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Product Manual

## IV-SAM-VX2 Series

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

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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.

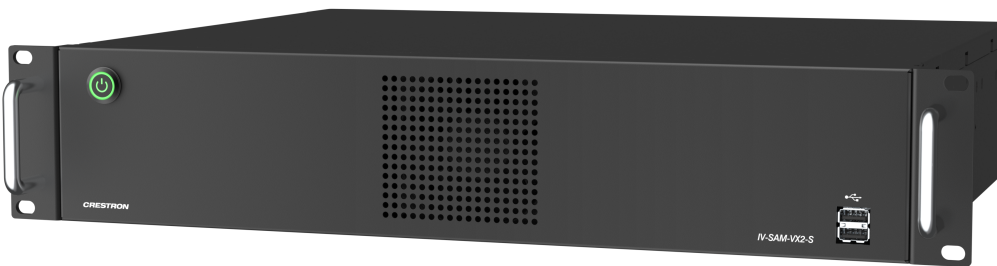
This section provides the following information:

- [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.

## Conference, Stream, and Record

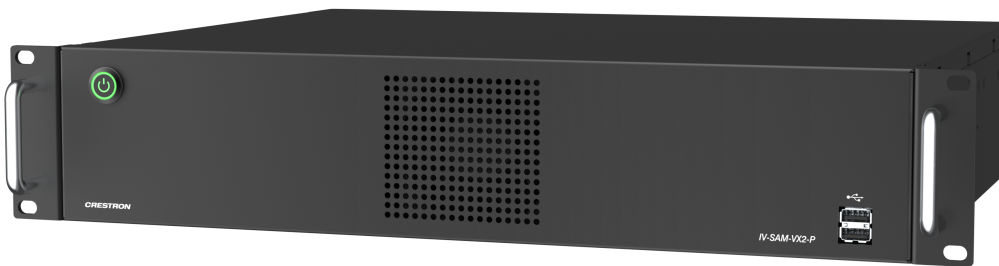
In addition to high quality output for hard or soft codecs, the system has a built-in encoder and recorder to enable RMTMP streaming with 316 GB of storage for local program and ISO recording. Automated copy available to network and cloud storage.



# 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.

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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.

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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.

## 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 RMTMP 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

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<b>Titles, Graphics, Layouts</b>	Titles, logos, backgrounds can be added, Easy-to-use graphic designer to create any multi-source layout
<b>Program Record</b>	MP4 file (H.264 codec). User-selectable bitrate up to 10 Mbps; ISO Recording, MOV file
<b>Recording Capacity</b>	Records to internal 316 GB SSD storage
<b>Streaming Encoder</b>	Can stream to any RTMP server
<b>NDI Support</b>	For inputs and program output
<b>Camera Control</b>	Can control Crestron 1 Beyond PTZ cameras and tracking cameras over IP. For a complete list of compatible cameras, refer to <a href="#">Compatible Cameras</a>
<b>System Control</b>	REST API over Network (TCP) for third party control
<b>Compatible Codecs</b>	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
<b>Configuration</b>	Browser-based configuration with secure login and user administration. Customizable preset options for sleep, wake, and scenario actions
<b>Visual AI</b>	Intelligence built into the Automate VX system, provides AutoFraming and Reframing with Crestron 1 Beyond Cameras

## Communication

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<b>Ethernet</b>	10/100/1000/2500Mbps
<b>USB</b>	USB 3.2 host ports for mouse, keyboard, data drive, and camera signals
<b>NDI</b>	Supports up to 5 NDI® HX inputs; Supports 1 NDI® HX output

## Connectors

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<b>USB Type-A (Front)</b>	(2) USB Type-A 3.2 (Gen 2) connector, female; Connects to a keyboard, mouse, or data drive for system configuration
<b>USB Type-A (Rear)</b>	(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
<b>USB Type-C (Rear)</b>	(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.

