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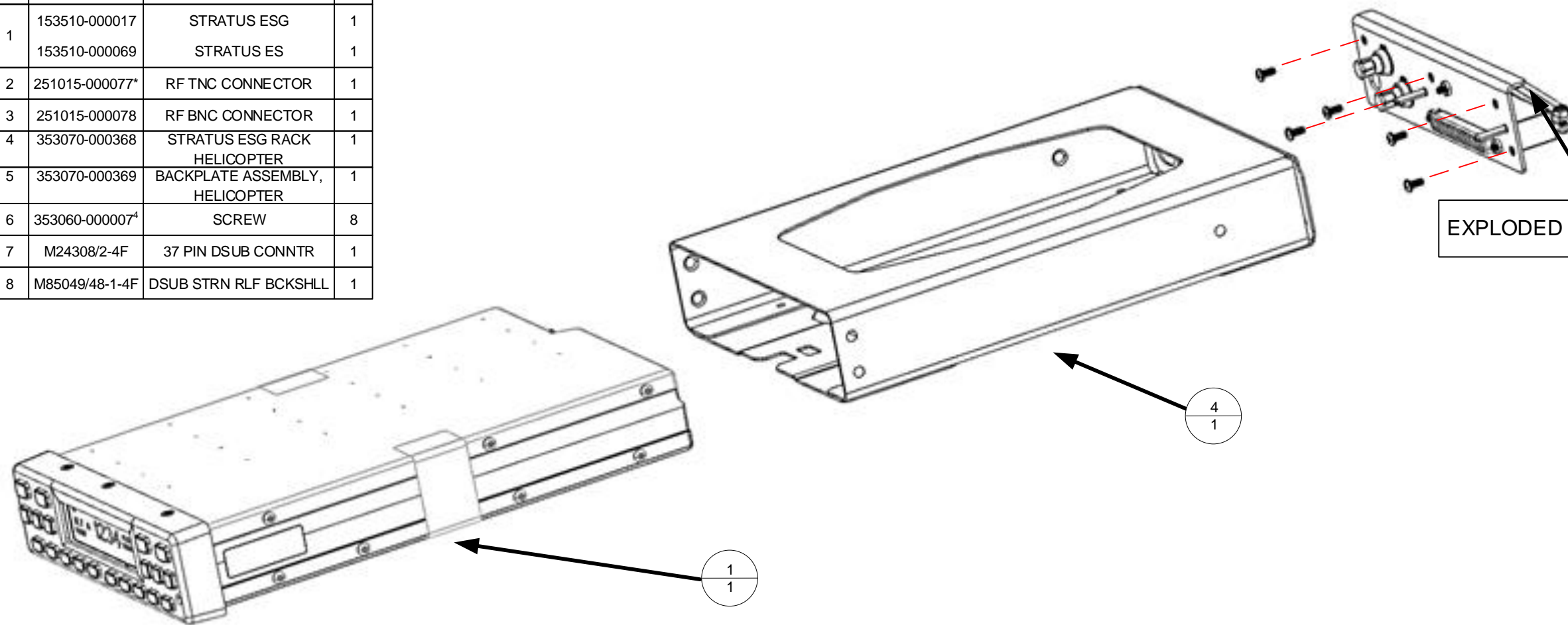
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NOTES:

THESE DRAWINGS COVER THE INSTALLATION OF STRATUS ES AND STRATUS ESG.
 1 SOME DETAIL IS REMOVED FOR CLARITY
 2 FOR AN OPTIMAL FIT, MOUNTING BRACKETS MAY BE REQUIRED BUT ARE NOT SUPPLIED. IF ADDITIONAL BRACKETS ARE NEEDED, THEY SHOULD BE BRACKETED FOR EACH INDIVIDUAL INSTALLATION.
 3 ENSURE UNIT IS SUPPORTED IN THE BACK. ADDITIONAL SUPPORT MAY BE REQUIRED.
 4 MS51957-13, OR EQUIVALENT, IS AN ALTERNATIVE TYPE SCREW FOR 353060-000007 (ITEM 6)
 * ONLY APPLICABLE FOR STRATUS ESG INSTALLATIONS

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

ITEM	PN	DESCRIPTION	QTY
1	153510-000017	STRATUS ESG	1
	153510-000069	STRATUS ES	1
2	251015-000077*	RF TNC CONNECTOR	1
3	251015-000078	RF BNC CONNECTOR	1
4	353070-000368	STRATUS ESG RACK HELICOPTER	1
5	353070-000369	BACKPLATE ASSEMBLY, HELICOPTER	1
6	353060-000007 ⁴	SCREW	8
7	M24308/2-4F	37 PIN DSUB CONNTR	1
8	M85049/48-1-4F	DSUB STRN RLF BCKSHLL	1



PARTS LISTED HERE FOR REFERENCE ONLY, REFERENCE PARTS LIST IN INSTALLATION INSTRUCTION LISTED BELOW

600840-000031 or 600840-000059

SYMBOL LEGEND

ITEM
QTY

STRATUS ES/ESG Helicopter Installation and Wiring Drawings	Appareo Systems L.L.C.		
	DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		
DRAWN BY: VJMJ 10/02/19	SIZE B	DWG NO 601837-000050	REV 1.1
SCALE NONE	SHEET 1 OF 9		

