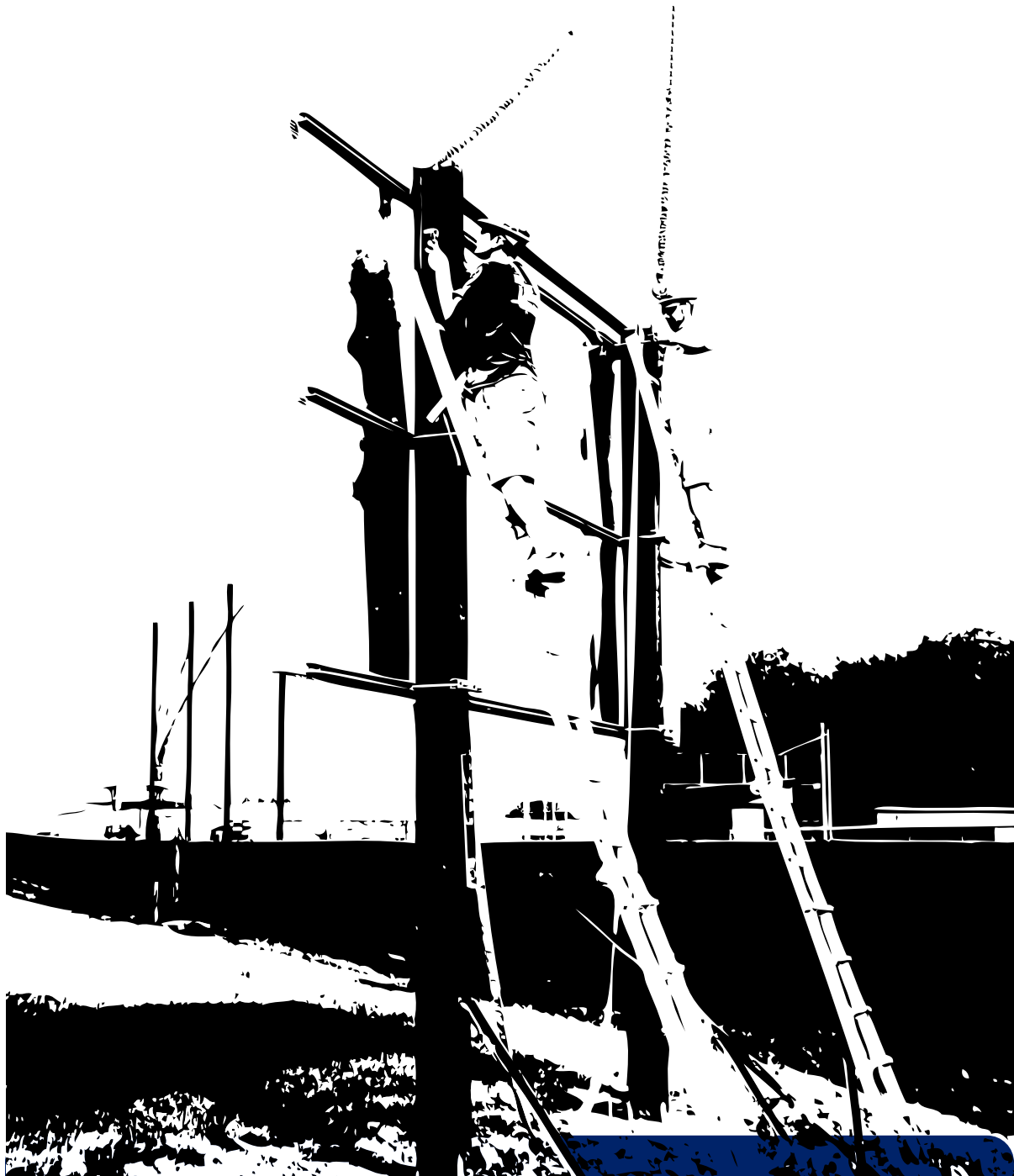


# ALL AMERICAN

## SCOREBOARDS®



**Everbrite**

**9000 Series Installation Manual**

Rev. 9/25/2023

## SCOREBOARD SITE INSTALLATION INSTRUCTIONS

**CAUTION: All American Scoreboards (AAS) recommends the sign be installed by a licensed contractor, and must meet all local and national building codes.**

**NOTE: AAS RECOMMENDS USING A BOOM/FORKLIFT/CRANE OF SUITABLE SIZE TO USE IN INSTALLATION.**

### Unpacking/Pre-Installation

Depending on the model ordered, the All American Scoreboard unit comes crated with different items attached and/or unattached and with different installation hardware. The console and any mounting supplies will typically be shipped above the scoreboard in a wooden crate. A typical scoreboard crate is approximately about 6" wider, 18" taller than the scoreboard and approximately 20" to 23" in depth depending on the size of the scoreboard.

**! OPERATION OF THE UNIT WITH THE ELECTRICAL CIRCUITRY EXPOSED IS DANGEROUS. BE SURE ALL TOOLS AND ANY OTHER MATERIALS ARE REMOVED FROM THE UNIT, AND ALL ACCESS COVERS ARE REPLACED AND CLOSED BEFORE POWER IS TURNED ON.**

**NOTE:** Take care uncrating as not to damage the units.

The shipment typically includes:

- Installation instructions (this document).
- Operator's Manual.
- LED Scoreboard Cabinet(s).
- Keypad Console(s).
- Mounting Hardware (see parts list.)

**NOTE: Upon receipt, check for visible damage. If damage is found at the time of delivery, consignee must obtain an 'Inspection of Bad Order' from the delivering carrier.**

If damage is found after shipment has been accepted, contact your sales representative within 3 days of acceptance. Take photographs of the entire crate and the specific damage to ensure a speedy repair or replacement.

## - Outdoor Installation Steps -

**Prior to installation, set I-Beams in required concrete footing. Footing depth varies heavily by soil conditions, climate and environmental factors. Depth of footing must comply with local ordinances. I-Beams must be level.**

**Step 1: Review the site plan** and/or rendering for the overall concept. If advertising/sponsor panels or trusses are also being installed, wait until the scoreboard is fully installed before adding onto the project. Typically, all scoreboards up to 7' in height are built as one complete cabinet. Scoreboards taller than 7' are made as stacking cabinets. Scoreboards wider than 24' will also need to stack next to each other, meaning that a 8'x28' scoreboard will ship in 4 sections, While an 8'x24' Scoreboard will ship in 2 sections.

**Step 2: Prepare to lift the scoreboard** (or scoreboard section). Scoreboards are installed from the bottom cabinet up with the aid of self locating wire pass thru channels. Larger scoreboards (over 24' in width) may require cabinets to be installed side-by-side. Measure from the top of the I-Beams to the appropriate height so the top of the scoreboard (or scoreboard + upper ad panels + Truss, etc) will be flush with the top of the I-Beams. Making sure the lifting brackets or 3/8" eye-bolts are secure, carefully lift one section of scoreboard into place. A spreader bar is highly recommended for better weight distribution, control and to prevent a decrease of sheer strength to the eye-bolts (not supplied) due to straps pulling inward rather than upward.

**Step 3:** Screw Threaded Rods into the Spring Nuts and tighten using 1/2" Nut and Lock Washer (See Mounting Kits on the General Information Page).

**Step 4:** Lift the lower cabinet (or single cabinet) and center between the poles. **It is critical that the bottom sections are level to ensure upper panels and entire scoreboard are also level.**

**Step 5:** Install Spring Nuts with Threaded Rods by sliding in from the end or twist them CLOCKWISE into the mounting channels on the back of the scoreboard (the spring nuts have a rounded edges for twisting clockwise only), approximate position on each side of the I-beams.

**Step 6:** After leveling and centering the scoreboard (or scoreboard section), secure to I-beams using the supplied 12" strut and 1/2" Flat Washer, Lock Washer and Hex Nut (See Mounting Kits on the General Information Page), taking care not over tighten and strip or pull the spring nuts out, **50/60 FT/LB torque max.** The lower section should be secured using (4) 12" strut channels.

