REMmira

Installation Guide

Model ID: REMMIRA

Model ID: REMMIRASQ

CHAUVET
PROFESSIONAL

TABLE OF CONTENTS

1. Before You Begin

What Is Included

REM MIRA

- 1 REMMIRA 1000X500 mm
- 8 REMMIRA LDM (packaged separately)
- Ethernet RJ45 linking cable
- IEC power linking cable
- Installation Guide

REM MIRA SQ

- 1 REMMIRA 500X500 mm
- 4 REMMIRA LDM (packaged separately)
- Ethernet RJ45 linking cable
- IEC power linking cable
- Installation Guide

Claims

Carefully unpack the product immediately and check the container to make sure all the parts are in the package and are in good condition.

If the box or the contents (the product and included accessories) appear damaged from shipping, or show signs of mishandling, notify the carrier immediately, not Chauvet. Failure to report damage to the carrier immediately may invalidate a claim. In addition, keep the box and contents for inspection.

For other issues, such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with Chauvet within 7 days of delivery.

Text Conventions

Convention	Meaning
1–512	A range of values
50/60	A set of values of which only one can be chosen
Settings	A menu option not to be modified
Menu > Settings	A sequence of menu options to be followed
<ENTER>	A key to be pressed on the product's control panel

Symbols

Symbol	Meaning
⚠	Critical installation, configuration, or operation information. Not following these instructions may make the product not work, cause damage to the product, or cause harm to the operator.
ⓘ	Important installation or configuration information. The product may not function correctly if this information is not used.
📝	Useful information.
⚙	Pinch point warning.

Safety Notes

Read all the following safety notes before working with this product. These notes contain important information about the installation, usage, and maintenance of this product.

This product contains no user-serviceable parts. Any reference to servicing in this User Manual will only apply to properly trained, certified technicians. Do not open the housing or attempt any repairs.

All applicable local codes and regulations apply to proper installation of this product.

- **CAUTION:**
    - This product's housing may be hot when operating.
    - When transferring the product from extreme temperature environments, (e.g., cold truck to warm humid ballroom) condensation may form on the internal electronics of the product. To avoid causing a failure, allow the product to fully acclimate to the surrounding environment before connecting it to power.
- **ALWAYS:**
    - Connect this product to a grounded and protected circuit.
- **DO NOT:**
    - Open this product. It contains no user-serviceable parts.
    - Leave any flammable material within 50 cm of this product while operating or connected to power.
    - Connect this product to a dimmer or rheostat.
    - Operate this product if the housing or cables appear damaged.
    - Operate this product outdoors or in any location where dust, excessive heat, water, or humidity may affect it (IP30).
    - Operate this product at an altitude exceeding 5000m.
- The minimum startup temperature is -4°F (-20°C). Do not start the product at lower temperatures.
- The maximum ambient temperature is 95°F (35 °C). Do not operate this product at higher temperatures.
- To eliminate unnecessary wear and improve its lifespan, during periods of non-use completely disconnect the product from power via breaker or by unplugging it.
- In the event of a serious operating problem, stop using immediately.

If this Chauvet product requires service, contact Chauvet Technical Support.

FCC Statement of Compliance

This device complies with Part 15 Part B 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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

*   Reorient or relocate the receiving antenna.
*   Increase the separation between the equipment and receiver.
*   Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
*   Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

⚠ **The use of certain substances in electrical and electronic equipment is restricted with the EU. For further information, see directive 2011/65/EU.**

Expected LED Lifespan

Over time, use and heat will gradually reduce LED brightness. Clustered LEDs produce more heat than single LEDs, contributing to shorter lifespans if always used at full intensity. The average LED lifespan is 40,000 to 50,000 hours. To extend LED lifespan, maintain proper ventilation around the product, and limit the overall intensity.

2. Introduction

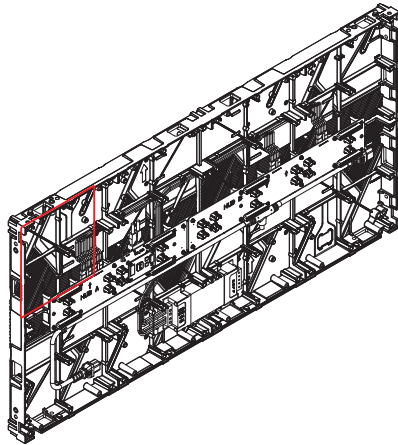## Product Overview
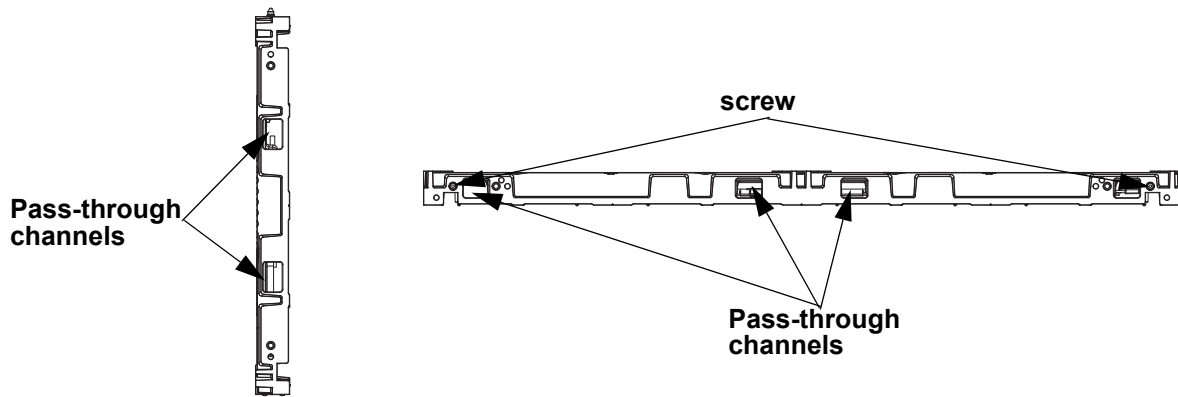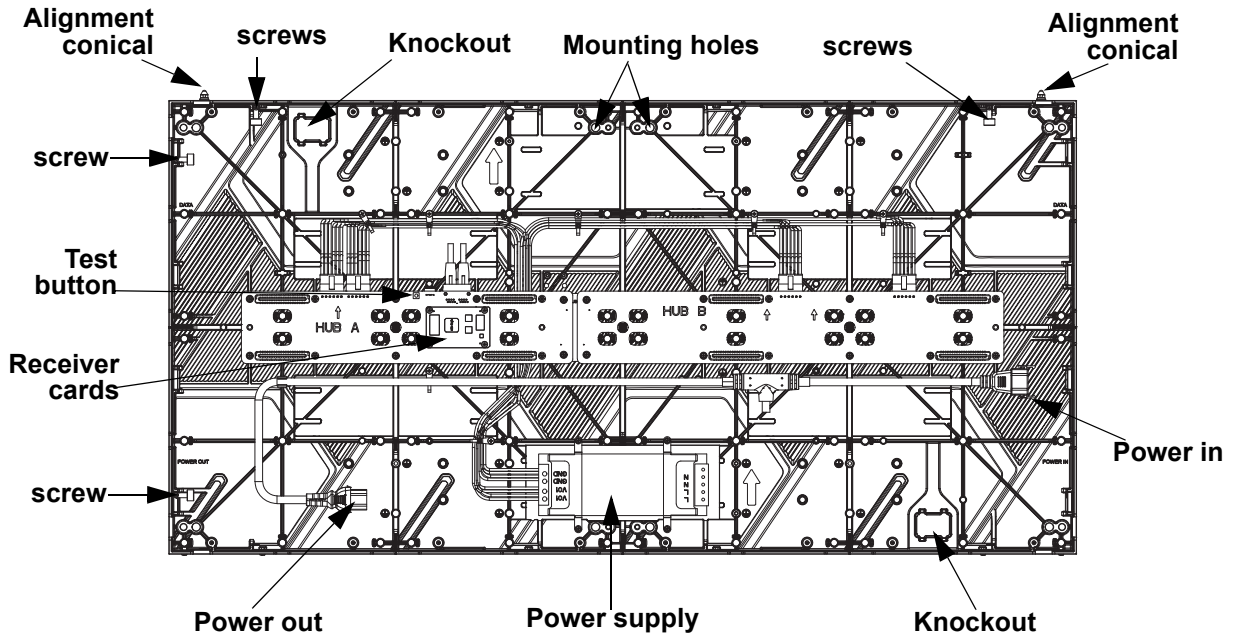
All screws on the REM MIRA are captive screws.
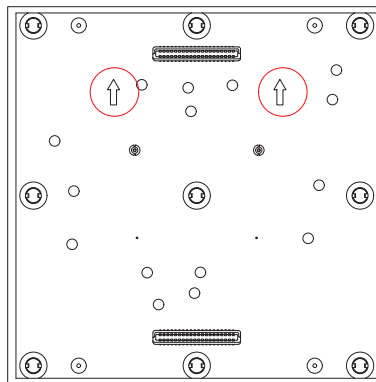
REM MIRA LED Module Insertion and Removal
Inserting a Module
To insert an LED module onto the REM MIRA:

1. Identify where on the REM MIRA the module will be placed.

2. Carefully align the magnets on the back of the module with the magnets on the cabinet. Ensure that the arrows on the module match the orientation of the arrows on the cabinet.

3. Slowly press the module onto the cabinet, ensuring that the magnets are aligned.
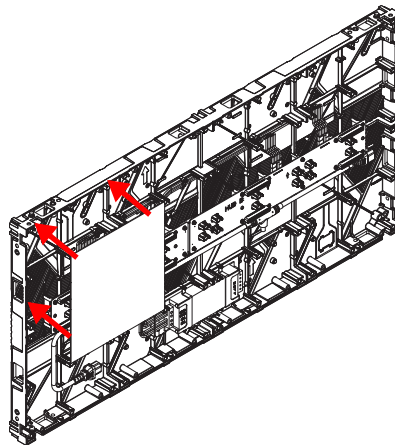
- **Before inserting modules onto the cabinet, it is first necessary to mount the REM MIRA cabinet and test the coex VMP software. For more information on mounting the REM MIRA, see Mounting.**
- **Use cotton, leather, or microfiber gloves if installing with hands.**

Removing a Module

When removing a module from the REM MIRA, it is necessary to use an MT-07 tool. To remove an LED module from the REM MIRA:

1. Identify which module needs to be removed.
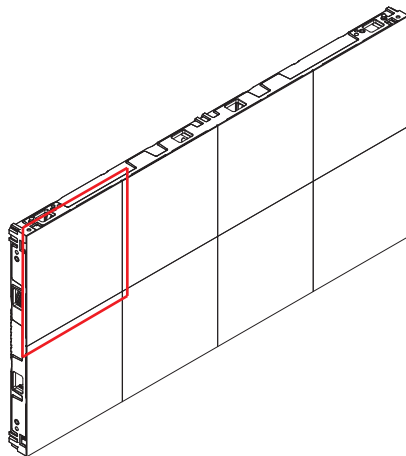
2. Using an MT-07 tool, hold down the trigger to activate and gently press the MT-07 against the module to firmly grip it.

3. With the module gripped, gently pull the module away from the cabinet.
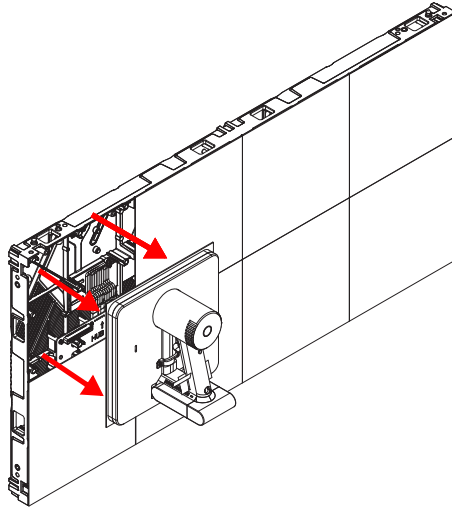
>   •   **For further information on the MT-07 tool, see Chauvetprofessional.com/mt-07/**
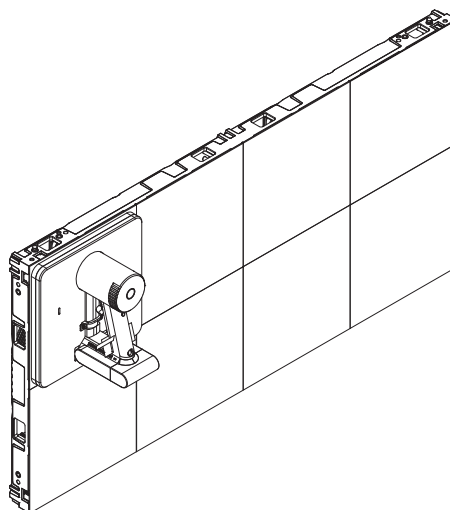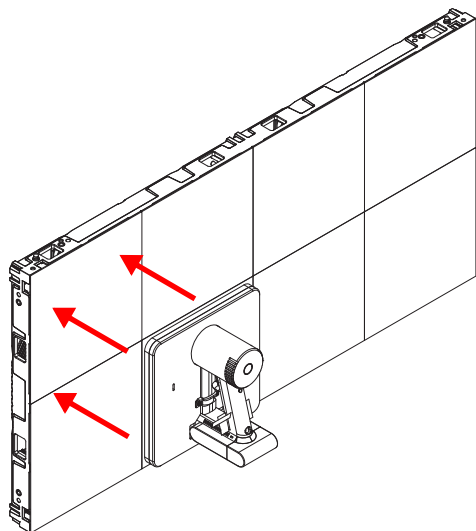>   •   **Use caution when removing the module so as not to cause damage.**
>   •   **Modules are universal and will fit anywhere on the frame.**

>   **WARNING! The magnets on the modules are very powerful! Keep fingers clear when installing.**

