V I S I O N

Auxiliary Control Panel
Installation Guide

ROSS

Live Production Technology™

Vision • Auxiliary Control Panel Installation Guide

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Important Regulatory and Safety Notices to Service Personnel

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

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

Important Safety Instructions

Use only manufacturer approved Power Supplies and Power Cords supplied with this product.

The power supply adapter(s) included with this product use a protective earth connection to reduce the risk of electrical shock to the operator and or service personnel. A grounding conductor in the equipment's supply cord provides this protective earth connection and must be reliably connected to a facilities protective earth.

Do not defeat safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit in to your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the product's power cord(s) and replace any cord(s) which shows signs of physical damage or ware.

The product's power supply cord(s) is (are) used as a means to disconnect the power supply from the AC Mains. Ensure either the appliance inlet or the mains plug of the power supply cord, remains readily operable.

This product is designed for Indoor Use:

"WARNING - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPERATUS TO RAIN OR MOISTURE".

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 each **Auxiliary Control Panel** kit is listed below. If any items are missing, or damaged, contact Ross Video Technical Support.

| Qty	Part#	Item
1	V-159-x	Auxiliary Control Panel
1	727-025R	Aux Control Cable
2	4800FR-634	Control Panel Mounting Brackets
2	4800FR-635	Rack/Desk Mounting Brackets
2[a]	4800FR-636	Rack Mounting Brackets for V-159-16
1	103-011R	12V DC Power Supply
1	4800CR-399	Power Supply Cord
12	850-098R	Control Panel Mounting Screws (8-32×3/8 flange screw)
6	850-011R	Rack Mounting Screws (6-32×3/16 machine screw)

a. These mounting brackets are only included with the V-159-16, and V-159-16-NM.

Auxiliary Control Panel Installation

The Auxiliary Control Panel comes in either a 16, 24, 32, or 40 button model, depending on the switcher or application you are installing the control panel for. Each model can be installed either onto the back of the control panel, or into a desk. The 24-button V-159-24 and 16-button V-159-16 Auxiliary Control Panels can also be installed into a 19-inch equipment rack, taking up 2 RUs.

Installing the Auxiliary Control Panel

A single Auxiliary Control Panel can be installed onto the back of the control panel (**Figure 1**), into a desk, or mounted into a equipment rack.
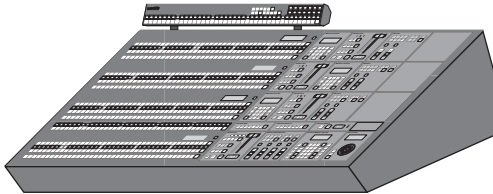
Figure 1 *V-159-40 Auxiliary Control Panel Mounted on Panel*

The model of Auxiliary Control Panel that can be installed onto a Vision control panel depends on the size of the control panel.

- **V-159-16** — Vision 1, and Vision 2
- **V-159-16-NM** — Vision 1, and Vision 2
- **V-159-24** — Vision 1M, and Vision 2M, Vision 3M
- **V-159-32** — Vision 2X, and Vision 3
- **V-159-40** — Vision 4
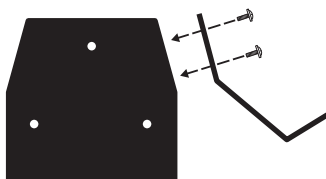
Installing onto the Control Panel

Use the following procedure to install an Auxiliary Control Panel onto the back of a control panel:

1. Identify the Aux Panel side of the mounting bracket (**Figure 2**).

To Auxiliary Control Panel →   ← To Control Panel

Figure 2 *Control Panel Mounting Bracket*

2. With the two bent ends of the bracket pointed away from the button side of the Auxiliary Control Panel, align the **3** holes on the bracket with the holes on the Auxiliary Control Panel (**Figure 3**).

Figure 3 *Installing a Bracket onto the Aux Panel*

3. Use **3 Control Panel Mounting Screws** to attach the bracket onto the Auxiliary Control Panel.

4. Repeat steps (**2.**) and (**3.**) for the other bracket.

5. With both brackets installed, align the **3** holes on the bracket with the holes on the back of the control panel (**Figure 4**).
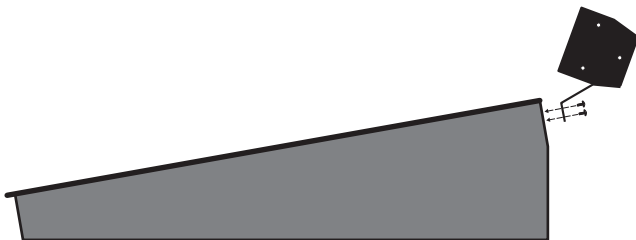
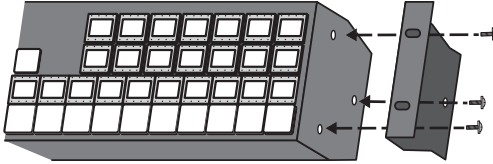