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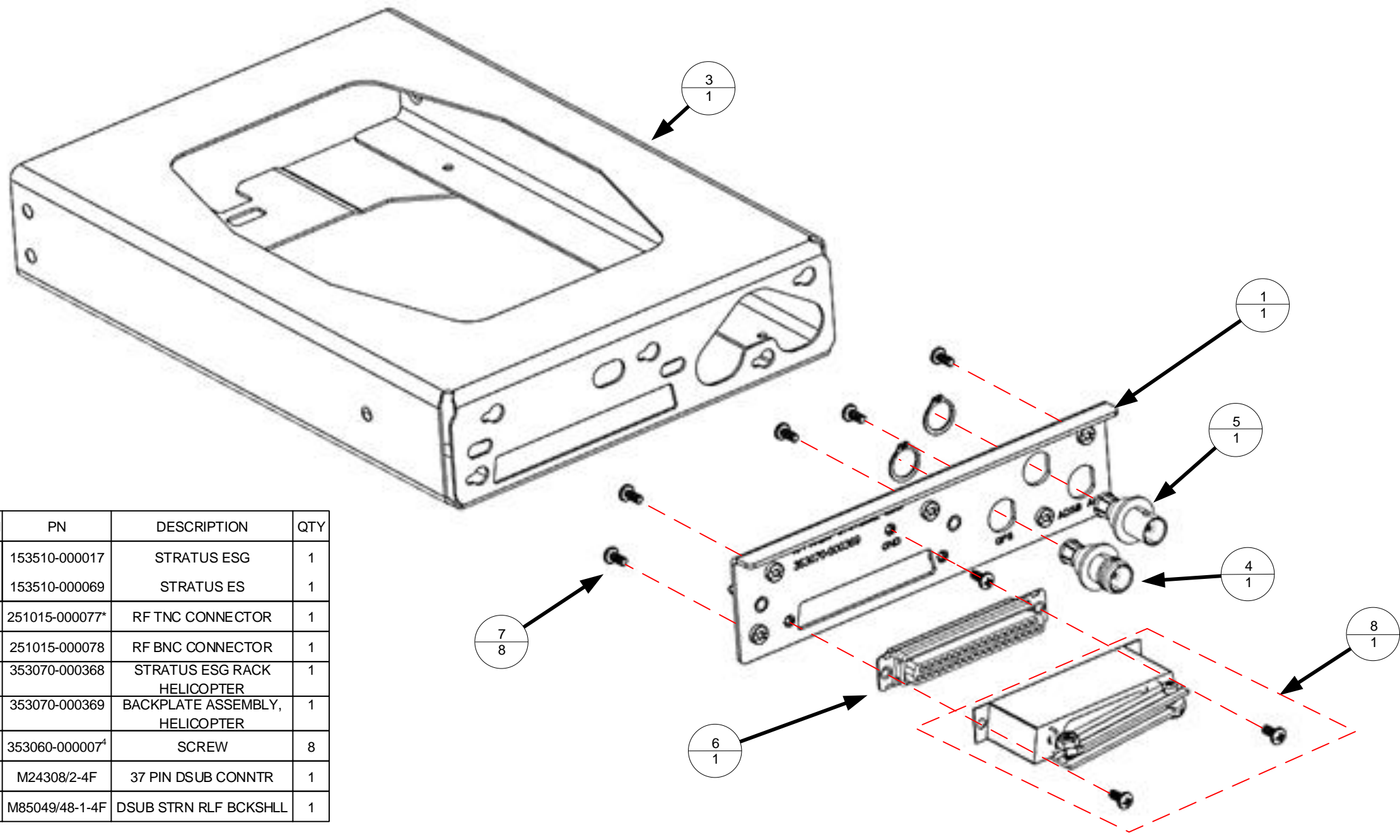
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NOTES:
 1 MS51957-13, OR EQUIVALENT, IS AN ALTERNATIVE TYPE SCREW FOR 353060-000007 (ITEM 6) SOME DETAIL IS REMOVED FOR CLARITY
 * ONLY APPLICABLE FOR STRATUS ESG INSTALLATIONS

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM



ITEM	PN	DESCRIPTION	QTY
1	153510-000017	STRATUS ESG	1
	153510-000069	STRATUS ES	1
2	251015-000077*	RF TNC CONNECTOR	1
3	251015-000078	RF BNC CONNECTOR	1
4	353070-000368	STRATUS ESG RACK HELICOPTER	1
5	353070-000369	BACKPLATE ASSEMBLY, HELICOPTER	1
6	353060-000007 ¹	SCREW	8
7	M24308/2-4F	37 PIN DSUB CONNTR	1
8	M85049/48-1-4F	DSUB STRN RLF BCKSHLL	1

PARTS LISTED HERE FOR REFERENCE ONLY, REFERENCE PARTS LIST IN INSTALLATION INSTRUCTION LISTED BELOW

SYMBOL LEGEND

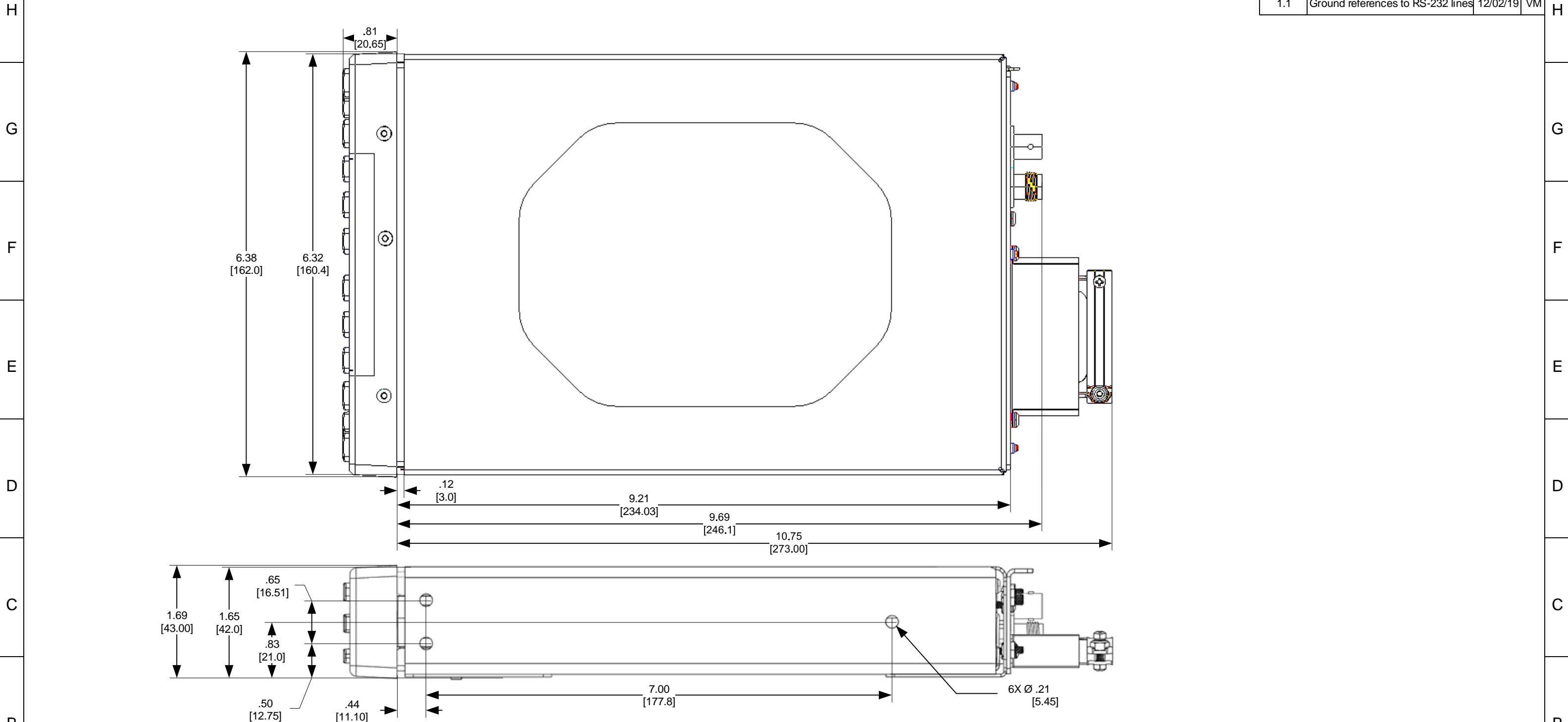
ITEM	QTY
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600840-000031 or 600840-000059

