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Product Manual

IV-SAM-VX2 Series

Automate VX System Series 2 Voice-Activated, Multi-Camera Switching Solution

Crestron Electronics, Inc.

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IV-SAM-VX2 Series

Automate VX System Series 2 Voice-Activated, Multi-Camera Switching Solution

The IV-SAM-VX2 Series camera switching systems bring a full multicamera studio experience to meetings, town halls, and classrooms. Crestron 1 Beyond cameras automatically switch based on the location of the active speaking participant. Visual AI enhanced camera switching intelligently frames camera shots with the participants centered.

- For more information about Automate VX software configuration, refer to Automate VX Software Product Manual.
- For more information about the first generation Automate VX installation, refer to Automate VX Product Manual.

Features

Refer to the following sections for more information on the features provided by Crestron 1 Beyond Automate VX2 systems.

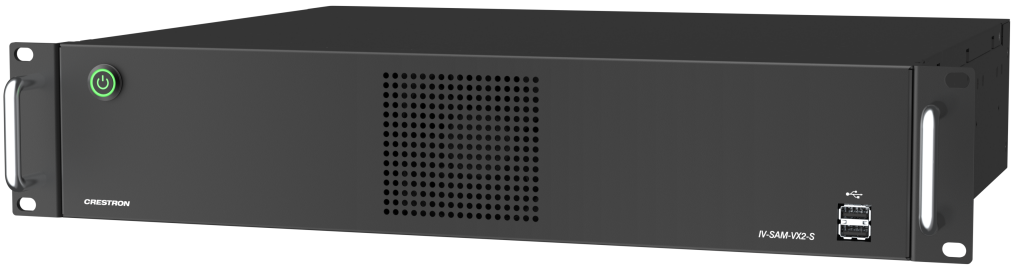
This section provides the following information:

- IV-SAM-VX2-S Features
- IV-SAM-VX2-P Features

IV-SAM-VX2-S Features

The IV-SAM-VX2-S Automate VX is a voice-activated camera switching solution that brings the full multicamera studio experience to meetings, town halls, and classrooms. Crestron 1 Beyond cameras automatically switch based on the location of the active speaking participant. Visual AI enhanced camera switching intelligently frames camera shots with the participants centered. Automate VX comes with built-in recording and streaming capability along with outputs for video conferencing.

- Provides automatic camera switching based on the active speaking participant
- Switches between multiple cameras for broadcast-style production
- Supports 3 SDI or 5 NDI|HX® sources; outputs SDI and NDI streams
- Intelligent video algorithm follows the conversation, avoiding excessive camera switching
- Simple configuration with the browser-based Room Designer tool
- Visual AI autoframes and reframes to capture the best camera shots
- Built in encoder and recorder for live streams and video recording
- Customizable video layouts to accommodate video conferencing needs



Production Quality Camera Shots

See who is speaking with close-up camera shots. Clean production-style camera switching provides a more engaging experience for remote participants or viewers.

High Definition Video for Conferencing

Connect 12x and 20x optical zoom Crestron 1 Beyond Cameras via 3G-SDI or NDI®|HX for high quality video output resolutions. Provide uncompressed high definition video through your conferencing codec of choice with the included SDI to USB-A 3.0 converter.

AutoFraming and Reframing with Visual AI

Visual AI directs Crestron 1 Beyond optical zoom cameras to automatically center participants in camera shots via AutoFraming. Reframing continuously keeps the participant centered in the camera shot — even when the participant moves from their initial position.

Voice-Activated Switching

Voice-activated switching uses data from the room microphones to locate the active speaking participant and change camera shots accordingly. Multiple microphone types are supported, including intelligent array microphones, wired and wireless microphones, and discussion systems.

No Code Configuration with Visual Designer

The Room Designer tool provides the ability to design and configure meeting spaces. The browser interface is used to create and visualize designs to accommodate the room's requirements, and to determine optimal placement of cameras and microphones. Set the desired camera switching experience graphically - no coding or camera presets required.

Adapts to Room Sizes and Uses

Cameras can be located throughout the room for best camera angles. Room configurations can be set to accommodate different furniture layouts with a single button push.

Professional Services

The 1 Beyond Automate system requires the purchase of 1 Beyond Camera Systems Remote Professional Services. Remote Professional Services provides dedicated technical support for the remote deployment of Automate VX Voice Activated Multi Camera Switching Solutions.

Visit IV-PROSERVICE-1B for details.

> **NOTE**: For Crestron Intelligent Video Certified Engineers (IVC-E) planning to self deploy and self validate a purchased Automate VX system, the purchase of Remote Professional Services is optional, subject to verification by Crestron. Visit IV-PROSERVICE-1B for details.

Custom Layouts

Combine multiple sources, superimpose titles and add custom graphics. A graphical user interface allows for custom layouts, not just picture-in-picture or side-by-side.

Native Crestron Control and REST API

Enable autoswitching, activate Scenarios, record/stream, change room configurations or layouts and more from your preferred control interface. An adaptable API is available for customizable user interfaces on third-party control systems. For more information about the API for Automate VX, refer to the Automate VX API documentation.

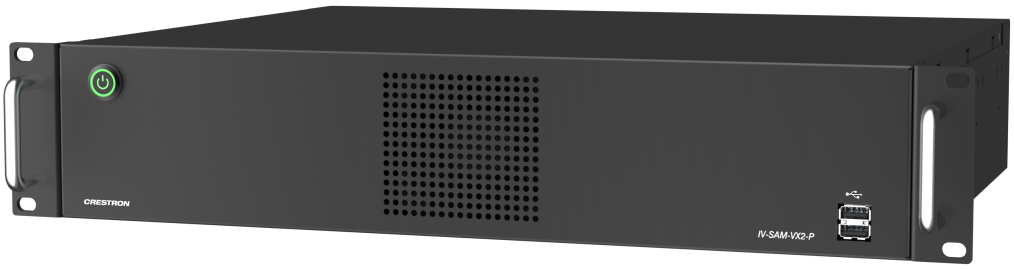
Conference, Stream, and Record

In addition to high quality output for hard or soft codecs, the system has a built-in encoder and recorder to enable RMTP streaming with 316 GB of storage for local program and ISO recording. Automated copy available to network and cloud storage.

IV-SAM-VX2-P Features

The IV-SAM-VX2-P Automate VX Pro is a voice-activated camera switching solution that brings the full multicamera studio experience to meetings, town halls, and classrooms. Crestron 1 Beyond cameras automatically switch based on the location of the active speaking participant. Visual AI enhanced camera switching intelligently frames camera shots with the participants centered. Automate VX Pro comes with built-in recording and streaming capability along with outputs for video conferencing.

- Provides automatic camera switching based on the active speaking participant
- Switches between multiple cameras for broadcast-style production
- Supports 7 SDI or 12 NDI|HX® sources; outputs SDI and NDI streams
- Intelligent video algorithm follows the conversation, avoiding excessive camera switching
- Simple configuration with the browser-based Room Designer tool
- Visual AI autoframes and reframes to capture the best camera shots
- Built in encoder and recorder for live streams and video recording
- Customizable video layouts to accommodate video conferencing needs



Production Quality Camera Shots

See who is speaking with close-up camera shots. Clean production-style camera switching provides a more engaging experience for remote participants or viewers.

High Definition Video for Conferencing

Connect 12x and 20x optical zoom Crestron 1 Beyond Cameras via 3G-SDI or NDI®|HX for high quality video output resolutions. Provide uncompressed high definition video through your conferencing codec of choice with the included SDI to USB-A 3.0 converter.

AutoFraming and Reframing with Visual AI

Visual AI directs Crestron 1 Beyond optical zoom cameras to automatically center participants in camera shots via AutoFraming. Reframing continuously keeps the participant centered in the camera shot — even when the participant moves from their initial position.

Voice-Activated Switching

Voice-activated switching uses data from the room microphones to locate the active speaking participant and change camera shots accordingly. Multiple microphone types are supported, including intelligent array microphones, wired and wireless microphones, and discussion systems.

No Code Configuration with Visual Designer

The Room Designer tool provides the ability to design and configure meeting spaces. The browser interface is used to create and visualize designs to accommodate the room's requirements, and to determine optimal placement of cameras and microphones. Set the desired camera switching experience graphically - no coding or camera presets required.

Adapts to Room Sizes and Uses

Cameras can be located throughout the room for best camera angles. Room configurations can be set to accommodate different furniture layouts with a single button push.

Professional Services

The 1 Beyond Automate system requires the purchase of 1 Beyond Camera Systems Remote Professional Services. Remote Professional Services provides dedicated technical support for the remote deployment of Automate VX Voice Activated Multi Camera Switching Solutions.

Visit IV-PROSERVICE-1B for details.

> **NOTE**: For Crestron Intelligent Video Certified Engineers (IVC-E) planning to self deploy and self validate a purchased Automate VX system, the purchase of Remote Professional Services is optional, subject to verification by Crestron. Visit IV-PROSERVICE-1B for details.

Custom Layouts

Combine multiple sources, superimpose titles and add custom graphics. A graphical user interface allows for custom layouts, not just picture-in-picture or side-by-side.

