

**LED Aquatics/Track Displays
SW-2000 Series
10" Numeric Digit**

Display Manual

ED-12156

Rev 14 – 15 May 2015

DAKTRONICS

Please fill in the information below for your display; use it for reference when calling Daktronics for assistance.

Display Serial No. _____

Display Model No. _____

Date Installed _____

DAKTRONICS, INC.

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Section 1: Introduction

This manual explains the installation and maintenance of *Daktronics SW-2000 Series Aquatics/Track Displays*. The SW-2000 Series includes models in the 2000, 2100, and the 2200 lines.

1.1 How to Use This Manual

The manual is divided into four main sections:

- **Introduction** offers basic explanations and provides a brief overview.
- **Mechanical Installation** details techniques for proper mounting of the scoreboards.
- **Electrical Installation** shows the method for completing power and control signal connections to the scoreboards.
- **Maintenance and Troubleshooting** highlights some common problems encountered with scoreboard operation.

If you have questions regarding the safety, installation, operation, or service of these systems, contact Daktronics. Customer Service Help Desk telephone numbers are listed on the cover page of this manual.

Important Safeguards

1. Read and understand these instructions before installing the display.
2. Do not drop the controller or allow it to get wet.
3. Disconnect power to the display when the unit is not in use.
4. Disconnect power when servicing the display.
5. Do not modify the scoreboard structure or attach any panels or coverings to the scoreboard without the express written consent of Daktronics, Inc.

Figure 1 illustrates Daktronics drawing numbering system. Daktronics identifies individual engineering drawings by the drawing number (7087-P08A-69945 in the example), located in the lower right corner of the drawing. This manual refers to drawings by the last set of numbers and the letter preceding them. An example would be **Drawing A-69945**.

DAKTRONICS, INC. BROOKINGS, SD 57006		
PROJ: BASKETBALL		
TITLE: SEGMENTATION, 7 SEG BAR DIGIT		
DES. BY: BPETERSON DRAWN BY: TNELSON DATE: 8 JUL 02		
APPR. BY: AVB		7087-P08A-69945
SCALE: 1 = 4		

Figure 1: Daktronics Drawing Label

Reference drawings are grouped and inserted in alphanumeric order in **Appendix A**.

The serial and model number of a Daktronics scoreboard can be found on the ID label, located on the display. This label will be similar to the one shown in **Figure 2**. When calling Daktronics Customer Service, please have this information available to ensure that your request is serviced as quickly as possible. For future reference, write your scoreboard model number, serial number, and installation date on the front page of this manual.



Figure 2: Scoreboard ID Label

1.2 Product Overview

Daktronics SW-2000 aquatic and track scoreboards belong to a system of modular scoring and timing displays designed to offer easy installation, readability, and reliability. Microprocessor control assures consistent operation and accuracy.

Based on one- and two-line modules, the SW-2000 displays feature easy-to-read 10" digits in red and amber. Light emitting diodes, or LEDs, illuminate the display. (LEDs are tiny, solid-state components that use a semiconductor chip to transform electrical current into light; they are high-intensity, low-energy lighting units.) Outdoor displays use red LEDs. Indoor boards are available with all red digits or with an amber and red digit combination.

Because the series is based on a modular design, several display combinations are available. Some scoreboards utilize a single module, while others consist of multiple modules arranged either vertically or horizontally. As noted previously, the scoreboards are manufactured for both indoor and outdoor settings, with 120 V and 230 V versions to accommodate both American and European use.

Caption modules are units without power that attach to the top or bottom of a digit module. They hold changeable captions for several events. The SW-2000 assemblies may also contain optional ad panels, which can be attached to the board to display team logos, sponsor names or other advertising messages.

The aluminum cabinets have a 1'2" display face and measure 6" deep by 9'0" long. The front face of the two-line module cabinet is 2'4". The single-line and two-line modular units have mounting weights of 45 and 80 pounds, respectively.

1.3 Model Identification

Reference Drawings:

Module Model Descriptions & LED	
Aquatics/Track Displays	Drawing A-129639
Model Configurations, Swim/Track Timing	Drawing A-130101
Model Configurations, Aquatics Multisport.....	Drawing A-130102

SW-2000 Series scoreboards are differentiated by their model numbers. The digit modules are the building blocks for each new system:

- *SW-2001* and *SW-2002* are timing building blocks, featuring one- and two-line LED displays showing lane, place and time information.
- *SW-2003* is the multisport timing module, incorporating an extra digit into its display for judged events such as diving.
- *SW-2004 – 2009* are auxiliary display modules.
 - *SW-2004* and *SW-2005* are one- and two-line scoring displays.
 - *SW-2006* is a one-line event/heat display.
 - *SW-2007* is a one-line record timer.
 - *SW-2008* is a one-line lengths/record timer.
 - *SW-2009* is an add-on module for additional scoring.
- *SW-21xx* displays are the models created by using different combinations of the *SW-2001* and *SW-2002* modules.
- *SW-22xx* multisport displays are created by adding the *SW-2003* and additional caption panels to the *SW-2001* and *SW-2002* modules.

Daktronics scoreboards and timing displays are identified by model numbers: *TN-2007*, for example, designates a specific tennis scoreboard. The two-letter prefix for displays in this manual, *SW-*, identifies aquatics/track scoreboards.

Model numbers for both the *SW-2100* and *SW-2200* series typically reflect the number of lanes – six, eight, or 10 – in swimming or track events served by that display. For example, the *SW-2106* refers to a six-lane aquatics display. Model *SW-2108* is a swimming/track timing display, used for events with up to eight lanes.

The last two numbers comprising *SW-2100* and *SW-2200* model names differentiate between vertical and horizontal displays. Horizontal model numbers add 10 to the number of lanes. For example, *SW-2218* is a multisport, horizontal display used for events with up to eight lanes. *SW-2120* refers to a 10-lane horizontal aquatics display.

All displays also carry a two-number suffix, which refers to indoor/outdoor status and power supply: *-13* and *-14* are indoor displays, 120 V and 230 V respectively; *-11* and *-12* are outdoor displays, 120 V and 230 V. To correctly identify your display, refer to **Drawings A-129639, A-130101 and A-130102.**

1.4 System Layout

Reference Drawings:

Track Scbd. w/ Finish Lynx™, in Press Box	Drawing A-104300
Equipment Layout, 50 M Swim, Course #1, indeck	Drawing A-121329
Riser Diagram with OmniSport® 6000	Drawing A-130977
Riser Diagram with OmniSport 1000	Drawing A-130978
Riser Diagram with CTS® Timer	Drawing B-130979
Riser Diagram with Ares or OSM6	Drawing A-131037
Riser Diagram with All Sport® 4000	Drawing A-131226
System Riser; Track Scbd w/ Omni 2000, in field	Drawing A-186548

The Daktronics SW-2000 Series LED displays can be interfaced with a variety of timers. Identify your timer and refer to the appropriate layout diagram. The drawing has information on how to connect your timer and any restrictions for your model scoreboard and controller. Refer to the operator's controller manual for information on setup, operation, and scoreboard output.

Section 2: Mechanical Installation

Mechanical installation involves the following procedures:

- Erecting the mounting structure or preparing the wall surface for mounting
- Mounting the caption modules to the digit modules
- Mounting the digit modules to the wall or mounting structure

These steps are described in greater detail in the following sections.

Refer to the electrical installation drawing before beginning the mechanical installation procedure. It is important to recognize where the electrical wires are located so knockouts can be removed respectively before the display has been mounted. It will be easier to install electrical hookup items, route conduits and attach hookup boxes before mechanical installation.

2.1 Installing Caption Modules

Reference Drawings:

Caption Layout, 6-Lane Multisport Systems.....	Drawing A-130319
Caption Layout, 8-Lane Multisport Systems.....	Drawing A-130321
Caption Layout, 10-Lane Multisport Systems.....	Drawing A-130801
Caption Module Detail	Drawing A-130840

Attach the caption module to the digit module *before* attaching the digit module to the wall.

The caption modules are attached to the top or bottom of a digit module with #10 machine screws (*refer to **Drawing A-130319***). Before attaching the caption module, note its orientation. The top and bottom guides for holding the caption panel are different sizes. Be sure the module is oriented so that the deeper guide is toward the top.

To insert a caption panel, fit the top edge of the caption panel into the module's upper guide, and then slide the bottom edge under the lower guide (*refer to **Drawing A-130840***). The construction of the guides allows the caption panels to be lifted out for changing, rather than having to slide them out one end.

The caption panels must be properly positioned in relation to the scoreboard digits for different activities. Refer to **Drawings A-130319, A-130321, and A-130801** for caption layouts. The drawings indicate the location of the digits that will be used for the various events and sports. The captions may be positioned accordingly.

2.2 Mounting Digit Modules

Scoreboard digit modules may be mounted directly to a wall, to universal mounting struts (channels), or to other support structures. Modular construction permits varied configurations, and the unique requirements of each facility will determine the setup and anchoring method best suited for the display.

Daktronics recommends using universal mounting struts (channels). Use $\frac{3}{8}$ " bolts through the holes in both ends of the module frame. For displays with multiple digit modules, mount the lowest module first and work upward.

There are two basic methods to mount the display to a wall: corner mounting and flush wall mounting. Corner mounting requires an additional bracket, which can be ordered from Daktronics. Flush wall mounting requires standard bolts and anchors, found in most hardware stores.

Before installing any wall anchors or the mounting structure, determine where all of the mounting holes will be located on the display modules. Holes provided on the modules should be convenient for most installations.

Vertical Wall Mounting, Indoors or Outdoors

Reference Drawing:

Vertical Wall Mounting **Drawing A-130545**

Use this method when the overall display requires that the digit modules be mounted on top of one another.

1. Attach the mounting struts to the wall. Refer to **Drawing A-130545** to determine the strut length and the distance between struts.
2. Attach the caption module to the digit module **before** attaching the digit module to the wall. *Note: Caption modules do not require extra strut length when they are mounted at either top or bottom of the column.*
3. Use $\frac{3}{8}$ " bolts to attach the modules to the struts (*refer to **Drawing A-130545***). Mount the lowest module first, and then add modules working upward. *Note: Strut nuts should be equipped with springs, to hold nuts in place until ready to install to bolts. (Refer to **Figure 3** below)*



Figure 3: Strut nut with spring

Horizontal Wall Mounting, Indoors Only

Reference Drawings:

Strut Spacing, Horizontal Wall Mounting	Drawing A-129905
End Bracket Attachment, Horizontal Wall Mounting	Drawing A-129906
Horizontal Wall Mounting, Final Steps.....	Drawing A-129907

Use this method when the overall display requires that digit modules be mounted side by side.

1. Attach the mounting struts to the wall. Refer to **Drawing A-130545** to determine the strut length and the distance between the struts.
2. Attach the caption module to the digit module **before** attaching the digit module to the wall. *Note: Caption modules do not require extra strut length when they are mounted at either top or bottom of the column.*
3. Start with the left column of modules. Attach the end brackets to the right end of all the modules in the left column. Next, attach brackets to the left end of all the modules in the right column. (*Refer to **Drawing A-129906***).
4. Attach the modules in the left column first:
 - Use $\frac{3}{8}$ " bolts to attach the struts (*Refer to **Drawing A-129907***).
 - Mount the lowest module first, and then add modules working upward until the left column is complete.
5. Starting at the bottom, attach the modules in the right column. Join the left and right columns using the end brackets:
 - Insert the screw heads on the end brackets into the keyholes on the mating bracket and press down on the right side (*Refer to **Drawing A-129907***).
 - As the modules are joined, use $\frac{3}{8}$ " bolts to attach the right end of each module to the struts (*Refer to **Drawing A-129907***).
 - Complete the lowest module first. Add any remaining modules, working upward until the right column is completed.

Corner-Mounting Modules, Indoors Only

Reference Drawing:

Corner Mount.....	Drawing A-130508
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If the display is to be mounted across the corner of adjoining walls, you may order special corner-mounting brackets as an option. **Drawing A-130508** shows the procedure for this type of mounting.

Multi-line display models that use a single vertical arrangement of modules may be mounted with corner brackets. Horizontal display configurations, however, cannot be mounted across a corner using the simple brackets. Such displays must be attached to a structure or framework that spans across the corner and safely supports the entire display. This type of mounting must be designed by a qualified engineer.

Beam Mounting Digit Modules, Outdoors

Reference Drawings:

Beam Mounting Procedure	Drawing A-194664
Beam Mounting, Side View	Drawing A-194671
Beam Mounting, Top View	Drawing A-194674
Beam Mounting, Rear, Horizontal Display	Drawing A-194678
Beam Mounting, Rear, Vertical Display.....	Drawing A-194677

SW-2000 Series scoreboards are frequently displayed as freestanding units, mounted on steel beams. Because every display is different in terms of module configuration, scoreboard options and environments, every installation will be unique.

Such beam-mounted installations require that a qualified engineer provide specifications for both the reinforced concrete footings and the steel support beams. Two beams are required for each column of display modules, and they must be set 4'-6" apart, center-to-center. Installations of vertical and horizontal displays are shown in **Drawings A-194678** and **A-194677**, both of which specify the overall space requirements for the scoreboards as well as their specific dimensions.

Each digit module has knockouts in both the rear and the end for power and signal entrance. Power and signal are brought into one module through these external knockouts, and connections to other modules are made internally.

Once the support beams have been installed, the scoreboard-mounting procedure is typically a six-step process (*Refer to **Drawing A-194664***):

1. Begin by attaching mounting brackets to the top and bottom of the lowest digit module in the display. The brackets are fastened to the modules by inserting 10-24 x $\frac{5}{8}$ " screws through the holes in each bracket and threading them into the captivated nuts on the back of the module.
2. With the brackets attached, position the module against the beam and secure it with the 15" long threaded rods with the washers and nuts provided. These $\frac{1}{2}$ -13 x 15 threaded rods, or mounting bolts, do not go through the beam but pass along either side; no drilling is required (*Refer to **Drawings A-194671** and **A-194674***). The square nuts go inside the bracket, and the hex nuts are used inside the rear mounting angles that straddle the back of each support beam. Tighten the assembly with a $\frac{3}{4}$ " socket, taking care not to over tighten.

Note: Over tightening can deform the brackets and angles.

3. Attach the upper mounting bracket to the next module and set it on top of the first module.
4. Insert screws through the upper bracket of the first module to secure the bottom of the second module. This secures the bracket to the back of both modules. (The modules will also be joined later at each end.)
5. Secure the upper bracket of the second module to the beams with bolts, washers and nuts.
6. Join the modules together at the ends by inserting screws up through the holes in the top of the lower module and into the captivated nuts in the bottom of the upper module.

The building process continues in the same manner for any remaining modules. Caption modules are attached directly to their adjoining digit modules and do not use beam mounting brackets (*Refer to **Drawing A-194671***).

Section 3: Electrical Installation

Electrical installation involves the following procedures:

- Providing power to the display and control locations.
- Routing signal cable from the control location to the display location.
- Connecting power and signal wiring between digit modules.
- Installing the address and protocol plugs into each digit module.
- Connecting the signal input to the first digit module.
- Connecting power to the first digit module.

It may be helpful to open the front panels on the digit modules before mounting them and installing the address and protocol plugs. This will determine the order in which the digit module will be installed.

These steps are described in greater detail in the following sections.

3.1 Grounding Indoor Displays

Connect the scoreboard to earth ground. Proper grounding assures reliable equipment operation and protects the equipment against damaging electrical disturbances and lightning.

Note: It is the customer's responsibility to properly ground the 120 V AC outlet. Failure to ground the 120 V AC outlet connection voids the warranty for the timing display.

3.2 Connecting Power and Signal, Indoor Displays

Reference Drawings:

Electrical Hookup, Indoor Display, 120 V**Drawing A-130661**

Electrical Hookup, Indoor Display, 230 V**Drawing A-130676**

The SW-2000 Series of aquatics/track scoreboards have been designed for easy access to components, and the power and control signal hookup has been simplified.

Refer to **Drawings A-130661** and **A-130676** to determine where the power and signal cable will be brought into the display. Daktronics recommends that connections begin with the lowest module in the system, on the left side of the cabinet. If the scoreboard is two or more modules wide, start connections with the lowest module on the farthest left-hand side.

Front panels can be removed to allow access to the digits, cabling and other electronic components.

Electrical hookup for both 120 V and 230 V indoor scoreboards consist of a simple, seven-step process. Begin by opening the left access panel of the module (*Refer to Drawing A-130661*):

1. Mount the power/signal plate in the left side of the lowest digit module in the display. Remove both the 2" knockout and the upper 7/8" knockout from the left end of the module. Run the power cord out of the module through the knockout and position the plate inside, on the end. Secure the plate with two screws, inserting them externally through the pre-drilled holes.
2. Route the cable from the power/signal plate into the driver enclosure and connect the 12-pin plug to the mating plug.

Note: All the connectors are “keyed”— they can only fit into the jacks one way.

3. Insert 2" bushings into the holes between modules.
4. Pull the power/signal cable from the lower module through the 2" hole in the top of the cabinet up into the next module and connect the 12-pin plug to the mating connector in the driver enclosure.
5. Repeat the connection process in Step 4 with any other modules in the system.
6. Connect the power cord to a 120 V AC power outlet, and connect signal to the 1/4" phone jack in the end of the bottom module.
7. Replace cover and panels. Insert a 2" hole plug in the bottom hole of the lowest module.

The hookup procedure for a 230 V display is identical; the only difference between the two electrical systems is the 230 V power cord (*Refer to Drawing A-130676*).

3.3 Internal Cable Routing

Reference Drawing:

Internal Cable Routing **Drawing A-130679**

Section 3.1 describes signal and power connections for scoreboard digit modules arranged vertically. Horizontal, or side-by-side, modules additionally require installation of a power/signal interconnect cable. Only one interconnect cable is needed for each installation (*Refer to Drawing A-130679*).

Connect the modules by running the interconnect cable from the driver of the bottom left module to the driver of the bottom right module. There are knockouts in the ends of the modules through which the cable may be run. The cable is connected with mating 12-pin plugs in each module.

3.4 Grounding Outdoor Displays

Displays **MUST** be grounded according to the provisions outlined in Article 250 of the National Electrical Code and according to the specifications in this manual. Daktronics recommends a resistance-to-ground of 10 ohms or less.

The electrical contractor who is performing the electrical installation can verify ground resistance. Daktronics Sales and Service personnel can also perform this service.

The display system *must* be connected to an earth electrode installed at the display. Proper grounding is necessary for reliable equipment operation. It also protects the equipment from damaging electrical disturbances and lightning. The display must be properly grounded or the warranty will be void.

The material for an earth-ground electrode differs from region to region and may vary according to conditions present at the site. Consult the National Electrical Code and any local electrical codes that may apply. The support structure of the display cannot be used as an earth-ground electrode. The support is generally embedded in concrete, and if it is in earth, the steel is usually primed or it corrodes, making it a poor ground in either case.

3.5 Installing Load Centers, Outdoor Displays

Reference Drawing:

Electrical Hookup, Outdoor Display**Drawing A-129998**

Outdoor displays have a fully enclosed load center that brings power and signal to the scoreboard. The harsher environment and outdoor electrical hookup requirements mandate the use of this component. The load center is mounted in the cabinet during display installation. The procedure is as follows:

1. Remove the lower left panels from the lowest digit module in the display, and remove the nuts from the three screws already installed in the cabinet. If the load center cover is on, remove it. Position the load center on the back panel screws, and complete the mounting by tightening the nuts.
2. Route the cable from the load center into the driver enclosure and connect the 12-pin plug to the mating plug.
3. Insert 2" bushings into the holes between modules.
4. Pull the power/signal cable from the lower module up into the module above it and connect the cable to the 12-pin plug on its driver.
5. Follow the same procedure for the other modules.
6. Make main power and signal connections in the load center (*See the detail of the unit's interior in the lower right corner of **Drawing A-129998***).
7. Replace covers and panels.

3.6 Setting Driver Addresses and Protocols

Reference Drawings:

- 16 Column LED Driver II Specifications **Drawing A-126174**
 Address Configurations, Timing Displays **Drawing B-130318**

For the scoreboard to receive signal and function properly, the driver must be set to the correct address and protocol. This address is set with jumper wires in a 12-pin plug which mates with jack J19 on the driver. Address and protocol plugs are supplied in a separate kit for field installation. Plugs are marked with address or protocol numbers. Select the appropriate plugs and connect them to the jacks on the driver.

The LED scoreboard can be interfaced to a variety of timers. Identify your timer and refer to the appropriate address configurations for various timing displays. This information is also presented in the tables at the end of **Section 3**. (*Note that Protocol 1 is used with all Daktronics Omega and Finish Lynx timing systems, Protocol 2 is used with Colorado Time System units; one-line displays controlled by Daktronics OmniSport 1000 or 6000 timers require no protocol or address plug; all displays controlled by the Daktronics OmniSport 2000 require no protocol. OmniSport 2000 requires an address plug for single line displays.*)

Address settings, LED Fixed-Digit Aquatics/Track Displays *Multi-line Display Addresses*

Daktronics Omni Sport 1000		
Protocol=1	Address	
Function	Dec.	Binary
Line 1 or 1 and 2	1	00000001
Line 2 or 2 and 3	2	00000010
Line 3 or 3 and 4	3	00000011
Line 4 or 4 and 5	4	00000100
Line 5 or 5 and 6	5	00000101
Line 6 or 6 and 7	6	00000110
Line 7 or 7 and 8	7	00000111
Line 8 or 8 and 9	8	00001000
Line 9 or 9 and 10	9	00001001
Line 10	10	00001010
Event/Heat or Home/Guest, Record Time	11	00001011
Running Time	13	00001101
Line 4 MS w/ horn	15	00001111
Line 6 MS w/ horn	16	00010000
Line 8 MS w/ horn	17	00010001

Daktronics Omni Sport 6000		
Protocol=1	Address	
Function	Dec.	Binary
Line 1 or 1 and 2	1	00000001
Line 2 or 2 and 3	2	00000010
Line 3 or 3 and 4	3	00000011
Line 4 or 4 and 5	4	00000100
Line 5 or 5 and 6	5	00000101
Line 6 or 6 and 7	6	00000110
Line 7 or 7 and 8	7	00000111
Line 8 or 8 and 9	8	00001000
Line 9 or 9 and 10	9	00001001
Line 10	10	00001010
Event/Heat, Lengths, Record Time	11	00001011
Home, Guest 1, Guest 2, Guest 3	12	00001100
Running Time	13	00001101
Line 4 MS w/ horn	15	00001111
Line 6 MS w/ horn	16	00010000
Line 8 MS w/ horn	17	00010001

Daktronics Omni Sport 2000		
Protocol=Multidrop protocol does not require a protocol plug	Address	
Function	Dec.	Binary
1-line Timing Display	40	00101000
Line 1 or 1 and 2	41	00101001
Line 2 or 2 and 3	42	00101010
Line 3 or 3 and 4	43	00101011
Line 4 or 4 and 5	44	00101100
Line 5 or 5 and 6	45	00101101
Line 6 or 6 and 7	46	00101110
Line 7 or 7 and 8	47	00101111
Line 8 or 8 and 9	48	00110000
Line 9 or 9 and 10	49	00110001
Line 10	50	00110100
Home, Guest 1, Guest 2, Guest 3	31	00011111
Event/Heat, Lengths, Record Time	32	00100000

Omega Ares 21 or Quantum		
Protocol=1	Address	
Function	Dec.	Binary
1-line Timing Display	1	00000001
Line 1 or 1 and 2	1	00000001
Line 2 or 2 and 3	2	00000010
Line 3 or 3 and 4	3	00000011
Line 4 or 4 and 5	4	00000100
Line 5 or 5 and 6	5	00000101
Line 6 or 6 and 7	6	00000110
Line 7 or 7 and 8	7	00000111
Line 8 or 8 and 9	8	00001000
Line 9 or 9 and 10	9	00001001
Line 10	10	00001010
Event/Heat, Record Time	11	00001011
Home, Guest 1, Guest 2, Guest 3	12	00001100
Line 4 MS w/ horn*	15	00001111
Line 6 MS w/ horn*	16	00010000
Line 8 MS w/ horn*	17	00010001

*Operate in Swim Mode Only

Omega OSM6 or Scan'O'Vision		
Protocol=1	Address	
Function	Dec.	Binary
1-line Timing Display	1	00000001
Line 1 or 1 and 2	1	00000001
Line 2 or 2 and 3	2	00000010
Line 3 or 3 and 4	3	00000011
Line 4 or 4 and 5	4	00000100
Line 5 or 5 and 6	5	00000101
Line 6 or 6 and 7	6	00000110
Line 7 or 7 and 8	7	00000111
Line 8 or 8 and 9	8	00001000
Line 9 or 9 and 10	9	00001001
Line 10	10	00001010
Line 4 MS w/ horn	15	00001111
Line 6 MS w/ horn	16	00010000
Line 8 MS w/ horn	17	00010001

Omega Power Time		
Protocol=1	Address	
Function	Dec.	Binary
1-line Timing Display	1	00000001
Line 1 or 1 and 2	1	00000001
Line 2 or 2 and 3	2	00000010
Line 3 or 3 and 4	3	00000011
Line 4 or 4 and 5	4	00000100
Line 5 or 5 and 6	5	00000101
Line 6 or 6 and 7	6	00000110
Line 7 or 7 and 8	7	00000111
Line 8	8	00001000
Event/Heat	11	00001011
Line 4 MS w/ horn (Swim Mode only)	15	00001111
Line 6 MS w/ horn (Swim Mode only)	16	00010000
Line 8 MS w/ horn (Swim Mode only)	17	00010001

FinishLynx		
Protocol=1	Address	
Function	Dec.	Binary
1-line Timing Display	1	00000001
Line 1 or 1 and 2	1	00000001
Line 2 or 2 and 3	2	00000010
Line 3 or 3 and 4	3	00000011
Line 4 or 4 and 5	4	00000100
Line 5 or 5 and 6	5	00000101
Line 6 or 6 and 7	6	00000110
Line 7 or 7 and 8	7	00000111
Line 8 or 8 and 9	8	00001000
Line 9 or 9 and 10	9	00001001
Line 10	10	00001010
Event/Heat	11	00001011

Colorado Timing, 9600 BAUD			
Protocol=2	Address		Define Module*
Function	Dec.	Binary	
Line 1 (and 2)	1	00000001	01 (02)
Line 2 (and 3)	2	00000010	02 (03)
Line 3 (and 4)	3	00000011	03 (04)
Line 4 (and 5)	4	00000100	04 (05)
Line 5 (and 6)	5	00000101	05 (06)
Line 6 (and 7)	6	00000110	06 (07)
Line 7 (and 8)	7	00000111	07 (08)

Line 8 (and 9)	8	00001000	08 (09)
Line 9 (and 10)	9	00001001	09 (0A)
Line 10	10	00001010	0A
Lengths, Record Time	11	00001011	0B
Event/Heat			0C
Home, Guest	13	00001101	0D
1-line timing	15	00001111	0F
Home, Guest 1	20	00010100	14
Guest 2, Guest 3			15
Time of Day	22	00010110	16
Line 1, MS w/ Horn	41	00101001	01
Line 2, MS w/ Horn	42	00101010	02
Line 3, MS w/ Horn	43	00101011	03
Line 4, MS w/ Horn	44	00101100	04
Line 5, MS w/ Horn	45	00101101	05
Line 6, MS w/ Horn	46	00101110	06
Line 7, MS w/ Horn	47	00101111	07
Line 8, MS w/ Horn	48	00110000	08
Line 9, MS w/ Horn	49	00110001	09
Line 10, MS w/ Horn	50	00110100	0A

*Swim Mode Scoreboard Settings in Colorado Timers

Colorado Timing, 2400 BAUD (v2.0 & older)		
Protocol=2	Address	
Function	Dec.	Binary
Line 1 or 1 and 2	65	01000001
Line 2 or 2 and 3	66	01000010
Line 3 or 3 and 4	67	01000011
Line 4 or 4 and 5	68	01000100
Line 5 or 5 and 6	69	01000101
Line 6 or 6 and 7	70	01000110
Line 7 or 7 and 8	71	01000111
Line 8 or 8 and 9	72	01001000
Line 9 or 9 and 10	73	01001001
Line 10	74	01001010
Lengths, Record Time, Event/Heat	75	01001011
Home, Guest	77	01001101
1-line timing	79	01001111
Home, Guest, Guest, Guest	84	01010100

***One-Line Timing Display Controlled by Daktronics OmniSport 1000, or
6000 Timers***

Protocol = 0 (No protocol plug required)

Address = 0 (No protocol plug required)

***Auxiliary Scoring Display Modules Controlled By Daktronics All Sport
4000 Series Controller***

Protocol= 1

Event/Heat, Lengths, Record Time Address = 11

Home/Guest 1/Guest 2/Guest 3 Address = 12

Section 4: Maintenance and Troubleshooting



IMPORTANT NOTES:

1. Disconnect power before doing any repair or maintenance work on the display!
2. Allow only qualified service personnel access to internal display electronics.
3. Disconnect power when the display is not in use.

4.1 Cabinet Specifications

Reference Drawings:

- Mechanical Specifications, 2-Line Digit Module**Drawing A-194679**
- Mechanical Specifications, 1-Line Digit Module**Drawing A-194673**
- Mechanical Specifications, Ad Panels**Drawing A-194676**

Cabinets for the modules in the SW-2000 Series are of all-aluminum construction. The drawings referenced above, **A-194673**, **A-194679**, and **A-194676**, give exact dimensions, screw and knockout locations, and other mechanical specifications. The illustrations include details for the one-line digit module, the two-line digit module, and for ad panels that may be attached to the display as well.

4.2 LED Driver

Reference Drawing:

- 16 Column LED Driver II Specifications**Drawing A-126174**

The task of switching LEDs on and off is performed by the LED driver (*Refer to Drawing A-126174*). Each driver has 19 connectors providing power and signal inputs/outputs to digits and indicators. The function of each of these connectors is as follows.

Connector No.	Function
1 through 16	Output to digits and indicators
17	Control signal and power input
18	Control for horn
19	Address

Output connectors 1 through 16 each have nine pins. Pin 7 provides power to the digit or indicators wired to that connector. The other eight pins provide switching connections. The electrical specification drawings for each of the models in the SW-2000 Series, shown at the beginning of this section, specify the driver connectors controlling the digits. Numbers on each digit indicate which connector is wired to that digit. Scoreboard model numbers are shown on the lower left side of each drawing.

4.3 Segmentation

Reference Drawing:

Digit Service..... **Drawing A-130891**

In each digit, certain LEDs always go on and off together. These groupings of LEDs are referred to as segments. **Drawing A-130891** shows which connector pin number is wired to each digit segment and the wiring color code used throughout the display (illustrated at the lower left corner of the drawing).

4.4 Component Location and Access

Reference Drawings:

Electrical Hookup, Indoor Display, 120 V **Drawing A-130661**

Electrical Hookup, Indoor Display, 230 V **Drawing A-130676**

Digit Service..... **Drawing A-130891**

Drawings A-130661, A-130676, and A-130891 show front views of display modules. The digit circuit board, the platform for the LEDs, is mounted on the front panel in each section. The panels are easily removed for front access.

The drivers are located on the left side of each module (typically behind the second panel), and the load center, if present, is immediately to the left of the driver. The power/signal plate used in indoor scoreboards is usually mounted on the left end of the module cabinet.

4.5 Schematic

Reference Drawing:

Schematic; 120VAC Single Driver, Harness **Drawing A-1048280**

Schematic; 230VAC Single Driver, Harness **Drawing A-1048289**

Drawing A-1048280 is the schematic diagram of the power and signal inputs and all wiring in 120VAC SW-2000 Series displays. **Drawing A-1048289** is the schematic diagram of the power and signal inputs and all wiring in 230VAC SW-2000 Series displays.

Disconnect power before servicing the display.

Disconnect power when the display is not in use. Prolonged power-on may shorten the life of some electronic components.

4.6 Troubleshooting

This section lists some symptoms and problems that may be encountered with scoreboard operation. For these symptoms, possible cause and corrective actions are indicated. This list does not include every possible problem, but it does represent some of the more common situations that may occur.

Symptom/Condition	Possible Cause
Scoreboard will not light	<ul style="list-style-type: none"> ▪ Console not connected or poor connection ▪ No power to control console ▪ No power to the scoreboard ▪ Driver fuse blown ▪ Main fuse blown
Garbled display	<ul style="list-style-type: none"> ▪ Internal driver logic malfunction ▪ Control console malfunction
Digit will not light	<ul style="list-style-type: none"> ▪ Black wire to digit broken ▪ Poor contact at driver connection ▪ Driver malfunction
Segment will not light	<ul style="list-style-type: none"> ▪ Broken LED or connection ▪ Driver shift register failure ▪ Broken wire between lamp driver and digit ▪ Poor contact at driver connector
Segment stays lit	<ul style="list-style-type: none"> ▪ Driver shift register failure ▪ Short circuit on digit
Date appears in the wrong place on the display	<ul style="list-style-type: none"> ▪ Incorrect address settings on drivers (consult tables and set correct addresses)

4.7 Replacement Parts List

To prevent loss due to theft, Daktronics recommends purchasing a lockable cabinet to store manuals and replacement or spare parts. Refer to the appropriate supplementary manual for a complete list of replacement parts.

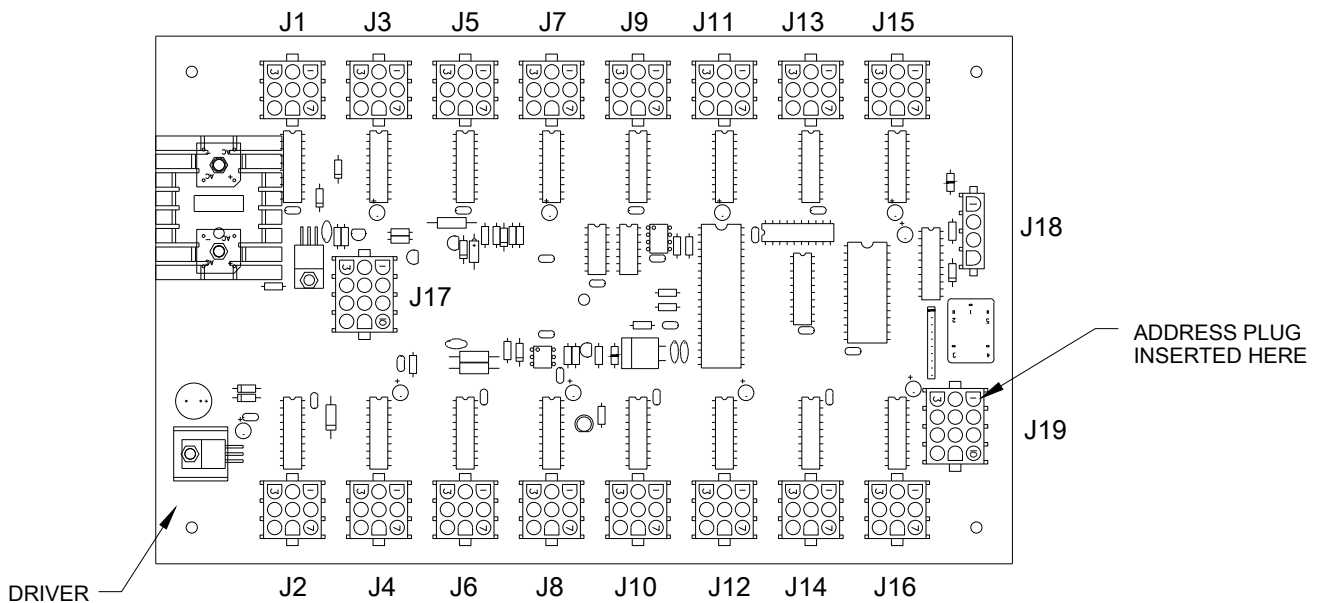
Description	Part Number
Load center	0A-1153-0177
Power/signal plate, 120 V	0A-1153-0105
Power/signal plate, 230 V	0A-1153-0106
Address Protocol Plug Set	0A-1153-0187
Horn; 120 V AC 60Hz LS1	0A-1152-0332

Cable, 22 AWG, one pair	W-1077
Junction box; phone jack	0A-1009-0038
LED driver	0P-1150-0127
Digit, 10" Red, Outdoor	0P-1192-0265 (prior to January 2013) 0A-1192-5121 (after January 2013)
Digit, 10" Amber, Outdoor	0P-1192-0266 (prior to January 2013) 0A-1192-5221 (after January 2013)
Digit 10", Red, Indoor	0P-1150-0240 (prior to January 2013) 0A-1192-5122 (after January 2013)
Digit 10", Amber, Indoor	0P-1150-0241 (prior to January 2013) 0A-1192-5222 (after January 2013)
Transformer, 16 V	T-1066
Signal cable, 10'	W-1340
Signal cable, 20'	W-1236
Signal cable, 30'	W-1238
Signal cable, 50'	W-1237
Signal cable, 100'	W-1381

Appendix A: Reference Drawings

<i>A Drawing Title</i>	<i>Drawing Number</i>
LED Driver Address Config. 12 Pin	A-87409
CTS LED Driver Address Config. 12 Pin	A-95016
Track Scbd. w/ Finish Lynx, in Press Box.....	A-104300
Address Table, 1 through 128	A-115078
Omni1000 LED Driver Address Configuration- 12 Pin	A-118393
A/S 4000, Code 244, LED Dr. Address Config., 12 Pin.....	A-118394
Powertime LED Driver Address Configuration- 12 Pin	A-118395
OSM6 LED Driver Address Configuration- 12 Pin	A-118396
Ares LED Driver Address Configuration- 12 Pin.....	A-118397
Scan'O'Vision LED Driver Address Configuration- 12 Pin.....	A-118398
Lynx LED Driver Address Configuration- 12 Pin.....	A-118399
Equipment Layout, 50 M Swim, Course #1, indeck	B-121329
16 Column LED Driver II Specifications.....	A-126174
Module Model Descriptions, LED Aquatics/Track	A-129639
Elec Spec: SW-2101-11, -12, -13 & -14	A-129652
Strut Spacing, Horizontal Wall Mount.....	A-129905
End Bracket Attach, Horizontal Wall.....	A-129906
Horizontal Wall Mount, Final Steps.....	A-129907
Elec Spec: SW-2001-11, -12, -13 & -14	A-129984
Electrical Hookup, Display	A-129998
Elec Spec: SW-2003-11, -12, -13 & -14	A-130053
Elec Spec: SW-2004-11, -12, -13 & -14	A-130054
Model Configurations, Swim/Track Timing.....	A-130101
Model Configurations, Aquatics Multi-sport	A-130102
Elec Spec: SW-2006-11, -12, -13 & -14	A-130284
Elec Spec: SW-2007-11, -12, -13 & -14	A-130286
Elec Spec: SW-2008-11, -12, -13 & -14	A-130309
Elec Spec: SW-2002-11, -12, -13 & -14	A-130312
Elec Spec: SW-2005-11, -12, -13 & -14	A-130316
Address Configurations, Timing Displays.....	B-130318
Caption Layout, 6-Lane Multisport Systems.	A-130319
Caption Layout, 8-Lane Multisport Systems.	A-130321
Corner Mount.....	A-130508
Vertical Wall Mounting.....	A-130545
Electrical Hookup, Indoor Display, 120 V	A-130661
Electrical Hookup, Indoor Display, 230 V	A-130676
Internal Cable Routing	A-130679
Caption Layout, 10-Lane Multisport Systems.	A-130801
Caption Module Detail.....	A-130840
Digit Service.....	A-130891
Riser Diagram with OmniSport 6000	A-130977
Riser Diagram with OmniSport 1000	A-130978
Riser Diagram with CTS Timer.....	B-130979
Riser Diagram with Omega Timer	A-131037
Elec Spec: SW-2009-11, -12, -13 & -14	A-131039
Riser Diagram with All Sport 4000.....	A-131226

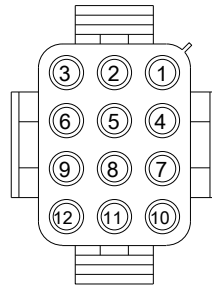
System Riser; Track Scbd w/ Omni 2000, in field	A-186548
Beam Mounting Procedure.	A-194664
Beam Mounting, Side View	A-194671
Mechanical Specifications, 1-Line Digit Module	A-194673
Beam Mounting, Top View	A-194674
Mechanical Specifications, Ad Panels.....	A-194676
Beam Mounting Rear, Vertical Display.....	A-194677
Beam Mounting, Rear, Horizontal Display	A-194678
Mechanical Specifications, 2-Line Digit Module	A-194679
Electrical Hookup, Radio Hookup	A-305509
Schematic; 120VAC Single Driver, Harness	A-1048280
Schematic; 230VAC Single Driver, Harness	A-1048289



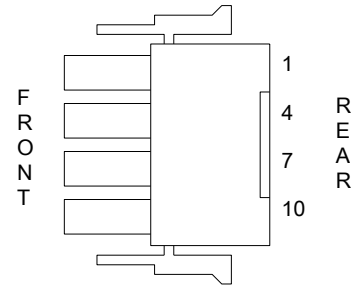
THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.

