Ross Video Limited

V I S I O N

Panel Row Addition
Installation Guide

ROSS
Live Production Technology™

Vision • Panel Row Addition Installation Guide

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Important Regulatory and Safety Notices to Service Personnel

Before using this product and any associated equipment, refer to the "**Important Safety Instructions**" listed in the front of your *Engineering Manual* to avoid personnel injury and to prevent product damage.

Product may require specific equipment, and/or installation procedures to be carried out to satisfy certain regulatory compliance requirements. Notices have been included in this publication to call attention to these specific requirements.

General Handling Guidelines

- Careful handling, using proper ESD precautions, must be observed.
- Power down the system before PCB removal.

ESD Susceptibility — *Avoid handling the switcher circuit boards in high static environments such as carpeted areas, and when synthetic fiber clothing is worn. Touch the frame to dissipate static charge before removing boards from the frame, and exercise proper grounding precautions when working on circuit boards.*

Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

Package Contents

The contents of a **Panel Row Addition** upgrade kit depends on the model of Vision control panel you have. If any items are missing, or damaged, contact Ross Video Technical Support.

Qty	Part#	Item
1	V-124A	Keyer Module (4-Keyer)
1	V-128A	Transition Module (4-Keyer)
1	V-122	Memory Module
2	727-024R	Module Control Link Cables (Black, CAT5e)
1	4800AR-110B	Crosspoint Module with Display
4	4800AR-110A	Crosspoint Modules per row on Vision 4
3	4800AR-110A	Crosspoint Modules per row on Vision 3
2	4800AR-110A	Crosspoint Modules per row on Vision 3M
3	4800AR-110A	Crosspoint Modules per row on Vision 2X
1	4800FR-577	Mnemonic Blank for Vision 4
1	4800FR-573	Mnemonic Blank for Vision 3 or Vision 2X
1	4800FR-572	Mnemonic Blank for Vision 3M

Panel Row Blanks Removal

To install the new panel row, you must first remove the blank module plates from the crosspoint buses, as well as from the module slots.

The blank module plate covering the crosspoint buses consists of the Crosspoint Plate, and Crosspoint Plate Retainer. To remove the blank module plate, you must first remove the Crosspoint Plate from the top of the control panel, and then remove the Crosspoint Plate Retainer from inside the control panel.

Use the following procedure to remove the blank module plates:

1. Power down the control panel. The frame can remain on during this procedure. Refer to your Vision switcher documentation for information on shutting down the control panel.

2. Unplug the Primary and Redundant (if installed) power from the control panel.

> **Warning Hazardous Voltage** — *Hazardous voltages are present in the control panel as long as any of the power supplies are connected to the AC power.*

3. Lift up on the control panel lid to gain access to the control panel tub.

4. Remove the **8** screws securing the **Crosspoint Plate** to the top of the control panel (**Figure 1**).
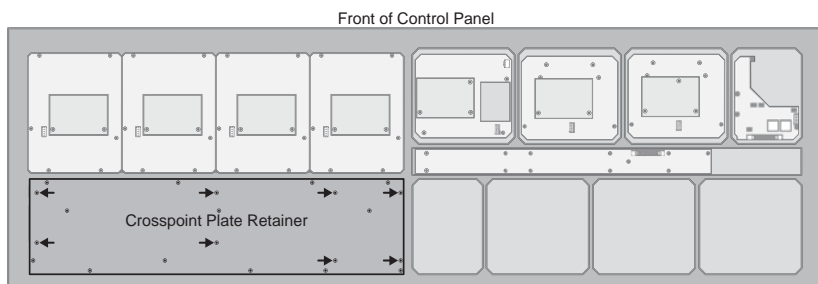

Front of Control Panel

Crosspoint Plate Retainer

Figure 1 Crosspoint Plate Screws — Vision 2X

5. Remove the **Crosspoint Plate** from the top of the control panel.

6. Remove the remaining **13** screws securing the **Crosspoint Plate Retainer** to the control panel lid. You will need these screws when installing the Crosspoint modules.

