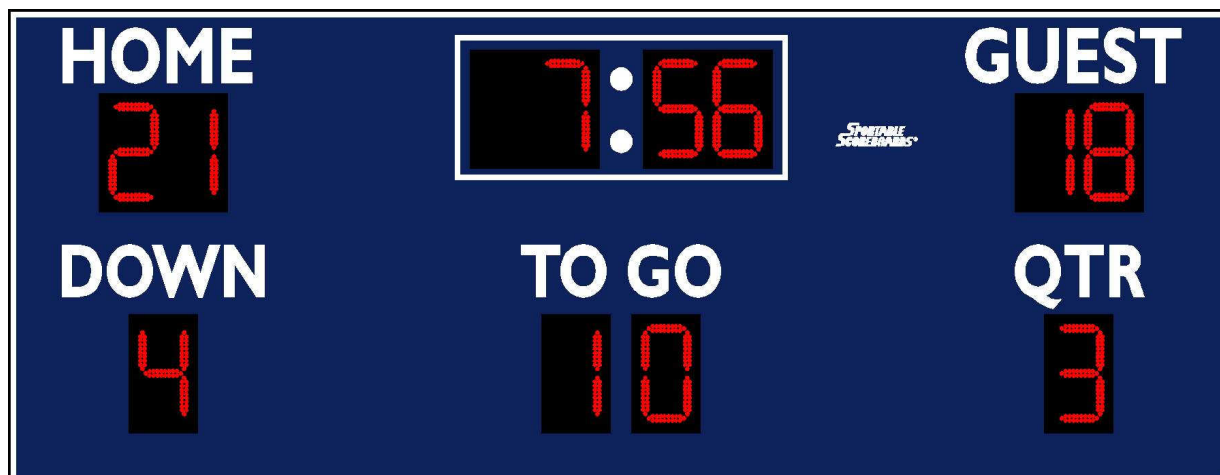


# SPORTABLE SCOREBOARDS®

## INSTALLATION INSTRUCTIONS FOR



**Model 7416LED**

[www.sportablescoreboards.com](http://www.sportablescoreboards.com)

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# DESCRIPTION

## MODEL 7416LED

### OUTDOOR SCOREBOARD

**NOTE TO INSTALLERS: PLEASE RETURN THIS MANUAL TO THE INDIVIDUAL IN CHARGE OF THE SCOREBOARD UPON COMPLETION OF INSTALLATION.**

The scoreboard and all accompanying accessories have been carefully inspected and tested before leaving the factory. However, it is possible for damage to have occurred during shipping. Therefore, we ask that you inspect all shipping containers upon arrival for damage and ensure that you have all of the parts listed below. If you find that damage has occurred during shipping: **DO NOT refuse the shipment, follow the instructions for filing a freight damage claim found below, and notify the manufacturer immediately.**

*THE SCOREBOARD SYSTEM SHOULD INCLUDE THE FOLLOWING PARTS:*

**ITEMS IN LARGE PACKAGE**

- (1) 6' x 16' scoreboard; shipped in two (2) section

**ITEMS IN ACCESSORY BAG**

- (1) Keyboard controller with keypad inserts
- (1) 12-volt DC wall transformer
- (1) CD ROM (including installation, operation, maintenance, warranty, and support information)

**Cable-controlled systems (standard):**

- (1) Junction box cover with built-in 5-pin din socket
- (1) 20-ft. din cable with male 5-pin plugs
- (1) 150' roll of control cable or longer if customer specified

**For wireless systems (Optional):**

- (1) Wireless transmitter with interface cable
- (1) Keyboard mounting bracket for transmitter

**Optional parts:**

- (1.2) 21"x8' sponsor panel(s) shipped in one (1) section
- (1) Internal Battery Pack for LCD Keyboard Controller

**NOTE: INSTALLATION HARDWARE NOT SUPPLIED. CHECK LOCAL CODE FOR REQUIREMENTS. ANCHORS, BOLTS, CHAINS, CABLES AND RELATED HARDWARE MUST MEET MINIMUM WEIGHT REQUIREMENTS.**

## INSTRUCTIONS FOR REPORTING SHIPPING DAMAGE

Shipping damage must be noted at the time of delivery. Consignee must note on the "Delivery Receipt" form DAMAGED. Please make notations of the type of damage to the freight and to the packaging. Ask the delivery driver to call the local terminal and report immediately. The shipper is not responsible for the shipments that are not signed for as damaged upon arrival. Please contact the manufacturer immediately to report. The shipper is responsible for filing the claim, unless shipped 3<sup>rd</sup> party.

