

Outdoor Framing Manual

Cirrus Outdoor Display System

Revolutionary, ultra-high resolution digital displays

V01 2025

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Introduction

Safety/compliance information



High voltage

Contact with high voltage from AC mains may cause death or serious injury. Always disconnect AC power to unit prior to servicing.



Grounding

It is essential to earth-ground the sign before connecting controller. Connecting signs that are not earth grounded may cause damage to the LED Display System and in severe cases cause death or injury.



Other

Other safety messages appear throughout this manual where appropriate.

Cirrus LED components are UL Listed. File #E352796 and FCC Certified. The UL Listing covers all components of the LED sign including the controller, panels, cables and frames.

FCC information

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 his own expense.

Changes or modifications to this device that are not expressly approved by Cirrus Systems, Inc. could void user's authority to operate this device.

Environmental considerations

The Cirrus Outdoor LED panels are fully encapsulated and water-proof. The Controller is housed in a water-proofed aluminum enclosure

The Cirrus Outdoor LED panels are rated for an ambient operating temperature range of $-40^{\circ}+70^{\circ}$ Celsius ($-40^{\circ}+158^{\circ}$ Fahrenheit). The LED faces are designed to withstand continuous direct sunlight. The heat sinks on the back of the panels should be shielded from prolonged, direct sunlight, while allowing for passive ventilation (see pg 17 for ventilation requirements).

Should the panels experience temperatures outside of the operating range, a signal will be sent to dim the sign, allowing time for the sign to cool. Once the sign has cooled down it will automatically return to full brightness. If the sign does not cool, it will automatically shut down to prevent damage to the hardware.

The Controller is rated for an ambient operating temperature range of $-10^{\circ}+60^{\circ}$ C ($14^{\circ}+140^{\circ}$ F) and should be protected from direct sunlight. Operation at colder temperatures is routinely and regularly accomplished, though starting the screen from a powered off state at temperatures below 14° F may not be possible. A controller which is in a powered on state produces ambient heat which can allow it to continuously run at temperatures as low as -30° F (-34° C).

All components and connections are sealed and water-tight for protection from the ingress of dust and water, though no components should be subjected to immersion in water.

Shipping & Receiving, product storage

All deliveries shall be FOB Cirrus Systems (Seller), Portsmouth, NH. Methods and routes of shipment, unless Seller specifies in writing otherwise, shall be accepted as chosen by Seller at Seller's sole discretion. Purchaser shall pay all costs of shipment. Delivery to the carrier shall constitute delivery and passage of title to Purchaser, and risk of loss shall pass to Purchaser concurrently with passage of title. Seller will use reasonable diligence to meet scheduled shipment dates and times. Such dates and times are the best possible estimates, and not guarantees, of when goods will be shipped. In no event shall Seller be liable for any losses or damages of any kind due to delays in shipment, nor may Purchaser cancel its contract because of any such delay.

It is the responsibility of the Purchaser to check the Product for visible damage prior to accepting delivery from the carrier. Any damage to the Product must be noted on the delivery slip with the carrier and immediately reported to Cirrus. Photographic evidence of damages will be required. Cirrus may assist in seeking remedy with the carrier for damaged goods but does not retain title and therefore is not legally responsible for said damages.

Delivered product should be stored in a cool dry place, out of the way of foot/motorized traffic.

It is the installer's responsibility to look over the product before installing to ensure there are no missing parts and there is no visible damage to any parts of the display. If there is any damage, Cirrus must be informed prior to install.

Warranty terms for all displays

What this warranty covers

This warranty covers any defects, failures, or malfunctions of any Cirrus LED display system hardware.

All inspections of warrantied components will be conducted within 72 hours and results will be presented immediately thereafter and applicable charges will be sustained or reimbursed at that time.

Pixel Damage Warranty				
Pitch	Year 1	Years 2-3	Years 4-5	
4mm	100% pixel replacement guarantee	8 damaged pixels	12 damaged pixels	
6mm		4 damaged pixels	6 damaged pixels	
9mm		2 damaged pivels	2 damaged pivels	
12mm		2 damaged pixels	3 damaged pixels	

Coverage period

This warranty lasts for five calendar years following the purchase of any Cirrus LED display system. Warranty may not be exercised until the display has been installed, powered, connected to the Internet and Cirrus has verified adequate setup. Displays that are stored for extended periods of time and not installed within 90 days of shipment may not qualify for warranty coverage at the discretion of Cirrus Systems Inc. Coverage terminates if an end user sells, transfers, opens or tampers with any display system or its internal components. Connecting to any power source not specified in this manual will terminate coverage. See page 19 for electrical requirements.

