

6) Edit Video Wall Layout and Configure an Alarm

A multiviewer video wall layout is edited with Grass Valley **Orbit** software; see MV-821 and Orbit User Manuals.

The following steps check some basic functionality: editing the default video wall, setting an alarm, and connecting Orbit to a multiviewer unit.

Pull default layout from the Multiviewer:

1. Run the **Orbit** application on a PC (Orbit v2.1.10 or later). The Orbit **Initial Screen** is shown.



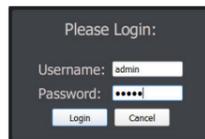
2. Click menu bar **File > New Project**. Click "**Connected Multiviewer Project**". Browse into an empty PC folder, i.e. where the project data is to be stored.

Note: Must be an empty folder.

Click **Choose**. Click **Next**.

3. Set the **RollCall Domain ID**. Click **Search**.

4. Select a multiviewer unit from the displayed list. Click **OK**.

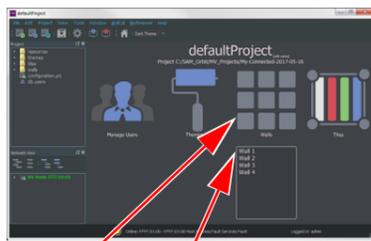


5. Enter "**admin**" as Username and as Password.

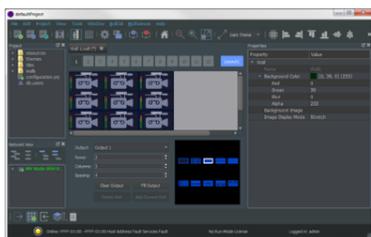
6. Click **Login**. Multiviewer layout data is pulled from the multiviewer unit, read into Orbit, and stored on the PC.

7. The Orbit **Project Screen** is shown. This has four large icons:

Manage Users, Themes, Walls, and Tiles.



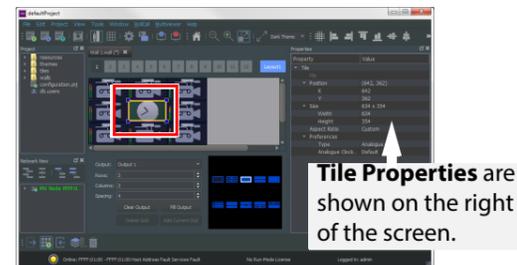
8. Click the **Walls** icon. Click on **Wall 1** in drop-down list. The **Wall Editor** screen is shown for **Wall 1**.



To make a simple change to the multiviewer layout and push it back to the multiviewer unit, carry out the following steps: →

→ Make a visible change to the wall:

9. Click on a middle wall tile to select the tile.



10. Change tile property **Tile>Preferences>Type** to **Analogue Clock**. The tile shows a round clock face.

11. Click menu bar **File > Save File** to save change.

Enable a 'Video Input Lost' alarm:

12. Click menu bar **Multiviewer > Input Alarms**.

A dialog is shown with tabs:

- a) **Input Tab**: Set **Selected Input** to **Input 1**.
- b) **Alarm Tab**: Scroll down **Selected Alarm** box. Select '**Video Input Lost**'. Tick **Alarm Enable**.
- c) **Input Tab**: Click **Copy All**.

Alarm '**Video Input Lost**' is enabled on all inputs. Click **OK**.

13. Click menu bar **File > Save File** to save change.

Push the modified project to the multiviewer unit:

14. Click menu bar **Project > Select Multiviewer**. Enter the **IP address** of the multiviewer unit.

15. Click menu bar **Project > Push**. The modified project is pushed to the multiviewer unit.

The MV-821 unit adopts the new wall layout and the analogue clock is shown on multiviewer Output 1.

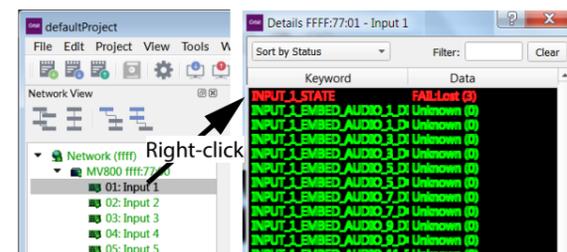
Provoking a 'Video Input Lost' alarm warning:

16. Disconnect the video signal to MV-821 video input 1.

'Video input loss' is detected; a **flashing red border** appears around corresponding wall tile.