* DIFFERENT PROTOCOL



REAR VIEW



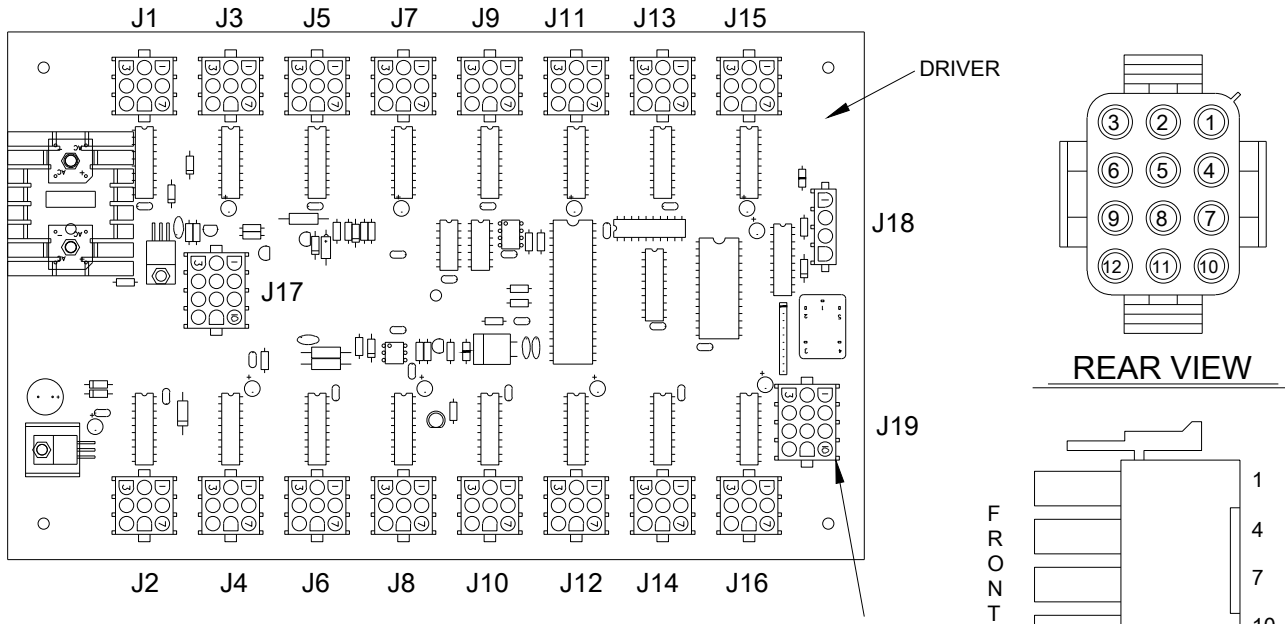
SIDE VIEW

ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH OMNISPORT 6000

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										NOTES
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	ONE-LINE TIMING	NO PLUG INSTALLED
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	CUT	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	CUT	CUT	EV/HT, LENGTHS, RECORD TIME	
12	CUT	CUT			CUT	CUT	CUT	CUT	HOME, GUEST, GUEST, GUEST	
13		CUT			CUT	CUT	CUT	CUT	RUNNING TIME	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	LINE #4 MS W/ HORN	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	LINE #6 MS W/ HORN	
17		CUT	CUT	CUT		CUT	CUT	CUT	LINE #8 MS W/ HORN	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

REV 06	DATE: 04 MAY 15	UPDATED FUNCTION OF ADD 10, 14, 15, 16, 17 UPDATED TITLE BLOCK AND REV BLOCKS	BY: JYL	DAKTRONICS, INC. BROOKINGS, SD 57006 DO NOT SCALE DRAWING	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2015 DAKTRONICS, INC.
REV 5	DATE: 30 NOV 99	CHANGED PLUG FUNCTIONS	BY: JDB		
REV 4	DATE: 21 JULY 99	UPDATED FUNCTION CHART, CHANGED NAME TO OMNI 6000.	BY: HBB	PROJ: LED AQUATICS SCOREBOARD TITLE: LED DRIVER ADDRESS CONFIG. 12 PIN	
REV 3	DATE: 14 APR 99	CHNG PLUG VIEW FROM FRONT TO REAR.	BY: MWJ	DESIGN: _____ SCALE: NONE	DRAWN: JMOEN DATE: 22 OCT 96
REV 2	DATE: 04 JAN 99	MIRRORED THE NUMBERS ON THE FRONT VIEW OF THE PLUG	BY: DDL	SHEET _____ REV 06	JOB NO: P1153 FUNC-TYPE-SIZE: R-06-A 87409



THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.

* FOR VERSION 2.0 OR OLDER, PIN 11 CAN BE CONFIGURED FOR A BAUD RATE OF EITHER 2400 OR 9600. CUT = 9600 BAUD, IN = 2400 BAUD

ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH CTS 3,4,5 AND 6

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	NOTES
0									NOT ASSIGNED	NO PLUG INSTALLED
1		CUT	CUT	CUT	CUT	CUT	*	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	*	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	*	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	*	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	*	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	*	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	*	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	*	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	*	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	*	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	*	CUT	EV/HT, LENGTHS/RECORD TIME	
12	CUT	CUT			CUT	CUT	*	CUT	NOT ASSIGNED	
13		CUT			CUT	CUT	*	CUT	HOME, GUEST	
14	CUT				CUT	CUT	*	CUT	NOT ASSIGNED	
15					CUT	CUT	*	CUT	ONE-LINE TIMING	
16	CUT	CUT	CUT	CUT		CUT	*	CUT	NOT ASSIGNED	
17		CUT	CUT	CUT		CUT	*	CUT	NOT ASSIGNED	
18	CUT		CUT	CUT		CUT	*	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	*	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	*	CUT	HOME, GUEST, GUEST, GUEST	
22	CUT			CUT		CUT	*	CUT	TIME OF DAY	
41		CUT	CUT		CUT		*	CUT	LINE #1 MS W/ HORN	
42	CUT		CUT		CUT		*	CUT	LINE #2 MS W/ HORN	
43			CUT		CUT		*	CUT	LINE #3 MS W/ HORN	
44	CUT	CUT			CUT		*	CUT	LINE #4 MS W/ HORN	
45		CUT			CUT		*	CUT	LINE #5 MS W/ HORN	
46	CUT				CUT		*	CUT	LINE #6 MS W/ HORN	
47					CUT		*	CUT	LINE #7 MS W/ HORN	
48	CUT	CUT	CUT	CUT			*	CUT	LINE #8 MS W/ HORN	
49		CUT	CUT	CUT			*	CUT	LINE #9 MS W/ HORN	
50	CUT		CUT	CUT			*	CUT	LINE #10 MS W/ HORN	

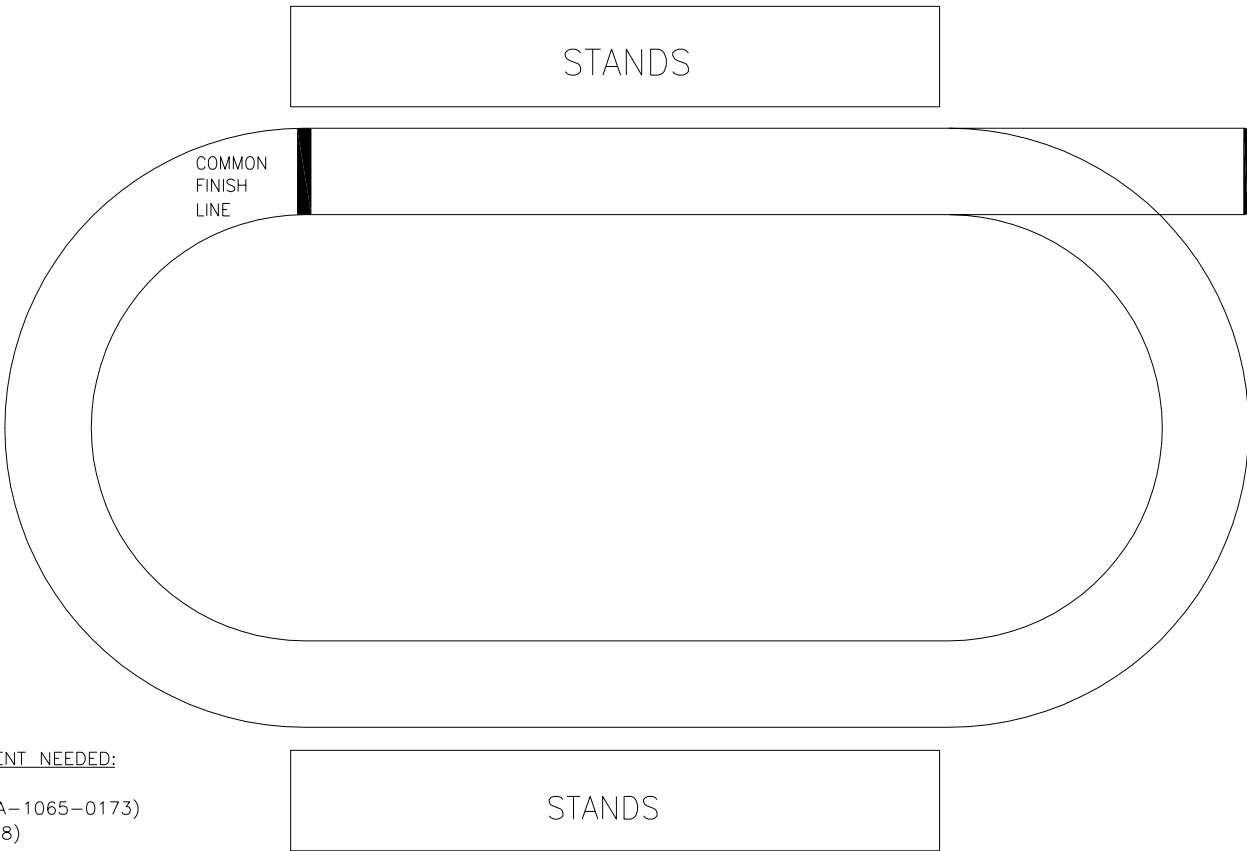
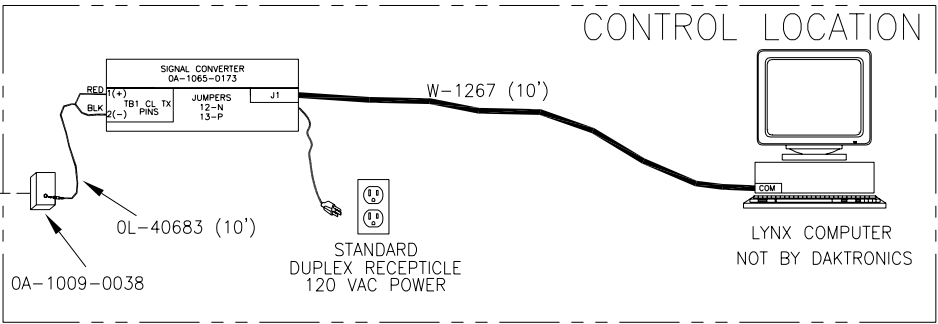
REV 04	DATE: 04 MAY 15	UPDATED FUNCTION OF ADD 11, 12, 13. ADDED ADD 22 & 41-50. MOVED PIN 9 TO PIN 11. UPDATED TITLE BLOCK	BY: JJJ
REV 3	DATE: 29 NOV 99	CHANGED PLUG FUNCTIONS	BY: JDB
REV 02	DATE: 14 APR 99	CHNG PLUG VIEW FROM FRONT TO REAR.	BY: MWJ
REV 1	DATE: 5 FEB 98	CORRECTED FUNCTIONS TO CURRENT SPECS	BY: DDL

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	PROJ: LED AQUATICS SCOREBOARD TITLE: CTS LED DRIVER ADDRESS CONFIG. 12 PIN DESIGN: _____ DRAWN: MJORDAN DATE: 24 JUL 97 SCALE: NONE		
SHEET	REV 04	JOB NO: P1153	FUNC - TYPE - SIZE R - 06 - A
			95016

TRACK SYSTEM RISER DIAGRAM

TRACK SCBD W/ FINISH LYNX

LYNX SCBD OUTPUT SETTINGS:
 SCRIPT: OMNI1000PLACE.LSS
 BAUD: 9600
 DATA BITS: 7
 PARITY: EVEN
 STOP BITS: 2
 RUNNING TIME: NORMAL
 RESULTS: ON
 PAGE SIZE: EQUAL TO NUMBER OF
 LINES ON SCOREBOARD



SEE SCOREBOARD SPECIFICATIONS

LANE PLACE TIME
 LED SCOREBOARD

- TYPICAL INTERFACE EQUIPMENT NEEDED:
- | QTY | DESCRIPTION |
|-----|---------------------------------|
| 1 | SIGNAL CONVERTER (OA-1065-0173) |
| 1 | J-BOX (OA-1009-0038) |
| 1 | CABLE (OL-40683) |
| 1 | CABLE (W-1267) |

REV.	DATE	DESCRIPTION	BY	APPR.
05	NOV 07	CHANGED OMNI1000.LSS TO OMNI1000PLACE.LSS	AMG	
04	21 MAR 05	REORGANIZED DRAWING ADDED DETAIL TO SIG CONVERTER	KQB	
3	15 SEP 03	CHANGED SIGNAL CONVERTER DRAWING TO SHOW JACK NUMBERS AND PINS	LWS	
2	28 DEC 98	UPDATED DRAWING; ADDING LYNX SCBD OUTPUT SETTINGS;	CJB	
1	29 JUNE 98	UPDATED DESCRIPTION OF SCBD.	HBB	

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: TRACK SYSTEM RISER DIAGRAM OPTION #4
 TITLE: TRACK SCBD W/ FINISH LYNX, IN PRESS BOX
 DES. BY: DRAWN BY: HBONER DATE: 26 JUNE 98
 REVISION APPROV. BY: SCALE: 1=1 1125-R01A-104300

KEY: 0 = WIRE NOT CONNECTED 1 = WIRE IS CONNECTED

DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	1
4	0	0	0	0	0	0	1	0
5	0	0	0	0	0	0	1	0
6	0	0	0	0	0	0	1	0
7	0	0	0	0	0	0	1	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0

DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
33	0	0	1	0	0	0	0	1
34	0	0	1	0	0	0	0	1
35	0	0	1	0	0	0	0	1
36	0	0	1	0	0	0	0	1
37	0	0	1	0	0	0	0	1
38	0	0	1	0	0	0	0	1
39	0	0	1	0	0	0	0	1
40	0	0	1	0	0	0	0	1
41	0	0	1	0	0	0	0	1
42	0	0	1	0	0	0	0	1
43	0	0	1	0	0	0	0	1
44	0	0	1	0	0	0	0	1
45	0	0	1	0	0	0	0	1
46	0	0	1	0	0	0	0	1
47	0	0	1	0	0	0	0	1
48	0	0	1	0	0	0	0	1

DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
65	0	1	0	0	0	0	0	1
66	0	1	0	0	0	0	0	1
67	0	1	0	0	0	0	0	1
68	0	1	0	0	0	0	0	1
69	0	1	0	0	0	0	0	1
70	0	1	0	0	0	0	0	1
71	0	1	0	0	0	0	0	1
72	0	1	0	0	0	0	0	1
73	0	1	0	0	0	0	0	1
74	0	1	0	0	0	0	0	1
75	0	1	0	0	0	0	0	1
76	0	1	0	0	0	0	0	1
77	0	1	0	0	0	0	0	1
78	0	1	0	0	0	0	0	1
79	0	1	0	0	0	0	0	1
80	0	1	0	0	0	0	0	1

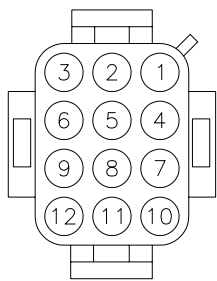
DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
97	0	1	1	0	0	0	0	1
98	0	1	1	0	0	0	0	1
99	0	1	1	0	0	0	0	1
100	0	1	1	0	0	0	0	1
101	0	1	1	0	0	0	0	1
102	0	1	1	0	0	0	0	1
103	0	1	1	0	0	0	0	1
104	0	1	1	0	0	0	0	1
105	0	1	1	0	0	0	0	1
106	0	1	1	0	0	0	0	1
107	0	1	1	0	0	0	0	1
108	0	1	1	0	0	0	0	1
109	0	1	1	0	0	0	0	1
110	0	1	1	0	0	0	0	1
111	0	1	1	0	0	0	0	1
112	0	1	1	0	0	0	0	1

DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
17	0	0	0	1	0	0	0	1
18	0	0	0	1	0	0	0	1
19	0	0	0	1	0	0	0	1
20	0	0	0	1	0	0	0	1
21	0	0	0	1	0	0	0	1
22	0	0	0	1	0	0	0	1
23	0	0	0	1	0	0	0	1
24	0	0	0	1	0	0	0	1
25	0	0	0	1	0	0	0	1
26	0	0	0	1	0	0	0	1
27	0	0	0	1	0	0	0	1
28	0	0	0	1	0	0	0	1
29	0	0	0	1	0	0	0	1
30	0	0	0	1	0	0	0	1
31	0	0	0	1	0	0	0	1
32	0	0	0	1	0	0	0	1

DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
49	0	0	1	1	0	0	0	1
50	0	0	1	1	0	0	0	1
51	0	0	1	1	0	0	0	1
52	0	0	1	1	0	0	0	1
53	0	0	1	1	0	0	0	1
54	0	0	1	1	0	0	0	1
55	0	0	1	1	0	0	0	1
56	0	0	1	1	0	0	0	1
57	0	0	1	1	0	0	0	1
58	0	0	1	1	0	0	0	1
59	0	0	1	1	0	0	0	1
60	0	0	1	1	0	0	0	1
61	0	0	1	1	0	0	0	1
62	0	0	1	1	0	0	0	1
63	0	0	1	1	0	0	0	1
64	0	0	1	1	0	0	0	1

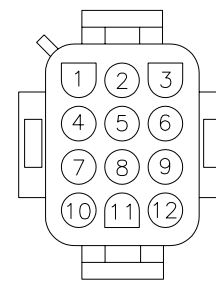
DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
81	0	1	0	1	0	0	0	1
82	0	1	0	1	0	0	0	1
83	0	1	0	1	0	0	0	1
84	0	1	0	1	0	0	0	1
85	0	1	0	1	0	0	0	1
86	0	1	0	1	0	0	0	1
87	0	1	0	1	0	0	0	1
88	0	1	0	1	0	0	0	1
89	0	1	0	1	0	0	0	1
90	0	1	0	1	0	0	0	1
91	0	1	0	1	0	0	0	1
92	0	1	0	1	0	0	0	1
93	0	1	0	1	0	0	0	1
94	0	1	0	1	0	0	0	1
95	0	1	0	1	0	0	0	1
96	0	1	0	1	0	0	0	1

DECIMAL ADDRESS	PIN 12	PIN 11	PIN 9	PIN 8	PIN 6	PIN 5	PIN 3	PIN 2
113	0	1	1	1	0	0	0	1
114	0	1	1	1	0	0	0	1
115	0	1	1	1	0	0	0	1
116	0	1	1	1	0	0	0	1
117	0	1	1	1	0	0	0	1
118	0	1	1	1	0	0	0	1
119	0	1	1	1	0	0	0	1
120	0	1	1	1	0	0	0	1
121	0	1	1	1	0	0	0	1
122	0	1	1	1	0	0	0	1
123	0	1	1	1	0	0	0	1
124	0	1	1	1	0	0	0	1
125	0	1	1	1	0	0	0	1
126	0	1	1	1	0	0	0	1
127	0	1	1	1	0	0	0	1
128	1	0	0	0	0	0	0	0



ADDRESS PLUG
WIRE SIDE

WIRING DIAGRAM
ADDRESS PLUG
WITH ALL WIRES
CONNECTED



BOTTOM VIEW

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: ADDRESS TABLE, 1 THROUGH 128

DES. BY: AVB

DRAWN BY: A VANBEMMEL

DATE: 28 APR 99

REVISION

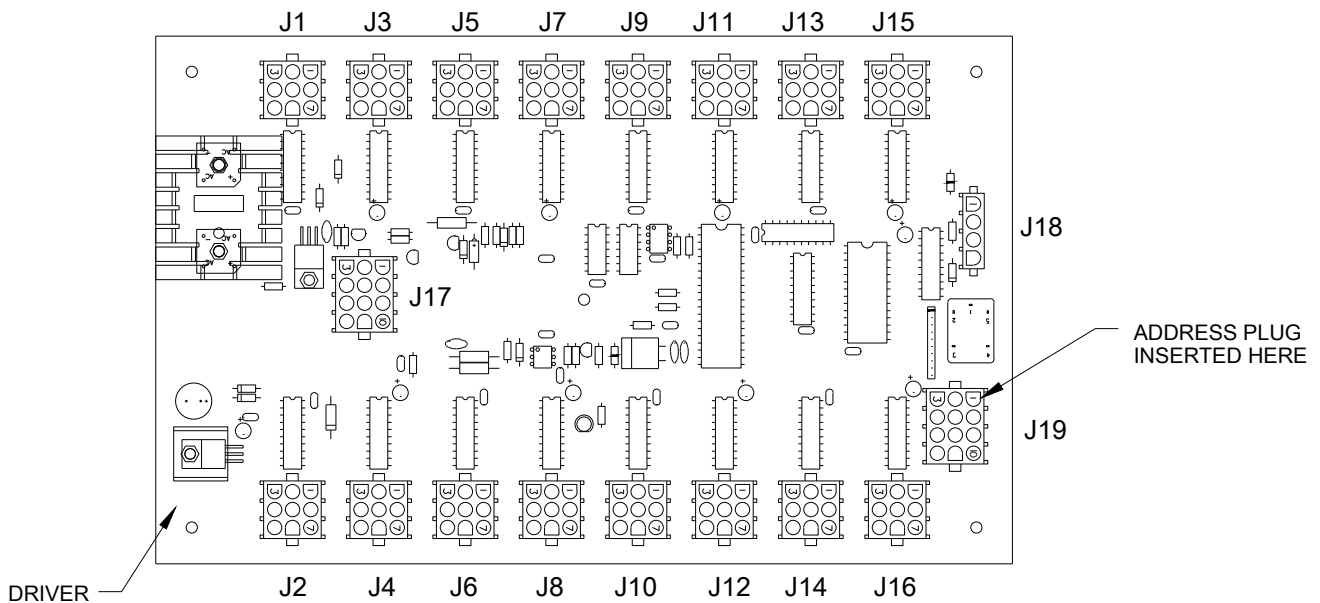
APPR. BY:

01

SCALE: NONE

1150-R04A-115078

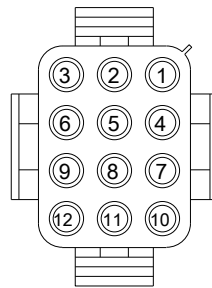
REV.	DATE	DESCRIPTION	BY	APPR.
01	08 MAR 05	ADDED BOTTOM VIEW	KQB	



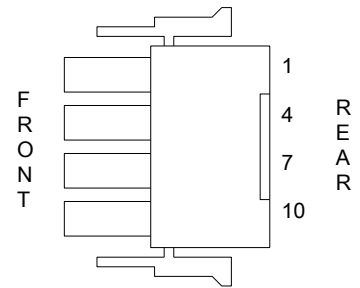
THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.

* DIFFERENT PROTOCOL



REAR VIEW



SIDE VIEW

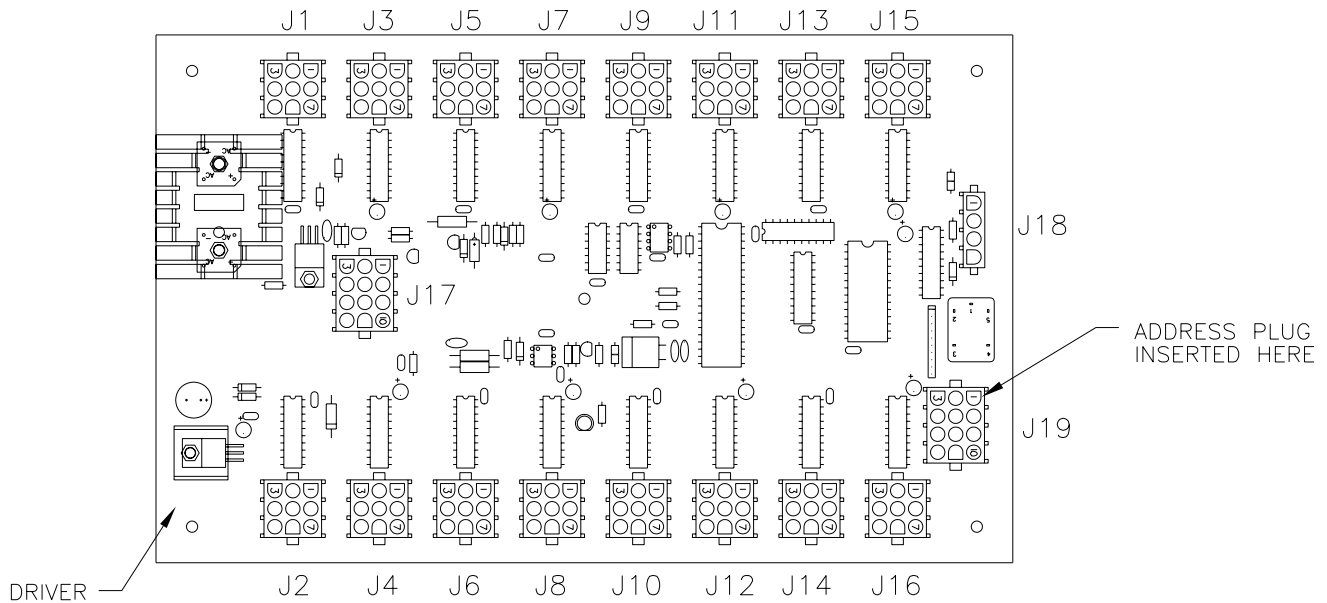
ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH OMNISPORT 1000

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										NOTES
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	
* 0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	ONE-LINE TIMING	NO PLUG INSTALLED
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	CUT	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	CUT	CUT	EV/HT OR HOME/GUEST, RECORD TIME	
12	CUT	CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
13		CUT			CUT	CUT	CUT	CUT	RUNNING TIME	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	LINE #4 MS W/ HORN	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	LINE #6 MS W/ HORN	
17		CUT	CUT	CUT		CUT	CUT	CUT	LINE #8 MS W/ HORN	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

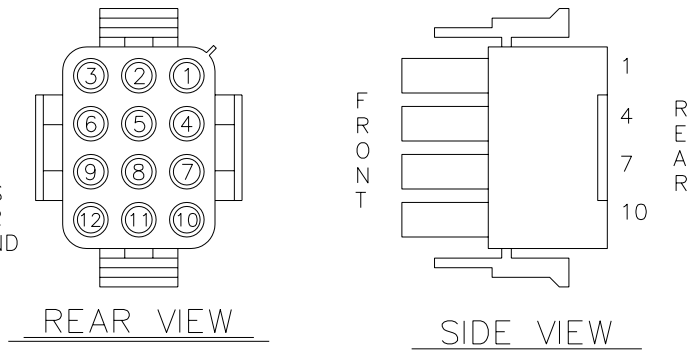
DAKTRONICS, INC. BROOKINGS, SD 57006	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2015 DAKTRONICS, INC.	
	DO NOT SCALE DRAWING	
PROJ: LED AQUATICS SCOREBOARD TITLE: OMNI1000 LED DRIVER ADDRESS CONFIGURATION- 12 PIN DESIGN: JWARNE DRAWN: HBONER DATE: 21 JULY 99 SCALE: NONE		
SHEET 01	REV 01	JOB NO: P1153
FUNC -TYPE-SIZE R - 06 - A	118393	

REV 01	DATE: 04 MAY 15	UPDATED FUNCTION OF ADD 10, 14, 15, 16, 17 UPDATED TITLE BLOCK	BY: JJL
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THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.



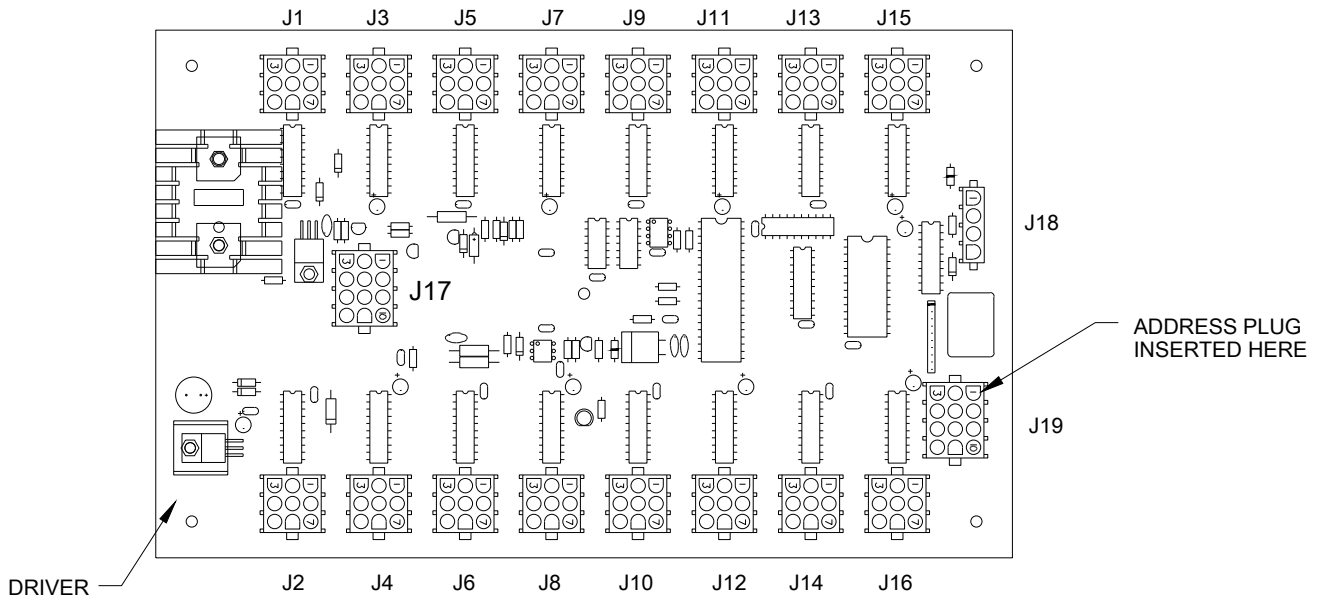
ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH ALLSPORT

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	NOTES
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	NO PLUG INSTALLED
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
3			CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
5		CUT		CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
6	CUT			CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
7				CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
9		CUT	CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
10	CUT		CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
11			CUT		CUT	CUT	CUT	CUT	EV/HT, Lengths, Record Time	OUTPUT 4
12	CUT	CUT			CUT	CUT	CUT	CUT	Home, Guest, Guest, Guest	OUTPUT 4
13		CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	NOT ASSIGNED	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
17		CUT	CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

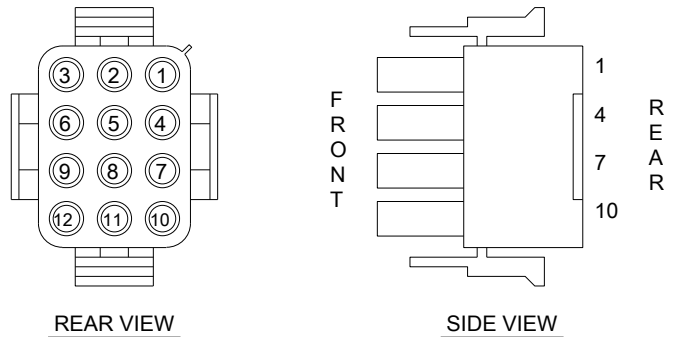
DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED SCOREBOARDS			
TITLE: A/S 4000, CODE 244, LED DR. ADDRESS CONFIG., 12 PIN			
DES. BY: JWARNE		DRAWN BY: HBONER	
		DATE: 21 JULY 99	
REVISION	APPR. BY: JWARNE	1153-R06A-118394	
	SCALE: NONE		

REV.	DATE	DESCRIPTION	BY	APPR.



THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.



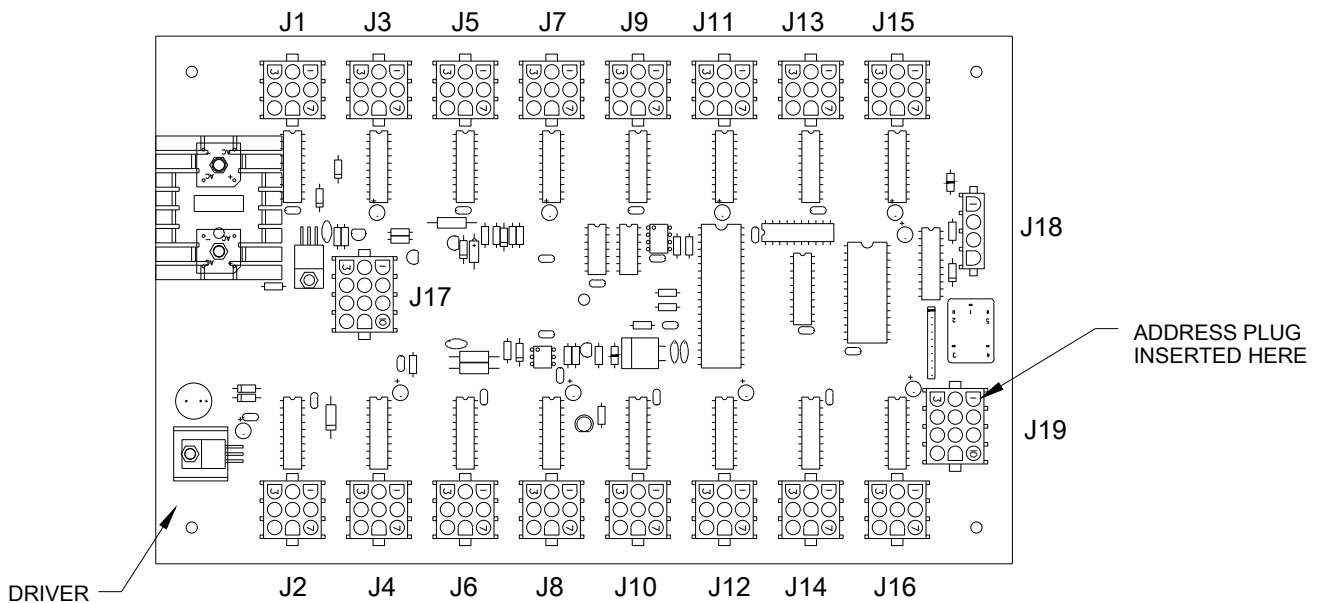
ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH POWERTIME

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	NOTES
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
10	CUT		CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
11			CUT		CUT	CUT	CUT	CUT	EV/HT	
12	CUT	CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
13		CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	LINE #4 MS W/ HORN	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	LINE #6 MS W/ HORN	
17		CUT	CUT	CUT		CUT	CUT	CUT	LINE #8 MS W/ HORN	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

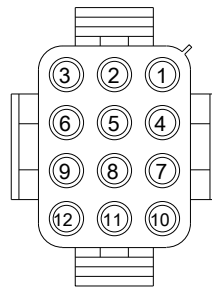
DAKTRONICS, INC. BROOKINGS, SD 57006	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2015 DAKTRONICS, INC.		
	DO NOT SCALE DRAWING		
PROJ: LED AQUATICS SCOREBOARD TITLE: POWERTIME LED DRIVER ADDRESS CONFIGURATION- 12 PIN			
DESIGN: JWARNE SCALE: NONE	DRAWN: HBONER	DATE: 21 JULY 99	
SHEET: 02 REV: 02	JOB NO: P1153	FUNC -TYPE-SIZE: R - 06 - A	118395

REV 02	DATE: 04 MAY 15	UPDATED FUNCTION OF ADD 8, 9, 15, 16, 17 UPDATED TITLE BLOCK	BY: JJL
REV 1	DATE: 09 OCT 00	CHANGED "RUNNING TIME" TO "NOT ASSIGNED" ON ADDRESS 13.	BY: AVB

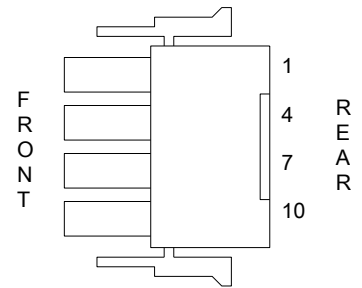


THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.