If damage is discovered after delivery, call the delivery company to report the concealed damage and please call the manufacturer immediately to report. Concealed damage must be reported within 5 days after the delivery date. If the damages are found after this time, the manufacturer will not be responsible.

## INSTALLATION OVERVIEW

This manual will walk you through the installation of the scoreboard. While care has been taken to consider the many scenarios for installation, some general information applies to all. Use this guide as closely as possible to ensure proper installation, as follows:

1. Review the product specifications below to determine your specific installation hardware.
2. Determine the scoreboard's location and orientation.
3. Install the mounting poles/I Beams (supplied by the customer).
4. Mount the scoreboard to the poles/I Beams.
5. Install the control cable for cable-controlled systems (**not necessary for Wireless Remote Control systems**).
6. Install the electrical service for the scoreboard and the controller.
7. Install any options, such as sponsor panels or protective nets, according to the installation instructions included with each option package.
8. Test the installed system.
9. Fax/return warranty activation sheet to Scoreboard Service Company at (270) 753-3773

## PRODUCT SPECIFICATIONS

### Overall Dimensions:

6'-0" tall x 16'-0" long x 8" deep, shipped in two (2) sections

### Weight:

Hanging weight approx. 830 lbs.  
Shipping weight approx. 880 lbs.

### Mounting Requirements:

(2) 8" steel I-beams (W8 X 31), or (2) 8" OD galvanized steel poles (schedule 40)

### Power Requirements:

*Scoreboard:*

1. 1 - 120-volt, 20-amp, 60 Hz grounded AC circuit. Ideally, this will be a dedicated circuit.
2. Access must be provided to turn off the power to the scoreboard after each use. Failure to turn off the power to the scoreboard could affect the functionality of the scoreboard; such as from a power surge or lightning strike.
3. **It is important to utilize the equipment ground inside the scoreboard cabinet at the utility box provided for the AC power connection.**

*Keyboard controller:*

- 1 - 120-volt, 15-amp, 60 Hz grounded AC circuit - standard wall receptacle.

### **Communication Cable Requirements (for cable-controlled systems only):**

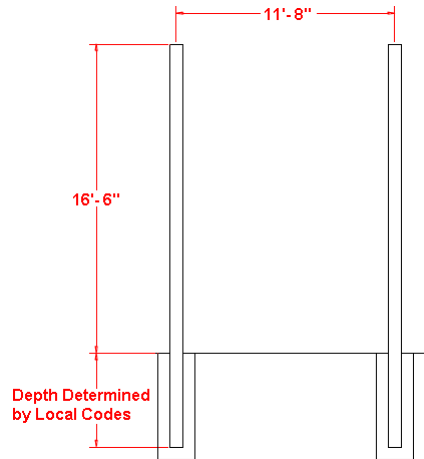
Four conductor cable – 28 gauge, twisted pair (two pairs), shielded data cable.

## **DETERMINING LOCATION AND ORIENTATION**

The scoreboard should be positioned so that the greatest number of spectators can easily view it. However, before installing the poles or beams to which the scoreboard will be mounted also give consideration to the best orientation of the scoreboard should the system be used to score a daytime or afternoon game. The scoreboard should be positioned so that sunlight does not glare off of its face. In the U.S.A., placement on the South or West side of the field is recommended. Local building and sign codes may also determine where the scoreboard must be mounted and which direction it must face. Consult with the local building or zoning department before installing the scoreboard.

## **INSTALLING THE MOUNTING POLES/BEAMS**

Install the mounting poles or beams (supplied by the customer) on the field 11'-8" center to center with at least 16'-6" of pole/beam above ground (refer to the installation diagram below). The poles/beams must be set into poured, concrete footers. Make sure the poles are level, plumb, and even before the concrete footers are allowed to set. Depending on locale and soil conditions, a 5-foot deep concrete footer is generally adequate to support the weight of the poles/beams and the scoreboard. However, the required dimensions of the footers vary from city to city and from state to state depending on the building and sign codes for the area in which the scoreboard is being installed. Consult with local building officials for the required pole sizes and footer construction regarding this installation. A local architect, structural engineer, or sign installer may also be a source of assistance.



