

EX PANEL

Hardware Setup Guide

Version 01

Thank You for Choosing Ross

You've made a great choice. We expect you will be very happy with your purchase of Ross Technology. Our mission is to:

1. Provide a Superior Customer Experience
 - offer the best product quality and support
2. Make Cool Practical Technology
 - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at solutions@rossvideo.com.



David Ross
CEO, Ross Video
dross@rossvideo.com

Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

1. We will always act in our customers' best interest.
2. We will do our best to understand our customers' requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)*

CX Panel · Hardware Setup Guide

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Patents

Patent numbers US 7,034,886; US 7,508,455; US 7,602,446; US 7,802,802 B2; US 7,834,886; US 7,914,332; US 8,307,284; US 8,407,374 B2; US 8,499,019 B2; US 8,519,949 B2; US 8,743,292 B2; GB 2,419,119 B; GB 2,447,380 B; and other patents pending.

Notice

The material in this manual is furnished for informational use only. It is subject to change without notice and should not be construed as commitment by Ross Video Limited. Ross Video Limited assumes no responsibility or liability for errors or inaccuracies that may appear in this manual.

Important Regulatory and Safety Notices to Service Personnel

Before using this product and any associated equipment, read all the Important Safety Instructions listed below so as to avoid personal injury and to prevent product damage.

The OverDrive system makes use of a number of individual component products to make up a complete turnkey system. The Important Safety Instructions section of this manual is intended to compliment individual OEM product manuals and the User must refer to, and heed, any safety instruction outline in these supplementary product manuals. Separate manuals are included for the following component products:

- Server PC(s)
- LCD Flat Screen Display(s) & Power Supply

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

Symbol Meanings



Protective Earth — This symbol identifies a Protective Earth (PE) terminal, which is provided for connection of the supply system's protective earth (green or green/yellow) conductor.



This symbol on the equipment refers you to important operating and maintenance (servicing) instructions within the Product Manual Documentation. Failure to heed this information may present a major risk of damage or injury to persons or equipment.



Warning — The symbol with the word “**Warning**” within the equipment manual indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Caution — The symbol with the word “**Caution**” within the equipment manual indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



Warning Hazardous Voltages — This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product enclosure that may be of sufficient magnitude to constitute a risk of shock to persons.



ESD Susceptibility — This symbol is used to alert the user that an electrical or electronic device or assembly is susceptible to damage from an ESD event.

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warning.
- Follow all instructions.



Warning

The safe operation of this product requires that a protective earth connection be provided. A grounding conductor in the equipment's supply cord provides this protective earth. To reduce the risk of electrical shock to the operator and service personnel, this ground conductor must be connected to an earthed ground.

Use only power cords specified for this product and certified for the country of use. Refer to the Product Power Cord Requirement Section that follows.

Do not defeat safety purpose of the grounding-type plug. 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 power cord from being walked on or pinching particularly at plugs, convenience receptacles, and point where they exit from the apparatus.



Warning

Indoor Use: “WARNING – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE”

Do not use this apparatus near water.

Do not block any ventilation openings. Install in accordance with manufacturer's instructions.

Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Only use attachments/accessories specified by the manufacturer.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Clean only with a dry cloth.



Warning

Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug damage, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Caution

To reduce the risk of fire, replacement fuses must be the same type and rating.



Warning

This product contains safety critical parts, which if incorrectly replaced may present a risk of fire or electrical shock. Components contained within the product's power supplies and power supply area, are not intended to be customer serviced and should be returned to the factory for repair

Product Power Cord Requirements



Warning North American Line Voltages 100 - 120 Volt

This product is supplied with certified 10A/125V SVT type supply cords.

Conductors are color coded white (neutral), black (line) and green or green/yellow (ground).

Operation of this equipment at line voltages exceeding 130V requires that alternative supply cords with appropriate voltage and current ratings be used.



Warning International Line Voltages 200 - 240 Volt

This product has been designed for use with certified IEC 320- C13 10A/250V - H03 VV-F3G 1.00mm² type line cord.

International product orders are supplied with a certified 10A/250V line cords, utilizing a molded 3-pin IEC 320-C13 type connector at one end and stripped conductors on the other. One line cord is provided. Conductors are CEE color coded; blue (neutral), brown (line), and green/yellow (ground).

Installation by a qualified Electrician, of an appropriately approved A/C wall plug certified for the country of use, is required.

Alternatively, other IEC 320 C-13 type power cords may be used, provided that they meet the necessary safety certification requirements for the country in which they are to be used. Refer to the correctly specified line cord above.

EMC Notices

US FCC Part 15

This equipment has been tested and found to comply with the limits for a class A Digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a Commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Notice Changes or modifications to this equipment not expressly approved by Ross Video Ltd. could void the user's authority to operate this equipment.

CANADA

This Class "A" digital apparatus complies with Canadian **ICES-003**.

Cet appareil numerique de la classe "A" est conforme a la norme **NMB-003** du Canada.

EUROPE

This equipment is in compliance with the essential requirements and other relevant provisions of **CE Directive 93/68/EEC**.

INTERNATIONAL

This equipment has been tested to **CISPR 22:1997** along with amendments **A1:2000** and **A2:2002** and found to comply with the limits for a Class A Digital device.



Notice This is a Class A product. In domestic environments, this product may cause radio interference, in which case the user may have to take adequate measures.

Warranty and Repair Policy

The OverDrive Live and OverDrive News systems are backed by a comprehensive one-year warranty on all components.



Notice — *Changes or modifications to this equipment not expressly approved by Ross Video Limited could void the user's authority to operate this equipment.*

If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

This warranty is TRANSFERABLE to subsequent owners, subject to Ross' notification of change of ownership.

Extended Warranty

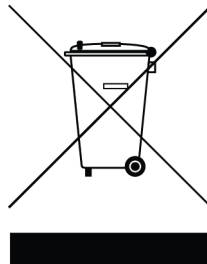
For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your OverDrive system, contact your regional sales manager.

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.

Use of Hazardous Substances in Electrical and Electronic Products (China RoHS)

Ross Video Limited has reviewed all components and processes for compliance to:

“Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products” also known as China RoHS.

The “Environmentally Friendly Use Period” (EFUP) and Hazardous Substance Tables have been established for all products. We are currently updating all of our Product Manuals.

The Hazardous substances tables are available on our website at:

<http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html>

电器电子产品中有害物质的使用

Ross Video Limited 按照以下的标准对所有组件和流程进行了审查:

“电器电子产品有害物质限制使用管理办法” 也被称为中国RoHS。

所有产品都具有“环保使用期限”(EFUP)和有害物质表。目前,我们正在更新我们所有的产品手册。

有害物质表在我们的网站:

<http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html>

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Introduction

Thank you, and congratulations on choosing the CX Panel to control your devices. CX Panels offer control panels for those who prefer a dedicated control surface.

About This Guide

This guide covers the configuration of your CX Panel. The following chapters are included:

1. “**Introduction**” provides a summary of important terms, conventions, and features.
2. “**CX Panel Models**” provides an overview of the available CX Panel models.
3. “**Connection to the Network**” provides procedures for connect a CX Panel to your local network.
4. “**Connecting DashBoard™ to a CX Panel**” provides procedures for configuring a CX Panel through DashBoard.
5. “**Calibrating Controls**” provides procedures for calibrating CX Panel controls.
6. “**Updating a CX Panel**” provides procedures for updating CX Panel operating system or applications.
7. “**CX Director Panel OverDrive Setup**” provides procedures for setting up a CX Director Panel for OverDrive.
8. “**CX-3R Joystick Panel Setup**” provides procedures for setting up a CX-3R Joystick Panel.

If, at any time, you have a question pertaining to the installation or operation of your CX Panel, please contact us at the numbers listed in the section “**Contacting Technical Support**” on page 2–2. Our technical staff are always available for consultation, training or service.

Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

Interface Elements

Bold text is used to identify a user interface element such as a dialog box, menu item, or button. For example:

In the **RundownControl** section, click **Install License**.

User Entered Text

Courier text is used to identify text that a user must enter. For example:

1. In the **Open** box, enter the following application name:

`services.msc`

Referenced Guides

Italic text is used to identify the titles of referenced guides, manuals, or documents. For example:

- using **RapidRestore** to archive and backup OverDrive rundowns and settings, refer to the chapter “**RapidRestore™**” on page 16–1 in the *OverDrive User Guide*.

Menu Sequences

Menu arrows are used in procedures to identify a sequence of menu items that you must follow. For example, if a step reads “**File > Exit**,” you would click the **File** menu and then click **Exit**.

Important Instructions

Star icons are used to identify important instructions or features. For example:

- ★ After installing Caprica Server software, licenses must be obtained from Ross Video Technical Support before using the Caprica Server.

Getting Help

The OverDrive Online Help system can be accessed from any of the components of OverDrive. Online Help opens in a Microsoft Internet Explorer® window.

The OverDrive Online Help system displays, by default, the **Contents** pane. To access the **Search** or **Glossary** panes, click the **Search** or **Glossary** button on the top toolbar in the Online Help system.

Contacting Technical Support

Technical Support is staffed by a team of experienced specialists ready to assist you with any question or technical issue.

Ross Video has technical support specialists strategically located around the globe to ensure a prompt response to technical inquiries. Our primary technical support center is located in Ottawa, Ontario, Canada. In addition, we have offices in The United Kingdom (London), Australia (Sydney), and Singapore with satellite locations in New York City, The Netherlands, and China. As we expand our presence globally, we are constantly evaluating other key locations to have a local technical support specialist in order to better service our customers.

North America

Our North America center located in Ottawa, Ontario, Canada and is open Monday to Friday 8:30 a.m. to 6:00 p.m. EST, with 24/7/365 on-call service after hours.

Our telephone number is: +1-613-686-1557

Toll free within North America: +1 833-859-0499

EMEA

Our EMEA center is open Monday to Friday 8:30 a.m. to 5:00 p.m. GMT. After hours support is provided by our North America location.

International toll free: +800 3540 3545

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Australia

Our Sydney, Australia office is located in Alexandria, NSW.

Our local support telephone number is: 1300 007 677

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Online

E-mail: techsupport@rossvideo.com

Website: open a support request using the link <https://support.rossvideo.com/> to open a support request.