What's covered

Cirrus will replace any defective or malfunctioning part at no charge and pay for shipping. All defective parts must be returned to Cirrus Systems for servicing upon failure. Replaced parts are required to be returned within 21 days of shipment or an invoice will be sent for the cost of the parts.

What's not covered

This warranty does not cover labor costs or any problem that is caused by abuse, misuse, improper installation, or an act of God. Also, consequential and incidental damages are not recoverable under this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Cirrus will not be responsible for any labor charges incurred during assembly, disassembly, or any other services related to the part replacement.

Service eligibility

Any company or individual that purchases a display from Cirrus Systems or from an authorized Cirrus distributor is eligible for this warranty and service. If issues are experienced with any display system, contact Cirrus at (877) 636-2331 and follow the prompts for technical support.

Exclusions

The following issues are not covered under the limited warranties set forth above. For these issues, Cirrus shall not be obligated to furnish warranty support or maintenance services, nor shall Cirrus be liable hereunder for repairs, replacement or additions:

- **01.** Damage or problems caused during transportation by Customer;
- 02. Defects or damage that result from use of the Products or Software in other than their normal and customary manner;
- **03.** Damage or problems caused by repairs, changes, modifications, maintenance, relocation or reinstallation by other than Cirrus designated technicians, or without Cirrus's written permission;
- **04.** Products and Software subject to unauthorized modification, disassembly or repair (including the addition to the Product of non-Cirrus authorized and supplied equipment) which adversely affect Product or Software performance or interfere with Cirrus's normal warranty inspection and Product or Software testing for warranty verification;
- **05.** Products which, due to illegal or unauthorized alteration of Product software or firmware, do not function in accordance with Cirrus's published specifications;
- 06. Damage or problems caused by not following Electro-Static Discharge ("ESD") precautions when handling Covered Products;
- **07.** Damage or problems caused by improper electrical grounding;
- **08.** Damage or problems caused by improper utility service;
- 09. Damage or problems caused by use of non-Cirrus supplied equipment or parts;
- 10. Damage or problems caused by misuse, abuse, neglect or accident;
- 11. Damage or problems caused by an external electrical fault or any unusual shock;
- 12. Damage or problems caused by an accident, fire or water;
- 13. Damage or problems caused by natural disasters such as flood, fire, lightning, earthquake or tornado.
- **14.** Damage or problems caused by failure to maintain the proper operating or storage environment for the Covered Products to include but not limited to air conditioning, humidity control, or corrosive atmosphere harmful to electronic equipment as provided in the Cirrus Installation Manual;
- **15.** Damage or problems caused by strikes, riots, sabotage, or acts of war;
- **16.** Theft;
- 17. Routine cleaning, or normal and customary wear and tear;
- 18. Scratches or other cosmetic damage to Product surfaces that do not affect the operation of the Product;
- 19. Technical support or maintenance of any kind for third-party application or custom software not defined under Covered Products;
- 20. Technical support associated with programming of Application Program Interfaces (API) of Covered Products except for support on the capabilities of the programming interface;
- 21. Consumables and supplies (i.e., expendable batteries, recording media, tapes, disks or other consumables);
- 22. Freight costs to the repair depot;
- 23. Non-Cirrus manufactured equipment, which carries its original manufacturer's warranty and which will be provided to Customer upon request.
- 24. Components damaged due to improper connecting, seating, arcing or connecting/disconnecting while powered on.
- 25. Components damaged due to excessive heat buildup (in the case of improperly vented displays).

Warranty activation

The 5 year product warranty will go into effect upon the date of shipment and transfer of title. Warranty may not be exercised until the display has been installed, powered, connected to the Internet and Cirrus has been called to verify the installation. Displays which are stored for extended periods of time and not installed within 90 days of shipment may not qualify for warranty coverage at the discretion of Cirrus Systems Inc.

TP-Link Wifi kit warranty

Cirrus will cover the first year of warranty of the TP-Link WiFi kit and its power supply. After the first year of use, client must work through the warranty with TP-Link directly.

