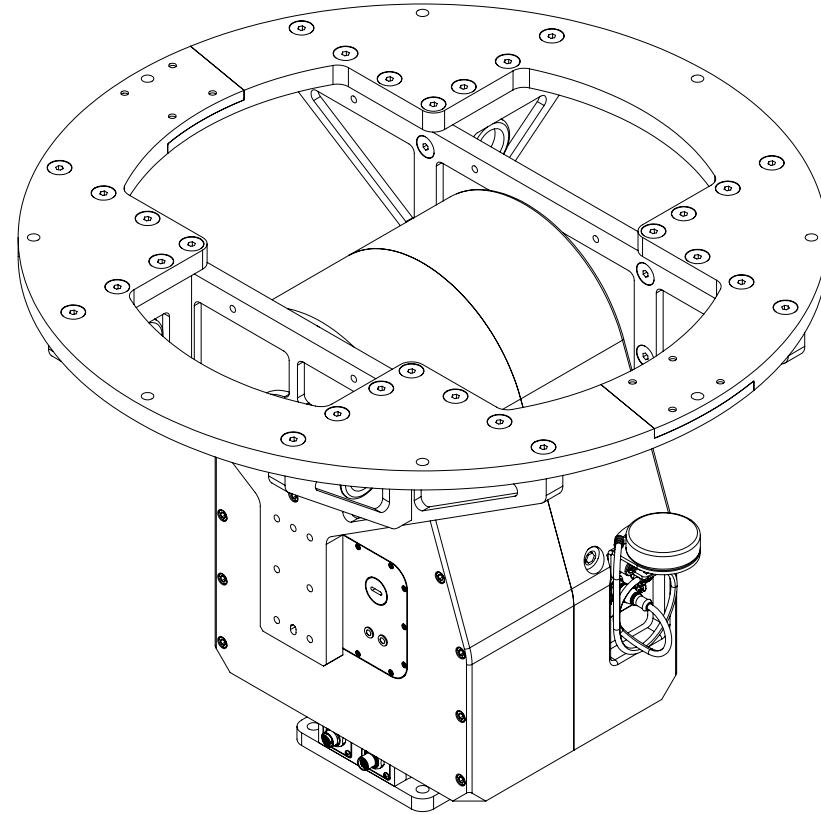


REV	DESCRIPTION	DATE	APPROVED
B	CN600564	2018-07-25	CLC

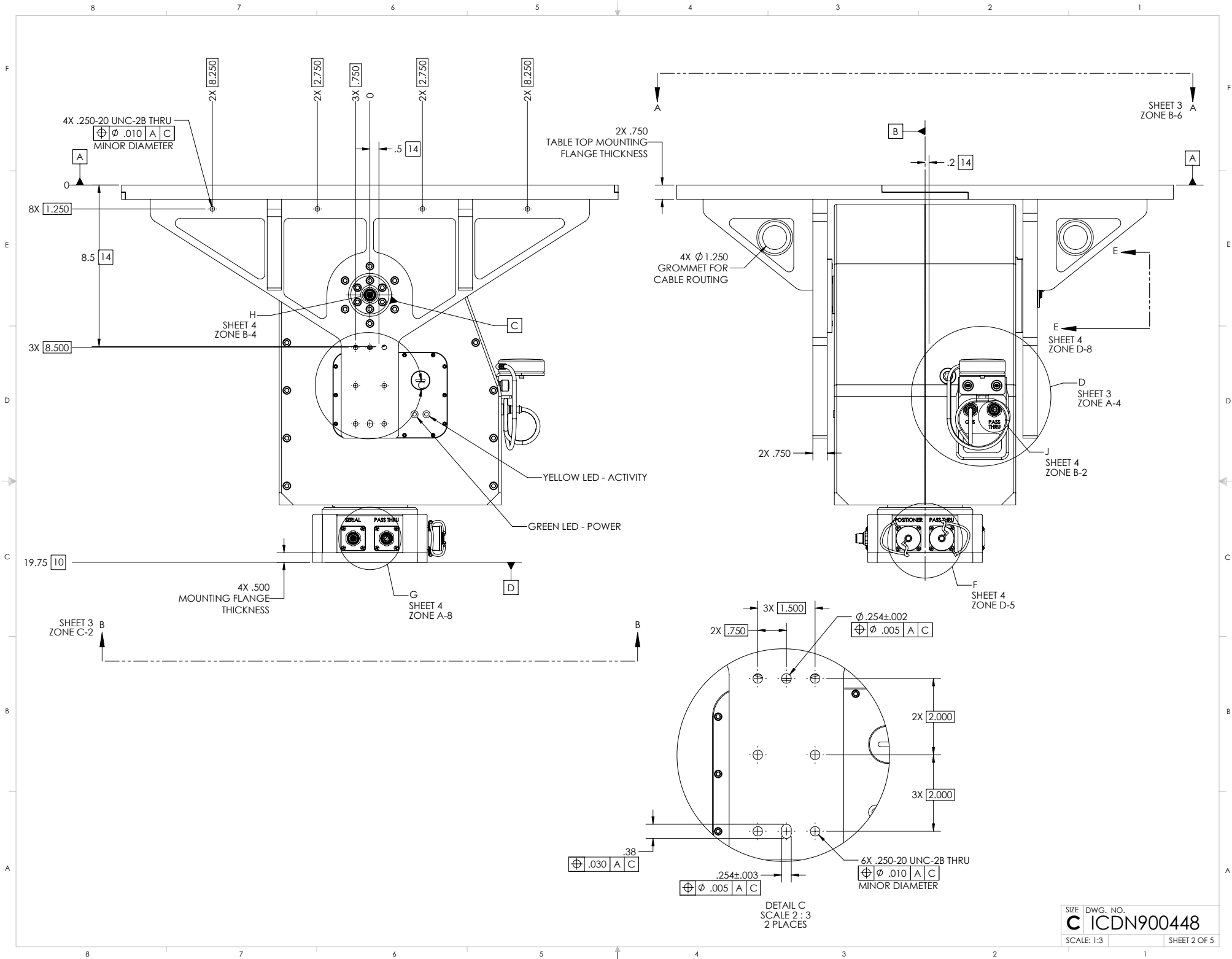
NOTES: UNLESS OTHERWISE SPECIFIED

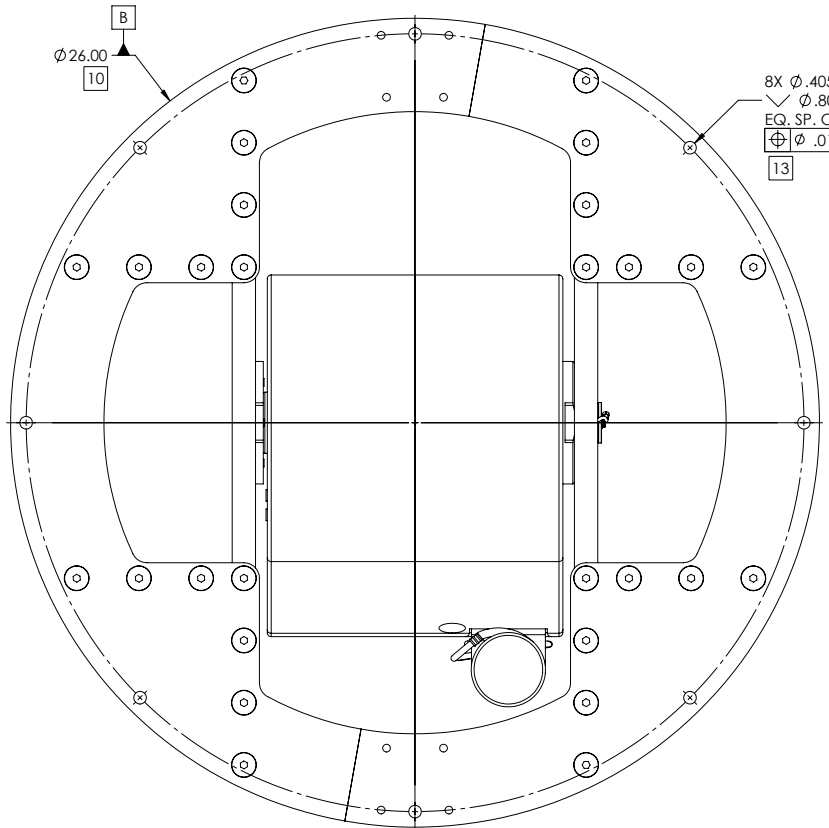
1. QPAR LINKALIGN-360FER-50 CONFIGURABLE OPTIONS PER TABLE I
2. USE INTERFACE CONTROL DRAWING IN CONJUNCTION WITH DATASHEET N500140
3. 48 - 56VDC POWER SUPPLY INCLUDED WITH POSITIONER. NOT SHOWN IN DRAWING
4. HARD COAT ANODIZE ALUMINUM CONSTRUCTION WITH STAINLESS STEEL HARDWARE
5. 400° (+/-200°) AZIMUTH TRAVEL WITH 0.7°/SEC DRIVE RATE (NO LOAD)
6. 110° (+110°/0°) ELEVATION TRAVEL WITH 0.7°/SEC DRIVE RATE (NO LOAD)
7. -22° TO 140°F (-30° TO 60°C) OPERATIONAL TEMPERATURE RANGE. -40 TO 158°F (-40 TO 70°C) NON-OPERATIONAL TEMPERATURE RANGE