Removing and Replacing the LED Masks

8 masks per REM MIRA/
1 mask per module
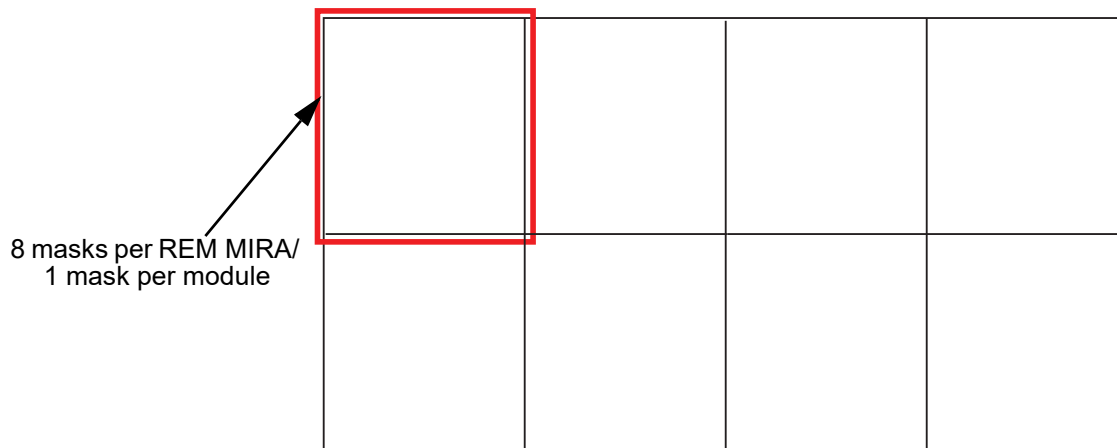
To replace one of the LED masks on an REM MIRA LED module, follow the instructions below:
1. Remove the module from the REM MIRA (see REM MIRA LED Module Insertion and Removal).

2. Using a fingertip, gently lift the edges of the mask off of the LEDs.

⚠️
- **Take SPECIAL CARE to not pry off any LEDs!**
- **DO NOT use prying tool to remove the LED mask! Doing so may damage the LEDs.**
- **When in doubt, seek expert assistance or advice!**

3. Once the edges are loose, slowly lift the mask from the LEDs.
4. Place the new LED mask in the space. Ensure the orientation arrows point in the same direction as the arrows on the module.

ℹ️
- **Use a roller tool to gently press the masks onto the LEDs.**
- **Bending the mask too much will permanently stretch it beyond usability.**

5. Push the mask in firmly until it is completely flush with the rest of the masks on the product. A roller tool is recommended for this procedure.

3. Setup

AC Power

The REM MIRA has an auto-ranging power supply and can work with an input voltage range of 100-240 VAC, 50/60 Hz.

To determine the product's power requirements (circuit breaker, power outlet, and wiring), use the current value listed on the label affixed to the product's back panel, or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.

⚠️
- **Always connect the product to a protected circuit (a circuit breaker or fuse). Make sure the product has an appropriate electrical ground to avoid the risk of electrocution or fire.**
- **To eliminate unnecessary wear and improve its lifespan, during periods of non-use completely disconnect the product from power via breaker or by unplugging it.**

ℹ️ **Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

AC Plug

The REM MIRA come with a power input cord with a locking IEC connector on one end and a bare ended (unterminated) cable on the other end (U.S. market). Use the table below to wire the power cable. It is common to wire this directly in to an electrical junction box.

Connection	Wire (U.S.)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow or Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

Power Linking

1st Product
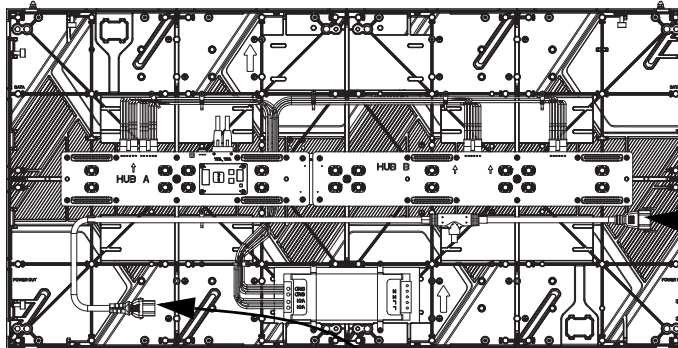
Power Source
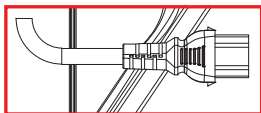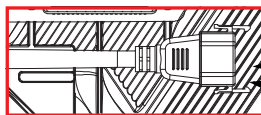
2nd Product

All REM MIRA panels support power linking. Refer to the following table for specifications.

	100 V, 60 Hz	120 V, 60 Hz	208 V, 60 Hz	230 V, 50 Hz	240 V, 50 Hz
# of Products	5	6	10	11	12

ℹ️ **Please refer to all applicable local codes and regulations for the proper installation of this product.**

4. Mounting

Orientation

Each REM MIRA is constructed of aluminum. This ensures the cabinet is stable and easy to install. The cabinet also has alignment conicals on the top and side of the product.

The REM MIRA is front service only and should be installed on a flat wall. The product cannot be hanged from a truss. Chauvet recommends following the general guidelines below.

* When selecting an installation location, consider ease of access for operation and routine maintenance.
* Make sure to mount away from any flammable material, as indicated in the Safety Notes section.
* Never mount in places where rain, extreme temperature changes, or restricted ventilation may affect it.
* Make sure that the structure and attachment points can support the weight before mounting the panels.
* Make sure that all load-bearing hardware used can support the weight.

⚠️ **REM panels are ONLY to be mounted in the orientation shown in this manual. Mounting in other ways may result in serious injury. Screws are for attachment purposes and are not designed to be load bearing.**

Mounting Points

| 1. | Alignment conicals |
| 2. | Screws |
| 3. | M10 Mounting holes |
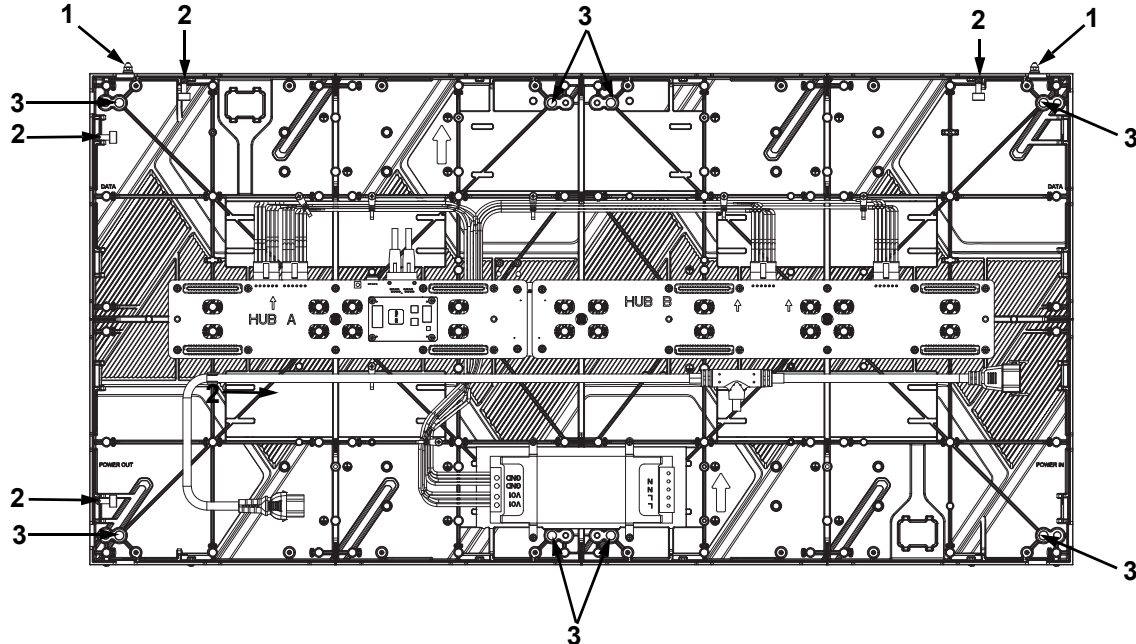
⚠️ **Chauvet offers multiple mounting options for REM-series products. REM-series products are NOT designed to sit directly on the floor or directly on flat surfaces. Doing so may cause damage to the LEDs, which is not covered under warranty. Please contact Chauvet Sales or Technical Service for more details on the offered mounting solutions.**