**NOTE: CONSULT WITH LOCAL BUILDING CODE OFFICIALS REGARDING THE REQUIRED DIMENSIONS/CONSTRUCTION OF THE FOOTERS, POLE/BEAM SIZES, AND OTHER REQUIREMENTS AND RESTRICTIONS REGARDING THE INSTALLATION OF THE SCOREBOARD.**

**IMPORTANT: DO NOT MOUNT FLAT TO A WALL. A MINIMUM OF 18" CLEARANCE MUST BE LEFT FOR ACCESS TO THE REAR OF THE UNIT, AS THE ELECTRONIC MODULE ACCESS AND ALL POWER AND SIGNAL CABLE ACCESS DOORS ARE LOCATED ON THE BACK OF THE SCOREBOARD. 24" CLEARANCE IS RECOMMENDED.**

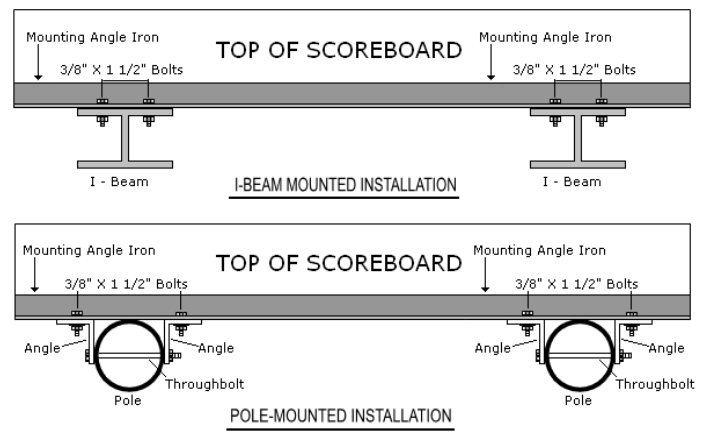
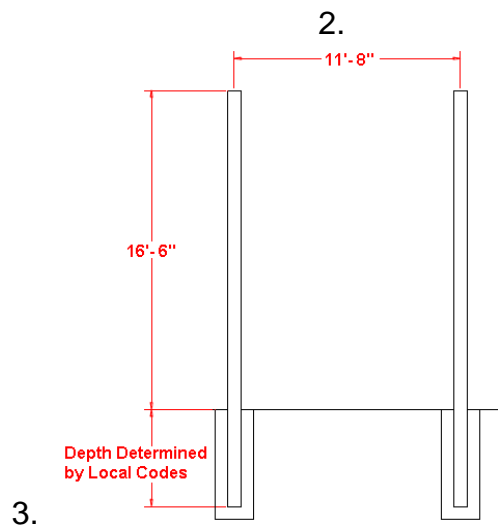
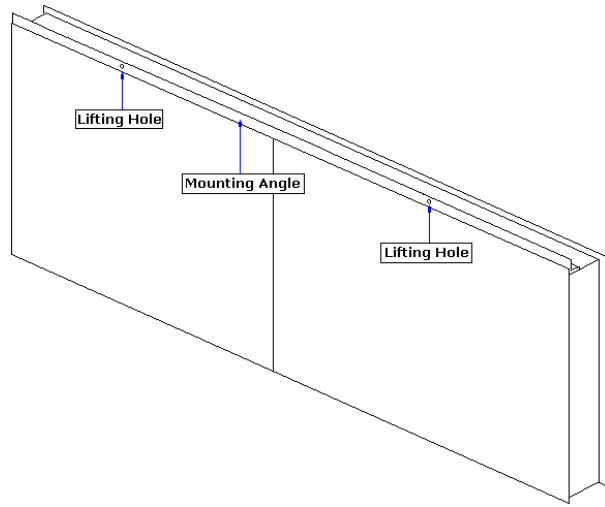
## JOINING THE SCOREBOARD SECTIONS TOGETHER

1. Carefully remove each of the two (2) scoreboard sections from their packaging making sure not to pry against or cut into the cabinets. Inspect each section for shipping damage according to the instructions on page 3.
2. Using the supplied 16' mounting angle irons, join the assembled 6' X 8' left half of the scoreboard to the assembled 6' X 8' right half of the scoreboard using the supplied 3/8-16 x 3/4" bolts, flat washers, and 3/8" hex nuts according to the illustration below.

## MOUNTING THE SCOREBOARD

**NOTE: IF THE POLES/I-BEAMS ARE NOT IN ALIGNMENT --- SHIMS MAY BE NEEDED TO MOUNT THE SCOREBOARD PROPERLY. MOUNTING THE SCOREBOARD WITH THE POLES/I-BEAMS OUT OF ALIGNMENT MAY DAMAGE THE SCOREBOARD AND VOID THE WARRANTY.**

1. Using the lift holes provided, connect a lift device to the scoreboard, as in the image below.



4. Lift the scoreboard into place to the desired height, ensuring that the scoreboard is level.

5. Secure the scoreboard to the poles/beams using the mounting flanges attached to the scoreboard. The unit must be attached to each pole/beam on top **and** bottom.

