DAKTRONICS TI-2024 PRODUCT SPECIFICATIONS



This outdoor LED delay-of-game (DOG) timer can be configured to count up or down from any preset number from 0 to 99. The timer is upgradable for portable use. Timer shown with optional striping.

DIMENSIONS	UNCRATED WEIGHT	POWER (120 VAC)*		
4'-6" H x 6'-0" W x 8" D	140 lb (64 kg)	Red/Amber Digits	85 Watts, 0.7 Amp	
(1.37 m x 1.83 m x 203 mm)		White Digits	185 Watts, 1.5 Amps	

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

DIGITS

- All digits are 36" (914 mm) high.
- Select red, amber, or white LED digits.
- Timer features weather-sealed PanaView® digits (see DD2495646).
- 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

OPERATING TEMPERATURES

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



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CONTROL CONSOLE	CONTROL OPTIONS
All Sport® 1600* (see <u>SL-04352</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.
*May be upgraded to All Sport 5000 (see <u>SL-03991</u>)	Wired: Two-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.
RC-200 (see <u>DD3715714</u>)	Wireless handheld controller features 2.4 GHz spread spectrum radio with 64 non-interfering channels and 8-10 hours of operation via internal rechargeable battery.
DAK Score & MX-1 (see DD3888368)	CUSTOMER-SUPPLIED mobile device or tablet with DAK Score app installed communicates via Bluetooth ® wireless technology to an MX-1 Interface Box that controls the scoreboard through 2.4 GHz radio or wired connection. Segment/practice timing operations only.

MOUNTING

Display is typically mounted on two vertical beams or poles. 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.

SERVICE ACCESS

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

GENERAL INFORMATION

Display provides two-digit clock timing capabilities. 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 game information due to failure of another component on the circuit. Specifications and pricing are subject to change without notice.

OPTIONS & ACCESSORIES

- Border striping in multiple colors (see <u>DD2101644</u>)
- Power cord and signal jack for portability
- Four-wheel cart for portability
- Advertising/identification panels

ADVERTISING/IDENTIFICATION PANELS

Backlit & Non-Backlit:

1'-6" H x 6'-0" W (457 mm x 1.83 m) 2'-0" H x 6'-0" W (610 mm x 1.83 m) 2'-6" H x 6'-0" W (762 mm x 1.83 m)

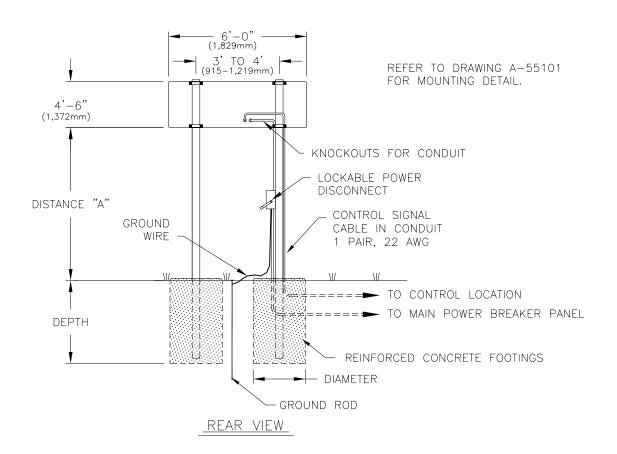
For additional non-backlit panel sizes, see <u>SL-03761</u>.

FOR ADDITIONAL INFORMATION

- Installation Specifications: DWG-236147 (attached)
- Standard I-beam Mounting: DWG-1129110 (attached)
- Optional Pole Mounting: DWG-1130246 (attached)
- Component Locations (Red/Amber Digits): DWG-1082051 (attached)
- Component Locations (White Digits): DWG-1081754 (attached)
- Architectural Specifications: See <u>SL-07549</u>

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MODEL TI-2024								
DISTANCE "A"	TOTAL DISPLAY		DESIGN WIND VELOCITY					
(SEE FIGURE)	SIZE		70 MPH	80 MPH	100 MPH			
10'-0"	4'-6" x 6'-0"	BEAM FOOTING	W10x12 2.0 X 4.1		W10x15 2.0 X 5.3			
12'-0"	4'-6" x 6'-0"	BEAM FOOTING	W10x15 2.0 X 4.4	W10x15 2.0 X 4.8	W8×18 2.0 X 5.7			
14'-0"	4'-6" × 6'-0"	BEAM FOOTING	W6x15 2.0 X 4.6	W8x18 2.0 X 5.1	W6x20 2.0 X 6.0			

FOOTING = DIAMETER X DEPTH

FOOTING DIMENSIONS ARE SUGGESTIONS ONLY, PROVIDED TO ASSIST WITH ESTIMATING INSTALLATION COSTS AND ARE NOT INTENDED FOR CONSTRUCTION PURPOSES.