Native Crestron Control and REST API

Enable autoswitching, activate Scenarios, record/stream, change room configurations or layouts and more from your preferred control interface. An adaptable API is available for customizable user interfaces on third-party control systems. For more information about the API for Automate VX, refer to the Automate VX API documentation.

Conference, Stream, and Record

In addition to high quality output for hard or soft codecs, the system has a built-in encoder and recorder to enable RMTP streaming with 316 GB of storage for local program and ISO recording. Automated copy available to network and cloud storage.

Automate VX2 Specifications

Refer to the following sections for more information on the specifications of the Automate VX2 systems.

This section provides the following information:

- IV-SAM-VX2-S Specifications
- IV-SAM-VX2-P Specifications

IV-SAM-VX2-S Specifications

Product specifications for the IV-SAM-VX2-S are provided below.

Automate VX2 Capabilities

Titles, Graphics, Layouts	Titles, logos, backgrounds can be added, Easy-to-use graphic designer to create any multi-source layout
Program Record	MP4 file (H.264 codec). User-selectable bitrate up to 10 Mbps; ISO Recording, MOV file
Recording Capacity	Records to internal 316 GB SSD storage
Streaming Encoder	Can stream to any RTMP server
NDI Support	For inputs and program output
Camera Control	Can control Crestron 1 Beyond PTZ cameras and tracking cameras over IP. For a complete list of compatible cameras, refer to Compatible Cameras
System Control	REST API over Network (TCP) for third party control
Compatible Codecs	Output via 3G-SDI (SDI to USB-A 3.0 converter included) for connection to external conferencing codecs running Microsoft Teams® software, Zoom Rooms® software, and others
Configuration	Browser-based configuration with secure login and user administration. Customizable preset options for sleep, wake, and scenario actions
Visual AI	Intelligence built into the Automate VX system, provides AutoFraming and Reframing with Crestron 1 Beyond Cameras

Communication

Ethernet	100/1000/2500Mbps
USB	USB 3.2 host ports for mouse, keyboard, data drive, and camera signals
NDI	Supports up to 5 NDI®|HX inputs; Supports 1 NDI®|HX output

Connectors

USB Type-A (Front)	(2) USB Type-A® 3.2 (Gen 2) connector, female; Connects to a keyboard, mouse, or data drive for system configuration
USB Type-A (Rear)	(5) USB Type-A 3.2 (Gen 2) connector, female; Connects to a keyboard, mouse, or data drive for system configuration; Supports one USB Type-A camera connection
USB Type-C (Rear)	(1) USB Type-C® 3.2 (Gen 2, 5V/3A) connector, female; Connects to a keyboard, mouse, or data drive for system configuration; Supports one USB Type-C camera connection
	NOTE: Only one USB camera connection (USB Type-A or USB Type-C) at a time is supported.
SDI REF	(1) Reference 3G-SDI connector (not used)
SDI 1-3	(3) bidirectional 12-bit 3G-SDI connectors, female; For camera video inputs
SDI OUT	(1) bidirectional 12-bit 3G-SDI connector, female; For HD-SDI camera video output connection (SDI to USB-A 3.0 converter included)
HDMI	(1) HDMI 2.0b connector, female; HDMI digital video/audio output
DisplayPort	(1) DisplayPort™ 1.4a connectors, female; Connects to a monitor for system configuration menus
Mini DisplayPort	(3) Mini DisplayPort™ connectors, female (not used)
LAN	(3) RJ-45 connectors, female; 10/100/1000/2500 Mbps 100BASE-TX/1000BASE-T Ethernet Ports
Audio Input	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input
Mic Audio Input	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input
Audio Output	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio output
VGA	(1) VGA connector, female (not used)
COM	(2) DB9 connectors, female (not used)

Controls and Indicators

Power	(1) Push button with green LED backlight; For power on and off
LAN (rear)	(2) LEDs on LAN port; Green LED indicates Ethernet link status; Amber LED indicates Ethernet activity

Video

Input Signal Types	3G-SDI, NDI®|HX, USB Type-A 3.2 (Gen 2), USB Type-C 3.2 (Gen 2, 5V/3A)
Output Signal Types	HD-SDI (SDI to USB-A 3.0 converter included), NDI®|HX, virtual webcam; 1080p60/59.94/50/30/29.97/25/24/23.98, 1080i60/59.94/50, 720p60/59/54/50, NTSC, and PAL resolutions
Desktop Output Signal Types	HDMI and DisplayPort for system configuration and maintenance via monitor

Audio

Audio Input	Dante® Networking audio input (Dante license not included), USB
Audio Output	Dante® Networking audio output (Dante license not included), USB
Compatible Mic Systems	For a list of compatible mic systems, refer to the Automate VX Software Manual.
Compatible DSPs	For a list of compatible DSPs, refer to the Automate VX Software Manual.

Power

Power	400 W, 100–240VAC

Environmental

Temperature	32° to 104° F (0° to 40° C)
Humidity	5% to 90% RH (noncondensing)
Heat Dissipation	477 BTU/hr typical; 1706 BTU/hr maximum

Construction

Chassis	Steel, black finish
Front Panel	Steel, black finish
Mounting	Freestanding or 2U 19 in. rack-mountable (adhesive feet and rack ears included)

Dimensions

Height	3.47 in. (88 mm)
Width	16.81 in. (427 mm)
Depth	15.33 in. (389 mm)

Weight

17.5 lb (7.94 kg)

Compliance

Regulatory Model: M202214003

FCC Part 15 Class A, IC Class A, CE, Intertek® Listed for US and Canada

IV-SAM-VX2-P Specifications

Product specifications for the IV-SAM-VX2-P are provided below.

Automate VX2 Pro Capabilities

Titles, Graphics, Layouts	Titles, logos, backgrounds can be added, Easy-to-use graphic designer to create any multi-source layout
Program Record	MP4 file (H.264 codec). User-selectable bitrate up to 10 Mbps; ISO Recording, MOV file
Recording Capacity	Records to internal 316 GB SSD storage
Streaming Encoder	Can stream to any RTMP server
NDI Support	For inputs and program output
Camera Control	Can control Crestron 1 Beyond PTZ cameras and tracking cameras over IP. For a complete list of compatible cameras, refer to Compatible Cameras
System Control	REST API over Network (TCP) for third party control
Compatible Codecs	Output via 3G-SDI (SDI to USB-A 3.0 converter included) for connection to external conferencing codecs running Microsoft Teams® software, Zoom Rooms® software, and others
Configuration	Browser-based configuration with secure login and user administration. Customizable preset options for sleep, wake, and scenario actions
Visual AI	Intelligence built into the Automate VX system, provides AutoFraming and Reframing with Crestron 1 Beyond Cameras

Communication

Ethernet	100/1000/2500Mbps
USB	USB 3.2 host ports for mouse, keyboard, data drive, and camera signals
NDI	Supports up to 12 NDI®|HX inputs; Supports 1 NDI®|HX output

Connectors

USB Type-A (Front)	(2) USB Type-A® 3.2 (Gen 2) connector, female; Connects to a keyboard, mouse, or data drive for system configuration
USB Type-A (Rear)	(5) USB Type-A 3.2 (Gen 2) connector, female; Connects to a keyboard, mouse, or data drive for system configuration; Supports one USB Type-A camera connection
USB Type-C (Rear)	(1) USB Type-C® 3.2 (Gen 2, 5V/3A) connector, female; Connects to a keyboard, mouse, or data drive for system configuration; Supports one USB Type-C camera connection
	NOTE: Only one USB camera connection (USB Type-A or USB Type-C) at a time is supported.
SDI REF	(1) Reference 3G-SDI connector (not used)
SDI 1-7	(7) 3G-SDI mini DIN connectors, female; For 3G-SDI camera video input connections
SDI OUT	(1) 3G-SDI mini DIN connector, female; For 3G-SDI camera video output connection (SDI to USB-A 3.0 converter included)
HDMI	(2) HDMI 2.0b connectors, female; HDMI digital video/audio output for system configuration menus; Supports one HDMI connection
	NOTE: The HDMI connector located at the center of the Automate VX2 is used for connection.
DisplayPort	(4) DisplayPort™ 1.4a connectors, female; Connects to a monitor for system configuration menus; Supports one DisplayPort connection
	NOTE: The DisplayPort connector located at the center of the Automate VX2 is used for connection.
LAN	(3) RJ-45 connectors, female; 10/100/1000/2500 Mbps 100BASE-TX/1000BASE-T Ethernet Ports
Audio Input	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input
Mic Audio Input	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input
Audio Output	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio output
VGA	(1) VGA connector, female (not used)
COM	(2) DB9 connectors, female (not used)

Controls and Indicators

Power	(1) Push button with green LED backlight; For power on and off

LAN (rear)	(2) LEDs on LAN port; Green LED indicates Ethernet link status; Amber LED indicates Ethernet activity

Video

Input Signal Types	3G-SDI, NDI®|HX, USB Type-A 3.2 (Gen 2), USB Type-C 3.2 (Gen 2, 5V/3A)
Output Signal Types	3G-SDI (SDI to USB-A 3.0 converter included), NDI®|HX, virtual webcam; 1080p60/59.94/50/30/29.97/25/24/23.98, 1080i60/59.94/50, 720p60/59/94/50, NTSC, and PAL resolutions
Desktop Output Signal Types	HDMI and DisplayPort for system configuration and maintenance via monitor

Audio

Audio Input	Dante® Networking audio input (Dante license not included), USB
Audio Output	Dante® Networking audio output (Dante license not included), USB
Compatible Mic Systems	For a list of compatible mic systems, refer to the Automate VX Software Manual.
Compatible DSPs	For a list of compatible DSPs, refer to the Automate VX Software Manual.

