

**Daktronics CU-2001
Curling
LED Scoreboard**

Installation & Operation Manual

DD1862870

Rev 3 – 22 January 2014

DAKTRONICS

DAKTRONICS, INC.

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Table of Contents

Section 1:	Introduction	1
1.1	Troubleshooting	1
1.2	Specifications Label.....	1
1.3	Resources.....	2
1.4	Product Safety Approval.....	2
1.5	Specifications	2
Section 2:	Mechanical Installation	3
2.1	Lifting the Scoreboard	3
2.2	Scoreboard Mounting.....	4
Section 3:	Electrical Installation	5
3.1	Installation Overview	5
3.2	Power	5
	Grounding.....	5
3.3	Power-On Self-Test (POST)	5
	Radio Settings.....	5
3.4	Scoreboard Signal Connection.....	6
Section 4:	Scoreboard Control.....	7
4.1	Curling Operation.....	7
4.2	Curling Keys	7
	End +1, End -1	7
	1ST Up/ Hammer Select.....	8
	Team Start	8
	Stop	8
	Time Out	8
	Set Main Clock.....	9
	Set Time.....	9
	Score.....	10
	Extra Break Start, Halftime Break Start, Break Start	10
4.3	Edit.....	10
	Time Out	10
	Score.....	11
4.4	Menu	11
	New Game	11
	New Code	11
	Dimming Menu	12
	Home (Yellow) Roster & Guest (Red) Roster	12
	Display Menu	13
	Edit Settings.....	14
	Time of Day	14
4.5	Settings	15
	Main Clock.....	15
	Show Break Time	16
	Show Hammer.....	16
	Time Outs.....	17

	Game Ends	17
	Switch Output.....	17
	Default Settings	18
Section 5:	Daktronics Exchange and Repair & Return Programs	19
5.1	Exchange Program	19
	Before Contacting Daktronics.....	19
5.2	Repair & Return Program	20
	Shipping Address.....	20
5.3	Daktronics Warranty and Limitation of Liability	20
Section 6:	Scoreboard Options	21
6.1	Radio Control.....	21
6.2	Team Name Message Centers	21
Appendix A:	Reference Drawings	23
Appendix B:	Daktronics Warranty and Limitation of Liability	25

Section 1: Introduction

This manual explains the installation and operation of Daktronics Indoor Curling LED Scoreboard CU-2001. For additional information regarding the safety, installation, operation, or service of these displays, refer to the telephone numbers listed in **Section 5**. This manual is not specific to a particular installation. Project-specific information takes precedence over any other general information found in this manual.

IMPORTANT SAFEGUARDS:

- Please read and understand all instructions before beginning the installation process.
- Do not drop control equipment or allow it to get wet.
- Do not disassemble control equipment or electronic controls of the display; failure to follow this safeguard will make the warranty null and void.
- Disconnect display power when not in use or when servicing.
- Disconnect display power before servicing power supplies to avoid electrical shock. Power supplies run on high voltage and may cause physical injury if touched while powered.
- Do not modify the scoreboard structure or attach any panels or coverings to the scoreboard without the express written consent of Daktronics, Inc.

1.1 Troubleshooting

For an extensive troubleshooting guide and instructions on how to replace scoreboard components, refer to the following manual, available online at www.daktronics.com/manuals:

- Tuff Sport Indoor LED Scoreboards Service Manual (DD2481648)

1.2 Specifications Label

Power specifications as well as serial and model number information can be found on an ID label on the display, similar to the one shown in **Figure 1**.

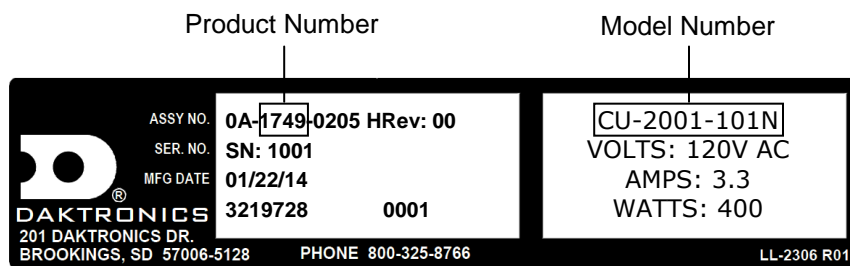


Figure 1: Specifications Label

Please have the assembly number, model number, and the date manufactured on hand when calling Daktronics customer service to ensure the request is serviced as quickly as possible. Knowing the facility name and/or job number will also be helpful. Note that the Product Number(s) are sometimes used to distinguish different generations of scoreboards having the same model number.

1.3 Resources

Figure 2 illustrates a Daktronics drawing label. The drawing number is located in the lower-right corner of a drawing. This manual refers to drawings by listing the last set of digits and the letter preceding them. In the example, the drawing would be referred to as **Drawing C-325405**.

THE CONCEPTS EXPRESSED AND DETAILS SHOWN IN THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY, WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2008 DAKTRONICS, INC.					
DAKTRONICS, INC. BROOKINGS, SD 57006					
PROJ: DAKTRONICS UNIVERSITY					
TITLE: SYSTEM RISER DIAGRAM					
DES. BY: AORMESH		DRAWN BY: AORMESH		DATE: 15 JAN 08	
REVISION	APPR BY-	14963-R01		C-325405	
00	SCALE-	NONE			

Figure 2: Daktronics Drawing Label

Daktronics identifies manuals by the DD or ED number located on the cover page of each manual. For example, this manual would be referred to as **DD1862870**.

1.4 Product Safety Approval

Daktronics indoor scoreboards are ETL-listed, tested to CSA standards, and CE-labeled for indoor use. Contact Daktronics with any questions regarding the testing procedures.

1.5 Specifications

The chart below details all of the mechanical specifications, circuit specifications, and power requirements for each display in this manual.

Notes:

- 1) All displays require a 120 VAC, 15 A circuit. Displays with a 230 VAC power requirement are also available.
- 2) Values in [Brackets] indicate scoreboards with Team Name Message Centers (TNMCs).

Model	Dimensions: Height, Width, Depth	Uncrated Weight	Watts	Amps 120/230 VAC	Driver # & Address
CU-2001	H 3'-0", W 11'-6", D 6" (914 mm, 3505 mm, 152 mm)	175 lb (79 kg)	400 W	3.3 / 1.7 A	A1 11 A2 12
		[190 lb (86 kg)]	[500 W]	[4.2 / 2.2 A]	

Section 2: Mechanical Installation

Mechanical installation consists of lifting and permanently mounting the scoreboard. Refer to the mechanical specification drawings in **Appendix A** for the recommended number and spacing of wall anchors for scoreboard mounting.

Be sure that the installation complies with local building codes.

Note: Daktronics does not assume any liability for any installation derived from the information provided in this manual or installations designed and installed by others.

2.1 Lifting the Scoreboard

Daktronics indoor scoreboards are shipped equipped with eyebolts for lifting the displays, as well as pre-drilled holes along the top and bottom of each cabinet for wall attachment. Eyebolts are located along the top of the cabinet for each scoreboard or scoreboard section. Daktronics indoor scoreboards use $\frac{3}{8}$ " eyebolts.

Daktronics strongly recommends using a spreader bar, or lifting bar, to lift the display. Spreader bars ensure the force on the eyebolts remains straight up, minimizing lifting stress.

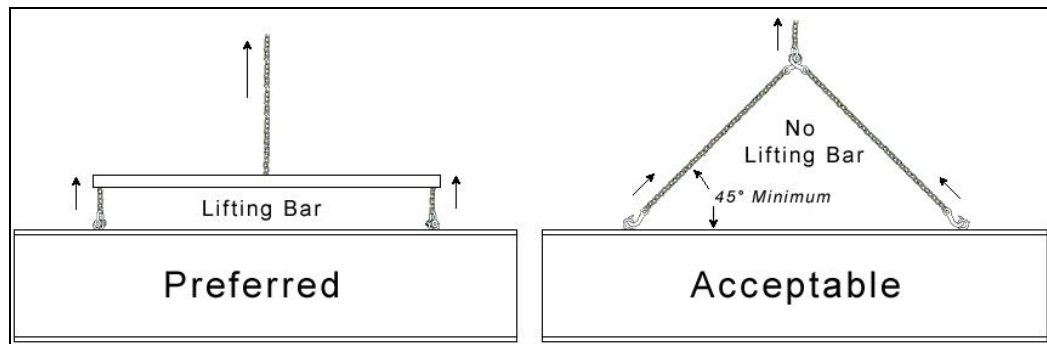


Figure 3: Lifting Methods

Figure 3 illustrates the preferred scoreboard lifting method on the left and an acceptable alternative lifting method on the right. When lifting the display:

- Use a spreader bar if possible.
- Use every lifting point provided.

Cables and chains attached to the eyebolts and directly to a center lifting point, as shown in the right-hand example in **Figure 3**, can create a dangerous lateral force on the eyebolts and may cause the eyebolts to fail. The smaller the angle between the cable and the top of the display, the lighter the sign must be to safely lift it. If this method must be used, ensure a minimum angle between the chain and scoreboard of at least 45°.

Do NOT attempt to lift the display if the angle is less than 45°.

Exceeding load angles or weight limits could cause the bolts in the scoreboard cabinet to buckle, resulting in serious damage to the scoreboard or injury to personnel. Also, loads should be applied directly in the plane of the eyebolt as shown in **Figure 4**.

Note: Daktronics assumes no liability for damages resulting from incorrect setup or lifting methods. Eyebolts are intended for lifting only. Do not attempt to permanently support the display by the eyebolts.

2.2 Scoreboard Mounting

1. Use the eyebolts at the top of the scoreboard frame to lift the display into position for mounting.
2. Secure the display to the wall by attaching mounting hardware through all holes on the top and bottom rear flanges of the display to a pre-drilled hole in the wall (**Figure 5**).

For mounting locations, weights, and hardware suggestions, refer to the mechanical specification drawings in **Appendix A**.

Due to the variety of wall materials used in sports facilities, Daktronics cannot anticipate a user's individual installation needs or provide mounting hardware suitable for every installation. Choose a method of installation that will safely support the weight of the display.

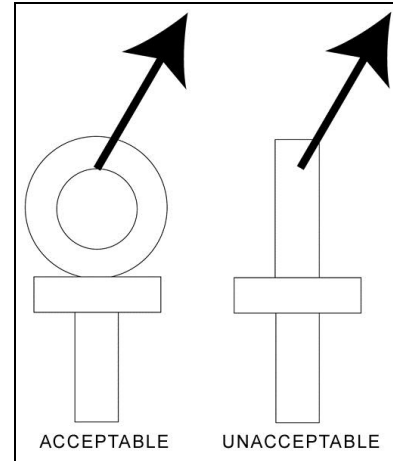


Figure 4: Eyebolt Plane Load

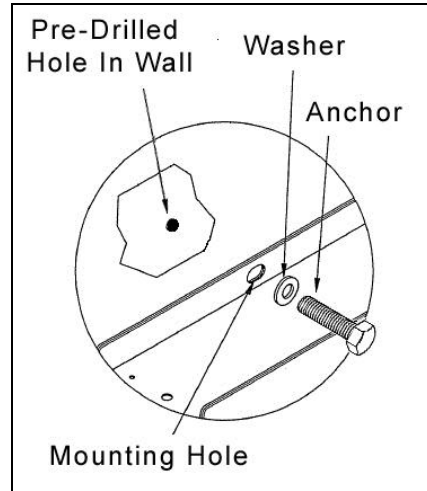


Figure 5: Wall Mounting

Section 3: Electrical Installation

CAUTION: Only qualified individuals should access the electrical components of the display and its associated equipment. It is the responsibility of the electrical contractor to ensure that all electrical work meets or exceeds local and national codes.

