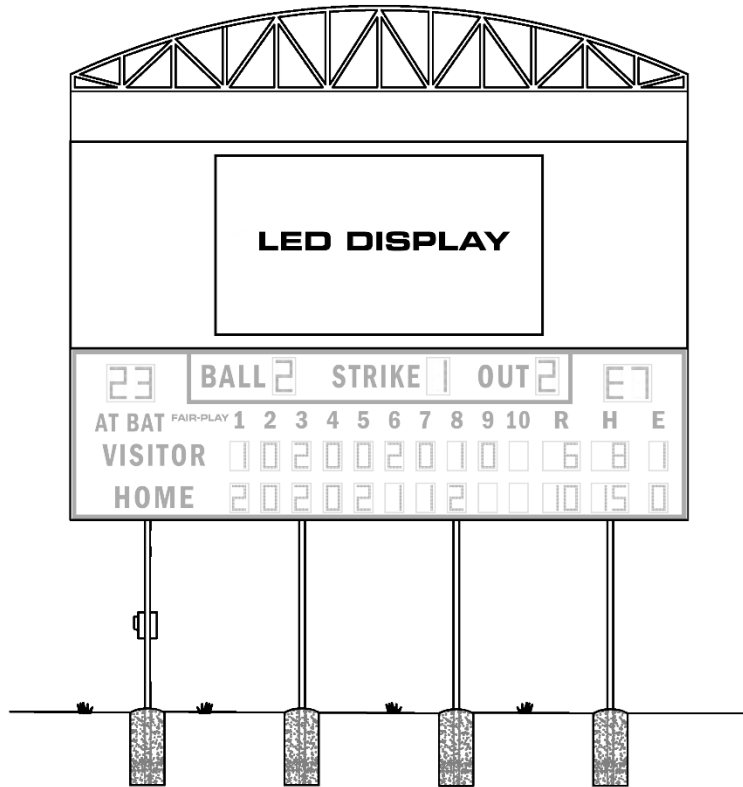


# FAIR-PLAY



## OUTDOOR

### SCOREBOARD & LED DISPLAY INSTALLATION RECOMMENDATIONS

98-0000-10 • REV 2026.04.09

### **INSTALL RECOMMENDATIONS DISCLAIMER**

The suggestions and recommendation within this document are intended as a guide for the installation of Fair-Play outdoor scoreboards and/or LED displays. While Fair-Play believes the instructions contained herein are accurate and correct, Fair-Play does not warrant the accuracy or correctness of such instructions and there are no warranties, expressed or implied and not limited to any warranties of merchantability of fitness for a particular purpose.

In no event shall Fair-Play be liable to dealer or its customer for any indirect, special or consequential damages or lost profits arising out of or related to this sale or the performance or breach thereof even if Fair-Play has been advised of the possibility thereof. Fair-Play's liability to dealer, if any, in connection with this sale shall in no event exceed the total amount paid by dealer for the sports display furnished by Fair-Play.

The installation of a Fair-Play scoreboard and/or LED display is the responsibility of others. Fair-Play assumes no responsibility for the design or construction of the installation. Fair-Play highly recommends that a professional engineer, appropriately licensed in the area, review and approve the installation. All soil testing, construction, welding, and electrical work should be performed by appropriately trained and licensed personnel.

These installation recommendations are subject to change without notice.

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## EQUIPMENT LOCATION & PLACEMENT

- Products classified as outdoor equipment are suitable for typical wet outdoor locations.
- The sports display (scoreboard, LED display and optional sign) must be positioned so that the spectators see what is being displayed.
- The control must be located such that the scorekeeper or control operator can monitor the event and see what is being displayed.
- For maximum visibility, the sports display must be placed at the south or west end of the field so that the sun does not shine directly on the face of the sports display during afternoon games. See Figure 1 below.

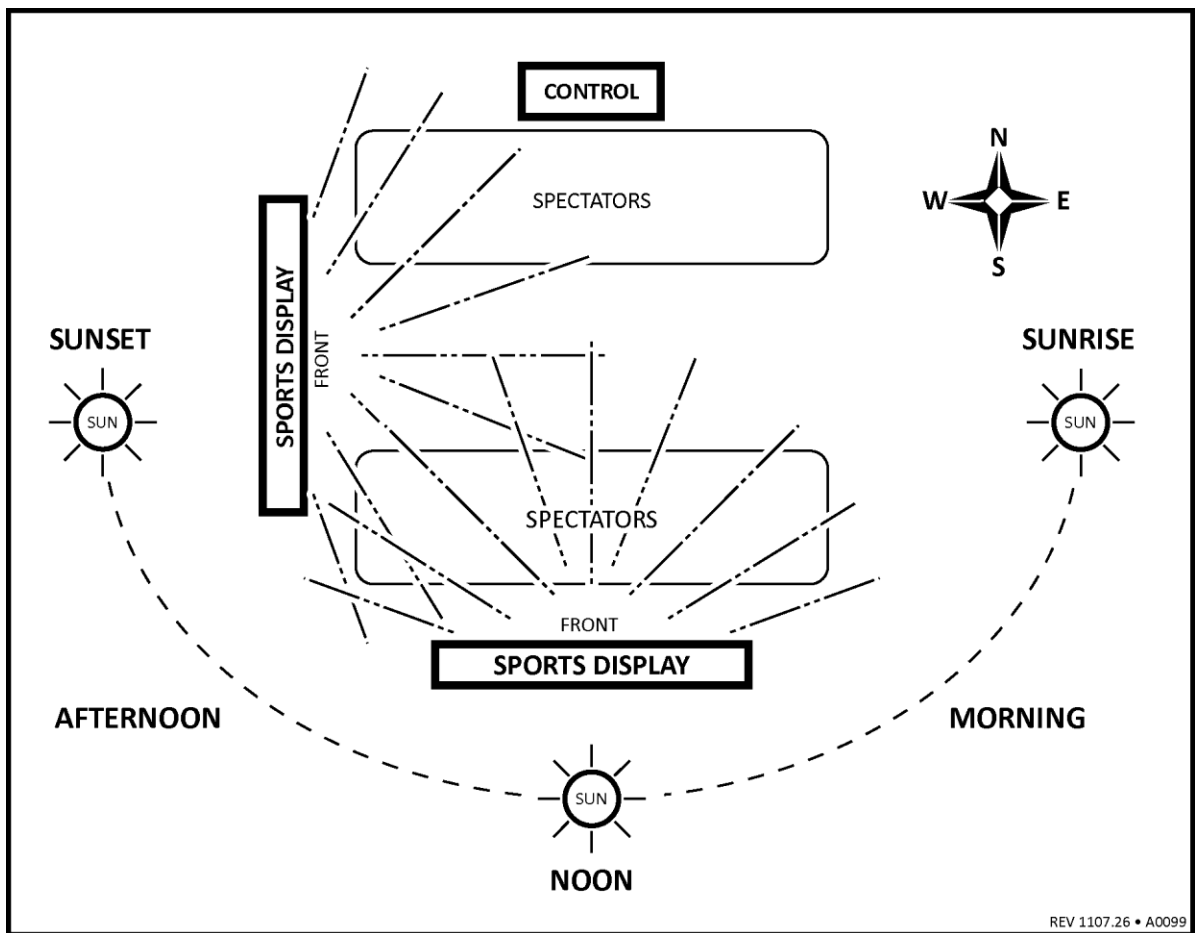


FIGURE 1 — SPORTS DISPLAY AND CONTROL PLACEMENT

## VENTILATION

- Install the sports display so that air flow is not restricted. Customer's structure must allow for the free flow of outside ambient air to the product, without recirculation of air.
- Warranty will be void if components fail due to air flow restrictions.

# SUPPORT STRUCTURE

- The sports display is usually mounted on support columns (Figure 2 below), spaced and sized as shown on
- Table 1 below.
- All support structure recommendations provided in this document are suggestions and should be reviewed by a licensed professional engineer certified in the region of the installation prior to construction. Fair-Play assumes no responsibility for installations done by others.

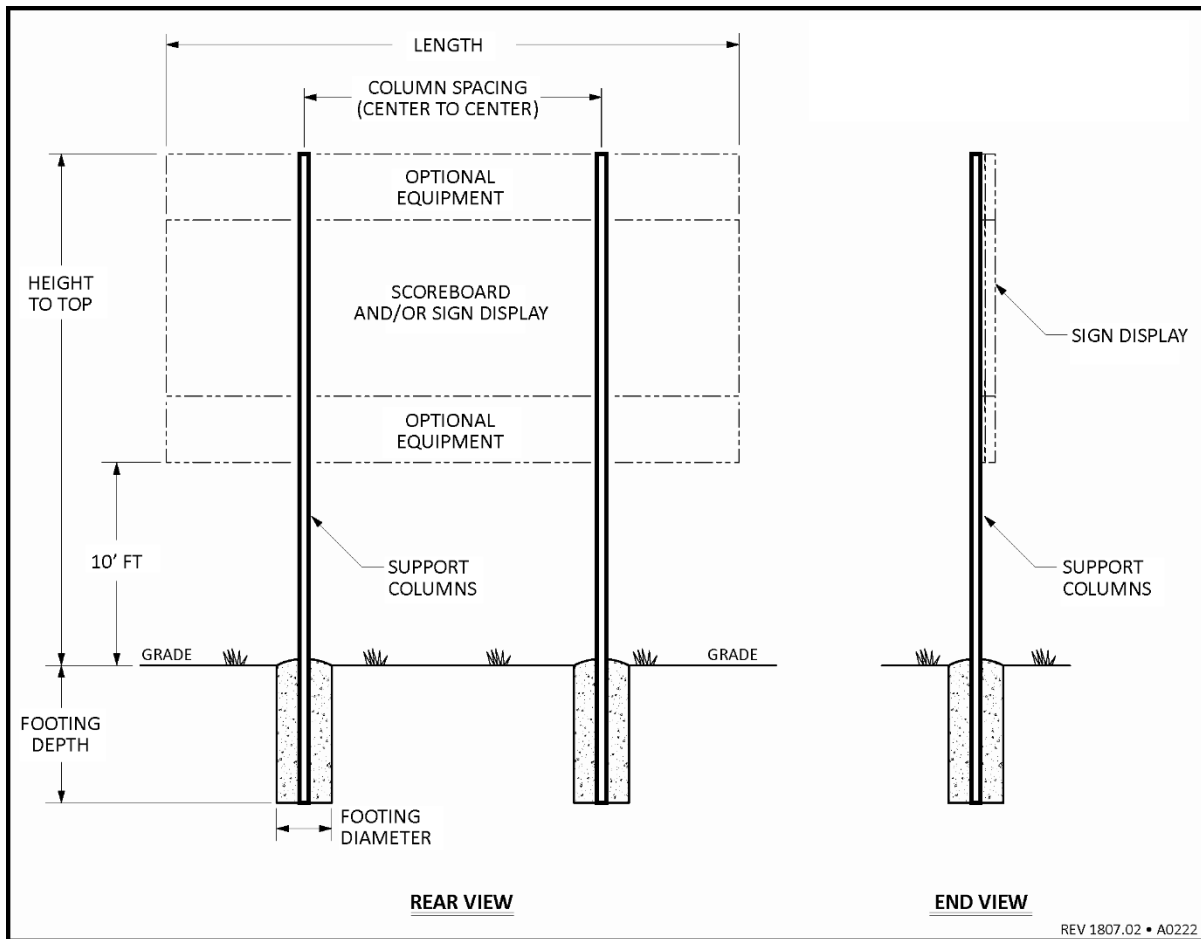


FIGURE 2 — TYPICAL SUPPORT COLUMN STRUCTURE

TABLE 1. STANDARD COLUMN & FOOTING SPACING

LENGTH OF SCOREBOARD OR SIGN	8'	8'-6"	9'	10'	12'	14'	16'	18'	20'	24'	26'	27'	28'	32'	36'	45'
COLUMN QUANTITY	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	5
COLUMN SPACING	4'-0"	4'-3"	4'-6"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	12'-0"	13'-0"	13'-6"	14'-0"	10'-6"	9'-0"	9'-0"

## **DESIGN CRITERIA**

- Steel columns set in concrete are recommended, but other types of supports may be used.
- Considerations for support structure design should include, but are not limited to soil conditions, the height of the sports display above the ground, and compliance with local codes which specify wind load requirements, etc. should be considered in the support structure design.
- Any engineering design provided by others and submitted for review or record shall bear the stamp and signature of a licensed professional engineer registered in the state of installation.

## **CONSTRUCTION**

- The contract structural drawings and specifications represent a suggested finished structure. They do not indicate the means or methods of construction.
- Fair-Play Corporation and/or any of its subsidiaries assume no responsibility for work completed by others.
- Field verify all existing dimensions, member sizes, and elevation shown on the drawings. All discrepancies shall be brought to the attention of the engineer immediately.