Power

Power	400 W, 100–240VAC

Environmental

Temperature	32° to 104° F (0° to 40° C)
Humidity	5% to 90% RH (noncondensing)
Heat Dissipation	477 BTU/hr typical; 1706 BTU/hr maximum

Construction

Chassis	Steel, black finish
Front Panel	Steel, black finish
Mounting	Freestanding or 2U 19 in. rack-mountable (adhesive feet and rack ears included)

Dimensions

Height	3.47 in. (88 mm)
Width	16.81 in. (427 mm)
Depth	15.33 in. (389 mm)

Weight

17.5 lb (7.94 kg)

Compliance

Regulatory Model: M202214003

FCC Part 15 Class A, IC Class A, CE, Intertek® Listed for US and Canada

Installation

Use the following procedures to install the Automate VX2.

In the Box

The following items are included with Automate VX2 systems.

IV-SAM-VX2-S

Qty.	Description
1	IV-SAM-VX2-S, Automate VX2 System Series 2 Voice-Activated, Multi-Camera Switching Solution
	Additional Items
1	Power Cord, US, 5 ft, 10A, 18 AWG (2061857)
1	Converter, SDI2USB3 (2063351)
4	Mounting Foot (2061693)
3	Mini DisplayPort to DisplayPort Adapter (2061698)

IV-SAM-VX2-P

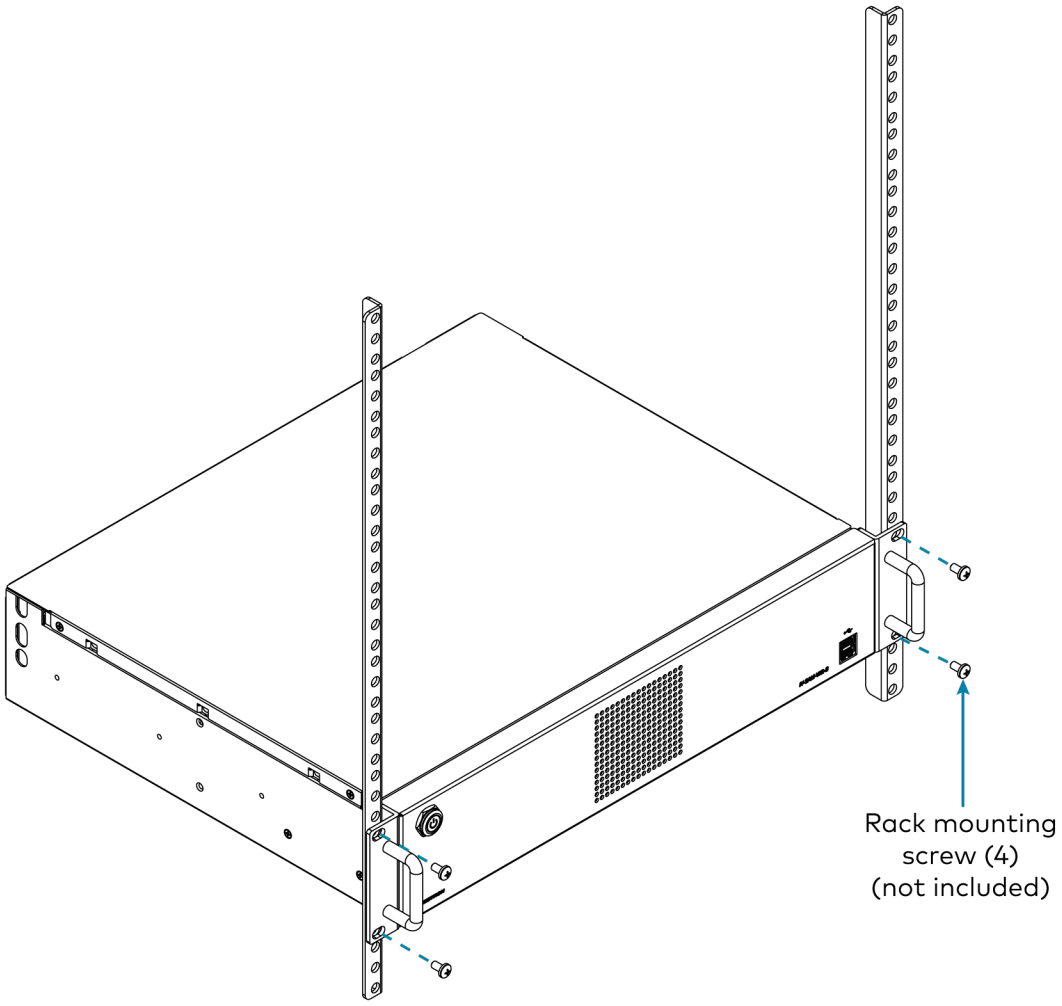
Qty.	Description
1	IV-SAM-VX2-P, Automate VX2 Pro System Series 2 Voice-Activated, Multi-Camera Switching Solution
	Additional Items
1	Power Cord, US, 5 ft, 10A, 18 AWG (2061857)
1	Cable, 2 Pack, SATA to 6 (2063366)
8	Pro Video BNC, FEMA (2061870)
1	Converter, SDI2USB3 (2063351)
4	Mounting Foot (2061693)

Install the Automate VX2

The Automate VX2 may be mounted into a rack or onto a flat surface.

Rack Mounting

The Automate VX2 occupies 2U of rack space. Mount the Automate VX2 into the rack with four mounting screws (not included).



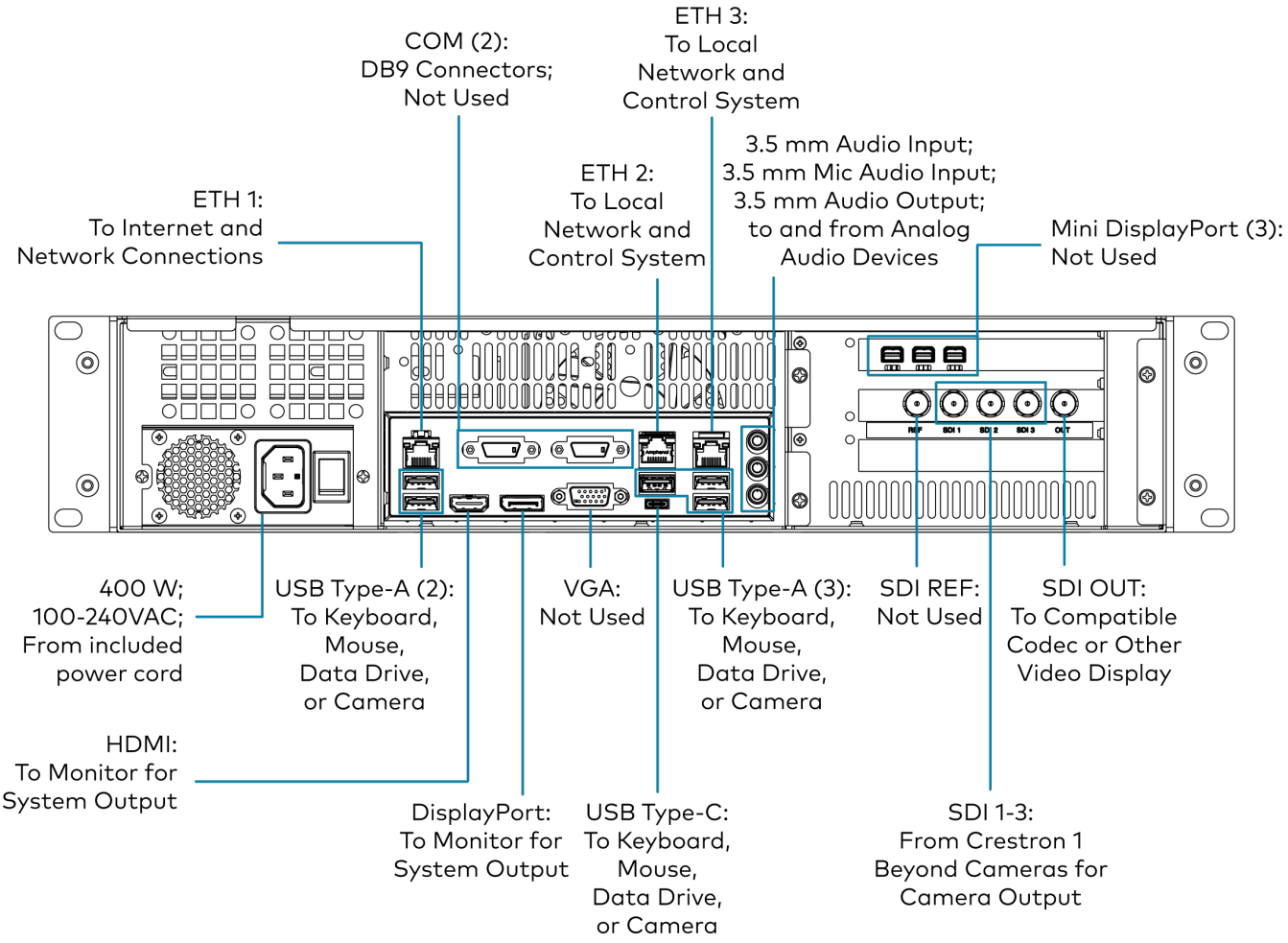
Surface Placement

1. Attach the four mounting feet near the corners to the underside of the Automate VX2.
2. Place onto a flat surface or stack with other equipment.

