NPN-6600 SERIES

DISPLAY MANUAL

P2533

DD5504945
Rev 05
12 November 2025

201 Daktronics Drive
Brookings, SD 57006-5128
www.daktronics.com/support
800.325.8766

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FCC Statement

Supplier Declaration of Conformity (SDoC)

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Warning: The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

Industry Canada Regulatory Information

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Inquiries

Contact Daktronics with any questions regarding our product compliance.

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Table of Contents

1 How to Use This Manual

This manual explains the installation, maintenance, and troubleshooting of this video display system. For additional information regarding the safety, installation, or service of this system, refer to **Daktronics Exchange and Repair & Return Programs (p. 5)**. This manual is not specific to a particular installation. Project-specific information takes precedence over any general information found in this manual.

Important Safeguards

- Read and understand the instructions before beginning the installation procedure.
- Do not drop the control equipment or allow it to get wet.
- Do not disassemble the control equipment or electronic controls of the display; failure to follow this safeguard will make the warranty null and void.
- Disconnect the display power when not in use or when servicing.
- Disconnect the display power before servicing the power supplies to avoid electrical shock. The power supplies run on high voltage and may cause physical injury if touched while powered.

Resources

Figure 1 illustrates a Daktronics drawing label. This manual refers to drawings by listing the last set of digits. In the example, the drawing would be referred to as **DWG-3331467**.

All references to drawing numbers, appendices, figures, or other manuals are presented in bold typeface as shown below:

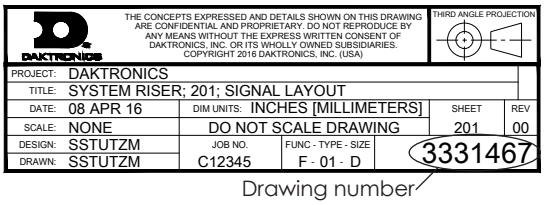

Figure 1: *Drawing Label*

Refer to **DWG-3331467** in **Appendix B: Drawings (p. 9)**.

Daktronics identifies manuals by the DD number located on the cover page of each manual. For example, this manual would be referred to as **DD5504945**.

Daktronics Nomenclature

Most display components have a white label that lists the part number (**Figure 2**). The component part number uses the following format: 0A-XXXX-XXXX (multi-component assembly) or 0P-XXXX-XXXX (display interface board). If an interface board or assembly is not found in the replacement parts list in **Replacement Parts List (p. 5)**, use the label to order a replacement.

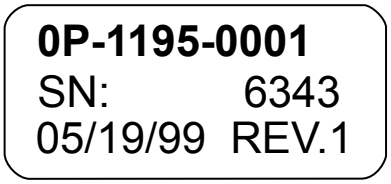

Figure 2: *Typical Label*

Part Type	Part Example	Part Number
Assembly	Display interface board and its mounting plate or bracket	0A-XXXX-XXXX
Individual display interface board	ProLink Router (PLR)	0P-XXXX-XXXX
Wire or cable	SATA cable	W-XXXX

Module Number

Figure 3 explains the module labeling method in more detail, and **Figure 4** illustrates how Daktronics numbers modules on a video display.

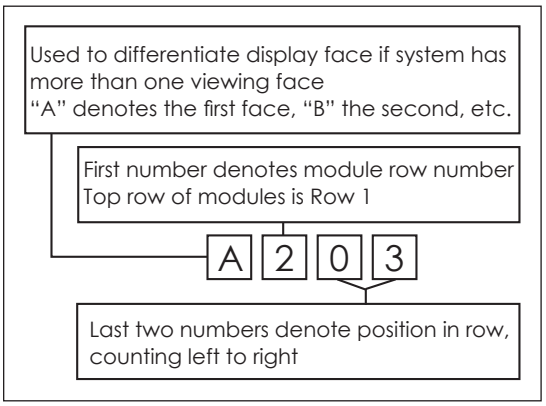

Figure 3: *Module Numbering Breakdown*

Figure 4: *Module Numbering*

Model Number

Each video display system has a model number that explains the display specifications.

NPN-4600-0.9MN-HHHxWWW NPN-6600-1.2MN-HHHxWWW		
NPN	=	Product series
4600/6600	=	Product generation
0.9MN 1.2MN	=	Pixel pitch/layout
HHH	=	Matrix height
WWW	=	Matrix width

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2 Warnings/Disclaimers

Review the reference documents and drawings in **Appendix A: Documents (p.7)** and **Appendix B: Drawings (p.9)** prior to installation as well as during the installation process.

Display

Daktronics engineering staff must approve any changes that may affect the strength or protective integrity of the display frame or enclosures. If any modifications of this nature are made, detailed drawings of the change(s) must be submitted to Daktronics engineering staff for evaluation and approval, or the warranty will be null and void.

Displays must be lifted appropriately to ensure the display sections will not be damaged. It is the installer's responsibility to ensure the installation meets all local codes and standards. All hardware processes used during display installation must meet the approved, stamped drawings from a professional engineer.

The display is intended to be installed in accordance with the requirements of Article 600 of the National Electrical Code and/or other applicable local codes. This includes proper grounding and bonding of the sign.

Only qualified individuals should access the electrical components of this display and its associated equipment.

- Ensure that all electrical work meets or exceeds all local or national electrical codes.
- Provide the required power to the display as listed on the product labels, specifications, or site-specific riser drawings. The conductor size may vary based on the length of the power run.
- Consider implementing a separate circuit for the display using an isolation transformer or dedicated transformer.
- Daktronics assumes no liability for any issues caused by line voltage fluctuations or other improper power conditions.

Structure

It is the installer's responsibility to ensure the mounting structure and hardware are built per the stamped engineering drawings and are capable of supporting the display prior to beginning the installation.

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3 Glossary

Display interface (DI): an interface that drives video to the display while also dimming, providing gamma and color controls, and displaying test patterns.

Hub board: a display interface that distributes power and signal to modules in a panel.

Light emitting diode (LED): a low energy, high intensity lighting unit.

Module removal tool: a device that aids in removing a module from a panel by engaging the magnets.

Panel: the base building block for a display system. Each panel is comprised of two, four, or eight small modules with supporting electronics and power.

Pixel: the smallest single point of light on a display that can be turned on and off. For LED displays, a pixel is the smallest block of light emitting devices that can generate all available colors.

Power supply: a display component that converts AC line voltage from the termination panel to low DC voltage for one or more module driver boards. One power supply may power multiple modules.

ProLink Router (PLR) 6280: a data interface component that receives a signal from the display control system and converts and distributes the signal to individual panels. The ratio of PLRs to panels varies with display application.

ProLink Router (PLR) enclosure: an assembly of machined parts that houses a PLR.

Receiver card: a data distribution component that receives information from a PLR or sender box and distributes the information through a hub board to modules in a panel. The receiver card mounts to the hub board.

Termination block: an electrical point usually used to connect internal power and signal wires to wires of the same type coming into the display from an external source.

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4 Replacement Parts

Replacement Parts List

Most display components have a white label that lists the part number in bold. Refer to **Daktronics Nomenclature (p. 1)** for information on how to read the part number. Part numbers may also appear on illustrations and reference drawings as well as in the Bill of Materials (BOM) for the project. If a replacement part cannot be identified, contact Daktronics Customer Service. The following is a list of components that are commonly replaced: PLR (ProLink Router), receiver card, power supply, and hub board.

Daktronics Exchange and Repair & Return Programs

To serve customers' repair and maintenance needs, Daktronics offers both an Exchange Program and a Repair & Return Program.

Exchange Program

Daktronics unique Exchange Program is a quick service for replacing key parts in need of repair. If a part requires repair or replacement, Daktronics sends the customer a replacement, and the customer sends the defective part to Daktronics. This decreases display downtime.

Before contacting Daktronics, identify these important part numbers:

Display Serial Number: _____

Display Model Number: _____

Contract Number: _____

Installation Date: _____

Sign Location: _____

Daktronics Customer ID Number: _____

To participate in the Exchange Program, follow these steps:

1. **Call Daktronics Customer Service.**

   United States & Canada: 1-800-DAK-TRON (325-8766)

   Outside the U.S. & Canada: +1-605-275-1040

2. **When the new exchange part is received, mail the old part to Daktronics.**

   If the replacement part fixes the problem, send in the problem part which is being replaced.

   a. Package the old part in the same shipping materials in which the replacement part arrived.

   b. Fill out and attach the enclosed UPS shipping document.

   c. Ship the part to Daktronics.

   Daktronics will charge for the replacement part immediately, unless a qualifying service agreement is in place. In most cases, the replacement part will be invoiced at the time it is shipped.

3. **Return the part within 30 working days if the replacement part does not solve the problem, or Daktronics will charge the full purchase price.**

   If the part is still defective after the exchange is made, please contact Daktronics Customer Service immediately. Daktronics expects immediate return of an exchange part if it does not solve the problem. Daktronics also reserves the right to refuse parts that have been damaged due to acts of nature or causes other than normal wear and tear.

Repair & Return Program

For items not subject to exchange, Daktronics offers a Repair & Return Program. To send a part for repair, follow these steps:

1. **Call Daktronics Customer Service.**

   Refer to the telephone number listed on the previous page.

2. **Receive a Return Materials Authorization (RMA) number before shipping.**

   Refer to the telephone number listed on the previous page.

3. **Package and pad the item carefully to prevent damage during shipping.**

   Electronic components, such as printed circuit boards, should be placed in an antistatic bag before boxing. Daktronics does not recommend packing peanuts when shipping.

4. **Enclose the following information:**

   - Name
   - Address
   - Phone number
   - RMA number
   - Clear description of symptoms

Shipping Address

Daktronics Customer Service
PO Box 5128
201 Daktronics Drive
Brookings, SD 57006

Warranty & Limitation of Liability

The Daktronics Warranty & Limitation of Liability statement is located in **Appendix C: Daktronics Warranty & Limitation of Liability (p. 11)**. The warranty is independent of extended service agreements and is the authority in matters of service, repair, and display operation.

A Documents

Select from the following documents based on substructure method:

- **NPN-6600 Series Speed Frame Substructure Quick Guide (DD5400411)**
- **NPN-6600 Series Vertical Tube Substructure and Panel Installation Quick Guide (DD5504943)**

Refer to the following documents in the order listed:

- **NPN-6600 Series Panel Basics Quick Guide (DD5504942)**
- **NPN-6600 Series Border Installation Quick Guide (DD5504944)**
- **NPN-6600 Series Service Quick Guide (DD5530948)**
- **NPN-6600 Series 3R Remote Power Quick Guide (DD5530963)**

Refer to the following document for curve displays:

- **NPN-6600 Series Curve Quick Guide (DD5750047)**

Refer to the following document for corner post installation:

- **NPN-6600 Series Corner Quick Guide (DD5750048)**

Refer to the following document for quarter panel displays:

- **NPN-6600 Series Quarter Panel Basics Quick Guide (DD5750049)**
- **NPN-6600 Series Quarter Panel Curve Quick Guide (DD5750050)**

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Technical Reference

Consider site-specific conditions, panel configuration, and open area guidelines when determining substructure placement. Refer to **Figure 1**.

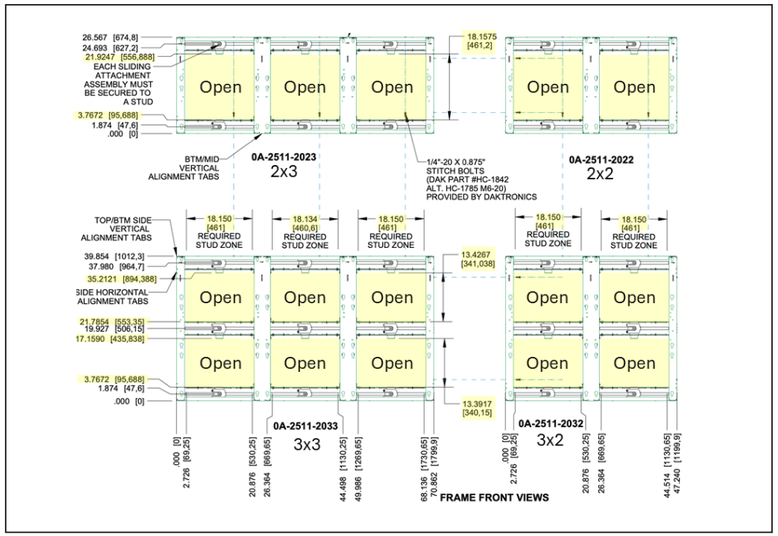

Figure 1: *Open Area Guidelines*

Custom-Request Plywood Substrate Option

If a custom request was made for plywood wall substrate, then the hollow bolts in the speed frames must be replaced to accommodate the larger $^{5}/_{16}$" lag bolts (Daktronics part number HC-5100786) needed for attachment to plywood.

Remove the standard hollow bolts (HC-5098752) and replace with the hollow bolts needed for the plywood fasteners (HC-5098762). Refer to **Figure 2**.

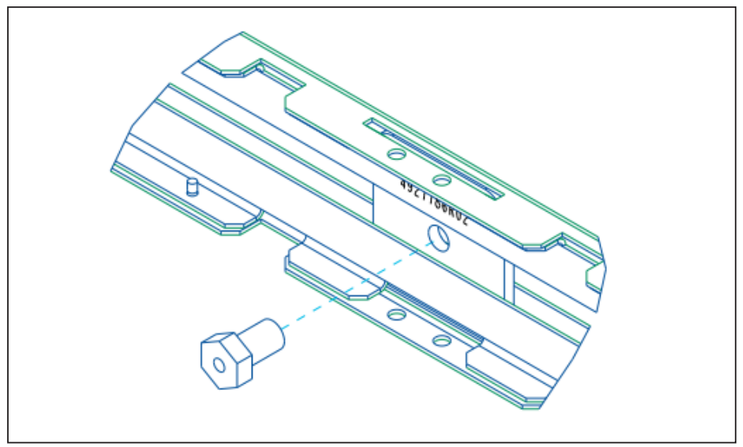

Figure 2: *Remove Standard Bolts and Install Custom Bolts*

The hollow bolts are differentiated by their through-hole diameters. Refer to **Figure 3**.

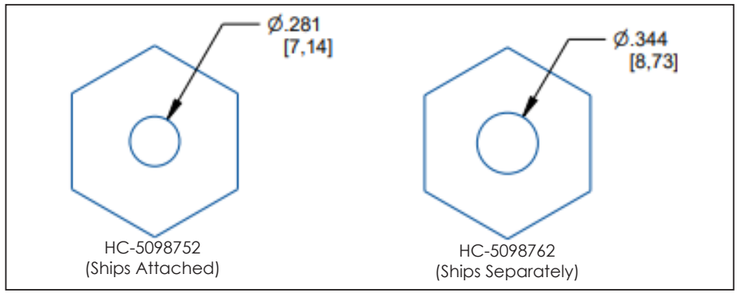

Figure 3: *Comparison of Standard and Custom Hollow Bolts*

Frame Installation

Install First Frame

Note: These steps are easiest with two or three people.

1. Identify the stud locations on the wall and mark the top, middle, and bottom of the studs. Use a level to draw lines the height of the display and mark the studs.
2. Identify the position of the bottom-center frame.
3. Cut the zip ties from the first frame. Test each bolt assembly to verify that it slides freely.

Note: If the assembly binds, tap a hammer on the side of the steel plate to break it loose.

4. Mark the location for the perimeter of the frame on the wall. Use this mark to position the first frame. Hold the frame in place on the wall and use a 4' digital level on the top and sides of the frame while positioning it. Refer to **Figure 4**.

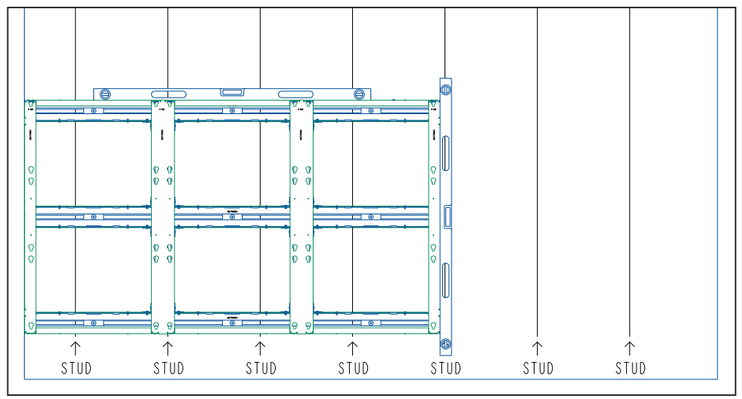

Figure 4: *Position Frame on Wall*

5. Slide the bolt assemblies to the nearest stud lines.
6. Depending on site-specific conditions, attach the frame to the substrate using TEK screws (HC-3979953), Spax screws, or lag screws. Install the screws through the hollow bolts into the respective studs. Start with the frame corners first, and fill in remaining available screws. Refer to **Figure 5**.

Note: Do not tighten the screws.

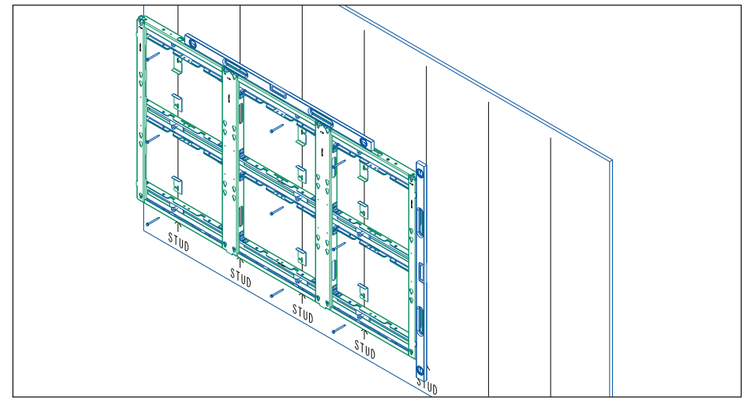

Figure 5: *Install TEK Screws in Remaining Bolt Assemblies*

7. Install the brace plate (0M-4951150) after starting a screw in the stud.

Note: Ensure that the brace plate is positioned on the screw and lands between the wall and the tip of the hollow bolt. The brace plate provides a strong surface to adjust the Z-axis position of the frame. If the brace plate is not placed properly, the tip of the hollow bolt will cut and sink into the wall material.

8. Tighten the screws until the frame is fixed in place.
9. Use a level on the top and side of the frame and repeat **Steps 6** and **7** for the remaining bolt assemblies.
10. Place a level on the face of the vertical members in the frame to ensure the frame is plumb and level. Adjust the Z-position of the frame as needed. Refer to **Adjust Frame Z-Position (p.2)**.

Note: Ensure the frame position aligns to the marked location on the wall.

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Adjust Frame Z-Position

1. Identify the bolt assembly locations to adjust away from the wall. Refer to **Figure 6**.

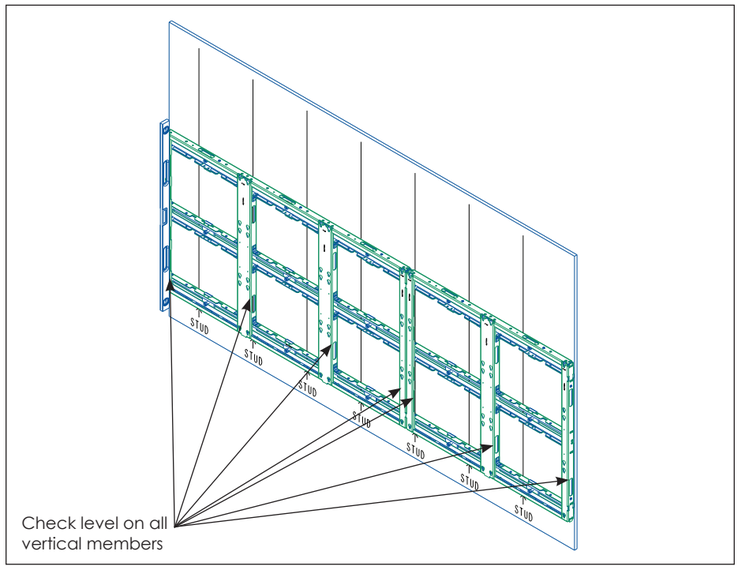
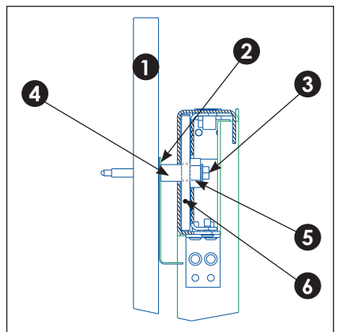


Figure 6: *Identify Bolt Assemblies to Z-Adjust*

2. Adjust one bolt assembly at a time. Refer to **Figure 7**.
   - **a.** Loosen the TEK screw.
   - **b.** Tighten the hollow bolt into the threaded plate until the end of the bolt braces against the brace plate. Continue until the face of the frame is level.
   - **c.** Tighten the TEK screw to lock the Z-position in place.