## **SAFETY REQUIREMENTS**

- Comply with all applicable city, county, state and federal laws and regulations adopted pursuant thereto.
- Provide all measures necessary to protect the workmen and other persons during construction. Provide all necessary measures to avoid excessive stresses and to hold the structural elements in place during construction. Such measures shall include, but not be limited to, bracing; shoring for construction equipment; scaffolding; safety nets; support and bracing for cranes and hoists; guying, etc.

## SCOREBOARD INSTALLATION

- The scoreboard or sign can be easily lifted into place using a crane or boom truck such as used by utilities and sign companies. The weight and dimensions of your products are shown on the installation drawing.
- When lifting the scoreboard or sign, hook the slings or spreader bar cables into the eyebolts or J-Brackets attached to the top edge of the scoreboard. The eyebolts may be removed after the scoreboard is secured to the supports.

**Caution:** *If eyebolts are removed, plug open holes in scoreboard and apply sealant to avoid water damage; otherwise, if water damage occurs then warranty will be void.*

- The scoreboard is to be bolted or welded to the supports at each hanger bracket position.
- If a welded connection is desired, it will be the responsibility of the installer to properly prepare the adjoining surfaces and ensure suitable environmental conditions to perform the operation. Fair-Play is in no way responsible for any part of the welding process or the quality or condition of said welds.

### 10" J-BRACKET

Figure 3 shows a bolted connection as a recommended mounting method to the support columns.

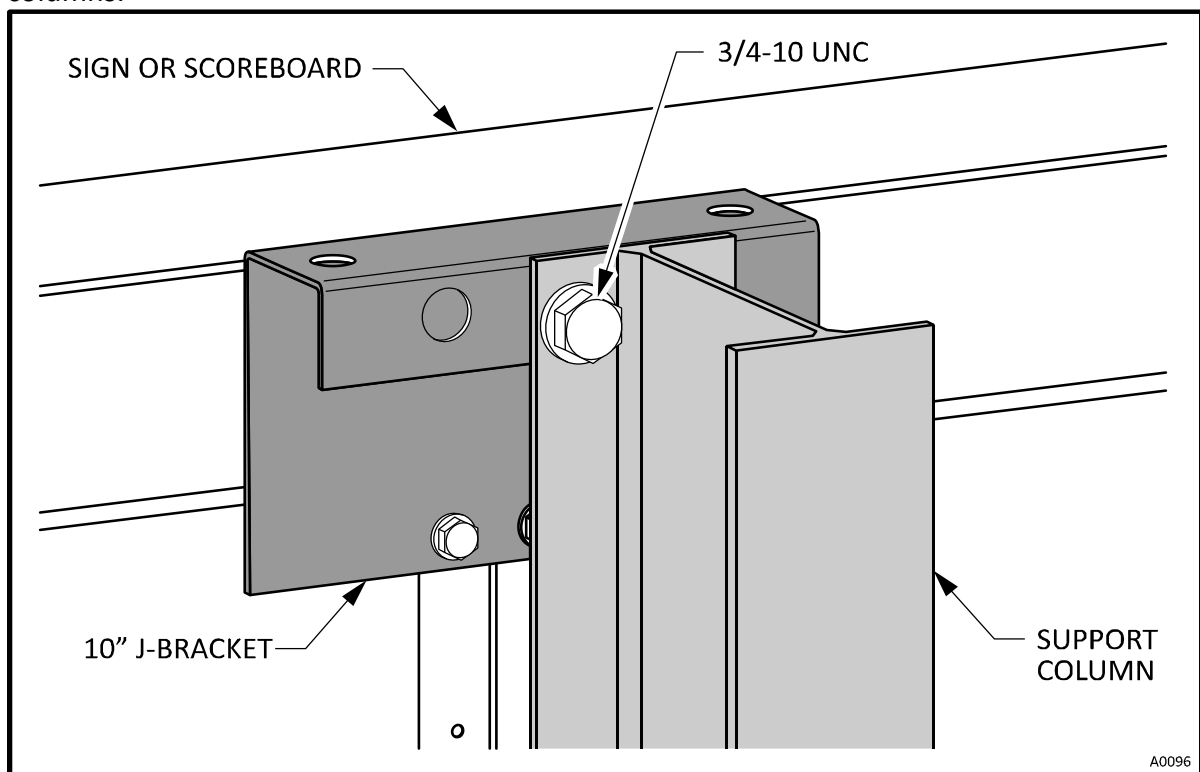


FIGURE 3 — 10" J-BRACKET

## VARIABLE J-BRACKET

- This mounting method can use new or existing support columns when distances between supports are  $\pm 6$  or  $\pm 12$  inches from the standard spacing as shown in
- Table 1 on page 2.
- This mounting method can only be used for signs, scoreboards or sports message centers measuring up to 20 feet in length.

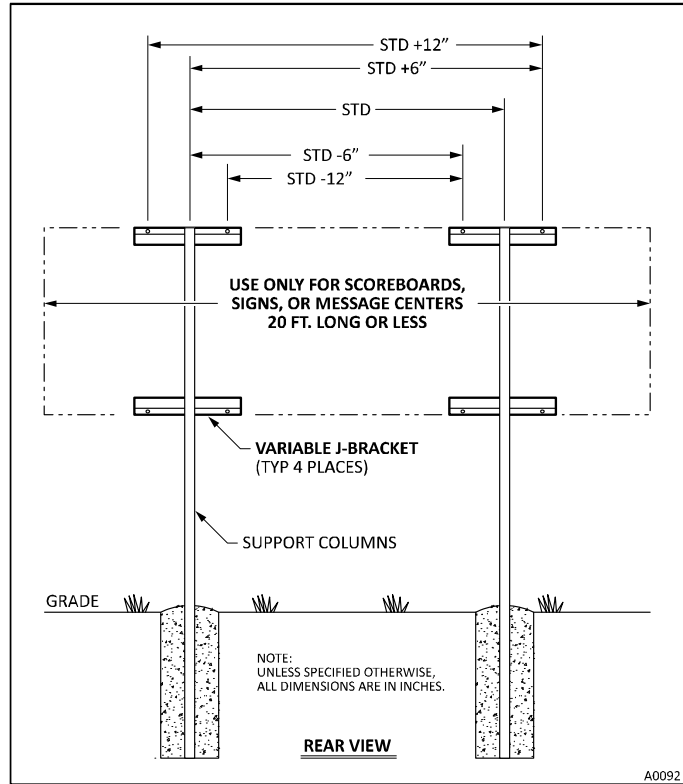


FIGURE 4. SUPPORT SPACING FOR VARIABLE SCOREBOARD MOUNTING SYSTEM

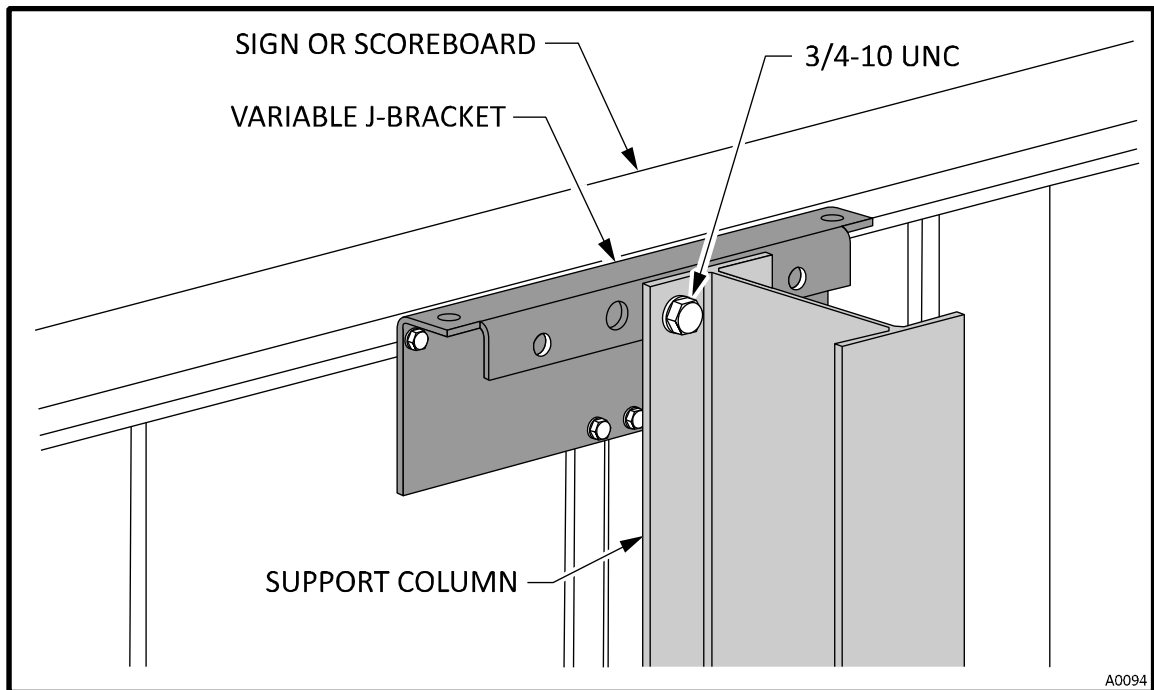


FIGURE 5 — VARIABLE J-BRACKET

### STRINGER

- Customer supplied - Stringer material provided and installed by customer.
- This method is used when it is not cost effective to reposition the existing support columns to the recommended standard spacing distance (shown in
- Table 1. Standard Column & Footing Spacing on page 2).
- The stringers are usually made from tube steel and are welded to the support columns during installation.
- The stringer must be properly sized for the application by an appropriately licensed engineer.

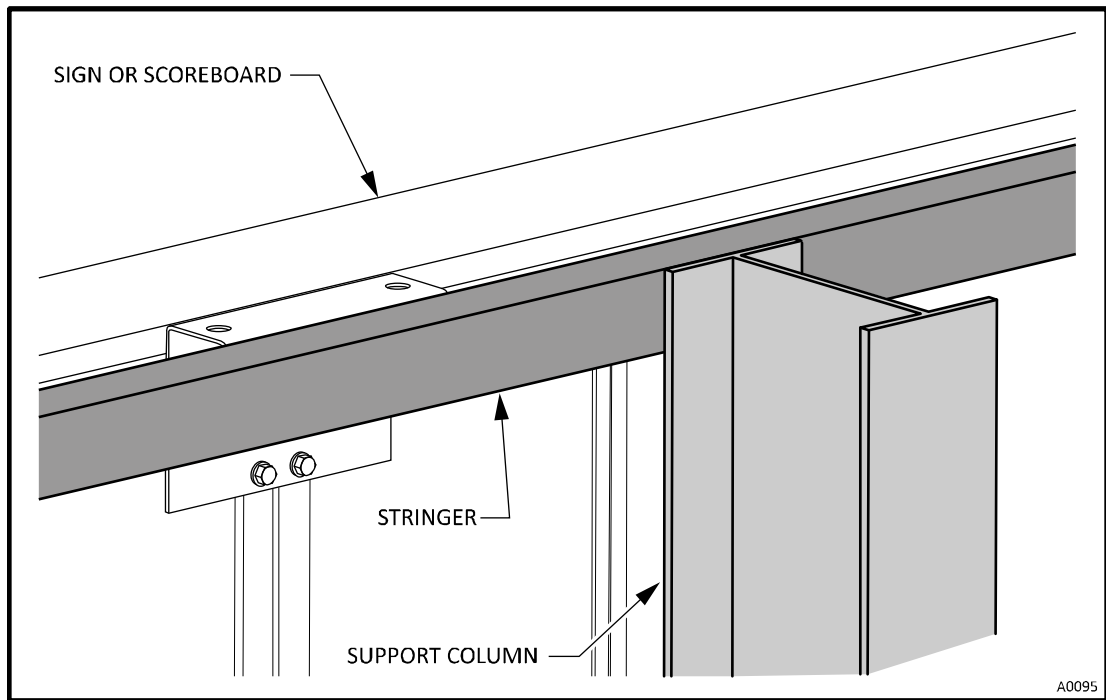


FIGURE 6 — STRINGER

## SCOREBOARD CONTROL & POWER

### CONDUIT AND WIRING REQUIREMENTS

- Electrical load requirements are stated on the ID label — located on the side of the scoreboard.
- Final connections to be completed after cabinets have been erected and permanently fastened.
- Final connections must be performed by a qualified electrician or service technician.
- Refer to Figure 8 — Control Data & Power Conduit Routing below.