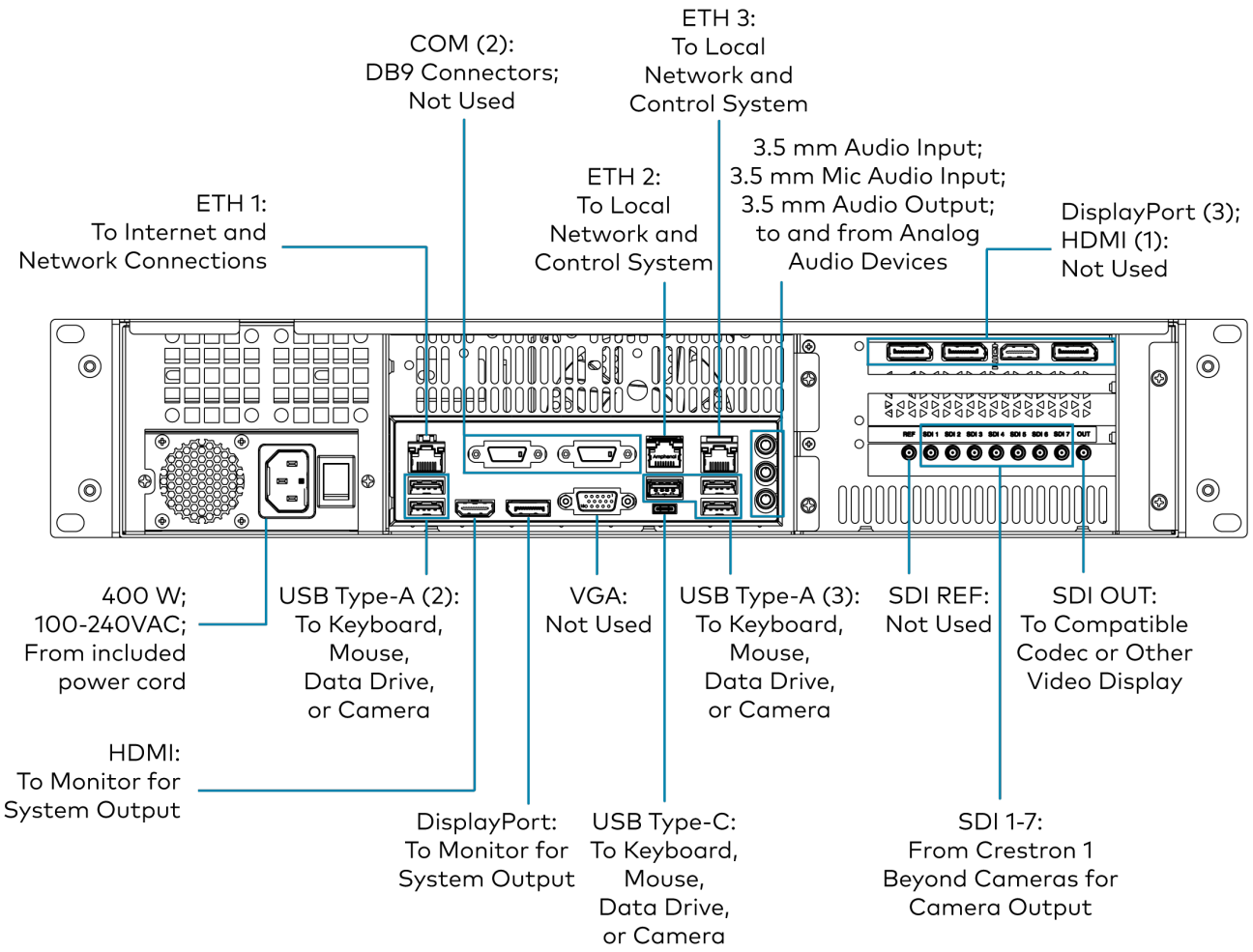
Connect the Automate VX2

Make all necessary connections to the Automate VX2 as shown in the following diagram.

IV-SAM-VX2-S Rear Connections



IV-SAM-VX2-P Rear Connections



Observe the following when connecting the Automate VX2:

- Use the included 5 ft, 10A, 18 AWG power cord to supply the device with power.
- The SDI OUT port is only to be used to output SDI video.
- Do not use SDI input connections if cameras are connected via NDI®|HX.
- Only one USB camera is supported, the camera can be connected by either the USB Type-A port or USB Type-C port.
- Only use the DisplayPort and HDMI listed for monitor output.
- ETH2 and ETH3 ports are only for connecting to a control system or local network.
- Use the ETH1 port for connecting Automate VX2 to the internet.

Initial Setup

Automate VX2 requires additional setup before configuring the system and operation.

NOTES:

- Ensure all connections have been made to Automate VX2 before proceeding. For more information about Automate VX2 connections, refer to Connect the Automate VX2 on page 22.
- For secure deployments, refer to the guidelines listed in the Automate VX2 Security Reference Guide.

This section provides the following information:

- Connect to the Automate VX2 System
- Manage System Accounts
- Connect Cameras to Automate VX2
- Update Firmware

Connect to the Automate VX2 System

Automate VX2 can be controlled directly with a keyboard and mouse, through a web browser with IP address of the system at the port number, or it can be controlled through the Windows® Remote Desktop application.

Local and Remote Desktop Application connections should only be used for Wirecast configuration. Any system setup performed through the web configuration interface should be done from a separate computer with a web browser. For more information about connecting to the web configuration interface through a web browser, refer to Connect to the Web Configuration Interface with a Browser on page 25.

> **NOTE**: When the system is first powered on, you will prompted to review and accept the End User License Agreement. This requires a mouse and monitor to be directly connected to the system.

Connect Locally to Automate VX2

Perform the following procedure to connect to the Automate VX2 locally via a direct connection to the system.

1. Connect a keyboard and mouse to any of the USB Type-A or USB Type-C ports on the Automate VX2.
2. Connect the Automate VX2 to a monitor via the DisplayPort or HDMI ports on the system.

The Automate VX2 is now connected and available for direct control. The Automate VX2 initially opens with the user account that displays the IP address of the system, software version, time of day, and more. For more information about the user account, refer to User Account on page 28.

Connect to the Web Configuration Interface with a Browser

Perform the following procedure to connect to the Automate VX2 web configuration interface from a computer with a web browser.

> **NOTE:** To connect to the Automate VX2 via a computer with a web browser, the IP address of the system is required. If the IP address of the Automate VX2 is unknown, perform either of the following options to determine the IP address:
>
> - Connect the Automate VX2 to a monitor via the DisplayPort or HDMI ports on the system to access the user account splash screen.
> - Use the Device Discovery tool within Crestron Toolbox™ software.

1. Connect the Automate VX2 to a network switch via the ETH1 Ethernet port on the rear of the device. Ensure that the network switch is connected to the internet or local network. Use a shielded CAT5e Ethernet cable (or greater) for the connection.

2. Open a web browser on the computer that is going to be used for Automate VX2 control.
3. In the web browser address bar, enter the IP address of the Automate VX2 followed by the port number **:3579** or **:4443**. For example, **10.1.10.31:3579** is a valid web address for the Automate VX2 web user interface.

The web configuration interface is now displayed in the browser of the computer. For more information on logging into the web configuration interface, refer to the Automate VX Software Product Manual.

Connect to Automate VX2 with Remote Desktop

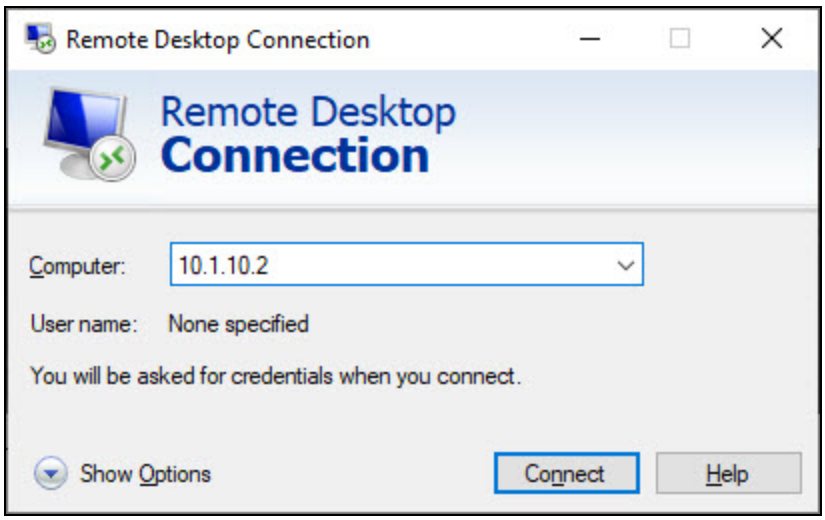
Perform the following procedure to connect to the Automate VX2 via the Windows® Remote Desktop application.