**Step 7 (4 Cabinet Scoreboards greater than 24' wide only):** Lift the 2nd lower cabinet into place. Using the access panels, connect both cabinets together using supplied nuts and bolts to secure 1 cabinet to the other. Install Spring Nuts with Threaded Rods by sliding in from the end or twist them CLOCKWISE into the mounting channels on the back of the scoreboard (the spring nuts have a rounded edges for twisting clockwise only), approximate position on each side of the I-beams (See Mounting Kits on the General Information Page). **It is critical that the bottom sections are level to ensure upper panels and entire scoreboard are also level.**

**Step 8:** Lower upper cabinet a few inches over the lower cabinet (with the passthroughs). If installing a scoreboard more than 24' wide, make sure to install the cabinet with a upper board with a vertical passthrough before installing the final cabinet - otherwise the scoreboard will not be able to slide into place as there will be interference with the vertical and horizontal passthroughs. Remove adhesive from the upper cabinet and carefully connect and route cables through the hole of the upper cabinet and down to the lower cabinet through the cable raceway tube, ensuring to not stress the cables. it is much easier to connect the wires at this point than to try

to connect them at the access points after the scoreboard is fully installed. Use the same strut mounting procedure (See Mounting Kits on the General Information Page) as the lower panel(s).

**Step 9 (4 Cabinet Scoreboards greater than 24' wide only):** Lower 2nd upper panel above the lower bottom panel, and slide cabinet into the other upper cabinet, connecting any wires/connectors from the other upper cabinet before mounting them flush. Use the same strut mounting procedure (See Mounting Kits on the General Information Page), as the lower panel(s). Upper panels are secured by using (4) 12" strut channels.

**Step 10:** If no Ad Panels or Trusses are to be installed, skip to Step 13.

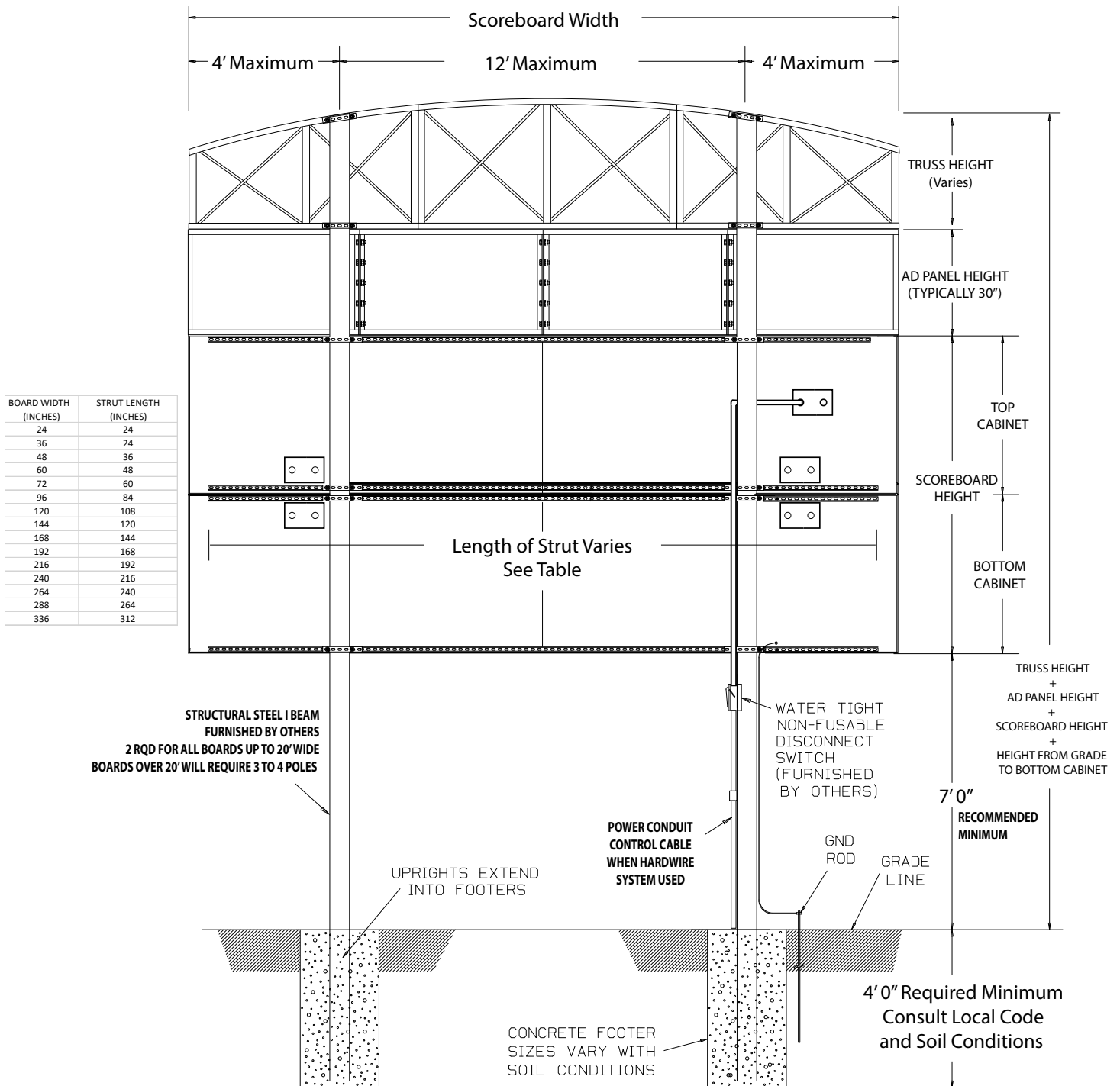
**Step 11:** 9000 Series Full Depth Ad Panels are made from 30" high x 3' or 4' wide sections that are bolted together using (5) flange nuts and bolts, supplied in prepackaged bags per connection point. 3' wide sections (if required) will always be installed at the ends. If the total length of ad panels is divisible by 4, then no 3' sections will be required. Unless ordering a pre-assembled ad panel, additional structure (unistrut, structural angles, etc) will be required for all installations. Each panel section will contain a 2" mounting flange on the top and bottom and a 1" flange on the sides that can be used to support the additional structure. Hardware is not typically supplied, however pressure mount kits are available for either structural angle (KT07514 - 12" threaded rods or KT08763 - 14" threaded rods) or unistrut (KT01181P - 12" Rods, KT05378 - 14" Threaded Rods, KT05284 - 20" rods, KT07528 - 25" Rods).

**Step 12:** Trusses are made out of an extrusion that is 4" in depth (1" less than the scoreboards and Ad Panels). Each Truss contains a 2" flange on the top and bottom of the entire structure for versatile mounting. Trusses will typically ship in either 1 or 2 sections, depending on overall length and complexity of the graphics required. If multiple sections are sent, hardware will be sent to connect the sections together before lifting into place. Hardware is not typically supplied, however pressure mount kits are available (KT07514 - 12" threaded rods or KT08763 - 14" threaded rods).

**Step 13: HARD-WIRE ONLY (Not Typical).** Install the Junction Box at chosen location (i.e. press box or dug-out) and hook-up Data Cable from J5 on the receiver board to terminal block. Install the cable conduit onto the beam and run the data cable from the junction box through the conduit to the data box on the back of the scoreboard. Attach the data cable to J5. If using Cat 5 Cable, Pin 1 (located next to the self Test/Learn button on the receiver board) will connect to Blue, Pin 2 to Blue/White, Pin 3 to Green/White, Pin 4 to Green.

**Step 14:** Attach the grounding wire to ground rod (Highly Recommended).

**Step 15:** Install the cable conduit and the power cut of switch box (recommended) onto the beam and run the power through the conduit to one of the 7/8" knock-out holes on the Power Inlet panel, located on the back of the scoreboard, typically directly behind the HOME score.



**NOTE: ALL SCOREBOARDS OVER 20' IN WIDTH REQUIRES A MINIMUM OF 3 POLES WITHOUT ADDITIONAL STRUCTURE. CONSULT WITH LICENSED ENGINEER TO VERIFY YOUR STRUCTURE IS ADEQUATE FOR WEIGHT AND WINDLOADS AND LOCAL SOIL CONDITIONS. THIS DRAWING IS FOR REFERENCE ONLY. ALL AMERICAN SCOREBOARDS CANNOT BE RESPONSIBLE FOR INADEQUATE STRUCTURE OR POOR INSTALLATION.**

#### DECORATIVE TRUSS

NOTE: Trusses typically will come decorated and pre-assembled. If shipped in 2 or more sections, hardware will be supplied to join the sections Together. A 2" Mounting Flange is built into the structure for versatile mounting.