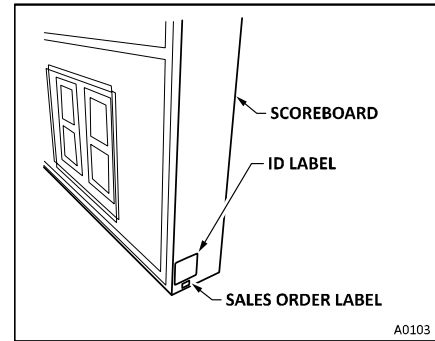


FIGURE 7 — ID LABEL

**Warning:** *Make sure power source is disconnected. Do not make final connections with live power. Failure to do so could result in serious injury or death caused by electrocution.*

*\*The location of the disconnect switch after installation shall comply with Section 600.6(A) of the National Electrical Code.*

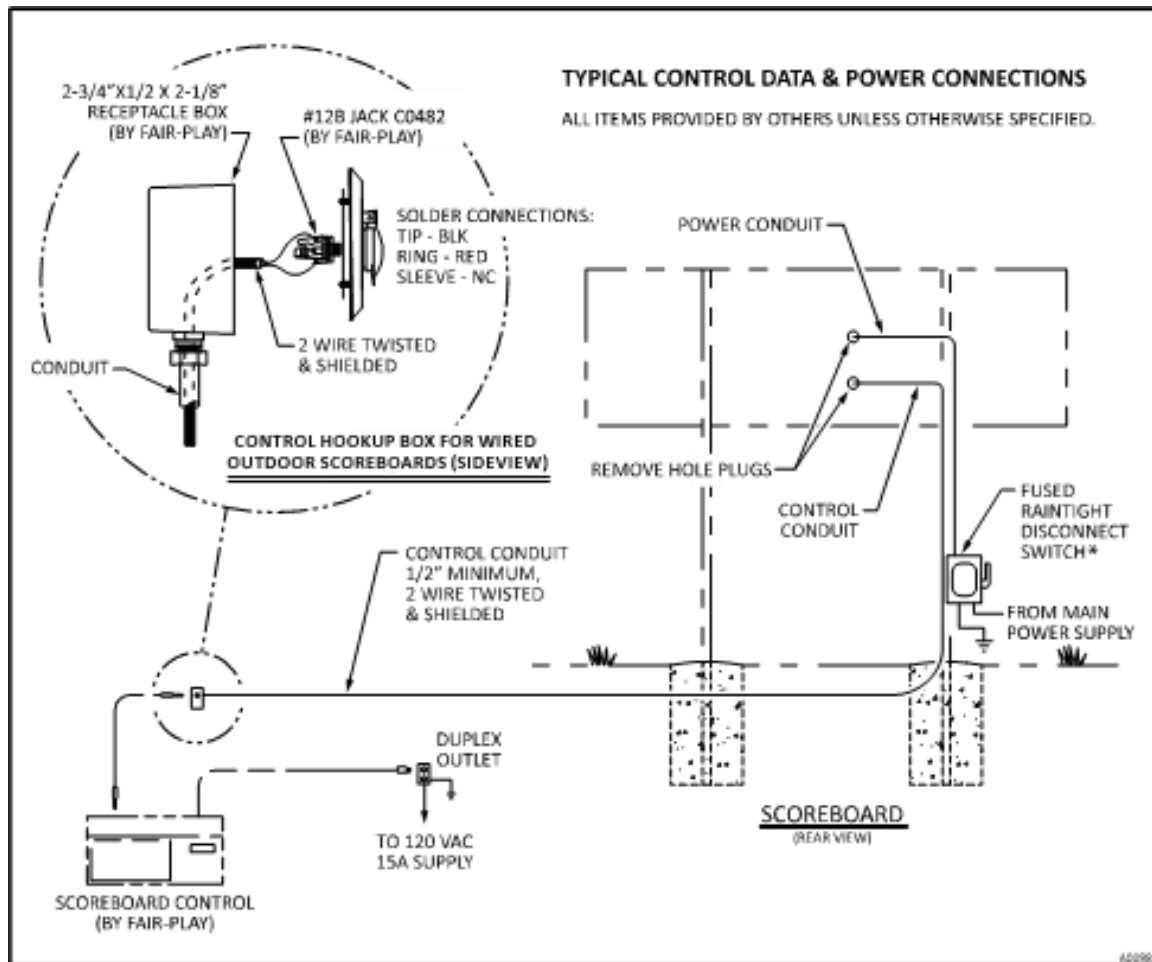


FIGURE 8 — CONTROL DATA & POWER CONDUIT ROUTING

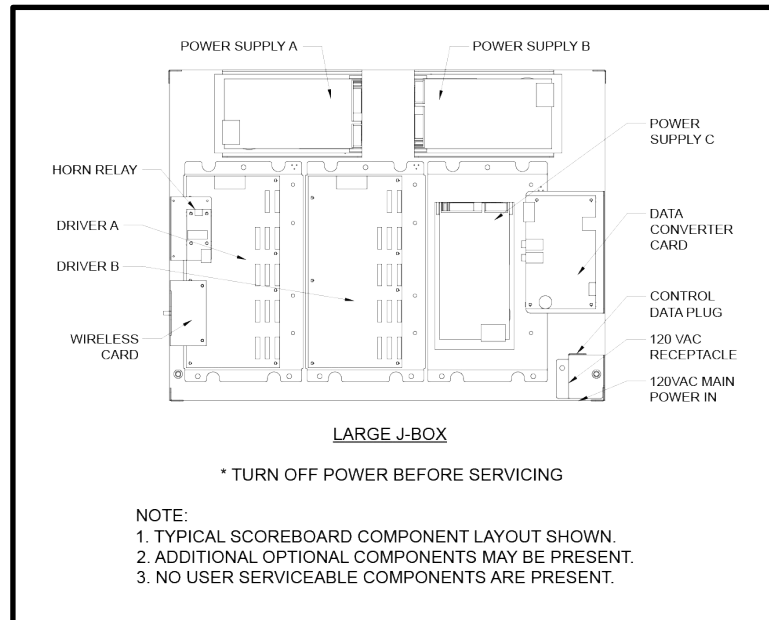
## SCOREBOARD INSTALLATION

### ACCESSING THE CONTROL & POWER CONNECTIONS

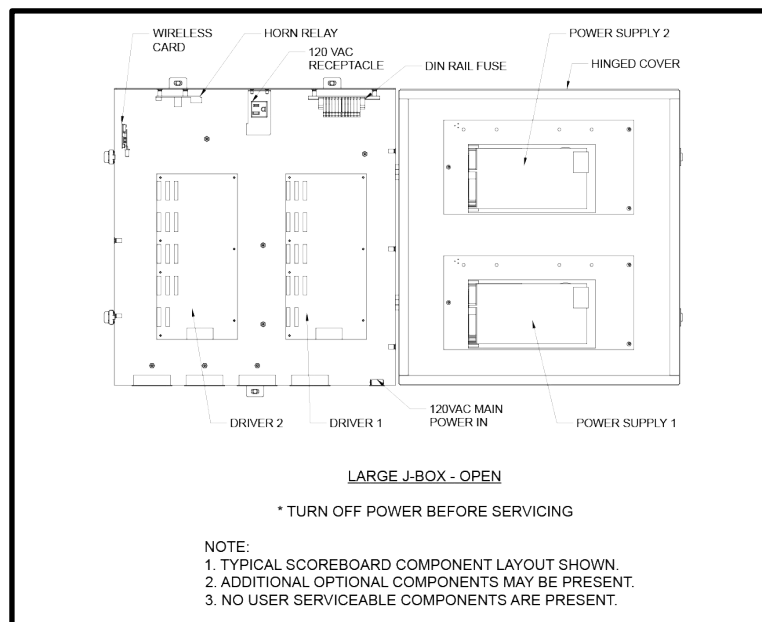
**Warning:** *Disconnect main power before opening the access door.*

**Warning:** *Incoming 120 VAC main power connections must be performed by a qualified electrician or service technician.*

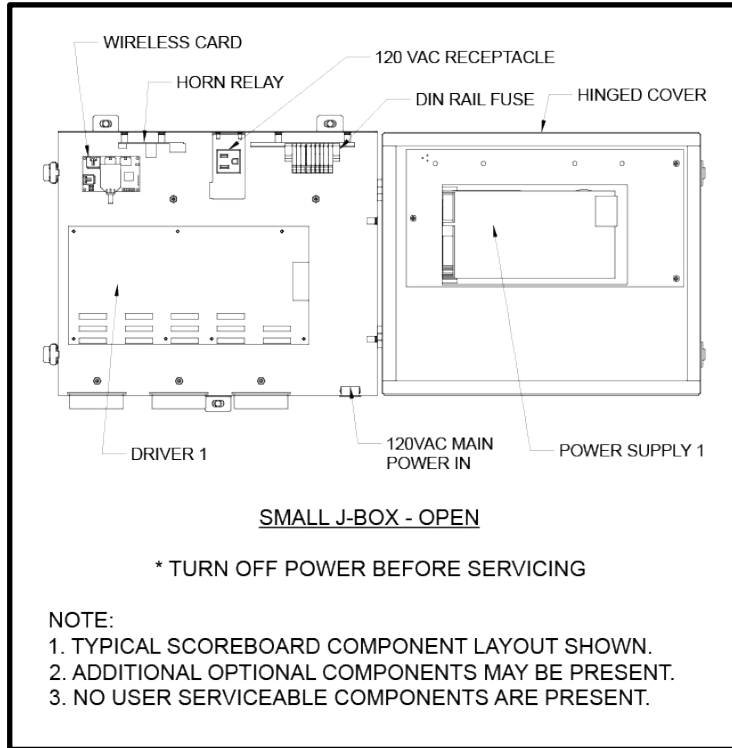
- Remove the service door to access the control data and power connections. Refer to Figure 9 below.



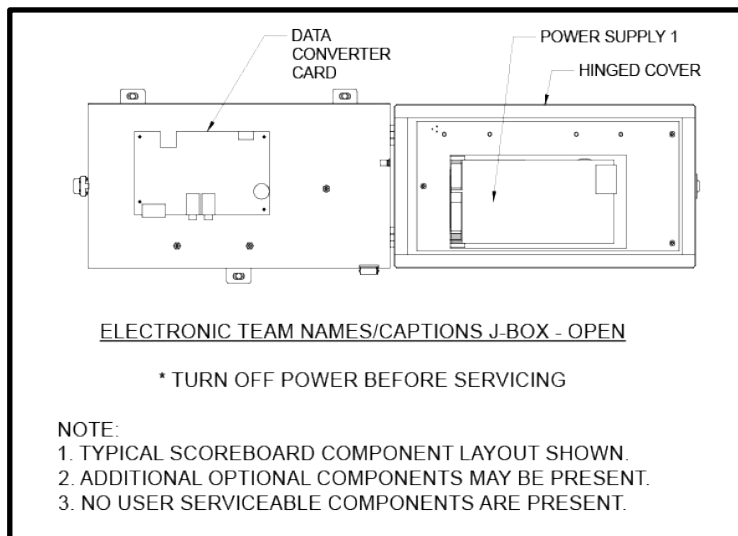
**FIGURE 9 — LOCATION OF MAIN POWER IN AND CONTROL DATA IN**



**FIGURE 9.1 — LARGE J-BOX OPEN**



**FIGURE 9.2 — SMALL J-Box OPEN**



**FIGURE 9.3 — ELECTRONIC TEAM NAMES/CAPTIONS J-BOX OPEN**

### CONTROL DATA IN

#### WIRED CONTROL

1. A knock-out plug is provided on the rear of the scoreboard for the control conduit.
2. A 10' foot data control cable (with plugs) is provided — for connecting from the control to the **Control Receptacle Box**.
3. A single 2-wire shielded data control cable in a dedicated conduit (1/2" or larger) is required from the **Control Receptacle Box** to the **Control Data In Hook-Up Box** in the scoreboard. Solder connections are required for the plug and jack connectors.

**Caution:**     *Do not route incoming power and data control cable in the same conduit as this may cause interference with the operation of the scoreboard.*

**Note:**        *Do not pass cable through any cable passages without using a grommet, plastic bushing, or edge protection to protect the cable. If grommet, plastic bushing or edge protection is missing, seek one from your local supplier or contact Fair-Play. All cable passage holes are 2-1/2" diameter.*

#### WIRELESS CONTROL

- The (external) control cable and conduit are not required for wireless systems. A wireless **receiver** is installed inside the scoreboard. Data comes from the **receiver** and feeds the **LED Outdoor Driver(s)**.

