REV	DESCRIPTION	DATE	APPROVED
E	CN601209	2023-02-09	CLC

NOTES: UNLESS OTHERWISE SPECIFIED

1. LINKALIGN-360MPT-40 CONFIGURABLE OPTIONS PER TABLE I. SHOWN WITH COUNTERWEIGHTS ON SHEET 6. LINKALIGN-360MPT-40 SUPPLIED WITH 60 LBS OF COUNTERWEIGHTS (EQUIVALENT TO 60 FT-LBS OF TORQUE)
2. USE INTERFACE CONTROL DRAWING IN CONJUNCTION WITH DATASHEET N500159 (LA-360MPT-40), N500164 (LA-360MPT-41), N500176 (LA-360MPT-42), N500213 (LA-360MPT-43)
3. SEE TABLE II FOR AVAILABLE LINKALIGN-360MPT-40 ACCESSORY OPTIONS
4. POSITIONER POWERED BY POWER OVER ETHERNET 50-57 VDC. 4 PAIR, PoH (INDOOR RATED 54 VDC POWER SUPPLY INCLUDED WITH POSITIONER. NOT SHOWN IN DRAWING.) DC POWER INPUT MAY BE USED AS ALTERNATE POWER, 20-60V. STANDBY POWER DRAWS LESS THAN 16 W. MAXIMUM POWER DRAW, 95 W
5. EXTERNAL CONSTRUCTION COMPRISED OF HARD COAT ANODIZE ALUMINUM WITH STAINLESS STEEL HARDWARE
6. 480° (+/-240°) AZIMUTH TRAVEL WITH UP TO 15°/SEC DRIVE RATE (NO LOAD). DRIVE RATE CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
7. 190° ELEVATION TRAVEL, CONFIGURABLE TO (+185/-5°) OR (+95°/-95°). ELEVATION DRIVE RATE UP TO 8°/SEC (NO LOAD). DRIVE RATE CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
8. -10° TO 140°F (-23° TO 60°C) OPERATIONAL TEMPERATURE RANGE. -40 TO 158°F (-40 TO 70°C) NON-OPERATIONAL TEMPERATURE RANGE
9. 0.01° FEEDBACK RESOLUTION IN ALL AXES
10. AZIMUTH AND ELEVATION BACKLASH LESS THAN 0.1°
11. 21.38" (54.3 cm) HIGH X 11.50" (29.2 cm) WIDE X 17.32" (44.0 cm) DEEP. DIMENSIONS APPLY WHEN POSITIONER IS AT 0° AZIMUTH AND 0° ELEVATION ANGLES
12. WEIGHT APPROXIMATELY 99 LBS (44.9 kg), WITHOUT COUNTERWEIGHTS
13. PAYLOAD SHALL NOT EXCEED 160 LB (72.6 kg) (INCLUDING COUNTERWEIGHTS) OR 40 FT-LBS OF NET TORQUE ABOUT THE ELEVATION AXIS. EFFORT SHOULD BE MADE TO BALANCE ELEVATION PAYLOAD AS MUCH AS POSSIBLE BY USING THE (6) 10 LB COUNTERWEIGHTS PROVIDED. TO CALCULATE TORQUE, TAKE THE DISTANCE FROM THE PAYLOAD CENTER OF GRAVITY TO DATUM -B- IN FEET AND MULTIPLY BY THE PAYLOAD WEIGHT. POSITIONER IS BACKDRIVABLE WHEN NOT POWERED UP OR IN STANDBY MODE. ELEVATION HOLDING TORQUE IN STANDBY IS 15 FT-LBS. MAXIMUM OPERATING TORQUE MAY BE REDUCED AT TEMPERATURES BELOW 17°F (-8°C) AND/OR WITH USE OF PERIPHERAL DEVICES. ELEVATION TORQUE IS CUSTOMIZABLE (SEE TABLE I). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
14. TABLE TOP MOUNTING HOLES USES NEXTMOVE TYPE 4.750-P INTERFACE. ACCESSORIES AVAILABLE TO MATE WITH THIS INTERFACE (SEE TABLE II). CONTACT NEXTMOVE FOR ADDITIONAL INFORMATION
15. CENTER OF GRAVITY 0.2" (0.5 cm) IN THE X-DIRECTION, 9.2" (23.4 cm) IN THE Y-DIRECTION AND 0.2" (0.5 cm) IN THE Z-DIRECTION
16. RF PASS THRU COMPRISED OF TWO 35" (20 cm) DC-3GHz N-TYPE FEMALE TO N-TYPE FEMALE CABLE. RF PASS THRU IS CUSTOMIZABLE (SEE TABLE 1). CONTACT NEXTMOVE FOR ADDITONAL INFORMATION
17. SIGNAL PASS THRU WIRES ABLE TO CARRY UP TO 60 VAC / 75 VDC, 2A
18. PASS THRU CONNECTORS MAY BE CUSTOMIZED UPON REQUEST. CONTACT NEXTMOVE FOR MORE INFORMATION
19. ETHERNET PASS THRU USES 24 INCH LONG CAT6 ETHERNET CABLE
20. SUPPLEMENTAL INTERFACE CONTROL DRAWING FOR CUSTOM CONFIGURATIONS AVAILABLE UPON REQUEST