REAR VIEW



SIDE VIEW

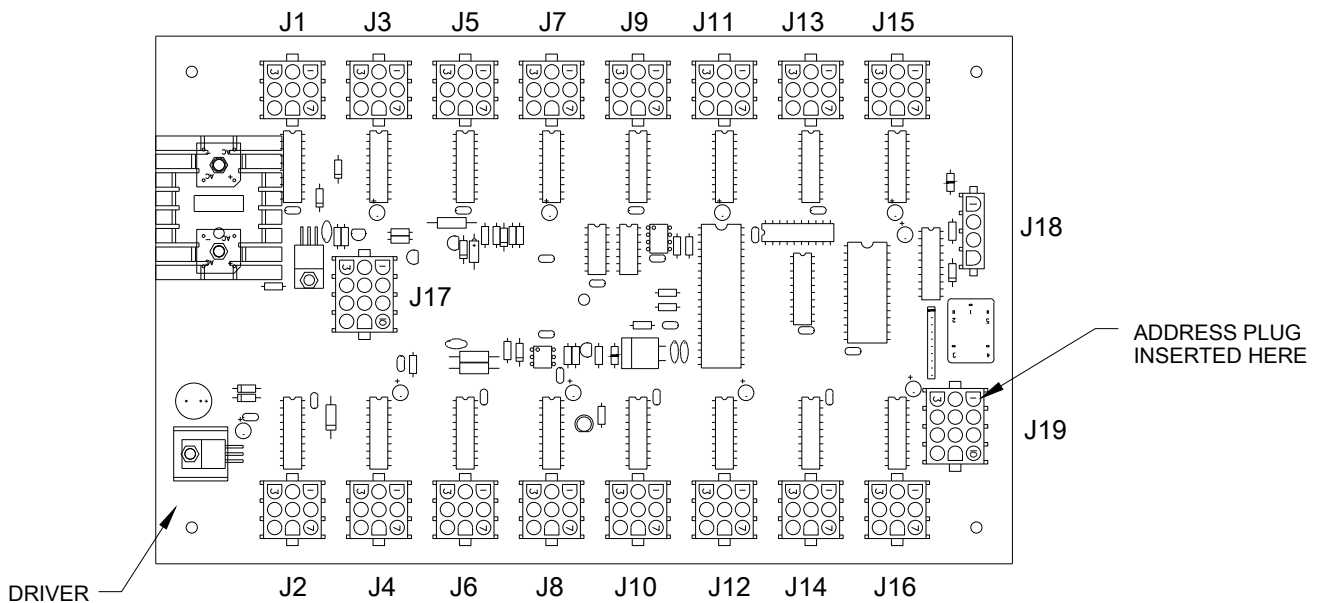
ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH OSM6

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										NOTES
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	CUT	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
12	CUT	CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
13		CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	LINE #4, MS W/ HORN	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	LINE #6, MS W/ HORN	
17		CUT	CUT	CUT		CUT	CUT	CUT	LINE #8, MS W/ HORN	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

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	DO NOT SCALE DRAWING	
PROJ: LED AQUATICS SCOREBOARD TITLE: OSM6 LED DRIVER ADDRESS CONFIGURATION- 12 PIN		
DESIGN: JWARNE	DRAWN: HBONER	DATE: 21 JULY 99
SCALE: NONE		
SHEET	REV	JOB NO:
	01	P1153
FUNC - TYPE - SIZE		118396
R - 06 - A		

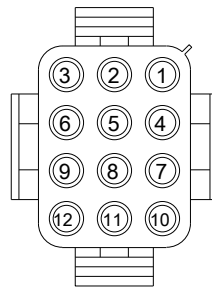
REV	DATE:	UPDATED FUNCTION OF ADD 10, 15, 16, 17	BY:
01	13 MAY 15	UPDATED TITLE BLOCK	JJL



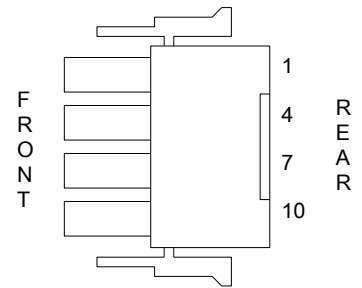
THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.

ADDRESS 15, 16, 17 OPERATE IN SWIM MODE ONLY



REAR VIEW



SIDE VIEW

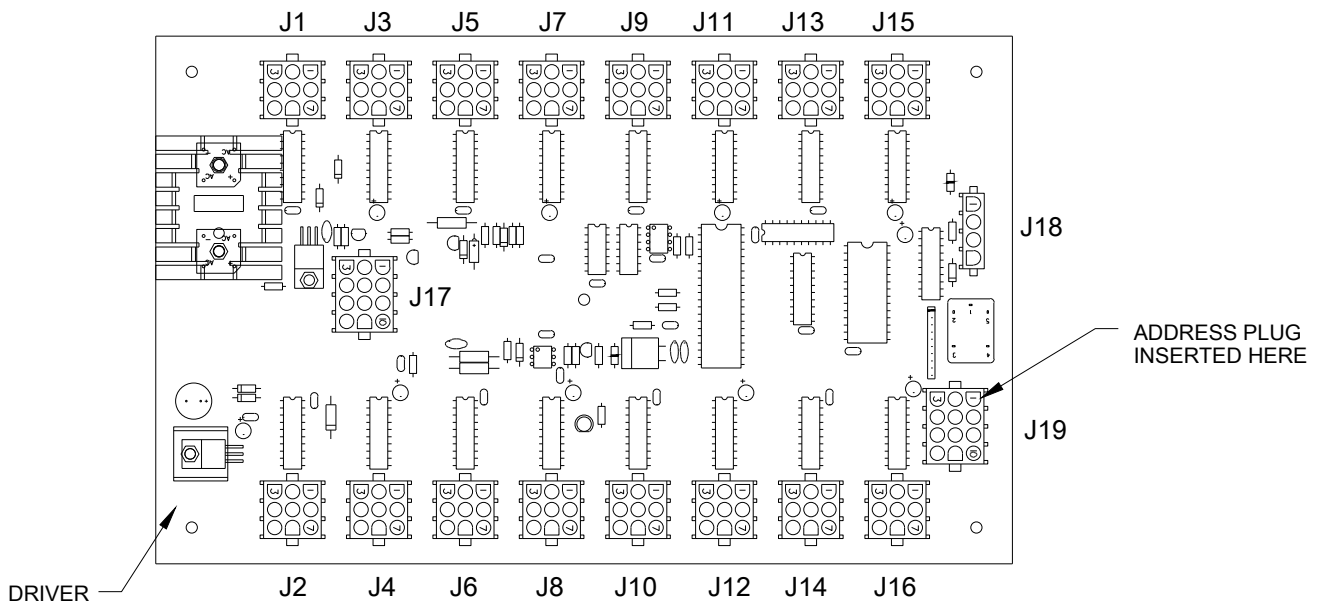
ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH ARES 21 / QUANTUM

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	NOTES
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	NO PLUG INSTALLED
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	CUT	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	CUT	CUT	EV/HT, RECORD TIME	
12	CUT	CUT			CUT	CUT	CUT	CUT	HOME, GUEST, GUEST, GUEST	
13		CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	LINE #4 MS W/ HORN	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	LINE #6 MS W/ HORN	
17		CUT	CUT	CUT		CUT	CUT	CUT	LINE #8 MS W/ HORN	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

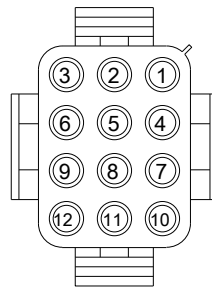
	DAKTRONICS, INC. BROOKINGS, SD 57006		THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2015 DAKTRONICS, INC.
	DO NOT SCALE DRAWING		
PROJ: LED AQUATICS SCOREBOARD TITLE: ARES LED DRIVER ADDRESS CONFIGURATION- 12 PIN			
DESIGN: JWARNE		DRAWN: HBONER	
		DATE: 21 JULY 99	
SCALE: NONE			
SHEET	REV	JOB NO:	FUNC -TYPE-SIZE
01	01	P1153	R - 06 - A
			118397

REV	DATE:	UPDATED FUNCTION OF LINE 10, 11, 13, 15, 16, 17	BY:
01	04 MAY 15	UPDATED TITLE BLOCK	JJL

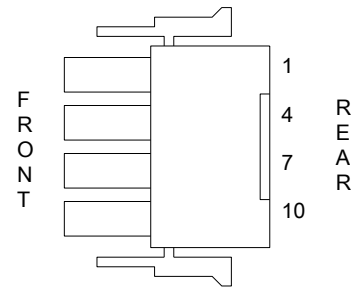


THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.



REAR VIEW



SIDE VIEW

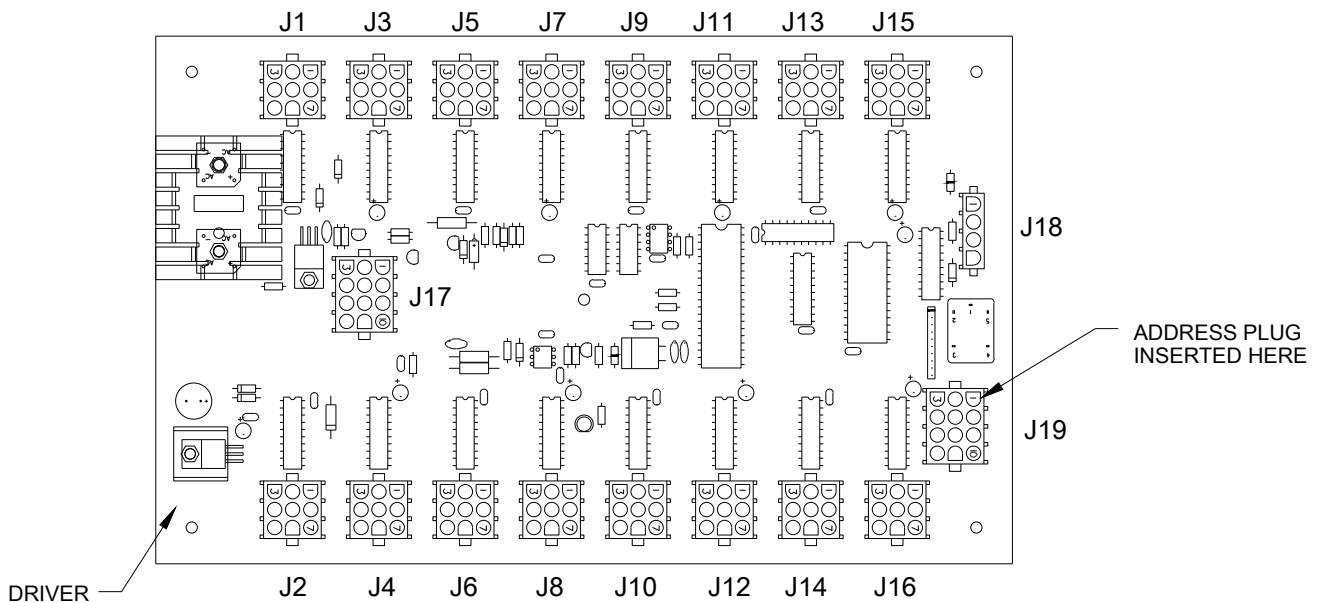
ADDRESS PLUG
USE 0A-1153-0032

ADDRESS SETTINGS AS USED WITH SCAN'O'VISION

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										NOTES
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	CUT	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	CUT	CUT	NOT ASSIGNED	
12	CUT	CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
13		CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	LINE #4 MS W/ HORN	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	LINE #6 MS W/ HORN	
17		CUT	CUT	CUT		CUT	CUT	CUT	LINE #8 MS W/ HORN	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

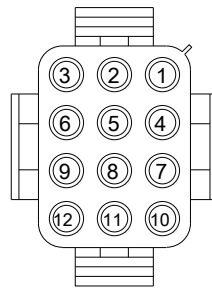
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	DO NOT SCALE DRAWING	
PROJ: LED AQUATICS SCOREBOARD TITLE: SCAN'O'VISION LED DRIVER ADDRESS CONFIGURATION- 12 PIN		
DESIGN: JWARNE	DRAWN: HBONER	DATE: 21 JULY 99
SCALE: NONE		
SHEET	REV	JOB NO:
	01	P 1153
FUNC - TYPE - SIZE		
R - 06 - A		
118398		

REV	DATE:	UPDATE FUNCTION OF LINE 10, 15, 17 UPDATED TITLE BLOCK	BY:
01	04 MAY 15		JJL

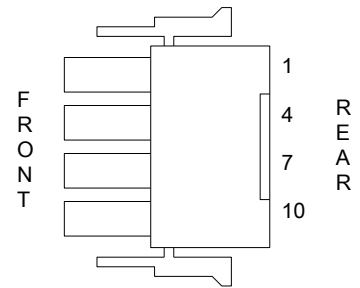


THE ADDRESS PLUG, P19, IS INSERTED INTO J19.

ALL WIRES ARE IN PLACE BEFORE INSTALLATION. DURING INSTALLATION, CUT THE APPROPRIATE WIRES IN THE ADDRESS PLUGS TO SET THE ADDRESS FOR EACH DRIVER, ACCORDING TO THE TABLE BELOW AND DISPLAY CONFIGURATION DRAWINGS.



REAR VIEW



SIDE VIEW

ADDRESS PLUG
USE 0A-1153-0032

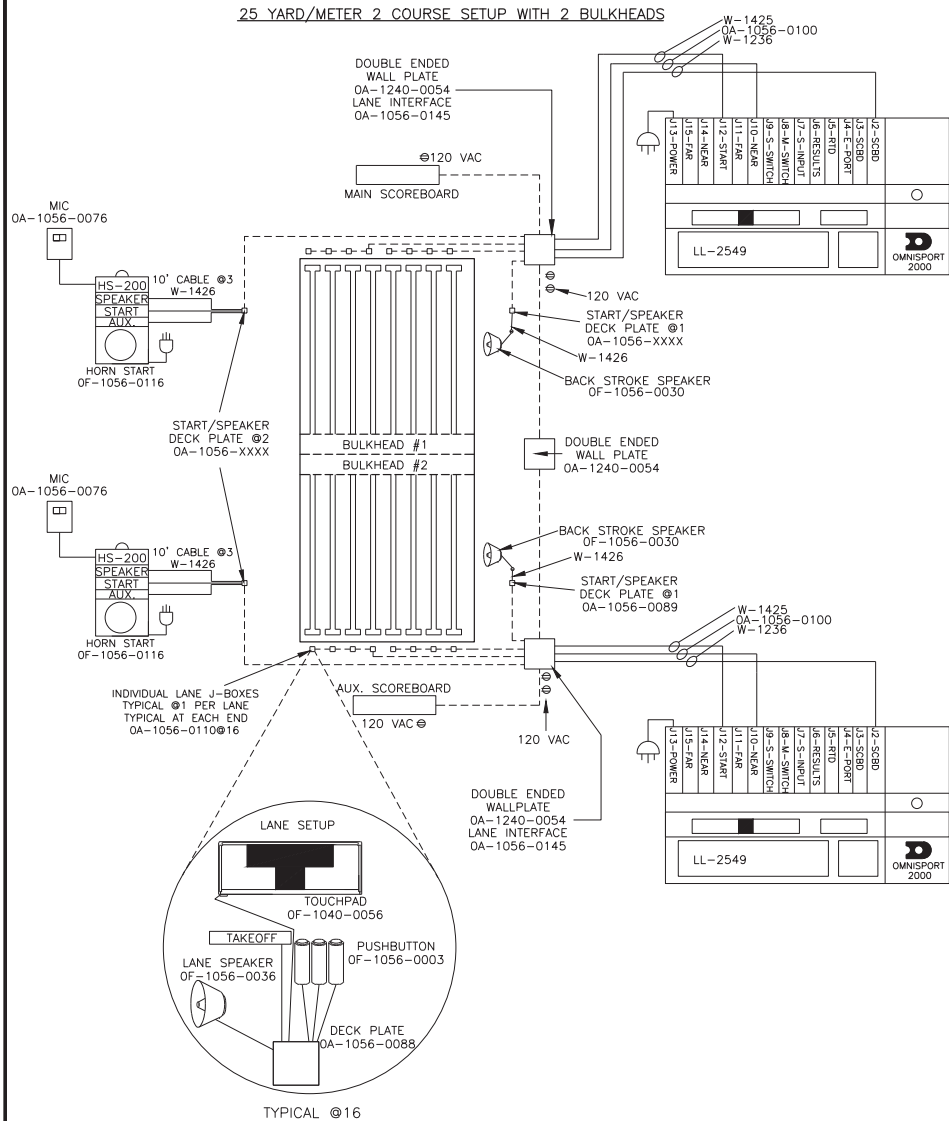
ADDRESS SETTINGS AS USED WITH FINISH LYNX

LED ADDRESSABLE DRIVER ADDRESS CONFIGURATION										NOTES
ADDR	PIN 2	PIN 3	PIN 5	PIN 6	PIN 8	PIN 9	PIN 11	PIN 12	FUNCTION	
0	CUT	CUT	CUT	CUT	CUT	CUT	CUT	CUT	NOT ASSIGNED	
1		CUT	CUT	CUT	CUT	CUT	CUT	CUT	LINE #1 & 2 MULTILINE	
2	CUT		CUT	CUT	CUT	CUT	CUT	CUT	LINE #2 & 3 MULTILINE	
3			CUT	CUT	CUT	CUT	CUT	CUT	LINE #3 & 4 MULTILINE	
4	CUT	CUT		CUT	CUT	CUT	CUT	CUT	LINE #4 & 5 MULTILINE	
5		CUT		CUT	CUT	CUT	CUT	CUT	LINE #5 & 6 MULTILINE	
6	CUT			CUT	CUT	CUT	CUT	CUT	LINE #6 & 7 MULTILINE	
7				CUT	CUT	CUT	CUT	CUT	LINE #7 & 8 MULTILINE	
8	CUT	CUT	CUT		CUT	CUT	CUT	CUT	LINE #8 & 9 MULTILINE	
9		CUT	CUT		CUT	CUT	CUT	CUT	LINE #9 & 10 MULTILINE	
10	CUT		CUT		CUT	CUT	CUT	CUT	LINE #10 MULTILINE	
11			CUT		CUT	CUT	CUT	CUT	EVENT/HEAT	
12	CUT	CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
13		CUT			CUT	CUT	CUT	CUT	NOT ASSIGNED	
14	CUT				CUT	CUT	CUT	CUT	NOT ASSIGNED	
15					CUT	CUT	CUT	CUT	NOT ASSIGNED	
16	CUT	CUT	CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
17		CUT	CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
18	CUT		CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
19			CUT	CUT		CUT	CUT	CUT	NOT ASSIGNED	
20	CUT	CUT		CUT		CUT	CUT	CUT	NOT ASSIGNED	

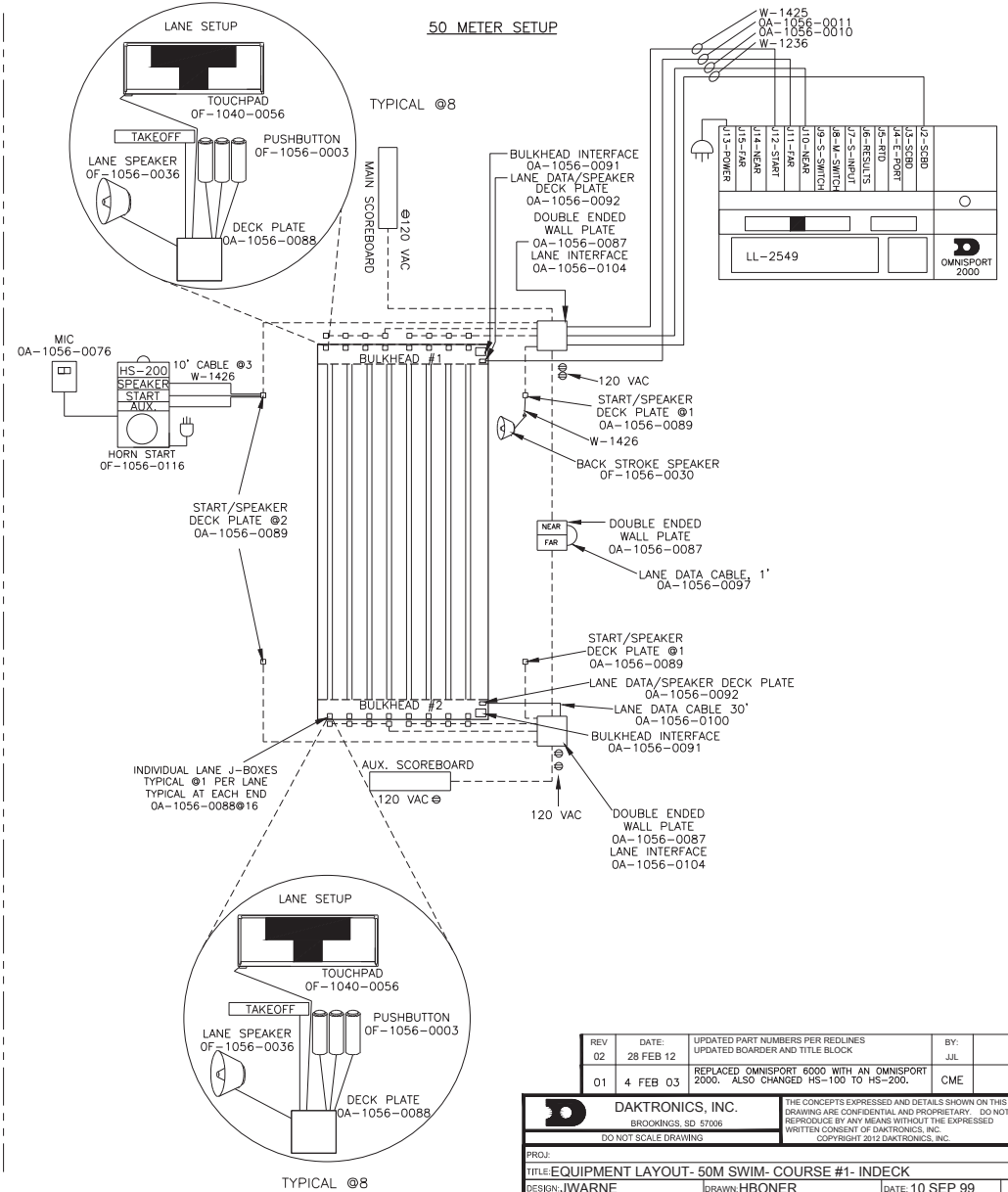
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	DO NOT SCALE DRAWING	
PROJ: LED AQUATICS SCOREBOARD TITLE: LYNX LED DRIVER ADDRESS CONFIGURATION- 12 PIN		
DESIGN: JWARNE SCALE: NONE	DRAWN: HBONER	DATE: 21 JULY 99
SHEET: 02 REV: 02	JOB NO: P1153	FUNC -TYPE-SIZE: R - 06 - A
		118399

REV 02	DATE: 20 MAY 15	CHANGED ADD 11 FUNCTION TO "EVENT/HEAT"	BY: JYL
REV 01	DATE: 04 MAY 15	UPDATED FUNCTIONS ON ADD 10, 11, 13 UPDATED TITLE BLOCK	BY: JYL

25 YARD/METER 2 COURSE SETUP WITH 2 BULKHEADS



50 METER SETUP



REV	DATE	UPDATED PART NUMBERS PER REDLINES UPDATED BOARDER AND TITLE BLOCK	BY:
02	28 FEB 12		JIL
01	4 FEB 03	REPLACED OMNISPORT 6000 WITH AN OMNISPORT 2000. ALSO CHANGED HS-100 TO HS-200.	CME

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

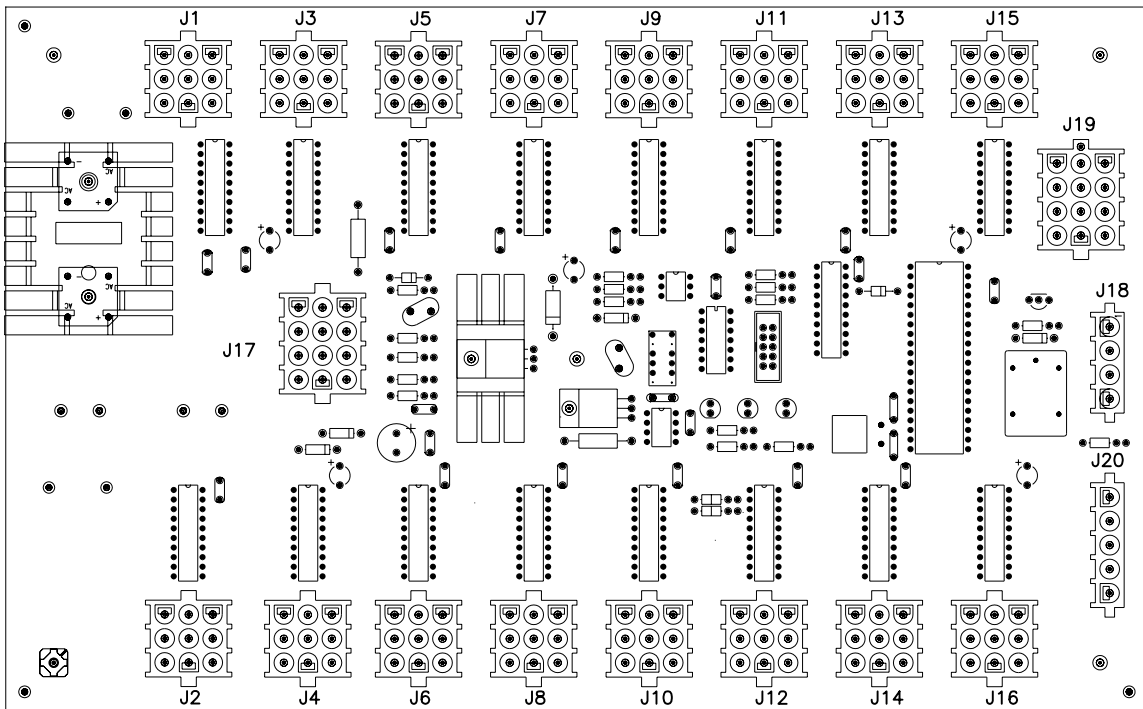
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PROJ:
TITLE: EQUIPMENT LAYOUT- 50M SWIM- COURSE #1- INDECK
DESIGN: JWARNE DRAWN: HBONER DATE: 10 SEP 99
SCALE: NONE

SHEET	REV	JOB NO.	FLUNC-TYPE-SIZE
	02	P1109	R-10-B

121329

OP-1150-0126 UNCOATED OR OP-1150-0127 COATED
16 COLUMN LED DRIVER II



J17 MAIN	
PIN	FUNCTION
1	SIG-P
2	SIG-N
3	SIG2-P
4	CLOUT-P
5	CLOUT-N
6	16VAC-N
7	GND-N
8	EARTH-N
9	16VAC-P
10	GND-N
11	+VDD-P
12	+VBB-P

J1-16 DIGIT	
PIN	FUNCTION
1	SEGC-N
2	SEGB-N
3	SEGA-N
4	SEGF-N
5	SEGE-N
6	SEGD-N
7	+VCC-P
8	SEGH-N
9	SEGG-N

J19 ADDRESS	
PIN	FUNCTION
1	GND-N
2	ADD0-N
3	ADD1-N
4	GND-N
5	ADD2-N
6	ADD3-N
7	GND-N
8	ADD4-N
9	ADD5-N
10	GND-N
11	ADD6-N
12	ADD7-N

J18 RELAY	
PIN	FUNCTION
1	HORNOUT-N
2	AUXOUT-N
3	120SW-P
4	120SW-N

J20 PROTOCOL	
PIN	FUNCTION
1	GND-N
2	PRO-N
3	PR1-N
4	PR2-N
5	TOD-N

NOTE

-WITH NO ADDRESS PINS SELECTED THE DRIVER WILL DEFAULT TO A/S 4000 PROTOCOL

-GREEN LED INDICATES THE DRIVER HAS POWER

-RED LED WILL BE ON OR BLINKING WHEN THE DRIVER IS RECEIVING SIGNAL

-AMBER LED INDICATES LED DRIVER STATUS, LED WILL BE BLINKING TO INDICATE THAT THE DRIVER IS RUNNING, IF THE LED IS OFF OR ON SOLID ALL OF THE TIME, THEN THE DRIVERS CPU IS NOT FUNCTIONING AND MAY NEED TO BE RESET OR REPLACED.

-REFER TO DRAWINGS A-115078 & A-115079 FOR J19 ADDRESS SETTINGS FOR THIS DRIVER.

-REFER TO DRAWING A-115081 FOR J20 PROTOCOL SETTINGS FOR THIS DRIVER.

-REDRIVE CIRCUIT IS PROCESSOR REFRESHED (REFER TO DWG A-128429 FOR FURTHER INFORMATION ON THE CURRENT LOOP REDRIVE CIRCUIT SPECIFICATIONS)

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: 16 COLUMN LED DRIVER II SPECIFICATIONS

DES. BY: EB

DRAWN BY: EBRAVEK

DATE: 11 JAN 00

REVISION

APPR. BY:

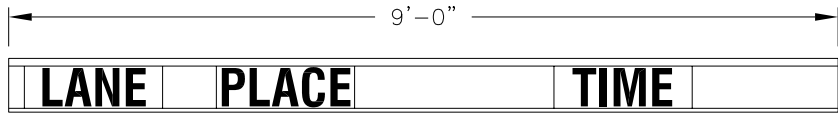
01

SCALE: 1=2

1150-R07A-126174

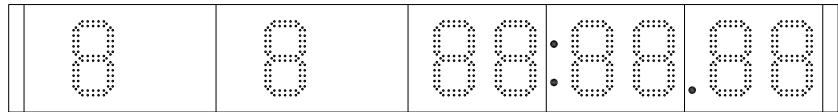
REV.	DATE	DESCRIPTION	BY	APPR.
01	2 OCT 00	UPDATED NOTES SECTION	NSW	

CAPTION MODULE



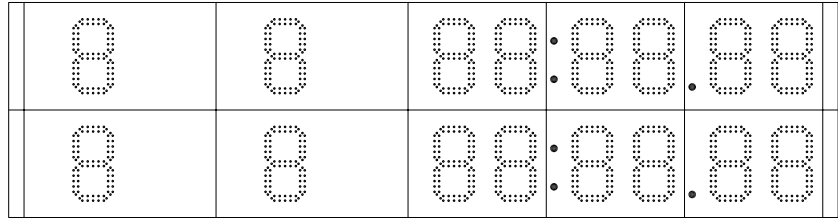
0'-7"

SW-2001
1-LINE TIMING



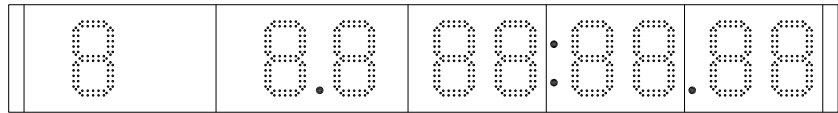
1'-2"

SW-2002
2-LINE TIMING
SW-2002

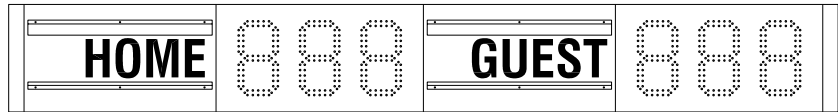


2'-4"

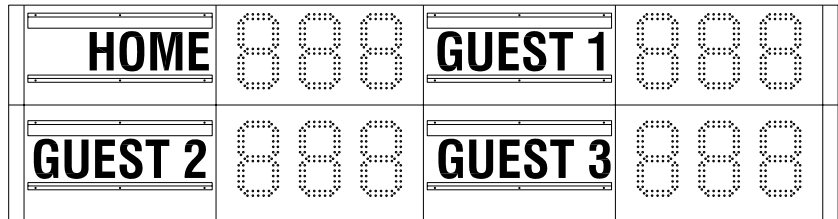
SW-2003
1-LINE TIMING/
MULTISPORT



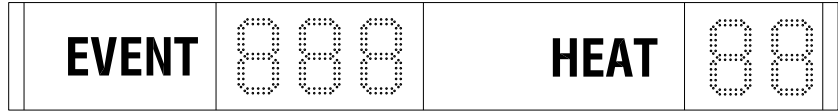
SW-2004
1-LINE SCORING



SW-2005
2-LINE SCORING



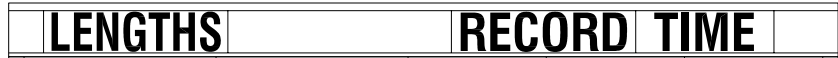
SW-2006
1-LINE
EVENT/HEAT



SW-2007
1-LINE
RECORD TIME



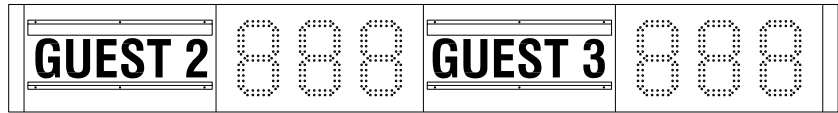
CAPTION MODULE



SW-2008
1-LINE LENGTHS/
RECORD TIME



SW-2009
ADDITIONAL SCORING



POWER REQUIREMENT: APPROXIMATELY 100 WATTS MAX PER MODULE

1-LINE MODULE WEIGHS ABOUT 45 LBS
2-LINE MODULE WEIGHS ABOUT 80 LBS

04	02 JUN 03	CHANGED DIGIT PATTERN TO G3	MGL
03	15 JAN 02	CHANGED DIGIT PATTERN	ALG
02	02 MAR 01	ADDED CAPTION MODULE TO SW-2008.	AVB
01	11 APR 00	ADDED MODEL SW-2009	AVB
REV.	DATE	DESCRIPTION	BY APPR.

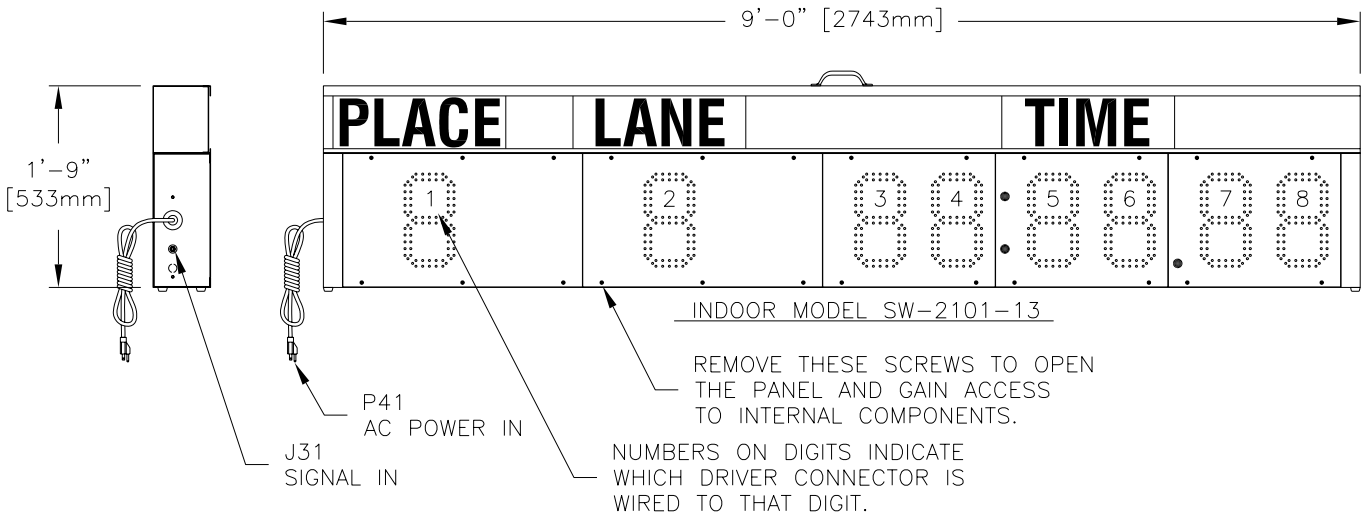
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DAKTRONICS, INC. BROOKINGS, SD 57006


PROJ: LED AQUATICS / TRACK DISPLAYS
TITLE: MODULE MODEL DESCRIPTIONS


DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 27 MAR 00

REVISION 04 APPR. BY: SCALE: 1=25 1153-R08A-129639

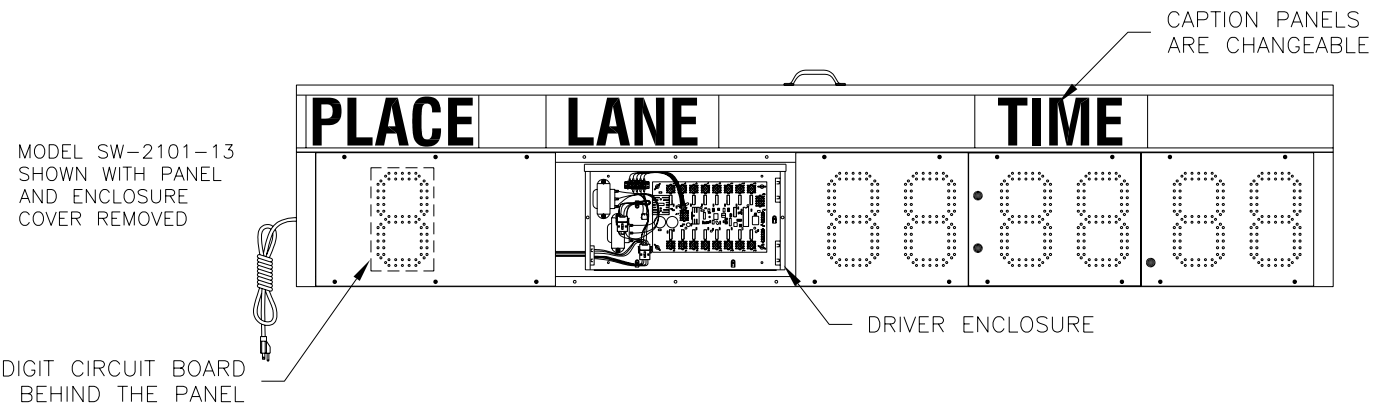


MAX POWER DEMAND: 100 W

MODELS SW-2101-11 AND -13 REQUIRE A 120V AC, 15 AMP CIRCUIT AND ARE EQUIPPED WITH A 120V NORTH AMERICAN PLUG. 

MODELS SW-2101-12 AND -14 REQUIRE A 230V AC, 10 AMP CIRCUIT AND ARE EQUIPPED WITH AN INTERNATIONAL IEC-320 PLUG. 

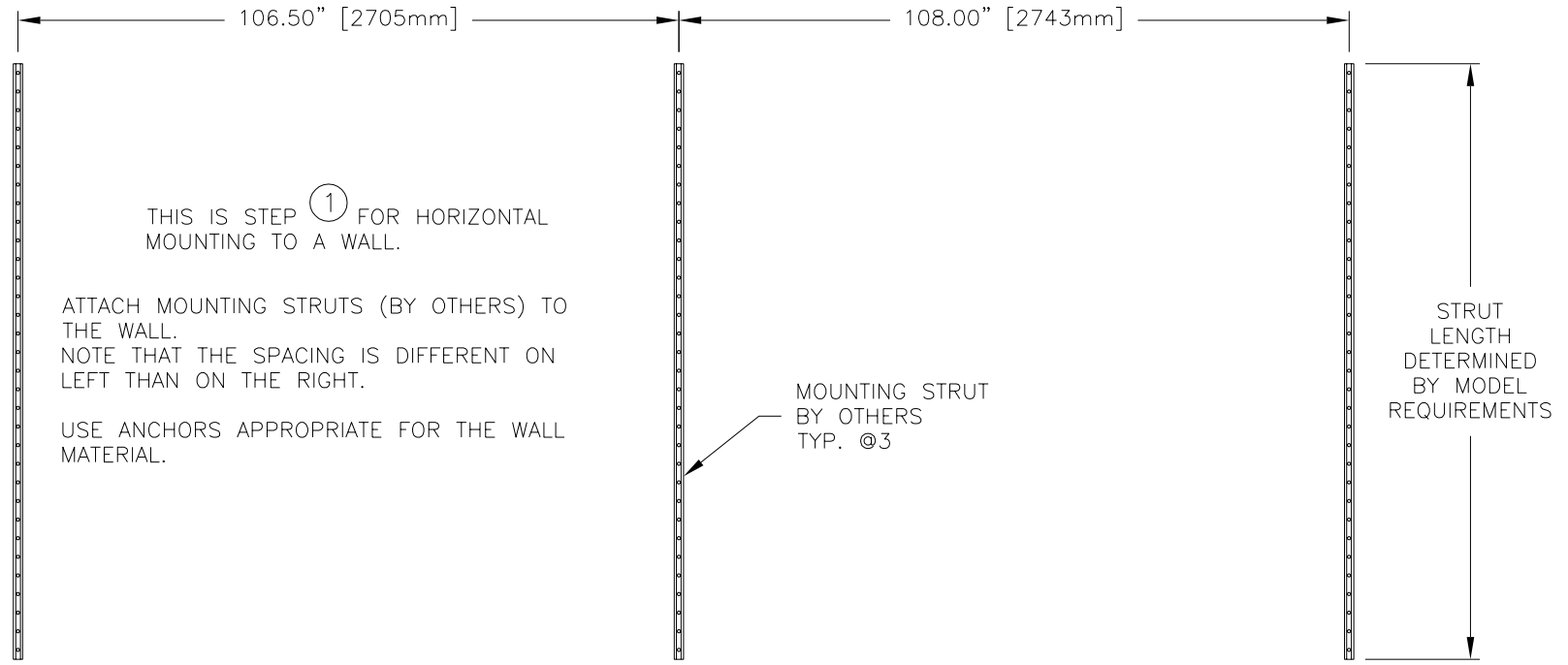
MODEL NUMBERING:
 SW-2101-13 INDOOR 120V
 SW-2101-14 INDOOR 230V
 SW-2101-11 OUTDOOR 120V
 SW-2101-12 OUTDOOR 230V



REV.	DATE	DESCRIPTION	BY	APPR.
04	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
03	12 FEB 03	SWITCHED LANE AND PLACE CAPTIONS AROUND.	JJS	
02	4 DEC 02	CHANGED HEIGHT DIMENSION FROM 1'-8" TO 1'-9".	JJS	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE	ALG	

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2003 DAKTRONICS, INC.	
DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: LED AQUATICS / TRACK DISPLAYS	
TITLE: ELECTRICAL SPECS, SW-2101-11, -12, -13, & -14	
DES. BY: AVB	DRAWN BY: A VANBEMMEL DATE: 20 MAR 00
REVISION	APPR. BY: _____
	SCALE: 1=20
1153-R04A-129652	

REV.	DATE	DESCRIPTION	BY	APPR.