**POWER**

**FUSED DISCONNECT**

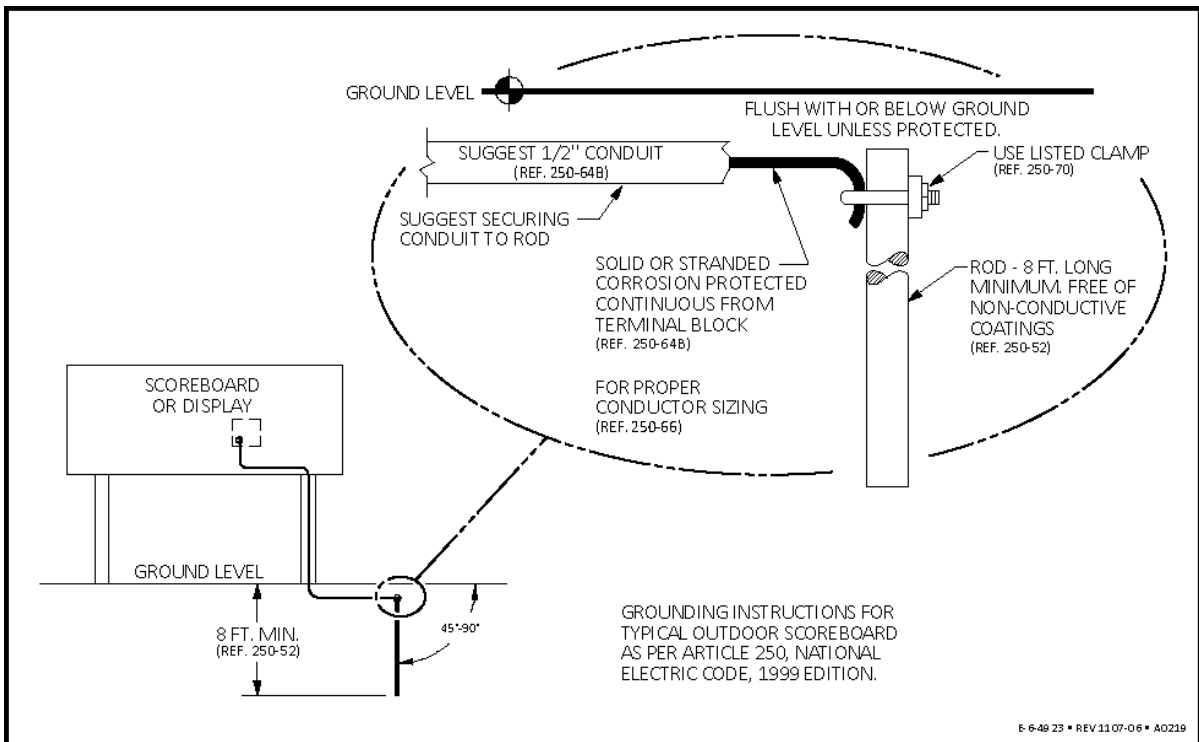
A fused disconnect (provided by others) must be installed. The location of the disconnect switch after installation shall comply with Section 600.6(A) of the National Electrical Code. Refer to Figure 8 on page 7.

**120 VAC SINGLE PHASE**

- A knock-out plug is provided on the rear of the scoreboard for the power conduit.
- Your scoreboard is wired for connection to a 120 VAC single phase; two wire grounded power supply at the scoreboard.
- Total power required, when all LEDs or lamps are turned on, is listed on the identification label provided with your scoreboard. Wire size should be determined by a local electrician typically determined by both load and wire lengths.

**GROUND WIRE**

The proper grounding of the electrical circuits and the scoreboard is an important aspect of an installation to ensure reliable operation, reduce potential lightning damage and for safety. Refer to Figure 10 below and to Article 250 of the National Electric Code.



**FIGURE 10 — TYPICAL GROUND WIRE CONNECTION**

### **SPLIT CABINETS**

All split cabinets require wires be routed to the customer hook-up location to operate all sections.

### **WATER INGRESS**

- No additional penetrations may be created in the product unless they are sealed per NEMA 4 Standard.
- All field penetrations must be tested using a stream of water poured from a container located not less than 6 inches away horizontally. Warranty will be void if this testing is not completed during installation or if there is water ingress from field modifications.
- Any cabinets located above the product must not allow water to build up and then flow through conduits into the product.
- Penetrations between product and higher cabinets must be sealed between the cabinet internal spaces using watertight cable to conduit seals.
- Holes remaining from eye bolt removal must be filled, sealed and tested.

# LED DISPLAY INSTALLATION

## LIFTING BARS AND BRACKETS

- The LED display can be easily lifted into place using a crane or boom truck such as used by utilities and sign companies.
- The weight and dimensions of your LED display are shown on the installation drawing.
- When lifting the LED display, hook the slings or spreader bar cables into the holes of the **lifting bars** or **eye bolts** attached to the LED display frame.
- The LED display frame is to be bolted or welded to the supports or stringer.

Refer to the following pages:

- **Bolting** to the LED Display Frame on page 17
- **Stringers** on page 18
- **Welded** on page 19
- The **lifting bars** or **eye bolts** may be removed after the LED display is secured to the supports.

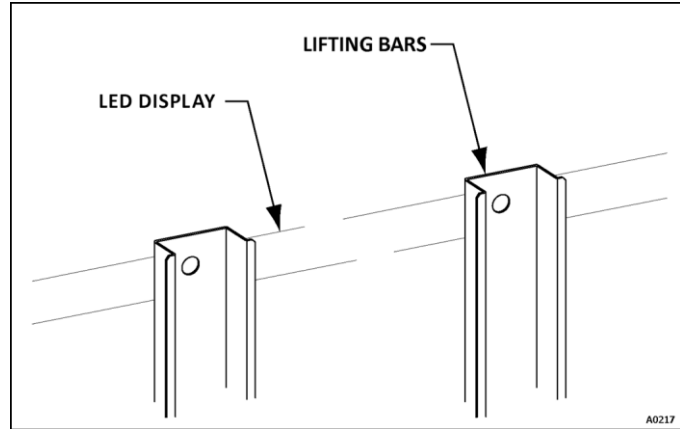


FIGURE 11 — LIFTING BAR

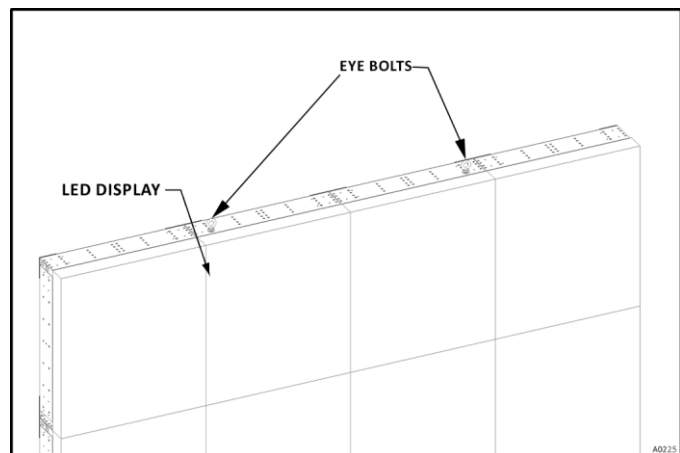


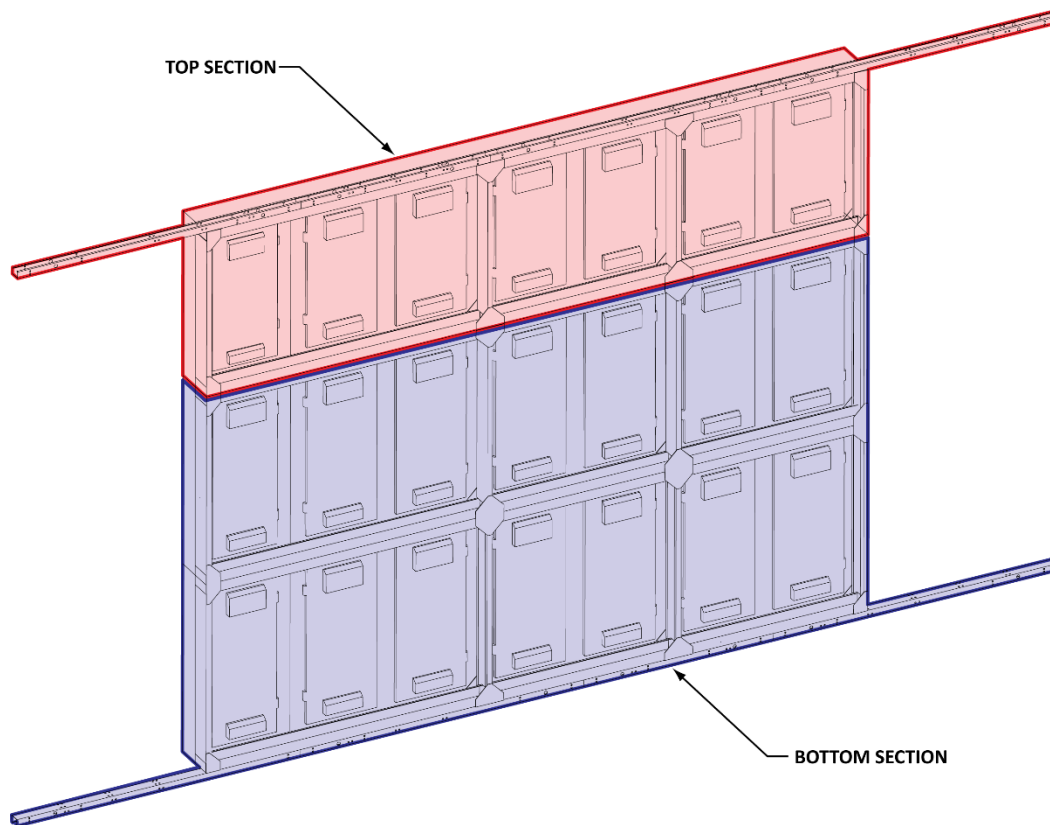
FIGURE 12 — LIFTING BRACKETS

### SPLIT CABINETS

- All split cabinet sections must be installed in their correct location. Reference LED display installation or frame drawing for details.
- All data cable wires must be routed and reconnected to operate all sections. Refer to Figure 20 on page 20.

#### 1. INSTALL LED DISPLAY SECTIONS

- Install LED display to the support columns beginning with the bottom section.
- When installing the top section, align the guide pins in the bottom section with the holes of the top section.



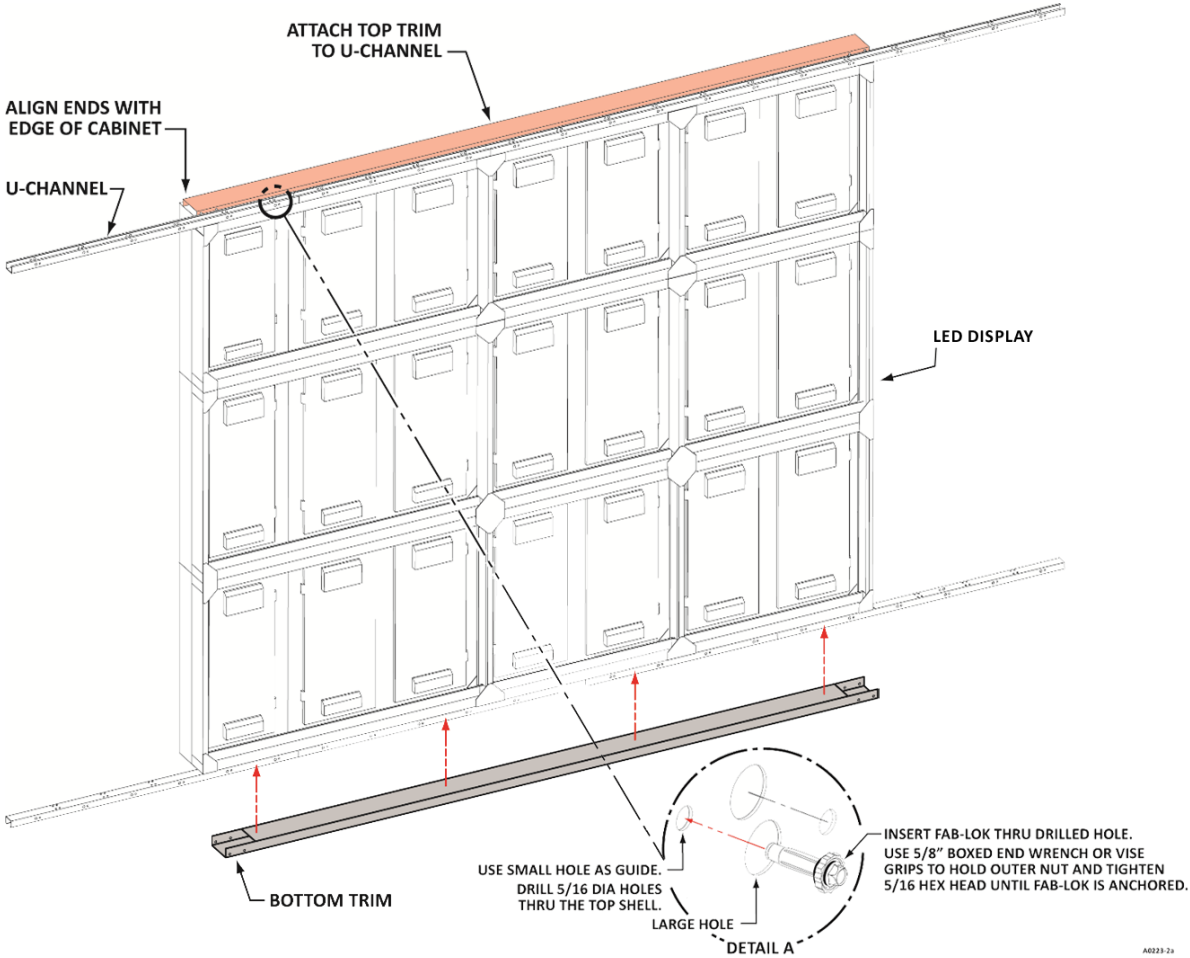
A0223-1

FIGURE 13 — INSTALL LED DISPLAY SECTIONS

**2. INSTALL TOP AND BOTTOM TRIM**

- a. Use the trim location and installation drawings provided with your trim kit as a primary source to help identify where each trim piece should be attached and how to attach it.
- b. In a typical trim kit installation, the top and bottom trim piece(s) must be flat against the U-channel on the top and bottom of the frame. The trim piece(s) should be flush with the sides of the LED display, but any gaps should be spaced evenly between the left and right side. See Figure 14 below.
- c. Drill 5/16 diameter holes through the Top trim using the small hole in the frame U-channel as a guide.
- d. Insert Fab-Lok anchors through the drilled hole into the trim piece.  
Use a 5/8" boxed end wrench or vise grips to hold outer nut and tighten the 5/16 hex head until the Fab-Lok is anchored.

