

6) Default Video Wall Layout and Alarm Configuring

A video wall layout is edited with **Grass Valley Orbit** software; see the Grass Valley website for the Orbit and MV-840/850 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:

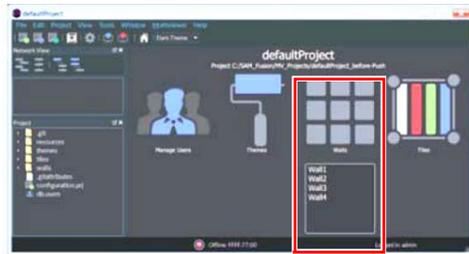
1. Run the **Orbit** application on a PC. (Orbit Version 2.1 or later)



2. **File > New Project.** Click "**Connected Multiviewer Project**". Browse to a PC folder where wall layout data will be stored. *Must be an empty folder.* Click **Next**.
3. Select a multiviewer unit from the displayed list. Click **Choose**. (Remember to select the **RollCall Domain ID**)
4. Use "**admin**" as Username and Password.
5. Click **Login**. The video wall layout is pulled from the multiviewer and read into Orbit.

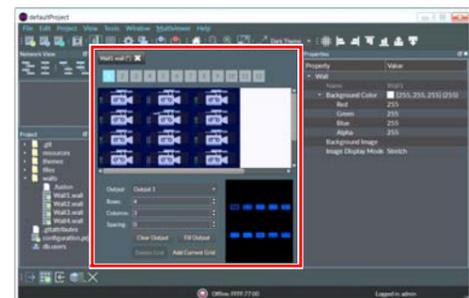


The Orbit Project Screen:



There are four large icons: Manage Users, Themes, **Walls**, and Tiles.

6. Click the **Walls icon** and click on **Wall1** in the drop-down list.



The **Wall Editor** screen is shown for **Wall1**.

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

Make a visible change to the wall:

7. Click on a middle wall tile, to select it.



Tile Properties are shown on the right of the screen.

8. Change **Tile Type** to **Analogue Clock**. The selected 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**. Tick **Alarm Enable**.
 - **Input Tab** - Click **Copy All**.
11. Click **OK**. Click **File > Save File** to save change.

Video Input Lost alarm is enabled on MV-840/850 multiviewer inputs.

Push the modified project to the multiviewer:

12. Click **Project > Select Multiviewer**. Enter the **IP address** of the MV-840/850.
13. Click **Project > Push**. The modified project is pushed to the MV-840/850.

The MV-840/850 adopts the new wall layout and an analogue clock is shown on Output 1.

Provoking a 'Video Input Lost' alarm warning:

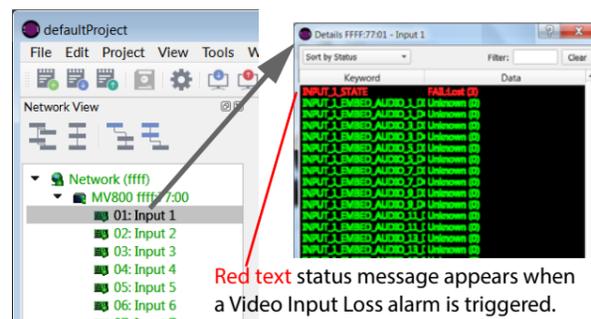
14. Disconnect Video Input 1 at router input (source).

Video loss is detected and a slow-flashing, red rectangular border appears around the corresponding video wall tile.



The alarm may also be seen in an **Orbit** window:

15. Expand the **Network View Pane** MV-840/850 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-840/850

Integrated Multiviewer

Quick Setup Guide



Thank you for purchasing a new **MV-840** or **MV-850** Integrated Multiviewer. This Quick Setup Guide will help you get the multiviewer running as quickly as possible.

A MV-840/850 module combines a dual router output module and a multiviewer. Typically, fit MV-840s into Sirius 840 routers and MV-850s into Sirius 850 routers. (Note: MV-840 and MV-850 are, in fact, identical and can be interchanged.)

Upon Receipt of your MV-840/850 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-840/850 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/support/sam/>).
- Check all components have not been damaged in transit, including the MV-840/850 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.

Safety Information:

Caution: MV-840/850 Multiviewer products should only be serviced by qualified personnel.

Caution: Take anti-static precautions when handling MV-840/850 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-840/850 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.

