6) 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.

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

- HH:MM:SS
- Output number
- Multiviewer input number (**1** to **48** total)

Figure 5   Default Video Wall Layout   (Default monitoring: **1** to **24** router outputs; **25** to **48**, router inputs.)

7) Edit Video Wall Layout and Configure Alarms

See the *Grass Valley web site* for GV Orbit and MV-831 user manuals. Perform the following steps to check basic functionality for the video wall, setting an alarm, and GV Orbit network connection:

View MV-831 Settings:

1. Run GV Orbit Client (v4.0 or later) on a PC.
2. Click **RollCall Control Screen** and enter the new MV-831's IP address. Click **OK**.
   The MV-831 RollCall control screens are opened in a tab.
3. On the **System - Setup** screen, take a note of the MV-831's 1G1 Interface **IP address** and RollCall Settings **Domain ID**.
4. Close the tab.
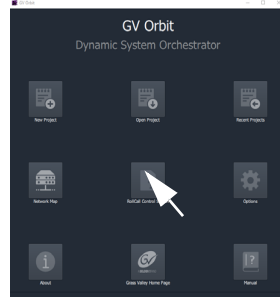
Pull Default Layout from New MV-831:

5. Click **New Project** and select "**Connected Multiviewer Project**".
6. Browse *into* a new and empty PC folder, where project data will be stored. Click **Choose**. Click **Next**.
   A list of devices available to GV Orbit is shown.
7. Select the MV-831 from the displayed list. Click **OK**.
   A login screen is shown.
8. Enter username and password of the project (default = admin, admin). Click **Login**.
   The project data is pulled from the device and a **Project Home** screen is shown.
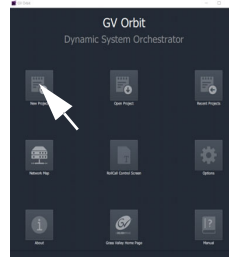
GV Orbit Project Screen:

9. Click the **Walls** icon and select a wall item in the drop-down list (e.g. **Wall1**).
   The wall is shown in **Run** mode.
10. Click the ⬚ icon to enter **Design** mode.
    The icon turns blue and the **Wall Editor** screen is shown.
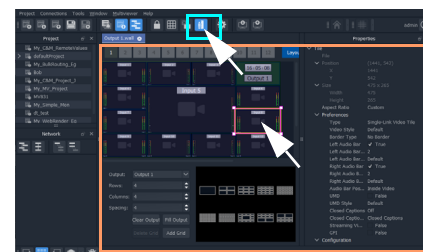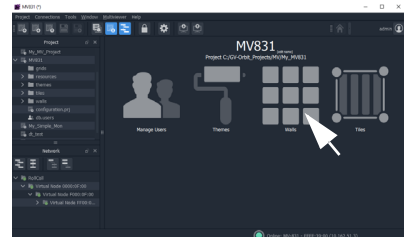
Make a Visible Change to the Wall:

11. Click on a video wall tile, to select it.
    Tile Properties are shown on the right-hand side.
12. Change property **Preferences > Type** to **Analogue Clock**. The selected tile changes to a round clock face.
13. Click **Project > Save File** in the main menu to save this change.

Enable 'Video Input Lost' Alarm:

14. Click **Multiviewer > Input Alarms** in the main menu. A dialog is shown with tabs. On the:
    - **Input Tab -** Set **Selected Input** to **Input 1**.
    - **Alarm Tab -** Scroll down **Select Alarm** box and select **Video Input Lost**. Select **Alarm Enable**.
    - **Input Tab -** Click **Copy All**.
15. Click **OK**. Click **Project > Save File**.

Video Input Lost alarm is enabled on all MV-831's 48-input multiviewer inputs.

Push Modified Project to the MV-831:

16. Click **Project > Push**.
17. Ensure the project name is selected and click **OK**.

The MV-831 adopts new wall layout: An analogue clock is shown.

Provoking a 'Video Input Lost' Alarm Warning:

18. Disconnect signal going to 48-input multiviewer Input 25. i.e. at the MV-831's **Router Video Input 1** connector.
    Video loss is detected at the 48-input multiviewer input. A slow-flashing, red rectangular border appears around the corresponding video wall tile (tile 25).

