

REV	DESCRIPTION	DATE	APPROVED
B	CN600564	2018-08-02	CLC

NOTES: UNLESS OTHERWISE SPECIFIED

1. QPAR LINKALIGN-360FER-20 CONFIGURABLE OPTIONS PER TABLE I. PART NUMBER QLA-360FER-20-100 SHOWN THROUGHOUT THIS DRAWING. PoE CABLE SHOWN NOT TO SCALE
2. USE INTERFACE CONTROL DRAWING IN CONJUNCTION WITH DATASHEET AS DENOTED IN TABLE II
3. 48 - 56VDC POWER SUPPLY INCLUDED WITH POSITIONER. NOT SHOWN IN DRAWING
4. HARD COAT ANODIZED ALUMINUM CONSTRUCTION WITH STAINLESS STEEL HARDWARE
5. 400° (+/-200°) AZIMUTH TRAVEL WITH 2.2°/SEC DRIVE RATE (NO LOAD)
6. 140° (+120°/-20°) ELEVATION TRAVEL WITH 2.2°/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 0.15°
- 10 13.08" (33.2 cm) HIGH X 8.59" (21.8 cm) WIDE X 12.38" (31.4 cm) DEEP. DIMENSIONS APPLY WHEN POSITIONER IS AT 0° AZIMUTH AND 0° ELEVATION ANGLES
11. WEIGHT APPROXIMATELY 23.5 LBS (10.7 kg) NOT INCLUDING PoE CABLE
- 12 PAYLOAD SHALL NOT EXCEED 70 LBS OR 60 FT-LBS OF TORQUE ABOUT THE ELEVATION AXIS. TO CALCULATE TORQUE, TAKE THE DISTANCE FROM THE PAYLOAD CENTER OF GRAVITY TO DATUM -H- IN FEET AND MULTIPLY BY THE PAYLOAD WEIGHT. SEVERAL ANTENNA BRACKET OPTIONS AVAILABLE THAT INTERFACE DIRECTLY WITH FEATURES SHOWN. GO TO www.qparusa.com TO LEARN MORE
- 13 RADIO OR AUXILIARY MOUNTING HOLES (BOTH SIDES). 30 LBS MAX. IF MOUNTED TO THE ELEVATION BRACKET, TOTAL PAYLOAD (INCLUDING ANTENNA) MUST NOT EXCEED 60 FT-LBS
- 14 CENTER OF GRAVITY 0.1" (0.25 cm) IN THE X-DIRECTION, 6.6" (16.8 cm) IN THE Y-DIRECTION AND 0.6" (1.5 cm) IN THE Z-DIRECTION. X & Z MEASURED FROM THE CENTER OF THE 2.00" DIAMETER MOUNTING POLE
- 15 FOR PERMANENT INSTALLATIONS, IT IS RECOMMENDED THAT THE (2) INDICATED 5/16-18 THREADED KNOBS BE REPLACED WITH (2) 5/16-18 X 1.000" LONG STAINLESS STEEL HEX HEAD FASTENERS. HARDWARE PROVIDED WITH UNIT. TORQUE TO 132 IN-LBS
- 16 POSITIONER IS AT AZIMUTH PEDESTAL 0° WHEN INDICATED FASTENER IS AT POSITION SHOWN WITH CLAMPING KNOBS IN THE BACK AS SHOWN
- 17 POSITIONER CLAMPS TO STANDARD 2" OUTSIDE DIAMETER MAST (NOT INCLUDED). OPTIONAL MIDMOUNT KIT AVAILABLE TO ADAPT TO MAST DIAMETERS UP TO 6". GO TO www.qparusa.com TO LEARN MORE
- 18 5/16" QUICK RELEASE PIN TO SECURE POSITIONER TO MAST AND PREVENT ROTATION