DESCRIPTION: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		Appareo Systems L.L.C.	
DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		SIZE B	REV 1.1
DRAWN BY VJMJ 10/02/19		DWG NO 601837-000050	SHEET 2 OF 9
SCALE NONE		SHEET 2 OF 9	

NOTES:
1 SOME DETAIL IS REMOVED FOR CLARITY

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM



PARTS LISTED HERE FOR REFERENCE ONLY,
REFERENCE PARTS LIST IN INSTALLATION
INSTRUCTION LISTED BELOW

600840-000031 or 600840-000059

SYMBOL LEGEND

ITEM
QTY

X.XX INCHES
[X.XX] MILLIMETERS

DESCRIPTION:		Appareo Systems L.L.C.	
STRATUS ES/ESG Helicopter Installation and Wiring Drawings		DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings	
SIZE B	DWG NO 601837-000050	REV 1.1	
DRAWN BY VJMJ 10/02/19	SCALE NONE	SHEET 3 OF 9	

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NOTES:
 SOME DETAIL IS REMOVED FOR CLARITY
 - DIMENSIONS LISTED ARE MINIMUMS

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

H

H

G

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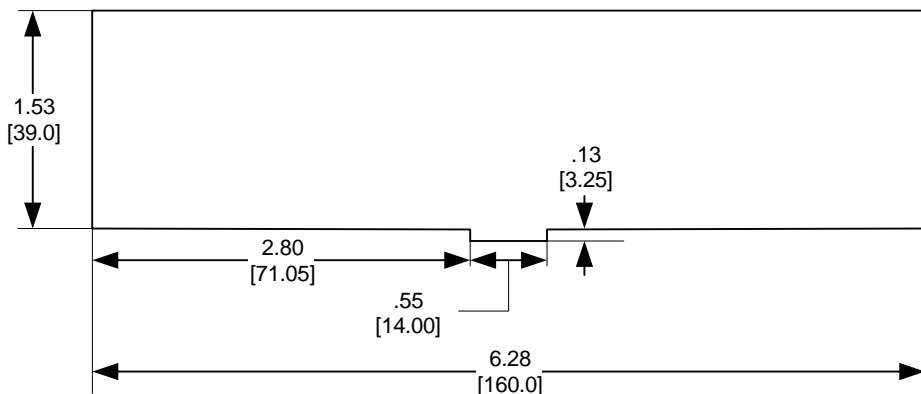
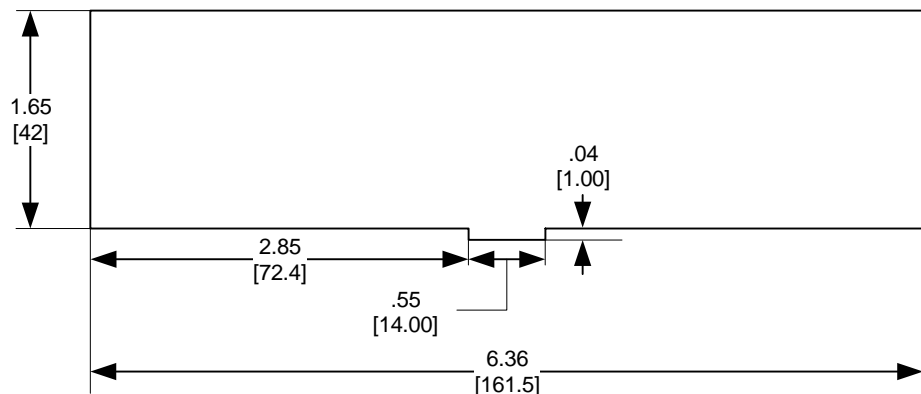
F

RADIO CUT OUT
 RACK MOUNTED IN FRONT OF PANEL

RADIO CUT OUT
 RACK MOUNTED BEHIND PANEL
 MAX PANEL THICKNESS .12 [3.0mm]

E

E



D

D

C

C

B

B

A

A

PARTS LISTED HERE FOR REFERENCE ONLY,
 REFERENCE PARTS LIST IN INSTALLATION
 INSTRUCTION LISTED BELOW

ITEM QTY

X.XX Inches
 [X.XX] Millimeters

600840-000031 or 600840-000059

DESCRIPTION: STRATUS ES/ESG Helicopter Installation and Wiring Drawings	Appareo Systems L.L.C.		
	DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		
DRAWN BY VJMJ 10/02/19	SIZE B	DWG NO 601837-000050	REV 1.1
	SCALE NONE	SHEET 4 OF 9	