TYPICAL STRUT LENGTHS FOR STANDARD MODELS:

MODEL NO.	DESCRIPTION	DISPLAY HEIGHT	STRUT LENGTH
SW-2116	6-LANE TIMING	49" [1245mm]	36" [900mm]
SW-2118	8-LANE TIMING	63" [1600mm]	48" [1250mm]
SW-2120	10-LANE TIMING	77" [1956mm]	66" [1700mm]
SW-2216	6-LANE MULTISPORT	56" [1422mm]	36" [900mm]
SW-2218	8-LANE MULTISPORT	70" [1778mm]	48" [1250mm]
SW-2220	10-LANE MULTISPORT	84" [2134mm]	66" [1700mm]

CAPTION MODULES MOUNT TO THE ADJACENT DIGIT MODULE AND DO NOT REQUIRE EXTRA STRUT LENGTH WHEN THEY ARE MOUNTED AT THE TOP OR BOTTOM OF THE COLUMN.

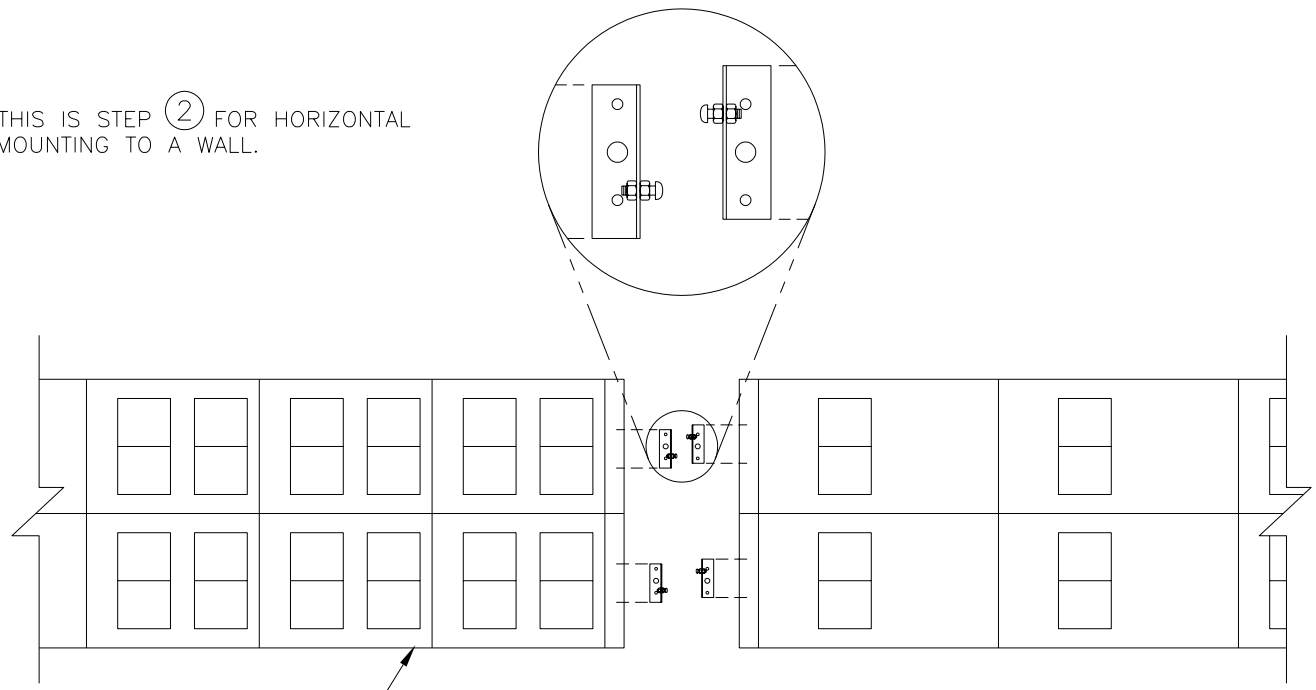
AUXILIARY SCORING MODULES OR AD PANELS WILL REQUIRE ADDITIONAL STRUT LENGTH.

INSTALLING AN OPTIONAL MESSAGE CENTER IS SIMILAR, BUT REQUIRES DIFFERENT STRUT SPACING.

SEE DRAWINGS 1153-R10A-129906 AND 1153-R10A-129907 FOR OTHER STEPS IN HORIZONTAL WALL MOUNTING.

DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: LED AQUATICS / TRACK DISPLAYS	
TITLE: STRUT SPACING, HORIZONTAL WALL MOUNTING	
DES. BY: AVB	DRAWN BY: A VANBEMMEL
DATE: 23 MAR 00	
REVISION	APPR. BY:
SCALE: 1=30	1153-R10A-129905

THIS IS STEP ② FOR HORIZONTAL MOUNTING TO A WALL.

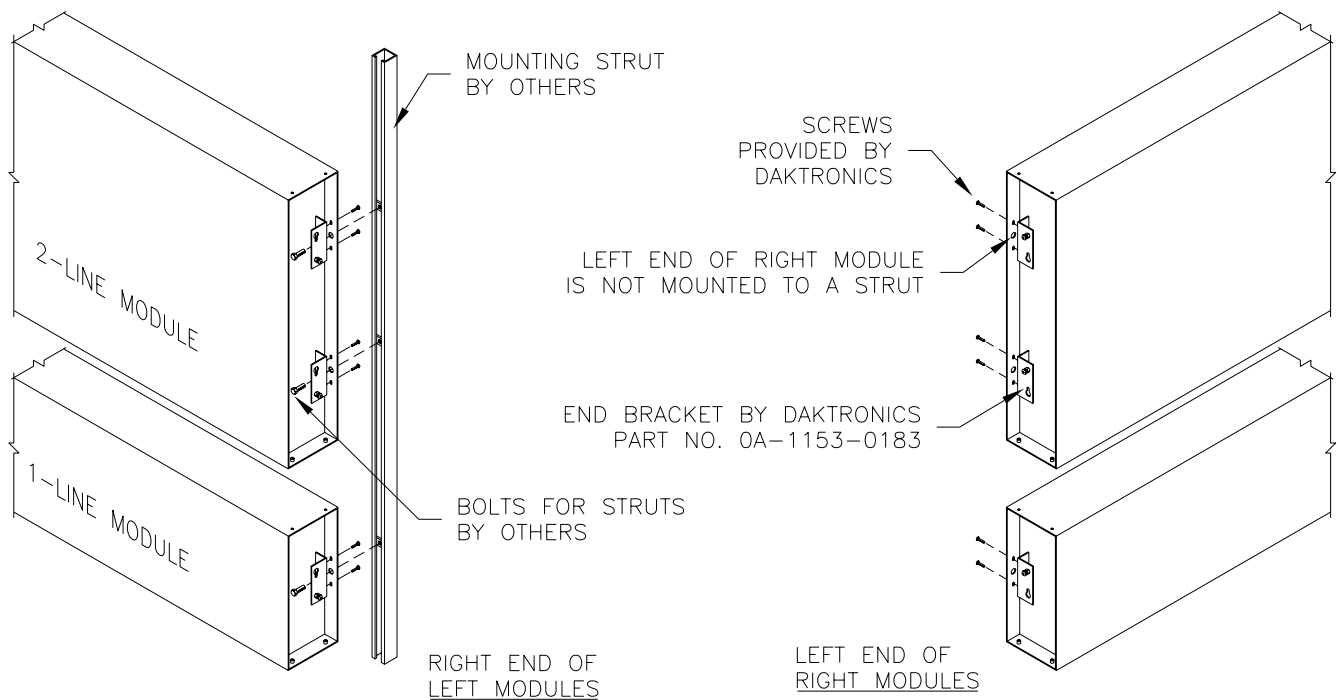


2-LINE MODULE

ATTACH END BRACKETS TO THE END OF EACH OF THE MODULES, ON THE END THAT WILL BE UP AGAINST THE OTHER COLUMN OF MODULES.

1-LINE MODULES USE ONE BRACKET.
2-LINE MODULES USE TWO BRACKETS.

SEE DRAWINGS 1153-R10A-129905 AND 1153-R10A-129907 FOR OTHER STEPS IN HORIZONTAL WALL MOUNTING.



MOUNTING STRUT BY OTHERS

SCREWS PROVIDED BY DAKTRONICS

LEFT END OF RIGHT MODULE IS NOT MOUNTED TO A STRUT

END BRACKET BY DAKTRONICS PART NO. 0A-1153-0183

BOLTS FOR STRUTS BY OTHERS

LEFT END OF RIGHT MODULES

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: END BRACKET ATTACHMENT, HORIZONTAL WALL MOUNTING

DES. BY: AVB

DRAWN BY: A VANBEMMEL

DATE: 23 MAR 00

REVISION

APPR. BY:

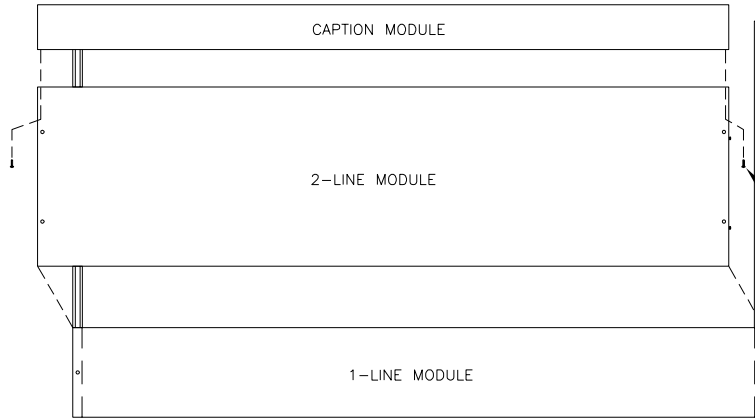
SCALE: 1=20

1153-R10A-129906

REV.	DATE	DESCRIPTION	BY	APPR.

REV.	DATE	DESCRIPTION	BY	APPR.
------	------	-------------	----	-------

THIS IS STEP ③ FOR HORIZONTAL MOUNTING TO A WALL.



INSTALL THE MODULES IN THE LEFT COLUMN BY JOINING THE MOUNTING HOLES IN THE BACK OF EACH MODULE TO THE MOUNTING STRUT. START AT THE BOTTOM AND WORK UP.

CAPTION MODULES ATTACH TO THE ADJACENT DIGIT MODULE AND DO NOT NEED TO BE ATTACHED TO THE STRUTS.

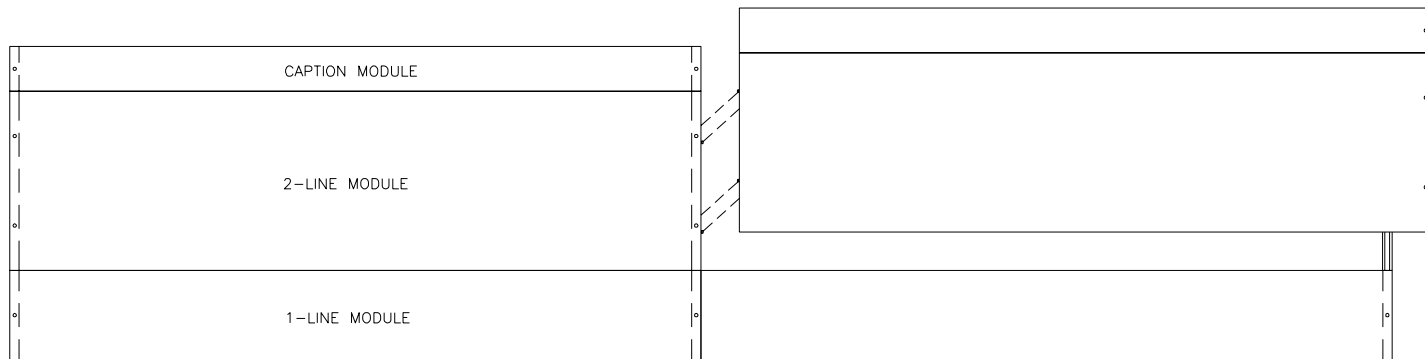
MOUNTING STRUT BY OTHERS TYP. @3

STARTING AT THE BOTTOM, INSTALL THE MODULES IN THE RIGHT COLUMN.

STEP ④

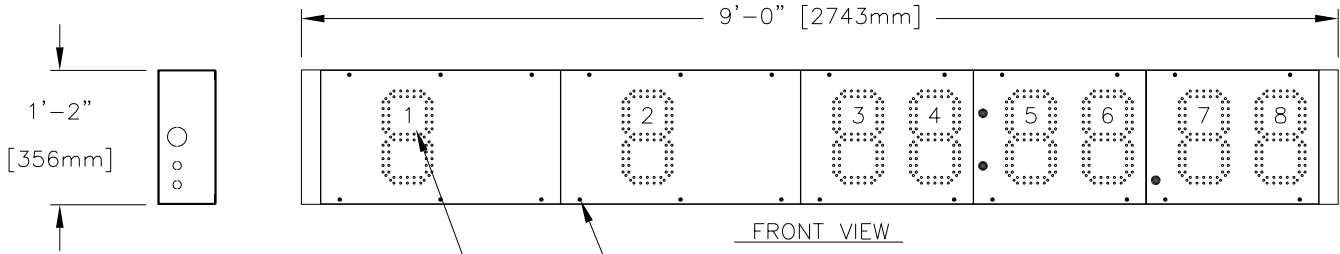
JOIN THE END BRACKETS BY INSERTING THE SCREW HEADS INTO THE KEYHOLES IN THE MATING BRACKET, THEN PRESS DOWN.

ATTACH THE RIGHT END OF EACH MODULE TO THE MOUNTING STRUT.



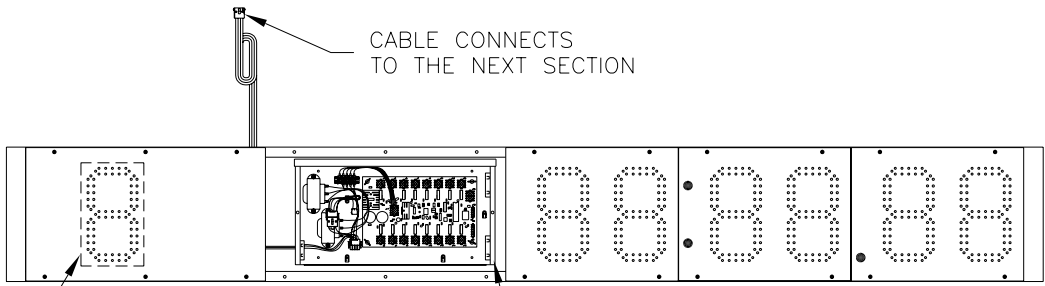
SEE DRAWINGS 1153-R10A-129905 AND 1153-R10A-129906 FOR OTHER STEPS IN HORIZONTAL WALL MOUNTING.

PROJ:	LED AQUATICS / TRACK DISPLAYS
TITLE:	HORIZONTAL WALL MOUNTING, FINAL STEPS
DES. BY:	AVB
DRAWN BY:	A VANBEMMEL
DATE:	23 MAR 00
REVISION	
APPR. BY:	
SCALE:	1=30
DAKTRONICS, INC. BROOKINGS, SD 57006	
1153-R10A-129907	



REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS.

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT.



SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DIGIT CIRCUIT BOARD BEHIND THE PANEL

DRIVER ENCLOSURE

MODEL:
 SW-2001-13 120V AC, INDOOR
 SW-2001-14 230V AC, INDOOR
 SW-2001-11 120V AC, OUTDOOR
 SW-2001-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS
 TITLE: ELEC SPEC; SW-2001-13, -14, -11, & -12
 DES. BY: AVB DRAWN BY: DWEIBEL DATE: 23 MAR 00

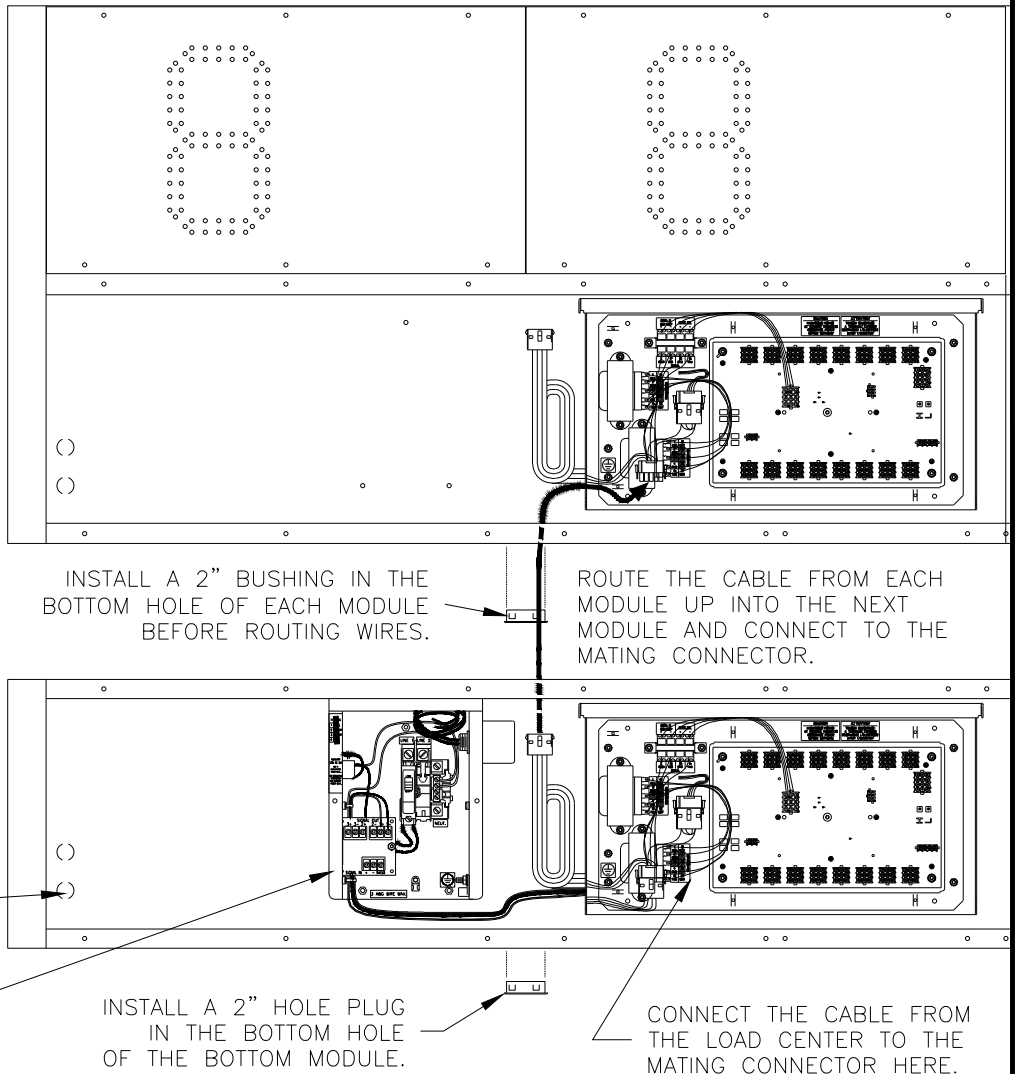
REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	

REVISION APPR. BY: _____
 SCALE: 1=20 1153-R04A-129984

PROCEDURE

1. MOUNT THE LOAD CENTER IN THE LOWEST MODULE IN THE DISPLAY. REMOVE THE NUTS FROM THREE SCREWS IN THE MODULE, POSITION THE LOAD CENTER ON THE SCREWS, AND SECURE WITH THE NUTS TO MOUNT.
2. ROUTE THE CABLE FROM THE LOAD CENTER INTO THE DRIVER ENCLOSURE AND CONNECT THE J51 JACK TO THE MATING P51 PLUG.
3. INSERT 2" BUSHINGS INTO THE HOLES BETWEEN MODULES.
4. PULL THE POWER/SIGNAL CABLE FROM THE LOWER MODULE UP INTO THE NEXT MODULE AND CONNECT THE J51 JACK TO THE MATING P51 PLUG.
5. REPEAT THIS CONNECTION FOR THE OTHER MODULES.
6. MAKE MAIN POWER AND SIGNAL CONNECTIONS IN THE LOAD CENTER.
7. REPLACE COVERS AND PANELS.

2-LINE MODULE (SHOWN WITH THE LOWER LEFT PANELS REMOVED)



KNOCKOUTS IN THE END AND BACK MAY BE USED TO ROUTE POWER AND SIGNAL INTO DISPLAY

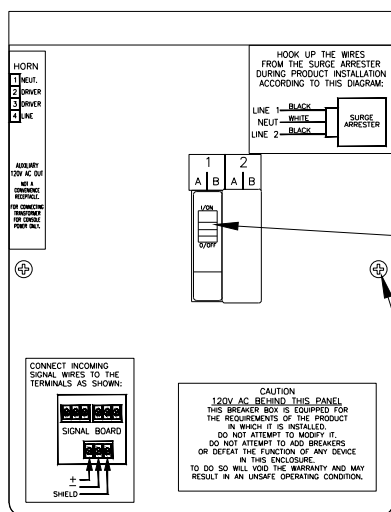
LOAD CENTER INSTALL COVER WHEN HOOKUP IS COMPLETE

INSTALL A 2" BUSHING IN THE BOTTOM HOLE OF EACH MODULE BEFORE ROUTING WIRES.

ROUTE THE CABLE FROM EACH MODULE UP INTO THE NEXT MODULE AND CONNECT TO THE MATING CONNECTOR.

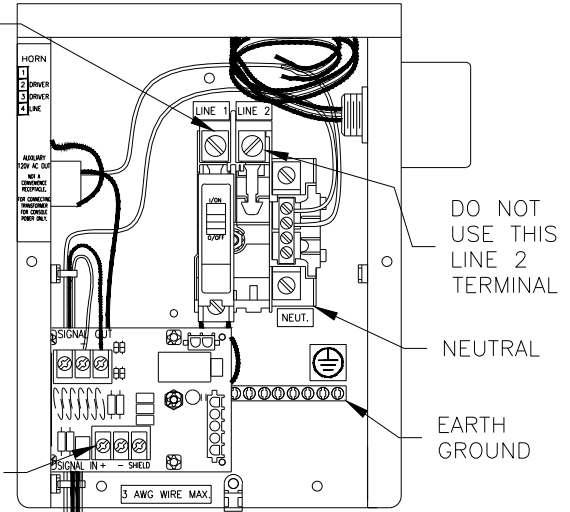
INSTALL A 2" HOLE PLUG IN THE BOTTOM HOLE OF THE BOTTOM MODULE.

CONNECT THE CABLE FROM THE LOAD CENTER TO THE MATING CONNECTOR HERE.



LOAD CENTER WITH COVER ON

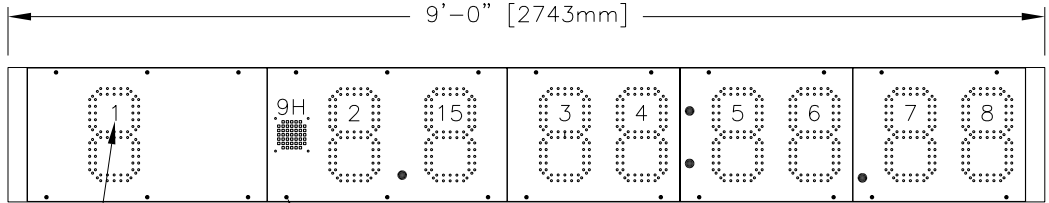
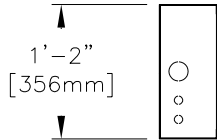
120V AC LINE (HOT)
 SURGE ARRESTER CONNECT WIRES TO POWER TERMINALS
 15 AMP CIRCUIT BREAKER
 REMOVE THESE TWO SCREWS TO GAIN ACCESS TO HOOKUP TERMINALS
 LOAD CENTER PART NUMBER 0A-1153-0177



LOAD CENTER WITH COVER REMOVED

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PROJ: LED AQUATICS SCOREBOARD			
TITLE: ELECTRICAL HOOKUP- OUTDOOR DISPLAY			
DESIGN: AVB		DRAWN: A VANBEMMEL	
SCALE: 1=10		DATE: 24 MAR 00	
SHEET		REV	
03		JOB NO: P1153	
03		FUNC-TYPE-SIZE R-10-A	
			129998

03	10 APR 15	UPDATED DIGIT DRIVER SWAPPED 12-PIN PLUG WITH 5-PIN	BJG
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL
01	15 JAN 02	CHANGED PUNCH PATTERN	ALG

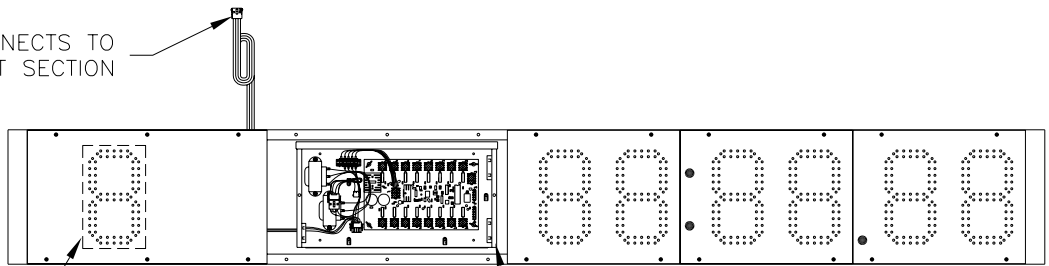


FRONT VIEW

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT.

REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS.

CABLE CONNECTS TO THE NEXT SECTION



FRONT VIEW

SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DIGIT CIRCUIT BOARD BEHIND THE PANEL

DRIVER ENCLOSURE

MODEL:
 SW-2003-13 120V AC, INDOOR
 SW-2003-14 230V AC, INDOOR
 SW-2003-11 120V AC, OUTDOOR
 SW-2003-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2003 DAKTRONICS, INC.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

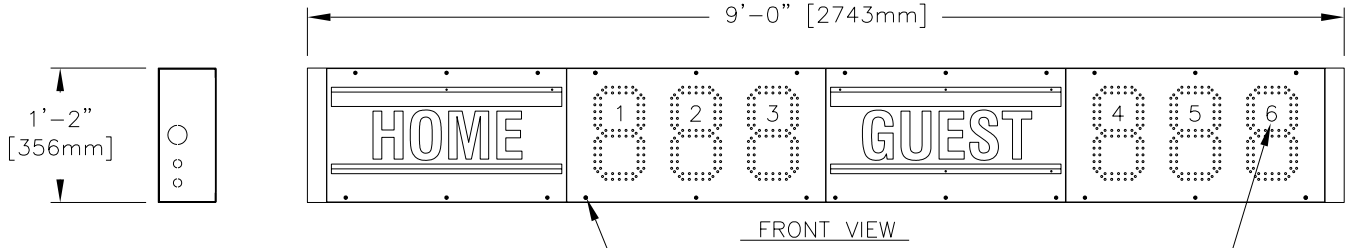
TITLE: ELEC SPEC; SW-2003-13, -14, -11, & -12

DES. BY: AVB DRAWN BY: DWEIBEL DATE: 25 MAR 00

REVISION APPR. BY: 1153-R04A-130053

SCALE: 1=20

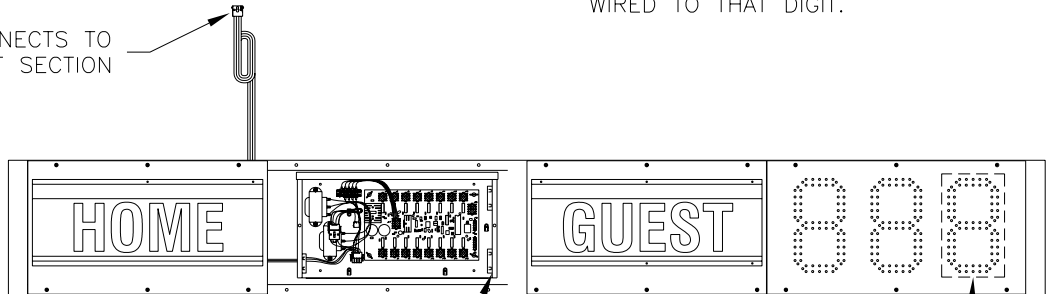
REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	



REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS.

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT.

CABLE CONNECTS TO THE NEXT SECTION



SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DIGIT CIRCUIT BOARD BEHIND PANEL

DRIVER ENCLOSURE

MODEL:

- SW-2004-13 120V AC, INDOOR
- SW-2004-14 230V AC, INDOOR
- SW-2004-11 120V AC, OUTDOOR
- SW-2004-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: ELEC SPEC; SW-2004-13, -14, -11, & -12

DES. BY: AVB

DRAWN BY: DWEIBEL

DATE: 25 MAR 00

REVISION

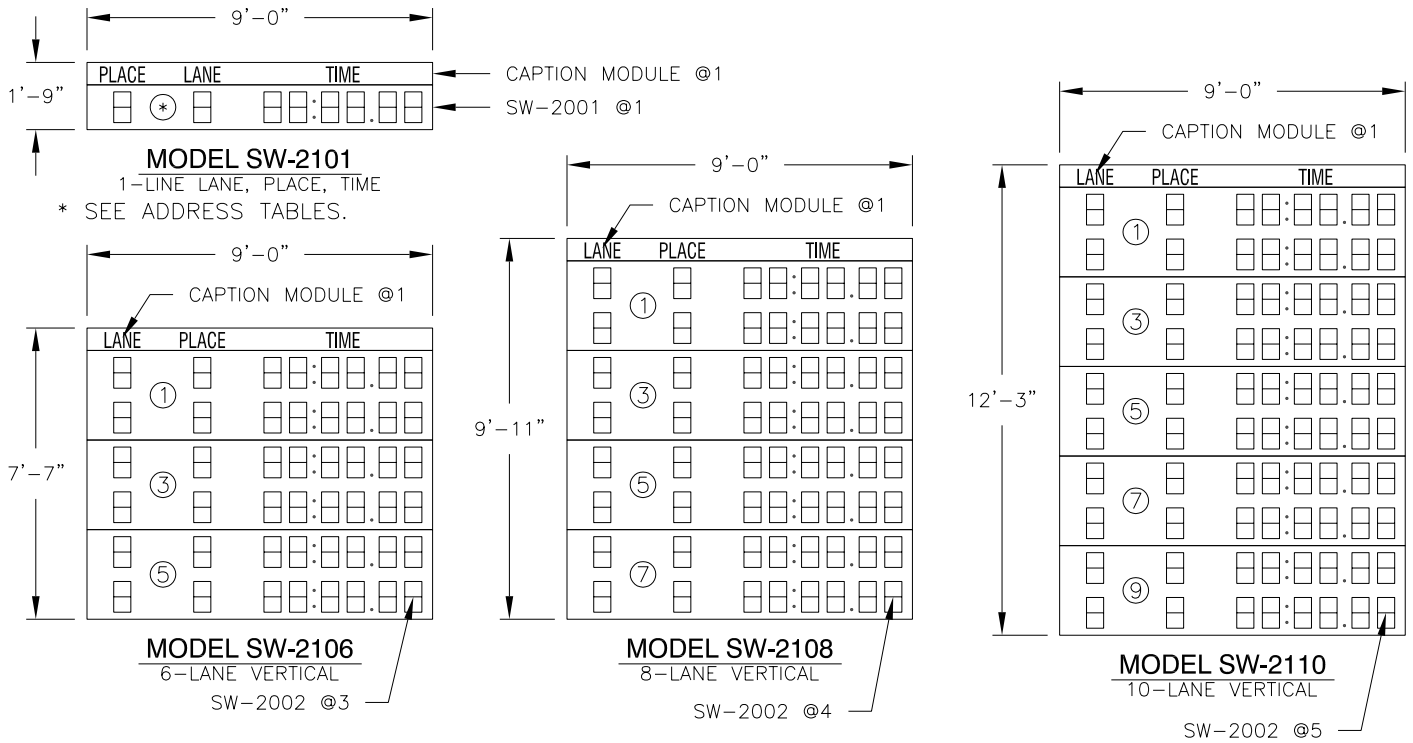
APPR. BY:

SCALE: 1=20

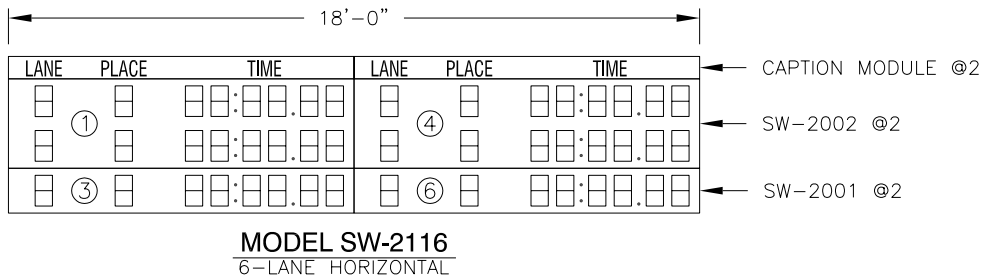
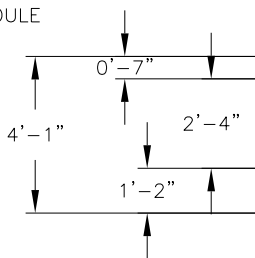
1153-R04A-130054

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	

SWIM / TRACK TIMING MODELS



TYPICAL MODULE DIMENSIONS:



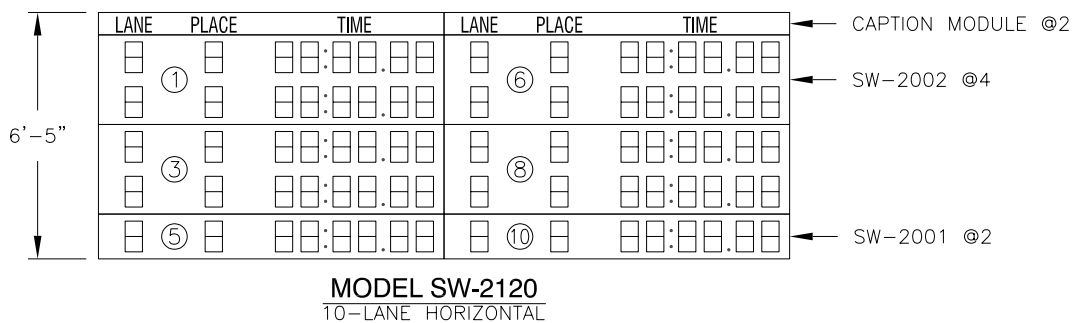
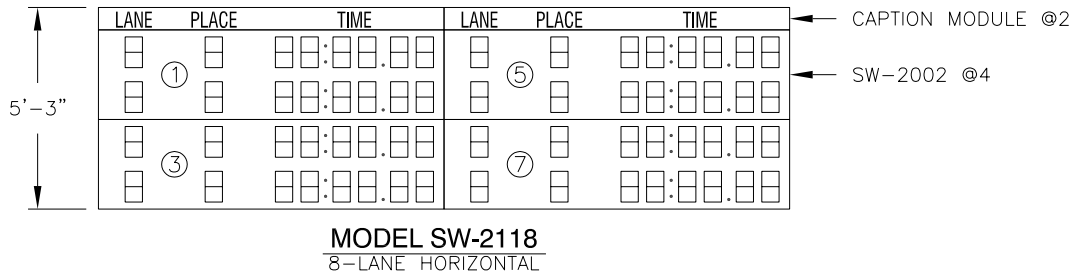
MODEL NUMBERING NOTES:

MODEL NUMBERS FOR INDIVIDUAL MODULES ARE SW-2000 SERIES.

MODEL NUMBERS FOR MULTILINE MODELS ARE SW-2100 SERIES.

EACH MODEL NUMBER ALSO HAS A SUFFIX NUMBER AS FOLLOWS:
 -11 OUTDOOR 120V
 -12 OUTDOOR 230V
 -13 INDOOR 120V
 -14 INDOOR 230V

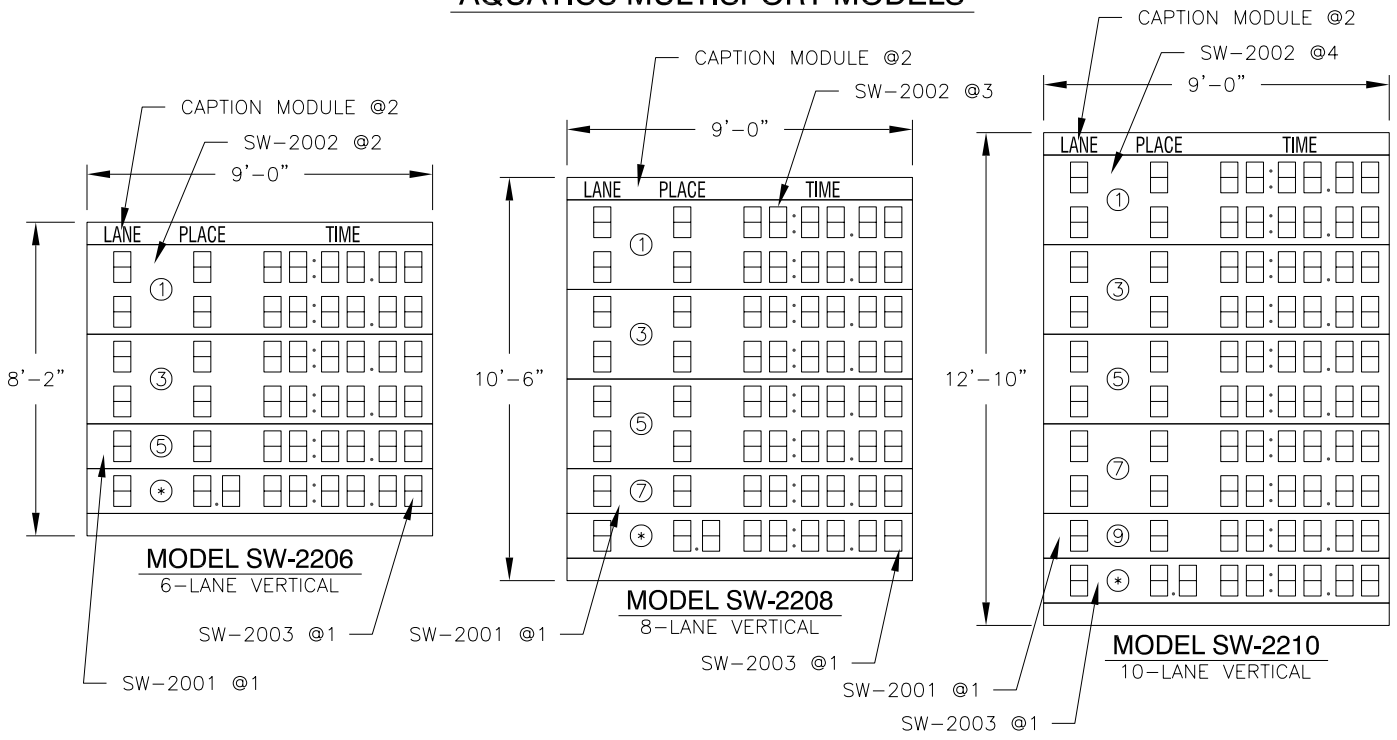
NOT ALL ADDRESSES ARE SUPPORTED BY ALL CONTROLLERS. SEE ADDRESS TABLES.