CX Panel Models

The CX Panel is available in the following models to fit your requirements to control devices connected to Ross Video systems:

- **Director** — this model has control buttons and audio faders for Ross Video OverDrive control.
- **CX-3R Joystick** — this model has joysticks and buttons that can be used with Ross Video SmartShell to control robotic cameras.

The following topics are discussed in this chapter:

- CX Director Panel
- CX-3R Joystick Panel

CX Director Panel

The CX Director Panel is an optional companion control panel for users who prefer a dedicated control surface to run Custom Controls from Caprica and control audio channel faders. A CX Director Panel contains 32 multi-color LCD buttons that enable to access 32 pages that each contain 32 buttons to which you can assign a Custom Control. Pressing a CX Director Panel button runs the assigned Custom Control from the Caprica Server in your OverDrive system. CX Director Panels also contain 10 audio channel faders that work in conjunction with DirectControl to control the faders in the On-Air Audio view.

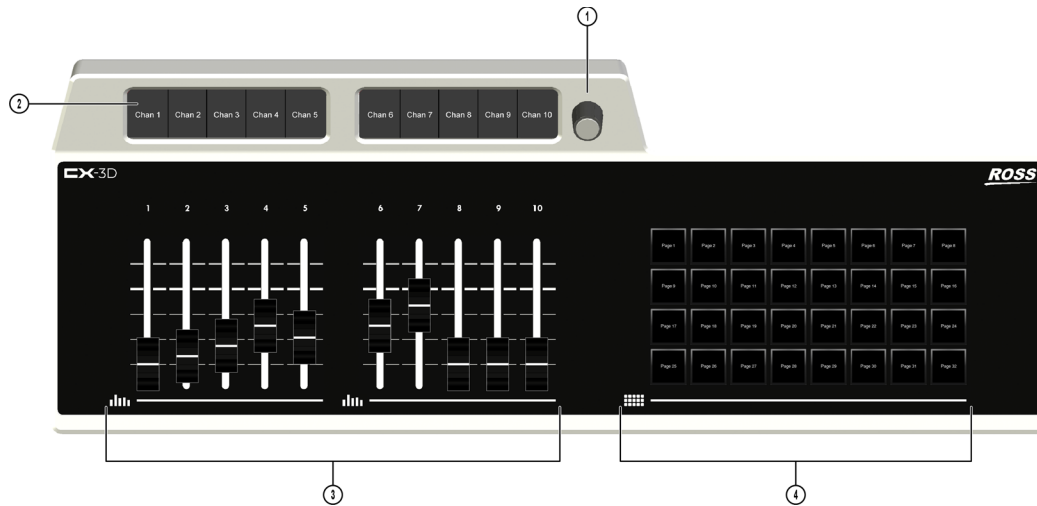


Figure 3.1 CX Director Panel

1) Menu Button	2) Main Menu or Channel Mnemonics
3) Current Audio Faders	4) Page or Custom Control Buttons

1. Menu Button

Press this button to display the CX Director Panel Main menu in the display to the left of the button. Tap the display to select a Main menu function.

2. Main Menu or Channel Mnemonics

A two segment display that displays the CX Director Panel Main menu or the name of the channel controlled by the fader directly beneath it. Channel names are retrieved from the Caprica Server.

3. Current Audio Faders

The current audio faders mirror and control the audio levels in the On-Air Audio view of the DirectControl. The first ten enabled channels in the On-Air Audio view can be controlled by the CX Director Panel audio faders.

4. Page or Custom Control Buttons

You can configure the 32 multi-color LCD buttons to run a selected Custom Control or run a Custom Control and then open a new page of Custom Controls when pressed.

Panel Setup

Refer to the following chapters to setup your CX Director Panel:

- “**Connection to the Network**” on page 4–1
- “**Connecting DashBoard™ to a CX Panel**” on page 5–1
- “**Calibrating Controls**” on page 6–1
- “**CX Director Panel OverDrive Setup**” on page 8–1

CX-3R Joystick Panel

The CX-3R Joystick Panel is a control panel used for robotics control.

A CX-3R Joystick Panel contains 30 multi-color LCD buttons that can be used for camera selection and control.

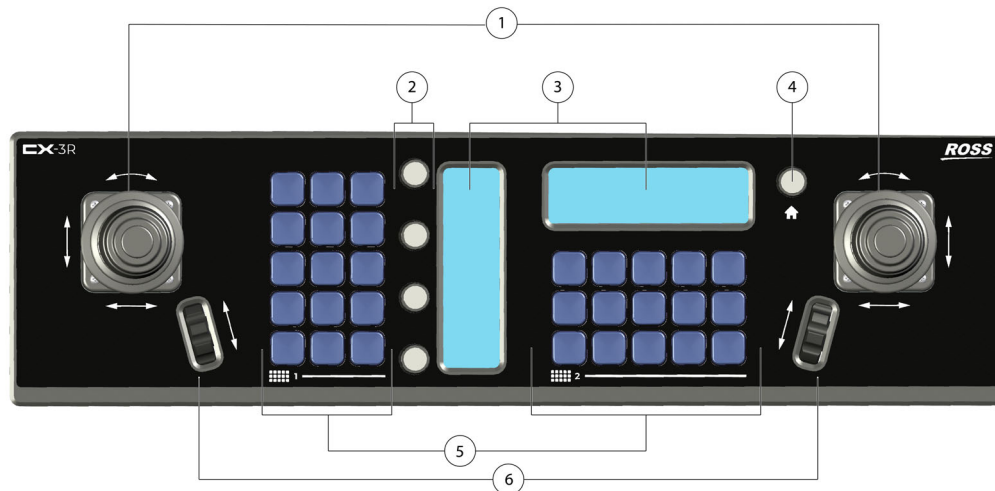


Figure 3.2 CX-3R Joystick Panel

1) Joysticks	2) Control Knobs
3) Display Screens	4) Home Knob
5) Button Panels	6) Rollers

1. Joysticks

Controls X and Y movement, lift height of the robotic pedestal, pan, tilt, and zoom.

2. Control Knobs

Adjustments like iris settings in SmartShell to control lens brightness, or the execution time of a preset or movement.

3. Display Screens

Used for network setup, panel connectivity status, and knob assignments and display of information during operation.

4. Home Knob

Currently used as a button to switch between configuration mode and operation mode.

5. Button Panels

Camera selection, preset and move execution, and other robotic commands (e.g., Cue, Cut, and Run).

6. Rollers

Adjustments like image sharpness, and duration of a move after execution.

Panel Setup

Refer to the following chapters to setup your CX-3R Joystick Panel:

- “Connection to the Network” on page 4–1
- “Connecting DashBoard™ to a CX Panel” on page 5–1
- “Calibrating Controls” on page 6–1
- “CX-3R Joystick Panel Setup” on page 9–1

Connection to the Network

To control devices, the CX Panel must be connected to your local area network. Connecting to your local area network requires that you cable your CX Panel and then set an IP address for it.

The following topics are discussed in this chapter:

- Connecting a CX Panel to the Network

Connecting a CX Panel to the Network

Connecting your CX Panel to your local area network requires that you cable your panel and then set an IP address for it.

Cabling a CX Panel

In an OverDrive system for a CX Director Panel, or a SmartShell System for a CX-3R Joystick Panel, a CX Panel connects to the system through your local area network. A CX Panel has connectors for a primary (PS1) and a secondary (PS2) power supply, and one Ethernet port on the back of the panel.

Note: The connections on both the CX Director Panel and CX-3R Joystick Panel are the same.

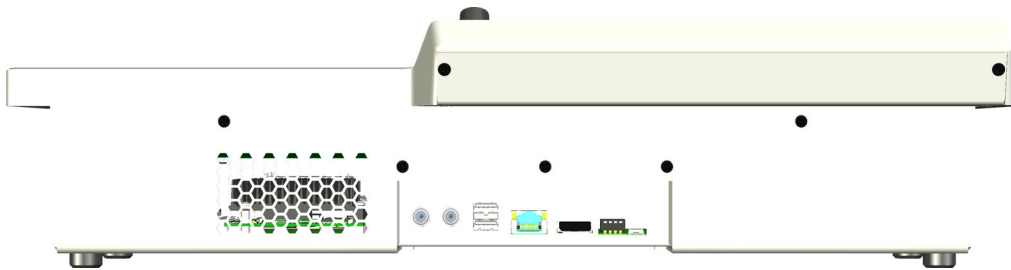


Figure 4.1 CX Director Panel Cable Connections

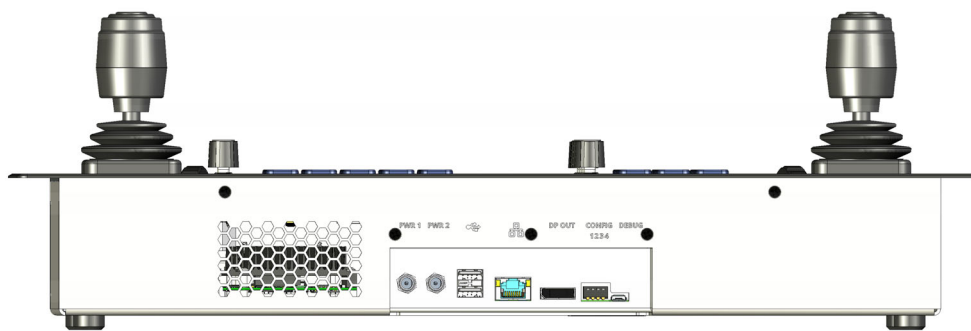


Figure 4.2 CX-3R Joystick Panel Cable Connections

To cable a CX Panel

1. Connect and secure one of the supplied 12V DC power supplies to the **PWR 1** connector on the back of the CX Panel before connecting the power supply to the AC mains power.
- ★ Connecting the power supply to the AC mains power before connecting to the CX Panel could damage the panel.
2. Connect the power supply to the AC mains power.
3. Use an **Ethernet** cable to connect the CX Panel **Ethernet** port to your local area network.

For More Information on...

- installing a CX Panel, refer to the *Ross CX Panel Installation Caprica Device Setup Sheet*.

Setting the CX Panel IP Address

After you physically connect a CX Panel to your network, you must set the panel IP address to enable it to communicate with the OverDrive Server (for the CX Director Panel) or the SmartShell Server (for CX-3R Joystick Panel), and to configure the panel using DashBoard software.