#### SPONSOR / AD PANEL

NOTE: additional structure will be needed to properly secure (not supplied unless ordered assembled). Ad Panels contain 2" Flange on top and bottom and additional 1" Side Flanges for each section. AAS Recommends using structural angle or Unistrut for mounting.

#### POWER INLET 100-277VAC.

Typically found behind HOME score digits. Recommended Keep-Out Area to make electrical connections more accessible during installation. 2 pre-punched 7/8" holes are on the power inlet plate to allow easier access when poles are installed near location. Installer to provide conduit from switch on pole to inlet. 20 Amp Dedicated Circuit Typically Recommended

#### ACCESS PANELS

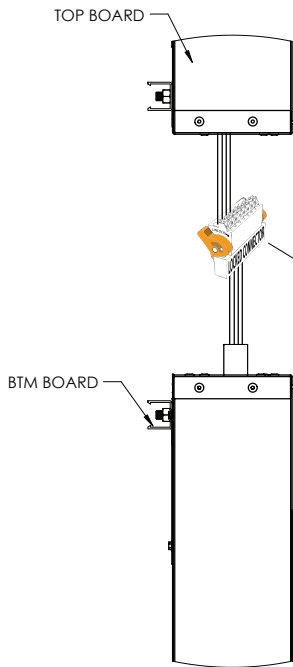
Access panels will be located at all points where cable pass-thru tubes are located. It is recommended to make all wire connections prior to lowering the upper cabinet onto the lower cabinet.

### General Information

1. Review project. If taller than 7', the scoreboard will be shipped in two or more sections. Various scenarios are found on the pages that follow.

2. If multiple sections are required, install lowest cabinet first, mounted at a minimum of 4 locations using the strut mounting kits. If additional poles are being used than is typically required (see spec sheet for unique model information), additional mounting kits may be purchased (KT01181P).

3. Lower the top cabinet into place while making any wire connections to the lower cabinet. After connecting all wires, carefully lower wires and connectors into the lower cabinet and lower cabinet down into place. Secure with additional mounting kits (2 per pole per cabinet).

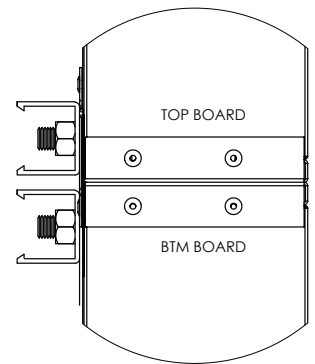
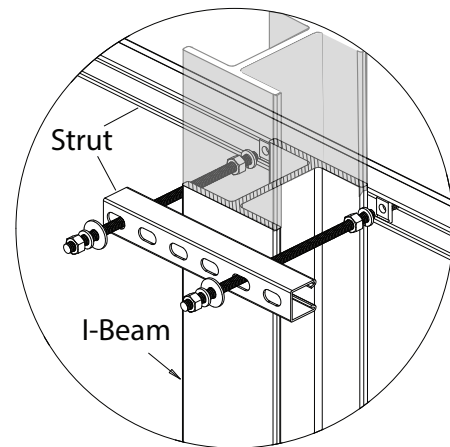
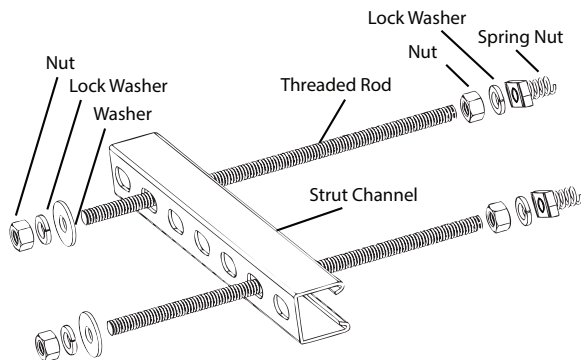


#### Connecting Harnesses

Cable harnesses with locking connectors connect the electronics from the top board to the bottom board. Quantity of connectors varies per scoreboard. This connection is easiest to access while lowering the top board to the bottom board.

#### Mounting Kit

Quantity of kits depends on board and number of beams required. Installed at every point where a beam and a strut channel intersect. Local ordinances, soil conditions and wind load requirements may require additional structure. Each Cabinet requires 4 Mounting Kits. Additional mounting kits are available to purchase for projects where additional poles are used or required. Standard threaded rod length is 12", but other sizes are available.



Unistrut is installed on both the top and bottom of each cabinet

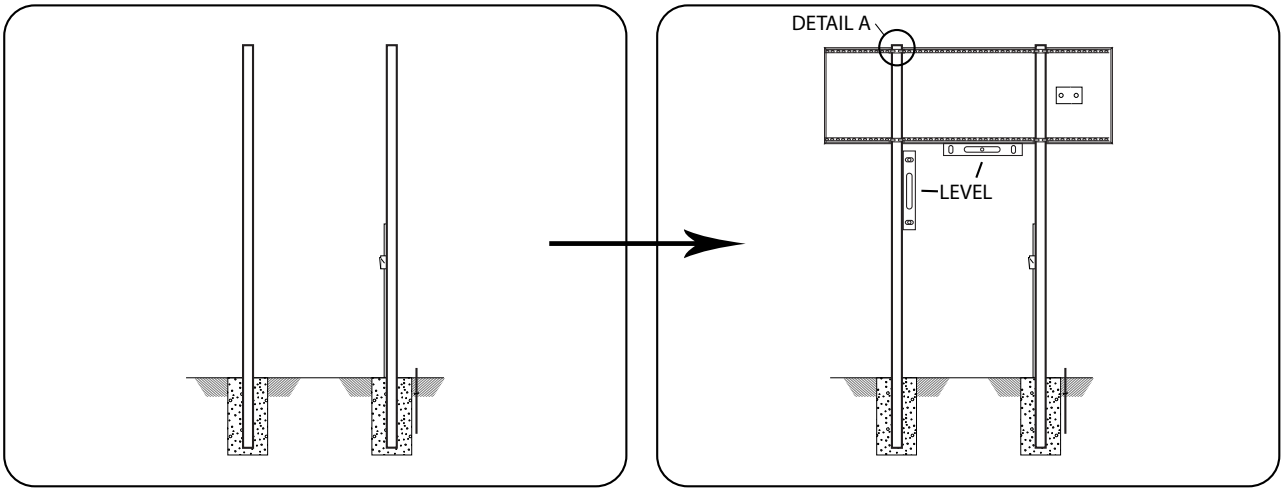
AC connection is at back of board. A junction box (supplied by others) can be mounted to either knockout on the power inlet plate, or conduit can be installed directly to one of the knockouts. The Power Inlet Plate was designed to allow flexibility when poles are positioned where the power is routed.

The power inlet is typically on the back opposite of the HOME Score.

# Typical Single-Cabinet Scoreboard Installation Illustration

NUMBER OF POLES SHOWN ONLY FOR REFERENCE. MUST BE DETERMINED LOCALLY BY LICENCED ENGINEER.