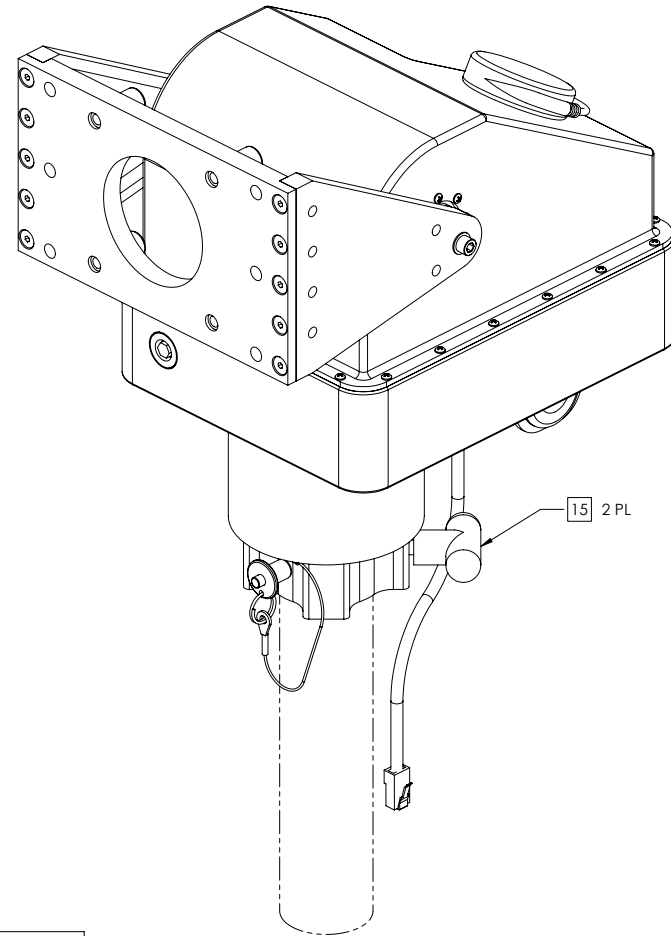
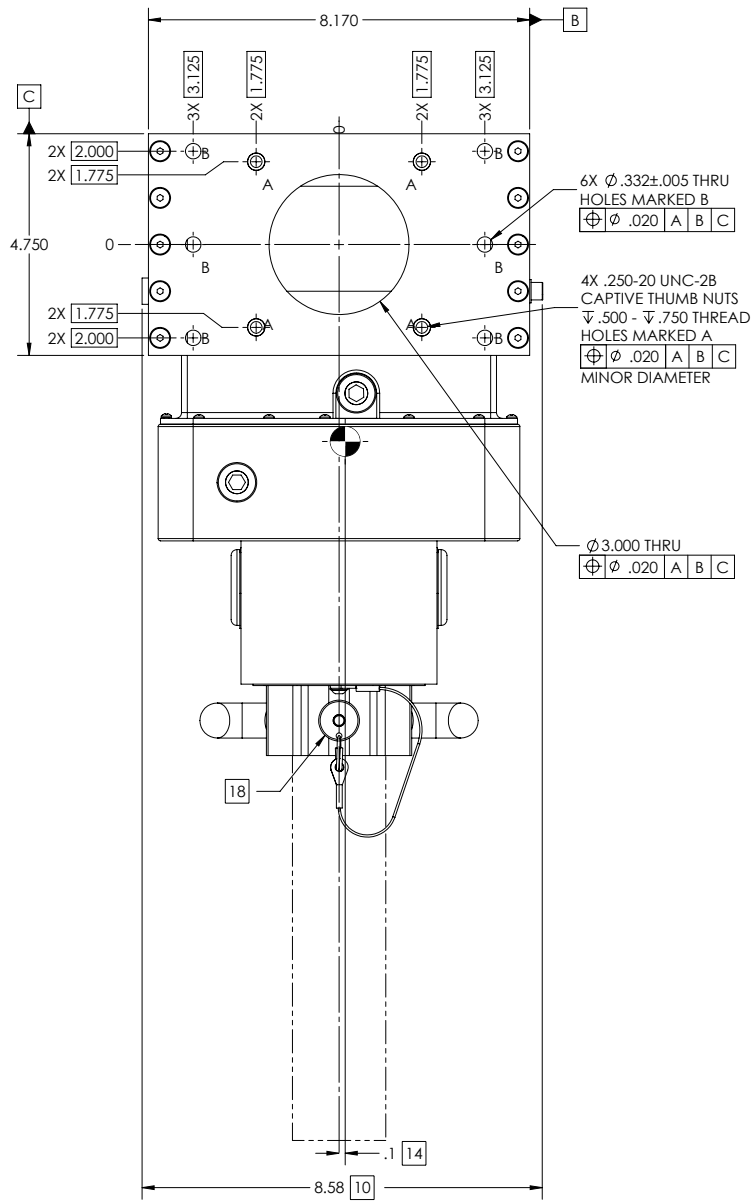