1: Drywall
2: Backer plate
3: TEK screw
4: Fully adjusted bolt
5: Hollow bolt
6: Threaded plate

Figure 7: *Adjust Z-Position of Bolt Assembly*

> **Note:** For the first frame, XY position can be locked by instaling seismic clips. Refer to **"Install Seismic Clips" on page 3.** If the first frame is locked in place with a seismic clip, do not install additional seismic clips until the remaining frames are installed and leveled.

Install Next Adjacent Frame in First Row

1. Position the adjacent frame in the row next to the installed frame.
2. Install the supplied stitch bolts (HC-1842). Refer to **Figure 8**.

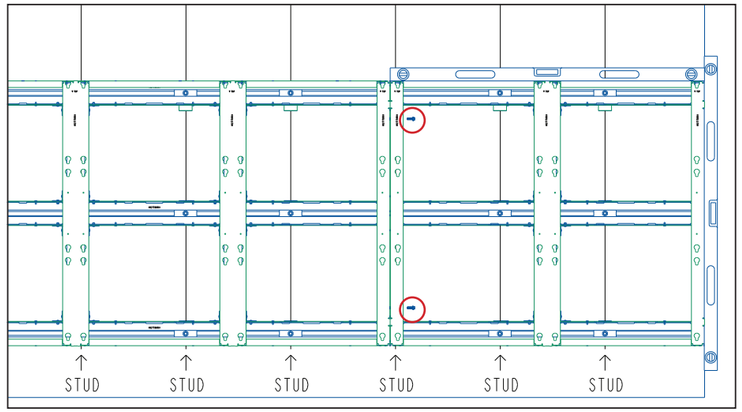


Figure 8: *Install Stitch Bolts*

3. Ensure the alignment tabs are flush and even with each other. Refer to **Figure 9**. Tighten the stitch bolts to lock the tabs into place.

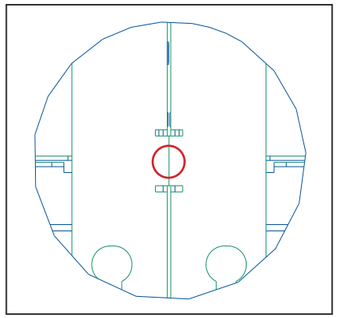


Figure 9: *Ensure Alignment Tabs Are Flush & Even*

> **Note:** Tighten the bolts to just snug, being sure to not deform the frames.

4. Cut the zip ties and verify that the bolt assemblies slide freely.
5. Slide the bolt assemblies to the nearest stud lines.
6. Use a 4' level on top of the frame to level the frame while positioning it.
7. Repeat **Steps 5–7** in **Install First Frame (p.1)**.
8. Repeat **Steps 1–7** in **Install Next Adjacent Frame in First Row (p.2)** until the first row is fully installed.
9. Use a string line across the installed bottom row and adjust the Z-position of the frames so the frame faces are all aligned to the string. Verify the frame faces are level vertically as they are adjusted for the string line.

Install Remaining Frames

1. Position the left frame in the next row on top of the first installed frame. Ensure the alignment tabs are flush and properly aligned. The middle verticals set the X- and Y-axis positions of the frame.
2. Install the supplied stitch bolts across the horizontal seam and tighten to lock the frame into place. Refer to **Figure 10**, **Figure 11**, and **Figure 12**.

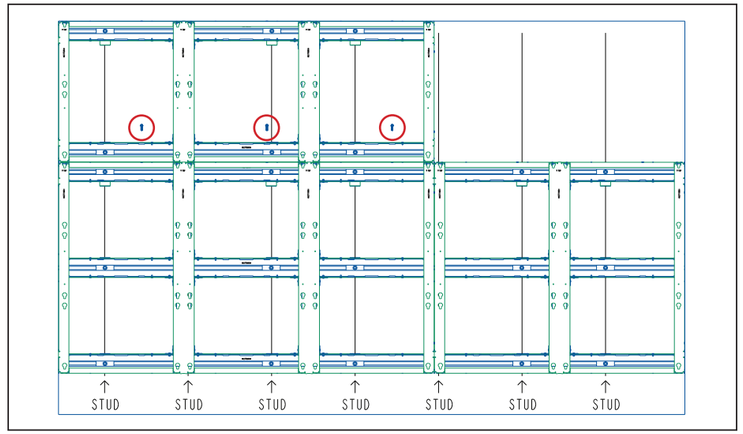


Figure 10: *Install Stitch Bolts across Horizontal Seam*

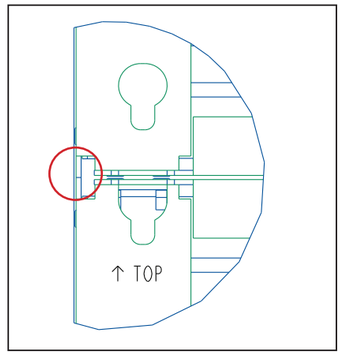


Figure 11: *Ensure Alignment Tabs Are Flush & Even*

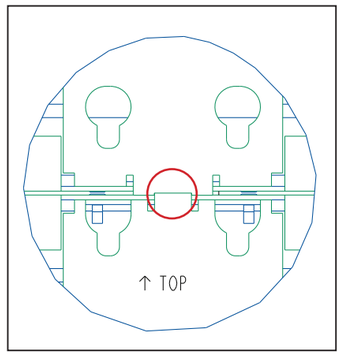


Figure 12: *Lock X & Y Position*

3. Cut the zip ties, allowing the bolt assemblies to slide along the track.
4. Slide the bolt assemblies to the nearest stud locations.
5. Install TEK screws and brace plates, but do not tighten all the way. Leave the TEK screws approximately $^{1}/_{4}$" from tightened down, to allow room for Z-axis adjustment.

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6. Install the remaining frames while leaving the frames slightly loose from the wall. Refer to **Figure 13**.

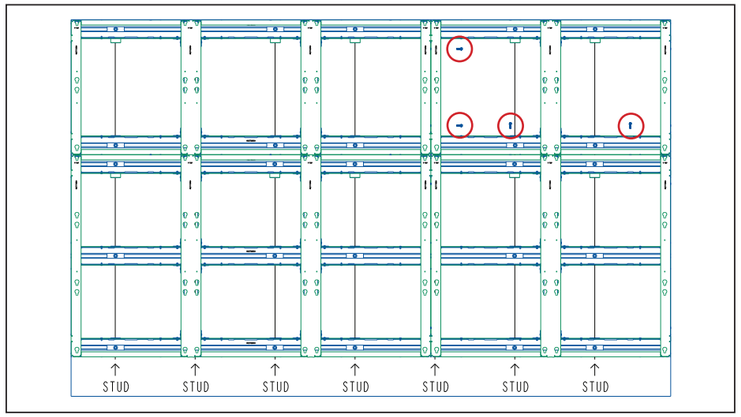

Figure 13: *Install Remaining Frames*

Plumb/Level Entire Display

1. Identify the wall's high spot. Use a level on the face of the frame column while adjusting the Z-position of the frame column. If a high spot cannot be identified, start with the center-most frame column in the display.
2. Use the frame alignment tabs closest to the display corners and secure a string line in an X pattern. Refer to **Figure 14**.
3. Identify the frame's high points along the string line. Adjust the Z-position toward the wall at the high points if the frames were not previously Z-adjusted. If the high-point frame was previously Z-adjusted, adjust the surrounding frames away from the wall to make the display face level and plumb.
4. Tighten down the TEK screws to lock the frame Z-positions into place.
5. Adjust the frame Z-positions until the faces are aligned to the string and the frame faces are plumb and level to each other.

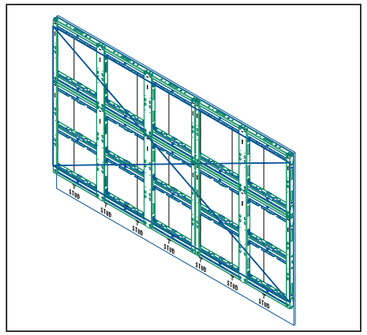

Figure 14: *Secure String Line*

Install Seismic Clips

1. Place a seismic clip (0M-4983082) up to the secured mounting points in the frame. Refer to **Figure 15**.

> **Note:** Ensure that the flange of the clip falls in the track opening and is pressed against the side of the threaded clip.

2. Mark the location of one of the two holes in the clip to match the drill with the screw hole. Remove the clip.
3. Drill a $^{5}/_{32}$" diameter hole at the marked location.
4. Replace the clip and secure with a #10-12 x $^{3}/_{8}$" sheet metal screw (HC-1186) using the pre-drilled hole. Refer to **Figure 16**.
5. Repeat clip installation steps for all frame mounting locations in the display.

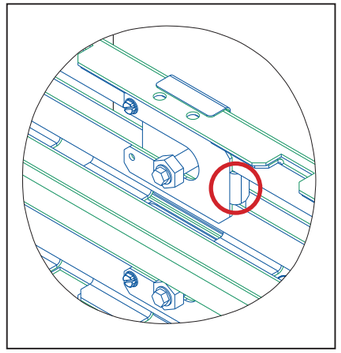

Figure 15: *Position Seismic Clip*

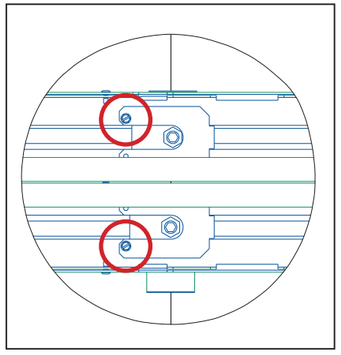

Figure 16: *Secure Clip Screws*

Panel Installation

Route Power & Signal

1. Identify which panels will require power and/or signal inputs. Refer to the contract-specific Shop and Riser Drawings for details.
2. Use the pass-through holes and notches in the frame to route the power and signal input cables from the input to the required input panel location prior to panel installation.

> **Note:** Incoming power and signal cables external to the display cannot be routed after panels are installed.
>
> **Note: When power needs to interconnect across a horizontal seam, remove the rubber cap on the bottom of the affected panels. Do not remove the rubber cap in a panel where power is landing.**

Install First Panel

1. Remove the first panel from its packaging and install the hardware.
2. Install four M8 bolts (HC-5402405) through the rear of the panel so the threads are engaged but not tightened all the way. Leave ~$^{1}/_{4}$" between the bolt flange and the rear of the panel. Refer to **Figure 17** and **Figure 18**.
3. If installing a panel where power/signal needs to land, route the Cat 6 or Fiber incoming signal cable and/or the male end of the AC power input cable through the rectangular cutout in the panel prior to panel installation.

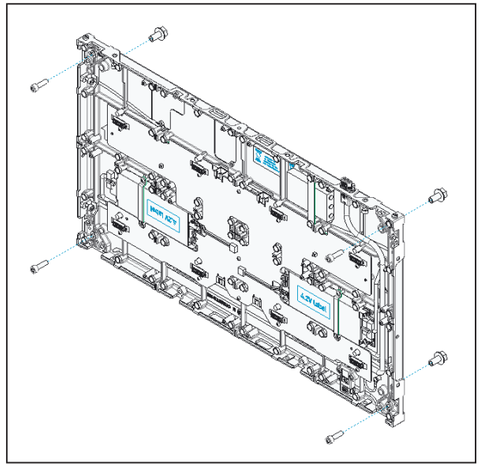

Figure 17: *Install Hardware in First Panel*

> **Note:** Depending on the structure and access to the rear of the display, it may be very difficult or impossible to route power cables into the panel after the panel is secured to the speed frame.

a. Remove the two nuts (circled in yellow in **Figure 19**) securing the appropriate cover on the inside of the cabinet.

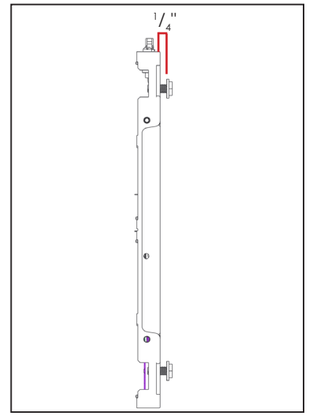

Figure 18: *Leave $^{1}/_{4}$" between Bolt Flange & Panel Rear*

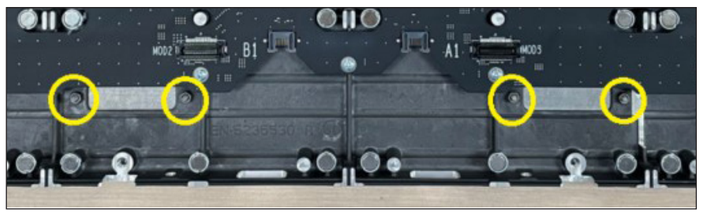

Figure 19: *Remove Nuts from Cover*

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b. Install the power input cable through the rear of the panel and plug in the cable. Refer to **Figure 20**.

c. Connect power cables between all panels with an interconnect across a horizontal seam, making sure the cable clip fully engages.

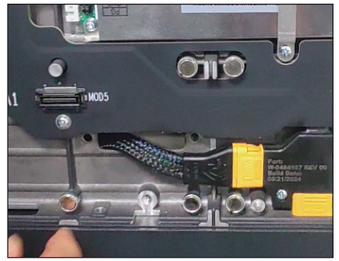

Figure 20: *Install Power Input Cable*

4. Loosely hang the M8 bolt heads through the keyholes in the frames to place the panel in the bottom center-most display position.

5. Repeat **Steps 1–3** for the remainder of the first row. Refer to **Figure 21**.

6. Push the panels together and verify the far-left and far-right frame alignment tabs are not protruding beyond the display limits. Refer to **Figure 22**. Shift the panels left or right as needed.

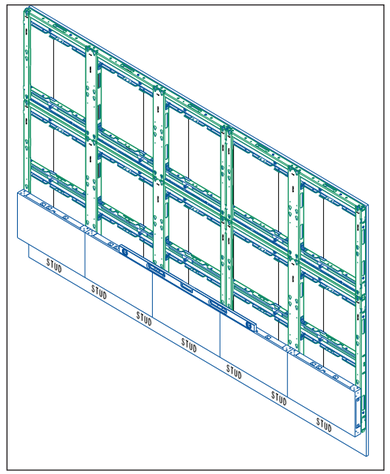

Figure 21: *Install Remaining Panels in Bottom Row*

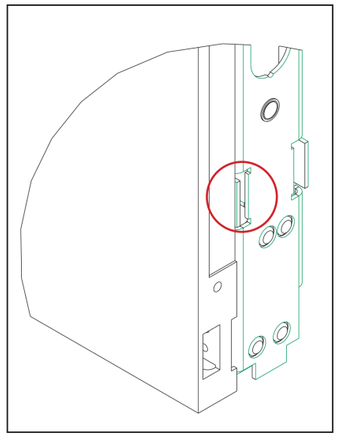

Figure 22: *Ensure Alignment Tabs Do Not Protrude Past Display Edge*

7. Install the panel side stitch bolts across the bottom row of panels while ensuring the machined tops, bottoms, and faces are all flush to each other. Use a 4 mm key to tighten the stitch bolts. Refer to **Figure 23.**

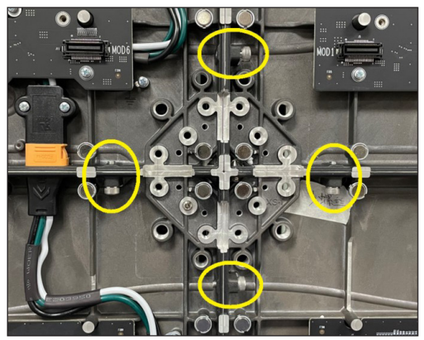

Figure 23: *Stitch Bolt Locations*

8. Start at the center of the display and use a 4 mm hex key in the end of the M8 bolt to tighten the panel hardware. Level the top of the panel while tightening.

9. Tighten the M8 bolts in the first row of panels until the bolts are snug to the frame.

> **Note:** Turn the M8 bolts counterclockwise to tighten, and clockwise to loosen.

10. Install flattening hardware. Refer to **Figure 24**, **Figure 25**, and **Figure 26**.

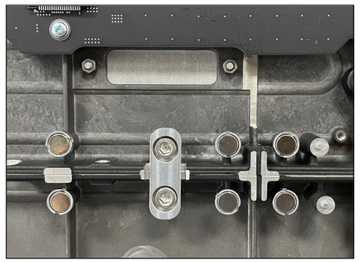

Figure 24: *Assembled Panels*

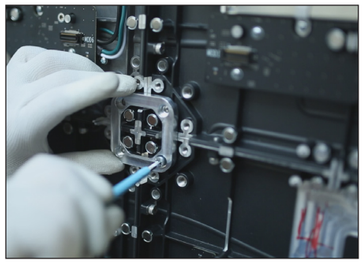

Figure 25: *Attach Flattening Plate*

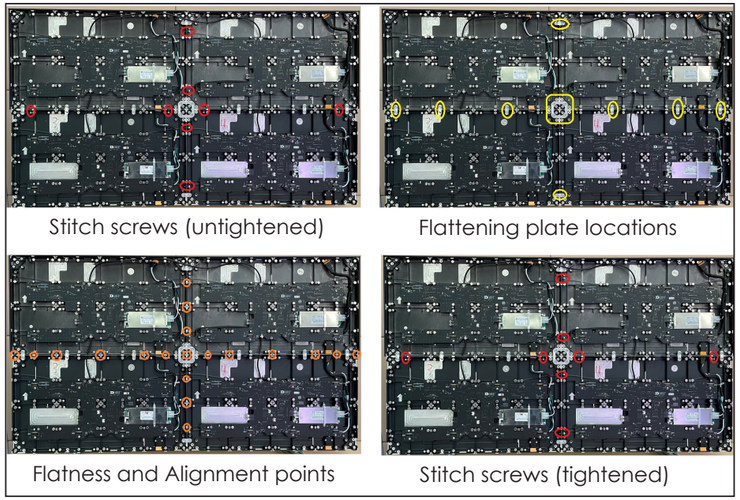

Figure 26: *Stitch Locations and Flattening Plate Locations*

11. Repeat **Steps 1-3** for the remaining panels in the display. Start at the center of the next row up, install the columns, and then fill in from the bottom out from there. Refer to **Figure 27**.

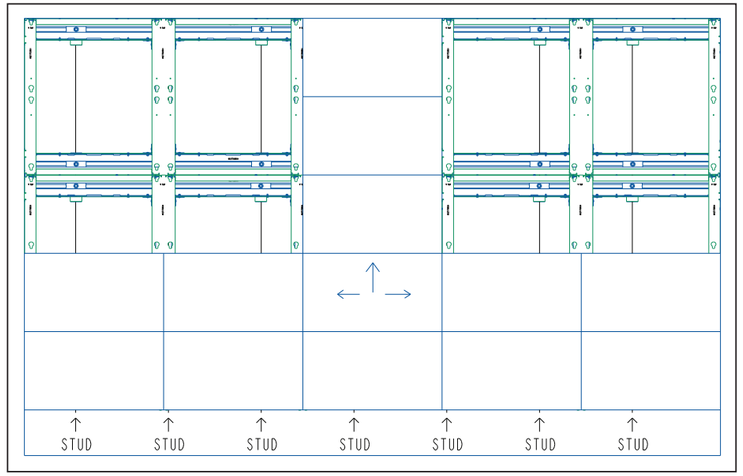

Figure 27: *Install Remaining Panels in Display*

12. After all of the panels are hanging from the frames, secure panels together and to the frames, starting with the top row of the center column and working outward.

13. Stitch the top row of panels together, ensuring the top and machined surfaces are flush to each other.

14. Tighten the M8 bolts so the panels are snug to the frame.

> **Note:** Turn the M8 bolts counterclockwise to tighten and clockwise to loosen.

15. Continue to stitch panels together with stitch bolts center, down, and out. Tighten the M8 bolts to lock the panels in place. Refer to **Figure 28**.

