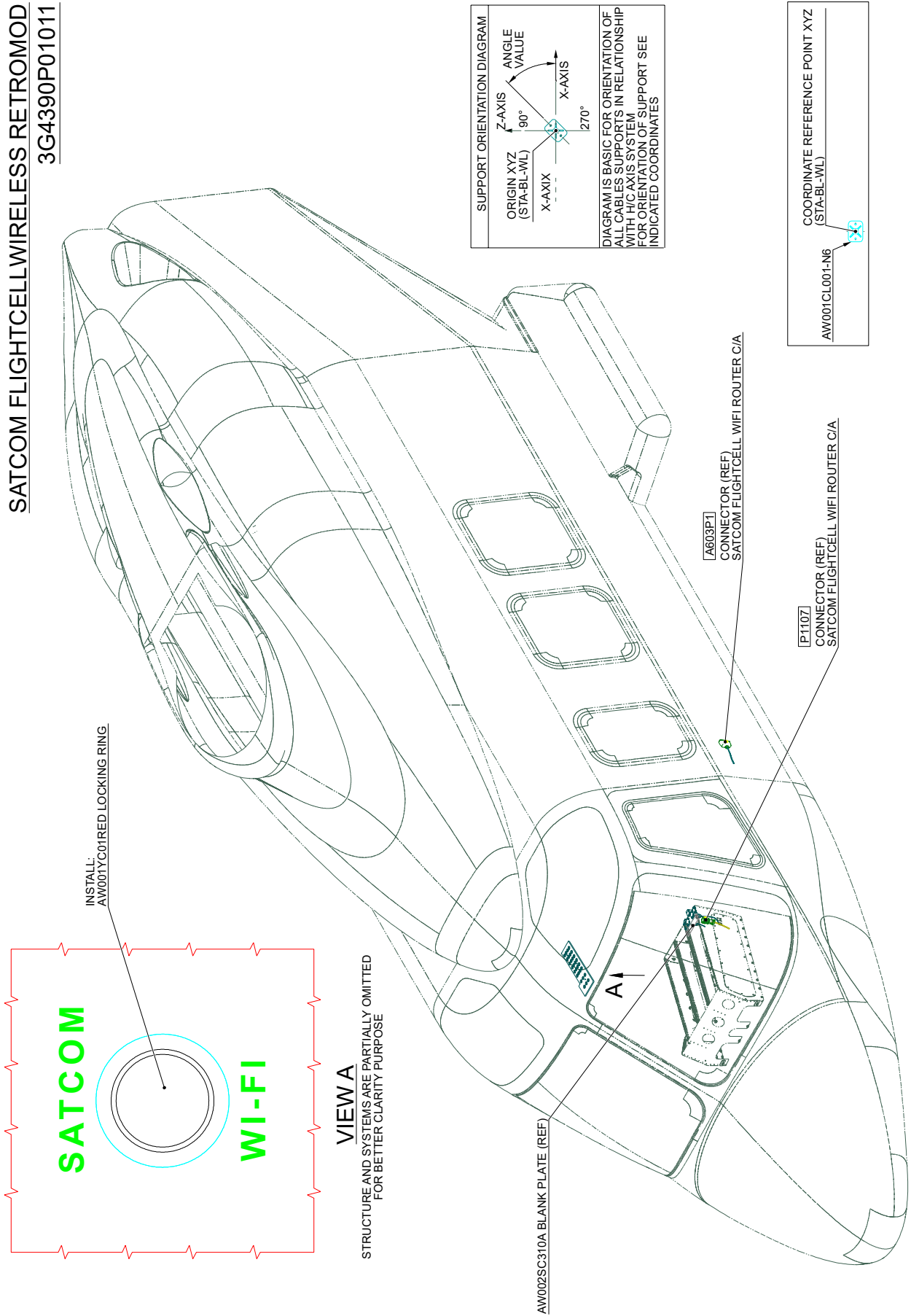
