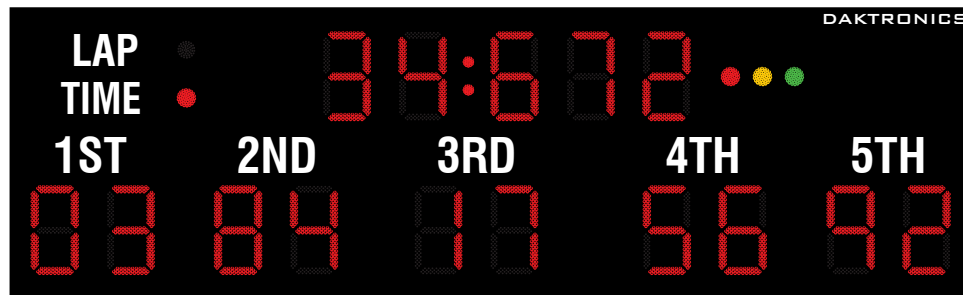


DAKTRONICS AR-2402 PRODUCT SPECIFICATIONS



This horizontal outdoor LED auto racing display shows running time or current lap and car numbers for the top five 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 20'-0" W x 8" D (1.83 m, 6.10 m, 203 mm) | 500 lb (227 kg) | Red/Amber Digits | 270 Watts, 2.3 Amps |
| | | White Digits | 560 Watts, 4.7 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-2402 PRODUCT SPECIFICATIONS

| CONTROL CONSOLE | CONTROL OPTIONS |
|------------------------|---|
| All Sport® 5100 | Wired (standard): 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. |
| | Wireless (optional): 2.4 GHz spread spectrum radio features 64 non-interfering channels and 8 broadcast groups (see SL-04370). |

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 20'-0" W (457 mm, 6.10 m)
- 2'-0" H x 20'-0" W (610 mm, 6.10 m)
- 2'-6" H x 20'-0" W (762 mm, 6.10 m)

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

FOR ADDITIONAL INFORMATION

- Installation Specifications: DWG-1157190 (attached)
- Standard I-beam Mounting: DWG-1052565 (attached)
- Optional Pole Mounting: DWG-1048184 (attached)
- Component Locations: DWG-1078249 (attached)