NOTE: To connect to the Automate VX2 via the Windows Remote Desktop application, the IP address of the system is required. If the IP address of the Automate VX2 is unknown, perform either of the following options to determine the IP address:

- Connect the Automate VX2 to a monitor via the DisplayPort or HDMI ports on the system to access the user account splash screen.
- Use the Device Discovery tool within Crestron Toolbox software.

1. Connect the Automate VX2 to a network switch via the ETH1 Ethernet port on the rear of the device. Ensure that the network switch is connected to the internet. Use a shielded CAT5e Ethernet cable (or greater) for the connection.
2. Open the Windows Remote Desktop application on the computer that is going to be used for the remote connection.
3. Use the IP address of the Automate VX2 as the IP address for the Windows Remote Desktop application.

Remote Desktop Client Login



4. Select **Connect** on the bottom of the Remote Desktop Connection window. Then, enter the following default login credentials when prompted:
    - Username: admin
    - Password: crestron

    > **NOTE**: The Username and Password above are also the Windows system login credentials.

The computer is now connected to Automate VX2 via the Windows Remote Desktop application.

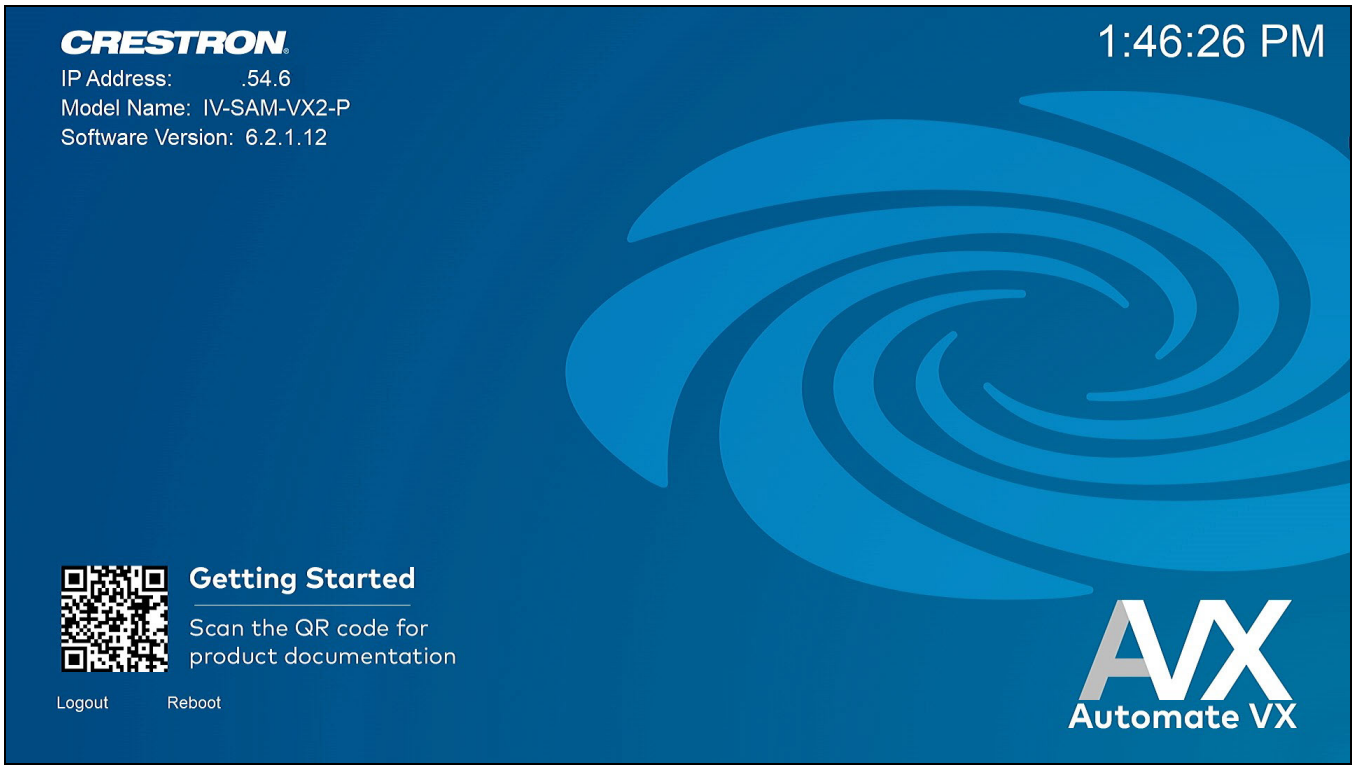
Manage System Accounts

Automate VX2 contains user and administrator accounts once the system is connected. The user account contains relevant information related to the Automate VX2 system, while the administrator account contains configuration settings and diagnostic logs. Refer to the sections below for more information about the respective accounts available on the Automate VX2.

User Account

The user account is displayed when an Automate VX2 system is in a factory default state. The IP Address, Model Name, Software Version, and time are shown on the user account screen. Additionally, a QR code is provided for the Automate VX Software Product Manual.

User Account Screen



The administrator account is required for configuration and operating the Automate VX2. Select the Logout option in the bottom left of the user account screen to sign out of the user account.

Logout

Administrator Account

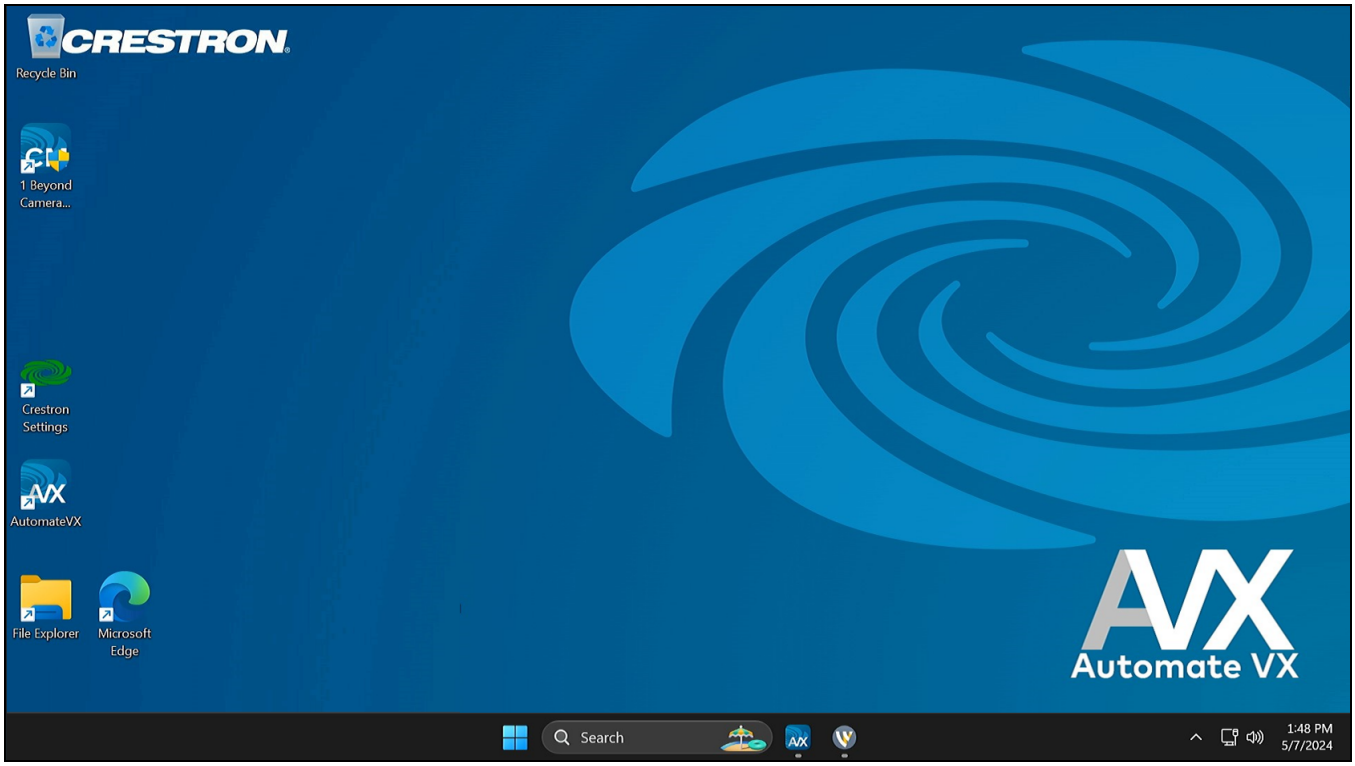
The administrator account contains configuration and operating settings for Automate VX2. In the Windows® OS sign in screen, select **Admin**. Then, enter the password for the administrator account.

