TUFF SPORT® AND COLORSMART® INDOOR LED SCOREBOARDS

INSTALLATION MANUAL

P1749/1763

DD2481645
Rev 10
23 July 2024

Models			
BB-2101	BB-2131	BB-3125*	SD-2106
BB-2103	BB-2132	BB-3142*	SD-3101*
BB-2105	BB-2142	CU-2001	SD-3102*
BB-2107	BB-2143	H-2101	SD-3103*
BB-2109	BB-2144	H-2102	SD-3106*
BB-2111	BB-2152	H-2103	SQ-2001
BB-2114	BB-2153	H-2104	TI-2030
BB-2115	BB-2155	H-2106	TI-2101
BB-2116	BB-3101*	H-2108	TI-2102
BB-2117	BB-3103*	H-2111	TI-2103
BB-2119	BB-3105*	H-2114	TI-2200
BB-2121	BB-3107*	H-2115	TI-3103*
BB-2122	BB-3114*	SD-2101	VB-2101
BB-2123	BB-3115*	SD-2102	
BB-2125	BB-3121*	SD-2103	
BB-2130	BB-3123*	SD-2104	

*ColorSmart or compatible model
(Discontinued January 2022)

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FCC Statement

Supplier Declaration of Conformity (SDoC)

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Warning: The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

Industry Canada Regulatory Information

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Inquiries

Contact Daktronics with any questions regarding our product compliance.

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Table of Contents

1 Introduction 1
Important Safeguards 1
Specifications Label 1
Resources 1
Troubleshooting 2
Display Controllers 2
Sport Codes 3
DAK Score App 3
Product Safety Approval 3
2 Mechanical Installation 4
Lifting 4
Wall Mounting 5
Single-Section Displays 5
Suspension Mounting 5
Corner Mounting 5
Multi-Section Displays 6
Shot Clock Mounting 7
Hockey Scoring Modules 7
Ad Panel Mounting 7
3 Electrical Installation 8
Warnings and Disclaimers 8
Installation Overview 8
Power 9
Grounding 9
Lightning Protection 10
Power-On Self-Test (POST) 10
Wired Signal Connection 10
BB-2117 and BB-2119 Power/Signal Connection 11
Wireless Signal Connection 11
All Sport Radio Control 11
RC-200 Control 11
Radio Settings 11
MX-1 and DAK Score 11
Statistics Display and Hockey Module Signal Connection 12
H-2103 Connection 13
Shot Clock Power/Signal Connection 13
4 Scoreboard Options 14
Time of Day Mode 14
Team Name Message Centers and Electronic Captions 15
Horns 15
Adjusting Horn Volume 15
Visual Horn Indicator (VHI) 15

Table of Contents

Light Strips 15
Double Bonus Indicators 15
Time Outs Left (TOL) Digits 16
Changeable Caption Kits 16
Goal Lights 16
Protective Devices 16

5 Daktronics Exchange and Repair & Return Programs 17

Exchange Program 17
Repair & Return Program 18
Daktronics Warranty & Limitation of Liability 18

A Specifications 19

B Reference Drawings 21

C Daktronics Warranty & Limitation of Liability 37

1 Introduction

This manual explains the installation of Daktronics Indoor LED Scoreboards, Game/Shot Clocks, Statistics Panels, and Timing Displays. For additional information regarding safety, installation, operation, or service, refer to the telephone numbers listed in **Section 5: Daktronics Part Replacement Programs (p.17)**. This manual is not specific to a particular installation.

Important Safeguards

- **Read and understand all instructions before beginning the installation process.**
- **Disconnect the display power when not in use or when servicing.**
- **Disconnect the 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 structure or attach any panels or coverings to the display without the express written consent of Daktronics.**
- **Do not disassemble the control equipment or the electronic controls of the display; failure to follow this safeguard will make the warranty null and void.**
- **Do not drop the control equipment or allow it to get wet.**

Specifications Label

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

> **Note:** If something mounted above the display obscures this label, a copy of this label can be found behind the PRIMARY DRIVER access panel.

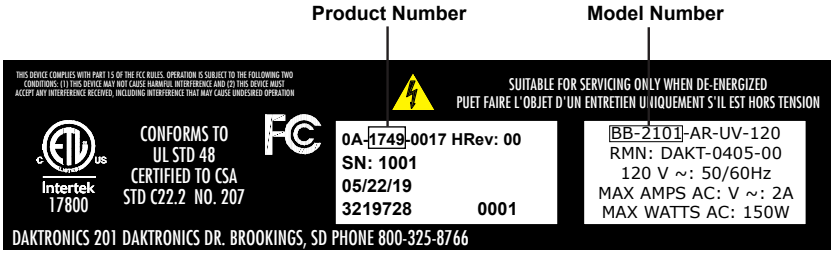


Figure 1: *Specifications Label*

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 displays that have the same model number.

Resources

Figure 2 illustrates a Daktronics drawing label. This manual refers to drawings by listing the last set of digits. In the example, the drawing would be referred to as **DWG-1007804**. All references to drawing numbers, appendices, figures, or other manuals are presented in bold typeface.

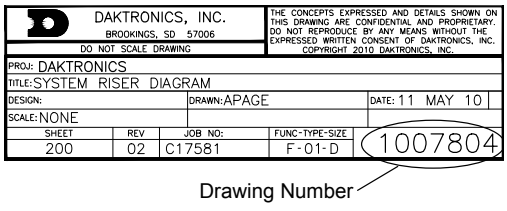


Figure 2: *Drawing Label*

Any drawings referenced in a section are listed at the beginning of it as shown below:

Reference Drawings:
System Riser Diagram **DWG-1007804**

Daktronics identifies manuals by the DD or ED number located on the cover page.

Listed below are drawing types commonly used by Daktronics, along with the information typically provided. All drawings referenced in this manual are found in the appendices.

- **Schematic Drawings:** describe internal power and signal wiring as well as interconnections between display sections; they may also include digit designations and driver addressing information
- **Shop Drawings:** describe mounting methods to structural elements, access method (front or rear), and power and signal entrance points
- **System Riser Diagrams:** describe power/signal connections between components and the control location; they may also include control room layout and schematic
- **Final Assembly Drawings:** describe internal display component locations and detailed product appearance with part numbers and quantities

Ensure all applicable materials have been gathered before beginning the installation. Contact a Daktronics sales coordinator or project manager.

Troubleshooting

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

- **Tuff Sport Indoor LED Scoreboards Service Manual (DD2481648)**
- **ColorSmart Indoor LED Scoreboards Service Manual (DD2507404)**

Display Controllers

Daktronics Tuff Sport scoreboards are designed for use with the All Sport® 1600 and 5000 series control consoles, and certain models may also be operated with the hand-held RC-200 wireless controller. The consoles use keyboard overlays (sport inserts) to control numerous sports and scoreboard models. Refer to the manuals below for operating instructions. They are provided on a CD with the control console, and they are also available online at www.daktronics.com/manuals.

- **All Sport 1600 Series Control Console Operation Manual (ED-12462)**
- **All Sport 5000 Series Control Console Operation Manual (ED-11976)**
- **Remote Control System RC-200 All Sport Operation Manual (DD3572889)**

Daktronics ColorSmart scoreboards are only compatible with the All Sport 5500 series control console. Refer to the manual below:

- **All Sport 5500 Series Control Console Operation Manual (ED-16809)**

Sport Codes

The following table lists common All Sport and RC-200 sport codes. Note that many scoreboards are capable of scoring multiple sports. Refer to the appropriate controller operation manual for a complete listing of sport codes.

Sport	All Sport 5000/5500 Codes	All Sport 1600 Codes	RC-200 Codes
Basketball	1101 (PLAYER-FOUL) 1105 (PLYR/FL/PTS)	21	10
Curling	4501	N/A	N/A
Hockey	4401 (without SOG) 4402 (with SOG)	01	01
Volleyball	2101 (MATCH/GAME) 2105 (PLYR/FL/PTS)	01	01
Wrestling	3101	01	01
Squash	N/A	16	N/A

DAK Score App

On a compatible Android or iOS mobile device, open the App Store, search for "DAK Score", and download the app. With the scoreboard powered on and **Bluetooth®** wireless technology enabled on the mobile device, open the app. The "All Sport MX-1" device should appear in the list. Refer to **Figure 3**. Tap the device name to connect and begin controlling the scoreboard.

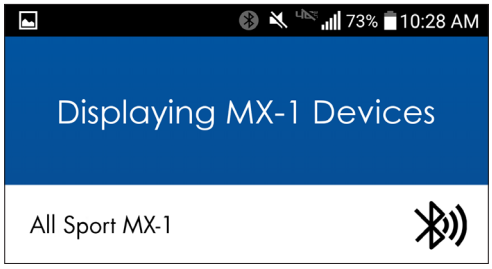


Figure 3: *MX-1 Devices in DAK Score App*

> **Note:** The MX-1 device name may have been renamed, as is recommended to do if there are multiple scoreboards in the area.

For more setup, operation, and troubleshooting information, visit www.daktronics.com/allsportMXsupport.

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 testing procedures.

2 Mechanical Installation

Mechanical installation consists of lifting and permanently mounting the display(s). The product specification sheets listed in **Appendix A** include installation specification drawings that show the recommended number and spacing of wall anchors for specific scoreboard models. Be sure that the installation complies with local building codes.

> **Note:** Daktronics assumes no liability for installations derived from the information provided in this manual or installations designed and installed by others.

Lifting

Most displays and display sections ship equipped with at least one 1/2" shoulder-type eyebolt located along the top of the cabinet for the purpose of lifting. Smaller game/shot clocks do not require eyebolts and are not equipped with them.

> **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.

For displays with two eyebolts, use a spreader bar, or lifting bar, to lift the display. Spreader bars ensure force on the eyebolts remains straight up, minimizing lifting stress.

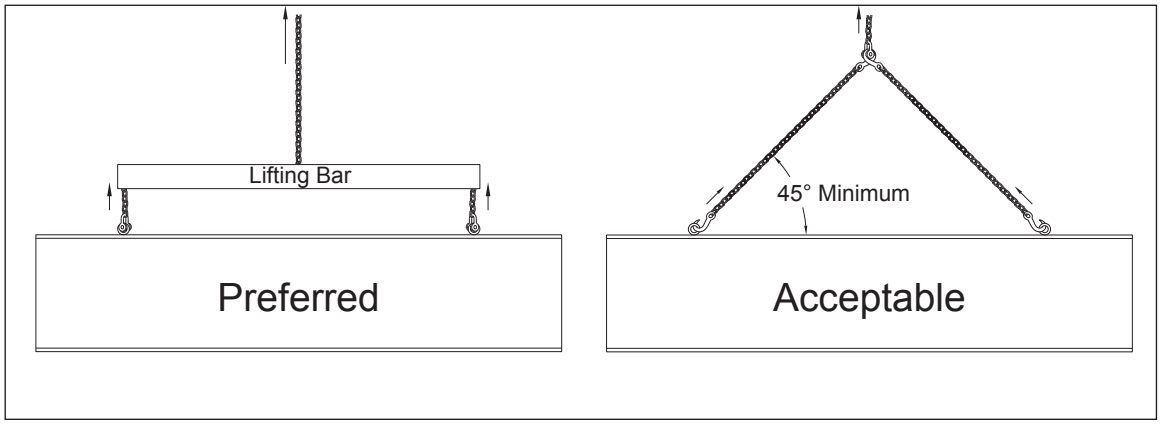


Figure 4: *Lifting Methods*

Figure 4 illustrates the preferred lifting method on the left and an acceptable alternative lifting method on the right. When lifting the cabinet:

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

Avoid using other lifting methods. Cables and chains attached to the eyebolts and directly to a center lifting point, as shown in the "Acceptable" example in **Figure 4**, can create a dangerous lateral force on the eyebolts and may cause them to fail. The smaller the angle between the cable and the top of the cabinet, the lighter the cabinet must be to safely lift it. If this method must be used, ensure a minimum angle between the chain and cabinet of at least 45°.

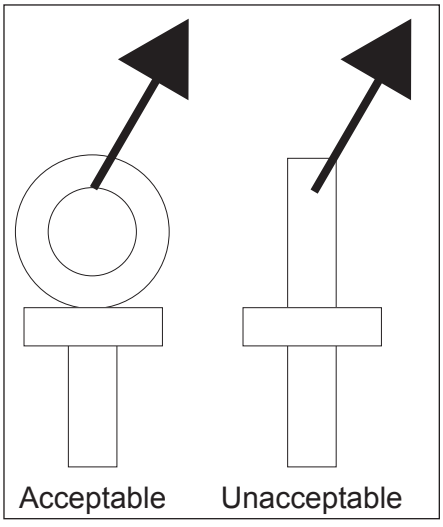


Figure 5: *Eyebolt Plane Load*

Do NOT attempt to lift the cabinet if the angle is less than 45°. Exceeding load angles or weight limits could cause the bolts in the cabinet to buckle, resulting in serious damage to the equipment or injury to personnel. Also, loads should be applied directly in the plane of the eyebolt as shown in **Figure 5**.

Small displays that are not equipped with eyebolts instead use two lifting straps that encircle the cabinet. The use of a spreader bar with the straps is recommended.

Wall Mounting

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.

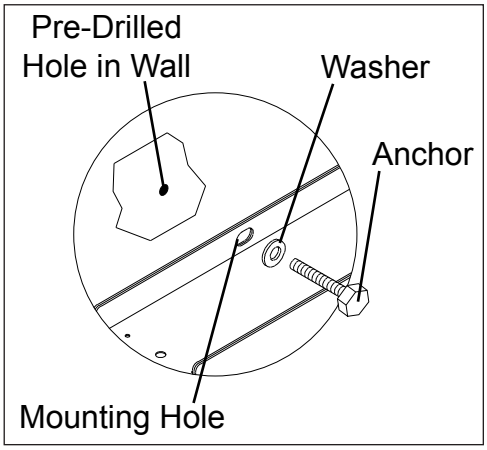


Figure 6: *Wall Mounting*

Single-Section Displays

1. Use the eyebolt(s) at the top of the display cabinet to lift it 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 cabinet to a pre-drilled hole in the wall (**Figure 6**).

Note: For basketball statistic displays or hockey scoring modules, verify the correct HOME or GUEST display by looking at the label on top of the cabinet to determine whether it should be mounted to the left or right of the main display.

For mounting locations, weights and hardware suggestions, refer to the model-specific mechanical specification drawings attached to the product specification sheets listed in **Appendix A**.

Suspension Mounting

Reference Drawings:

Suspension Lift Eye Installation **DWG-1130959**

Rather than being mounted to the wall or in a corner, a display may be suspended using a special lift eye mounting kit. Refer to **DWG-1130959** in **Appendix B** for more information.

Always contact Daktronics about any installation that involves permanently suspending the scoreboard.

Corner Mounting

Reference Drawings:

Corner Mounting **DWG-150831**

Certain indoor displays may be mounted in a corner, rather than flat against the wall, using a special mounting bracket kit. For more information on the corner mounting option, refer to **DWG-150831** in **Appendix B**.

Multi-Section Displays

In typical multi-section installations, the lowest display section is installed first, but be sure to verify with the mounting drawing.

1. Use eyebolts to lift the lowest display section into position on the wall.
2. Ensure the cabinet is level, and secure it to the wall by attaching 1/2" mounting hardware through all obround holes on the bottom rear flange of the cabinet (**Figure 7**).
3. Mounting brackets must be used inside the top cabinet channel as shown in **Figure 8**.
   a. Line up the outer hole on the bracket with the mounting hole in the top rear flange.
   b. Using the bracket as a template, drill another hole through the top rear flange.
   c. Secure the top rear flange and bracket to the wall with 1/2" hardware through the existing and drilled holes.
   d. Repeat **Steps a–c** for the other mounting bracket(s).
4. Repeat **Steps 1–3** for all other cabinets that will be mounted to the left and right of the first installed section.

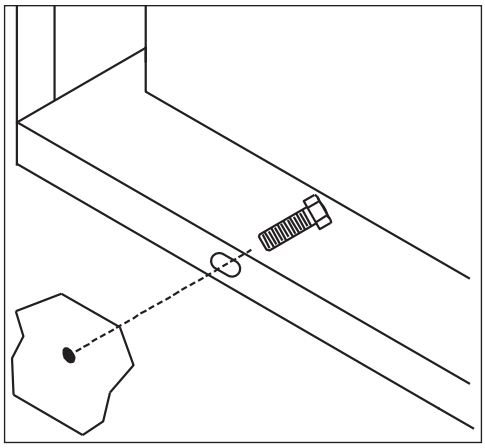


Figure 7: *Wall Mounting without Bracket*

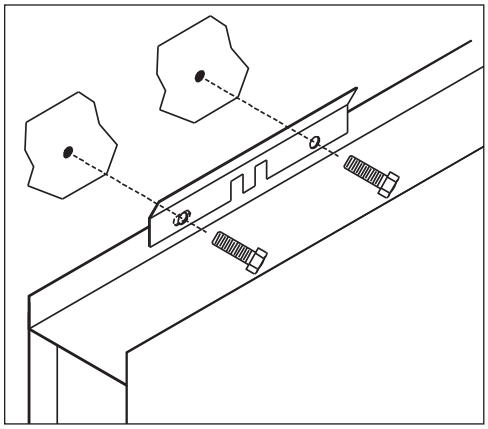


Figure 8: *Wall Mounting with Bracket*

> **Note:** Before upper cabinet sections are attached, it will be easier to make power and signal connections between each bottom cabinet section. Refer to **Section 3: Electrical Installation (p.8)** for more information on power/signal installation.

5. Remove the eyebolts from the bottom cabinets, and use them to lift the upper cabinets into place. The bottom rear flanges of upper cabinets will not be mounted to the wall; instead, they will rest inside the mounting brackets of the cabinets in the row below. Refer to **Figure 9**.
6. Secure the upper-most sections to the wall by attaching 1/2" mounting hardware through all obround holes on the top rear flange of the cabinet (similar to the bottom flange attachment shown in **Figure 7**).

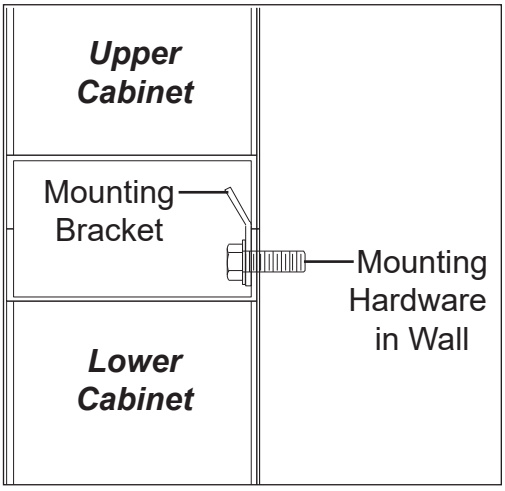


Figure 9: *Upper Cabinet Placement*

Shot Clock Mounting

Reference Drawings:

Backstop Mounting Suggestions..... **DWG-91230**

Single-sided shot clocks may be mounted to a wall in the same manner as described in **Wall Mounting (p.5)**.