Note: The panel IP address setup is the same on both the CX Director Panel and CX-3R Joystick Panel. The right-most display of each panel is where the IP address can be set.

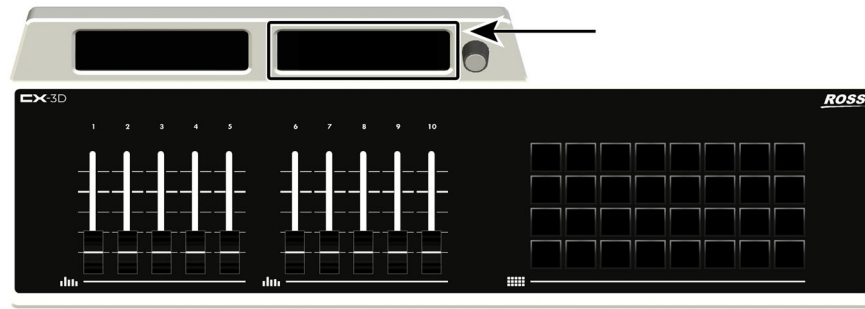


Figure 4.3 CX Director Panel Display to Set the IP Address



Figure 4.4 CX-3R Joystick Panel Display to Set the IP Address

★ The IP address that you set for your CX Panel should not be used by any other device in your network.

To set the CX Panel IP address

1. Turn on your CX Panel.

The CX Panel stays dark for about a minute while it starts up. The right CX Panel screen displays the Ross logo when the panel is ready to use.



2. On the right CX Panel screen, tap the **Ross** logo.

The **Network Setting** screen displays.

3. In the **Network Settings** screen, tap the **IP Address** box.

The **IP Address** box and **keypad** buttons activate.

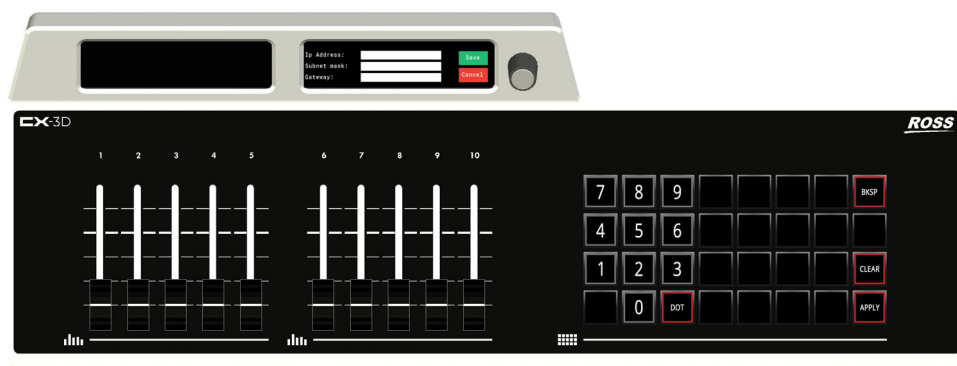


Figure 4.5 CX Director Panel Keypad

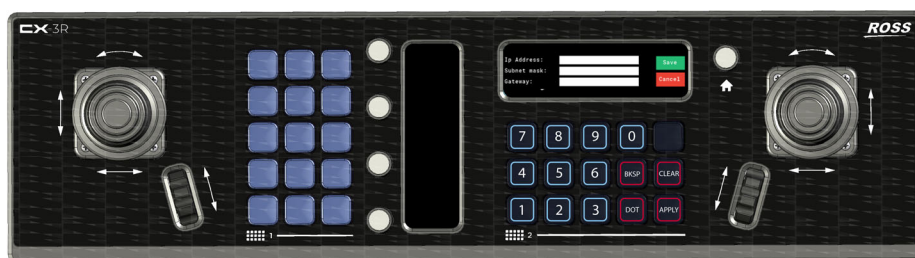


Figure 4.6 CX-3R Joystick Panel Keypad

4. Use the **keypad** to enter a static IP address for your CX Panel.
5. Tap the **Subnet Mask** box.
6. Use the **keypad** to enter the subnet mask for your CX Panel.
7. Tap the **Gateway** box.
8. Use the **keypad** to enter the IP address of the default gateway for your CX Panel.
9. Tap **Save**.

The CX Panel saves the entered network settings and then displays the **Main** menu.

Connecting DashBoard™ to a CX Panel

The Ross Video DashBoard Control System application enables you to connect to and configure your CX Panel hardware.

The following topics are discussed in this chapter:

- Installing DashBoard
- Connecting to a CX Panel with Dashboard
- Connection Status
- Connecting to a Client
- Collecting System Logs
- Viewing Software Licenses

Installing DashBoard

To connect to and configure a CX Panel, you need to use the DashBoard Control System application on a computer that has connectivity to the CX Panel. You can download the DashBoard application installer from the [Ross Video website](#).

When installing DashBoard for the sole purpose of configuring a CX Panel, complete the following recommended component selections on the **Choose Components** screen of the DashBoard application installer:

- Select the **DashBoard Framework** box.

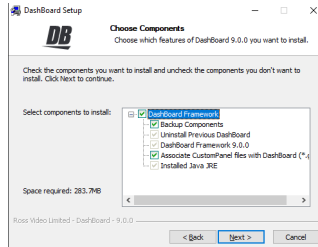


Figure 5.1 DashBoard Application Installer

For More Information on...

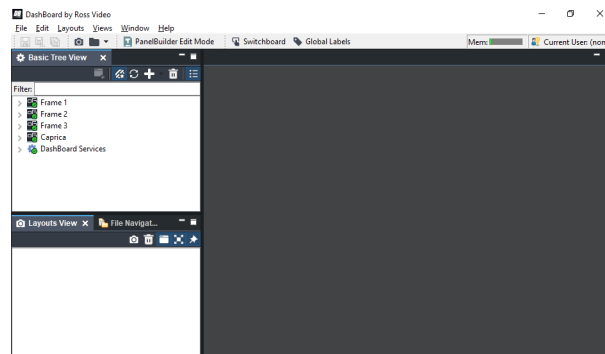
- DashBoard application installation or uninstall, refer to the *DashBoard Control System User Manual* and the *DashBoard Online Help* system.
- DashBoard plug-in updates, refer to the *DashBoard Control System User Manual* and the *DashBoard Online Help* system.
- where to download the Dashboard application installer, refer to the **Terminal Equipment | openGear | Control & Monitoring | DashBoard** section of the Ross Video website.

Connecting to a CX Panel with Dashboard

Now that you know the IP address of your CX Panel, you can connect to and configure the panel using DashBoard software.

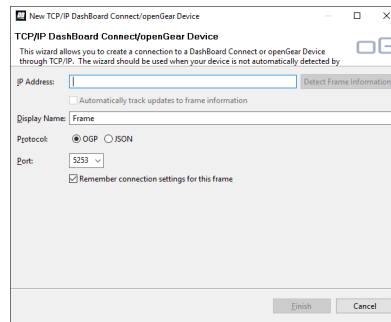
1. On a computer connected to the same subnetwork as your CX Panel, use one of the following methods to launch the current version of **DashBoard** software:
 - Double-click the **DashBoard** icon on the desktop.
 - Use the Start menu to select **All Programs > DashBoard > DashBoard**.

DashBoard opens.



2. Use the **File** menu to select **New > TCP/IP DashBoard Connect or openGear Device**.

The **TCP/IP DashBoard Connect/openGear Device** dialog box opens.

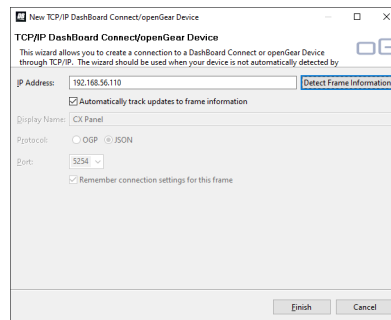


3. In the **IP Address** box, enter the IP address of the CX Panel.

Your Network Administrator can provide you with the IP address of your CX Panel.

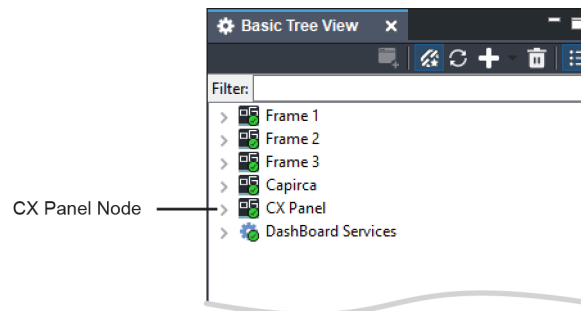
4. Click **Detect Frame Information**.

DashBoard uses the information it detected from your CX Panel to configure the remaining settings in the **TCP/IP DashBoard Connect/openGear Device** dialog box.



5. Click **Finish**.

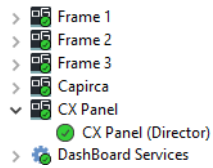
The **DashBoard Tree View** displays a node for the new CX Panel.



