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AgustaWestland Products

SERVICE BULLETIN

N° 139-463

DATE: February 25, 2021

REV. : /

TITLE

ATA 46 – INSTALLATION OF KIT CENTRAL DISPLAY

REVISION LOG

First Issue

1. PLANNING INFORMATION

A. EFFECTIVITY

All AW139 helicopters from S/N 31400 onwards and from S/N 41300 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 the installation of the kit central display Sirio Panel P/N 4G4630F00312.

E. DESCRIPTION

Leonardo Helicopter has developed this Service bulletin to install the kit central display Sirio panel P/N 4G4630F00312.

Part I of the Service Bulletin provide instructions on how to perform the central display Sirio Panel complete provision P/N 4G4630A00512.

Part II provide instructions on how to perform the central display Sirio Panel equipment installation P/N 4G4630A00711.

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 Maintenance-Man-Hours (MMH) are deemed necessary:

Part I: approximately one-hundred and sixty (160) MMH.

Part II: approximately one (1) MMH.

Maintenance-Man-Hours are based on hands-on time and can change with personnel and facilities available.

H. WEIGHT AND BALANCE

PART I

WEIGHT (Kg)	0.22	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	1942	427.24
LATERAL BALANCE	-269	-59.18

PART II

WEIGHT (Kg)	2.20	
	ARM (mm)	**MOMENT (Kgmm)**
LONGITUDINAL BALANCE	2110	4642
LATERAL BALANCE	-43	-94.6

I. REFERENCES

1) PUBLICATIONS

Following Data Modules refer to AMP:

DATA MODULE		DESCRIPTION	PART
DM01	39-A-00-20-00-00A-120A-A	Helicopter safety. Pre operation (Make helicopter safe for maintenance)	I, II
DM02	39-A-11-00-01-00A-720A-A	Decal. Install procedure.	II
DM03	39-A-12-41-00-00A-510A-A	External electrical power. Disconnect procedure.	II
DM04	39-A-12-41-00-00A-710A-A	External electrical power. Connect procedure.	II
DM05	39-A-24-91-04-00A-920A-K	Integrally lighted panel. Replacement.	I
DM06	39-A-25-82-03-00A-520A-A	Left hinged lining panel. Remove procedure	I
DM07	39-A-25-82-03-00A-720A-A	Left hinged lining panel. Install procedure	I
DM08	39-A-52-44-01-00A-520A-A	Access panels. Remove procedure.	I

DATA MODULE		DESCRIPTION	PART
DM09	39-A-52-44-01-00A-720A-A	Access panels. Install procedure.	I
DM10	39-A-52-44-03-00A-540A-A	Access door (latch lock). Open for access procedure.	I
DM11	39-A-52-44-03-00A-740A-A	Access door (latch lock). Close after access procedure.	I
DM12	39-B-31-11-02-00A-520A-A	Top cover. Remove procedure.	I, II
DM13	39-B-31-11-02-00A-720A-A	Top cover. Install procedure.	I, II
DM14	39-U-46-32-01-00A-720A-A	Central display. Install procedure	II
DM15	39-U-46-32-00-00A-320A-A	Central display installation-Operation test	II

2) ACRONYMS & ABBREVIATIONS

AMP	Aircraft Maintenance Publication
DIA	Diameter
DOA	Design Organization Approval
DM	Data Module
EASA	European Aviation Safety Agency
LED	Light Emitting Diode
LH	Leonardo Helicopter
MDF	Multi-Functional Display
MMH	Maintenance Man Hours
RGB	Red Green Blue
SVGA	Super Video Graphics Array
VGA	Video Graphics Array

3) ANNEX

N.A.

J. PUBLICATIONS AFFECTED

N.A.

K. SOFTWARE ACCOMPLISHMENT SUMMARY

Software to be updated:

- CD configuration (RD-12-00) P/N 728-1173/60;
- Operative software (RD-13-00) P/N 3G4605G00131.

2. MATERIAL INFORMATION

A. REQUIRED MATERIALS

1) PARTS

PART I

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
1	**4G4630F00312**		**KIT CENTRAL DISPLAY SIRIO PANEL**	**REF**	**.**		**-**
2	**4G4630A00512**		**CENTRAL DISPLAY SIRIO PANEL COMPLETE PROVISION**	**REF**	**..**		-
3	**3G5310A48612**		**CENTRAL DISPLAY SIRIO PANEL STRUCTURAL PROVISION**	**REF**	**...**		-
4	3G5311A06251		Cover plate	1	....		139-463L1
5	MS20426AD3-7		Rivet	0.1Kg	....		139-463L1
6	MS21073L3		Nut	4	....		139-463L1
7	MS35215-58		Screw	4	....		139-463L1
8	NAS620C10LP		Washer	4	....		139-463L1
9	**4G4630A00612**		**CENTRAL DISPLAY SIRIO PANEL C/A ELECTRICAL PROVISION**	**REF**	**...**		-
10	3G9A01A33401	3G9A01A33401A1R or 3G9A01A33401A1R	Display (Sirio panel) C/A A1A334	1	....		139-463L1
11	3G9B01A40401	3G9B01A40401A10R	Display (Sirio panel) C/A B1A404	1	....		139-463L1
12	AW001CL001-N6		Support	3	....		139-463L1
13	MS90376-16R		Protective cap	1	....		139-463L1
14	MS90376-20R		Protective cap	2	....		139-463L1
15	AW002FT110		Grommet	4			139-463L1
16	M39029/56-348		Electrical contact	10			139-463L1
17	M39029/12-149		Electrical contact	12			139-463L1
18	3G2490LXXXXX		Auxiliary C/B Panel	1		(1)	-
19	A556A-T16		Wire	1 m			139-463L1
20	MS25036-153		Terminal lug	1			139-463L1
21	M39029/56-352		Terminal lug	2			139-463L1
22	ED300CB346		Decal	1			139-463L1
23	MS3320-5		Circuit breaker	1			139-463L1

PART II

#	P/N	ALTERNATIVE P/N	DESCRIPTION	Q.TY	LVL	NOTE	LOG P/N
24	**4G4630F00312**		**KIT CENTRAL DISPLAY SIRIO PANEL**	**REF**	**.**		**-**
25	**4G4630A00711**		**CENTRAL DISPLAY SIRIO PANEL EQUIPMENT INSTALLATION**	**REF**	**..**		**-**
26	727-0912/30		Central display	1	...		139-463L2
27	ED300A278		Decal	1	...		139-463L2
28	MS35215-58		Screw	4	...		139-463L2
29	NAS620C10LP		Washer	4	...		139-463L2