Multi-sided shot clocks are frequently mounted to vertical backstop supports. Refer to **DWG-91230** in **Appendix B** for shot clock mounting information. Refer also to the **Shot Clock Installation Quick Guide (DD5071871)**, available online at www.daktronics.com/manuals.

> **Note:** Daktronics does not supply the hardware or brackets to mount shot clocks to backstops and is not responsible for the integrity or suitability of mounting systems manufactured and installed by others.

Hockey Scoring Modules

Reference Drawings:

Hockey Scoreboard Configurations..... **DWG-169166**

Hockey scoring modules are small sections that show additional game information, such as penalty times or shots on goal. Modules can be combined with the main scoreboard as well as other modules to form many unique arrangements. For more information on modular scoring configurations, refer to **DWG-169166** in **Appendix B**.

If any modules are to be mounted in a vertical arrangement, the signal cables for the bottom displays must be installed and connected before the upper sections are positioned and secured. Refer to **Statistics Display and Hockey Module Signal Connection (p.12)**.

Ad Panel Mounting

Reference Drawings:

ID or Ad Panel Mounting to Scoreboard..... **DWG-156134**

Ad panels may be mounted to a wall in the same manner as a display described in **Wall Mounting (p.5)**. If an ad panel is to be mounted directly to the top or bottom of a scoreboard cabinet, refer to **DWG-156134** in **Appendix B**.

3 Electrical Installation

Warnings and Disclaimers

- Ensure that all electrical work meets or exceeds all local or national electrical codes.
- Provide the required power to the display as listed on the product labels, specifications, or site-specific riser drawings. The conductor size may vary based on the length of the power run.
- Consider implementing a separate circuit for the display using an isolation transformer or dedicated transformer.
- Daktronics assumes no liability for any issues caused by line voltage fluctuations or other improper power conditions.

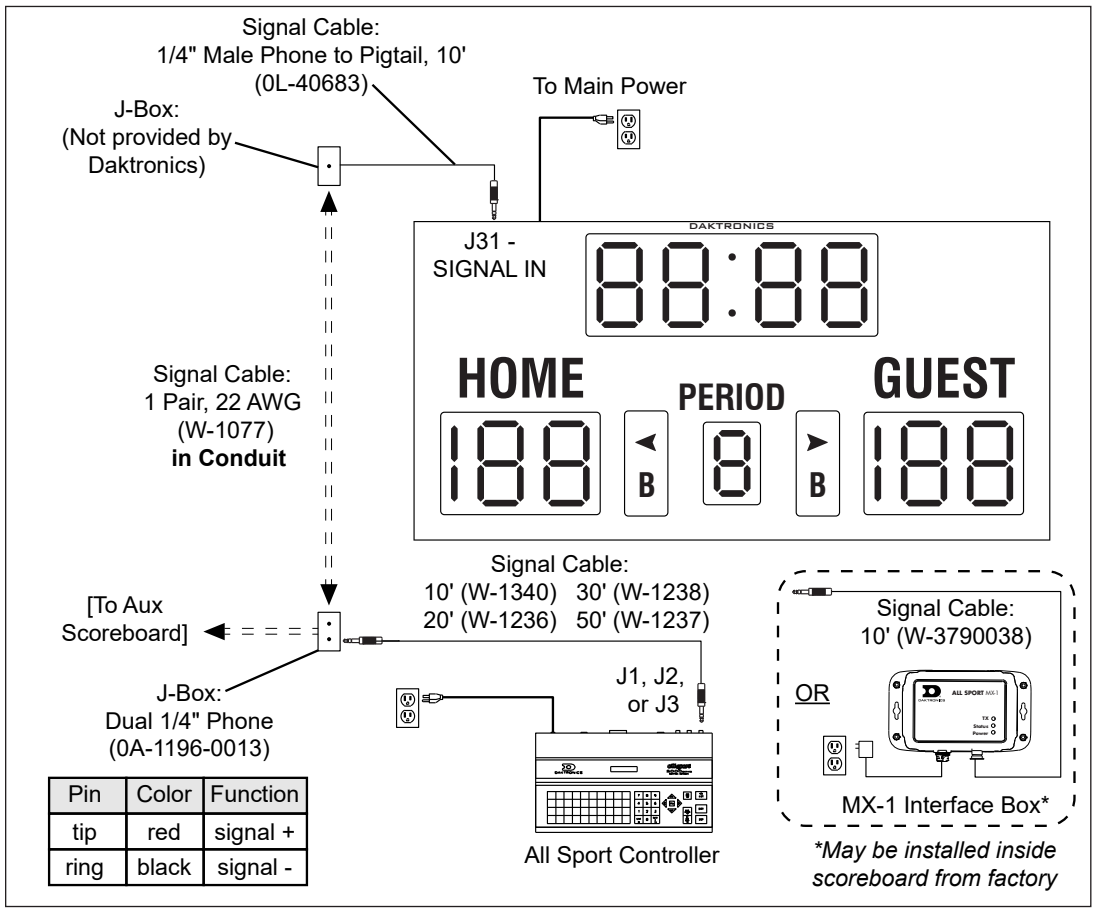
Installation Overview

Reference Drawings:

Block Diagram: AS5000 BB- VB and WR #1 ..... **DWG-124686**
Block Diagram: AS5000 BB- VB and WR #3 ..... **DWG-124688**
Block Diagram, A/S 3000 or 5000 Hockey **DWG-124689**

Figure 10 illustrates a wired setup between a scoreboard and controller. Daktronics part numbers are shown in parentheses. **DWG-124686**, **DWG-124688**, and **DWG-124689** in **Appendix B** also show power and signal layouts.

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



Pin	Color	Function
tip	red	signal +
ring	black	signal -

Figure 10: *Wired Installation*

Figure 11 illustrates a wireless setup between a scoreboard and controller. Refer to **Wireless Signal Connection (p.11)** for more information about the wireless radio option.

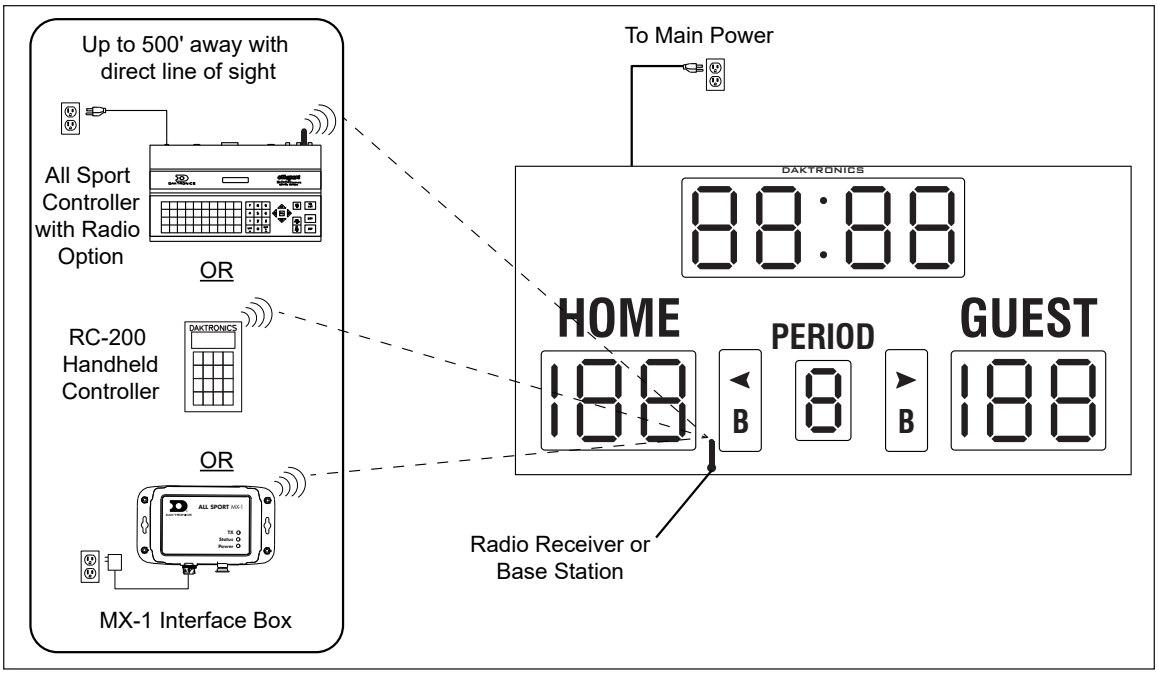


Figure 11: *Wireless Installation*

Power

Only qualified individuals should complete the electrical installation; untrained personnel should not attempt to install these displays or any of the electrical components. Improper installation can seriously damage the equipment and be hazardous to personnel.

Most displays feature a 120 VAC power cord with a three-prong plug. Install a grounded receptacle nearby so that the power cord can easily reach it. The control console requires a 120/240 VAC receptacle and uses less than 1 A of power.

> **Note:** Several shot clock models do not include a power cord. Also, certain scoring modules require connections to other scoreboards for power and signal. Refer to **Shot Clock Power/Signal Connection (p.13)** and **Statistics Display and Hockey Module Signal Connection (p.12)** for more information.

Displays operating on 240 VAC are also available (excluding ColorSmart models), and they ship equipped with a universal power plug.

Grounding

All components of a display system – including but not limited to displays, control equipment, and connected peripheral equipment – must be electrically grounded. Only qualified individuals may perform electrical work, including verification of ground resistance. Daktronics is not responsible for improper grounding or damage incurred as a result of improper grounding.

Grounding methods must meet the provisions of all applicable local and national codes. Inspect and verify all grounding methods meet the provisions of all applicable local and national codes.

Proper grounding is necessary for reliable equipment operation and general electrical safety. Failure to properly ground the display system may void the warranty, disrupt operation, damage equipment, and cause bodily harm or death.

Lightning Protection

The use of a disconnect near the display to completely cut all current-carrying lines significantly protects the circuits against lightning damage. Local and national electrical codes also may require it. In order for this system to provide protection, the power must be disconnected when the display is not in use.

The control console should also be disconnected from power and from the signal junction box when the system is not in use. The same surges that may damage the display components can also damage the console's circuitry.

Power-On Self-Test (POST)

The display performs a self-test each time that power is turned on and the control console is powered off or not connected. If the control console is connected and powered on, the self-test does not run, and data from the control console appears on the display after a few seconds. Each self-test pattern will vary depending on the model, the number of drivers, and types of digits. **Figure 12** shows an example of the LED bar test pattern that each digit performs.

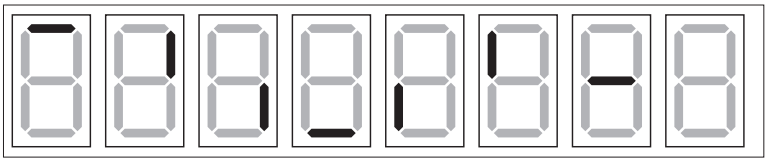


Figure 12: *Digit Segment POST*

Wired Signal Connection

Reference Drawings:

Signal Connection; Installation **DWG-28124**
Schematic; Dual 1/4" Phone J-box w/ Shunt Jack **DWG-125316**

Wired signal installation requires routing control cable from the control console to a signal junction box (J-box) near the display. Refer to **Figure 10** for typical signal layout. Refer also to **DWG-28124** and **DWG-125316** in **Appendix B** for signal wire connection. At a minimum, use a paired, 22 AWG shielded cable (Daktronics part # W-1077).

1. Connect the cable to a dual 1/4" J-box at the control console end.

   > **Note:** 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 displays using multiple controllers.

2. Route the cable in conduit from the J-box on the control console end to a J-box near the display.
3. Install the 1/4" phone plug (part # 0L-40683) to the display 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 display.
5. Connect a signal cable from the J-box on the control console end to the **J1**, **J2**, or **J3** jack on the back of the All Sport 5000/5500 console (or **J1/J2** on the All Sport 1600).

   > **Note:** When the MX-1 Interface Box is not installed inside the scoreboard, connect it to this J-box using the 10' (3.05 m) cable (part # W-3790038).

6. If using a Main Clock Start/Stop Switch (0A-1166-0003), connect it to the **J4** jack on the All Sport 5000/5500 console.

BB-2117 and BB-2119 Power/Signal Connection

Route the interconnect cable (**P51**) located in the left side of the BB-2117/BB-2119 up through the hole in the top of the cabinet into the hole in the bottom of the BB-2116 and connect to a mating interconnect cable (**J51**).

Wireless Signal Connection

All Sport Radio Control

A wireless radio system requires a radio receiver plugged into the 6-pin **J21** jack on the primary driver and mounted internally to the front panel of the display. For more information, refer to the **Gen VI Radio Installation Manual (DD2362277)**, provided with the receiver unit and available online at www.daktronics.com/manuals.

RC-200 Control

A hand-held RC-200 wireless radio control system requires a base station receiver plugged into the 6-pin **J21** jack on the primary driver and mounted internally to the front panel of the display. For more information, refer to the appropriate manual listed in **Display Controllers (p.2)**.

If an All Sport radio receiver and an RC-200 base station are both installed in the same display, the wireless device that takes precedence is the one that the receiver finds active first; it will control the display until the signal is no longer present.

Radio Settings

With an All Sport radio receiver or RC-200 base station installed, watch for the radio Broadcast settings ("b1") and Channel settings ("C1") in the clock digits or Home and Guest scores during the **Power-On Self-Test (POST) (p.10)**. Refer to **Figure 13**.

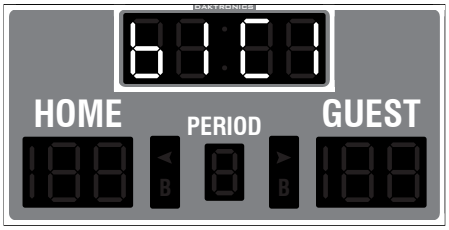
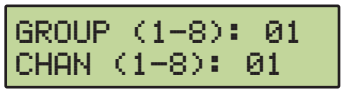


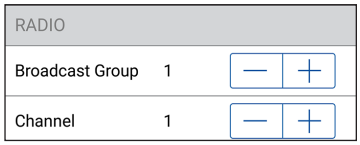
Figure 13: *Radio Settings in Clock Digits*

These values must match the settings in the control console/scoring app. Refer to the controller screens below and the manual listed in **Display Controllers (p.2)**.

All Sport Radio Settings



RC-200 Radio Settings



DAK Score App Settings

If the radio receiver channel and broadcast settings match those set in the console/scoring app but the console does not control the display, there may be radio interference. This can occur when a nearby display also uses radio control. In this case, change the settings of the wireless radio receiver inside the display as described in the appropriate controller or radio installation manual.

MX-1 and DAK Score

Certain scoreboards will come with the MX-1 Interface Box installed internally from the factory. Refer to www.daktronics.com/allsportMXsupport for instructions on how to download the DAK Score app onto a CUSTOMER-SUPPLIED mobile device or tablet and control the scoreboard via **Bluetooth®** wireless technology.

Statistics Display and Hockey Module Signal Connection

Reference Drawings:

Block Diagram: AS5000 BB- VB and WR #3..... **DWG-124688**

Figure 14 shows the connections required between a scoreboard and two statistics displays. The same signal cable routing applies to hockey scoring modules. Refer to **Figure 10** for more information about connecting the signal wiring that runs from the scoreboard to the controller. Refer also to **DWG-124688** in **Appendix B**.

1. For wired signal connection to the main scoreboard, first follow **Steps 1–6** in **Wired Signal Connection (p.10)**.

> **Note:** For wireless setups, refer to **Wireless Signal Connection (p.11)**.

2. Connect a 1/4" phone plug cable between the **J32 – SIGNAL OUT** jack on top of the main scoreboard to the **J31 – SIGNAL IN** jack on top of the right (GUEST) stat panel or scoring module.

3. Connect another 1/4" phone plug cable between the **J32 – SIGNAL OUT** jack on top of the right (GUEST) stat panel or scoring module to the **J31 – SIGNAL IN** jack on top of the left (HOME) stat panel or scoring module.

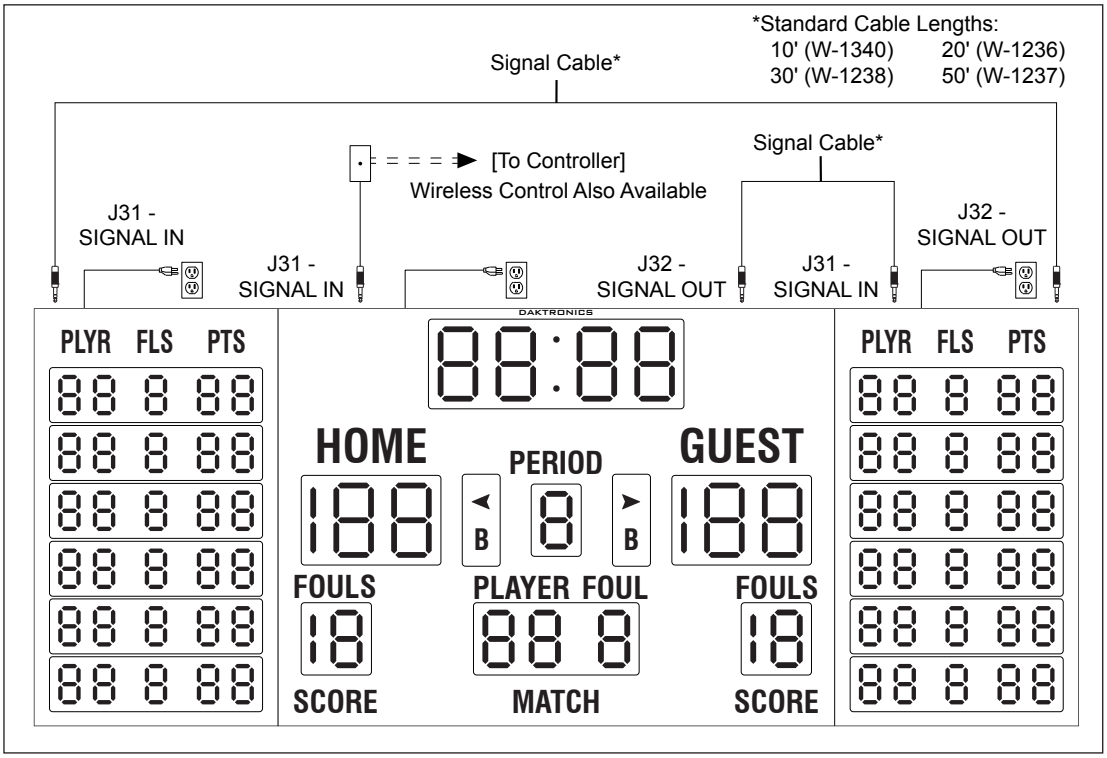


Figure 14: *Statistic Display Installation*

> **Note:** If any scoring modules are to be mounted below the main scoreboard, ensure the right (GUEST) scoring module has a signal cable connected to the **SIGNAL IN** jack and another cable running from the **SIGNAL OUT** jack to the **SIGNAL IN** jack of the left (HOME) scoring module prior to securing the upper scoreboard cabinet(s).