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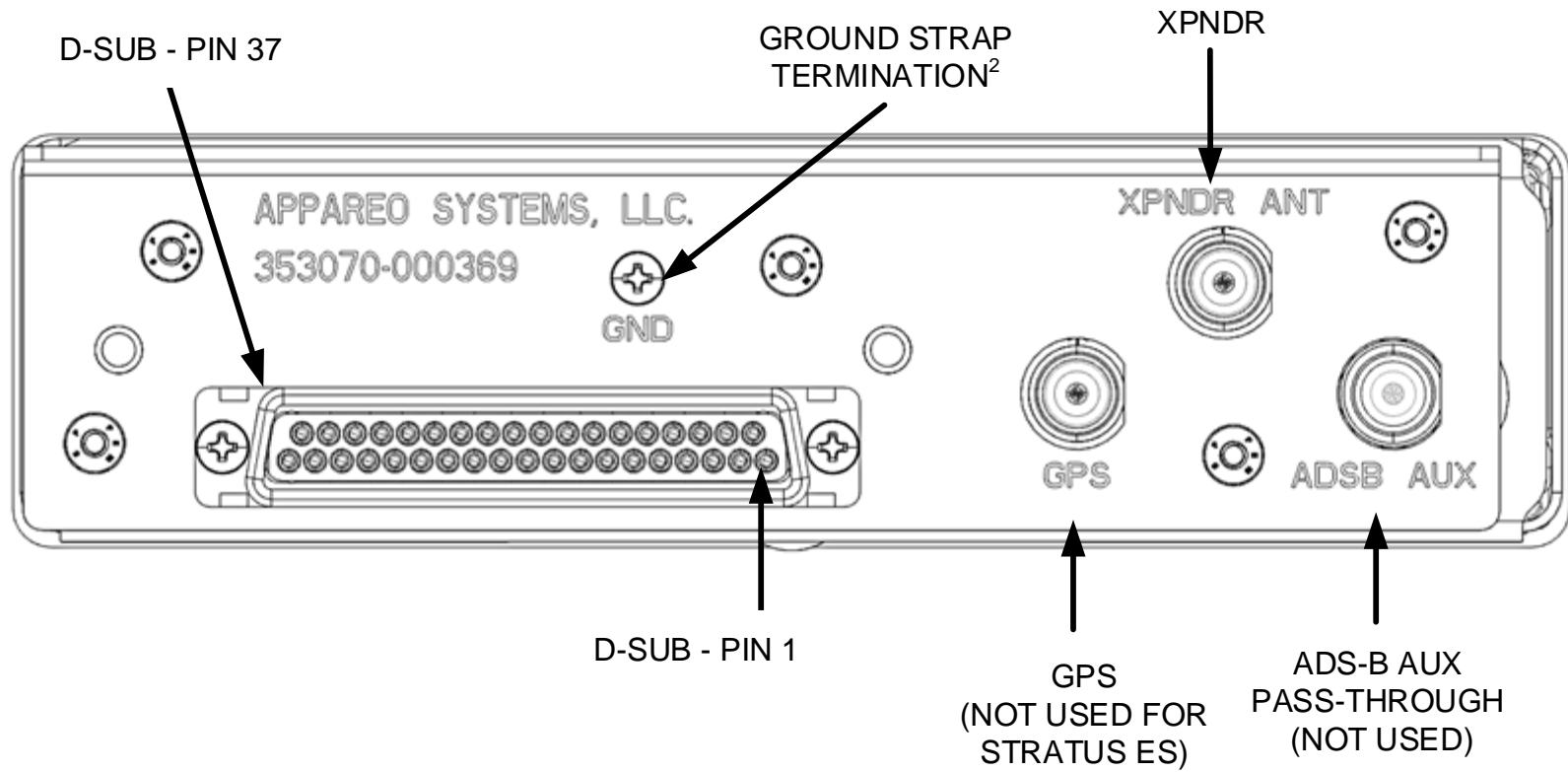
1

NOTES:
 SOME DETAIL IS REMOVED FOR CLARITY
 1 MAX CURRENT DRAW COMBINED FOR AUX +5V POWER IS 1.25 AMP. THIS WILL RESULT IN AN INCREASE OF 0.25 AMP @28VDC AND 0.47 AMP @ 14VDC
 2 BOND IMPEDENCE BETWEEN AIRCRAFT GROUND AND UNIT CHASSIS MUST BE LESS THAN 2.5 MILLIOHMS. PROVIDED FOR TERMINATION IS A #4-40 THREADED GROUNDING POINT.

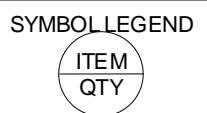
REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

Stratus ES D-SUB PINOUT DESCRIPTIONS					
PIN	DESCRIPTION	I/O	PIN	DESCRIPTION	I/O
1	AIRCRAFT GROUND		20	AIRCRAFT GROUND	
2	AIRCRAFT POWER		21	AIRCRAFT POWER	
3	RS232 EXTERNAL GPS	IN	22	RS232-TX MAINTENANCE	OUT
4	-		23	RS232-TX AUX	OUT
5	RS232-RX ALTITUDE	IN	24	RS232-TX ALTITUDE	OUT
6	RS232-TX GPS 1PPS	OUT	25	EXTERNAL IDENT	IN
7	EXTERNAL STANDBY	IN	26	EXTERNAL SQUAT SWITCH	IN
8	SOFTWARE UPDATE ENABLE	IN	27	ALTITUDE D4	IN
9	ALTITUDE A1	IN	28	ALTITUDE A2	IN
10	ALTITUDE A4	IN	29	ALTITUDE B1	IN
11	ALTITUDE B2	IN	30	ALTITUDE B4	IN
12	ALTITUDE C1	IN	31	ALTITUDE C2	IN
13	ALTITUDE C4	IN	32	EXTERNAL SUPPRESS I/O	I/O
14	EXTERNAL SUPPRESS IN	IN	33	14V LIGHTING BUS HI	IN
15	28V LIGHTING BUS HI	IN	34	-	
16	-		35	-	
17	AUX +5V POWER	OUT	36	AUX +5V POWER	OUT
18	EXTERNAL GPS COMMON (GND)		37	ALTITUDE COMMON (GND)	
19	AUX +5V POWER	OUT			

Stratus ESG D-SUB PINOUT DESCRIPTIONS					
PIN	DESCRIPTION	I/O	PIN	DESCRIPTION	I/O
1	AIRCRAFT GROUND		20	AIRCRAFT GROUND	
2	AIRCRAFT POWER		21	AIRCRAFT POWER	
3	RS232-RX MAINTENANCE	IN	22	RS232-TX MAINTENANCE	OUT
4	-		23	RS232-TX AUX	OUT
5	RS232-RX ALTITUDE	IN	24	RS232-TX ALTITUDE	OUT
6	RS232-TX GPS 1PPS	OUT	25	EXTERNAL IDENT	IN
7	EXTERNAL STANDBY	IN	26	EXTERNAL SQUAT SWITCH	IN
8	SOFTWARE UPDATE ENABLE	IN	27	ALTITUDE D4	IN
9	ALTITUDE A1	IN	28	ALTITUDE A2	IN
10	ALTITUDE A4	IN	29	ALTITUDE B1	IN
11	ALTITUDE B2	IN	30	ALTITUDE B4	IN
12	ALTITUDE C1	IN	31	ALTITUDE C2	IN
13	ALTITUDE C4	IN	32	EXTERNAL SUPPRESS I/O	I/O
14	EXTERNAL SUPPRESS IN	IN	33	14V LIGHTING BUS HI	IN
15	28V LIGHTING BUS HI	IN	34	-	
16	-		35	-	
17	AUX +5V POWER	OUT	36	AUX +5V POWER	OUT
18	AUX GROUND		37	ALTITUDE COMMON (GND)	
19	AUX +5V POWER	OUT			