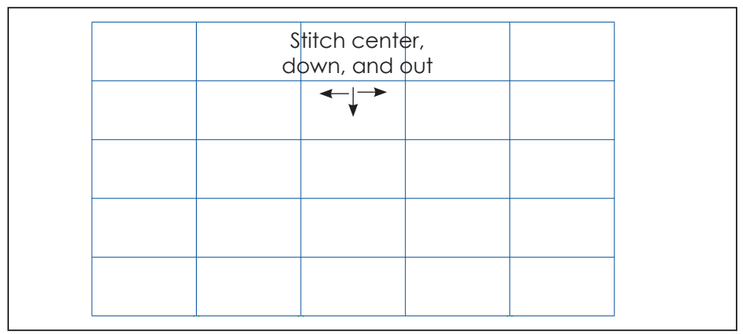

Figure 28: *Stitch Panels Together*

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Adjust Corner Z-Position

Install M5 set screws to adjust the panel corner if a corner needs to be adjusted in the Z-position. Refer to **Figure 29.**

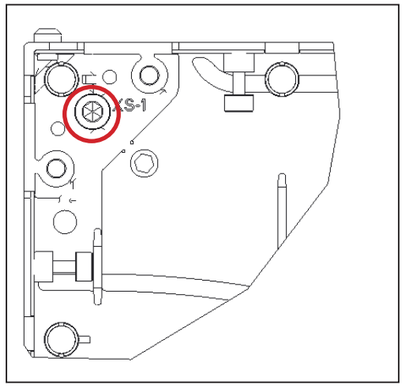

Figure 29: *Z-Adjustment Screw Detail*

Push Panel Corner from Structure

1. Loosen the M8 bolt in the low panel corner.
2. Tighten the M5 set screw in the low panel corner until the face is flush with the adjacent panel.
3. Tighten the M8 bolt to lock the position into place.

Pull Panel Corner to Structure

1. Loosen the M5 set screw in the high panel corner until the face is flush with the adjacent panel.
2. Tighten the M8 bolt to lock the position into place.

When all panels are installed, go back across the faces of the corners of the panels to ensure the surfaces are flush. Fine-tune the Z-position as needed. Refer to **Figure 30**.

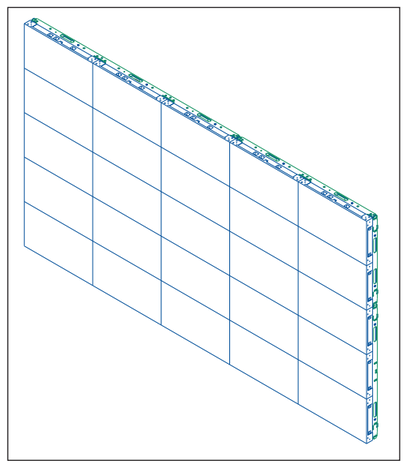

Figure 30: *Ensure Panel Corner Faces Are Flush*

Electrical Installation

Power & Signal Input

The power input is located on the bottom of each panel. The supplied power cable can be plugged directly into this input as shown in **Figure 31**. Refer to the contract-specific Shop and Riser Drawings for part numbers.

The signal input is located on the bottom of the hub board. Refer to **Figure 32.** Refer to the contract-specific Shop and Riser Drawings for part numbers.

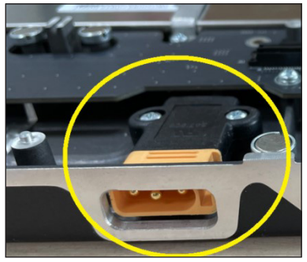

Figure 31: *Power Input*

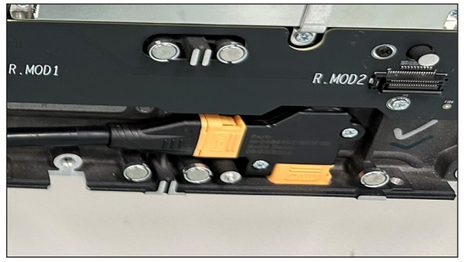

Figure 32: *Signal Input*

Power Connection

The panels are designed for vertical and horizontal power interconnection. Plug the power from the lower panel into the panel above it. Refer to **Figure 33.** Refer to the contract-specific Shop and Riser Drawings for specific routing details. Ulitize the table below to determine wire colors:

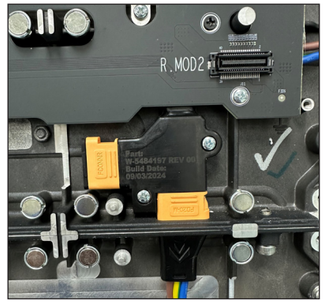

Figure 33: *Power Connection*

Service Connections		Wire Colors
AC/L	AC/L1	Brown
AC/N	AC/L2	Blue
GND	GND	Green/Yellow

Note: If needed for horizontal power interconnection, the horizontal power jumper cable will ship separately. Install according to the contract-specific Shop and Riser Drawings.

Signal Connection

Signal can be routed horizontally or vertically with the supplied Cat 5e cables. Primary signal is connected to Port L PB and Port R PB. Refer to **Figure 34** and **Figure 35.** Refer to the contract-specific Shop and Riser Drawings for specific routing details.

.

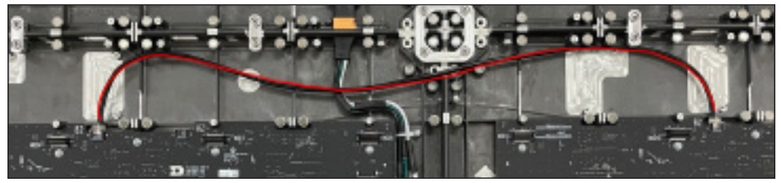

Figure 34: *Horizontal Signal Connection*

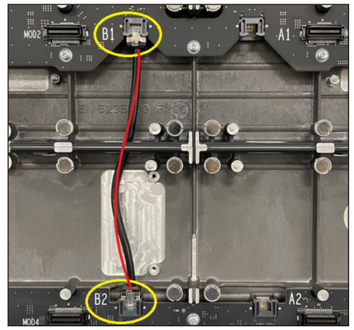

Figure 35: *Vertical Signal Connection*

Module Installation

1. Always wear gloves while handling modules. Refer to **Figure 36.**

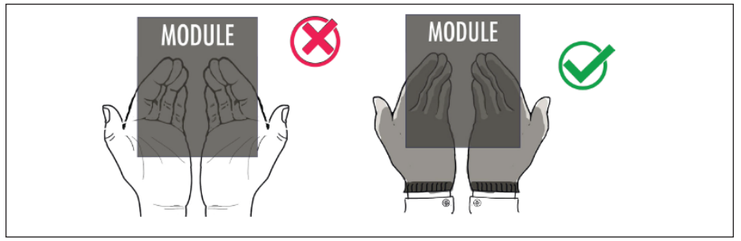

Figure 36: *Wear Gloves while Handling Modules*

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2. Start in the bottom middle of the display and then install left and right. Then move up one row. Refer to **Figure 37.**

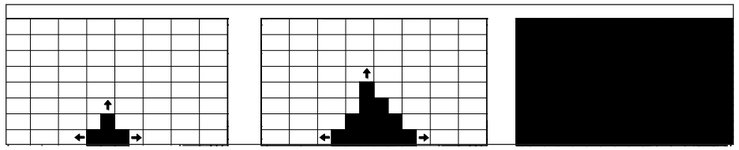

Figure 37: *Module Installation Sequence*

3. Avoid pushing modules on the tiles edges. Refer to **Figure 38.**

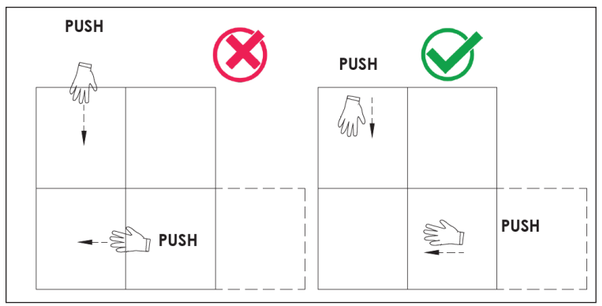

Figure 38: *Avoid Pushing on Modules Edges*

Note: To install modules with safety lanyard, refer to the **NPN-6600 Series Service Quick Guide (DD5530948)**.

Z-Axis Seam Adjustment

If a module is lower than adjacent modules, remove the module and turn the magnet out for adjustment. Refer to **Figure 39 and Figure 40**. Use a magnetic adjustment tool to loosen the magnet, then turn the magnet by hand.

If a module is higher than adjacent modules, remove the adjacent modules and adjust the appropriate magnets until the modules are flush. This may take several attempts.

Figure 39: *Magnetic Adjustment Tool*

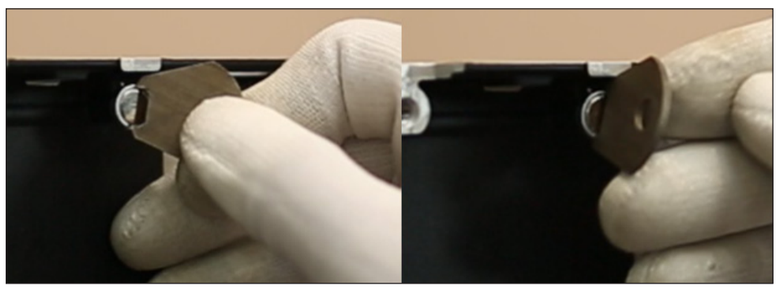

Figure 40: *Using Magnetic Adjustment Tool*

X/Y-Axis Seam Adjustment

When modules are installed on a display, all modules should be pushed toward the center of the display until all PCBs touch or nearly touch each other. When the display is turned on, there could be many bright seams but no dark seams. If dark seams are present, adjust the seams to be bright. Software will be used later to remove bright seams.

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Warnings and Disclaimers

- Ensure that all electrical work meets or exceeds all local or national electrical codes.
- Provide the required power to the display as listed on the product labels, specifications, or site-specific riser drawings. The conductor size may vary based on the length of the power run.
- Consider implementing a separate circuit for the display using an isolation transformer or dedicated transformer.
- Daktronics assumes no liability for any issues caused by line voltage fluctuations or other improper power conditions.

Required Tools

Refer to **DWG-5503026** for a description of Daktronics- and customer-provided tools and hardware.

Mechanical Installation

Note: Steel tubes are not recommended for the substructure, as metal filings can accumulate on the magnets and cause module flatness issues.

Power/Signal Input Identification & Routing

1. Identify which panels will require power and/or signal inputs. Refer to the contract-specific Shop and Riser Drawings for details.
2. Route power/signal inputs around the structure prior to panel installation. Use the designed gaps between the substructures and at the top and bottom of the display to run the cables horizontally across the display. Refer to **Figure 1** and **Figure 2.**

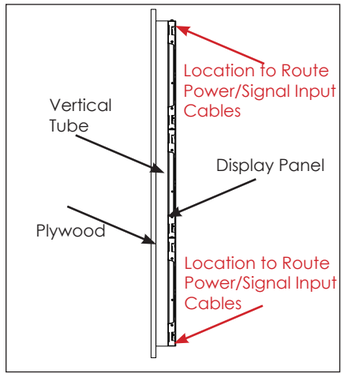

Figure 1: *Power & Signal Routing (Left View with Panels)*

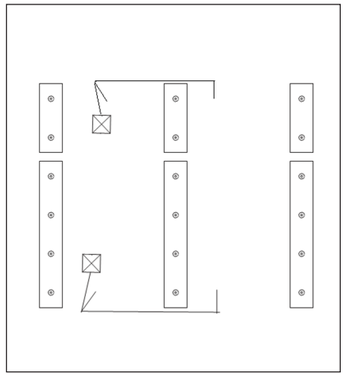

Figure 2: *Power & Signal Routing (Front View without Panels)*

First Panel Installation

Start with the bottom-center panel, which will be the foundation of other panels. Then, work outward and upward to install the rest of the panels. Refer to **Figure 3.**

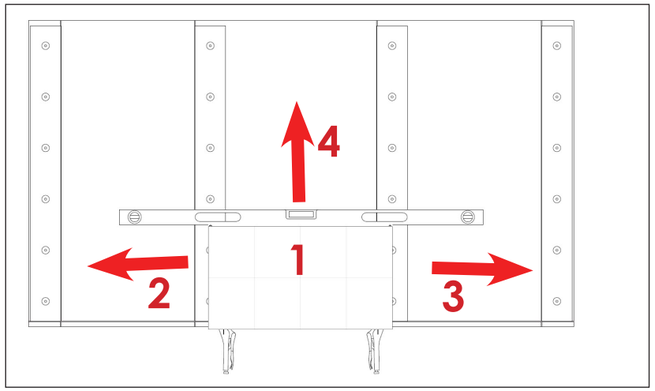

Figure 3: *Typical Cabinet Installation Order*

1. Measure and mark the correct panel location. Refer to **Figure 4.**

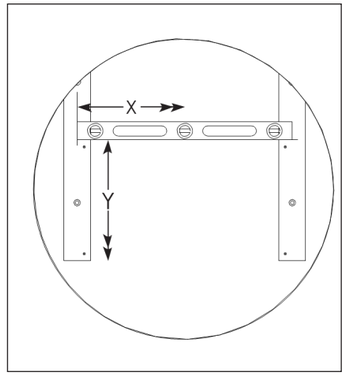

Figure 4: *Measure & Mark First Panel Location*

2. Remove the panel from its packaging.

Note: Please be careful when handling the cabinets. Do not set them onto a rough surface, to avoid scratching the rear side paint.

3. Mark the mounting holes in the panel for pre-drilling. Refer to **Figure 5.**

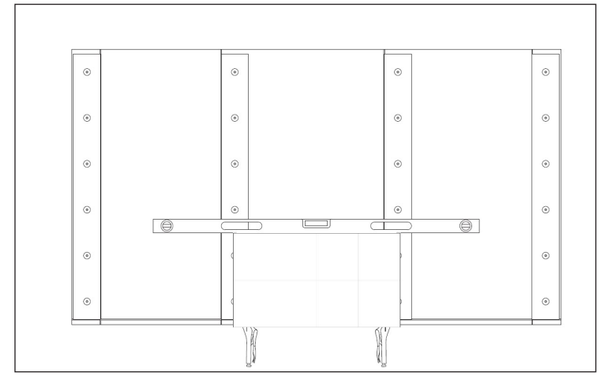

Figure 5: *Mark Mounting Holes in First Panel*

a. Slide the panel positioning jigs into the bottom of the mounting tubes with the jigs on the inside edge of the tube. Refer to **Figure 5**. The panel will sit on the punched edge of the positioning jig, using the bottom of the tube to set the location. Refer to **Figure 6** and **Figure 7.**

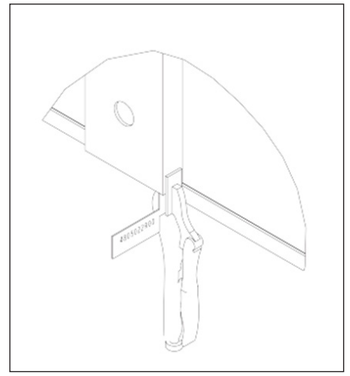

Figure 6: *Slide Jigs into Bottom of Mounting Tubes*

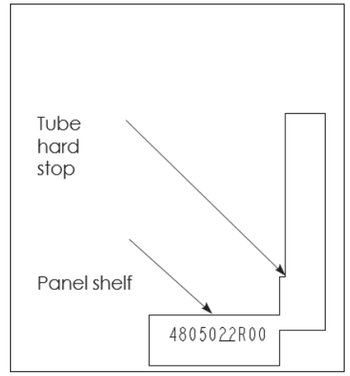

Figure 7: *Set Panel Location*

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b. Use C-clamps to secure the bottom of the installation jigs to the bottom of the mounting tubes. Refer to **Figure 8.**

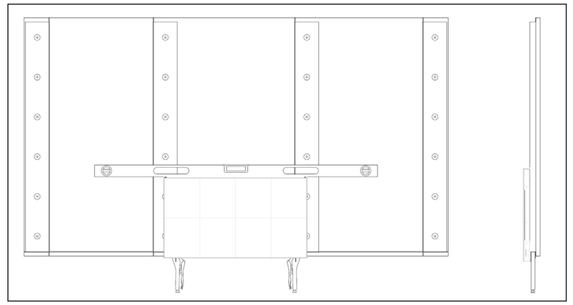

Figure 8: *Secure Installation Jigs to Mounting Tube*

c. Level the jigs and adjust as needed.

d. Lift the panel into place.

e. Align the panel to the marked location and verify the location is leveled.

f. Hold the panel in place and mark the screw locations through the mounting screw holes with a punch.

g. Remove the panel and set it aside to keep it clear of metal filings.

4. Pre-drill $^{1}/_{8}$" [3 mm] holes into the tube at the marked mounting locations. Refer to **Figure 9.**

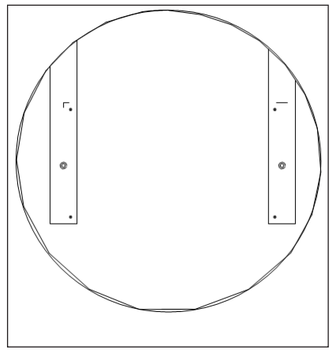

Figure 9: *Pre-Drill Holes into Tube*

5. Identify where power will enter the display prior to panel installation.

6. Route the male end of the AC power input cable through the rectangular cutout in the panel prior to placing the panel if installing a panel where power needs to land. Refer to **Figure 10.**

> **Note:** Depending on the structure and access to the rear of the display, it may be very difficult or impossible to route power cables into the panel after the panel is secured to the tube.

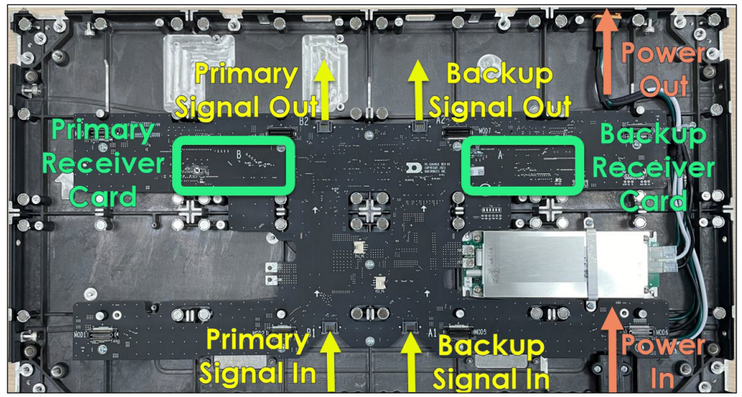

Figure 10: *Panel Overview (Receiver Card is on Rear of the Hub Board.)*

a. Use 8 mm hex wrenches to remove the M5 nuts securing the appropriate cover on the inside of the cabinet. Refer to **Figure 11.**

Figure 11: *Remove Nuts from Cover*

b. Install the power input cable through the rear of the panel and plug in the cable. Re-attach the two screws. Refer to **Figure 12.**

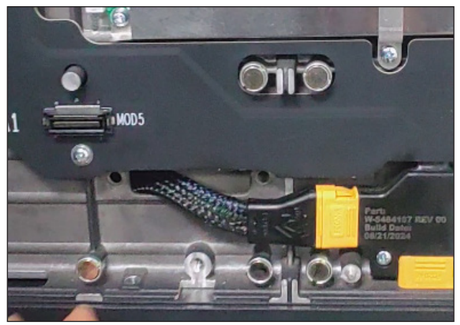

Figure 12: *Install Power Input Cable*

7. Secure the panel to the tubes with a $^{1}/_{4}$" TEK screw through all four corner mounting locations. Refer to **Figure 13.**

8. Level the panel. Refer to **Figure 14.**

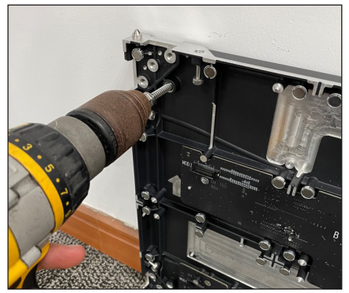

Figure 13: *Secure Panel with Screws*

Figure 14: *Ensure Panel Is Level & Vertically Flatness*

9. Use a 3 mm Allen wrench and select a suitable location to adjust the jacking hardware and correct any flatness issue. Refer to **Figure 15.**

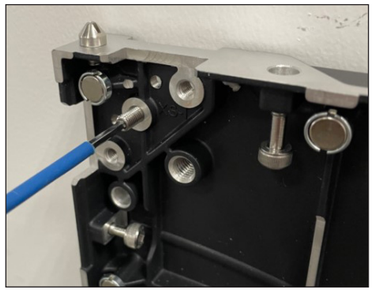

Figure 15: *Adjust the Jacking Hardware*

Panel-to-Structure Adjustment

Only make small adjustments to the jacking and securing hardware.

