



# **MAJOR**

## **DISPLAY**

### **SCOREBOARDS**

**Installation and service manual**

# Introduction

The scoreboard frame is made entirely from aluminum. The frame is welded completely around every joint for maximum strength. The entire scoreboard is finished using baked on powder coat paint. The material is extremely durable and will keep your scorebard looking like new for many years. The display panels are protected with polycarbonate plastic panels. This is the same material used for impact protection in motorcycle helmet face shields. It is nearly indestructible.

## Installation

Major Display Game Monitors have been designed to make installation extremely easy. They are lightweight which makes post or wall installation simple, require less power which means the smaller gauge power lines are required and in some cases power is supplied by batteries. Since most installations do not use a cable to send control signals, once the power is connected you are ready to go.

Wires within the scoreboard are run through the aluminum box tubing frame. It is very important to remember to never drill holes into the scoreboard frame. Doing so can cause the scoreboard to malfunction or seriously damage the electronics of the scoreboard.

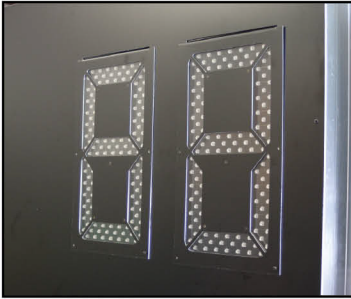
**Any time the scoreboard is serviced always dosconnect power to the scoreboard.**

Do not assume that because the switch is turned off at the breaker the scoreboard has been disconnected from the power. Always use a meter or power indicator lamp to ensure that there is no power. Failure to be certain that the power is disconnected can seriously damage the scoreboard or present an electrocution hazard.

The installation ideas mentioned in this manual are rules of thumb. These installation ideas are methods that have been used in similar situation. Each location that the scoreboard is sinstalled will have local requirements for scoreboard installation. It is the responsibility of the persons installing the scoreboard to make certain that all local ordinances are followed.

Most outdoor scoreboards up to 14 feet in length can be mounted using two 4" x 4" steel posts. Mounting brackets designed with the sales representative at the time that the scoreboard is ordered. For disconnect switch for turnin off power next to the scoreboard with a provision to prevent unauthorized tamering may be desired.

# Driver Installation 1.1



(1.1) You will need to locate the scoreboards driver. The driver can be accessed behind the digit labeled Driver Access. Some scoreboards may have multiple drivers depending on the size of the board and the number of digits.



(1.2) Once you have located the driver access digit, remove each screw holding the digit in place. The digit will remain in place once unscrewed and must be lifted out of place. To remove a digit pull the bottom of the digit towards you and then slide top lip of digit down and away from the board.



(1.3) With the digit removed you can now see the driver box. The box will look similar to the one pictured. It will also inform you on how many drivers the scoreboard contains. Labeled (Driver: 1 of 1, 1 of 2, or ext.). The cover will need to be removed for the rest of the connection process.



(1.4) To remove Driver box cover, remove the screws and grasp box on the sides. Slide cover down and pull forward to remove.



(1.5) Now you are ready to connect digits from the adjoining cabinet (we will call this cabinet 2) to the cabinet containing the driver (we will call cabinet 1). You will be able to find ribbon cables for connecting each digit to the driver box in the adjoining cabinet at the bottom corner of the connecting side as pictured.



(1.6) On cabinet 1 you will see an opening that will allow you to pass wires through from Cabinet 2 to Cabinet 1 containing the driver box.



(1.7) The driver panel will have numbers listed on the left side of each plug so that you can simply plug each digit's numbered ribbon cable into its corresponding numeral position.



(1.8) Once all ribbon cables for each digit are plugged into the correct place you will need to secure the cables. Do this by grouping each row of cables together in a stacked group. You will find an area at the bottom of the driver box to thread a zip tie through and secure the cables into place.