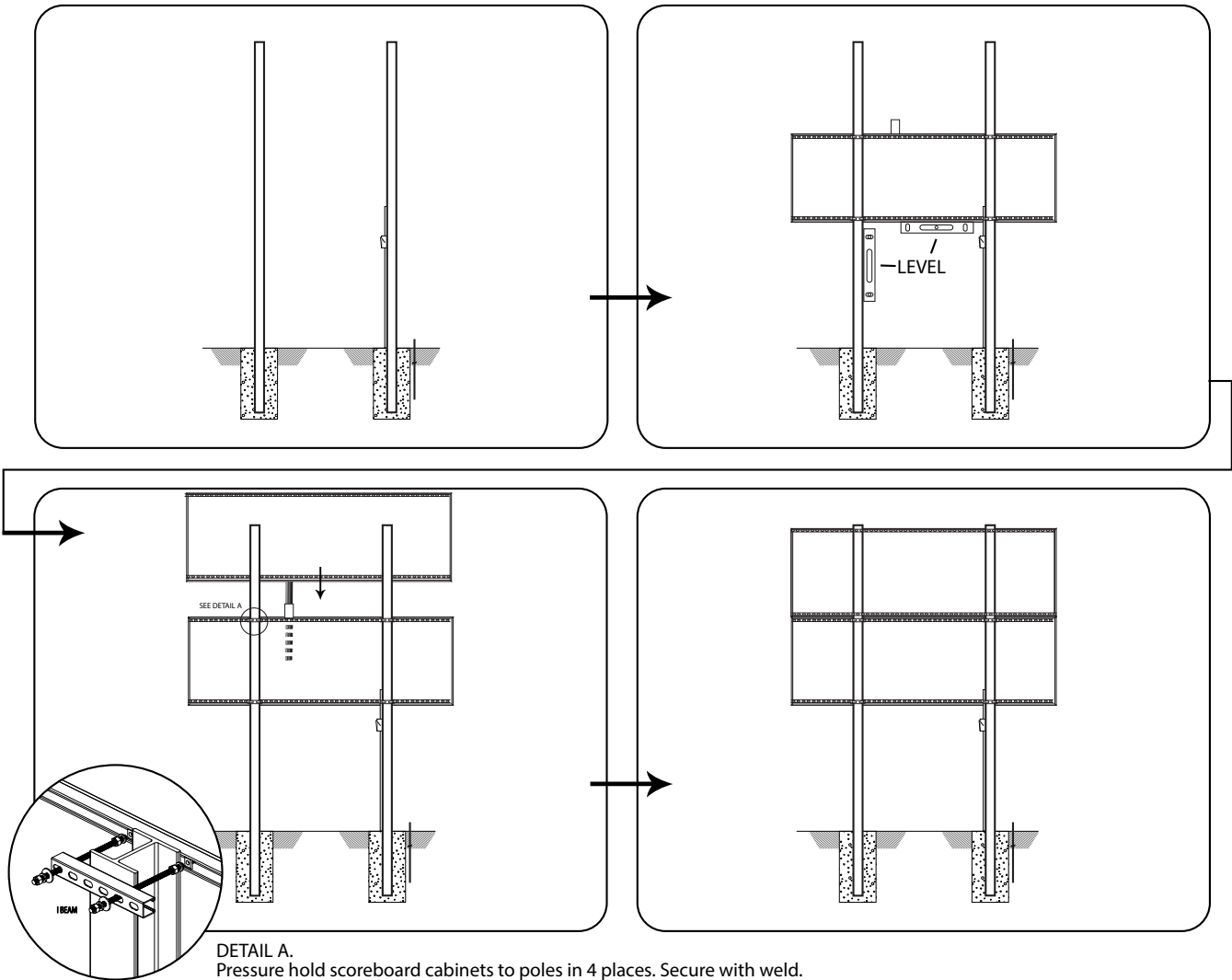
1. Install cabinet, mounted at a minimum of 4 locations using the strut mounting kits. If additional poles are being used than is typically required, additional mounting kits may be purchased (KT01181P).



# Typical 2-Cabinet Scoreboard Installation Illustration

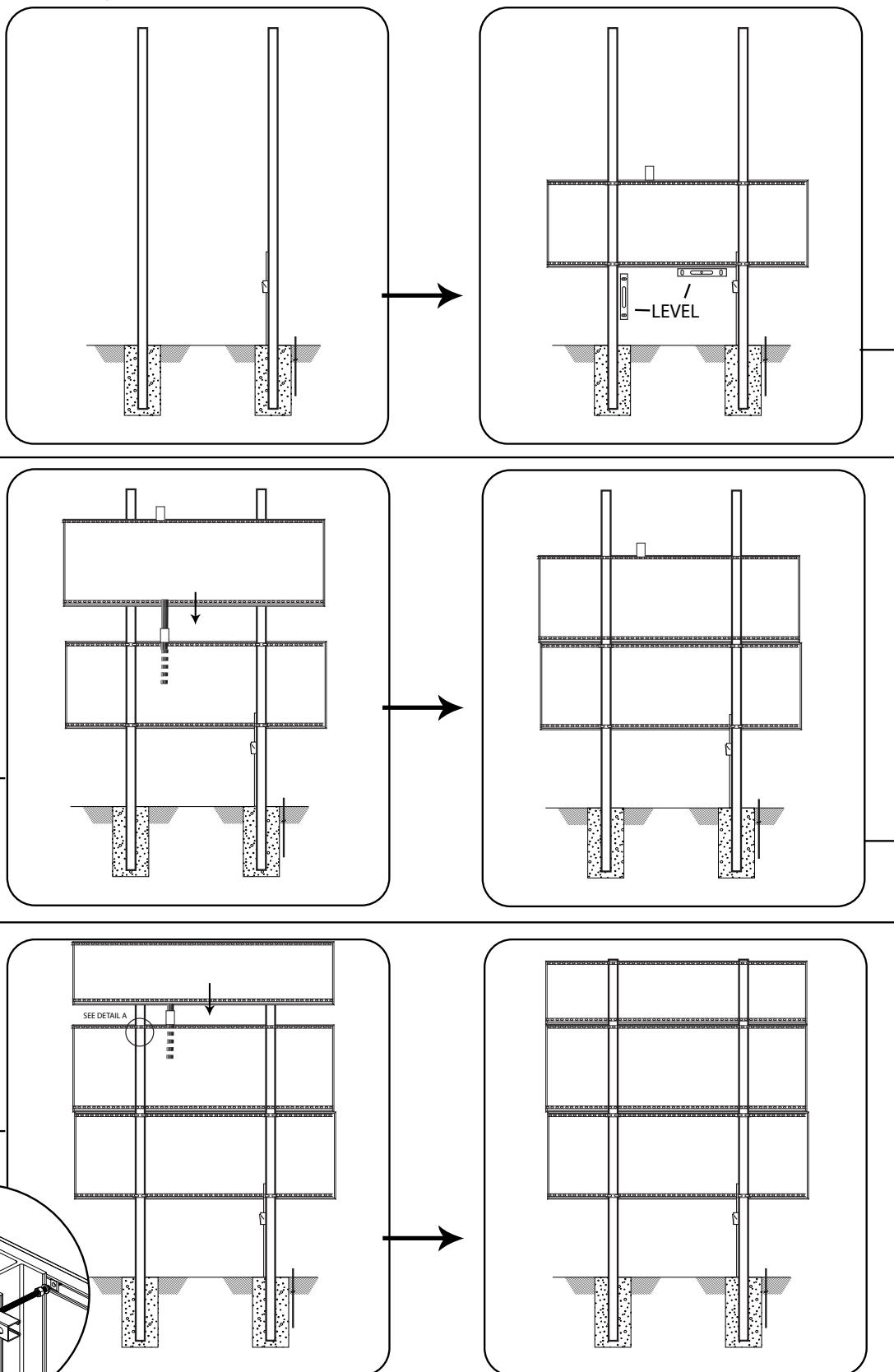
1. Install lowest cabinet first, mounted at a minimum of 4 locations using the strut mounting kits. If additional poles are being used than is typically required, additional mounting kits may be purchased (KT01181P).

2. Lower top cabinet into place while making any wire connections to the lower board. After connecting all wires, continue to lower down into place. Secure with additional mounting kits (2 per pole per cabinet).



