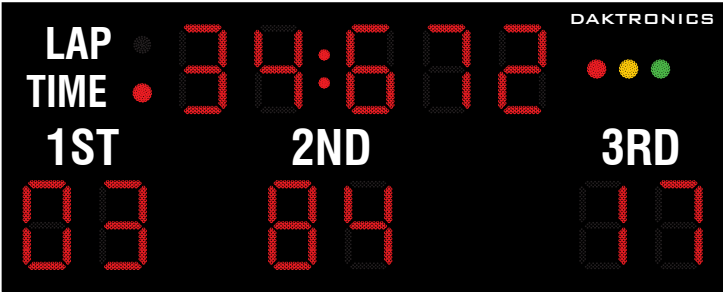


# DAKTRONICS AR-2401 PRODUCT SPECIFICATIONS



This horizontal outdoor LED auto racing display shows running time or current lap and car numbers for the top three positions. Indicators show LAP/TIME selection and flag status (red, caution, green). Display shown with red PanaView® digits.

DIMENSIONS	UNCRATED WEIGHT	POWER (120 VAC)*	
6'-0" H x 15'-0" W x 8" D (1.83 m, 4.57 m, 203 mm)	360 lb (163 kg)	Red/Amber Digits	205 Watts, 1.7 Amps
		White Digits	420 Watts, 3.5 Amps

*\*Display requires a dedicated circuit. Models with 240 VAC power at half the indicated amperage are also offered (International Use Only).*

## DIGITS & INDICATORS

- All digits are 24" (610 mm) high. All indicators are 4" (102 mm) in diameter. Colons are 2" (51 mm) in diameter.
- Select red, amber, or white LED digits and indicators (race status indicators are always red, yellow, and green).
- Display features robust weather-sealed digits (see [DD2495646](#)).
- Digits may be dimmed for night viewing.

## CAPTIONS

- LAP and TIME captions are 8" (203 mm) high. All other captions are 9" (229 mm) high.
- Standard captions are vinyl, applied directly to the display face.

## DISPLAY COLOR

Choose from 150+ colors (from Martin Senour® paint book) at no additional cost.

## CONSTRUCTION

Alcoa aluminum alloy 5052 for excellent corrosion resistance

## PRODUCT SAFETY APPROVAL

ETL-listed to UL 48, tested to CSA standards, and CE-labeled

## OPERATING TEMPERATURES

- Display: -22° to 122° Fahrenheit (-30° to 50° Celsius)
- Console: 32° to 130° Fahrenheit (0° to 54° Celsius)

# DAKTRONICS AR-2401 PRODUCT SPECIFICATIONS

CONTROL CONSOLE	CONTROL OPTIONS
<b>All Sport® 5100</b>	<b>Wired (standard):</b> One-pair shielded cable of 22 AWG minimum is required. A cover plate with mounted connector and standard 2" x 4" x 2" (51 mm x 102 mm x 51 mm) outlet box is provided. Connector mates with signal cable from control console.
	<b>Wireless (optional):</b> 2.4 GHz spread spectrum radio features 64 non-interfering channels and 8 broadcast groups (see <a href="#">SL-04370</a> ).

## MOUNTING

Hardware to mount display on two beams is included; hardware for more beams is at additional cost. Standard mounting uses I-beam clamps. Optional mounting method using angle brackets is also offered; maximum beam width is 12" (305 mm) and maximum beam depth is 22" (559 mm). Refer to attached drawings for more information on mounting methods.

## SERVICE ACCESS

Digit panels and electronics are serviced from the front of the display.

## GENERAL INFORMATION

100% solid state electronics are housed in an all aluminum cabinet. Display is shipped in one section. Display power is to be provided on a dedicated circuit to prevent loss of race information due to failure of another component on the circuit. Specifications and pricing are subject to change without notice.