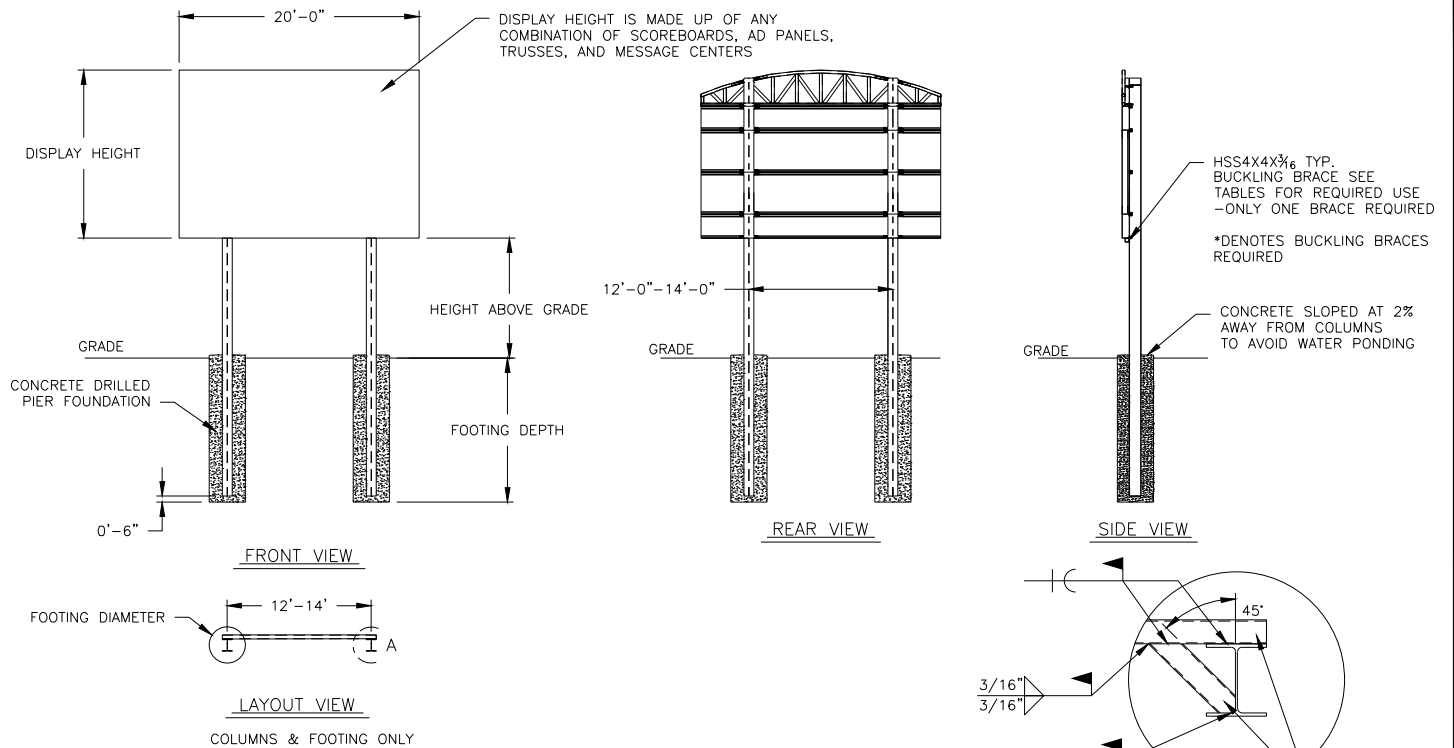


TABLE A - MOUNTING

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 |
| 8 | COLUMN FOOTING | W8X24 2.0'x8.5' | W8x28 2.0'x9.5' | W8X31 2.0'x10.5' | W12X26* 3.0'x9.5' | 8 | COLUMN FOOTING | W10X26* 2.0'x9.5' | W10X30* 2.0'x10.5' | W14x34* 3.0'x10.0' | W12X40* 3.0'x11.0' |
| 10 | COLUMN FOOTING | W8X31 2.0'x9.5' | W10X26 2.0'x10.5' | W12X26* 3.0'x10.0' | W14X34* 3.0'x11.0' | 10 | COLUMN FOOTING | W12X30* 3.0'x9.0' | W14x34* 3.0'x10.0' | W12X40* 3.0'x11.0' | W16X45* 3.0'x12.0' |
| 12 | COLUMN FOOTING | W10X26* 2.0'x10.5' | W12X26* 3.0'x10.0' | W14X34* 3.0'x11.0' | W16X40* 3.0'x12.0' | 12 | COLUMN FOOTING | W14X30* 3.0'x10.0' | W12X40* 3.0'x11.0' | W14X43* 3.0'x12.0' | W21X48* 3.0'x13.5' |
| 14 | COLUMN FOOTING | W12X26* 3.0'x9.5' | W14X34* 3.0'x10.5' | W16X40* 3.0'x12.0' | W21x44* 3.0'x13.5' | 14 | COLUMN FOOTING | W14X34* 3.0'x10.5' | W16X40* 3.0'x11.5' | W21X48* 3.0'x13.5' | W21X55* 3.0'x15.5' |
| 16 | COLUMN FOOTING | W14X30* 3.0'x10.5' | W18x35* 3.0'x11.5' | W16X40* 3.0'x13.0' | W21X48* 3.0'x15.0' | 16 | COLUMN FOOTING | W16x40* 3.0'x11.5' | W21X48* 4.0'x11.0' | W18X55* 3.0'x14.5' | W21x68* 4.0'x14.5' |
| 18 | COLUMN FOOTING | W14X34* 3.0'x11.0' | W16X40* 3.0'x12.0' | W21X48* 3.0'x14.0' | W18X55* 3.0'x16.5' | 18 | COLUMN FOOTING | W14X48* 3.0'x12.0' | W21x48* 4.0'x12.0' | W21X55* 4.0'x13.5' | W24X68* 4.0'x16.0' |
| 20 | COLUMN FOOTING | W16X36* 3.0'x11.5' | W21X44* 3.0'x13.0' | W21X48* 3.0'x15.5' | W21X62* 3.0'x18.5' | 20 | COLUMN FOOTING | W21X48* 3.0'x13.0' | W21X55* 4.0'x12.5' | W24X68* 4.0'x15.0' | W24X76* 4.0'x17.5' |