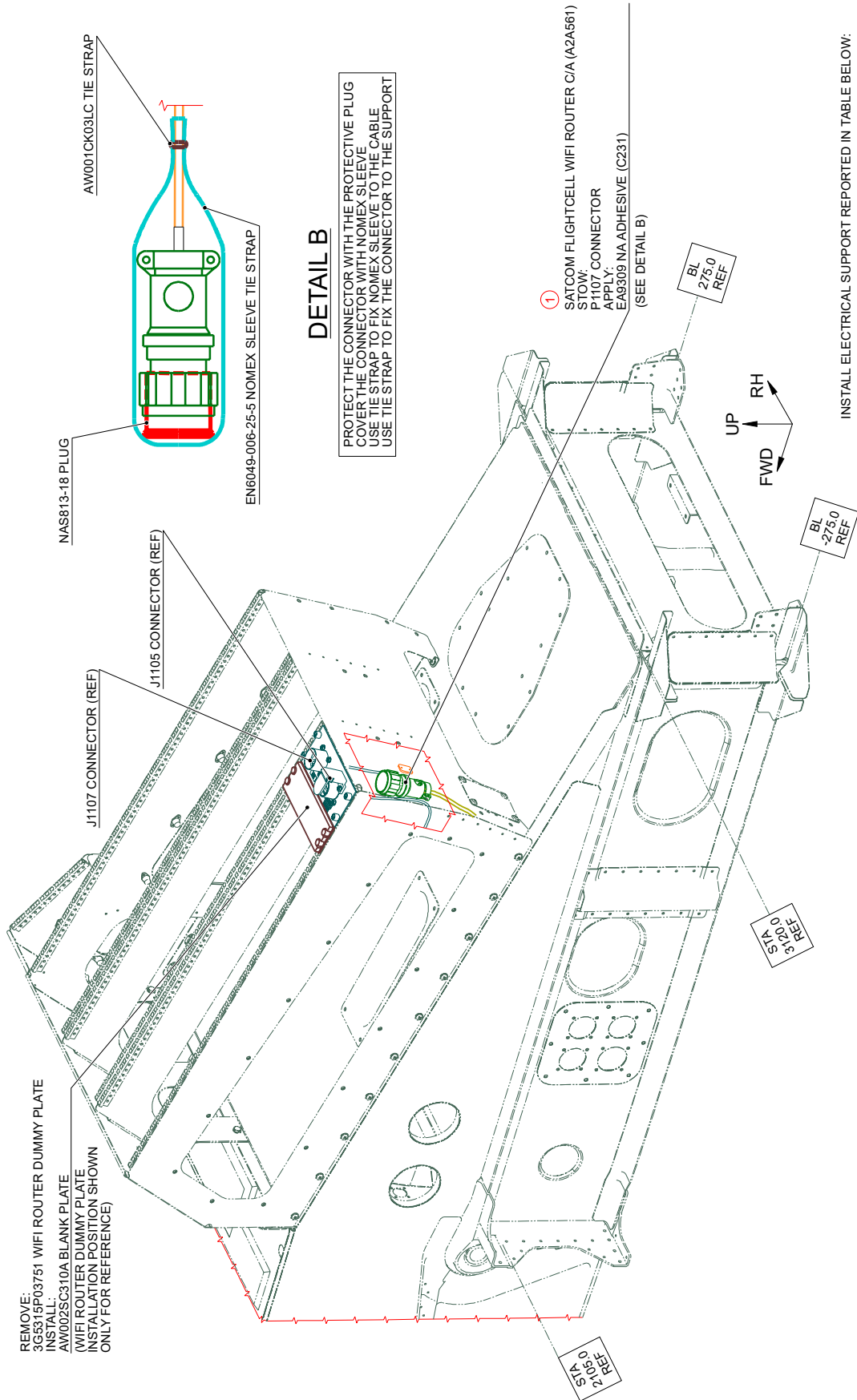