CAUTION: There is no password recovery for Automate VX2. If the password for Automate VX2 is unknown, the system must be restored to the factory defaults to access the administrator account.

NOTE: The default password for the administrator account is **crestron** (case sensitive). To change the password of the administrator account, follow the default Windows method of changing account passwords via Windows Settings.

Once the credentials are entered, the Automate VX2 desktop is displayed.

Automate VX2 Desktop



The following applications are available on the administrator account: Room Designer, Automate VX2 system settings, Crestron 1 Beyond Camera Manager 2 software, and Wirecast® streaming software. By default, the web configuration interface and Wirecast are started when the administrator account is signed into. Refer to the following sections for information on how to access Automate VX2 software manually.

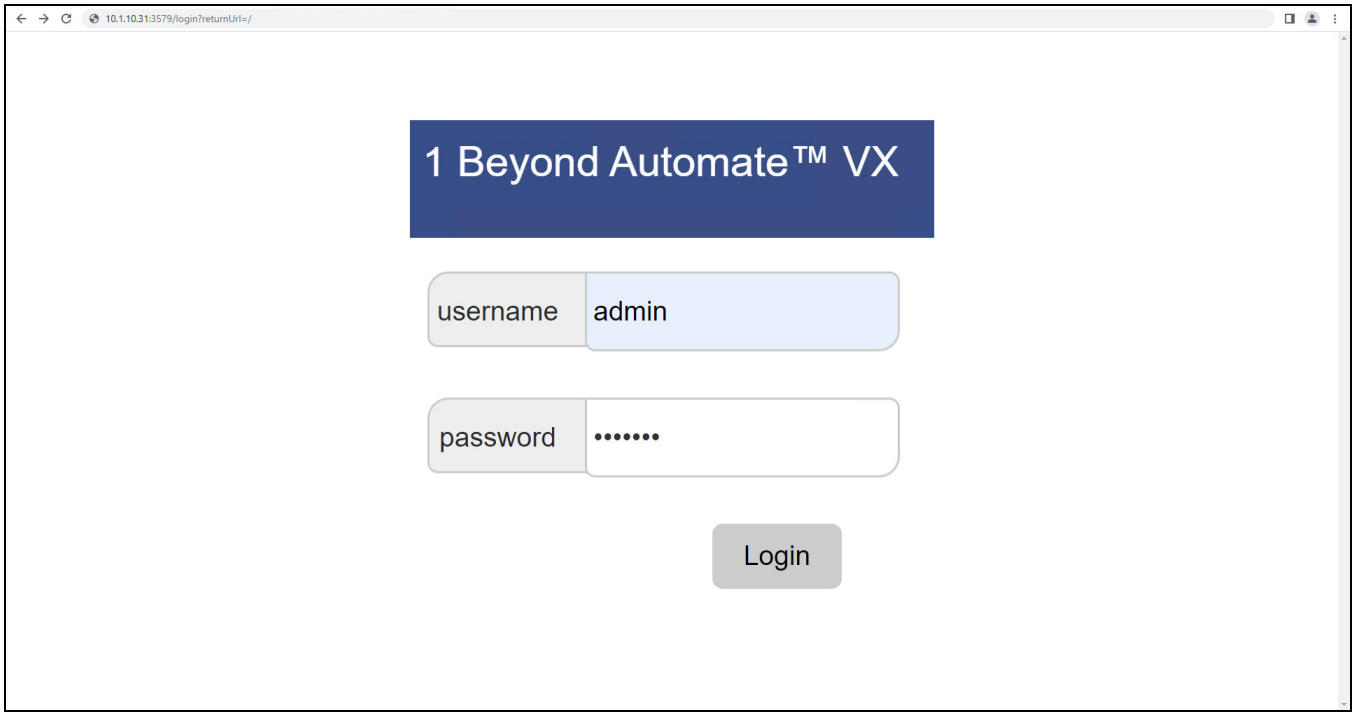
CAUTION: Do not sign out of the administrator account through the Windows menu. The Automate VX2 must restart when switching accounts, failure to do so causes unexpected behavior from the system. To restart Automate VX2, select **Restart** in the Windows menu.

Access the Web Configuration Interface

The web configuration interface contains Room Designer, system configuration, and Automate VX2 operation settings. To access the web configuration interface, select the **Microsoft Edge**™ shortcut icon on the desktop.

Microsoft Edge Shortcut

Web Configuration Interface



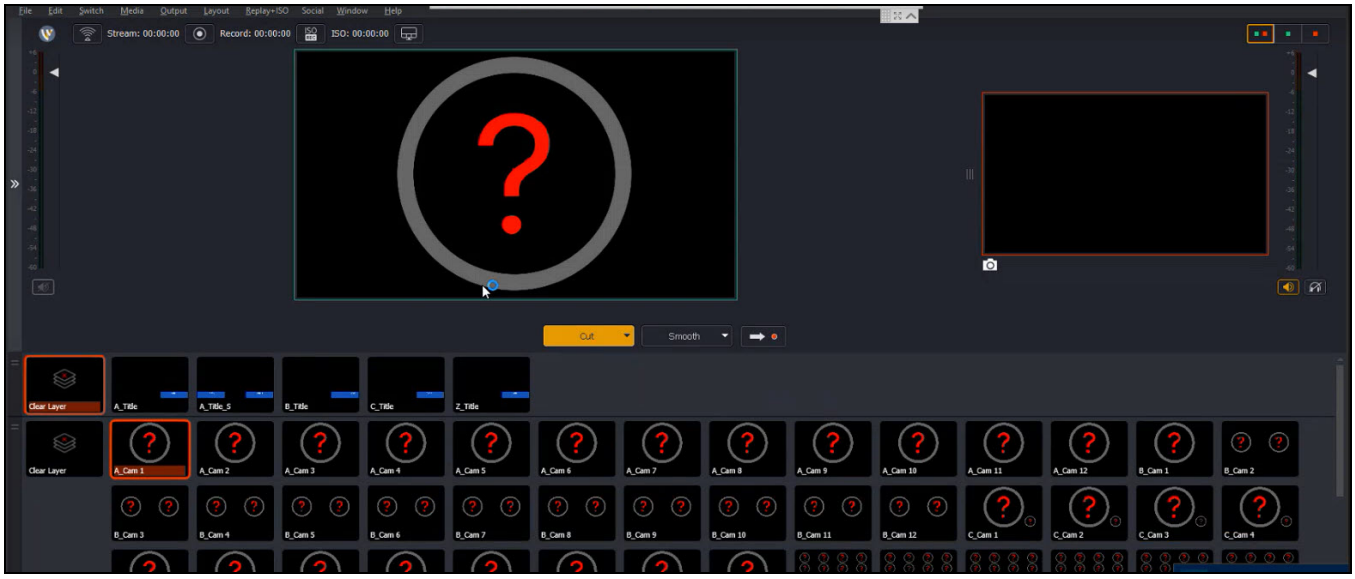
For more information about using the web configuration interface, refer to the Automate VX Software Product Manual.

Access Wirecast

Automate VX2 uses Wirecast streaming software to change live shots, video layouts, and camera outputs. To access Wirecast, select the Wirecast icon on the bottom taskbar of the Automate VX2.

Wirecast Shortcut

Wirecast Streaming Software



For more information about configuring Wirecast for Automate VX2, refer to the Automate VX Software Product Manual.

Connect Cameras to Automate VX2

Automate VX2 requires cameras to be connected to the system for operation. Cameras can be connected via the SDI ports on the rear of the Automate VX2, or they can be connected with NDI®|HX. Perform the following procedure to connect cameras to Automate VX2.

> **TIP:** Automate VX2 ships with the Crestron 1 Beyond Camera Manager 2 software preinstalled. Select the 1 Beyond Camera Manager desktop shortcut to access the software.

1. Connect Crestron 1 Beyond cameras to the Crestron 1 Beyond Camera Manager 2 software. For more information on connecting cameras to the Crestron 1 Beyond Camera Manager 2 software, refer to the Crestron 1 Beyond Camera Product Manual.
2. In the Crestron 1 Beyond Camera Manager 2 software, ensure that the following is completed before connecting the cameras to Automate VX2:
    - Crestron 1 Beyond Cameras must be set to have static IP addresses.
    - Label the cameras with identifiable names so that when they are discovered on Automate VX2, they correspond with their respective camera source.
    - If a IV-CAM-I12 or IV-CAM-I20 camera is to be used as a presenter tracking camera, ensure that the presenter tracking properties are set for the camera.
3. Connect the Automate VX2 to a network switch via the ETH3 Ethernet port on the rear of the device. Use a shielded CAT5e Ethernet cable or greater for the connection.
4. Connect all network cables from the cameras to the same network switch that Automate VX2 is connected to.
5. If SDI connections are being used for the cameras, connect the cameras to the SDI inputs on the rear of Automate VX2.