Pull Panel Corner to Structure

1. Loosen the jacking hardware. This may pull the panel closer to the structure.
2. Tighten the securing hardware. This pulls the panel closer to the structure until it contacts the panel adjustment screws on the rear of the panel.

Push Panel Corner from Structure

1. Loosen the securing hardware. This may push the panel away from the structure.
2. Tighten the jacking hardware. This pushes the panel away from the structure until it touches the head of the securing hardware.

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Secure Panel Corner Spacing

1. Achieve the desired depth to match adjacent panels.
2. Secure the corner in place to prevent movement.
3. Tighten both bolts until they touch the panel or tube.

Panel-to-Panel Adjustment

1. Remove the panel from its packaging.
2. Place the panel beside the existing panel.
3. Remove the panel positioning jig from the right side of the first panel to use on the left side of the new panel.
4. Install the panel positioning jigs adjacent to the first panel and use a level across the jigs.
5. Place a panel on top of each of the two existing panels.
6. Use a 5 mm Allen wrench and socket-head stitch screws (circled in yellow) to attach the panels together, but do not tighten the screws. Refer to **Figure 16.**

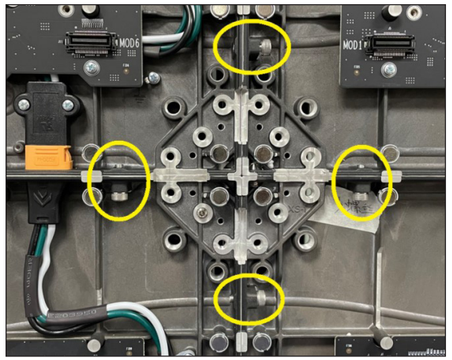

Figure 16: *Assemble Panels with Screws*

7. Use a 5 mm Allen wrench and socket-head stitch screws (circled in red) to attach the panels together. Refer to **Figure 17.**

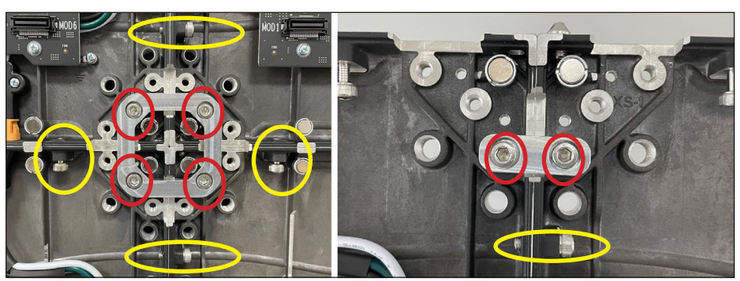

Figure 17: *Align Panel Faces*

8. Install the top and side interconnect hardware.
9. Use a 3 mm Allen wrench to tighten the jacking hardware next to the existing panel until the panel is firmly seated against the tube. Refer to **Figure 18**. Tighten the remaining adjustment hardware until it touches the tube.

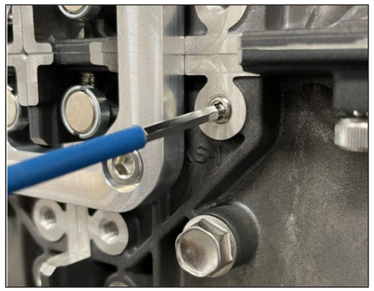

Figure 18: *Adjust the Jacking Hardware*

10. Mark the screw locations through the mounting screw holes with a punch. Pre-drill $^{1}/_{8}$" [3 mm] holes into the tube at the marked mounting locations. Refer to **Figure 9.**
11. Secure the panel to the tubes with a $^{1}/_{4}$" TEK screw through all four corner mounting locations. Refer to **Figure 13.**
12. Ensure the panel is flush and flat to the lower panels:
    a. Check seams to verify flatness.
    b. Verify flatness by laying a 4' level across the face to ensure the combined face of both panels is straight and flat. Check both ends of the panel. Refer to **Figure 19.**
    c. Use a 3 mm Allen wrench to adjust the jacking hardware as needed to modify the four corners of panel depth. Refer to **Figure 18.**

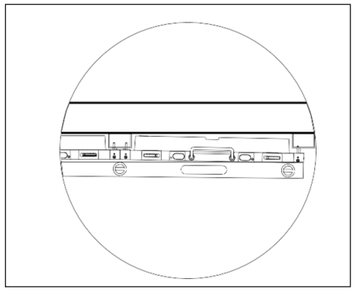

Figure 19: *Verify Flatness*

Side-to-Side Panel Connection X-axis and Y-axis Adjustment

1. Remove the panel from its packaging.
2. Place the panel on top of the existing panel, fitting the alignment pins into the recesses.
3. Use a 5 mm Allen wrench and socket-head stitch screws to attach the panels together, but do not tighten the screws. Refer to **Figure 20.**
4. Use a 5 mm Allen wrench to attach the flattening plate to the front of the panels, and ensure the panel faces are completely flush. Refer to **Figure 21**, **Figure 22**, and **Figure 23.**

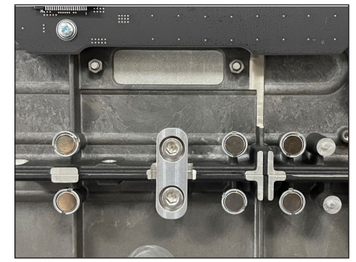

Figure 20: *Assemble Panels*

Figure 21: *Attach Flattening Plate*

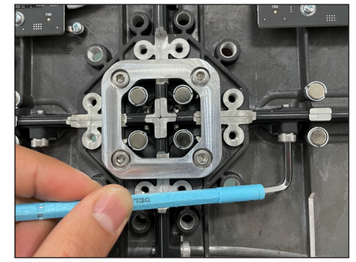

Figure 22: *X-axis Adjustment*

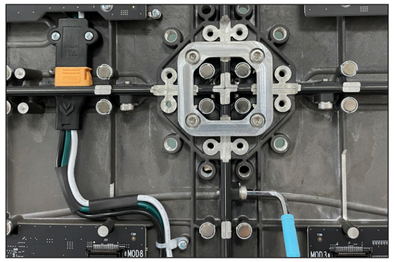

Figure 23: *Y-axis Adjustment*

> **Note:** Use a 5 mm Allen wrench to tighten the socket-head screws, but do not remove the flattening plate.

5. Use a 3 mm Allen wrench to tighten the jacking hardware next to the existing panel until the panel is firmly seated against the tube. Refer to **Figure 18**. Tighten the remaining adjustment hardware until it touches the tube.
6. Secure the panel to the tubes through all four corner mounting locations. Refer to **Figure 13** and **Figure 24.**

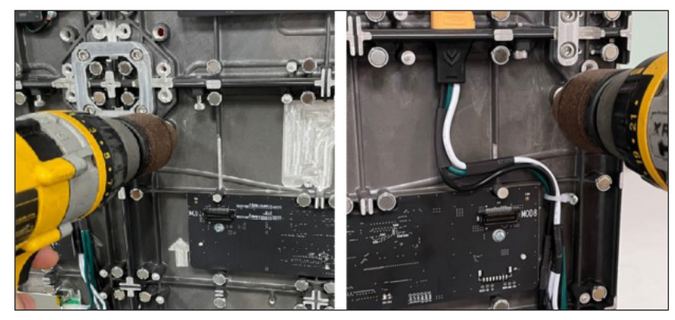

Figure 24: *Secure Panel to Tube in Corners*

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7. Ensure the panel is flush and flat to all adjacent panels.
   - **a.** Check seams to verify flatness.
   - **b.** Verify flatness by laying a 4' level across the face horizontally, vertically, and diagonally to ensure the combined face of both panels is straight and flat. Check both ends of the panel. Refer to **Figure 25.**
   - **c.** Use a 3 mm Allen wrench to adjust the jacking hardware as needed to modify the depth on the four corners of the panel. Refer to **Figure 18** and **Figure 19.**
   - **d.** Check flatness or alignment at all joints. Refer to **Figure 20**, **Figure 21**, **Figure 22**, **Figure 23**, and **Figure 26.**

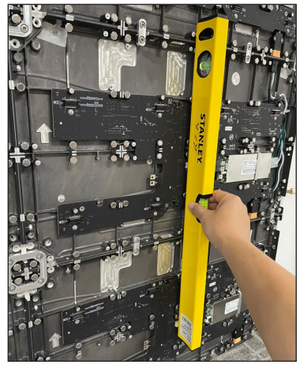

Figure 25: *Verify Flatness with Level*

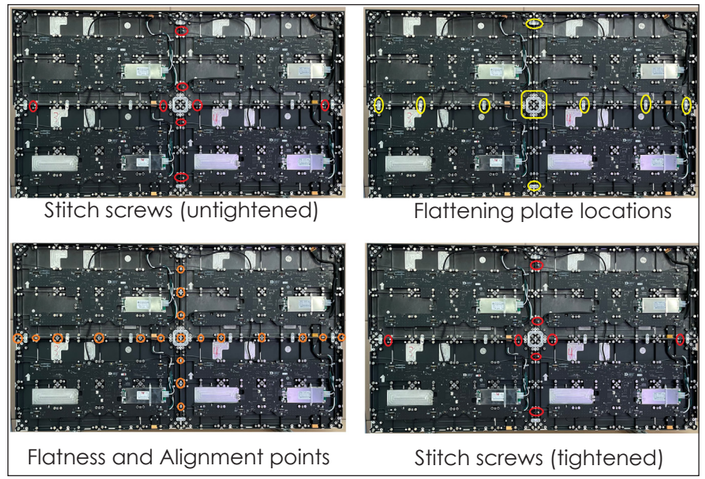

Figure 26: *Flattening Plate Locations*

Electrical Installation

Power & Signal Input

The power input is located on the bottom of each panel. The supplied power cable can be plugged directly into this input as shown in **Figure 27**. Refer to the contract-specific Shop and Riser Drawings for part numbers.

The signal input is located on the bottom of the hub board. Refer to **Figure 28.** Refer to the contract-specific Shop and Riser Drawings for part numbers.

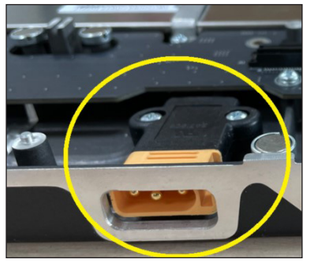

Figure 27: *Power Input*

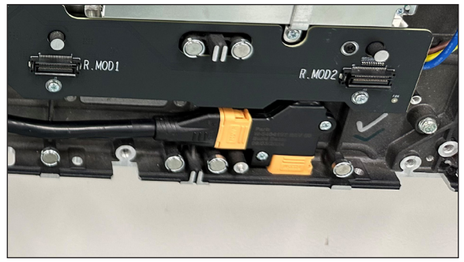

Figure 28: *Signal Input*

Power Connection

The panels are designed for vertical power interconnection only. Plug the power from the lower panel into the panel above it. Refer to **Figure 29.** Refer to the contract-specific Shop and Riser Drawings for specific routing details. Ulitize the table below to determine wire colors:

Service Connections		Wire Colors
AC/L	AC/L1	Brown
AC/N	AC/L2	Blue
GND	GND	Green/Yellow

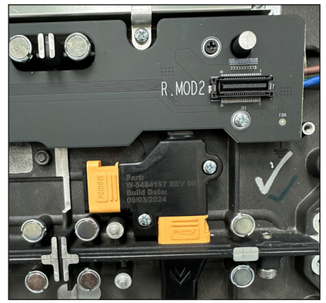

Figure 29: *Power Connection*

Signal Connection

Signal can be routed horizontally or vertically with the supplied Cat 5e cables. Primary signal is connected to Port L PB and Port R PB. Refer to **Figure 30** and **Figure 31.** Refer to the contract-specific Shop and Riser Drawings for specific routing details.

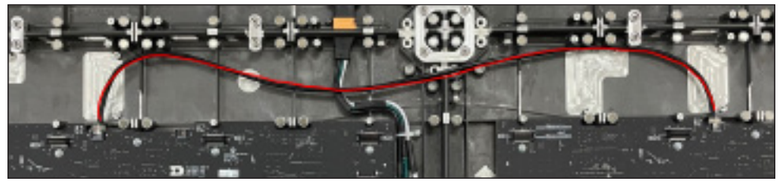

Figure 30: *Horizontal Signal Connection*

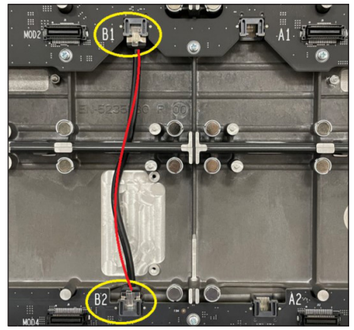

Figure 31: *Vertical Signal Connection*

Z-Axis Seam Adjustment

If a module is lower than adjacent modules, remove the module and turn the magnet out for adjustment. Refer to **Figure 32 and Figure 33**. Use a magnetic adjustment tool to loosen the magnet, then turn the magnet by hand.

If a module is higher than adjacent modules, remove the adjacent modules and adjust the appropriate magnets until the modules are flush. This may take several attempts.

Figure 32: *Magnetic Adjustment Tool*

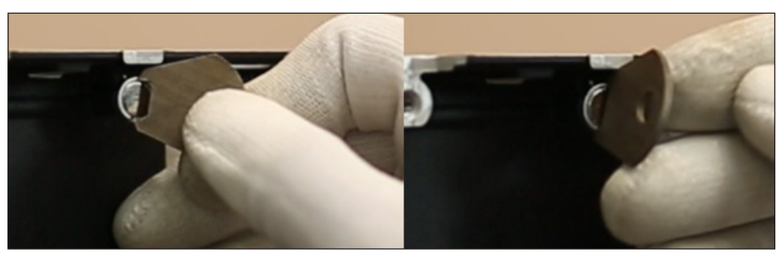

Figure 33: *Using Magnetic Adjustment Tool*

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X/Y-Axis Seam Adjustment

When modules are installed on a display, all modules should be pushed toward the center of the display until all PCBs touch or nearly touch each other. When the display is turned on, there should be many bright seams but no dark seams. If dark seams are present, adjust the seams to be bright. Software will be used later to remove bright seams.

Module Installation

1. Always wear gloves while handling modules. Refer to **Figure 34.**

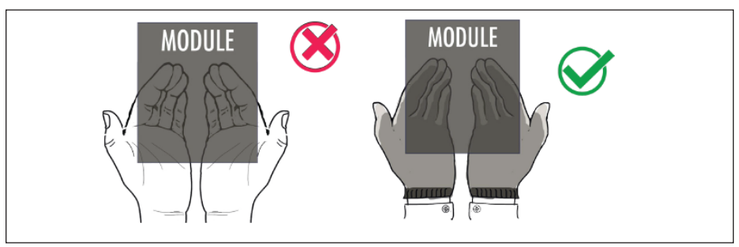

Figure 34: *Wear Gloves while Handling Modules*

2. Start in the bottom middle of the display and then install left and right. Then move up one row. Refer to **Figure 35.**

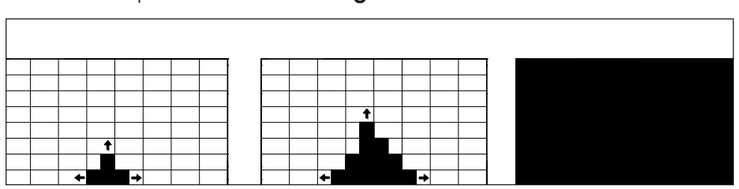

Figure 35: *Module Installation Sequence*

3. Avoid pushing modules on the tiles edges. Refer to **Figure 36.**

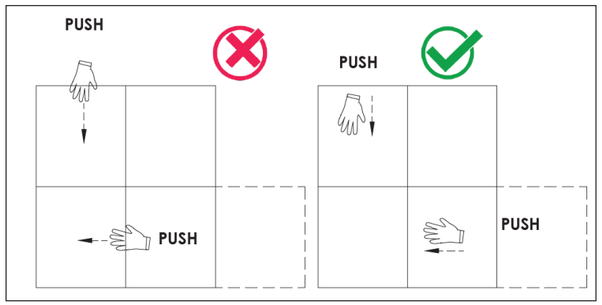

Figure 36: *Avoid Pushing on Modules Edges*

> **Note:** To install modules with safety lanyard, refer to the **NPN-6600 Series Service Quick Guide (DD5530948)**.

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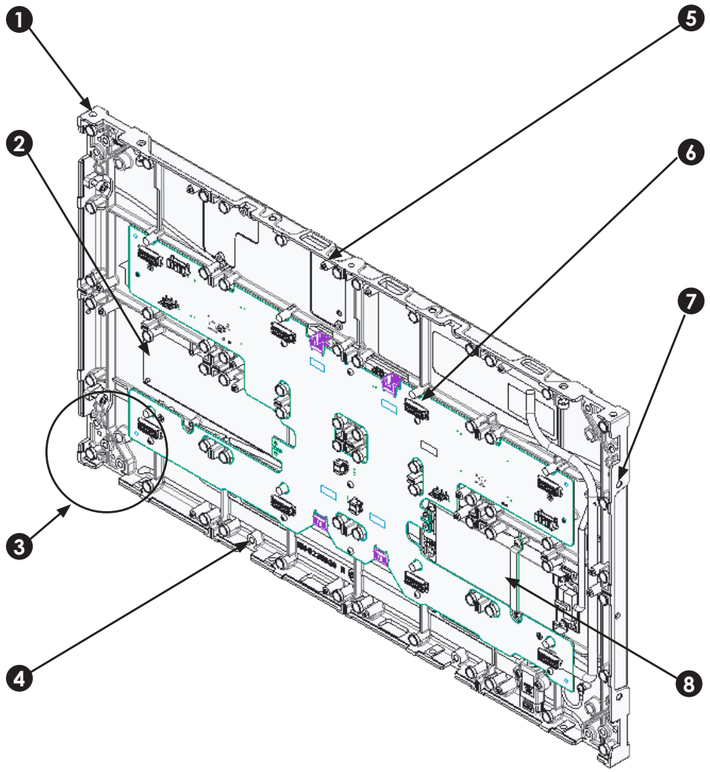
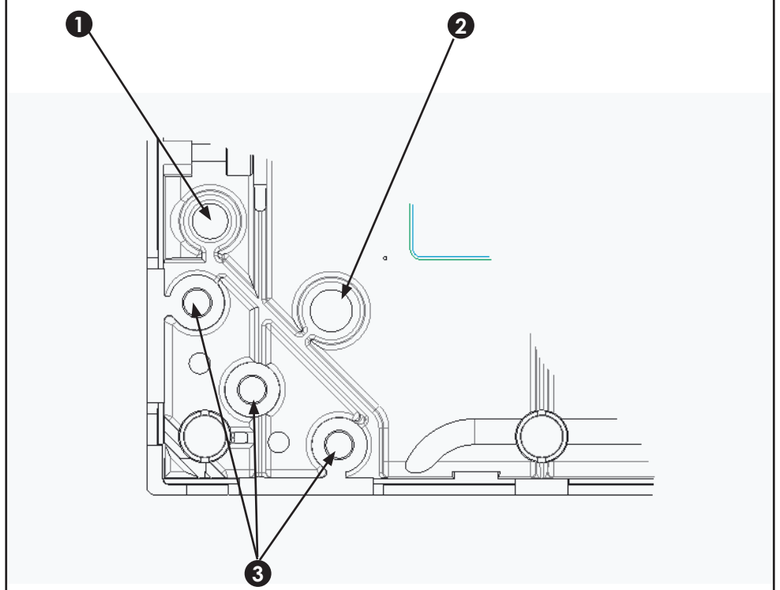


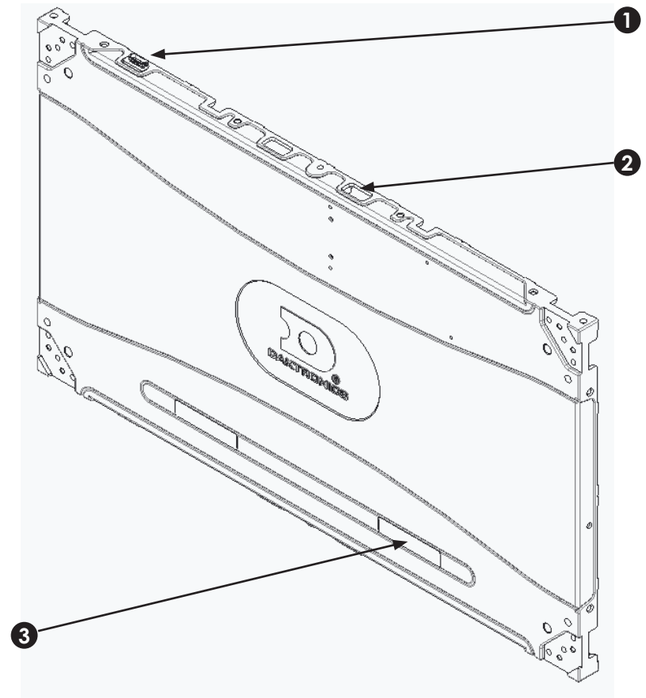
1: Panel alignment pin @ 2 per panel
2: Optional power supply location
3: See Detail A in **Figure 2**
4: Flatness bar location @ 4 per panel
5: Module alignment peg
6: Module power & signal connector @ 8 per panel
7: M5x0.8 threaded interconnect bolt hole
8: Primary power supply location

Figure 1: *Front View*



1: 0.266" [6.75 mm] thru-hole for self-drilling screw @ 4 per panel
2: M8x1.25 threaded thru-hole @ 4 per panel
3: M5x0.8 threaded thru-holes @ 12 per cabinet

Figure 2: *Detail A*



1: Vertical power interconnect plug @ 1 per panel
2: Signal interconnect pass-thru cutout @ 4 per panel
3: Power/Signal entrance cutout @ 2 per panel

Figure 3: *Rear View*

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Flat Border

Tools

Tool	Tool Usage
Flat-head bit or screwdriver	Removes top alignment pins
3 mm hex key (Daktronics part number TH-5406561)	Removes Top and Left side stitch bolt hardware Attaches borders
3 mm hex bit (TH-5406562)	Attaches borders

Part Identification

There are six different border sizes for the NPN-6600 display series: one-, two-, three-, and four-panel-high borders and one- and two-panel-wide borders. The part numbers are etched into the metal on each border for identification purposes. Refer to the bill of materials for part numbers and to **Figure 1** for a visual.