FOOTING DIMENSIONS = DIAMETER X DEPTH

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 |
| 8 | COLUMN FOOTING | W12x30 3.0'x8.5' | W14x38 3.0'x10.0' | 8 | COLUMN FOOTING | W10x39 3.0'x9.5' | W10x49 3.0'x11.0' |
| 10 | COLUMN FOOTING | W14x38 3.0'x9.5' | W14x43 3.0'x11.0' | 10 | COLUMN FOOTING | W10x49 3.0'x10.5' | W12x53 3.0'x12.0' |
| 12 | COLUMN FOOTING | W14x43 3.0'x10.0' | W12x53 3.0'x12.0' | 12 | COLUMN FOOTING | W14x43* 3.0'x11.0' | W18x55* 3.0'x13.5' |
| 14 | COLUMN FOOTING | W10x49 3.0'x11.0' | W12x58 3.0'x13.0' | 14 | COLUMN FOOTING | W21x48* 4.0'x11.0' | W21x62* 4.0'x12.5' |
| 16 | COLUMN FOOTING | W16x40* 3.0'x12.0' | W21x48* 3.0'x14.5' | 16 | COLUMN FOOTING | W18x55* 3.0'x13.0' | W16x67* 3.0'x16.5' |
| 18 | COLUMN FOOTING | W21x44* 4.0'x11.0' | W21x55* 4.0'x14.0' | 18 | COLUMN FOOTING | W21x62* 3.0'x14.5' | W24x68* 4.0'x15.5' |
| 20 | COLUMN FOOTING | W21x48* 4.0'x12.0' | W21x62* 4.0'x15.0' | 20 | COLUMN FOOTING | W16x67* 3.0'x15.5' | W24x84* 4.0'x16.5' |

FOOTING DIMENSIONS = DIAMETER X DEPTH

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:

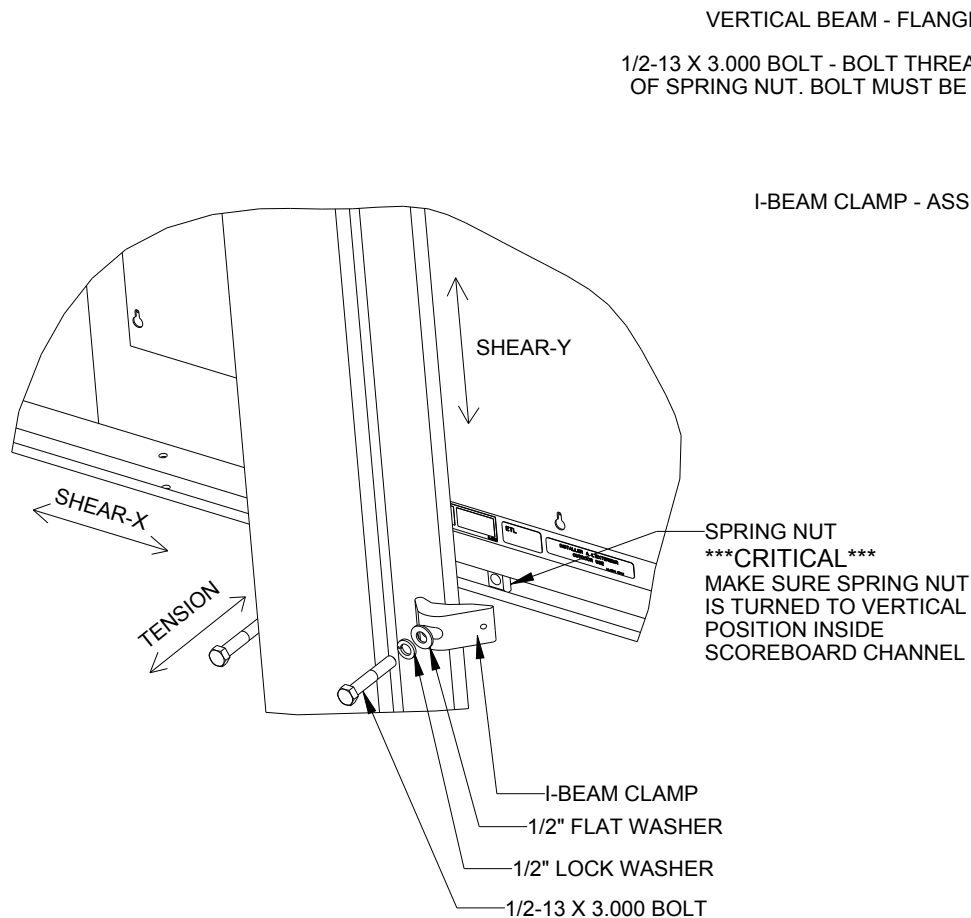
EXPOSURE B - URBAN AND SUBURBAN AREAS, OR OTHER TERRAIN WITH NUMEROUS SPACED OBSTRUCTIONS HAVING THE SIZE OF SINGLE-FAMILY DWELLINGS OR LARGER. THESE CONDITIONS MUST PREVAIL FOR A DISTANCE FROM THE SIGN OF AT LEAST 2,600 ft OR 20 TIMES THE SIGN HEIGHT, WHICHEVER IS GREATER

