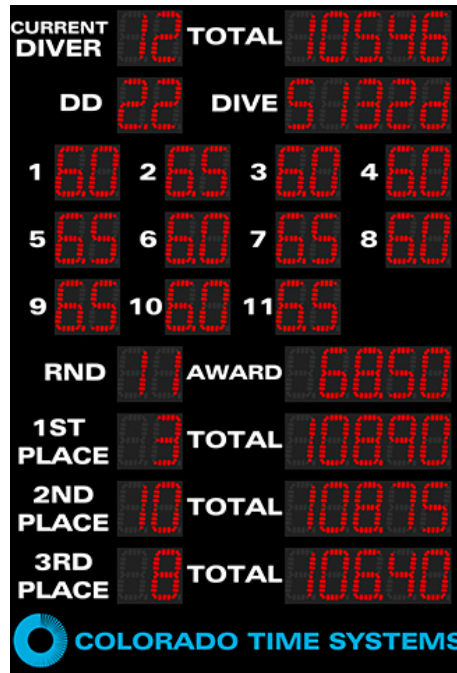




Diving Scoreboard

With 2.4 GHz Integrated Wireless



Installation and User Guide



**Colorado
TIME SYSTEMS**

A **PLAYCORE** Company
F995 Rev. 202007

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Product Identification

Product: Multiline Scoreboards

Model Numbers:

MS-0111 through MS-0113, MS-0165, MS-0167

Power Specification

320W power supply: 100-240V, 50/60Hz, max 4A

Information in this manual is subject to change without notice. Pictures and illustrations may not accurately depict your version. Please check our website for the most current information; our user manuals are available online in the customer service section of our website.

Part Number F995, Rev. 202007

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Product Overview

The Otter multiline scoreboards for Diving can be used indoors or outdoors. They feature a lightweight aluminum enclosure and plastic weather covers over the digits.

The scoreboard is controlled by a CTS sports console, and can be operated wired or wirelessly. When used wirelessly, the scoreboard is controlled by a certified radio patch antenna that is mounted internally which keeps it protected from damage.

The scoreboards also contain ambient light sensors which detect external light and shadows and then adjust the display for optimum visibility.

Scoreboard Installation Preparation

When a board is used outdoors, the power cord must be used in conjunction with an outdoor-rated receptacle.

**Typically, it is more convenient to complete the Channel and PAN settings (if necessary) on the ground prior to mounting the board. Instructions are on following pages.

It is the owner's responsibility to follow all applicable electrical and structural codes. It is the owner's responsibility to follow all applicable building codes.

Required mounting/installation drawings showing board dimensions, attachment points and weight are available from www.coloradotime.com

Physical mounting

Determine the location for the scoreboard. It is the owner's responsibility to choose a location which can support the weight of the scoreboard, which is listed in the installation drawing. The scoreboard is mounted to a wall, corner or pole using kits that can be purchased separately. Follow the instructions that are included with that mounting kit.

Scoreboard support structures are the responsibility of the facility, and must be designed by a qualified structural engineer to meet all national and local codes. Refer to scoreboard installation drawing, showing the boards' dimensions, attachment points and weight.

The board must not be connected to live AC power during installation.

Setting Channel and PAN

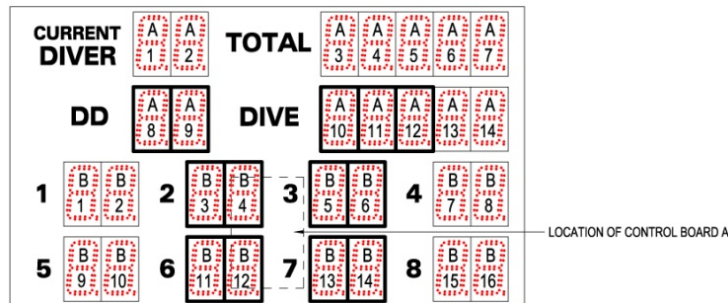
If using a WA-2 wireless adapter with a sports timer, you must have the adapter and scoreboard set to the same Channel and PAN. It is usually easiest to set the adapter to match the scoreboard's Channel and PAN. Follow the WA-2 user instructions to change its channel and PAN.