Flat Wall Installation

Refer to the following diagrams for flat wall installation.

Mounting Points on a Flat Wall
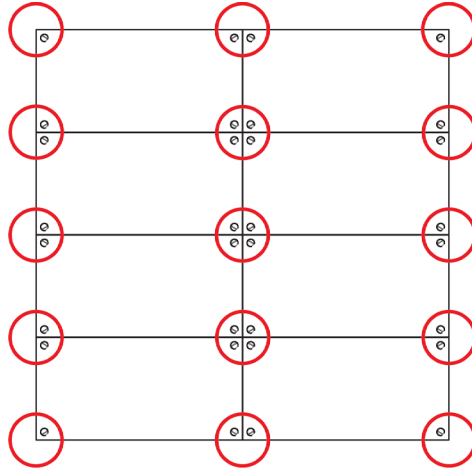
At least 1 mounting point for every junction (circled) must be secured, including outside edges and corners

⚠ **The mounting holes are intended for flush mount installation to a flat surface against the video panels. 1 mounting point for every junction, including outside edges and corners, must be used in order to maintain structural integrity. The mounting points are NOT intended for hanging or suspending from a truss or other overhead structure.**

Mounting with Steel Struts

Chauvet recommends using a VERTICAL steel strut for each column of panels, plus 1, as in the following diagrams:

4 columns + 1 = 5 steel struts
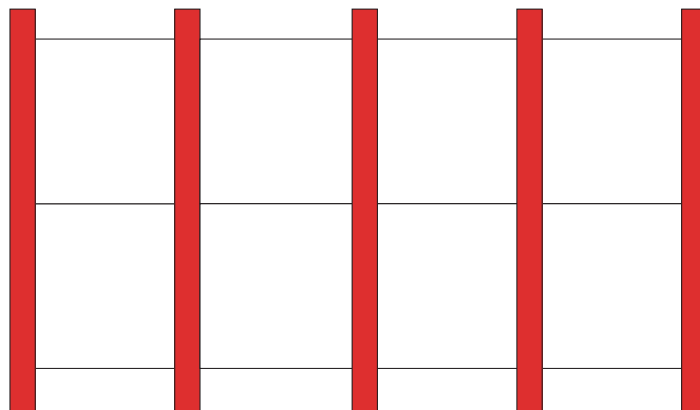
ⓘ **The illustrations above are examples only. Please refer to all applicable local codes and regulations for the proper installation of the product.**

Flat Wall Installation

When mounting to a flat wall, follow the diagram below:
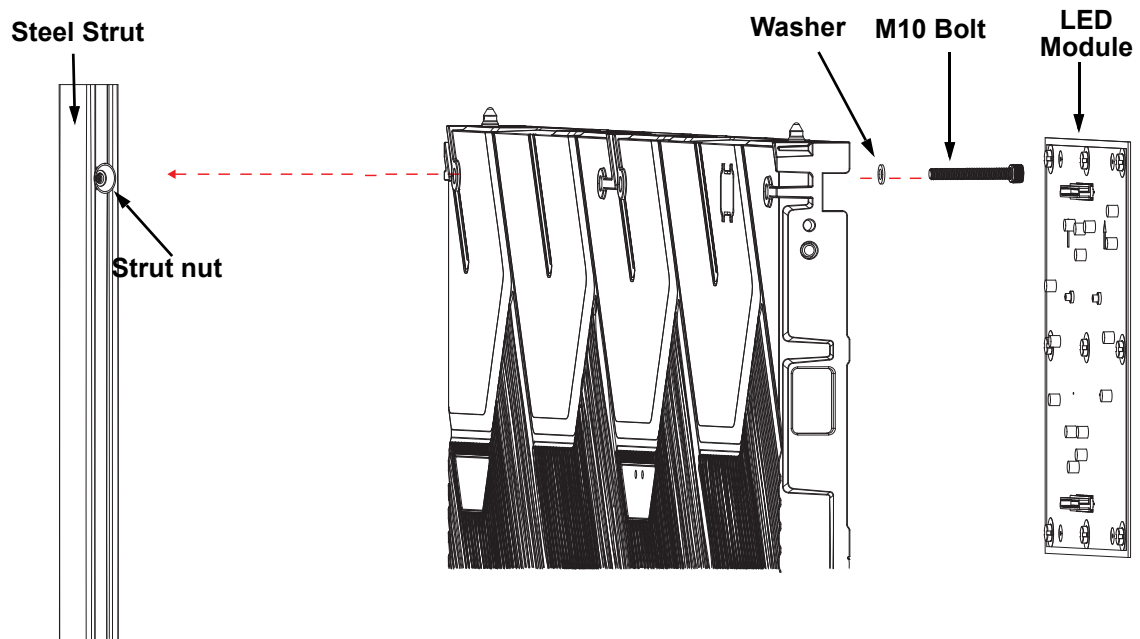
5. Joining Each REM MIRA
Vertically Joining the Panels
Once the REM MIRA is mounted, it can be easily joined vertically to another REM MIRA using the 2 screws located at the top of each panel.