<b>SDI REF</b>	(1) Reference 3G-SDI connector (not used)
<b>SDI 1-3</b>	(3) bidirectional 12-bit 3G-SDI connectors, female; For camera video inputs
<b>SDI OUT</b>	(1) bidirectional 12-bit 3G-SDI connector, female; For HD-SDI camera video output connection (SDI to USB-A 3.0 converter included)
<b>HDMI</b>	(1) HDMI 2.0b connector, female; HDMI digital video/audio output
<b>DisplayPort</b>	(1) DisplayPort™ 1.4a connectors, female; Connects to a monitor for system configuration menus
<b>Mini DisplayPort</b>	(3) Mini DisplayPort™ connectors, female (not used)
<b>LAN</b>	(3) RJ-45 connectors, female; 10/100/1000/2500 Mbps 100BASE-TX/1000BASE-T Ethernet Ports
<b>Audio Input</b>	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input
<b>Mic Audio Input</b>	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio input
<b>Audio Output</b>	(1) 1/8 in. 3.5 mm connector, female TRS; Unbalanced line-level audio output
<b>VGA</b>	(1) VGA connector, female (not used)
<b>COM</b>	(2) DB9 connectors, female (not used)

## Controls and Indicators

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

## Video

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<b>Input Signal Types</b>	3G-SDI, NDI® HX, USB Type-A 3.2 (Gen 2), USB Type-C 3.2 (Gen 2, 5V/3A)
<b>Output Signal Types</b>	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;
<b>Desktop Output Signal Types</b>	HDMI and DisplayPort for system configuration and maintenance via monitor

## Audio

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<b>Audio Input</b>	Dante® Networking audio input (Dante license not included), USB
<b>Audio Output</b>	Dante® Networking audio output (Dante license not included), USB
<b>Compatible Mic Systems</b>	For a list of compatible mic systems, refer to
<b>Compatible DSPs</b>	For a list of compatible DSPs, refer to

## Power

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<b>Power</b>	400 W, 100–240VAC
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## Environmental

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

## Construction

---

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

## Dimensions

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<b>Height</b>	3.47 in. (88 mm)
<b>Width</b>	16.81 in. (427 mm)
<b>Depth</b>	15.33 in. (389 mm)

## Weight

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17.5 lb (7.94 kg)

## Compliance

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**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

---

<b>Titles, Graphics, Layouts</b>	Titles, logos, backgrounds can be added, Easy-to-use graphic designer to create any multi-source layout
<b>Program Record</b>	MP4 file (H.264 codec). User-selectable bitrate up to 10 Mbps; ISO Recording, MOV file
<b>Recording Capacity</b>	Records to internal 316 GB SSD storage
<b>Streaming Encoder</b>	Can stream to any RTMP server
<b>NDI Support</b>	For inputs and program output
<b>Camera Control</b>	Can control Crestron 1 Beyond PTZ cameras and tracking cameras over IP. For a complete list of compatible cameras, refer to <a href="#">Compatible Cameras</a>
<b>System Control</b>	REST API over Network (TCP) for third party control
<b>Compatible Codecs</b>	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
<b>Configuration</b>	Browser-based configuration with secure login and user administration. Customizable preset options for sleep, wake, and scenario actions
<b>Visual AI</b>	Intelligence built into the Automate VX system, provides AutoFraming and Reframing with Crestron 1 Beyond Cameras

## Communication

---

<b>Ethernet</b>	10/100/1000/2500Mbps
<b>USB</b>	USB 3.2 host ports for mouse, keyboard, data drive, and camera signals
<b>NDI</b>	Supports up to 12 NDI® HX inputs; Supports 1 NDI® HX output



## Connectors

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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
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**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  
**Compatible DSPs** For a list of compatible DSPs, refer to

## 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

---

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

## Dimensions

---

<b>Height</b>	3.47 in. (88 mm)
<b>Width</b>	16.81 in. (427 mm)
<b>Depth</b>	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
<b>Additional Items</b>	
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