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
30	199-05-002 Type I, Class 2	Adhesive EA9309.3NA (C021)	AR	(2)	I
31	EN6049-006-32-5	Meta-aramid fiber (Nomex)	AR		I, II
32	900004953	Lacing cord	1	(2)	I
33	CCC-C-46	Soft lint-free cloth (C011)	AR	(2)	I, II
34	P-D-680 type	Cleaning solvent Ardrox 5503 (C010)	AR	(2)	I, II
35	TT-N-95-B	Aliphatic Naphtha (C059)	AR	(2)	I, II
36	TT-M-261	Methyl-Ethyl-Ketone (C005)	AR	(2)	I, II
37	Commercial	Gloves	AR	(2)	I, II
38	Commercial	Toluol (C040)	AR	(2)	I, II
39	Commercial	Isopropyl alcohol (C039)	AR	(2)	I, II

Refer also to IPD for the spares materials required to comply with the AMP DMs 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
139-463L1	1		Part I
3G2490LXXXXX	1	(1)	
139-463L2	1		Part II

NOTE

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

(2) To be furnished 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
40	Commercial	Multimeter	1	(B1)	
41	110-6B	Electrical power supply (28 VDC) (BB-01-00)	1	(B2)	
42	Commercial	Laptop	1	(B1)	
43	728-1173/60	CD configuration (RD-12-00)	1		
44	728-1173/03	Operative software (RD-13-00)	1		
45	3G4605G00131	Dedicated cable (GJ-45-00)	1		

SPECIAL TOOLS NOTE

(B1) To be furnished as local supply.

(B2) P/N GB713-045-700 may be supplied as alternative.

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) Protect properly all those equipment not removed from area affected by the modification during installation procedure.

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

g) Use aliphatic naphtha to degrease. Cleaned surfaces shall be allowed to air dry for at least 30 minutes before bonding.

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

i) 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-52-44-03-00A-540A-A, open the access door 213AL.
3. In accordance with AMP DM 39-A-52-44-01-00A-520A-A, remove the access panels 131AL and 132AR.

4. In accordance with AMP DM 39-A-25-82-03-00A-520A-A, remove the left hinged lining panel.
5. In accordance with AMP DM 39-B-31-11-02-00A-520A-A, remove the top cover instrument panel.
6. With reference to Figure 2, gain access to the area affected by the installation and perform the Central display Sirio Panel structural provision P/N 3G5310A48612 as described in the following procedure:
   6.1 With reference to Figure 2 detail B, perform the indicated cut-out on the instrument panel assy P/N 3G3110A00138.
   6.2 With reference to Figure 2 view A-A and detail B, temporarily locate cover plate P/N 3G5311A06251 and countermark positions of n°4 holes.
   6.3 With reference to Figure 2 section C-C, perform n°4 holes Ø5.51÷5.64.
   6.4 With reference to Figure 2 section C-C, install n°4 nut plates P/N MS21073L3 by means of n°8 rivets P/N MS20426AD3.

NOTE

Perform the following step only if Part II of this Service Bulletin is not intended to be performed consequently to Part I. (REF. step 6.5)

   6.5 With reference to Figure 2 view A-A, install cover plate P/N 3G5311A06251 by means of n°4 screws P/N MS35215-58 and n°4 washers P/N NAS620C10LP.
7. With reference to Figures 3, 4, 6 and 7, perform the Central display Sirio Panel electrical provision P/N 4G4630A00612 as described in the following procedure:
   7.1 With reference to Figure 4 view C-C locations n°1, 2 and 3, install n°3 electrical supports P/N AW001CL001-N6 at shown positions by means of adhesive Hysol EA9309.3NA (C021).

NOTE

Use sleeve P/N A582A32 where protection against chafing is required and where contact with structure may occur.(Ref. Step 7.2)

   7.2 With reference to Figures 3 and 4, lay down the following cable assemblies:
   - 3G9A01A33401 display Sirio Panel C/A A1A334;
   - 3G9B01A40401 display Sirio Panel C/A B1A404.

   7.3 With reference to Figure 3, to Figure 6 wiring diagram and to Figure 8, perform the electrical connection of cable Assy B1A404 between circuit breaker panel connector PL1P5 pin V and pin U and sectioning connector J119 pin X and pin N. Use electrical contact P/N M39029/56-352 for pin N of J119 and electrical contact

P/N M39029/56-351 for pin X of J119. Use electrical contact P/N M39029/58-364 for pin U of PL1P5 and electrical contact P/N M39029/58-364 for pin V of PL1P5.

7.4 With reference to Figure 3, to Figure 6 wiring diagram and to Figure 8, perform the electrical connection of cable Assy A1A334 between sectioning connector P119 and central display connector A278P3 and between central display connector A278P2 and CE161.

7.5 With reference to Figure 3, to Figure 7 wiring diagram and to Figure 8, perform the electrical connection of cable Assy A1A334 between central display connector A278P3 and terminal boards TB143/2, TB129/4 and TB129/1 and between central display connector A278P1 and CE162.

NOTE

Perform the following step only if Part II of this Service Bulletin is not intended to be embodied immediately after Part I. (Ref. Step 8).

8. With reference to Figure 4 Detail A and view C-C, protect and stow the cable assemblies connectors A278P1, A278P2 and A278P3 as described in the following procedure:

8.1 Apply the applicable protective cap P/N MS90376-16R on the connector assembly location n°2.

8.2 Apply n°2 applicable protective cap P/N MS90376-20R on the connector assemblies locations n°1 and n°3.

8.3 Cover with Nomex fibres sleeve P/N A582A32 and use tie straps P/N 900004953 to firmly tie down the sleeve on the connector.

8.4 Fasten the connector with tie straps.

8.5 Fasten the cable assemblies to the indicated supports.

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. (Ref Step 9).

9. Modify the Auxiliary C/B panel on the overhead panel, as described in the following procedure:

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

9.2 Install one circuit breaker P/N MS3320-5 in the position indicated as COM 3 on the new integrally-lighted panel P/N 3G2490LXXXXX; apply decal

P/N ED300CB346 in an adjacent area.

9.3 With reference to Figure 6, perform electrical connections between circuit breaker CB346 pin 2 and connector of overhead circuit breaker panel PL1J5 pin V by means of A556AT16 wire. Use terminal lug P/N MS25036-153 for pin 2 of CB346 and electrical contact P/N M39029/56-352 for pin V of PL1J5. Connect CB346 to 28V DC MAIN BUS 2.

9.4 With reference to Figure 6, perform electrical connection between the TB504 pin J and the panel PL1J5 pin U by means of A556AT16 wire. Use electrical contact P/N M39029/56-352 for pin U of PL1J5 and 001104-203-02 for terminal board TB504 pin J.

