

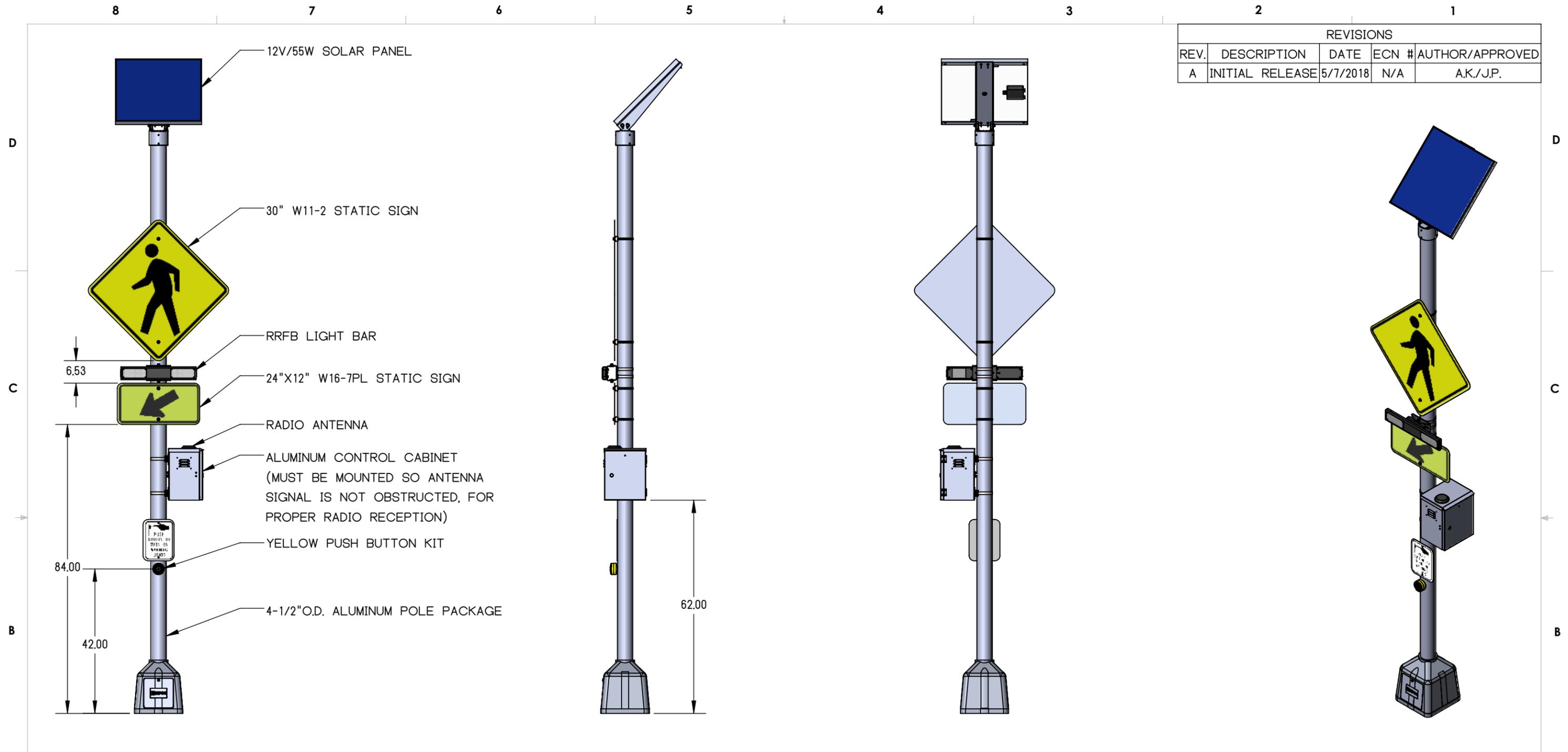
SOLAR RRFB PEDESTRIAN CROSSWALK SYSTEM

55W/48Ah with Bulldog Push Button

**Comprehensive Submittal Package
Version 1.0**

November 2, 2018

REVISIONS				
REV.	DESCRIPTION	DATE	ECN #	AUTHOR/APPROVED
A	INITIAL RELEASE	5/7/2018	N/A	A.K./J.P.



- NOTES:**
1. ORIENT SOLAR PANEL TOWARDS SOUTHERN SKY FOR MAXIMUM SOLAR EXPOSURE
 2. CONTROL CABINET HEIGHT MAY VARY.
 3. SNAP LOCKS ARE PROVIDED, STANDARD 3/4" S/S BANDING IS RECOMMENDED
 4. J-BOLTS NOT SHOWN
 5. ALL DIMENSIONS ARE FOR REFERENCE ONLY