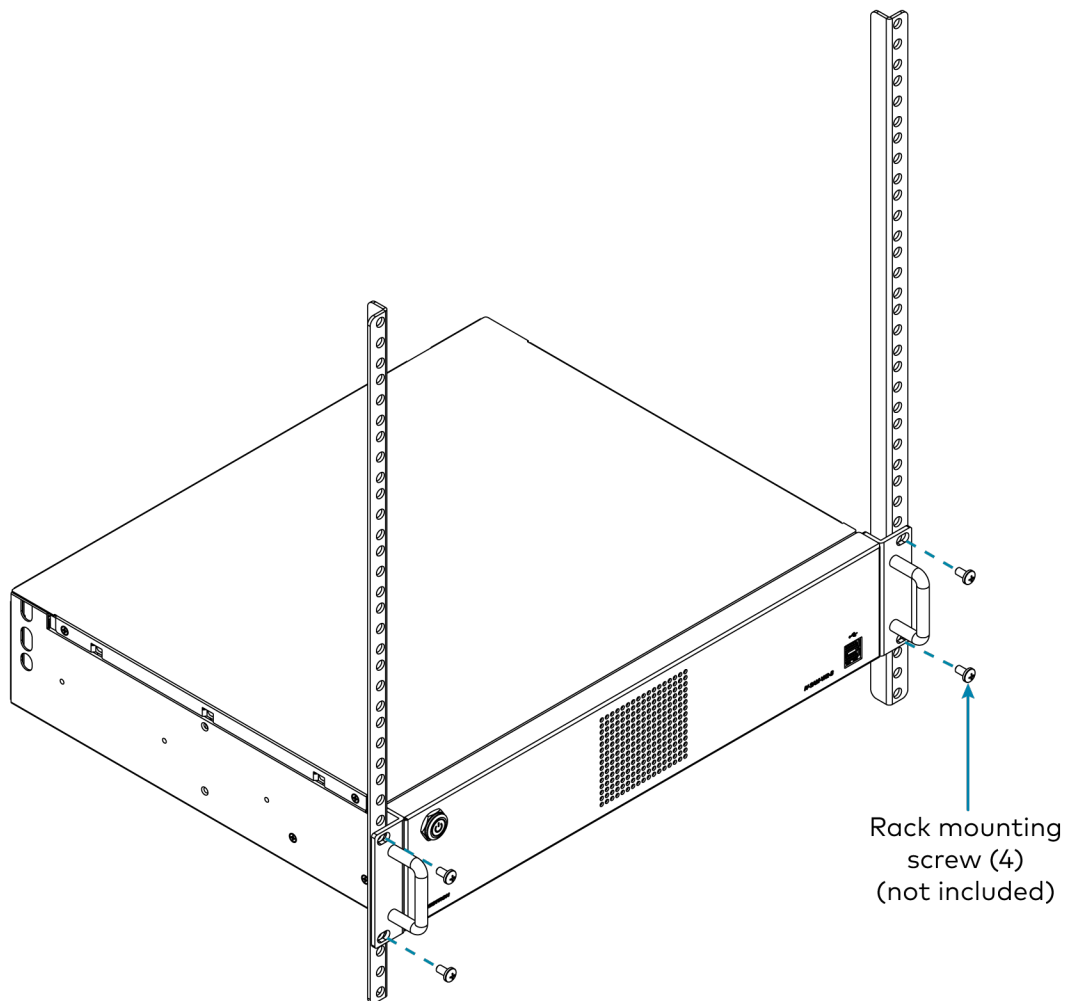
Qty.	Description
1	IV-SAM-VX2-P, Automate VX2 Pro System Series 2 Voice-Activated, Multi-Camera Switching Solution
<b>Additional Items</b>	
1	Power Cord, US, 5 ft, 10A, 18 AWG (2061857)
1	Cable, 2 Pack, SATA to 6 (2063366)
8	Pro Video BNC, FEMA (2061870)
1	Converter, SDI2USB3 (2063351)
4	Mounting Foot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



