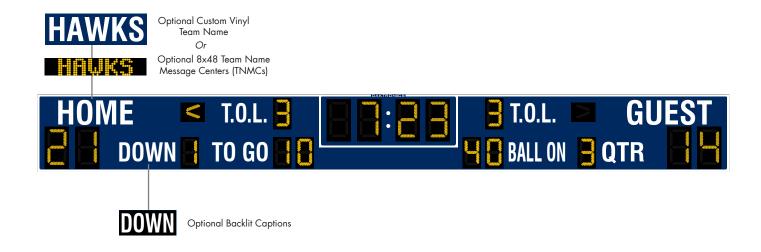
DAKTRONICS FB-2038 PRODUCT SPECIFICATIONS



This outdoor LED football scoreboard displays period time to 99:59, HOME and GUEST scores to 99, T.O.L. (time outs left) to nine, and DOWN/TO GO/BALL ON/QTR (quarter) information. Arrows indicate possession. When period time is less than one minute, the scoreboard displays time to 1/10 of a second.

DIMENSIONS	# OF SECTIONS
4'-0" H x 36'-0" W x 8" D (1.22 m x 10.97 m x 203 mm)	Two Total
4'-0" H x 18'-0" W x 8" D (1.22 m x 5.49 m x 203 mm)	One Left & One Right

		VINYL CAPTIONS (STANDARD)	TNMCS & VINYL CAPTIONS	BACKLIT CAPTIONS
POWER	Red/Amber Digits	250 Watts, 2.1 Amps	350 Watts, 2.9 Amps	470 Watts, 3.9 Amps
(120 VAC)*	White Digits	540 Watts, 4.5 Amps	770 Watts, 6.4 Amps	760 Watts, 6.3 Amps
UNCRATED	Each Section	288 lb (131 kg)	348 lb (158 kg)	380 lb (172 kg)
WEIGHT	Total	576 lb (261 kg)	696 lb (316 kg)	760 lb (345 kg)

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

DIGITS & INDICATORS

- Clock and score digits are 24" (610 mm) high. All other digits are 18" (457 mm) high.
- Select red, amber, or white LED digits and indicators.
- Scoreboard features robust weather-sealed digits (see <u>DD2495646</u>).
- Digits may be dimmed for night viewing.

DISPLAY COLOR

Choose a color from the Daktronics standard paint book (see <u>SL-02730</u>).

CONSTRUCTION

Alcoa aluminum alloy 5052 for excellent corrosion resistance

PRODUCT SAFETY APPROVAL

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

CAPTIONS & STRIPING

- HOME and GUEST captions are 15" (381 mm) high.
 All other captions are 12" (305 mm) high.
- Standard captions are vinyl, applied to the display face.
- Optional backlit captions consist of white letters on a black background. Team names are 14" (356 mm) high.
 All other captions are 12" (305 mm) high.
- Optional TNMCs are 10.6" (269 mm) high.
- Standard captions and border striping are white vinyl. Choose another vinyl color at no additional cost (see <u>DD2101644</u>).

OPERATING TEMPERATURES

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



DAKTRONICS FB-2038 PRODUCT SPECIFICATIONS

CONTROL CONSOLE

CONTROL OPTIONS

All Sport® 5000 (see <u>SL-03991</u>)

Wireless: 2.4 GHz spread spectrum radios feature 64 non-interfering channels and 8 broadcast groups (see <u>SL-04370</u>). This is a popular upgrade.

Wired: Two-pair shielded cable of 22 AWG minimum is required. A cover plate with mounted connector and standard $2" \times 4" \times 2"$ (51 mm x 102 mm x 51 mm) outlet box is provided. Connector mates with signal cable from control console.

SEGMENT TIMER MODE

The segment timer mode is ideal for keeping practices on schedule. The horn at the end of a segment allows coaches and athletes to focus on the practice and to listen for the horn when it is time to change drills (see <u>SI-04004</u>).