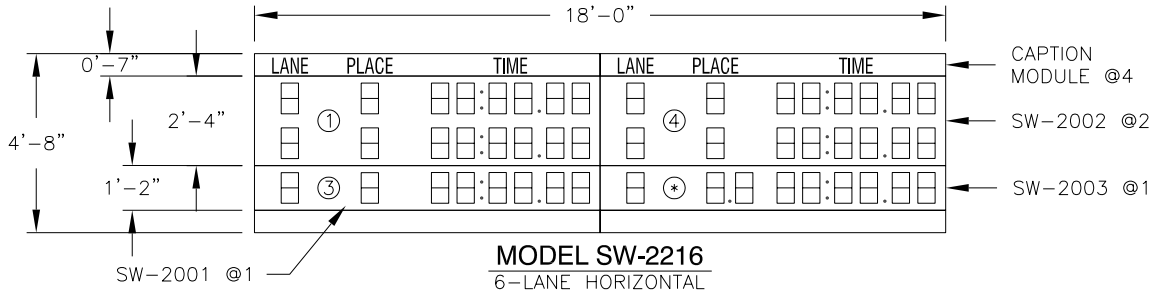
REV.	DATE	DESCRIPTION	BY	APPR.
03	12 FEB 03	SWITCHED LANE AND PLACE CAPTIONS AROUND ON MODEL SW-2101.	JJS	
02	25 JUL 02	CHANGED MODEL SUFFIX NUMBERS -9 & -10 TO -13 & -14 FOR INDOOR DISPLAYS.	AVB	
01	14 AUG 00	ADDED ADDRESS LABELS.	JAS	

DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS / TRACK SCOREBOARDS			
TITLE: MODEL CONFIGURATIONS, SWIM / TRACK TIMING			
DES. BY:		DRAWN BY: A VANBEMMEL	
		DATE: 27 MAR 00	
REVISION	APPR. BY:	1153-R08A-130101	
03	SCALE: 1=60		

AQUATICS MULTISPORT MODELS



TYPICAL MODULE DIMENSIONS:



MODEL NUMBERING NOTES:

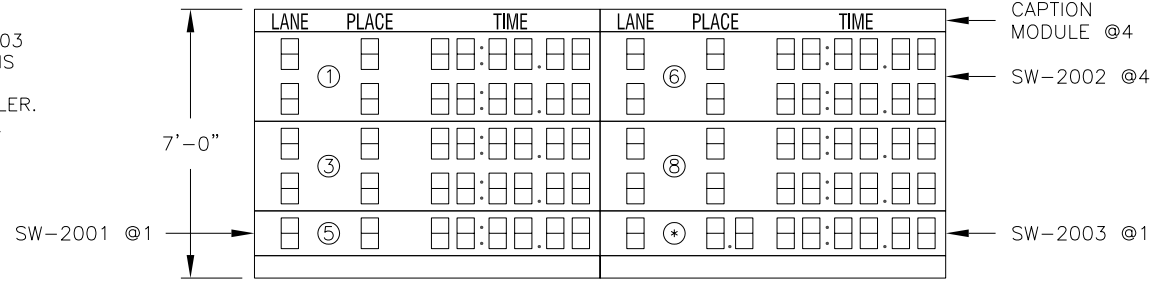
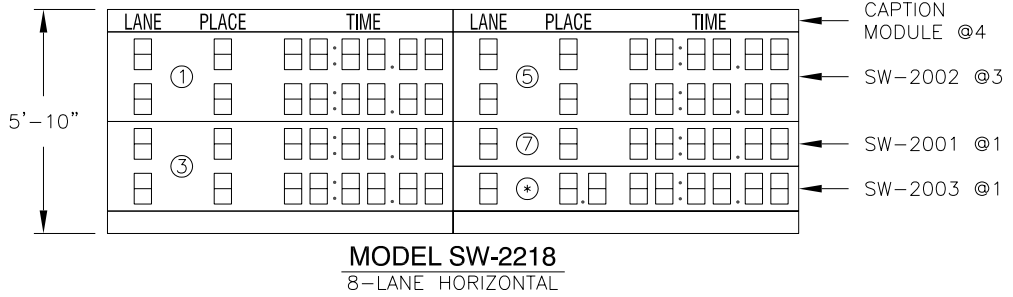
MODEL NUMBERS FOR INDIVIDUAL MODULES ARE SW-2000 SERIES.

MODEL NUMBERS FOR MULTILINE MODELS ARE SW-2200 SERIES.

EACH MODEL NUMBER ALSO HAS A SUFFIX NUMBER AS FOLLOWS:

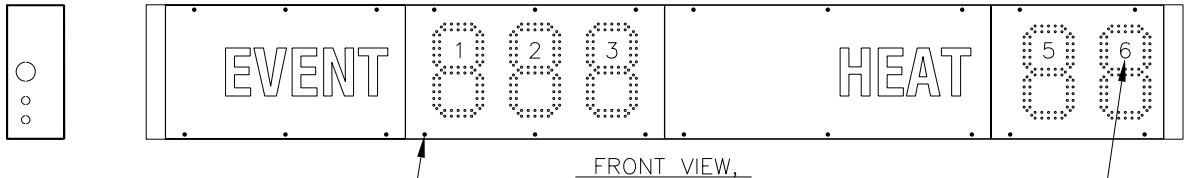
- 11 OUTDOOR 120V
- 12 OUTDOOR 230V
- 13 INDOOR 120V
- 14 INDOOR 230V

⊛ ADDRESS FOR SW-2003 MULTISPORT MODULE IS SUPPORTED ONLY BY DAKTRONICS CONTROLLER. SEE ADDRESS TABLES.



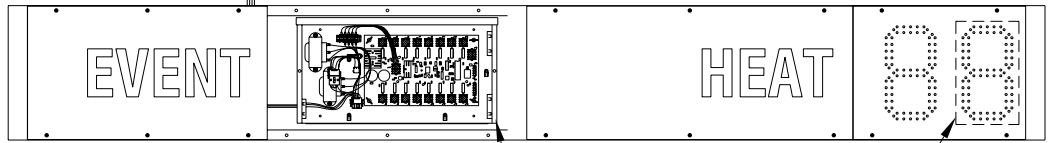
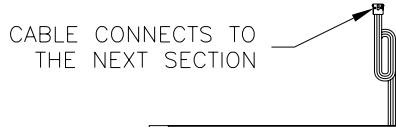
REV.	DATE	DESCRIPTION	BY	APPR.
04	12 FEB 03	MOVED MULTISPORT MODE TO BOTTOM ON MODELS SW-2210 AND SW-2220.	JJS	
03	25 JUL 02	CHANGED MODEL SUFFIX NUMBERS -9 & -10 TO -13 & -14 FOR INDOOR DISPLAYS.	AVB	
02	08 AUG 00	MOVED SW-2001 UP TO LINE 8 ON SW-2220; ADDED ADDRESS LABELS.	JAS	
01	08 MAY 00	CORRECTED MODULE MODEL NUMBERS ON MODEL SW-2210	AVB	

DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS / TRACK SCOREBOARDS			
TITLE: MODEL CONFIGURATIONS, AQUATICS MULTISPORT			
DES. BY:		DRAWN BY: A VANBEMMEL	
DATE: 27 MAR 00			
REVISION	APPR. BY:	1153-R08A-130102	
04	SCALE: 1=60		



REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT.



DRIVER ENCLOSURE

DIGIT CIRCUIT BOARD BEHIND THE PANEL

MODEL:

- SW-2006-13 120V AC, INDOOR
- SW-2006-14 230V AC, INDOOR
- SW-2006-11 120V AC, OUTDOOR
- SW-2006-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: ELEC SPEC; SW-2006-13, -14, -11, & -12

DES. BY: AVB

DRAWN BY: DWEIBEL

DATE: 30 MAR 00

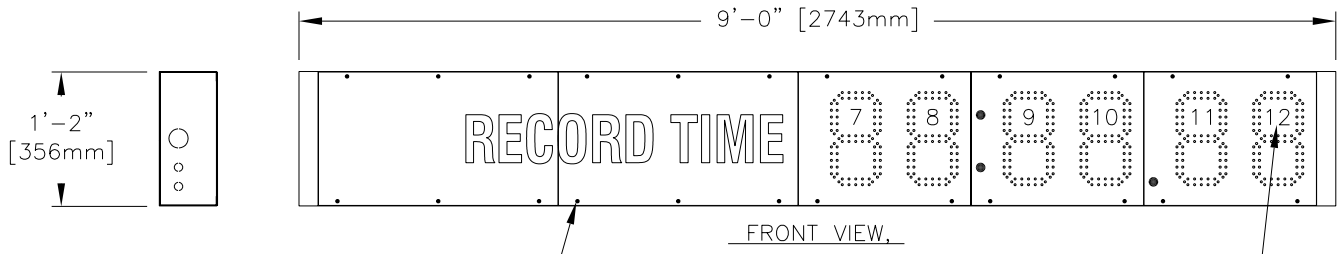
REVISION

APPR. BY:

SCALE: 1=20

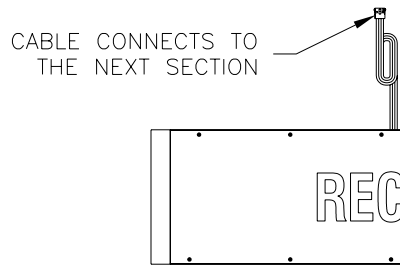
1153-R04A-130284

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AN PART NUMBER TABLE.	ALG	



REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS.

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT



FRONT VIEW
SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED
DRIVER ENCLOSURE

MODEL:
 SW-2007-13 120V AC, INDOOR
 SW-2007-14 230V AC, INDOOR
 SW-2007-11 120V AC, OUTDOOR
 SW-2007-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

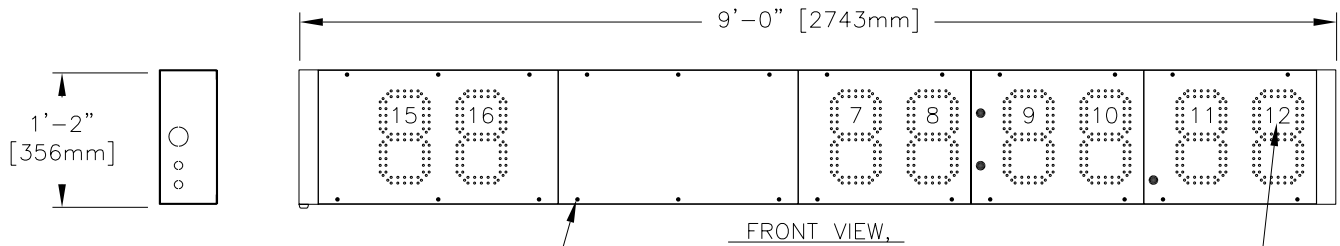
THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2003 DAKTRONICS, INC.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS
 TITLE: ELEC SPEC; SW-2007-13, -14, -11, &-12
 DES. BY: AVB DRAWN BY: DWEIBEL DATE: 30 MAR 00

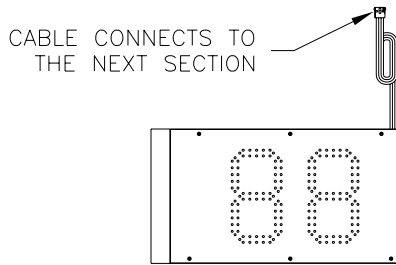
REVISION APPR. BY: 1153-R04A-130286
 SCALE: 1=20

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	



REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS.

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT



SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DRIVER ENCLOSURE

MODEL:

- SW-2008-13 120V AC, INDOOR
- SW-2008-14 230V AC, INDOOR
- SW-2008-11 120V AC, OUTDOOR
- SW-2008-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: ELEC SPEC; SW-2008-13, -14, -11, & -12

DES. BY: AVB

DRAWN BY: DWEIBEL

DATE: 31 MAR 00

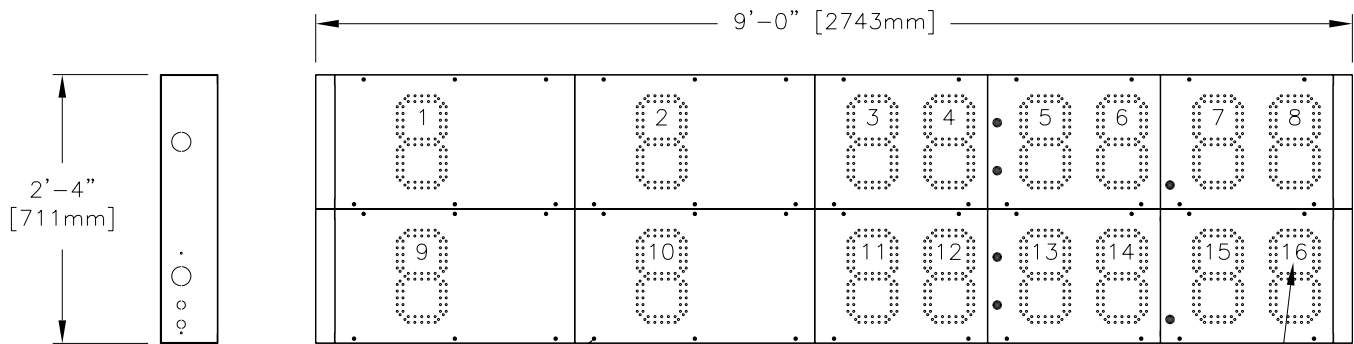
REVISION

APPR. BY:

SCALE: 1=20

1153-R04A-130309

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	

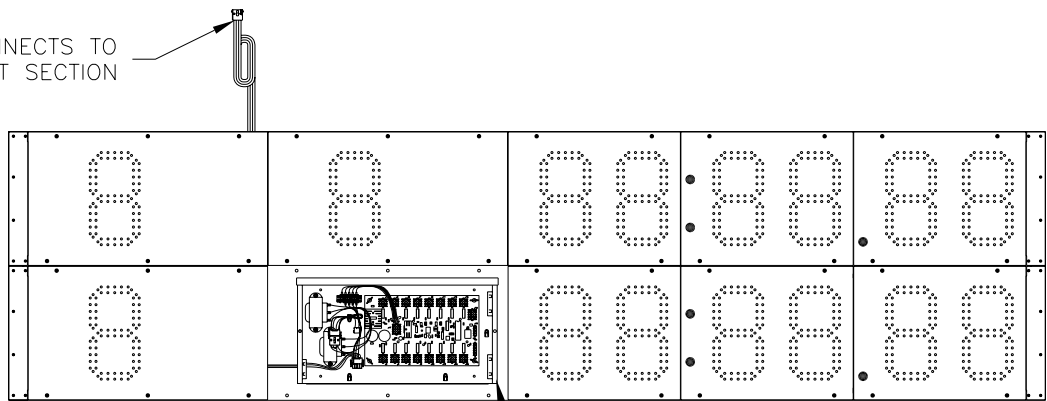


FRONT VIEW

REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT

CABLE CONNECTS TO THE NEXT SECTION



FRONT VIEW

SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DRIVER ENCLOSURE

MODEL:

- SW-2002-13 120V AC, INDOOR
- SW-2002-14 230V AC, INDOOR
- SW-2002-11 120V AC, OUTDOOR
- SW-2002-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: ELEC SPEC; SW-2002-13, -14, -11, & -12

DES. BY: AVB

DRAWN BY: DWEIBEL

DATE: 31 MAR 00

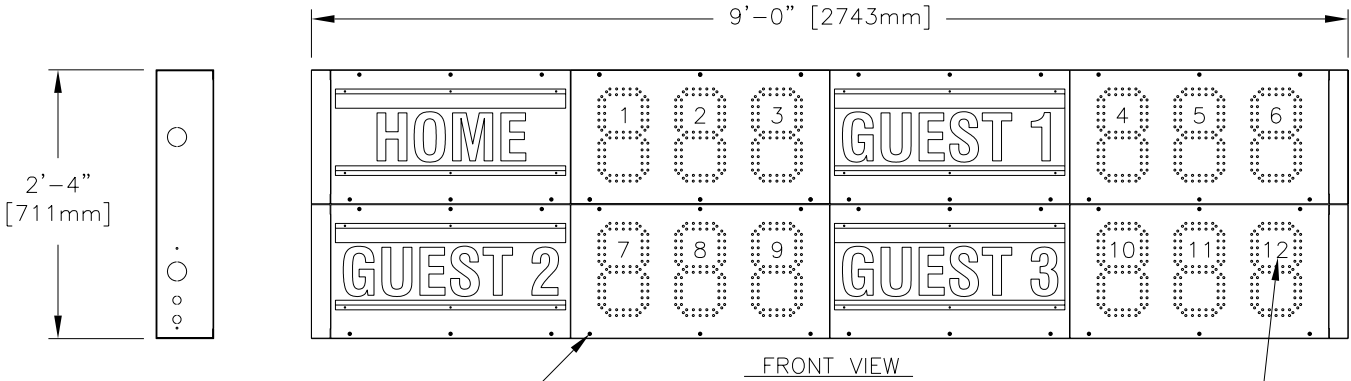
REVISION

APPR. BY:

SCALE: 1=20

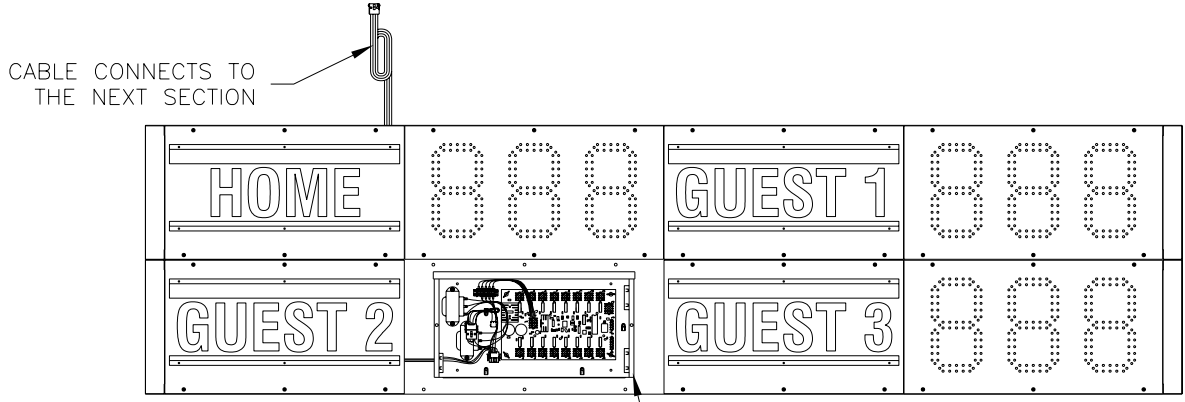
1153-R04A-130312

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE	ALG	



REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT



SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DRIVER ENCLOSURE

MODEL:
 SW-2005-13 120V AC, INDOOR
 SW-2005-14 230V AC, INDOOR
 SW-2005-11 120V AC, OUTDOOR
 SW-2005-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

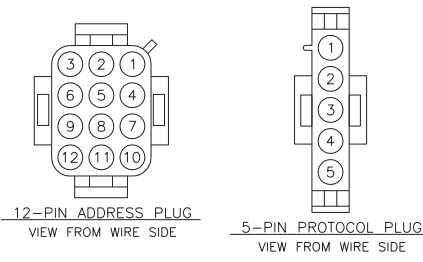
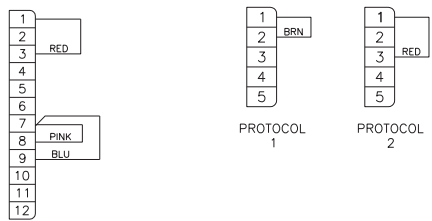
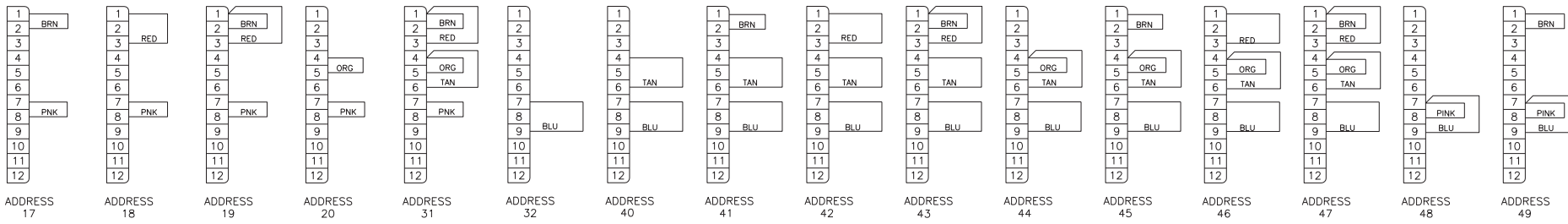
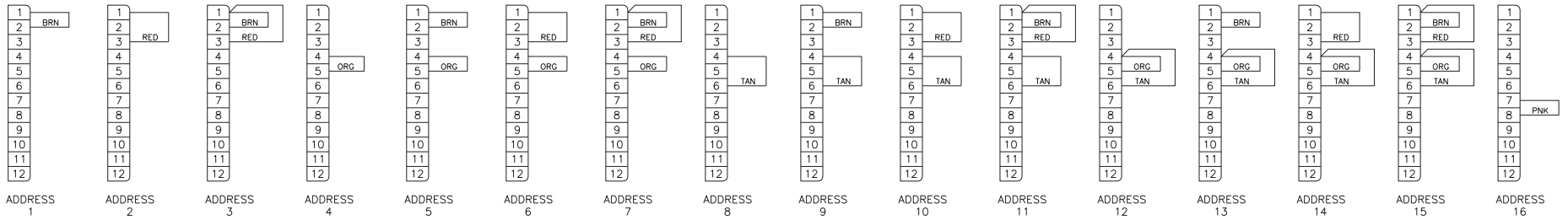
TITLE: ELEC SPEC; SW-2005-13, -14, -11, & -12

DES. BY: AVB DRAWN BY: DWEIBEL DATE: 31 MAR 00

REVISION APPR. BY: 1153-R04A-130316

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	

SCALE: 1=20



ONE ADDRESS PLUG SET INCLUDES THE 37 12-PIN ADDRESS PLUGS SHOWN ABOVE, AND 10 EACH OF THE 5-PIN PROTOCOL PLUGS SHOWN AT LEFT. ADDRESS PLUG PART # IS 0A-1153-0187.

NO PROTOCOL PLUG IS USED WITH THE DAKTRONICS OMNISPORT 2000.

PROTOCOL 1 IS USED WITH OMNISPORT 1000, OMNISPORT 6000, OMEGA, AND LYNX TIMING SYSTEMS.

PROTOCOL 2 IS USED WITH COLORADO TIMERS.

ADDRESS 50
TEST USING SIGNATURE TESTER MMJ
-CONNECT ADDRESS PLUG TO J78 (USE ADAPTER)
-CONNECT PROTOCOL PLUG TO J68

ADDRESS	SIGNATURE VALUE	ADDRESS	SIGNATURE VALUE
1	E5DF44	19	E4A8C8
2	AD31B4	20	FF31D6
3	BE6096	31	2D2ADC
4	C909B4	32	C22DC4
5	5565B6	40	F3F6D6
6	10C6B6	41	8F43D8
7	2EF5B8	42	47B4D8
8	8B4DB4	43	58E3DA
9	17A9B6	44	0BAED8
10	DE0BB6	45	960BDA
11	EF3AB8	46	5E6CDA
12	9205C6	47	6F98DC
13	2E51C8	48	D218E6
14	ESC2C8	49	6E62E8
15	F6F1CA	50	26D3E8
16	80B8CA	PROTOCOL 1	0FB5A2
17	1C08C6	PROTOCOL 2	C096A2
18	D379C6		

04	03 JUN 09	CHANGED ADD 1 & ADD 31 PER ECO 065539	RRS	MM	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2002 DAKTRONICS, INC.
03	17 JUL 03	DOUBLED PLUGS 11, 12, 31 AND 32	TLH	MWM	
02	15 JUL 02	ADDED ADDRESS PLUG FOR OMNI 2000 PROTOCOL		MVH	DAKTRONICS, INC. BROOKINGS, SD 57006
01	09 MAR 01	ADDED PLUG SET PART #	JDB		PROJ: LED AQUATICS/TRACK DISPLAYS
REV.	DATE	DESCRIPTION	BY	APPR.	TITLE: ADDRESS CONFIGURATIONS- TIMING DISPLAYS
					DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 31 MAR 00
					REVISION APPR. BY: SCALE: NONE 1153-R03B-130318

VERTICAL DISPLAYS

HORIZONTAL DISPLAYS

SWIMMING

LANE	PLACE	TIME
0	0	00:00.00
0	0	00:00.00
0	0	00:00.00
0	0	00:00.00
0	0	00:00.00
0	0.0	00:00.00

SWIMMING

LANE	PLACE	TIME	LANE	PLACE	TIME
0	0	00:00.00	0	0	00:00.00
0	0	00:00.00	0	0	00:00.00
0	0	00:00.00	0	0.0	00:00.00

DIVING WITH 5 JUDGES

JUDGE SCORE		
JUDGE 1	0	00:00.00
JUDGE 2	0	00:00.00
JUDGE 3	0	00:00.00
	0	00:00.00
	0	00:00.00
	0.0	00:00.00
	D of D	TOTAL SCORE

DIVING WITH 5 JUDGES

JUDGE SCORE			JUDGE SCORE		
0	0	00:00.00	0	0	00:00.00
0	0	00:00.00	0	0	00:00.00
0	0	00:00.00	0	0.0	00:00.00
			D of D		TOTAL SCORE

WATER POLO

TIME	HOME	PERIOD	SHOT	TIME	GUEST
00:00.00	0	0	0	00:00.00	0
00:00.00	0	0	0	00:00.00	0
00:00.00	0	0.0	0	00:00.00	0
PENALTY	SCORE		PENALTY	SCORE	

WATER POLO

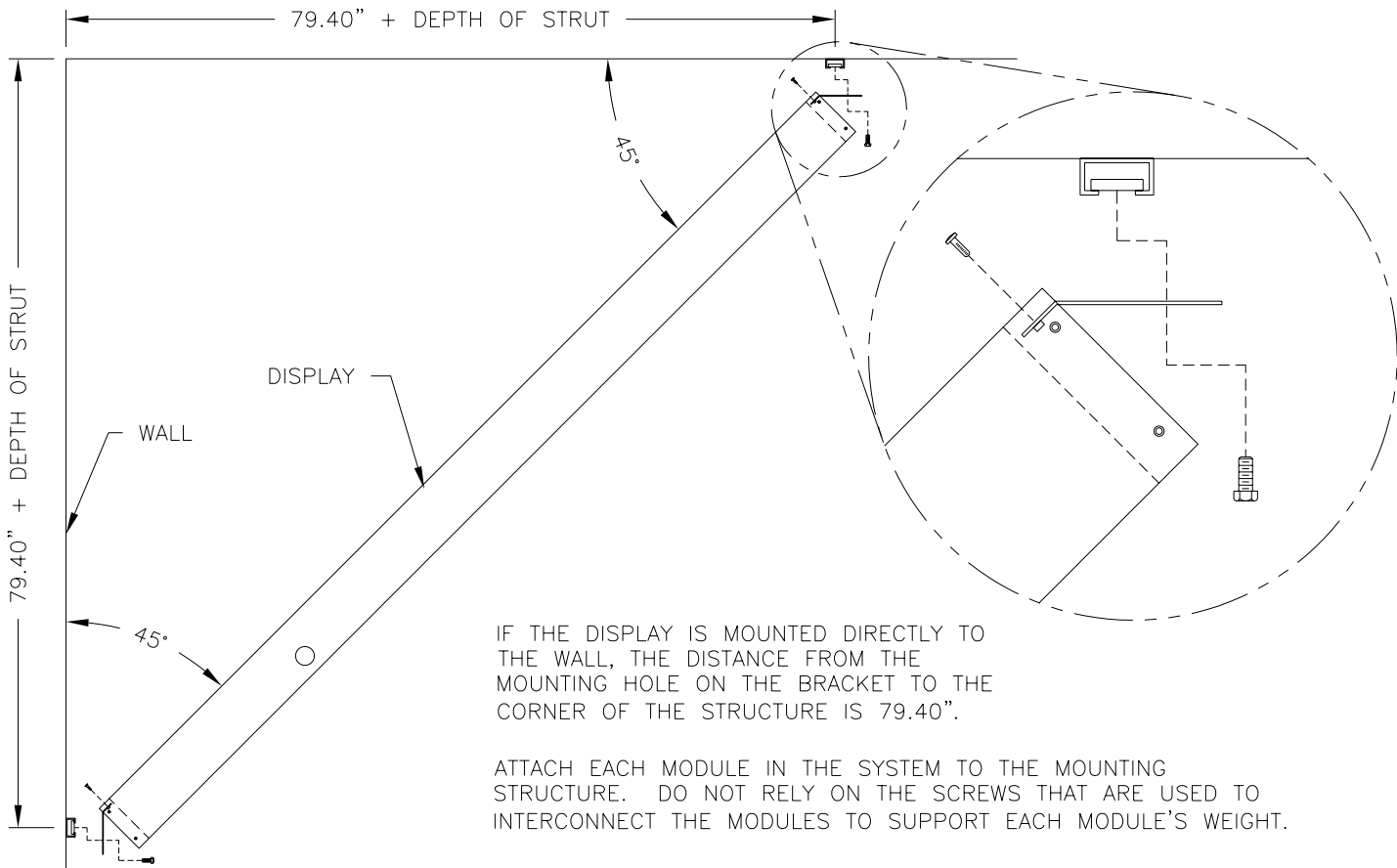
PERIOD	TIME	HOME
0	00:00.00	0
0	00:00.00	0
0	00:00.00	0
0	00:00.00	0
0	00:00.00	0
PENALTY		GUEST

THE DIGITS REPRESENTED WITH DASHED LINES ARE NOT USED IN THAT MODE.

THE DIVING MODE IS SHOWN IN A FIVE JUDGE CONFIGURATION.

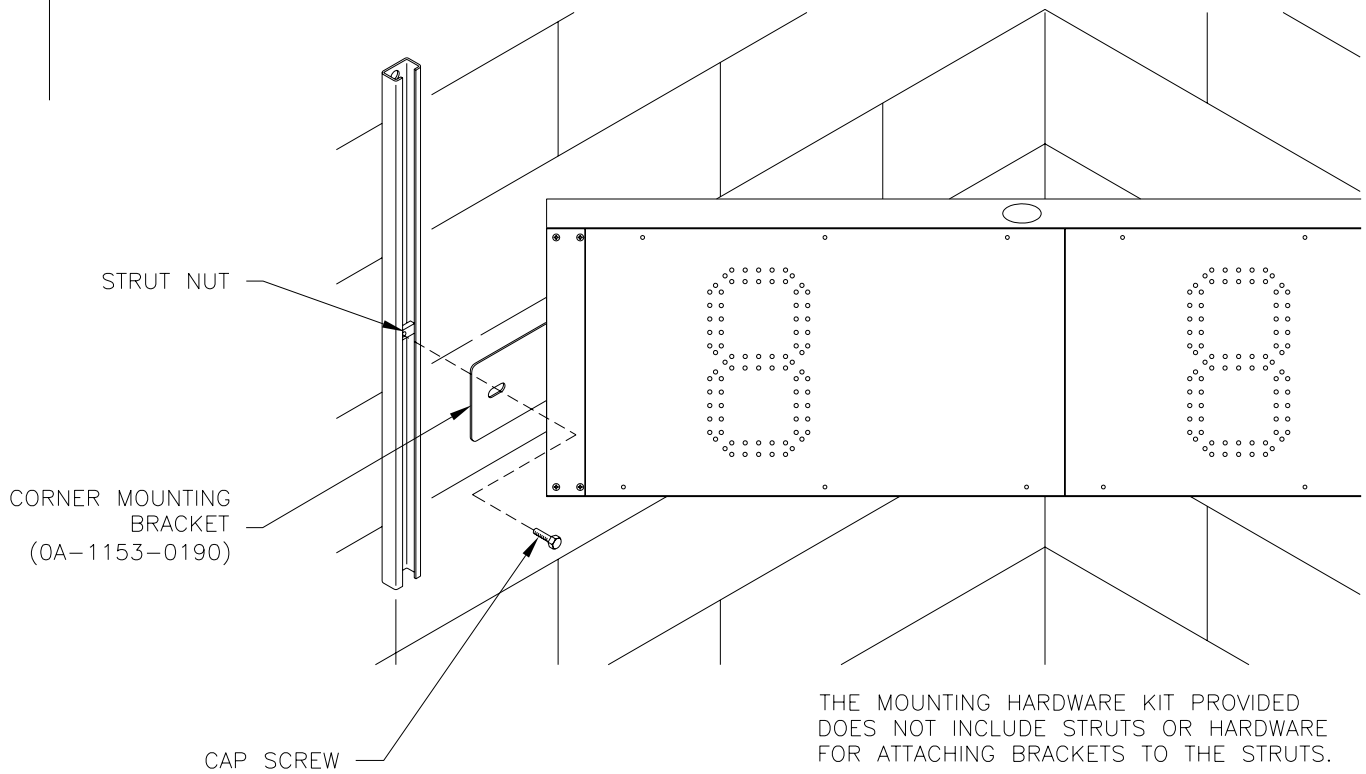
REV.	DATE	DESCRIPTION	BY	APPR.
04	03 JUL 08	CHANGED PROJECT NAME	MJC	
03	19 MAY 08	UPDATED LAYOUTS AND DIGITS USED	MJC	
02	01 NOV 05	UPDATED LAYOUT AND DIGITS USED.	MGL	
01	17 FEB 03	CORRECTED DIGIT MODULE ARRANGEMENT	AVB	

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DAKTRONICS, INC. BROOKINGS, SD 57006		
PROJ: LED AQUATICS SCOREBOARD		
TITLE: CAPTION LAYOUT- 6-LANE MULTI-SPORT SYSTEMS		
DES. BY: AVB	DRAWN BY: DWEIBEL	DATE: 11 APR 00
REVISION 04	APPR. BY: _____	1153-R08A-130319
	SCALE: 1=60	



IF THE DISPLAY IS MOUNTED DIRECTLY TO THE WALL, THE DISTANCE FROM THE MOUNTING HOLE ON THE BRACKET TO THE CORNER OF THE STRUCTURE IS 79.40".

ATTACH EACH MODULE IN THE SYSTEM TO THE MOUNTING STRUCTURE. DO NOT RELY ON THE SCREWS THAT ARE USED TO INTERCONNECT THE MODULES TO SUPPORT EACH MODULE'S WEIGHT.



THE MOUNTING HARDWARE KIT PROVIDED DOES NOT INCLUDE STRUTS OR HARDWARE FOR ATTACHING BRACKETS TO THE STRUTS.

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: CORNER MOUNT

DES. BY: AVB

DRAWN BY: DWEIBEL

DATE: 05 APR 00

REVISION

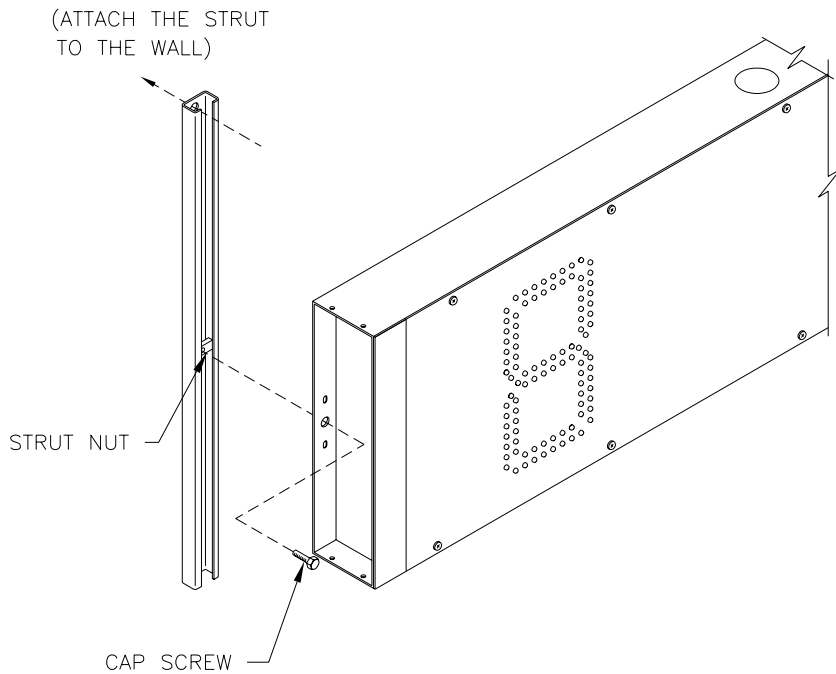
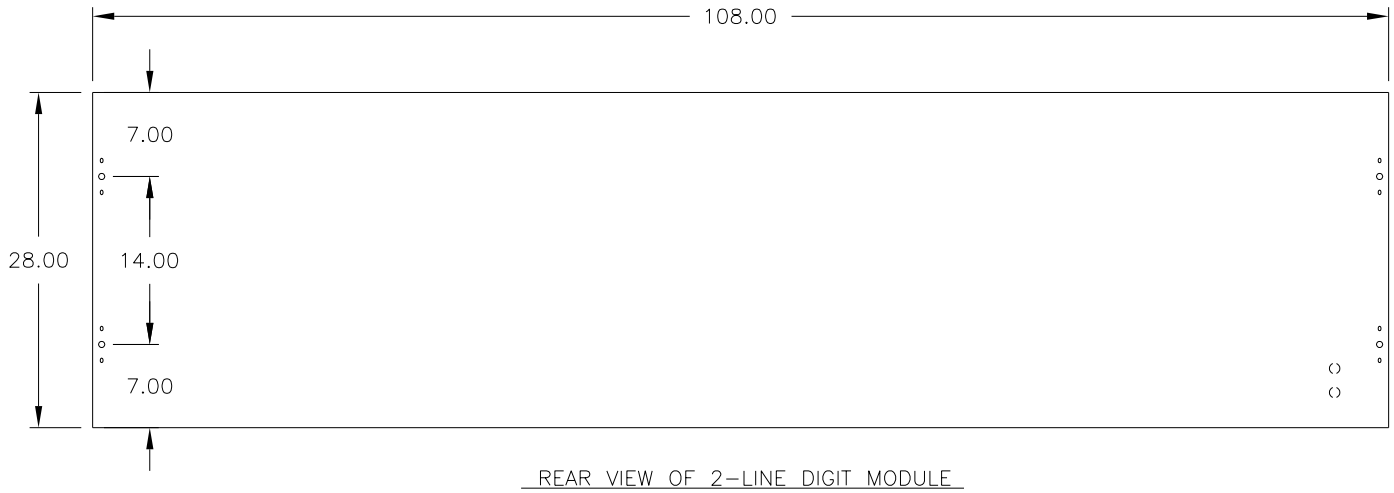
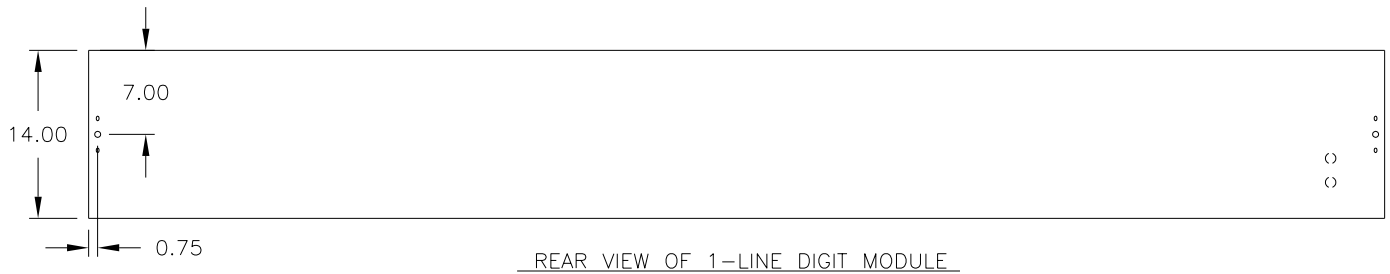
APPR. BY:

03

SCALE: NONE

1153-R04A-130508

REV.	DATE	DESCRIPTION	BY	APPR.
03	16 JUL 04	CORRECTED PART NUMBER OF 0A-1153-0190.	AVB	
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3	MGL	
01	15 JAN 02	CHANGED DIGIT PATTERN	ALG	



SELECT THE WALL ANCHOR METHOD BEST SUITED TO THE FACILITY.