NOTES CONTINUED ON SHEET 6

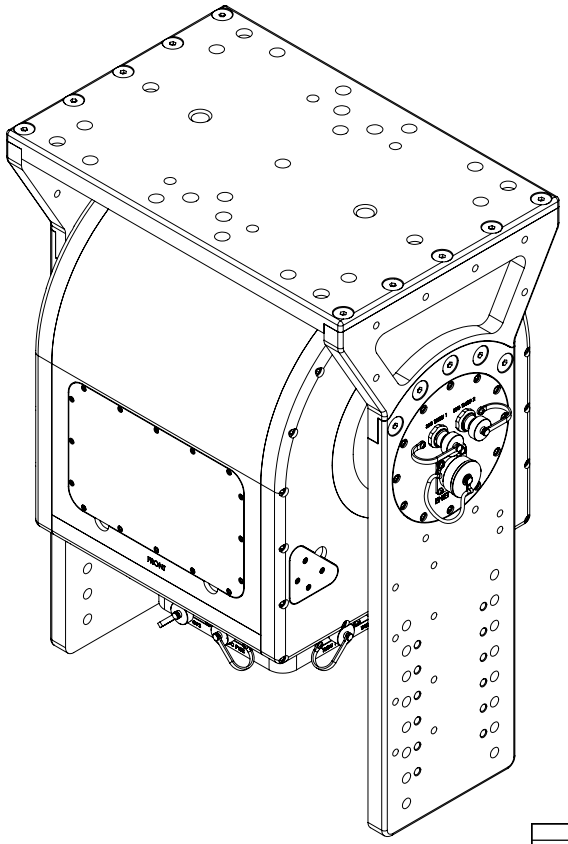


TABLE I

BUILDING A PART NUMBER ***STANDARD OPTIONS***

LA-360MPT - 40 - ____ - 100 <<EXAMPLE

SHIELDED ETHERNET CABLE STANDARD LENGTHS
- 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

CUSTOM CONFIGURATION
- = Standard options - leave blank
- 18G = 18GHz RF Pass Thrus
- NRF = No RF Pass Thrus
- GR = GHU Ready

MOTOR DRIVES AND PAYLOAD
- 40 = Az Travel @ 15°/s, El Travel @ 8°/s, El torque 40 ft-lbs, 160 lb payload (Including Ctrweights.) Typically paired with 3-4 ft antennas
- 41 = Az/El Travel @ 3°/s, El torque 100 ft-lbs, 160 lb payload (Including Ctrweights.) Typically paired with 3-4 ft antennas
- 42 = Az Travel @ 15°/s, El Travel @ 3°/s, El torque 100 ft-lbs, 160 lb payload (Including Ctrweights.) Typically paired with 3-4 ft antennas
- 43 = Az Travel @ 8°/s, El Travel @ 3°/s, El torque 100 ft-lbs, 160 lb payload (Including Ctrweights.) Typically paired with 3-4 ft antennas

MODEL
- LA-360MPT = LinkAlign-360MPT (See motor drives and payload section for) positioner travel range info)

TABLE II (MPT-40 ACCESSORY OPTIONS)

ACCESSORY DESCRIPTION	ACCESSORY PART NUMBER	ACCESSORY ICD
CROSS ELEVATION DRIVE ASSEMBLY KIT, MPT-40	ACC-N900555-1	ICDN900555
QUADPOD, TYPE 4.750-P INTERFACE	ACC-N901369-1	ICDN901369
TRANSIT CASE, MPT-40	TC-LA-360MPT-40-1	N/A

SYMBOL KEY: NOTE, PL ITEMS

QPAR ANTENNAS USA, LLC
San Diego, CA 92020
www.qparusa.com

UNLESS OTHERWISE SPECIFIED:
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

THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

DRAWN	C. CHEYNE	2019-02-06
CHECKED	S. CHEYNE	2019-02-06
ME APPR.	S. CHEYNE	2019-02-06
EE APPR.		