7. Remove the **Crosspoint Plate Retainer** from the control panel.

8. Identify the **3** blank module plates to be removed (**Figure 2**). These are the first three module slots in the same row as the crosspoint plates.
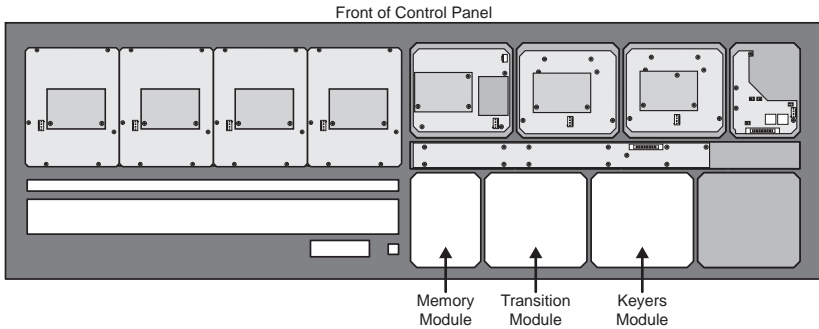
Front of Control Panel

Memory Module   Transition Module   Keyers Module

Figure 2 *Blank Module Plates to Remove — Vision 2X*

9. Remove the **Retaining Bolts** located at each corner of each blank module plate and keep them in a safe place. A ¼ inch hex driver or wrench is required.

10. Remove the blank module plates from the control panel.

This completes the procedure for removing the blank module plates. Next, you will install the panel modules into the module slots in the control panel.

Panel Row Module Installation

The new panel row consists of a Memory module, Transition module, Keyers module, and a series of Crosspoint modules. The number of Crosspoint modules depends on the model of Vision control panel you have.

Memory, Transition, and Keyers Module Installation

Use the following procedure to install the Memory, Transition and Keyers modules:

1. Locate the Memory, Transition, and Keyers module slots in the control panel (**Figure 3**).
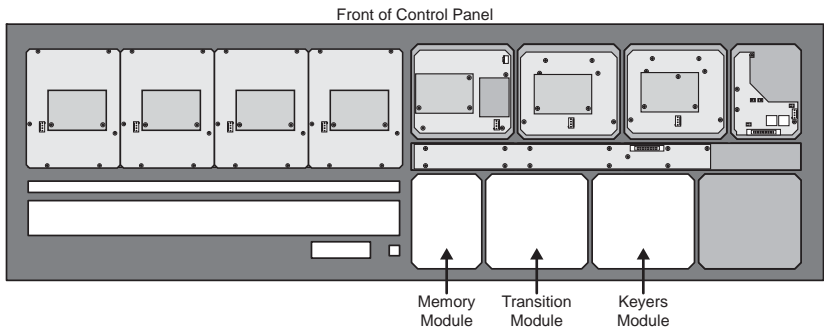
Front of Control Panel

Figure 3 Module Locations — Vision 2X

> **Note** — *The layout of the modules in the top row are the same for the Vision 2X and the Vision 4. For the Vision 3 and 3M, the Transition module is first, followed by the Memory and the Keyers modules.*

2. Slide the module into the first module opening. On the Vision 2X and Vision 4, this is the **Memory** module. On the Vision 3 and 3M, this is the **Transition** module.

3. Install the **Retaining Bolts** located at each corner of the module to a maximum torque of **5 in-lbs** (**6 cm-kg**). A ¼ inch hex driver or wrench is required.

4. Slide the module into the second module opening. On the Vision 2X and Vision 4, this is the **Transition** module. On the Vision 3 and 3M, this is the **Memory** module.

5. Install the **Retaining Bolts** located at each corner of the module to a maximum torque of **5 in-lbs** (**6 cm-kg**). A ¼ inch hex driver or wrench is required.

6. Slide the **Keyers** module into the third module opening.

7. Install the **Retaining Bolts** located at each corner of the module to a maximum torque of **5 in-lbs** (**6 cm-kg**). A ¼ inch hex driver or wrench is required.

This completes the procedure for installing the Memory, Transition, and Keyers modules. Next, you must install the Crosspoint modules.