START WITH THE LOWEST MODULE IN THE SYSTEM, AND WORK UP.

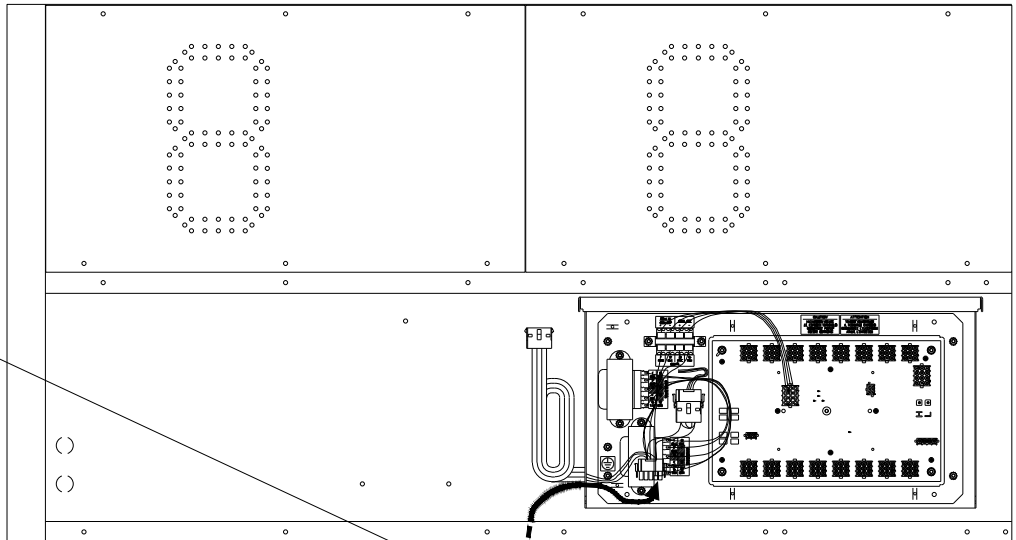
MOUNTING HARDWARE SHOWN IS NOT PROVIDED BY DAKTRONICS.

MOUNT THE DIGIT MODULES TO EITHER UNIVERSAL CHANNEL STRUT (AS SHOWN), A MOUNTING STRUCTURE, OR DIRECTLY TO A WALL.

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DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS / TRACK DISPLAYS			
TITLE: VERTICAL WALL MOUNT			
DES. BY: AVB		DRAWN BY: DWEIBEL	
		DATE: 13 APR 00	
REVISION	APPR. BY:	1153-R04A-130545	
	SCALE: NONE		

REV.	DATE	DESCRIPTION	BY	APPR.

2-LINE MODULE (SHOWN WITH THE LOWER LEFT PANELS REMOVED)

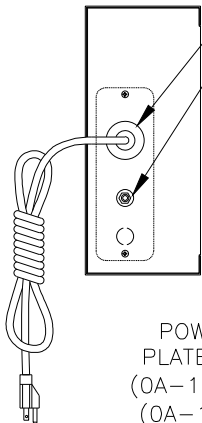
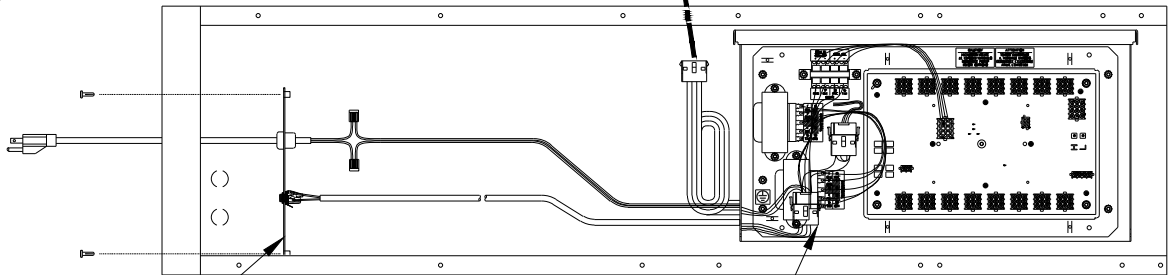


INSTALL A 2" BUSHING IN THE BOTTOM HOLE OF EACH MODULE BEFORE ROUTING WIRES. (IF NOT ALREADY INSTALLED)

REMOVE THE 2" AND UPPER 7/8" KNOCKOUTS FROM THE LEFT SIDE OF THE MODULE.

ROUTE THE CABLE FROM EACH MODULE UP INTO THE NEXT MODULE AND CONNECT TO THE MATING CONNECTOR.

1-LINE MODULE (SHOWN WITH THE LEFT FRONT PANELS REMOVED)



POWER/SIGNAL PLATE, 120V AC (0A-1782-0501) (0A-1153-0105) PRIOR TO APRIL 2015

INSTALL A 2" HOLE PLUG IN THE BOTTOM HOLE OF THE BOTTOM MODULE.

CONNECT THE CABLE FROM THE POWER/SIGNAL PLATE TO THE MATING CONNECTOR HERE.

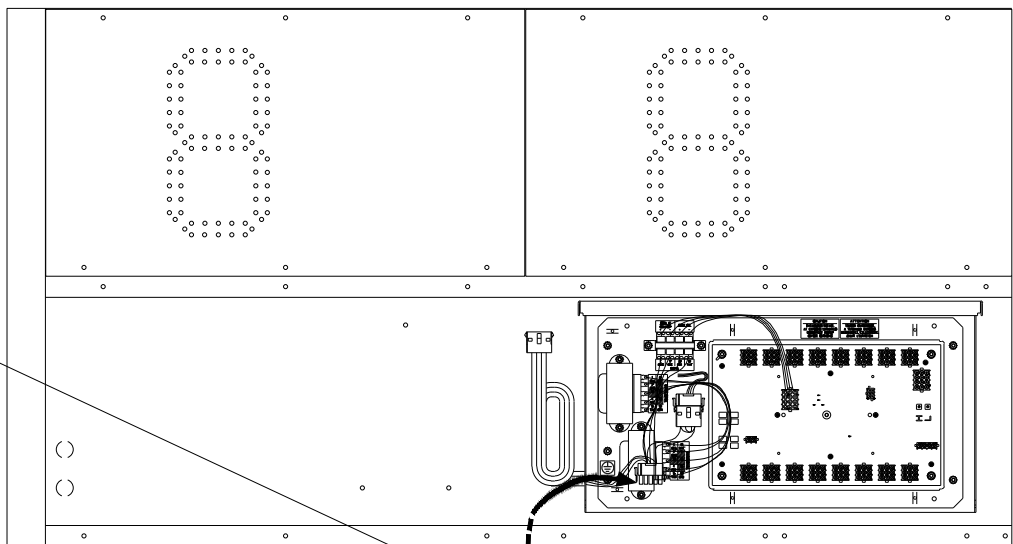
PROCEDURE

1. MOUNT THE POWER/SIGNAL PLATE IN THE LOWEST MODULE IN THE DISPLAY. REMOVE THE 2" KNOCKOUT AND THE UPPER 7/8" KNOCKOUT FROM THE LEFT END OF THE MODULE, POSITION THE PLATE INSIDE THE END, AND SECURE WITH TWO SCREWS.
2. ROUTE THE CABLE FROM THE POWER/SIGNAL PLATE INTO THE DRIVER ENCLOSURE AND CONNECT THE J51 JACK TO THE MATING P51 PLUG.
3. INSERT 2" BUSHINGS INTO THE HOLES BETWEEN MODULES.
4. PULL THE POWER/SIGNAL CABLE FROM THE LOWER MODULE UP INTO THE NEXT MODULE AND CONNECT THE J51 JACK TO THE MATING P51 PLUG.
5. REPEAT THIS CONNECTION FOR THE OTHER MODULES.
6. CONNECT THE POWER CORD TO 120V AC POWER, AND CONNECT SIGNAL TO THE 1/4" PHONE JACK IN THE END OF THE BOTTOM MODULE.
7. REPLACE COVERS AND PANELS.

	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 EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2015 DAKTRONICS, INC.	
	DO NOT SCALE DRAWING			
PROJ: LED AQUATICS SCOREBOARD				
TITLE: ELECTRICAL HOOKUP- INDOOR DISPLAY- 120V				
DESIGN: AVB		DRAWN: A VANBEMMEL		DATE: 10 APR 00
SCALE: 1=10				
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE	130661
	03	P 1153	R - 10 - A	

03	10 APR 15	UPDATED DIGIT DRIVER SWAPPED 12-PIN PLUG WITH 5-PIN ADDED WAGO PARTS	BJG
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL
01	15 JAN 02	CHANGED PUNCH PATTERN	ALG

2-LINE MODULE (SHOWN WITH THE LOWER LEFT PANELS REMOVED)

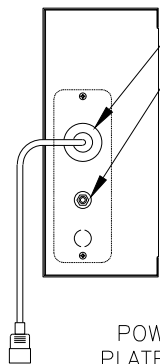
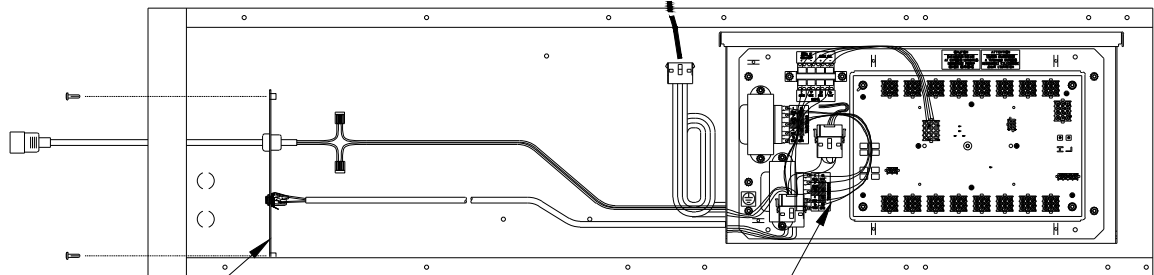


INSTALL A 2" BUSHING IN THE BOTTOM HOLE OF EACH MODULE BEFORE ROUTING WIRES. (IF NOT ALREADY INSTALLED)

REMOVE THE 2" AND UPPER 7/8" KNOCKOUTS FROM THE LEFT SIDE OF THE MODULE.

ROUTE THE CABLE FROM EACH MODULE UP INTO THE NEXT MODULE AND CONNECT TO THE MATING CONNECTOR.

1-LINE MODULE (SHOWN WITH THE LEFT FRONT PANELS REMOVED)



POWER/SIGNAL PLATE, 230V AC (0A-1782-0502) (0A-1153-0106) PRIOR TO APRIL 2015

INSTALL A 2" HOLE PLUG IN THE BOTTOM HOLE OF THE BOTTOM MODULE.

CONNECT THE CABLE FROM THE POWER/SIGNAL PLATE TO THE MATING CONNECTOR HERE.

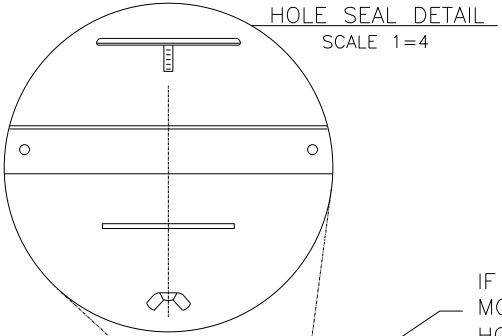
PROCEDURE

1. MOUNT THE POWER/SIGNAL PLATE IN THE LOWEST MODULE IN THE DISPLAY. REMOVE THE 2" KNOCKOUT AND THE UPPER 7/8" KNOCKOUT FROM THE LEFT END OF THE MODULE, POSITION THE PLATE INSIDE THE END, AND SECURE WITH TWO SCREWS.
2. ROUTE THE CABLE FROM THE POWER/SIGNAL PLATE INTO THE DRIVER ENCLOSURE AND CONNECT THE J51 JACK TO THE MATING P51 PLUG.
3. INSERT 2" BUSHINGS INTO THE HOLES BETWEEN MODULES.
4. PULL THE POWER/SIGNAL CABLE FROM THE LOWER MODULE UP INTO THE NEXT MODULE AND CONNECT THE J51 JACK TO THE MATING P51 PLUG.
5. REPEAT THIS CONNECTION FOR THE OTHER MODULES.
6. CONNECT THE POWER CORD TO 230V AC POWER, AND CONNECT SIGNAL TO THE 1/4" PHONE JACK IN THE END OF THE BOTTOM MODULE.
7. REPLACE COVERS AND PANELS.

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	DO NOT SCALE DRAWING		
PROJ: LED AQUATICS SCOREBOARD			
TITLE: ELECTRICAL HOOKUP- INDOOR DISPLAY- 230V			
DESIGN: AVB		DRAWN: A VANBEMMEL	DATE: 10 APR 00
SCALE: 1=10			
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE
	03	P 1153	R - 10 - A
			130676

03	10 APR 15	UPDATED DIGIT DRIVER SWAPPED 12-PIN PLUG WITH 5-PIN ADDED WAGO PARTS	BJG
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL
01	15 JAN 02	CHANGED PUNCH PATTERN	ALG

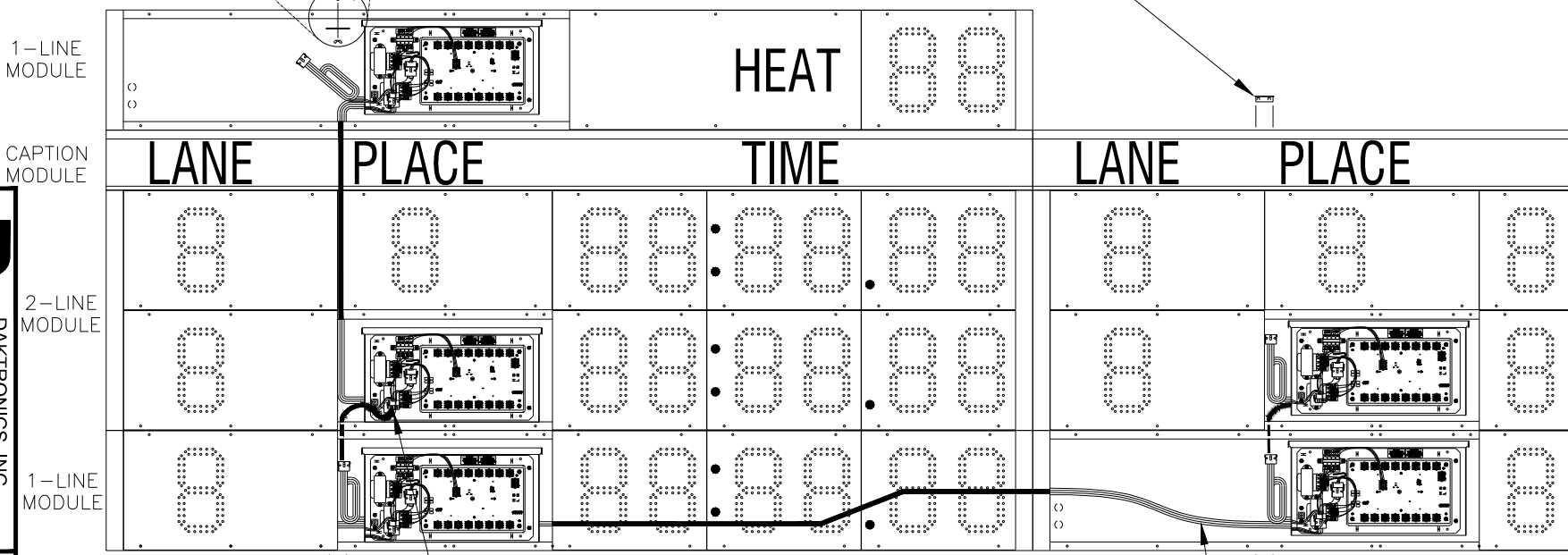
01	15 JAN 02	CHANGED PUNCH PATTERN	ALG
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL
03	10 APR 15	UPDATED DIGIT DRIVER SWAPPED 12-PIN PLUG WITH 5-PIN	BJG



THE DISPLAY SHOWN IS A 6-LINE HORIZONTAL DISPLAY, MODEL SW-2106, WITH A MODEL SW-2006 EVENT/HEAT MODULE ATOP THE LEFT SIDE. MODELS VARY IN CONFIGURATION, AND EACH INSTALLATION MAY BE DIFFERENT, DEPENDING ON OPTIONAL EQUIPMENT. THE WIRING METHOD IS THE SAME FOR ALL MODELS.

IF THE TOP SECTION IS A DIGIT MODULE, INSTALL THE 3-PIECE HOLE SEAL (HS-1332) IN THE TOP.

IF THE TOP SECTION IS A CAPTION MODULE OR AN AD PANEL, INSTALL A PLASTIC HOLE PLUG IN THE TOP.



INSTALL A PLASTIC PLUG (HS-1056) IN EACH BOTTOM HOLE.

EACH DIGIT MODULE HAS A CABLE TO BE ROUTED UP TO THE NEXT SECTION. CONNECT THE J51 JACK TO THE MATING P51 PLUG IN THE DRIVER ENCLOSURE.

FRONT VIEW
SOME PANELS REMOVED TO SHOW INTERIOR

ON HORIZONTAL DISPLAYS, INSTALL THE INTERCONNECT CABLE (0A-1782-0227) (0A-1153-0122 PRIOR TO APRIL 2015) FROM THE BOTTOM LEFT DIGIT MODULE TO THE BOTTOM RIGHT DIGIT MODULE. CONNECT THE J52 JACK TO THE MATING P51 PLUG.



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PROJ: LED AQUATICS SCOREBOARD		DATE: 11 APR 00	
TITLE: INTERNAL CABLE ROUTING		DRAWN: A VANBEMMEL	
DESIGN: SCALE: 1=20	SHEET	REV	JOB NO:
		03	P1153
			FUNC-TYPE-SIZE
			R-10-A
130679			

INSERT THE TOP OF THE CAPTION PANEL INTO THE UPPER GUIDE IN THE MODULE. LIFT, PRESS BACK, AND DROP INTO THE BOTTOM GUIDE

CAPTION MODULE
7" HIGH

DIGIT MODULE
14" OR 28" HIGH

ATTACH THE CAPTION MODULE TO THE TOP OR BOTTOM OF THE ADJACENT DIGIT MODULE, USING THE #10 SCREWS PROVIDED.

NOTE THAT THE UPPER GUIDE IS DEEPER THAN THE BOTTOM GUIDE.

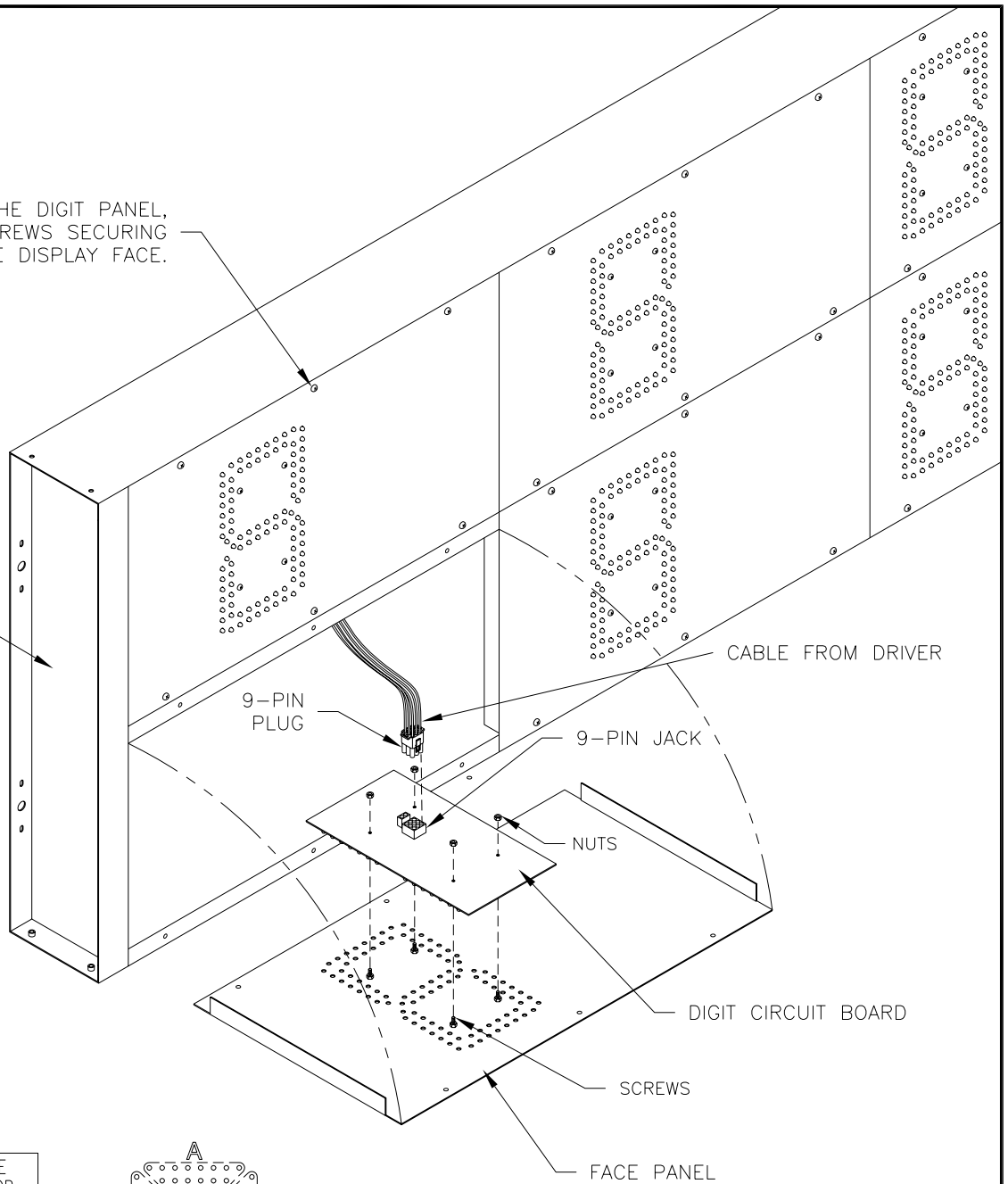
BE SURE THAT THE MODULE IS ORIENTED CORRECTLY WHEN INSTALLING.

DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: LED AQUATICS/TRACK DISPLAYS	
TITLE: CAPTION MODULE DETAIL	
DES. BY: AVB	DRAWN BY: A VANBEMMEL DATE: 12 APR 00
REVISION	APPR. BY: _____
	SCALE: 1=8
1153-R10A-130840	

REV.	DATE	DESCRIPTION	BY	APPR.

TO OPEN THE DIGIT PANEL,
REMOVE THE SCREWS SECURING
IT TO THE DISPLAY FACE.

DISPLAY MODULE



9-PIN
PLUG

CABLE FROM DRIVER

9-PIN JACK

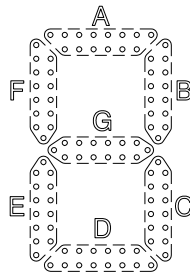
NUTS

DIGIT CIRCUIT BOARD

SCREWS

FACE PANEL

DIGIT SEGMENT	CONNECTOR PIN NO.	WIRE COLOR
A	3	BROWN
B	2	RED
C	1	ORANGE
D	6	TAN
E	5	PINK
F	4	BLUE
G	9	VIOLET
H	8	GRAY
COMMON	7	BLACK



DIGIT SEGMENTS A-G
SEGMENT H IS NOT USED
IN THESE DIGITS.

10" DIGIT CIRCUIT BOARD ASSEMBLIES

DESCRIPTION	PART NUMBER
DIGIT, 10" RED-ORANGE, OUTDOOR	OP-1150-0172
DIGIT, 10" RED, INDOOR	OP-1150-0173
DIGIT, 10" AMBER, INDOOR	OP-1150-0174

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED SWIM/TRACK DISPLAYS

TITLE: DIGIT SERVICE

DES. BY: AVB

DRAWN BY: A VANBEMMEL

DATE: 14 APR 00

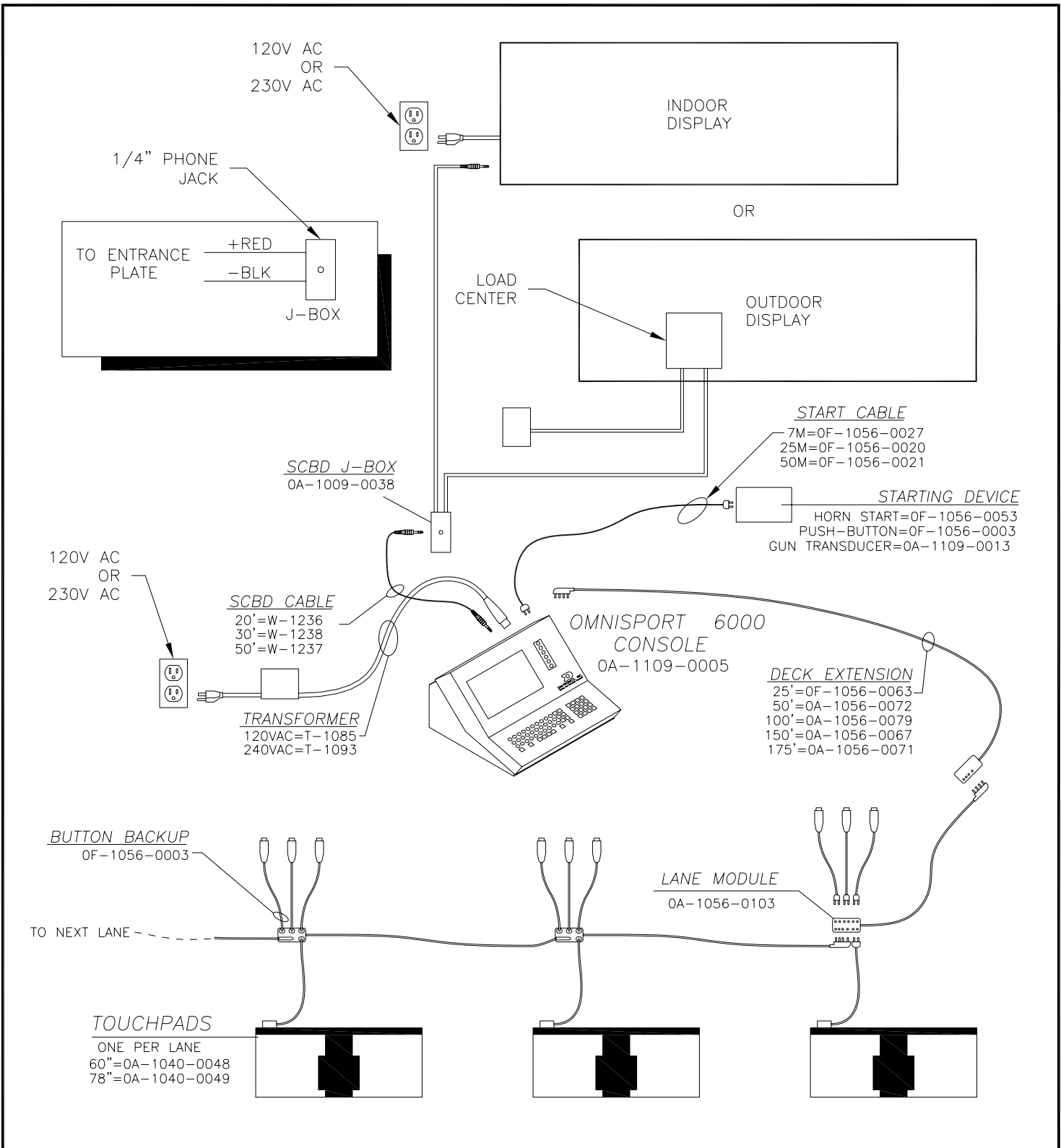
REVISION

APPR. BY:

SCALE: 1=10

1153-R10A-130891

REV.	DATE	DESCRIPTION	BY	APPR.



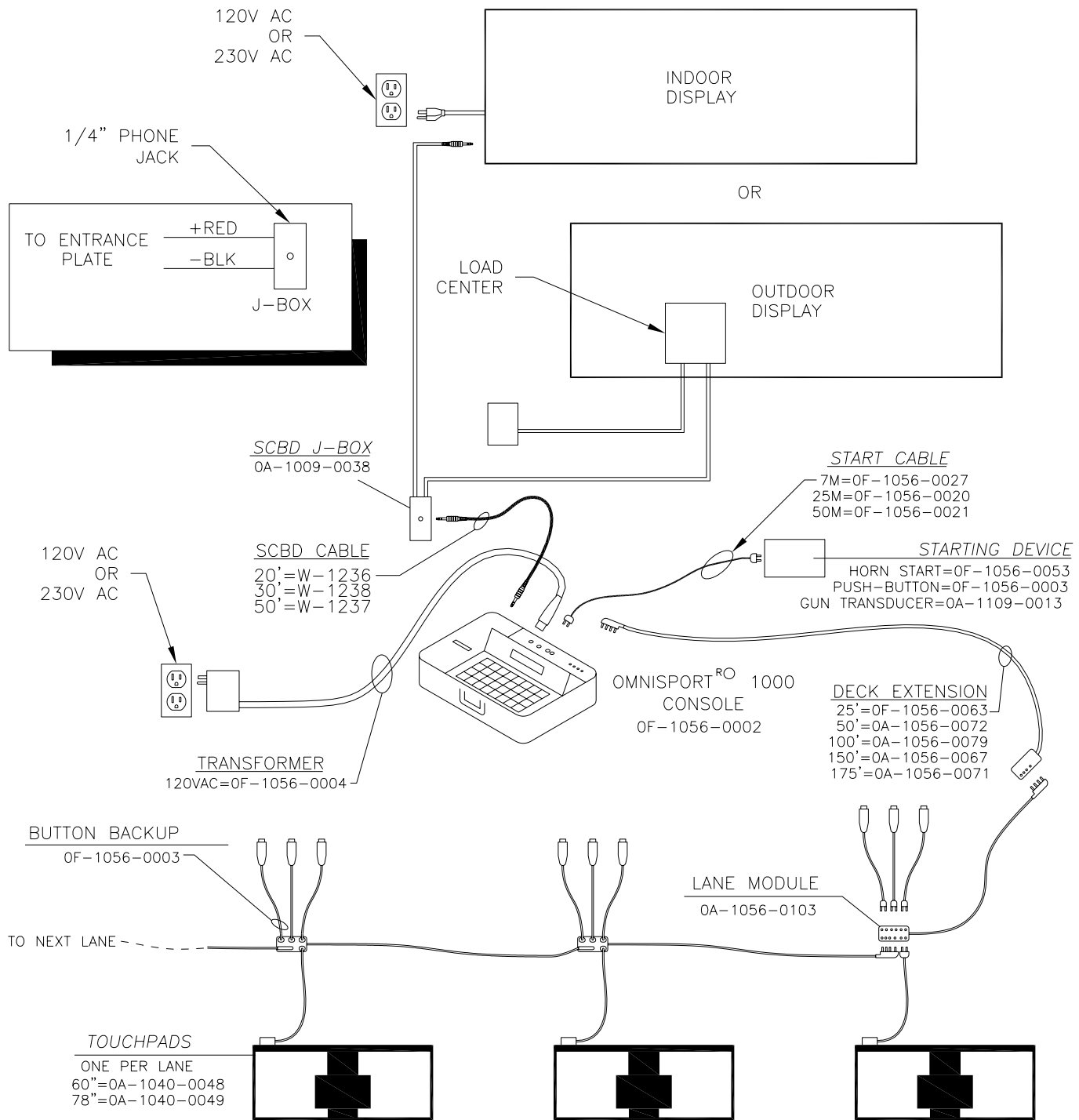
OMNISPORT 6000 SINGLE LINE CONNECTION SUPPORTS DISPLAY MODEL SW-2101.

MULTI-LINE CONNECTION SUPPORTS ALL MULTI-LINE DISPLAYS.

NOTE:
 IF BOTH MULTI-LINE & SINGLE LINE ARE NEEDED, USE J5 FOR SINGLE LINE, J6 FOR MULTI-LINE, ORDER TWO J-BOXES AND 0A-1109-0030 CABLE.

DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS / TRACK DISPLAYS			
TITLE: RISER DIAGRAM, WITH OMNISPORT 6000			
DES. BY: AVB		DRAWN BY: DWEIBEL	
		DATE: 14 APR 00	
REVISION	APPR. BY:	1153-R03A-130977	
	SCALE: NONE		

REV.	DATE	DESCRIPTION	BY	APPR.



OMNISPORT 1000 SINGLE LINE CONNECTION SUPPORTS DISPLAY MODEL SW-2101.

MULTI-LINE CONNECTION SUPPORTS ALL MULTI-LINE DISPLAYS.

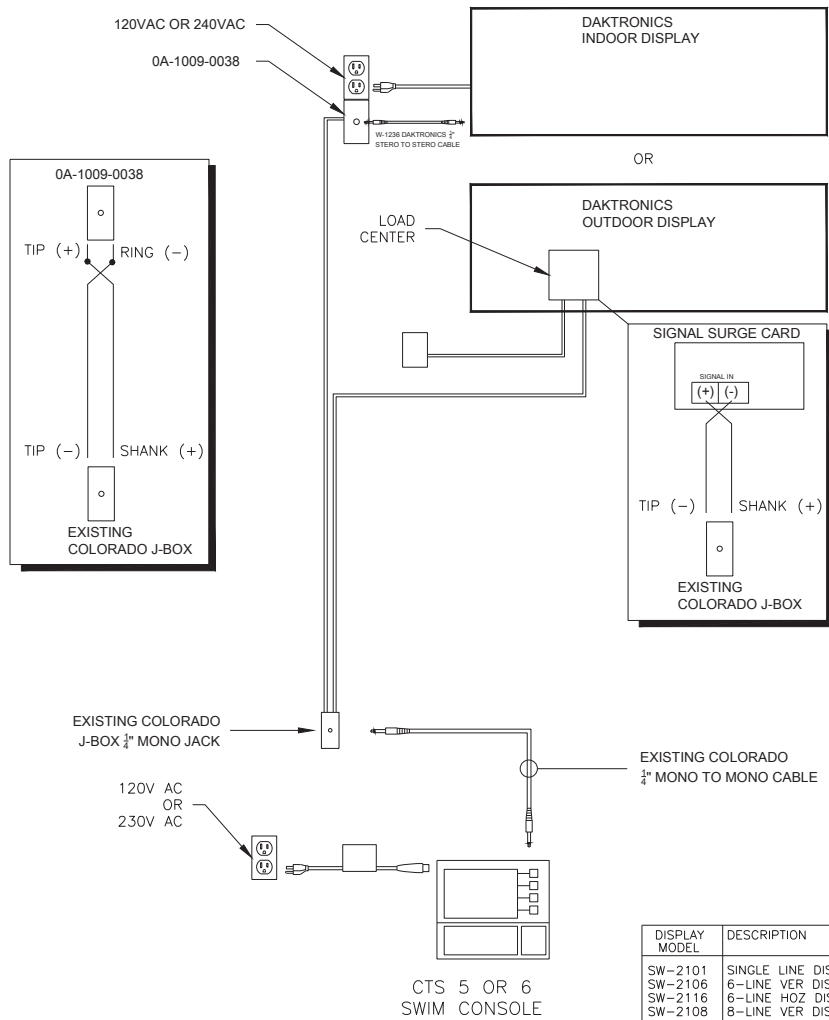
NOTES:

1. EITHER MULTI LINE OR SINGLE LINE. NOT BOTH.
2. THE OMNI1000 WILL DRIVE EITHER EH-510L OR HG-610L-M, NOT BOTH.
3. IF YOU HAVE AN EH-510L, HG-610L-M, HG-610L-S, OR LRT-810L DISPLAY, USE ALLSPORT 4000 CONTROLLER IN CODE 244.