### Typical 3 Cabinet Scoreboard Installation Illustration

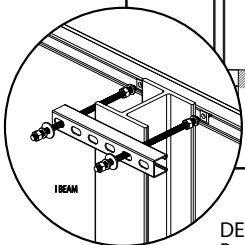
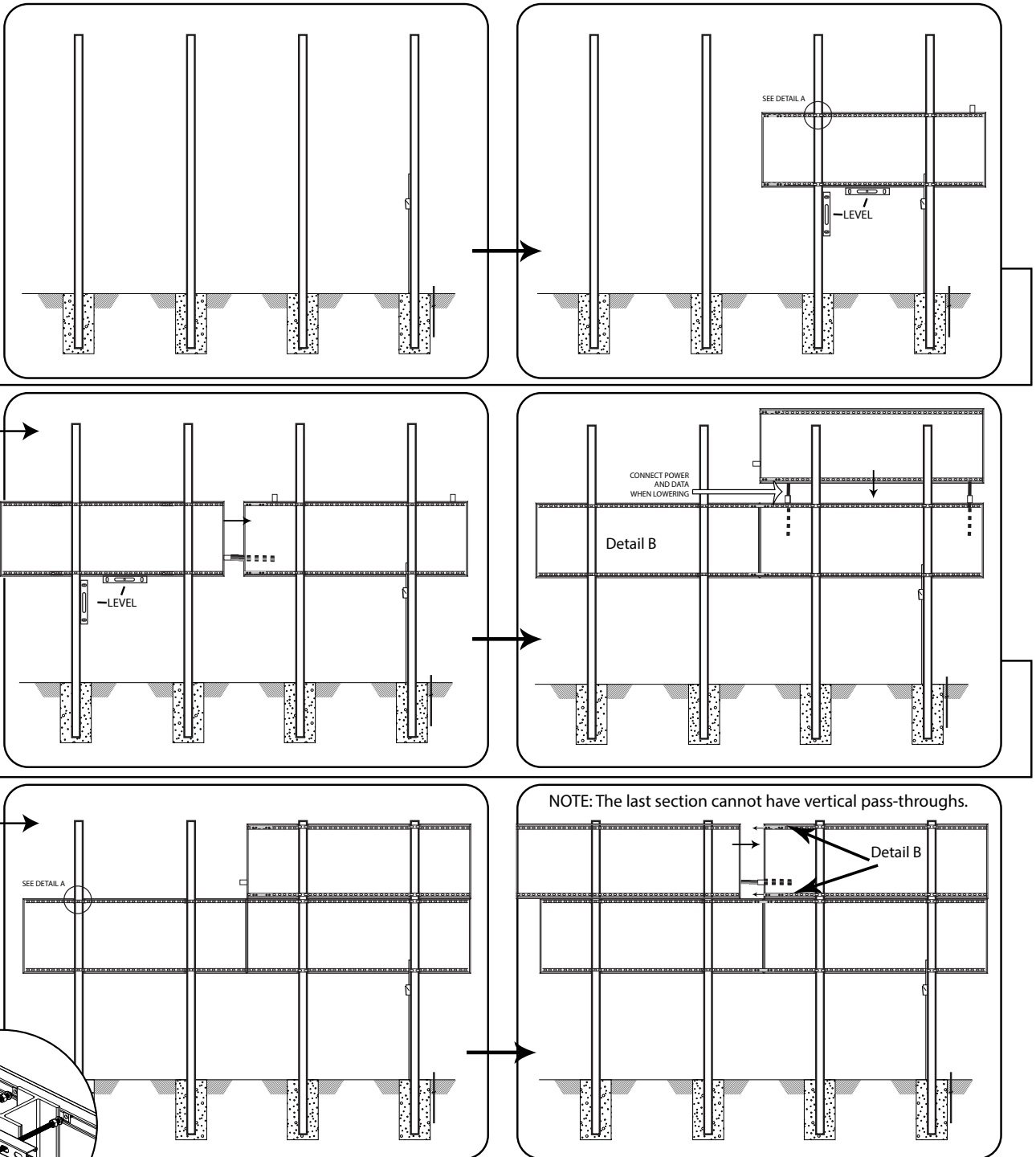
1. Install lowest cabinet first, mounted at a minimum of 4 locations using the strut mounting kits. If additional poles are being used than is typically required, additional mounting kits may be purchased (KT01181P).
2. Lower middle cabinet into place while making any wire connections to the lower board. After connecting all wires, continue to lower down into place. Secure with additional mounting kits (2 per pole per cabinet).
3. Repeat step 2 with the top cabinet.



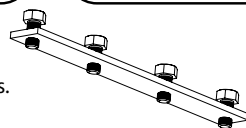
**DETAIL A.**  
Pressure hold scoreboard cabinets to poles in 4 places. Secure with weld.

## Typical 4 Cabinet Scoreboard Installation Illustration

1. Install one of the lowest cabinet first, mounted at a minimum of 4 locations using the strut mounting kits. If additional poles are being used than is typically required, additional mounting kits may be purchased (KT01181P). Continue with the 2nd lower Cabinet, making all wire connections through the horizontal pass-through(s) before setting in place. Secure 2 horizontal cabinets with Splice Bars. Open the access doors and bolt together both sections with supplied hardware.
2. Lower the upper cabinet with the **vertical pass-through(s)** into place while making any wire connections to the lower board. After connecting all wires, continue to lower down into place. Secure with additional mounting kits (2 per pole per cabinet).
3. Lift and slide final cabinet nearly into place, making final wiring connections before securing into position. Secure 2 horizontal cabinets with Splice Bars. Open the access doors and bolt together both sections with supplied hardware.

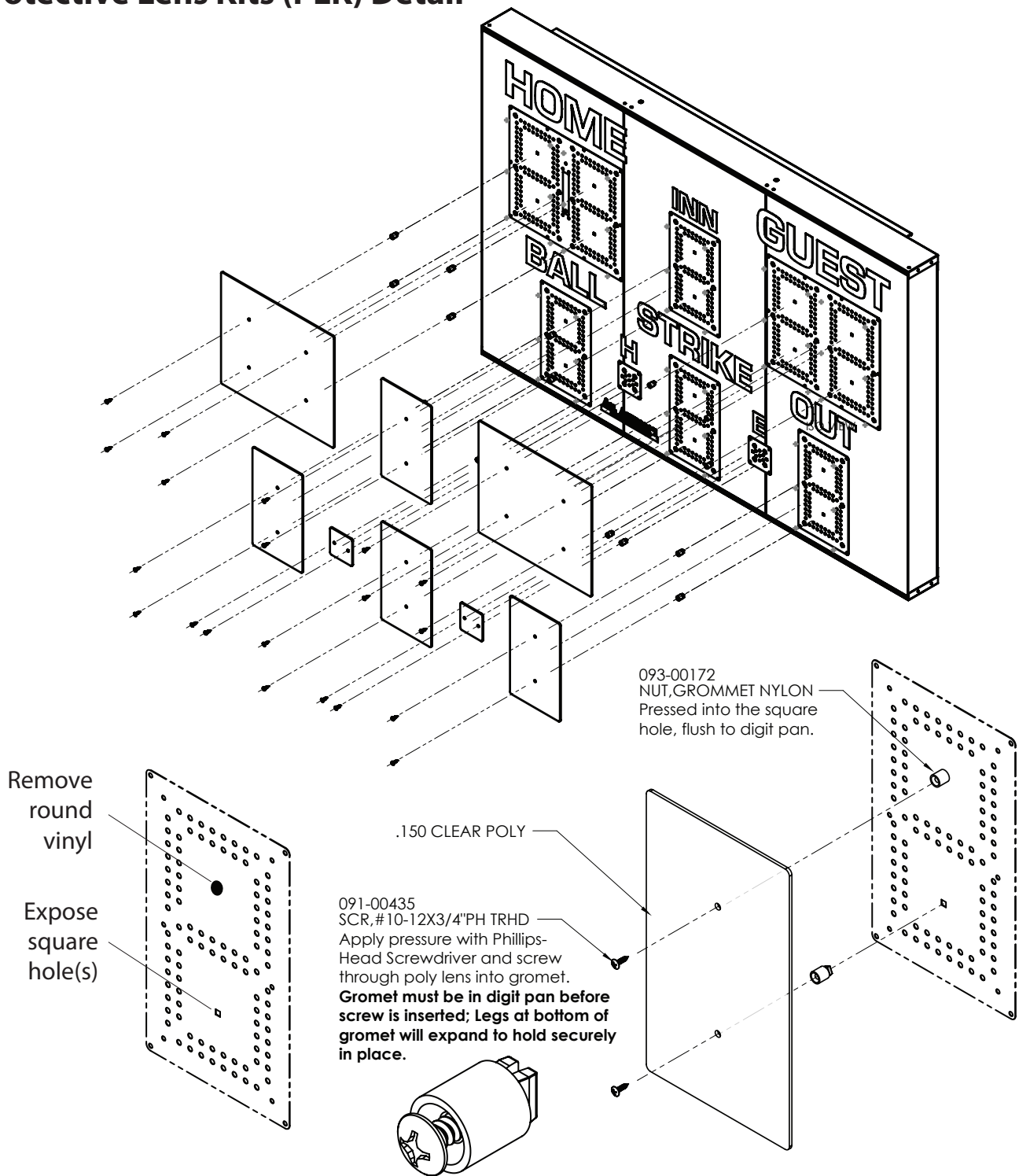


**DETAIL A.**  
Pressure hold scoreboard cabinets to poles in 4 places.  
Secure with weld.



**Detail B. Splice Bars**  
Stored in strut channel. Slide over to connect panels and tighten. Splice bars are used where scoreboards are connected horizontally.