8. 0.1° FEEDBACK RESOLUTION IN ALL AXES
9. AZIMUTH AND ELEVATION BACKLASH LESS THAN 0.05° IN BOTH AXES
10. 19.75" (50.2 cm) HIGH X 26.0" (66.0 cm) WIDE X 26.0" (66.0 cm) DEEP. DIMENSIONS APPLY WHEN POSITIONER IS AT 0° AZIMUTH AND 0° ELEVATION ANGLES
11. WEIGHT APPROXIMATELY 112 LBS (50.8 kg) OR 228 LBS (103.4 kg) WITH COUNTERWEIGHT KIT (-CTWT)
12. PAYLOAD SHALL NOT EXCEED 500 LBS OR 100 FT-LBS OF TORQUE OR 350 FT-LBS OF TORQUE WITH COUNTERWEIGHT KIT ABOUT THE ELEVATION AXIS. TO CALCULATE TORQUE, TAKE THE DISTANCE FROM THE PAYLOAD CENTER OF GRAVITY TO DATUM -C- IN FEET AND MULTIPLY BY THE PAYLOAD WEIGHT
13. TABLE TOP MOUNTING HOLES
14. CENTER OF GRAVITY 0.2" (0.5 cm) IN THE X-DIRECTION, 11.3" (28.7cm) IN THE Y-DIRECTION AND 0.5" (1.3 cm) IN THE Z-DIRECTION (WITHOUT COUNTERWEIGHT KIT)



BUILDING A PART NUMBER		STANDARD OPTIONS
LA-360FER	50	100
		<<EXAMPLE
<b>SHIELDED ETHERNET CABLE STANDARD LENGTHS</b>		
050 = 50 ft		
100 = 100 ft		
150 = 150 ft		
200 = 200 ft		
250 = 250 ft		
300 = 300 ft		
XXX = Custom length in feet		
XXXC = Add "C" to end of cable length for unterminated mating connector		
<b>CUSTOM CONFIGURATION</b>		
= Standard options - leave blank		
CW = (2) Adjustable 50 lb counterweights with extension arms. Max elevation torque of 350 ft-lbs		
<b>MOTOR DRIVES AND PAYLOAD</b>		
50 = Az 100 ft-lbs @ 0.7°/s, El 100 ft-lbs @ 0.7°/s, 500 lb payload. Typically paired with 4-8 ft antenna (+/-200° azimuth, +110/0° elevation)		
<b>MODEL</b>		
LA-360FER = LinkAlign-360FER (See motor drives and payload section for positioner travel range info)		