**Note:** *Fab-Lok fasteners require considerable torque to start collapsing, then less torque when they start to set.*



**FIGURE 14 – TOP/BOTTOM TRIM TO LED DISPLAY SECTION**

### 3. INSTALL SIDE PANEL

- Lift the Side Panel into place using provided pick points so that the top is flush with the top and bottom trim and the back is against the U-channels that extend past the ends of the display. See Figure 15 above. It is normal to have up to 1/4" gap between the Side Panel and the LED display cabinet.
- Drill 5/16 diameter holes through the top trim using the small hole in the trim channel as a guide.
- Insert Fab-Lok anchors through the drilled hole.  
Use a 5/8" boxed end wrench or vise grips to hold outer nut and tighten the 5/16 hex head until the Fab-Lok is anchored.
- Install the remaining side panels in a similar fashion.

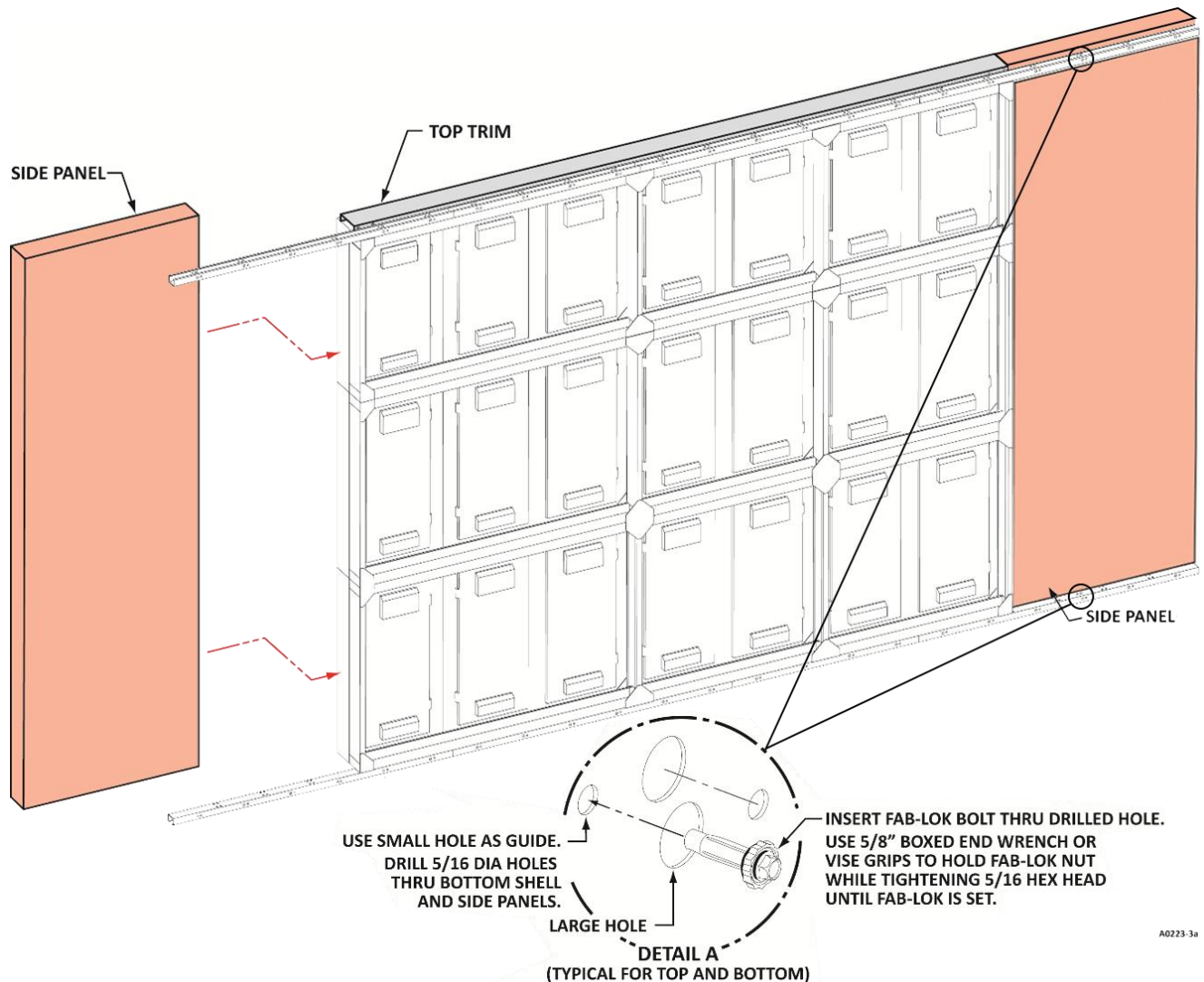
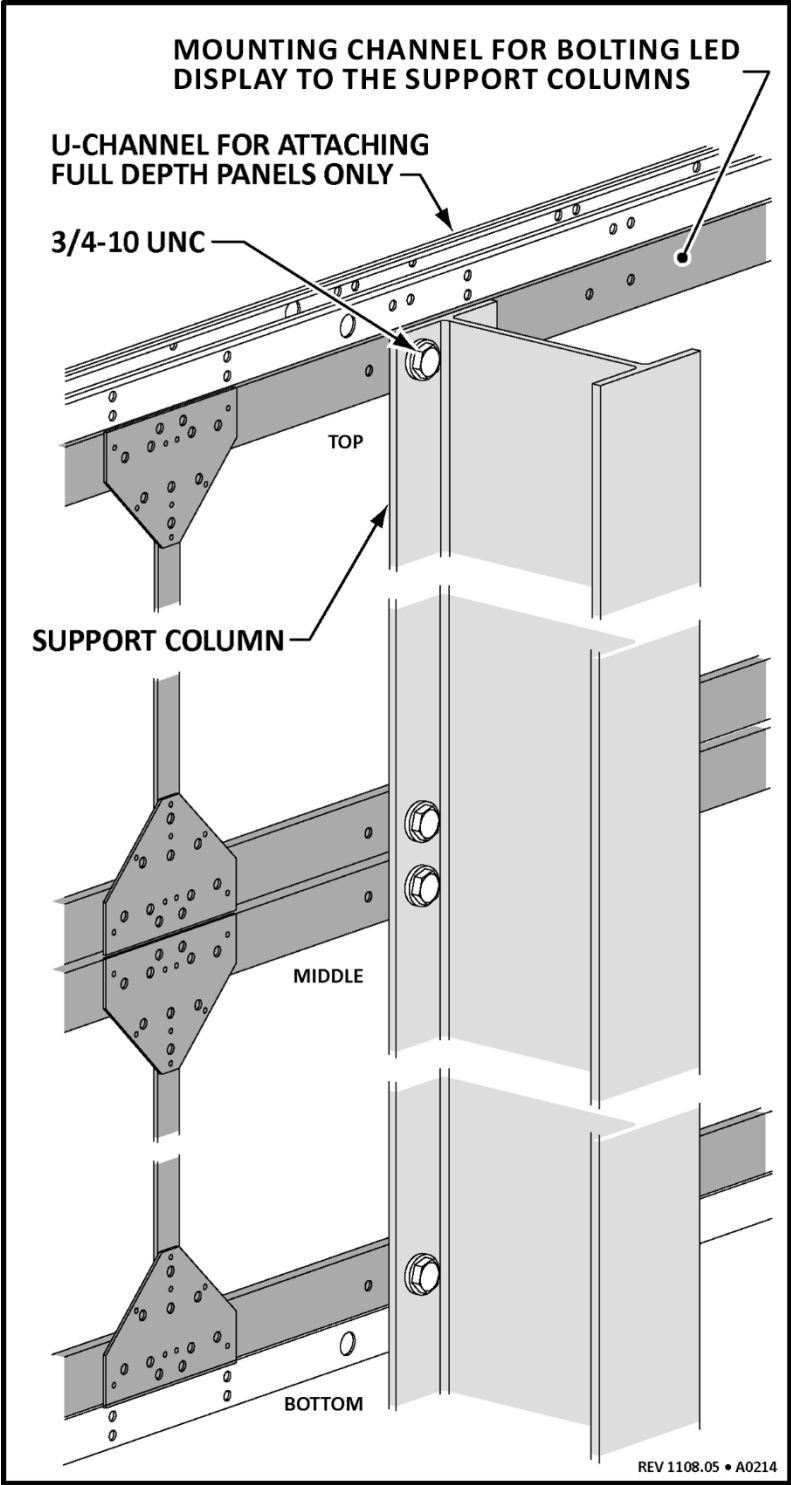


FIGURE 15 – SIDE PANEL TO LED DISPLAY SECTION

**BOLTING TO THE LED DISPLAY FRAME**

Only use the horizontal frame channels to attach the LED display frame to the support structure. Use existing holes or drill additional holes.



**FIGURE 16 — BOLTED**

## STRINGERS

- This method is used when it is not cost effective to reposition the existing support columns to the recommended standard spacing distance (shown in
- Table 1. Standard Column & Footing Spacing on page 2).
- Stringer material provided and installed by customer.
- The stringers are usually made from tube steel and are bolted or welded to the support columns during installation.
- The stringer must be properly sized for the application by an appropriately licensed engineer.