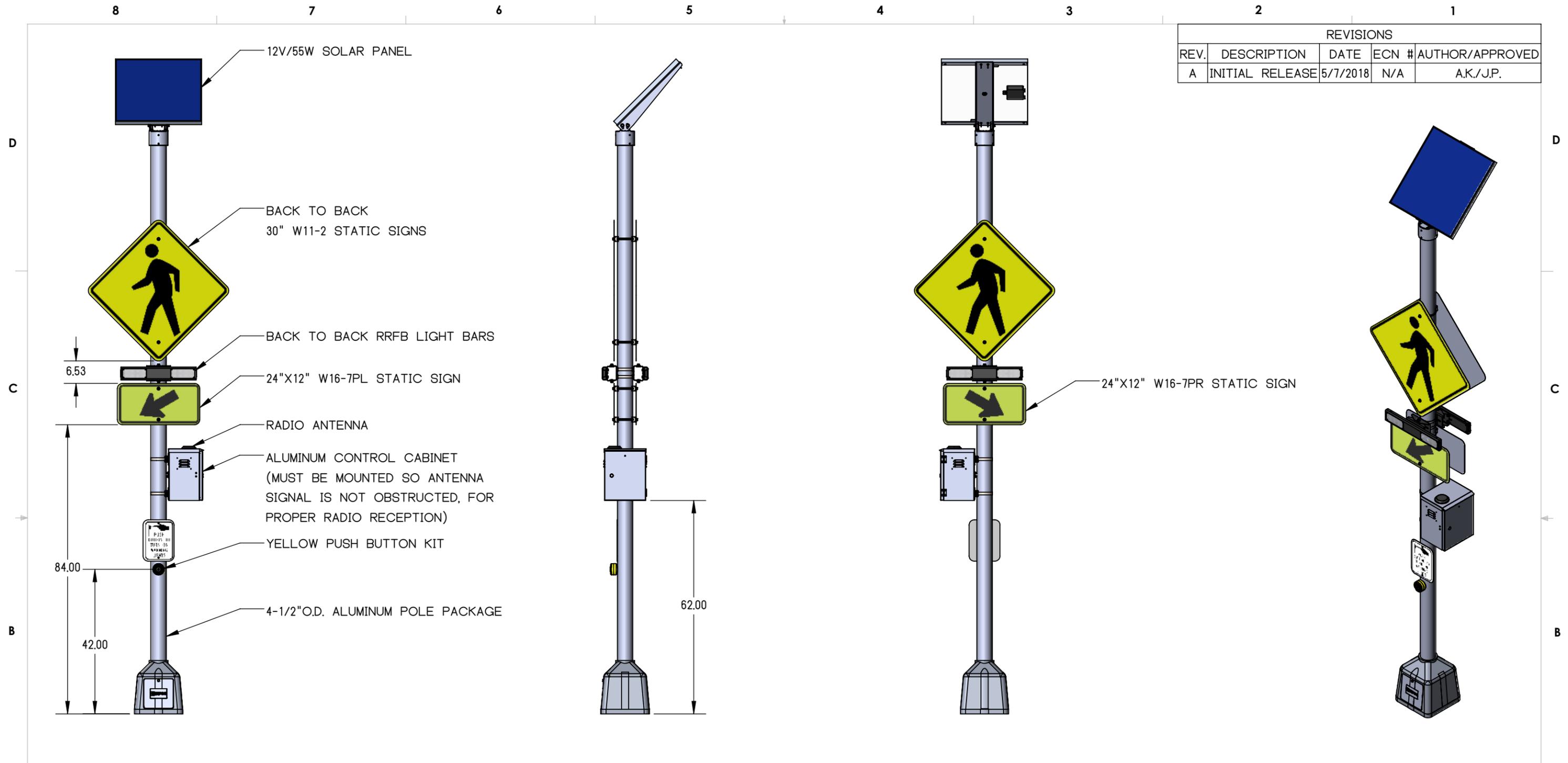


MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009	
FINISH		REFERENCE:	

TOLERANCE UNLESS OTHERWISE SPECIFIED		TITLE: RRFB, SOLAR 55/48, RADIO, SOP, SS, AMBER, PB, H POLE X2				
HOLE ϕ	± 0.03	DESIGNED BY:	TAPCO	SIZE	DWG. NO.	
DEC.	INCH	DRAWN BY:	A. KAVANAUGH	B	600167	
X	± 0.030	CHECKED BY:	5/7/2018			
XX	± 0.015	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.			REV	WEIGHT:
XXX	± 0.005				A	SCALE: 1:28
ANGULAR	$\pm 0.5^\circ$				SHEET 1 OF 1	

REVISIONS

REV.	DESCRIPTION	DATE	ECN #	AUTHOR/APPROVED
A	INITIAL RELEASE	5/7/2018	N/A	A.K./J.P.



- NOTES:**
1. ORIENT SOLAR PANEL TOWARDS SOUTHERN SKY FOR MAXIMUM SOLAR EXPOSURE
 2. CONTROL CABINET HEIGHT MAY VARY.
 3. SNAP LOCKS ARE PROVIDED, STANDARD 3/4" S/S BANDING IS RECOMMENDED
 4. J-BOLTS NOT SHOWN
 5. ALL DIMENSIONS ARE FOR REFERENCE ONLY



MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH		REFERENCE:

TOLERANCE UNLESS OTHERWISE SPECIFIED HOLE ϕ ± 0.03 DEC. INCH X ± 0.030 XX ± 0.015 XXX ± 0.005 ANGULAR $\pm 0.5^\circ$	TITLE: RRFB, SOLAR 55/48, RADIO, SOP, DS, AMBER, PH, H POLE X2	DESIGNED BY: TAPCO	SIZE	DWG. NO.	REV	WEIGHT:
		DRAWN BY: A. KAVANAUGH	B	600147	A	SCALE: 1:28
		CHECKED BY:				SHEET 1 OF 1
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.						

8

7

6

5

4

3

2

1

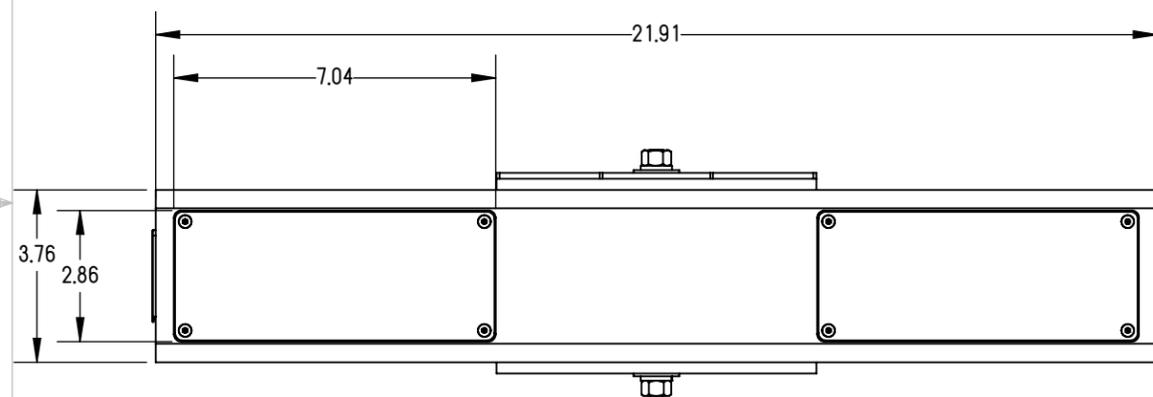
REVISIONS				
REV.	DESCRIPTION	DATE	ECN #	AUTHOR/APPROVED
A	INITIAL RELEASE	5/3/2018	N/A	A.K./J.P.