H-2103 Connection

H-2103 hockey scoring modules must connect to an H-2102 or H-2115. H-2103 modules may be placed above, below, or beside other scoreboard sections and are equipped with digit jacks on both the top and the bottom of the cabinet. Connect the two **DIGIT INPUT** jacks (**J11** and **J12**) to the matching **DIGIT OUTPUT** jacks (**J11** and **J12**) using the included 9-pin to 9-pin cables.

Shot Clock Power/Signal Connection

Reference Drawings:

Wiring for Shot Clock on Portable Backstop..... **DWG-98293**
Block Diagram: AS5000 BB- VB and WR #3..... **DWG-124688**

For wiring of permanent or portable shot clocks, refer to **DWG-124688** in **Appendix B**. For a typical installation of a shot clock mounted to a portable backstop structure, refer to **DWG-98293**.

Some shot clock models include a power cord while others include a twist-lock plug for connection to the shot clock's power inlet; the cord itself must be sourced locally and terminated between the shot clock and grounded receptacle.

Shot clocks may be controlled via radio rather than wired signal connection. Refer to **Wireless Signal Connection (p.11)**.

For more information, refer to the **Shot Clock Installation Quick Guide (DD5071871)**, available online at www.daktronics.com/manuals.

4 Scoreboard Options

Time of Day Mode

Time of Day (TOD) mode allows the scoreboard to function as a clock when no All Sport signal is present. The instructions below DO NOT apply to ColorSmart models.

> **Note:** TOD mode is available on scoreboards with driver firmware version 1.0 or higher. Also, the scoreboard must have at least four clock digits.

To enable Time of Day mode:

1. **Unplug the power cord from the scoreboard.**
2. Access the scoreboard driver to which the clock digits are connected. Refer to the component location drawings attached to the product specification sheets listed in **Appendix A**.
3. At the bottom of the driver are two address switches labeled "H" and "L."

   Record the position of both switches here as they will need to be returned to their exact positions later:

H	
L	

4. Use a small flathead screwdriver to move both H and L address switches to the "F" position (**Figure 15**). This will set the scoreboard driver to Diagnostics Mode.

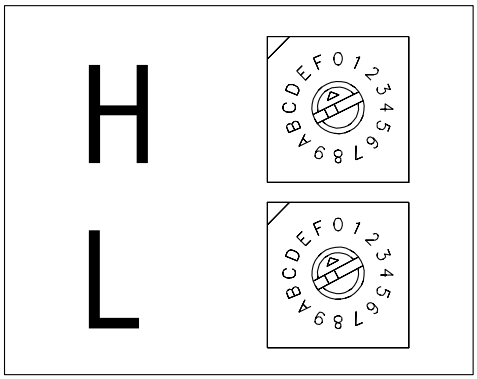


Figure 15: *Address Switch Settings – Diagnostic Mode*

5. Reapply power to the scoreboard. If the driver has successfully entered Diagnostics Mode, the "RUN" LED (DS2) will be blinking at a fast rate, about four times per second.
6. Rotate the L address switch to the "0" position (**Figure 16**). The "232" LED (DS1) will blink to show a change has been made:
   - Three blinks = Time of Day Enabled
   - Two blinks = Time of Day Disabled
7. To exit Diagnostics Mode, rotate the High address switch (H) to any value other than "F."

   THIS STEP MUST BE PERFORMED TO SAVE THE TIME OF DAY SETTING!

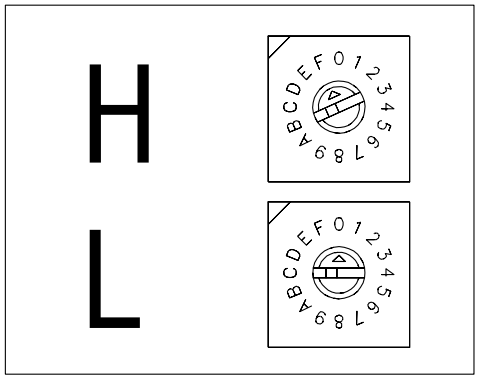


Figure 16: *Address Switch Settings – Time Of Day Mode Enable*

8. Set both address switches back to their original positions as recorded in **Step 3**. Note that the "RUN" LED (DS2) will now be blinking slower, about once per second, and the scoreboard will finish the power-up sequence to operate as normal.

To adjust the Time of Day settings, refer to the All Sport control console operation manual.

Team Name Message Centers and Electronic Captions

Team Name Message Centers (TNMCs) are programmable LED displays that allow scoreboards to show custom Home and Guest names. Electronic captions, on the other hand, are pre-programmed to only show specific labels to match the captions for a particular sport mode, making it much simpler to switch between sports. TNMCs and electronic captions are typically factory-installed, but they can also be added later, after the scoreboard has been mounted. For more information about TNMCs or electronic captions, contact a Daktronics representative or refer to the service manual listed in **Troubleshooting (p.2)**.

Horns

Reference Drawings:

12V DC Horn Option Installation **DWG-148960**

Daktronics indoor scoreboards are equipped with a 120 VAC vibrating horn mounted behind the cabinet face. The horn sounds automatically when the period clock counts down to zero, or when manually triggered by the operator using the control console.

Installation of an optional 12 VDC horn is detailed in **DWG-148960** in **Appendix B**. Louder trumpet horns are also available. Contact Daktronics for information and pricing.

Adjusting Horn Volume

CAUTION: The horn is a 120 VAC device. Turn off power before adjusting the horn.

The volume for the electronic, buzzer-type horn is set at its maximum level at the factory. If the horn is too loud, reduce its volume by adjusting the setscrew mounted in the front of the horn. A plastic tip on the screw touches the horn's diaphragm, reducing the volume. Turn the screw clockwise and test the volume by operating the horn from the scoreboard control console. Continue adjusting and testing until the desired volume level is obtained.

Note that with spectator noise, the horn will not seem as loud as when it is being tested in an empty area. Be sure to set the volume according to the acoustics of the facility.

Visual Horn Indicator (VHI)

In addition to the horn, Daktronics offers a visual horn indicator (VHI) that lights up when the buzzer sounds. To install a VHI, the existing horn wiring must be tapped into in order to provide power and signal. For more information about installing the VHI option, including details on the inputs, outputs, and switches of a shot clock relay board that controls when the VHI should be turned on, refer to the **VHI (ED-13397)** or **BB-2133 (ED-13806) Installation Instructions**.

Light Strips

LED light strips are a common option for backstops to indicate the end of the period or to show that the shot clock time has expired. For installations that use backstop LED light strips, refer to the **LED End-of-Period Basketball Lighting Display Manual (ED-13652)**.

Double Bonus Indicators

All of the clock/score basketball scoreboards in this manual have the option to include double-bonus indicators, which are factory installed. This option is illustrated in the component location drawings attached to the product specification sheets listed in **Appendix A**.

Time Outs Left (TOL) Digits

Reference Drawings:

T.O.L. Option Installation **DWG-149030**

Certain scoreboards have the option to add a time outs left (TOL) digit for both the home and guest teams. These digits are installed by simply unscrewing the blank face panel, connecting and securing the digit, and manually applying the "T.O.L." caption. Refer to **DWG-149030** in **Appendix B** for more information.

Changeable Caption Kits

Reference Drawings:

Changeable Team Name Caption Installation **DWG-1132576**

Team name and statistics caption kits contain hardware for one caption only and consist of an upper caption retainer, a lower caption retainer, a changeable caption panel and screws. The standard HOME and GUEST captions are applied directly to the face of the scoreboard. Team name captions are on changeable panels that fit into retainers mounted above and below the standard captions. If these retainers are not already present, attach the retainers included with the caption kit. Caption kits are also available for certain statistics display models to switch between basketball, volleyball, wrestling, and hockey modes.

Refer to **DWG-1132576** in **Appendix B** for changeable caption installation instructions.

Goal Lights

To install optional hockey goal lights, refer to the **Indoor Hockey Goal Lights Manual (ED-13358)**.

Protective Devices

Daktronics indoor displays have been designed so that indoor sports balls impact will not damage the LEDs or display cabinet, reducing the need for protective devices. However, Daktronics also makes optional protective devices, including screens and netting, to help prevent damage to the display due to normal ball impacts. Refer to the **Protective Screen Installation Instructions (ED-5423)** for more information about installing protective devices.

> **Note:** Some customers may choose to install devices to protect the display from projectiles. Protective devices not provided by Daktronics must be approved by Daktronics prior to installation. Failure to follow this approval procedure will void the warranty.

5 Daktronics Part Replacement Programs

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 Manufactured/Installed: _____

Daktronics Customer ID Number: _____

To participate in the Exchange Program, follow these steps:

1. **Contact Daktronics Customer Service.**

   Visit www.daktronics.com/mysupport/help to create a MySupport account, or call customer service if there are any issues with the MySupport portal:

   - United States & Canada: 1-800-DAK-TRON (325-8766)
   - Outside the United States & Canada: +1-605-275-1040

2. **Mail the old part to Daktronics after receiving the new exchange part.**

   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. **Return the part within 30 working days if the replacement part does not solve the problem, or Daktronics will charge the full purchase price.**

   If the part is still defective after the exchange is made, please contact Daktronics Customer Service immediately. Daktronics expects immediate return of an exchange part if it does not solve the problem. Daktronics also reserves the right to refuse parts that have been damaged due to acts of nature or causes other than normal wear and tear.

Repair and Return Program

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

1. **Contact Daktronics Customer Service.**

   Refer to the customer portal address listed on the previous page.

2. **Receive a case number before shipping.**

   To receive a case number, create a MySupport account on the Daktronics website, or contact a services coordinator via the phone number listed on the previous page.

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
   - Case number
   - Clear description of symptoms

Shipping Address

Daktronics Customer Service
600 E 54th St N
Sioux Falls, SD 57104
Case #

Daktronics Terms and Conditions of Extended Service

The Daktronics Terms and Conditions of Extended Service document is located at the end of this manual. This document is the authority in matters of service, repair, and display operation.

A Specifications

All of the product specification sheets for the displays in this manual are listed below. Product-specific installation and component location drawings are included with each spec sheet.

Note: Refer to **Figure 1** to determine a display's model number.

Viewing Product Specifications Online:

If a specification sheet is incorrect or missing, they are all available for download online.

- When viewing the digital version of this manual, simply click a link below to open it.
- When referencing the printed version of this manual, open an Internet browser and go to **www.daktronics.com/Web-Documents/HSPR-Documents/DD#######.pdf** (replace "DD#######" with an appropriate Spec Sheet number shown below).

Model	Spec Sheet	Model	Spec Sheet	Model	Spec Sheet	Model	Spec Sheet
BB-2101	DD2481847	BB-2131	DD2481917	BB-3125	DD2506580	SD-2106	DD2481964
BB-2103	DD2481852	BB-2132	DD2481921	BB-3142	DD2506587	SD-3101	DD2506601
BB-2105	DD2481855	BB-2142	DD2481922	CU-2001	DD1862875	SD-3102	DD2506604
BB-2107	DD2481865	BB-2143	DD2481927	H-2101	DD2541481	SD-3103	DD2506606
BB-2109	DD2481869	BB-2144	DD2481929	H-2102	DD2541488	SD-3106	DD3451128
BB-2111	DD2481872	BB-2152	DD2061941	H-2103	DD2541491	SQ-2001	DD2962304
BB-2114	DD2481873	BB-2153	DD2213495	H-2104	DD2541494	TI-2030	DD1747844
BB-2115	DD2481875	BB-2155	DD2457495	H-2106	DD2541499	TI-2101	DD2594852
BB-2116	DD2481881	BB-3101	DD2506515	H-2108	DD2541505	TI-2102	DD2594853
BB-2117	DD2481884	BB-3103	DD2506529	H-2111	DD2541518	TI-2103	DD2889079
BB-2119	DD2481889	BB-3105	DD2506535	H-2114	DD2541521	TI-2200	DD2594855
BB-2121	DD2481893	BB-3107	DD2506542	H-2115	DD2541522	TI-3103	DD3264172
BB-2122	DD2481896	BB-3114	DD2506553	SD-2101	DD2481954	VB-2101	DD2568754
BB-2123	DD2481901	BB-3115	DD2506570	SD-2102	DD2481956		
BB-2125	DD2481911	BB-3121	DD2506571	SD-2103	DD2481959		
BB-2130	DD2481915	BB-3123	DD2506573	SD-2104	DD2481962		

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B Reference Drawings

Refer to **Resources (p.1)** for information regarding how to read the drawing number. Any contract-specific drawings take precedence over the general drawings.

Reference Drawings:

Signal Connection; Installation **DWG-28124**
Backstop Mounting Suggestions **DWG-91230**
Wiring for Shot Clock on Portable Backstop **DWG-98293**
Block Diagram: AS5000 BB- VB and WR #1 ..... **DWG-124686**
Block Diagram: AS5000 BB- VB and WR #3 ..... **DWG-124688**
Block Diagram, A/S 3000 or 5000 Hockey **DWG-124689**
Schematic; Dual 1/4" Phone J-box w/ Shunt Jack **DWG-125316**
12V DC Horn Option Installation **DWG-148960**
T.O.L. Option Installation **DWG-149030**
Corner Mounting **DWG-150831**
ID or Ad Panel Mounting to Scoreboard **DWG-156134**
Hockey Scoreboard Configurations **DWG-169166**
Suspension Lift Eye Installation **DWG-1130959**
Changeable Team Name Caption Installation **DWG-1132576**

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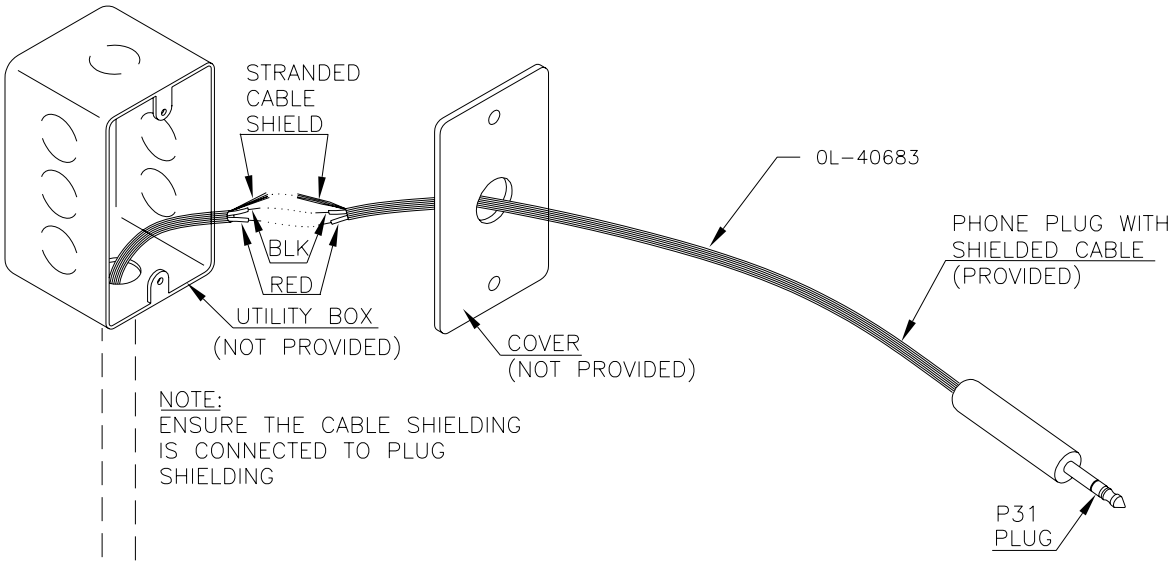
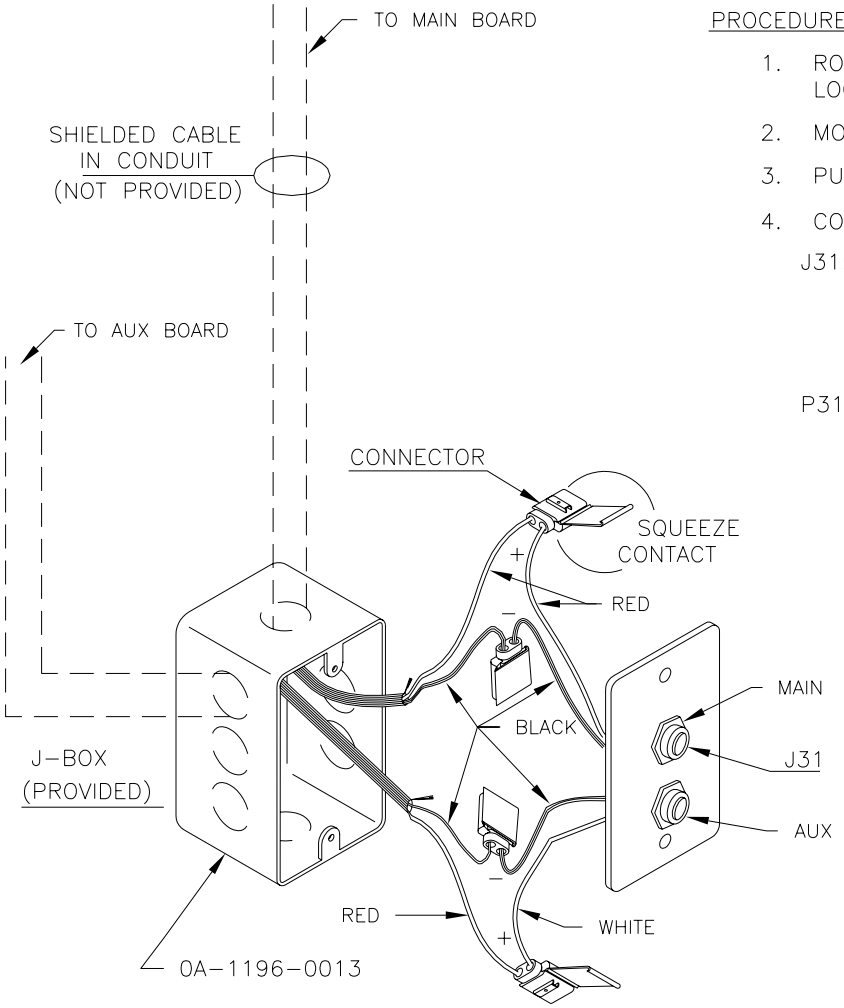
DISPLAY LOCATION