## OPTIONS & ACCESSORIES

- Multiple caption colors (see [DD2101644](#))
- Optional angle bracket mounting method
- Advertising/identification panels
- Decorative accents
- Electronic message centers and video displays in multiple sizes

## ADVERTISING/IDENTIFICATION PANELS

### Backlit & Non-Backlit:

- 1'-6" H x 15'-0" W (457 mm, 4.57 m)
- 2'-0" H x 15'-0" W (610 mm, 4.57 m)
- 2'-6" H x 15'-0" W (762 mm, 4.57 m)

For additional non-backlit panel sizes, see [SL-03761](#).

## FOR ADDITIONAL INFORMATION

- Installation Specifications: DWG-1157188 (attached)
- Standard I-beam Mounting: DWG-1052565 (attached)
- Optional Pole Mounting: DWG-1048184 (attached)
- Component Locations: DWG-1071685 (attached)

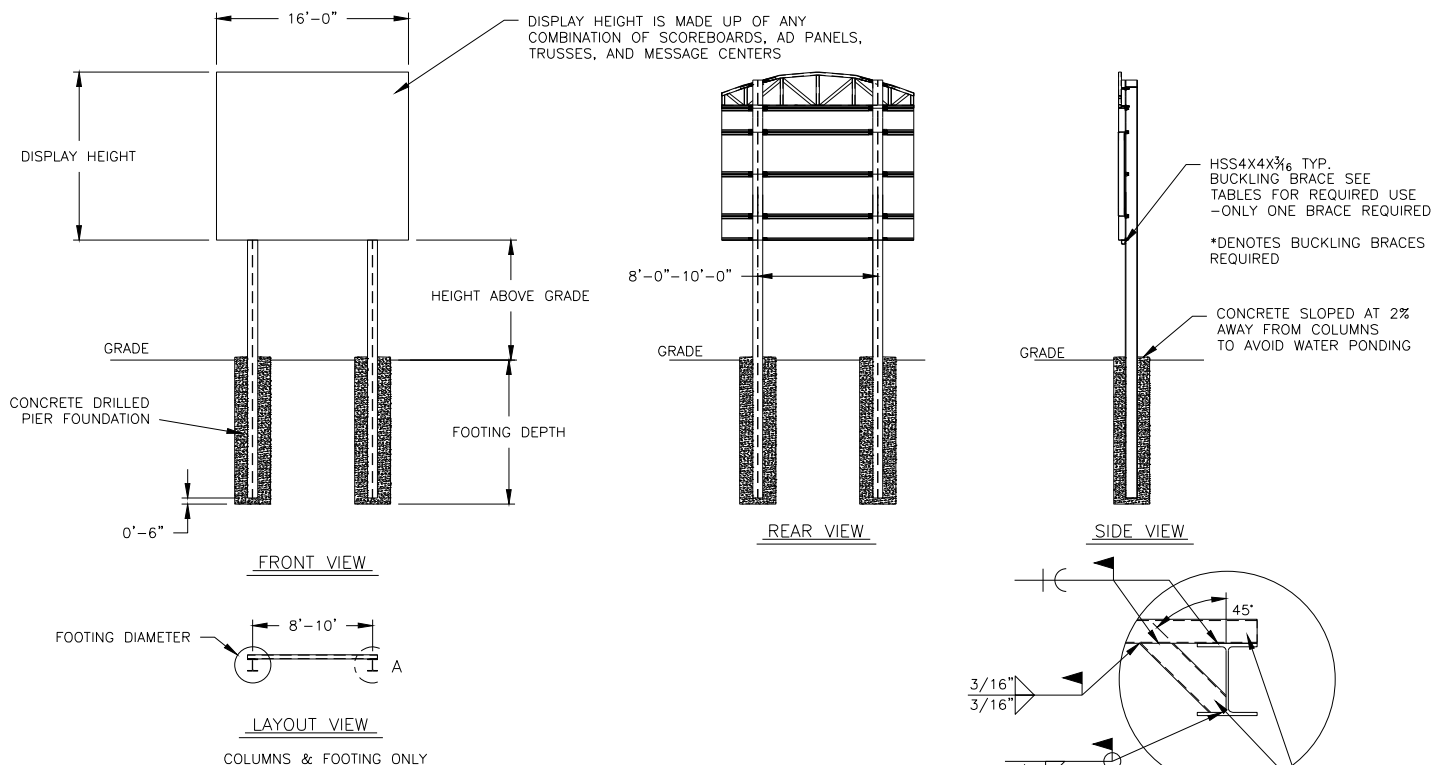


TABLE A - MOUNTING

EXPOSURE B

HEIGHT ABOVE GRADE = 10'						HEIGHT ABOVE GRADE = 15'					
DISPLAY HEIGHT (FT)		DESIGN WIND VELOCITY				DISPLAY HEIGHT (FT)		DESIGN WIND VELOCITY			
		115 MPH	130 MPH	150 MPH	170 MPH			115 MPH	130 MPH	150 MPH	170 MPH