10. Perform a pin-to-pin continuity check of all the electrical connections made.
11. In accordance with AMP DM 39-A-52-44-01-00A-720A-A, re-install the access panel 131AL and 132AR.
12. In accordance with AMP DM 39-A-25-82-03-00A-720A-A, re-install the left hinged lining panel.
13. In accordance with AMP DM 39-B-31-11-02-00A-720A-A, re-install the top cover instrument panel.
14. In accordance with AMP DM 39-A-52-44-03-00A-740A-A, close the access door 213AL.
15. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
16. Return the helicopter to flight configuration and record for compliance with Part I of this Service Bulletin on the helicopter logbook.
17. Send the attached compliance form to the following mail box:

    engineering.support.lhd@leonardocompany.com

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

PART II

1. In accordance with AMP DM DM0139-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-B-31-11-02-00A-520A-A, remove the top cover instrument panel.
3. With reference to Figure 5, perform the Central display SIRIO panel equipment installation P/N 4G4630A00711 as described in the following procedure:

NOTE

Perform the following steps 3.1 and 3.2 only if Part II of this Service Bulletin has not been embodied immediately after Part I. Otherwise skip to step 3.3.

3.1 With reference to Figure 2 view A-A, remove cover plate P/N 3G5311A06251 and retain for later reuse n°4 screws P/N MS35215-58 and n°4 washers P/N NAS620C10LP.

3.2 With reference to Figure 5 detail A and view looking instrument panel, prepare the connectors A278P1, A278P2 and A278P1 as described in the following procedure:

3.2.1 Remove the connectors from their supports.

3.2.2 Remove the Nomex fiber sleeves P/N A582A32 from the connectors.

3.2.3 Remove the protective cap P/N MS90376-16 and n°2 protective caps P/N MS90376-20 from the connectors.

3.3 In accordance with AMP DM 39-U-46-32-01-00A-720A-A and with reference to Figure 5, install the central display SIRIO panel P/N 727-0912/30 by means of previously removed n°4 screws P/N MS35215-58 and n°4 washers P/N NAS620C10LP.

3.4 In accordance with AMP DM 39-A-11-00-01-00A-720A-A and with reference to Figure 5 view looking instrument panel, install in a visible area adjacent to the central display the decal P/N ED300A278.

4. Perform a pin-to-pin continuity check of all the electrical connections made.
5. With reference to Figure 5, perform the electrical connection of central display SIRIO panel P/N 727-0912/30 with cable assembly connectors A278P1, A278P2 and A278P3.
6. Perform the power supply checks as described in the following procedure:

6.1 Make sure that Electrical Power Distribution System Circuit Breakers are pulled in except for IGN #1/2, START #1/2, VIDEO CAMERAS, FLIR, DIGITAL MAP,

METEO/SEARCH RADAR.

6.2 In accordance with 39-A-12-41-00-00A-710A-A, the helicopter external power port shall be connected to the External Power Bench set to 28V DC output

6.3 Verify CENTRAL DISPLAY Circuit Breaker is pulled out and disconnect the connectors A278P1, A278P2 and A278P3.

6.4 Push in CENTRAL DISPLAY Circuit Breaker.

6.5 Verify the grounding of the pins A278P3-3, A278P3-4, A278P3-5 and A278P3-8.

6.6 Verify the voltage on the pins A278P3-1, A278P3-2, A278P3-6 and A278P3-7 is 28VDC, using A278P3-3 pin as negative pole.

7. Perform the bonding measurement and make sure that the value of resistance doesn't exceed the limit of 10 mΩ.

7.1 If the resistance value is not in the limit perform the step 7.3.

7.2 If the bonding measurement value of resistance doesn't exceed the limit of 10 mΩ go to step 7.4.

7.3 If the resistance value is not in the limit, perform following check:

7.3.1 Make sure that the Central Display is installed correctly and bonded to the structure correctly.

7.3.2 Make sure that there is no corrosion in the installation area.

7.3.3 Perform again step 7.

7.4 Pull out CENTRAL DISPLAY Circuit Breaker.

7.5 Reconnect connectors A278P1, A278P2 and A278P3.

7.6 Push in CENTRAL DISPLAY, VIDEO CAMERAS, FLIR, DIGITAL MAPS and RADAR circuit breakers.

8. In accordance with AMP DM 39-U-46-32-01-00A-720A-A, perform the central display SIRIO panel system operational check.
9. In accordance with AMP DM 39-A-12-41-00-00A-510A-A disconnect external electric power from the A/C.
10. In accordance with AMP DM 39-B-31-11-02-00A-720A-A, re-install the top cover instrument panel.
11. In accordance with weight and balance changes, update the Chart A (see Rotorcraft Flight Manual, Part II, section 6).
12. Return the helicopter to flight configuration and record for compliance with Part II of this Service Bulletin on the helicopter logbook.
13. 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".

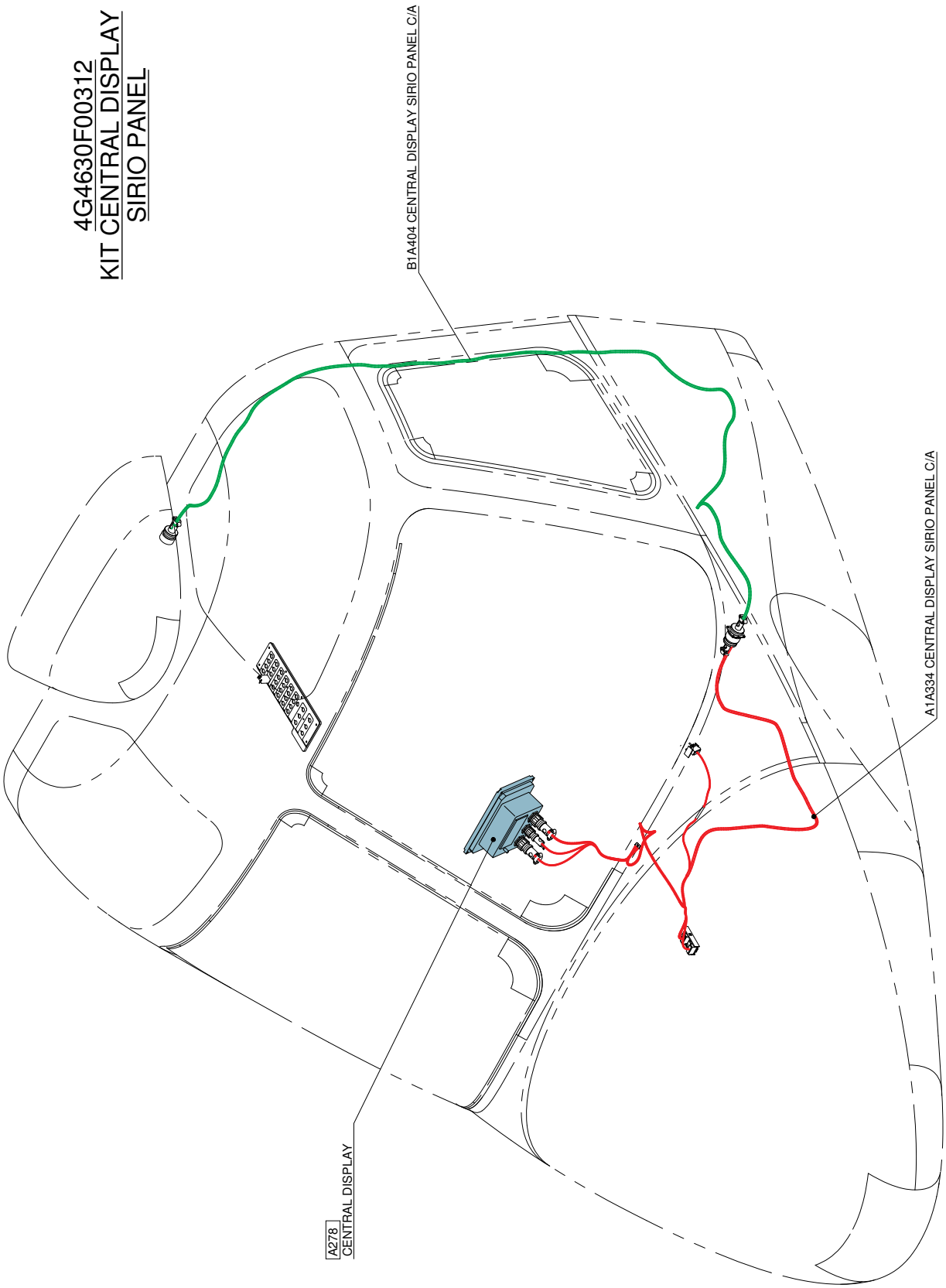
4G4630F00312
KIT CENTRAL DISPLAY
SIRIO PANEL
B1A404 CENTRAL DISPLAY SIRIO PANEL C/A
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
A278
CENTRAL DISPLAY

