

#### 4) Initial Unit Configuration

For configuration of the MV-821-IP Multiviewer (for the internal 'Multiviewer' block and the four 'Video IP Input circuit' blocks), please refer to the *MV-821 User Manual* located on the [Grass Valley web site](http://www.grassvalley.com).

The *MV-821 User Manual* also describes the following for the MV-821-IP:

- Architecture.
- Front and rear connectors and controls; Hardware Installation.
- RollCall templates for internal 'Multiviewer' block and 'Video IP Input circuit' blocks.
- Getting started.
- Specification.

#### 5) Edit Video Wall Layout and Configure Alarms (with Orbit)

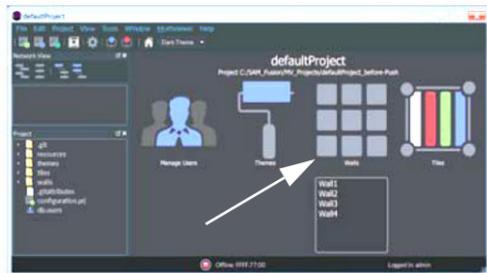
See the [Grass Valley web site](http://www.grassvalley.com) for Orbit and MV-821 user manuals. Perform the following steps to check basic functionality for the video wall, setting an alarm, and Orbit network connection:

##### Pull the default layout from the Multiviewer:

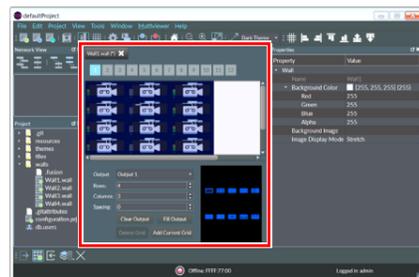
1. Run **Orbit** on a PC. (Orbit v2.1 or later)
2. **File > New Project**. Click "**Connected Multiviewer Project**". Browse to a PC folder where wall layout data will be stored. Folder *must be empty*. Click **Next**.
3. Select a multiviewer unit from displayed list. Click **Choose**. (Remember to select **RollCall Domain ID**)
4. Username **admin**, Password **admin**.
5. Click **Login**. The video wall layout is pulled from unit and read into Orbit.



##### The Orbit Project Screen:



6. Click the **Walls icon**. Click **Wall1** in drop-down list. The **Wall Editor** screen is shown for **Wall1**.



##### Make a visible change to the wall:

7. Click on a middle wall tile, to select it. **Tile Properties** are shown on the right.

8. Change Property **Tile Type** to **Analogue Clock**. The selected Orbit tile changes to a round clock face.
9. Click **File > Save File** to save this change.

##### Enable a Video Input Lost alarm:

10. Click **Multiviewer > Input Alarms**. A dialog is shown with tabs. On the:
  - **Input Tab** - Set **Selected Input** to **Input 1**.
  - **Alarm Tab** - Scroll down **Selected Alarm** box. Select **Video Input Lost**. Select **Alarm Enable**.
  - **Input Tab** - Click **Copy All**.
11. Click **OK**. Click **File > Save File** to save change.

**Video Input Lost** alarm is enabled on multiviewer inputs.

##### Push the modified project to the multiviewer:

12. Click **Project > Select Multiviewer**. Enter the **IP address** (MV Control port) of the MV-821-IP.
13. Click **Project > Push**.

The MV-821-IP adopts the new wall layout and an analogue clock is shown.

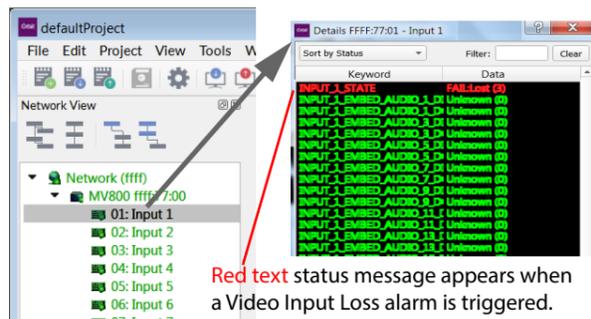
##### Provoking a 'Video Input Lost' alarm warning:

14. Disconnect Video Input 1 at router input (source). Video loss is detected. A slow-flashing, **red rectangular border** appears around the corresponding video wall tile.



The alarm may also be seen in a separate **Orbit** window:

15. Expand the **Network View Pane** MV-821-IP item and **right-click** on the **Input 1** item. A **Details** text window shows **Input 1** status.