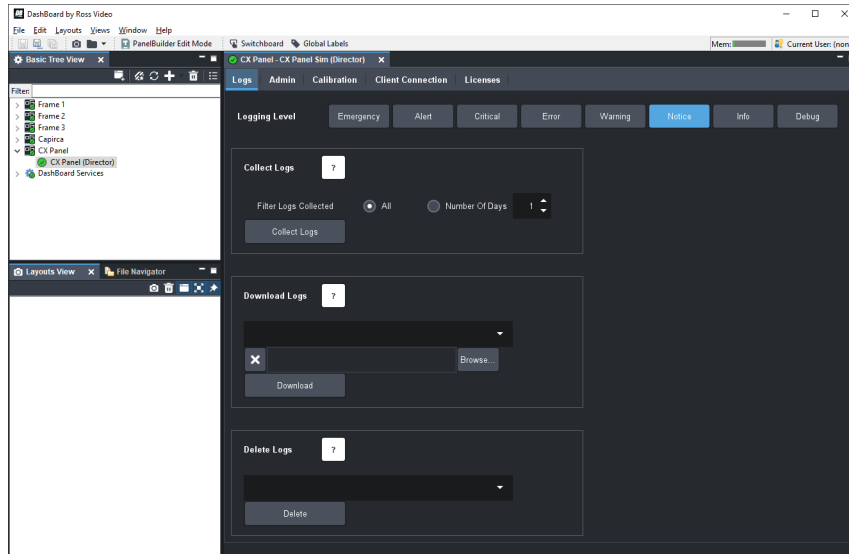
6. Hover the mouse over the **CX Panel** node to view the following information about the panel:

- IP address of the CX Panel
- Client to CX Panel connection status

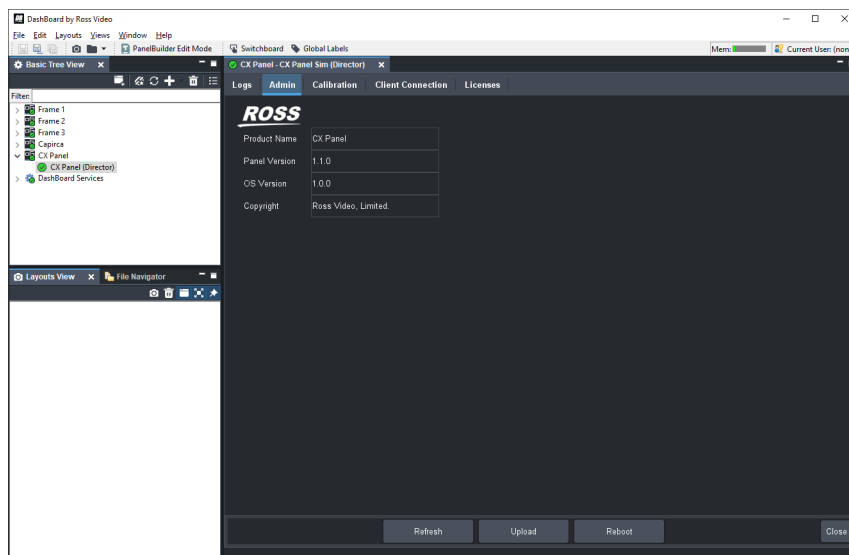
7. In the **DashBoard Tree View**, expand the new **CX Panel** node you added to DashBoard.
The **CX Panel** node displays the **CX Panel** node, which is used to configure the CX Panel.



8. Double-click the **CX Panel (Director or CX-3R Joystick)** node.
Configuration settings for the selected CX Panel open in the **Device View**.



9. Click the **Admin** tab.
The **Admin** tab opens and displays the connected CX Panel hardware, software version, and copyright information.



10. To refresh the information displayed in the **Admin** tab, click **Refresh** at the bottom of the tab.
11. To close the **Admin** tab, click **Close** at the bottom of the tab.

Connection Status

The LED in the lower right corner of a CX Panel node indicates the current connection status between DashBoard and the CX Panel. The LED reports the following connection states:

Table 5.1 CX Panel Connection Status

LED	Status
	A connection exists between DashBoard the CX Panel.
	DashBoard is trying to establish a connection with the CX Panel, but there may be a connectivity problem.
	There is no connection between DashBoard the CX Panel. Verify that the CX Panel is turned on and running.

Connecting to a Client

Connecting the CX Panel to a client in your system enables the CX Panel to receive and display information from the client. The CX Panel Client Connection tab contains the settings to configure your CX Panel to connect with the client in your system.

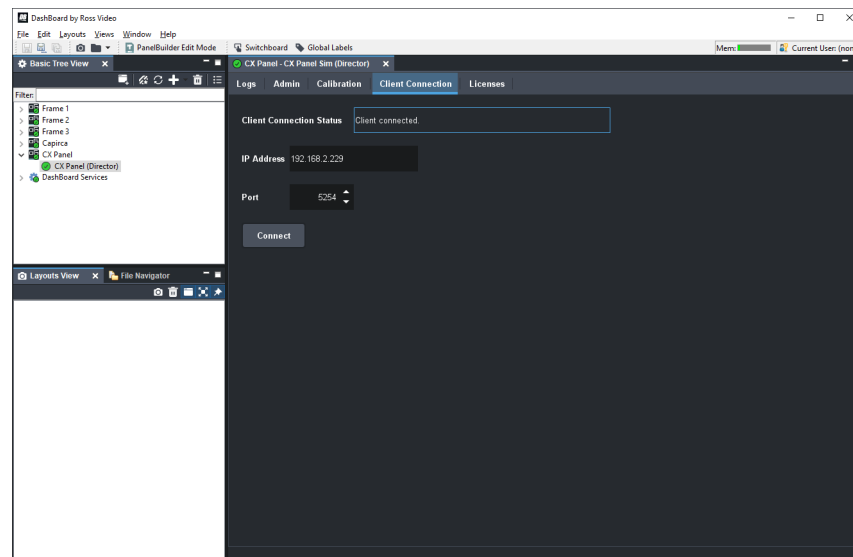
To connect a CX Panel to a client

1. In the **DashBoard Tree View**, expand your **CX Panel** node.
2. Double-click the **CX Panel (Director or CX-3R Joystick)** node.

The **Device View** opens.

3. Click the **Client Connection** tab.

The **Client Connection** tab opens.



4. In the **IP Address** box, enter the IP address of the **Client** in your system.
5. In the **Port** box, enter or select the port number used by the CX Panel to communicate with the **Client**.
Note: For use with SmartShell, the default port is **14011**.
6. Click **Connect**.

The **Client Connection Status** field displays the connection status between your CX Panel and the Client.

Collecting System Logs

Logs from your CX Panel can be used to trouble shoot panel problems. In DashBoard, the CX Panel Logs tab enables you to gather CX Panel logs into a single file that you can download to your computer.

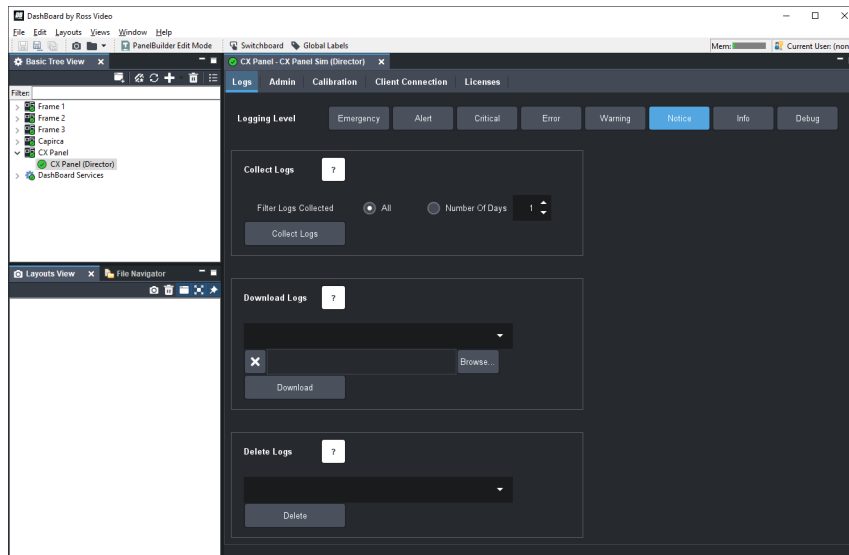
To download CX Panel log files

1. In the **DashBoard Tree View**, expand your **CX Panel** node.
2. Double-click the **CX Panel (Director or CX-3R Joystick)** node.

The **Device View** opens.

3. Click the **Logs** tab.

The **Logs** tab opens.



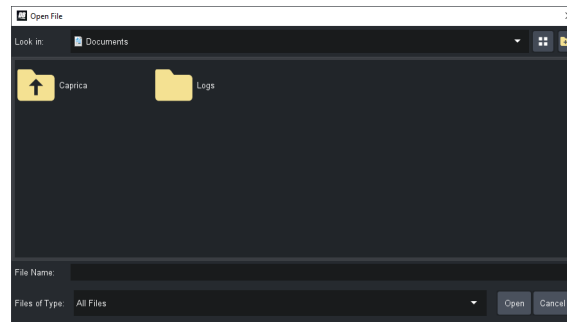
4. In the **Collect Logs** section, select one of the following options to set the number of days worth of logs to collect for a log file:
 - **All** — collect the logs from all days.
 - **Number Of Days** — collect the logs for a set number of days from the current date. When selecting this option, use the box to the right to enter or select the number of days worth of logs to collect.
5. In the **Logging Level** section, click the severity level to set for the gathered logs. The available severity levels are as follows:
 - **Emergency** — system is unusable.
 - **Alert** — action must be taken immediately.
 - **Critical** — critical conditions.
 - **Error** — error conditions.
 - **Warning** — warning conditions.
 - **Notice** — normal but significant conditions. This is the default severity level.
 - **Info** — informational messages.
 - **Debug** — debug messages.
6. In the **Collect Logs** section, click **Collect Logs**.

The CX Panel creates a log file in its storage space for the selected number of days. The new log file is added to the lists in the **Download Logs** and **Delete Logs** sections.

7. In the **Download Logs** section, use the list to select the **log file** to download from the CX Panel to your computer.

8. Click **Browse**.

The **Open File** dialog box opens.



9. Navigate to the **folder** where you want to save the selected log file.

10. In the **File Name** box, enter a file name for the log file.

Because log files are text files, you should append `.txt` to the log file name.

11. Click **Open**.

The **Open File** dialog box closes, and the **Download Logs** section displays the full pathname selected for the log file. If you want to clear the pathname, click the **X** to the left of the pathname.

12. Click **Download**.

The selected log file downloads to your computer.

Deleting Log Files From the CX Panel

When you no longer require a log file, you can delete the log file from the CX Panel to save storage space.

To delete a log file from a CX Panel

1. In the **DashBoard Tree View**, expand the **CX Panel** node.
2. Double-click the **CX Panel** node.
The **Device View** opens.
3. Click the **Logs** tab.
The **Logs** tab opens.
4. In the **Delete Logs** section, use the list to select the **log file** to delete from the CX Panel.
5. Click **Delete**.

The CX Panel deletes the selected log file from its storage space.