6. If using steel I-beams, either weld the mounting flanges to the supports, or drill the mounting flanges and supports to use bolts, washers, and nuts to secure the scoreboard to the I-beams.

7. If galvanized steel poles are being used, weld or bolt steel angles to the mounting flanges, which can then be welded to or bolted *through* the pole. Refer to the figure below for detailed illustrations of these suggested mounting methods.

# RUNNING & CONNECTING THE CONTROL CABLE

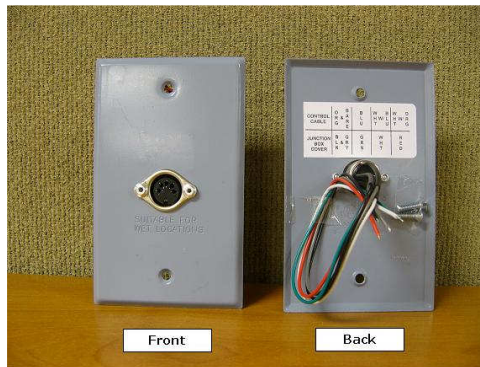
(For scoreboards with Wireless Remote Control, skip this step.)

The control cable must be run in a separate conduit than is used for the electrical service. The control cable should run from the scoreboard to a location that is within 10 feet of the scorekeeper's location and into a 2"X4" wall box.

**NOTE: IF THE WIRES IN YOUR CABLE DO NOT COLOR MATCH WHAT IS SHOWN, CONNECT TO THE TERMINALS WITH THE BLACK, GREEN, AND WHITE CONDUCTORS. DO NOT CONNECT A WIRE TO THE RED TERMINAL. MATCH THE SAME COLORS IN YOUR CABLE TO THE BLACK, GREEN, AND WHITE WIRES ON THE BACK OF THE WALL PLATE AT THE SCORING LOCATION.**

*At the scorekeeper's location:*

1. With the communication cable installed between the scoreboard and the 2"X4" wall box, locate the wall plate provided with your installation hardware.

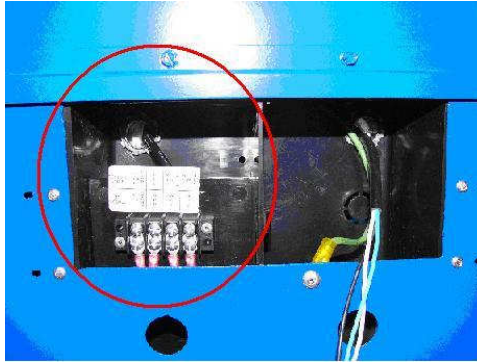


2.

3. The back of the wall plate has a label indicating how the connections are to be made. Likely, the insulation will not be the same color on the wires in the cable as that on the wires on the back of the wall plate. Follow the chart if possible, but more importantly; whatever the match-up is at the wall plate should also be the match-up at the scoreboard.
4. Secure the junction box cover to the installed junction box.

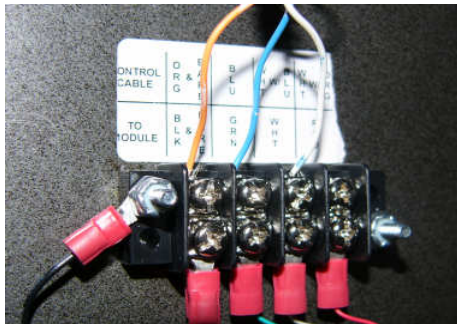
*At the scoreboard:*

1. Remove the signal/power access door located on the back of panel.



a.

2. From the ground, run the control cable through a sealed, water-tight conduit then through a water-tight conduit fitting into the left side of the signal cable/power access door and into the scoreboard. A hole is provided for a conduit connector.
3. Inside the scoreboard, connect the control cable leads to the appropriate terminals on the terminal block, according to the label above the terminal block.



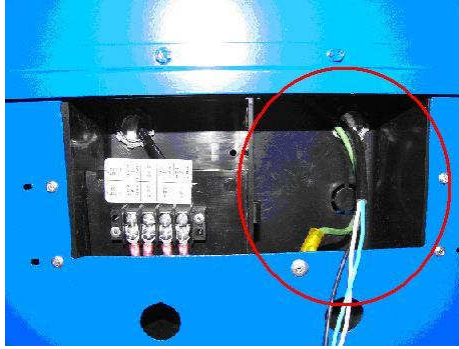
4.

5. **NOTE: Refer to the connections that were made at the scorekeeper's location. Make the connections at the scoreboard match the connections at the scorekeeper's location.**
6. Re-secure the signal/power access door to the scoreboard.