TIME OF DAY MODE

This scoreboard features a Time of Day (TOD) mode that allows it to act as a clock when the control console is unplugged or off. Refer to the scoreboard installation manual for instructions on how to enable the Time of Day mode.

MOUNTING

Scoreboard is typically mounted on three vertical beams or poles. Hardware to mount scoreboard on three 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 scoreboard.

GENERAL INFORMATION

Scoreboard provides scoring capabilities for two teams. 100% solid state electronics are housed in an all aluminum cabinet. Scoreboard is shipped in two sections. Scoreboard power is to be provided on a dedicated circuit to prevent loss of game information due to failure of another component on the circuit. Specifications and pricing are subject to change without notice.

ADVERTISING/IDENTIFICATION PANELS

Backlit & Non-Backlit:

 $\begin{array}{l} 1\text{-}6\text{''} \text{ H} \times 36\text{'-}0\text{''} \text{ W} & (457 \text{ mm} \times 10.97 \text{ m}) \\ 2\text{'-}0\text{''} \text{ H} \times 36\text{'-}0\text{''} \text{ W} & (610 \text{ mm} \times 10.97 \text{ m}) \\ 2\text{'-}6\text{''} \text{ H} \times 36\text{'-}0\text{''} \text{ W} & (762 \text{ mm} \times 10.97 \text{ m}) \\ 3\text{'-}0\text{''} \text{ H} \times 36\text{'-}0\text{''} \text{ W} & (914 \text{ mm} \times 10.97 \text{ m}) \\ 4\text{'-}0\text{''} \text{ H} \times 36\text{'-}0\text{''} \text{ W} & (1.22 \text{ m} \times 10.97 \text{ m}) \\ 5\text{'-}0\text{''} \text{ H} \times 36\text{'-}0\text{''} \text{ W} & (1.52 \text{ m} \times 10.97 \text{ m}) \\ \end{array}$

For additional non-backlit panel sizes, see <u>SL-03761</u>.

FAN FAVORITE OPTIONS

These are the most commonly requested enhancements:

- Custom vinyl team name caption in place of HOME *or*
 Two Digital Team Name Message Centers (TNMCs) in
 place of HOME and GUEST captions (see <u>DD1696958</u>)
 or Backlit team name captions
- Horn

OTHER ACCESSORIES & UPGRADES

The options below are available for additional customization:

- Backlit captions
- Lacrosse/field hockey and soccer captions on changeable panels
- LED colon
- Individual digit protective screens (see <u>SL-04939</u>)
- Protective netting (see <u>DD2690927</u>)
- Angle bracket mounting method

COMPLETE YOUR SYSTEM

Contact Daktronics about adding any of this equipment to create a unique scoring and display system:

- Advertising/identification panels
- Decorative accents
- Play clocks (Delay of game timers)
- Sportsound® Audio
- Video displays
- Live web streaming of scores and stats

FOR ADDITIONAL INFORMATION

- Installation Specifications: DWG-1189181 (attached)
- Standard I-beam Mounting: DWG-1052565 (attached)
- LVX I-Beam Mounting: DWG-3918361 (attached)
- Optional Pole Mounting: DWG-1048184 (attached)
- Component Locations: DWG-4975621 (attached)
- Architectural Specifications: See <u>DD4757194</u>