SYMBOL KEY		UNLESS OTHERWISE SPECIFIED:		DRAWN		C. CHEYNE		2017-03-13		QPAR ANTENNAS USA, LLC	
□	NOTE	○	PL ITEMS	CHECKED	S. CHEYNE	2017-03-13	TITLE:				
<b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF QPAR/USA. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF QPAR ANTENNAS USA IS PROHIBITED.				ME APPR.	S. CHEYNE	2017-03-15	QPAR LINK-ALIGN-360FER-50 INTERFACE CONTROL DRAWING				
DIMENSIONS ARE IN INCHES TOLERANCES ANGLE ± .5 DEGREES TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .010 INTERPRET DIM AND TOL PER ASME Y14.5M - 1994				EE APPR.			PART NO.		SIZE	ICWG. NO.	REV
<b>THIRD ANGLE PROJECTION</b>  DO NOT SCALE DRAWING				<b>SEE TABLE I</b>			<b>C</b>		<b>ICDN900448</b>	<b>B</b>	SCALE: 1:3 SHEET 1 OF 5
QPAR ANTENNAS USA, LLC San Diego, CA 92020 www.qparusa.com											

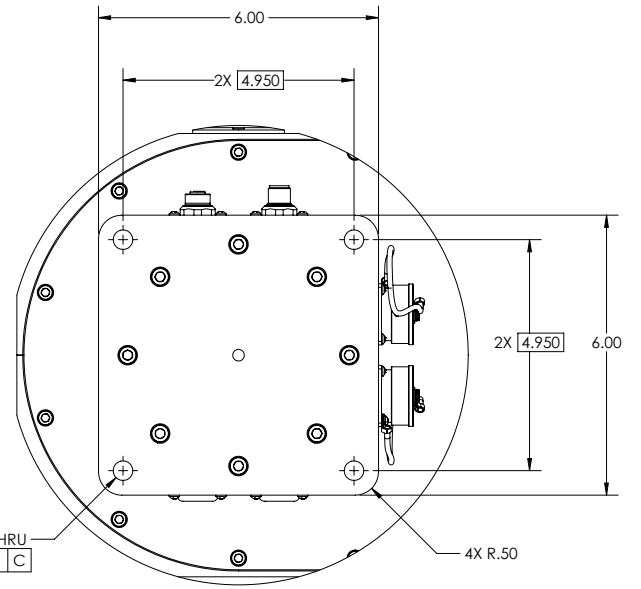




Ø 26.00  
10

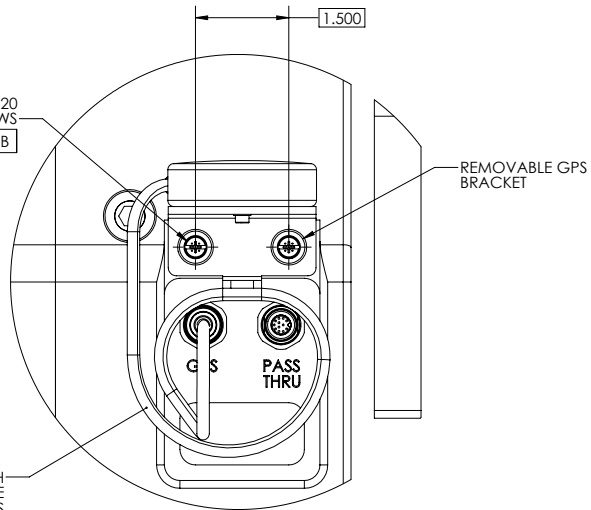
8X Ø.405±.005 THRU  
 ✓ Ø.800 X 82° FAR SIDE  
 EQ. SP. ON Ø25.000 B.C.  
 ⊕ Ø .010 A B  
 13