## RUNNING & CONNECTING THE ELECTRIC SERVICE

**NOTE: IT IS RECOMMENDED TO HAVE A LICENSED ELECTRICIAN FOR THIS PORTION. IDEALLY, THE SCOREBOARD WILL BE POWERED FROM A DEDICATED 120-VOLT / 20 AMP CIRCUIT. ADDITIONALLY, SINCE THE SCOREBOARD'S POWER SHOULD BE TURNED OFF AFTER EACH USE, THERE SHOULD BE EASY ACCESS TO THE POWER SWITCH OR CIRCUIT BREAKER. IF ACCESS TO THE CIRCUIT BREAKER IS NOT AN OPTION, INSTALL A SWITCH SOMEWHERE THAT IS ACCESSIBLE, EVEN IF UNDER THE SCOREBOARD AT AN ABOVE AVERAGE HEIGHT.**

1. The scoreboard has a ½" knock-out on the lower right corner for bringing in the electrical service. It can be enlarged if the conduit size is ¾". This is where the conduit from the power source needs to terminate.



2.

3. The connections are standard black, white, and green (ground). Replace the cover when complete.

## TESTING THE INSTALLED SYSTEM

**NOTE:** Please refer to the **OPERATORS MANUAL** on the CD, or included with the system to operate the scoreboard.

### *Connecting cable-controlled systems:*

Connect one end of the supplied 20-ft. control cable into either of the two control cable jacks on the back of the controller and the other into the receptacle on the supplied junction box cover installed at the scorekeeper's location.

### *Connecting wireless systems:*

Connect the wireless transmitter to the controller using the interface cable by plugging the large end of the interface cable into either of the control cable jacks on the back of the controller.

### *Testing the scoreboard system in diagnostic mode:*

1. Connect the appropriate end of the 12-volt DC wall transformer to the power receptacle on the back of the controller. Plug the transformer into a live, 120-volt outlet. If the optional battery pack was purchased with the keyboard, the transformer is also used to charge the battery.
2. Turn the power to the scoreboard *ON* using the power disconnect switch or circuit breaker. The **HOME** and **GUEST** displays should read "0", **TO GO** should read 10, **QUARTER** and **DOWN** should read "1", and the clock should display the default start-up time.

3. With the controller *OFF*, press and hold the **OPTION** key while turning the controller *ON*. The controller's LCD will briefly display the controller's software version. When the display changes and reads "**SELECT DIAG MODE <DIGIT TEST>**," press **ENTER**. The LCD will now read "**SEGMENT TEST – SEGMENTS OFF.**"

**NOTE: None of the scoreboards components should be lit at this time. If any components are lit, especially with a solid "8", check the crossover connections between cabinets. Ensure that the red stripes on the ribbon cables are matched where they are connected.**

1. Pressing the **UP** arrow (located on the far right of the controller's keypad) will cycle the scoreboard into "digit count" mode and all displays on the scoreboard will count 0-9 repetitively. Pressing the **UP** arrow again will cycle to "**<ALL ON>**", and all components should display an "8". At this time, take a look at the segments of each component for LEDs that are not lit.
2. To exit the diagnostic mode, press the **RESET** key twice.
3. If all components pass this test, the installation is complete.
4. **NOTE:** Always turn both the controller and the scoreboard *OFF* after each use. If the controller is turned *OFF* but the scoreboard remains *ON*, (or if the controller loses communication with the scoreboard), the scoreboard's *STRIKE* digit will begin to flash. This feature is intended to remind the user to turn power to the scoreboard *OFF* after each use.

**IMPORTANT!**  
**Warranty Activation/Installation & Completion Sign Off Sheet**

NOTE: This sheet must be completely filled out and returned/faxed (270) 753-3773 to Scoreboard Service Company before your warranty can be activated.

Your Serial Number \_\_\_\_\_

Your Model Number \_\_\_\_\_

Date Purchased \_\_\_\_\_

Sales Agent \_\_\_\_\_

Person Authorizing Purchase (title) \_\_\_\_\_

Date Installation Completed \_\_\_\_\_

Company or Person Responsible  
For Installation (address/phone number) \_\_\_\_\_

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This document confirms that the installation for the 6-ft.x 16-ft. Football Scoreboard has been completed. All structural, wiring, and power requirements have been met. This unit has been tested in scoring and diagnostic modes, ensuring the functionality of the unit.

\_\_\_\_\_  
Scoring/timing equipment responsible party

\_\_\_\_\_  
Installer

So that we may better serve you, please have this information available in the event you need to call technical support. Customer Service: 1-800-411-3136