DAKTRONICS FB-2038 PRODUCT SPECIFICATIONS

ALTERNATE CAPTIONS & SCORING MODES



Segment Timer Mode





Standalone Time of Day Mode



Football Mode – vinyl and backlit captions shown



Football Mode – Optional TNMCs shown





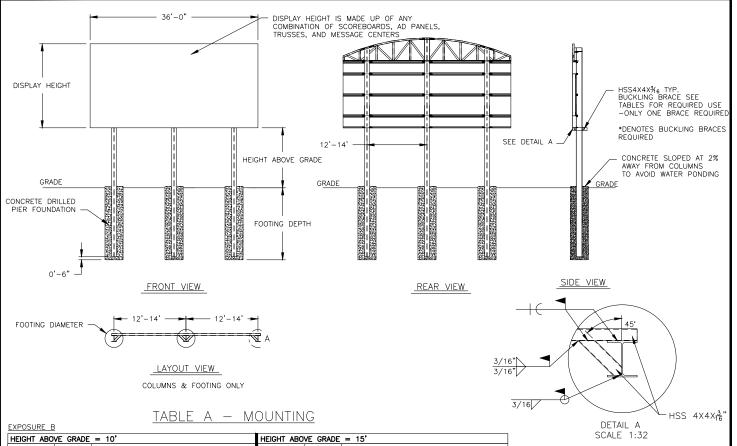


Soccer Mode – vinyl and backlit captions shown



Lacrosse/Field Hockey Mode – vinyl and backlit captions shown





HEIGHT ABOVE GRADE = 10'				HEIGHT ABO	VE GRADE	= 15'					
DISPLAY	DESIGN WIND VELOCITY				DISPLAY		DESIGN WIND VELOCITY				
HEIGHT (FT)		115 MPH	130 MPH	150 MPH	170 MPH	HEIGHT (FT)		115 MPH	130 MPH	150 MPH	170 MPH
8	COLUMN FOOTING		W10X39 3.0'X8.5'	W14X43 3.0'X9.5'	W12X53 3.0'X10.5'	8		W14X48 3.0'X8.5'	W12X53 3.0'X9.5'	W14X61 3.0'X10.5'	W16X67 3.0'X11.5'
10	COLUMN FOOTING		W14X48 3.0'X9.5'	W12X58 3.0'X10.5'	W12X65 3.0'X11.5'	10		W12X53 3.0'X9.5'	W14X61 3.0'X10.5'	W14X74 3.0'X11.5'	W18X86 4.0'X11.5'
12	COLUMN FOOTING		W12X58 3.0'X10.5'	W16X67 3.0'X11.5'	W18X76 4.0'X11.5'	12	COLUMN FOOTING	W12X65 3.0'X10.5'	W18X76 4.0'X10.5'	W18X86 4.0'X11.5'	W21X101 4.0'X12.5'
14	COLUMN FOOTING		W12X65 3.0'X11.0'	W18X76 4.0'X11.0'	W18X86 4.0'X12.5'	14*	COLUMN FOOTING	W21X55 4.0'X9.5'	W16X67 3.0'X12.5'	W24X76 4.0'X12.5'	W27X84 5.0'X12.5'
16	COLUMN FOOTING	W12X65 3.0'X11.0'	W18X76 4.0'X11.0'	W18X86 4.0'X12.0'	W21X101 4.0'X14.0'	16*	COLUMN FOOTING	W21X62 4.0'X10.5'	W18X76 4.0'X12.0'	W27X84 5.0'X12.0'	W30X99 5.0'X13.5'
18*		W21X48 4.0'X10.5'	W21X62 4.0'X11.5'	W24X68 4.0'X13.0'	W24X84 4.0'X15.0'	18*	COLUMN FOOTING	W24X68 4.0'X11.5'	W24X84 4.0'X12.5'	W30X90 5.0'X13.0'	W30X108 5.0'X15.5'
20*		W21X55 4.0'X11.0'	W21X68 4.0'X12.0'	W24X76 4.0'X14.5'	W30X90 5.0'X14.5'	20*	COLUMN FOOTING	W18X76 4.0'X12.0'	W27X84 5.0'X12.0'	W30X99 5.0'X14.5'	W33X118 5.0'X16.5'