17. An alarm error message can be seen in Orbit: Expand the **Network View Pane** multiviewer item; and right-click on the **Input 1** item. A **Details** text window shows **Input 1** status.



Red text status messages appear when a '**Video Input Loss**' alarm is triggered.

This has exercised the MV-821 with Orbit, sending out alarm status messages which Orbit is intercepting.

MV-821-HDBNC

Standalone Multiviewer

Flexible Multi-head Displays

Quick Setup Guide



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

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

Upon Receipt of your MV-821 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 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 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 Multiviewer front door is properly closed at all times.

Caution: The MV-821 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 Multiviewer into a 19" Equipment Rack

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

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

- **Caution:** Always keep the MV-821 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 kg, ~30.3 lb). Ask a Health and Safety adviser for information

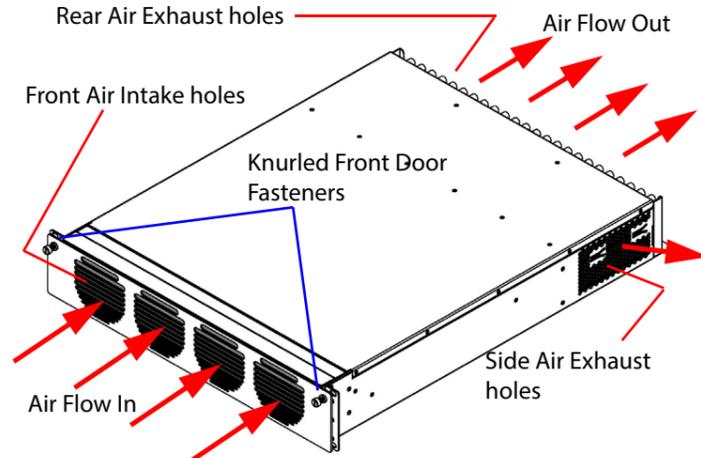


Figure 1 Unit Ventilation, Air Flow Front-to-Rear

Operating Environment	5°C to 30°C ambient. 10 to 90% (non-condensing)
Weight	14 kg (~30.3lb)
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-HDBNC unit: 275 W Unit with 'H.264 stream' option fitted: TBA W

Table 1 MV-821-HDBNC 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**).

Note: The chassis rear will become heavier when cables are connected.

2. Position the MV-821 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 Multiviewer chassis in the rack at each mounting hole using 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.