Alignment conicals

Screw

ⓘ **It is necessary to first drill holes in the wall where the REM MIRA will be mounted. A drill guide will be included.**

Vertical Panel Connection

Use the following instructions to join panels vertically:

1. Line up the alignment conicals and screws at the top of each panel with the corresponding holes on the bottom of the other panel.
2. Once panels are connected, tighten the screws in place.
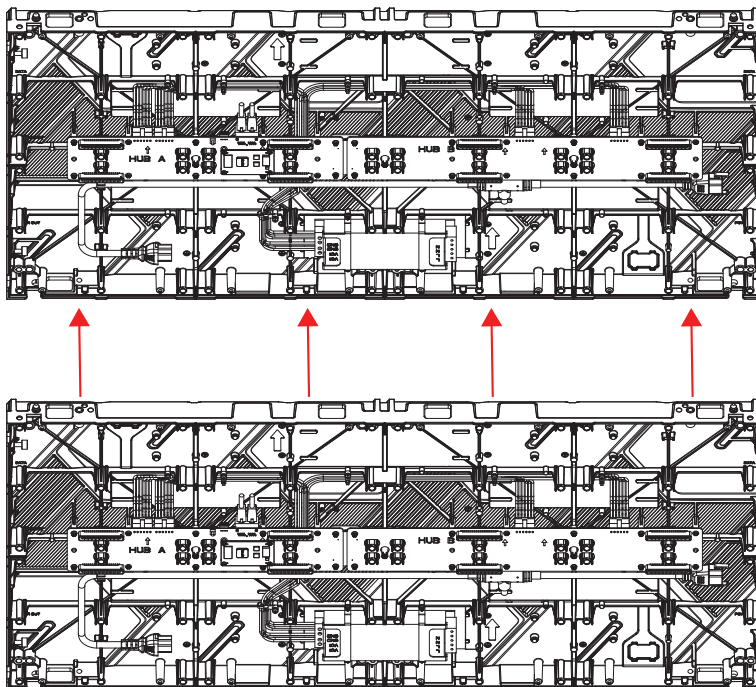
Horizontally Joining the Panels
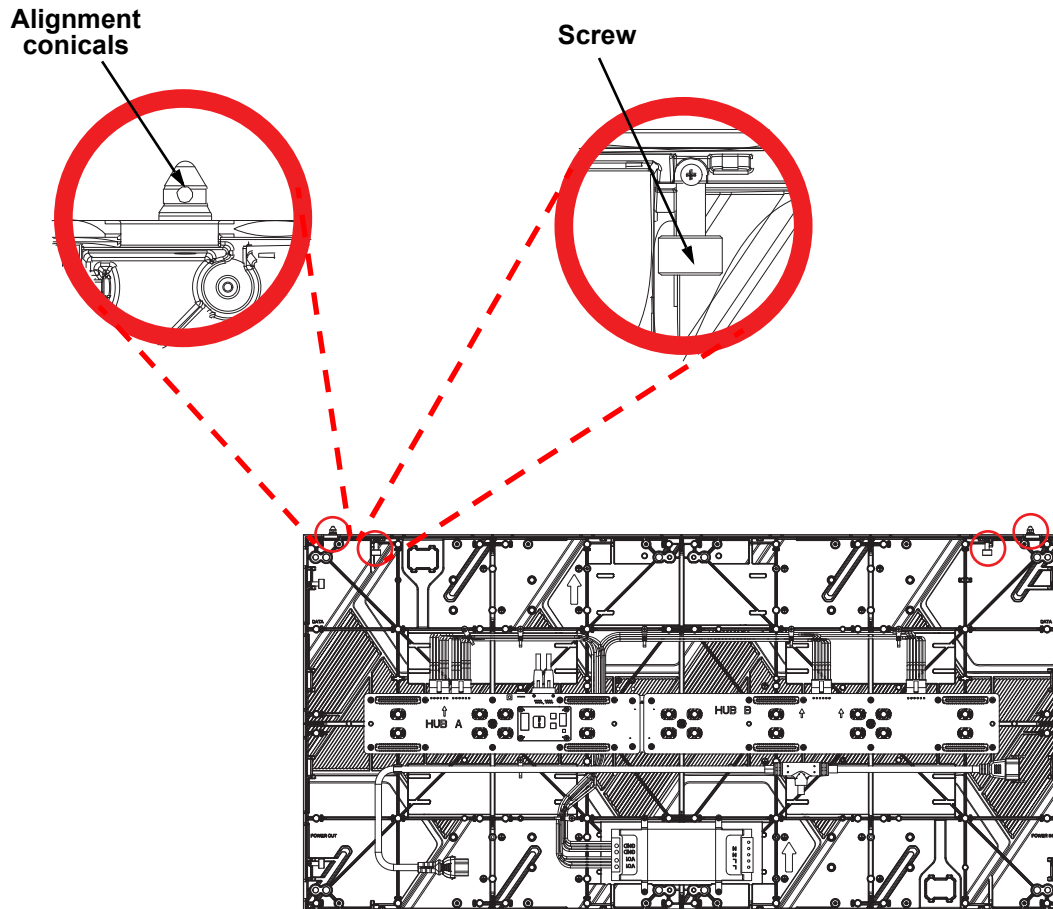
Each REM MIRA can be joined horizontally using the latch connections on the inside, upper and lower left sides of each panel.

Horizontal Panel Connection

Use the following instructions to join panels horizontally:

1. Align each of the panels screws with the corresponding holes on the panels being added.
2. Connect the panels and properly fasten the screws.

Due to tolerances in the materials, as well as wear and tear of the latches, some tightening latches may not line up when tightened. This is normal.

6. Connecting & Cabling Each REM MIRA

Testing Signal and Power Connections

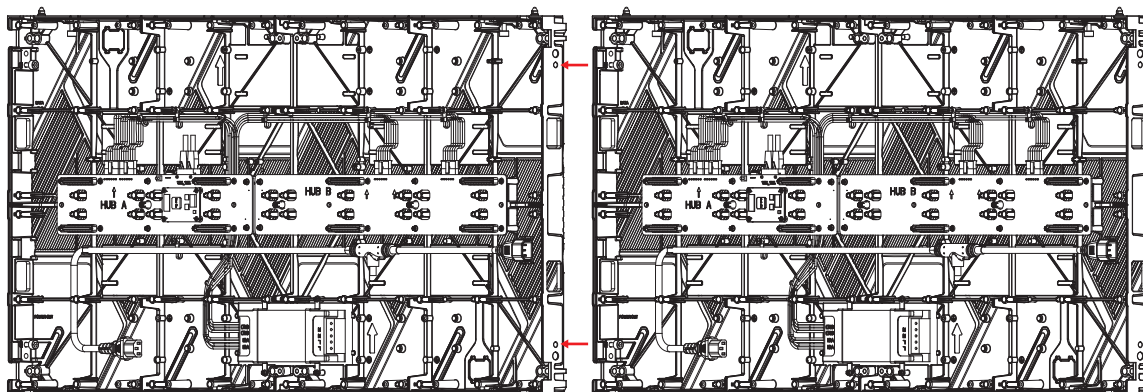Each REM MIRA cabinet has 2 power sockets and 2 signal ports. The following table outlines each of the indicator functions.

Indicator	Color	Status	Description
Running indicator	Green	Flashing once per 1s	Receiving card function and Ethernet cable is normal. Video source input available.
		Flashing every 3s	Ethernet cable connection is abnormal.
		Flashing 3 times per 0.5s	Ethernet cable is normal, but no video source input is available.
		Flashing once per 0.2s	Receiving card failed to load program in the application area. Receiving card is using the backup program.
		Flashing 8 times per 0.5s	A redundancy switchover occurred on Ethernet port and the loop backup has taken effect.
Power indicator	Red	Always on	Power input is normal.