    > **NOTE:** If cameras are connected via SDI to Automate VX2, the cameras still require a network connection for operation.

The Crestron 1 Beyond cameras are now able to be discovered and connected to Automate VX2. For more information on camera setup within Automate VX software, refer to the Automate VX Software Product Manual.

Update Firmware

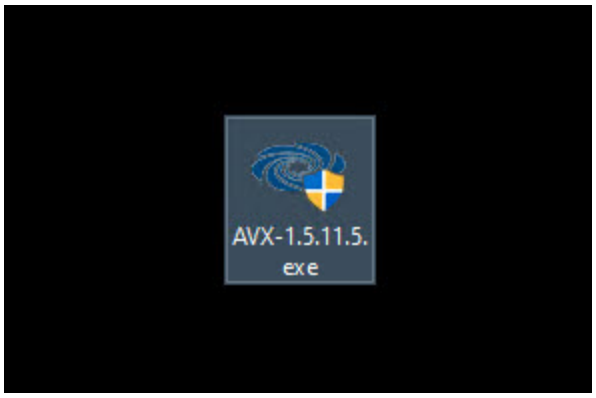
Refer to the following procedures to update Automate VX2 firmware and Windows software.

Update Automate VX2 Firmware

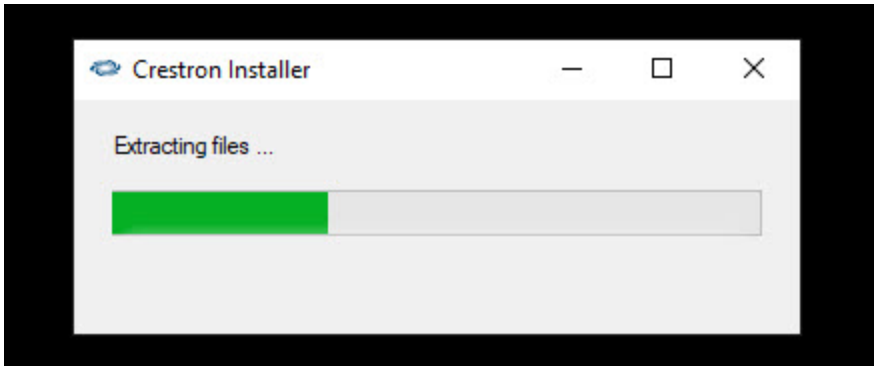
Automate VX2 can be updated with firmware provided by Crestron. To update an Automate VX2's firmware:

1. Download the firmware file from the respective Automate VX2 product pages or https://www.crestron.com/support/search-results?c=4&m=10&q=Automate%20VX.
2. Select the AVX desktop shortcut to open the firmware installer, and the firmware begins loading. Once loading is completed, the Crestron Installer window is displayed.

   AVX Desktop Icon

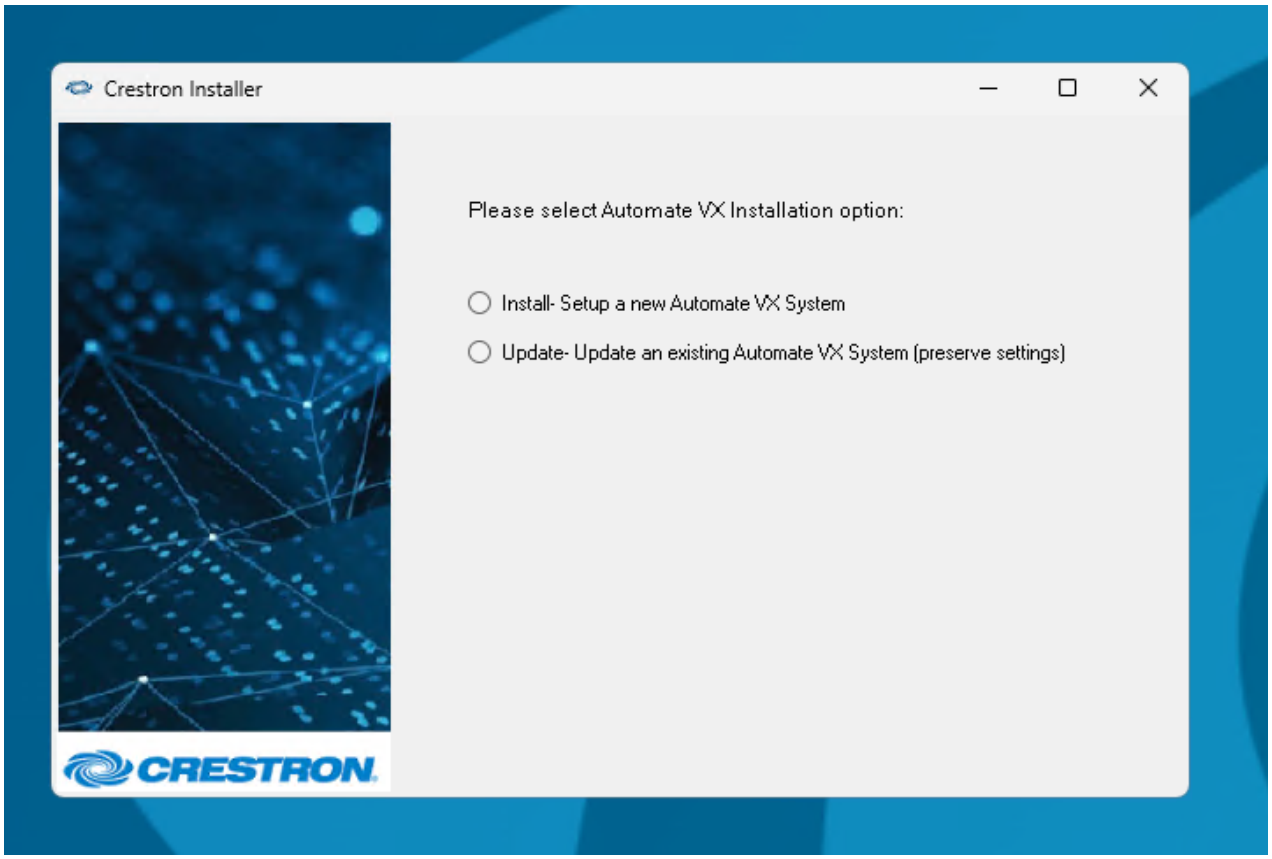
   Crestron Installer Window

3. Select one of two options in the Crestron Installer window:

   NOTE: The firmware update can be canceled by exiting the Crestron Installer window. Do not close the window once the firmware update is initiated.

   Crestron Installer Window



   - Select the **Install** option to perform a clean install of the Automate VX2 firmware. This option reverts the system to a factory default state (with the new firmware).

     CAUTION: This removes all configurations, layouts, and other settings on the Automate VX. Automate VX stores a backup of the previous firmware and settings that were present at the time of the upgrade. To revert the system to a previously used state, contact Crestron True Blue Support.

   - Select the **Update** option to update the Automate VX2 system with the new firmware. Select this option to preserve all configurations, layouts, and other settings configured on the Automate VX2 before the firmware update.

4. Once an option is chosen, select **Next** in the bottom right of the window. The desired firmware installation method is then performed. If the firmware update was successful, the Crestron Installer will respond with "The Automate VX2 package installation has been completed".
5. Close the Crestron Installer window.

6. Clear the browser cache in the respective browser being used configure and operate the Automate VX2 system.

Update Windows Software

If the system is connected to the internet, perform Windows software updates manually prior to configuring the system. After this initial software update, subsequent Windows software updates are performed automatically during nonactive hours.

> **NOTE**: Ensure that there are no pending software updates after manually performing the initial Windows software update. Failure to do so may cause the system to update Windows software during active hours.

Crestron Settings App

After setting up the Automate VX2 and connecting the required devices to the system, use the Crestron Settings app for further configuration. To open the Crestron Settings App, navigate to > **Crestron** folder > **Crestron Settings**. The Crestron Settings app opens with the System settings displayed.

Crestron Settings App

This section provides the following information:

- System
- IP Table
- Diagnostics

System

Use the **System** menu to view firmware versions of connected system devices and the firmware packages stored on the Automate VX2.