6	COLUMN FOOTING	W8X18 2.0'X7.0'	W8X21 2.0'X7.5'	W10X22 3.0'X7.0'	W8X24 2.0'X9.0'	6	COLUMN FOOTING	W8X24 2.0'X8.0'	W12X26 3.0'X7.5'	W8X31 2.0'X9.5'	W10X33 3.0'X9.0'
8	COLUMN FOOTING	W10X22 2.0'X8.0'	W8X24 2.0'X8.5'	W8X28 3.0'X8.5'	W8X31 3.0'X9.0'	8	COLUMN FOOTING	W8X31 3.0'X7.5'	W8X31 2.0'X9.5'	W10X39 3.0'X9.0'	W14X43 3.0'X10.0'
10	COLUMN FOOTING	W12X26 3.0'X7.5'	W12X30 3.0'X8.5'	W10X26* 3.0'X9.0'	W12X26* 3.0'X10.0'	10	COLUMN FOOTING	W12X26* 3.0'X8.5'	W12X30* 3.0'X9.0'	W14X34* 3.0'X10.0'	W12X40* 3.0'X11.0'
12	COLUMN FOOTING	W8X31 2.0'X9.5'	W10X33 3.0'X9.0'	W12X30* 3.0'X10.0'	W14X34* 3.0'X11.0'	12	COLUMN FOOTING	W12X30* 3.0'X9.0'	W14X34* 3.0'X10.0'	W12X40* 3.0'X11.0'	W14X48* 3.0'X12.0'
14	COLUMN FOOTING	W10X26* 3.0'X9.0'	W12X26* 3.0'X10.0'	W14X34* 3.0'X11.0'	W16X36* 3.0'X12.0'	14	COLUMN FOOTING	W14X34* 3.0'X10.0'	W12X40* 3.0'X11.0'	W16X45* 3.0'X12.0'	W18X55* 3.0'X14.0'
16	COLUMN FOOTING	W12X26* 3.0'X9.5'	W14X30* 3.0'X11.0'	W14X38* 3.0'X11.5'	W14X43* 3.0'X13.0'	16	COLUMN FOOTING	W16X36* 3.0'X10.5'	W14X43* 3.0'X11.5'	W21X48* 3.0'X13.0'	W21X55* 3.0'X15.0'