TABLE I	
BUILDING A PART NUMBER	STANDARD OPTIONS
LA-360FER - 20 - - 100	<<EXAMPLE
	SHIELDED ETHERNET CABLE STANDARD LENGTHS
	050 = 50 ft
	100 = 100 ft
	150 = 150 ft
	200 = 200 ft
	250 = 250 ft
	300 = 300 ft
	XXX = Custom length in feet
	XXXC = Add "C" to end of cable length for unterminated mating connector
	CUSTOM CONFIGURATION
	= Standard options - leave blank
	MOTOR DRIVES AND PAYLOAD
	20 = Az 60 ft-lbs @ 2.2°/s, El 60 ft-lbs @ 2.2°/s, 70 lb payload. Typically paired with 2-3 ft antenna
	21 = Az 30 ft-lbs @ 13°/s, El 60 ft-lbs @ 2.2°/s, 70 lb payload. Typically paired with 2-3 ft antenna
	MODEL
	LA-360FER = LinkAlign-360FER (+/-200° azimuth, +120/-20° elevation)

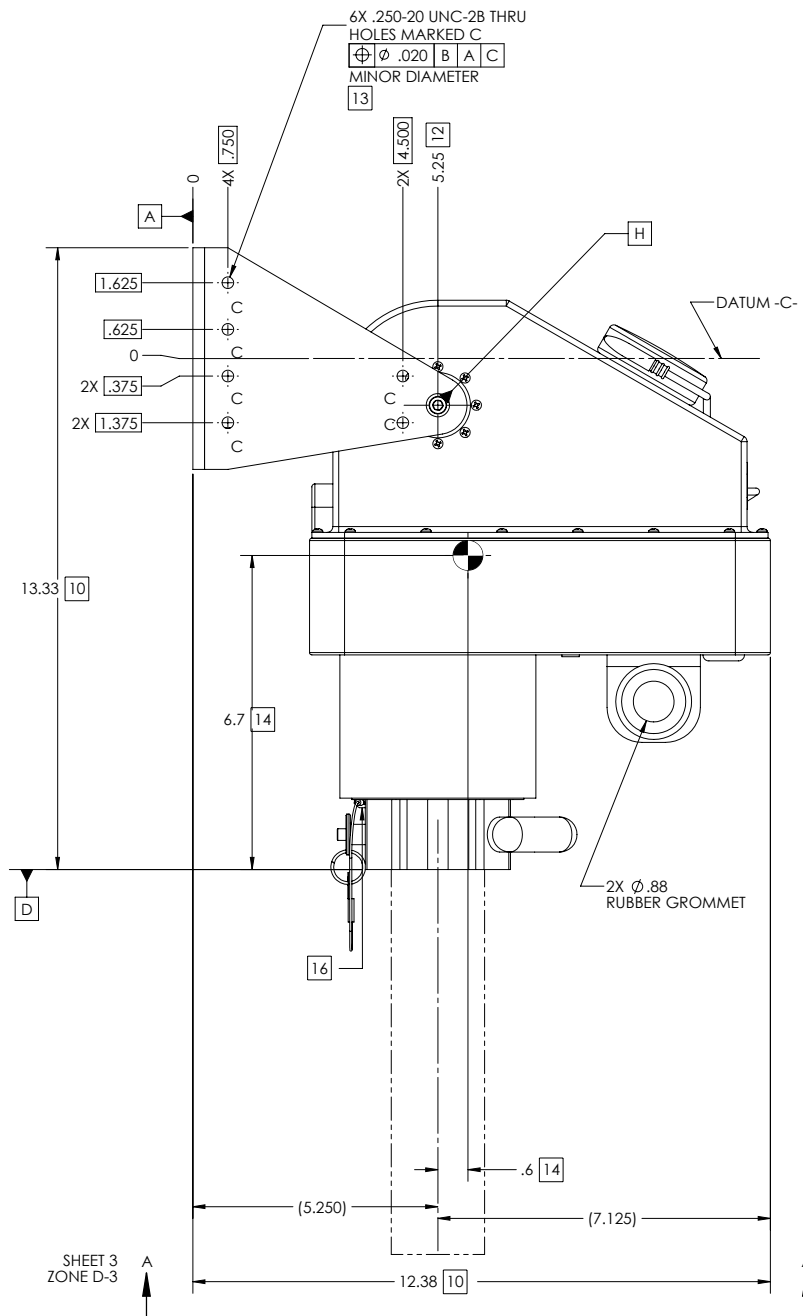
TABLE II	
PART NUMBER	DATASHEET NUMBER
LA-360FER-20	N500120
LA-360FER-21	N500149