Figure 1

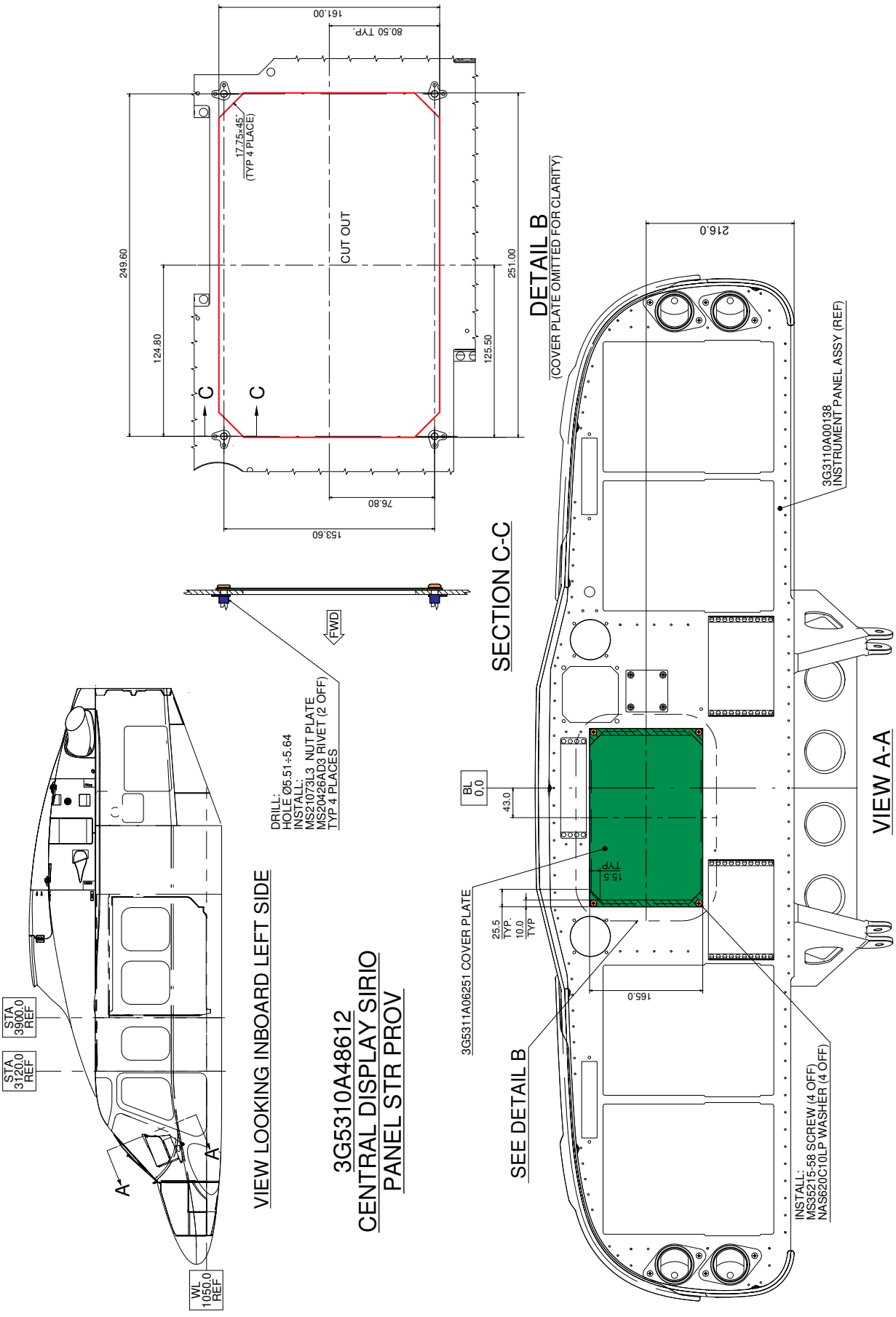
161.00
80.50 TYP.
17.75x45°
(TYP 4 PLACE)
CUT OUT
249.60
124.80
251.00
125.50
76.80
153.60
C
C
FWD
SECTION C-C
DRILL:
HOLE Ø5.51÷5.64
INSTALL:
MS21073L3 NUT PLATE
MS20426AD3 RIVET (2 OFF)
TYP 4 PLACES
DETAIL B
(COVER PLATE OMITTED FOR CLARITY)
216.0
3G3110A00138
INSTRUMENT PANEL ASSY (REF)
VIEW A-A
BL
0.0
43.0
15.5
TYP
25.5
TYP.
10.0
TYP
165.0
3G5311A06251 COVER PLATE
SEE DETAIL B
INSTALL:
MS35215-58 SCREW (4 OFF)
NAS620C10LP WASHER (4 OFF)
VIEW LOOKING INBOARD LEFT SIDE
STA
3900.0
REF
STA
3120.0
REF
WL
1050.0
REF
A
A
3G5310A48612
CENTRAL DISPLAY SIRIO
PANEL STR PROV