PARTS LISTED HERE FOR REFERENCE ONLY, REFERENCE PARTS LIST IN INSTALLATION INSTRUCTION LISTED BELOW

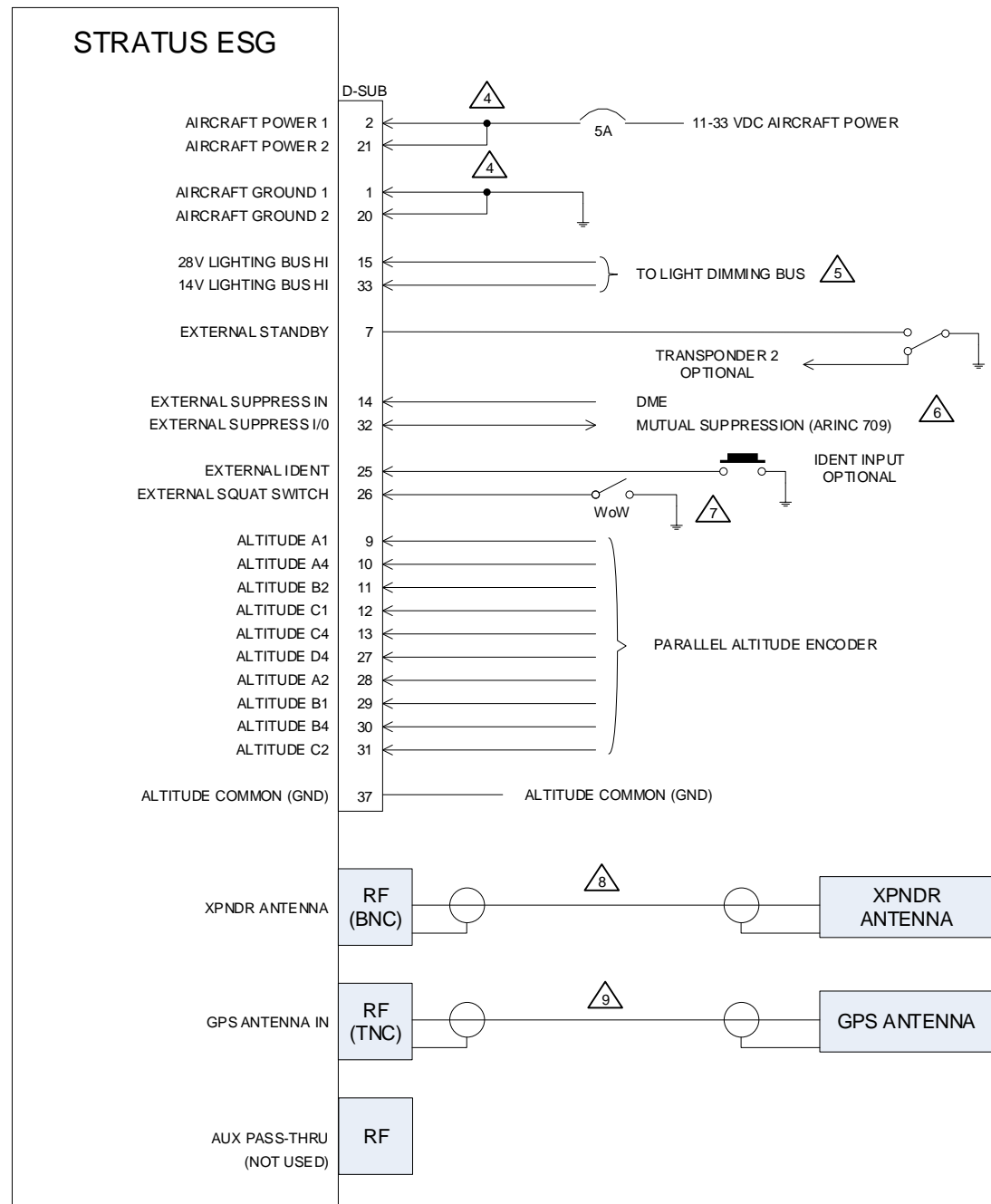


600840-000031 or 600840-000059

DESCRIPTION: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		Appareo Systems L.L.C.		
DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings				
SIZE B		DWG NO 601837-000050	REV 1.1	
DRAWN BY VJMJ 10/02/19	SCALE NONE	SHEET 5 OF 9		

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

ESG INTERCONNECT W/ PARALLEL ALTITUDE ENCODER



NOTES:

- SOME DETAIL IS REMOVED FOR CLARITY
- ALL WIRING TO BE PERFORMED IN ACCORDANCE WITH AC 43.13-2B (AS AMENDED), UNLESS OTHERWISE SPECIFIED, ALL WIRING TO BE DONE WITH 22 AWG WIRING
 - DRAWING DEPICTS INSTALLATION WITH A PARALLEL ALTITUDE ENCODER. SEE SHEET 7 FOR SERIAL ENCODER WIRING
 - PIN 24 (RS232 TX ALTITUDE) CAN BE USED AS A SERIAL ALTITUDE SOURCE FOR OTHER EQUIPMENT
 - FROM SPLICE TO UNIT, WIRE LENGTH SHOULD NOT EXCEED 6 INCHES
 - CONNECT ONLY 1 INPUT TO LIGHTING BUS
- TO CONTROL BRIGHTNESS WITH THE AMBIENT LIGHT SENSOR, DO NOT CONNECT THESE PINS AND SELECT THE AMBIENT LIGHT SENSOR DURING BACKLIGHT SOURCE CONFIGURATION
 - ONLY ONE SUPPRESSION SOURCE MAY BE CONNECTED AT ONE TIME (OPTIONAL)
 - OPTIONAL INSTALLATION. TYPICALLY CONNECTED TO WEIGHT ON WHEELS SWITCH. REFER TO AIRCRAFT MANUAL TO DETERMINE APPLICABILITY.
 - USING RG400, THE MAXIMUM CABLE LENGTH IS 14 FEET WITH A MAXIMUM OF 2 dB LOSS. IF THE INSTALLATION REQUIRES MORE LENGTH, SELECT OTHER 50 OHM COAX THAT WILL PROVIDE A MAXIMUM 2 dB LOSS.
 - ALL WIRING SHOULD HAVE A MINIMUM OF 2 dB LOSS AND A MAXIMUM OF 7 dB LOSS. EACH BNC OR TNC CONNECTION IS ESTIMATED TO HAVE A 0.2 dB LOSS

