### DC-150-16X5 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.
- 4. Mount the scoreboard to the poles/I Beams (mounting hardware supplied by customer).
- 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.

### **PRODUCT SPECIFICATIONS**

#### **Overall Dimensions:**

16' - ft x 5' - shipped in two (2) sections

#### Weight:

Hanging weight = approximately 495 lbs Shipping weight = approximately 625 lbs.

#### **Mounting Recommendations:**

(2) 8" steel I-beams (W8 x 31) **OR** (2) 8" OD galvanized steel poles (schedule 40). Total length determined by local codes, customer preferred mounting height, and scoreboard options.

#### **Power Requirements:**

Scoreboard:

(1) 120-volt, 20-amp, 60 Hz grounded AC circuit connected to a power disconnect switch or circuit breaker (refer to the wiring diagram on page 5 for detailed instructions on determining the scoreboard's power requirements – specific power requirement information is also marked on the scoreboard's serial number label, located on the scoreboard)

Keyboard Controller:

(1) 120-volt, 15-amp, 60 Hz grounded AC circuit in a standard duplex outlet (optional if an internal battery pack was purchased with the controller)

### Cable Recommendations (for cable-controlled systems only):

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

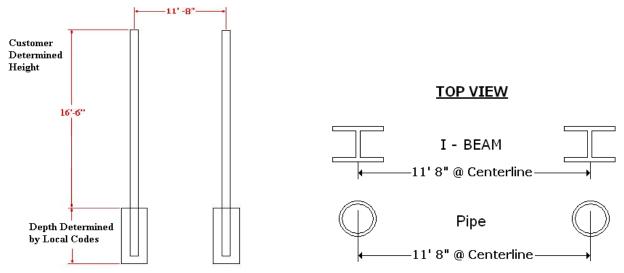
### **DETERMINING LOCATION AND ORIENTATION**

The scoreboard should be positioned so that the greatest number of spectators can easily view it. Also, consider 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., placement on the South or West side of the field is recommended. Consult with the local building or zoning department before final determination and installing the scoreboard.

### **INSTALLING MOUNTING POLES OR I-BEAMS**

NOTE: The following information for installing the mounting poles/beams are suggestions only. Local codes, field placement, scoreboard options, customer preference, and other special considerations will determine the specifics of your installation, including footer specifications, above ground height, and total length of the poles/I-beams.

1. Install the two (2) mounting poles/I-beams (supplied by the customer) on the field with an 11'-8" center spacing and with 16'-6" of pole/I-beam above ground (refer to the figures below).



2. The poles/I-beams must be set into concrete footers. Make sure the poles are level and plumb and spaced on 11'- 8" centers. The mounting faces of I-beams must be straight with each other. If the face of an I-beam is turned, shims will be needed to mount the scoreboard. The required dimensions for the footers vary depending on local building codes, soil & weather conditions, and scoreboard size. 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.

## ASSEMBLING THE SCOREBOARD

IMPORTANT: <u>DO NOT</u> 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. ALL HARDWARE REQUIRED TO MOUNT THE SCOREBOARD TO POLES OR I BEAMS IS SUPPLIED BY THE CUSTOMER.

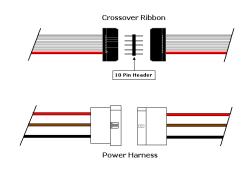
### Installation:

 After unpacking the scoreboard, arrange the panels in order A – B from right to left, face down, with the top away from the mounting poles or I beams. Keep the panels aligned at the top and against each other, making sure not to pinch cables that may be hanging outside of each cabinet.

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- 2. Attach the 3.5" X 16' mounting angle and the 3/8" bolt hardware provided in the installation kit, to the top of A and B and to the bottom of A and B.
- 3. Lift the scoreboard slightly off the ground and locate the access panels and open them.
- 4. Install crossover nipples between cabinets A & B in the section. Failure to install crossover nipples will void the warranty.





- 5. Connect ALL crossover cables between cabinets as in the image on the right above, making sure the red stripe on the edge of the ribbon cables are aligned when connected.
- 6. Lift the assembly from the top angle irons to a vertical position, still resting on the ground and install the top sponsor panel if included in the installation. Install the 2" X 8" flat steel brackets

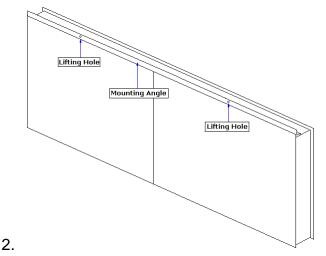
#### NOTE: IF THE WIRES IN YOUR CABLE DO NOT COLOR MATCH WHAT IS SHOWN ABOVE, CONNECT TO THE TERMINALS WITH THE BLACK, GREEN, AND WHITE CONDUCTORS. DO NOT CONNECT A WIRE TO THE RED TERMINAL. MATCH THE SAME COLORS IN YOUR CABLE TO THE BLACK, GREEN, AND WHITE WIRES ON THE BACK OF THE WALL PLATE AT THE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

- 17. Run and connect the electrical system for the scoreboard and controller.
- 18. Replace the antenna on the front of the scoreboard if your system is wireless.
- 19. Test the installed system.
- 20. Install access covers on the rear of the scoreboard.

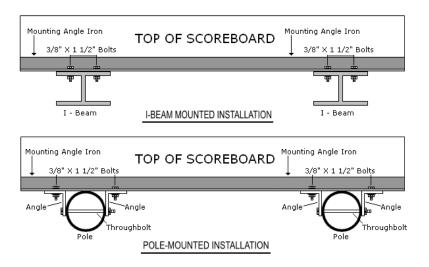
### **MOUNTING THE SCOREBOARD**

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.

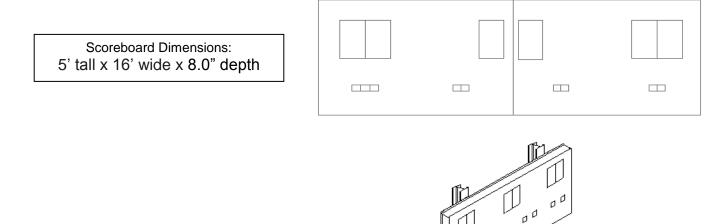
1. Using the lift holes provided, connect a lift device to the scoreboard, as in the image below.



- 3. Lift the scoreboard into place to the desired height, ensuring that the scoreboard is level.
- 4. Secure the scoreboard to the poles/beams using the mounting flanges attached to the scoreboard. The unit <u>must</u> be attached to each pole/beam on top **and** bottom.
- 5. 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.
- 6. 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.



# NOTE: ALL HARDWARE REQUIRED TO MOUNT THE SCOREBOARD TO POLES OR I BEAMS IS SUPPLIED BY THE CUSTOMER.



Front View: Mounted