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.

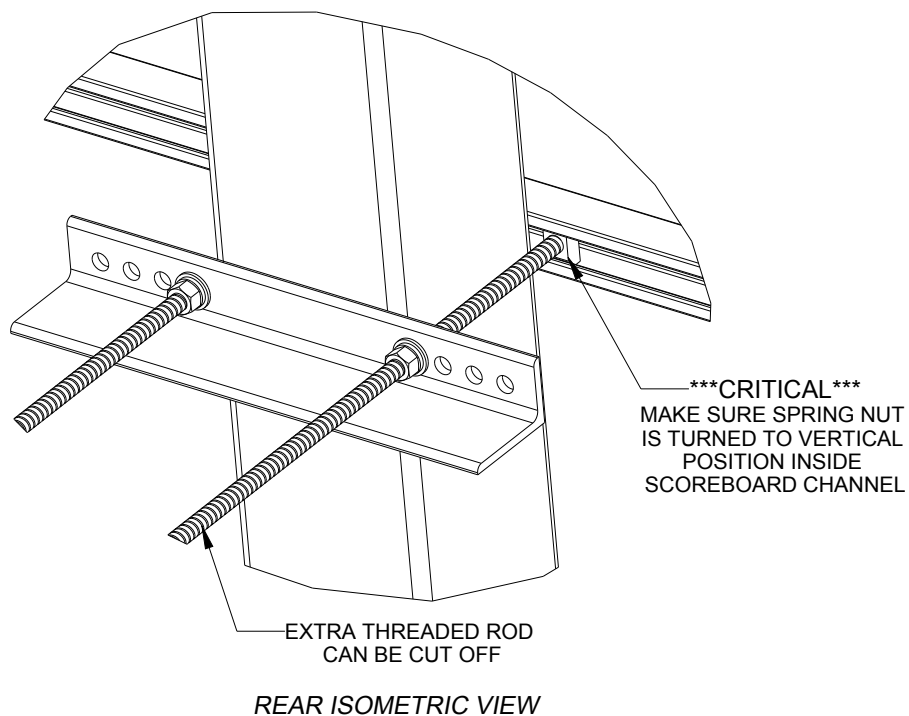
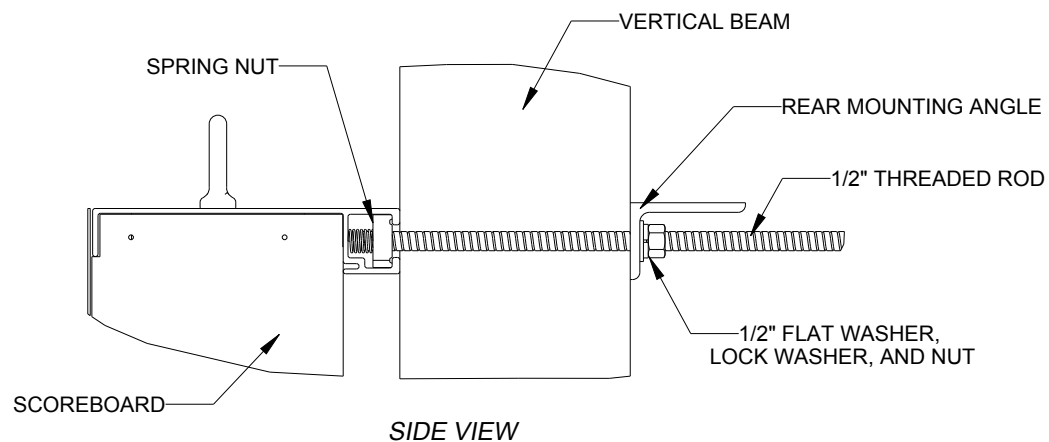
| | | | | | |
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| | | PROJ: OUTDOOR SCOREBOARD INSTALLATION TITLE: 20' WIDTH SCOREBOARD INSTALLATION SPECS | | | |
| DESIGN: RSCHWAR | DRAWN: RSCHWAR | | DATE: 27 NOV 13 | | |
| SCALE: 1/16" = 1' | | | | | |
| SHEET | REV | JOB NO: | FUNC-TYPE-SIZE | | |
| | 02 | P1647 | E-10-A | | 1157190 |