PARTS LISTED HERE FOR REFERENCE ONLY,
REFERENCE PARTS LIST IN INSTALLATION
INSTRUCTION LISTED BELOW

600840-000031 or 600840-000059

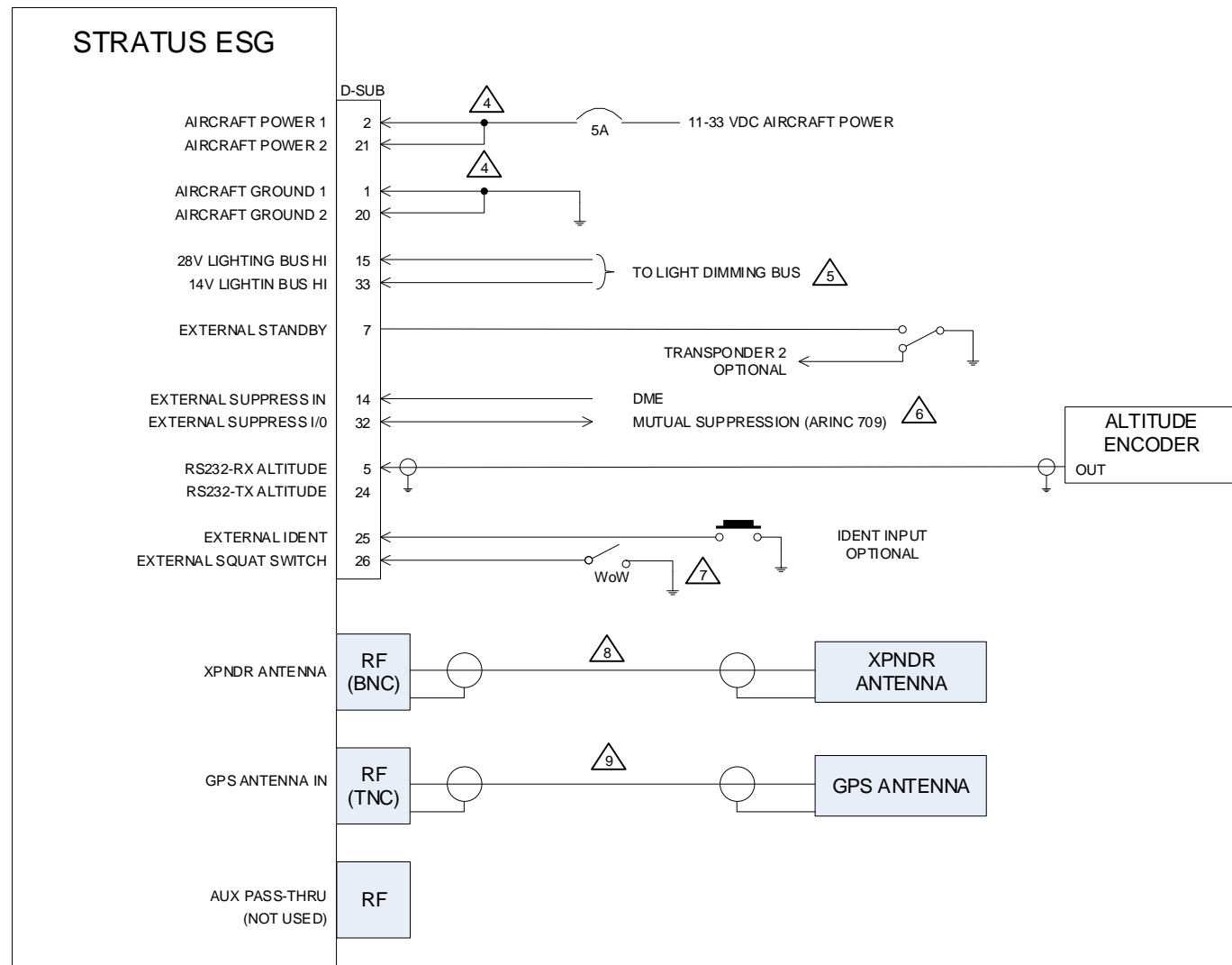
SYMBOL LEGEND

ITEM
QTY

DESCRIPTION: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		Appareo Systems L.L.C.	
		DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings	
	SIZE B	DWG NO 601837-000050	REV 1.1
DRAWN BY VJMJ 10/02/19	SCALE NONE	SHEET 6 OF 9	

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

ESG INTERCONNECT W/ SERIAL ALTITUDE ENCODER



NOTES:

- SOME DETAIL IS REMOVED FOR CLARITY
- ALL WIRING TO BE PERFORMED IN ACCORDANCE WITH AC 43.13-2B (AS AMENDED), UNLESS OTHERWISE SPECIFIED, ALL WIRING TO BE DONE WITH 22 AWG WIRING
 - DRAWING DEPICTS INSTALLATION WITH A SERIAL ENCODER. SEE SHEET 6 FOR PARALLEL ENCODER WIRING
 - PIN 24 (RS232 TX ALTITUDE) CAN BE USED AS A SERIAL ALTITUDE SOURCE FOR OTHER EQUIPMENT
 - FROM SPLICE TO UNIT, WIRE LENGTH SHOULD NOT EXCEED 6 INCHES
 - CONNECT ONLY 1 INPUT TO LIGHTING BUS
 - TO CONTROL BRIGHTNESS WITH THE AMBIENT LIGHT SENSOR, DO NOT CONNECT THESE PINS AND SELECT THE AMBIENT LIGHT SENSOR DURING BACKLIGHT SOURCE CONFIGURATION
 - ONLY ONE SUPPRESSION SOURCE MAY BE CONNECTED AT ONE TIME (OPTIONAL)
 - OPTIONAL INSTALLATION. TYPICALLY CONNECTED TO WEIGHT ON WHEELS SWITCH. REFER TO AIRCRAFT MANUAL TO DETERMINE APPLICABILITY.
 - USING RG400, THE MAXIMUM CABLE LENGTH IS 14 FEET WITH A MAXIMUM OF 2 dB LOSS. IF THE INSTALLATION REQUIRES MORE LENGTH, SELECT OTHER 50 OHM COAX THAT WILL PROVIDE A MAXIMUM 2 dB LOSS.
 - ALL WIRING SHOULD HAVE A MINIMUM OF 2 dB LOSS AND A MAXIMUM OF 7 dB LOSS. EACH BNC OR TNC CONNECTION IS ESTIMATED TO HAVE A 0.2 dB LOSS