FOOTING DIMENSIONS = DIAMETER X DEPTH

EXPOSURE C

HEIGHT ABO	VE GRADE	= 10'		HEIGHT ABO	VE GRADE	= 15'	
DISPLAY		DESIGN WIN	ID VELOCITY	DISPLAY		DESIGN WIN	ID VELOCITY
HEIGHT (FT)		115 MPH	140 MPH	HEIGHT (FT)		115 MPH	140 MPH
8	COLUMN FOOTING	W12X40 3.0'X9.0'	W12X53 3.0'X10.5'	8	COLUMN FOOTING	W12X58 3.0'X10.0'	W16X67 3.0'X11.5'
10	COLUMN FOOTING	W12X53 3.0'X10.0'	W14X61 3.0'X11.5'	10	COLUMN FOOTING	W12X65 3.0'X10.5'	W18X86 4.0'X11.5'
12	COLUMN FOOTING	W14X61 3.0'X11.0'	W18X76 4.0'X11.5'	12	COLUMN FOOTING	W18X76 4.0'X10.5'	W18X97 4.0'X12.5'
14	COLUMN FOOTING	W16X67 3.0'X11.5'	W18X86 4.0'X12.0'	14*	COLUMN FOOTING	W24X68 4.0'X11.5'	W27X84 5.0'X12.5'
16	COLUMN FOOTING	W18X76 4.0'X11.0'	W21X101 4.0'X13.5'	16*	COLUMN FOOTING	W18X76 4.0'X12.5'	W30X90 5.0'X15.5'
18*	COLUMN FOOTING	W21X62 4.0'X12.0'	W24X84 4.0'X15.0'	18*	COLUMN FOOTING	W24X84 4.0'X13.5'	W24X104 4.0'X17.0'
20*	COLUMN FOOTING	W24X68 4.0'X13.0'	W27X84 5.0'X14.0'	20*	COLUMN FOOTING	W30X90 5.0'X12.5'	W30X116 5.0'X16.0'

FOOTING DIMENSIONS = DIAMETER X DEPTH
* DENOTES ADDITIONAL BRACES REQUIRED AT THE MID HEIGHT OF DISPLAY

NOTES:

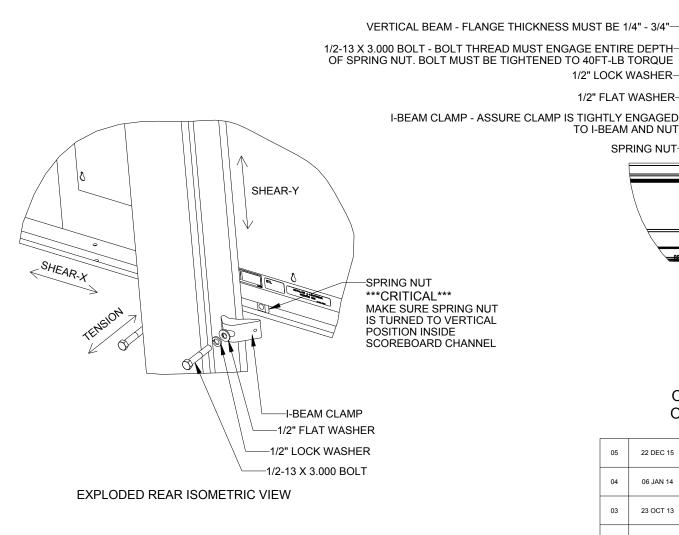
- 1. FOOTING AND COLUMN SIZES ARE SUGGESTIONS ONLY, PROVIDED TO ASSIST WITH ESTIMATING INSTALLATION COSTS AND ARE NOT INTENDED FOR CONSTRUCTION PURPOSES. THE DESIGN MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE INSTALLATION BEFORE THEY CAN BE USED FOR FABRICATION OF ERECTION.
- 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 MINNIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 psi.
- 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
- 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.