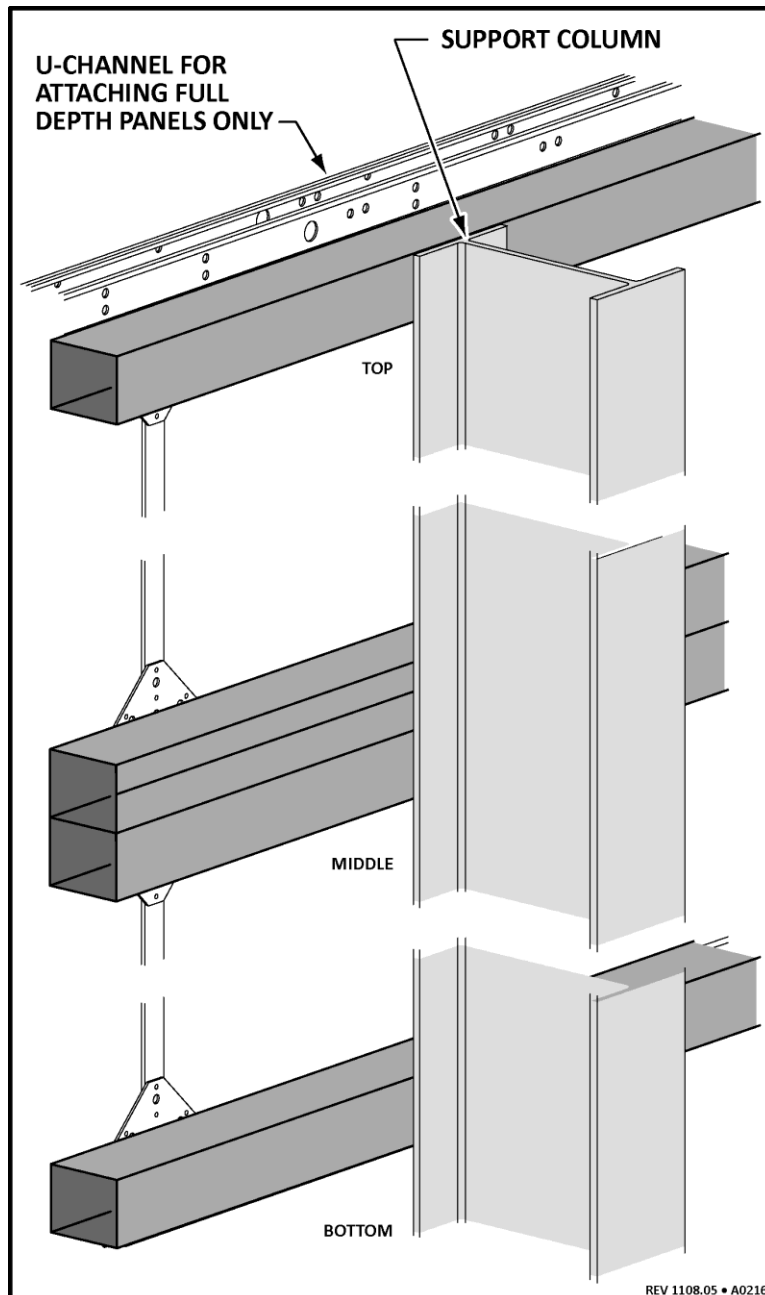
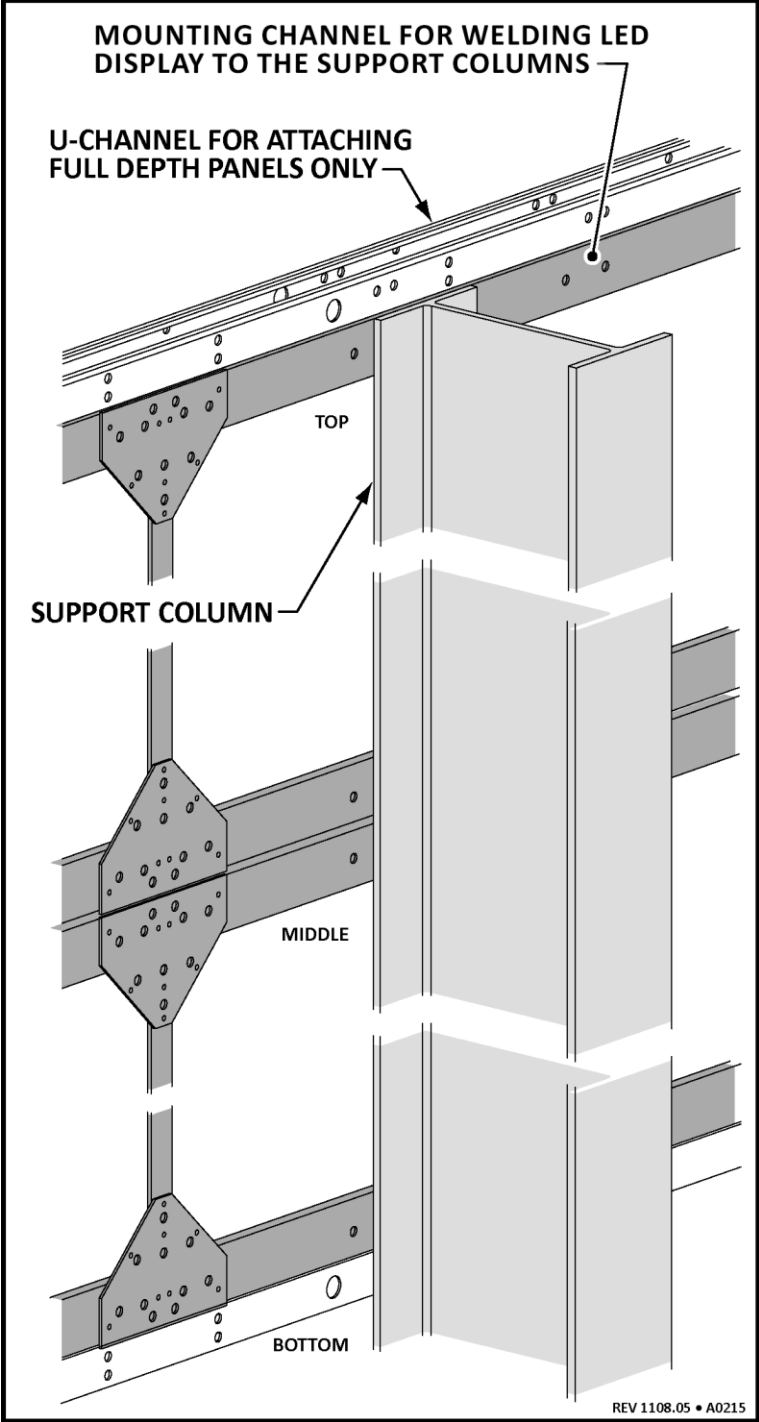


FIGURE 17 — STRINGER

**WELDED**

If a welded connection is desired it will be the responsibility of the installer to properly prepare the adjoining surfaces and ensure suitable environmental conditions to perform the operation. Fair-Play is in no way responsible for any part of the welding process or the quality or condition of said welds. Mount the LED display to the support column by welding to the horizontal frame channels only.



**FIGURE 18 — WELDING**

# LED DISPLAY POWER & DATA

### CONDUIT AND WIRING REQUIREMENTS

- Electrical load requirements are stated on the ID label — located near the power plug behind each panel module.
- Refer to wiring diagram supplied with your equipment.
- Final connections are to be completed after LED display has been erected and permanently fastened.
- Final connections must be performed by a qualified electrician or service technician.

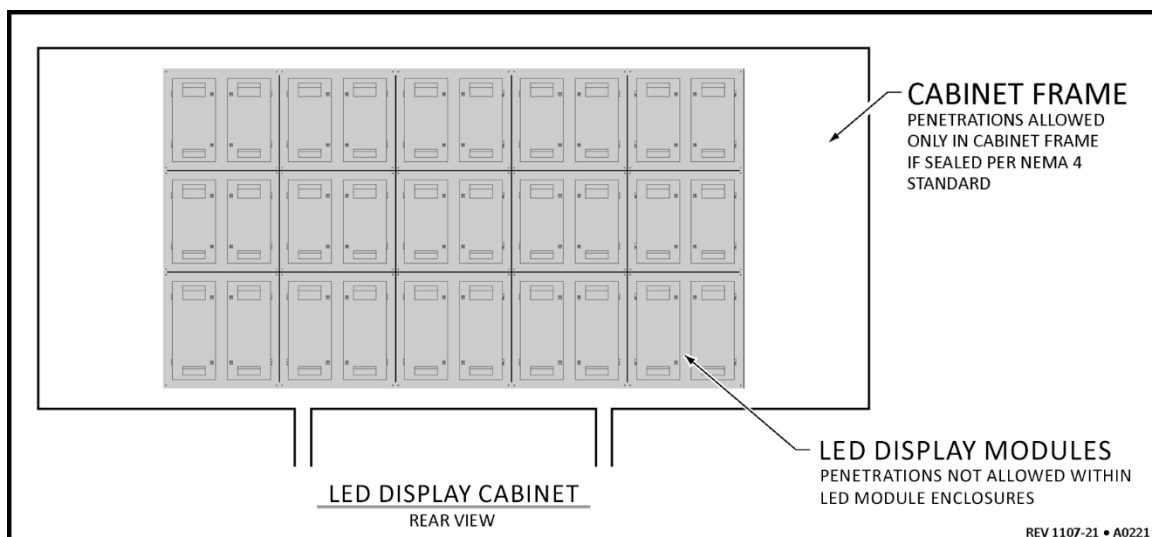
**Warning:** *Make sure power source is disconnected. Do not make final connections with live power. Failure to do so could result in serious injury or death caused by electrocution.*

### MULTIPLE DISPLAY SECTIONS

- Power and data connections may need to be made if the LED display is broken up into 2 or more separate sections.
- After all sections have been installed, refer to the power and data routing drawing that came with the display to determine where any additional connections need to be made.
- If the display is not accessible from the back side, the LED modules will need to be removed to access the power and data plugs.
- Jumper cables are provided with your order to make any necessary connections between LED cabinets.

### WATER INGRESS

- Additional penetrations may be created in the LED display cabinet only if they are sealed per NEMA 4 Standard. Additional penetrations are NOT allowed to the LED display module enclosures. Refer to Figure 19 below.



**FIGURE 19 — CABINET FRAME VS LED DISPLAY CABINET**

- All field penetrations must be tested using a stream of water poured from a container located not less than 6 inches away horizontally. Warranty will be void if this testing is not completed during installation or if there is water ingress from field modifications.
- Any cabinets located above the LED display must not allow water to build up and then flow through conduits into the LED display.
- Penetrations between the LED display and higher cabinets must be sealed between the cabinet internal spaces using watertight cable to conduit seals.

## POWER ROUTING

Please refer to the Fair-Play provided Power Routing Drawing specific to your order as the primary document that should be followed.

### POWER JUNCTION BOX

- The customer can choose to provide their own power junction box.
- Each power circuit connected to a cabinet, or string of cabinets, from the junction box must not exceed the maximum rating for that specific LED product. Maximum ratings are located on the power drawing and on the label on the back of the LED display.

### FUSED DISCONNECT

- A fused disconnect (provided by others) must be installed. The location of the disconnect switch after installation shall comply with Section 600.6(A) of the National Electrical Code. Refer to Figure 20 below.

### 120 VAC SINGLE PHASE

- A Connection point is provided on the rear of the LED display cabinets for the power cable.
- Unless specified otherwise, the LED display is wired for connection to a 120 VAC, 15 Amp, single phase, two wire grounded power circuit.
- Power requirements are listed on the identification label located on the back of the LED display. Wire size should be determined by a local electrician.

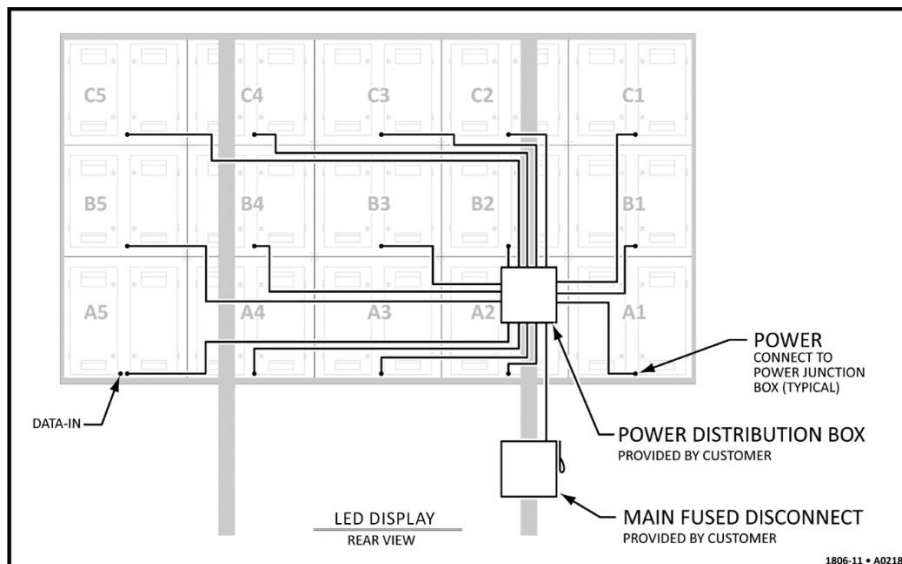
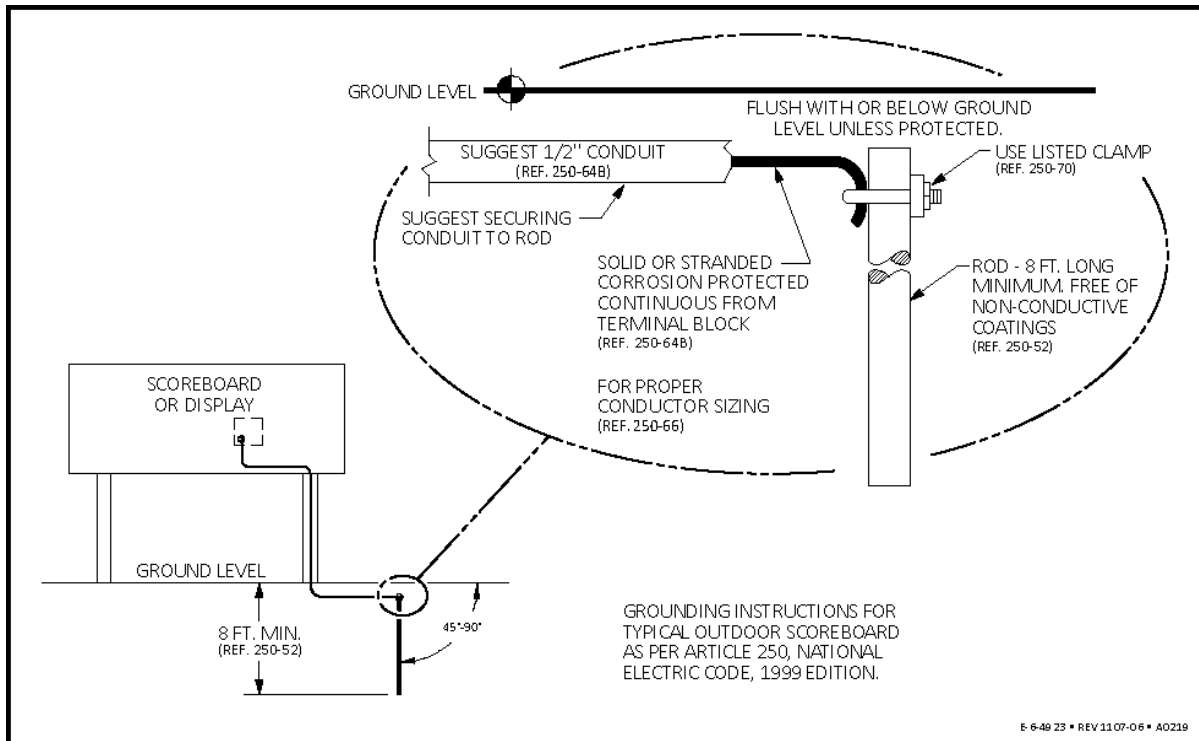


FIGURE 20 — POWER CABLE CONNECTIONS

## LED DISPLAY INSTALLATION

### GROUND WIRE

The proper grounding of the electrical circuits and the LED display is an important aspect of an installation to ensure reliable operation, reduce potential lightning damage and for safety. Refer to Figure 21 below and to Article 250 of the National Electric Code.