Figure 1: *Flat Border*

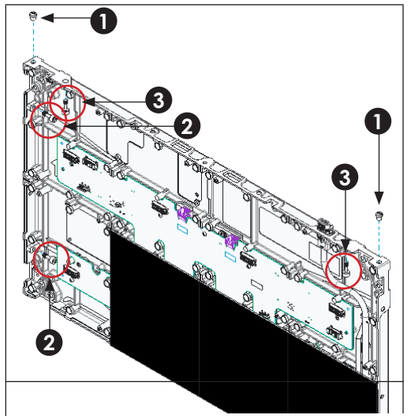
Border Installation

Borders are attached either before the display is mounted to the structure or after if site conditions allow for tool clearance around the mounted display. If the borders must be installed before the sections, only one-panel-high (0M-4804541) and two-panel-wide (0M-4804551) borders are available. Borders longer than one panel high must be installed after the display sections are mounted to the structure.

1. Remove the borders from its packaging.

   Note: Be careful when handling the borders, do not set them onto rough surfaces to avoid scratching the paint.

2. Remove the top alignment pins from the top row of panels. Remove the M5 stitch bolt hardware on the top row and left-most side of the display. This hardware must be removed before final tile installation. Refer to **Figure 2**.
3. Select the correct border size according to the Shop Drawing.
4. Use a clean rag to wipe off the perimeter of the panel receiving the border.
5. Bring the border into position. The holes should be oriented toward the front of the display to align with the threaded holes in the panels. Refer to **Figure 3** and **Figure 5**.



1: Top alignment pins
2: Side interconnect hardware (M5 stitch bolt)
3: Top interconnect hardware (M5 stitch bolt)

Figure 2: *Prepare Panels*

6. Proceed to **Step 6a** for clean look borders and **Step 6b** for flat borders

Clean Look Borders (Preferred Method)

6a. Use a $^{5}/_{16}$" socket to attach the #6 nuts (HC-1238) to the studs on the borders, fastening the border to the panel perimeter on all available studs on the border. Refer to **Figure 3** and **Figure 4**.

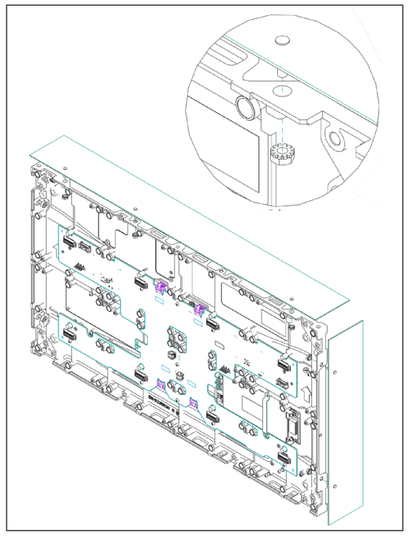


Figure 3: *Position Clean Look Border*

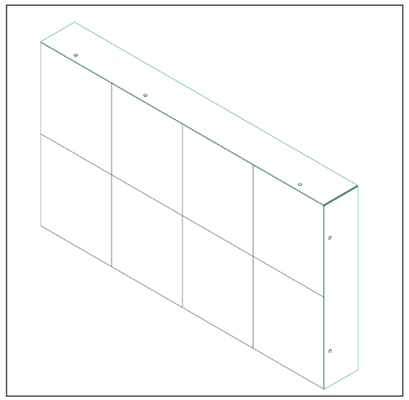


Figure 4: *Attached Flat Border*

Flat Borders (Alternate Method)

6b. Use a 3 mm hex key (TH-5406561) or 3 mm hex bit (TH-5406562) to attach the M5-0.8 x 12 mm machine screws (HC-5402741), fastening the border to the panel perimeter in all pre-punched hole locations on the border. Each panel has threaded holes for borders on all four sides. Refer to **Figure 5** and **Figure 6**.

Note: When unthreading the stitch screw, push on the end of the screw with the 3mm hex key while turning.

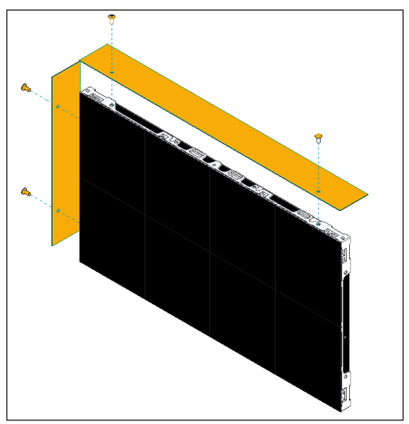


Figure 5: *Position Flat Border*

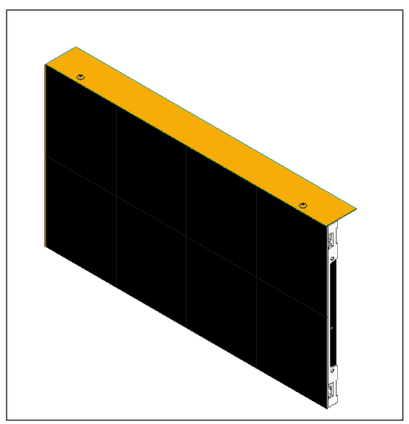


Figure 6: *Attached Flat Border*

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Service

Module Removal

1. Disconnect power to the display.
2. Ensure the face of the supplied removal tool is free of dust and metal filings that can damage the modules and LEDs. Refer to **Figure 1** and **Figure 2.**

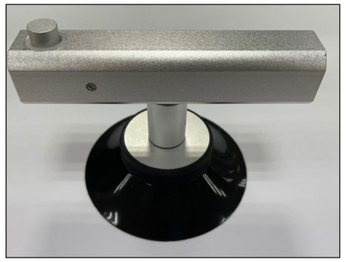

Figure 1: *Removal Tool*

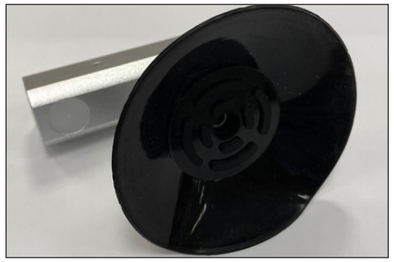

Figure 2: *Face of the Tool*

3. Place the magnetic removal tool face on the center of the module to be removed. Apply pressure with the removal tool until the suction created can carry the module. Refer to **Figure 3**.
4. Hold the removal tool by hand and pull the module straight out. Refer to **Figure 4** . ***Do not tilt the module.***

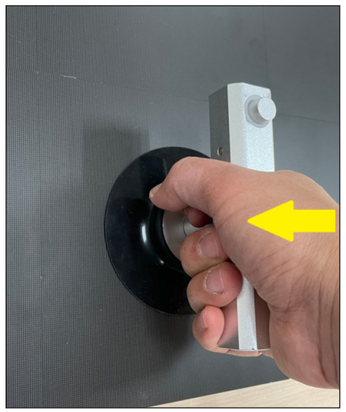

Figure 3: *Push Removal Tool onto the Module*

Figure 4: *Pull the Module out by Holding the Removal Tool*

5. Holding the module with the removal tool, carry the module to a safe place. Push the button to let air into the cup. Remove the tool from the module. Refer to **Figure 5.**

Figure 5: *Remove Removal Tool from the Module*

Complete all power and signal connections prior to module installation.

Hub Board Exchange

1. Disconnect power to the display.
2. Remove the signal cable and PLR power harness, if present.
3. Remove all of the modules from the affected cabinet. Refer to **Module Removal (p.1).**
4. Disconnect the DC power jumpers, two on the top and two on the bottom, between hub boards.
5. Remove the two screws securing the power supply.
6. Remove the eleven screws securing the hub board and then remove the hub board. When reinstalling a hub board, ensure the four black countersink screws are used in the four outer corners and the seven silver pan head screws are used in the remaining locations. Refer to **Figure 6.**

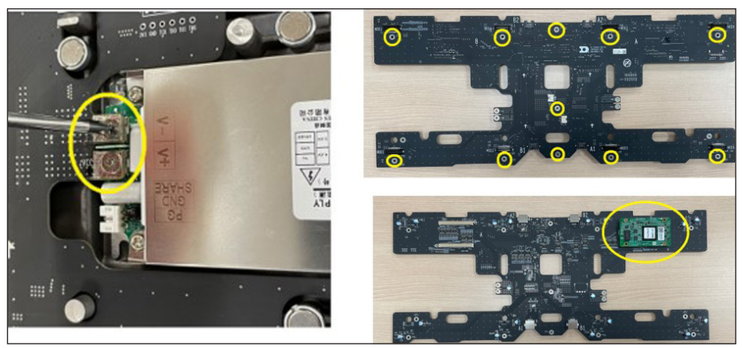

Figure 6: *Remove the Hub Board*

Reverse these steps to install a hub board.

Receiver Card Exchange

1. Disconnect power to the display.
2. Refer to the **Hub Board Exchange (p.1)** process as a required step to access the receiver card.
3. Flip the hub board to find the receiver card. Refer to bottom right of **Figure 6.**
4. Remove the two screws to release the receiver card. Refer to **Figure 7.**

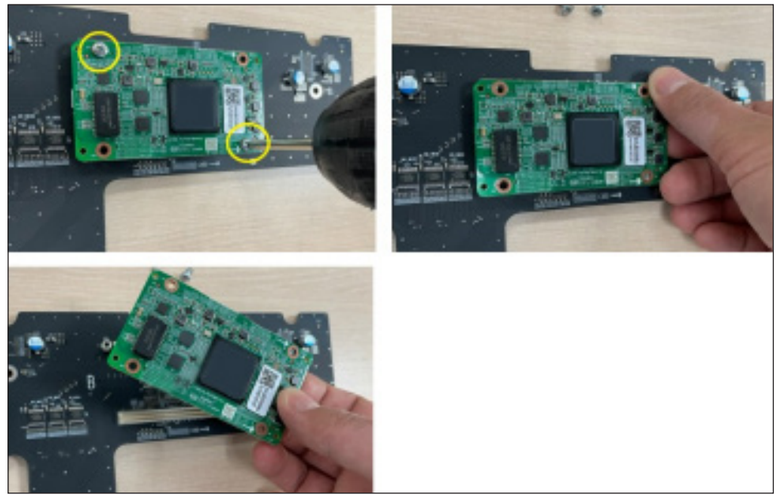

Figure 7: *Remove the Receiver Card*

Reverse these steps to install a receiver card. Ensure the receiver card is firmly pressed into the hub board and the jacks are fully seated. After the receiver card is replaced, reverse the steps in **Module Removal (p.1)** to re-install the module(s).

Refer to the contract-specific Shop and Riser Drawings for specific routing details.

> **Note:** Check the receiver card's orientation to make sure the jack connector fits the hub board.

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Power Supply Exchange

1. Disconnect power to the display.
2. Remove the AC power connector on the power supply. Refer to **Figure 8.**

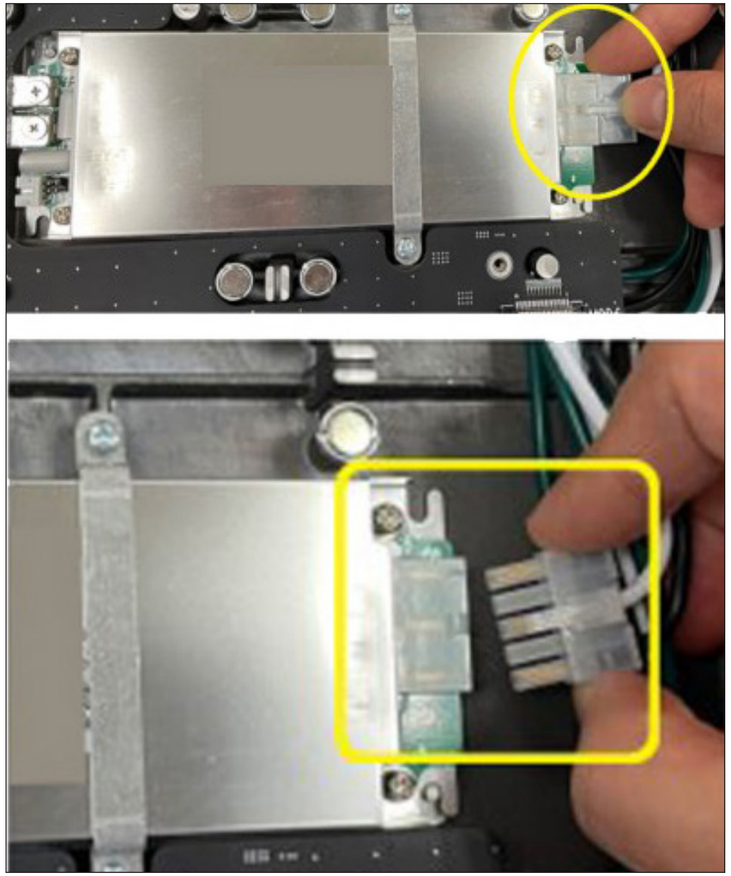

Figure 8: *Remove the AC Power Connector*

3. Remove the two screws that secure the mounting bracket to the power supply position. Refer to **Figure 9.**

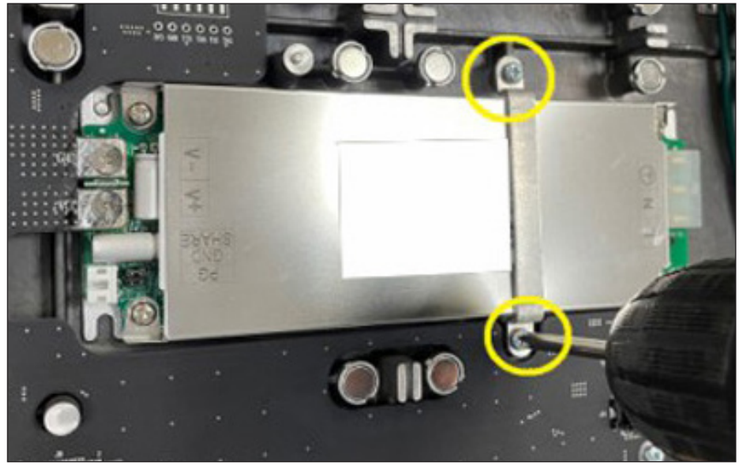

Figure 9: *Remove Screws of the Bracket*

4. Remove the two screws that secure the DC power connection to the hub board. Refer to **Figure 10.**

Figure 10: *Remove Screws of the DC Power Connection*

5. Push the power supply up from the right side. Disengage the hook from the pin on the left side to release the power supply fully. Then, remove the power supply. Refer to **Figure 11.**

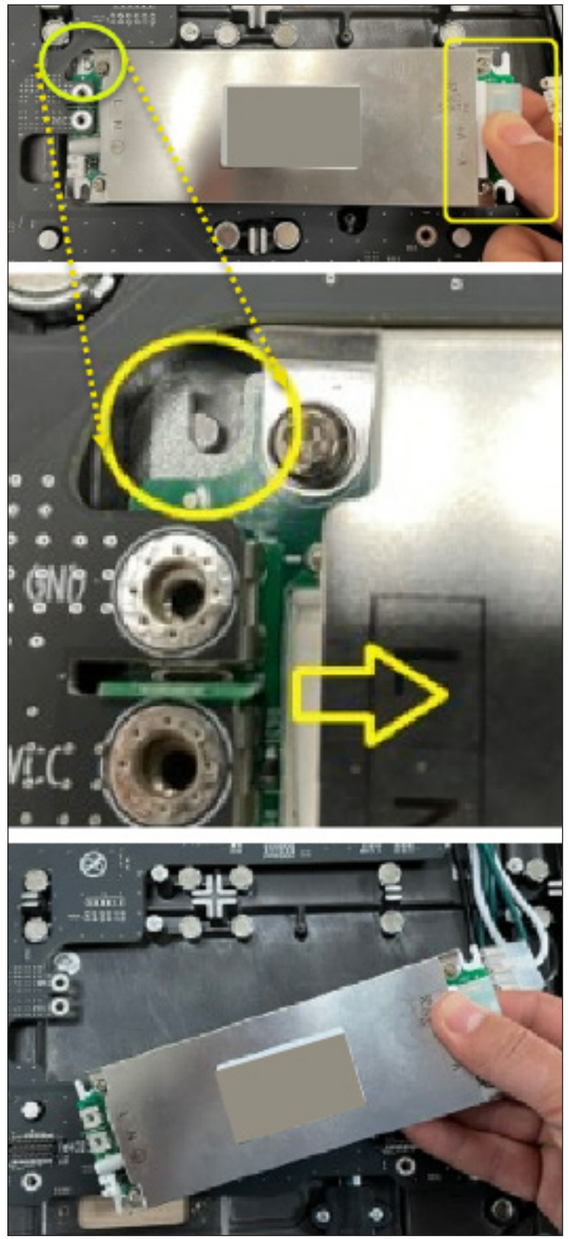

Figure 11: *Remove Power Supply*

Reverse these steps to install a power supply.

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Module Lanyard Installation (Optional)

1. Disconnect power to the display.
2. Remove the modules from the package. The lanyard is already fixed to the module's backside. Refer to **Figure 12.**

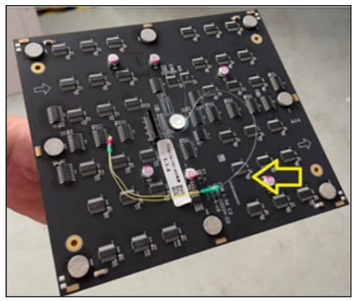

Figure 12: *Module Lanyard*

3. Take the end of the lanyard and make a ring. Refer to **Figure 13.**

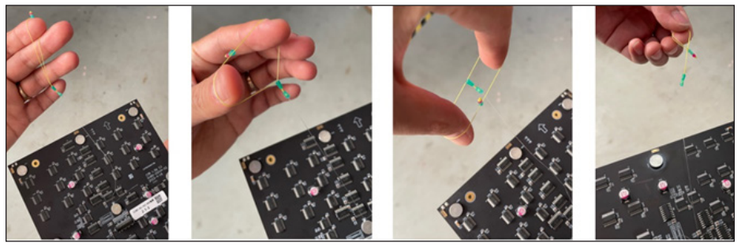

Figure 13: *Make a Ring*

4. Install the lanyard on the cabinet. Refer to **Figure 14.**

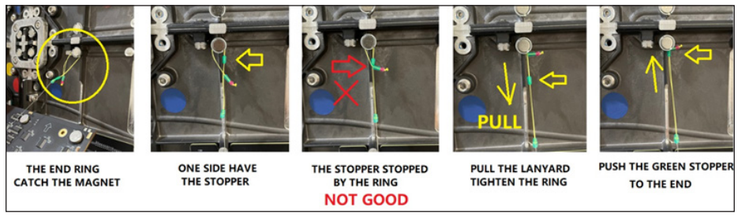

Figure 14: *Install the Lanyard*

5. For details on module installation and removal, refer to the **NPN-6600 Series Speed Frame Substructure and Panel Installation Quick Guide (DD5400411)** or **NPN-6600 Series Vertical Tube Substructure and Panel Installation Quick Guide (DD5504943).**

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External Power Connection

Connect to the wall box according to local code. Route power within 6' of the power supply chassis. Refer to the contract-specific Riser Diagram.