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DAKTRONICS, INC. DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS BROOKINGS, SD 57006 WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2014 DAKTRONICS, INC DO NOT SCALE DRAWING PROJ:OUTDOOR SCOREBOARD INSTALLATION TITLE:36' WIDTH SCOREBOARD INSTALLATION SPECS DATE: 29 AUG 14 DESIGN:TTASCHN DRAWN: TTASCHN SCALE: 1/16"=1' SHEET REV JOB NO FUNC-TYPE-SIZE 1189181 P1538 00 E-10-A

DENOTES ADDITIONAL BRACES REQUIRED AT THE MID HEIGHT OF DISPLAY



STANDARD MOUNTING METHOD

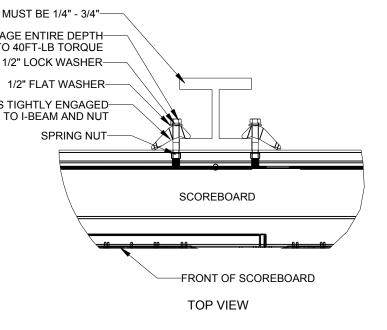
MOUNTING INSTRUCTIONS:

- PLACE SPRING NUTS INTO SCOREBOARD CHANNEL IN APPROXIMATE LOCATION OF VERTICAL BEAMS
- 2. LIFT SCOREBOARD INTO POSITION
- 3. MAKE SURE THE 1/2-13 BOLTS ARE AS CLOSE TO THE I-BEAM FLANGES AS POSSIBLE
- 4. WHEN SCOREBOARD IS ADJUSTED TO FINAL DESIRED POSITION, TIGHTEN BOLTS FIRMLY
- IF FLANGE THICKNESS IS MORE THAN 3/4" THICK LONGER BOLTS WILL BE REQUIRED AT THE CUSTOMER'S EXPENSE.

STRUCTURAL NOTES

ALLOWABLE CAPACITY PER EACH CLAMP: SHEAR = 160 LBS TENSION = 2300 LBS

SHEAR AND TENSION LOAD DIRECTION ARE AS INDICATED ON REAR ISOMETRIC VIEW



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

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:	