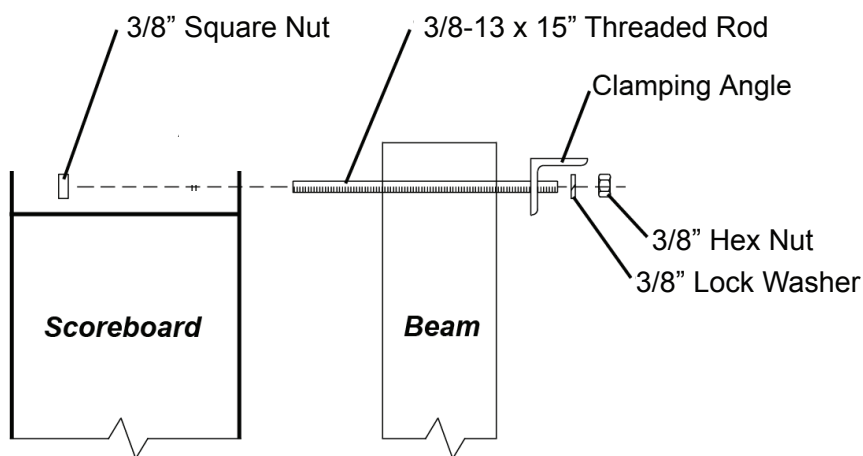


(1.9) Here you can see an example of properly installed and secured cables. Make sure your cables are properly secured. Once you have cables secured, replace the driver box cover. This completes the connection of digit cables to the driver box.