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

CONTROL LOCATION

REV.	DATE	DESCRIPTION	BY	APPR.
05	30 JUL 03	BOLD FACED GROUNDING NOTE	TLH	
04	17 JUN 03	CHANGED GROUDING 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

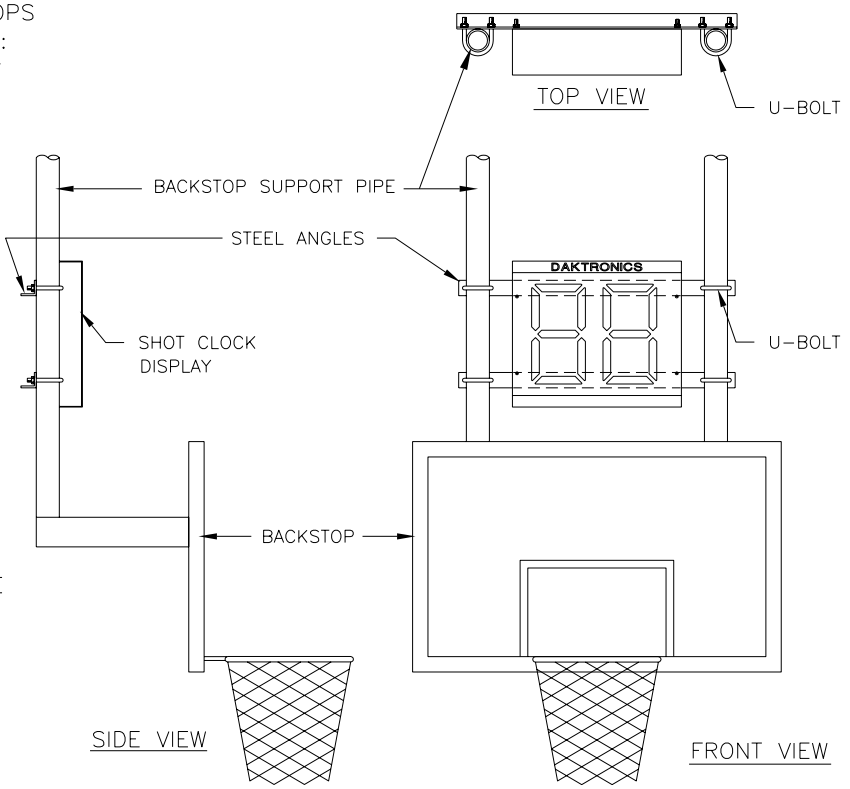
REVISION 05

APPR. BY: AVB

SCALE: NONE

1009-R10A-28124

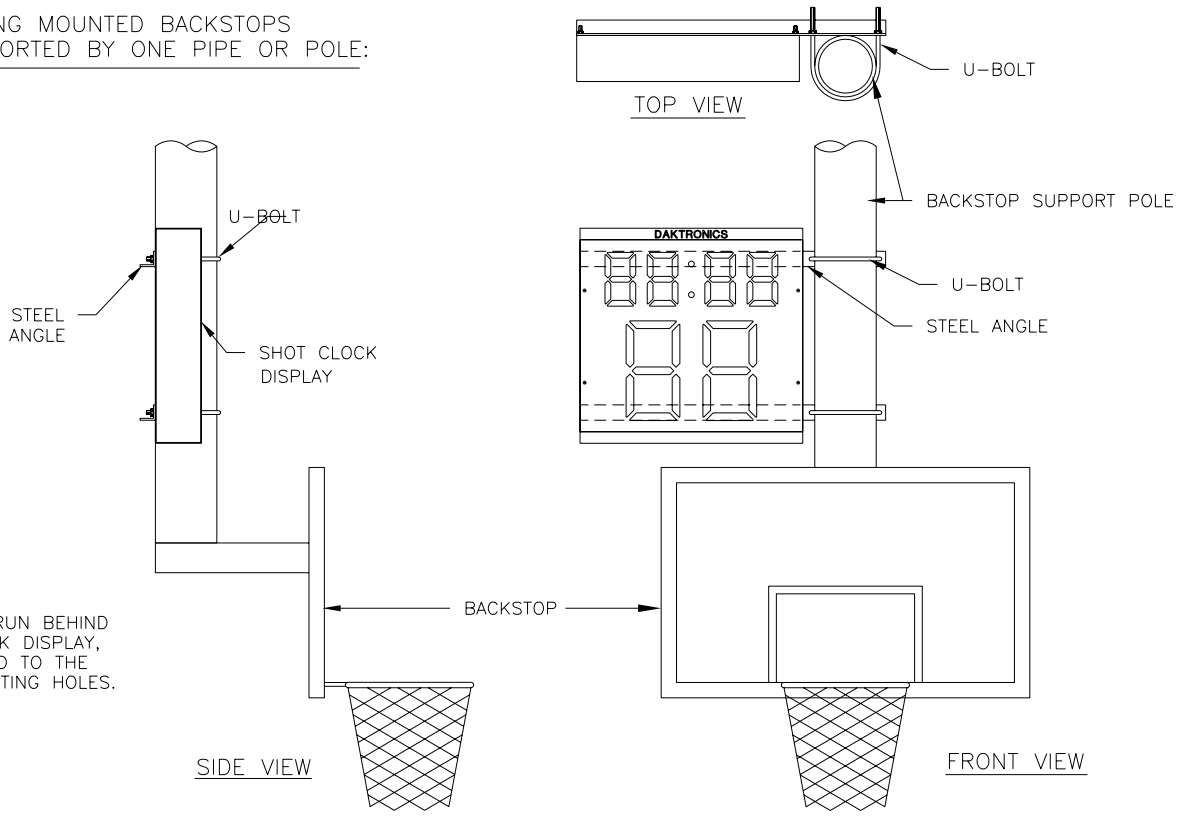
CEILING MOUNTED BACKSTOPS SUPPORTED BY TWO PIPES:



DAKTRONICS DOES NOT SUPPLY THE HARDWARE OR BRACKETS TO MOUNT SHOT CLOCK DISPLAYS TO BACKSTOPS. THE METHODS SHOWN ARE SUGGESTIONS FOR TWO COMMON BACKSTOP TYPES.

DAKTRONICS, INC. IS NOT RESPONSIBLE FOR THE INTEGRITY OR SUITABILITY OF MOUNTING SYSTEMS MANUFACTURED AND INSTALLED BY OTHERS.

CEILING MOUNTED BACKSTOPS SUPPORTED BY ONE PIPE OR POLE:



STEEL ANGLES RUN BEHIND THE SHOT CLOCK DISPLAY, AND ARE BOLTED TO THE DISPLAY'S MOUNTING HOLES.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: BACKSTOP MOUNTING SUGGESTIONS

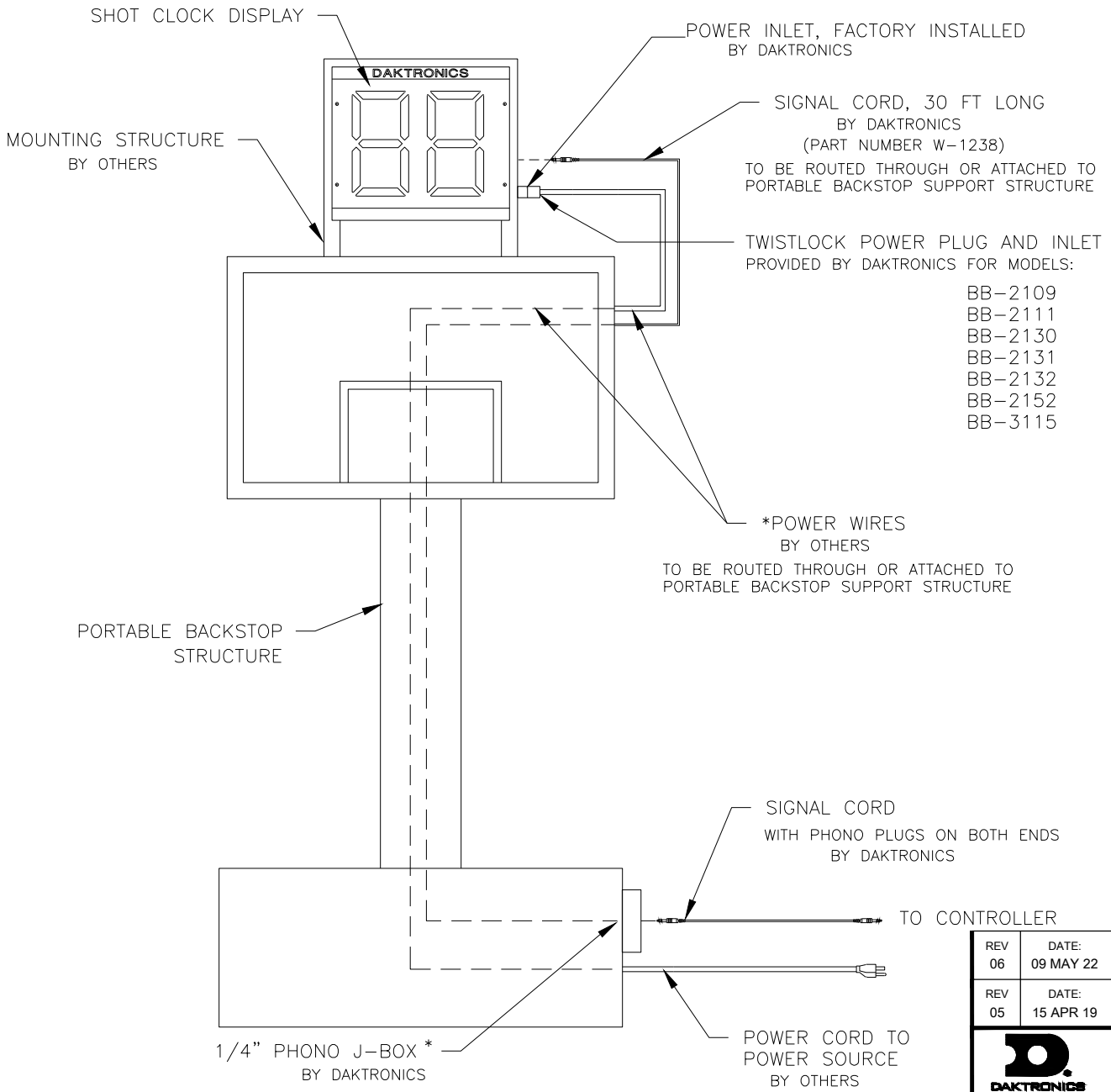
DES. BY: DRAWN BY: A VANBEMMEL DATE: 13 MAR 97

REVISION

APPR. BY:

SCALE: NONE

1009-R10A-91230



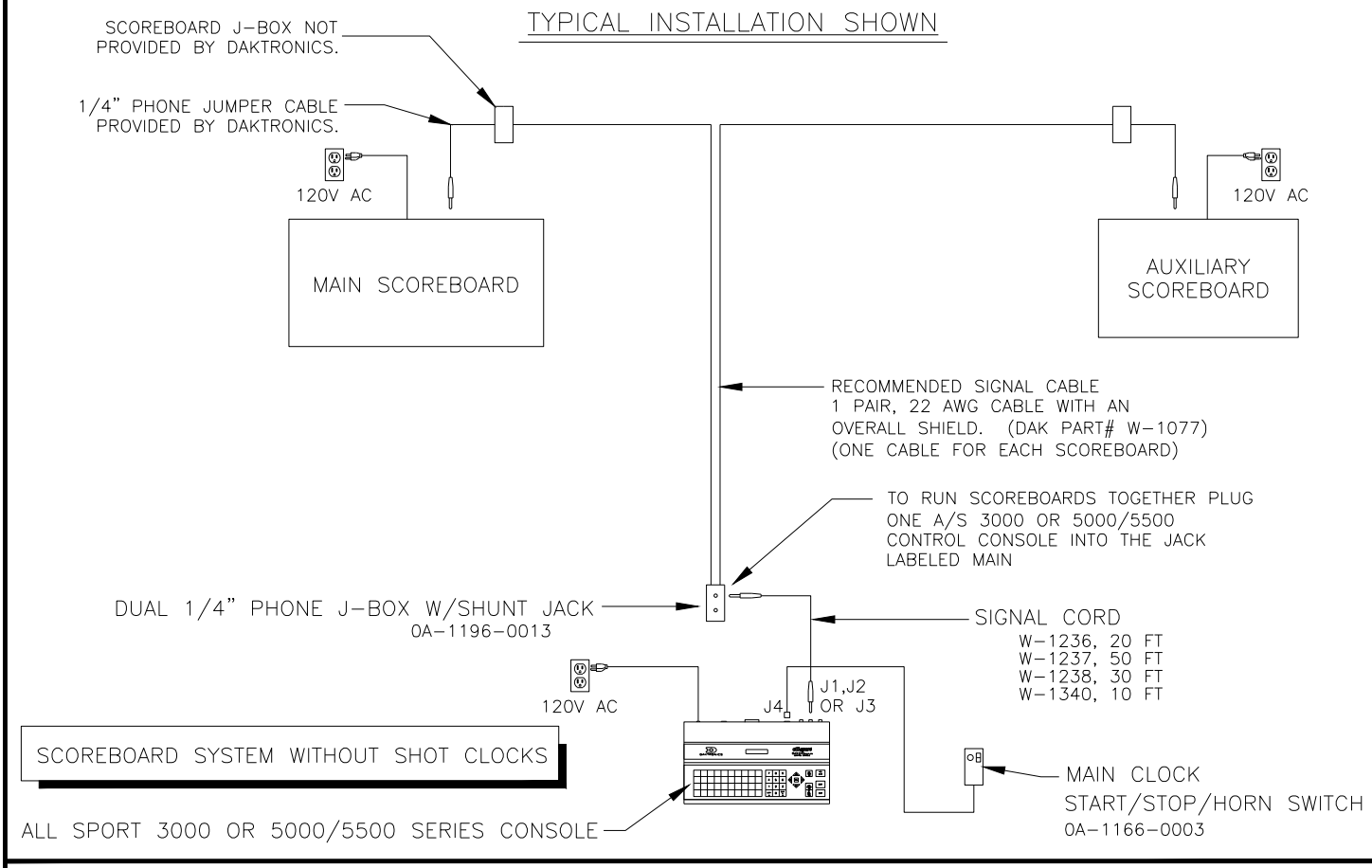
* SIGNAL CONNECTORS ARE 1/4" PHONO PLUGS.

REV	DATE:		BY:	
06	09 MAY 22	REMOVED BB-2115 FROM LIST	TBS	
05	15 APR 19	REMOVED BB-2114/BB-3114 FROM LIST	KDM	

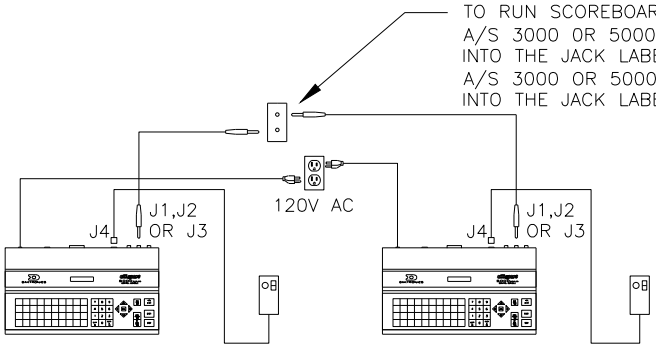
THIRD ANGLE PROJECTION

PROJECT:	BASKETBALL SCOREBOARDS			
TITLE:	WIRING FOR SHOT CLOCK ON PORTABLE BACKSTOP			
DATE:	07 NOV 97	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		06
DESIGN:	AVB	JOB NO.	FUNC - TYPE - SIZE	98293
DRAWN:	A VANBEMMEL	P1009	R - 04 - A	

TYPICAL INSTALLATION SHOWN

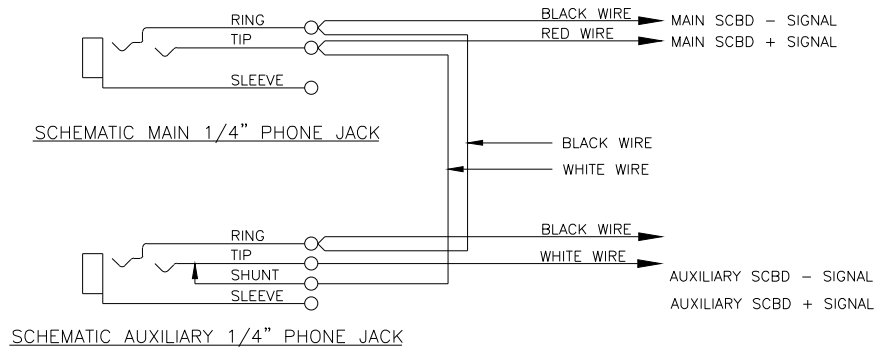


SEPARATE SCOREBOARD CONTROL



0A-1196-0013 J-BOX

TYPICAL 0A-1196-0013 J-BOX WIRING



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

DAKTRONICS, INC.
BROOKINGS, SD 57006

DO NOT SCALE DRAWING

PROJ: ALL SPORT 5000/5500

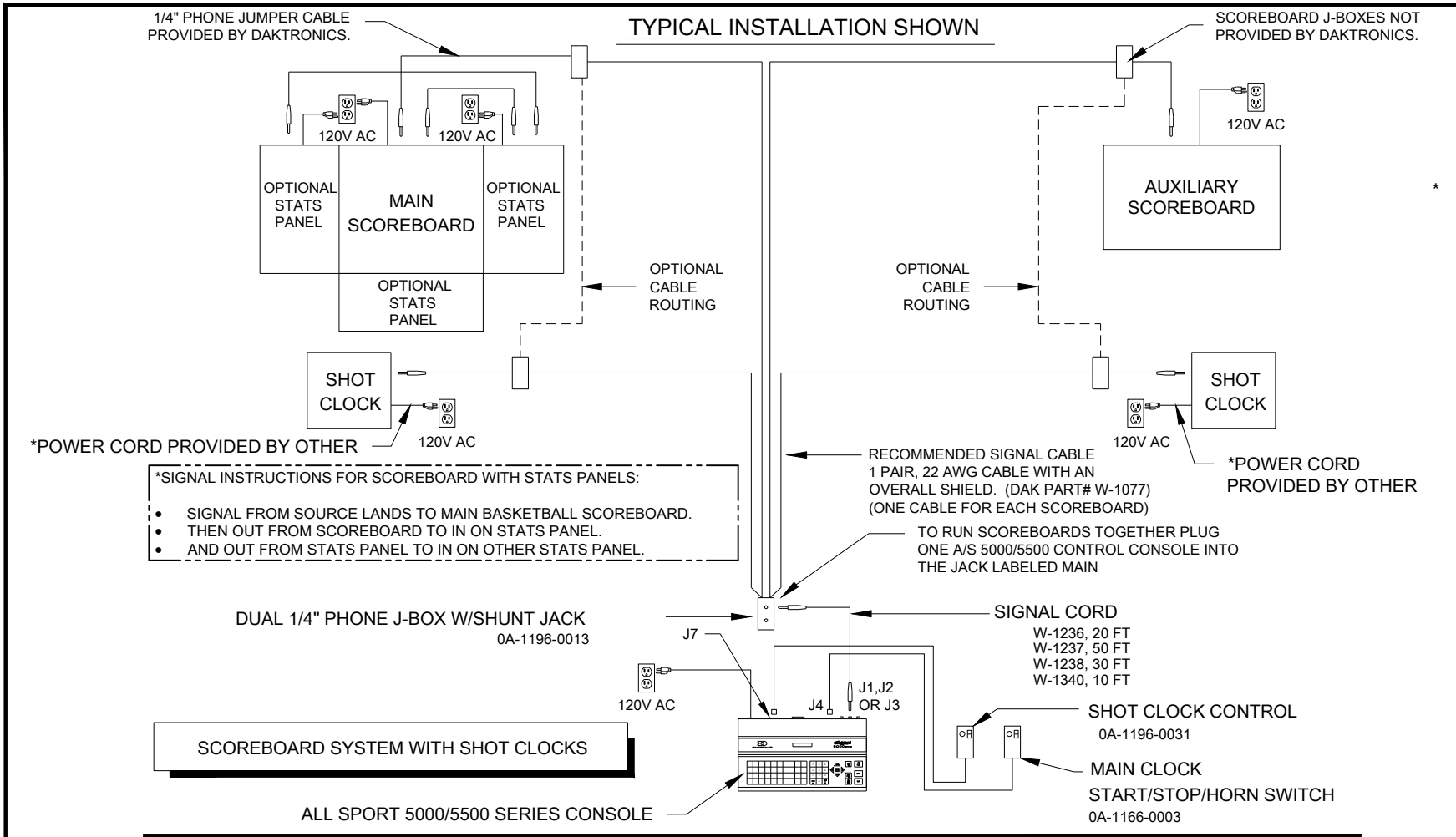
TITLE: BLOCK DIAGRAM: AS5000 BB- VB AND WR #1