Figure 2

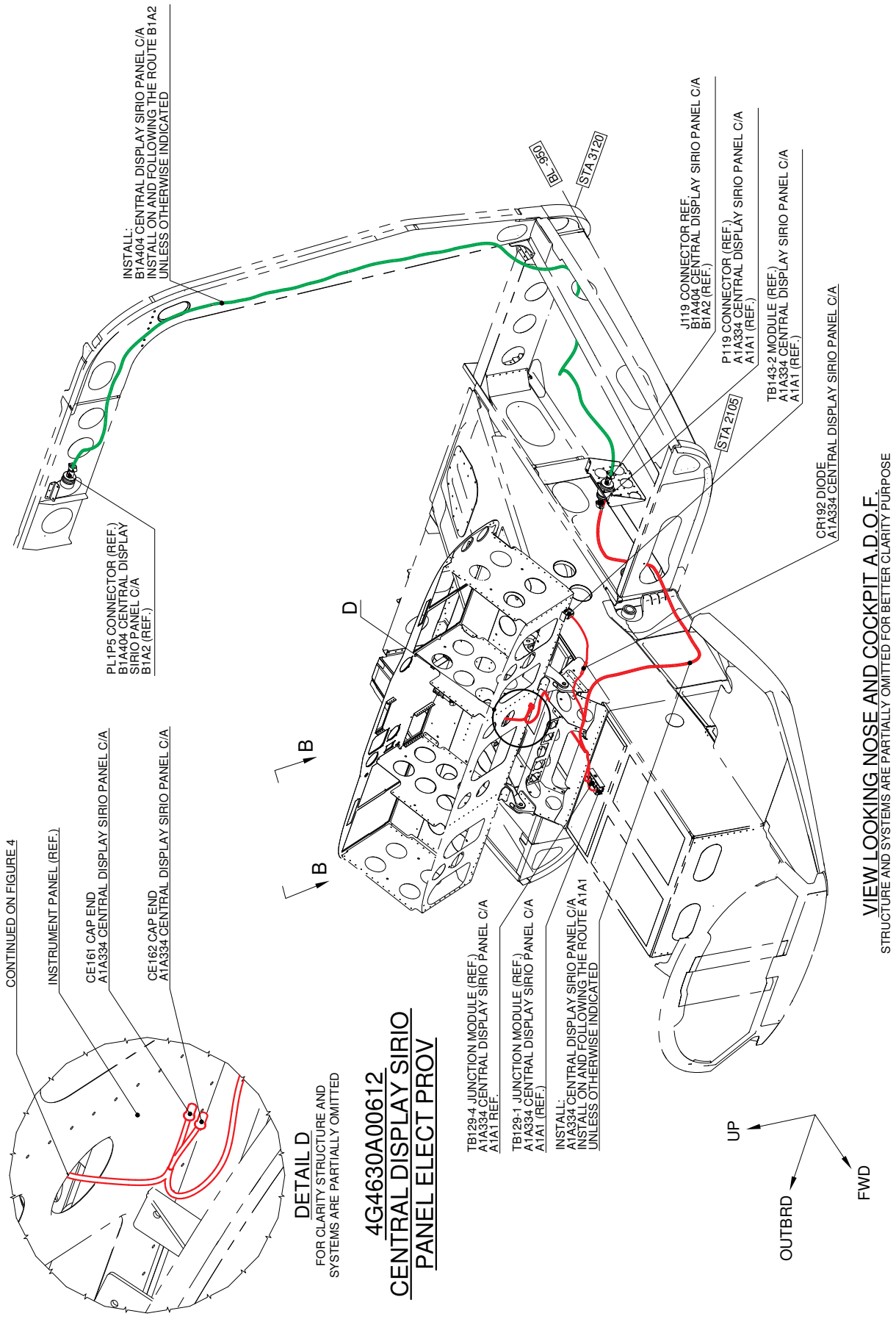
INSTALL:
B1A404 CENTRAL DISPLAY SIRIO PANEL C/A
INSTALL ON AND FOLLOWING THE ROUTE B1A2
UNLESS OTHERWISE INDICATED
PL1P5 CONNECTOR (REF.)
B1A404 CENTRAL DISPLAY
SIRIO PANEL C/A
B1A2 (REF.)
BL 350
STA 3120
J119 CONNECTOR REF.
B1A404 CENTRAL DISPLAY SIRIO PANEL C/A
B1A2 (REF.)
P119 CONNECTOR (REF.)
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
A1A1 (REF.)
STA 2105
TB143-2 MODULE (REF.)
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
A1A1 (REF.)
CR192 DIODE
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
D
B
B
VIEW LOOKING NOSE AND COCKPIT A.D.O.F.
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
TB129-4 JUNCTION MODULE (REF.)
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
A1A1 REF.
TB129-1 JUNCTION MODULE (REF.)
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
A1A1 (REF.)
INSTALL:
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
INSTALL ON AND FOLLOWING THE ROUTE A1A1
UNLESS OTHERWISE INDICATED
UP
OUTBRD
FWD
4G4630A00612
CENTRAL DISPLAY SIRIO
PANEL ELECT PROV
DETAIL D
FOR CLARITY STRUCTURE AND
SYSTEMS ARE PARTIALLY OMITTED
CONTINUED ON FIGURE 4
INSTRUMENT PANEL (REF.)
CE161 CAP END
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
CE162 CAP END
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A