Daktronics engineering staff must approve all changes or the warranty will be void.

3.1 Installation Overview

Refer to **Drawing A-124686** in **Appendix A** for power and signal layouts.

Note: Control signal cable and some junction boxes are not provided as part of this system and can be purchased locally or from Daktronics.

3.2 Power

Each scoreboard features a 120 VAC power cord with a three-prong plug. Install a grounded receptacle near the equipment so that the power cord can easily reach it. The control console requires a 120 VAC receptacle and uses less than 1 A of power.

Displays operating on 230 VAC are also available, and they are shipped equipped with a universal power plug.

Grounding

Connect the scoreboard to earth ground. Proper grounding assures reliable equipment operation and protects the equipment against damaging electrical disturbances and lightning. Daktronics recommends a resistance-to-ground of 10 ohms or less. The electrical contractor performing the electrical installation can verify ground resistance. Daktronics Sales and Service personnel can also provide this service. The grounding connection on the power cord's three-prong plug connects to the shell of the scoreboard.

Note: The customer must properly ground the outlet according to local and national codes. Failure to ground the outlet voids the warranty for the scoreboard.

3.3 Power-On Self-Test (POST)

The scoreboard performs a self-test each time that power is turned on and the control console is powered off or not attached to the scoreboard. If the control console is attached and powered on, the self-test does not run, and data from the control console is displayed on the scoreboard after a brief period of time. Each scoreboard self-test pattern will vary depending on the scoreboard model, the number of drivers, and types of digits.

Radio Settings

If a radio receiver is installed (see **Section 6.1**), the radio broadcast settings ("b1") and the channel settings ("c1") will be displayed in the Home time and first 2 end digits during the POST. These values must match the settings in the control console (refer to the appropriate control console manual listed in **Section 4**).

3.4 Scoreboard Signal Connection

Signal installation requires routing control cable from the scoreboard control console to a signal junction box (J-box) near the display. Refer to **Drawing A-28124** and **Drawing A-125316** in **Appendix A** for signal wire connection.

1. At a minimum, use a paired, 22 AWG shielded cable (Daktronics part # W-1077) and connect the cable to a dual 1/4" J-box at the control console end.

Using a dual J-box for separate Main and Auxiliary scoreboards lets operators control several displays with one controller, and they can also switch jacks to control individual boards using multiple controllers.

2. Route the cable from the J-box on the control console end to a J-box near the display.
3. Install the 1/4" phone plug (Daktronics part # 0L-40683) to the scoreboard end of the cable. Be sure to connect the cable shielding only in the J-box on this end.
DO NOT connect cable shielding at the J-box near the control console.
4. Insert the plug into the J31 - SIGNAL IN jack located on the top of the scoreboard.
5. Connect a signal cable from the J-box to the J1, J2, or J3 jack on the back of the All Sport 5000 console.
6. Power on the console and test the scoreboard. Refer to **Section 4**.

Section 4: Scoreboard Control

Reference Drawings:

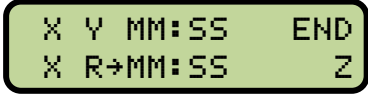
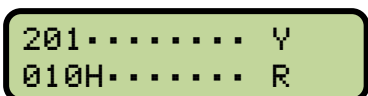
Insert; LL-2442 A/S 5000, Team Name **Drawing A-125290**
 Insert; 0G-1021630, A/S 5000, Curling **Drawing A-1021630**

Daktronics curling scoreboards are designed for use with the All Sport® 5000 series control consoles. This controller uses keyboard overlays (sport inserts) to control many sports and scoreboard models.

Curling-specific operating instructions are outlined in this section. For more information about using the All Sport 5000 controller, refer to the **All Sport 5000 Series Control Console Operation Manual (ED-11976)**, available online at www.daktronics.com/manuals.

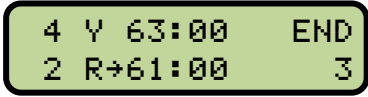
4.1 Curling Operation

Sport Insert: 0G-1021630
Sport Code: 4501


Display	Action
 <p>MM:SS = minutes, seconds X = total score Z = end number</p> 	<p>After entering the curling code, the main LCD prompt shows the total score and time for each team, the current end number, and an arrow to indicate the team that is throwing.</p> <p>Press the down arrow key to show the scores for the current end and all previous ends on the LCD. An "H" indicates the team with the last rock, or "hammer". The LCD will return to the main prompt after about 2 seconds.</p>

4.2 Curling Keys

End +1, End -1

Display	Action
	<p>Press <END +1> to increment the end number. The team throwing and hammer are then set from the team score for that end.</p> <p>Press <END -1> to decrement the end number.</p> <p>The end number is always visible on the main LCD prompt, except when break and time out clocks are counting down.</p>

1ST Up/ Hammer Select

Display	Action
	<p>Press the <1ST UP/HAMMER SELECT> key to allow the selection of the team up.</p> <p>Pressing <ENTER> will toggle the select to the other team and the hammer will also switch.</p> <p>Pressing <NO> will exit and not change the team selected.</p> <p>This key will only function before the start of a game.</p>

Team Start

Press the Yellow or Red <TEAM START> key to start that team's clock counting and set that team's indicator as the throwing team.

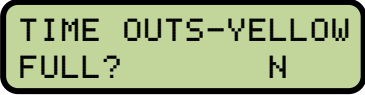
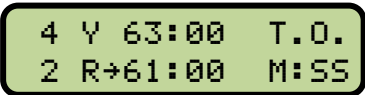
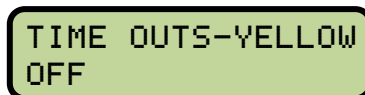
Stop

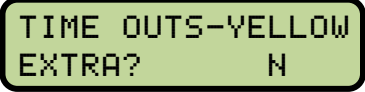
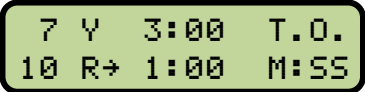
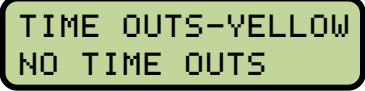
Press the Yellow or Red <STOP> key to stop that team's game clock from counting.

Time Out

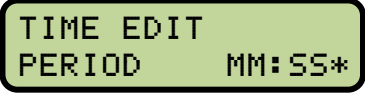
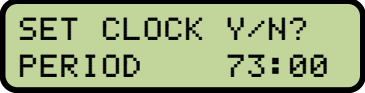
The Yellow and Red <TIME OUT> keys are used to decrement the number of time outs remaining and start the time out clock.

Note: Only the time outs configured in the **EDIT SETTINGS** function are displayed on the LCD and available for selection.

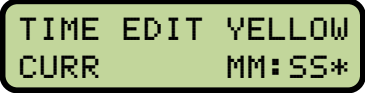
Display	Action
 <p>N = current setting</p>	<p>Press <TIME OUT> to display the number of full time outs remaining. The number of full time outs will show when the end number is less than or equal to the configured number of ends as set in the Settings Menu. Refer to Section 4.5.</p>
 <p>M:SS = minutes, seconds</p>	<p>To accept the full time out and start the time out clock, press <YES>. Full time out decrements, and the time out clock appears on the LCD.</p> <p>To decline the selection of a full time out, press <NO>. Full time out does not decrement.</p>
	<p>To stop the time out clock, press <TIME OUT> again. This will turn the time out OFF.</p>

Display	Action
 <p>N = current setting</p>  <p>M:SS = minutes, seconds</p>	<p>The number of extra time outs will show when in an extra end of the game.</p> <p>To accept the extra time out and start the time out clock, press <YES>. Extra time out decrements, and the time out clock appears on the LCD.</p> <p>To decline the selection of an extra time out, press <NO>. Extra time out does not decrement.</p>
	<p>This message appears when there are no time outs left.</p>

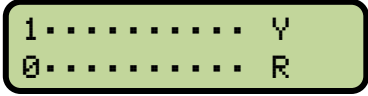
Set Main Clock

Display	Action
 <p>MM:SS = minutes, seconds</p> 	<p>After any running clock has been stopped, press <SET MAIN CLOCK> to display the period, practice, and extra time settings for the main clock. Each press of the key will cycle to the next setting.</p> <p>To change the times, enter the desired time on the number pad and press <ENTER>. A prompt asking if the clock should be set will appear. Press <YES> to change clocks.</p> <p>Press <CLEAR> twice to clear changes and return to the game.</p>

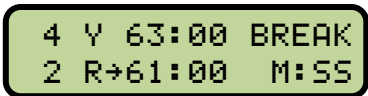
Set Time

Display	Action
 <p>MM:SS = minutes, seconds</p>	<p>Press the <SET TIME> key for Yellow or Red and the LCD will show the current time and allow that team's time to be adjusted.</p> <p>Enter the correct time using the number pad and press <ENTER>.</p> <p>Press <CLEAR> twice to exit and leave the time unchanged.</p>

Score

Display	Action
 <p>1 Y 0 R</p>	<p>Press the appropriate <SCORE +1> or <SCORE -1> key for the Yellow or Red team to increment or decrement the total score, respectively.</p> <p>Incrementing a team score will set the other team to 0. The score can be incremented from 1 – 8, and after 8 presses, both team scores return to blank. The “H” (hammer) will only show when the scores in the current end are blank.</p> <p>The LCD briefly shows the new value for the team score, along with both teams’ scores for each end.</p>

Extra Break Start, Halftime Break Start, Break Start

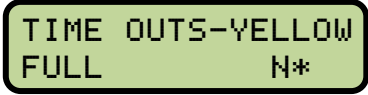
Display	Action
 <p>4 Y 63:00 BREAK 2 R 61:00 M:SS</p> <p>M:SS = minutes, seconds</p>	<p>Press <EXTRA BREAK START>, <HALFTIME BREAK START>, or <BREAK START> to begin countdown of the appropriate type of break timer, and it will show on the LCD.</p> <p>The different break times can be set from the Settings Menu. Refer to Section 4.5.</p> <p>Press any of the break keys again to stop and remove the break clock.</p>

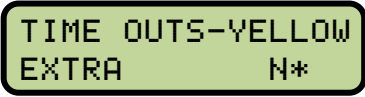
4.3 Edit

The **<EDIT>** key allows the user to select and edit the following scoreboard fields. Press **<EDIT>** and the key for the Yellow or Red field to be edited.