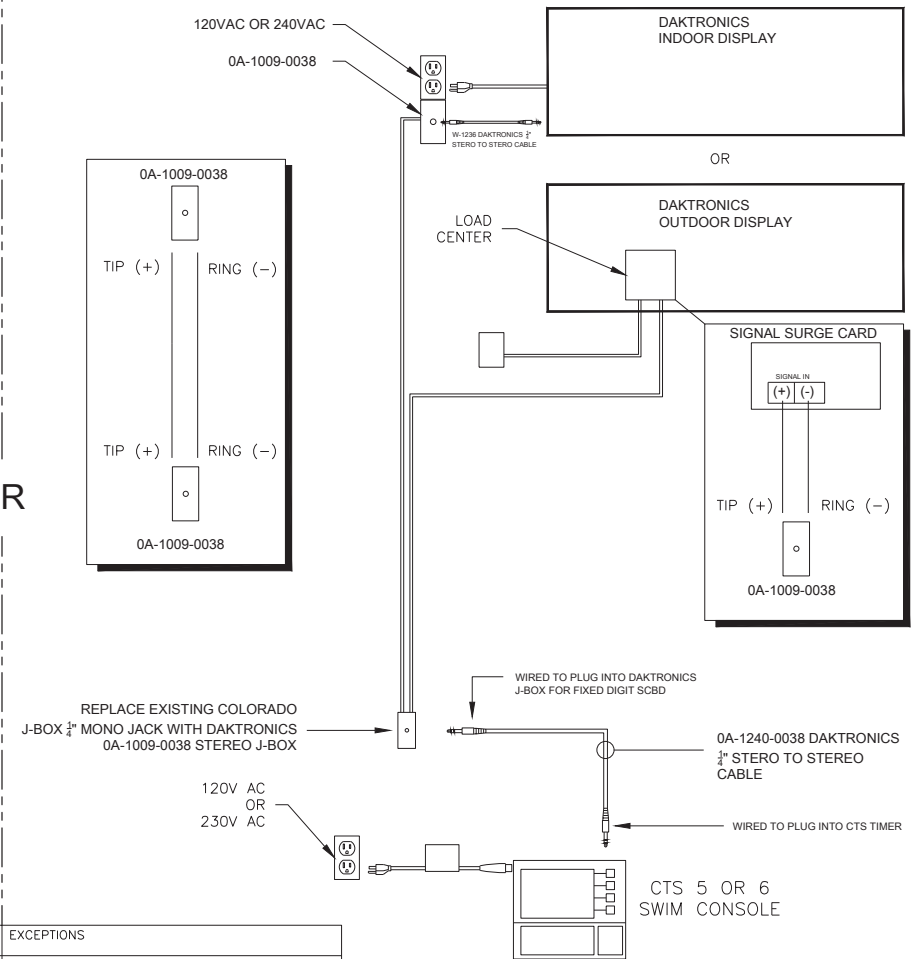
DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS / TRACK DISPLAYS			
TITLE: RISER DIAGRAM, WITH OMNISPORT 1000			
DES. BY: AVB		DRAWN BY: DWEIBEL	
		DATE: 14 APR 00	
REVISION	APPR. BY:	1153-R03A-130978	
	SCALE: NONE		

REV.	DATE	DESCRIPTION	BY	APPR.

CTS TIMER WIRED USING COLORADO SIGNAL CABLE



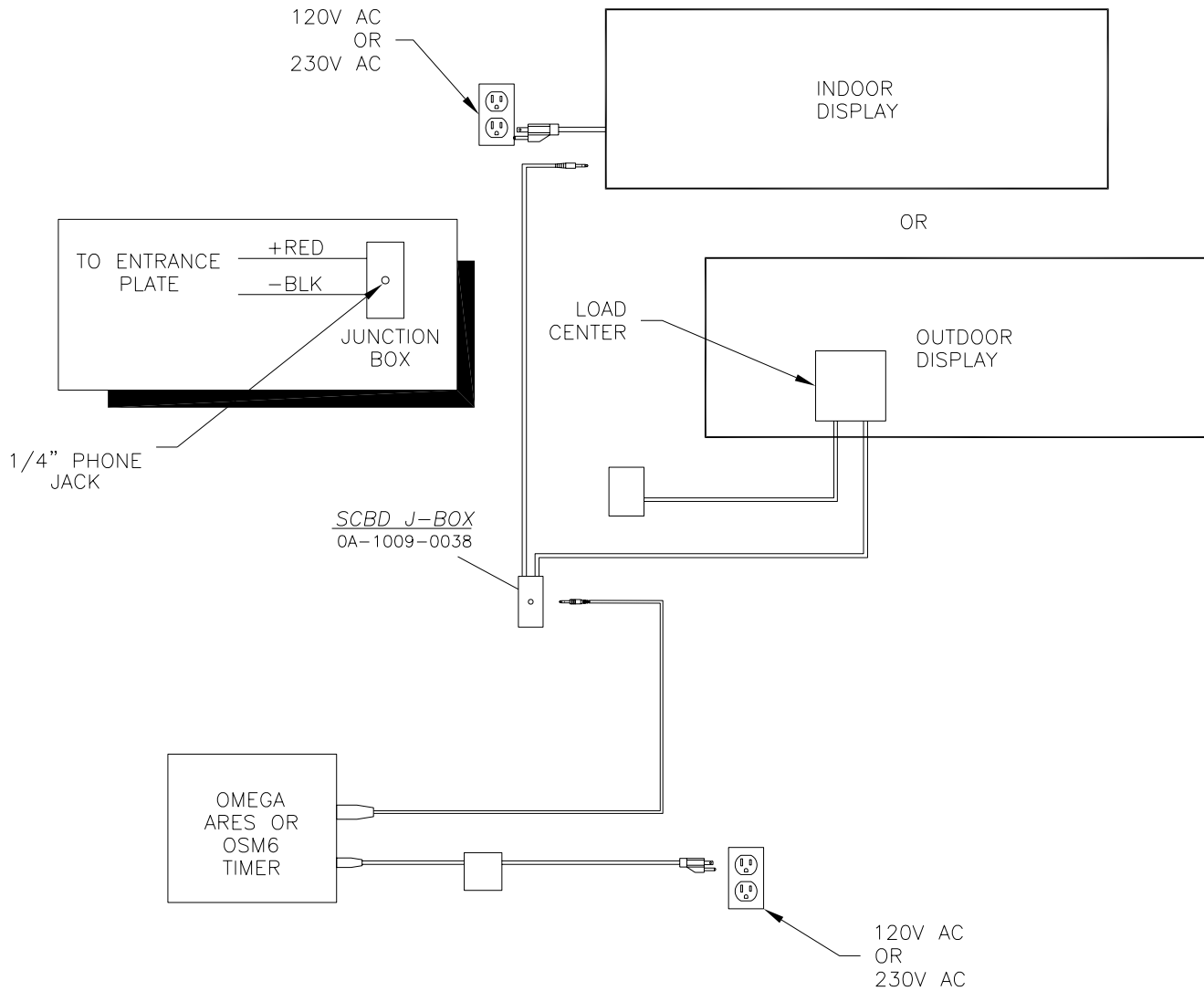
CTS TIMER WIRED WITH DAKTRONICS SIGNAL CABLE



OR

DISPLAY MODEL	DESCRIPTION	EXCEPTIONS
SW-2101 SW-2106 SW-2116 SW-2108 SW-2118 SW-2110 SW-2120	SINGLE LINE DISPLAY 6-LINE VER DISPLAY 6-LINE HOZ DISPLAY 8-LINE VER DISPLAY 8-LINE HOR DISPLAY 10-LINE VER DISPLAY 10-LINE HOR DISPLAY	DISPLAYS SWIMMING INFO ONLY NON
SW-2206 SW-2216 SW-2208 SW-2218 SW-2210 SW-2220	6-LINE MULTI-SPORT VER DISPLAY 6-LINE MULTI-SPORT HOZ DISPLAY 8-LINE MULTI-SPORT VER DISPLAY 8-LINE MULTI-SPORT HOR DISPLAY 10-LINE MULTI-SPORT VER DISPLAY 10-LINE MULTI-SPORT HOR DISPLAY	CTS TIMER WILL NOT OPERATE D.D DIGITS ON MULTI-SPORT LINE IN DIVING MODE. ADDRESSED CORRECTLY IT WILL SOUND THE HORN FOR WATERPOLO. REFER TO THE DISPLAY MANUAL FOR ADDRESSING.

REV 01	DATE: 27 NOV 2013	UPDATED SIGNAL CONNECTION FROM TIMER TO SCBD ADDED TWO DIFFERENT METHODS OF CONNECTION	BY: CME
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.	
PRO: LED AQUATICS SCOREBOARD TITLE: RISER DIAGRAM - WITH CTS TIMER			
DESIGN: AVB	DRAWN: DWEIBEL	DATE: 14 APR 00	
SCALE: NONE			
SHEET	REV 01	JOB NO. P1153	FUNC-TYPE-SIZE R-03-A
			130979



MODEL	OMEGA TIMERS
SW-2101	SEE NOTE 1
SW-2106	MULTI-LINE
SW-2116	MULTI-LINE
SW-2108	MULTI-LINE
SW-2118	MULTI-LINE
SW-2110	MULTI-LINE
SW-2120	MULTI-LINE
MS-2206	SEE NOTE 2
MS-2216	SEE NOTE 2
MS-2208	SEE NOTE 2
MS-2218	SEE NOTE 2
MS-2210	SEE NOTE 2
MS-2220	SEE NOTE 2
SW-2004	SEE NOTE 3
SW-2005	SEE NOTE 3
SW-2006	SEE NOTE 3
SW-2007	SEE NOTE 3
SW-2008	SEE NOTE 3
SW-2009	SEE NOTE 3

- NOTES:
1. SET ADDRESS TO 1.
 2. OPERATES IN SWIM MODE ONLY.
 3. FOR OSM6, USE ALLSPORT 4000 CONTROLLER IN CODE 244.

DAKTRONICS, INC. BROOKINGS, SD 57006

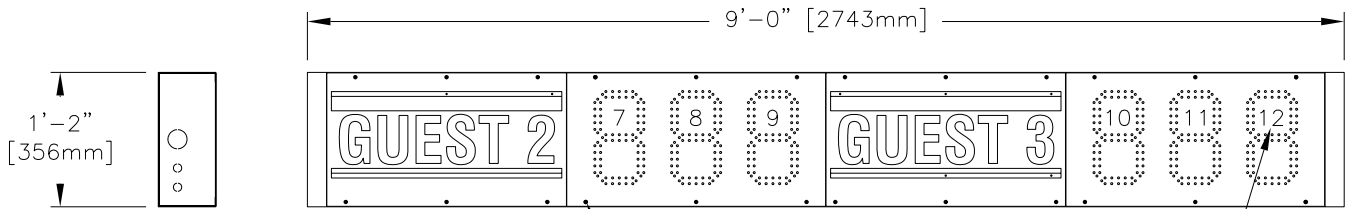
PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: RISER DIAGRAM, WITH OMEGA TIMER

DES. BY: AVB DRAWN BY: DWEIBEL DATE: 19 APR 00

REVISION	APPR. BY:	1153-R03A-131037
	SCALE: NONE	

REV.	DATE	DESCRIPTION	BY	APPR.

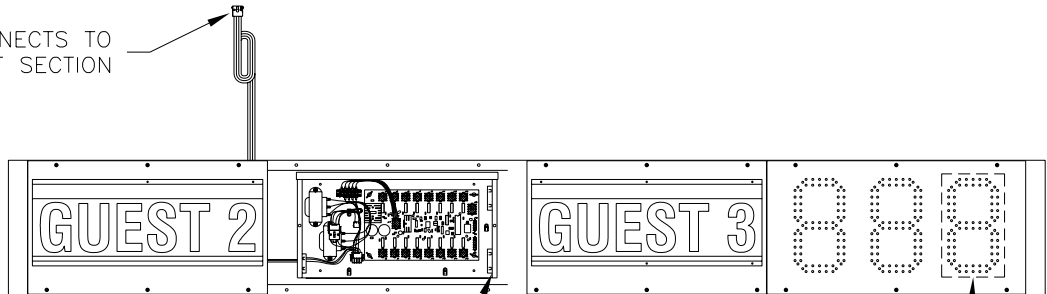


FRONT VIEW

REMOVE THESE SCREWS TO OPEN THE PANEL AND GAIN ACCESS TO INTERNAL COMPONENTS.

NUMBERS ON DIGITS INDICATE WHICH DRIVER CONNECTOR IS WIRED TO THAT DIGIT.

CABLE CONNECTS TO THE NEXT SECTION



FRONT VIEW

SHOWN WITH PANEL AND ENCLOSURE COVER REMOVED

DIGIT CIRCUIT BOARD BEHIND PANEL

DRIVER ENCLOSURE

MODEL:

- SW-2009-13 120V AC, INDOOR
- SW-2009-14 230V AC, INDOOR
- SW-2009-11 120V AC, OUTDOOR
- SW-2009-12 230V AC, OUTDOOR

MAX POWER DEMAND: 200 W

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS / TRACK DISPLAYS

TITLE: ELEC SPEC, SW-2009-13, -14, -11, & -12

DES. BY: AVB

DRAWN BY: A VANBEMMEL DATE: 18 APR 00

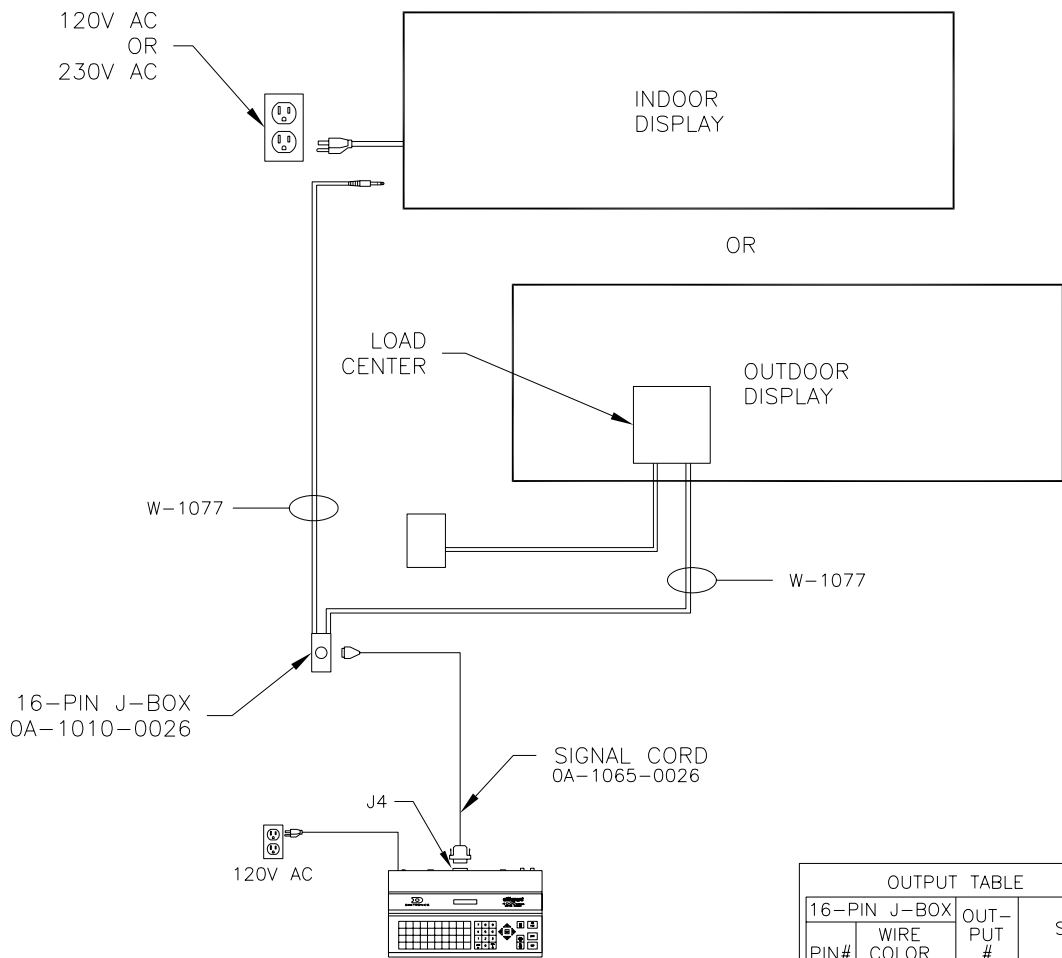
REVISION

APPR. BY:

SCALE: 1=20

1153-R04A-131039

REV.	DATE	DESCRIPTION	BY	APPR.
02	02 JUN 03	CHANGED DIGIT PATTERN TO G3 CHANGED DRIVER ENCLOSURE	MGL	
01	15 JAN 02	DELETED OUTDOOR DISPLAY, AND PART NUMBER TABLE.	ALG	



MODEL	A/S 4000, CODE 244 SEE NOTE 1
SW-2101	NOT AVAILABLE
SW-2106	NOT AVAILABLE
SW-2116	NOT AVAILABLE
SW-2108	NOT AVAILABLE
SW-2118	NOT AVAILABLE
SW-2110	NOT AVAILABLE
SW-2120	NOT AVAILABLE
MS-2206	NOT AVAILABLE
MS-2216	NOT AVAILABLE
MS-2208	NOT AVAILABLE
MS-2218	NOT AVAILABLE
MS-2210	NOT AVAILABLE
MS-2220	NOT AVAILABLE
SW-2004	OUTPUT 4
SW-2005	OUTPUT 4
SW-2006	OUTPUT 4
SW-2007	OUTPUT 4
SW-2008	OUTPUT 4
SW-2009	OUTPUT 4

16-PIN J-BOX PIN#	WIRE COLOR	OUT- PUT #	SIGNAL TYPE
1	RED	1+	NO CONNECTION
2	BLACK	1-	NO CONNECTION
3	WHITE	2+	NO CONNECTION
4	GREEN	2-	NO CONNECTION
5	ORANGE	3+	NO CONNECTION
6	BLUE	3-	NO CONNECTION
7	WHT/BLK	4+	TO AUX. MODULES
8	RED/BLK	4-	TO AUX. MODULES

NOTES:

1. WHEN THE AUXILIARY MODULES ARE OPERATED FROM THE A/S 4000, CODE 244, A DEDICATED PAIR OF WIRES IS REQUIRED BETWEEN THE 16 PIN CIRCULAR J-BOX AND THE ENTRANCE PANEL IN THE BOTTOM MASTER AUX MODULE.

ALL SPORT 4000 SERIES CONSOLES MODEL AND PART NUMBERS:

MODEL	PART NO.	DESCRIPTION
4100	0A-1166-0001	120V STANDARD
4120	0A-1166-0005	230V STANDARD

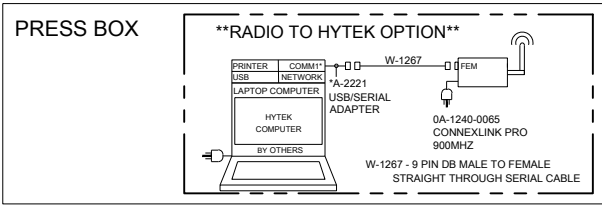
DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS / TRACK DISPLAYS			
TITLE: RISER DIAGRAM, WITH AS-4000			
DES. BY: AVB	DRAWN BY: DWEIBEL	DATE: 19 APR 00	
REVISION	APPR. BY:	1153-R03A-131226	
	SCALE: NONE		

REV.	DATE	DESCRIPTION	BY	APPR.
01	05 DEC 01	CHANGED SW-2004 TO OUTPUT 4.	AVB	

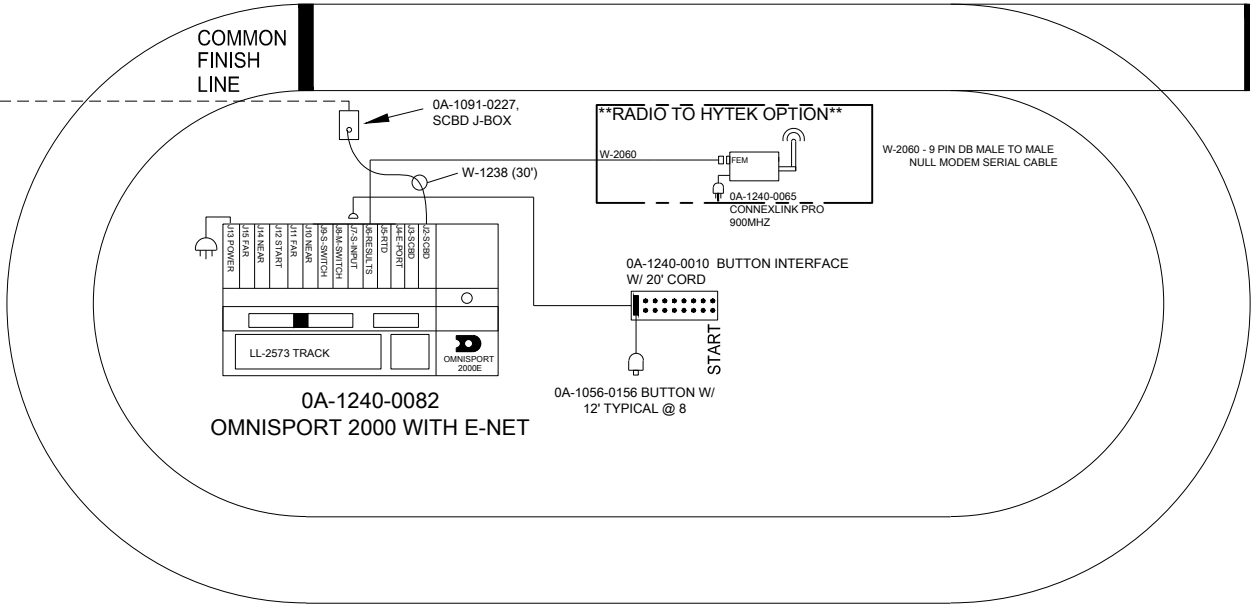
TRACK SYSTEM RISER DIAGRAM

TRACK SCBD WITH
OMNISPORT 2000E, TRACK SIDE

(A) SCOREBOARD SIGNAL CABLE OPTIONS:
- W-1234, 2 PAIR SIGNAL CABLE.
CONDUIT REQUIRED.



STANDS



TRACK SCOREBOARD

TRACK EQUIPMENT BOM:
0A-1240-0082 OMNISPORT 2000E (TRACK TIMER) @ 1
W-1238 30' SIGNAL CABLE @ 1
0A-1091-0227 TRACK SIDE J-BOX @ 1
0A-1240-0010 BUTTON INTERFACE @ 1
0A-1056-0156 12" PUSH BUTTON @ 9

-IF MORE THAN 8 LANES ARE REQUIRED, OR MORE THAN 1 BUTTON PER LANE, REPLACE 0A-1240-0010 WITH 0A-1240-0016 AND ORDER THE NUMBER OF BUTTONS NEEDED.

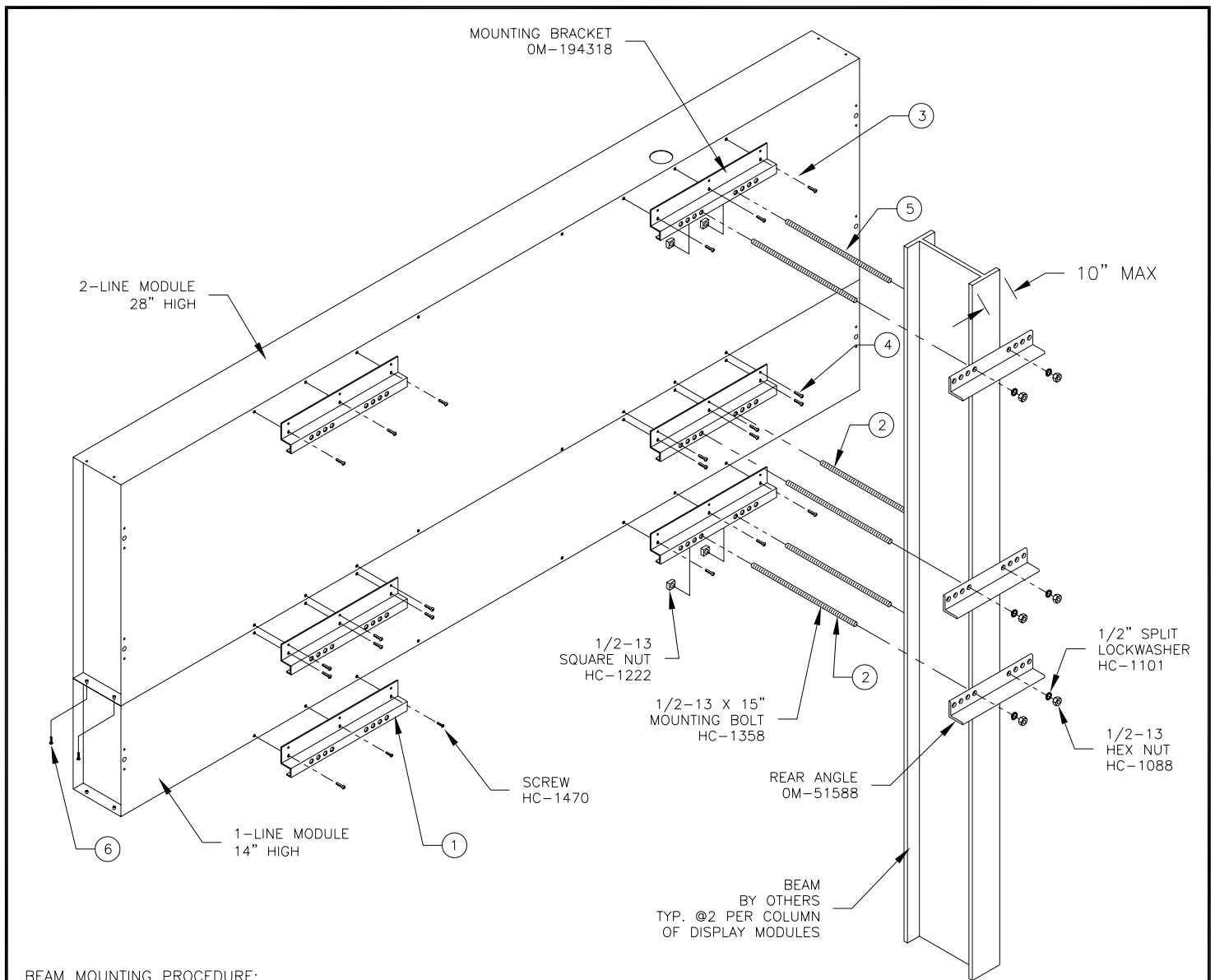
REV 06	DATE: 14 FEB 14	UPDATED HYTEK RADIO EQUIPMENT.	BY: SMB
REV 05	DATE: 18 APR 12	UPDATED CABLES FROM RADIOS	BY: KZB
REV 04	DATE: 15 SEPT 09	ADDED RADIO TO HYTEK OPTION	BY: CME
REV 03	DATE: 28 DEC 05	DELETED START CABLE AND START EQUIPMENT OPTIONS	BY: SAL
REV 02	DATE: 10 FEB 04	UPDATED TITLE BLOCK AND DRAWING TEXT.	BY: MWM
REV 01	DATE: 13 MAY 03	ADDED TYPICAL FOR ALL CABLE REQUIREMENTS IN NOTE	BY: SAL

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

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PROJ: OMNISPORT 2000E TIMER
TITLE: SYSTEM RISER: TRACK SCBD W/ OMNI 2K- TRACK SIDE
DESIGN: MILLER
DRAWN: MILLER
SCALE: 1=1
DATE: 08 APR 03

SHEET	REV	JOB NO:	FUND-TYPE-SIZE	186548
06	P1240	R-01-A		



BEAM MOUNTING PROCEDURE:

THE CIRCLED NUMBERS IN THE DRAWING REFER TO THE STEPS OF THIS PROCEDURE.

ONLY ONE BEAM IS SHOWN, TWO BEAMS REQUIRED FOR EACH COLUMN OF DISPLAY MODULES. BEAMS MUST BE SET 4'-6" APART, CENTER TO CENTER.

1. ATTACH MOUNTING BRACKETS TO THE TOP AND BOTTOM OF THE LOWEST DISPLAY MODULE IN THE SYSTEM BY INSERTING SCREWS THROUGH THE HOLES IN THE BRACKET AND THREADING INTO THE CAPTIVATED NUTS IN THE BACK OF THE MODULE.
2. POSITION THAT MODULE AGAINST THE BEAMS AND SECURE TO THE BEAM WITH THE BOLTS, WASHERS, AND NUTS PROVIDED. THE SQUARE NUTS GO INSIDE THE BRACKET, AND THE HEX NUTS AND WASHERS ARE USED INSIDE THE REAR ANGLE AT THE BACK OF THE BEAM. USE A 3/4" SOCKET TO TIGHTEN. **CAUTION:** DO NOT OVERTIGHTEN AND DEFORM THE BRACKET OR ANGLES.
3. ATTACH THE UPPER MOUNTING BRACKET TO THE NEXT MODULE AND SET IT ON TOP OF THE FIRST MODULE.
4. INSTALL SCREWS THROUGH THE BRACKET TO SECURE THE BOTTOM OF THE SECOND MODULE.
5. SECURE THE UPPER BRACKET TO THE BEAMS WITH THE BOLTS, WASHERS, AND NUTS.
6. ATTACH THE MODULES TOGETHER AT THE ENDS BY INSERTING SCREWS UP THROUGH THE HOLES IN THE TOP OF THE LOWER MODULE INTO THE CAPTIVATED NUTS IN THE BOTTOM OF THE UPPER MODULE.
7. CONTINUE BUILDING UP IN THIS MANNER FOR ANY REMAINING MODULES IN THE SYSTEM. CAPTION MODULES ARE ATTACHED ONLY TO THE ADJACENT DIGIT MODULES, AND DO NOT ACCEPT BEAM MOUNTING BRACKETS.

SEE DRAWING 1153-R10A-194671 FOR A SIDE VIEW AND DETAILS.

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DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS SCOREBOARDS			
TITLE: BEAM MOUNTING PROCEDURE			
DES. BY: A VANBEMMEL		DRAWN BY: M LEOPOLD	
DATE: 11 AUG 03			
REVISION	APPR. BY:	1153-R10A-194664	
00	SCALE: 1=20		

REV.	DATE	DESCRIPTION	BY	APPR.

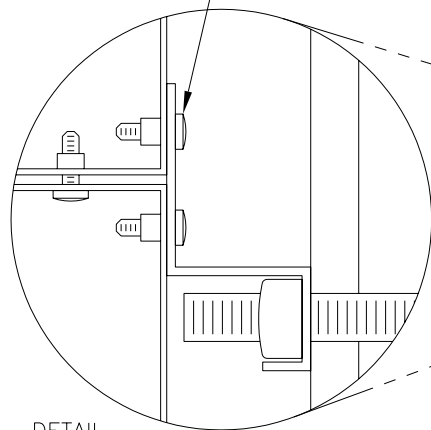
A TYPICAL INSTALLATION MAY BE MADE UP OF 1- & 2-LINE MODULES AND CAPTION MODULES. THEIR SPECIFIC LOCATIONS ARE DETERMINED BY THE SYSTEM SPECIFICATIONS. ONLY ONE OF EACH IS SHOWN HERE.

CAPTION MODULE
7" HIGH

2-LINE MODULE
28" HIGH

THESE SCREWS ARE USED TO SECURE THE BRACKETS TO THE BACK OF THE MODULES, AND TO JOIN MODULES TOGETHER AT THE ENDS.

10-24 X 5/8" SCREW
HC-1470



DETAIL
SCALE 1=2

1-LINE MODULE
14" HIGH

1/2-13 SQUARE NUT
HC-1222

MOUNTING BRACKET
OM-194318

SUPPORT BEAM
BY OTHERS
MAX. 6" WIDE
MAX. 13" DEEP

MOUNTING BOLTS DO NOT GO THROUGH THE BEAM, BUT PASS ALONG EITHER SIDE. NO DRILLING REQUIRED.

MOUNTING BOLT
HC-1358

REAR ANGLE
OM-51588

1/2-13 NUT
HC-1088

1/2" SPLIT
LOCKWASHER
HC-1101

SEE DRAWING 1153-R10A-194664 FOR A VIEW FROM THE REAR OF THE DISPLAY, AND STEP BY STEP PROCEDURE.

SIDE VIEW

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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS SCOREBOARDS

TITLE: BEAM MOUNTING, SIDE VIEW

DES. BY: A VANBEMMEL

DRAWN BY: M LEOPOLD

DATE: 11 AUG 03

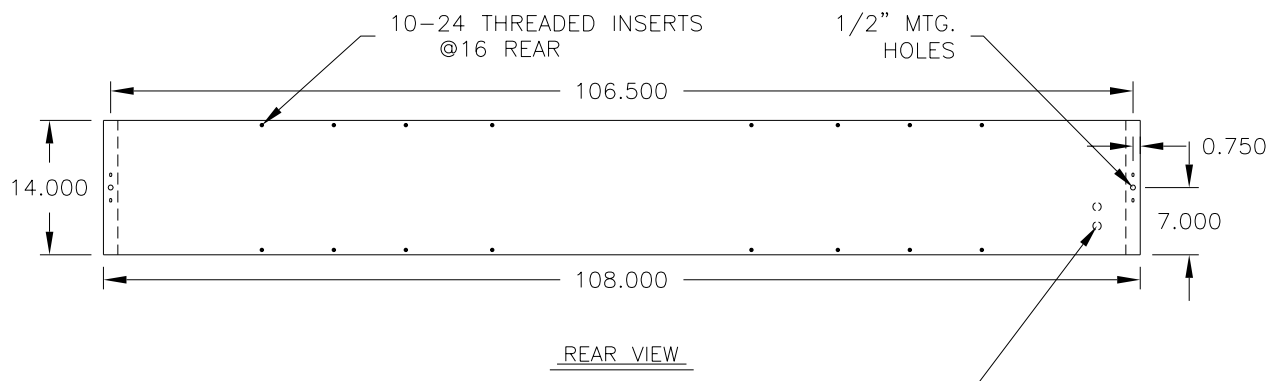
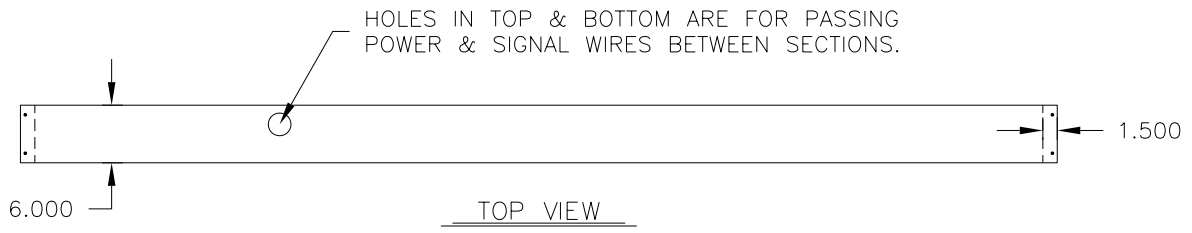
REVISION

APPR. BY:

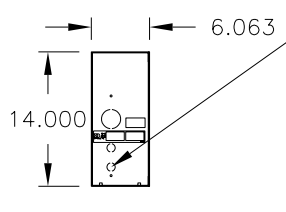
SCALE: 1=8

1153-R10A-194671

REV.	DATE	DESCRIPTION	BY	APPR.
00				



KNOCKOUTS ON SIDE & REAR MAY BE USED TO ROUTE POWER AND SIGNAL INTO THE DISPLAY.



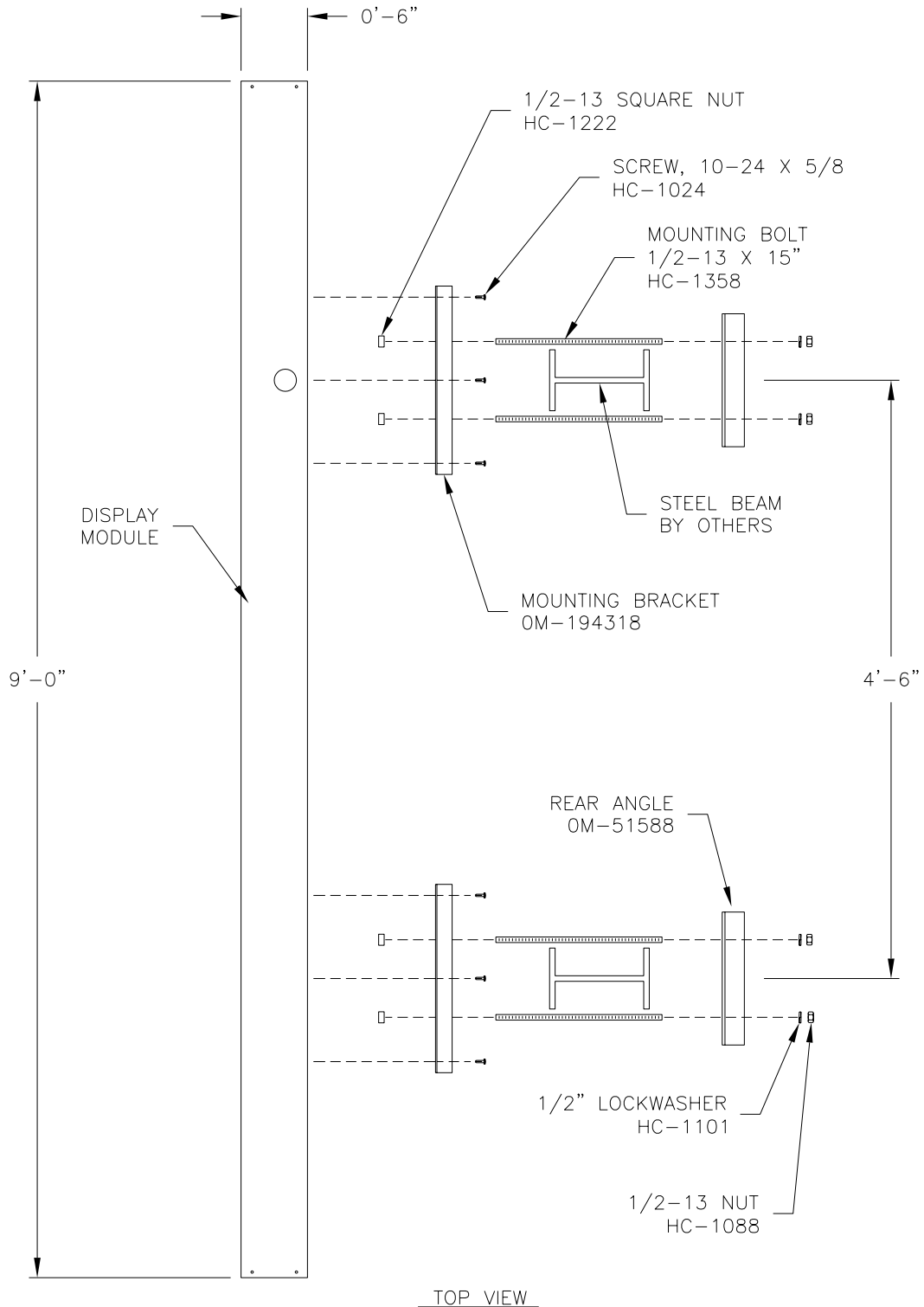
MOUNTING WEIGHT: 45 LBS.
DIMENSIONS: 108" x 14" x 6"

INDOOR MODELS

NOTE: -SEE ELECTRICAL SPECIFICATION DRAWINGS FOR THE FRONT VIEWS OF VARIOUS MODELS.