Cellular Coverage

Sign will have access to cellular coverage for 5 years from point of purchase. The sign's continued connection is determined by the Cellular provider and cannot be guaranteed by Cirrus.

Disclaimer

Except as expressly set forth in this Agreement, the Products and Software, including the Hardware, and all related Services shall be provided "as is" without warranty of any kind, and Cirrus hereby disclaims, and Customer hereby waives, any and all warranties whether express, implied or statutory, including all implied warranties of merchantability, fitness for a particular purpose and non-infringement. Further, Cirrus does not warrant, guarantee, or make any representations that any Software provided will be free from all bugs or that its use will be uninterrupted or error-free. Customer understands and agrees that Cirrus is not responsible for and will have no liability for equipment hardware, software, or other items or any services provided by or manufactured by any persons other than Cirrus or its authorized agents. The foregoing constitutes Customer's sole rights and remedies under this agreement with respect to defects in the products, software or services.

Limitation on liability

Buyer understands and agrees that except for instances involving Cirrus's indemnification obligations set forth in the governing Sales Agreement, Cirrus's aggregate liability for any damages suffered by Buyer or any other party, whether in contract, in tort, under any warranty theory, or otherwise, shall be limited to the amount paid to Cirrus by Buyer under this Contract for the defective System component(s) giving rise to the indemnified losses or damages covered by this Agreement.

Hardware Notice

Not all mounting hardware is included for every install. Please review your order, and follow the instructions for the matching mounting style accordingly.



Bolted Frames

What's Included





Standard frame x1

Frame bolts, 1/4"-20x0.5" x8

Assembly



1' tall x 2' wide frames are assembled using the included 1/4" hex bolts. It is important to ensure that all frames are attached with the arrows facing front and up.



Four bolts should be used on each side of the frame and should be tightly fastened to ensure there are no gaps between the panels. Bolts should enter through the side with the smaller hole. Two bolts will go in from one direction and two will go in from the opposite direction, on each side. Tighten frames to a maximum of 5 foot-pounds. Do not use a power drill, or impact drive during assembly, as excessive force may damage the frames.



Quicklock Frames

What's Included

Quick lock frame x1



Assembly

Step 01. Align Frames





Quicklock Frames

Assembly contd.

Step 02. Press down on plunger until you hear a click and feel the locking mechanism snapping into place.



Step 03. Twist locking handle counterclockwise until secure.





Frame Covers (Optional)

What's Included

Frame covers are sold separately from LED Frames. Some frame and cover combinations may not include snap fasteners. In such cases, use an appropriate adhesive (not included) to attach cover to frame.

	Item Description	Item Quantity
Frame covers	(8) Frame cover snaps for every (1) 2 ft. Horizontal Frame Cover	Varies
and snaps	(4) Frame cover snaps for every (1) 1 ft. Vertical Frame Cover	Varies
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	ara 💠	

Assembly

- **Step 01.** Align frame cover with perimeter frame.
- **Step 02.** Press frame cover snaps provided into the provided holes.





Pre-Assembled Thin Frames

What's Included

Thin frames are shipped completely pre-assembled, or in large sections for ease of installation.



Assembly

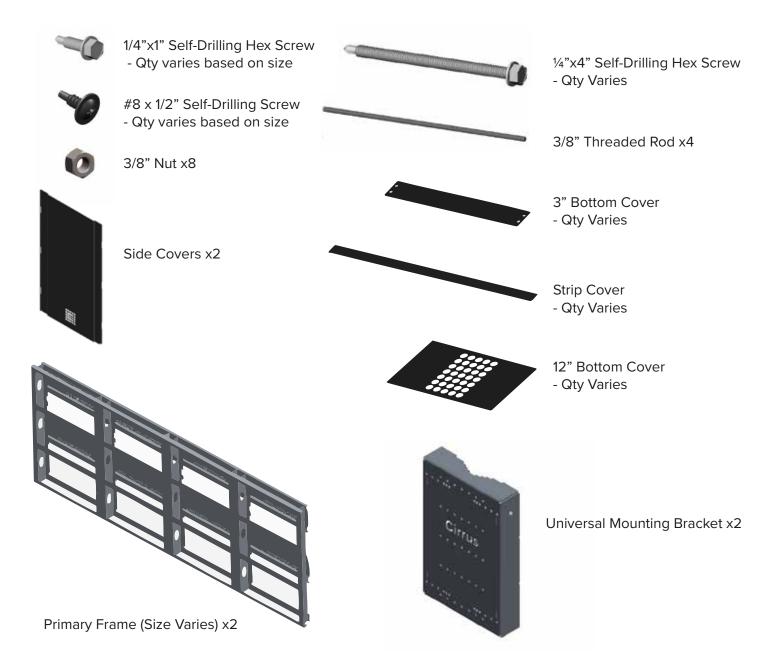
If the frames were shipped completely pre-assembled, there is no assembly necessary. In some cases, with larger signs, sections will be assembled, and parts will be included to attach them together.