Viewing Software Licenses

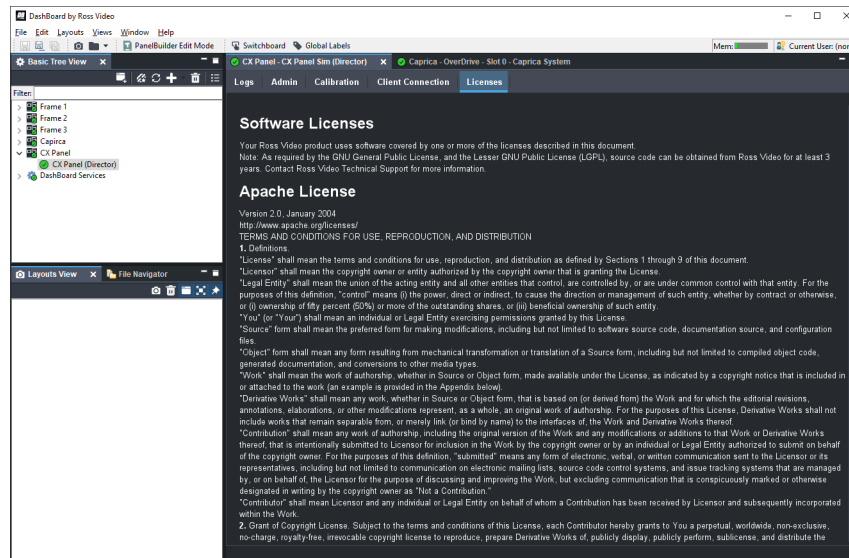
The CX panel uses software covered by the licenses described in the Licenses tab of the CX panel configuration settings.

To view software licenses

1. In the **DashBoard Tree View**, expand your **CX Panel** node.
2. Double-click the **CX Panel** node.
The **Device View** opens.

3. Click the **Licenses** tab.

The **Licenses** tab opens.



Calibrating Controls

The various CX Panel models contain controls that you can calibrate to your preference.

The following topics are discussed in this chapter:

- Calibrating Fader Ranges
- Adjusting Fader Touch Sensitivity
- Resetting Fader Touch Sensitivity Baseline
- Calibrating Joystick and Roller Ranges
- Adjusting Joystick Deadzones

Calibrating Fader Ranges

The range of motion for the faders on your CX Director Panel is unique. Through calibration, DashBoard can record the unique range of motion for each fader on a CX Director Panel.

To calibrate the range of CX Director Panel faders

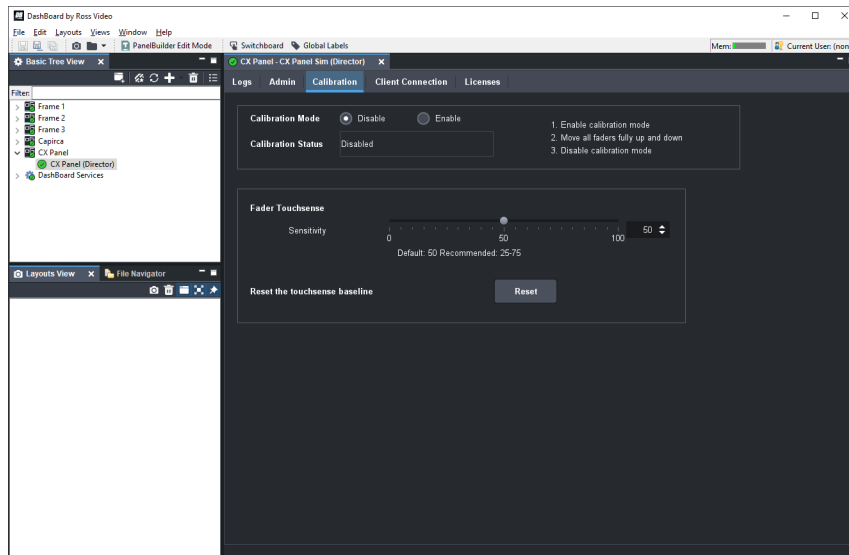
1. In the **DashBoard Tree View**, expand your **CX Panel** node.

2. Double-click the **CX Panel** node.

The **Device View** opens.

3. Click the **Calibration** tab.

The **Calibration** tab opens.



4. In the **Calibration Mode** setting, select the **Enable** option.

The **Calibration Status** field displays **Enabled** to indicate that the CX Director Panel is ready for fader calibration.

5. On your CX Director Panel, firmly press on the first fader to engage touchsense, and then move it to the top position of the range that you want to use for the fader.

You can position faders a short distance from the top of the physical fader range to set a dead spot for the fader. A dead spot prevents bounce when a fader physically hits the top of the range and bounces back to a non-zero value.

6. Repeat step 5 for the remaining faders on the CX Director Panel.

7. Firmly press on the first fader to engage touchsense, and then move it from the set top position to the bottom position of the range that you want to use for the fader.

You can position faders a small distance from the bottom of the physical fader range to set a dead spot for the fader. A dead spot prevents bounce when a fader physically hits the bottom of the range and bounces back to a non-zero value.

8. Repeat step 7 for the remaining faders on the CX Director Panel.

9. In the **Calibration Mode** setting, select the **Disable** option.

The **Calibration Status** field displays **Disabled** to indicate that the CX Director Panel fader calibration is complete and the panel is ready to use with the newly calibrated fader ranges.

Note: When joystick axes are reconfigured, the output will reset to 0 for all joysticks until the joystick is moved

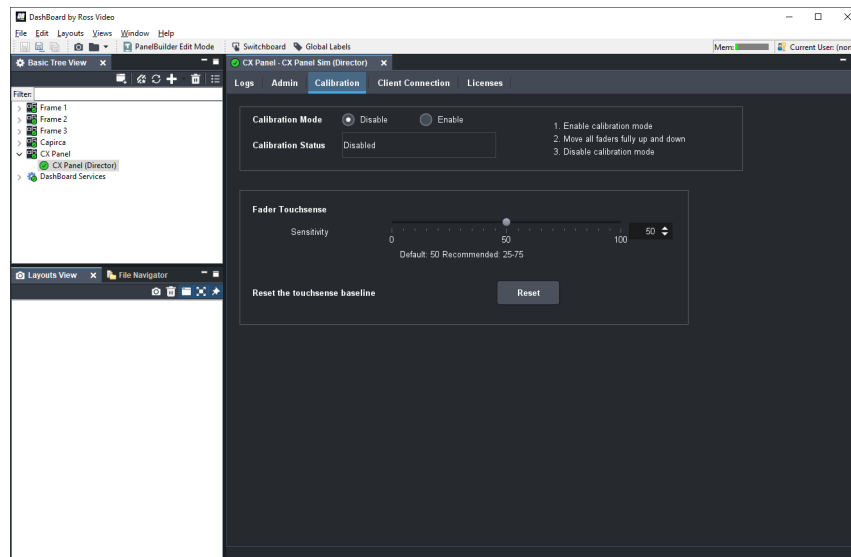
again. If a configuration change occurs while the joystick is held, the operator must move the joystick slightly to resume operation.

Adjusting Fader Touch Sensitivity

In most situations, you do not need to adjust the touch sensitivity of the faders on your CX Director Panel. The temperature and humidity of your working environment can cause fader touch sensitivity to behave in an unexpected way. You can adjust the sensitivity of CX Director Panel faders for your environment.

To adjust the touch sensitivity of CX Director Panel faders

1. In the **DashBoard Tree View**, expand your **CX Panel** node.
The **Device View** opens.
2. Double-click the **CX Panel** node.
The **Calibration** tab opens.
3. Click the **Calibration** tab.
The **Calibration** tab opens.



4. The default sensitivity level is **50**, and the recommended sensitivity range is **25 to 75**. Higher sensitivity values increase fader touch sensitivity and lower values decrease it. In the **Fader Touchsense** section, use one of the following methods to adjust fader sensitivity:
 - Drag the **Sensitivity** slider along scale. The box to the right of the scale displays the set sensitivity level.
 - In the box to the right of the **Sensitivity** scale, enter or select a sensitivity level.

Resetting Fader Touch Sensitivity Baseline

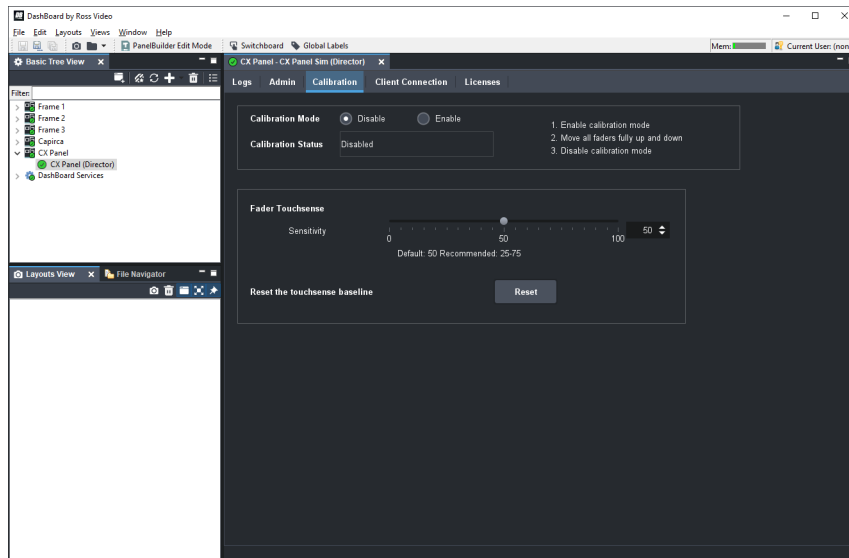
CX Director Panel faders use the touch sensitivity baseline to detect whether an operator is touching a fader. If the CX Director Panel is restarted while the operator is still touching a fader, it will not be able to detect fader touches since it would have set the sensitivity baseline improperly. Resetting the touch sensitivity baseline with no faders being touched will enable fader touch detection once again.

To reset the touch sensitivity baseline for CX Director Panel faders

1. In the **DashBoard Tree View**, expand your **CX Panel** node.
The **Device View** opens.
2. Double-click the **CX Panel** node.
The **Calibration** tab opens.

3. Click the **Calibration** tab.

The **Calibration** tab opens.



4. Take your fingers off of any CX Director Panel faders.
5. In the **Reset the touchsense baseline** section, click **Reset**.