Figure 4 *Installing onto the Control Panel*

6. Use **6 Control Panel Mounting Screws** to attach the Auxiliary Control Panel onto the control panel.

This completes the procedure for installing an Auxiliary Control Panel onto the back of a control panel. Next you must install the control and power cables to the Auxiliary Control Panel.
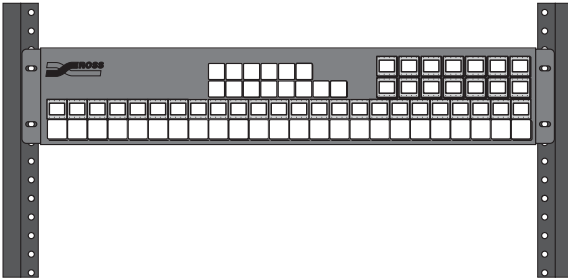
Installing into an Equipment Rack or Desk

Use the following procedure to install an Auxiliary Control Panel into a 19-inch equipment rack or in a desk:

1. With the rack-ears of the bracket pointed away from the Auxiliary Control Panel, align the **3** holes on the bracket with the holes on the Auxiliary Control Panel (**Figure 5**).

Figure 5 *Installing Rack-Ear Bracket onto an Aux Panel (V-159-24 shown)*

2. Use **3 Rack Mounting Screws** to attach the bracket onto the Auxiliary Control Panel.

3. Repeat steps (**1.**) and (**2.**) for the other bracket.

4. With both brackets installed, install the Auxiliary Control Panel into your equipment rack (**Figure 6**) according to good engineering practices.

Figure 6 *Installing into Equipment Rack (V-159-24 shown)*

Note — *If you are installing the Auxiliary Control Panel into a desk, the desk cutout dimensions must be used (**Table 1**). Only the 4800FR-635 Rack/Desk Mounting Brackets should be used for desk mounting.*

Table 1 Auxiliary Control Panel Cutout Dimensions

Auxiliary Control Panel	Cutout Dimensions (Width × Depth)
V-159-16	12.00" × 3.5"
V-159-16-NM	12.00" × 3.5"
V-159-24	17.75" × 3.5"
V-159-32	23.50" × 3.5"
V-159-40	29.25" × 3.5"

This completes the procedure for installing an Auxiliary Control Panel into a 19-inch equipment rack or in a desk. Next you must install the control and power cables to the Auxiliary Control Panel.

Auxiliary Control Panel Cabling

Once the Auxiliary Control Panel is installed, the next step is to connect the communications and power cables.

Each Auxiliary Control Panel (**Figure 7**) has connections for a primary (**PS1**) and secondary (**PS2**) power supply, a 25-pin GPI (**GPI**), and two RJ-45 communications ports (**PREV** and **NEXT**).
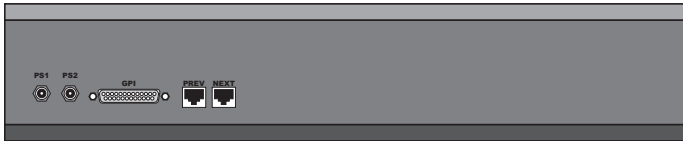
Figure 7 *Auxiliary Control Panel Cable Connectors*

Communications Cabling

The Auxiliary Control Panel can be cabled as an Internal panel row or an External panel row, depending on the functionality you want. Refer to your Vision documentation for more information on panel rows.

Depending on whether you cable the Auxiliary Control Panel for Internal or External Panel Row operation, you are restricted to the number of Auxiliary Control Panels you can connect together (**Table 2**).

Table 2 Auxiliary Control Panel Daisy-Chain Length

Auxiliary Control Panel	Max. Number of Panels in Internal Panel Row Chain	Max. Number of Panels in External Panel Row Chain
V-159-16	13	14
V-159-16-NM	13	14
V-159-24	6	7
V-159-32	6	7
V-159-40	4	4

Internal Panel Row Assignment

Assign the Auxiliary Control Panel to an Internal Panel Row if you need menu follows and double-press actions. Actions such as double-pressing a crosspoint

button to assign a Color Corrector to that video source must be done on an Internal Panel Row.