DESIGN: | DRAWN: E BRAVEK | DATE: 29 NOV 99

SCALE: NONE

SHEET	REV	JOB NO:	FUNC-TYPE-SIZE	
	02	P1196	R-04-A	124686

TYPICAL INSTALLATION SHOWN

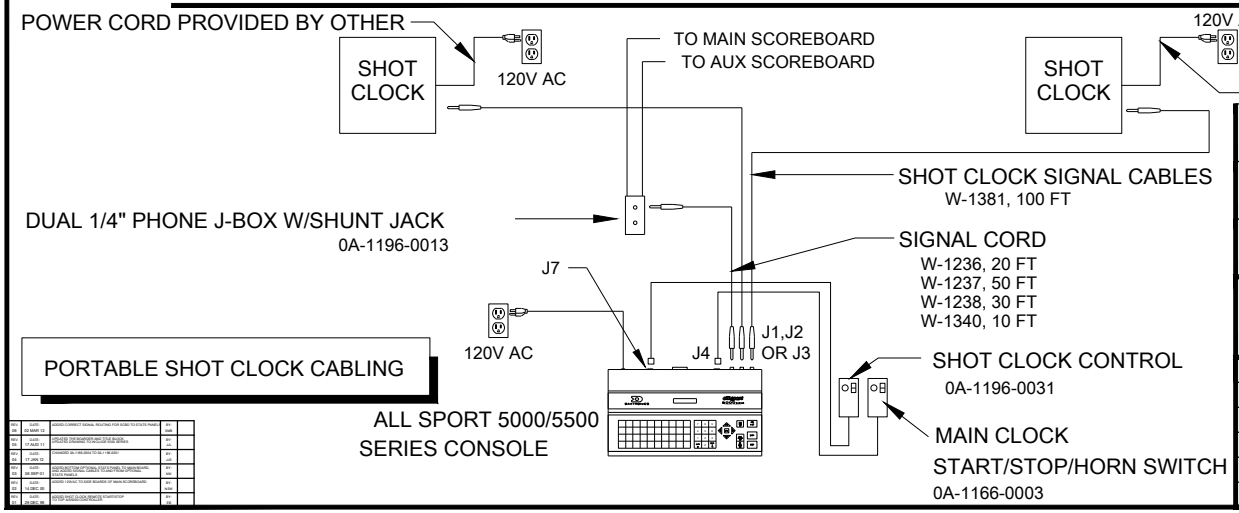


*POWER CORD INCLUDED ON MODELS BB-2114, BB-2115 AND BB-3114 ONLY

*SIGNAL INSTRUCTIONS FOR SCOREBOARD WITH STATS PANELS:

- SIGNAL FROM SOURCE LANDS TO MAIN BASKETBALL SCOREBOARD.
- THEN OUT FROM SCOREBOARD TO IN ON STATS PANEL.
- AND OUT FROM STATS PANEL TO IN ON OTHER STATS PANEL.

SCOREBOARD SYSTEM WITH SHOT CLOCKS

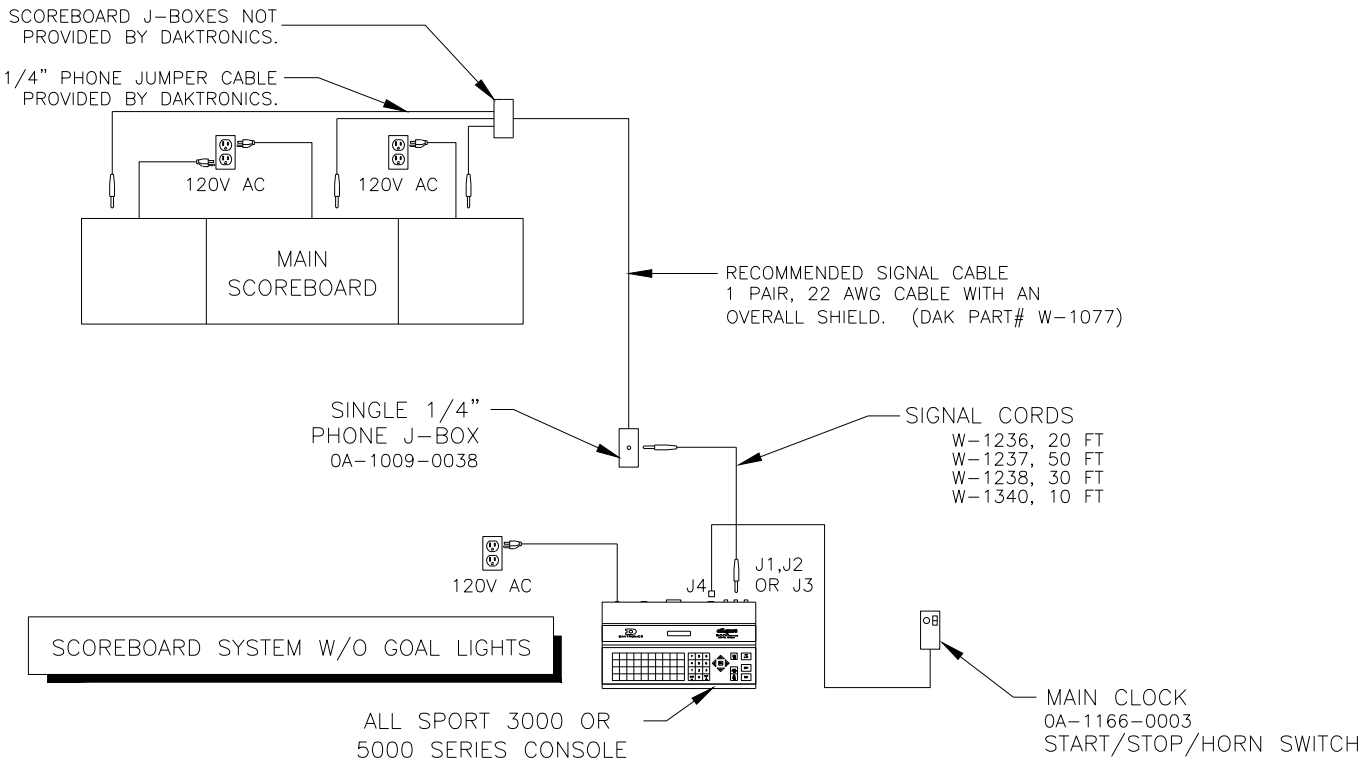


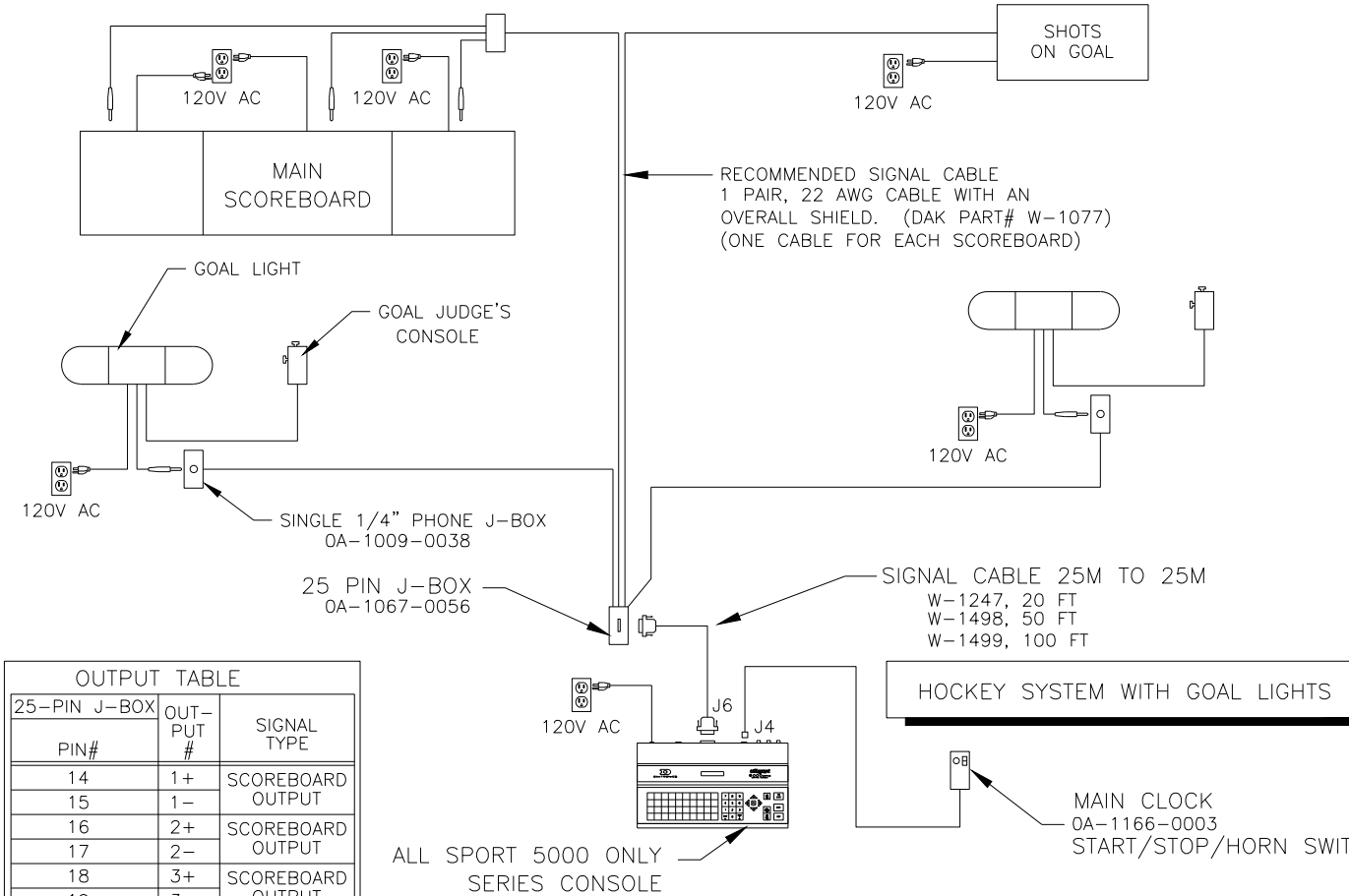
PORTABLE SHOT CLOCK CABLING

REV	DATE:		BY:	
09	09 MAY 22	AMENDED NOTE TO SAY BB-2114/BB-3114/BB-2115 INCLUDE POWER CORDS	TBS	
08	15 APR 19	ADDED NOTE THAT BB-2114/BB-3114 INCLUDE POWER CORDS	KDM	
07	28 NOV 18	ADDED NOTE THAT SHOT CLOCK POWER CORDSD ARE PROVIDED BY OTHER	KDM	

THIRD ANGLE PROJECTION

PROJECT:	ALLSPORT 5000/5500			
TITLE:	BLOCK DIAGRAM: AS5000 BB- VB AND WR #3			
DATE:	29 NOV 99	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		09
DESIGN:		JOB NO.	FUNC - TYPE - SIZE	124688
DRAWN:	E BRAVEK	P1196	R - 04 - A	





OUTPUT TABLE

25-PIN J-BOX PIN#	OUTPUT #	SIGNAL TYPE
14	1+	SCOREBOARD OUTPUT
15	1-	
16	2+	SCOREBOARD OUTPUT
17	2-	
18	3+	SCOREBOARD OUTPUT
19	3-	
11	+	GOAL LIGHTS
23	-	

REV	DATE:		BY:
02	28 NOV 12	UPDATED PART NUMBERS	KZB
01	26 APR 00	ADDED A/S 3000	DKD

DAKTRONICS, INC.
BROOKINGS, SD 57006

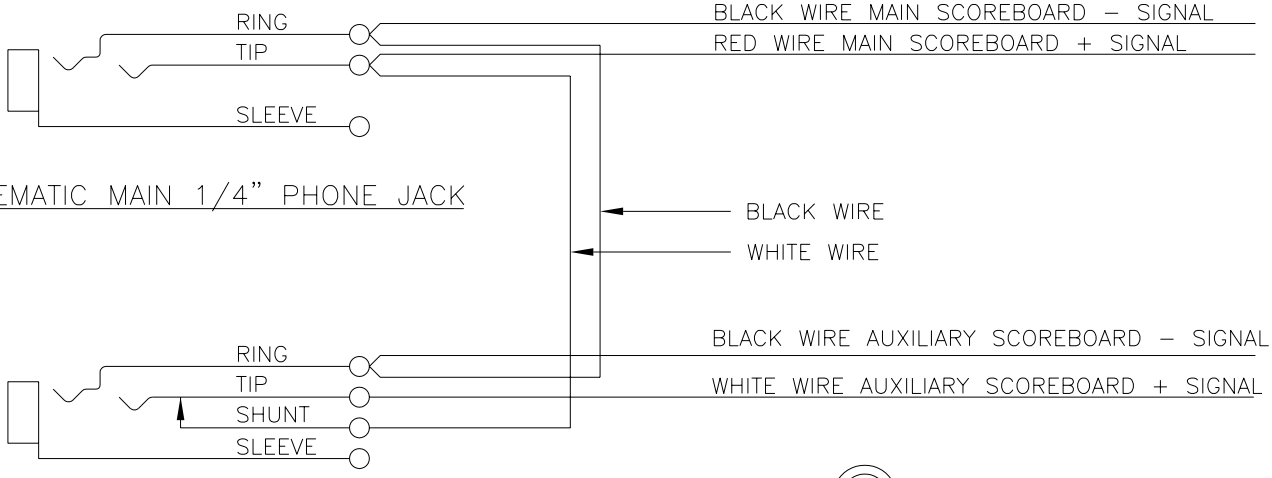
DO NOT SCALE DRAWING

PROJ: ALL SPORT 5000

TITLE: BLOCK DIAGRAM: A/S5000 HOCKEY

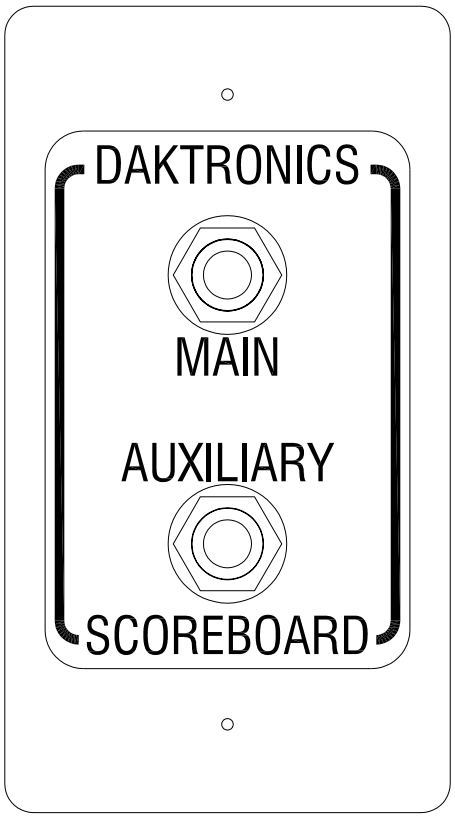
DESIGN:	DRAWN: E BRAVEK	DATE: 29 NOV 99
SCALE: NONE		

SHEET	REV	JOB NO:	FUNC-TYPE-SIZE	
	02	P1196	R - 04 - A	124689

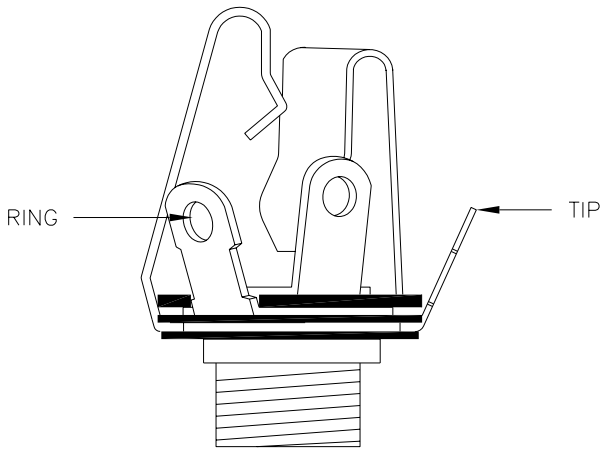


SCHEMATIC MAIN 1/4" PHONE JACK

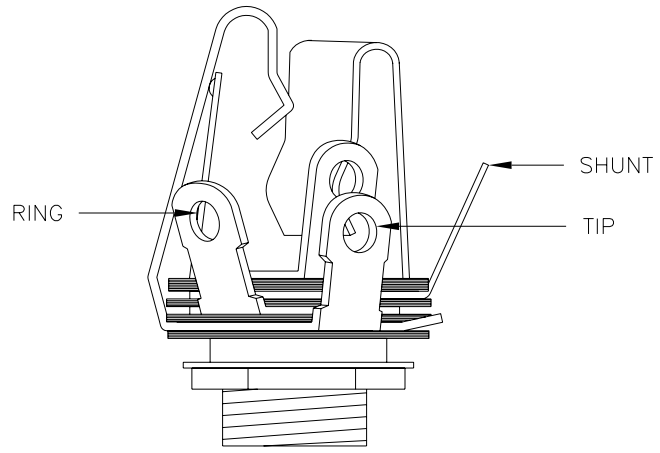
SCHEMATIC AUXILIARY 1/4" PHONE JACK



0A–1196–0013



MAIN
PHONE JACK
J–1003



AUXILIARY
PHONE JACK
J–1131

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

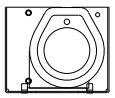
TITLE: SCHEMATIC; DUAL 1/4" PHONE J–BOX W/SHUNT JACK

DES. BY: E BRAVEK DRAWN BY: E BRAVEK DATE: 15 DEC 99

REVISION 00 | APPR. BY: | SCALE: NONE

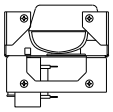
1196-R03A-125316

12V DC HORN
IN BRACKET:



TOP VIEW

SIDE VIEW



FRONT VIEW

12V DC HORN OPTION INSTALLATION PROCEDURE

REMOVE THE FOUR SCREWS SECURING THE CLOCK PANEL. DISCONNECT THE PLUGS AT THE BACK OF THE DIGITS, AND UNPLUG THE EXISTING BUZZER TYPE HORN.