FOOTING DIMENSIONS = DIAMETER X DEPTH  
\* DENOTES BUCKLING BRACE REQUIRED

EXPOSURE C

HEIGHT ABOVE GRADE = 10'				HEIGHT ABOVE GRADE = 15'			
DISPLAY HEIGHT (FT)		DESIGN WIND VELOCITY		DISPLAY HEIGHT (FT)		DESIGN WIND VELOCITY	
		115 MPH	140 MPH			115 MPH	140 MPH
6	COLUMN FOOTING	W8X21 2.0'X8.0'	W8X24 2.0'X9.0'	6	COLUMN FOOTING	W8X28 2.0'X9.0'	W10X33 3.0'X9.0'
8	COLUMN FOOTING	W8X24 2.0'X9.0'	W8X31 3.0'X9.0'	8	COLUMN FOOTING	W10X33 3.0'X8.5'	W14X43 3.0'X10.0'
10	COLUMN FOOTING	W8X31 2.0'X10.0'	W10X39 3.0'X10.0'	10	COLUMN FOOTING	W12X40 3.0'X9.5'	W10X49 3.0'X11.0'
12	COLUMN FOOTING	W12X26* 3.0'X9.5'	W14X34* 3.0'X11.0'	12	COLUMN FOOTING	W16X36* 3.0'X11.0'	W16X45* 3.0'X12.0'
14	COLUMN FOOTING	W12X30* 3.0'X10.0'	W16X36* 3.0'X12.0'	14	COLUMN FOOTING	W16X40* 3.0'X11.0'	W21X48* 3.0'X13.0'
16	COLUMN FOOTING	W14X34* 3.0'X11.0'	W16X40* 3.0'X13.0'	16	COLUMN FOOTING	W16X45* 3.0'X12.0'	W21X55* 3.0'X15.0'

FOOTING DIMENSIONS = DIAMETER X DEPTH  
\* DENOTES BUCKLING BRACE REQUIRED

NOTE:

-REFER TO NOTE 7 FOR EXPOSURE CATEGORY DEFINITIONS.

NOTES:

1. FOOTING AND COLUMN SIZES ARE SUGGESTIONS ONLY, PROVIDED TO ASSIST WITH ESTIMATING INSTALLATION COSTS AND ARE NOT INTENDED FOR CONSTRUCTION PURPOSES. THE DESIGN MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE INSTALLATION BEFORE THEY CAN BE USED FOR FABRICATION OR ERECTION.

2. INTERNATIONAL BUILDING CODE 2012 USED IN DESIGN OF COLUMNS AND FOOTINGS WITH IMPORTANCE FACTOR=1, Kzt=1.0, Kd=0.85, G=0.85. SEISMIC DESIGN WAS NOT CONSIDERED.

3. FOOTING DIMENSIONS ARE BASED ON ASSUMED SOIL CLASS 4 (ALLOWABLE LATERAL BEARING PRESSURE OF 150 psf).

4. STRUCTURAL STEEL IS GRADE A992 (50 ksi) STEEL. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 psi.

5. THE AVERAGE DISPLAY WEIGHT FOR A LAYOUT CAN NOT EXCEED 8 PSF.

6. DAKTRONICS INC. IS NOT RESPONSIBLE FOR STRUCTURES DESIGNED AND INSTALLED BY OTHERS.

7. LOCAL BUILDING OFFICIALS SHOULD BE CONTACTED TO DETERMINE THE WIND SPEED AND EXPOSURE CATEGORY FOR THE PROPOSED SIGN LOCATION. THE EXPOSURE CATEGORY C IS DEFINED AS:

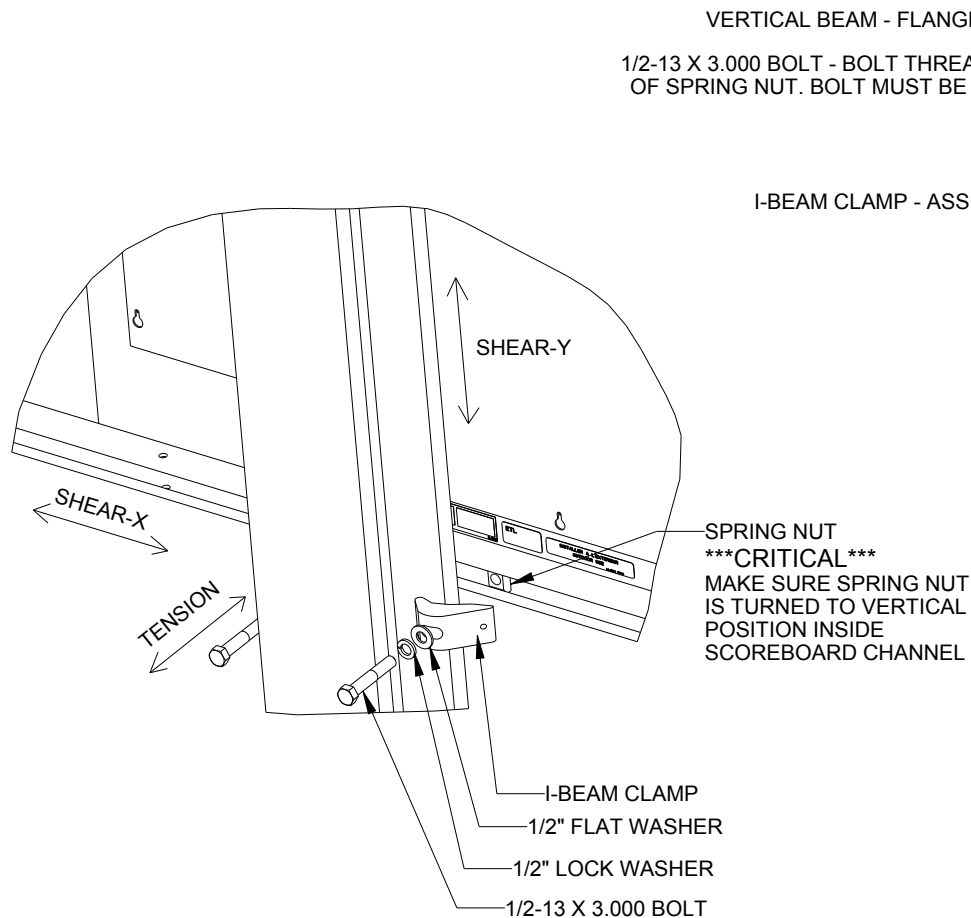
EXPOSURE B - URBAN AND SUBURBAN AREAS, OR OTHER TERRAIN WITH NUMEROUS SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE CONDITIONS MUST PREVAIL FOR A DISTANCE FROM THE SIGN OF AT LEAST 2,600 ft OR 20 TIMES THE SIGN HEIGHT, WHICHEVER IS GREATER

EXPOSURE C - OPEN TERRAIN WITH SCATTERED OBSTRUCTIONS HAVING HEIGHTS GENERALLY LESS THAN 30 FT. THIS CATEGORY INCLUDES FLAT OPEN COUNTRY, GRASSLANDS, AND ALL WATER SURFACES IN HURRICANE PRONE REGIONS.