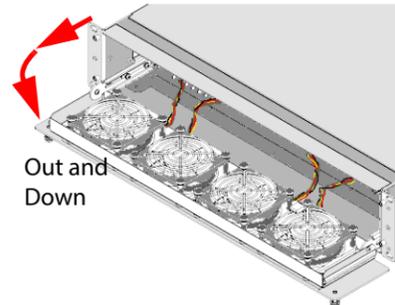


Figure 2 Opening the Front Door

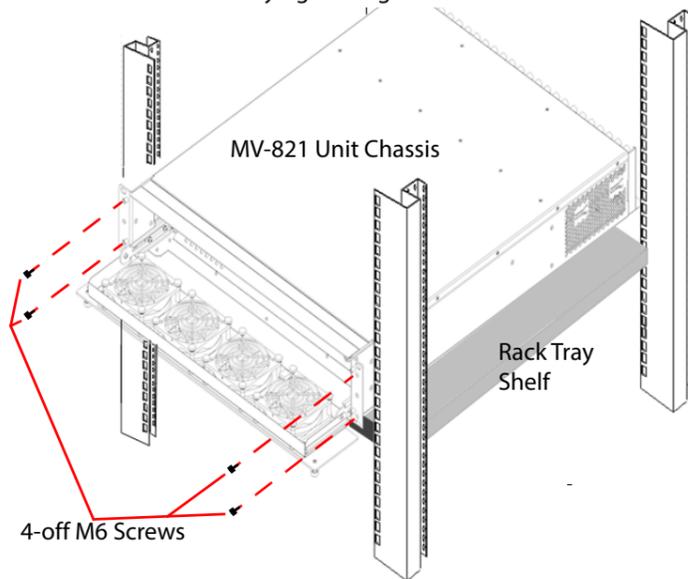


Figure 3 Rack-Mounting MV-821 Unit

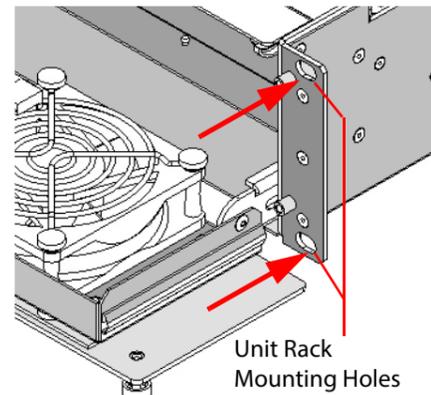


Figure 4 MV-821 Unit Rack Mounting Holes

2) Connections

SFP modules are already fitted to the MV-821-HDBNC unit. Rear connectors etc are shown in **Figure 5**.

Head Display Outputs 1 to 12:
6-off SFP Cages for Video SFP's
(2x HD-BNC or 2xFiber)

Blue: Licensed and SFP fitted
Red: Licensed, No SFP fitted
Off: Unlicensed Output.
Output Status LED per Output

LTC & GPIO:
Fem. 26-way D

Network Interface Ports:
2-off SFP cages for Ethernet
RJ-45 SFP's
[Port1, Port2
"1G1", "1G2"]



Multiviewer Video Inputs 1 to 48:
(2x 24-off HD-BNC connectors)
SDI, HD-SDI, 3G-SDI, 12G-SDI (licensed)

Reference BNC's:
(2x Ref In & Ref-Out)
Unterminated.

IEC Mains Inlets

PSU Status LEDs

Figure 5 MV-821-HDBNC Rear Connections and Indicators

- Connect: a) **Head Display Outputs 1 to 4** to monitor displays.
b) Analog reference signal to **Ref In 1**; terminate **Ref Out 1** in 75 ohm.
c) Digital video signals to the **Multiviewer Video Inputs**.
d) A network cable to **Network Interface Port 1** (1G Ethernet, "1G1").
e) Connect IEC mains cords to the **IEC inlets**.

Green: Normal Operation
Flashing: Standby
Flashing: Warning
Yellow: Fault

3) Powering Up MV-821 Multiviewer

1. Connect each mains cord to a separate branch mains circuits employing separate service grounds.
2. Unit starts and boots up. Booting lasts 2 to 3 minutes. After approx. 1 minute, a splash screen is shown on each Display Output, see **Figure 6**.
3. When booting is complete, the splash screen goes away.



Figure 6 MV-821 Booting Splash Screen
(Note: IP Address information is shown)

4) Initial MV-821 Configuration

1. Start **RollCall Control Panel** (version 4.16.11 or later) on a laptop PC. Click the **Build Network** icon.
2. Enter MV-821 network interface port 1 (**1G1**) default **IP address**: 10.54.31.221. RollCall connects to MV-821.
3. Navigate to RollCall MV-821 Multiviewer System-Setup screen.
4. Set up **Network Settings** relevant for your house network (IP address, Subnet mask, etc).
5. In **RollCall Settings**, set up the **Unit** number (default = 01) and **Domain ID** (default = 100) for the MV-821.
Note: Unit number must be unique for each unit. Typically, Domain ID is the same for each MV-821.

Restart:

6. Click **System Reset** (in RollCall Control Panel **System-Setup** screen); then click **Confirm**. A MV-821 **System Reset** starts. While MV-821 reboots, a splash screen shows unit IP address etc., see **Figure 6**.
7. Disconnect the MV-821's 1G1 port from the Laptop PC and connect the MV-821 to the house network.

Initial configuration for the MV-821 is done.

5) Default Video Wall

8. Each Display Output shows a video tile-grid, with **Video Inputs 1-48** shown across **Outputs 1-4**, plus **HH:MM:SS** time and display output number shown on each output.

1	2	3	HH:MM:SS OUTPUT 1	13	14	15	HH:MM:SS OUTPUT 2	25	26	27	HH:MM:SS OUTPUT 3	37	38	39	HH:MM:SS OUTPUT 4
4	5	6		16	17	18		28	29	30		40	41	42	
7		8		19		20		31		32		43		44	
9	10	11	12	21	22	23	24	33	34	35	36	45	46	47	48
Display Output 1				Display Output 2				Display Output 3				Display Output 4			