1) Fitting the MV-840/850 Multiviewer into a Sirius 840/850 Router

Router Power Supplies: Sirius 800 routers have powerful power supplies. In most cases, these are sufficient for powering MV-840/850(s). Grass Valley recommends checking your router power supply configuration with Grass Valley support before fitting MV-840/850(s) into the router. (For contact details, see <https://www.grassvalley.com/support/sam/>)

Module: MV-840/850 is a double-width Sirius 840/850 output module, comprising: rear + front module. See **Figure 1**.

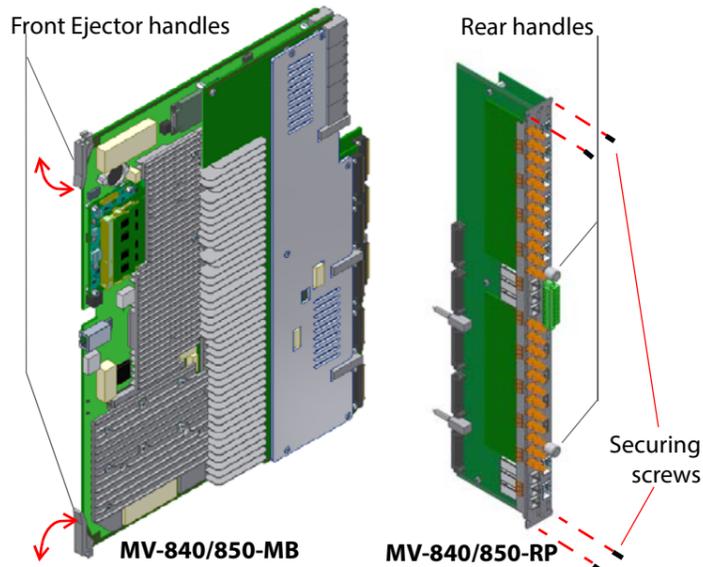


Figure 1 MV-840/850 Multiviewer Front and Rear Modules

Fitting instructions are similar for Sirius 840 and Sirius 850 routers.

1. If SFP modules are supplied separately, fit them to the MV-840/850-RP.

MV-840/850 modules may be hot-plugged. MV-840/850 modules may occupy any adjacent pair of (front and rear) router output module slots.

2. Ensure a pair of router output module slots are available and empty.

Go to the *rear* of the router:

3. Remove any blanking plate already covering the router rear slot(s).
4. Fit the MV-840/850-RP rear module. Secure with four screws.

Go to the *front* of the router:

5. Open the lower front router fan door.
6. Insert the MV-840/850-MB front module. Push the module into the slot with the module ejector handles. Ensure the module is pushed fully into the slots with module ejector handles pushed fully inwards.

7. Close the router's fan door and front outer door.

Caution: Always keep router fan doors closed to ensure correct unit ventilation and operation. Only open a router fan door for a maximum of 2 minutes.

Booting: After the front module is fitted, the MV-840/850 begins to boot up. Booting up lasts for approximately 1 to 2 minutes. During boot-up:

8. A splash screen is on each active multiviewer display output. Connect a monitor to each. See **Figure 3**. IP addresses are shown.

Router Configuration: The MV-840/850 is a dual-slot output module for a Sirius 840 or 850 router. Both of the adjacent output slots used by an MV-840/850 must be set up in the router configuration:

9. Set **Router Module Type** for slots used by an MV-840/850 to be **"Digital Output Video Variant 2"**.



Figure 2 Sirius 840 or 850 Router

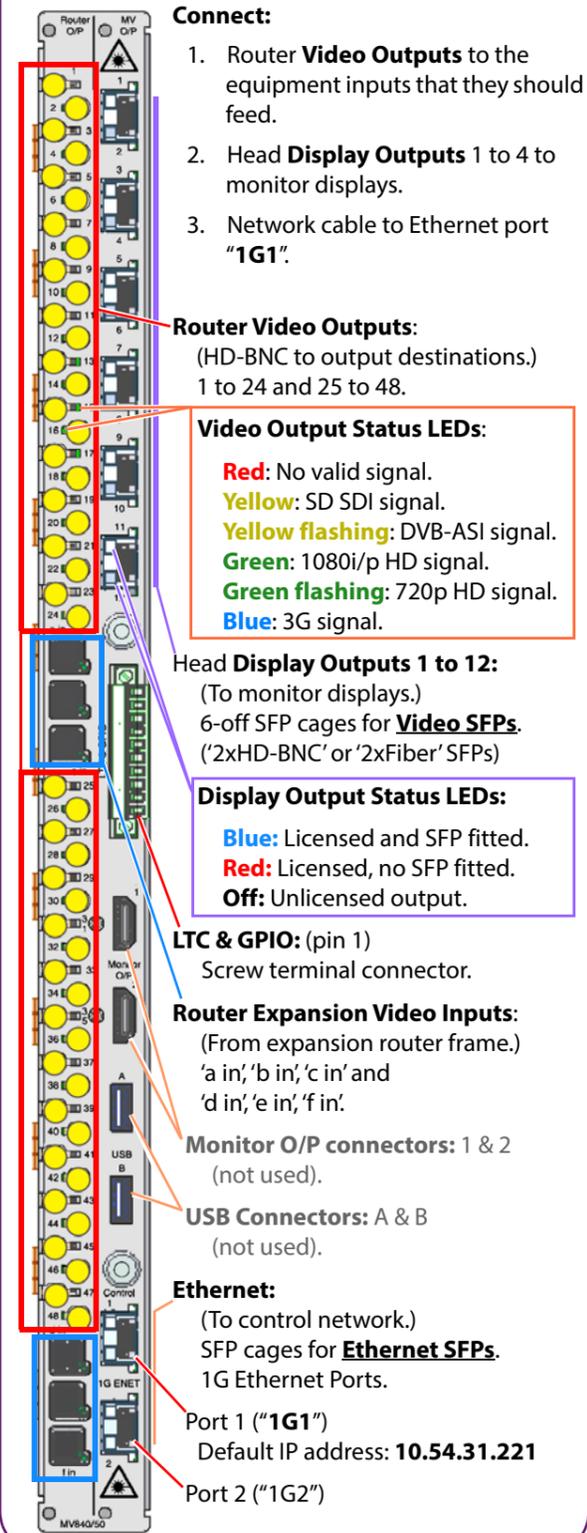
Operating Environment	5°C to 30 °C ambient. 10 to 90% (non-condensing)
MV-840/850 Weight	MV-840/850-MB: 3.5 kg (~7.7lb). MV-840/850-RP: 1 kg (~2.2lb).
Power Consumption	250 W

Table 1 MV-840/850 Specification



Figure 3 MV-840/850 Splash Screen

2) Rear Connections



- Connect:**
1. Router **Video Outputs** to the equipment inputs that they should feed.
 2. Head **Display Outputs** 1 to 4 to monitor displays.
 3. Network cable to Ethernet port **"1G1"**.

Router Video Outputs: (HD-BNC to output destinations.) 1 to 24 and 25 to 48.

Video 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 signal.

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

Display Output Status LEDs:
Blue: Licensed and SFP fitted.
Red: Licensed, no SFP fitted.
Off: Unlicensed output.

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

Router Expansion Video Inputs: (From expansion router frame.) 'a in', 'b in', 'c in' and 'd in', 'e in', 'f in'.

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

USB Connectors: A & B (not used).

Ethernet: (To control network.) SFP cages for **Ethernet SFPs**. 1G Ethernet Ports.

Port 1 ("1G1") Default IP address: **10.54.31.221**

Port 2 ("1G2")

5) Default Video Wall

Each Display Output shows a video tile-grid, with video inputs 1 to 48 across display outputs 1 to 4; plus 'HH:MM:SS' time and display output number shown on each multiviewer head display output.

1	2	3	INHERS OUTPUT 1	13	14	15	INHERS OUTPUT 2	25	26	27	INHERS OUTPUT 3	37	38	39	INHERS 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			

3) Front Module Indicators

LEDs along the MV-840/850-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) 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-840/850 Ethernet port 1 ("1G1") default IP address, 10.54.31.221. RollCall connects to MV-840/850.
3. Navigate to the RollCall **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-840/850.

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

To restart:

6. In RollCall **System-Setup** screen: Click **System Reset**; then click **Confirm**. The MV-840/850 boots up and a splash screen shows the unit's IP address and other details (see **Figure 3**).

After MV-840/850 has restarted, initial configuration is complete.

7. Disconnect MV-840/850 "1G1" port from laptop PC. And connect to the MV-840/850 to the house network.