8. FOR SPECIFIC PRODUCT DETAILS ON WEIGHT, MOUNTING, ETC. REFER TO THE INDIVIDUAL PRODUCT SPECIFICATION SHEETS.

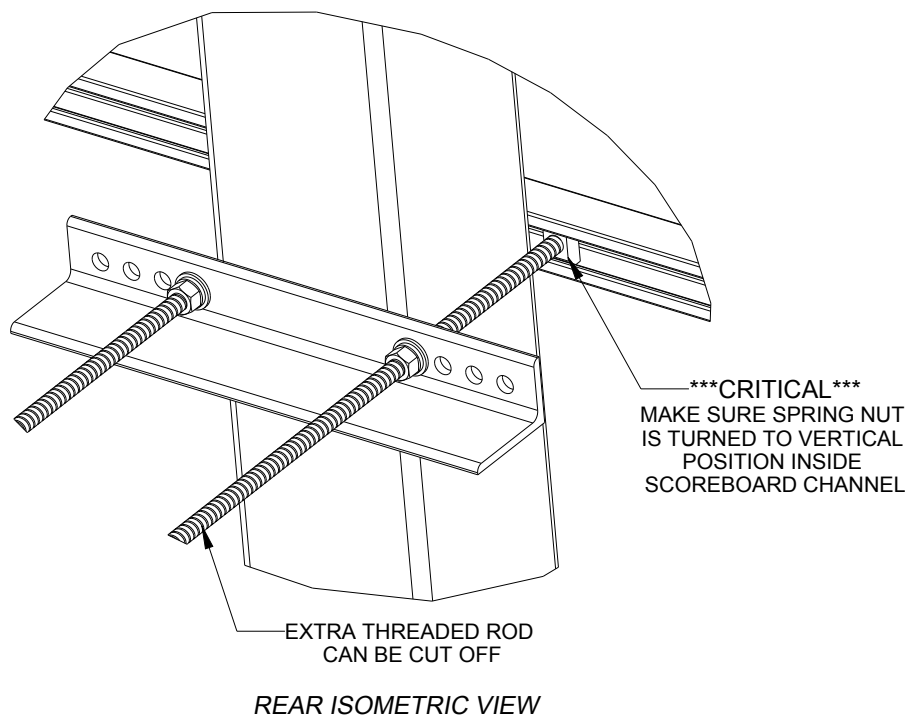
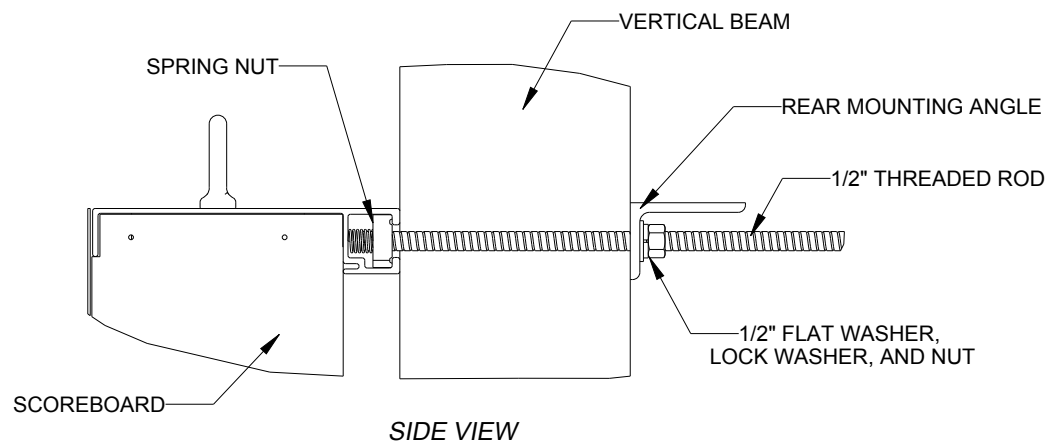
<p>DAKTRONICS, INC. BROOKINGS, SD 57006 DO NOT SCALE DRAWING</p>		<p>THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2011 DAKTRONICS, INC.</p>	
		<p>PROJ: OUTDOOR SCOREBOARD INSTALLATION TITLE: 16' WIDTH SCOREBOARD INSTALLATION SPECS</p>	
DESIGN: RSCHWAR	DRAWN: RSCHWAR		DATE: 27 NOV 13
SCALE: 1/16" = 1'			
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE
	02	P1647	E-10-A
			1157188

REV 02	DATE: 27 OCT 15	UPDATED WIDE FLANGE AND FOUNDATION VALUES	BY: AMP
REV 01	DATE: 23 JUL 14	UPDATED CLAMPS IN REAR AND SIDE VIEWS AND ADDED 170 MPH WIND SPEC COLUMN	BY: TJT



05	22 DEC 15	PER EC-22871; ADDED LUBRICANT NOTE	PJS 18704	
04	06 JAN 14	ADDED ALLOWABLE TENSION AND SHEAR CAPACITY DETAILS	JAVA	
03	23 OCT 13	PER EC-12382; CHANGED BOLT TORQUE FROM 30 FT-LB TO 40 FT-LB	NJM	
02	07 MAR 12	ADDED STANDARD MOUNTING METHODS NOTES	KDD	
01	21 FEB 12	CHANGED ROCKER TO I-BEAM	KDD	
REV	DATE:		BY:	