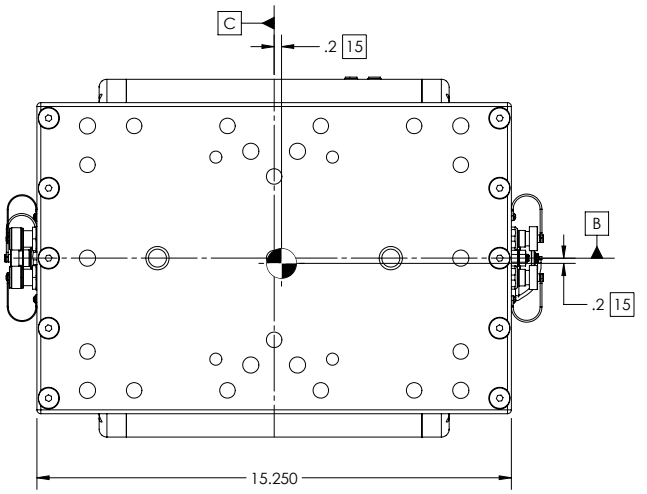
QPAR ANTENNAS USA, LLC

TITLE: LINKALIGN-360MPT-40 INTERFACE CONTROL DRAWING

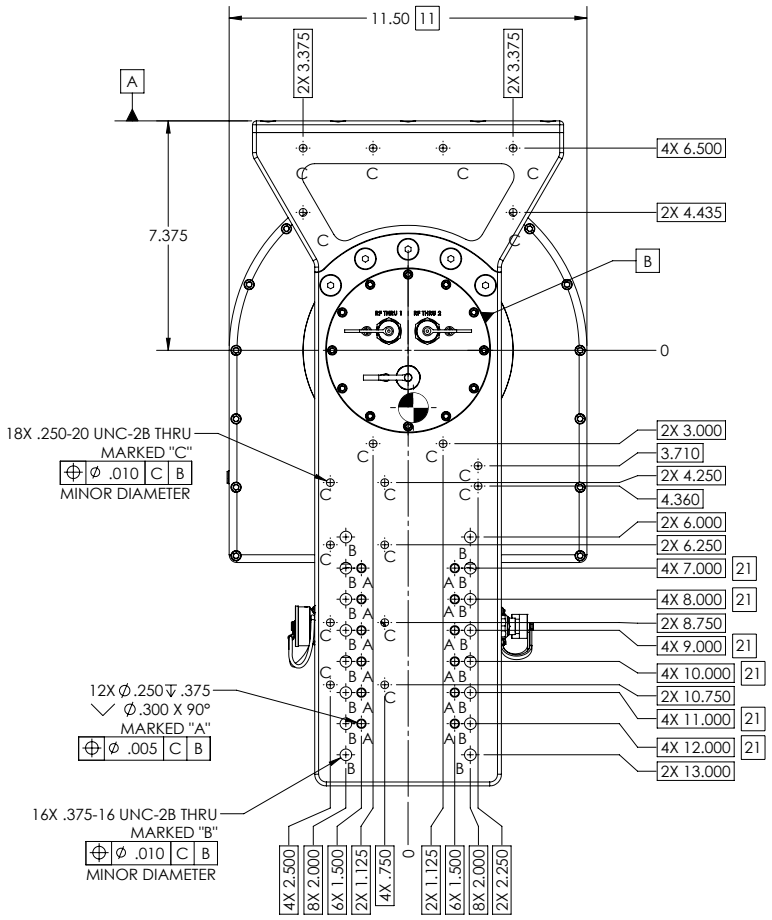
PART NO. SEE TABLE I

SIZE C | DWG. NO. ICDN900607 | REV E

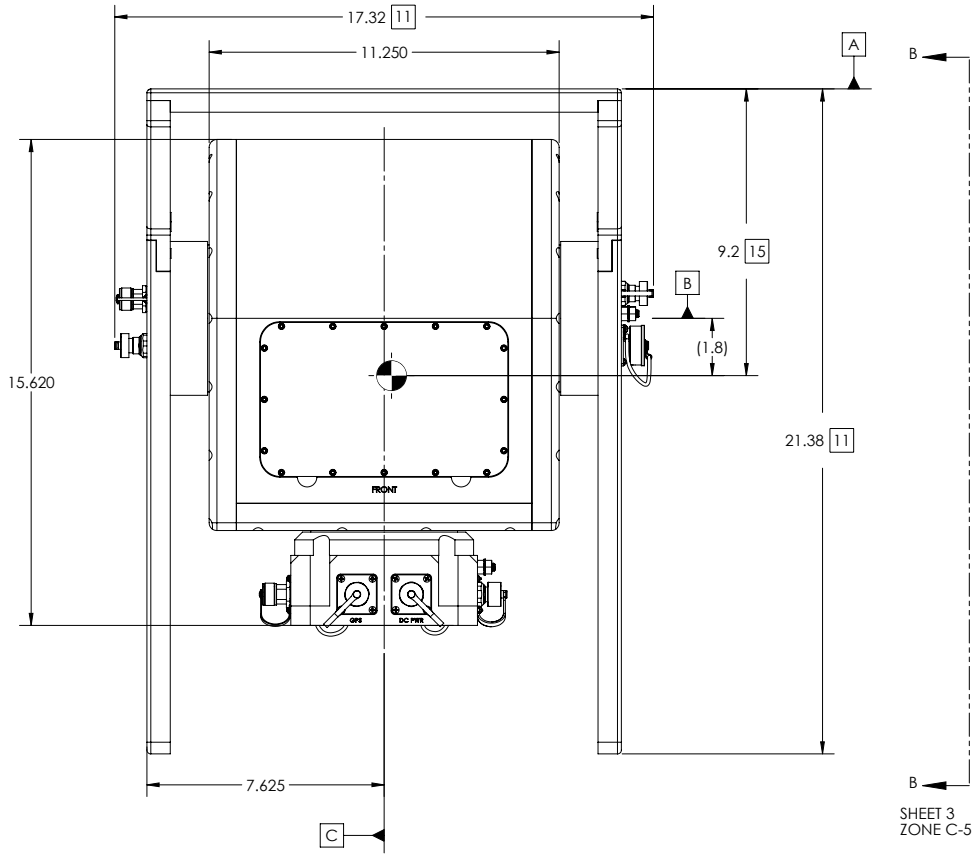
SCALE: 1:3 | SHEET 1 OF 6



TOP VIEW

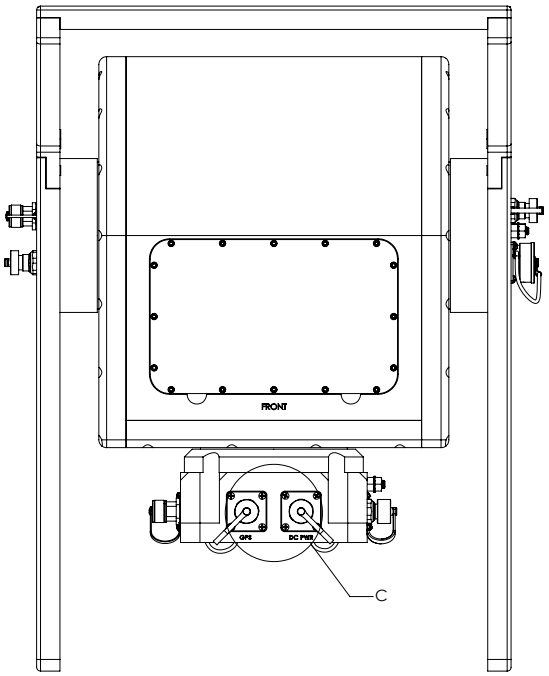


LEFT VIEW
VIEW A-A
HOLES "A", "B" & "C" ON BOTH SIDES

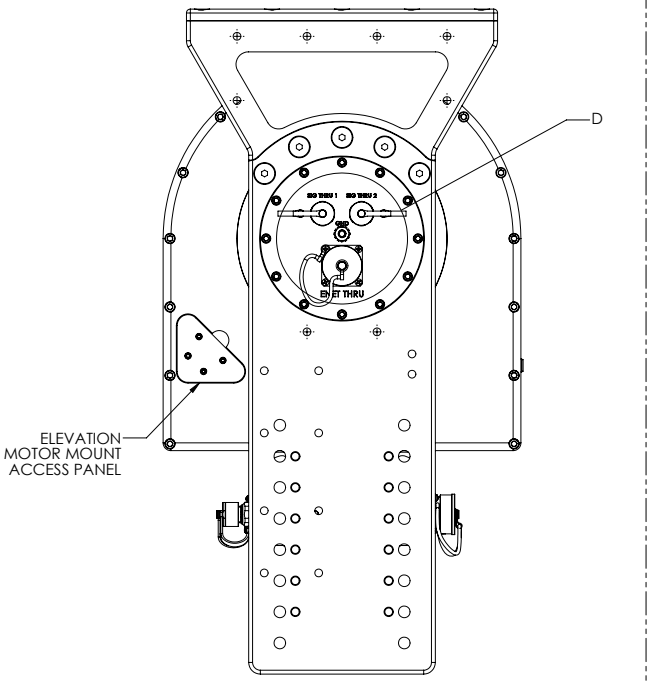