The scoreboard's default factory settings are Channel 8 / PAN 0

Occasionally it is preferable to change the scoreboard's Channel and PAN to match a wireless adapter connected to a timer.

To set the scoreboard's Channel and PAN:

1. Remove end cap of one side by removing the screws. Slide out the second weather cover to expose control board A (see image below). Place all of these materials in a safe place for later re-installation.
2. Remove the digits over the control board by unscrewing the screws holding them in place, and lean the digits against the scoreboard.



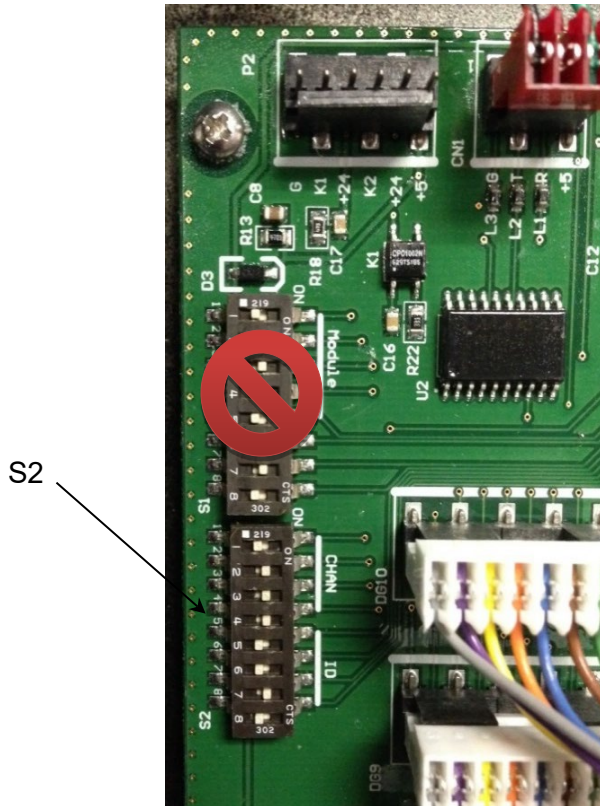
- Set the Channel and PAN on the dip switches for control board A:

DIP switch settings (Off = 0, On = 1)

Channels: Switches **1-4 of S2**. 0 to 11 are valid
PAN ID: Switches **5-8 of S2**. 0 to 15 are valid

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

NOTE: Settings of S1 should not be changed. Doing so will cause the display to cease functioning properly.



- Replace any digits you removed. Replace the weather covers. Replace end cap.

Operating Instructions

Once the scoreboard is powered up it displays an initialization routine on the top line and also on the digits for the first 2 judges:

- LEDs on
- Digits count up 0 through 9
- Displays version number
- Rotates through address, channel and PAN at least 3 times. For example, a board set to address 1, channel 8 and PAN 0 would show A01, C08, and P00.

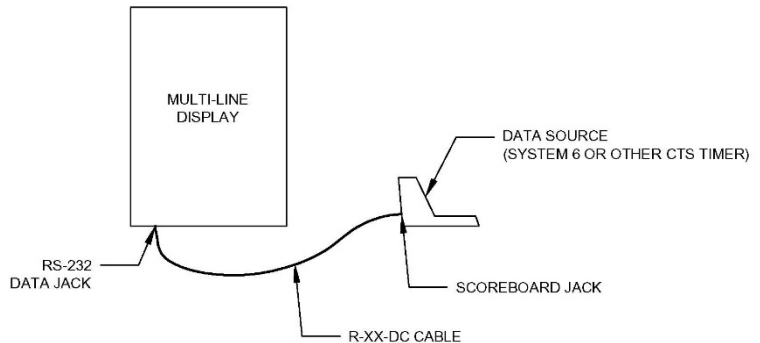
The scoreboard is then ready for signals from a CTS sports console (System 6, System 5, or System 4000).