REMOVE THE SCREWS THAT ATTACH THE BUZZER HORN TO THE CLOCK PANEL.

MOUNT THE 12V DC HORN TO THE CLOCK PANEL USING THE SCREWS PROVIDED WITH IT.

TAKE THE HORN INTERFACE CARD, WITH HARNESSES CONNECTED TO IT, AND USE THE TAPE TO SECURE IT TO THE BACKSHEET. MAKE SURE IT IS AN OPEN SPOT SO IT DOESN'T GET TOUCHED WHEN THE PANEL IS PLACED BACK ON.

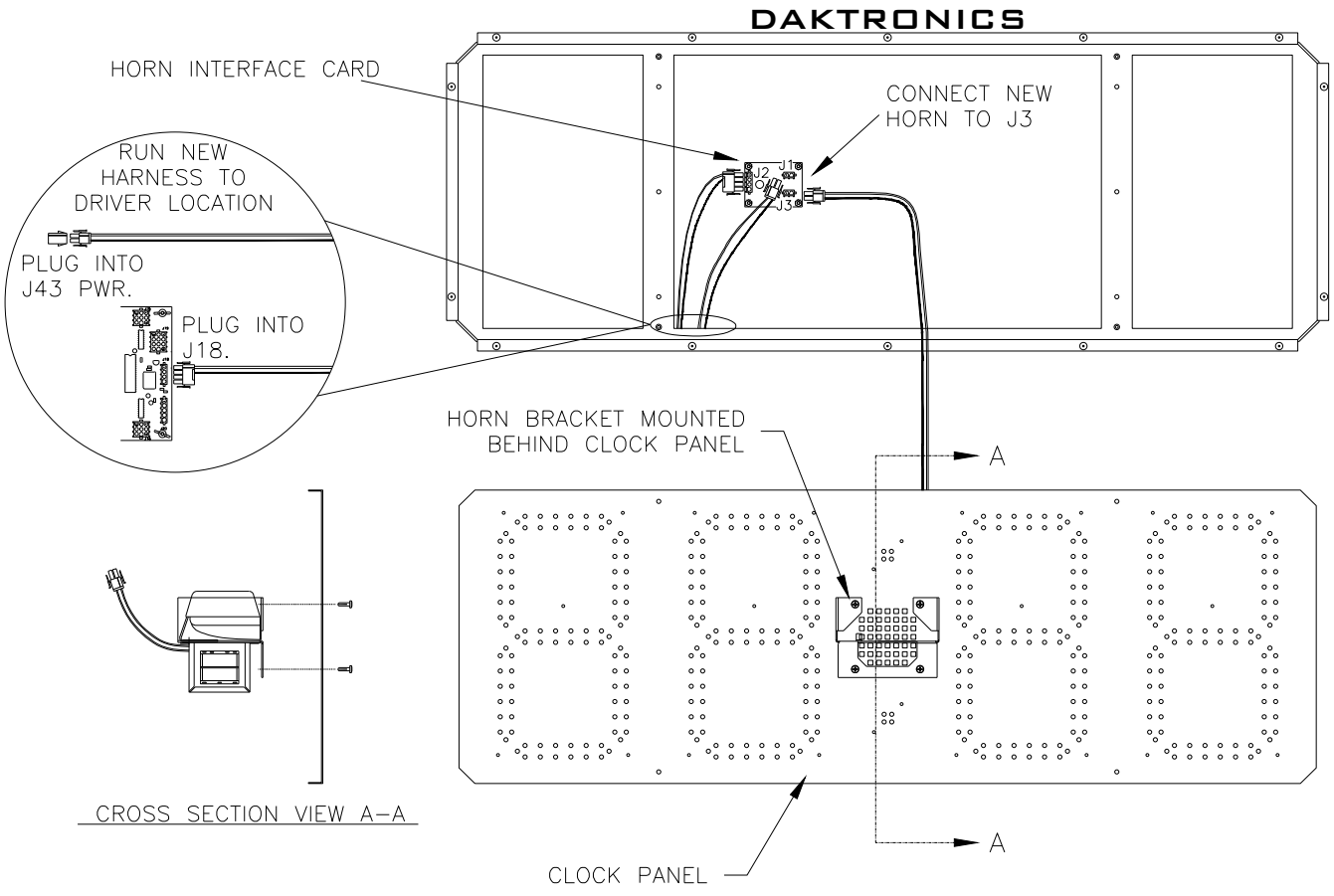
RUN THE TWO NEW HARNESSES TO THE DRIVER. DISCONNECT EXISTING PLUG IN J18 ON DRIVER. CONNECT NEW ONE. DISCONNECT EXISTING PLUG IN THE J43 POWER JACK ON DRIVER TRAY HARNESS THAT WAS FOR THE OLD HORN, AND PLUG IN THE NEW ONE.

CONNECT THE 2-PIN PLUG FROM THE HORN ASSEMBLY TO J3 ON THE HORN INTERFACE CARD.

PLUG THE DIGIT CABLES INTO THE BACKS OF THE DIGITS AND RE-INSTALL THE CLOCK PANEL.

TEST THE HORN BY OPERATING THE SCOREBOARD AND PRESSING THE HORN BUTTON ON THE CONTROL CONSOLE.

FRONT OF SCOREBOARD, CLOCK AREA:



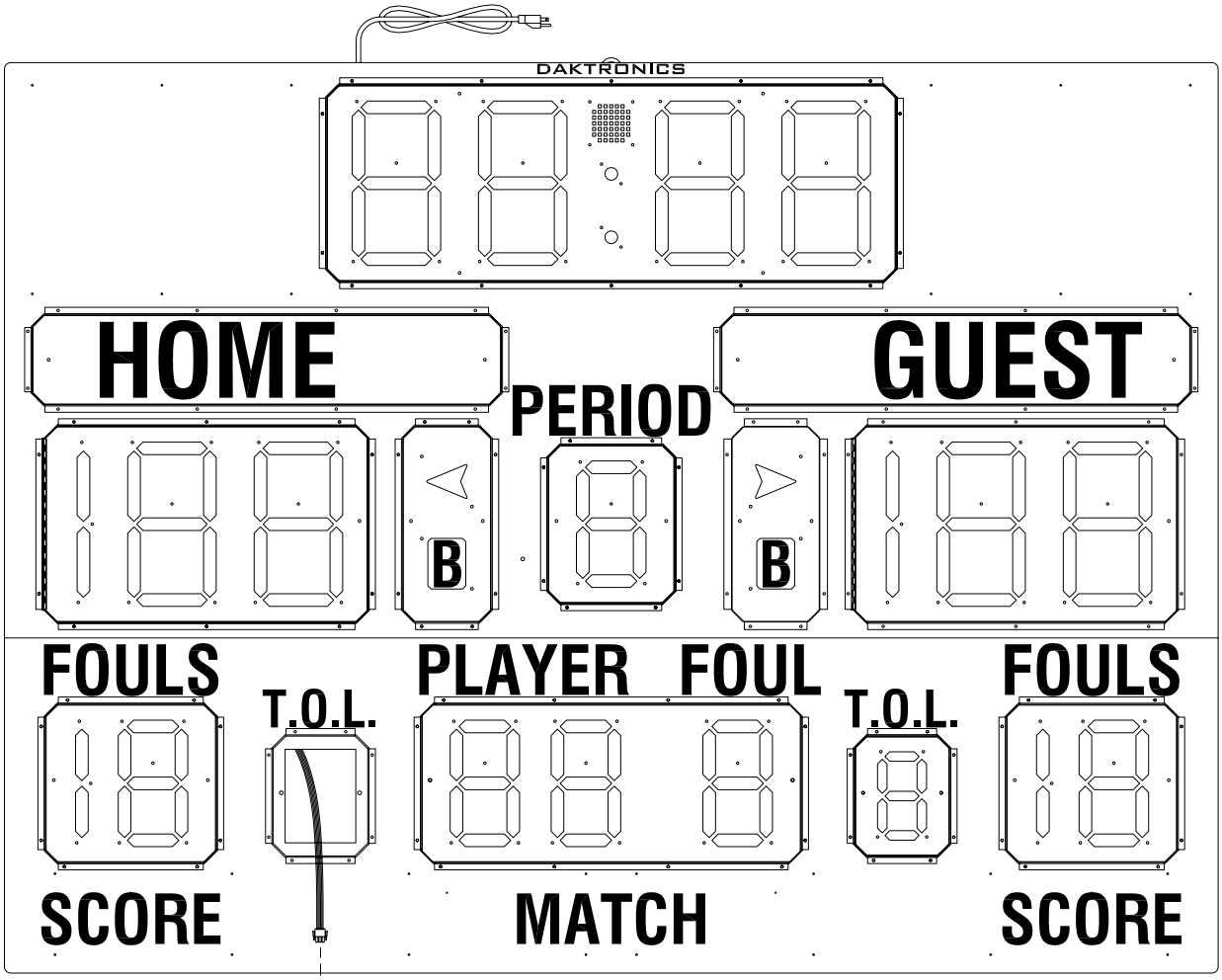
CROSS SECTION VIEW A-A

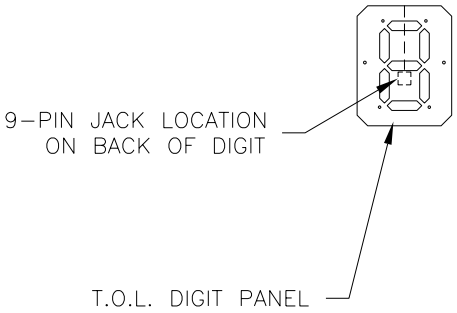
04	14 DEC 15	UPDATED VIEWS AND REMOVED SEPARATE INSTRUCTIONS FOR UNIVIEW PRODUCTS PER EC-1798	LJH	
03	07 JAN 10	UPDATED INSTALL DRAWING WITH HORN INTERFACE CARD DETAILS AND STEPS.	MWM	
02	20 JUN 06	UPDATED COLON AND HORN LAYOUT. REPLACED UNIVIEW DIGITS WITH PANAVIEW TO SHOW HORN MOUNTING. ADDED UNIVIEW HORN MTG NOTES.	JLF	CW
01	20 JUN 02	CHANGED DIGITS TO UNIVIEW.	ALG	

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

PROJ: TUFF SPORT INDOOR SCOREBOARDS
TITLE: 12V DC HORN OPTION INSTALLATION
DESIGN: AVB | DRAWN: A VANBEMMEL | DATE: 16MAY01
SCALE: 1=10

SHEET	REV	JOB NO:	FUNC-TYPE-SIZE	
1 OF 1	04	P1237	E-10-A	148960





1. REMOVE THE TWO BLANK PANELS CURRENTLY INSTALLED IN PLACE OF THE T.O.L. DIGITS.

2. LOCATE THE CABLES WITH 9–PIN PLUGS BEHIND THE BLANK PANELS. CONNECT THE PLUGS TO THE MATING JACK ON THE BACK OF EACH DIGIT.

3. INSTALL THE DIGITS IN THE OPENINGS AND SECURE WITH THE SCREWS THAT FORMERLY HELD THE BLANK PANELS.

4. APPLY THE "T.O.L." CAPTIONS ABOVE THE DIGITS.

NOTES:

THE SCOREBOARD IS SHOWN WITH UNIVIEW™ DIGIT TECHNOLOGY. SEE DRAWING A–158550 FOR MORE DETAILS.

REV.	DATE	DESCRIPTION	BY	APPR.
01	20 JUN 02	CHANGED DIGITS TO UNIVIEW.	ALG	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: TUFF SPORT™ SCOREBOARDS

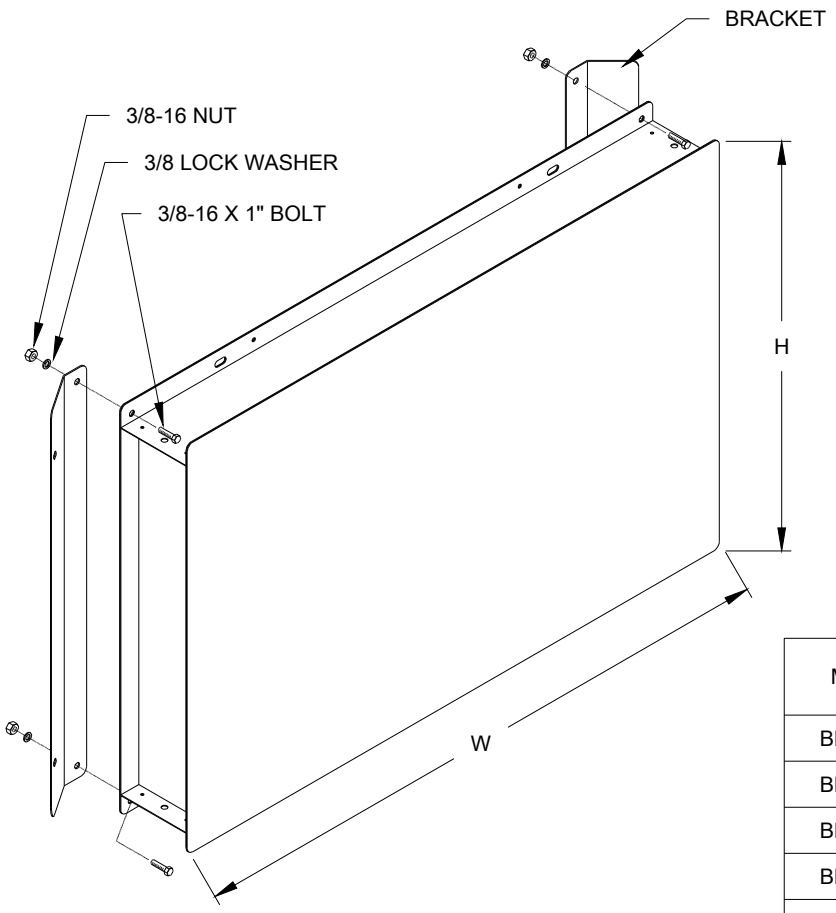
TITLE: T.O.L. OPTION INSTALLATION

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 17 MAY 01

REVISION APPR. BY:

SCALE: 1=20

1237-R10A-149030



ATTACH THE BRACKETS TO THE BACK OF THE SCOREBOARD USING THE 3/8" HARDWARE PROVIDED.

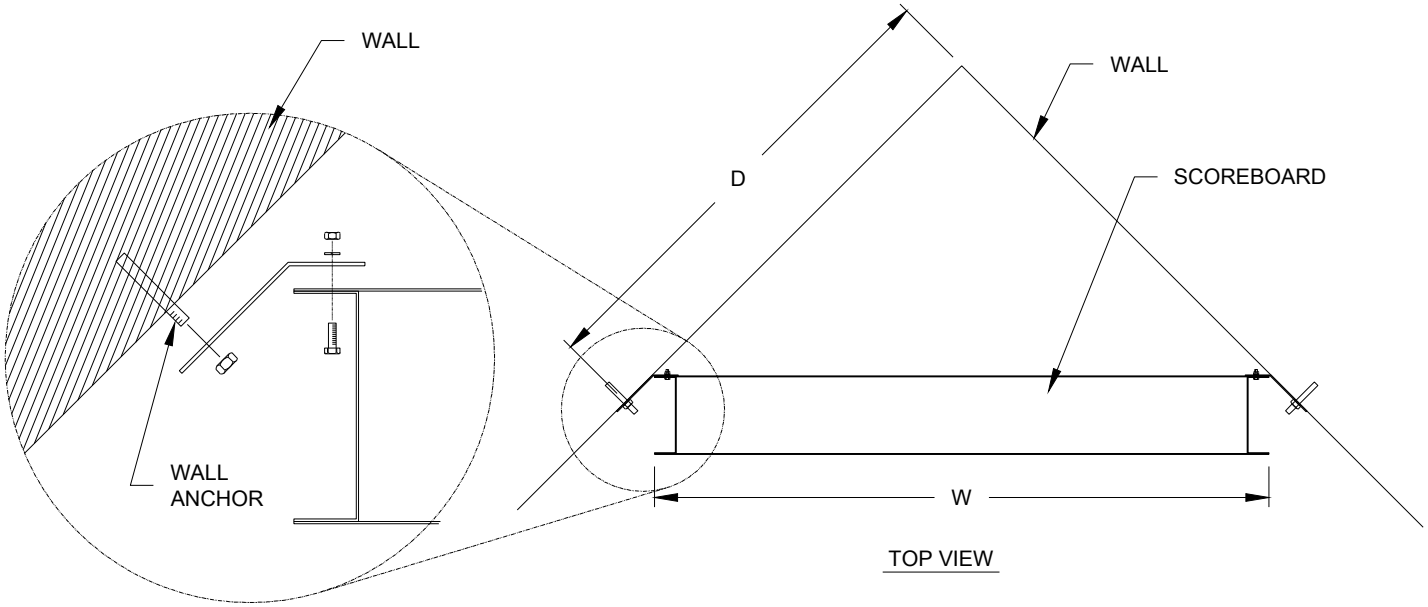
DRILL HOLES IN THE WALL AT THE APPROPRIATE DISTANCE FROM THE CORNER (DIMENSION D) FOR THE WALL ANCHORS.

MOUNT THE BRACKETS TO THE WALL USING WALL ANCHORS SUITABLE TO THE WALL MATERIALS IN THE FACILITY.