**FIGURE 21 — TYPICAL GROUND WIRE CONNECTION**

**DATA ROUTING**

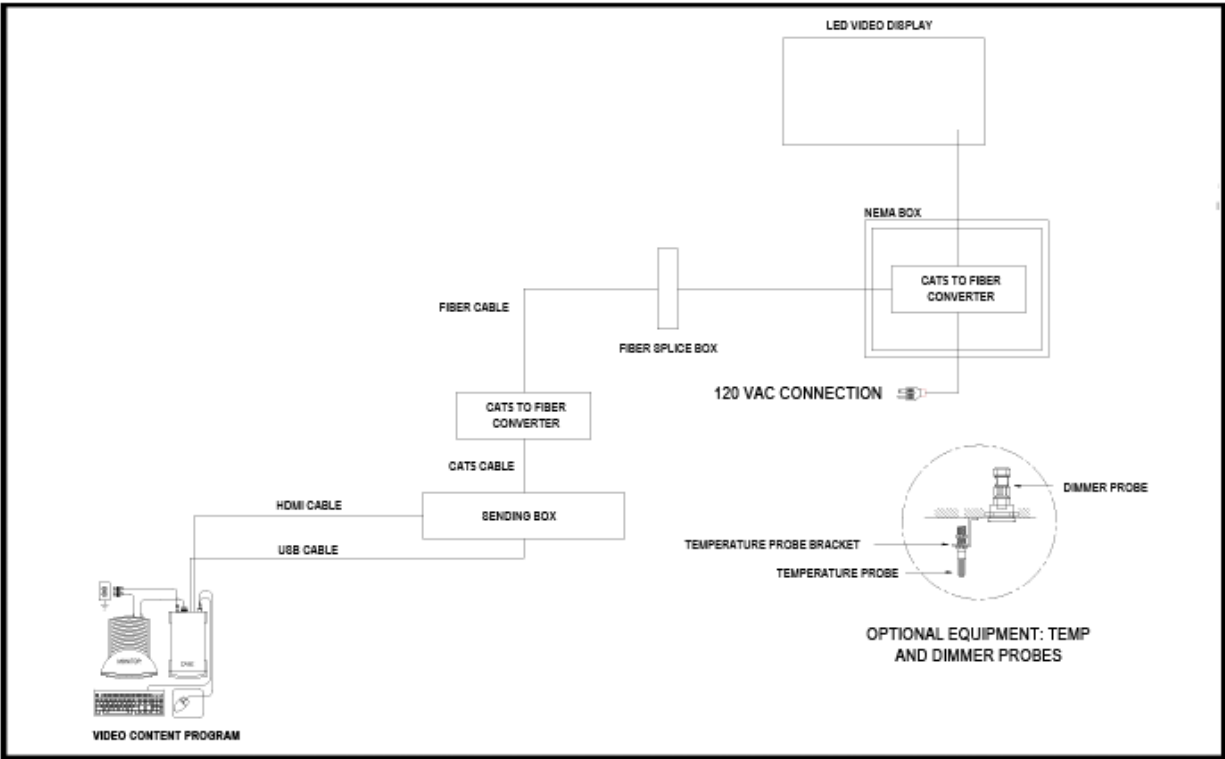
Please refer to the Fair-Play provided Data Routing Drawing specific to your order as the primary document that should be followed. Below is general connection information.

There are 3 types of data connections: Fiber, Cat5 (Copper), Wireless

**FIBER CONNECTION**

Refer to Figure 22:

- 1. This is the recommended connection method for outdoor installations.
- 2. Hook up the content computer to the sending box (controller) with the required video cable.
- 3. Plug in cat5 jumper cable from sending box output 1 to the cat5 input on the CVT fiber converter box.
- 4. Plug the fiber pair into the fiber convert box input. Note the fiber color and its position while plugging into the converter box.
- 5. At the LED display, likely in an outdoor waterproof box (NEMA box), plug the fiber pair into the converter box. The color needs to be the reverse order of connection at the sending box. (See image - Need picture showing that the fiber needs to be reversed at the display.)
- 6. Plug a cat5 jumper cable from the fiber converter box to the back of the cabinet with the first receiver card in the sign. Please reference the data routing drawing for data connection hook up in the sign.
- 7. On most LED products, there is a Data-In port on the rear of the display cabinets.



**FIGURE 22 — DIRECT FIBER CONNECTION**

## LED DISPLAY INSTALLATION

### CAT5 CONNECTION (COPPER)

Refer to Figure 23 below:

1. Hook up the content computer to the sending box (Controller) with the required video cable.
2. Run cat5 cable from sending box location to the LED display (Maximum distance 300 feet).
3. Hook cat 5 cable to the sending box output 1.
4. At the sign hook the cat 5 cable to the first receiver card. Please reference the data routing drawing specific to your order to determine which cabinet to connect a data cable to and how to route data through the display.

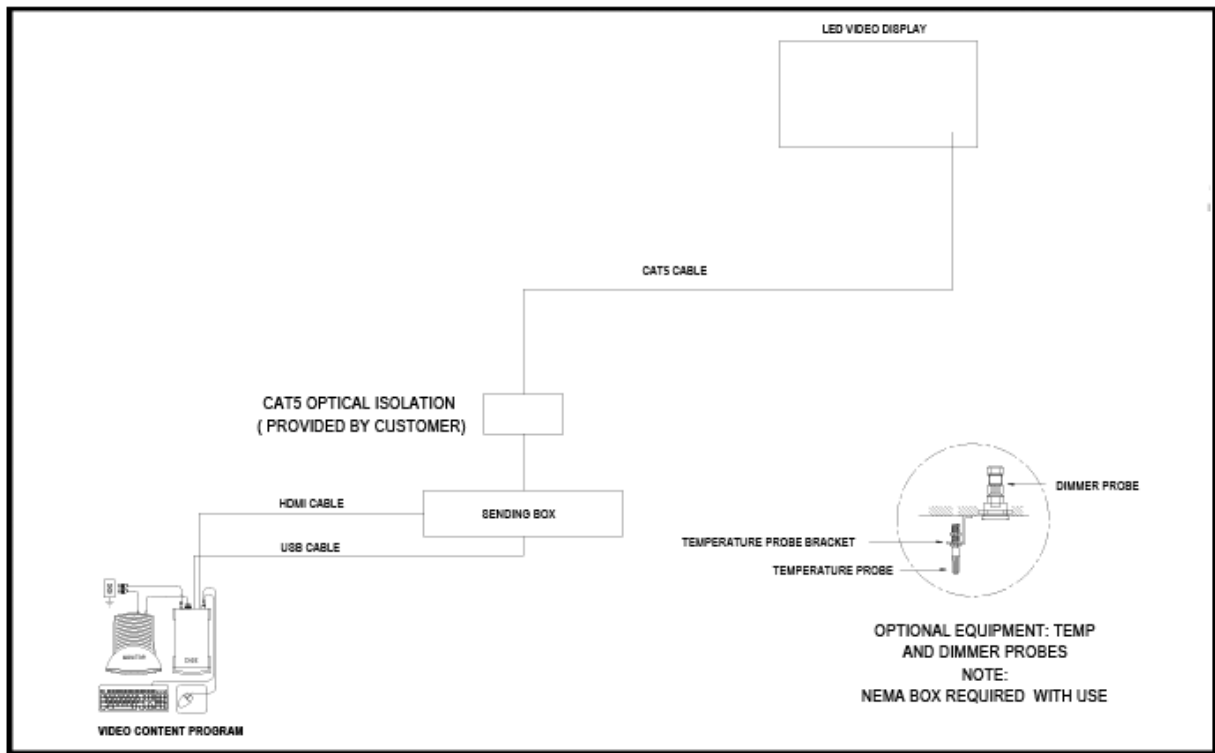


FIGURE 23 — CAT5 CONNECTION

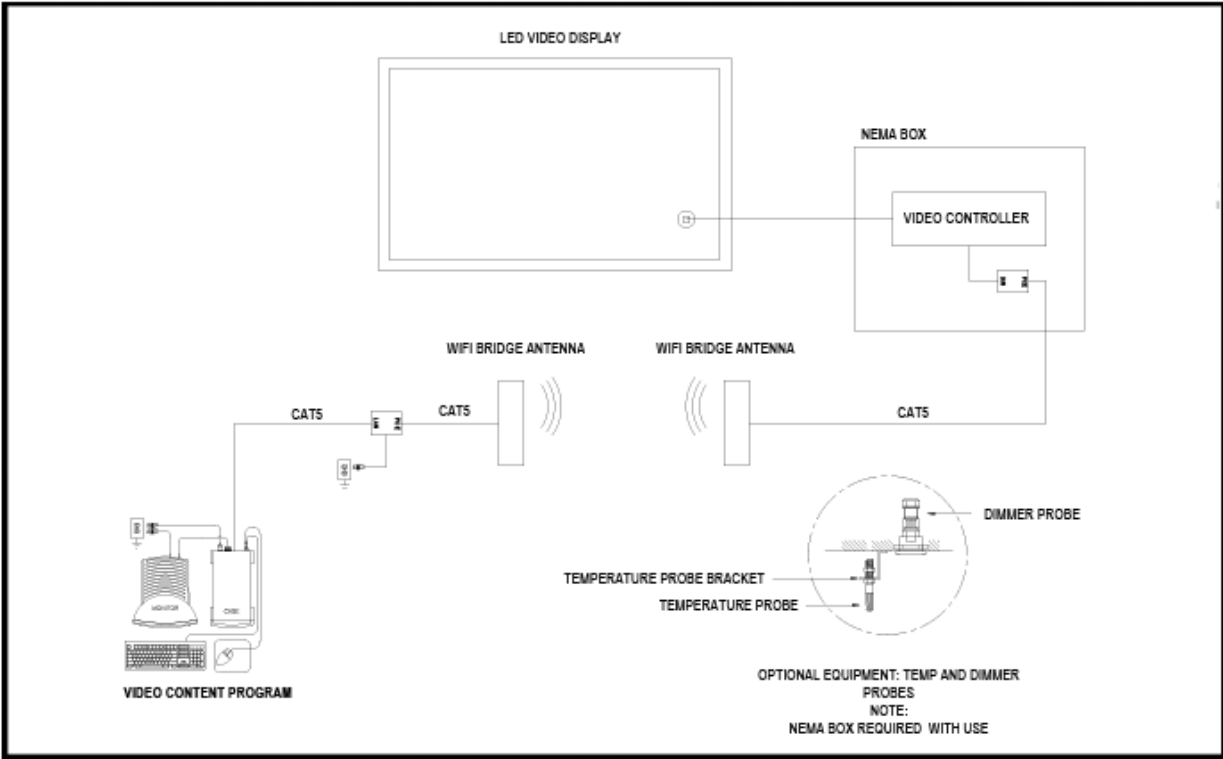
### WIRELESS CONNECTION

Refer to Figure 24:

1. Hook a cat5 cable to the wireless power supply; the connection input should be labeled LAN.
2. Hook the other end of the cat5 cable to the computer that will be used to control the LED display.
3. The wireless antenna should be mounted on the building with line of sight to the display. Hook the cat5 cable from the power supply connector labeled power over Ethernet (POE) box.
4. Attach the other end of the cat5 cable to the main Ethernet port of the antenna.

**WIRELESS CONNECTION (CONT.)**

- 5. Make sure the antenna at the display is mount in a location that has line of sight with the antenna at the building.
- 6. Hook the cat5 cable from the outdoor NEMA box enclosure labeled (wireless) to the wireless antenna.
- 7. Hook the cat5 cable labeled sign to the cabinet with the first receiver card of the display. Please reference the data routing drawing specific to your order to determine which cabinets to connect a data cable to and how to route data through the display.
- 8. Hook 120 VAC power to the NEMA box to power the devices inside.



**FIGURE 24 — WIRELESS CONNECTION**

**LIGHT AND TEMP SENSOR**

- 1. The Temp and Dimmer probe should be mounted in a shaded area near the sign.
- 2. The cables need to be wired back into the NEMA box and hooked into connectors labeled Sensor 1 and 2.

## OPTIONAL EQUIPMENT

### PROLINE MATRIX SCOREBOARD

- Proline connection to MP70/MP80 is optional equipment.
- Please use document 98-0019-58 for instructions for connection setup.