Time Out

Note: Only the time outs configured in the **EDIT SETTINGS** function are displayed on the LCD and available for selection.

Display	Action
 <p>TIME OUTS-YELLOW FULL N*</p> <p>N = current setting</p>	<p>Press <EDIT> followed by <TIME OUT> for the Yellow or Red team to display the current setting of full time outs remaining.</p> <p>Enter the correct number of full time outs on the number pad and press <ENTER>.</p>

Display	Action
 <p>N = current setting</p>	<p>After editing the full time out, the current extra time out number will be displayed.</p> <p>Enter the correct number of extra time outs on the number pad and press <ENTER>.</p>

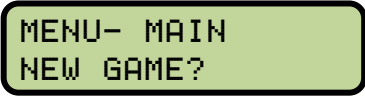
Score

Display	Action
 <p>N = current setting</p>	<p>Press <EDIT> and the appropriate score key to allow the current end score to be adjusted.</p> <p>Enter the correct number on the number pad and press <ENTER>.</p>

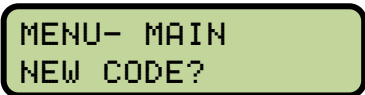
4.4 Menu

The <MENU> key allows the user to select from a list of options specific for each sport. The up and down arrow keys scroll through the menu list. Pressing a key other than <YES>, <NO>, the arrow keys, and other allowed keys exits the Menu function.

New Game

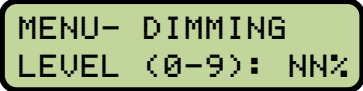
Display	Action
	<p>Press <YES> to clear all of the program data for the last game played or the game in progress and begin running the selected sport.</p> <p>Press <NO> to resume the game in progress using the current data and exit the Menu.</p> <p>Press the down arrow key to scroll to the next selection.</p>

New Code

Display	Action
	<p>Press <YES> to begin selection of a new code from the ENTER CODE prompt.</p> <p>Press <NO> to resume the game in progress using the current data and exit the Menu.</p> <p>Press the down arrow key to scroll to the next selection.</p>

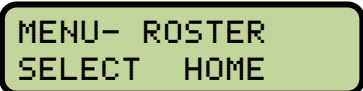
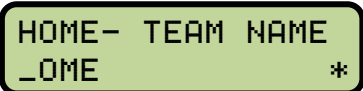
Dimming Menu

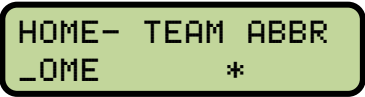
The **Dimming Menu** allows the user to change the brightness of the scoreboard.

LCD Display	Action
 <p> MENU- DIMMING LEVEL (0-9): NN% </p> <p> NN = current level NONE = bright <0> 90% = <1> 80% = <2> 70% = <3> 60% = <4> 50% = <5> 40% = <6> 30% = <7> 20% = <8> 10% = <9> </p>	<p>Press <0> through <9> or use the arrow keys to select the intensity for the digits on the scoreboard.</p> <p>Press <NO> to resume the game in progress using the current data, and exit the Menu.</p> <p>Press the down arrow key to scroll to the next selection.</p> <p>Note: Incremental dim levels pertain only to outdoor LED products. Indoor LED products only support one level of dimming at 50%.</p>

Home (Yellow) Roster & Guest (Red) Roster

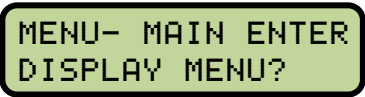
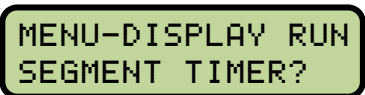

Both the **Home (Yellow) Roster** and **Guest (Yellow) Roster** menus let the operator enter names for the respective teams. **Home (Yellow) Roster** is used as an example.

Display	Action
 <p> MENU- ROSTER SELECT HOME </p>	<p>Press <ENTER> or the right or left arrow key to select the Home or Guest Roster submenu and show the first prompt on the LCD.</p> <p>Press <NO> to resume the game in progress using the current data and exit the Menu.</p> <p>Press the down arrow key to scroll to the next selection.</p>
 <p> HOME- TEAM NAME _OME * </p>	<p>The TEAM NAME (LL-2441) insert must be used to enter the Team Name Message Center (TNMC) settings.</p> <p>The TNMC is updated after each selection is completed.</p> <p>Use the COLUMNS, ROWS and STROKE keys to select the WIDTH, HEIGHT and FONT of the TNMC. Refer to the All Sport 5000 manual (ED-11976) for more information about team name entry.</p> <p>Enter up to fifteen (15) characters for the team name and press <ENTER>.</p>

Display	Action
	<p>The TEAM NAME (LL-2441) insert must be used to enter the Team Name Message Center (TNMC) settings.</p> <p>The TNMC is updated after each selection is completed.</p> <p>Use the COLUMNS, ROWS and STROKE keys to select the WIDTH, HEIGHT and FONT of the TNMC. Refer to the All Sport 5000 manual (ED-11976) for more information about team name entry.</p> <p>Enter up to ten (10) characters for the team abbreviation and press <ENTER>.</p> <p>Reinsert the CURLING insert (0G-1021630) to continue.</p>

Display Menu

The **DISPLAY MENU** allows the user to start and edit the segment timer or to change the brightness of the scoreboard.

Display	Action
	<p>Press <YES> to select the Display submenu and show the first prompt on the LCD.</p> <p>Press the down arrow key to scroll to the next selection.</p>
	<p>Note: The segment timer function is disabled while the clock is running.</p> <p>Press <YES> to exit the sport code and run the segment timer program.</p> <p>Press <NO> or the down arrow key to scroll to the next selection.</p>
	<p>This prompt confirms that the user wants to exit the sport code and enter the segment timer.</p> <p>Note: The SEGMENT TIMER (LL-2475) insert must be inserted to enter the Segment Timer settings.</p> <p>Refer to Section 3 of the All Sport 5000 manual (ED-11976) for more information on the segment timer.</p>

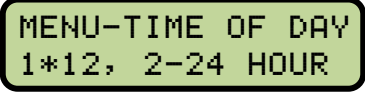
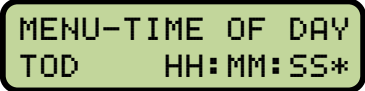
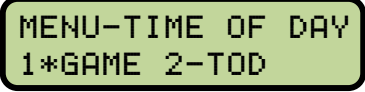
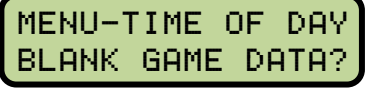
Display	Action
<p>MENU- DISPLAY BLANK SCBD?</p> <p>PRESS ANY KEY TO RETURN TO GAME</p>	<p>Press <YES> to select the blank scoreboard feature.</p> <p>The scoreboard will go blank and wait for the operator to press any key to resume normal operation.</p> <p>Press the down arrow key to scroll to the next selection.</p>
<p>MENU-DISPLAY SYNC TO CHAN</p> <p>SYNC TO CHAN ON 1-ON, 2-OFF</p>	<p>Press <YES> to view or set the radio sync to channel setting.</p> <p>The LCD will show if the setting is ON or OFF. Press <1> to turn it on, or press <2> to turn it off.</p> <p>Note: This setting should remain ON unless instructed by Daktronics to turn it off.</p>
<p>MENU- DISPLAY CLOCK CAPTIONS</p> <p>CLOCK CAPTION- 1-ON, 2-OFF ON</p>	<p>Press <YES> to view or set the clock caption setting.</p> <p>The LCD will show if the setting is ON or OFF. Press <1> to turn it on, or press <2> to turn it off.</p> <p>Press the down arrow key to scroll to the next selection.</p>

Edit Settings

Display	Action
<p>MENU- MAIN EDIT SETTINGS?</p>	<p>Press <YES> or the right or left arrow key to select the Settings submenu and show the first prompt on the LCD. Refer to Section 4.5.</p> <p>Press <NO> to resume the game in progress using the current data and exit the Menu.</p> <p>Press the down arrow key to scroll to the next selection.</p>

Time of Day

Display	Action
<p>MENU- MAIN SELECT TOD?</p>	<p>Press <YES> or the right arrow key to select the Time of Day submenu and show the first prompt on the LCD.</p> <p>Press <NO> to resume the game in progress using the current data and exit the Menu.</p>


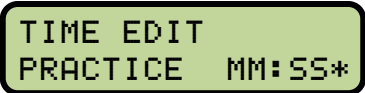
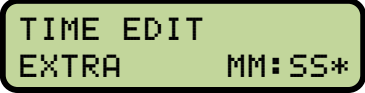
Display	Action
	<p>Press <1> or <2> to display the time of day in 12 hour (default) or 24 hour format.</p> <p>Press <ENTER> or the down arrow key to scroll to the next selection.</p>
 <p>HH:MM:SS = hours, minutes, seconds</p>	<p>Enter the time of day in hours, minutes, and seconds using the selected format on the number pad and press <ENTER>.</p> <p>Press <ENTER> or the down arrow key to scroll to the next selection.</p>
 	<p>Press <1> or <2> to display the game clock (default) or the time of day clock on the scoreboard.</p> <p>Press the down arrow key to exit the Menu and return to the game.</p> <p>If 2-tod is selected, this message will be displayed.</p> <p>Press <ENTER> to blank all game data on the scoreboard except for the Time of Day digits.</p>

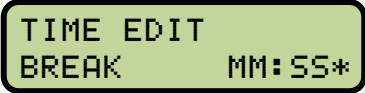
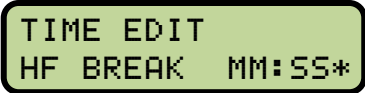

4.5 Settings

The user can edit the following settings by selecting **EDIT SETTINGS** from the Main Menu.

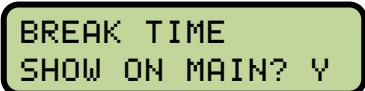
Main Clock

Note: The settings entered for Main Clock are used with the <SET MAIN CLOCK> key.