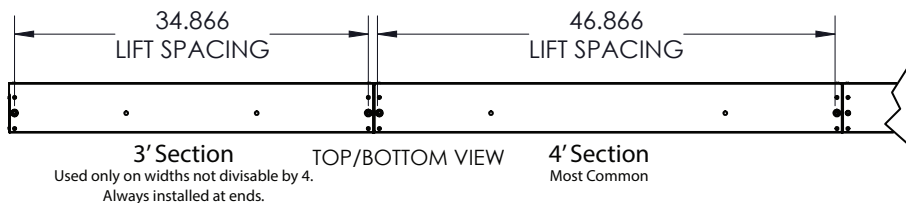
## Protective Lens Kits (PLK) Detail



### BASIC INSTALLATION INSTRUCTIONS AND NOTES

1. Protective Lens Kits are installed on the digit pans of the scoreboard, protecting all LED Digits and Indicators from impact.
2. All 9000 Series Scoreboards can be upgraded to include protective lens kits. If ordered at the same time as the scoreboard, they will be installed at the factory, leaving no additional installation necessary.
3. To install the Protective Lenses in the field, simply remove the pieces of round protective vinyl from the existing digit pan(s) to expose the square hole beneath. Press the nylon grommet into the square hole until the base of the grommet is flat to the pan. Repeat until all grommets are accounted for. Hold protective lens up to the digit pan and line up the holes to the gromet. While applying pressure, screw the screws through the holes and into the nylon gromet. The screws will cut a new thread into the nylon gromet, creating a tight fit. When the screw head is flush to the lens, move onto the next one.

# Outdoor Advertising Panels (OAP) DETAIL

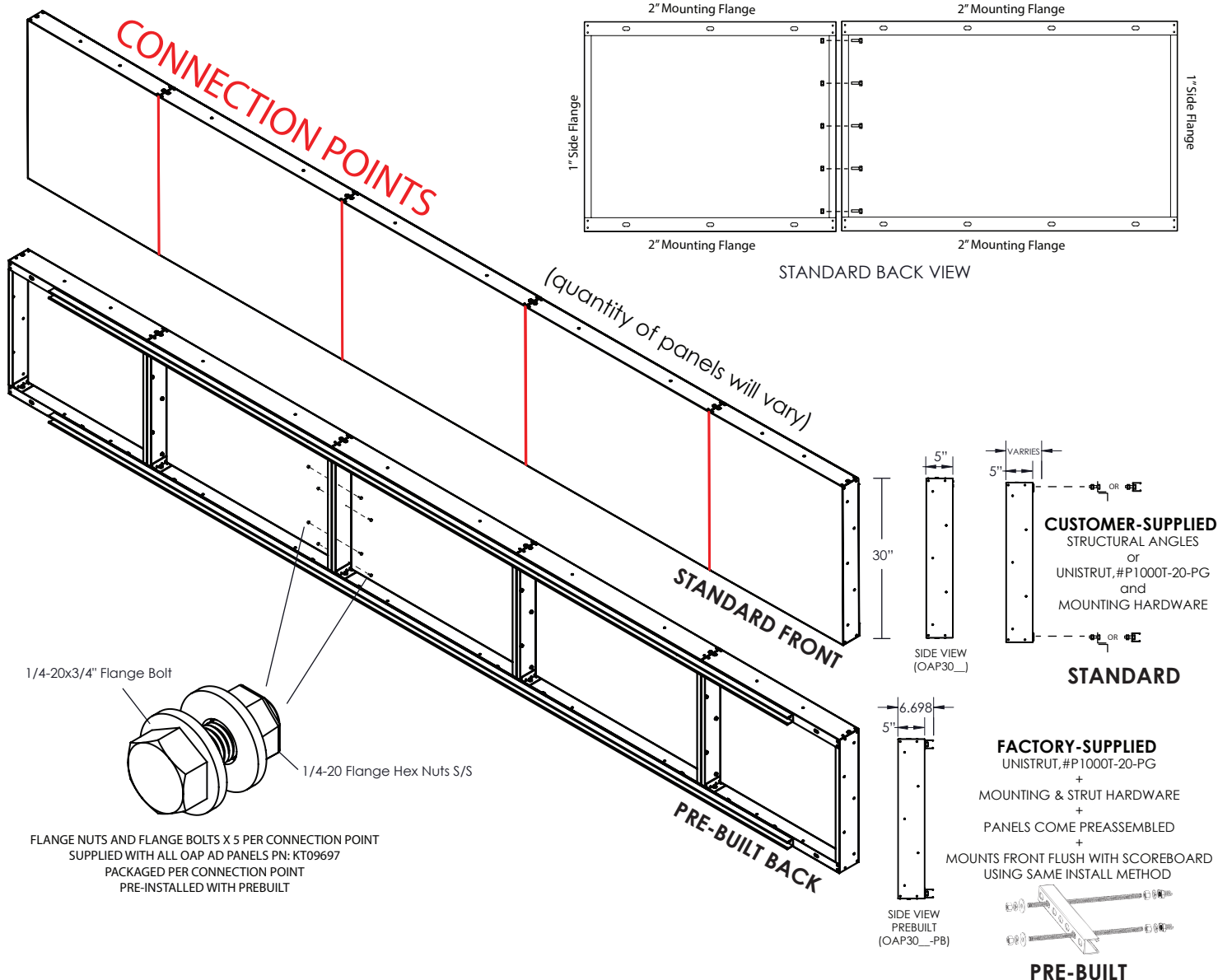


STANDARD PART NUMBER =  
OAP[HEIGHT IN INCHES][WIDTH IN FEET]  
PANELS & CONNECTION KITS INCLUDED  
OAP3018 = 30" High x 18' Wide Full Depth Outdoor Ad Panel

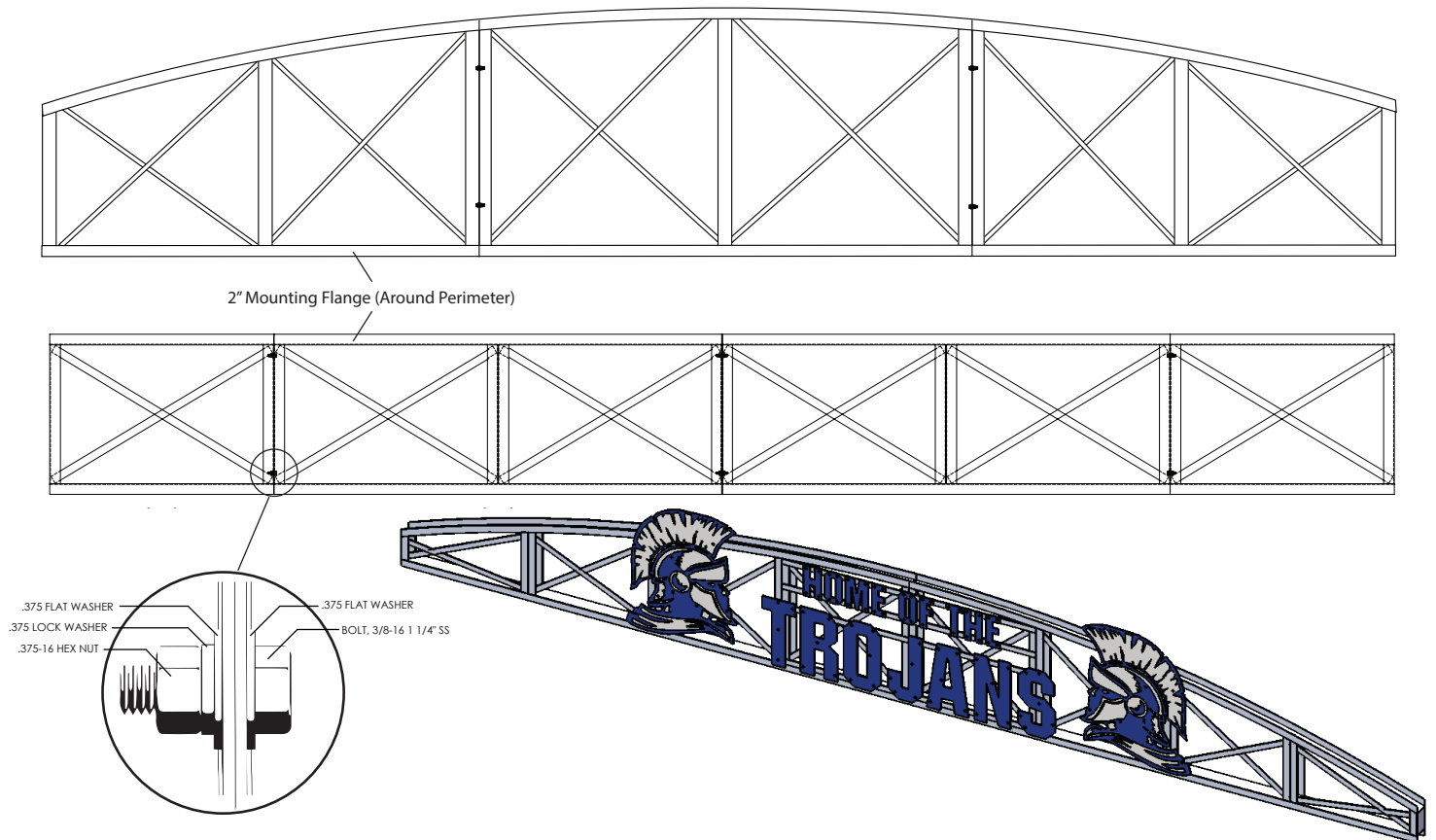
PREBUILT PART NUMBER =  
OAP[HEIGHT IN INCHES][WIDTH IN FEET]-PB  
CONNECTION KITS, STRUCTURE AND MOUNTING HARDWARE INCLUDED  
OAP3018-PB = PRE-BUILT & ASSEMBLED OAP3018