Use the following procedure to cable the switcher to an Auxiliary Control Panel for Internal Panel Row operation:

1. Connect and secure one end of the **Aux Control Cable** to the **NEXT** port on the back of the **Touchscreen Display** of the control panel.
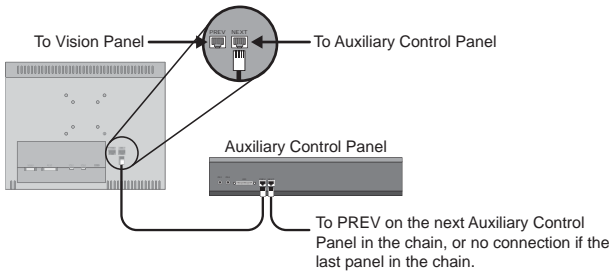
> **Note** — *If a **Touchscreen Display** is not connected to the Vision control panel, connect the **Aux Control Cable** to **External Link Port 1**.*

2. Connect and secure the other end of the **Aux Control Cable** to the **PREV** port on the Auxiliary Control Panel (**Figure 8**).

To Vision Panel ——— PREV NEXT ——— *To Auxiliary Control Panel*

Auxiliary Control Panel

To PREV on the next Auxiliary Control Panel in the chain, or no connection if the last panel in the chain.

Figure 8 *Auxiliary Control Panel Communication Cabling*

This completes the procedure for cabling the switcher to an Auxiliary Control Panel for Internal Panel Row operation.

External Panel Row Assignment

Assign the Auxiliary Control Panel to an External Panel Row if you do not need menu follows. Refer to your Vision documentation for more information on menu follows.

Use the following procedure to cable the switcher to an Auxiliary Control Panel for External Panel Row operation:

1. Connect and secure one end of the **Aux Control Cable** to **External Link Ports 2**, **3**, or **4** on the control panel.
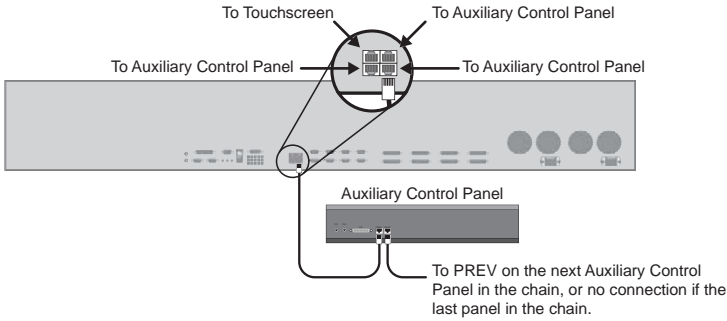
> **Note** — *If the OverDrive Production Control System is set up with the switcher, you cannot assign an Auxiliary Control Panel to **External Link Port 2**.*

2. Connect and secure the other end of the **Aux Control Cable** to the **PREV** port on the Auxiliary Control Panel (**Figure 9**).

Figure 9 *Auxiliary Control Panel Control Cabling*

This completes the procedure for cabling the switcher to an Auxiliary Control Panel for External Panel Row operation.

Power Cabling

Use the following procedure to cable power to an Auxiliary Control Panel:

1. Connect and secure one **12V DC Power Supply** to the **PS1** connector on the back of the Auxiliary Control Panel.

Caution — *Always connect the 12V DC Power Supply to the Auxiliary Control Panel before connecting the AC mains power. Connecting the power supply to the AC mains power before connecting to the Auxiliary Control Panel could damage the Auxiliary Control Panel.*

2. If purchased, connect and secure the second **12V DC Power Supply** to the **PS2** connector on the back of the Auxiliary Control Panel.

3. Connect additional Auxiliary Control Panels as required. For each additional Auxiliary Control Panel, connect and secure an **Aux Control Cable** between the **NEXT** port on the first Auxiliary Control Panel and the **PREV** port on the next Auxiliary Control Panel in the chain.

Note — *The maximum number of Auxiliary Control Panels that can be chained together depends on the size of the Auxiliary Control Panel (**Table 2**).*

4. Connect the power cables into the appropriate **AC outlets**.

This completes the procedure for cabling power to an Auxiliary Control Panel.

GPI Cabling

The single DB25 GPI port on the Auxiliary Control Panel supports a total of **16 GPI Inputs**. The following table (**Table 3**) lists the signal pinouts for the GPI port.

Table 3 GPI Port Pinouts

Pin	Signal	Pin	Signal
1	GPI 1	14	Ground
2	GPI 2	15	GPI 3
3	Ground	16	GPI 4
4	GPI 5	17	Ground
5	GPI 6	18	GPI 7
6	Ground	19	GPI 8
7	GPI 9	20	Ground
8	GPI 10	21	GPI 11
9	Ground	22	GPI 12
10	GPI 13	23	Ground
11	GPI 14	24	GPI 15
12	Ground	25	GPI 16
13	Ground		

Auxiliary Control Panel Setup

With the Auxiliary Control Panel installed and cabled, the Vision switcher must be set up to properly communicate with the Auxiliary Control Panels.

Refer to your *Vision Engineering Manual* for information on setting up your Auxiliary Control Panel.

Notes

Contact Us

Contact our friendly and professional support representatives for the following:

- Name and address of your local dealer
- Product information and pricing
- Technical support
- Upcoming trade show information

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