SYMBOL KEY		UNLESS OTHERWISE SPECIFIED:		DRAWN	S. CHEYNE	2015-10-15	QPAR ANTENNAS USA, LLC
□	NOTE	○	PL ITEMS	CHECKED	C. CHEYNE	2018-08-02	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF QPAR ANTENNAS USA, INC. REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF QPAR ANTENNAS USA IS PROHIBITED.		DIMENSIONS ARE IN INCHES TOLERANCES ANGLE ± .5 DEGREE TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.010 INTERPRET DIM AND TOL PER ASME Y14.5M - 1994		ME APPR.	S. CHEYNE	2015-10-15	
THIRD ANGLE PROJECTION DO NOT SCALE DRAWING		PART NO. SEE TABLE I		TITLE: QPAR LINKALIGN-360FER-20 INTERFACE CONTROL DRAWING		SIZE ICGW. NO. C	
QPAR ANTENNAS USA, LLC San Diego, CA 92102 www.qparusa.com		SCALE: 1:2		SHEET 1 OF 4			



ANTENNA MOUNTING FEATURES

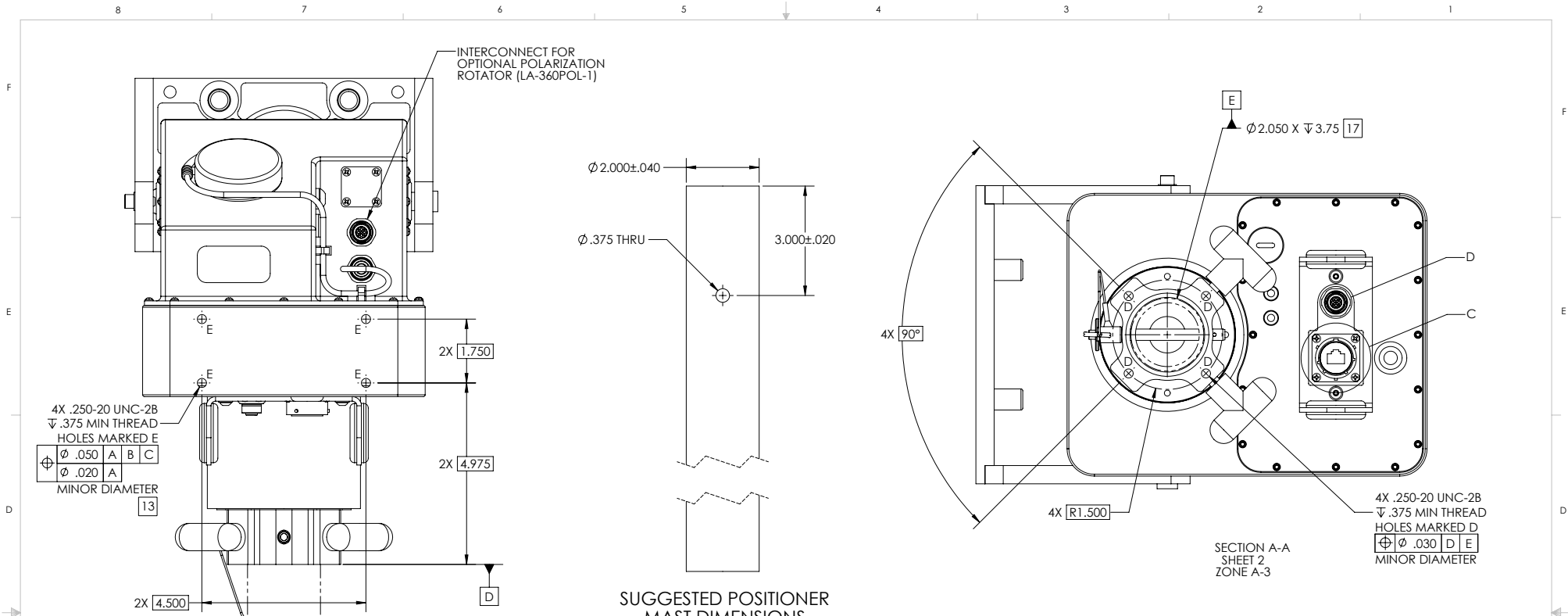
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RADIO OR AUXILIARY MOUNTING FEATURES