PARTS LISTED HERE FOR REFERENCE ONLY,
REFERENCE PARTS LIST IN INSTALLATION
INSTRUCTION LISTED BELOW

600840-000031 or 600840-000059

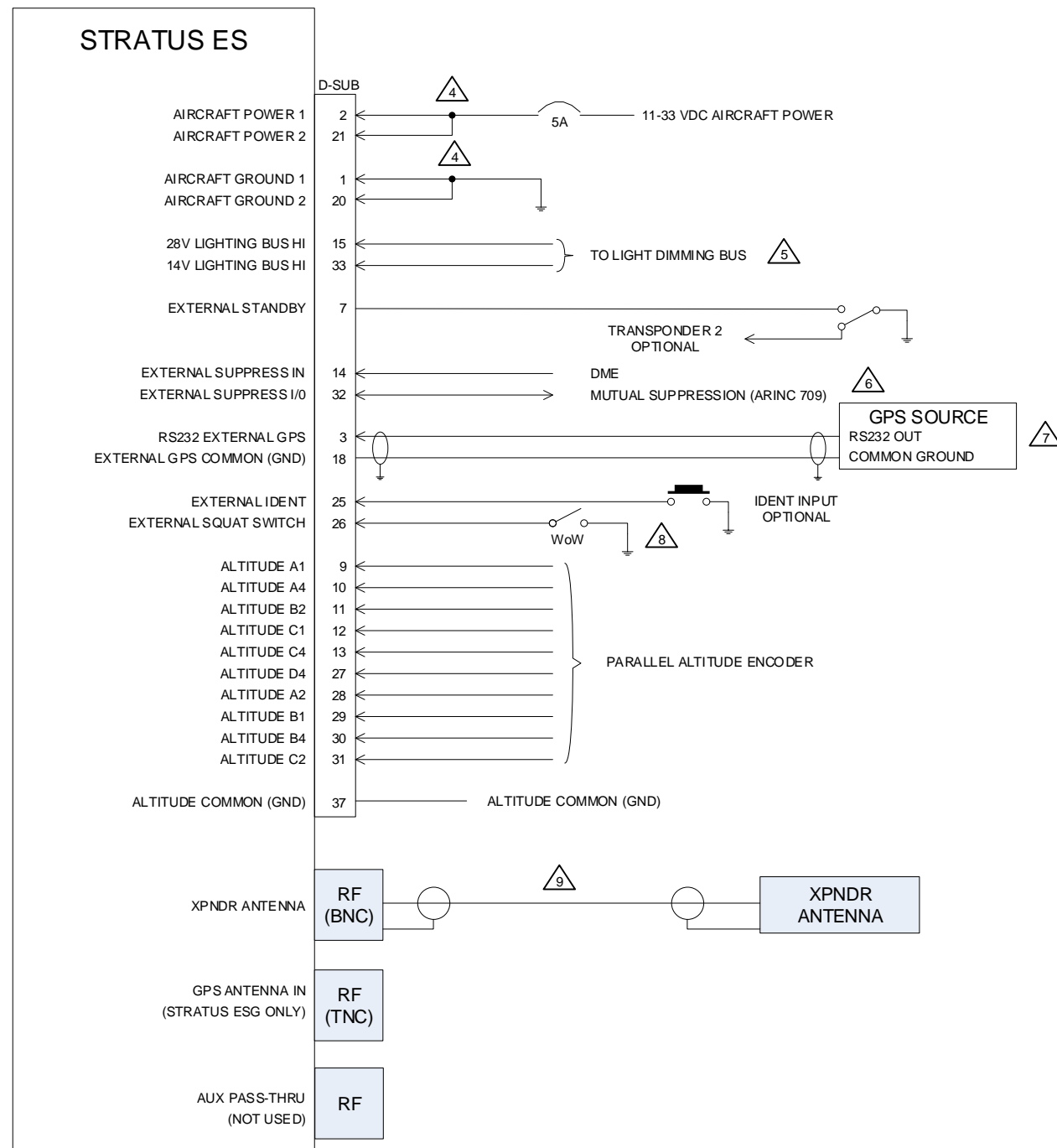
SYMBOL LEGEND

ITEM
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DESCRIPTION: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		Appareo Systems L.L.C.	
		DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings	
DRAWN BY: VJMJ 10/02/19	SIZE B	DWG NO 601837-000050	REV 1.1
SCALE NONE		SHEET 7 OF 9	

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

ES INTERCONNECT W/ PARALLEL ALTITUDE ENCODER



NOTES:

- SOME DETAIL IS REMOVED FOR CLARITY
- ALL WIRING TO BE PERFORMED IN ACCORDANCE WITH AC 43.13-2B (AS AMENDED), UNLESS OTHERWISE SPECIFIED, ALL WIRING TO BE DONE WITH 22 AWG WIRING
 - DRAWING DEPICTS INSTALLATION WITH A PARALLEL ALTITUDE ENCODER. SEE SHEET 9 FOR SERIAL ENCODER WIRING
 - PIN 24 (RS232 TX ALTITUDE) CAN BE USED AS A SERIAL ALTITUDE SOURCE FOR OTHER EQUIPMENT
 - FROM SPLICE TO UNIT, WIRE LENGTH SHOULD NOT EXCEED 6 INCHES
 - CONNECT ONLY 1 INPUT TO LIGHTING BUS
- TO CONTROL BRIGHTNESS WITH THE AMBIENT LIGHT SENSOR, DO NOT CONNECT THESE PINS AND SELECT THE AMBIENT LIGHT SENSOR DURING BACKLIGHT SOURCE CONFIGURATION
 - ONLY ONE SUPPRESSION SOURCE MAY BE CONNECTED AT ONE TIME (OPTIONAL)
 - FOR APPROVED EXTERNAL GPS SOURCES SEE INSTALLATION INSTRUCTIONS SECTION 1.11.1.1
 - OPTIONAL INSTALLATION. TYPICALLY CONNECTED TO WEIGHT ON WHEELS SWITCH. REFER TO AIRCRAFT MANUAL TO DETERMINE APPLICABILITY.
 - USING RG400, THE MAXIMUM CABLE LENGTH IS 14 FEET WITH A MAXIMUM OF 2 dB LOSS. IF THE INSTALLATION REQUIRES MORE LENGTH, SELECT OTHER 50 OHM COAX THAT WILL PROVIDE A MAXIMUM 2 dB LOSS.