D



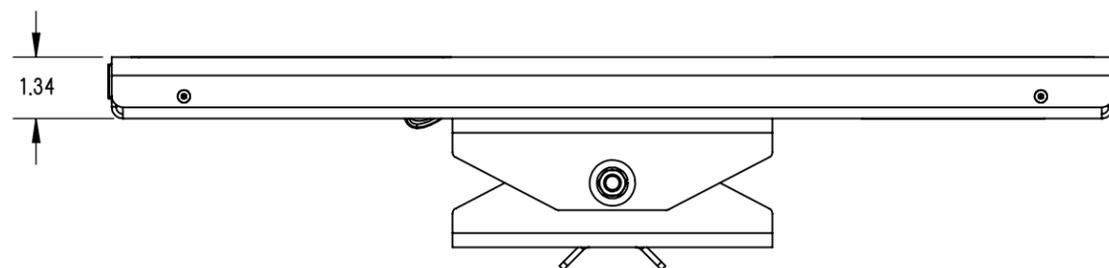
D

C



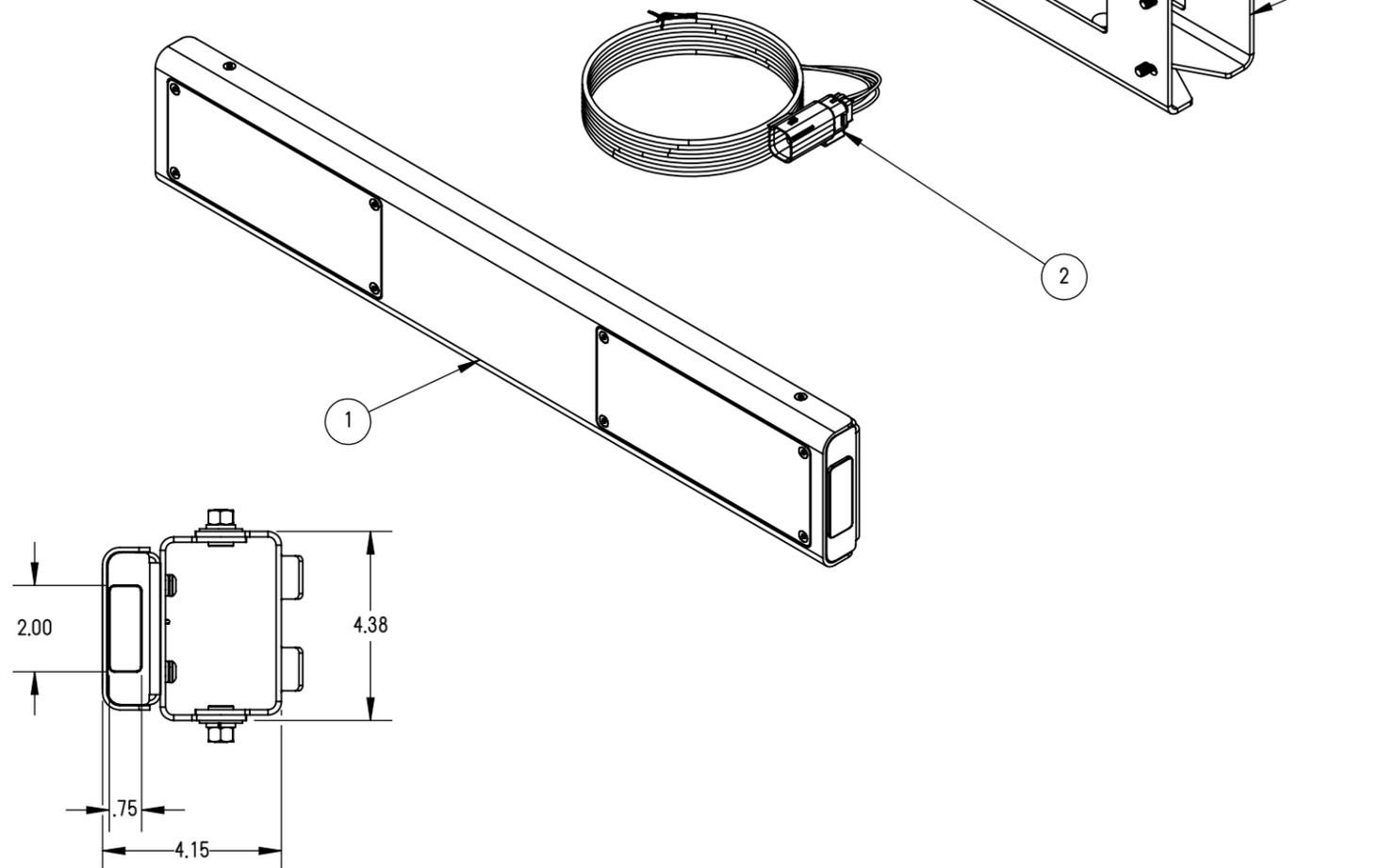
C

B



B

A



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	UNITS
3	138079	BRACKET MOUNTING KIT, RRFB, ARTICULATING	1	EA
2	136760	WIRE HARNESS, RRFB, 10' OF 4C W/MOLEX CONNECTOR	1	EA
1	136761	RRFB - AMBER LIGHT BAR, ADD 136760 - WIRE HARNESS, 138079 - MOUNTING KIT	1	EA



MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009 REFERENCE:
FINISH		

TOLERANCE UNLESS OTHERWISE SPECIFIED HOLE ϕ $\pm .003$ DEC. INCH X $\pm .030$ XX $\pm .015$ XXX $\pm .005$ ANGULAR $\pm 0.5^\circ$		TITLE: RRFB-XL2™ ASSEMBLY WITH UNIVERSAL MOUNTING KIT		SIZE B	DWG. NO. 138089	REV A	WEIGHT: SCALE: 1:4
DESIGNED BY: TAPCO	DRAWN BY: A. KAVANAUGH	CHECKED BY: J. PATTERSON	5/2/2018	5/3/2018			

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.