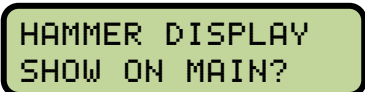
Display	Action
 <p>MM:SS = minutes, seconds</p>	<p>Enter the correct amount of time per period in minutes and seconds on the number pad and press <ENTER>.</p> <p>For example, 73:00.</p>
 <p>MM:SS = minutes, seconds</p>	<p>Enter the correct amount of time for practice in minutes and seconds on the number pad and press <ENTER>.</p> <p>For example, 10:00.</p>
 <p>MM:SS = minutes, seconds</p>	<p>Enter the correct amount of time for extra ends in minutes and seconds on the number pad and press <ENTER>.</p> <p>For example, 10:00.</p>

Display	Action
 <p>MM:SS = minutes, seconds</p>	<p>Enter the correct amount of time for a break in minutes and seconds on the number pad and press <ENTER>.</p> <p>For example, 1:00.</p>
 <p>MM:SS = minutes, seconds</p>	<p>Enter the correct amount of time for a halftime break in minutes and seconds on the number pad and press <ENTER>.</p> <p>For example, 5:00.</p>
 <p>MM:SS = minutes, seconds</p>	<p>Enter the correct amount of time for an extra break in minutes and seconds on the number pad and press <ENTER>.</p> <p>For example, 3:00.</p>

Show Break Time

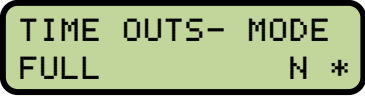
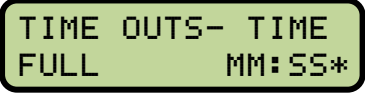
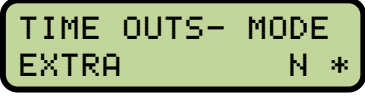
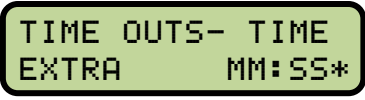
Display	Action
	<p>Press <YES> to show the break time on the scoreboard in the clock digits.</p> <p>Press <NO> to ensure the break time does not show in the scoreboard clock digits.</p>

Show Hammer

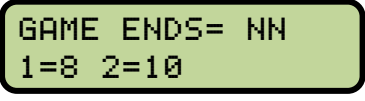
Display	Action
	<p>Press <YES> to show the hammer indicator (H) on the scoreboard. The "H" will show in the current end team score digit for the team that has the hammer.</p> <p>Press <NO> to ensure the hammer indicator (H) does not show on the scoreboard.</p>

Time Outs

Note: If a full or extra time out is not needed for the Yellow or Red <TIME OUT> keys, enter zero for the number of time outs.

Display	Action
 <p>N = current setting</p>	Enter the number of full time outs on the number pad and press <ENTER>.
 <p>MM:SS = minutes, seconds</p>	Enter the amount of time for a full time out in minutes and seconds on the number pad and press <ENTER>. For example, 1:00.
 <p>N = current setting</p>	Enter the number of extra time outs on the number pad and press <ENTER>.
 <p>MM:SS = minutes, seconds</p>	Enter the amount of time for an extra time out in minutes and seconds on the number pad and press <ENTER>. For example, 1:00

Game Ends

Display	Action
 <p>NN = current setting</p>	<p>Press <1> to select 8 ends per game.</p> <p>Press <2> to select 10 ends per game (default).</p> <p>This setting selects which time out is used, full or extra.</p>

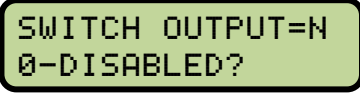
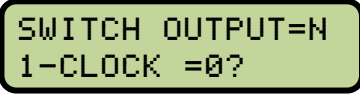
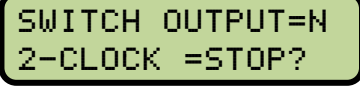
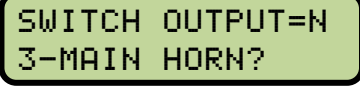
Switch Output

The All Sport[®] 5000 console has a switch that can be used to run a number of different devices. The switch can be configured to operate under different settings. The default setting is 1-CLOCK= 0.

To display the desired switch setting:

1. Press the number (0, 1, 2, 3) key as a shortcut or use the left and right arrow keys to scroll to the desired setting.
2. Press <YES> to select the new setting.
3. Press <NO> or the down arrow key to leave the switch setting and display the next prompt.

The possible settings for the switch output are as follows:

Setting	Result
 N = current setting	The switch remains open at all times and any external devices are disabled.
 N = current setting	<p>In count down mode, the switch closes when the main clock reaches zero and remains closed until a nonzero value is entered.</p> <p>In count up mode, the switch closes when the main clock reaches the proper period, break, or overtime length and opens when any other value is entered.</p>
 N = current setting	The switch closes when the main clock is stopped and opens when the main clock is running. External devices are disabled when the main clock is running.
 N = current setting	The switch closes when the main horn sounds. This could be when Auto Horn is enabled and the main clock reaches zero or when <HORN> is pressed.

Default Settings

Write the settings for this installation in the space (Custom) provided.

Setting	Default	Custom 1	Custom 2	Custom 3
Period Length	73:00			
Practice Length	10:00			
Extra Length	10:00			
Break Length	1:00			
Half Break	5:00			
Extra Break	3:00			
Show Break	Yes			
Show Hammer	Yes			
Full Time Outs	2			
Full Time Out	1:00			
Extra Time Outs	1			
Extra Time Out	1:00			
Game Ends	10			
Switch Output	1-Clock = 0			

Section 5: Daktronics Exchange and Repair & Return Programs

5.1 Exchange Program

The Daktronics Exchange Program is a service for quickly replacing key components in need of repair. If a component fails, Daktronics sends a replacement part to the customer who, in turn, returns the failed component to Daktronics. This decreases equipment downtime. Customers who follow the program guidelines explained below will receive this service.

Before Contacting Daktronics

Identify these important numbers:

Display Serial Number: _____
Display Model Number: _____
Job/Contract Number: _____
Date Installed: _____
Daktronics Customer ID Number: _____

To participate in the Exchange Program, follow these steps.

1. Call Daktronics Customer Service.

Market Description	Customer Service Number
Schools (including community/junior colleges), religious organizations, municipal clubs and community centers	877-605-1115
Universities and professional sporting events, live events for auditoriums and arenas	866-343-6018

2. When the new exchange part is received, mail the old part to Daktronics.

If the replacement part fixes the problem, send in the problem part being replaced.

- a. Package the old part in the same shipping materials in which the replacement part arrived.
- b. Fill out and attach the enclosed UPS shipping document.
- c. Ship the part to Daktronics.

3. The defective or unused parts must be returned to Daktronics within 5 weeks of initial order shipment.

If any part is not returned within five (5) weeks, a non-refundable invoice will be presented to the customer for the costs of replenishing the exchange parts inventory with a new part.

Daktronics reserves the right to refuse parts that have been damaged due to acts of nature or causes other than normal wear and tear.

5.2 Repair & Return Program

For items not subject to exchange, Daktronics offers a Repair & Return Program. To send a part for repair, follow these steps:

1. **Call or fax Daktronics Customer Service:**
Refer to the appropriate market number in the chart listed on the previous page.
Fax: 605-697-4444
2. **Receive a case number before shipping.**
This expedites repair of the part.
3. **Package and pad the item carefully to prevent damage during shipment.**
Electronic components, such as printed circuit boards, should be placed in an antistatic bag before boxing. Daktronics does not recommend using packing 'peanuts' when shipping.
4. **Enclose:**
 - name
 - address
 - phone number
 - the case number
 - a clear description of symptoms

Shipping Address

Daktronics Customer Service
[Case #]
201 Daktronics Drive, Dock E
Brookings, SD 57006

5.3 Daktronics Warranty and Limitation of Liability

The Daktronics Warranty and Limitation of Liability is located in **Appendix B**. The Warranty is independent of Extended Service agreements and is the authority in matters of service, repair, and display operation.

Section 6: Scoreboard Options

6.1 Radio Control

Radio control is an option for Daktronics scoreboards. The system provides scoreboard control via a 2.4 GHz, extra-high frequency FM signal.

The radio transmitter and receiver are not standard equipment. This setup requires a control console equipped with a radio transmitter as well as a radio receiver plugged into the driver/power enclosure and mounted internally to the front panel of the scoreboard.

For additional information about this option, contact a Daktronics representative; for complete information on setting up radio communication control, refer to the **Gen V Radio Installation Manual (ED-13831)** or the **Gen VI Radio Installation Manual (DD2362277)**, both available online at www.daktronics.com/manuals.

6.2 Team Name Message Centers

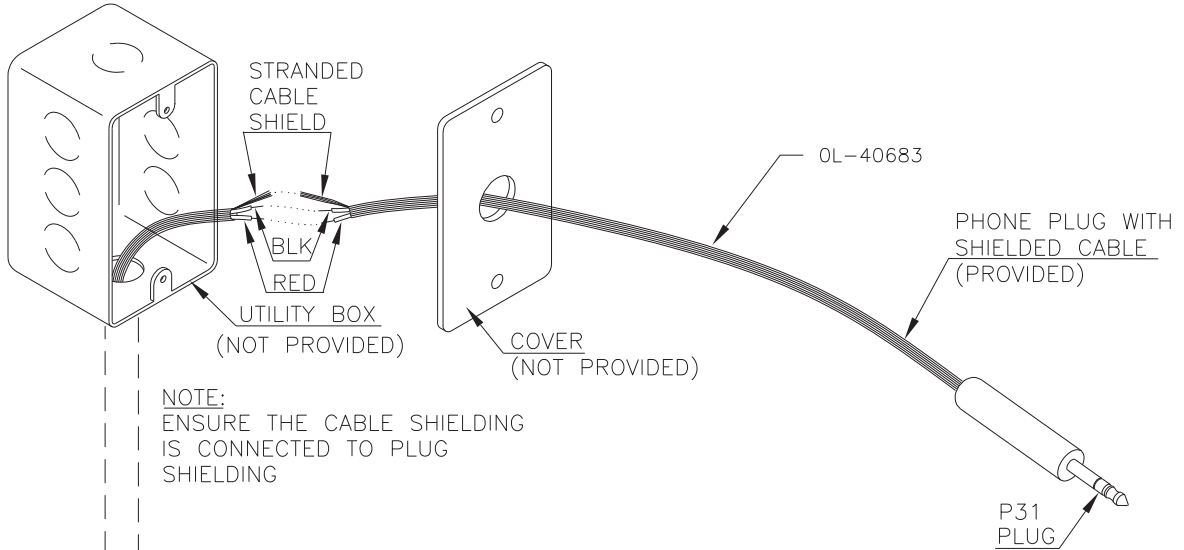
Team Name Message Centers (TNMCs) are programmable LED displays that allow users to show custom Home and Guest names. TNMCs are typically ordered factory-installed but can be field-mounted after the scoreboard is in place. For more information about TNMCs, contact a Daktronics representative or refer to the service manual listed in **Section 1.1**.

Appendix A: Reference Drawings

<i>Drawing Title</i>	<i>Drawing Number</i>
Signal Connection, Installation.....	A-28124
Block Diagram: AS5000 BB- VB and WR #1.....	A-124686
Insert; LL-2442 A/S 5000, Team Name.....	A-125290
Schematic; Dual 1/4" Phone J-box w/ Shunt Jack.....	A-125316
Insert; 0G-1021630, A/S 5000, Curling.....	A-1021630
Electrical & Signal Spec; CU-2001	B-1031637
Mechanical Spec; CU-2001	B-1031836
Component Location; CU-2001	A-1159215*
Mechanical Spec; CU-2001	A-1159216*

** Refer to these drawings for scoreboards built after December 2013.*

DISPLAY LOCATION



NOTE:
ENSURE THE CABLE SHIELDING
IS CONNECTED TO PLUG
SHIELDING

PROCEDURE

1. ROUTE CONDUIT BETWEEN CONTROL AND DISPLAY LOCATIONS.
2. MOUNT BOXES.
3. PULL CABLE THROUGH CONDUIT.
4. CONNECT CABLE TO J31 AND P31

J31: USE CONNECTORS PROVIDED.
INSERT WIRES INTO CONNECTOR
AND SQUEEZE CONTACT
DOWN WITH PLIERS. SNAP PLASTIC
COVER SHUT.