| | | | |
|--------|-----------------|--|---------|
| REV 02 | DATE: 20 OCT 15 | UPDATED WIDE FLANGE SIZES UPDATED FOUNDATION SIZES NOTED WHICH DISPLAYS NEEDED BRACE | 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: | |

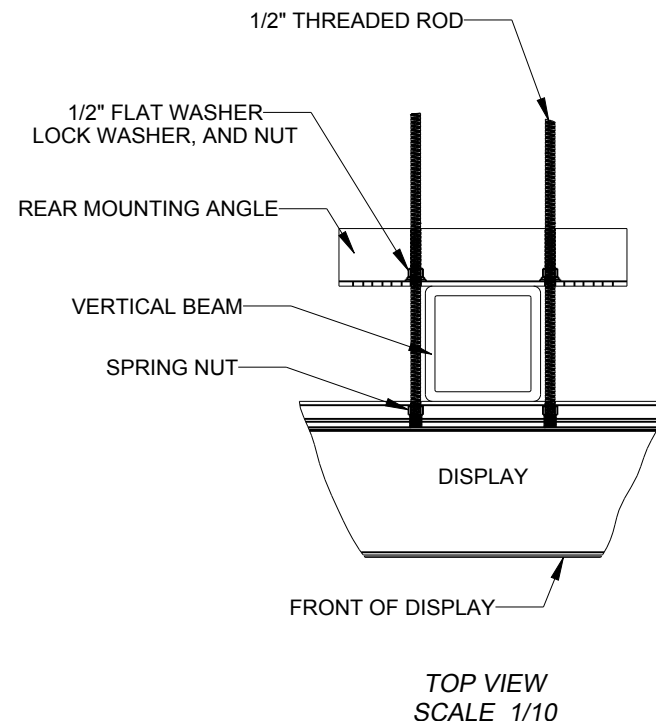
| | | | | | |
|--|--|--|--------------------|---|-----------|
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| PROJECT: OUTDOOR SCOREBOARD | | | | | |
| TITLE: P1647; I-BEAM CLAMP MOUNTING | | | | | |
| DATE: 22-DEC-15 | | DIM UNITS: INCHES [MILLIMETERS] | | SHEET | REV |
| SCALE: 1/8 | | DO NOT SCALE DRAWING | | 1 OF 1 | 05 |
| DESIGN: MCARSRU | | JOB NO. | FUNC - TYPE - SIZE | 1052565 | |
| DRAWN: MCARSRU | | P1647 | F - 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