8

7

6

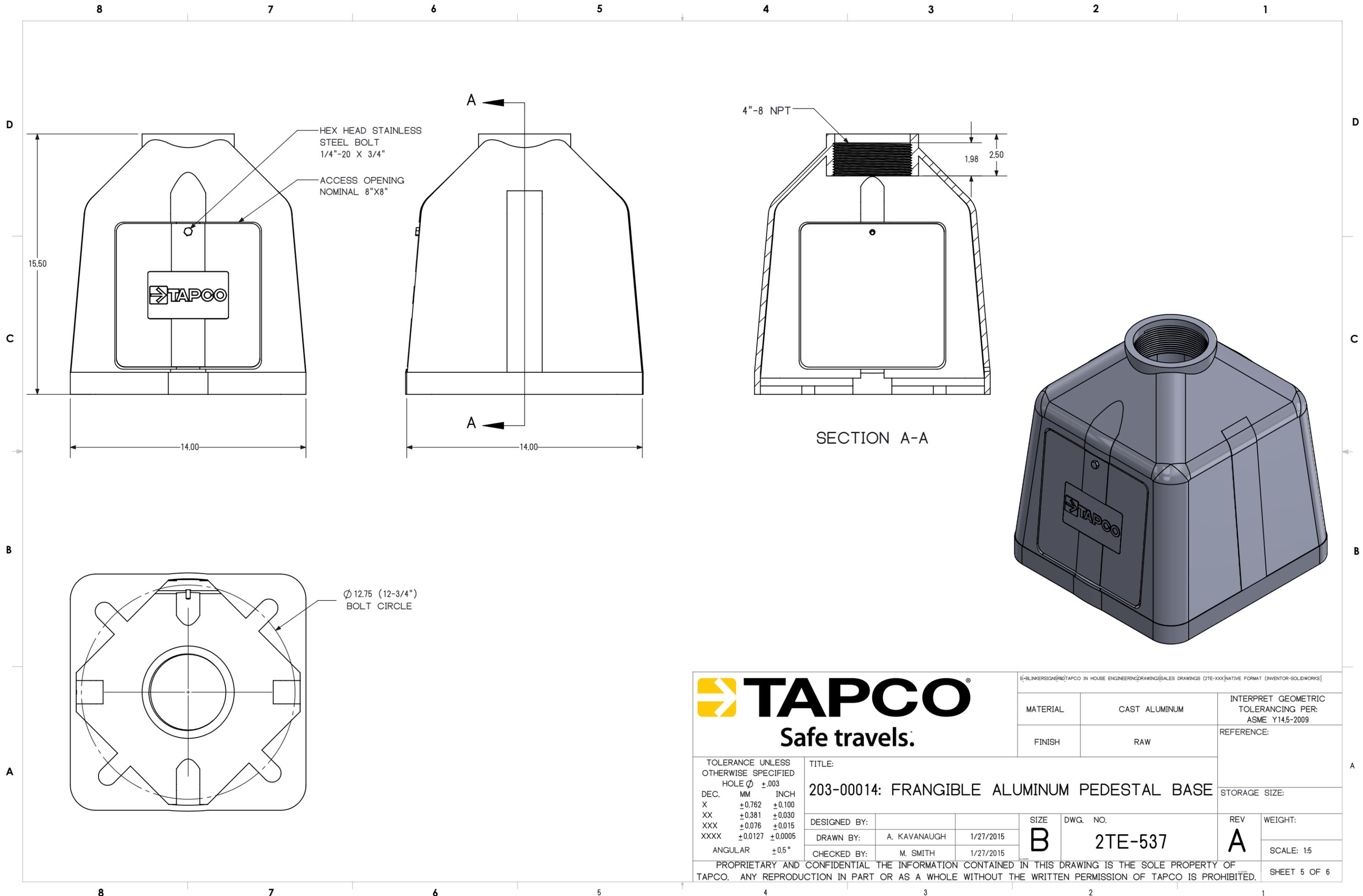
5

4

3

2

1



TAPCO
Safe travels.

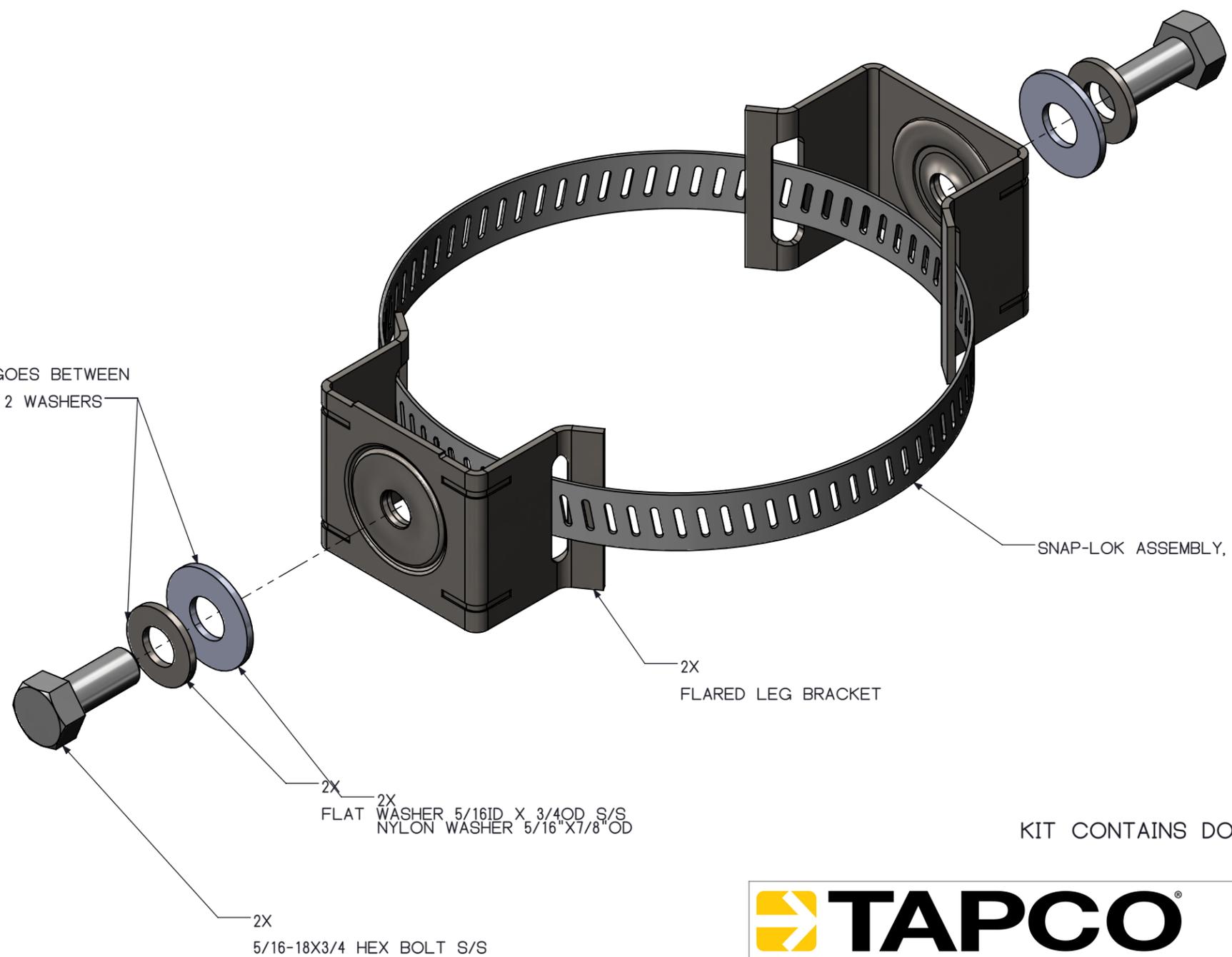
S:\LINKERSIGNER\TAPCO IN HOUSE ENGINEERING\DRAWINGS\SALES DRAWINGS (2TE-XXX)\NATIVE FORMAT (INVENTOR-SOLIDWORKS)