Alarms may also be seen in the **Network** window and **Alarm List** window:

19. Locate and expand the **Network** window's MV-831 item.
20. Right-click on the red **Input 25** item and select **Alarm List** in drop-down menu.
    An **Alarm List** summary window shows the 48-input multiviewer's **Input 25** status.
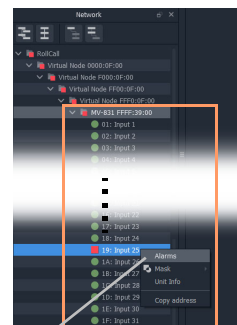
MV-831

Integrated Multiviewer

Quick Setup Guide

01:15

Thank you for purchasing a new **MV-831 Integrated Multiviewer** module. This Quick Setup Guide will help you get the module running as quickly as possible.

An MV-831 module combines a router video input and output module with a 48-input multiviewer. One or more MV-831 modules fit into a Sirius 830 router, each replacing a Sirius 830 input module and adjacent output module.

MV-831 Module

SIRIUS 830

Upon Receipt of your MV-831 Multiviewer:

The product is supplied in dedicated packaging provided by Grass Valley:

- Do not accept it if delivered in inferior or unauthorized materials.
- Unpack the MV-831 product carefully and check components against the packing list. If anything is incorrect, please notify your Grass Valley Partner or notify Grass Valley directly. (*https://www.grassvalley.com/contact/support/*).
- Check all component items have not been damaged in transit, including the MV-831 front and rear modules. 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 because they could be useful for future transporting or shipping.

The MV-831 User Manual can be downloaded from *https://www.grassvalley.com/products/mv-831/*

Safety Information:

Caution: MV-831 Multiviewer products should only be serviced by qualified service personnel.

Caution: Take anti-static precautions when handling MV-831 modules, or when inserting or removing the modules.

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

Warning: The MV-831 can be equipped with optical outputs which contain low-power laser beams. 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 an optical 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.
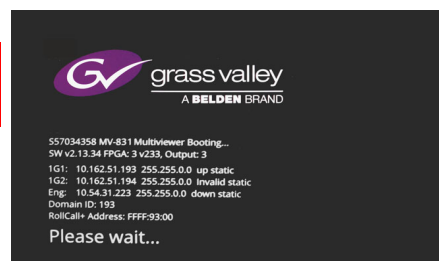
2) Rear Connections

Connect the following:

1. Router **Video Inputs** to video signal sources.
2. Router **Video Output** signals to equipment inputs.
3. **Head Display Outputs 1 to 4** to monitor displays.
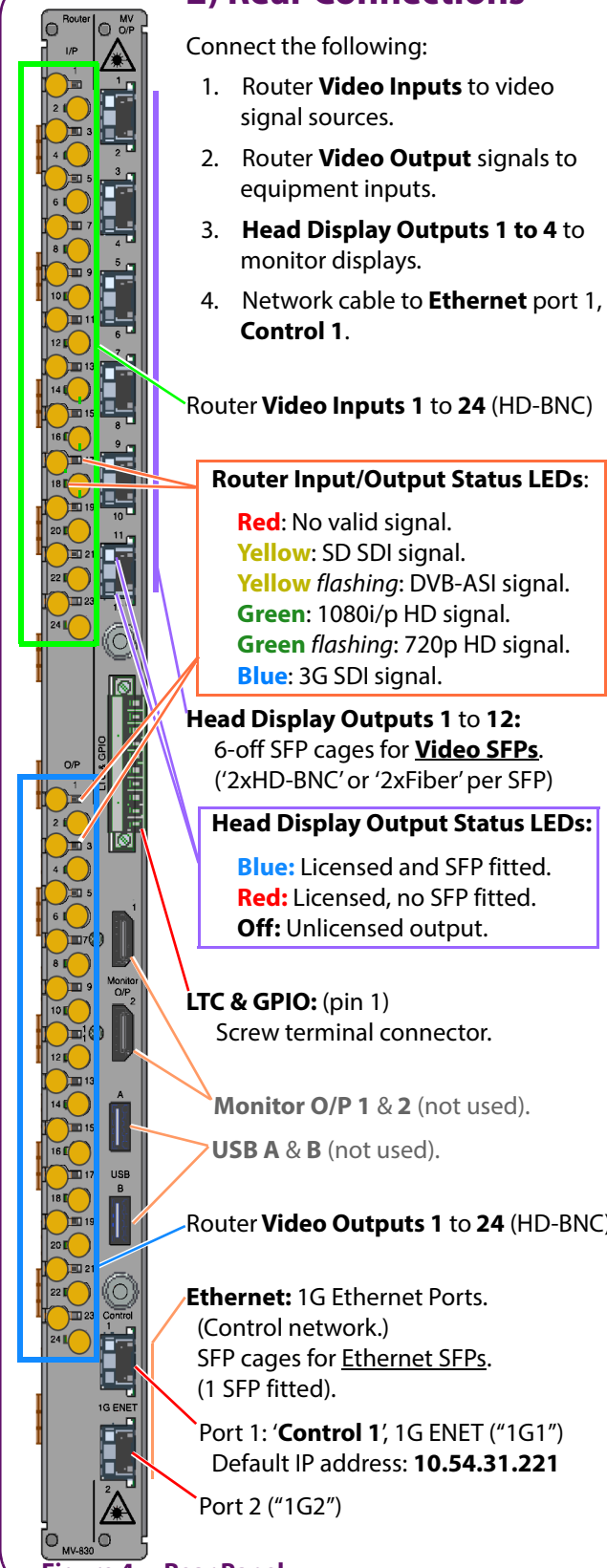4. Network cable to **Ethernet** port 1, **Control 1**.