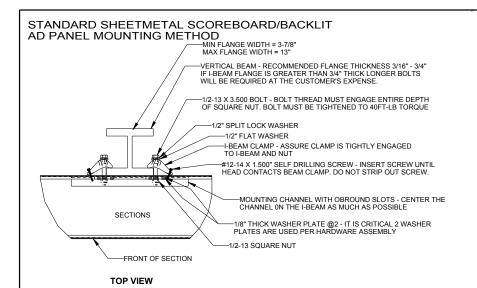
FOOTING DIMENSIONS ARE BASED ON ASSUMED SOIL BEARING PRESSURE OF 2000 ${\rm LB/FT}^{\,2}$

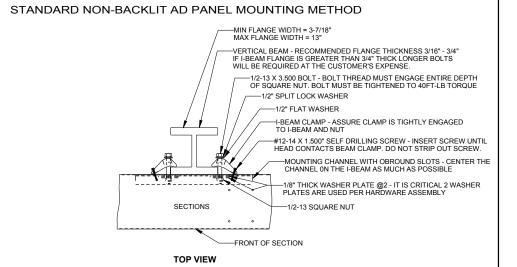
ACTUAL FOOTING DEPTH AND DIAMETER FOR A PARTICULAR INSTALLATION MUST BE DETERMINED BY A QUALIFIED STRUCTURAL ENGINEER, USING DATA FROM A SOIL SAMPLE TEST AT THE SITE.

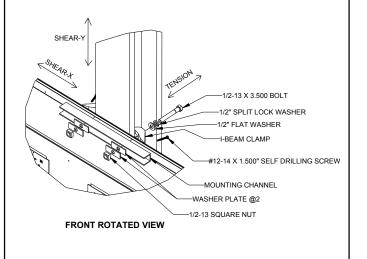
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						DAKTI	RONICS, INC	. BROOKIN	GS, SD 57006
		ADDED MILLIMETERS DIMENSIONS	KDD		PROJ: OL	JTDOOR S	SCOREBOARI	DS	
02	25 OCT 07				TITLE: IN	STALLATIC	ON SPECS;	TI-2024	
01	20APRIL05	CHANGED COLUMN AND FOOTING	JLB		DES. BY: (CCAIN	DRAWN	N BY: CCAIN	DATE: 08 MAR 05
- 01	20/11 111203	DIMENSIONS			REVISION	APPR. BY:		1100	Γ 101070117
REV.	DATE	DESCRIPTION	BY	APPR.	02	SCALE:	1=50	1192	E10A-236147

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND







QUALIFIED FOR SECTIONS UP TO 5' IN HEIGHT USING RECOMMENDED STRUCTURE

ALLOWABLE CAPACITY PER EACH CLAMP: SHEAR = 160 LBS TENSION = 1376 LBS

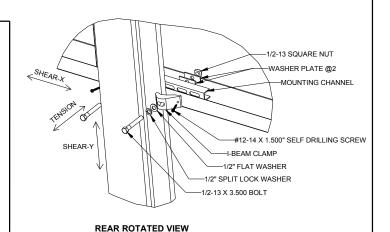
SHEAR AND TENSION LOAD DIRECTION ARE AS INDICATED ON ROTATED VIEWS

MOUNTING INSTRUCTIONS:

- LIFT THE FIRST SECTION OF THE DISPLAY INTO POSITION AGAINST I-BEAMS.
 NOTE: IF THE DISPLAY IS MADE UP OF MULTIPLE SECTIONS
- ALWAYS INSTALL THE BOTTOM SECTION FIRST AND WORK UP.
 2. STARTING ON THE TOP OF THE SECTION BEING INSTALLED MARK AND DRILL 9/16" HOLES IN THE CENTER OF THE TOP FLANGE OF THE SECTION. MAKE SURE THE HOLES ARE
- POSITIONED AS CLOSE TO THE I-BEAM FLANGES AS POSSIBLE.

 3. INSTALL ALL THE HARDWARE SHOWN PROVIDED AND TIGHTEN THE SECTION IN THE DESIRED LOCATION.
- 4. ONCE THE TOP OF THE SECTION IS SECURE MOVE TO THE BOTTOM OF THE SECTION AND REPEAT THE STEPS ABOVE
- BOTTOM OF THE SECTION AND REPEAT THE STEPS ABOVE.

 5. IF THE DISPLAY IS MADE OF MULTIPLE SECTIONS REPEAT THE ENTIRE PROCEDURE ABOVE.
- 6. ENSURE ALL 1/2" HARDWARE IS TORQUED TO THE SPECIFIED AMOUNT.