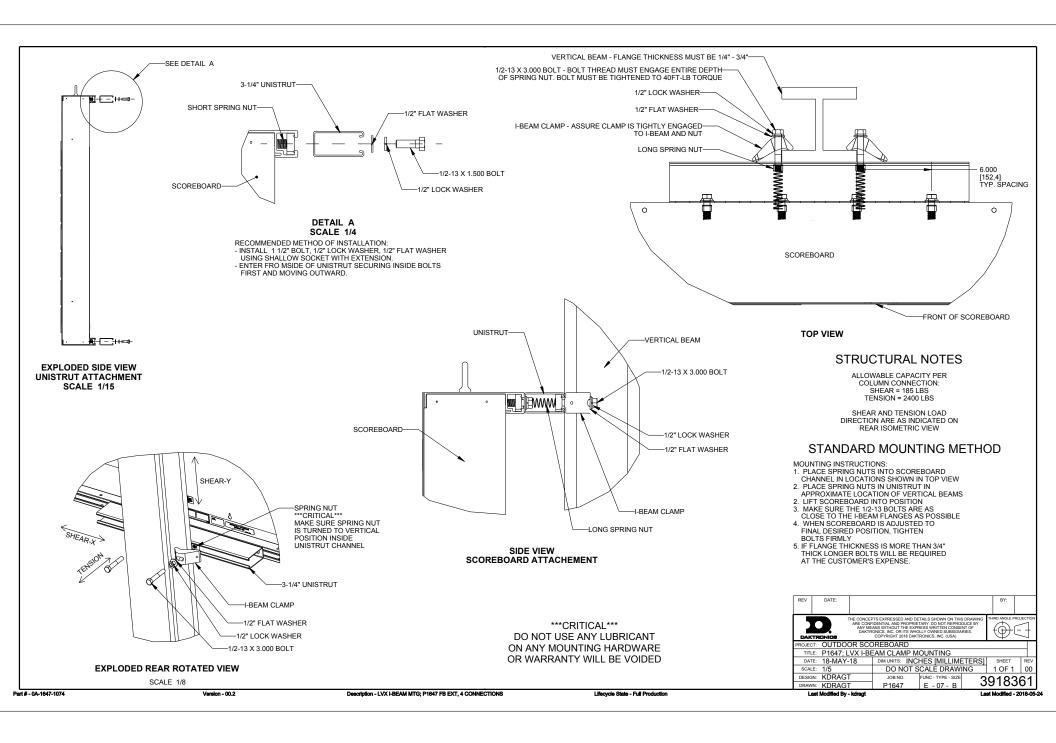
Part # - DWG-01052565 Version - 05.1

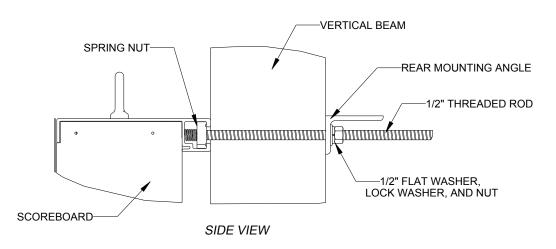
Description - N A P1647: I-BEAM CLAMP MOUNTING

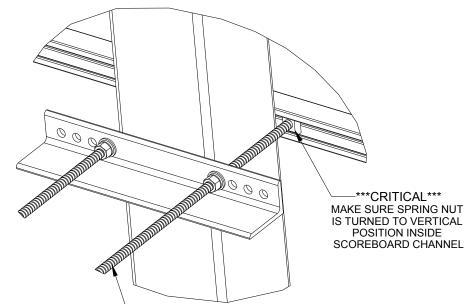
Lifecycle State - Full Production

Last Modified By - pschroe

Last Modified - 2015-12-22







REAR ISOMETRIC VIEW

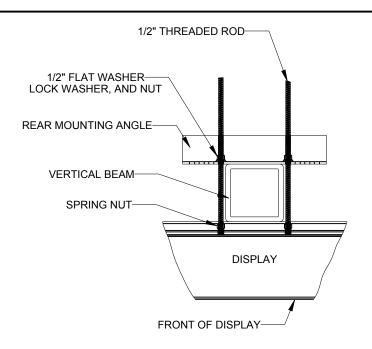
EXTRA THREADED ROD
CAN BE CUT OFF

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



TOP VIEW SCALE 1/10

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:	

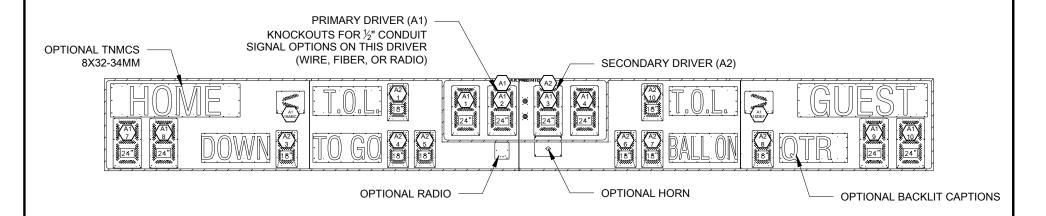


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THIRD ANGLE PROJECTION

DAKIR	CUNICS .	CS CONTROL 2010 BY ATTITION OF THE COST					
PROJECT:	OUTDOOR SCO	DREBOARDS					
TITLE:	P1647; POLE M	OUNTING OPT	ΓIONS				
DATE:	22-DEC-15	DIM UNITS: INC	HES [MILLIME	ETERS]	SHEET	REV	
SCALE:	1/5	DO NOT S	CALE DRAW	ING	1 OF 1	04	
DESIGN:	DOPPELT	JOB NO.	FUNC - TYPE - SIZE	1	0481	0 1	
DRAWN:	DOPPELT	P1647	E - 10 - A	I	0401	0 4	

FB-2038



FRONT VIEW

NOTES:

(AT) = LED DRIVER NUMBER & LED DRIVER CONNECTOR WIRED TO THAT DIGIT

18" = DIGIT SIZE

 $\langle A1 \rangle = DRIVER NUMBER$

(11H) = SEGMENT DESIGNATION