Power out

Power out   **Receiver card**

LED Indicators

Signal Indicator LEDs
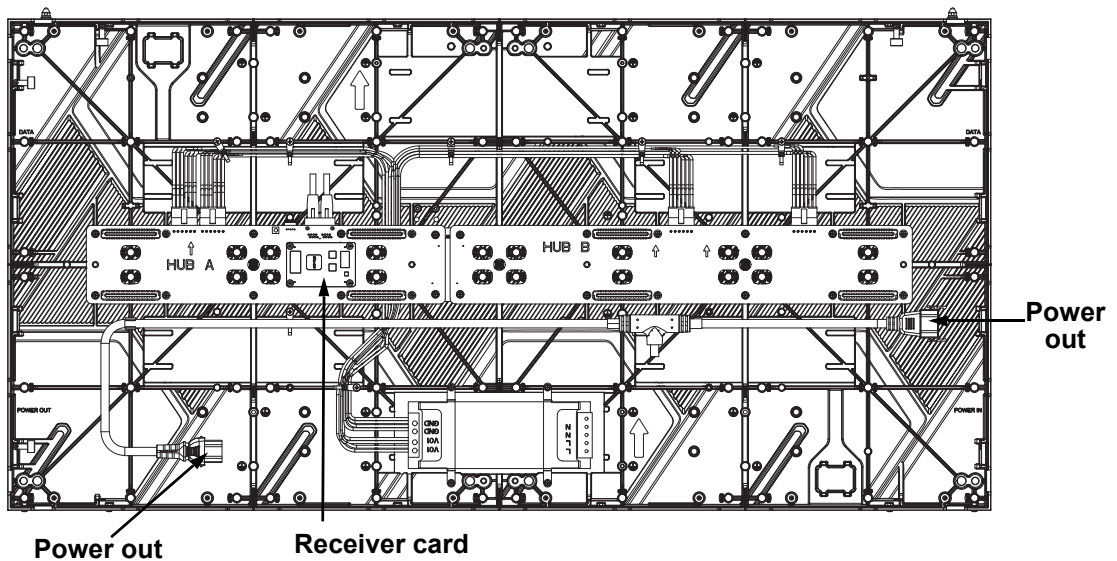
Power Indicator LEDs
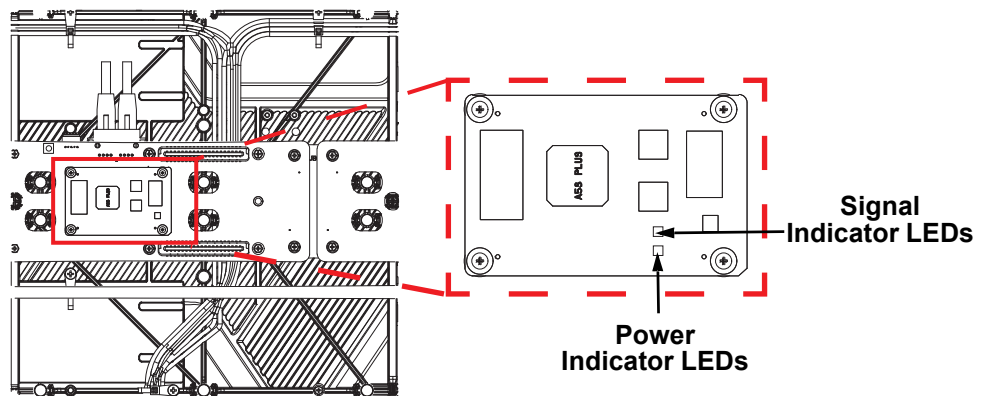
⚠ **Always test/check the power and signal indicators before installing the LED modules.**

REM MIRA Knockouts
Knockout Dimensions
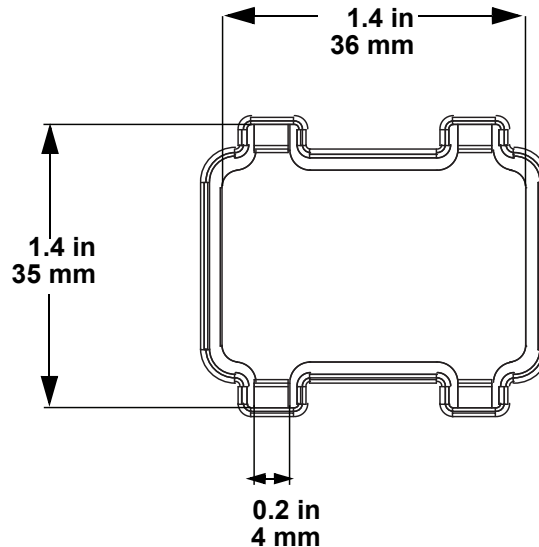
> ℹ️ **When removing knockouts, do not use a tool that exceeds the width of the knockouts on the REM MIRA. Failure to do so may damage the product.**

Removing Knockouts

The REM MIRA has two knockouts for additional cabling options. Knockouts are partially stamped removable openings in electrical enclosures and boxes. Knockout are pre-designed and can be removed in order to allow electrical wiring to run through the enclosure. To remove a knockout from the REM MIRA:

1. Identify which knockout to remove.
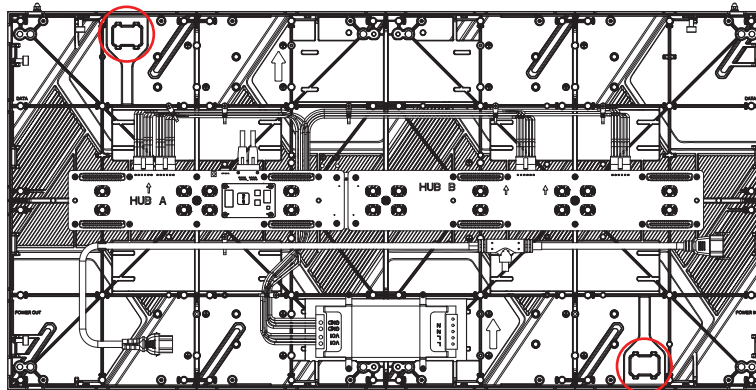
> ⚠️ **When deciding which knockout to remove, select the knockout that would allow the wires to remain straight with the least amount of bending.**

2. Locate the knockout's attachment points.
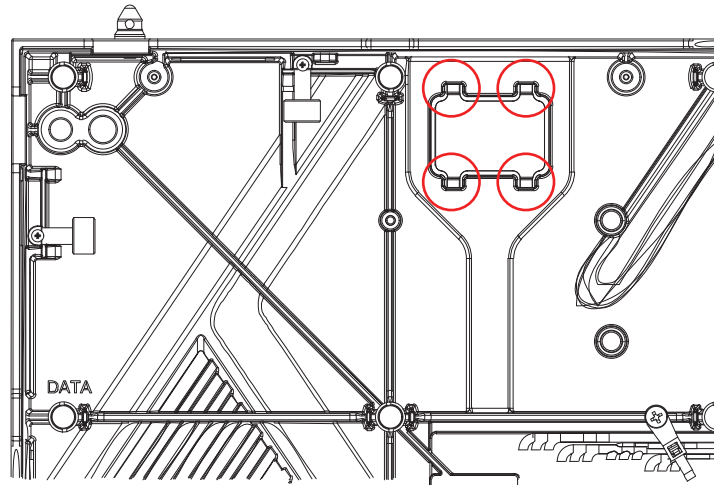
ℹ️ **Each knockout has attachment points -small tabs that connect the knockout to the enclosure.**

3. Facing the back of the cabinet, place the tip of a flat-head screwdriver on one of the attachment points.
4. Press the screwdriver or hit the end of the screwdriver with a hammer gently to partially detach the knockout.
5. From the back of the cabinet, use a hammer and hammer the knockout until it is released.