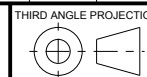


*****CRITICAL*****
DO NOT USE ANY LUBRICANT
ON ANY MOUNTING HARDWARE
OR WARRANTY WILL BE VOIDED

| | | | | |
|-----|------------|---|-----------|--|
| 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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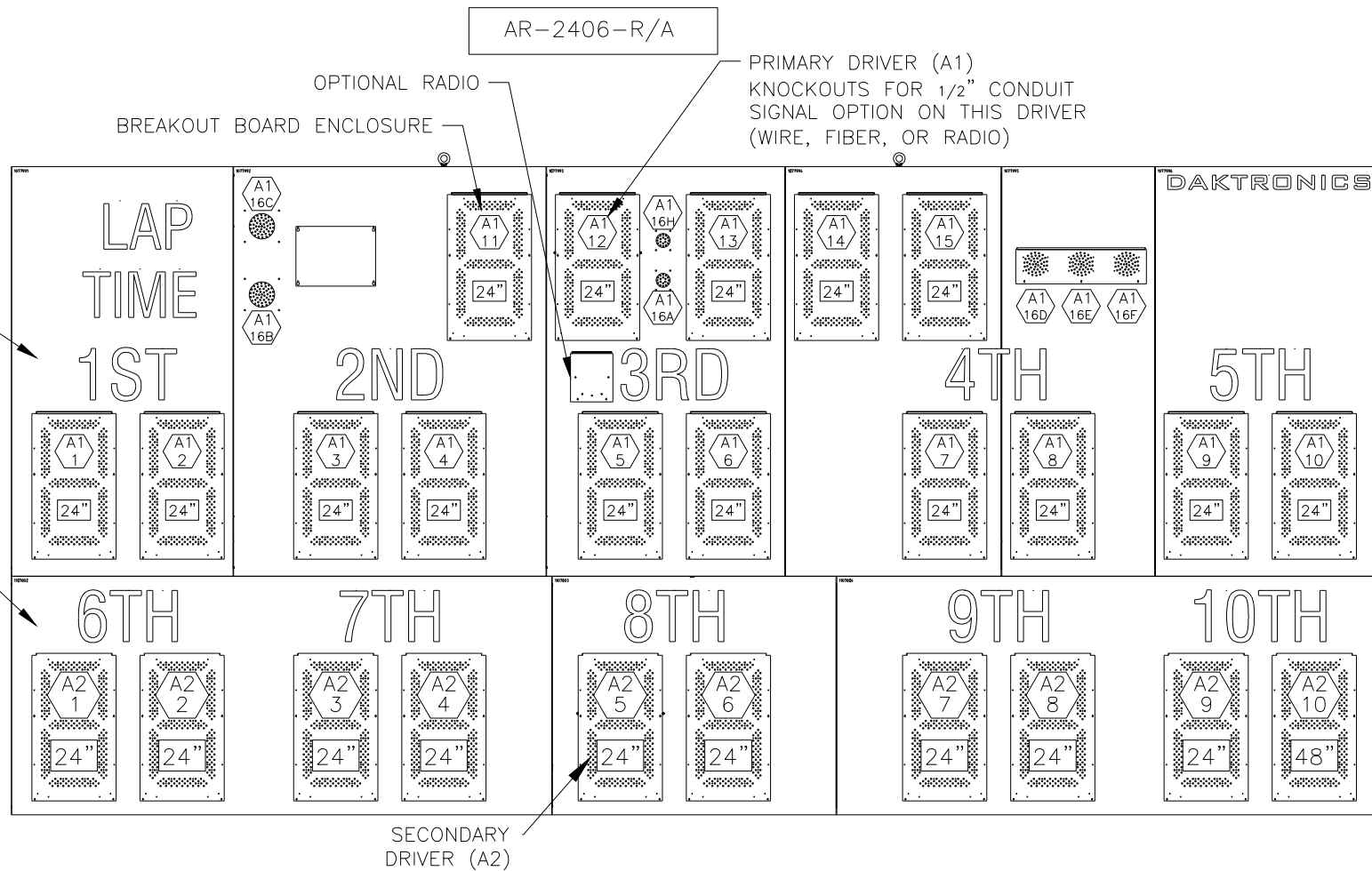


| | | | | |
|-------------------------------------|---------------------------------|--------------------|---------|-----|
| PROJECT: OUTDOOR SCOREBOARDS | | | | |
| TITLE: P1647; POLE MOUNTING OPTIONS | | | | |
| DATE: 22-DEC-15 | DIM UNITS: INCHES [MILLIMETERS] | | SHEET | REV |
| SCALE: 1/5 | DO NOT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

| | | | |
|--------|-----------------|---|---------|
| REV 03 | DATE: 11 AUG 20 | PER CN-107905 REMOVED LABELS TO MOVE TO NEW STANDARD | BY: T.M |
| REV 02 | DATE: 02 MAR 15 | PER EC-17118, REMOVED DETAIL A AND B ADDED SIGNAL OPTION NOTE CHANGED MASTER TO PRIMARY | BY: KOB |
| REV 01 | DATE: 2 AUG 12 | PER EC-68910 CHANGED TO SHOW AR-2406 | BY: ZR |


AR-2402

AR-2407



NOTES:

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

 = DIGIT SIZE



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BROOKINGS, SD 57006

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PROJ: OUTDOOR LED SCOREBOARDS

TITLE: COMPONENT LOCATION: AR-2406-201X-R/A

DESIGN: KDRAGT

SCALE: 1"=30"

SHEET

REV 03

JOB NO. P1198

FUNC - TYPE-SIZE
E-10-A

DATE: 15 DEC 11
1078249