Crosspoint Modules Installation

Use the following procedure to install the Crosspoint modules:

1. Locate the **Crosspoint** module slots in the control panel (**Figure 4**).
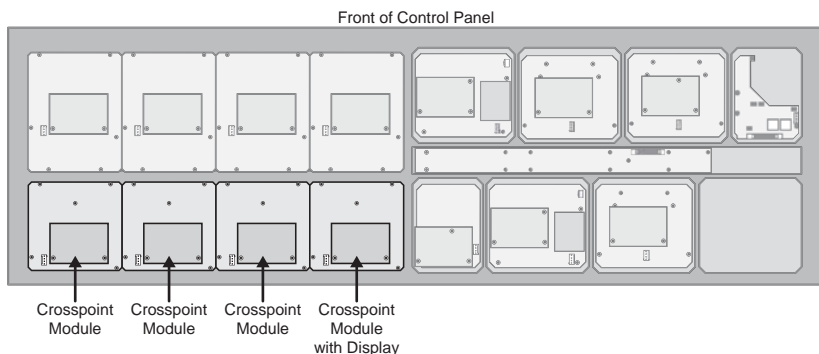
Front of Control Panel

Crosspoint Module Crosspoint Module Crosspoint Module Crosspoint Module with Display

Figure 4 *Crosspoint Module Locations — Vision 2X*

Note — *The Vision 3M has three Crosspoint modules, the Vision 2X and Vision 3 control panels have four Crosspoint modules and the Vision 4 control panel has five Crosspoint modules.*

2. Align the **Crosspoint** module so the **Retaining Screw Holes** on the Crosspoint module line up with the mounts on the control panel top (**Figure 5**). The **Crosspoint** module with Display can only fit into the first slot from the center.
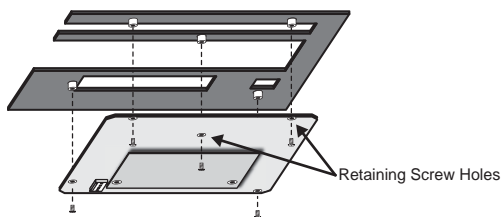
Retaining Screw Holes

Figure 5 *Crosspoint Module Alignment*

3. Using the screws obtained from removing the **Crosspoint Plate Retainer**, secure the **Crosspoint** module into the slot.

4. Repeat **Step** (**2.**) and **Step** (**3.**) until all **Crosspoint** modules are installed.

This completes the procedure for installing the Crosspoint modules. Next, you must install the Module Control Link cables and the power cables to the modules.

Panel Row Module Cabling

To install the cables for the modules, you must first connect the Module Power cables, and Module Control Link cables.

Memory, Transition, and Keyers Module Cabling

Use the following procedure to cable the Memory, Transition and Keyers modules:

1. Connect and secure the existing **Module Control Link Cable** to the **PREV** port on the first module ① (**Figure 6**). This CAT5e cable with an RJ-45 connector on either end is already installed in the control panel.
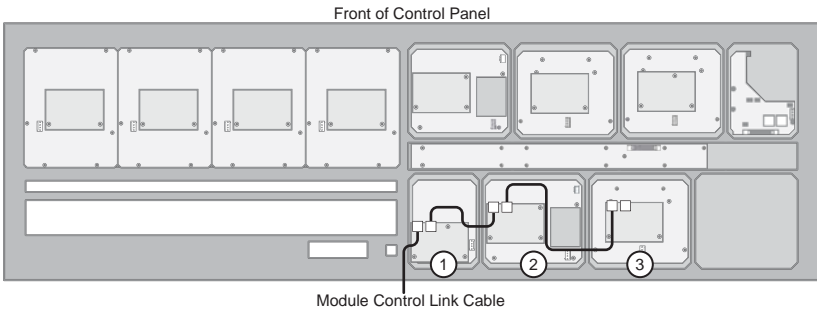
Front of Control Panel