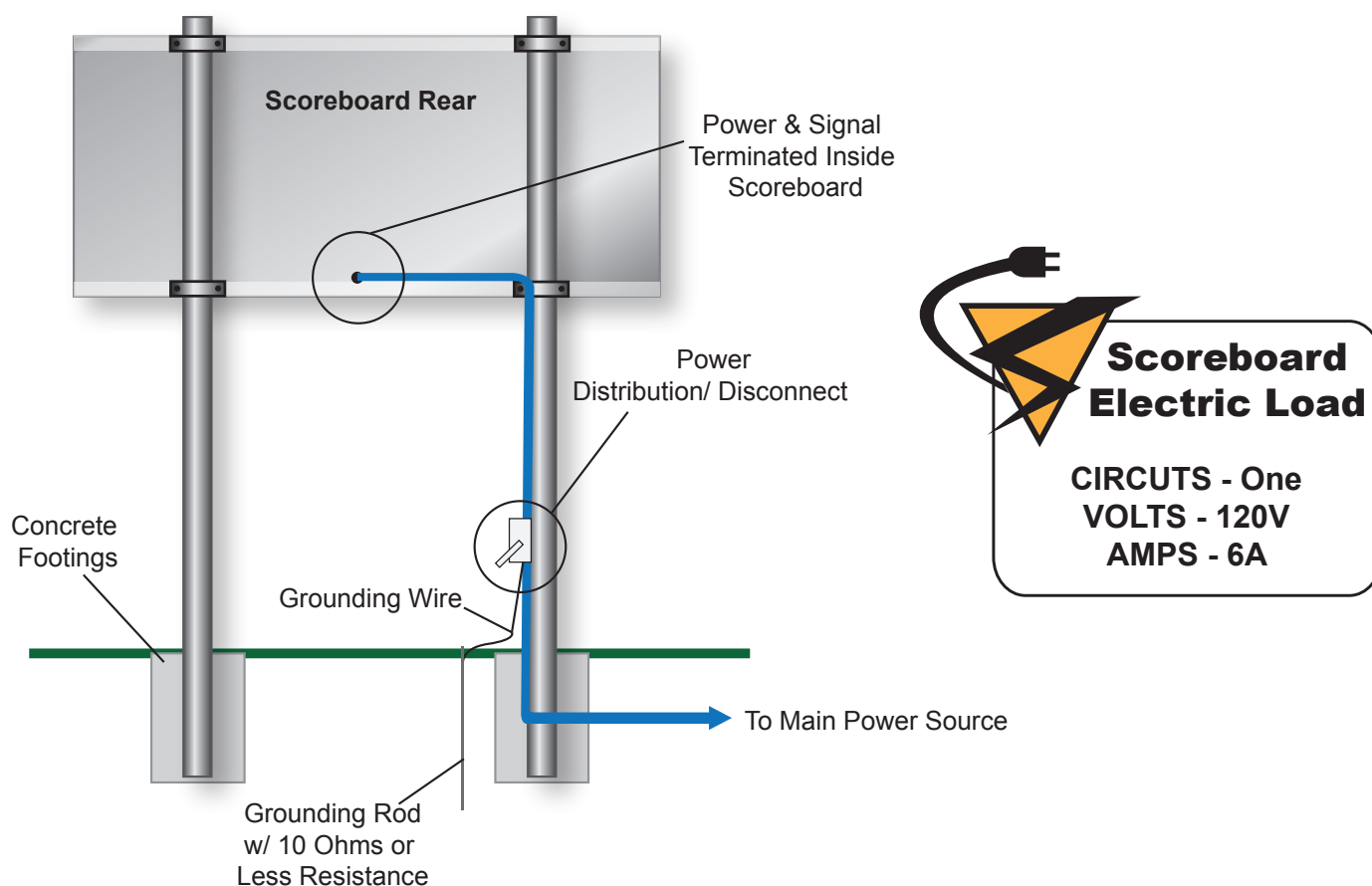


# Install and Electrical Wiring Set Up Guide

Clamping Angles - Mounting hardware includes rear clamping angles, 3/8-13 x 15" threaded rods; and 3/8" square nuts, hex nuts, and lock washers. Refer to image below for visual aid.

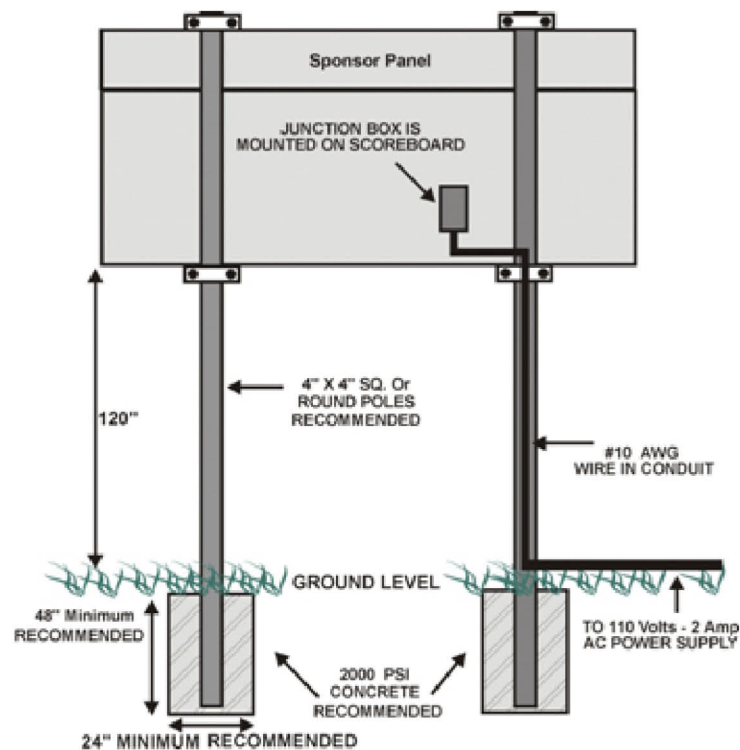


In the diagram below you will see an illustration of a typical wired setup of an outdoor scoreboard.