## BASIC INSTALLATION INSTRUCTIONS

- Ad Panels can be assembled prior to lifting into place, or connected during installation. Additional structure is required (structural angle, uni-strut, etc), depending on pole quantity and spacing. Use 3/8" Eye Bolts and spreader bar for lifting.
- NEW IN 2023: AD PANELS CAN BE ORDERED FULLY ASSEMBLED WITH UNISTRUT ON BACK, SAVING HOURS OF TIME DURING INSTALLATION AND CALCULATIONS. UNISTRUT MOUNTING KITS ONLY SUPPLIED WITH PRE-BUILT AD PANELS.**
- Use mounting flanges to tie into structure; do not mount directly from panel to I-Beam without additional structure such as Unistrut or Structural Angle, which is typically welded or bolted to the I-Beam.
- Do not use fasteners to protrude into top, bottom, or sides of scoreboard.
- If Sponsor Panels installed below scoreboard block drain/weep holes on bottom of the scoreboard, either allow space in between panel and scoreboard or create holes on ad panel(s) that line up with drain holes on scoreboard in top of ad panel to allow water to drain through back of ad panel.

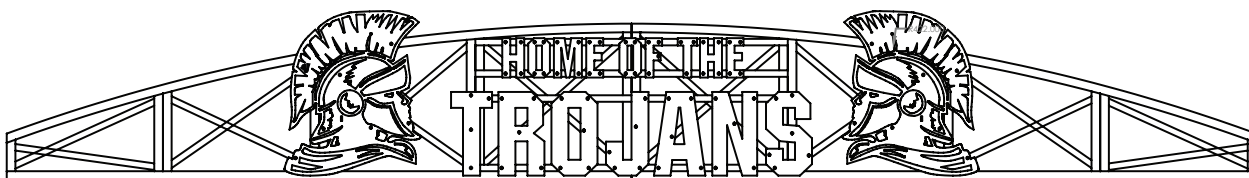


# ARCHED AND RECTANGULAR TRUSS DETAIL



## BASIC INSTALLATION INSTRUCTIONS AND NOTES

1. Trusses typically arrive fully assembled, including any custom lettering and logos that may be installed on the truss. Larger trusses (typically over 24' in width) may be partially assembled so they can be shipped and handled better. When this occurs, the truss may be split down the middle or in smaller sections that need to be bolted together using the supplied hardware. When split, occasionally a custom letter or logo needs to be installed where the pieces overlapped sections that need to be bolted together on site. Use the engineering drawings or product rendering to fully assemble truss and all artwork on the ground before lifting and fastening to the structure. In some cases, additional structure such as structural angles spanning the I-Beams must be used. Use straps and a spreader bar for lifting.
2. A continuous flange that wraps around the entirety of the truss, allowing multiple areas to be used for securing the truss to the structure. Do not use the decorative crossing flat pieces for mounting, use only the extruded framework.
3. Do not use fasteners to protrude into top, bottom, or sides of scoreboard.
4. A similar mounting system to the scoreboard can be used to secure the frame to the I-Beams or structural angles, allowing for a fast and secure install.
5. Trusses can be ordered mill finish (raw aluminum) or fully powdercoated. Mill finish trusses will show each weld and natural flaws that may occur throughout the manufacturing process. We make every attempt to hide weld solder and bolts behind the flanges and other nooks and crannies, but welds will be visible from certain angles, especially up close during the installation process.
6. Always ensure that the top of the I-Beams reach the top of the truss. The height and width of the truss can vary. The height of an arched truss reaches the tallest point in the center, meaning that the ends will be shorter than the top of the I-Beams if all I-Beams are at the same height. I-Beams may need to be cut to hide them behind the lower slopes of the truss.

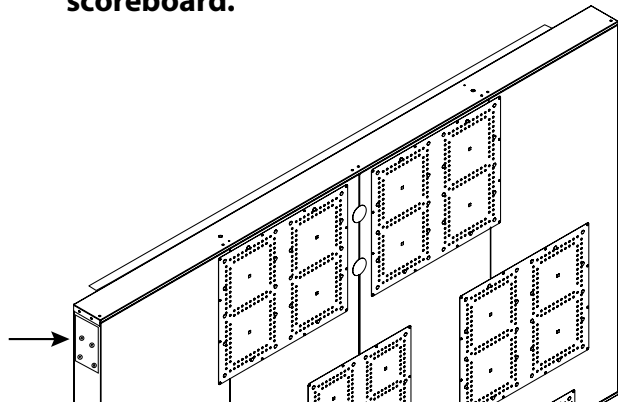


SIDE PROFILE

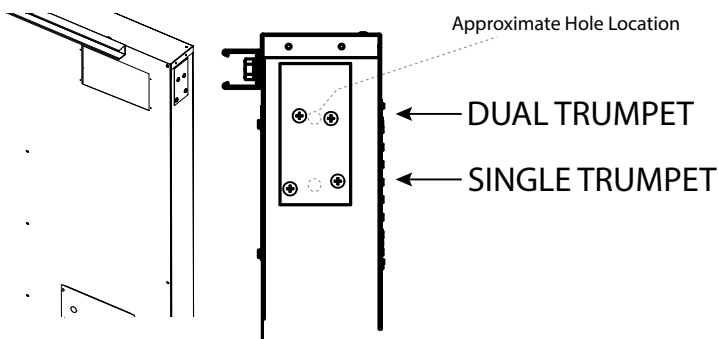
# ALL AMERICAN<sup>®</sup>

## SCOREBOARDS

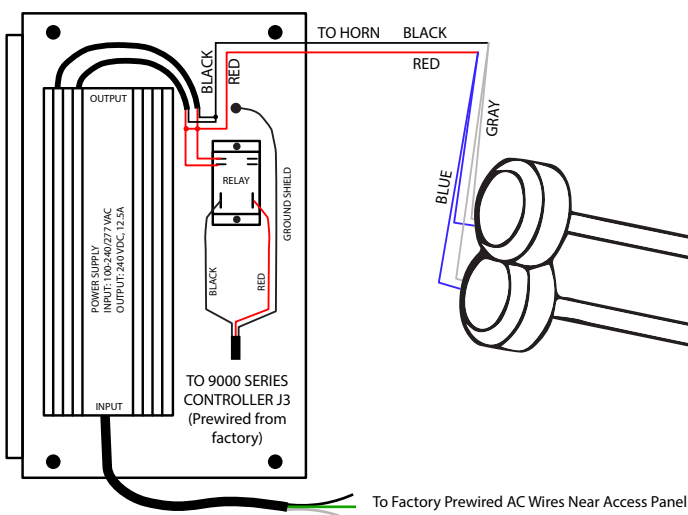
1. Turn off power to the scoreboard at the breaker.  
Use Lock-Out Tag to ensure power is not applied to scoreboard.