Calibrating Joystick and Roller Ranges

The range of motion for the joysticks and rollers on your CX-3R Joystick Panel is unique. Through calibration, DashBoard can record the unique range of motion for each joystick and roller on a CX-3R Joystick Panel.

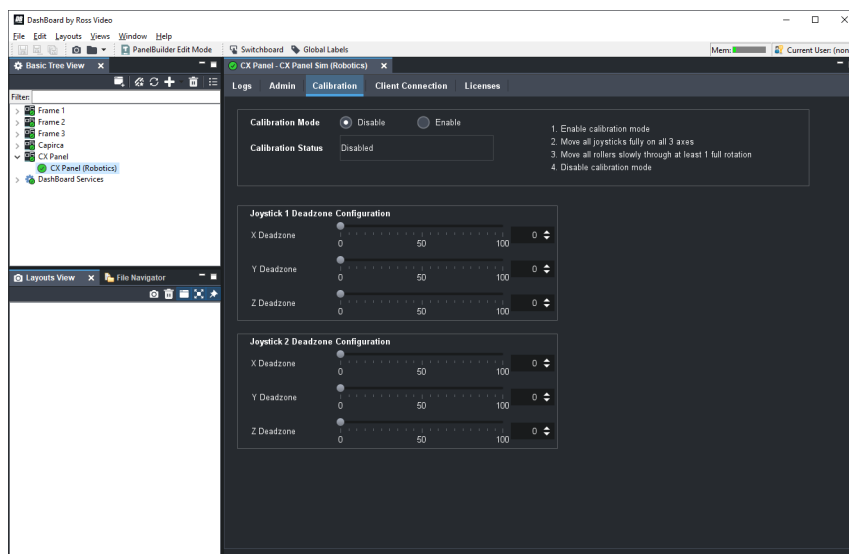
To calibrate the range of CX-3R Joystick Panel joysticks and rollers

1. In the **DashBoard Tree View**, expand your **CX Panel** node.
2. Double-click the **CX Panel (CX-3R Joystick)** node.

The **Device View** opens.

3. Click the **Calibration** tab.

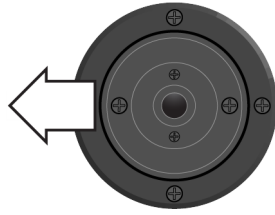
The **Calibration** tab opens.



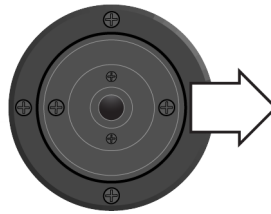
4. In the **Calibration Mode** setting, select the **Enable** option.

The **Calibration Status** field displays **Enabled** to indicate that the CX-3R Joystick Panel is ready for joystick calibration.

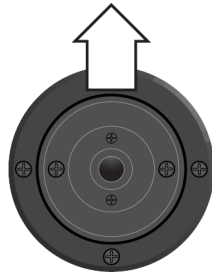
5. On your CX-3R Joystick Panel, move the **left joystick** to the **Left** until it stops and then release the joystick.



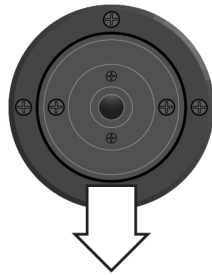
6. Move the **left joystick** to the **Right** until it stops and then release the joystick.



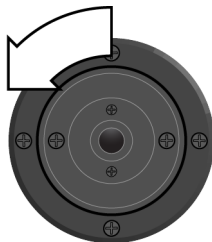
7. Move the **left joystick** to the **Top** until it stops and then release the joystick.



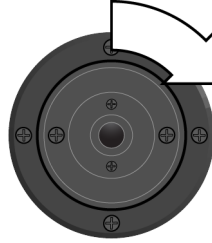
8. Move the **left joystick** to the **Bottom** until it stops and then release the joystick.



9. Twist the top of the **left joystick** to the **Left** until it stops and then release the joystick.



10. Twist the top of the **left joystick** to the **Right** until it stops and then release the joystick.



11. Repeat step 5 to step 10 for the **right joystick** on your CX-3R Joystick Panel
12. For each **roller** on your CX-3R Joystick Panel, slowly move the **roller** through one full rotation.
13. In the **Calibration Mode** setting, select the **Disable** option.

The **Calibration Status** field displays **Disabled** to indicate that the CX-3R Joystick Panel joystick calibration is complete and the panel is ready to use with the newly calibrated joystick ranges.

Adjusting Joystick Deadzones

After you calibrate the range of motion for the joysticks on your CX-3R Joystick Panel, you can configure the deadzones for each joystick. A deadzone is the distance that a joystick must move from the center before it starts to move the robotic camera it controls.

To configure joystick deadzones

1. In the **Left Joystick Deadzone Configuration** section, use the **X DeadZone** setting to set the distance that the joystick must move left or right from the center before it starts to move a robotic camera. This setting stops left and right camera movement when the joystick returns to center. Use one of the following methods to set the **X DeadZone**:
 - Drag the **X DeadZone** slider along scale. The box the right of the scale displays the set X DeadZone distance.
 - In the box to the right of the **X DeadZone** scale, enter or select an X DeadZone distance.
2. Use the **Y DeadZone** setting to set the distance that the joystick must move up or down from the center before it starts to move a robotic camera. This setting stops up and down camera movement when the joystick returns to center. Use one of the following methods to set the **Y DeadZone**:
 - Drag the **Y DeadZone** slider along scale. The box the right of the scale displays the set Y DeadZone distance.
 - In the box to the right of the **Y DeadZone** scale, enter or select an Y DeadZone distance.
3. Use the **Z DeadZone** setting to set the distance that the joystick top must twist left or right from the center before it starts to move a robotic camera. This setting stops zoom, focus, or iris change when the joystick returns to center. Use one of the following methods to set the **Z DeadZone**:
 - Drag the **Z DeadZone** slider along scale. The box the right of the scale displays the set Z DeadZone distance.
 - In the box to the right of the **Z DeadZone** scale, enter or select an Z DeadZone distance.
4. In the **Right Joystick Deadzone Configuration** section, repeat step 1 to step 3 to configure the deadzones for the **right joystick** on your CX-3R Joystick Panel.

Updating a CX Panel

When Ross Video releases updates for the CX Panel operating system or applications, you can use DashBoard to install the updates on your CX Panel hardware.

The following topics are discussed in this chapter:

- Updating the Operating System or Application
- Rebooting the CX Panel

Updating the Operating System or Application

When Ross Video releases updates for the CX Panel operating system or applications, you can use DashBoard to install the updates on your CX Panel hardware. CX Panel operating system and application updates are released as package files and installed using the DashBoard Upload Software Wizard.

- ★ When CX Panel operating system and application updates are released together, you must install the operating system update before installing the application update.

To update the CX Panel operating system or application

1. Contact Ross Video Technical Support to obtain the most recent CX Panel operating system and application package files.
2. On a computer connected to the same subnetwork as your CX Panel, launch the current version of **DashBoard** software.
3. In the **DashBoard Tree View**, expand your **CX Panel** node.
4. Double-click the **CX Panel (Director or CX-3R Joystick)** node.

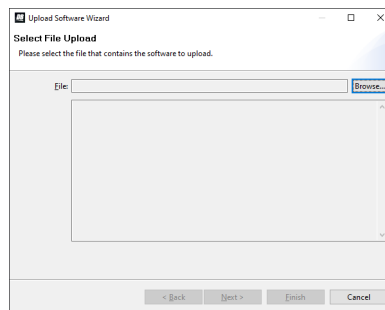
The **Device View** opens.

5. Click the **Admin** tab.

The **Admin** tab opens.

6. At the bottom of the **Admin** tab, click **Upload**.

The **Select File Upload** screen of the **Upload Software Wizard** opens.



7. To the right of the **File** box, click **Browse**.

The **Open** dialog box opens.

8. Use the **Open** dialog box to locate and select the CX Panel operating system (`cx_panel_os-X.X.X.bin`) or application (`cx_panel_app-X.X.X.bin`) package file you downloaded from Ross Video Technical Support.

9. Click **Open**.

The **Open** dialog box closes and the **File Summary** field in the **Select File Upload** screen displays information about the selected package file.

10. Click **Finish**.

The **Upload Software Wizard** installs the selected CX Panel operating system or application update. The **Panel Version** or **OS Version** field in the **Admin** tab updates to display the version of the newly installed CX Panel operating system or application.

Rebooting the CX Panel

If your CX Panel requires rebooting, you can cycle the panel power to reboot it.

To reboot a CX Panel

1. Disconnect the CX Panel power supply from the AC mains power.
2. Wait five seconds to let all power drain from the CX Panel.
3. Connect the CX Panel power supply to the AC mains power.

The CX Panel reboots.

CX Director Panel OverDrive Setup

In an OverDrive system that contains a Caprica Server, you can connect a CX Director Panel that contains physical control buttons and audio faders. CX Director Panels are optional OverDrive companion control panels for users who prefer a dedicated control surface. CX Director Panels work in conjunction with the OverDrive touch screen, keyboard, and mouse to offer you multiple interfaces to your OverDrive system.

★ CX Director Panels only work with OverDrive systems that contain a Caprica Server.

The following topics are discussed in this chapter:

- Configuring CX Director Panel Buttons
- Selecting the Faders to Control

Configuring CX Director Panel Buttons

A CX Director Panel contains 32 multi-color LCD buttons that enable to access 32 pages that each contain 32 buttons to which you can assign a Custom Control. Pressing a CX Director Panel button runs the assigned Custom Control from the Caprica Server in your OverDrive system. You can also configure CX Director Panel buttons to open another button page after the assigned Custom Control finishes.

Assigning Custom Controls to CX Director Panel Buttons

You can assign a Custom Control to each CX Director Panel button in the accessible 32 button pages. Pressing a CX Director Panel button runs the assigned Custom Control from the Caprica Server in your OverDrive system. You can also add a page change after the assigned Custom Control finishes.

- ★ Before you can assign Custom Controls to CX Director Panel buttons, you must create the required Custom Controls on your Caprica Server. Custom Controls must contain at least one command.

To assign Custom Controls to CX Director Panel buttons

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Director Panel Configuration** node.