- **Step 01.** Identify the top of the sections by orienting the sections such that the panel alignment holes have the bottom right hole lower than the rest on each cross section.
- **Step 02.** Attach the two (or more) sections of frames together using the included cross sections. Be sure to attach the thinner pieces to outer sections, while using the thicker sections for the inner sections. Attach using the included bolts.





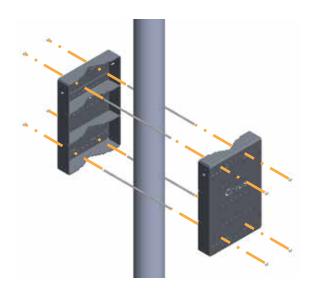
What's Included

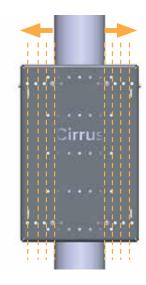




Mounting

Step 01. Place both bracket halves around the pole, align and center them with the 3/8" threaded rod using the guide holes, then tighten the threaded rods with the 3/8" nuts.





The bracket is designed to fit various pole sizes. Alignment holes are provided to help center both halves during installation.

Step 02. Place the brackets in the correct position according to the type of pole.



Round Pole



Square Pole



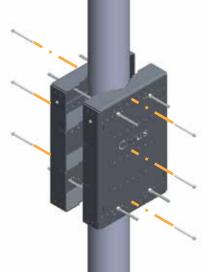
Double Square Poles Variation



Mounting contd.

Step 03. Secure the brackets with the ¼" self-drilling screws.

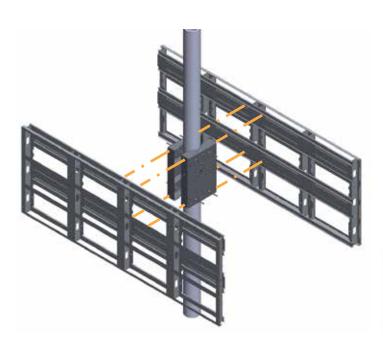
- ¼" x 1" → Squares Poles
- 1/4" x 4" → Round Poles

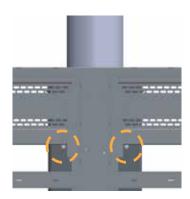


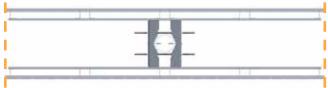
Note: Frames should be mounted with reference arrows pointing up.

Step 04. Position the cabinets on the brackets.

Rest them on the screw heads located on the brackets to help align both cabinets.



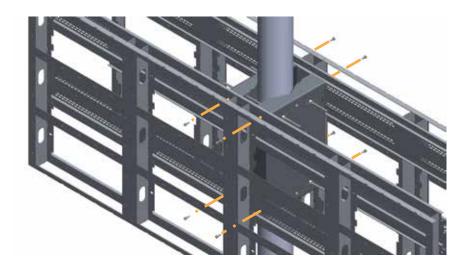




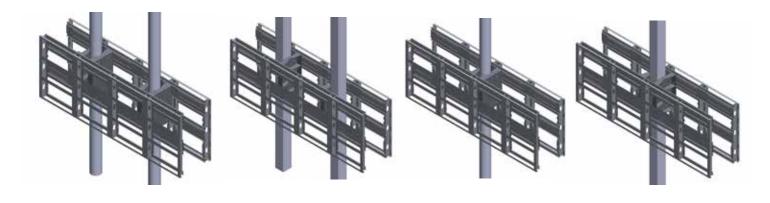


Mounting contd.

Step 05. Secure the brackets with the ¼" x 1" self-drilling screws.



Besides accommodating different pole sizes and shapes, the Universal Bracket design accounts for four different pole layout scenarios.