Crestron Settings App

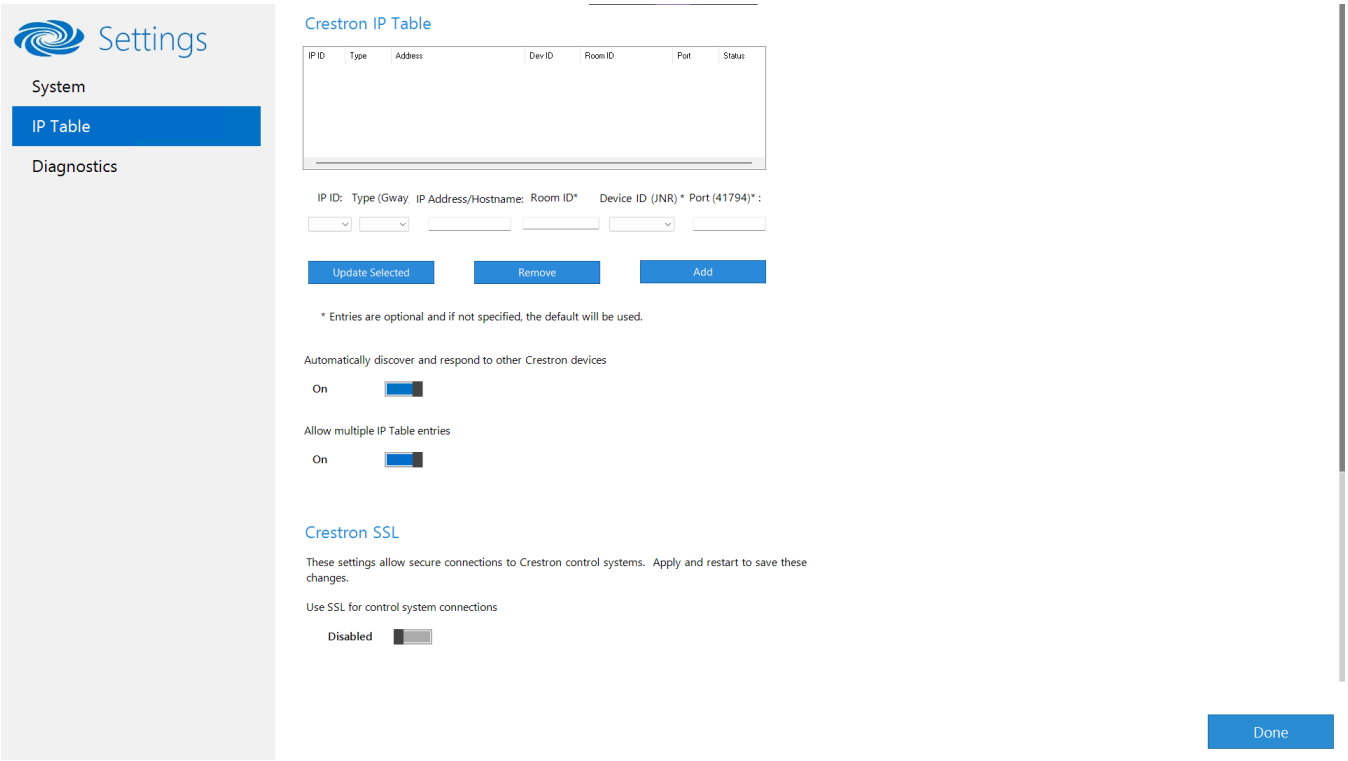
IP Table

Select **IP Table** to display the IP Table menu.

Use the IP Table menu to enable and configure the system for communication with a Crestron control system.

> **NOTE:** The Automate VX2 IP table can also be configured by Crestron Toolbox™ software. For more information, refer to the Crestron Toolbox help file.

IP Table



IP Table Entries

Entries in an IP table identify the control system(s) that can control Automate VX2. Entries can be added, updated, or removed.

- Add an Entry
  a. From the IP ID drop-down list, select the system's IP ID as specified in the control system's program.

     > **NOTE:** The IP ID must match the IP ID specified for the system in the control system's program.

  b. Enter the IP address or hostname in the **IP Address/Hostname** field.
  c. If using a port other than 41794 for communications with the control system, enter it in the **Port (41794)*** field.

     > **NOTE:** This field is optional. If left blank, the default port (41794) is used.

  d. Select **Add**.
- Modify an Entry
  a. Select an entry in the IP table.
  b. Select the new IP ID, address or hostname, and port.
  c. Select **Update Selected**.
- Remove an Entry
  a. Select an entry in the IP table.
  b. Select **Remove**.

Other IP Table Functions

Set the **Automatically discover and respond to other Crestron devices** setting to **Off** to hide the system from being discovered by other devices during autodiscovery.

Multiple control systems listed on the IP table can be allowed to control the system. Set the **Allow multiple IP Table entries** setting to **Off** to allow only one control system on the IP table.

Crestron SSL

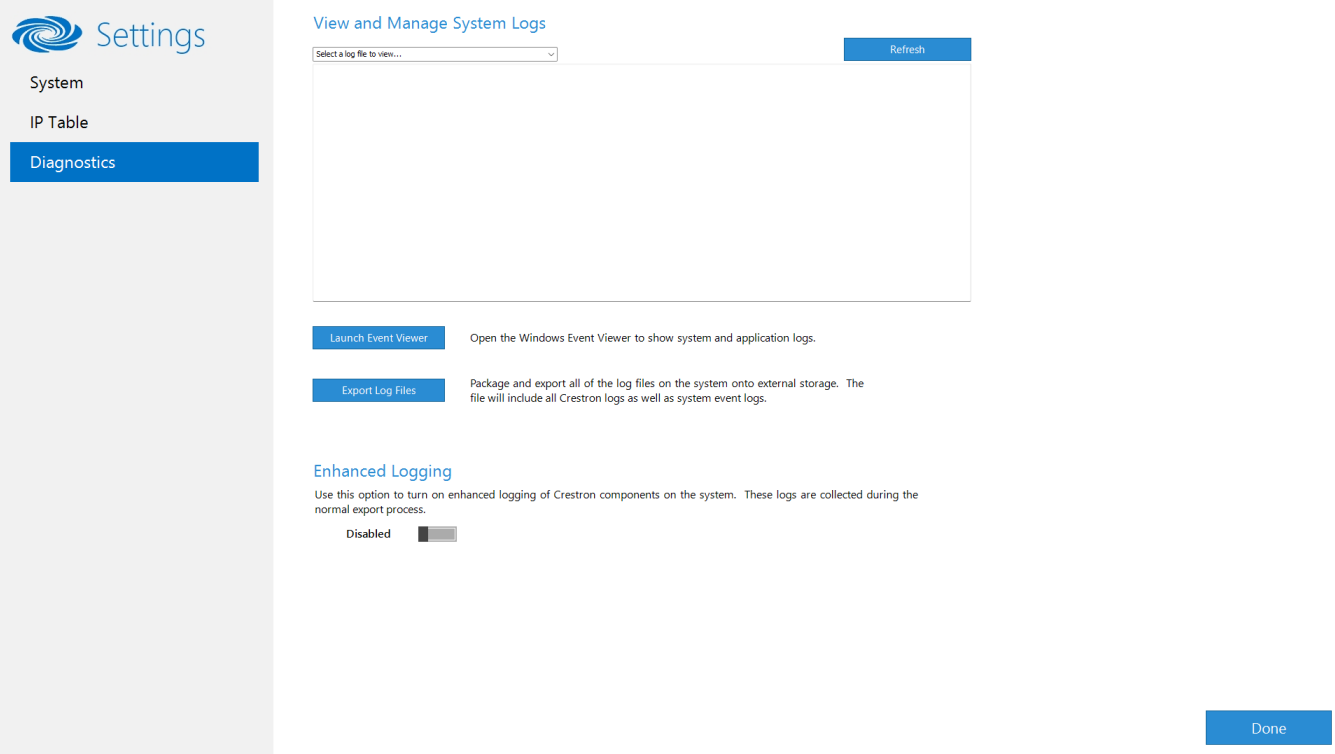
The system can use SSL technology when connecting to a Crestron control system. To configure the system to use SSL for control system communications:

1. Set the **Use SSL for control system connections** setting to **Enabled**.
2. If certificate authentication is used, set the **Certificate Authentication** setting to **On**.
3. Enter the login credentials in the **Username** and **Password** fields.

Diagnostics

Select **Diagnostics** to display the Diagnostics menu. Use the Diagnostics menu to view and manage system logs.

Diagnostics



View Logs

When troubleshooting, different logs can be viewed. First, select the desired log file from the **View and Manage System Logs** drop-down list to view a specific log type. Then, select **Refresh** to view the latest log data.

Windows Event Viewer

Select **Launch Event Viewer** to open the Windows event viewer that shows system and application logs.

Export Log Files

Select **Export Log Files** to package and export all the log files (including all Crestron logs and system event logs) onto external storage.

Upload Log Files

Select **Upload Log Files** to package and upload all the log files to a Crestron server for delivery to Crestron support personnel.

> **NOTE:** Internet access is required for uploading log files.

Enhanced Logging

Enable the enhanced logging feature only if instructed by Crestron support for advanced troubleshooting. The enhanced logs are collected during the normal export process. Turn off enhanced logging when troubleshooting is finished.

Resources

The following resources are provided for the IV-SAM-VX2 Series.

> **NOTE:** You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

Crestron Support and Training

- Crestron True Blue Support
- Crestron Resource Library
- Crestron Online Help (OLH)
- Crestron Training Institute (CTI) Portal

Product Certificates

To search for product certificates, refer to support.crestron.com/app/certificates.

Crestron Electronics, Inc.
15 Volvo Drive, Rockleigh, NJ 07647
Tel: 888.CRESTRON
Fax: 201.767.7656
www.crestron.com

Product Manual — Doc. 9488B
07/19/24
Specifications subject to
change without notice.