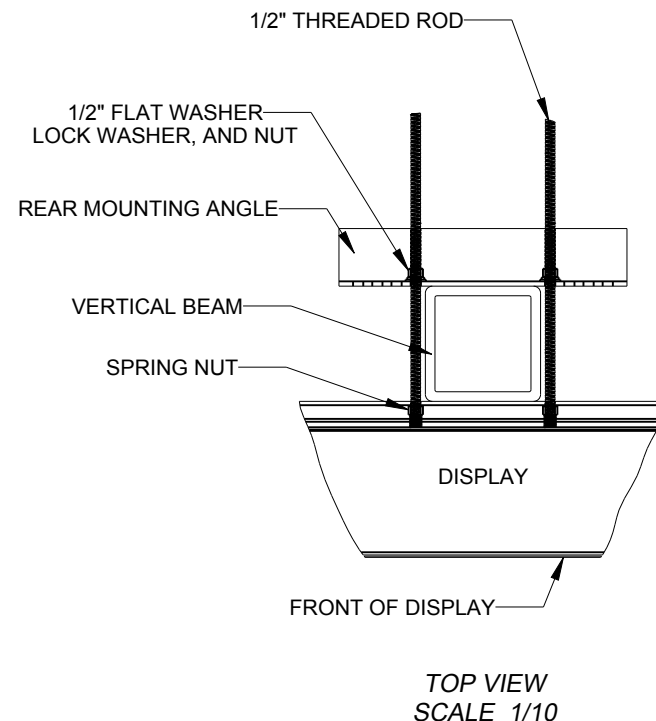
 <b>DAKTRONICS</b>		THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. OR ITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2016 DAKTRONICS, INC. (USA)		 THIRD ANGLE PROJECTION	
PROJECT: OUTDOOR SCOREBOARD					
TITLE: P1647; I-BEAM CLAMP MOUNTING					
DATE: 22-DEC-15		DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: 1/8		DO NOT SCALE DRAWING		1 OF 1	05
DESIGN: MCARSRU		JOB NO.	FUNC - TYPE - SIZE	1052565	
DRAWN: MCARSRU		P1647	E - 07 - A		



**STRUCTURAL NOTES:**  
- BOLT TORQUE: 30 FT-LB

**NOTES:**

- THREADED RODS RUN ALONG BOTH SIDES OF BEAM
- RODS DO NOT PASS THROUGH THE FLANGES OF THE BEAM
- NO DRILLING NECESSARY
- MAKE SURE SPRING NUT IS PERPENDICULAR TO CHANNEL OPENING ON SCOREBOARD

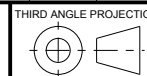


**\*\*\*CRITICAL\*\*\***  
**DO NOT USE ANY LUBRICANT**  
**ON ANY MOUNTING HARDWARE**  
**OR WARRANTY WILL BE VOIDED**

04	22 DEC 15	PER EC-22871; ADDED LUBRICANT WARNING	PJS 18704	
03	03 JULY 13	ADDED STRUCTURAL NOTE	TTF	
02	20 SEP 12	PER EC-7114; REMOVED CHAMFER FROM 0M-133259	LMG	
01	06 OCT 11	REPLACED VERTICAL I-BEAM WITH 6" X 6" SQUARE TUBE	JAVA	
REV	DATE:		BY:	