VIEW A-A  
 SHEET 2  
 ZONE F-1



4X Ø.420±.005 THRU  
 ⊕ Ø .010 D B C

VIEW B-B  
 SHEET 2  
 ZONE B-8  
 SCALE 1 : 2

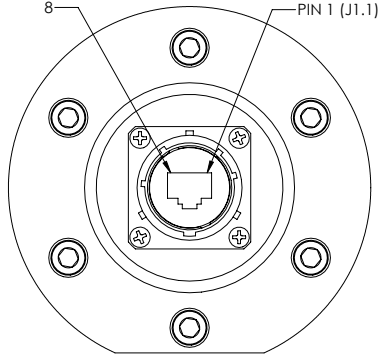


2X .250-20  
 CAPTIVE THUMB SCREWS  
 ⊕ Ø .010 A B

REMOVABLE GPS  
 BRACKET

GPS CABLE LENGTH  
 NOT TO SCALE  
 ACTUAL LENGTH IS  
 72 INCHES

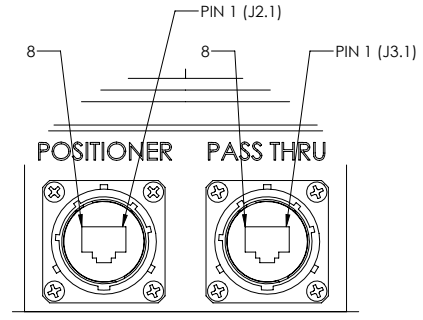
DETAIL D  
 SCALE 2 : 3  
 SHEET 2  
 ZONE D-1



J1 CONNECTOR SHOWN FROM MATING SIDE  
MATES WITH AMPHENOL P/N - RJF68

SECTION E-E  
SHOWN WITHOUT PROTECTIVE COVERS  
SHEET 2  
ZONE D-2  
SCALE 1 : 1

SEE TABLE III FOR J1 PASS THRU CONNECTOR PINOUT DETAILS

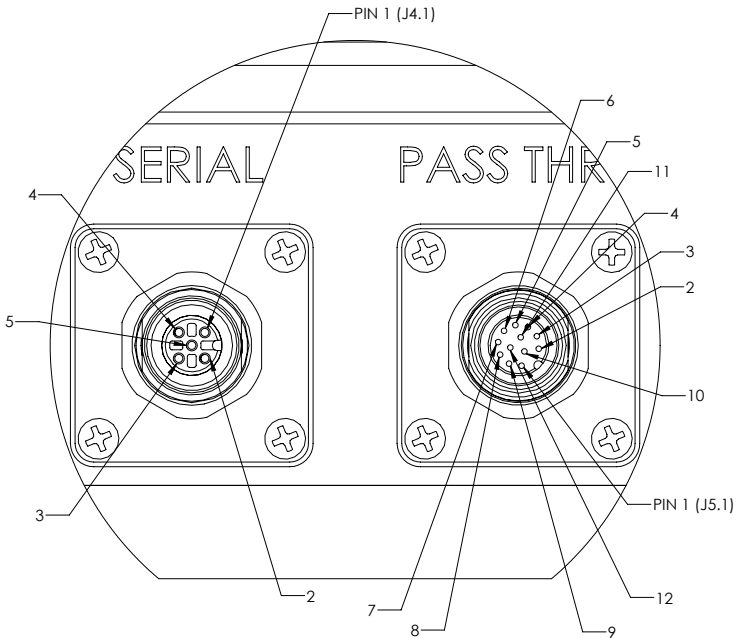


J2 & J3 CONNECTOR SHOWN FROM MATING SIDE  
MATES WITH AMPHENOL P/N - RJF68

DETAIL F  
SHEET 2  
ZONE C-2  
SCALE 1 : 1  
SHOWN WITHOUT PROTECTIVE COVERS  
SEE TABLE II FOR J2 PoE CONNECTOR PINOUT DETAILS  
SEE TABLE III FOR J3 PASS THRU CONNECTOR PINOUT DETAILS