MATERIAL	CAST ALUMINUM	INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH	RAW	REFERENCE:

TOLERANCE UNLESS OTHERWISE SPECIFIED		TITLE:		REV		WEIGHT:	
HOLE ϕ ± 0.003		203-00014: FRANGIBLE ALUMINUM PEDESTAL BASE		A		SCALE: 1:5	
DEC.	MM	INCH	DESIGNED BY:	SIZE	DWG. NO.	STORAGE SIZE:	
X	± 0.762	± 0.100	DRAWN BY: A. KAVANAUGH	B	2TE-537	SHEET 5 OF 6	
XX	± 0.381	± 0.030	CHECKED BY: M. SMITH				
XXX	± 0.076	± 0.015					
XXXX	± 0.0127	± 0.0005					
ANGULAR $\pm 0.5^\circ$							

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.

SIGN GOES BETWEEN THESE 2 WASHERS



SNAP-LOK ASSEMBLY, WORM CLAMP BRACKET

2X FLARED LEG BRACKET

2X FLAT WASHER 5/16"ID X 3/4"OD S/S
2X NYLON WASHER 5/16"X7/8"OD

2X 5/16-18X3/4 HEX BOLT S/S

KIT CONTAINS DOUBLE OF EACH COMPONENT SHOWN HERE



S:\LINKERSIGNR&D\TAPCO IN HOUSE ENGINEERING\DRAWINGS\SALES DRAWINGS (2TE-XXX)\NATIVE FORMAT (INVENTOR-SOLIDWORKS)		
MATERIAL	STAINLESS STEEL	INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH	RAW	REFERENCE:

TOLERANCE UNLESS OTHERWISE SPECIFIED HOLE ϕ ± 0.003		
DEC.	MM	INCH
X	± 0.762	± 0.100
XX	± 0.381	± 0.030
XXX	± 0.076	± 0.015
XXXX	± 0.0127	± 0.0005
ANGULAR		$\pm 0.5^\circ$