P31: CONNECT WIRES TO CABLE AS
FOLLOWS:

J31 RED TO P31 RED (+)

J31 BLK TO P31 BLK (-)

J31 SHIELD TO P31 SHIELD

NOTE!!

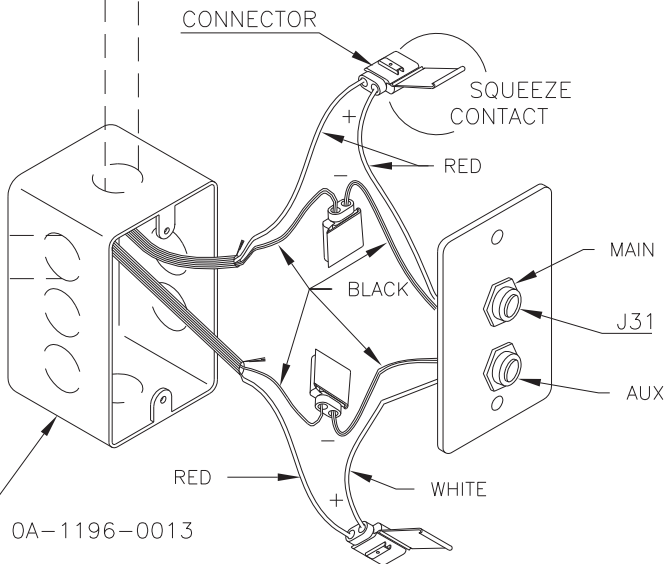
DO NOT CONNECT
CABLE SHIELD AT
CONTROL CONSOLE END

SHIELDED CABLE
IN CONDUIT
(NOT PROVIDED)

TO MAIN BOARD

TO AUX BOARD

J-BOX
(PROVIDED)

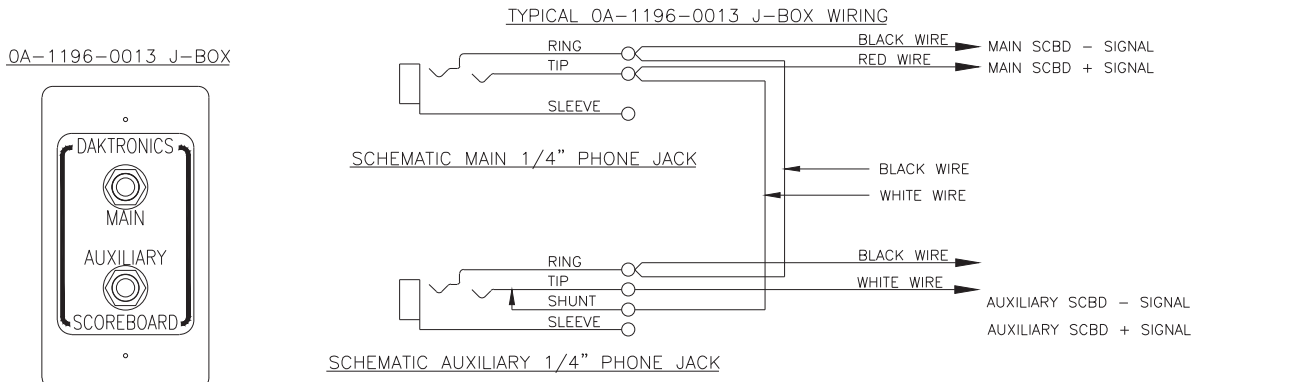
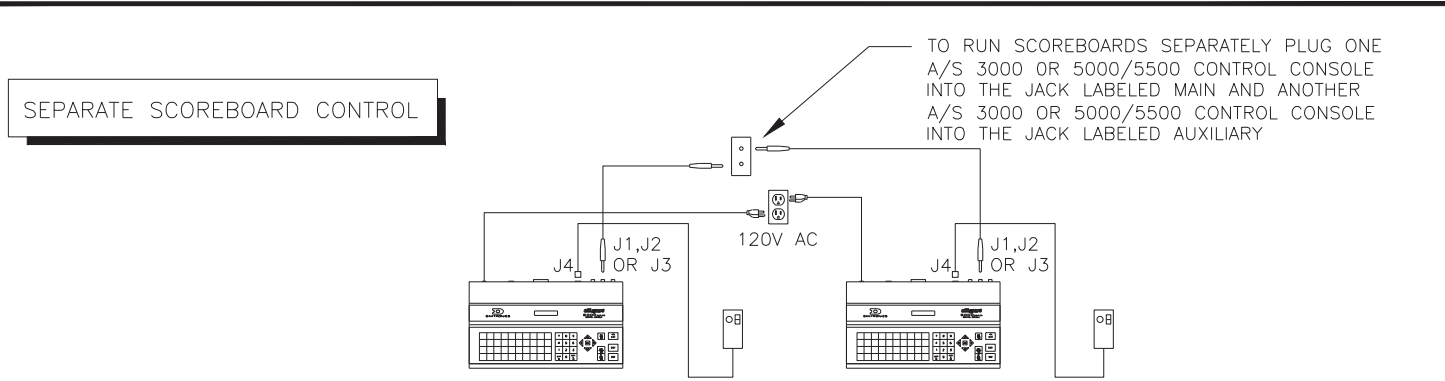
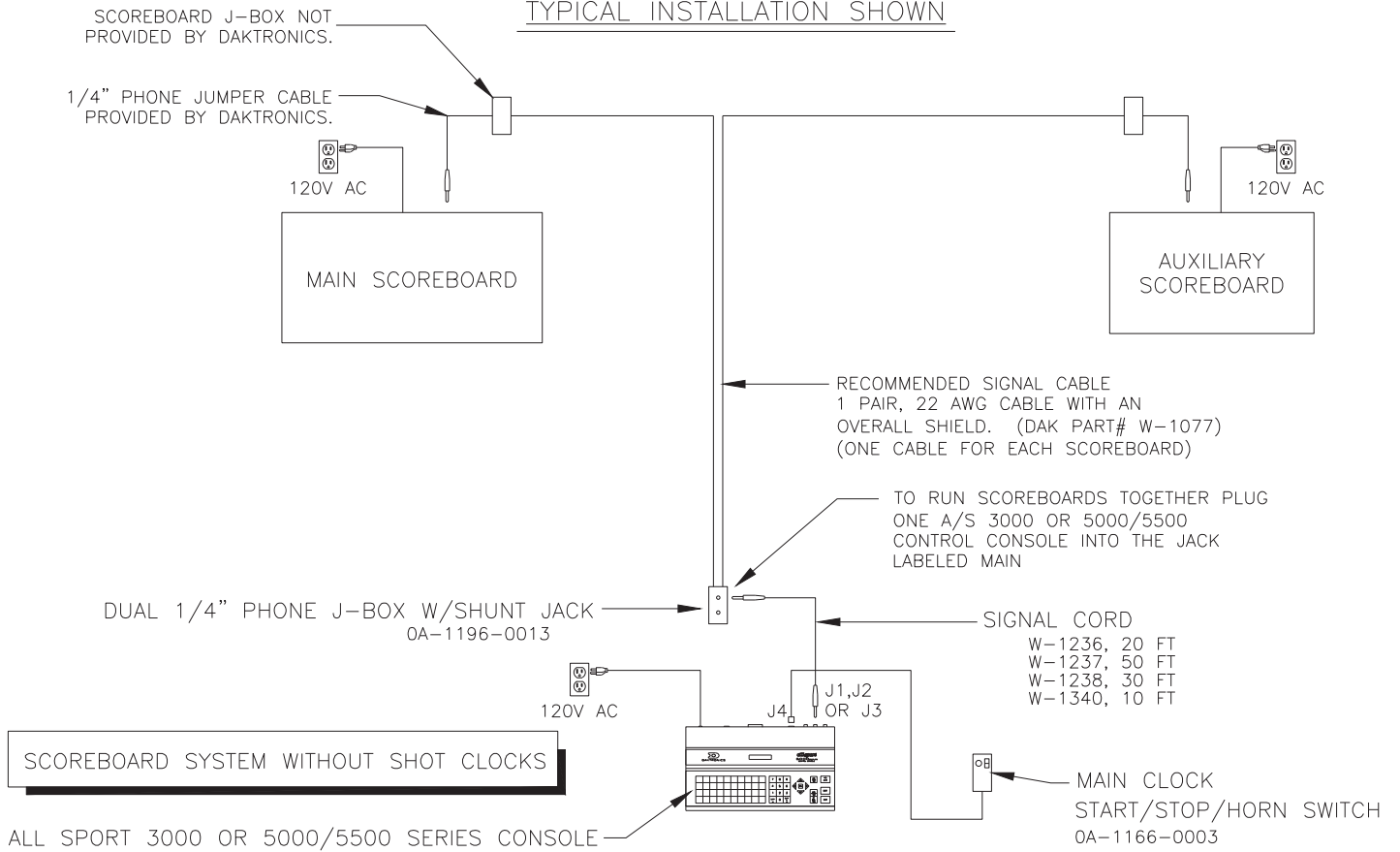


CONTROL LOCATION

REV.	DATE	DESCRIPTION	BY	APPR.
05	30 JUL 03	BOLD FACED GROUNDING NOTE	TLH	
04	17 JUN 03	CHANGED GROUNDING PROCEDURES	JJC	MWM
3	17 JAN 02	ADDED AUX TO J-BOX	JJS	
2	25 MAR 92	CHANGED WHITE TO RED	JTC	
1	05 NOV 91	REDREW ON A-SIZE ON ACAD.	JLH	

DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: BASKETBALL			
TITLE: SIGNAL CONNECTION; INSTALLATION			
DES. BY: AVB		DRAWN BY: MHART	
		DATE: 15SEP86	
REVISION	APPR. BY: AVB	1009-R10A-28124	
05	SCALE: NONE		

TYPICAL INSTALLATION SHOWN



<p>DAKTRONICS, INC. BROOKINGS, SD 57006</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>DO NOT SCALE DRAWING</p>	
<p>PROJ: ALL SPORT 5000/5500</p>		
<p>TITLE: BLOCK DIAGRAM: AS5000 BB- VB AND WR #1</p>		
DESIGN:	DRAWN: E BRAVEK	DATE: 29 NOV 99
SCALE: NONE		
SHEET	REV	JOB NO:
	02	P1196
FUNC-TYPE-SIZE		
R-04-A		124686

REV 02	DATE: 17 AUG 11	UPDATED THE BOARDER AND TITLE BLOCK UPDATED TEXT TO INCLUDE 5500 SERIES	BY: JJL
REV 01	DATE: 26 APR 00	ADDED A/S 3000	BY: DKD