Connecting Power and Signal Cables

The following sections provide information and diagrams on connecting signal and power between panels. Refer to the Introduction section in this User Manual for available cables and item numbers.

Connecting the Signal Between Joined Panels

Signal cable panel connections can use several different configurations. The basic configuration to connect the signal from one panel to the next is as follows:

1. The source signal is connected to the first panel.
2. A signal cable is then connected from the first panel.
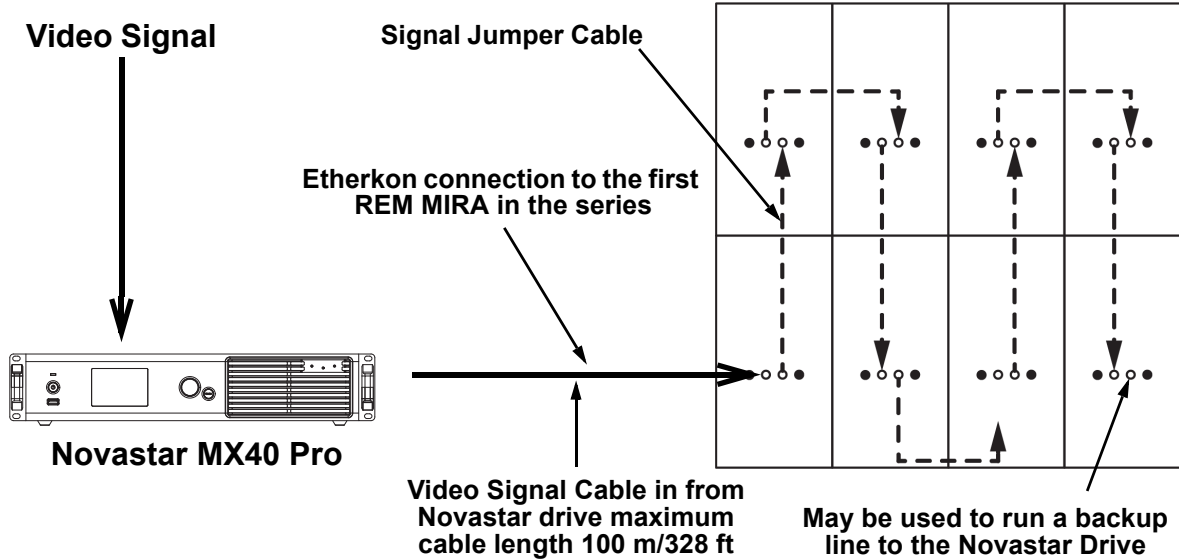3. The connections continue to daisy-chain until all panels are connected.
4. The route of the cables used to make the signal connections can vary.

The following diagram is a recommended suggestion for simple signal connections between panels.

Video Signal

Signal Jumper Cable

Etherkon connection to the first REM MIRA in the series

Novastar MX40 Pro

Video Signal Cable in from Novastar drive maximum cable length 100 m/328 ft

May be used to run a backup line to the Novastar Drive

- **When using the "low latency" feature, wire the panels and assign each column its own port on the drive. Columns should start from the top and running downwards.**
- **Failure to wire the panels in this manner may hinder the low latency feature and result in a distorted output image.**

To calculate the number of panels, horizontally and vertically, supported by a single Novastar MX40 Pro sender, use:

- **The number of pixels per panel.**
- **The screen resolution desired for the video wall display.**

The Novastar MX40 Pro Sender is required to operate an REM MIRA video wall system. Diagrams of how the REM MIRA panels and the Novastar VMP Platform connect follow later in this manual. For detailed information about the Novastar VMP Platform and panel calculation examples, refer to the User Manual for the Novastar MX40 Pro Sender.
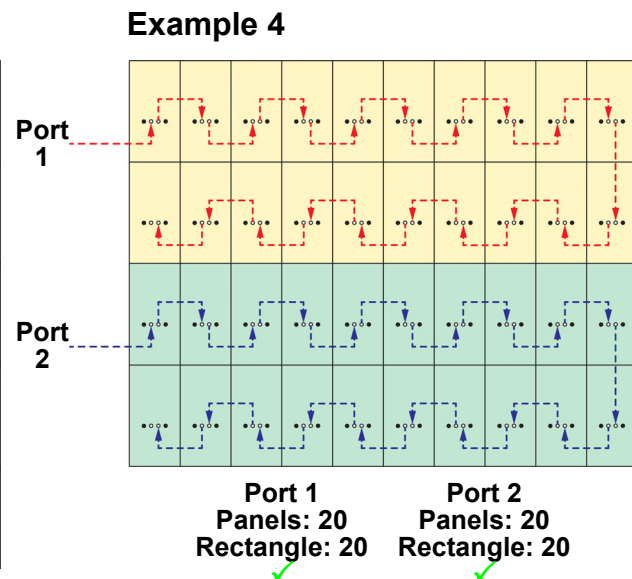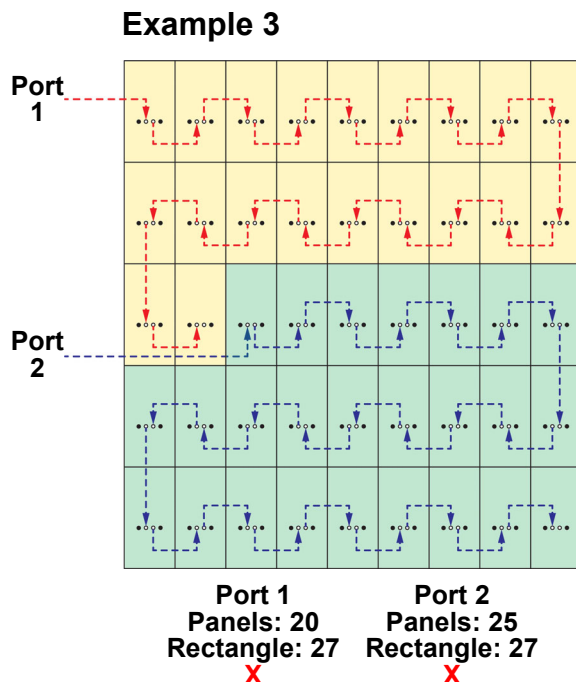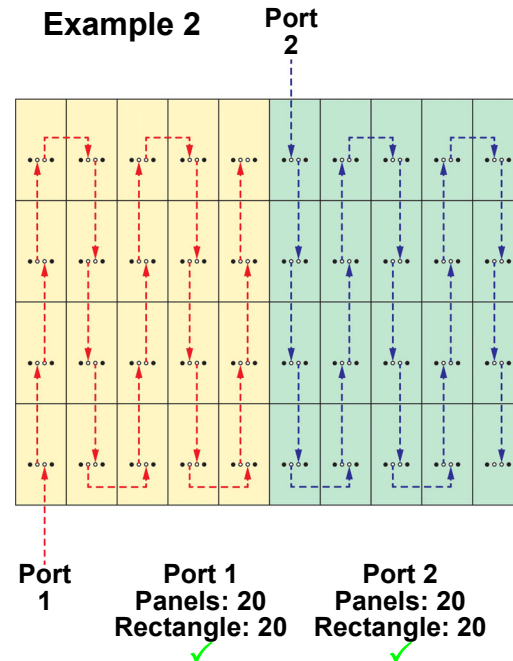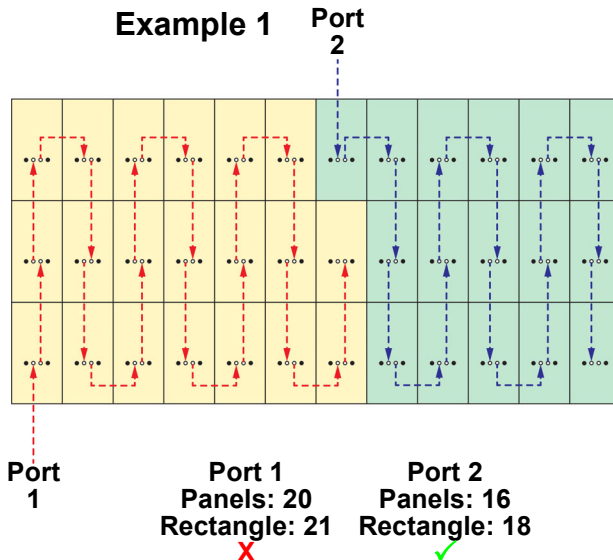
Signal Chain Rectangles