Internal Power Connection

Power routes internally to the display after field power is landed. Incoming power is terminated at a Daktronics-provided MNL connector. Each 20 A connector includes 110" of 12 AWG bare wire for connection to incoming power. Each 30 A connector includes 110" of 10 AWG bare wire for connection to incoming power.

There are two options for AC input. Incoming power is terminated at the appropriate Daktronics-supplied harness. Refer to **Figure 1**.

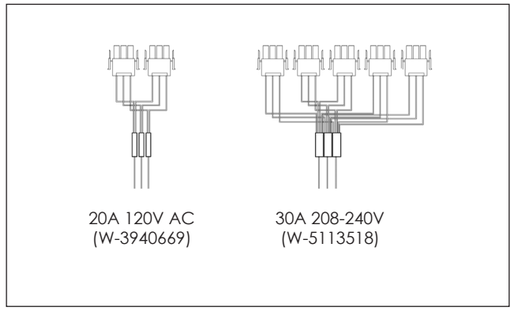

Figure 1: *AC Connector Harness Options*

The power entrance is shown in **Figure 2**. The power entrance is a harness with a connector on one end that will connect to the panel harness and have splicers to connect the incoming power wires. Use two screws to mount the power entrance to the power entrance location on the bottom of the panel. Refer to **Figure 3**.

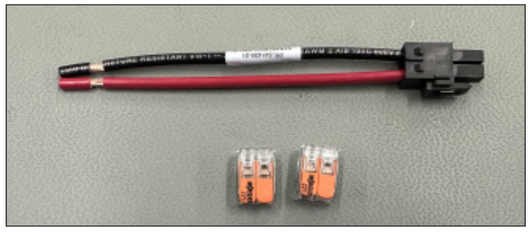

Figure 2: *Power Entrance*

Figure 3: *Power Entrance Location*

Rectifier Connection

AC input through MNL connectors powers the individual rectifiers. The number of rectifiers needed for each incoming current is detailed in the table below.

Voltage	Rectifiers
20A 120V	2
20A 208V	3
20A 230V	3
30A 208V	5

There is a maximum of 5 rectifiers per power shelf. Rectifiers each share the load to output terminals. If one rectifier were to fail, the rest of the rectifiers will carry the extra load. Refer to **Figure 4** for the locations of rectifiers and output terminals.

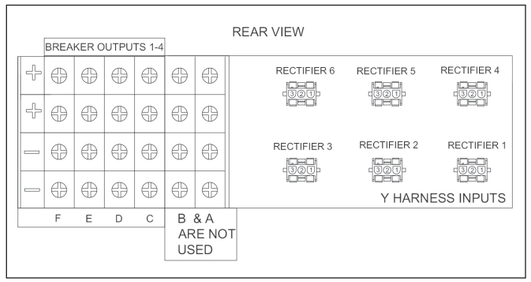

Figure 4: *Remote Power Chassis (rear view)*

Output Connection

Wire each output terminal using 10 AWG paired wire and either a $^{1}/_{4}$" ring terminal or two-hole lug with $^{1}/_{4}$" stud hole at $^{5}/_{8}$" spacing. Refer to **Figure 5**.

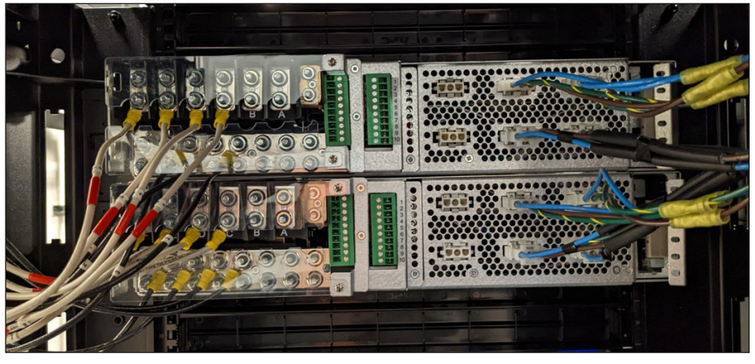

Figure 5: *Wired Power Chassis*

Route the 10 AWG wire a maximum of 200' to the display. Refer to **Figure 6**.

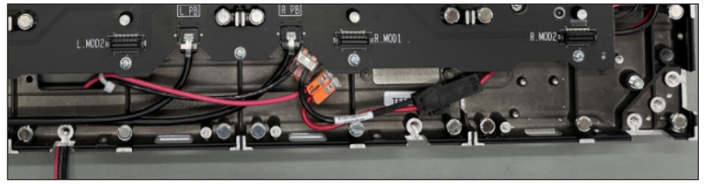

Figure 6: *Wired Power Connection at Display*

There is a maximum of 9 panels that may be powered by each output terminal. The number of panels that may be powered by each power shelf is determined by the number of rectifiers, as detailed in the table below.

# of Rectifiers	# of Panels
2	9
3	18
4	27
5	36

Eltek Shelf

The Eltek power shelf ships separately from its components. Install the controller and rectifiers, and open the cover to install breakers. The fuses are not used. Refer to **Figure 7** and **Figure 8**.

Figure 7: *Eltek Components*

Figure 8: *Eltek Shelf with Components*

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These instructions contain information specific to curved displays. For general details, refer to the **NPN-6600 Series Display Manual (DD5504945)** and the **NPN-6600 Series Vertical Tube Substructure and Installation Quick Guide (DD5504943)**.

Curve-Specific Mechanical Installation

Daktronics-supplied jigs are custom-designed per contract based on curve type, size, and facet width (2' facets for a full panel) with the jigs positioning two full panels at a time. Jigs have a clearance cutout for the power connector. Refer to **Figure 1**.

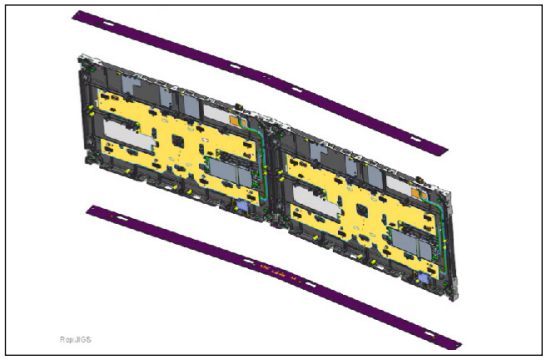

Figure 1: *Full-Panel Jig*

1. Loosely attach internal plates using M5 flathead screws in each plate corner. Do not place screws in the center holes as they may be used later for Z-axis adjustment. Refer to **Figure 2**.

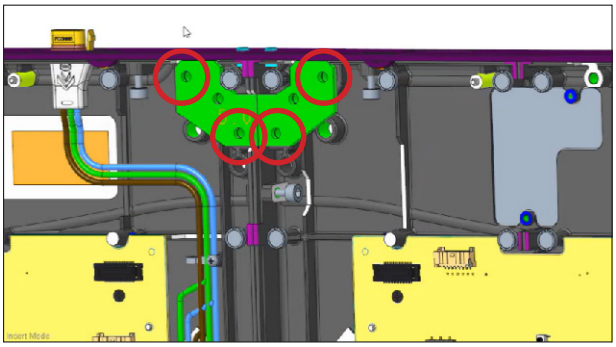

Figure 2: *Internal Plate*

2. Prior to jig use, loosely install the interconnect brackets between cabinets. Hardware will be tightened when the jigs are in place.
3. Align jigs with the stitched cabinets. Refer to **Figure 1**.
4. Attach jigs to cabinets using M5 screws through the jig's through-holes into the cabinet interconnect locations. Refer to **Figure 3**.

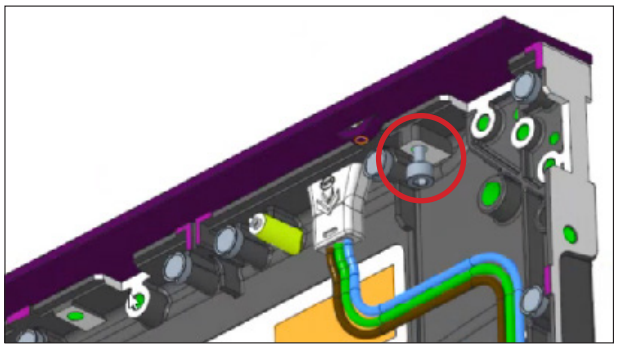

Figure 3: *Attach Jig with M5 Screw*

5. Place the cabinets flat on the floor to ensure that the display faces are tight against the jig's bridge punch. The bridge punch sets the specified face angle. Refer to **Figure 4**.

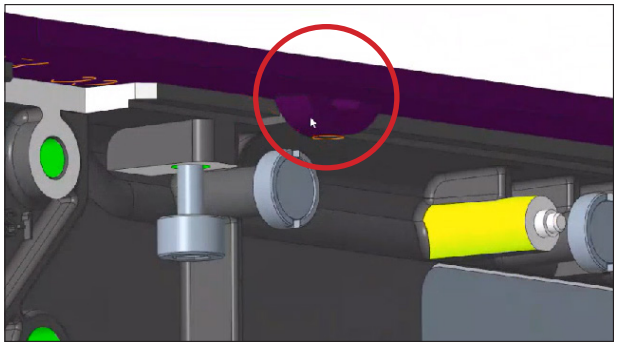

Figure 4: *Bridge Punch*

6. Loosely attach clips in the locations indicated on the contract-specific Shop Drawing. Refer to **Figure 5**.

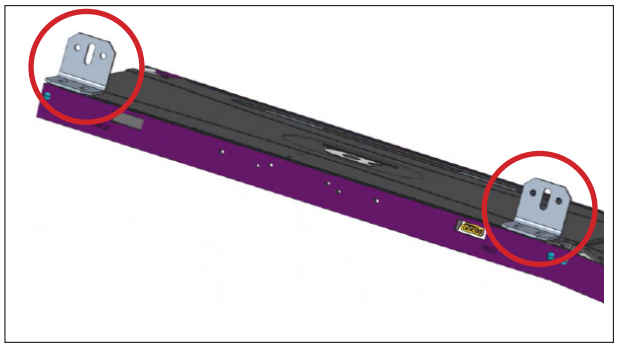

Figure 5: *Attach Clips*

7. Lift the panel into position and temporarily secure it to the structure.

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8. Attach mock tiles to the cabinet using their internal magnets. Check the orientation and alignment of the face arrows to confirm the face angle. Refer to **Figure 6**.

Figure 6: *Mock Tiles to Check Alignment*

9. Examine the assembled panels vertically, to confirm the tile gap is even and in plane with the curve. Refer to **Figure 7**.

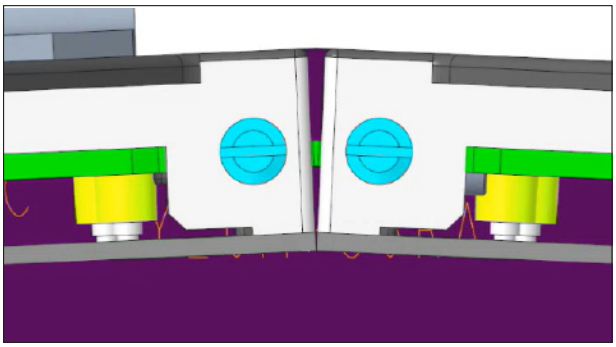

Figure 7: *Tile Gap (Top View)*

10. When cabinets are properly aligned, tighten the rear clips to the cabinet, and snug the M5 countersink screws in the internal plates.

> **Note:** Do not overtighten the screws in the internal plates. The plates are designed to transfer load between cabinets, but do not set the angle.

11. Remove the top jig. The jig should be easily removable and reattachable at any point in the remaining process, to confirm the proper curve radius. If the jig does not freely align with the cabinet at any point, adjustment is required.

12. To add additional rows, assemble each curved section, then stack upward and attach with M5 interconnect bolts.

13. Refer to the **NPN-6600 Series Vertical Tube Substructure and Installation Quick Guide (DD5504943)** for general panel installation details.

Curve-Specific Border Attachment

Daktronics-supplied curved borders are custom-designed per contract based on curve facet. Refer to **Figure 8**.

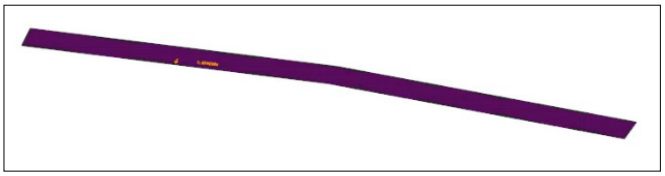

Figure 8: *Curved Border*

Align the border with the cabinet. Insert the metal studs on the border through the pass-through holes in the cabinet. Secure the studs with a #10 nut. Refer to **Figure 9**.

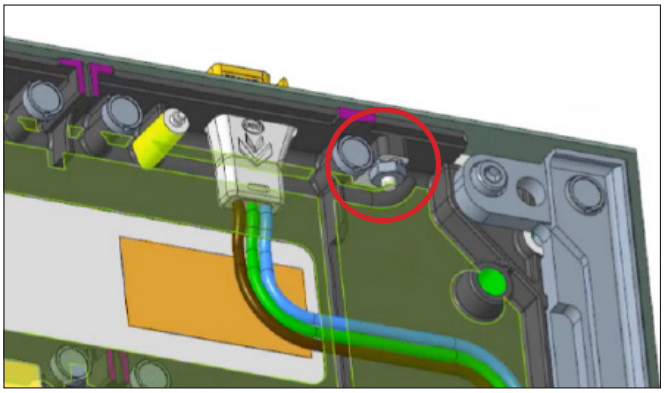

Figure 9: *M6 Border Attachment Nut*

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These instructions contain information specific to NPN-6600 corner displays. For general NPN-6600 mechanical and electrical details, refer to the **NPN-6600 Series Display Manual (DD5504945)** and the **NPN-6600 Series Vertical Tube Substructure and Installation Quick Guide (DD5504943)**.

Corner-Specific Mechanical Installation

Daktronics-supplied corner posts are custom-designed per contract based on corner angle. Refer to **Figure 1** and **Figure 2**.

Figure 1: *Corner Post (Top View)*

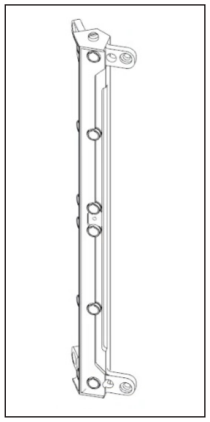

Figure 2: *Corner Post (Side View)*

Daktronics-supplied corner panels are machined to provide access to components while turning a corner. Panels are machined in the following configurations. Refer to **Figure 3**.

- Left leg of corner (right side cut)
- Right leg of corner (left side cut)
- Both legs of corner (both side cut)

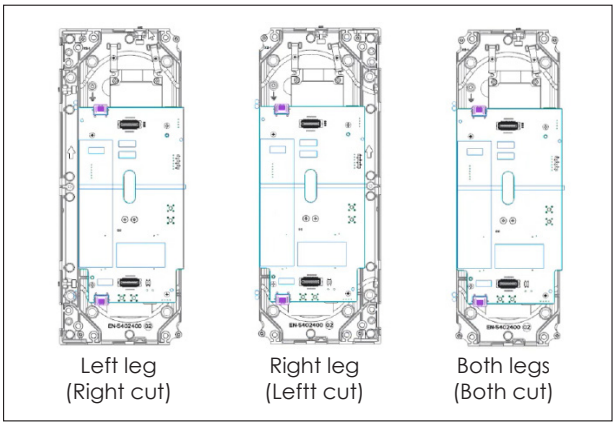

Figure 3: *Machined Edge Configurations*

1. Align the cabinets with each other and the corner post. Refer to **Figure 4**.

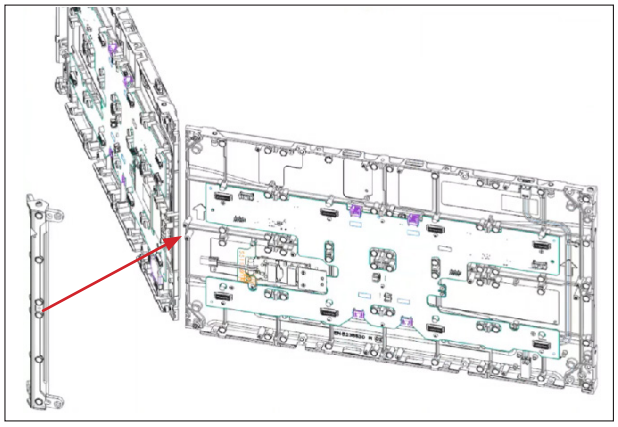

Figure 4: *Align Cabinets and Corner Post*

2. Attach the corner post to the cabinets using M5 screws (@ 4 per post) through the corner post's through-holes into the cabinets. Refer to **Figure 5**.

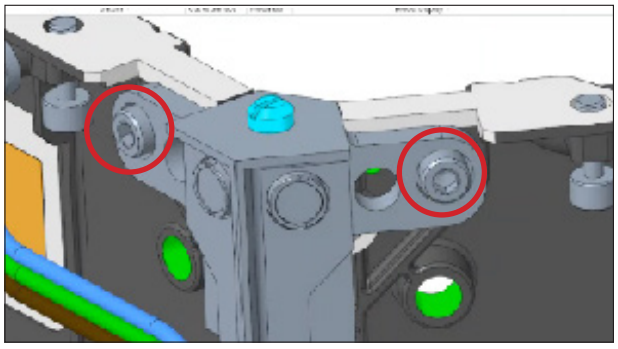

Figure 5: *Corner Post with M5 Screws*

3. Examine the corner from the front and rear to visually check for gaps. Refer to **Figure 6**.

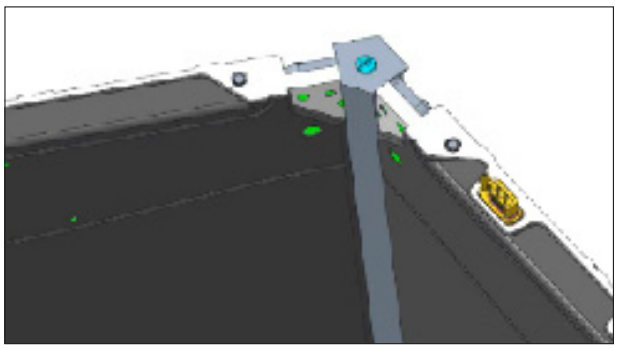

Figure 6: *Assembled Corner (Rear View)*

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4. To add additional rows, assemble each corner section, then stack upward and attach with M5 interconnect bolts. Refer to **Figure 7**.

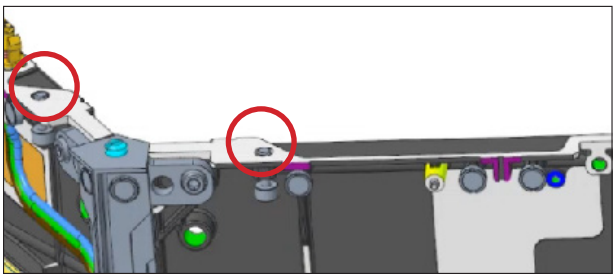

Figure 7: *Interconnect Locations*

5. Install flattening plates on the face of the panels to ensure they are flush. Refer to the **NPN-6600 Series Vertical Tube Substructure and Installation Quick Guide (DD5504943)** for general panel installation details. Refer to **Figure 8**.

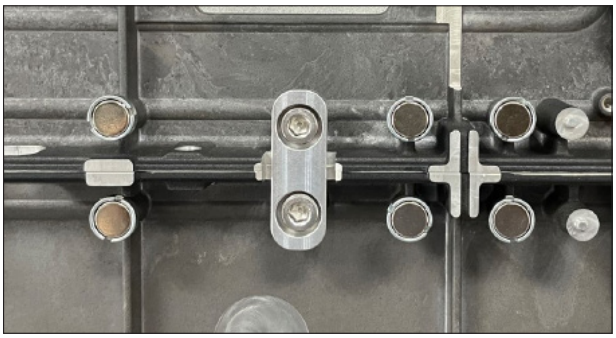

Figure 8: *Flattening Plate*

Corner-Specific Border Attachment

Daktronics-supplied corner borders are custom-designed per contract based on corner angle. Refer to **Figure 9**.