FRONT VIEW

SIZE	DWG. NO.
C	ICDN900607
SCALE: 1:3	SHEET 2 OF 6

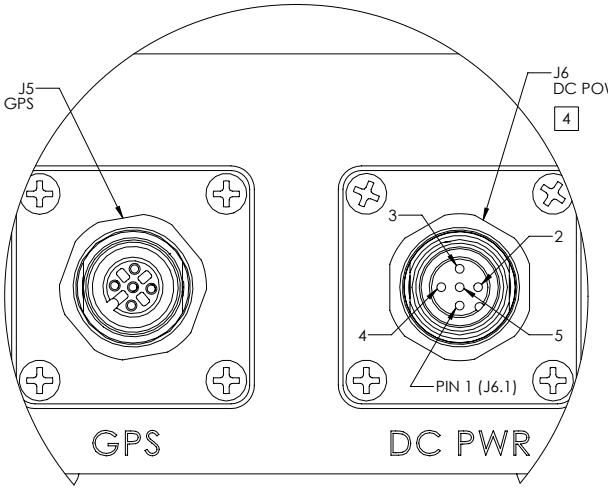


FRONT VIEW



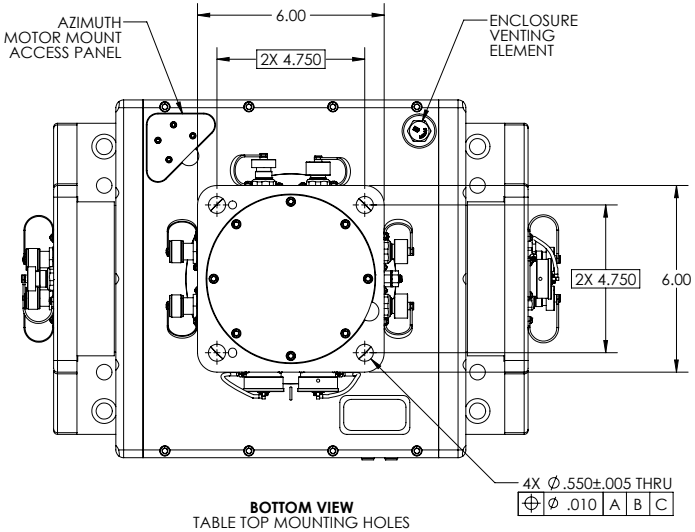
RIGHT VIEW
VIEW B-B
SHEET 2
ZONE A-1

E
E
SHEET4
ZONE A-6

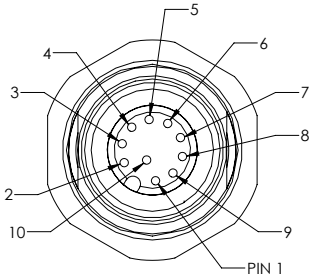


CONNECTORS SHOWN FROM MATING SIDE
J5 USED FOR NEXTMOVE GPS OR OPTIONAL GHU ACCESSORY
J6 MATES WITH TURCK P/N RK 4.5T-* (*LENGTH IN METERS)