When panels are assembled together to output video from a Novastar MX40 Pro, they form horizontal rows and vertical columns in rectangular arrangements.

Each port of one of the Novastar MX40 Pro driver can support multiple REM MIRA panels. If the amount of panels used exceeds the maximum, more than 1 output port from the Novastar MX40 Pro will be required. Pixels for each port are calculated as whole rectangles. Even if all panels within a rectangle are not connected to a port, the total panels in the rectangle must be within the limits of the port.

Connecting panels to a single port in an arrangement which creates a rectangle larger than the maximum permitted will result in error.

Of the following examples, only those where both of the following are true can work:

- The number of panels connected to each port is equal to or less than 20.
- The panels connected to each port individually form a rectangle which includes 20 panels or fewer.

Example 1

Port 2

Port 1

Port 1	Port 2
Panels: 20	Panels: 16
Rectangle: 21	Rectangle: 18
✗	✓

Example 2

Port 2

Port 1

Port 1	Port 2
Panels: 20	Panels: 20
Rectangle: 20	Rectangle: 20
✓	✓

Example 3

Port 1

Port 2

Port 1	Port 2
Panels: 20	Panels: 25
Rectangle: 27	Rectangle: 27
✗	✗

Example 4

Port 1

Port 2

Port 1	Port 2
Panels: 20	Panels: 20
Rectangle: 20	Rectangle: 20
✓	✓

Connecting the Power Between Joined Panels

Power cable panel connections can also use different configurations. The basic configuration to connect the main power supply from one panel to the next is:

1. The main power is connected to the first panel's Power Input or Output.
2. A power cable is then connected to the first panel's Power Output and connected to the next panel's Power Input.
3. The connections continue until all panels are connected.

Connect power between the panels using the same procedure as the signal only using the Power Input and Power Output connectors. Always adhere to the power-linking specifications for each REM MIRA model.

Refer to the Power Linking section for details on the number of panels that can be linked based on voltage from a single power connection.

⚠️ **Power linking more panels than recommended will void the product's warranty and increase the risk of electrocution or fire!**

Refer to the following diagrams for an example of power connection from the main and to each connected panel.

This example is using the REM MIRA power linking 5 panels horizontally @ 120 V.
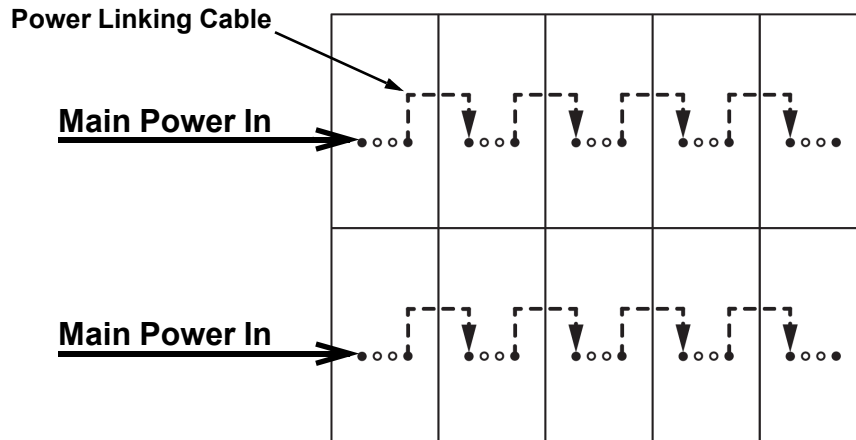
Contact Us

General Information	Technical Support
Chauvet World Headquarters	
Address: 3360 Davie Rd., Suite 509	Voice: (844) 393-7575
Davie, FL 33314	Fax: (954) 756-8015
Voice: (954) 577-4455	Email: chauvetcs@chauvetlighting.com
Fax: (954) 929-5560	
Toll Free: (800) 762-1084	Website: www.chauvetprofessional.com
Chauvet Europe Ltd	
Address: Pod 1 EVO Park	Email: UKtech@chauvetlighting.eu
Little Oak Drive	
Sherwood Park, Nottinghamshire, U.K.	Website: www.chauvetprofessional.eu
NG15 OEB	
Voice: +44 (0) 1773 511115	
Fax: +44 (0) 1773 511110	
Chauvet Europe BVBA	
Address: Stokstraat 18	Email: BNLtech@chauvetlighting.eu
9770 Kruishoutem	
Belgium	Website: www.chauvetprofessional.eu
Voice: +32 9 388 93 97	
Chauvet France	
Address: 3, Rue Ampère	Email: FRtech@chauvetlighting.fr
91380 Chilly-Mazarin	
France	Website: www.chauvetprofessional.eu
Voice: +33 1 78 85 33 59	
Chauvet Germany	
Address: Bruno-Bürgel-Str. 11	Email: DEtech@chauvetlighting.de
28759 Bremen	
Germany	Website: www.chauvetprofessional.eu
Voice: +49 421 62 60 20	
Chauvet Mexico	
Address: Av. de las Partidas 34 - 3B	Email: servicio@chauvet.com.mx
(Entrance by Calle 2)	
Zona Industrial Lerma	Website: www.chauvetprofessional.mx
Lerma, Edo. de México, CP 52000	
Voice: +52 (728) 690-2010	

Warranty & Returns

For warranty terms and conditions and return information, please visit our website.

For customers in the United States and Mexico: www.chauvetlighting.com/warranty-registration.

For customers in the United Kingdom, Republic of Ireland, Belgium, the Netherlands, Luxembourg, France, and Germany: www.chauvetlighting.eu/warranty-registration.