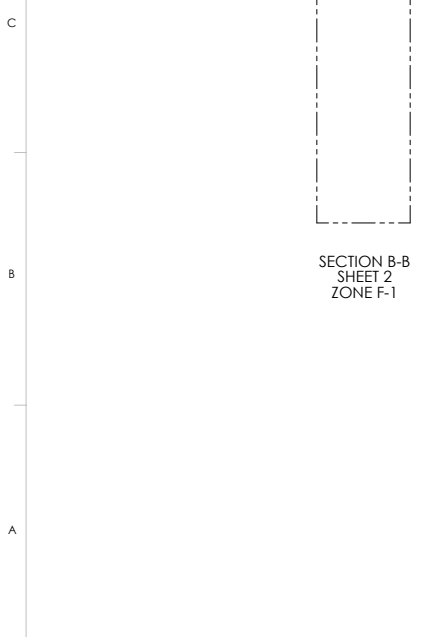
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SHEET 3
ZONE B-7



SUGGESTED POSITIONER
MAST DIMENSIONS

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INTERCONNECT FOR POSITIONER PoE

TABLE II (PoE CONNECTOR)	
CONNECTOR DESIGNATION	FUNCTION
J1.1	DATA PAIR 1
J1.2	DATA PAIR 1
J1.3	DATA PAIR 2
J1.4	+48-56VDC PoE POWER INPUT
J1.5	+48-56VDC PoE POWER INPUT
J1.6	DATA PAIR 2
J1.7	DC RETURN FOR PoE INPUT
J1.8	DC RETURN FOR PoE INPUT