Red text status message appears when a Video Input Loss alarm is triggered.

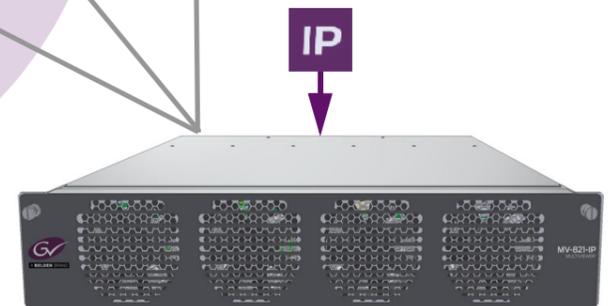
# MV-821-IP



## Standalone Multiviewer

Flexible Multi-head Displays

## Quick Setup Guide



Thank you for purchasing a new MV-821-IP Multiviewer.

This Quick Setup Guide will help you get running as quickly as possible.

### Upon Receipt of your MV-821-IP Multiviewer:

- The product is supplied in dedicated packaging provided by Grass Valley; it should not be accepted if delivered in inferior or unauthorized materials.
- Unpack the MV-821-IP product carefully and check components against the packing list. If anything is incorrect, please notify your Grass Valley Partner or notify Grass Valley directly.
- Check all components have not been damaged in transit. If any damage has occurred, notify your Grass Valley Partner (or Grass Valley directly) and the carrier immediately. Have your order details ready.
- Retain the original packing materials. They could be useful for future transporting or shipping.

### Safety Information:

**Caution:** MV-821-IP Multiviewer products should only be serviced by qualified personnel.

**Caution:** Take anti-static precautions when handling the product, or when inserting or removing any modules.

**Caution:** Ensure the MV-821-IP Multiviewer front door is properly closed at all times.

**Caution:** The MV-821-IP can be equipped with optical outputs, which contain low-power laser beams.

**Warning:** Do not look into an optical output. Laser radiation can cause irreversible and permanent damage of eyesight.

**Warning:** Do not look at the end of a fiber to see if light is coming out. Use optical instrumentation.

**Warning:** Unused optical outputs should be covered, to prevent direct exposure to the laser beam.

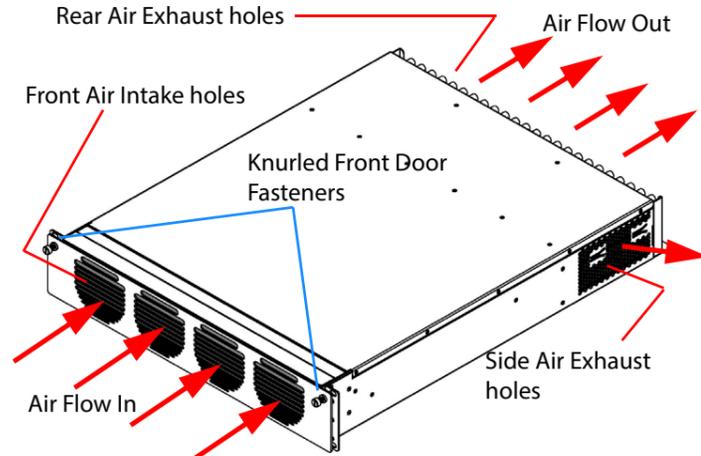
**Warning:** To reduce the risk of electric shock, do not expose this equipment to water or moisture.

## 1) Fitting the MV-821-IP Multiviewer into a 19" Equipment Rack

The MV-821-IP is designed to be installed and used in a standard 483mm (19 inch) equipment rack. It requires a 2RU high rack-space.

MV-821-IP Unit Ventilation: see **Figure 1**.

- **Caution:** Always keep the unit front door closed. This ensures correct unit ventilation and operation.
- **Caution:** Do not block the unit's air intake and exhaust holes.
- **Caution:** Ensure a minimum clearance at the unit rear of 200 mm. *This is essential.*
- **Warning:** Use proper procedures to lift the unit; it is heavy (14.5 kg, ~32 lb). Ask a Health and Safety adviser for information



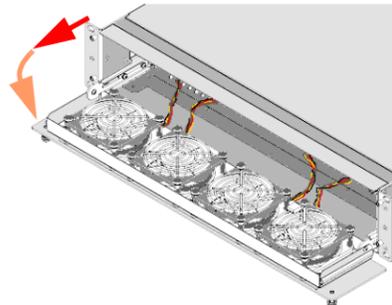
**Figure 1 Unit Ventilation, Air Flow Front-to-Rear**