Cabled connection:

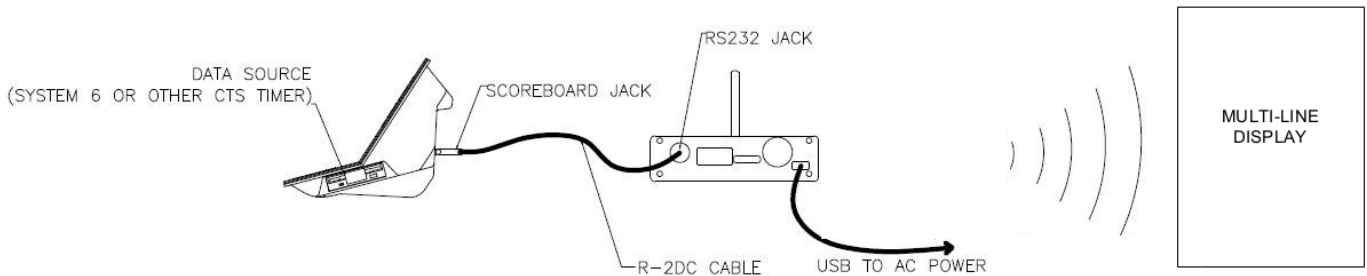
Scoreboard cables must be supported a minimum of every 6 feet when not in conduit. When conduit is used, the conduit must be secured every 3 feet at minimum.

Scoreboard cables must not be spliced in either indoor or outdoor applications. If using wired data make sure there are no sharp bends in the cable. A bend in RS-232 cables must have a minimum bend radius of 1.0”.

Use a data cable (R-xxDC) to connect your sports timer to the round quarter-inch RS-232 jack on the bottom of the scoreboard.



Wireless connection:



When using a wireless connection, the WA-2 wireless adapter and scoreboard must be set to the same channel and PAN. Follow the WA-2 user instructions to change its channel and PAN. Follow instructions on previous pages if scoreboard channel and PAN must be changed.

Displaying data correctly

Proper operation of the scoreboard requires the default scoreboard module definitions on the timer.

Ambient Light Sensor Set-up and Operation

The ambient light sensors can be enabled and disabled from a System 6.

To turn the sensor on, follow these steps:

1. Go to the Setups screen in Diving
2. Select "Scoreboard" on the left pane
3. Choose Scoreboard Intensity
4. Select "2" as the intensity value
5. Press "Save Settings" if you want the ambient light sensor turned on each time you enter Diving.

The board will now begin to control the intensity automatically based on the intensity of the light hitting the board.

To turn the sensor off, follow steps above, 1-3 selecting anything above a 2 for the intensity value and press "Save Settings" if you do not want the ambient light sensor on each time you enter Diving.

Troubleshooting

Issue	Solutions
No data appears on the scoreboard	<ol style="list-style-type: none">1. Check that the scoreboard is plugged in to a working AC outlet.2. Check that timer is plugged in and functioning.3. Check that any cables are firmly attached4. If using a wireless adapter, consult the user instructions for that adapter, and make sure that all settings (channel, etc.) are configured correctly5. Ensure that the scoreboard is not “blanked” from the sports timer. Consult your timer’s user’s manual for details.
Expected data does not appear on the scoreboard	<p>Garbled data is displayed: If you are sending data from a sports timer older than the System 6, make sure the timer is set to high speed data rather than low speed data. (The System 6 only sends high speed data).</p> <p>Incorrect or missing data: Make sure the timer’s scoreboard module definitions are set to the default settings.</p>

Standards followed

UL 48

Issue:2011/09/02 Ed:15 Rev:2012/05/04 UL Standard for Safety Electric Signs

CAN/CSA C22.2#207

*Issue:1989/01/01 Portable and Stationary Electric Signs and Displays General
Instruction No 1: 1989/10/01 - (R2008)*

FCC 47CFR 15B cIB

Issued: 2015/10/01 Title 47 CFR Part 15 Subpart B Unintentional Radiators Class A Verification

ICES 003

Issue:2004/01/01 Issue No.4 Interference-Causing Equipment Standard, Digital Apparatus



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