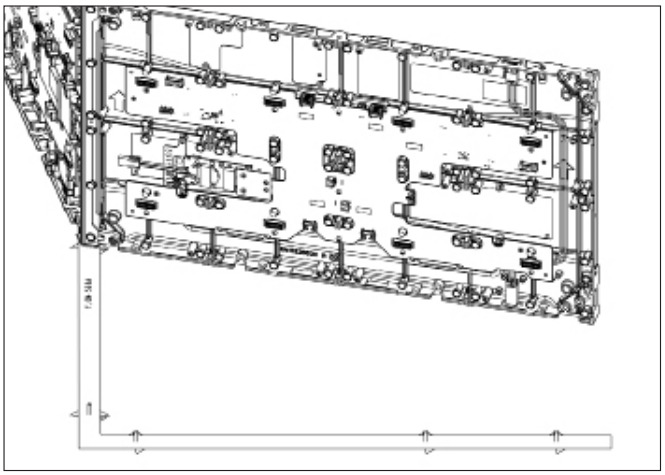

Figure 9: *Custom Corner Border*

1. For the bottom border, align the border with the cabinet. Insert the metal studs on the border through the pass-through holes in the cabinet (@ 3 per cabinet). Secure the studs with a #10 nut. Refer to **Figure 10**.

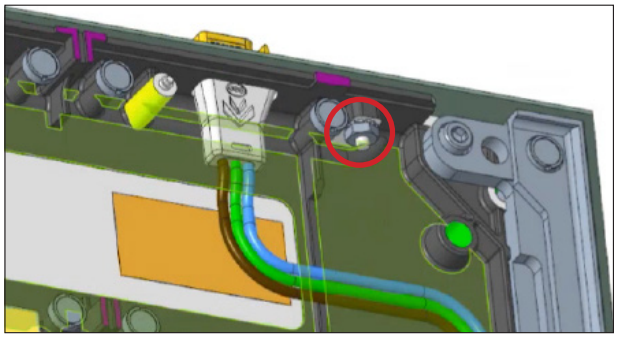

Figure 10: *#10 Border Attachment Nut*

2. For the top border, remove the existing interconnect hardware and alignment pins to provide clearance for the border studs. Refer to **Figure 11**. Insert the studs through the pass-through holes and secure with a #10 nut. Refer to **Figure 10**.

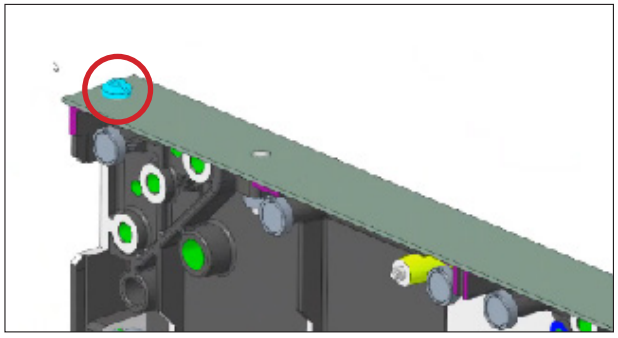

Figure 11: *Alignment Pin*

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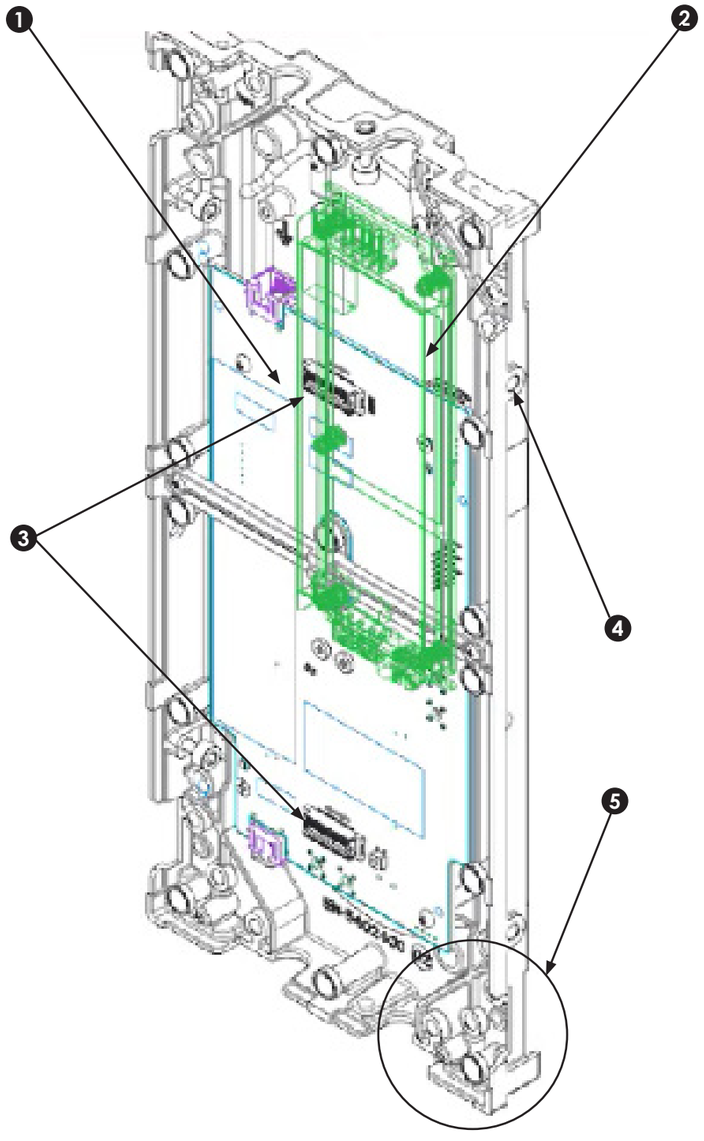
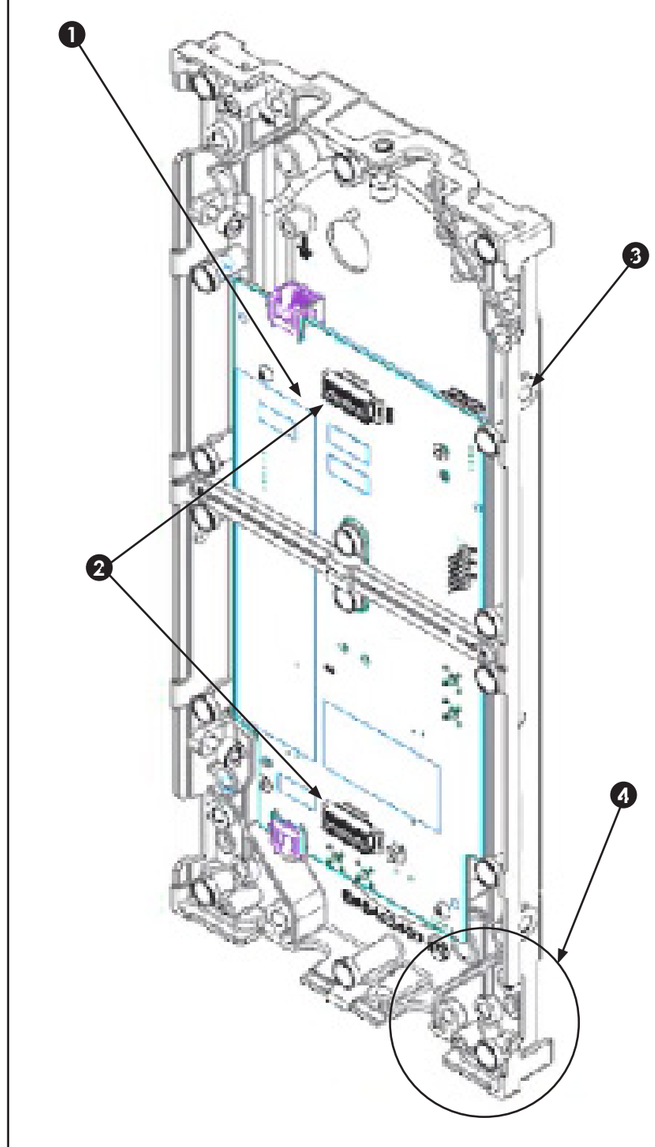


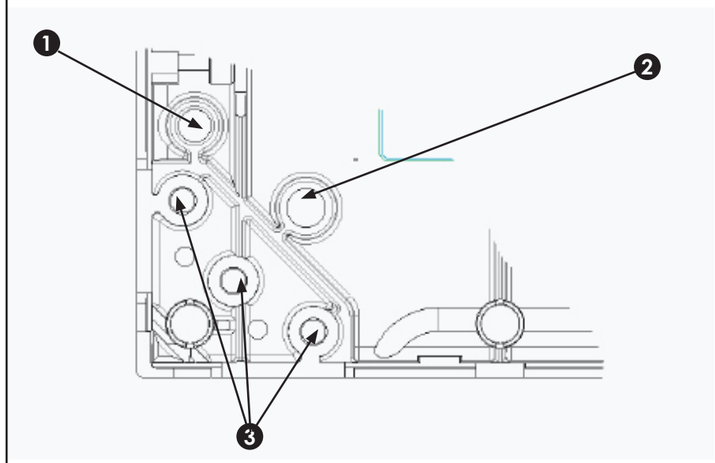
1: Hub board
2: Power Supply (concealed behind hub board)
3: Module power & signal connector @ 2 per panel
4: M5x0.8 threaded interconnect bolt hole
5: See Detail A in **Figure 3**

Figure 1: *Quarter Panel with Power Supply*



1: Hub board
2: Module power & signal connector @ 2 per panel
3: M5x0.8 threaded interconnect bolt hole
4: See Detail A in **Figure 3**

Figure 2: *Quarter Panel without Power Supply*



1: 0.266" [6.75 mm] thru-hole for self-drilling screw @ 4 per panel
2: M8x1.25 threaded thru-hole @ 4 per panel
3: M5x0.8 threaded thru-holes @ 12 per cabinet

Figure 3: *Detail A*

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NPN-6600 Series Quarter Panel Curve Quick Guide

These instructions contain information specific to NPN-6600 quarter-panel curved displays. For general NPN-6600 mechanical and electrical details, refer to the **NPN-6600 Series Display Manual (DD5504945)** and the **NPN-6600 Series Vertical Tube Substructure and Installation Quick Guide (DD5504943)**.

Quarter Panel Curve-Specific Mechanical Installation

Daktronics-supplied interconnect plates are custom-designed per contract based on display radius. Refer to **Figure 1**.

Figure 1: *Interconnect Plate*

1. Attach the interconnect plates to the top and bottom of each pair of cabinets using M3 flathead screws (@ 4 per plate). Refer to **Figure 2**.

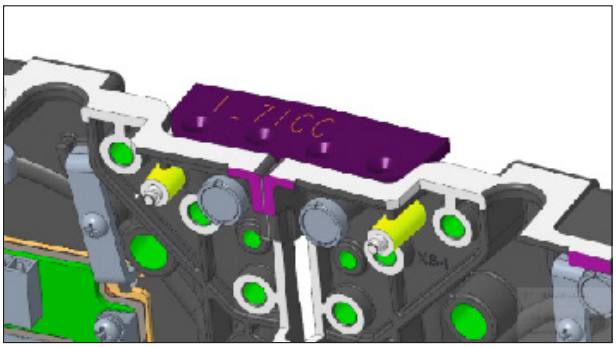

Figure 2: *Attach Plate*

2. Loosely attach rear mounting clips to the structure as indicated by the contract-specific Shop Drawing. Refer to **Figure 3**.

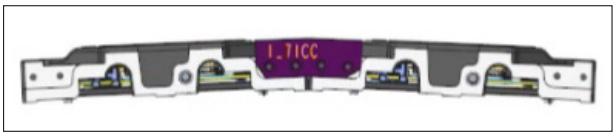

Figure 3: *Attach Clips*

3. Lift the panel into position and temporarily secure it to the mounting structure.
4. Attach mock tiles to the cabinet using their internal magnets. Check the orientation and alignment of the face arrows to confirm the radius. Refer to **Figure 4**.

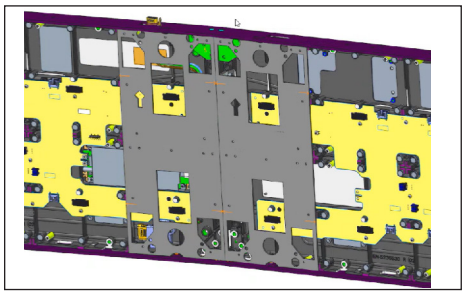

Figure 4: *Interconnect Plate*

5. Tighten the rear clips to the cabinet.
6. Continue to work outward along the curve radius.
7. To add additional rows, assemble each curved section, then stack upward and attach with a M5 interconnect bolt. Refer to **Figure 5**.

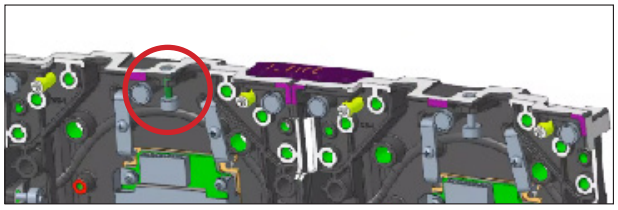

Figure 5: *Vertical Interconnect*

8. Refer to the **NPN-6600 Series Vertical Tube Substructure and Installation Quick Guide (DD5504943)** for general installation details.

Quarter Panel Curve-Specific Border Attachment

Daktronics-supplied quarter panel curved borders are custom-designed per contract based on display radius.

Align the border with the cabinet. Insert the metal studs on the border through the pass-through holes in the cabinet. Secure the studs with a #10 nut. Refer to **Figure 6**.

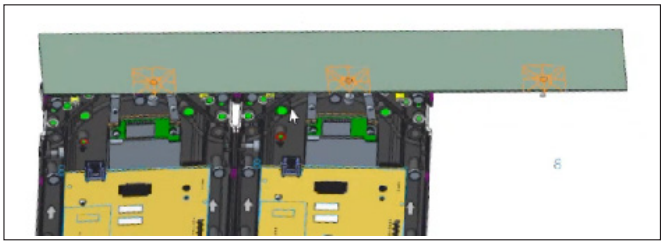

Figure 6: *Curved Border*

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B Drawings

Refer to **Resources (p. 1)** for information regarding how to read the drawing number. Any contract-specific drawings take precedence over the general drawings.

Install Drawings

Recommended Tools and Hardware; NPN..... **DWG-5503026**
Recommended Tools and Hardware; Speedframe; NPN..... **DWG-5540062**

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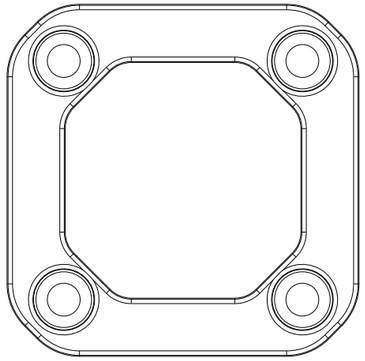
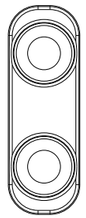
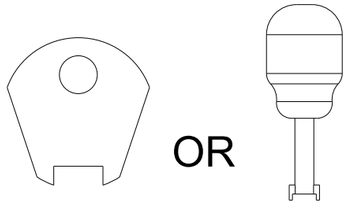
REQUIRED TOOLS AND JIGS (PROVIDED)



FLATNESS BAR; 4 HOLES
(EN-5235540)



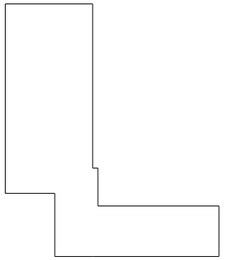
FLATNESS BAR; 2 HOLES
(EN-5235538)



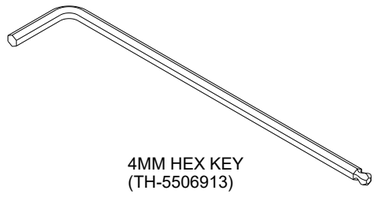
MAGNET Z-ADJUST TOOL
(0M-5018247)

OR

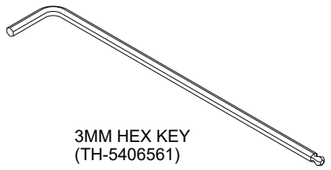
MAGNET Z-ADJUST TOOL
(TH-4176465)



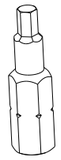
PANEL POSITIONING JIG
(0M-4748002)



4MM HEX KEY
(TH-5506913)

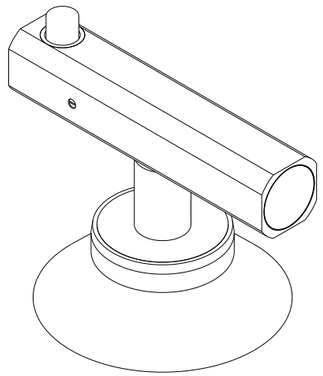


3MM HEX KEY
(TH-5406561)



3MM HEX BIT
1/4" DRIVE
(TH-5406562)

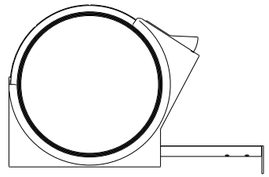
2.5MM HEX KEY
(TH-4747832)



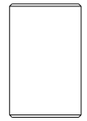
MOD REMOVAL TOOL
(TH-5354481)

REQUIRED TOOLS (NOT PROVIDED)

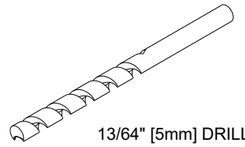
TOOL
SURGICAL (NITRILE) GLOVES: FOR MODULE HANDLING
STRING LINE
MARKER
1/4" [6MM] CENTER-LOCATING PUNCH
NUTDRIVER- 1/4"
SOCKET ADAPTER/EXTENSION- 1/4"
VACUUM



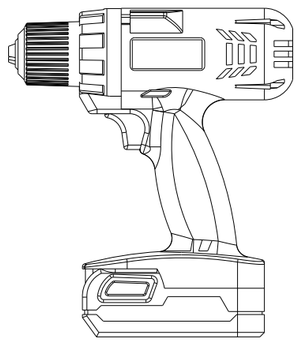
TAPE MEASURER



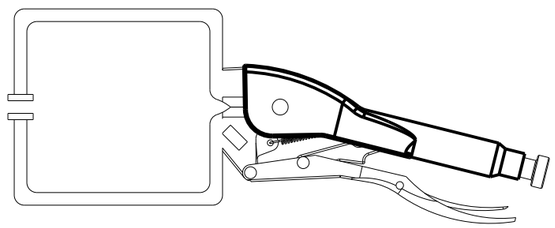
3/8" SOCKET



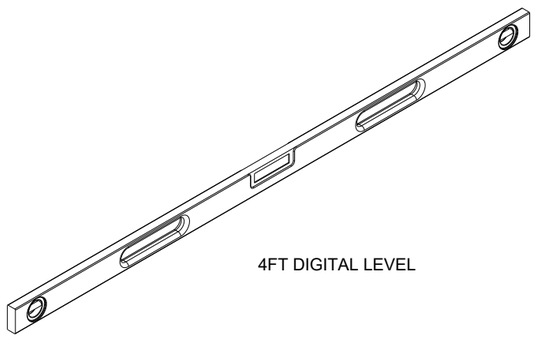
13/64" [5mm] DRILL BIT



CORDLESS DRILL



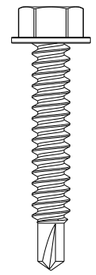
C-CLAMPS



4FT DIGITAL LEVEL

REQUIRED HARDWARE (PROVIDED)

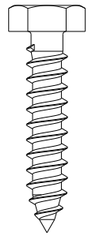
M5-0.8X12MM BTN HEAD HEX DRIVE SCREW
PN# HC-5402741
(BORDER HARDWARE)



1/4"-14X1-1/2" HEX
WASHER HEAD
PN# HC-3880111
(PANEL MOUNTING)

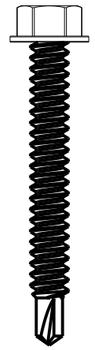
BOLT; SOCKET CAP; M5-0.8X8, ZINC PLTD
PN# HC-5310870
(FLATNESS BAR HARDWARE)