Operating Environment	5°C to 30°C ambient. 10 to 90% (non-condensing)
Weight	14.5 kg (~32lb)
Overall Chassis Dimensions:	Width: 482.6 mm (~19 in.); Depth: 604.8 mm (~23.8 in.); Height: 87.0 mm (~3.42 in.)
Max. Power Consumption	MV-821-IP unit: 465 W Unit with 'H.264 Stream' option fitted: TBA W

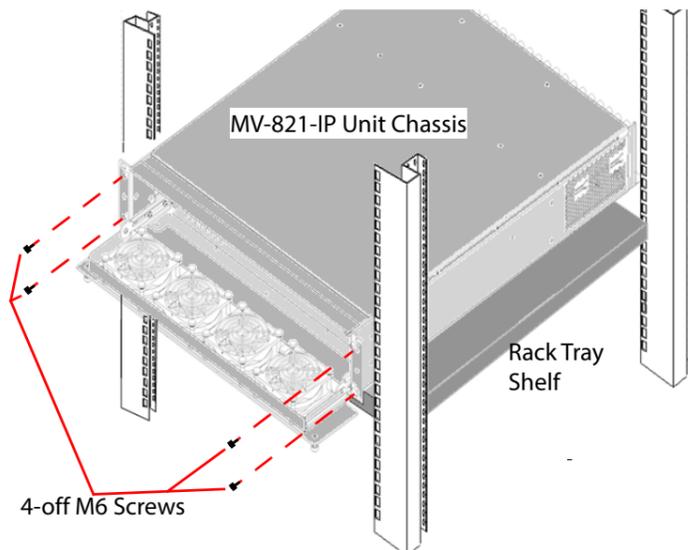
**Table 1 MV-821-IP Specification**

### Rack-Mounting Instructions

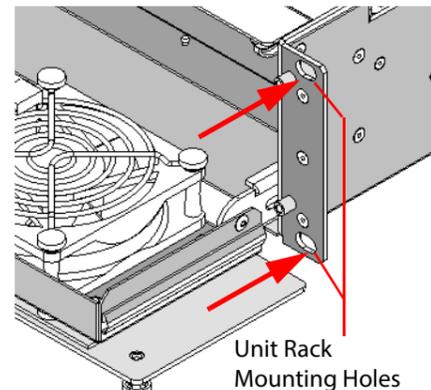
1. Check the rack is rigid enough for the unit. Use a suitable rack tray to take the unit's weight (see **Table 1**).
2. Position the unit on the rack tray. Use the correct lifting procedures.
3. Open the front door by unscrewing the knurled door fasteners; then pull the front door out approx. 2cm and then down. See **Figure 2**.
4. Secure the MV-821-IP Multiviewer chassis in the rack at each mounting hole; use 4-off M6 screws. See **Figure 3** and **Figure 4**.
5. Close the front door by lifting it up and pushing it into the unit.
6. Secure the front door by tightening the knurled door fasteners.