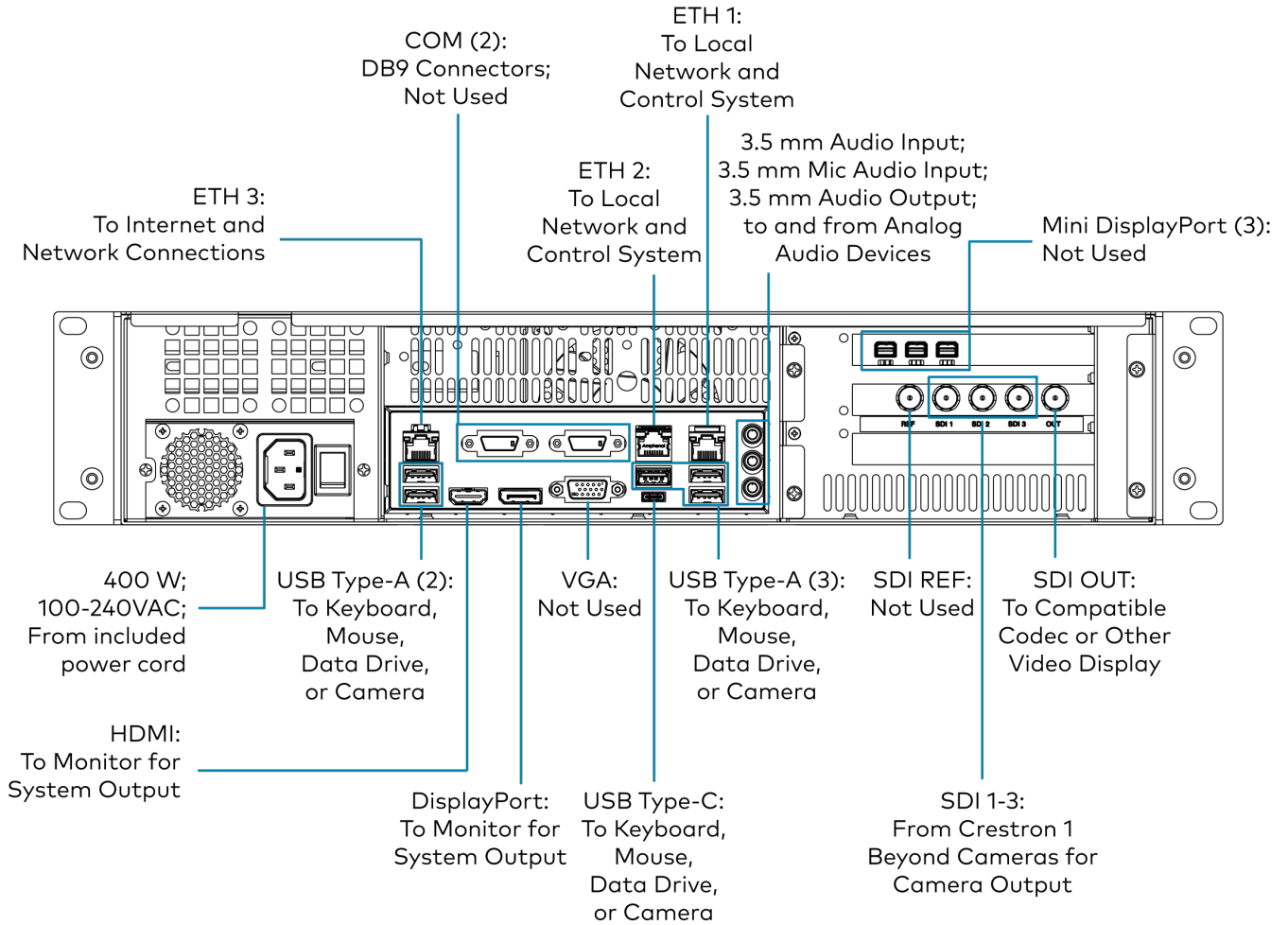
## Surface Placement

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.