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BROCKINGS, SD 57096
DO NOT SCALE DRAWING

DO NOT SCALE DRAWING

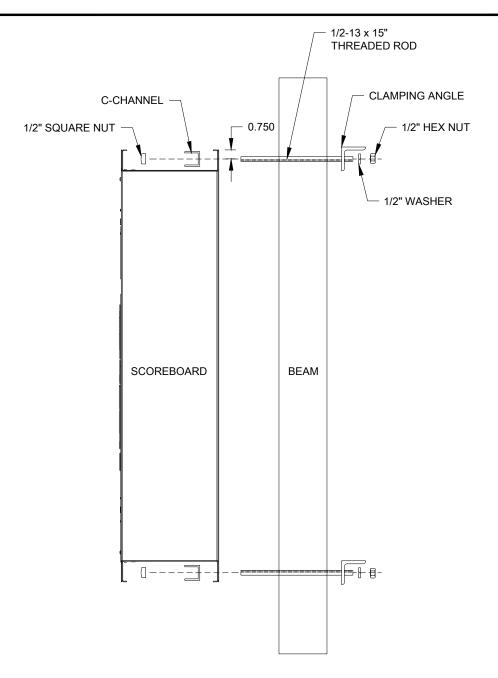
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COPPRIENT 2014 IMACRISON, 2014 DIMACRISON, 2014

PROJ: OUTDOOR SCOREBOARD

TITLE: I-BEAM CLAMP MOUNTING, SHEET METAL ATTACHMENT
DESIGN: KSCHNABEL DRAWN: KSCHNABEL DATE: 17

ſ	REV	DATE:	CHANGED TENSION CAPACITY TO 1376 LBS	BY:		DESIGN: KSCHN	ABEL	DRAWN: KSC	HNABEL	DATE: 17-JUN-15
	02	17 JUN 15	ADDED MININUM AND MAXIMUM FLANGE WIDTHS			SCALE: 1/8				
1	REV DATE: ADDED ALLOWABLE TENSION AND SHEAR CAPACITY DETAILS 01 8 JAN 14 ADDED NON-BKLT AD PANEL MOUNTING DETAILS CHANGED DWG TO B SIZED.		BY:		SHEET:	REV	JOB NO:	FUNC-TYPE-SIZE	4400440	
		8 JAN 14		OUNTING DETAILS JAVA		1 OF 1	02	P 1753	E = 10 = B	1129110

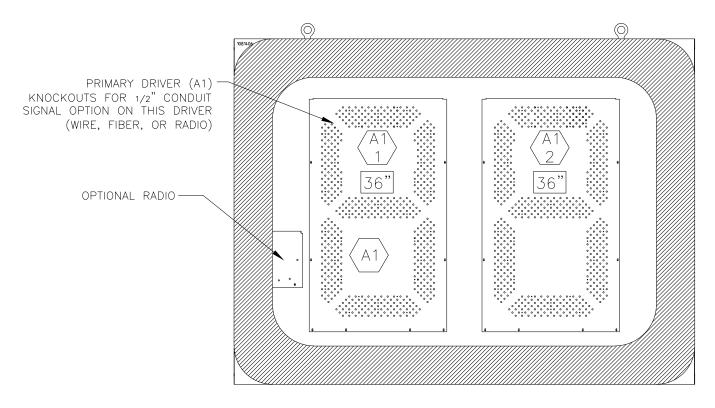


MOUNTING INSTRUCTIONS:

- 1. USE THE MOUNTING CHANNEL TO DETERMINE WHICH HOLE COMBINATION SHOULD BE USED. BE SURE TO KEEP THE BOLT AS CLOSE TO THE BEAM AS POSSIBLE.
- 2. USING THE MOUNTING CHANNEL AS A TEMPLATE, DRILL 9/16" HOLES IN THE UPPER AND LOWER REAR FLANGE OF SCOREBOARDS WHERE THE SUPPORTS WILL GO.
- 3. PLACE SQUARE NUTS INSIDE CHANNEL AND THREAD BOLTS THROUGH.
- 4. LIFT SCOREBOARD INTO POSITION WITH BOLTS STILL IN PLACE.
- 5. PLACE MOUNTING ANGLES OVER EACH PAIR OF BOLTS AND SECURE WITH LOCK WASHERS AND HEX NUTS.
- 6. WHEN SCOREBOARD IS ADJUSTED TO FINAL DESIRED POSITION, TIGHTEN HEX NUTS FIRMLY.