**Figure 2 Opening the Front Door**



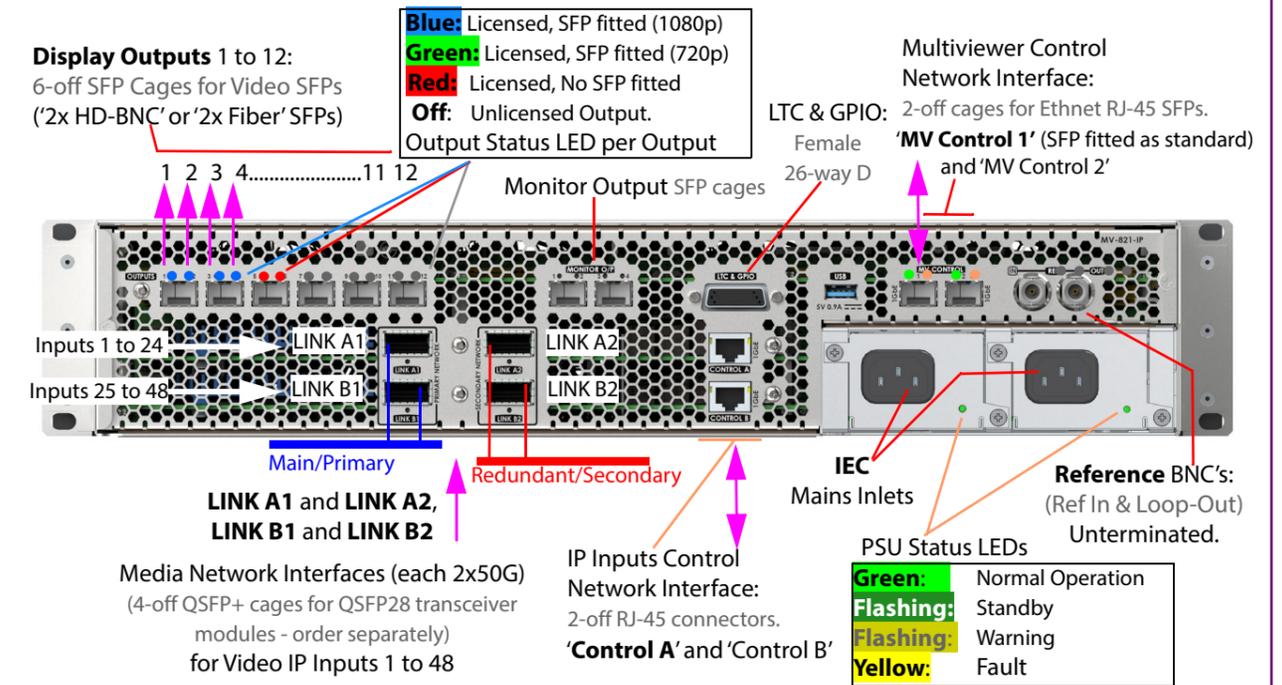
**Figure 3 Rack-Mounting MV-821-IP Unit**



**Figure 4 MV-821-IP Unit Rack Mounting Holes**

## 2) Connections

Rear connectors etc. are shown in **Figure 5**.



**Figure 5 MV-821-IP Multiviewer Rear Connections and Indicators**

Connect:

- **Display Outputs 1 to 4** (Head display outputs.) to monitor displays.
- Analog reference signal to **Ref In**; terminate **Ref Out** in 75 ohm.
- Media networks to **Link A1, A2, B1, and B2** via QSFP28 transceiver modules. **Inputs 1-24** and **25-48**, use **Link A1** and **Link B1** respectively for Main/Primary. Use **Link A2** and **Link B2** for Redundant/Secondary.  
**Note:** There are four 12-input Video IP Input circuit blocks within an MV-821-IP unit. Each block uses up to two 50G media network connections. Refer to *MV-821 User Manual* for a description of the unit's media network architecture (100G=2x50G).
- 1G Ethernet network cable to network port '**MV Control 1**'. (For control/configuration of the internal multiviewer block.)
- 1G Ethernet network cable to network port '**Control A**'. (For control/configuration of the video IP Input circuit blocks.)
- Connect IEC mains cords to the **IEC inlets**.

For further information, please refer to the MV-821 User Manual, which covers MV-821-IP.

## 3) Powering Up MV-821-IP Multiviewer

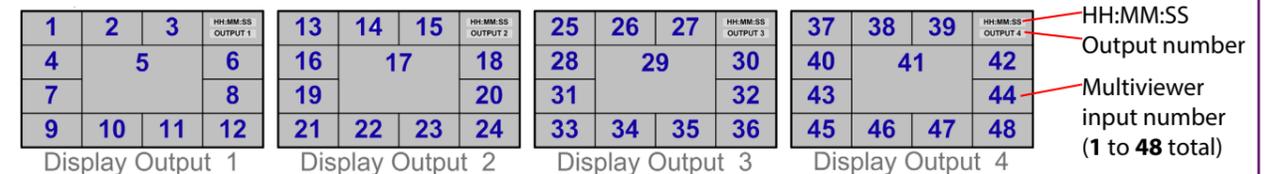
1. Connect each mains cord to separate branch mains circuits employing separate service grounds.
2. The MV-821-IP unit starts and boots up, lasting 2 to 3 minutes. After approx. 1 minute, a splash screen is on each Display Output, see **Figure 6**, and it shows IP address information.
3. When booting is complete, the splash screen goes away.
4. Default video walls are shown on Display Outputs 1 to 4. See **Figure 7**.



**Figure 6 MV-821-IP Splash Screen**

### Default Video Wall (Display Outputs 1 to 4)

A default video tile-grid is shown on head **Display Outputs 1 to 4**. All 48 video signals monitored by the multiviewer are shown. And 'HH:MM:SS' time and 'display output number' are also shown. See **Figure 7**.



**Figure 7 Default Video Wall Layout**