Router **Video Inputs 1 to 24** (HD-BNC)

Router Input/Output Status LEDs:

Red: No valid signal.
Yellow: SD SDI signal.
Yellow *flashing*: DVB-ASI signal.
Green: 1080i/p HD signal.
Green *flashing*: 720p HD signal.
Blue: 3G SDI signal.

Head Display Outputs 1 to 12:
6-off SFP cages for **Video SFPs**.
('2xHD-BNC' or '2xFiber' per SFP)

Head Display Output Status LEDs:

Blue: Licensed and SFP fitted.
Red: Licensed, no SFP fitted.
Off: Unlicensed output.

LTC & GPIO: (pin 1)
Screw terminal connector.

Monitor O/P 1 & **2** (not used).

USB A & **B** (not used).

Router **Video Outputs 1 to 24** (HD-BNC)

Ethernet: 1G Ethernet Ports.
(Control network.)
SFP cages for **Ethernet SFPs**.
(1 SFP fitted).

Port 1: '**Control 1**', 1G ENET ("1G1")
Default IP address: **10.54.31.221**

Port 2 ("1G2")

Figure 4   Rear Panel

3) MV-831-MB Front Module Indicators

LEDs along the MV-831-MB module's front edge are:

LED	Status	
	OK	**Fault**
⬛ ACT	Flash	-
🟥 ERR	Off	On, error
🟧 WRN	Off	On, warning
🟩 OK	On	Flash, comms fault
🟨 LOCAL CMD OK	Flash, On or Off	-
🟥 LOCAL CMD ERR	Off	Flash, message error
🟨 REMOTE CMD OK	Flash, On or Off	-
🟥 REMOTE CMD ERR	Off	Flash, message error

4) Network Configuration

1. Start Grass Valley **RollCall Control Panel** (v4.17.1 or later) on a laptop PC. Click the **Build Network** icon.
2. Enter the MV-831 Ethernet port 1 (1G1) default IP address, 10.54.31.221.
   RollCall Control Panel connects to the MV-831 and the **MV-831**'s **RollCall Control Screen** is shown.
3. Navigate to the **System-Setup** screen.
4. Set up **Network Settings** relevant to your house network (IP address, Subnet mask, etc).
5. In **RollCall Settings**, set up **Unit** number (default = 01) and **Domain ID** (default = 100) for the MV-831.

   Note: Unit number must be unique for each unit. Typically, 'Domain ID' is the same for each unit.

Restart MV-831:

6. In the **System-Setup** screen:, click **System Reset**; then click **Confirm**.

   The MV-831 boots up and a splash screen shows the unit's IP address and other details (see **Figure 3**).

After MV-831 has restarted, initial network configuration is complete.

7. Disconnect MV-831 Ethernet port 1 from laptop PC. And connect the port to the house network.

5) Router Configuration

Both of the Sirius 830 router slots used by an MV-831 must be set up in the router's configuration. See items shown in **Table 2**.

Multiviewer Monitoring Mode:
By default, all MV-831 router o/ps and i/ps are monitored by the MV-831's 48-input multiviewer (1 to 48 = O/ps 1 to 24 and I/ps 1 to 24 respectively). (Monitoring mode is set with router slot configuration items **Redundant Crosspoint Enable** and **Main Output Follow**, both enabled by default.)

Module Type - Input slot	MV830Input
Module Type - Output slot	MV830Output
Input and Output Ports	MV830
Logical Sources	VideoSource
Logical Destinations	VideoDest
Router Frame Number	14
EmbeddedTimecodeEnable	True

Table 2   Router Configuration Items