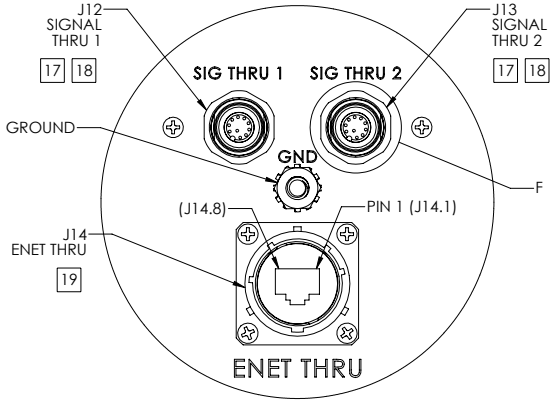
DETAIL C
SCALE 2 : 1
FRONT VIEW, AZIMUTH BASE CONNECTORS
SHOWN WITHOUT CONNECTOR CAPS
SEE TABLE V FOR J6 DC POWER CONNECTOR PINOUT DETAILS



BOTTOM VIEW
TABLE TOP MOUNTING HOLES
NEXTMOVE TYPE 4.750-P INTERFACE
14



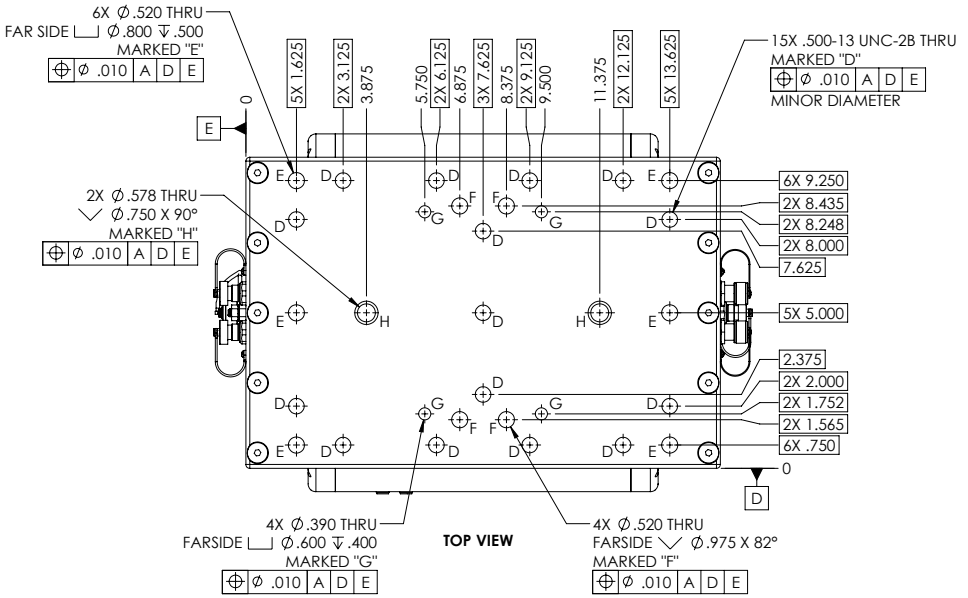
DETAIL F
SCALE 3 : 1
J12 & J13 PASS THRU CONNECTOR PINOUT DETAILS
2 PLACES
17 18



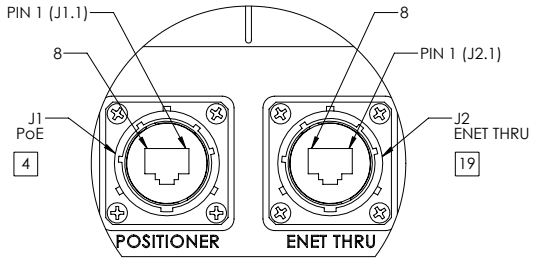
CONNECTORS SHOWN FROM MATING SIDE
J12 & J13 MATES WITH TURCK P/N RS 10T-* (*LENGTH IN METERS)
J14 MATES WITH AMPHENOL P/N RJF6B

DETAIL D
SCALE 1 : 1
RIGHT VIEW, ELEVATION PANEL CONNECTORS
SHOWN WITHOUT CONNECTOR CAPS
SEE TABLE VI FOR J12, J13 & J14 PASS THRU CONNECTOR PINOUT DETAILS