Figure 3

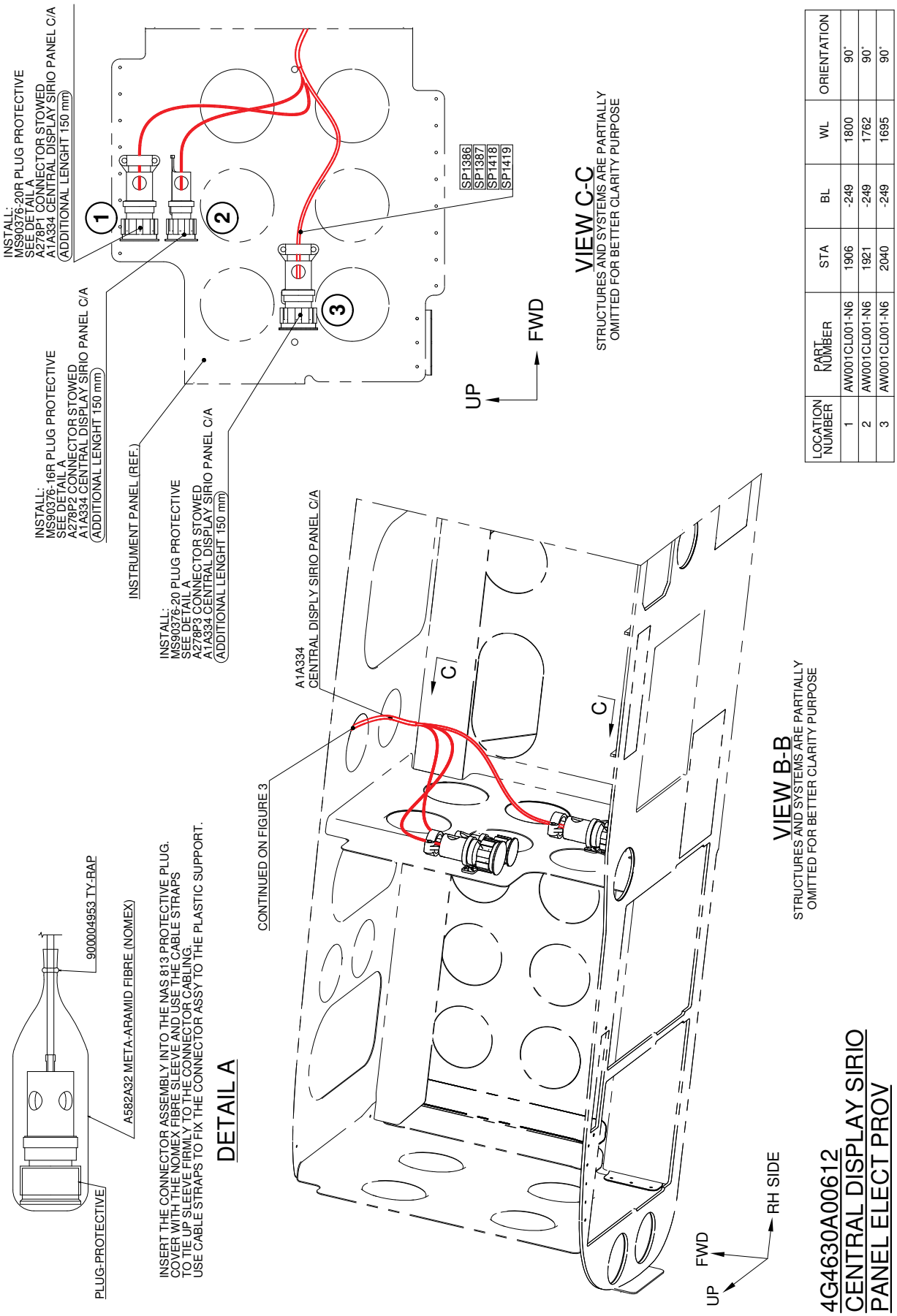
INSTALL:
MS90376-20R PLUG PROTECTIVE
SEE DETAIL A
A278P1 CONNECTOR STOWED
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
(ADDITIONAL LENGHT 150 mm)
INSTALL:
MS90376-16R PLUG PROTECTIVE
SEE DETAIL A
A278P2 CONNECTOR STOWED
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
(ADDITIONAL LENGHT 150 mm)
INSTRUMENT PANEL (REF.)
INSTALL:
MS90376-20 PLUG PROTECTIVE
SEE DETAIL A
A278P3 CONNECTOR STOWED
A1A334 CENTRAL DISPLAY SIRIO PANEL C/A
(ADDITIONAL LENGHT 150 mm)
SP1386
SP1387
SP1418
SP1419
1
2
3
UP
FWD
VIEW C-C
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
LOCATION NUMBER | PART NUMBER | STA | BL | WL | ORIENTATION
1 | AW001CL001-N6 | 1906 | -249 | 1800 | 90°
2 | AW001CL001-N6 | 1921 | -249 | 1762 | 90°
3 | AW001CL001-N6 | 2040 | -249 | 1695 | 90°
A1A334
CENTRAL DISPLY SIRIO PANEL C/A
CONTINUED ON FIGURE 3
C
C
VIEW B-B
STRUCTURES AND SYSTEMS ARE PARTIALLY
OMITTED FOR BETTER CLARITY PURPOSE
FWD
UP
RH SIDE
900004953 TY-RAP
A582A32 META-ARAMID FIBRE (NOMEX)
PLUG-PROTECTIVE
INSERT THE CONNECTOR ASSEMBLY INTO THE NAS 813 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 PLASTIC SUPPORT.
DETAIL A
4G4630A00612
CENTRAL DISPLAY SIRIO
PANEL ELECT PROV

Figure 4

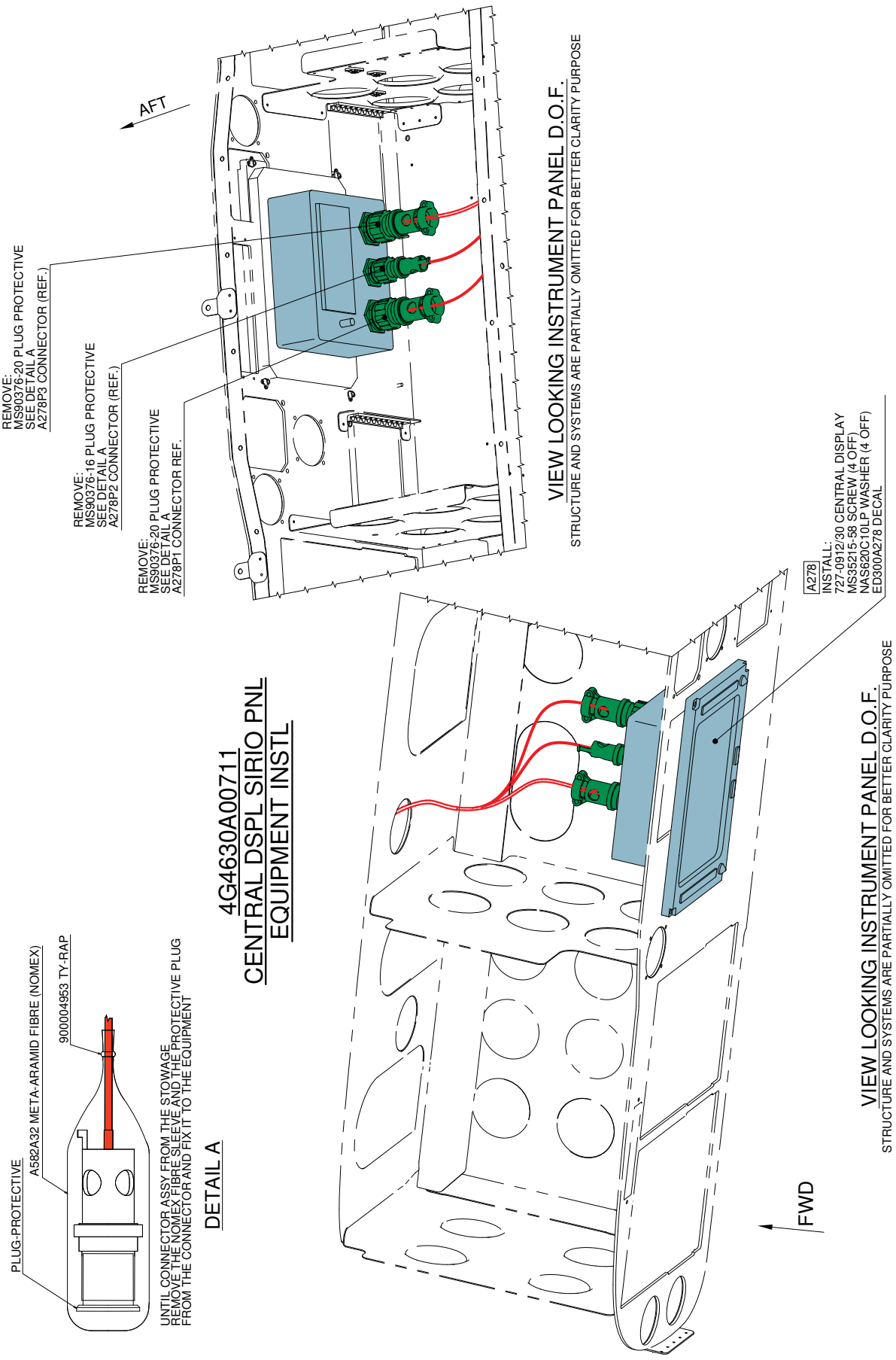
AFT
REMOVE:
MS90376-20 PLUG PROTECTIVE
SEE DETAIL A
A278P3 CONNECTOR (REF.)
REMOVE:
MS90376-16 PLUG PROTECTIVE
SEE DETAIL A
A278P2 CONNECTOR (REF.)
REMOVE:
MS90376-20 PLUG PROTECTIVE
SEE DETAIL A
A278P1 CONNECTOR REF.
VIEW LOOKING INSTRUMENT PANEL D.O.F.
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
A278
INSTALL:
727-0912/30 CENTRAL DISPLAY
MS35215-58 SCREW (4 OFF)
NAS620C10LP WASHER (4 OFF)
ED300A278 DECAL
4G4630A00711
CENTRAL DSPL SIRIO PNL
EQUIPMENT INSTL
VIEW LOOKING INSTRUMENT PANEL D.O.F.
STRUCTURE AND SYSTEMS ARE PARTIALLY OMITTED FOR BETTER CLARITY PURPOSE
FWD
DETAIL A
PLUG-PROTECTIVE
A582A32 META-ARAMID FIBRE (NOMEX)
900004953 TY-RAP
UNTIL CONNECTOR ASSY FROM THE STOWAGE
REMOVE THE NOMEX FIBRE SLEEVE AND THE PROTECTIVE PLUG
FROM THE CONNECTOR AND FIX IT TO THE EQUIPMENT