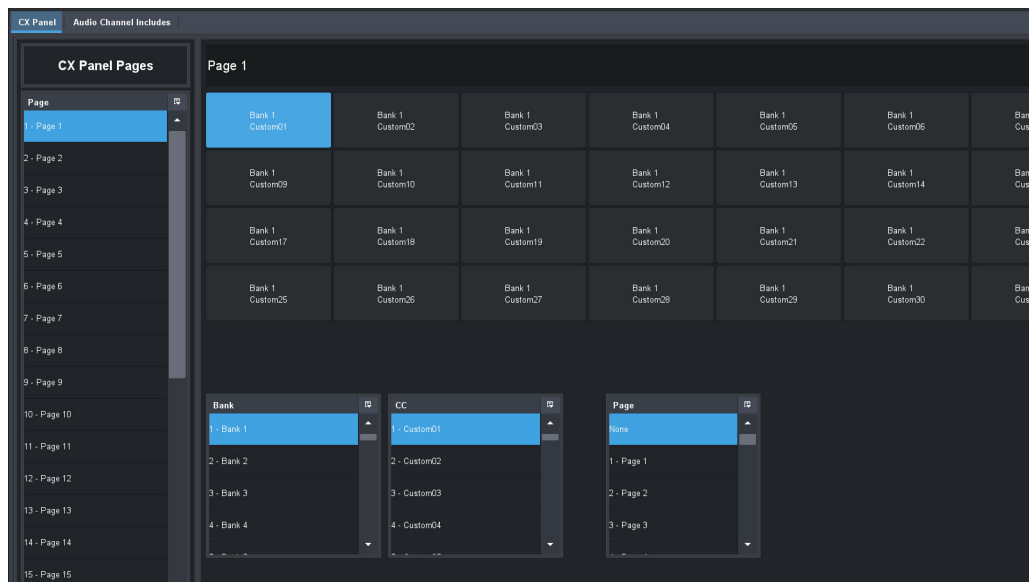
The **CX Director Panel Configuration** client opens in the **Device View**. Caprica automatically loads the assigned Custom Controls into the displayed buttons.

4. Use the **Window** menu to select **Full Screen**.

The **CX Director Panel Configuration** client expands to full screen view.

5. Click the **CX Director Panel** tab.

The **CX Director Panel** tab opens. Caprica automatically loads the assigned Custom Controls into the displayed buttons.



6. Use the **CX Director Panel Pages** list on the left to select the CX Director Panel button page to display in the **Buttons** section.
7. In the **Buttons** section, click the **CX Director Panel button** to assign a Custom Control.
8. Use the **Bank** list to select the bank that contains the Custom Control to assign to the selected CX Director Panel button.

9. Use the **CC** list to select the Custom Control to assign to the selected CX Director Panel button.
10. Use the **Page** list to select the **page** of CX Director Panel buttons to display on the CX Director Panel after the Custom Control assigned to the button starts. Select **None** to continue displaying the current page of CX Director Panel buttons
11. Click **Assign Button**.
The selected button updates on the CX Director Panel. The assigned Custom Control is only available for the selected **CX Director Panel button** on the selected **page**.

Customizing CX Director Panel Button Label and Background Color

You can customize the names of CX Director Panel buttons that open pages. For CX Director Panel buttons that run Custom Controls, you can customize the button names, name text style, and background color.

Page Buttons

The names of CX Director Panel buttons that open pages are set in the CX Director Panel tab of the CX Director Panel Configuration client.

To change the name of a CX Director Panel page button

1. At the bottom of the **Device View**, click **CX Director Panel Configuration**.
The **CX Director Panel Configuration** client opens in the **Device View**.
2. Click the **CX Director Panel** tab.
The **CX Director Panel** tab opens.
3. Use the **CX Director Panel Pages** list to select the page button to customize.
The **CX Director Panel Configuration** client displays the configuration of the selected page.
4. In the **Name** box at the top of the **CX Director Panel Configuration** client, enter a new name for the page.



5. Press **Return**.
The associated page button on the CX Director Panel displays the new page name.

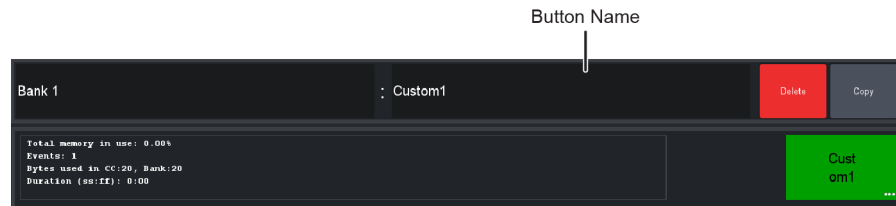
Custom Control Buttons

The name, name text style, and background color specified for a Custom Control are carried over to the CX Director Panel button to which it is assigned.

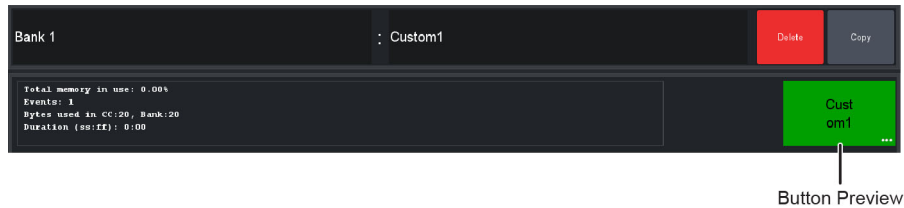
To customize a CX Director Panel button assigned to a Custom Control

1. At the bottom of the **Device View**, click **Custom Controls**.
The **Custom Controls** client opens.
2. In the **Bank** column of the **Custom Controls** table, click the Custom Control **bank** that contains the Custom Control assigned to the CX Director Panel button to customize.
3. In the **CC Name** column of the **Custom Controls** table, click the **Custom Control** assigned to the CX Director Panel button to customize.
The **Custom Controls** client displays the selected bank and Custom Control name at the top of the client.

4. In the **Name** box at the top of the **Custom Controls** client, enter the name to display on the CX Director Panel button to which the Custom Control is assigned.



5. At the top of the **Custom Controls** client, click the **Button Preview**.



The **Select Style** dialog box opens.



6. Click a **Style** button in the top button row of the **Select Style** dialog box to set the text style for the CX Director Panel button assigned to the Custom Control.

The available text styles for CX Director Panel buttons names are as follows:

Standard	Small	Small Invert	Medium	Medium Invert	Large	Large Invert	None

The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the CX Director Panel.

7. Click the **Button Preview**.

The **Select Style** dialog box opens.

8. Click a **Color** button in the bottom button row of the **Select Style** dialog box to set the background color for CX Director Panel button assigned to the Custom Control.

The available background colors for CX Director Panel buttons are as follows:

Standard	Green	Red	Blue	Yellow	Orange	None

The **Select Style** dialog box closes and the **Button Preview** updates along with the button on the CX Director Panel.

Selecting the Faders to Control

A CX Director Panel contains five or ten physical faders that work in conjunction with the DirectAudio interface of DirectControl to control the faders in the On-Air Audio view and on the OverDrive system audio mixer. Since a CX Director Panel does not have enough faders to control all audio channels in the On-Air Audio view, you must select the channels to control with your CX Director Panel faders.

To control an audio channel with a CX Director Panel fader, the channel must meet the following conditions:

- The channel must be selected in the Audio Channel Includes tab.
- The channel must be displayed in the DirectControl On-Air Audio view.
- The channel must be the first five or ten channels that match the previous conditions. The number of channels that you can control depends on the number of physical faders on your CX Director Panel.

On the CX Director Panel, the display above a fader displays the channel name it controls.

★ Before you can select CX Director Panel faders to control, your Caprica Server must have a configured audio mixer device. For more information on configuring an audio mixer Caprica device, refer to the following:

- › The *Caprica Device Setup Sheet* for your audio mixer.
- › The **Configuring Devices to Connect to an OverDrive System** section in the *Caprica User Guide*.
- › The **Configuring Audio** section in the *Caprica User Guide*.

To select the audio channels to control with CX Director Panel faders

1. In the **DashBoard Tree View**, expand your **Caprica Server** node.
2. In the **Caprica Server** node, expand the **Slot 0: Caprica** node.
3. Double-click the **CX Director Panel Configuration** node.

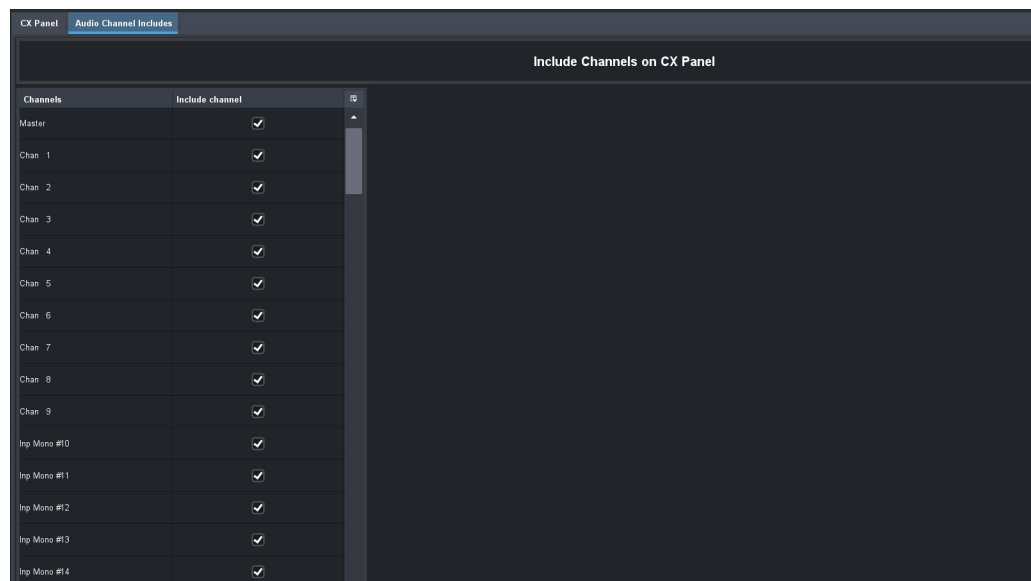
The **CX Director Panel Configuration** client opens in the **Device View**.

4. Use the **Window** menu to select **Full Screen**.

The **CX Director Panel Configuration** client expands to full screen view.