TITLE:
107265: SIGN MOUNTING KIT, BANDED, FLARED LEG, STANDARD, FOR STATIC SIGNS

DESIGNED BY:		SIZE	DWG. NO.
DRAWN BY:	A. KAVANAUGH	1/27/2015	
CHECKED BY:	M. SMITH	1/27/2015	

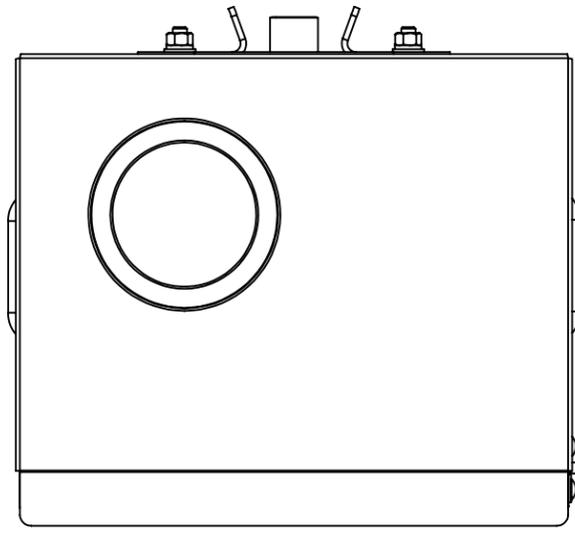
B **2TE-537**

REV	WEIGHT:
A	
SCALE: 1:1	

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED. SHEET 6 OF 6

8 7 6 5 4 3 2 1

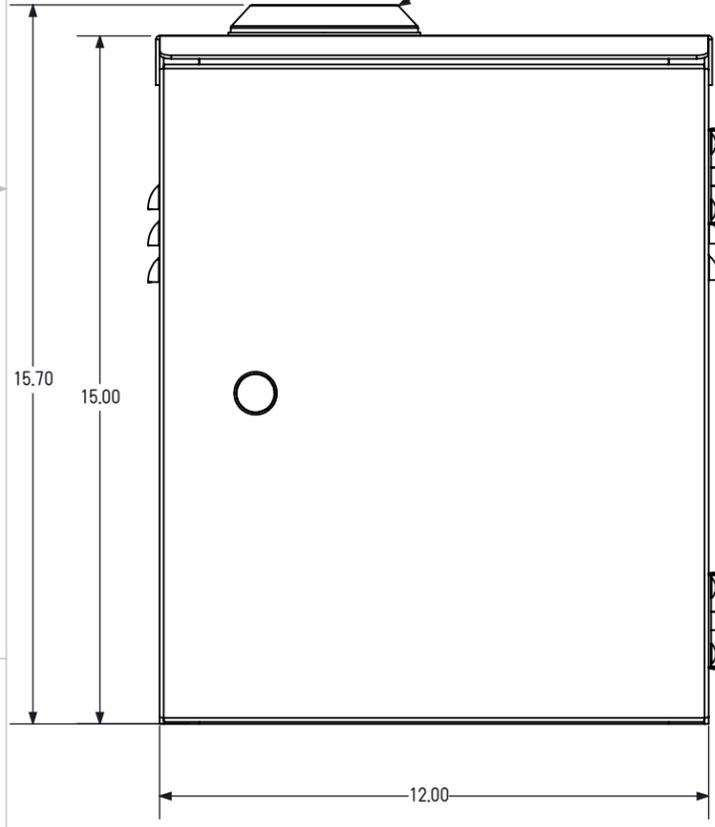
D



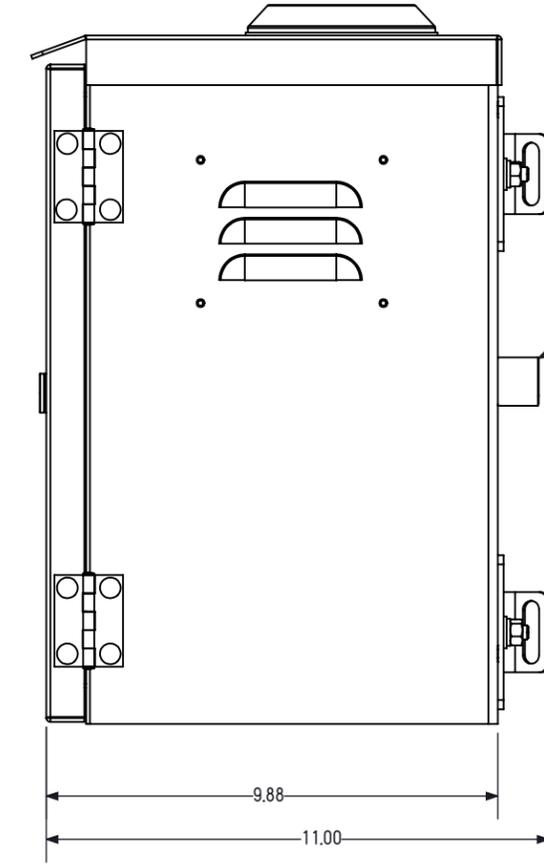
C

900MHZ ANTENNA IF SYSTEM IS EQUIPPED WITH BLINKERBEAM RADIO

B



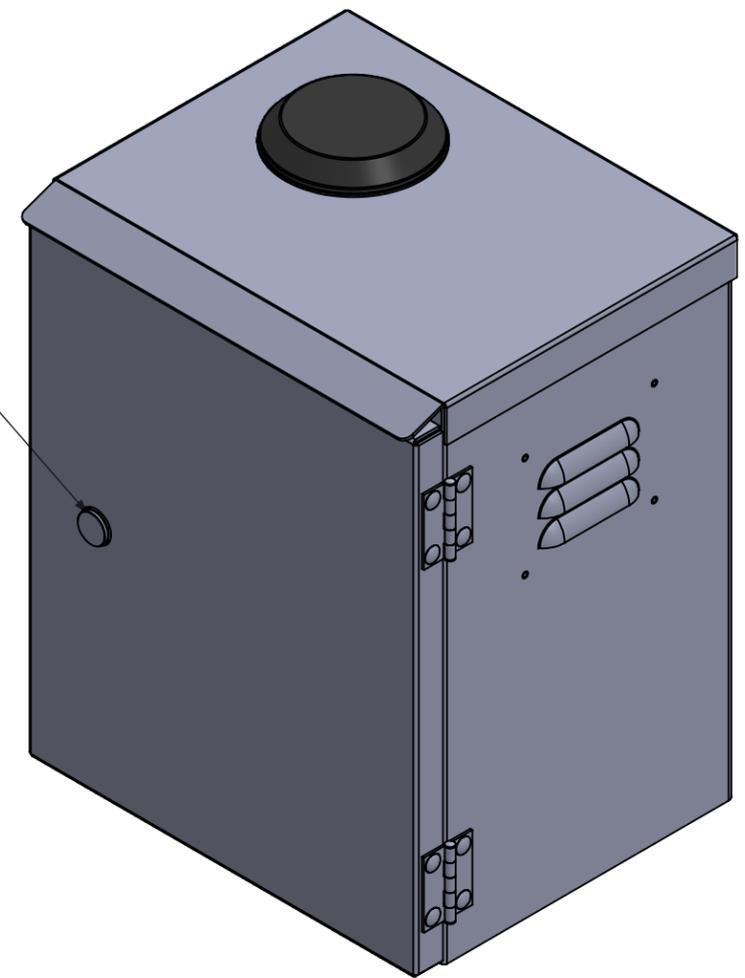
A



CORBIN #2 LOCK

CONDUIT FITTING

BANDING BRACKET FITS 2-3/8" AND UP



D

C

B

A



S:\BLINKERSIGNER\TAPCO IN HOUSE ENGINEERING\DRAWINGS\SALES DRAWINGS (2TE-XXX)\NATIVE FORMAT (INVENTOR-SOLIDWORKS)

MATERIAL	5052-H32 ALUMINUM .090 THICK	INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH	RAW	REFERENCE:
		STORAGE SIZE:

TOLERANCE UNLESS OTHERWISE SPECIFIED		
HOLE \varnothing $\pm .003$		
DEC.	MM	INCH
X	$\pm .762$	$\pm .010$
XX	$\pm .381$	$\pm .0030$
XXX	$\pm .076$	$\pm .0015$
XXXX	$\pm .0127$	$\pm .00005$
ANGULAR		$\pm .5^\circ$