SIZE	DWG. NO.	
C	ICDN900607	
SCALE: 1:3		SHEET 3 OF 6

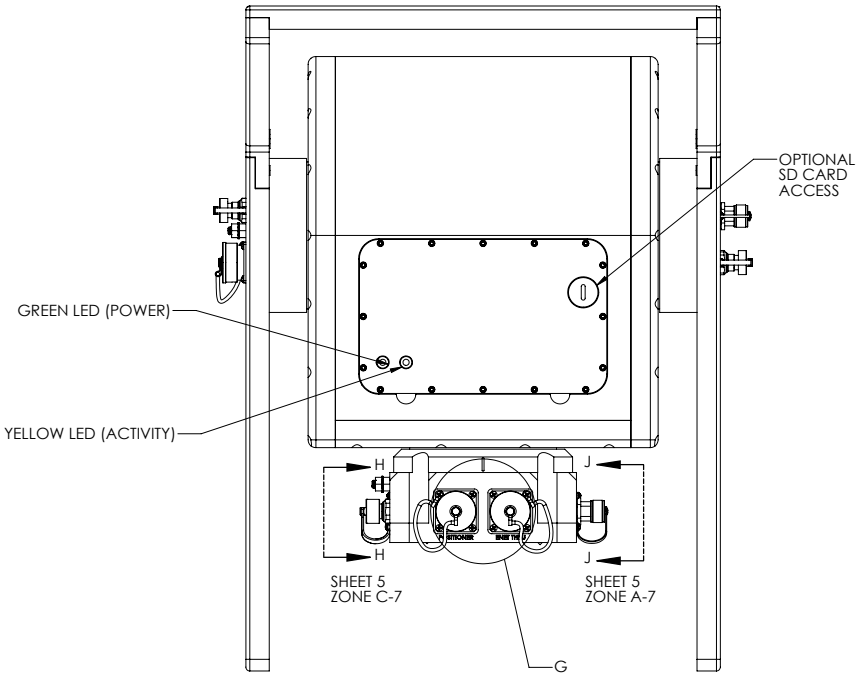


TOP VIEW

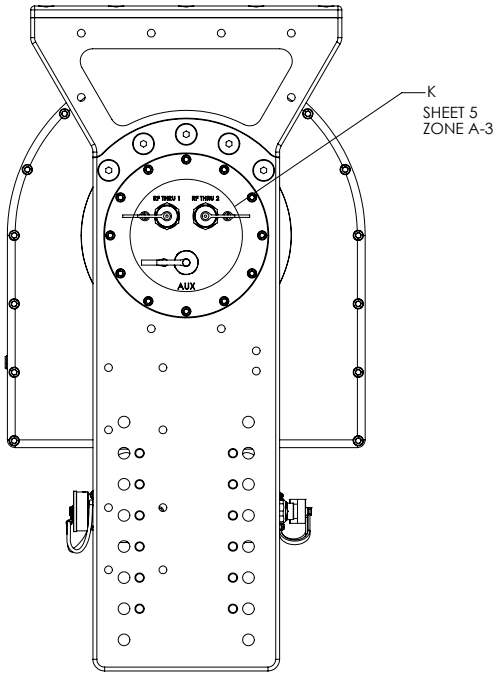


CONNECTORS SHOWN FROM MATING SIDE
J1 & J2 MATES WITH AMPHENOL P/N RJF6B

DETAIL G
SCALE 1 : 1
REAR VIEW, AZIMUTH BASE CONNECTORS
SHOWN WITHOUT PROTECTIVE CAP
SEE TABLE III FOR J1 PoE CONNECTOR PINOUT DETAILS
SEE TABLE VI FOR J2 PASS THRU CONNECTOR PINOUT DETAILS