Double Round Poles

Double Square Poles

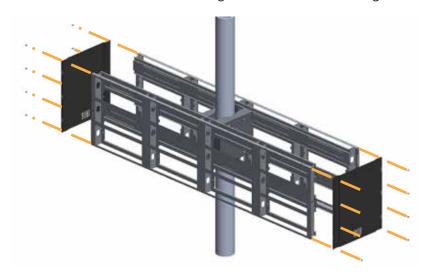
Single Round Pole

Single Square Pole

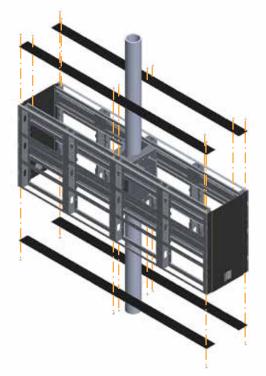


Mounting contd.

Step 06. Install the Side Covers to the Cabinets using the #8 x ½" Self-Drilling Screws.



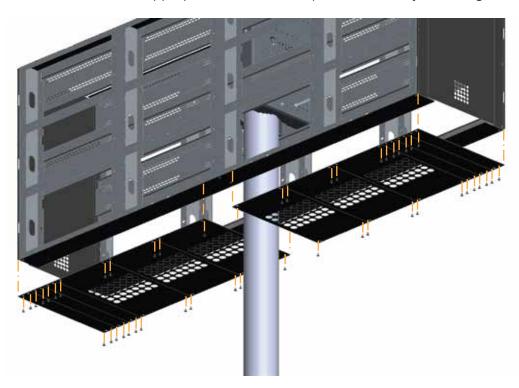
Step 07. Install the Strip Covers to the Cabinets using the #8 x ½" Self-Drilling Screws.





Mounting contd.

Step 08. Install the 3" and 12" Bottom Covers with #8 x $\frac{1}{2}$ " Self-drilling screws. Position each cover as appropriate based on the pole size and layout configuration.



Mounting Completed





Slip Fit Mount Cabinet

What's Included



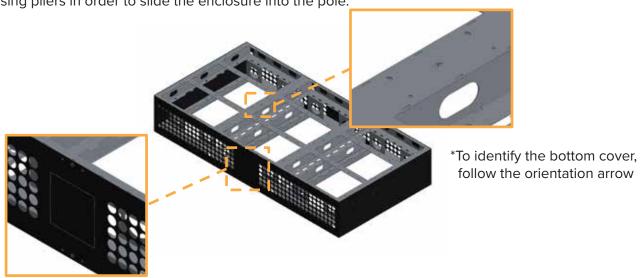
Primary Cabinet (Size Varies) x1



1/4"x1" Self-Drilling Hex Screw - Qty varies based on size

Assembly

Step 01. Remove the knockout hole from the bottom cover* using pliers in order to slide the enclosure into the pole.





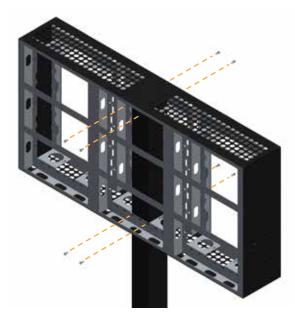
Slip Fit Mount Cabinet

Mounting

Step 01. Slide the cabinet onto the pole until it rests against the top cover.



Step 02. Fix the cabinet to the pole using the self-drilling screws.





Slip Fit Mount Cabinet

Mounting Completed





Wall Mount

What's Included



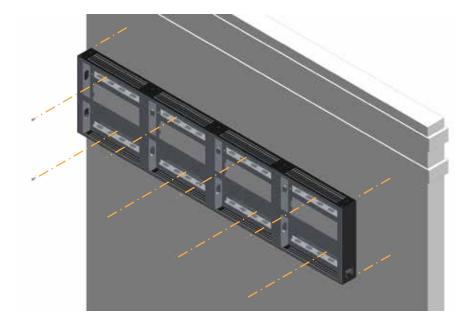
Primary Frame (Size Varies) x1

- Top and Bottom Covers Attached (Size Varies)
- Side Covers Attached x2

Mounting

Step 01. Position the sign on the wall to mark the drilling points, then install suitable wall fixings (as determined by the installer according to wall type).