5. Click the **Audio Channel Includes** tab.

The **Audio Channel Includes** tab opens.



6. To manage the audio channels available to the CX Director Panel, use the check boxes in the **Include channel** column as follows:
 - **Control** — select the check box to the right of an audio channel that you want to control with a physical fader on your CX Director Panel.
 - **Do Not Control** —clear the check box to the right of an audio channel that you do not want to control with a physical fader on your CX Director Panel.

CX-3R Joystick Panel Setup

The CX-3R Joystick Panel is a control panel designed for robotic camera systems. It provides precise joystick control for camera movement and integrates with SmartShell, Ross Video's unified control system for robotics. The CX Panel Adapter Windows Service is required for communication between the CX-3R Joystick Panel and SmartShell.

★ CX-3R Joystick Panel only work with SmartShell.

The following topics are discussed in this chapter:

- Install SmartShell CX Panel Adapter Service
- Ensure that SmartShell is configured to use a CX Panel
- Troubleshooting & More Details

Install SmartShell CX Panel Adapter Service

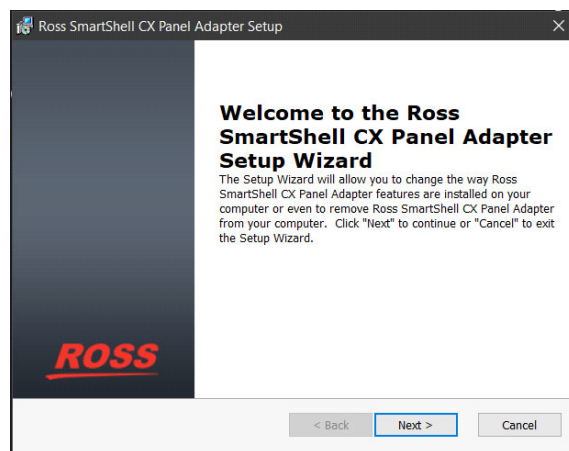
The CX Panel Adapter Windows Service is required for communication between SmartShell and the CX-3R Joystick Panel.

Note: The SmartShell CX Panel Adapter Service must be installed on the SmartShell machine.

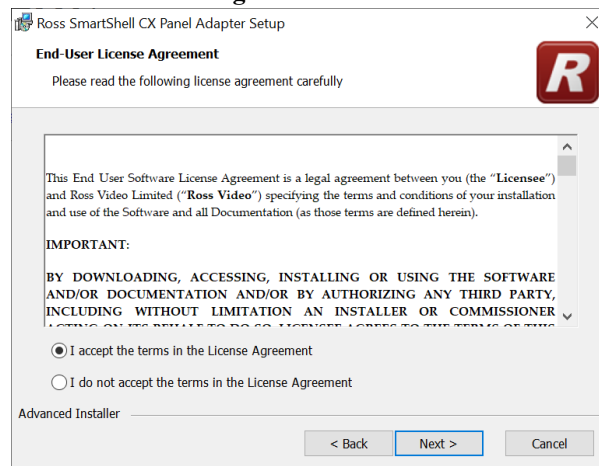
Installing SmartShell CX Panel Adapter Service on your SmartShell Computer

To install SmartShell CX Panel Adapter Service

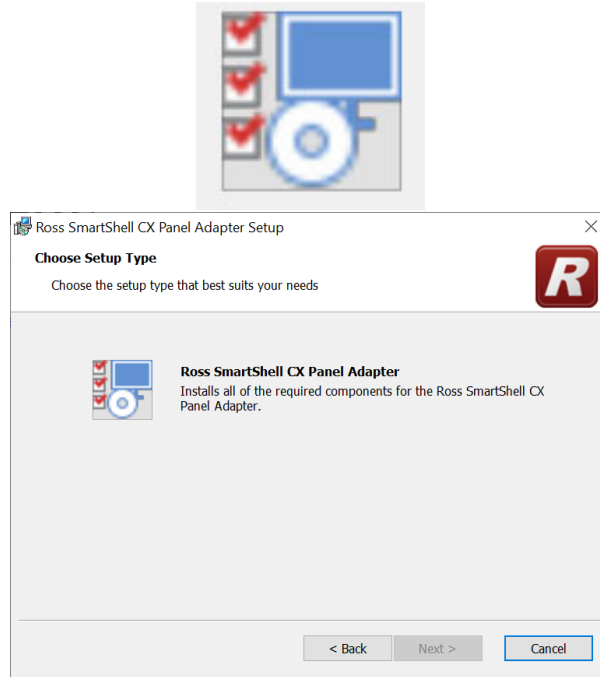
1. Download the SmartShell CX Panel Adapter Windows Service:
SmartShellCxPanelAdapter-x.x.x-yyyy.mm.dd-hh.mm.msi
2. Open the Adapter Setup Install Window on the SmartShell workstation.
3. Select **Next**.



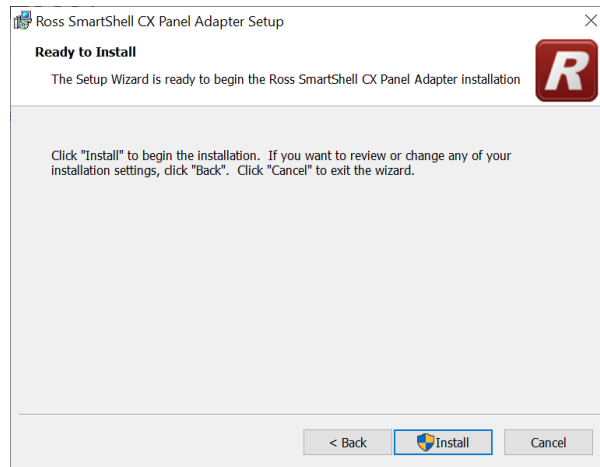
4. Select **I accept the terms in the License Agreement** and **Next**.



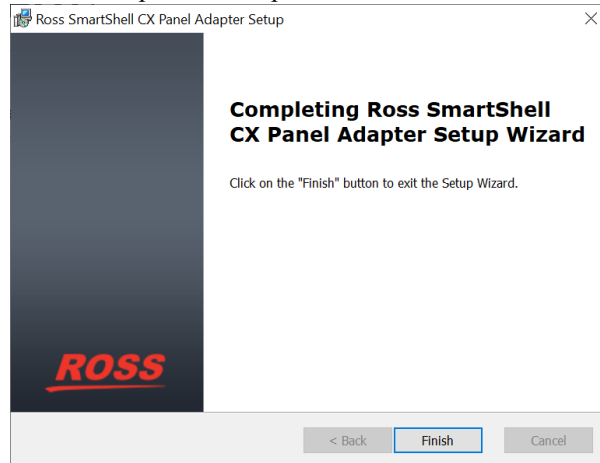
5. Select the **Ross SmartShell CX Panel Adapter** and **Next**.



6. Select **Install**.



7. Select **Finish** once the installation process completes.



8. Verify the installation:

Configuration files are located at: C:\Program Files\Ross Video\SmartShellCxPanelAdapter\configuration\
Log files are stored at: C:\Program Files\Ross Video\SmartShellCxPanelAdapter\workspace\metadata\logs

Note: No configuration changes are needed unless using non-default ports.

Connecting your panel to the CX Panel Adapter Service

Before configuring SmartShell, ensure that the CX Robotics Panel is connected to DashBoard™.

Refer to “**Connecting DashBoard™ to a CX Panel**” on page 5–1 for instructions.

Ensure the following:

- The adapter service must be installed and running on the SmartShell computer.
- When connecting in DashBoard™, enter port **14011** and use the IP address of the SmartShell computer (not the CX Panel).

Once the DashBoard™ connection is complete, proceed with configuring SmartShell.

Ensure that SmartShell is configured to use a CX Panel

Once the CX-3R Joystick Panel is connected, you must configure SmartShell to communicate with it.

To configure SmartShell for the CX-3R Joystick Panel

1. Ensure that SmartShell version 7.3 or later is installed.
2. Navigate to the **SmartShell installation directory**:
 - Default location: C:\Ross\SmartShell 7.3.xxx.yyy\
• If SmartShell is installed in a different location, navigate to that directory.
3. Open the **SmartShell.exe.config** configuration file.
4. Remove commented-out lines (<!-- and -->) related to CX Panel communication:
<!--

<CxPanelAdapter Host="localhost" Port="14010" ConnectInterval="10000"/>
-->

The output to enable this setting should look like the following:

```
<CxPanelAdapter Host="localhost" Port="14010" ConnectInterval="10000"/>
```

5. Save the file and restart SmartShell

Note: The Joystick status indicator in SmartShell changes color based on the connection status:

- **Green** — Successfully connected to a CX Panel through the Adapter and SmartShell has active control.
- **Grey** — No connection to the CX Panel Adapter, Ross SmartShell CX Panel Adapter Service or SmartShell has not been given active control of the CX Panel. This can occur in the following cases:
 - › SmartShell is not connected to the SmartShell CX Panel Adapter Service - Confirm that the SmartShell CX Panel Adapter Service is running and that SmartShell is properly configured to use a CX Panel, including the correct port.
 - › Multiple SmartShell stations are connected to the same CX Panel Adapter Service - Only one SmartShell instance can actively control the panel. The first connected station will show a green status, while additional stations will show a grey status with the notification:
Another station <station name> already has control of the CX Panel.
- **Red** — Connected to the Adapter, but no CX Panel is detected. To resolve this:
 - › Confirm that the CX Panel Client Connection is correctly configured with the IP address and port of the SmartShell CX Panel Adapter Service.
 - › Ensure that there is no firewall blocking access between the CX Panel and the Adapter Service.

To calibrate the joysticks

Refer to **Calibrating Joystick and Roller Ranges** in **Calibrating Controls**.

To test the CX-3R Joystick Panel

1. Move the joysticks to confirm that SmartShell registers all movements.
If everything has been correctly installed:
 - › The SmartShell joystick dot will be Green to indicate that a panel is connected
 - › The panel will light up to show the set of cameras currently in use by SmartShell
2. Test a preset move and verify that the panel sends commands to SmartShell.

Troubleshooting & More Details

For additional support on configuring and using the CX-3R Joystick Panel, refer to the ***CX-3R Joystick Panel User Guide (5000DR-380-01)***.