REV 01 DATE: 11 FEB 08 ADDED "&" SYMBOL TO INSERT BY: JMC

LL-2441 R01

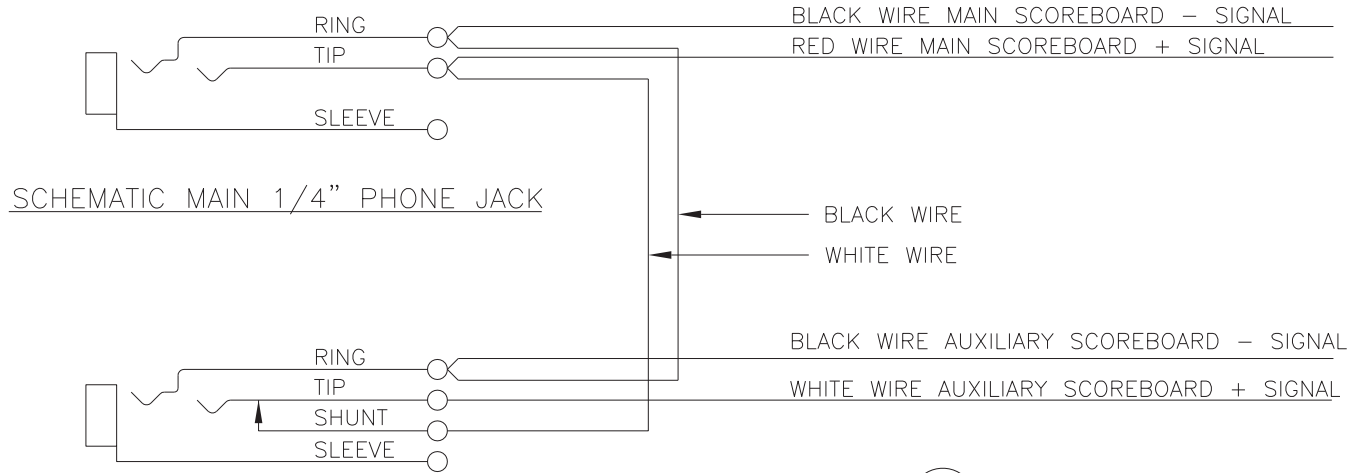
TEAM NAME

WIDTH				HEIGHT		FONT			
16 COLUMNS	32 COLUMNS	48 COLUMNS	64 COLUMNS	7 ROWS	8 ROWS	SINGLE STROKE	DOUBLE STROKE	& / -	SHIFT
Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	'
Z	X	C	V	B	N	M	,	.	SPACE

DAKTRONICS, INC.
 BROOKINGS, SD - 57006
 DO NOT SCALE DRAWING

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PROJECT: SPORT 5000
 TITLE: INSERT; LL-2441 A/S 5000, TEAM NAME
 DESIGN: EB DRAWN: E BRAVEK DATE: 13 DEC 99
 SCALE: 1=1
 SHEET REV JOB NO: FUNC-TYPE-SIZE
 01 P1196 E-07-A 125290

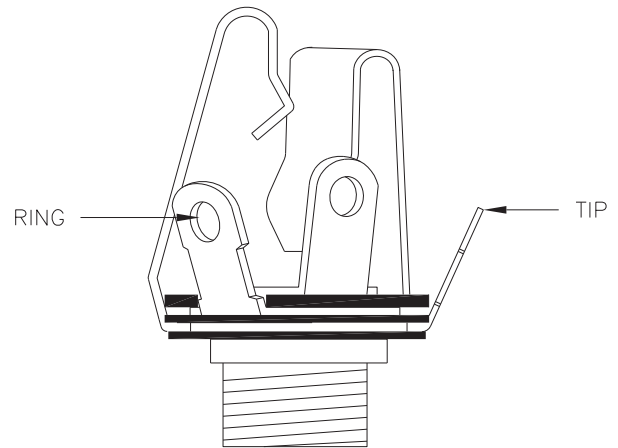


SCHEMATIC MAIN 1/4" PHONE JACK

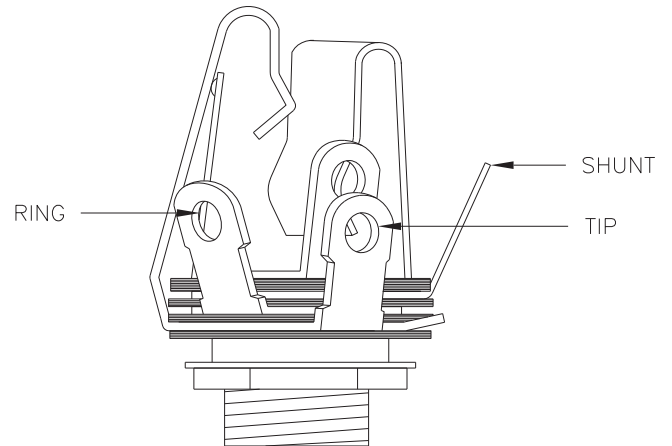
SCHEMATIC AUXILIARY 1/4" PHONE JACK



0A-1196-0013



MAIN
 PHONE JACK
 J-1003



AUXILIARY
 PHONE JACK
 J-1131

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: SCHEMATIC; DUAL 1/4" PHONE J-BOX W/SHUNT JACK

DES. BY: E BRAVEK

DRAWN BY: E BRAVEK

DATE: 15 DEC 99

REVISION

APPR. BY:

SCALE: NONE

1196-R03A-125316

REV.	DATE	DESCRIPTION	BY	APPR.
00				

CURLING
 CODE TYPE
 4501

06-1021630 REV 00

PLACE CODE LABEL HERE
 ENTER THIS CODE NUMBER

YELLOW

SCORE +1	SCORE -1	TIME OUT ◀
		SET TIME •
TEAM START ◀		STOP

	EXTRA BREAK START
1ST UP/HAMMER SELECT	HALFTIME BREAK START
	BREAK START
END +1	END -1

RED

SCORE +1	SCORE -1	TIME OUT ▶
		SET TIME •
TEAM START ▶		STOP



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 BROOKINGS, SD 57006

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PROJ:		TITLE: INSERT: 06-1021630, A/S 5000, CURLING	
DESIGN: BCARSRUD		DRAWN: CDAILY	
SCALE: 1 = 1		DATE: 26 AUG 10	
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE
00	P1196		E-07-A
			1021630

CU-2001

DIGIT, SIGNAL AND POWER SPECIFICATIONS:

NOTES:

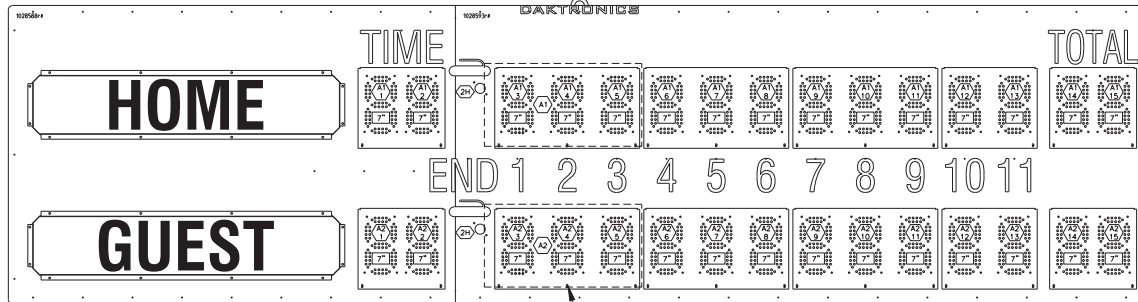
1. USE MINIMUM OF 22AWG, SHIELDED, TWO CONDUCTOR CABLE FOR SIGNAL TERMINATION.
2. THE NUMBER LISTED BY EACH DIGIT INDICATES THE DIGIT DESIGNATION IN RELATION TO THE LED DRIVER.
3. **DO NOT WORK ON ENERGIZED DISPLAY UNLESS YOU ARE A CERTIFIED ELECTRICIAN OR DIRECTED BY DAKTRONICS.**



OPTIONAL 8X48-6 TEAM NAME MESSAGE CENTERS



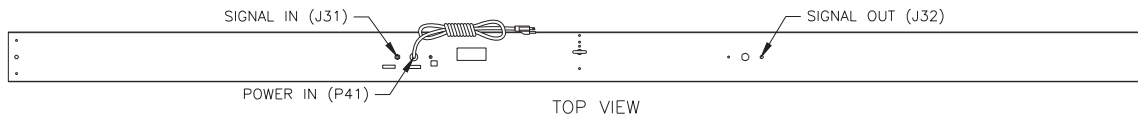
- = LED DRIVER NUMBER AND LED DRIVER CONNECTOR WIRED TO DIGIT.
- = DIGIT SIZE
- = LED DRIVER NUMBER