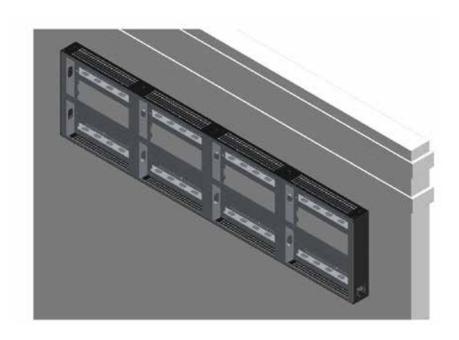
Note: Frames should be mounted with reference arrows pointing up.





Wall Mount

Mounting Completed



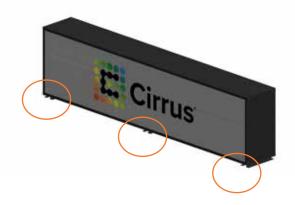


What's Included

Note: Static header is only compatible with Slip Fit Mounted Cabinets. Vinyl graphics not included



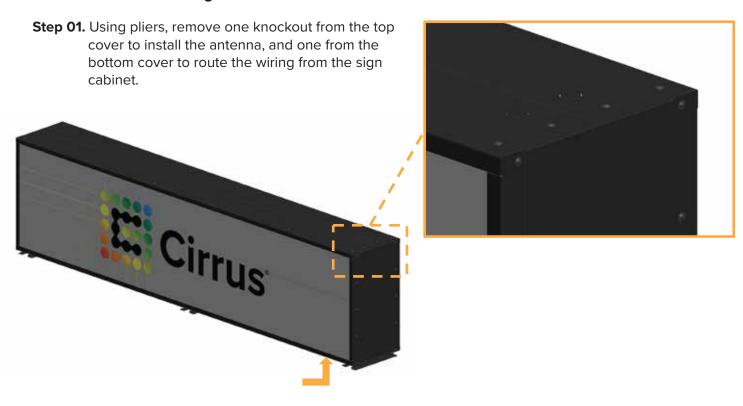
#8 x 1/2" Self-Drilling Screw x24



Header - Qty 1 (Spacers Attached to Header)

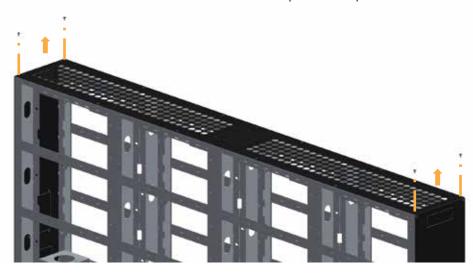


Knockout Hole for Wiring and Antenna

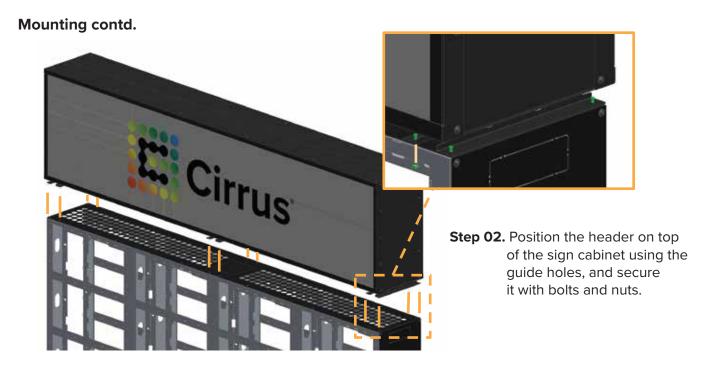


Mounting

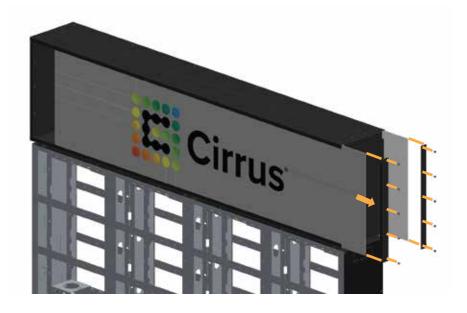
Step 01. Unscrew the corner screws that secure the top cover in place.