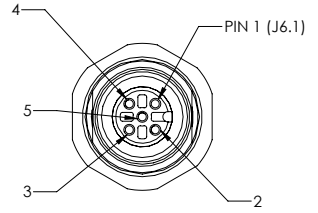
TABLE II (CONNECTOR FUNCTION)	
CONNECTOR DESIGNATION	FUNCTION
J2.1	DATA PAIR 1
J2.2	DATA PAIR 1
J2.3	DATA PAIR 2
J2.4	+48-56VDC PoE POWER INPUT
J2.5	+48-56VDC PoE POWER INPUT
J2.6	DATA PAIR 2
J2.7	DC RETURN FOR PoE INPUT
J2.8	DC RETURN FOR PoE INPUT
J4.1	DC RETURN FOR QPARUSA JOYSTICK
J4.2	NOT USED
J4.3	(B) TxD-/RxD- DATA LINE
J4.4	(A) TxD+/RxD+ DATA LINE
J4.5	DC POWER FOR QPARUSA JOYSTICK
J6.1	POT GND
J6.2	+12VDC MOTOR
J6.3	MOTOR GND
J6.4	POT WIPER
J6.5	+3.3V

TABLE III (WIRING DIAGRAM)	
FROM	TO
J1.1	J3.1
J1.2	J3.2
J1.3	J3.3
J1.4	J3.4
J1.5	J3.5
J1.6	J3.6
J1.7	J3.7
J1.8	J3.8
J5.1	J7.1
J5.2	J7.2
J5.3	J7.3
J5.4	J7.4
J5.5	J7.5
J5.6	J7.6
J5.7	J7.7
J5.8	J7.8
J5.9	J7.9
J5.10	J7.10
J5.11	J7.11
J5.12	J7.12



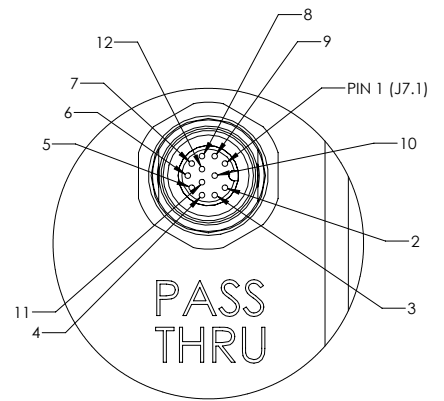
J4 & J5 CONNECTOR SHOWN FROM MATING SIDE  
J4 MATES WITH TURCK P/N - 8151-0/PG9  
J5 MATES WITH TURCK P/N - B 81121-0/PG9

DETAIL G  
SHEET 2  
ZONE C-6  
SCALE 2 : 1  
SEE TABLE II FOR J4 SERIAL CONNECTOR PINOUT DETAILS  
SEE TABLE III FOR J5 PASS THRU CONNECTOR PINOUT DETAILS