INTERCONNECT FOR SERIAL INTERFACE

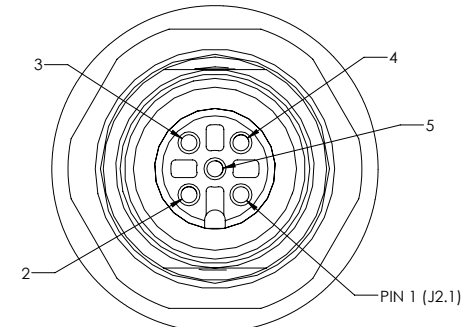
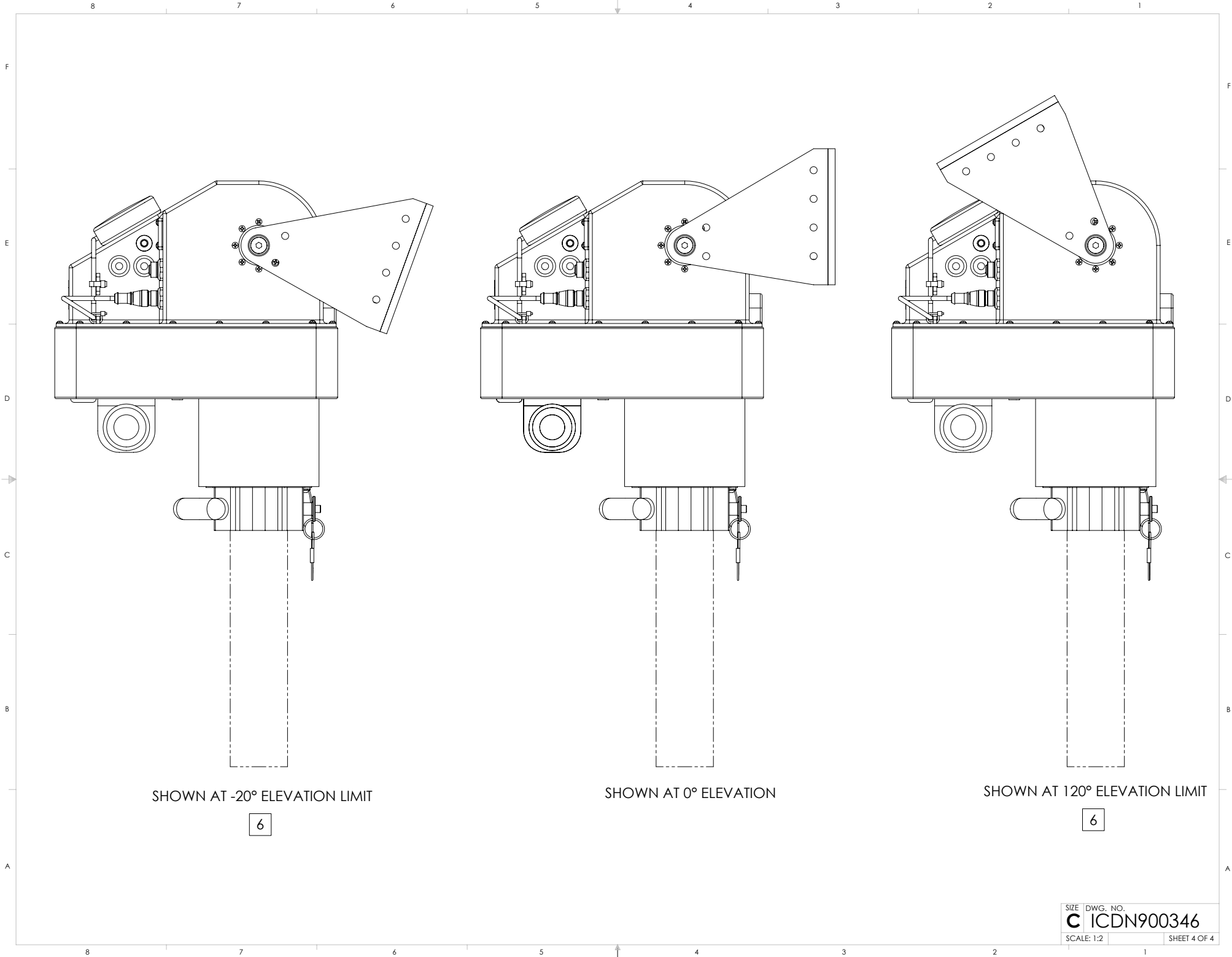


TABLE III (SERIAL CONNECTOR)	
CONNECTOR DESIGNATION	FUNCTION
J2.1	DC RETURN FOR QPARUSA JOYSTICK
J2.2	NOT USED
J2.3	(B) TxD-/RxD- DATA LINE
J2.4	(A) TxD+/RxD+ DATA LINE
J2.5	DC POWER FOR QPARUSA JOYSTICK



SHOWN AT -20° ELEVATION LIMIT

6

SHOWN AT 0° ELEVATION

SHOWN AT 120° ELEVATION LIMIT

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