Figure 5

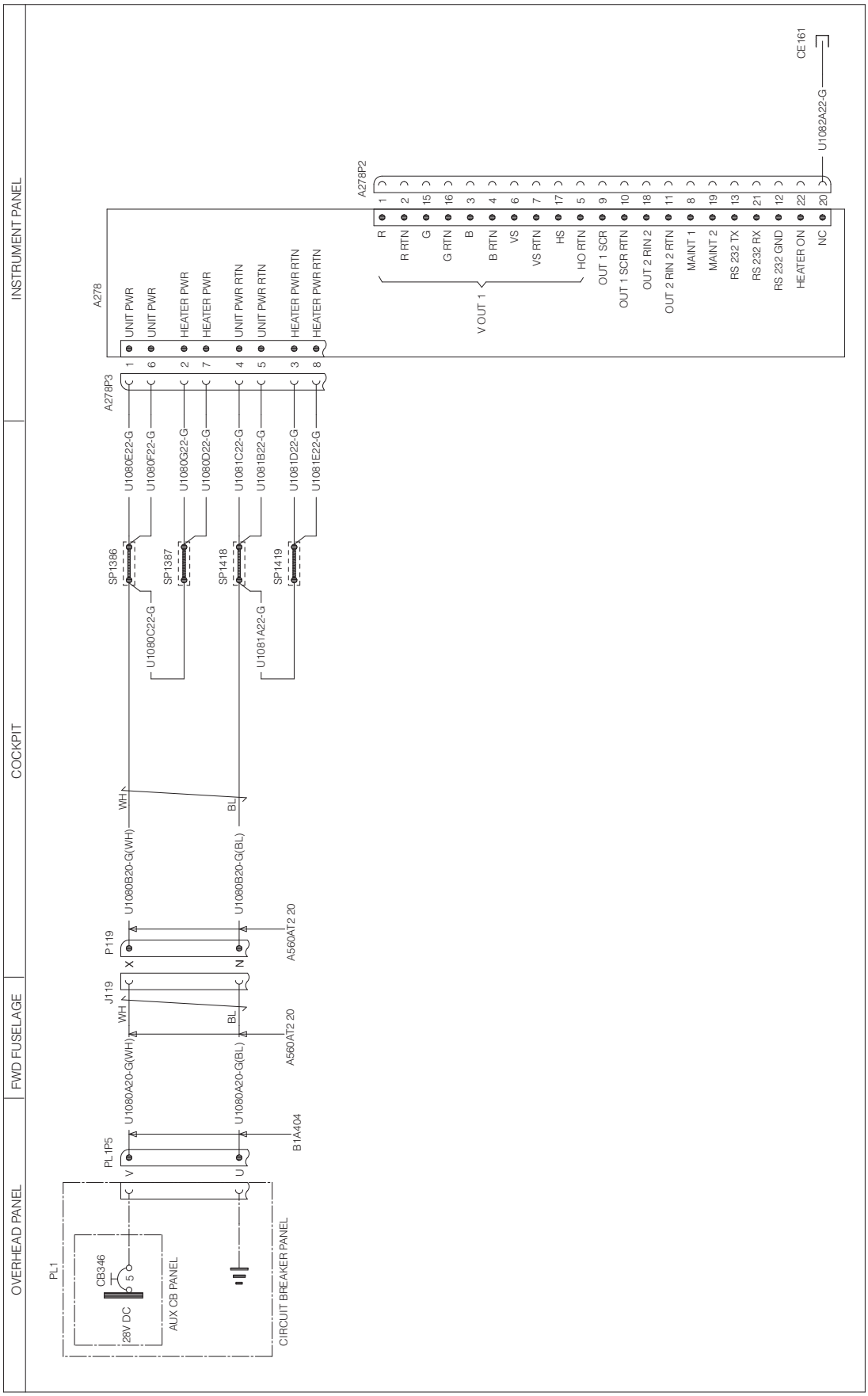
3G4630W00411
WIRING DIAGRAM DISPLAY (SIRIO PANEL)
SHEET 1
OVERHEAD PANEL
FWD FUSELAGE
COCKPIT
INSTRUMENT PANEL
A278
A278P3
A278P2
SP1386
SP1387
SP1418
SP1419
P119
J119
PL1P5
PL1
CB346
28V DC
AUX CB PANEL
CIRCUIT BREAKER PANEL
B1A404
A560AT2 20
UNIT PWR
HEATER PWR
UNIT PWR RTN
HEATER PWR RTN
U1080E22-G
U1080F22-G
U1080G22-G
U1080D22-G
U1081C22-G
U1081B22-G
U1081D22-G
U1081E22-G
U1080C22-G
U1081A22-G
U1080B20-G(WH)
U1080B20-G(BL)
U1080A20-G(WH)
U1080A20-G(BL)
R
R RTN
G
G RTN
B
B RTN
VS
VS RTN
HS
HO RTN
V OUT 1
OUT 1 SCR
OUT 1 SCR RTN
OUT 2 RIN 2
OUT 2 RIN 2 RTN
MAINT 1
MAINT 2
RS 232 TX
RS 232 RX
RS 232 GND
HEATER ON
NC
CE161
U1082A22-G
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1A334 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 6