PARTS LISTED HERE FOR REFERENCE ONLY,
REFERENCE PARTS LIST IN INSTALLATION
INSTRUCTION LISTED BELOW

600840-000031 or 600840-000059

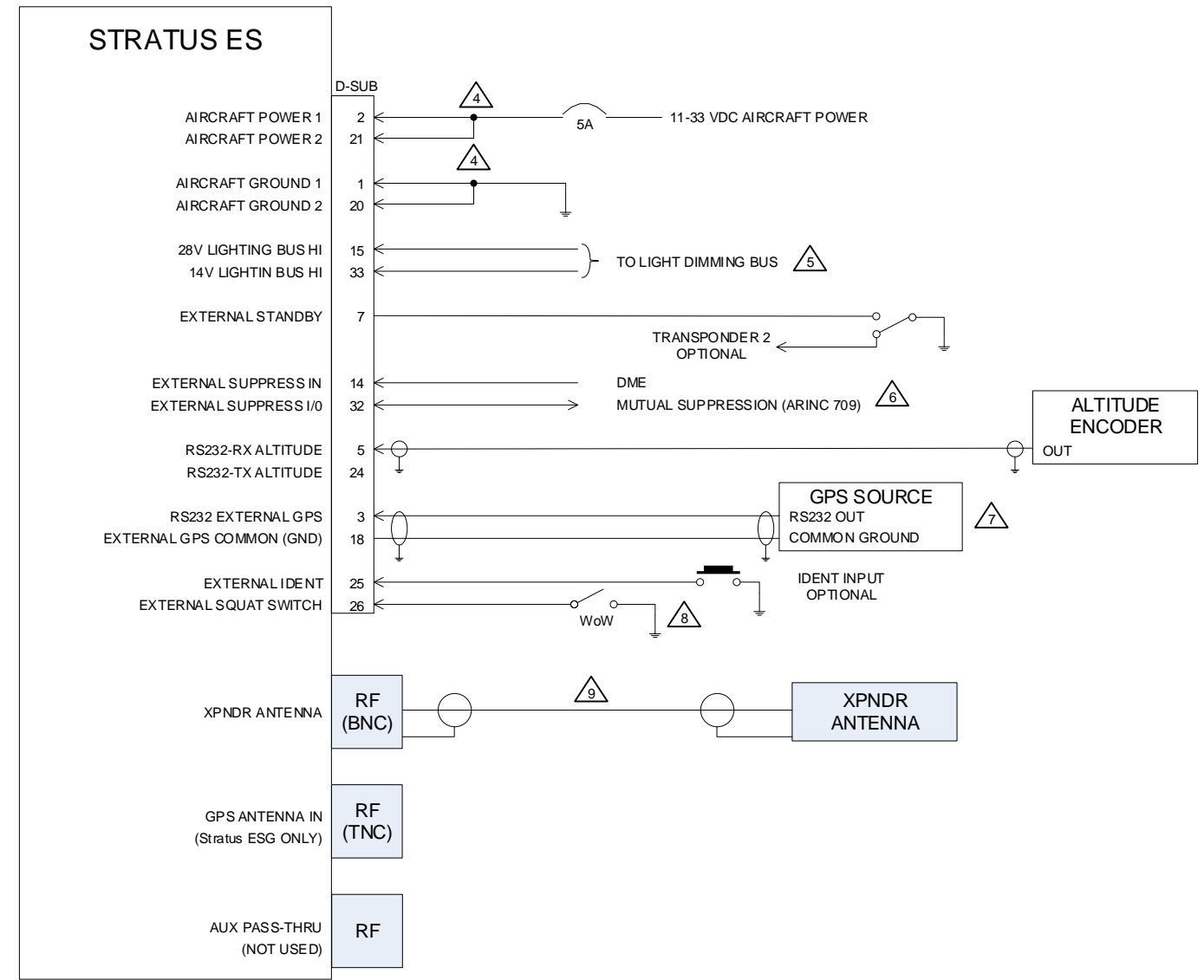
SYMBOL LEGEND

ITEM
QTY

DESCRIPTION:		Appareo Systems L.L.C.	
STRATUS ES/ESG Helicopter Installation and Wiring Drawings		DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings	
SIZE B	DWG NO 601837-000050	REV 1.1	
DRAWN BY VJMJ 10/02/19	SCALE NONE	SHEET 8 OF 9	

REV.	DESCRIPTION	DATE	BY
1.0	Initial Release	10/02/19	VM
1.1	Ground references to RS-232 lines	12/02/19	VM

ES INTERCONNECT W/ SERIAL ALTITUDE ENCODER



NOTES:

- SOME DETAIL IS REMOVED FOR CLARITY
- 1 ALL WIRING TO BE PERFORMED IN ACCORDANCE WITH AC 43.13-2B (AS AMENDED), UNLESS OTHERWISE SPECIFIED, ALL WIRING TO BE DONE WITH 22 AWG WIRING
- 2 DRAWING DEPICTS INSTALLATION WITH A SERIAL ENCODER. SEE SHEET 8 FOR PARALLEL ENCODER WIRING
- 3 PIN 24 (RS232 TX ALTITUDE) CAN BE USED AS A SERIAL ALTITUDE SOURCE FOR OTHER EQUIPMENT
- 4 FROM SPLICE TO UNIT, WIRE LENGTH SHOULD NOT EXCEED 6 INCHES
- 5 CONNECT ONLY 1 INPUT TO LIGHTING BUS
- TO CONTROL BRIGHTNESS WITH THE AMBIENT LIGHT SENSOR, DO NOT CONNECT THESE PINS AND SELECT THE AMBIENT LIGHT SENSOR DURING BACKLIGHT SOURCE CONFIGURATION
- 6 ONLY ONE SUPPRESSION SOURCE MAY BE CONNECTED AT ONE TIME (OPTIONAL)
- 7 FOR APPROVED EXTERNAL GPS SOURCES SEE INSTALLATION INSTRUCTIONS SECTION 1.11.1.1
- 8 OPTIONAL INSTALLATION. TYPICALLY CONNECTED TO WEIGHT ON WHEELS SWITCH. REFER TO AIRCRAFT MANUAL TO DETERMINE APPLICABILITY.
- 9 USING RG400, THE MAXIMUM CABLE LENGTH IS 14 FEET WITH A MAXIMUM OF 2 dB LOSS. IF THE INSTALLATION REQUIRES MORE LENGTH, SELECT OTHER 50 OHM COAX THAT WILL PROVIDE A MAXIMUM 2 dB LOSS.

PARTS LISTED HERE FOR REFERENCE ONLY,
REFERENCE PARTS LIST IN INSTALLATION
INSTRUCTION LISTED BELOW

600840-000031 or 600840-000059

SYMBOL LEGEND

ITEM QTY

DESCRIPTION: STRATUS ES/ESG Helicopter Installation and Wiring Drawings	Appareo Systems L.L.C.		
	DRAWING TITLE: STRATUS ES/ESG Helicopter Installation and Wiring Drawings		
DRAWN BY VJMJ 10/02/19	SIZE B	DWG NO 601837-000050	REV 1.1
SCALE NONE	SHEET 9 OF 9		