TITLE:
VENTED ALUMINUM CONTROL CABINET ASSEMBLY

DESIGNED BY:		SIZE	DWG. NO.	REV	WEIGHT:
DRAWN BY:	A. KAVANAUGH	B	500029	A	
CHECKED BY:	M. SMITH				SCALE: 1:4

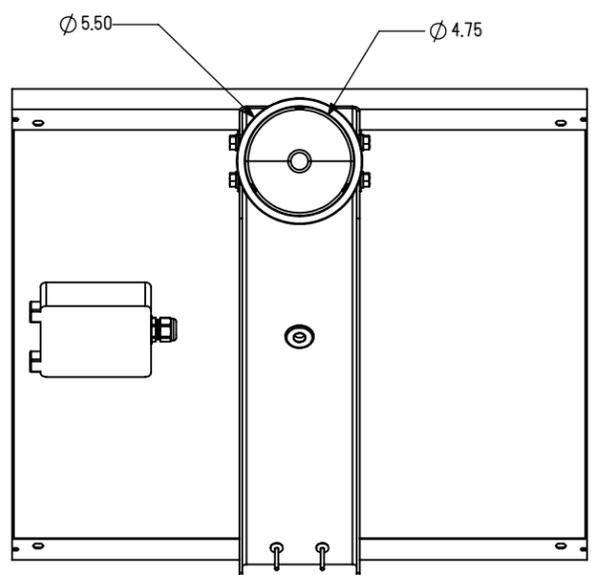
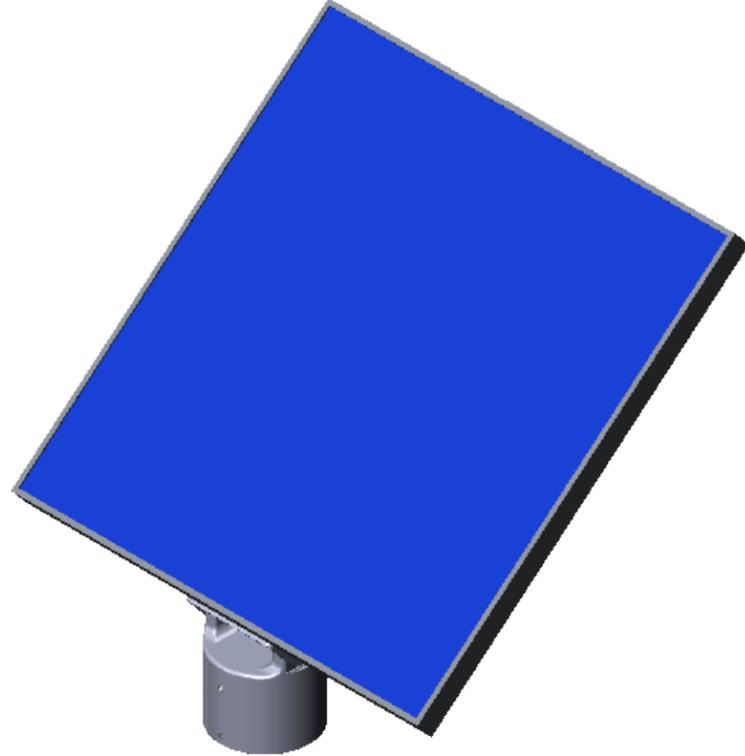
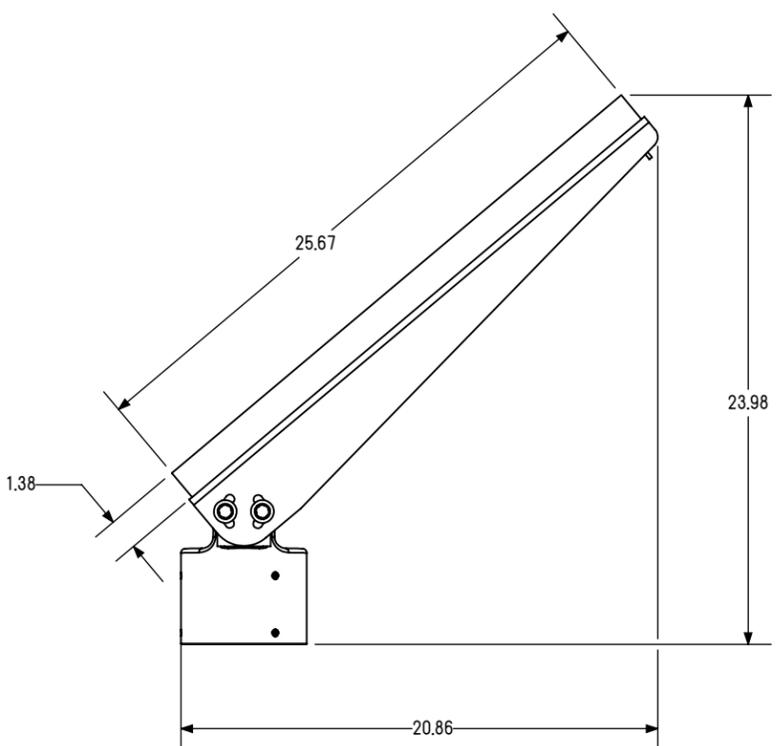
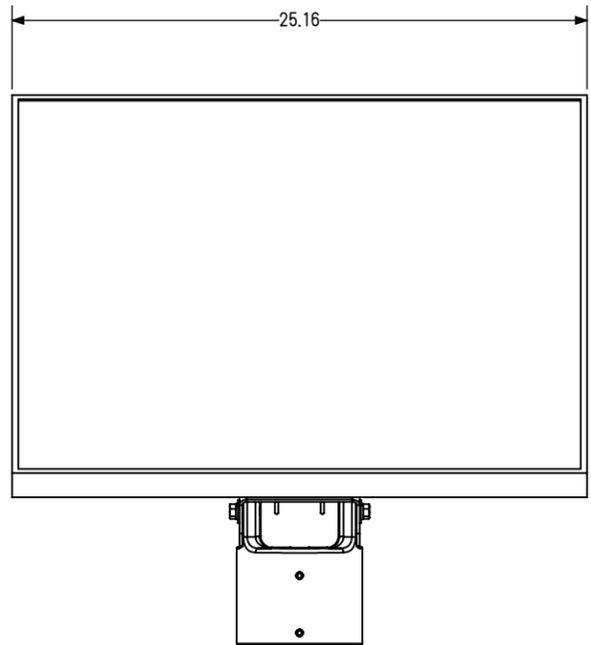
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.

SHEET 6 OF 8

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REVISIONS				
REV.	DESCRIPTION	DATE	PCN #	AUTHOR/APPROVED
A	RELEASED FOR SALES SUBMITTAL	6/7/2016	N/A	A.K./J.P.



- NOTES:**
1. ORIENT SOLAR PANEL TOWARDS SOUTHERN SKY FOR MAXIMUM SOLAR EXPOSURE
 2. SOLAR PANEL ANGLE CAN BE ADJUSTED TO MEET SPECIFIC LOCATION SOLAR REQUIREMENT



S:\BLINKERSIGNER\TAPCO IN HOUSE ENGINEERING\DRAWINGS\SALES DRAWINGS (2TE-XXX)\NATIVE FORMAT (INVENTOR-SOLIDWORKS)

MATERIAL		INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5-2009
FINISH		REFERENCE:
		STORAGE SIZE:

TOLERANCE UNLESS OTHERWISE SPECIFIED		TITLE:		SIZE		DWG. NO.		REV		WEIGHT:	
HOLE Ø ±.003		55W/12V SOLAR PANEL PACKAGE TOP OF		B		2TE-743		A		SCALE: 1:8	
DEC.	MM INCH	DESIGNED BY:									
X	±2.540 ±0.100	DRAWN BY:	A. KAVANAUGH	6/7/2016							
XX	±0.762 ±0.030	CHECKED BY:	J. PATTERSON	6/7/2016							
XXX	±0.381 ±0.015										
XXXX	±0.0127 ±0.0005										
ANGULAR ±0.5°											

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TAPCO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TAPCO IS PROHIBITED.