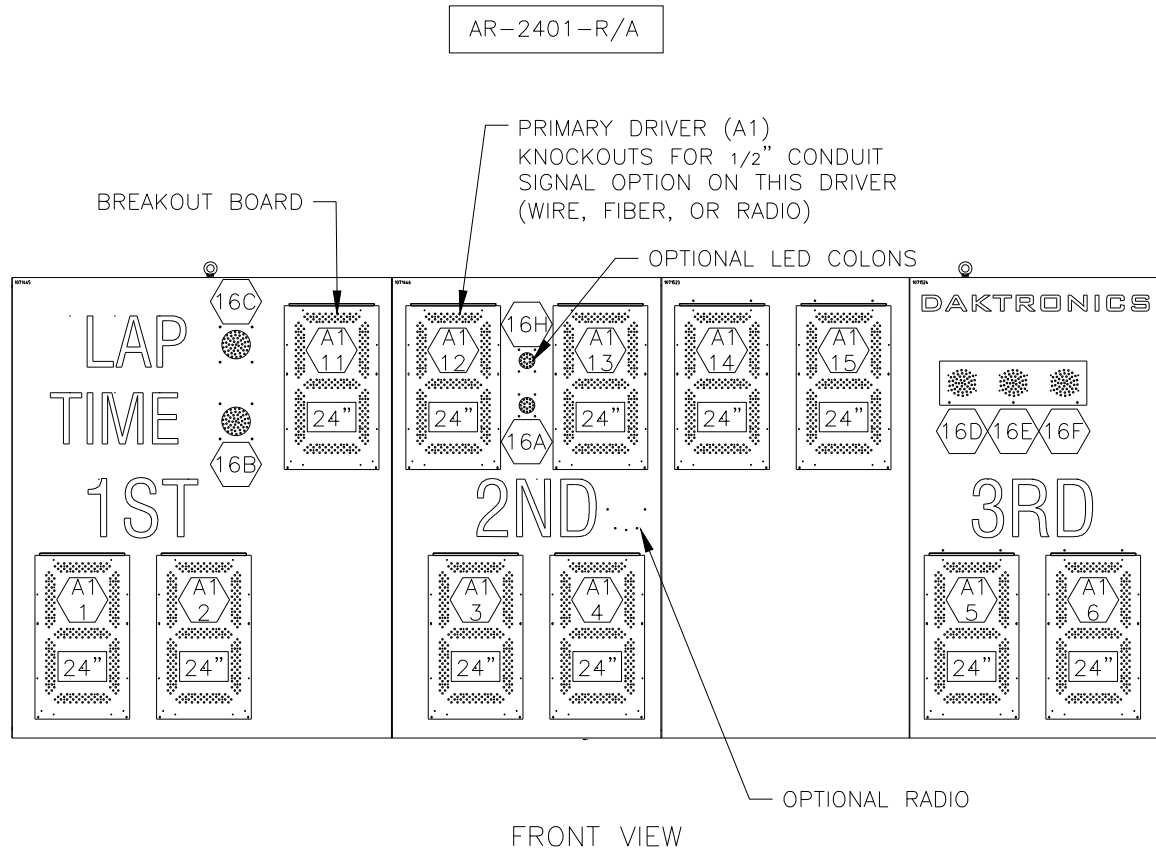


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PROJECT: OUTDOOR SCOREBOARDS				
TITLE: P1647; POLE MOUNTING OPTIONS				
DATE: 22-DEC-15	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: 1/5	DO NOT SCALE DRAWING		1 OF 1	04
DESIGN: DOPPELT	JOB NO.	FUNC - TYPE - SIZE	1048184	
DRAWN: DOPPELT	P1647	E - 10 - A		

REV 02	DATE: 06 AUG 20	PER CN-107687 REMOVED LABELS TO MOVE TO NEW STANDARD	BY: TAN
REV 01	DATE: 2 MAR 15	PER EG-17118, REMOVED DETAIL A AND B ADDED SIGNAL OPTION NOTE CHANGED MASTER TO PRIMARY	BY: KOB



NOTES:

 = LED DRIVER NUMBER & LED DRIVER CONNECTOR WIRED TO THAT DIGIT



**DAKTRONICS, INC.**  
BROOKINGS, SD 57006

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PROJECT: OUTDOOR LED SCOREBOARDS

TITLE: COMPONENT LOCATION: AR-2401-201X-R/A

DESIGN: KDRAGT

SCALE: 1"=30'

SHEET	REV	JOB NO.	FUNC. TYPE-SIZE	DATE
02	P1198		E-10-A	1071685