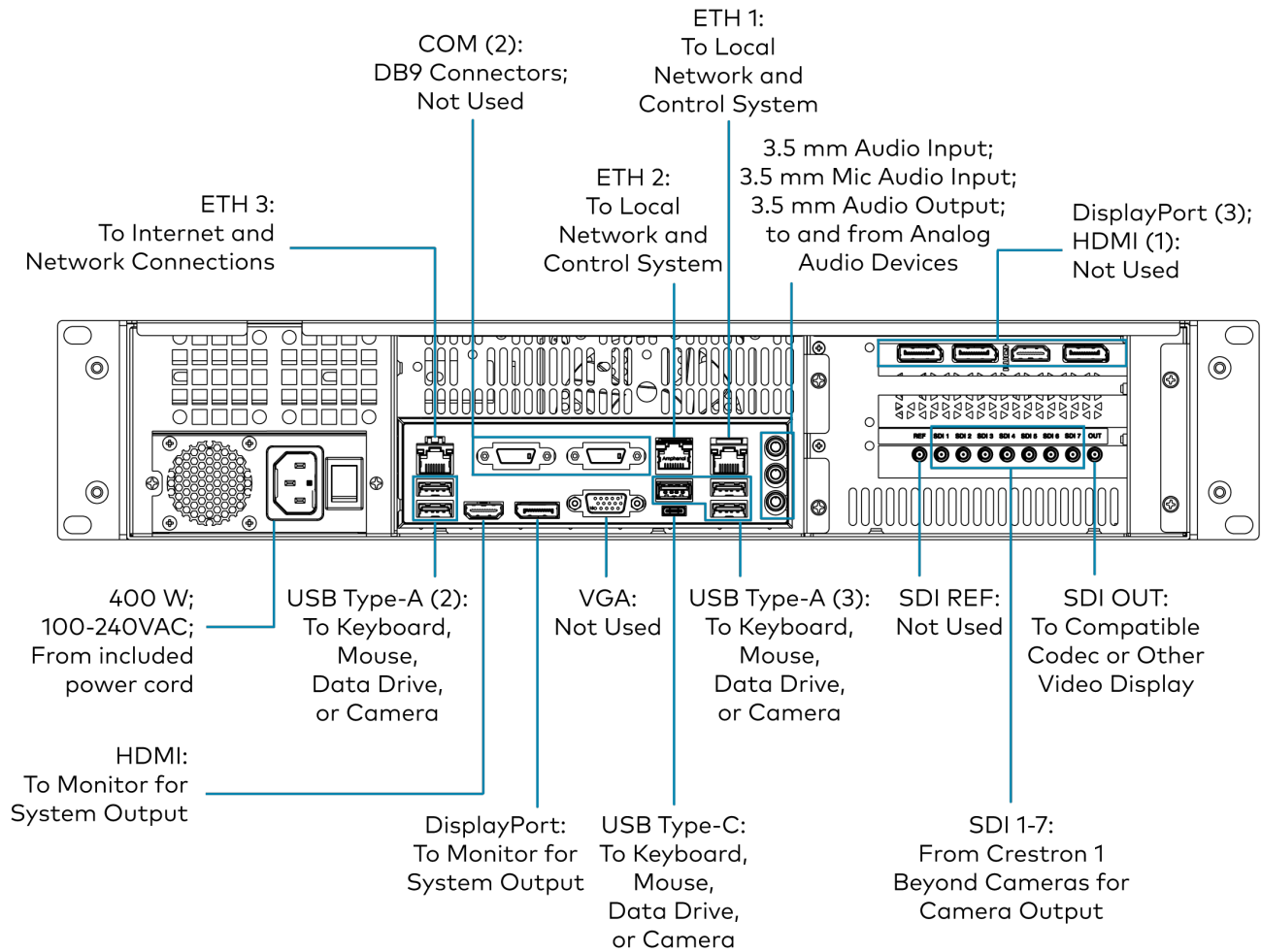
## Connect the Automate VX2

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, 18AWG 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.
- ETH1 and ETH2 ports are only for connecting to a control system or local network.
- Use the ETH3 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 21](#).
- 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.

## 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 27](#).

## 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 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 ETH3 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 search 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

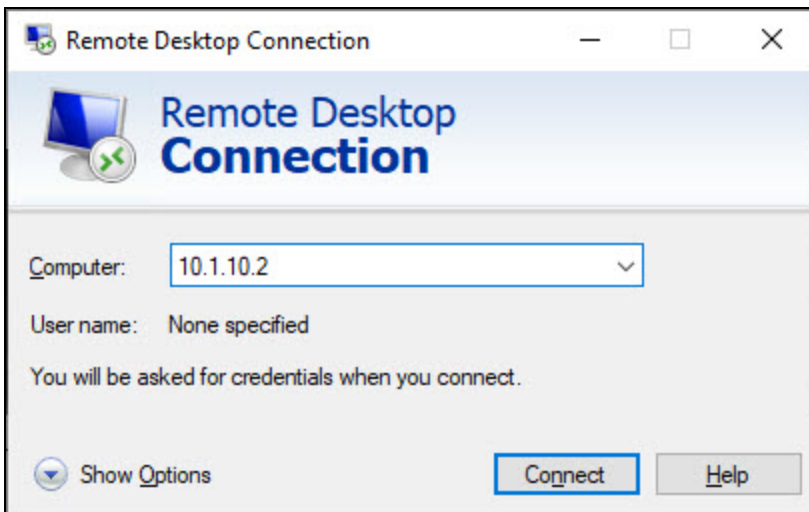
Perform the following procedure to connect to the Automate VX2 via the Windows® Remote Desktop application.