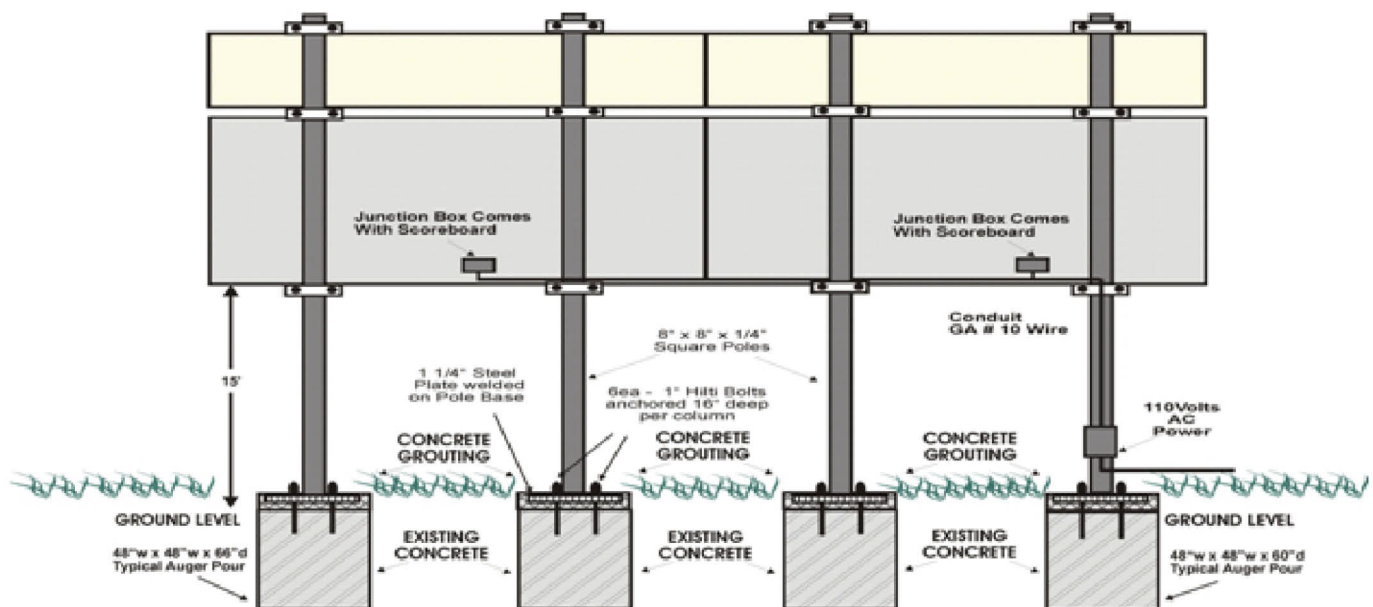


# Post Installation

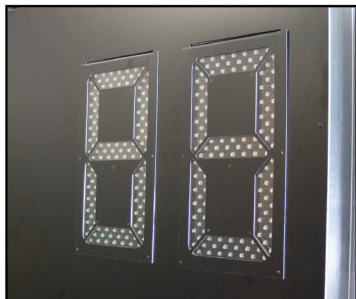
## Installation Idea For Scoreboards Less Than 14 Feet in Length



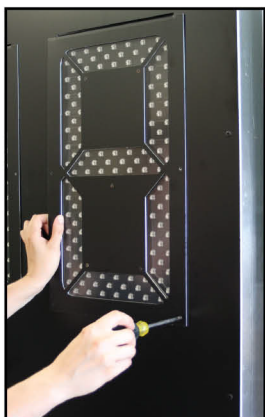
## Installation Idea For Scoreboards Over 14 Feet in Length



# Driver Removal 3.1



(3.1) You will need to locate the scoreboards driver. The driver can be accessed behind the digit labeled Driver Access. Some scoreboards may have multiple drivers depending on the size of the board and the number of digits.



(3.2) Once you have located the driver access digit, remove each screw holding the digit in place. The digit will remain in place once unscrewed and must be lifted out of place. To remove a digit pull the bottom of the digit towards you and then slide top lip of digit down and away from the board.



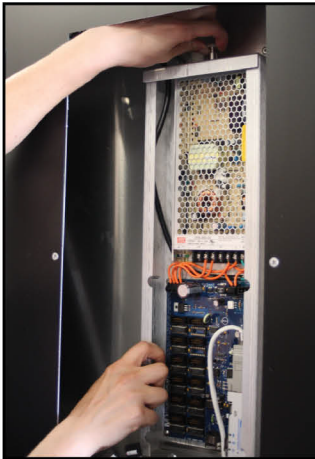
(3.3) With the digit removed you can now see the driver box. The box will look similar to the one pictured. It will also inform you on how many drivers the scoreboard contains. Labeled (Driver: 1 of 1, 1 of 2, or ext.). The cover will need to be removed for the rest of the connection process.



(3.4) To remove Driver box cover, remove the screws and grasp box on the sides. Slide cover down and pull forward to remove.



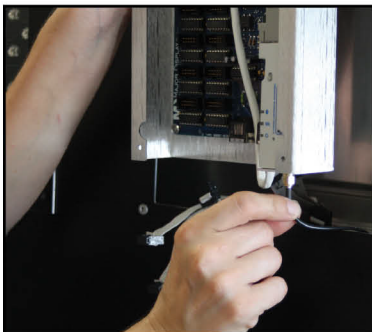
(3.5) Unplug each ribbon cable attached to the driver.



(3.6) At the top of the driver box you can locate a screw that holds the box into place. You can use your hand to untwist this screw to allow removal of the driver box.



(3.7) To lift driver box out of the cabinet you will need to tilt the top of the box forward and lift up and pull outwards. Now the box is should be removed from the cabinet.



(3.8) At this point you will be able to access a connecting cable at the bottom corner of the driver box that can be unscrewed and allow complete removal of the box. Now your box is ready for maintenance.