Module Control Link Cable

Figure 6 *Module Control Link Cable — Vision 2X*

2. Connect and secure one of the **Module Control Link Cables** to the **NEXT** port on the first module ①.

3. Connect and secure the other end of the **Module Control Link Cable** to the **PREV** port on the second module ②.

4. Connect and secure the other Module Control Link **Cable** to the **NEXT** port on the second module ②.

5. Connect and secure the other end of the Module Control Link **Cable** to the **PREV** port on the third module ③.

6. Connect and secure the existing **Module Power Cable** to the **Power** connector on the first module (**Figure 7**). This 4-conductor ribbon cable delivers power to all the modules in the row.
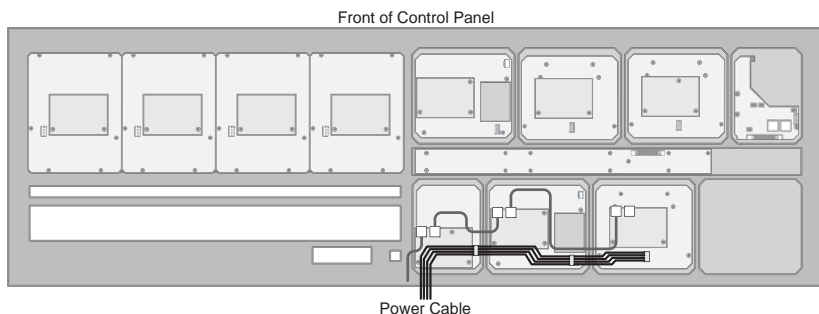
Front of Control Panel

Power Cable

Figure 7 Module Power Cable — Vision 2X

7. Connect and secure the **Module Power Cable** to the remaining modules.

This completes the procedure for cabling the Memory, Transition and Keyers modules. Next, you must install the Module Control Link cables and the power cables to the Crosspoint modules.

Crosspoint Module Cabling

Use the following procedure to cable the Crosspoint modules:

1. Connect and secure the existing **Module Control Link Cable** to the **PREV** port on the first module ① (**Figure 8**). This CAT5e cable with an RJ-45 connector on either end is already installed in the control panel.
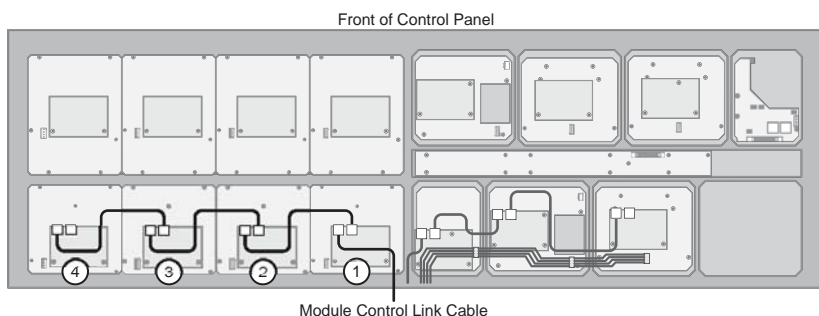
Front of Control Panel

Module Control Link Cable

Figure 8 Module Control Link Cable — Vision 2X

2. Connect and secure one of the **Module Control Link Cables** to the **NEXT** port on the first module ①.

3. Connect and secure the other end of the **Module Control Link Cable** to the **PREV** port on the second module ②.

4. Connect and secure one of the **Module Control Link Cable** to the **NEXT** port on the second module ②.

5. Connect and secure the other end of the **Module Control Link Cable** to the **PREV** port on the third module ③.

6. Connect and secure one of the **Module Control Link Cables** to the **NEXT** port on the third module ③.

7. Connect and secure the other end of the **Module Control Link Cable** to the **PREV** port on the fourth module ④.

8. Connect and secure the existing **Module Power Cable** to the **Power** connector on the first module (**Figure 9**). This 4-conductor ribbon cable delivers power to all the modules in the row.
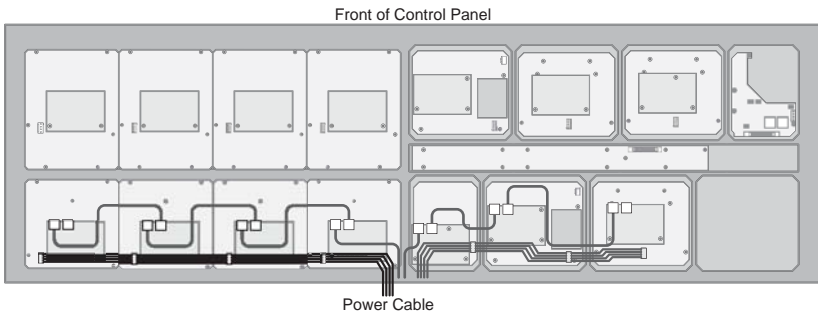
Front of Control Panel