Figure 2

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**SATCOM FLIGHTCELL WIRELESS RETROMOD
3G4390P01011**



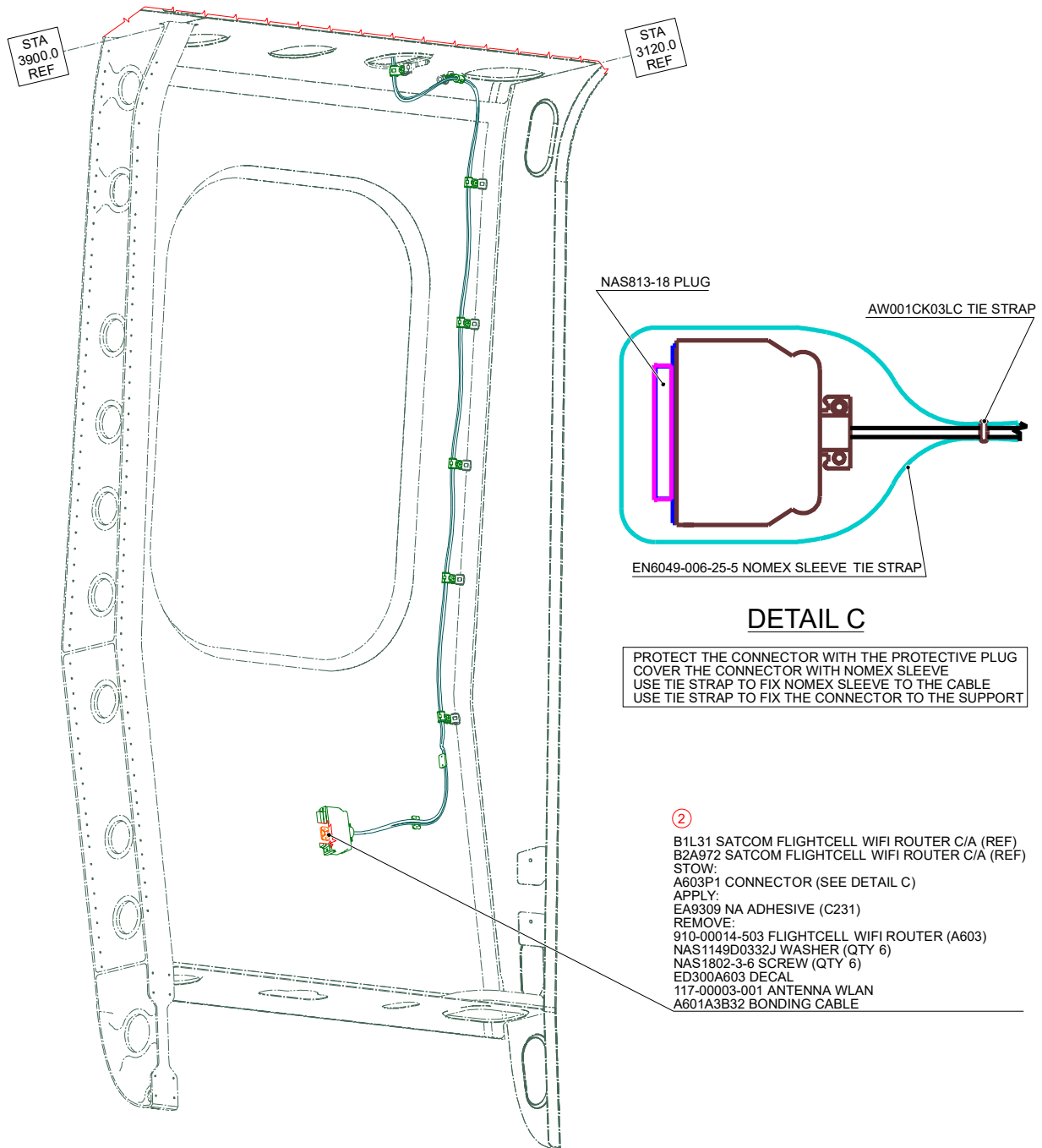
INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART NUMBER	STA	BL	WL	ORIENTATION
①	AW001CL001-N6	2869	-199	1317	90°

VIEW LOOKING INTERSEAT CONSOLE LH SIDE
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

Figure 3

SATCOM FLIGHTCELL WIRELESS RETROMOD
3G4390P01011



VIEW LOOKING CABIN LH SIDE FROM STA 3120 TO STA 3900
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE

INSTALL ELECTRICAL SUPPORT REPORTED IN TABLE BELOW:

LOCATION NUMBER	PART. NUMBER	STA	BL	WL	ORIENTATION
②	AW001CL001-N6	3460	-1078	1310	0°

Figure 4

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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.