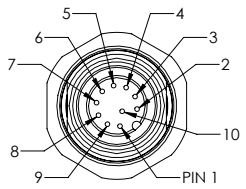


REAR VIEW
VIEW E-E
SHEET 3
ZONE C-4

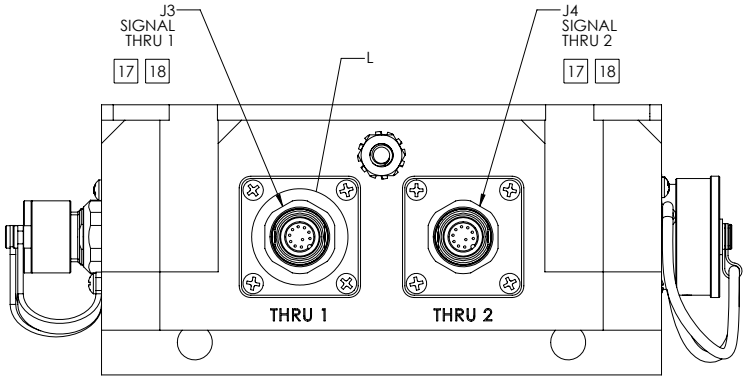


LEFT VIEW

SIZE	DWG. NO.
C	ICDN900607
SCALE: 1:3	SHEET 4 OF 6

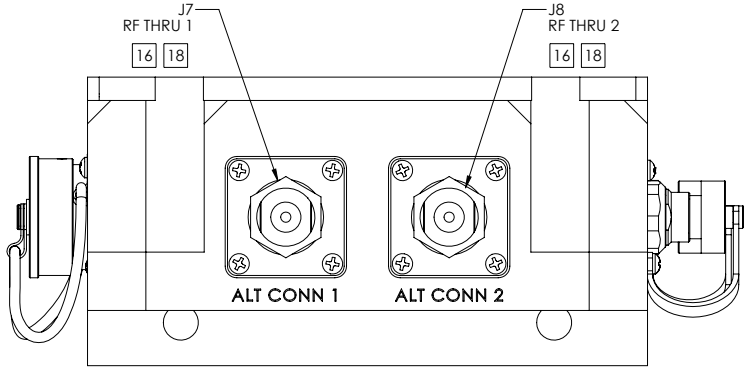


DETAIL L
SCALE 2 : 1
J3 & J4 PASS THRU CONNECTOR PINOUT DETAILS
2 PLACES
17 18



CONNECTORS SHOWN FROM MATING SIDE
J3 & J4 MATES WITH TURCK P/N RK 10T-* (*LENGTH IN METERS)

SECTION H-H
SCALE 1 : 1
SHEET 4
ZONE A-8
RIGHT VIEW, AZIMUTH BASE CONNECTORS
SHOWN WITHOUT CONNECTOR CAPS
SEE TABLE VI FOR J3 & J4 PASS THRU CONNECTOR PINOUT DETAILS



CONNECTORS SHOWN FROM MATING SIDE
J7 AND J8 MATES WITH N-TYPE MALE CONNECTOR
STANDARD RF PASS THRUS - DC-3GHz

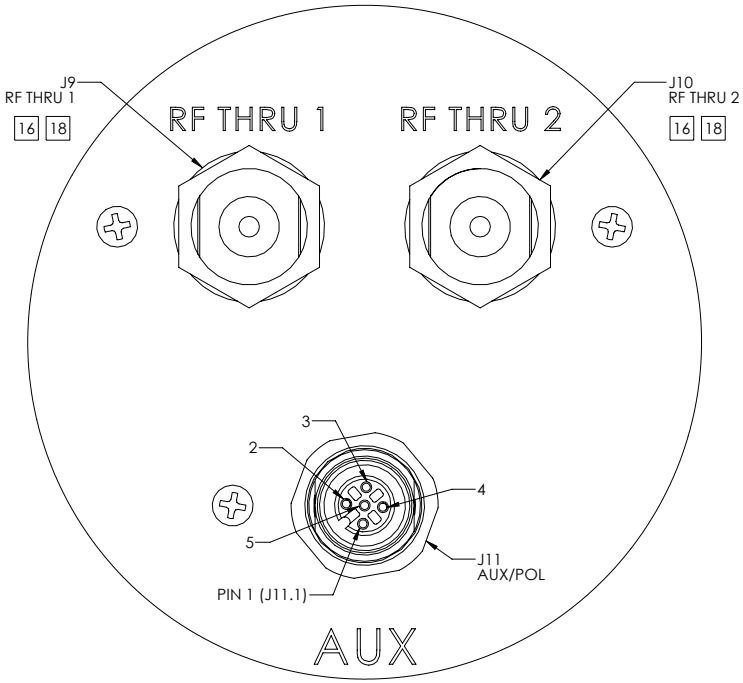
SECTION J-J
SCALE 1 : 1
SHEET 4
ZONE A-7
LEFT VIEW, AZIMUTH BASE CONNECTORS
SHOWN WITHOUT CONNECTOR CAPS
SEE TABLE VI FOR J7 & J8 PASS THRU CONNECTOR PINOUT DETAILS

TABLE III (PoE CONNECTOR) 4	
CONNECTOR DESIGNATION	**FUNCTION**
J1.1	DATA PAIR 1
J1.2	DATA PAIR 1
J1.3	DATA PAIR 2
J1.4	+50-57 VDC PoE POWER INPUT
J1.5	+50-57 VDC PoE POWER INPUT
J1.6	DATA PAIR 2
J1.7	DC RETURN FOR PoE INPUT
J1.8	DC RETURN FOR PoE INPUT

TABLE IV (AUX/POLARIZATION CONNECTOR)	
CONNECTOR DESIGNATION	**FUNCTION**
J11.1	GND
J11.2	+/-12 VDC MOTOR
J11.3	+/-12 VDC MOTOR
J11.4	POT WIPER
J11.5	+3.3V

TABLE V (DC POWER CONNECTOR) 4	
CONNECTOR DESIGNATION	**FUNCTION**
J6.1	N/C
J6.2	N/C
J6.3	+20-60 VDC POWER INPUT
J6.4	N/C
J6.5	GND

TABLE VI (PASS THRU CONNECTORS) 18	
FROM	**TO**
J2.1	J14.1
↓	↓
J2.8	J14.8
J3.1	J12.1
↓	↓
J3.10	J12.10
J4.1	J13.1
↓	↓
J4.10	J13.10
J7.1	J9.1
J8.1	J10.1



CONNECTORS SHOWN FROM MATING SIDE
J9 AND J10 MATES WITH N-TYPE MALE CONNECTOR
STANDARD RF PASS THRUS - DC-3GHz
J11 USED FOR NEXTMOVE OPTIONAL CROSS ELEVATION ACCESSORY