Power Cable

Figure 9 *Module Power Cable — Vision 2X*

9. Connect and secure the **Module Power Cable** to the remaining modules.

This completes the procedure for cabling the Crosspoint modules. With the panel row modules installed and cabled, you must now either install the mnemonics or the Mnemonic Blank plate.

Mnemonic Blank Installation

The Mnemonic Blank Plate covers the slot that the mnemonics option installs into. If you have purchased the mnemonics option for this panel row, refer to the *Mnemonics Installation Guide* that came with your option for instructions on how to install the mnemonics.

After you have installed the Mnemonic Blank Plate, or the Mnemonics, proceed to the next section for information on setting up your panel modules.

Use the following procedure to install the Mnemonic Blank Pate:

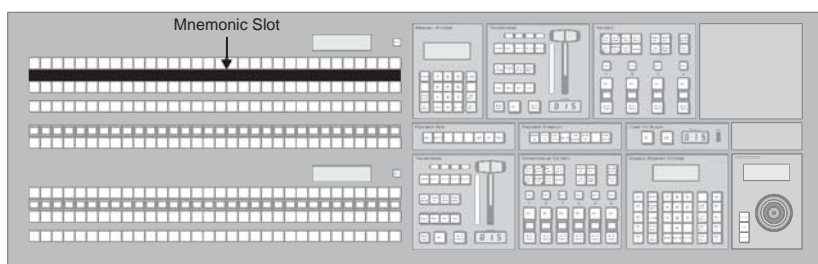1. Slide the **Mnemonic Blank Plate** into the **Mnemonic Slot** in the top of the control panel (**Figure 10**).

Figure 10 *Mnemonic Slot — Vision 2X*

2. Install the **Mnemonic Blank Retaining Screws**, two per **Crosspoint Module**, to secure the **Mnemonic Blank Plate** into position (**Figure 11**).
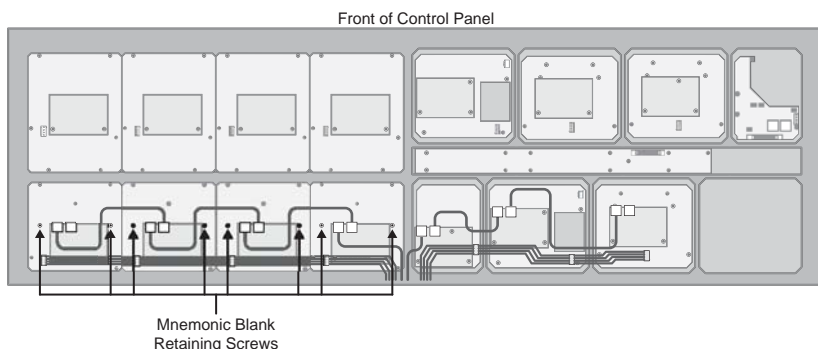

Figure 11 *Mnemonic Blank Retaining Screws — Vision 2X*

This completes the procedure for installing the Mnemonic Blank plate. Now you must set up the modules to be able to use the new modules with the control panel.

Panel Row Setup

With the new modules installed and cabled, the Vision switcher must be set up to properly communicate with the new modules in the row.

Refer to your *Vision Engineering Manual* for information on upgrading your Panel Module Controllers (PMCs) and assigning the modules to a panel row.

Important — *When the new control panel row is added, it must be assigned as Row 1. All the existing control panel rows must be re-assigned, starting at Row 2.*

Notes

Contact Us

Contact our friendly and professional support representatives for the following:

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