2. Locate the Black Horn Mounting Plate - typically on the left side of the cabinet. If Scoreboard is 2 or more cabinets, located on the left side of the cabinet with HOME.



4. Positioning the drill inside the Horn Access Area, use a 3/8" drill bit to drill out the appropriate wire pass-thru hole through the Horn Mounting Plate. If drill is too large for the access area, the plate may be temporarily removed and lined up with the horn bracket. The plate is attached to another plate inside the scoreboard that has 2 holes for 2 different types of horns. The top hole is most common, and is used for Dual Trumpet Horns. The lower one (less common) is used for a Single Trumpet Horn. ONLY DRILL THE HOLE FOR THE APPROPRIATE HORN.

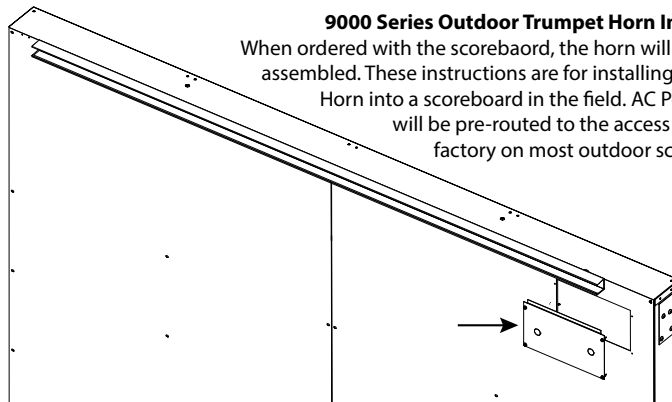


6. Using the new pre-wired access plate (with power supply and relay mounted) included with the kit, wire the power supply to the prepulled green, white and black wires near the access area using crimp caps. **IMPORTANT: Make sure power is off at the breaker. Power will not be present unless horn button is pressed or timer counts down to zero.** Connect Green to Green, Black to Black and White to White.

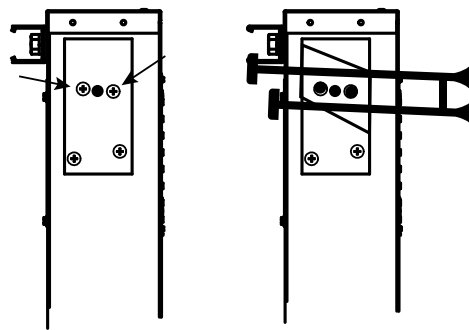
Connect gray wire(s) from the Trumpet Horn to the Black Wires from the output of the Power Supply. Connect the Blue Wire(s) from the Trumpet Horn to the Red Wires from the Power Supply & Relay. Secure connections using crimp caps. Fasten shield wire to the screw above the relay.

### 9000 Series Outdoor Trumpet Horn Installation

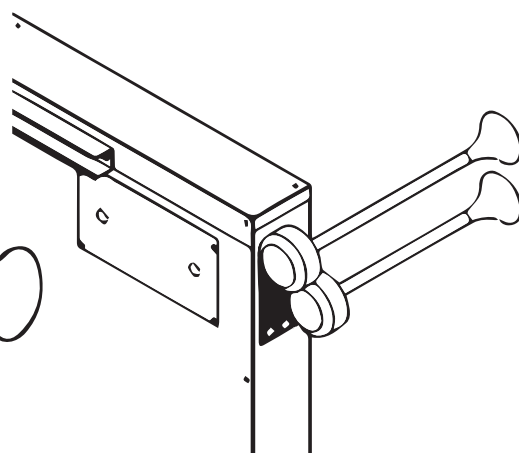
When ordered with the scoreboard, the horn will arrive fully assembled. These instructions are for installing a Trumpet Horn into a scoreboard in the field. AC Power cable will be pre-routed to the access area in the factory on most outdoor scoreboards.



3. Locate the Horn Access Panel on the back-side of the scoreboard near the Horn Plate. Remove. The plate will not be re-used, but the screws will be used in step 7.



5. Remove 2 screws on either side of the hole that was just drilled out (example shows dual horn), temporarily set aside. Line up the holes on the mounting plate to the holes on the horn bracket. Secure with the screws removed previously; the horn is intentionally slightly pointing down. Feed wires through hole into the scoreboard cabinet. Note: The mounting bracket towards the front of the horn is not used.



7. Mount the new mounting plate into the access area (lip up and under cutout) and secure using screws removed in step 3. Power up scoreboard, connect with console, select sport, test horn.

#### TOOLS REQUIRED

Phillips Head Screwdriver, 5/16" Nut Driver, Wire Stripper, Crimping Tool



### Testing the Scoreboard

#### 1. Power up the scoreboard(s)

Indoor: Make sure scoreboard is plugged in and power is applied to the circuit.

Outdoor: Make sure all AC connections are correct and apply power to the circuit.

Note: When power is applied to the scoreboard, the scoreboard will go into a startup phase. All digits will count from 0 to 9 and display different codes such as firmware version and radio detection. The last item to be displayed in the digits is the output that is feeding data to the digits from the receiver board inside the scoreboard. The timer should display all 1's since it is getting data from output number 1, Home Score should display all 2's, Guest Score should display all 3's, period/quarter/inning/half should display 4's. Fields beyond the 4th output will display different information depending on what the scoreboard's primary use is. This is an easy test to determine that all outputs are properly connected. If a string of digits turn on but fails to go through the startup sequence, then the connections should be checked at the receiver board (located behind the HOME digits) and/or at the digit(s) that is not going through the sequence.

#### 2. Turn on the 9000 Multi-Sport Console by pressing up on the power switch, located behind the AllAmerican logo on the back of the console. Console will power on when released.

#### 3. After the splash screen, the console will display the following:

```
1. New Game with Last Setup (Basketball)
2. Resume Game
3. New Game
4. System Setup

80% (Battery Level)
```



Select Option 3 (New Game) by pressing "3" on the keypad.

This will be the option to choose when connecting a board(s) for the first time or when either changing the boards that the console is connected to or changing the sport that will be played.

#### 4. Select the sport to be played.

```
Select a Sport
1. Basketball      7. Hockey
2. Baseball       8. Lacrosse
3. Football       9. Track
4. Soccer
5. Volleyball
6. Wrestling
80%               Press ENTER to return
                  to MAIN MENU
                  Arrow-> more Sports
                  0. Help
```

Using the keypad, press the key for the sport to be played that corresponds with the list on the console display. It is recommended that after an installation, the scoreboard(s) is tested with the "primary sport" of the scoreboard that was installed. If the model number starts with "BK" then Basketball should be selected. If the model number starts with "FB" then Football should be selected, etc. Make sure the slipsheet inserted in the console matches the sport.

#### 5. Look up at the scoreboard(s).

HOME 1d 1d 19 GUEST 19

```
Basketball
Key in Scoreboard(s), Press ENTER
0. Help
```

Each scoreboard is identified with an ID number, which will be displayed in the Timer as well as the Guest Score. At this time, the console is waiting for the user to key in one or more ID numbers to know which scoreboard(s) to connect to. If the scoreboard shows an ID of 19 as shown above, key in 19 on the keypad, followed by ENTER. If additional scoreboards are installed, enter each scoreboard ID, followed by ENTER. When ENTER is pressed twice in a row, the console and all scoreboards will switch to a new frequency and gameplay can begin.

#### 6. Each connected scoreboard should display the default values of the sport selected. Scores will display 0, period or quarter or inning or half will display 1 and the timer will display whatever time is the default.

Press the Start/Stop button to start the timer. Use the +1 (or other scoring keys) to adjust the scores. Test all other relevant keys.

#### 7. After testing, turn off console by pressing the power switch on the back of the console until the screen turns blank. After approximately 1 minute, the scoreboard will blank or go to Time of Day.