**IF "W" DIMENSION IS NOT LISTED BELOW, USE FORMULA TO CALCULATE "D" DIMENSION

$$\frac{\text{"W"} + 1.48}{1.414} + 2.87 = \text{"D"}$$

MODEL NO.	HEIGHT DIM. "H"	WIDTH DIM. "W"	DISTANCE DIM. "D"
BB-2101/3103	4'-0"	8'-0"	5'-11 13/16"
BB-2103/3103	6'-0"	8'-0"	5'-11 13/16"
BB-2105/3105	4'-0"	10'-0"	7'-4 3/4"
BB-2107/3107	6'-0"	10'-0"	7'-4 3/4"
BB-2142/3142	3'-0"	6'-6"	4'-11 1/16"
BB-2121/3121	2'-6"	10'-0"	7'-4 3/4"
H-2104/2106/2108	5'-0"	10'-0"	7'-4 3/4"



TOP VIEW

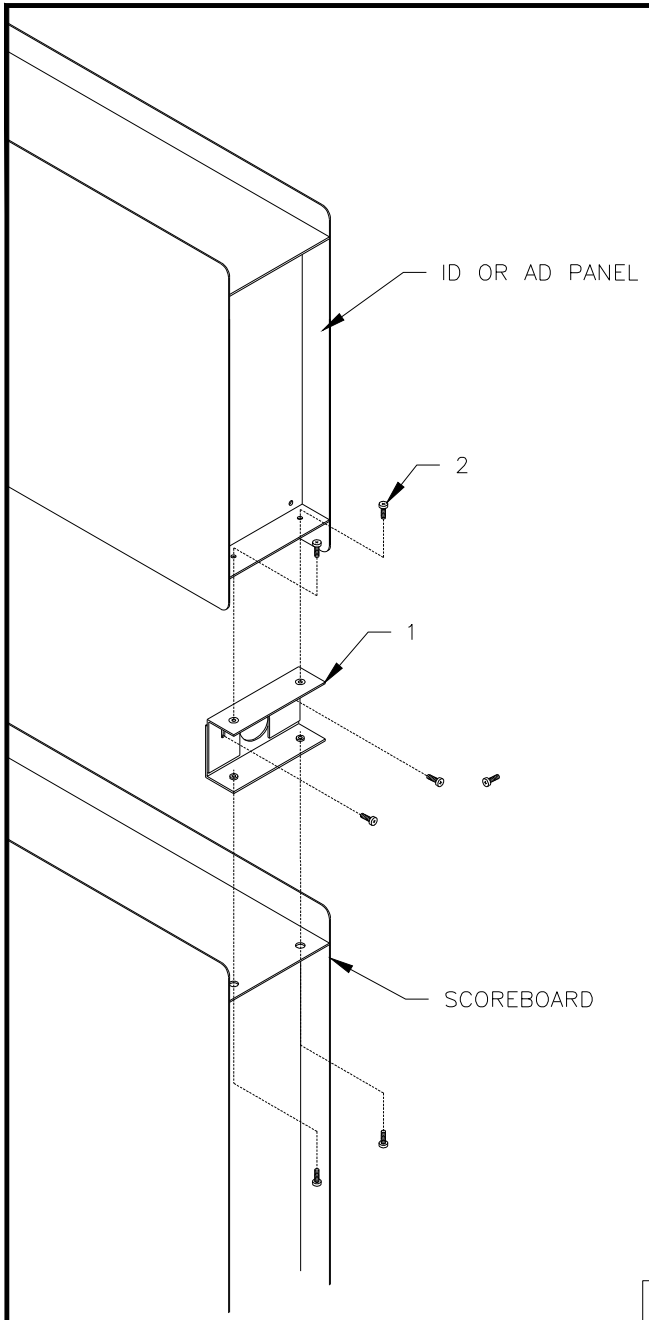
REV	DATE:		BY:
02	21 AUG 15	ADDED H-2104/2106/2108	KDD
01	28JAN10	ADD ALL 3xxx MODELS NUMBERS AND ADD BB-2142/3142 AND BB-2121/3131 AND THEIR RESPECTIVE REQUIRED DIMENSIONS	LMIX

DAKTRONICS, INC.
BROOKINGS, SD 57006

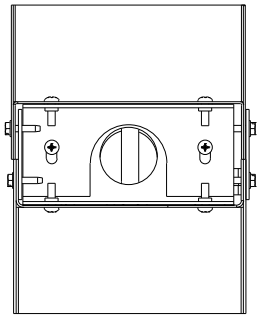
DO NOT SCALE DRAWING

PROJ: TUFF SPORT SCOREBOARDS
TITLE: CORNER MOUNTING
DESIGN: AVB | DRAWN: A VANBEMMEL | DATE: 22 JUN 01
SCALE: 1=15

SHEET	REV	JOB NO:	FUNC-TYPE-SIZE	
	02	P1237	R - 10 - A	150831



ROTATED VIEW



RIGHT SIDE

INSTALLATION PROCEDURE:

1. ATTACH THE MOUNTING BRACKETS TO THE TOP AND BOTTOM OF THE SCOREBOARD USING THE 10-24X5/8" SCREWS PROVIDED.

2. IF THE SCOREBOARD'S POWER AND SIGNAL CORDS NEED TO BE ROUTED OUT THROUGH A BRACKET, INSERT THE CABLES THROUGH HOLE.

3. ALIGN THE AD PANEL AGAINST THE BOTTOM (OR TOP) OF THE SCOREBOARD.

4. SECURE THE BRACKETS TOGETHER WITH THE 10-24X5/8" SCREWS PROVIDED.

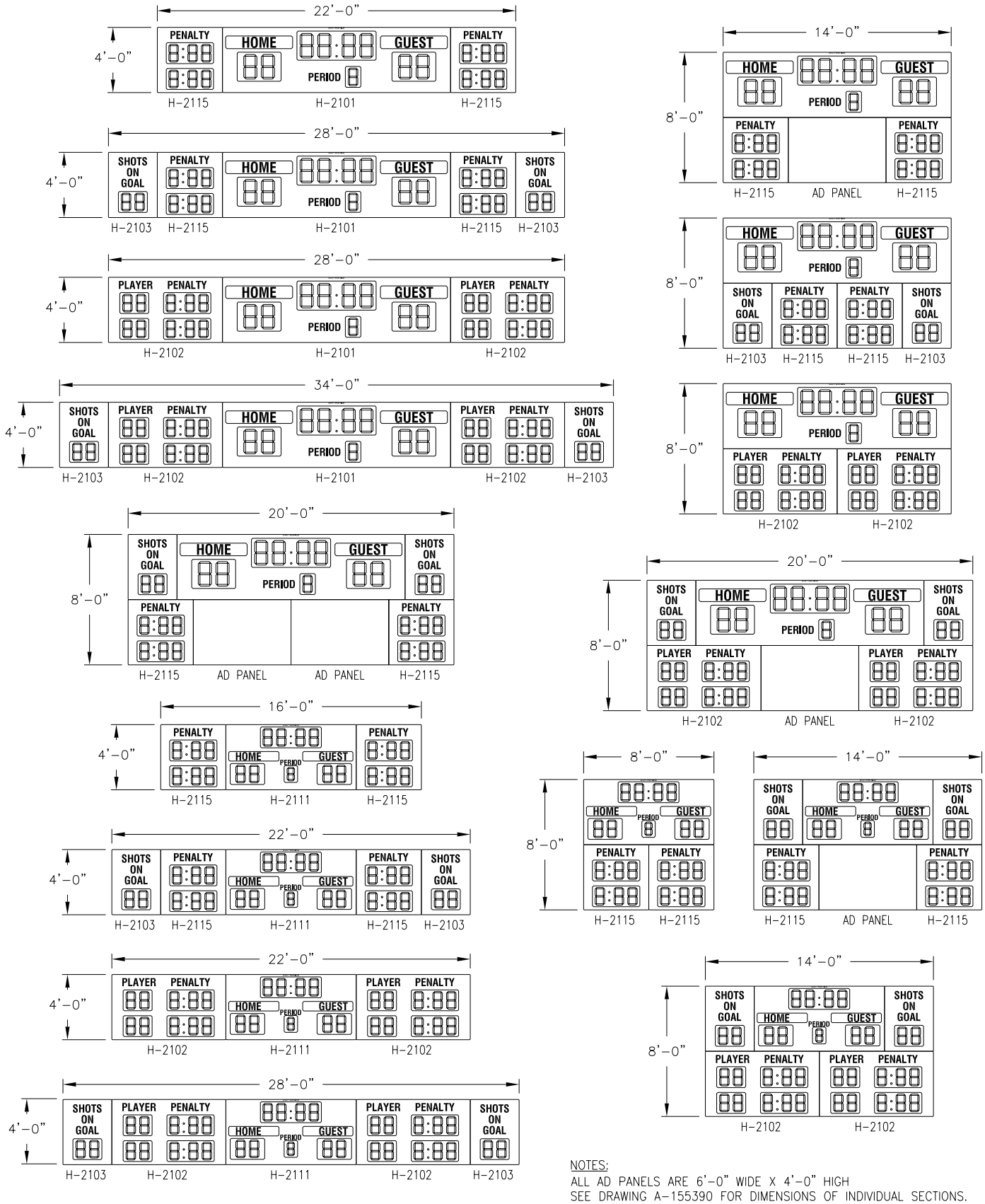
ID OR AD PANEL MAY BE MOUNTED TO TOP OR BOTTOM OF SCOREBOARD.

DESCRIPTION	PART NUMBER	QTY
1. MOUNTING BRACKETS	0S-1237-0058	2
2. SCREW, 10-24x5/8	HC-1470	12

REV	DATE:		BY:	
03	15 FEB 23	UPDATED PER CN-116625	DRO	

THIRD ANGLE PROJECTION

PROJECT:	TUFF SPORT SCOREBOARDS			
TITLE:	ID OR AD PANEL MOUNTING TO SCOREBOARD			
DATE:	20 SEP 01	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	1/10	DO NOT SCALE DRAWING		03
DESIGN:	BPETERSON	JOB NO. / FUNC - TYPE - SIZE		
DRAWN:	JJSYRSTAD	P1237 / R - 04 - A		156134



NOTES:
ALL AD PANELS ARE 6'-0" WIDE X 4'-0" HIGH
SEE DRAWING A-155390 FOR DIMENSIONS OF INDIVIDUAL SECTIONS.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: TUFF SPORT SCOREBOARDS

TITLE: HOCKEY SCOREBOARD CONFIGURATIONS

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 17 JUN 02

REVISION APPR. BY:

SCALE: 1=100

1237-R08A-169166

REV.	DATE	DESCRIPTION	BY	APPR.

MOUNT THE ANGLE (WITH 1/2" NUT) UNDER THE OVERHANG AT THE TOP OF THE SCOREBOARD. USE ONE ANGLE AT EACH END OF THE SCOREBOARD. SECURE WITH TEK SCREWS INTO THE SIDE OF THE SCOREBOARD.

INSTALL THE EYEBOLTS IN HOLES IN THE ANGLES AND SECURE WITH LOCK NUTS.

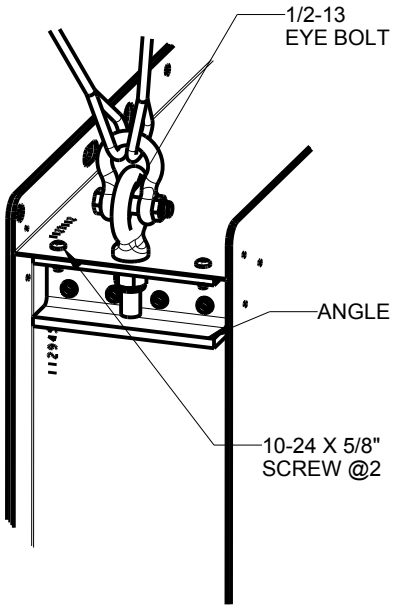
ATTACH SUSPENSION CABLES TO EACH EYEBOLT WITH A SHACKLE (CLEVIS) AND PIN.

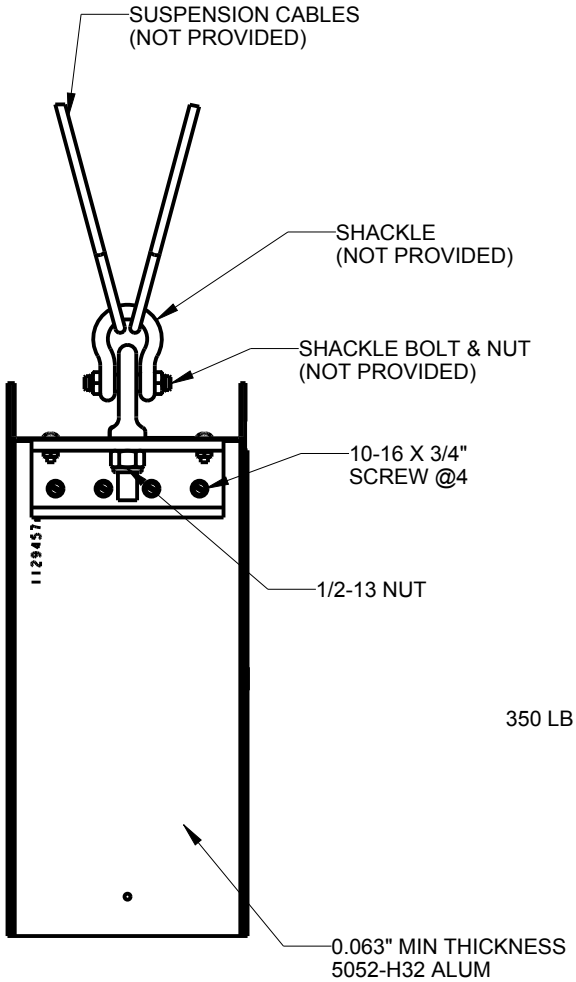
DAKTRONICS RECOMMENDS THAT TWO CABLES BE USED AT EACH END OF THE SCOREBOARD FOR REDUNDANCY. CABLES DIVERGE TO MINIMIZE SWINGING.

CABLES AND HARDWARE MUST BE SPECIFIED BY A LICENSED ENGINEER. THIS INSTALLATION METHOD MUST NOT BE USED TO SUPPORT SCOREBOARDS WITH MESSAGE CENTERS AND BACKLIT AD PANELS ATTACHED.

TOTAL WEIGHT OF SCOREBOARD AND ATTACHED ACCESSORIES MUST NOT EXCEED 350 LB.

SUSPENSION HARDWARE IS FOR THE TOP OF THE SCOREBOARD ONLY.
SCOREBOARD INSTALLATION WITH AD PANEL MUST NOT BE SUSPENDED FROM THE AD PANEL.
THE SCOREBOARD MUST BE AT THE TOP.





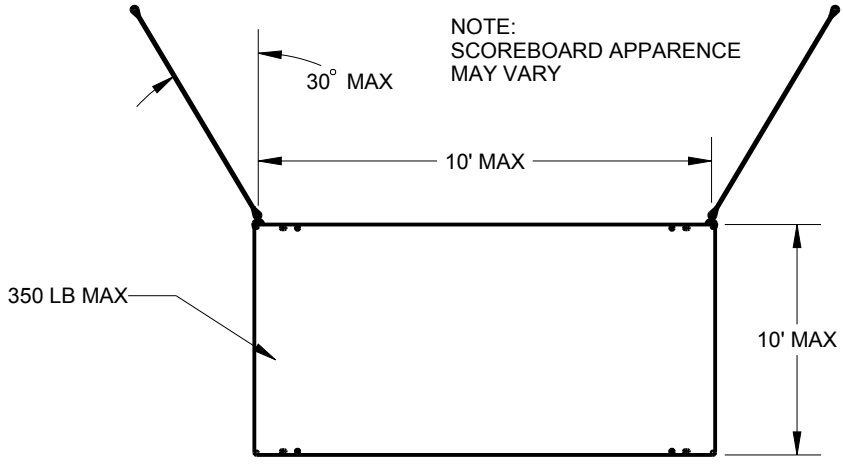
SIDE VIEW
TOP OF SCOREBOARD
TYP. BOTH ENDS

UPPER CORNER OF SCOREBOARD SHOWN

INSTALL ONE OF THESE ASSEMBLIES AT EACH END.

SUSPENSION LIFE EYE KIT IS DAKTRONICS PART NO. 0A-1749-4003

IMPORTANT:
DO NOT ATTACH SUSPENSION HARDWARE TO AD PANEL MOUNTED ON TOP OF SCOREBOARD. SCOREBOARD MUST BE AT THE TOP



REAR VIEW

REV	DATE:		BY:

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

PROJ: INDOOR SCOREBOARDS				
TITLE: SUSPENSION LIFT EYE INSTALLATION				
DESIGN: DOPPELT	DRAWN: TFINNES			DATE: 04-JUN-13
SCALE: 1/5				
SHEET:	REV	JOB NO:	FUNC-TYPE-SIZE	1130959
1 OF 1	00	P 1749	E – 07 – A	

NOTE:
ALIGN CAPTION CENTER HORIZONTALLY
BASED ON SCOREBOARD AND
CLOSEST ALIGNMENT HOLE.
CENTER CAPTION VERTICALLY.

PROCEDURE:

1. PLACE HS-1269 NUTSERTS IN TNMC CAPTION BASE.

2. ATTACH TNMC CAPTION BASE TO SCOREBOARD
USING HC-1144 SCREWS.

3. ATTACH TNMC CAPTION PANEL TO TNMC CAPTION BASE
USING HC-1144 SCREWS PLACED IN ALL KEYHOLE LOCATIONS.

4. IN ORDER TO CHANGE CAPTION NAME, REMOVE TOP CENTER
SCREW, LOOSEN ALL OTHER SCREWS, SLIDE PANEL UP TO REMOVE
FROM SCREWS AND FLIP PANEL. PLACE PANEL BACK ON, SLIDE PANEL
DOWN. FASTEN TOP MIDDLE SCREW AND TIGHTEN ALL OTHER SCREWS.

REV	DATE:		BY:

DAKTRONICS, INC.
BROOKINGS, SD 57006

DO NOT SCALE DRAWING

PROJ: INDOOR SCOREBOARD

TITLE: CHANGEABLE TEAM NAME CAPTION INSTALLATION

DESIGN:	DRAWN:	DATE:
MJOHNSO	MJOHNSO	09-APR-13

SCALE: 1/5

SHEET:	REV	JOB NO:	FUNC-TYPE-SIZE
1 OF 1	00	P 1749	E - 10 - A

1132576

C Daktronics Terms and Conditions of Extended Service

This section includes the **Daktronics Terms and Conditions of Extended Service (DD5459759)**.

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DAKTRONICS TERMS & CONDITIONS OF EXTENDED SERVICE

This document provides the limited equipment warranty provided by Daktronics with the purchase of Equipment. It further details the terms and conditions of any Extended Services which may be purchased with the original sale of the Equipment. By accepting delivery of the Equipment, Purchaser and End User agree to be bound by and accept these terms and conditions.