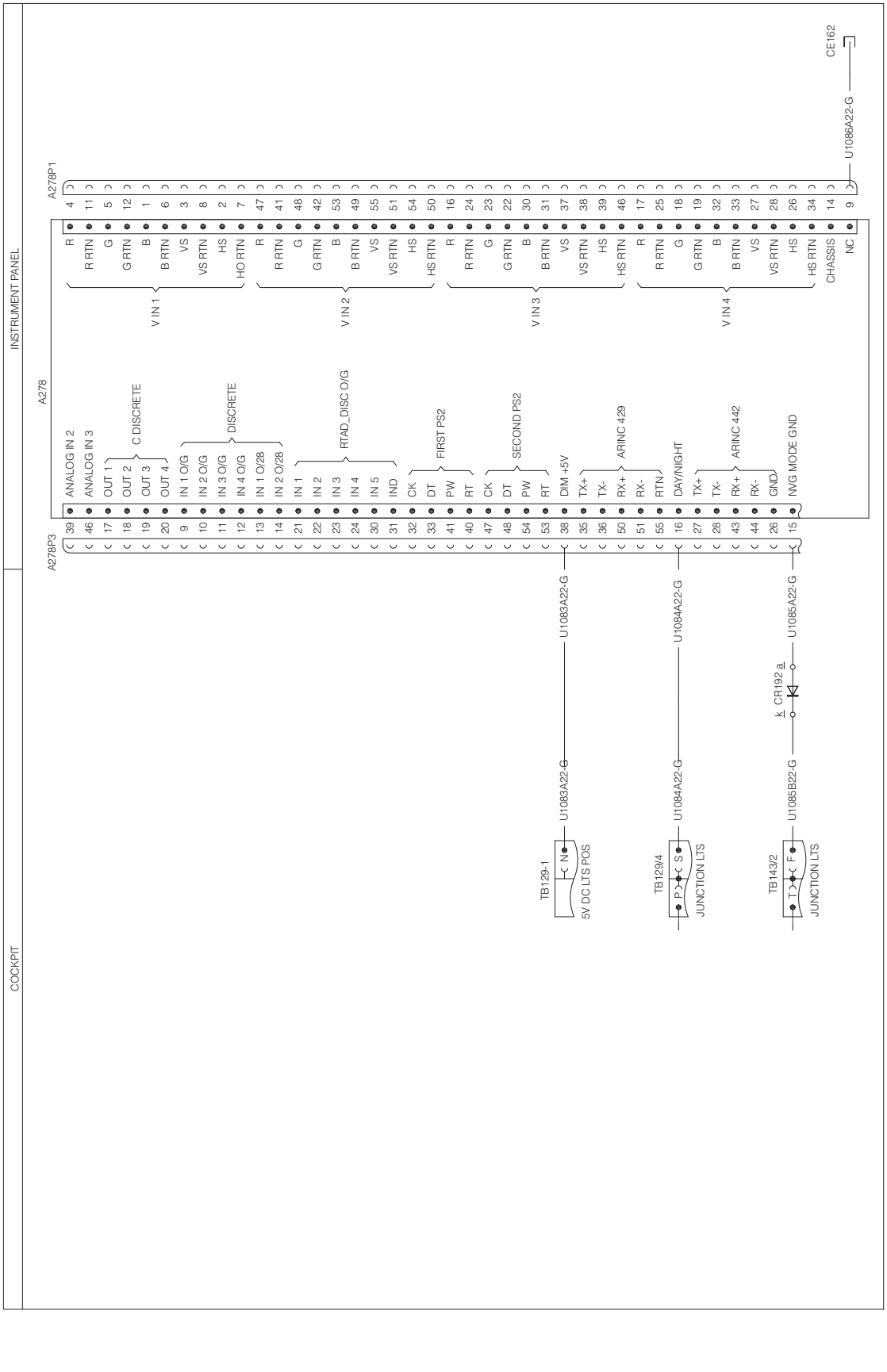
3G4630W00411
WIRING DIAGRAM DISPLAY (SIRIO PANEL)
SHEET 2
COCKPIT
INSTRUMENT PANEL
A278
A278P3
A278P1
ANALOG IN 2
ANALOG IN 3
OUT 1
OUT 2
OUT 3
OUT 4
IN 1 O/G
IN 2 O/G
IN 3 O/G
IN 4 O/G
IN 1 O/28
IN 2 O/28
IN 1
IN 2
IN 3
IN 4
IN 5
IND
CK
DT
PW
RT
CK
DT
PW
RT
DIM +5V
TX+
TX-
RX+
RX-
RTN
DAY/NIGHT
TX+
TX-
RX+
RX-
GND
NVG MODE GND
C DISCRETE
DISCRETE
RTAD_DISC O/G
FIRST PS2
SECOND PS2
ARINC 429
ARINC 442
R
R RTN
G
G RTN
B
B RTN
VS
VS RTN
HS
HO RTN
HS RTN
CHASSIS
NC
V IN 1
V IN 2
V IN 3
V IN 4
U1086A22-G
CE162
U1083A22-G
U1084A22-G
U1085A22-G
U1085B22-G
CR192 a
TB129-1
5V DC LTS POS
TB129/4
TB143/2
JUNCTION LTS
FUNCTIONAL NOTES
ALL CABLES ARE IN LOOM A1A334 UNLESS SPECIFIED
ALL CABLES ARE OF TYPE A556AT 22 UNLESS SPECIFIED

Figure 7

Cable Assy	From Ref Des	Pin n°	Electrical Contact	To Ref Des	Pin n°	Electrical Contact
A1A334	A278P1	9	M39029/56-348	CE162	*	//
	A278P2	20	M39029/56-348	CE161	*	//
	A278P3	1	M39029/56-348	SP1386	*	//
		2	M39029/56-348	SP1387	*	//
		5	M39029/56-348	SP1418	*	//
		8	M39029/56-348	SP1419	*	//
	CR192	a	A523A-A02	A278P3	15	M39029/56-348
		k	A523A-A02	TB143/2	f	A523A-A01
	SP1386	*	//	P119	X	M39029/58-363
		*	//	A278P3	6	M39029/56-348
	SP1387	*	//	SP1386	*	//
		*	//	A278P3	7	M39029/56-348
	SP1418	*	//	P119	N	M39029/58-364
		*	//	SP1419	*	//
		*	//	A278P3	4	M39029/56-348
	SP1419	*	//		3	M39029/56-348
	TB129/1	N	A523A-A02		38	M39029/56-348
	TB129/4	S	A523A-A01	A278P3	16	M39029/56-348
B1A404	J119	N	M39029/56-352	PL1P5	U	M39029/58-364
		X	M39029/56-351		V	M39029/58-364

Figure 8

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.