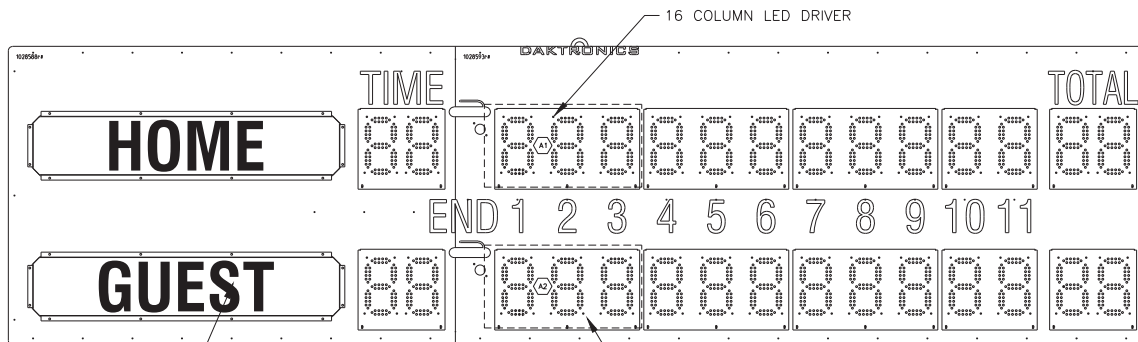
REMOVE SCREWS TO ACCESS DRIVERS

FRONT VIEW

ADDRESS INFORMATION	ADDRESS INFORMATION
DRIVER: A1	DRIVER: A2
ADDRESS: 11	ADDRESS: 12

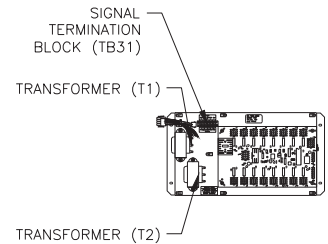


TOP VIEW



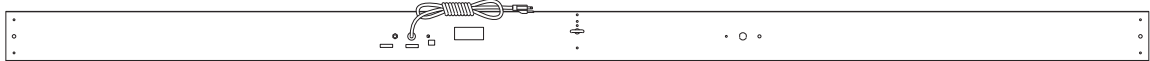
OPTIONAL TNMCS

FRONT VIEW

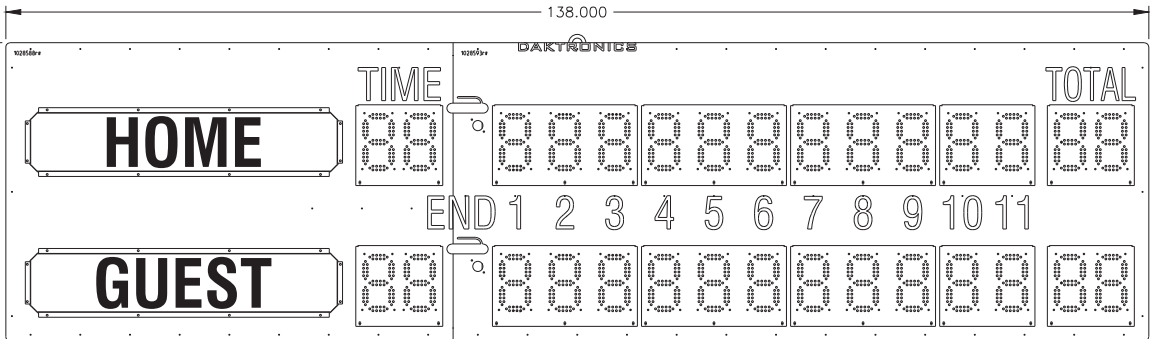


DAKTRONICS, INC.		THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2010 DAKTRONICS, INC.	
BROOKINGS, SD 57006		DO NOT SCALE DRAWING	
PROJ: INDOOR LED SCOREBOARDS			
TITLE: ELECTRICAL & SIGNAL SPEC, CU-2001			
DESIGN: KDRAGT	DRAWN: KDRAGT	DATE: 09 SEP 10	
SCALE: 1 = 1/5			
SHEET	REV	JOB NO.	FUNC-TYPE-SIZE
	00	P1237	E-10-B
			1031637

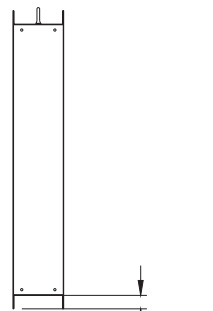
CU-2001



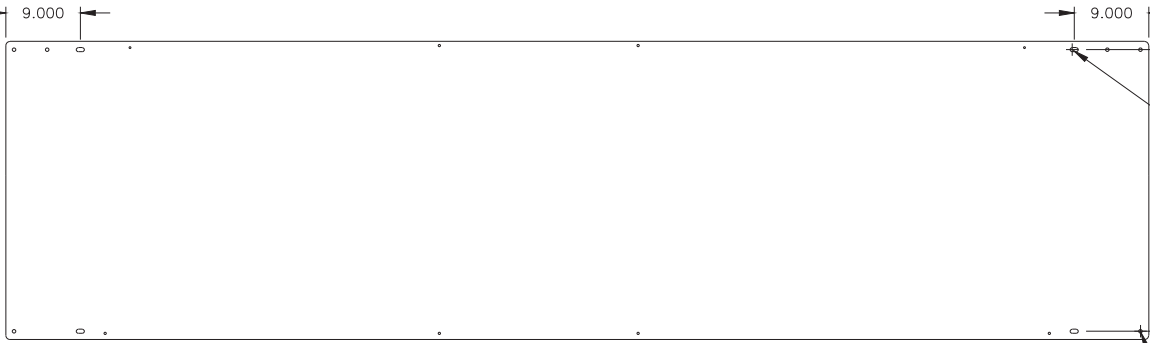
TOP VIEW



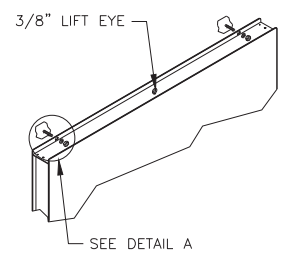
FRONT VIEW



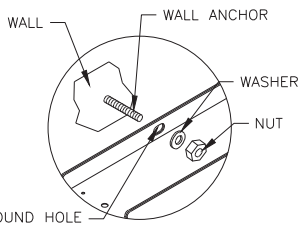
SIDE VIEW



REAR VIEW



WALL MOUNTING DETAIL



DETAIL: A (SCALE 1=10)

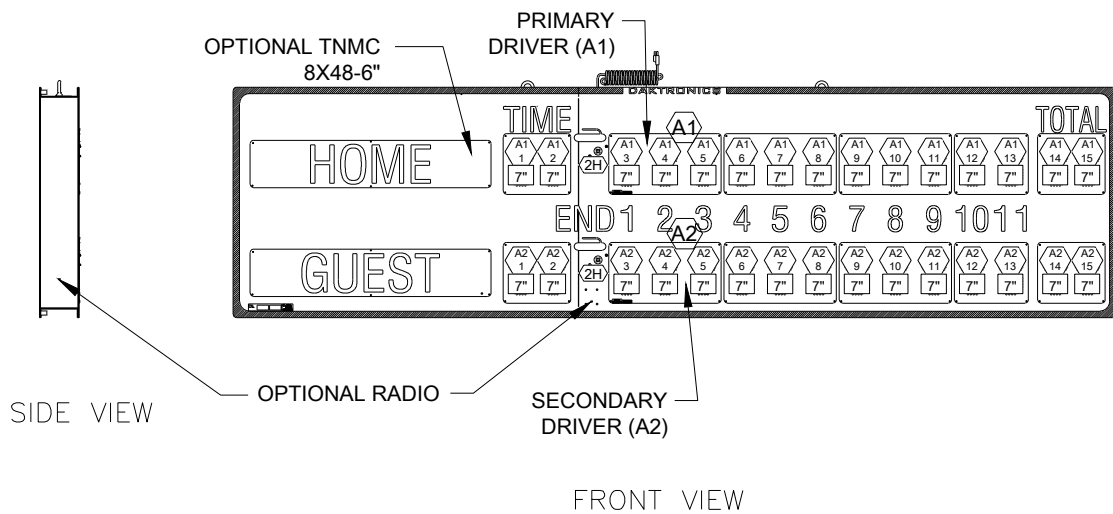
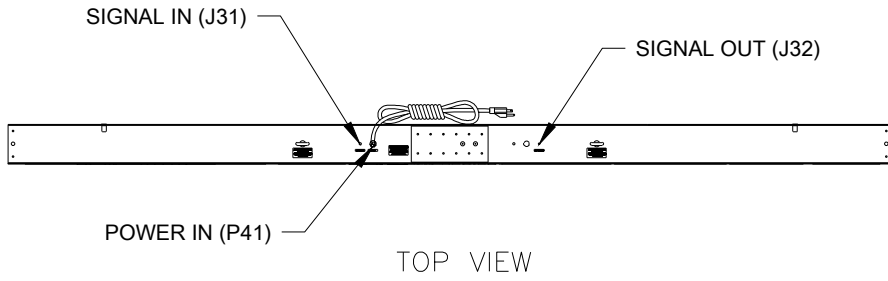
WEIGHTS	
SHIPPING WEIGHT	MOUNTING WEIGHT
180 LBS (82 KG)	175 LBS (80 KG)

NOTES:

1. USE APPROPRIATE WALL ANCHORS FOR TYPE OF WALL.
2. LIFT EYE IS FOR TEMPORARY USE WHILE LIFTING SCOREBOARD DURING INSTALLATION. DO NOT USE LIFT EYE FOR PERMANENT SUSPENSION.

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BROOKINGS, SD 57006		DO NOT SCALE DRAWING	
PROJ: INDOOR LED SCOREBOARDS			
TITLE: MECHANICAL SPEC; CU-2001			
DESIGN: KDRAGT	DRAWN: KDRAGT	DATE: 09 SEP 10	
SCALE: 1=15			
SHEET	REV	JOB NO.	FUNC-TYPE-SIZE
	00	P1237	E-10-B
			1031836

CU-2001



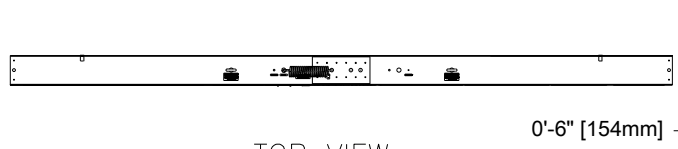
NOTES:

- DIGIT DESIGNATION = IN RELATION TO DRIVER
- = DIGIT SIZE
- = SEGMENT DESIGNATION
- = DRIVER NUMBER

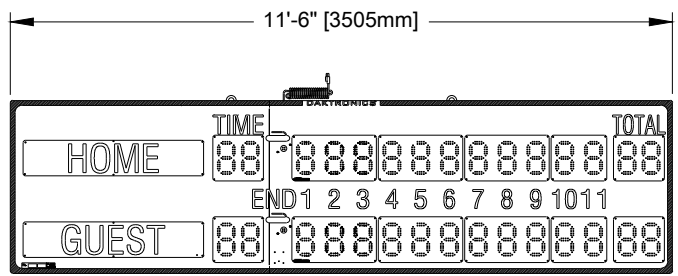
	DAKTRONICS, INC. BROOKINGS, SD 57006		THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2013 DAKTRONICS, INC.	
	DO NOT SCALE DRAWING			
PROJ: INDOOR SCOREBOARD				
TITLE: COMPONENT LOCATION; CU-2001				
DESIGN: DOPPELT		DRAWN: DOPPELT		DATE: 19 DEC 13
SCALE: 1/30				
SHEET	REV	JOB NO:	FUNC -TYPE-SIZE	1159215
01	01	P 1749	E - 10 - A	

REV	DATE:	PER EC-17119, REMOVED DRIVER DETAIL, ADDED PRIMARY TO DRIVER LEADERS	BY:
01	03 MAR 15		KDB

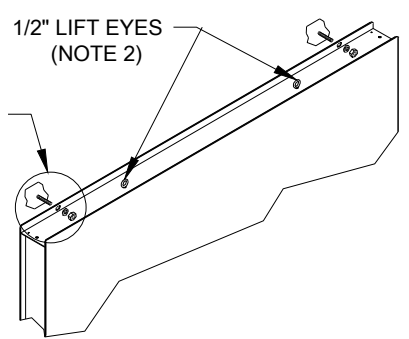
CU-2001



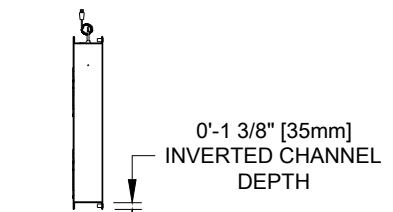
TOP VIEW



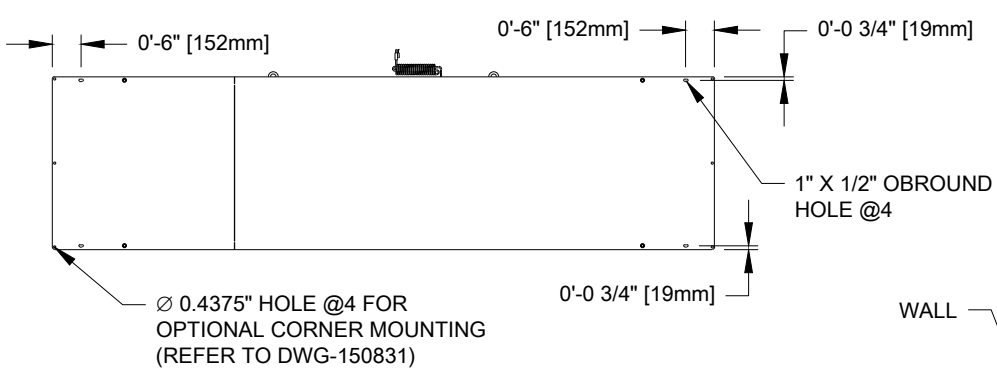
FRONT VIEW



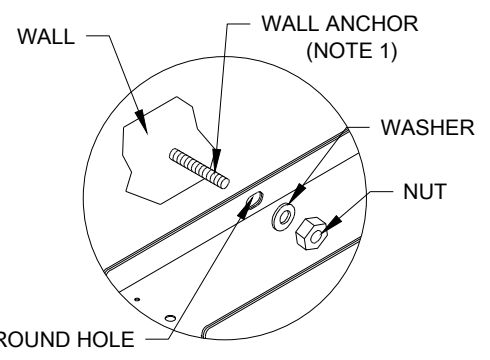
WALL MOUNTING DETAIL



SIDE VIEW



REAR VIEW



DETAIL: A
(SCALE 1=10)