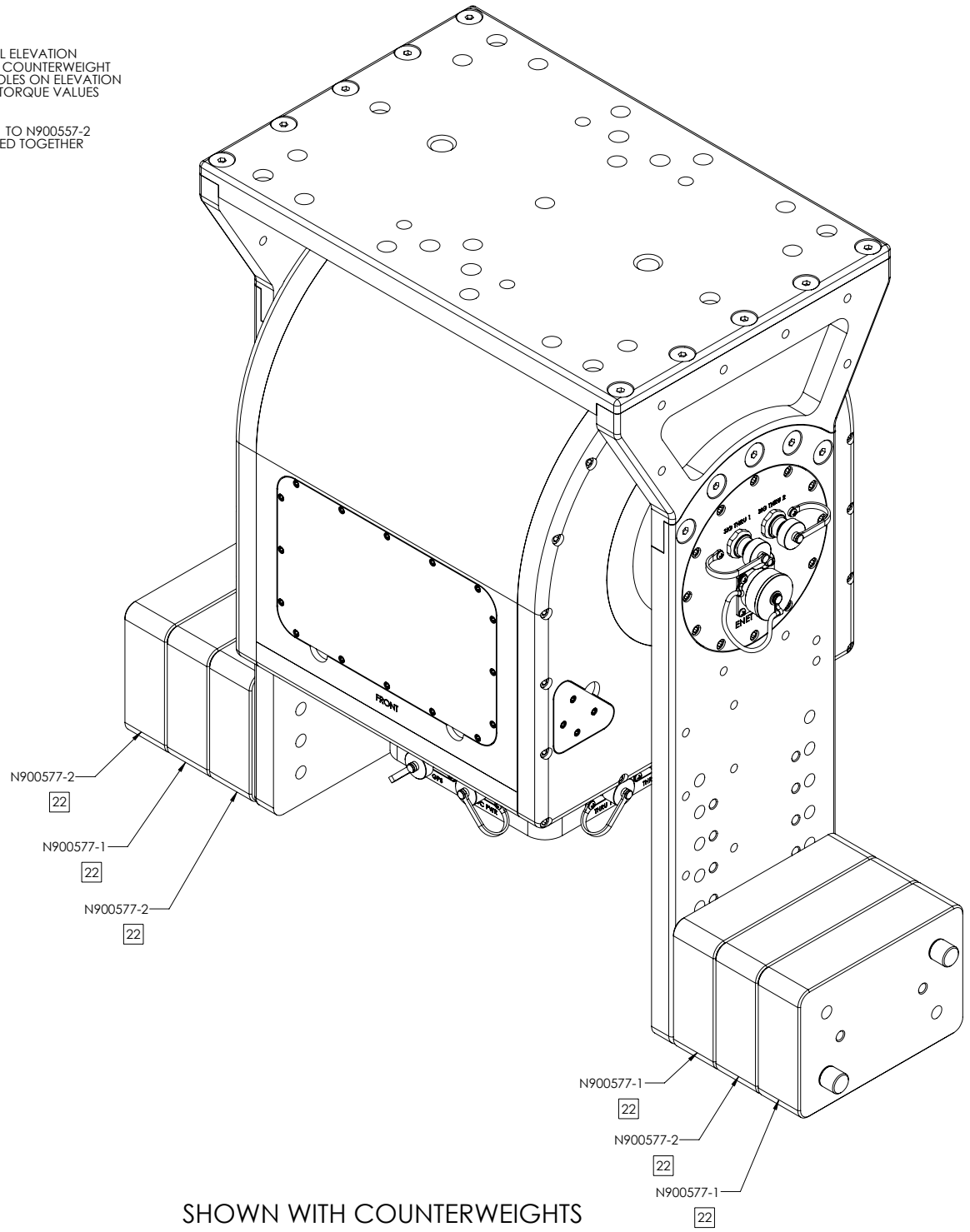
DETAIL K
SCALE 2 : 1
SHEET 4
ZONE C-2
LEFT VIEW, ELEVATION PANEL CONNECTORS
SHOWN WITHOUT CONNECTOR CAPS
SEE TABLE VI FOR J9 & J10 PASS THRU CONNECTOR PINOUT DETAILS
SEE TABLE IV FOR AUX/POL CONNECTOR DETAILS

SIZE	DWG. NO.
C	ICDN900607
SCALE: 1:3	SHEET 5 OF 6

NOTES CONTINUED:

21 COUNTERWEIGHTS SHOWN AT MAXIMUM ADDITIONAL ELEVATION TORQUE OF 60 FT-LBS TO ADJUST ELEVATION TORQUE COUNTERWEIGHT LOCATIONS MAY BE ADJUSTED USING MOUNTING HOLES ON ELEVATION ARM. SEE DIMENSIONS ON VIEW A-A TO CALCULATE TORQUE VALUES AT RESPECTIVE MOUNTING HOLE LOCATIONS

22 COUNTERWEIGHTS MUST ALTERNATE FROM N900557-1 TO N900557-2 OR VICE VERSA WHEN COUNTERWEIGHTS ARE STACKED TOGETHER (COUNTERWEIGHTS WEIGH 10 LBS EACH)



SHOWN WITH COUNTERWEIGHTS

SIZE	DWG. NO.
C	ICDN900607
SCALE: 1:2	SHEET 6 OF 6