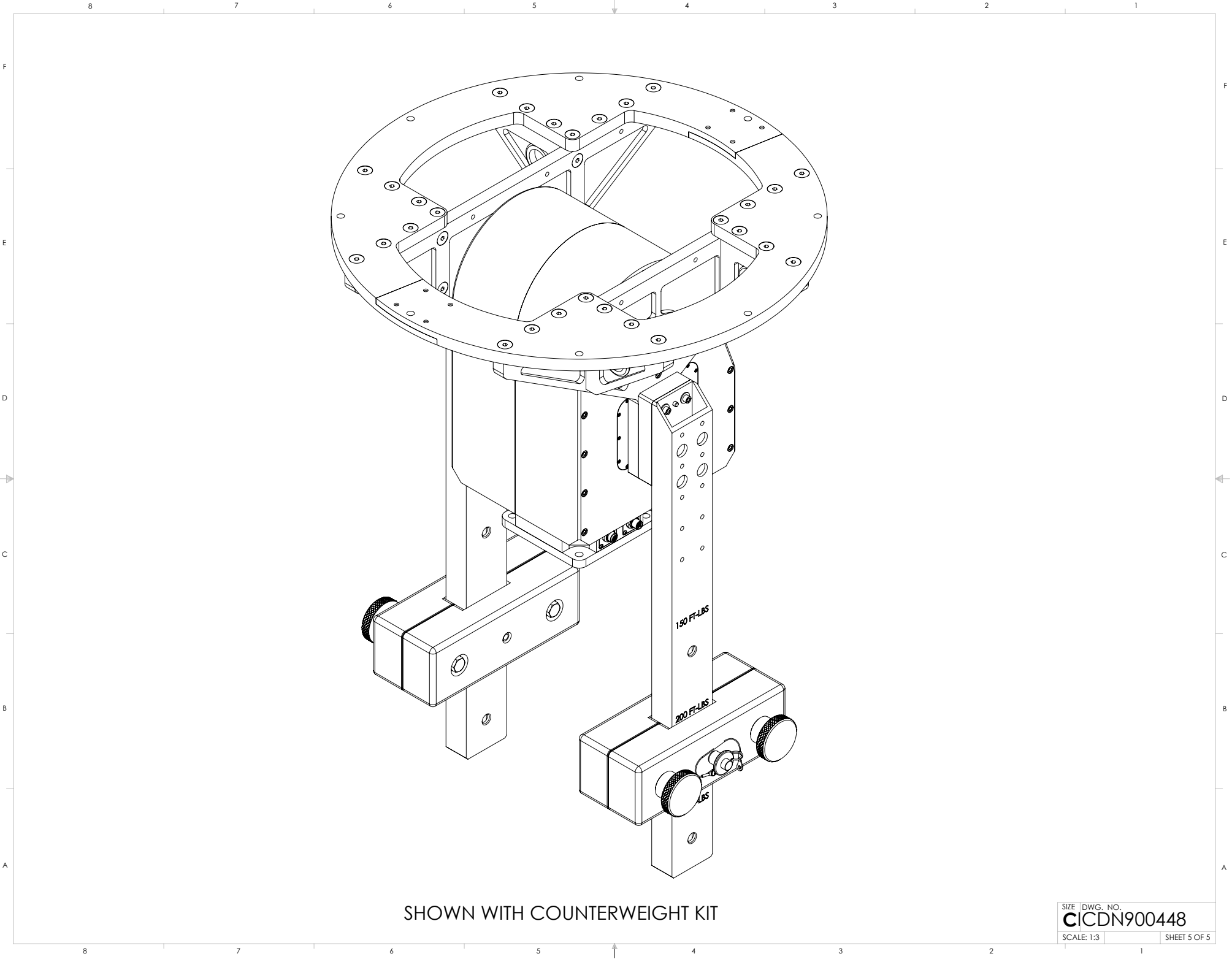
J6 CONNECTOR SHOWN FROM MATING SIDE  
MATES WITH TURCK P/N - 8151-0/PG9

DETAIL H  
SHEET 2  
ZONE E-7  
SCALE 2 : 1  
SEE TABLE II FOR J6 POLARIZATION CONNECTOR PINOUT DETAILS



J7 CONNECTOR SHOWN FROM MATING SIDE  
MATES WITH TURCK P/N - B 81121-0/PG9

DETAIL J  
SHEET 2  
ZONE D-2  
SCALE 2 : 1  
SHOWN WITHOUT GPS CABLE  
SEE TABLE III FOR J7 PASS THRU CONNECTOR PINOUT DETAILS



SHOWN WITH COUNTERWEIGHT KIT

SIZE DWG. NO.  
**CICDN900448**  
SCALE: 1:3 SHEET 5 OF 5