NOTES:

1. USE APPROPRIATE WALL ANCHORS FOR TYPE OF WALL. (NOT PROVIDED BY DAKTRONICS)
2. LIFT EYES ARE FOR TEMPORARY USE WHILE LIFTING SCOREBOARD DURING INSTALLATION. DO NOT USE LIFT EYE FOR PERMANENT SUSPENSION. REFER TO DWG-1130959.

WEIGHTS	
SHIPPING WEIGHT	MOUNTING WEIGHT
305 LBS (139 KG)	175 LBS (80 KG)

<p>DAKTRONICS, INC. BROOKINGS, SD 57006</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 2013 DAKTRONICS, INC.</p>		
	<p>DO NOT SCALE DRAWING</p>		
<p>PROJ: INDOOR SCOREBOARDS</p>			
<p>TITLE: MECHANICAL SPEC; CU-2001</p>			
<p>DESIGN: DOPPELT</p>		<p>DRAWN: DOPPELT</p>	<p>DATE: 19 DEC 13</p>
<p>SCALE: 1/40</p>			
<p>SHEET</p>	<p>REV</p>	<p>JOB NO:</p>	<p>FUNC -TYPE-SIZE</p>
	<p>00</p>	<p>P 1749</p>	<p>E - 10 - A</p>
			<p>1159216</p>

Appendix B: Daktronics Warranty and Limitation of Liability

**DAKTRONICS
WARRANTY AND LIMITATION OF LIABILITY**

This Warranty and Limitation of Liability (the "Warranty") sets forth the warranty provided by Daktronics with respect to the Equipment. By accepting delivery of the Equipment, Purchaser agrees to be bound by and accept these terms and conditions. All defined terms within the Warranty shall have the same meaning and definition as provided elsewhere in the Agreement.

DAKTRONICS WILL ONLY BE OBLIGATED TO HONOR THE WARRANTY SET FORTH IN THESE TERMS AND CONDITIONS UPON RECEIPT OF FULL PAYMENT FOR THE EQUIPMENT.

1. Warranty Coverage

A. Daktronics warrants to the original end-user that the Equipment will be free from Defects (as defined below) in materials and workmanship for a period of one (1) year (the "Warranty Period"). The warranty period shall commence on the earlier of: (i) four weeks from the date that the equipment leaves Daktronics' facility; or (ii) Substantial Completion as defined herein. The warranty period shall expire on the first anniversary of the commencement date.

"Substantial Completion" means the operational availability of the Equipment to the Purchaser in accordance with the Equipment's specifications, without regard to punch-list items, or other non-substantial items which do not affect the operation of the Equipment.

B. Daktronics' obligation under this Warranty is limited to, at Daktronics' option, replacing or repairing, any Equipment or part thereof that is found by Daktronics not to conform to the Equipment's specifications. Unless otherwise directed by Daktronics, any defective part or component shall be returned to Daktronics for repair or replacement. Daktronics may, at its option, provide on-site warranty service. Daktronics shall have a reasonable period of time to make such replacements or repairs and all labor associated therewith shall be performed during regular working hours. Regular working hours are Monday through Friday between 8:00 a.m. and 5:00 p.m. at the location where labor is performed, excluding any holidays observed by either Purchaser or Daktronics.

C. Daktronics shall pay ground transportation charges for the return of any defective component of the Equipment. If returned Equipment is repaired or replaced under the terms of this warranty, Daktronics will prepay ground transportation charges back to Purchaser; otherwise, Purchaser shall pay transportation charges to return the Equipment back to the Purchaser. All returns must be pre-approved by Daktronics before shipment. Daktronics shall not be obligated to pay freight for any unapproved return. Purchaser shall pay any upgraded or expedited transportation charges.

D. Any replacement parts or Equipment will be new or serviceably used, comparable in function and performance to the original part or Equipment, and warranted for the remainder of the Warranty Period. Purchasing additional parts or Equipment from the Seller does not extend this Warranty Period.

E. Defects shall be defined as follows. With regard to the Equipment (excepting LEDs), a "Defect" shall refer to a material variance from the design specifications that prohibit the Equipment from operating for its intended use. With respect to LEDs, "Defects" are defined as LED pixels that cease to emit light. The limited warranty provided by Daktronics does not impose any duty or liability upon Daktronics for partial LED pixel degradation. Nor does the limited warranty provide for the replacement or installation of communication methods including but not limited to, wire, fiber optic cable, conduit, trenching, or for the purpose of overcoming local site interference radio equipment substitutions.

THIS LIMITED WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE EQUIPMENT AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SPECIFICALLY, EXCEPT AS PROVIDED HEREIN, THE SELLER UNDERTAKES NO RESPONSIBILITY FOR THE QUALITY OF THE EQUIPMENT OR THAT THE EQUIPMENT WILL BE FIT FOR ANY PARTICULAR PURPOSE FOR WHICH PURCHASER MAY BE BUYING THE EQUIPMENT. ANY IMPLIED WARRANTY IS LIMITED IN DURATION TO THE WARRANTY PERIOD. NO ORAL OR WRITTEN INFORMATION, OR ADVICE GIVEN BY THE COMPANY, ITS AGENTS OR EMPLOYEES, SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS LIMITED WARRANTY.

THIS LIMITED WARRANTY IS NOT TRANSFERABLE.

2. Exclusion from Warranty Coverage

The limited warranty provided by Daktronics does not impose any duty or liability upon Daktronics for:

A. Any damage occurring, at any time, during shipment of Equipment unless otherwise provided for in the Agreement. When returning Equipment to Daktronics for repair or replacement, Purchaser assumes all risk of loss or damage, and agrees to use any shipping containers that might be provided by Daktronics and to ship the Equipment in the manner prescribed by Daktronics;

B. Any damage caused by the unauthorized adjustment, repair or service of the Equipment by anyone other than personnel of Daktronics or its authorized repair agents;



C. Damage caused by the failure to provide a continuously suitable environment, including, but not limited to: (i) neglect or misuse, (ii) a failure or sudden surge of electrical power, (iii) improper air conditioning or humidity control, or (iv) any other cause other than ordinary use;

D. Damage caused by fire, flood, earthquake, water, wind, lightning or other natural disaster, strike, inability to obtain materials or utilities, war, terrorism, civil disturbance or any other cause beyond Daktronics' reasonable control;

E. Failure to adjust, repair or replace any item of Equipment if it would be impractical for Daktronics personnel to do so because of connection of the Equipment by mechanical or electrical means to another device not supplied by Daktronics, or the existence of general environmental conditions at the site that pose a danger to Daktronics personnel;

F. Any statements made about the product by salesmen, dealers, distributors or agents, unless such statements are in a written document signed by an officer of Daktronics. Such statements as are not included in a signed writing do not constitute warranties, shall not be relied upon by Purchaser and are not part of the contract of sale;

G. Any damage arising from the use of Daktronics products in any application other than the commercial and industrial applications for which they are intended, unless, upon request, such use is specifically approved in writing by Daktronics; or

H. Any performance of preventive maintenance.

3. Limitation of Liability

Daktronics shall be under no obligation to furnish continued service under this Warranty if alterations are made to the Equipment without the prior written approval of Daktronics.

It is specifically agreed that the price of the Equipment is based upon the following limitation of liability. In no event shall Daktronics (including its subsidiaries, affiliates, officers, directors, employees, or agents) be liable for any special, consequential, incidental or exemplary damages arising out of or in any way connected with the Equipment or otherwise, including but not limited to damages for lost profits, cost of substitute or replacement equipment, down time, lost data, injury to property or any damages or sums paid by Purchaser to third parties, even if Daktronics has been advised of the possibility of such damages. The foregoing limitation of liability shall apply whether any claim is based upon principles of contract, tort or statutory duty, principles of indemnity or contribution, or otherwise.

In no event shall Daktronics be liable to Purchaser or any other party for loss, damage, or injury of any kind or nature arising out of or in connection with this Warranty in excess of the purchase price of the Equipment actually delivered to and paid for by the Purchaser. The Purchaser's remedy in any dispute under this Warranty shall be ultimately limited to the Purchase Price of the Equipment to the extent the Purchase Price has been paid.

4. Assignment of Rights

The Warranty contained herein extends only to the original end-user (which may be the Purchaser) of the Equipment and no attempt to extend the Warranty to any subsequent user-transferee of the Equipment shall be valid or enforceable without the express written consent of Daktronics.

5. Dispute Resolution

Any dispute between the parties will be resolved exclusively and finally by arbitration administered by the American Arbitration Association ("AAA") and conducted under its rules, except as otherwise provided below. The arbitration will be conducted before a single arbitrator. The arbitration shall be held in Brookings, South Dakota. Any decision rendered in such arbitration proceedings will be final and binding on each of the parties, and judgment may be entered thereon in any court of competent jurisdiction. This arbitration agreement is made pursuant to a transaction involving interstate commerce, and shall be governed by the Federal Arbitration Act.

6. Governing Law

The rights and obligations of the parties under this warranty shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sales of Goods of 1980. Both parties consent to the application of the laws of the State of South Dakota to govern, interpret, and enforce all of Purchaser and Daktronics rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Warranty, without regard to conflict of law principles.

7. Availability of Extended Service Agreement

For Purchaser's protection, in addition to that afforded by the warranties set forth herein, Purchaser may purchase extended warranty services to cover the Equipment. The Extended Service Agreement, available from Daktronics, provides for electronic parts repair and/or on-site labor for an extended period from the date of expiration of this warranty. Alternatively, an Extended Service Agreement may be purchased in conjunction with this warranty for extended additional services. For further information, contact Daktronics Customer Service at 1-800-DAKTRONics (1-800-325-8766).