8 7 6 5 4 3 2 1

BULLDOG PUSH BUTTON WITH LED

SPECIFICATIONS

POWER INPUT	12 to 36VDC (from control circuit)
PUSH BUTTON	Vandal resistant, ADA compliant
ACTIVATION CONFIRMATION	Red LED and beep confirmation activated when push button is pressed
INSTRUCTIONAL SIGN	9" x 12"; retroreflective sheeting with tamper-resistant mounting screws. Sold separately (PN: 100202)
OPERATING FORCE	3 pounds maximum
PEAK CURRENT DRAW	~350mA
BUTTON ENCLOSURE	Aluminum, powder coated
BUTTON MATERIAL	316 stainless steel
INSTALLATION	2 holes on 2.0" centers, tapped ¼-20 plus ½" or larger hole for wire access
PUSH BUTTON OUTPUT	Driven low to ground when the push button is pressed
OPERATING TEMPERATURE RANGE	-30°F to 165°F (-34°C to 74°C)
DIMENSIONS	3.4" W x 0.9"H x 0.9"D



BULLDOG PUSH BUTTON



R10-25 SIGN
PN: 100202

BLINKERBEAM® WIRELESS RADIO

SPECIFICATIONS

POWER INPUT	5VDC
INPUT	1 digital input, micro USB
OUTPUTS	2 digital output lines, host serial lines for OTA serial
PROGRAMMABILITY	Locally using USB port or front-mounted joystick
LCD DISPLAY	4 lines at 21 characters per line
OPERATION POWER MODES	3 levels available, 0.25, 0.5 or 1 watt
CONNECTIVITY	Activates warning LEDs concurrently
FREQUENCY	License free 900 MHz Frequency Hopping Spread Spectrum with 10 different RF patterns to prevent interference between collocated radio systems
RANGE	900 feet or longer with optional antenna
SERIAL DATA RATE	19,200Baud
STATUS LEDS	Red, green, yellow, amber
FCC ID	2ANWN-02ANWN
AVAILABLE ANTENNAS	6dBi Omni - Fiberglass 3dBi Omni Whip - RPSMA 3dBi Omni Low Profile 10.64dBi Yagi
OPERATING TEMPERATURE	-40°F to 176°F (-40°C to 80°C); less than 90% RH
DIMENSIONS	3.2"W x 3.7"H x 2.5"D



IWS CONTROLLER

SPECIFICATIONS

POWER	6V and 12VDC with power indicator light
INPUTS	2 digital inputs
OUTPUTS	2x two-channel (able to drive two warnings per output)
PROGRAMMABILITY	Locally using serial input (RS232) or remotely using BlinkLink® via cell modem
PROGRAM ACTIVATION OPTIONS	24/7, Dusk 'til Dawn, BlinkLink® Scheduling, Time Clock, Custom Input
LED-WARNING CONTROL COMPATIBILITY	BlinkerSign®, BlinkerBeacon™, RRFB-XL2™
DIMMABILITY	Auto-adjustable via solar panel (6V systems) Auto-adjustable via photocell sensor (12V systems)
INTERNAL SYSTEM CLOCK	Integrated with on-board battery backup
SELF-DIAGNOSTIC CAPABILITY	Internal temperature monitor
DAYLIGHT SAVING TIME	User programmable
OPERATING TEMPERATURE RANGE	-40°F to 176°F (-40°C to 80°C)
ENCLOSURE	IP67 rated
ENCLOSURE DIMENSIONS	3.2"W x 3.7"H x 2.5"D



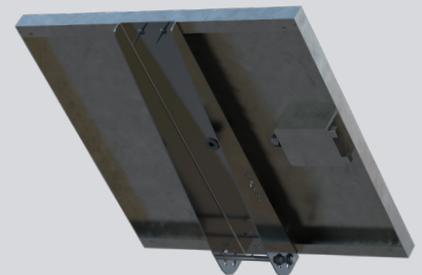
SOLAR PANEL 55W

SPECIFICATIONS

POWER	55W minimum
NOMINAL VOLTAGE	12V
OPEN CIRCUIT VOLTAGE	22.1V
SHORT CIRCUIT CURRENT	3.31A
MAXIMUM POWER VOLTAGE	18.18V
MAXIMUM POWER CURRENT	3.1A
GLASS	Tempered
FRAME	Anodized aluminum
JUNCTION BOX	IP65, UL94-5VA material
WEIGHT	14 pounds
MOUNTING HARDWARE	Various options available
OPERATING TEMPERATURE RANGE	-40°F to 194°F (-40°C to 90°C)
DIMENSIONS	25"W x 26"H x 1.5"D



FRONT



BACK

BATTERY 48Ah

Gelled Electrolyte

SPECIFICATIONS

VOLTAGE	12V
CAPACITY AT C/100	48Ah
VENT	Self sealing
TERMINAL	C
CONSTRUCTION	Valve regulated and spill proof. Approved for transport by air - DOT, IATA and ICAB certified.
WEIGHT	32 pounds
DIMENSIONS	7.76"L x 6.62"W x 6.87"H
OPERATING TEMPERATURE RANGE	-40°F to 176°F (-40°C to 80°C)



TAPCO RRFB-XL2™ CAPACITY RATINGS

RATED EQUIPMENT	
TAPCO RRFB CONTROLLER ASSEMBLY:	
Solid State Flash Controller	Back-to-Back RRFB-XL2™ Light Bars
Solar Charge Regulator	BullDog Push Button
900MHz BlinkerBeam® Wireless Radio	55W 12V Solar Panel
	48Ah 12V VRLA Battery

MAXIMUM DAILY ACTIVATIONS PER REGION
Northern Climates - Up to 1,000 Activations Per Day
Central Climates - Up to 1,700 Activations Per Day
Southern Climates - Up to 3,400 Activations Per Day

GENERAL LOCATION	DAILY ACTIVATIONS (20 SECONDS EACH)	RATED AUTONOMY (DAYS)	GENERAL LOCATION	DAILY ACTIVATIONS (20 SECONDS EACH)	RATED AUTONOMY (DAYS)
NORTHERN LATITUDES	100	38	SOUTHERN LATITUDES	1800	7
	200	31		1900	7
	300	25		2000	6
	400	22		2100	6
	500	19		2200	6
	600	17		2300	5
	700	15		2400	5
	800	14		2500	5
	900	13		2600	5
	1000	12		2700	5
CENTRAL LATITUDES	1100	11		2800	5
	1200	10		2900	4
	1300	9		3000	4
	1400	9		3100	4
	1500	8		3200	4
	1600	8		3300	4
	1700	7		3400	4