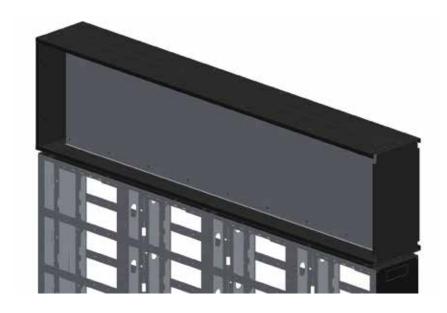
Step 03. Unscrew the lateral bolts to remove both Vertical Stoppers from one of the sides and slide both plexiglass sheets out.



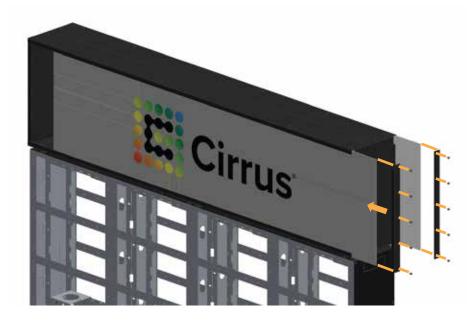


Mounting contd.

Step 04. Install all the LED Strips, route all the wiring and install the Antenna.

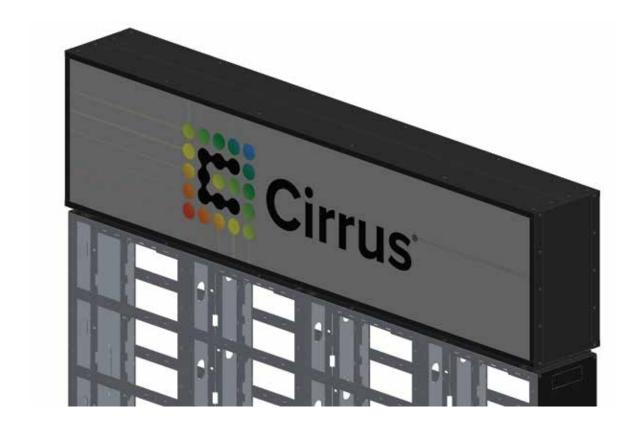


Step 05. Slide both plexiglass sheets back in and secure them by screwing the vertical stoppers back in place.





Mounting Completed





Pole Wrap Kit

What's Included



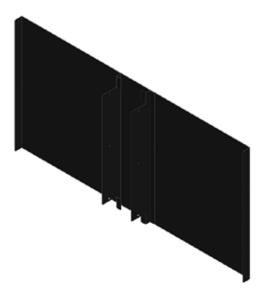
#8 x 1/2" Self-Drilling Screw - Qty varies based on size



1/4"x1" Self-Drilling Hex Screw - Qty varies based on size



Side Covers x2 per section



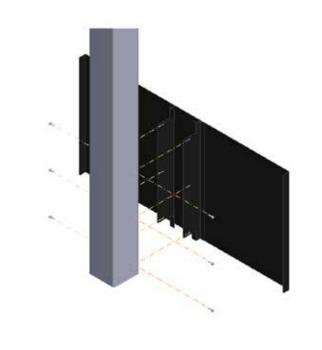
Front and Back Covers x2 per section



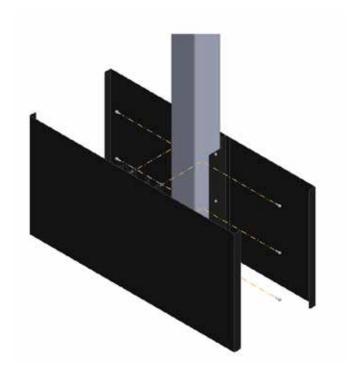
Pole Wrap Kit

Mounting

Step 01. Slide the Front Cover on the Pole until the stopper flange rests against it and fix using the ½"x 1" self-drilling screws.



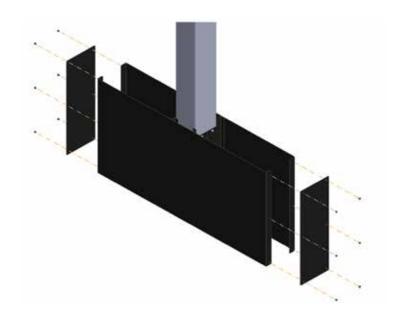
Step 02. Repeat with the other Front Cover.





Pole Wrap Kit

Step 03. Fix the Side Covers to the Front Covers flanges using the #8 x $\frac{1}{2}$ " Self-Drilling Screws.



Mounting Completed