### SPORTS CONTROLLER

- A standard 120VAC control console is supplied with power cable and must be connected to a dedicated 120 VAC grounded outlet.
- Optional battery powered controls are available.
- An optional wireless and battery powered control may be available depending on the scoreboard type.
- The control must be operated and stored in a dry location.
- Refer to the user manual for the operation and maintenance of your specific control.
- MP70/MP80 scoreboard controller:  
Please use document 98-0002-29 for MP70 operation.  
Please use document 98-0090-01 for MP80 operation.

### HAND SWITCH

- Hand switch for MP70 is a wired connection, the hand switch for the MP80 is a wireless connection.
- Please use document 98-0005-01HS\_GL for setup and operation of the MP70 hand switch.
- Please use document 98-0091-01 Wireless Sideline Hand Switch Manual for setup and operation of the MP80 hand switch.

### VIDEO DISPLAY HORN BOX

- Allows horns for video display systems.
- Please refer to document 98-0020-04 for installation instructions.

### HORN

- Horns are optional and are not available on all models.
- Horns are shipped separate and installed by customer. Refer to 98-0020-01 Installation Instructions for Outdoor Horns.

<p><b>Caution:</b>     <i>Horns purchased from third party sources cannot be guaranteed and are not recommended for use without express written approval by Fair-Play. Electrical loads imposed by unauthorized horns may damage the circuits and void the warranty.</i></p>
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# INSTALLATION DRAWINGS

## 01-0500-01 – STANDARD SPORT INSTALLATION NOTES

### INSTALLATION NOTES

**WATER INGRESS**

NO ADDITIONAL PENETRATIONS MAY BE CREATED IN THE PRODUCT UNLESS THEY ARE SEALED PER NEMA 4 STANDARD. ALL FIELD PENETRATIONS MUST BE TESTED USING A STREAM OF WATER POURED FROM A CONTAINER LOCATED NOT LESS THAN 6" AWAY HORIZONTALLY. WARRANTY WILL BE VOID IF THIS TESTING IS NOT COMPLETED DURING INSTALLATION, OR IF THERE IS WATER INGRESS FROM FIELD MODIFICATIONS. ANY CABINETS LOCATED ABOVE THE PRODUCT MUST NOT ALLOW WATER TO BUILD UP AND THEN FLOW THROUGH CONDUITS INTO THE PRODUCT. PENETRATIONS BETWEEN PRODUCT AND HIGHER CABINETS MUST BE SEALED BETWEEN THE CABINET INTERNAL SPACES USING WATER TIGHT CABLE TO CONDUIT SEALS. HOLES REMAINING FROM EYE BOLT REMOVAL MUST BE FILLED, SEALED AND TESTED.

**VENTILATION**

INSTALL PRODUCT SO THAT AIR FLOW IS NOT RESTRICTED. CUSTOMER'S STRUCTURE SHOULD ALLOW FOR THE FREE FLOW OF OUTSIDE AMBIENT AIR TO THE BACK OF THE PRODUCT, WITHOUT RECIRCULATION OF AIR. WARRANTY WILL BE VOID IF COMPONENTS FAIL DUE TO AIR FLOW RESTRICTIONS.

**STRUCTURE**

COLUMNS AND FOOTINGS SELECTED FOR LOCATING SCOREBOARD 10'-0" ABOVE GRADE. DESIGN SHOULD BE ALTERED FOR DIFFERENT SOIL CONDITIONS, CLEARANCE, OR LOCAL CODES. FAIR-PLAY ASSUMES NO RESPONSIBILITIES FOR INSTALLATIONS DONE BY OTHERS.

**POWER**

ALL POWER CONNECTIONS SHOULD FOLLOW LOCAL CODES AND THE CURRENT NEC (NATIONAL ELECTRIC CODE). THE POWER MUST BE ROUTED THROUGH A FUSED DISCONNECT (CUSTOMER PROVIDED), USUALLY MOUNTED ON THE SUPPORT COLUMN, AND WITHIN VIEW OF THE DISPLAY FACE. ALL CIRCUITS ARE TO BE PROPERLY GROUNDED. THE DATA CABLE IS TO BE INSTALLED IN CONDUIT, 1/2" OR LARGER, FOR MECHANICAL PROTECTION. DATA CABLES AND POWER CABLES ARE TO BE ROUTED IN SEPARATE CONDUIT.

**ACCESS TO COMPONENTS**

ROUTING OF FIELD INSTALLED POWER AND DATA CABLE INSIDE THE PRODUCT MUST BE DONE SO THAT ACCESS TO HINGED POWER SUPPLY DOORS, MODULES, BREAKER CABINETS OR OTHER COMPONENTS IS NOT INHIBITED. MOUNTING STRUCTURES MUST NOT PREVENT FULL OPENING OF HINGED OR SLIDING ACCESS PANELS.

**CALIFORNIA INSTALLATIONS**

LED SIGNS DESCRIBED IN THIS DRAWING ARE UNFILTERED, AND THEREBY EXEMPT FROM TITLE 24 REQUIREMENTS AS DEFINED IN THE CALIFORNIA 2005 BUILDING ENERGY EFFICIENCY STANDARDS, REFERENCE SECTION 6.8 PAGE 6-47 OF THE NONRESIDENTIAL COMPLIANCE MANUAL.

**CANADIAN INSTALLATIONS (IN ADDITION TO THE ABOVE)**

DISCONNECT MUST OPEN ALL UNGROUNDED CIRCUITS AND THE OVERALL INSTALLATION MUST FOLLOW ALL CSA CODES.

INSTALLATION DRAWING SHOULD BE REVIEWED BY A LICENSED PROFESSIONAL ENGINEER IN YOUR AREA PRIOR TO CONSTRUCTION.

CUSTOMER APPROVAL:		MY SIGNATURE BELOW SIGNIFIES MY APPROVAL TO PROCEED WITH THE DESIGN WORK SPECIFIED HEREIN AND ACKNOWLEDGMENT THAT I HAVE RECEIVED AND READ THE INSTALLATION SPECIFICATIONS COVERED BY FAIR-PLAY DOCUMENT NO. 01-0500-01. CONSULT YOUR FAIR-PLAY SALES ASSOCIATE IF YOU SHOULD HAVE ANY QUESTIONS OR REQUIRE ANY CHANGES TO THIS DOCUMENT.	
PROJECT:	SIGNATURE:	DATE:	
REFERENCE #:	PRINT NAME:		

F	UPDATED TO NEW TITLE BLOCK FORMAT, REMOVED SOIL STATEMENT	05-31-22	BEW	<b>FAIR-PLAY</b> <small>THIS DOCUMENT CONTAINS FAIR-PLAY PROPRIETARY INFORMATION. ANY DISCLOSURE, USE OR REPLICATION OF THE DOCUMENT OR OF ANY INFORMATION CONTAINED THEREIN FOR OTHER THAN THE SPECIFIC PURPOSE FOR WHICH IT WAS DISCLOSED IS EXPRESSLY PROHIBITED, EXCEPT AS MAY BE OTHERWISE AGREED TO IN WRITING. COPYRIGHT © 2022.</small>
E	UPDATED TO NEW TITLE BLOCK FORMAT	09-18-19	BEW	
D	UPDATED TO NEW TITLE BLOCK FORMAT	05-19-17	BEW	
C	UPDATED TO NEW TEMPLATE FORMAT	08-10-08	RS	
B	REMOVED REFERENCE TO WIND SPEED AND PRESSURE	04-30-08	RS	
A	ADDED ACCESS SECTION	08-29-07	RS	
OR	ORIGINAL RELEASE	01-31-07	RS	
REV #	CHANGE	DATE	BY	

TITLE	STANDARD SPORT INSTALLATION NOTES	DRAWN BY	RS	MODEL	B
DATE	04-19-07	SCALE	FULL	DWG. NO.	01-0500-01

8110 AVIATOR DRIVE  
HAZELWOOD, MO 63042

# 01-0500-02 – COMMERCIAL INSTALLATION NOTES

### INSTALLATION NOTES

**WATER INGRESS**

- No additional penetrations may be created in the electronic sign unless they are sealed per NEMA 4 standard.
- All field penetrations must be tested using a stream of water poured from a container located not less than 6' away horizontally.
- Any cabinets located above the electronic sign must not allow water to build up and then flow through conduits into the product.
- Penetrations between electronic sign and higher cabinets must be sealed between the cabinet internal spaces using water tight cable to conduit seals.
- If eyebolts are removed from electronic sign, holes must be filled, sealed and tested.

**VENTILATION**

- Install product so that outside air flow is not restricted. (REFERENCE DIAGRAM 1)
- Customer's structure should allow for the free flow of outside ambient air to the product vents, without recirculation of air from outlet vent to inlet vent.

**STRUCTURE**

- Structuring provisions allow for a maximum of 10'-0" unsupported between columns (5'-0" center-to-center), unless otherwise noted. (REFERENCE DIAGRAM 2)

**POWER**

- Electronic sign must be mounted on a fixed, permanent, static structure in accordance to local codes.
- Provide a fused disconnect for the electronic sign that is within sight of the sign and easily accessible.
- Provide sufficient power to the electronic sign. See ID label on the sign for the exact power requirements.
- Provide a dedicated power circuit to the electronic sign [and its NEMA box if provided] with an independent breaker for each sign face.
- The power wires from the main service disconnect to the electronic fused sign disconnect must contain an earth ground conductor.

**POWER (Continued)**

- Install a ground rod at the base of electronic sign. This ground must be connected to the electronic sign's cabinet ground [and NEMA box if provided] and to the ground in the main disconnect. (REFERENCE DIAGRAM 3)
- The location of the disconnect switch after installation shall comply with Section 600.6(A) of the National Electrical Code.
- Ensure the electrical hookup meets local building codes including breaker sizing, grounding, and ground rod requirements.
- Install a line filter, surge protector, or UPS in areas of poor power quality.
- The data cable is to be installed in conduit, 1/2" or larger, for mechanical protection.
- Data cables and power cables are to be routed in separate conduit.

**ACCESS TO COMPONENTS**

- Routing of field installed power and data cable inside the product must be done so that access to hinged power supply doors, modules, breaker cabinets or other components is not inhibited.
- Mounting structures must not prevent full opening of hinged or sliding access panels.

**CANADIAN INSTALLATIONS (IN ADDITION TO THE ABOVE)**

- Disconnect must open all ungrounded circuits and the overall installation must follow all CSA codes.
- Installation drawing should be reviewed by a licensed professional engineer in your area prior to construction.

**CALIFORNIA INSTALLATIONS**

- Defined in sign catalogue 2005 building energy efficiency standards, reference section 6.07 page 6-47 of the non-residential compliance manual.

**GENERAL**

- Electronic sign complies with IBC 2006 Exposure B 90 mph requirements.

**WARNING**

- Installation ineligibility may permanently damage the electronic sign and void the warranty. Trans-Lux assumes no responsibilities for installations done by others.

**DIAGRAM 1**

MINIMUM OF 4" SPACING BETWEEN BRACKETS TO BE USED FOR COOLING (V)

PROVIDE UNRESTRICTED FLOW OF AIR THROUGH THE SIGN FOR COOLING (V)

NOTE: NOT APPLICABLE TO FRONT-VIEW LED SIGNAGE

ID LABEL (ETL) REQUIREMENTS

NOTE: SUPPORT BRACKET MUST BE THE SAME AS LANTIERE AS SHOWN

GROUND ROD (EARTH GROUND)

**DIAGRAM 2**

TOP VIEW

BACK VIEW

5" MAX

12" MAX

5" MAX

GROUND

**DIAGRAM 3**

MAIN SERVICE DISCONNECT

ELECTRONIC SIGN DISCONNECT

ELECTRONIC SIGN

NEMA BOX (AS SHOWN)

REV	DATE	DESCRIPTION
1	05-01-24	REV
2	05-22-22	REV
3	05-01-25	REV
4	05-19-25	REV
5	05-19-25	REV
6	04-19-07	REV
7	18-10-10	REV
8	04-19-07	REV
9	04-19-07	REV
10	04-19-07	REV
11	04-19-07	REV
12	04-19-07	REV
13	04-19-07	REV
14	04-19-07	REV
15	04-19-07	REV
16	04-19-07	REV
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93	04-19-07	REV
94	04-19-07	REV
95	04-19-07	REV
96	04-19-07	REV
97	04-19-07	REV
98	04-19-07	REV
99	04-19-07	REV
100	04-19-07	REV

**FAIR-PLAY**

6110 AVIATOR DRIVE  
JACKSONVILLE, FL 32216

DATE: 05-01-24  
DRAWN BY: B  
DATE: 05-02-24  
SCALE: FULL  
PROJECT: COMMERCIAL  
INSTALLATION NOTES  
120 VAC, 1-PHASE

PROJECT: FAIR-PLAY  
DRAWN BY: B  
DATE: 05-02-24  
SCALE: FULL

PROJECT: FAIR-PLAY  
DRAWN BY: B  
DATE: 05-02-24  
SCALE: FULL

# NOTES