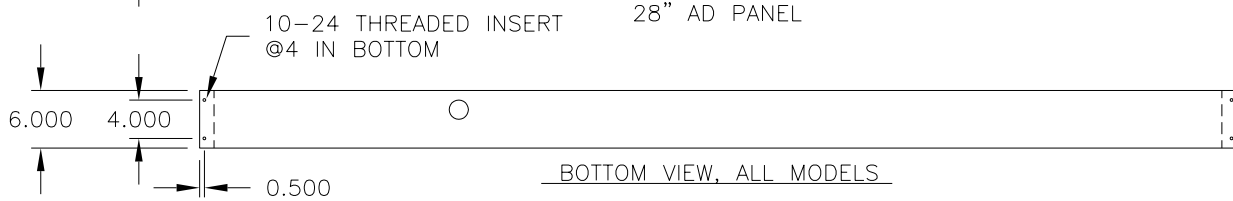
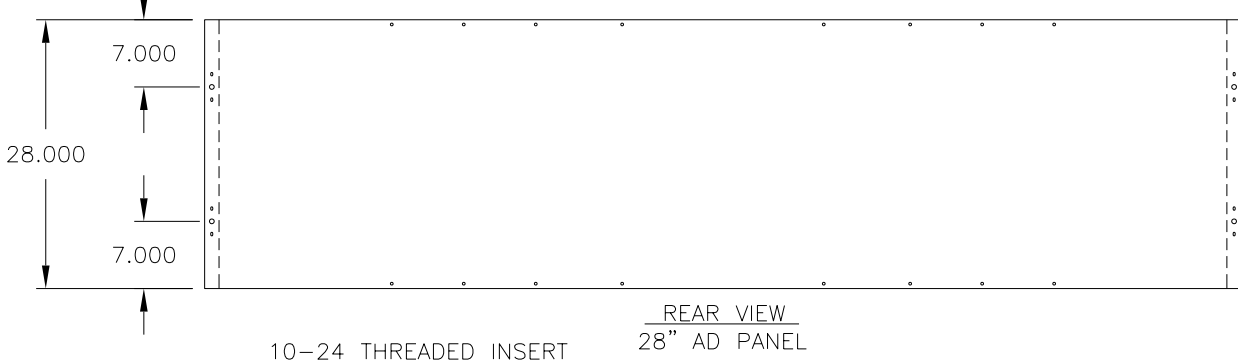
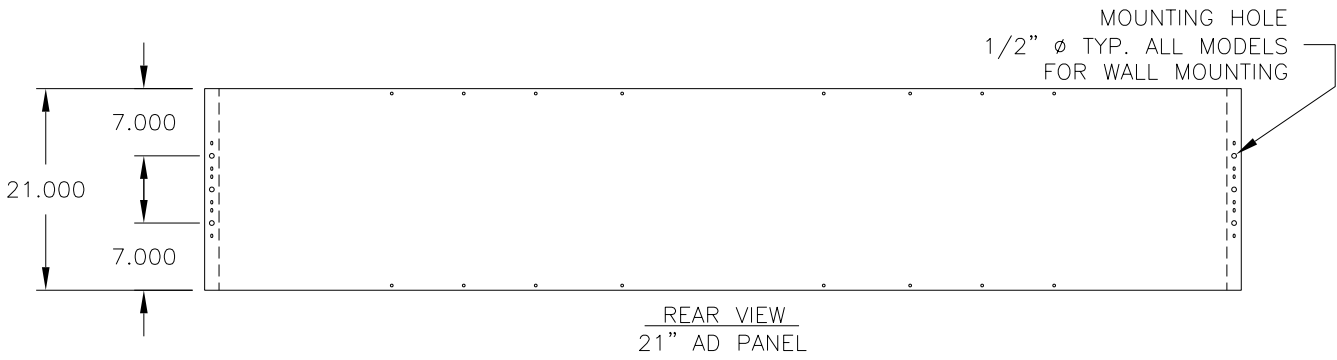
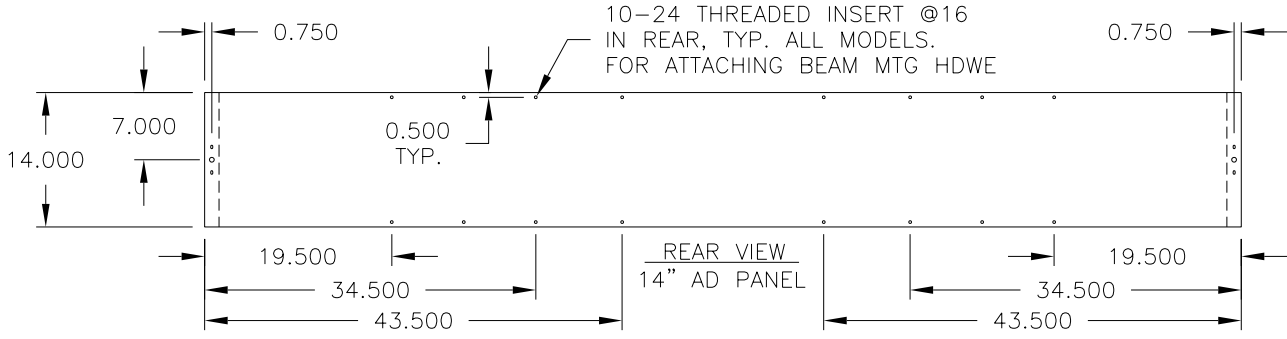
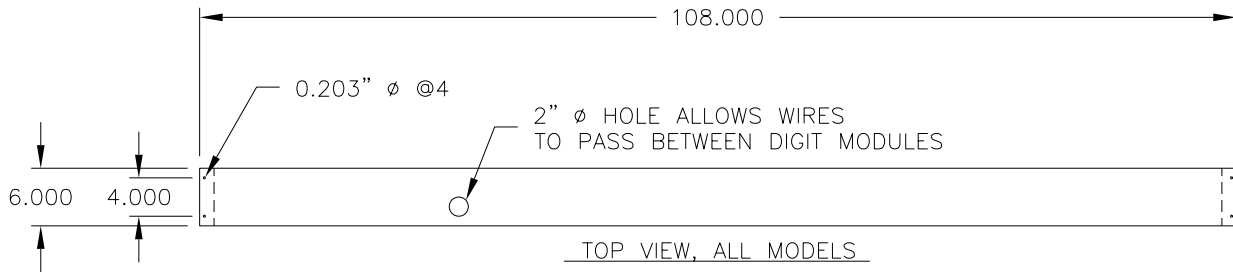
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DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS SCOREBOARDS			
TITLE: MECHANICAL SPECIFICATIONS, 1-LINE DIGIT MODULE			
DES. BY: A VANBEMMEL		DRAWN BY: M LEOPOLD	
		DATE: 11 AUG 03	
REVISION	APPR. BY:	1153-R04A-194673	
00	SCALE: 1=20		

REV.	DATE	DESCRIPTION	BY	APPR.



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DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS SCOREBOARDS			
TITLE: BEAM MOUNTING, TOP VIEW			
DES. BY: A VANBEMMEL		DRAWN BY: M LEOPOLD	
		DATE: 11 AUG 03	
REVISION	APPR. BY:	1153-R10A-194674	
00	SCALE: 1=15		

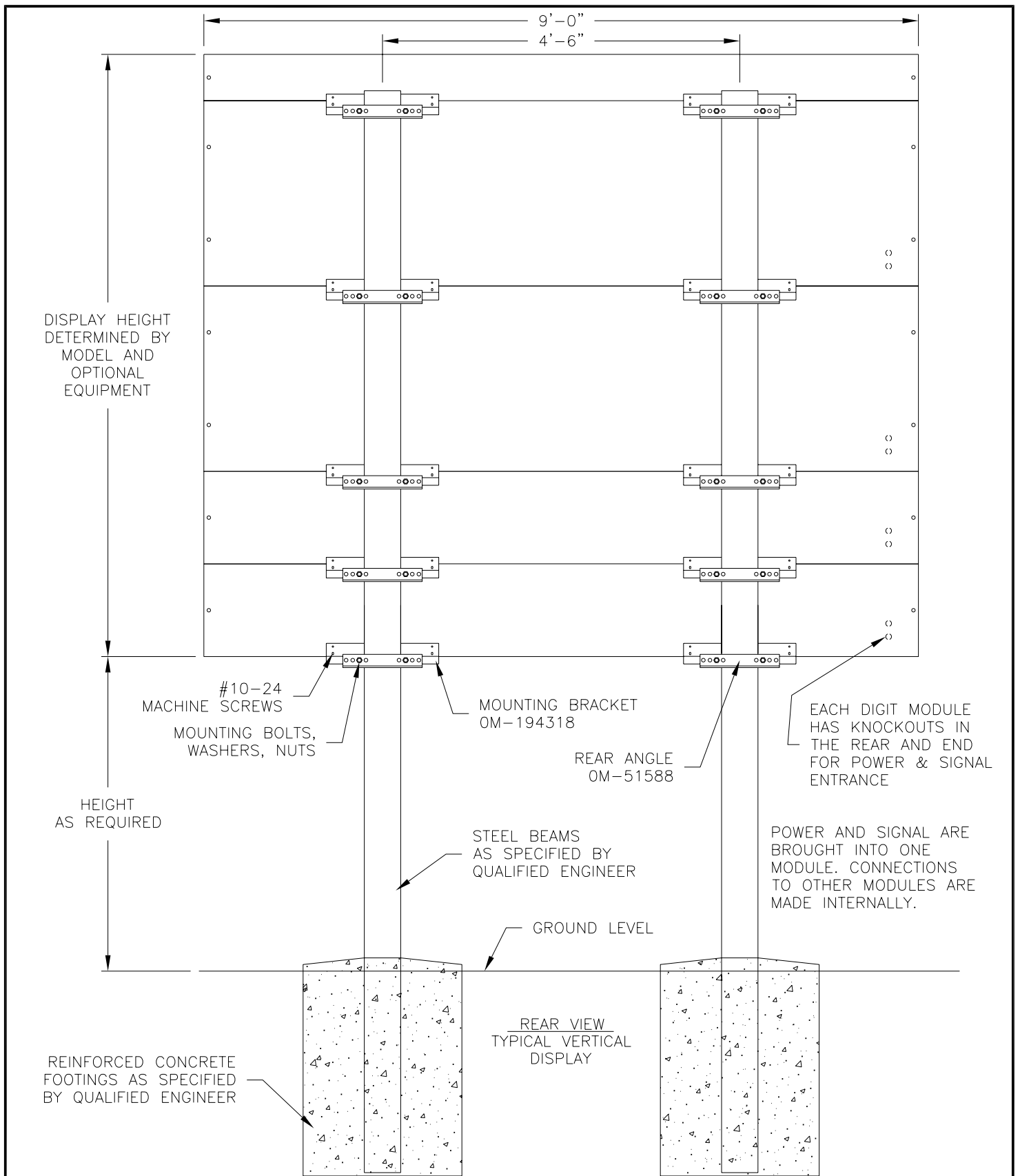
REV.	DATE	DESCRIPTION	BY	APPR.



FRONT OF AD PANELS NOT SHOWN. ALL ARE PAINTED ALUMINUM SURFACE ON THE FRONT, WITH NO HOLES. AD COPY MAY BE PAINTED OR VINYL.

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DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS SCOREBOARDS			
TITLE: MECHANICAL SPECIFICATIONS, AD PANELS			
DES. BY: A VANBEMMEL		DRAWN BY: M LEOPOLD	DATE: 11 AUG 03
REVISION	APPR. BY:	1153-R08A-194676	
00	SCALE: 1=20		

REV.	DATE	DESCRIPTION	BY	APPR.



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DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS SCOREBOARDS

TITLE: BEAM MOUNTING, REAR VIEW, VERTICAL DISPLAY

DES. BY: A VANBEMMEL

DRAWN BY: M LEOPOLD

DATE: 11 AUG 03

REVISION

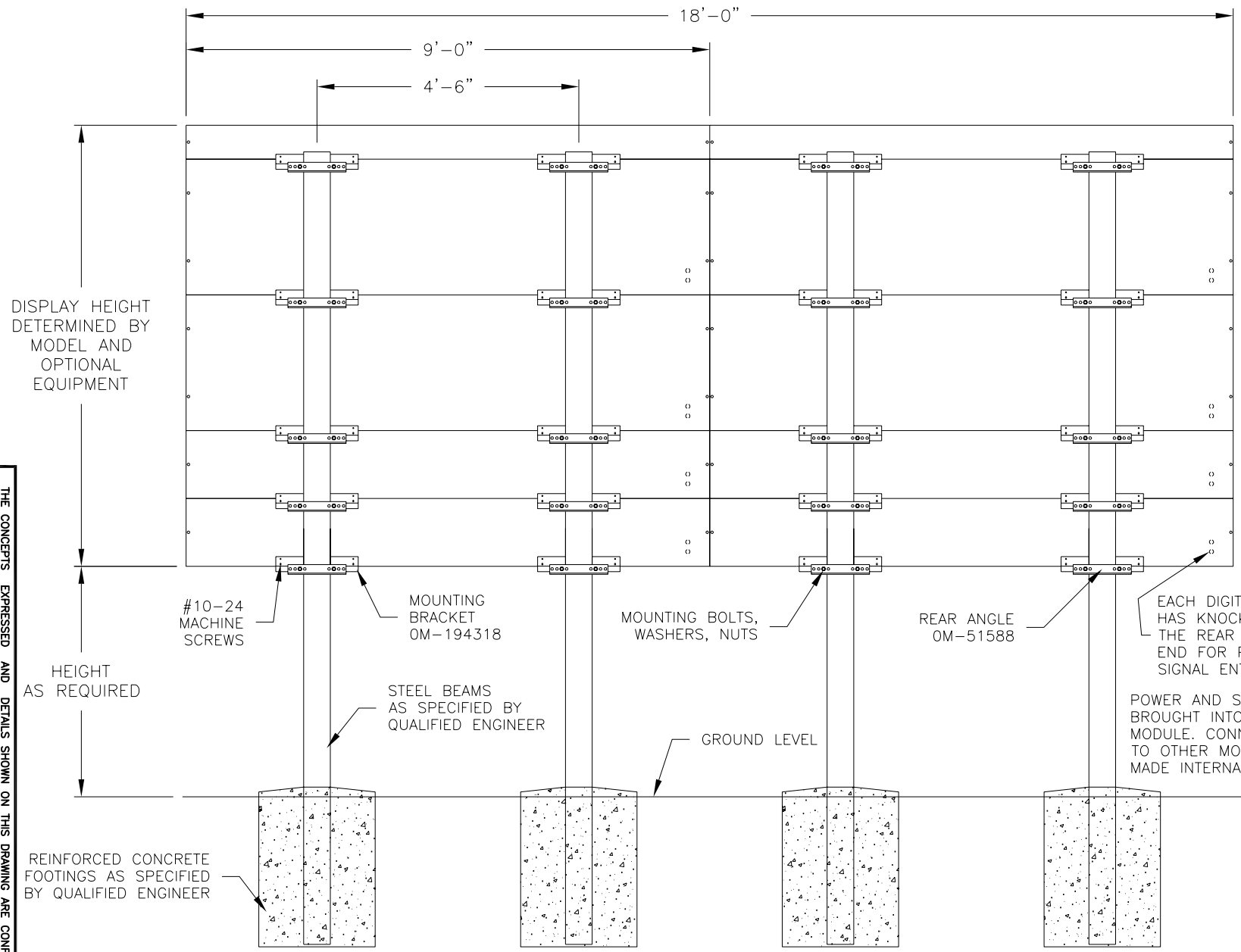
APPR. BY:

SCALE: 1=20

1153-R10A-194677

REV.	DATE	DESCRIPTION	BY	APPR.
00				

REV.	DATE	DESCRIPTION	BY	APPR.
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REAR VIEW
TYPICAL HORIZONTAL
DISPLAY

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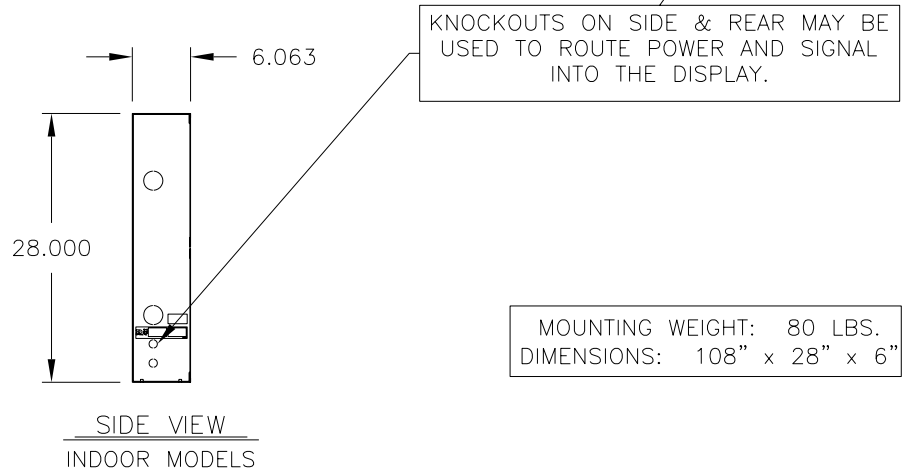
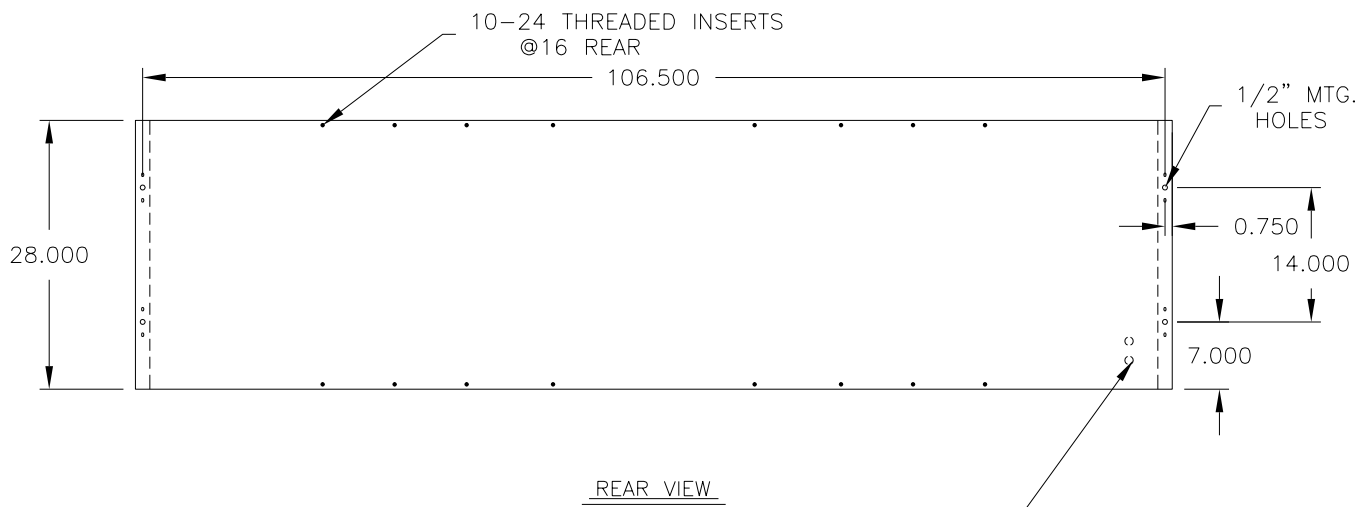
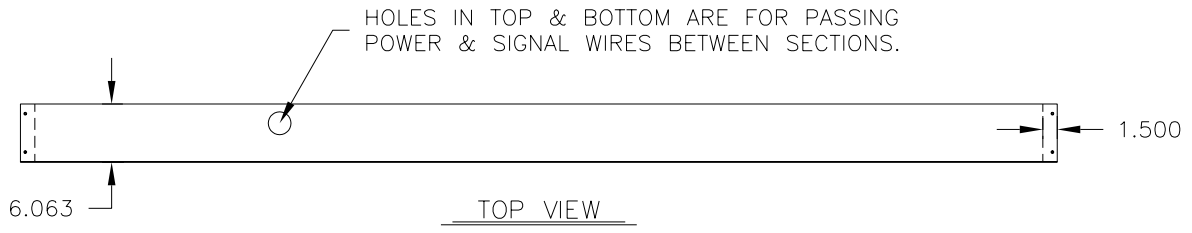
DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: LED AQUATICS SCOREBOARDS

TITLE: BEAM MOUNTING, REAR VIEW, HORIZONTAL DISPLAY

DES. BY: A VANBEMMEL DRAWN BY: M LEOPOLD DATE: 11 AUG 03

REVISION 00 APPR. BY: SCALE: 1=30 1153-R10A-194678

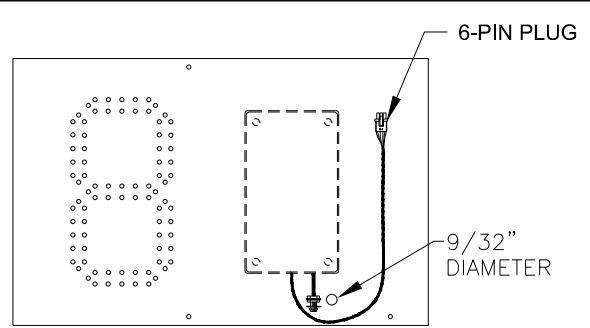
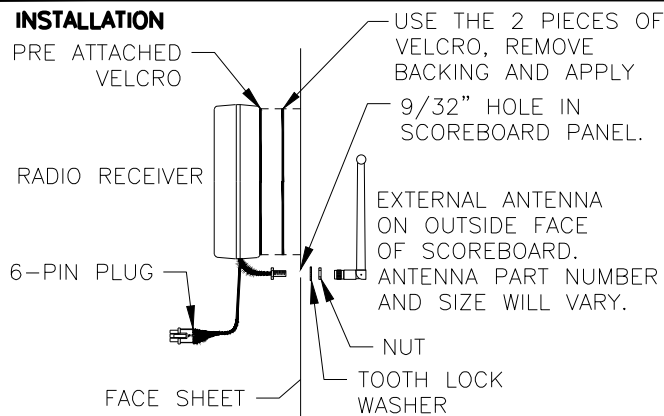


NOTE: -SEE ELECTRICAL SPECIFICATION DRAWINGS FOR THE FRONT VIEWS OF VARIOUS MODELS.

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DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: LED AQUATICS SCOREBOARDS			
TITLE: MECHANICAL SPECIFICATIONS, 2-LINE DIGIT MODULE			
DES. BY: A VANBEMMEL		DRAWN BY: M LEOPOLD	
DATE: 11 AUG 03			
REVISION	APPR. BY:	1153-R04A-194679	
01	SCALE: 1=20		

01	25 MAY 05	CORRECTED HEIGHT OF DISPLAY.	AVB	
REV.	DATE	DESCRIPTION	BY	APPR.

RADIO INSTALLATION

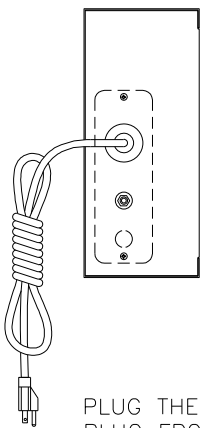


GYRUS VIEW

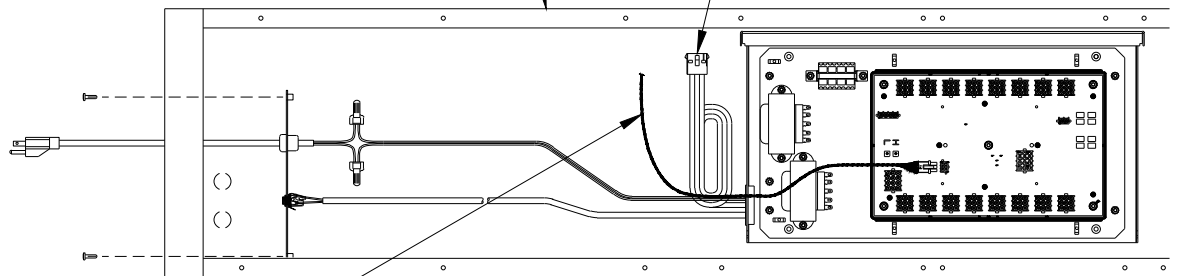
INDOOR SCOREBOARD

1-LINE MODULE (SHOWN WITH THE LEFT FRONT PANELS REMOVED)

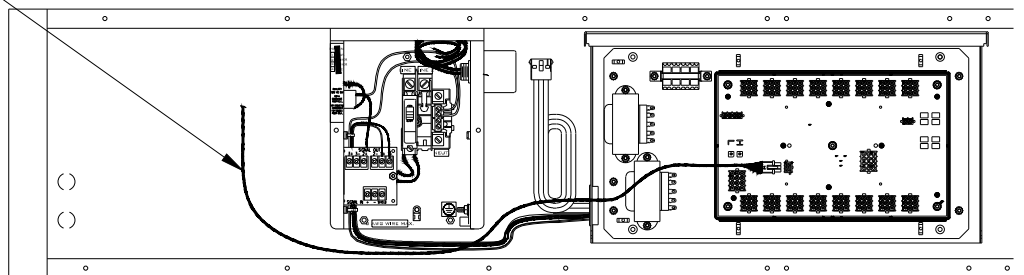
ROUTE THE CABLE FROM EACH MODULE UP INTO THE NEXT MODULE AND CONNECT TO THE MATING CONNECTOR.



PLUG THE 6-PIN MALE PLUG FROM THE RADIO RECEIVER INTO THE MATING 6-PIN JACK (J21) ON THE DRIVER PCB AS SHOWN.



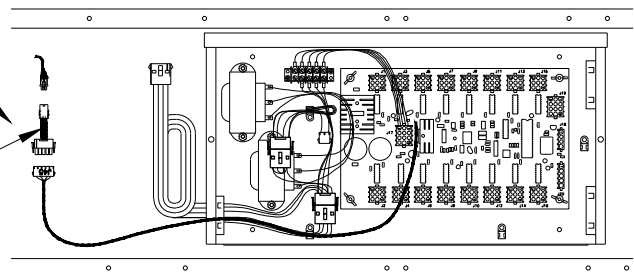
OUTDOOR SCOREBOARD



LEGACY VIEW


PLUG THE 6-PIN MALE PLUG FROM THE RADIO RECEIVER INTO THE MATING 6-PIN JACK OF THE ADAPTOR HARNESS (W-2913).
 PLUG THE MALE 5-PIN END OF THE ADAPTER HARNESS INTO THE MATING 5-PIN CONNECTOR (J45) COMING FROM THE DRIVER.

W-2913



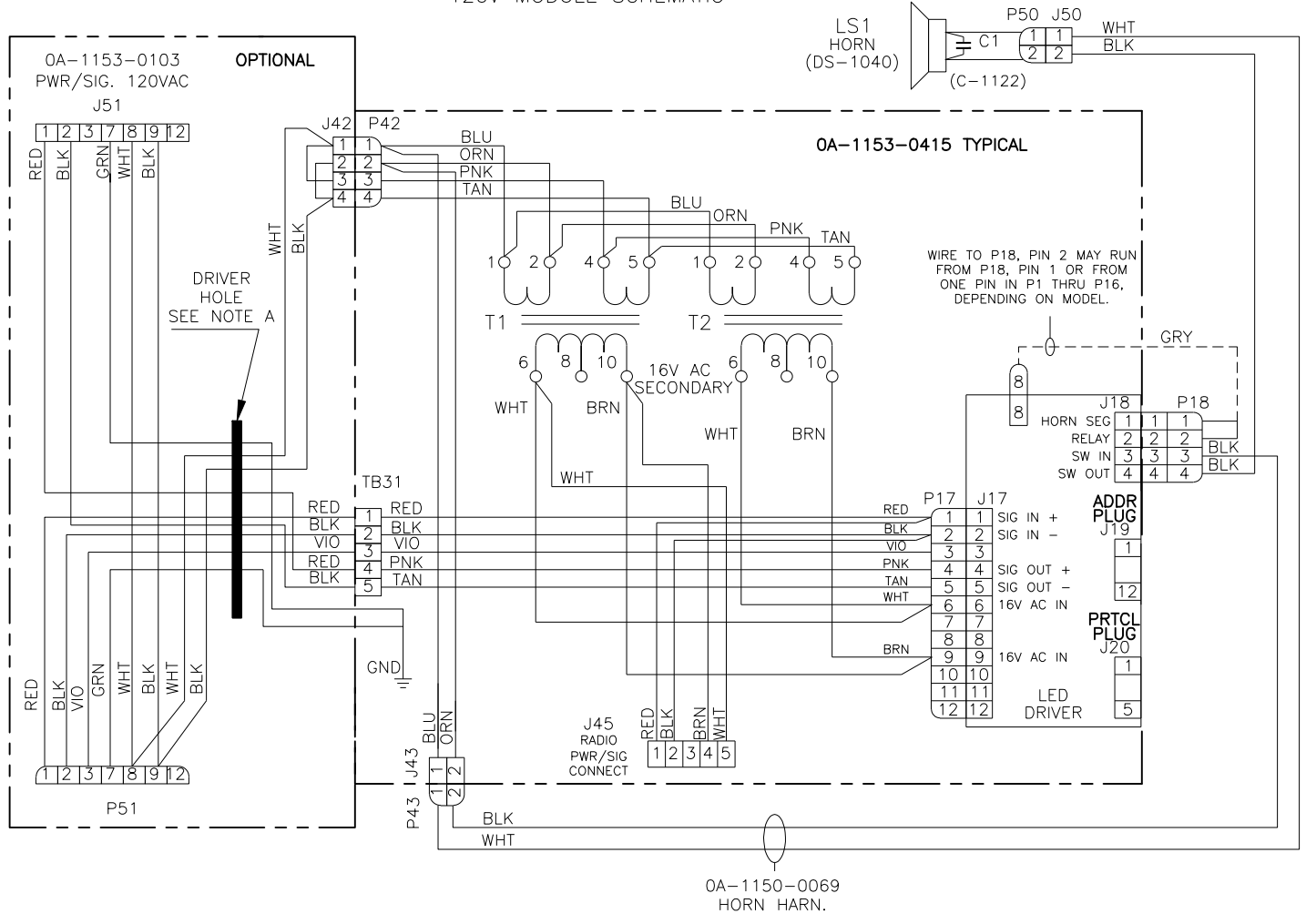
NOTE:

WHEN INSTALLING A RADIO IN A HORIZONTAL BOARD, MOVE THE RED WIRE ON THE DRIVER TB31 FROM PIN 3 TO PIN 1.

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	PROJ.: LED AQUATICS / TRACK DISPLAYS TITLE: AQUATICS- RADIO HOOKUP		
DESIGN:	DRAWN: AGORDER		DATE: 17 MAY 07
SCALE: NONE			
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE
	03	P1153	R-10-A
			305509

REV 03	DATE: 3 MAR 15	UPDATED WITH GYRUS AND ADAPTOR HARNESS VIEWS	BY: KCS
REV 02	DATE: 22 MAR 11	UPDATED DRIVER PART NUMBER	BY: KZB
REV 01	DATE: 19 DEC 07	ADDED OUTDOOR SCOREBOARD AND REWIRING OF DRIVER FOR HORIZONTAL BOARDS.	BY: AMG

120V MODULE SCHEMATIC



NOTES:

ALL DRIVERS USED IN THIS SETUP MUST HAVE A PROTOCOL PLUG (P20) AND AN ADDRESS PLUG (P19).

HORN AND HORN HARNESS SHOWN ARE OPTIONAL. CHECK ASSEMBLY PACKET TO SEE IF THE OPTION IS REQUIRED.

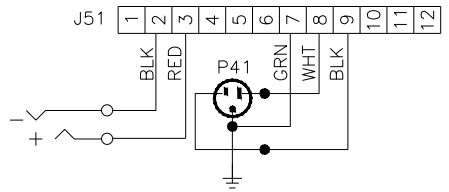
NOTE A:

PUT WIRES THROUGH THE DRIVER HOLE TO GET FROM THE J51 AND P51 TO OA-1153-0415

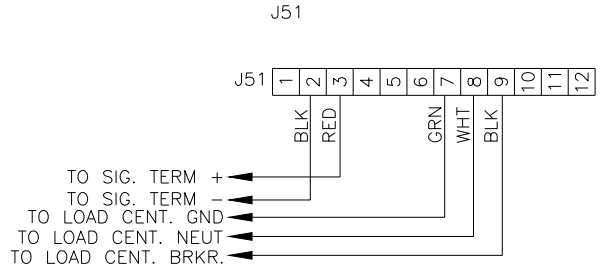
TEST HARNESS USING SIGNATURE TESTER MMJ

- CONNECT P51 TO J76
 - CONNECT J42 TO P19
 - CONNECT J51 TO P9
 - CONNECT TB31-4 (RED) TO C3
 - CONNECT TB31-5 (BLK) TO C4
 - CONNECT TB31-3 (VIO) TO C12
 - CONNECT TB31-1 (RED) TO C1
 - CONNECT TB31-2 (BLK) TO C2
 - CONNECT J51 GROUND TO C5
 - CONNECT P51 GROUND TO C6
- SIGNATURE VALUE OF F0827D

120V INPUT SCHEMATIC



LOAD CENTER INPUT SCHEMATIC



DAKTRONICS, INC.
BROOKINGS, SD 57006

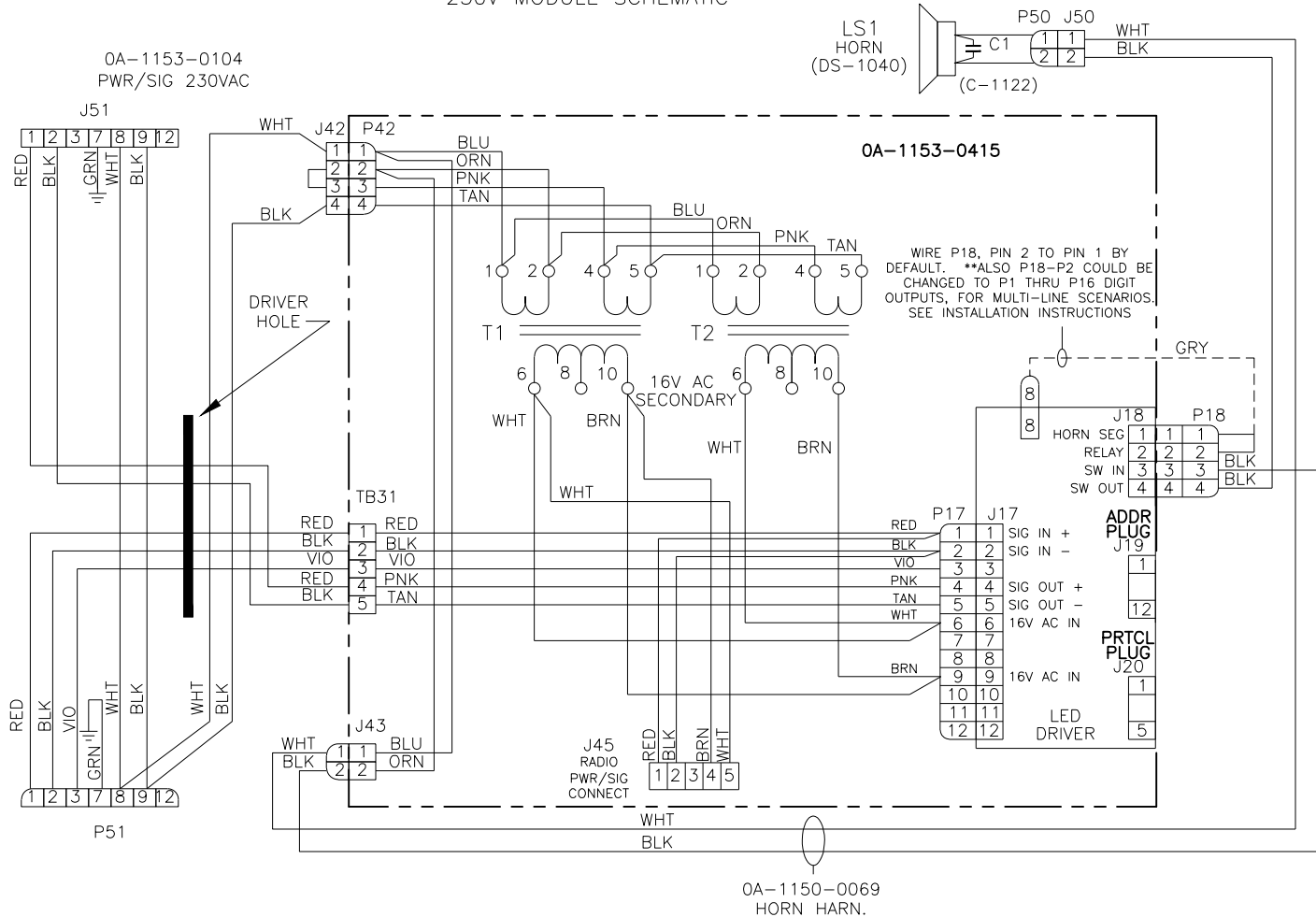
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DO NOT SCALE DRAWING

PROJ: LED AQUATICS			
TITLE: SCHEMATIC; 120VAC SINGLE DRIVER, HARNESS			
DESIGN: KBIERBA	DRAWN: KBIERBA	DATE: 22 MAR 11	
SCALE: NONE			
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE
01	01	P1153	R-03-A
			1048280

REV	DATE:	UPDATED TESTING INSTRUCTIONS	BY:
01	15 JUN 11	ECO 69930	KZB

230V MODULE SCHEMATIC



NOTES:

ALL DRIVERS USED IN THIS SETUP MUST HAVE A PROTOCOL PLUG (P20) AND AN ADDRESS PLUG (P19).

HORN AND HORN HARNESS SHOWN IS OPTIONAL. CHECK ASSEMBLY PACKET TO SEE IF IT IS REQUIRED.

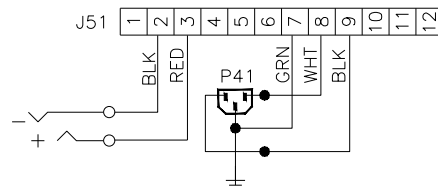
NOTE A

TEST HARNESS USING SIGNATURE TESTER MMJ

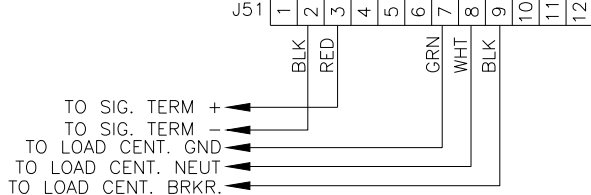
- CONNECT P51 TO J76
- CONNECT FROM GRAY WIRE: RED TO C12, BLACK TO C11
- CONNECT GND WIRE FROM P51 TO C6
- CONNECT VIO WIRE FROM P51 TO C5
- CONNECT J51 TO P9
- CONNECT FROM GRAY WIRE: RED TO C1, BLACK TO C2
- CONNECT GROUND TO C7
- CONNECT J42 TO P21

SIGNATURE VALUE OF 03C7AA

230V INPUT SCHEMATIC



LOAD CENTER INPUT SCHEMATIC
J51



DAKTRONICS, INC.
BROOKINGS, SD 57006

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DO NOT SCALE DRAWING

PROJ: LED AQUATICS			
TITLE: SCHEMATIC; 230VAC SINGLE DRIVER HARNESS			
DESIGN: KBIERBA	DRAWN: KBIERBA	DATE: 22 MAR 11	
SCALE: NONE			

REV 01	DATE: 28 JUL 11	UPDATED SIG VALUE UPDATED INSTALL TEXT FOR THE HORN J18 CONNECTIONS	BY: KZB	SHEET	REV 01	JOB NO: P1153	FUNC-TYPE-SIZE R-03-A	1048289
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Appendix B: Daktronics Warranty and Limitation of Liability

DAKTRONICS WARRANTY & 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. Unless otherwise defined herein, all 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. This Warranty does not include on-site labor charges to remove or install these components. 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. All such items shall be shipped by Purchaser DDP Daktronics; designated facility. If returned Equipment is repaired or replaced under the terms of this warranty, Daktronics will prepay ground transportation charges back to Purchaser and shall ship such items DDP Purchaser's designated facility; otherwise, Purchaser shall pay transportation charges to return the Equipment back to the Purchaser and such Equipment shall be shipped Ex Works Daktronics designated facility. 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 the 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.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS 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, ACCURACY 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 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 improper installation, 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, humidity control, or other environmental conditions outside of the Equipment's technical specifications such as extreme temperatures, corrosives and metallic pollutants, 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;

DAKTRONICS WARRANTY & LIMITATION OF LIABILITY

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 any salesperson, dealer, distributor or agent, 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;

H. Any performance of preventive maintenance;

J. Third-party systems and other ancillary equipment including without limitation front-end video control systems, audio systems, video processors and players, HVAC equipment, batteries and LCD screens;

K. Incorporation of accessories, attachments, software or other devices not furnished by Daktronics; or

L. Paint or refinishing the Equipment or furnishing material for this purpose.

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. **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.

6. **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).