SECTION I
LIMITED WARRANTY

This Limited Warranty applies to all Equipment manufactured by Daktronics except such Equipment expressly subject to the Consumable Part Warranty which is denoted in the Equipment description as "CP Warranty" or elsewhere in the sales agreement. The Limited Warranty is subject to this Section I and the Terms and Conditions of Section IV.

Daktronics warrants to the End User that the Equipment will be free from Defects in materials and workmanship during the Limited Warranty Period. The Limited 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. Unless a longer statutory period is required which cannot be modified by agreement of the parties, the Limited Warranty Period shall expire on the first anniversary of the commencement date.

Daktronics' obligation under the Limited 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 at End-User's cost, for repair or replacement . All such items shall be shipped by End User DAP Daktronics designated facility per Incoterms® 2020. This Warranty does not include on-site labor charges to remove or install these components. However, 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.

All returns must be pre-approved by Daktronics before shipment. Daktronics shall not be obligated to pay freight for any unapproved return. If returned Equipment/part is repaired or replaced under the terms of this Limited Warranty, Daktronics will prepay ground transportation charges to ship such items DAP End User's designated facility (if Daktronics has a legal entity in the country of the End User) or a port of the End User's country (where Daktronics does not have a legal entity in the country of the End User) per Incoterms® 2020. If the returned Equipmnet/part is not found to be defective, the End User shall pay transportation charges to return the Equipment/part back to the End User and such Equipment/part shall be shipped Ex Works Daktronics designated facility per Incoterms® 2020. End User shall pay any upgraded or expedited transportation charges.

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 Limited Warranty Period. Purchasing additional parts or Equipment from the Seller does not extend the Limited Warranty Period.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS LIMITED WARRANTY, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, DAKTRONICS DISCLAIMS ANY AND ALL OTHER PROMISES, REPRESENTATIONS AND WARRANTIES APPLICABLE TO THE EQUIPMENT AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ACCURACY OR QUALITY OF DATA. OTHER ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY DAKTRONICS, ITS AGENTS OR EMPLOYEES, SHALL NOT CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS LIMITED WARRANTY. THIS LIMITED WARRANTY IS NOT TRANSFERABLE.

DAKTRONICS TERMS & CONDITIONS OF EXTENDED SERVICE

SECTION II
CONSUMABLE PARTS - LIMITED WARRANTY

This Consumable Parts Limited Warranty applies all Daktronics manufactured Equipment expressly subject to the Consumable Parts Warranty which is denoted in the Equipment description as "CP Warranty." The CP Warranty is subject to this Section II and the Terms and Conditions of Section IV.

Daktronics warrants to the End User that the Equipment will be free from Defects in materials and workmanship for a period of one (1) year (the "CP Warranty Period"). The CP Warranty Period shall commence on the earlier of: (i) four weeks from the date that the Equipment leaves Daktronics' facility; or (ii) upon Substantial Completion, as defined herein, provided Daktronics has the obligation to install the Equipment. Unless a longer statutory period is required which cannot be modified by agreement of the parties, the Warranty Period shall expire on the first anniversary of the commencement date.

Daktronics' obligation under this Warranty is limited to providing a spare parts package with the Equipment delivery. The spare parts package is designed to exhaust over the life of the CP Warranty Period. Any defective part or component may be replaced with those parts provided in the spare parts package. This Warranty does not include on-site labor charges to remove or install these components nor does it include, except as expressly provided in this Section II, the repair or return of any defective component. Daktronics may, at its option, provide on-site warranty service.

The spare parts package does not include replacement control equipment. In the event the control equipment fails to conform to its specifications during the CP Warranty Period, the defective control equipment may be returned to Daktronics for repair or replacement. 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.

In the event that the End User's spare parts package depletes prior to the expiration of the PC Warranty Period, End User may submit to Daktronics a detailed report of all repair and maintenance services performed on the Equipment for review by Daktronics. Daktronics may, at its discretion, request the End User to return all defective parts to Daktronics for review and analysis. If Daktronics determines that the spare parts package depleted at an unexpectedly high rate due to defective components or spare parts, then Daktronics may either repair the returned parts or send additional spare parts to the End User to support the Equipment through the CP Warranty Period. At the expiration of the CP Warranty Period, End User shall be responsible for the proper disposal of all defective parts, unless such parts are returned to Daktronics in accordance herewith.

All returns must be pre-approved by Daktronics before shipment. Daktronics shall not be obligated to pay freight for any unapproved return. All items shall be shipped by End User DAP Daktronics designated facility per Incoterms® 2020. If returned Equipment/part is repaired or replaced under the terms of this CP Warranty, Daktronics will prepay ground transportation charges to ship such items DAP End User's designated facility (if Daktronics has a legal entity in the country of the End User) or a port of the End User's country (where Daktronics does not have a legal entity in the country of the End User) per Incoterms® 2020. If the returned Equipmnet/part is not found to be defective, the End User shall pay transportation charges to return the Equipment/part back to the End User and such Equipment/part shall be shipped Ex Works Daktronics designated facility per Incoterms® 2020. End User shall pay any upgraded or expedited transportation charges.

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 CP Warranty Period. Purchasing additional parts or Equipment from Daktronics does not extend the CP Warranty Period.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS CP WARRANTY, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, DAKTRONICS DISCLAIMS ANY AND ALL OTHER PROMISES, REPRESENTATIONS AND WARRANTIES APPLICABLE TO THE EQUIPMENT AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACTY OR QUALITY OF DATA. 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 CONSUMABLE PARTS WARRANTY. THIS LIMITED WARRANTY IS NOT TRANSFERABLE.

DAKTRONICS TERMS & CONDITIONS OF EXTENDED SERVICE

SECTION III
EXTENDED SERVICE COVERAGE

The Extended Service Coverage is subject to this Section III and the Terms and Conditions of Section IV.

1. Extended Services Coverage. The scope of the Extended Services covers the Equipment and includes those services defined on Attachment A, SCOPE OF SERVICES (excluding maintenance services which are the responsibility of End User as defined on Attachment A or services which may be purchased for an additional fee) (the "Extended Services"). Response Times are defined on Attachment A.

2. Term. Unless otherwise stated in the Sales Agreement, the Extended Services shall begin upon Substantial Completion and shall expire in accordance with the term described in the Sales Agreement.

3. Conditions Precedent. Daktronics reserves the right to suspend its performance in the event: (a) payment for the Equipment or Extended Services are not made as required by the Sales Agreement, (b) the Equipment is not maintained within the recommended environmental conditions, including but not limited to appropriate ventilation/air conditioning for its location (Air conditioning systems must be maintained according to manufacturer's specifications), (c) the preventative maintenance, not othewise included with the Extended Services, is not completed, or (d) You fail to perform any other obligation including, without limitation, complying with the terms of any software agreement between End User and Daktronics.

4. Spare Parts Package. In the event the Equipment was purchased with a spare parts package, the parties acknowledge and agree that the spare parts package is designed to exhaust over the life of the Equipment and, as such, the replenishment of the package is not included in the scope of the Extended Services.

5. Actions that Void the Services. Daktronics shall be under no obligation to continue Extended Services if the Equipment or Software is: (a) moved from its location of initial installation or reinstalled without the prior written approval of Daktronics (unless the equipment was designed by Daktronics to be mobile), or (b) improperly repaired or altered by a party not under Daktronics control and in a manner inconsistent with the Equipment manufacturer's standards or recommendations.

6. Service Providers. Daktronics may select the parties delivering Extended Services on behalf of Daktronics at its reasonable discretion.

7. Shipping. All returns must be pre-approved by Daktronics before shipment. When returning parts to Daktronics for repair or replacement, You assume all risk of loss or damage, agree to use any shipping containers, which might be provided by Daktronics, and agree to ship the Equipment in the manner prescribed by Daktronics. Daktronics shall not be obligated to pay freight for any unapproved return. All items shall be shipped by End User DAP Daktronics designated facility per Incoterms® 2020. If returned Equipment/part is repaired or replaced under the terms of this CP Warranty, Daktronics will prepay ground transportation charges to ship such items DAP End User's designated facility (if Daktronics has a legal entity in the country of the End User) or a port of the End User's country (where Daktronics does not have a legal entity in the country of the End User) per Incoterms® 2020. If the returned Equipmnet/part is not found to be defective, the End User shall pay transportation charges to return the Equipment/part back to the End User and such Equipment/part shall be shipped Ex Works Daktronics designated facility per Incoterms® 2020. End User shall pay any upgraded or expedited transportation charges.

8. Access to the Equipment. The unfettered, solid, safe and unrestricted access to the Equipment (including, if requested, any installed Software) shall be provided taking into account environmental or site conditions. Unless otherwise specified on Attachment A, the End User shall be required to provide any lifts or access equipment. Additional equipment or personnel required for safety, as determined by Daktronics in its reasonable discretion, shall be billed separately on a time and material basis.

9. Adverse Conditions. In no event shall Daktronics be obliged to perform Services during the existence of Adverse Conditions. 'Adverse Conditions' include without limitation, the following: severe inclement weather, hazardous site conditions including the actual or suspected presence of hazards or contagions likely to cause death, illness, or physical

harm, or infestations of animals or dangerous insects, saturated ground conditions, or residence or occupation by unauthorized personnel. The determination of a site condition as an Adverse Condition shall be at the reasonable discretion of Daktronics. Inaccessibility due to Adverse Conditions will exempt a location from Extended Services Coverage until such time as the Equipment becomes safely accessible once again.

10. Default. Daktronics reserves the right to terminate the Extended Services and accelerate all amounts due and payable if: (a) Purchaser fails to make payment to Daktronics within ten days of the agreed payment dates, (b) You otherwise fail to comply with any material provision of this Service Agreement, or (c) any proceeding is filed by or against You in bankruptcy. Daktronics reserves all its rights (both legal and equitable) under the Agreement, applicable statutes, and the common law. If You fail to perform any covenant or obligation under this Extended Services coverage, Daktronics shall be excused from the performance of any of its obligations hereunder.

11. No Warranty. Daktronics makes no representations or warranties under the Extended Service Coverage.

SECTION IV
TERMS AND CONDITIONS OF COVERAGE

The terms and conditions of this Section IV apply to the Warranty and Extended Services provided by Daktronics.

1. Definition. Capitalized terms used herein shall have the meanings set forth below:

"Coverage" means any applicable Warranty coverage or Extended Services coverage.

"Coverage Period" means the period of time when either a Warranty Coverage or an Extended Service Coverage is in effect per the terms of the Agreement.

"Defects" shall be defined as follows: with regard to the Equipment (excepting LEDs), a "Defect" shall mean a material variance from the design specifications that prohibits the Equipment from operating for its intended use; and with regard to LEDs, "Defects" means LED pixels that cease to emit light.

"End User" means the original end user of the Daktronics Equipment.

"Equipment" (and Software) means the Daktronics manufactured equipment detailed in the Sales Agreement.

"Extended Services" – means additional service coverage as described in Section IV in accordance with the Sales Agreement. The Extended Services may run concurrently with the applicable Warranty or may extend beyond the Warranty Period.

"Force Majeure Event" means any: act of God; natural disaster such as flood, fire, hurricane, earthquake, or other casualty; labor or material shortages or other types of industrial disturbance; quarantines or epidemics; national or regional emergencies; or any other events or circumstances not within the reasonable control of Daktronics, whether foreseeable or not, and whether similar or dissimilar to any of the foregoing.

"Limited Warranty" – means that warranty provided in Section I and applicable to all Equipment manufactured by Daktronics except that Equipment that denotes "CP Warranty" in the Equipment description found in the Sales Agreement.

"Purchaser" means the person or entity that enters into the Sales Agreement for the purchase of Daktronics Equipment. The Purchaser may or may not be the End User.

"Regular Working Hours" means 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 End User or Daktronics.

"Sales Agreement" means the contractual documents entered into between Daktronics and the Purchaser for the purchase of Daktronics Equipment. The Sales Agreement may take many forms including without limitation an executed Daktronics

quote; contract agreement executed by both parties, or a purchase order issued by the Purchaser and accepted by Daktronics.

"Consumable Parts Warranty" or "CP Warranty" – means that warranty provided in Section II

"Substantial Completion" means the operational availability of the Equipment to the End User 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

"Warranty" – means either the Limited Warranty (Section I) or the CP Warranty (Section II) as applicable

"You" (i) in the case of the Limited Warranty of the Consumable Parts – Limited Warranty, means the End User; and (ii) in the case of Extended Service Coverage, means the Purchaser of the Extended Services until the Extended Services are assigned to the End User, at which time it refers to the End User.

2. Replacement Parts. 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 Coverage Period.

3. Cooperation. End User shall fully cooperate with Daktronics in connection with the service of the Equipment and Software. You shall promptly notify Daktronics of Equipment and Software failure. Waiver of liability or other restrictions shall not be imposed as a requirement prior to accessing the site.

4. Confidentiality. To the extent permitted by law, Purchaser and End User shall consider all information furnished by Daktronics, including the terms and conditions of this Service Agreement, to be confidential and shall not disclose any such information to any other person, or use such information itself for any purpose other than fulfillment of this Service Agreement unless written permission is first obtained from Daktronics to do so. Purchaser and End User shall provide confidential information only to those of its agents, servants, and employees who have been informed of the requirements of this paragraph and have agreed to be bound by them. The provisions of this paragraph shall survive termination of the Service Agreement.

5. Limitations of Coverage. The Coverage does not include: (a) service due to: (i) inadequate or improper power, including without limitation a sudden surge of electrical power; (ii) improper handling, installation, adjustment, service, care, maintenance, storage or use of the Equipment; (iii) a Force Majeure Event; (iv) environmental conditions outside the Equipment's technical specifications (including, without limitation excessive temperatures, corrosives, and metallic pollutants); (v) defects or failures occurring during a lapse in Coverage; (vi) incorporation of accessories, attachments, software or other devices or systems not furnished by Daktronics; or (vii) any other cause other than ordinary use; (b) the provision of replacement communication methods (such as wire, metallic or fiber optic cable, conduit, trenching or other solutions) for the purpose of overcoming local site interference; (c) wireless devices or services used for providing wireless connection to the Equipment (wireless devices and services provided by Daktronics are subject to Daktronics Terms and Conditions of Wireless Service available at https://www.daktronics.com/TermsConditions/DD3956286); (d) LED degradation or ultraviolet (UV) damage (degradation means the LED continues to emit light, but at some lesser level of brightness); (e) paint or refinishing the Equipment or furnishing material for this purpose; (f) pixel failure less than a total of 0.5% of the overall display, or in the case of free form elements, one entire element; (g) electrical work external to the Equipment; (h) batteries; (i) third-party systems and other ancillary equipment including without limitation front-end video control systems, audio systems, video processors and players, HVAC equipment, and LCD screens; (j) the security or functionality of End User's network or systems, including anti-virus software updates; or (k) any physical damage which includes, but is not limited to, missing, broken, or cracked components resulting from non-electrical causes; altered, scratched, or fractured electronic traces; missing or gauged solder pads; cuts or clipped wires; crushed, cracked, punctured, or bent circuit boards; or tampering with any electronic connections. Further, in displays manufactured using certain LEDS as indicated by an M or WR (indicating LED type) in the display name, this Agreement does not cover pixel failure after five (5) years.

Daktronics shall be excused from any liability under this Agreement for any delay or nonperformance caused by a Force Majeure Event.

6. Return Items. All items returned to Daktronics must have a Return Material Authorization (RMA) number. For exchange items, the number is included with the shipment of the exchange unit. For repair items, an RMA number can be obtained by phone (800-325-8766), (International +1-605-275-1040), fax (605-697-4444) unless otherwise directed by Daktronics.

7. Indemnity. Daktronics shall indemnify, defend and hold harmless the End User and its subsidiaries, officers, directors, shareholders, partners, employees, agents, insurers, successors and assigns from any third-party claims for liability, losses, damages, costs or expenses (collectively, 'Losses') to the extent that such Losses arise out of: (i) any negligent act or omission by Daktronics or its personnel, agents, subcontractors, or others engaged by Daktronics or under Daktronics' control in the performance of this Service Agreement, provided that such Losses are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property; or (i) any fine or assessment with respect to any violation or alleged violation of any applicable laws regarding safety or health.

   You shall indemnify, defend and hold harmless Daktronics and its subsidiaries, officers, directors, shareholders, partners, representatives, employees, agents, insurers, successors and assigns of each of the foregoing from any and all Losses arising out of or in any way related to: (i) any negligent act or omission by You or your personnel, agents, subcontractors, or others engaged by You or under your control (other than Daktronics or its personnel, agents, subcontractors, or others engaged by Daktronics or under Daktronics' control), provided that such Losses are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property; or (ii) any unauthorized or infringing use by an indemnified party of any patent, process, trade secret, copyright, trademark, or other intellectual property right.

8. Limitation of Liability. IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES, REGARDLESS OF CAUSE, WHETHER SUCH LOSSES ARISE DIRECTLY OR INDIRECTLY FROM THE OTHER PARTY'S ACTS, OMISSIONS, OR BREACH; REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE; WHETHER OR NOT A PARTY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES; WHETHER OR NOT THE REMEDIES AGREED HEREIN FAIL OF THEIR ESSENTIAL PURPOSE; AND REGARDLESS OF THE THEORY UPON WHICH A CLAIM IS BASED. For the purposes of this Agreement, the Parties agree that "Consequential Damages" include, but are not limited to, loss of use, loss of profit, loss of business opportunity, and loss of advertising revenue. No action against Daktronics shall be commenced more than one year after the accrual of the cause of action. Daktronics shall have no liability with respect to claims relating to or arising from use of third-party products and services, even if such products or services are sold through Daktronics.

9. Assignment. Purchaser may assign the Extended Service coverage to the End User, however such assignment does not relive Purchaser of its obligaitons to pay Daktronics in full for amounts owed under the Sales Agreement. Unless otherwise stated, this Service Agreement may not be assigned by either party without the prior written consent of the other party.

11. Miscellaneous. This Service Agreement shall be governed by the laws of the state or province where the Services are provided without regard to its conflict of law principles. This Service Agreement is the product of negotiations between the parties and any rules of construction relating to interpretation against the drafter of an agreement shall not apply to this Service Agreement and are expressly waived. Nothing in this Agreement shall create any rights in any person or entity other than the parties hereto. This Service Agreement represents the entire agreement of the parties and supersedes any previous understanding or agreement regarding the Services. This Service Agreement may not be amended or altered in any manner except in a writing signed by both parties. This Service Agreement may be executed in counterparts. You and Daktronics are not partners or joint venturers. If any part of this Service Agreement is in any manner held to be invalid, illegal, void, or to be in conflict with any law, then the validity of the remaining portions or provisions of this Service Agreement shall not be affected, and such part, term, paragraph or provision shall be construed and enforced in a manner designed to effectuate the intent expressed in this Service Agreement to the maximum extent permitted by law.