	<i>3</i> • • • • • • • • • • • • • • • • • • •	AKTROI BROOKING		•	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.		
	DO NO	T SCALE DR	AWING		013 DAKTRONICS, INC.		
1	PROJ:OUTDOOR SHEET METAL SCOREBOARDS						
	TITLE:SCOREBOA	RD MO	JNTI	ING			
	DESIGN: KDRAGT			DRAWN: KDRA	GT	DATE: 14 MAR 13	
	SCALE: 1=8						
	SHEET	REV		IOB NO:	FUNC-TYPE-SIZE	4420246	
		00	P17	753	E - 10 - A	1130246	

TI-2024-R/A



FRONT VIEW

NOTES:



 $\begin{pmatrix} A1 \\ 5 \end{pmatrix}$ = LED DRIVER NUMBER & LED DRIVER CONNECTOR WIRED TO THAT DIGIT

18" = DIGIT SIZE

 $\langle A1 \rangle = DRIVER NUMBER$

FRONT	VIFW

REV 04	DATE: 11 AUG 20	PER CN-107919 REMOVED LABELS TO MOVE TO NEW STANDARD	BY: TAN	
REV 03	DATE: 04 MAY 16	PER EC-21289, UPDATED DIGIT DESIGNATION, REMOVED 3/4	BY: KDD	
REV 02	DATE: 27 FEB 15	PER EC-17119, REMOVED DETAIL A ADDED SIGNAL OPTION NOTE CHANGED MASTER TO PRIMARY	BY: KDB	
REV 01	DATE: 26 JUN 12	UPDATED FRONTSHEETS PER EC-6065	BY: KDD	
		70	IDD ANOLE D	DO IECTION



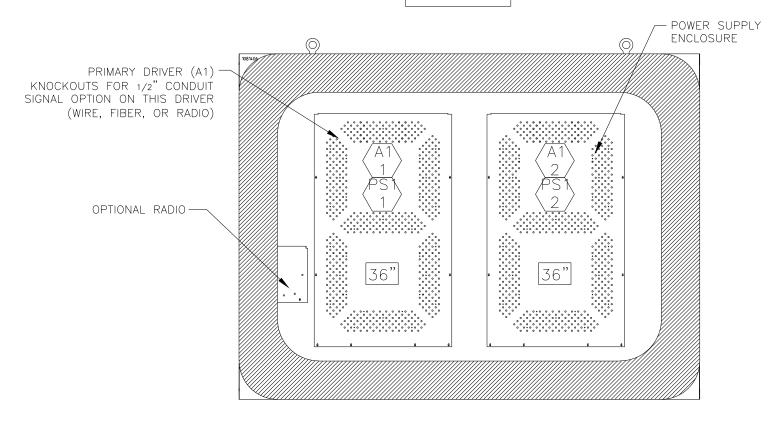
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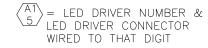
PROJECT:	OUTDOOR EXT	RUDED SCOF	REBOARDS			
TITLE:	COMPONENT LOCATION; TI-2024-201X-R/A					
DATE:	24 JAN 12	DIM UNITS: INC	SHEET	REV		
SCALE:	1=15	DO NOT S		04		
DESIGN:	KDRAGT	JOB NO.	FUNC - TYPE - SIZE		10820	<u></u>
DRAWN:	LGROOTW	P1647	F - 10 - A		I UOZU	J I

TI-2024-W



FRONT VIEW

NOTES:



18" = DIGIT SIZE

PS) = POWER SUPPLY NUMBER & POWER SUPPLY CONNECTOR WIRED TO THAT DIGIT

REV 04	DATE: 11 AUG 20	PER CN-107919 REMOVED LABELS TO MOVE TO NEW STANDARD	BY: TAN	
REV 03	DATE: 04 MAY 16	PER EC-21289, UPDATED DIGIT DESIGNATION. ADDED POWER SUPPLY DESIGNATIONS	BY: KDD	
REV 02	DATE: 27 FEB 15	PER EC-17119, REMOVED POWER AND DRIVER DETAILS ADDED SIGNAL OPTION NOTE CHANGED MASTER TO PRIMARY	BY: KDB	
REV 01	DATE: 26 JUN 12	UPDATED FRONTSHEET PER EC-6065	BY: KDD	

DAKTRONICE

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IDED SCOREBOARDS		_
CATION; TI-2024-201X-W		
IM UNITS: INCHES [MILLIMETERS]	SHEET	F

PROJECT:	OUTDOOR EXTRUDED SCOREBOARDS					
TITLE:	COMPONENT L	ENT LOCATION; TI-2024-201X-W				
DATE:	19 JAN 12	DIM UNITS: INCHES [MILLIMETERS]			SHEET	REV
SCALE:	1=15	DO NOT SCALE DRAWING				04
DESIGN:	KDRAGT	JOB NO.	FUNC - TYPE - SIZE		10817	<u> </u>
DRAWN:	LGROOTW	P1647	F - 10 - A		1001/3	J 4