SET SCREW; M5-0.8X12, HEX SOCKET, SUS394,
SILVER, GB/T77
PN# HC-5344958
(Z ADJUST HARDWARE)



1/4"-10X1-1/2" LAG BOLT
PN# HC-4284469
(TUBE TO PLYWOOD MOUNTING)

OR



1/4"-14X2" HEX
WASHER HEAD
PN# HC-4044048
(ALT. TUBE MOUNTING)

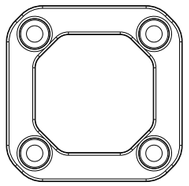
REV:	DATE:	DESCRIPTION:	BY:

DAKTRONICS

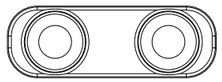
THIRD ANGLE PROJECTION

PROJECT:	NPN E1			
TITLE:	RECOMMENDED TOOLS AND HARDWARE; NPN E1			
DATE: 25-OCT-24	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: 1/1	DO NOT SCALE DRAWING			00
DESIGN: RBJERKE	JOB NO.	FUNC - TYPE - SIZE	5503026	
DRAWN: RBJERKE	P2533	E - 07 - B		

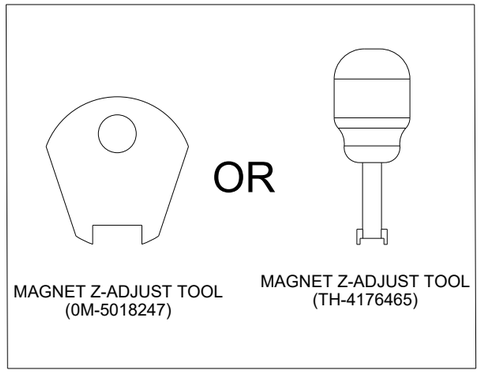
REQUIRED TOOLS AND JIGS (PROVIDED)



FLATNESS BAR; 4 HOLES
(EN-5235540)

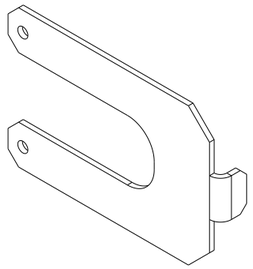


FLATNESS BAR; 2 HOLES
(EN-5235538)

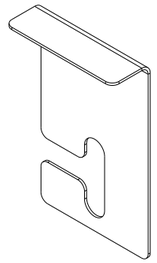


MAGNET Z-ADJUST TOOL
(0M-5018247)

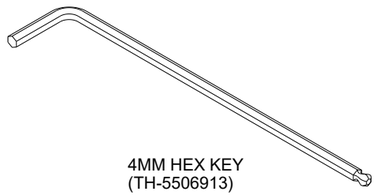
MAGNET Z-ADJUST TOOL
(TH-4176465)



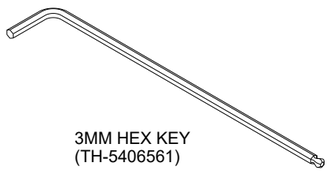
SPEEDFRAME SEISMIC PLATE
(0M-4983082)



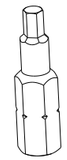
SPEEDFRAME Z-ADJUST
BRACE PLATE
(0M-4951150)



4MM HEX KEY
(TH-5506913)

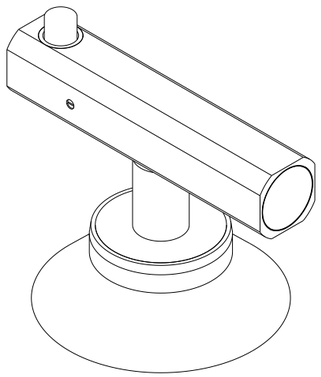


3MM HEX KEY
(TH-5406561)

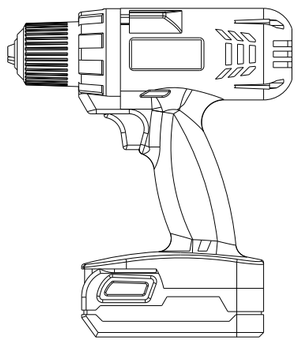


3MM HEX BIT
1/4" DRIVE
(TH-5406562)

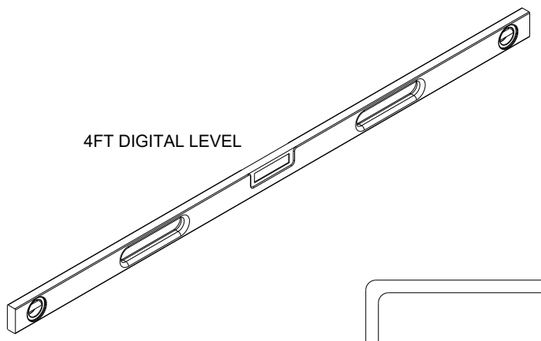
2.5MM HEX KEY
(TH-4747832)



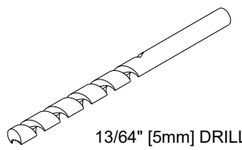
MOD REMOVAL TOOL
(TH-5354481)



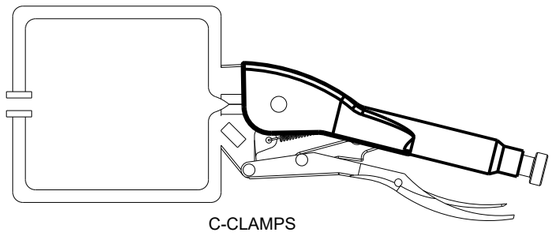
CORDLESS DRILL



4FT DIGITAL LEVEL



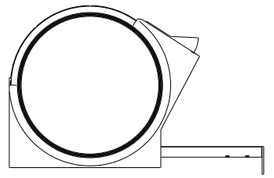
13/64" [5mm] DRILL BIT



C-CLAMPS

REQUIRED TOOLS (NOT PROVIDED)

TOOL
SURGICAL (NITRILE) GLOVES: FOR MODULE HANDLING
STRING LINE
MARKER
1/4" [6MM] CENTER-LOCATING PUNCH
NUTDRIVER- 1/4"
SOCKET ADAPTER/EXTENSION- 1/4"
VACUUM



TAPE MEASURER

3/8" SOCKET

REQUIRED HARDWARE (PROVIDED)

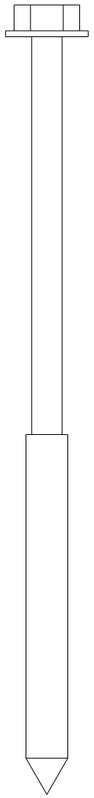
1/4"X5" HEX WASHER HEAD
SPAX POWERLAG SCREW
PN# HC-5100765
(FRAME TO WOOD
STUD MOUNTING)

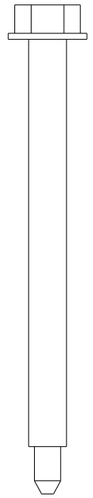
M5-0.8X12MM BTN HEAD HEX DRIVE SCREW
PN# HC-5402741
(BORDER HARDWARE)

BOLT; SOCKET CAP; M5-0.8X8, ZINC PLTD
PN# HC-5310870
(FLATNESS BAR HARDWARE)

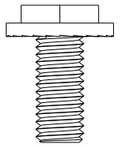
SET SCREW; M5-0.8X12, HEX SOCKET, SUS394,
SILVER, GB/T77
PN# HC-5344958
(Z ADJUST HARDWARE)

#10-16 X 0.375" TAP SCREW
HEX DRIVE
PN# HC-1186
(SEISMIC PLATE HARDWARE)





1/4"-14X3" HEX WASHER HEAD
PN# HC-3979953
(FRAME TO STEEL STUD MOUNTING)



M8-1.25X18MM;
SRTD FLNG HEAD
4MM HEX BROACH
PN# HC-5402405
(PANEL MOUNT HARDWARE)

REV:	DATE:	DESCRIPTION:	BY:

DAKTRONICS

THIRD ANGLE PROJECTION

PROJECT:	NPN E1			
TITLE:	RECOMMENDED TOOLS AND HARDWARE; SPEEDFRAME; NPN E1			
DATE: 25-OCT-24	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: 1/1	DO NOT SCALE DRAWING			00
DESIGN: RBJERKE	JOB NO.	FUNC - TYPE - SIZE	5540062	
DRAWN: RBJERKE	P2533	E - 07 - B		

C Daktronics Warranty & Limitation of Liability

This section includes the Daktronics Warranty & Limitation of Liability statement.

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DAKTRONICS WARRANTY & LIMITATION OF LIABILITY

This Warranty and Limitation of Liability (the "Warranty") sets forth the warranty provided by Daktronics with respect to the Equipment. By accepting delivery of the Equipment, Purchaser and End User agree to be bound by and accept these terms and conditions. Unless otherwise defined herein, all terms within the Warranty shall have the same meaning and definition as provided elsewhere in the Agreement.

DAKTRONICS WILL ONLY BE OBLIGATED TO HONOR THE WARRANTY SET FORTH IN THESE TERMS AND CONDITIONS UPON RECEIPT OF FULL PAYMENT FOR THE EQUIPMENT

1. Warranty Coverage.

A. Daktronics warrants to the original end user (the "End User", which may also be the Purchaser) that the Equipment will be free from Defects (as defined below) in materials and workmanship for a period of one (1) year (the "Warranty Period"). The Warranty Period shall commence on the earlier of: (i) four weeks from the date that the Equipment leaves Daktronics' facility; or (ii) Substantial Completion as defined herein. The Warranty Period shall expire on the first anniversary of the commencement date.

"Substantial Completion" means the operational availability of the Equipment to the End User in accordance with the Equipment's specifications, without regard to punch-list items, or other non-substantial items which do not affect the operation of the Equipment

B. Daktronics' obligation under this Warranty is limited to, at Daktronics' option, replacing or repairing, any Equipment or part thereof that is found by Daktronics not to conform to the Equipment's specifications. Unless otherwise directed by Daktronics, any defective part or component shall be returned to Daktronics for repair or replacement. This Warranty does not include on-site labor charges to remove or install these components. Daktronics may, at its option, provide on-site warranty service. Daktronics shall have a reasonable period of time to make such replacements or repairs and all labor associated therewith shall be performed during regular working hours. Regular working hours are Monday through Friday between 8:00 a.m. and 5:00 p.m. at the location where labor is performed, excluding any holidays observed by Daktronics.

C. Daktronics shall pay ground transportation charges for the return of any defective component of the Equipment. All such items shall be shipped by End User DDP Daktronics designated facility per Incoterms® 2020. If returned Equipment is repaired or replaced under the terms of this Warranty, Daktronics will prepay ground transportation charges back to End User and shall ship such items DDP End User's designated facility per Incoterms® 2020; otherwise, End User shall pay transportation charges to return the Equipment back to the End User and such Equipment shall be shipped Ex Works Daktronics designated facility per Incoterms® 2020. All returns must be pre-approved by Daktronics before shipment. Daktronics shall not be obligated to pay freight for any unapproved return. End User shall pay any upgraded or expedited transportation charges

D. Any replacement parts or Equipment will be new or serviceably used, comparable in function and performance to the original part or Equipment and warranted for the remainder of the Warranty Period. Purchasing additional parts or Equipment from the Seller does not extend the Warranty Period.

E. Defects shall be defined as follows. With regard to the Equipment (excepting LEDs), a "Defect" shall refer to a material variance from the design specifications that prohibit the Equipment from operating for its intended use. With respect to LEDs, "Defects" are defined as LED pixels that cease to emit light. Unless otherwise expressly provided, this Warranty does not impose any duty or liability upon Daktronics for partial LED pixel degradation. Notwithstanding the foregoing, in no event does this Warranty include LED pixel degradation caused by UV light. This Warranty does not provide for the replacement or installation of communication methods including but not limited to, wire, fiber optic cable, conduit, trenching, or for the purpose of overcoming local site interference radio equipment substitutions.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS WARRANTY, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, DAKTRONICS DISCLAIMS ANY AND ALL OTHER PROMISES, REPRESENTATIONS AND WARRANTIES APPLICABLE TO THE EQUIPMENT AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ACCURACY OR QUALITY OF DATA. OTHER ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY DAKTRONICS, ITS AGENTS OR EMPLOYEES, SHALL NOT CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS LIMITED WARRANTY.

THIS LIMITED WARRANTY IS NOT TRANSFERABLE.

2. Exclusion from Warranty Coverage

This Warranty does not impose any duty or liability upon Daktronics for any:

A. damage occurring at any time, during shipment of Equipment unless otherwise provided for in the Agreement. When returning Equipment to Daktronics for repair or replacement, End User assumes all risk of loss or damage, agrees to use any shipping containers that might be provided by Daktronics, and to ship the Equipment in the manner prescribed by Daktronics;

B. damage caused by: (i)the improper handling, installation, adjustment, use, repair, or service of the Equipment, or (ii) any physical damage which includes, but is not limited to, missing, broken, or cracked components resulting from non-electrical causes;

DAKTRONICS

altered, scratched, or fractured electronic traces; missing or gauged solder pads; cuts or clipped wires; crushed, cracked, punctured, or bent circuit boards; or tampering with any electronic connections, provided that such damage is not caused by personnel of Daktronics or its authorized repair agents;

C. damage caused by the failure to provide a continuously suitable environment, including, but not limited to: (i) neglect or misuse; (ii) improper power including, without limitation, a failure or sudden surge of electrical power; (iii) improper air conditioning, humidity control, or other environmental conditions outside of the Equipment's technical specifications such as extreme temperatures, corrosives and metallic pollutants; or (iv) any other cause other than ordinary use;

D. damage caused by fire, flood, earthquake, water, wind, lightning or other natural disaster, strike, inability to obtain materials or utilities, war, terrorism, civil disturbance, or any other cause beyond Daktronics' reasonable control;

E. failure to adjust, repair or replace any item of Equipment if it would be impractical for Daktronics personnel to do so because of connection of the Equipment by mechanical or electrical means to another device not supplied by Daktronics, or the existence of general environmental conditions at the site that pose a danger to Daktronics personnel;

F. statements made about the product by any salesperson, dealer, distributor or agent, unless such statements are in a written document signed by an officer of Daktronics. Such statements as are not included in a signed writing do not constitute warranties, shall not be relied upon by End User and are not part of the contract of sale;

G. damage arising from the use of Daktronics products in any application other than the commercial and industrial applications for which they are intended, unless, upon request, such use is specifically approved in writing by Daktronics;

H. replenishment of spare parts. In the event the Equipment was purchased with a spare parts package, the parties acknowledge and agree that the spare parts package is designed to exhaust over the life of the Equipment, and as such, the replenishment of the spare parts package is not included in the scope of this Warranty;

I. security or functionality of the End User's network or systems, or anti-virus software updates;

J. performance of preventive maintenance;

K. third-party systems and other ancillary equipment, including without limitation front-end video control systems, audio systems, video processors and players, HVAC equipment, batteries and LCD screens;

L. incorporation of accessories, attachments, software or other devices not furnished by Daktronics; or

M. paint or refinishing the Equipment or furnishing material for this purpose.

3. **Limitation of Liability**

A. Daktronics shall be under no obligation to furnish continued service under this Warranty if alterations are made to the Equipment without the prior written approval of Daktronics.

B. It is specifically agreed that the price of the Equipment is based upon the following limitation of liability. In no event shall Daktronics (including its subsidiaries, affiliates, officers, directors, employees, or agents) be liable for any claims asserting or based on (a) loss of use of the facility or equipment; lost business, revenues, or profits; loss of goodwill; failure or increased cost of operations; loss, damage or corruption of data; loss resulting from system or service failure, malfunction, incompatibility, or breaches in system security; or (b) any special, consequential, incidental or exemplary damages arising out of or in any way connected with the Equipment or otherwise, including but not limited to damages for lost profits, cost of substitute or replacement equipment, down time, injury to property or any damages or sums paid to third parties, even if Daktronics has been advised of the possibility of such damages. The foregoing limitation of liability shall apply whether any claim is based upon principles of contract, tort or statutory duty, principles of indemnity or contribution, or otherwise

C. In no event shall Daktronics be liable for loss, damage, or injury of any kind or nature arising out of or in connection with this Warranty in excess of the Purchase Price of the Equipment. The End User's remedy in any dispute under this Warranty shall be ultimately limited to the Purchase Price of the Equipment to the extent the Purchase Price has been paid.

4. Assignment of Rights

A. The Warranty contained herein extends only to the End User (which may be the Purchaser) of the Equipment and no attempt to extend the Warranty to any subsequent user-transferee of the Equipment shall be valid or enforceable without the express written consent of Daktronics.

5. Governing Law; Election of Remedies

A. The rights and obligations of the parties under this Warranty shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sales of Goods of 1980. The parties consent to the application of the laws of the State of South Dakota to govern, interpret, and enforce each of the parties' rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Warranty, without regard to conflict of law principles.

B. Any dispute, controversy or claim arising from or related to this Warranty, the parties shall first attempt to settle through negotiations. In the event that no resolution is reached, then such dispute, controversy, or claim shall be resolved by final and binding arbitration under the Rules of Arbitration of the International Chamber of Commerce. The language of the arbitration

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shall be English. The place of the arbitration shall be Sioux Falls, SD. A single arbitrator selected by the parties shall preside over the proceeding. If a single arbitrator cannot be agreed upon by the parties, each party shall select an arbitrator, and those arbitrators shall confer and agree on the appointed arbitrator to adjudicate the arbitration. The arbitrator shall have the power to grant any provisional or final remedy or relief that it deems appropriate, including conservatory measures and an award of attorneys' fees. The arbitrator shall make its decisions in accordance with applicable law. By agreeing to arbitration, the Parties do not intend to deprive any court of its jurisdiction to issue a pre-arbitral injunction, pre-arbitral attachment, or other order in aid of arbitration proceedings and the enforcement of any award. Without prejudice to such provisional remedies as may be available under the jurisdiction of a court, the arbitrator shall have full authority to grant provisional remedies and to direct the Parties to request that any court modify or vacate any temporary or preliminary relief issued by such court, and to award damages for the failure of any Party to respect the arbitrator's orders to that effect.

6. Availability of Extended Service Agreement

A. For End User's protection, in addition to that afforded by the warranties set forth herein, End User may purchase extended warranty services to cover the Equipment. The Extended Service Agreement, available from Daktronics, provides for electronic parts repair and/or on-site labor for an extended period from the date of expiration of this warranty. Alternatively, an Extended Service Agreement may be purchased in conjunction with this Warranty for extended additional services. For further information, contact Daktronics Customer Service at 1-800-DAKTRONics (1-800-325-8766).

Additional Terms applicable to sales outside of the United States

The following additional terms apply **only** where the installation site of the Equipment is located outside of the United States of America.

1. In the event that the installation site of the Equipment is in a country other than the U.S.A., then, notwithstanding Section 5 of the Warranty, where the selling entity is the entity listed in Column 1, then the governing law of this Warranty is the law of the jurisdiction listed in the corresponding row in Column 2 without regard to its conflict of law principles. Furthermore, if the selling entity is an entity listed in Column 1, then the place of arbitration is listed in the corresponding row in Column 3.

Column 1 (Selling Entity)	Column 2 (Governing Law)	Column 3 (Location of Arbitration)
Daktronics, Inc.	The state of Illinois	Chicago, IL, U.S.A.
Daktronics Canada, Inc.	The Province of Ontario, Canada	Toronto, Ontario, Canada
Daktronics UK Ltd.	England and Wales	Bristol, UK
Daktronics GmbH	The Federal Republic of Germany	Wiesbaden, Germany
Daktronics Hong Kong Limited	Hong Kong, Special Administrative Region of the P.R.C.	Hong Kong SAR
Daktronics Shanghai Co., Ltd.	The Peoples Republic of China	Shanghai, P.R.C.
Daktronics France, SARL	France	Paris, France
Daktronics Japan, Inc.	Japan	Tokyo, Japan
Daktronics International Limited	Macau, Special Administrative Region of the P.R.C.	Macau SAR
Daktronics Australia Pad Ltd	Australia	Sydney, Australia
Daktronics Singapore Pte. Ltd	Singapore	Singapore
Daktronics Brazil LTDA	Brazil	São Paulo, Brazil
Daktronics Spain S.L.U.	Spain	Madrid, Spain
Daktronics Belgium N. V	Belgium	Kruibeke, Belgium
Daktronics Ireland Co. Ltd.	Ireland	Dublin, Ireland

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