**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 ETH3 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.

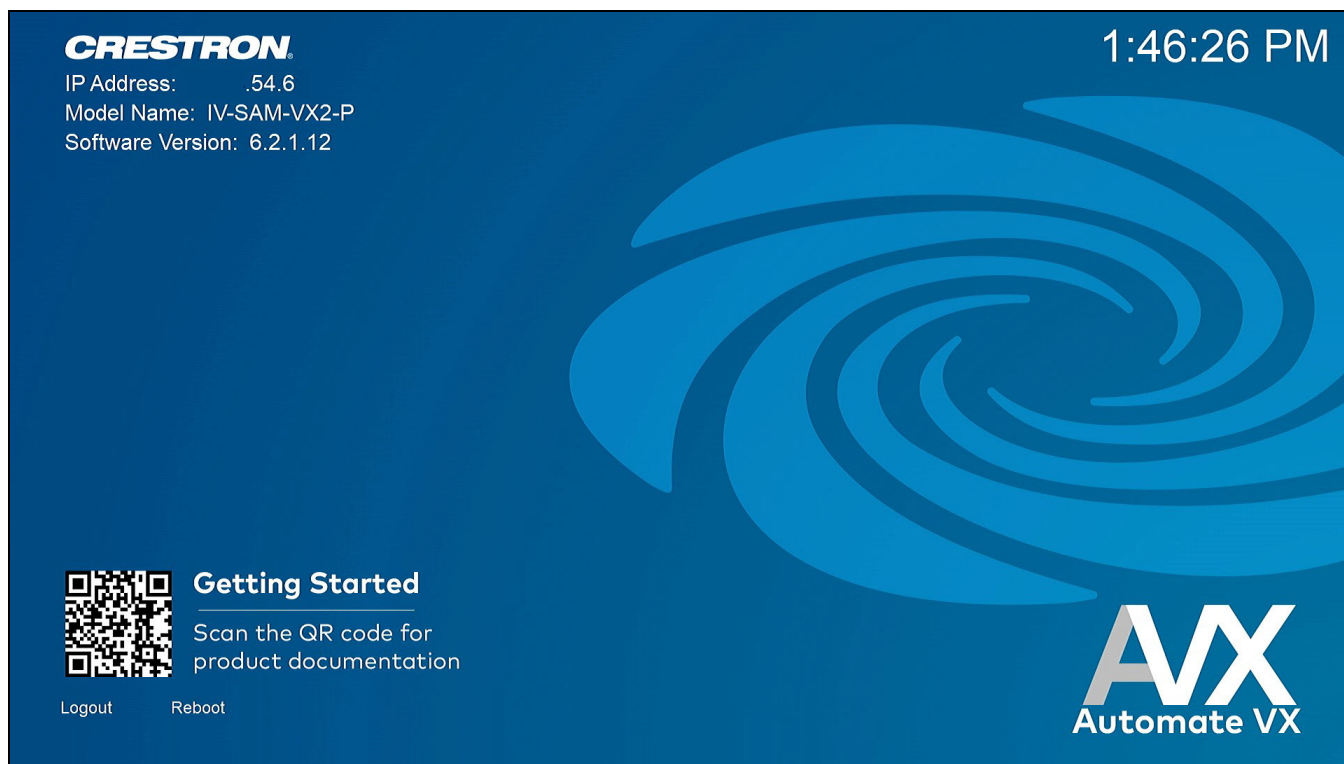
# Manage System Accounts

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

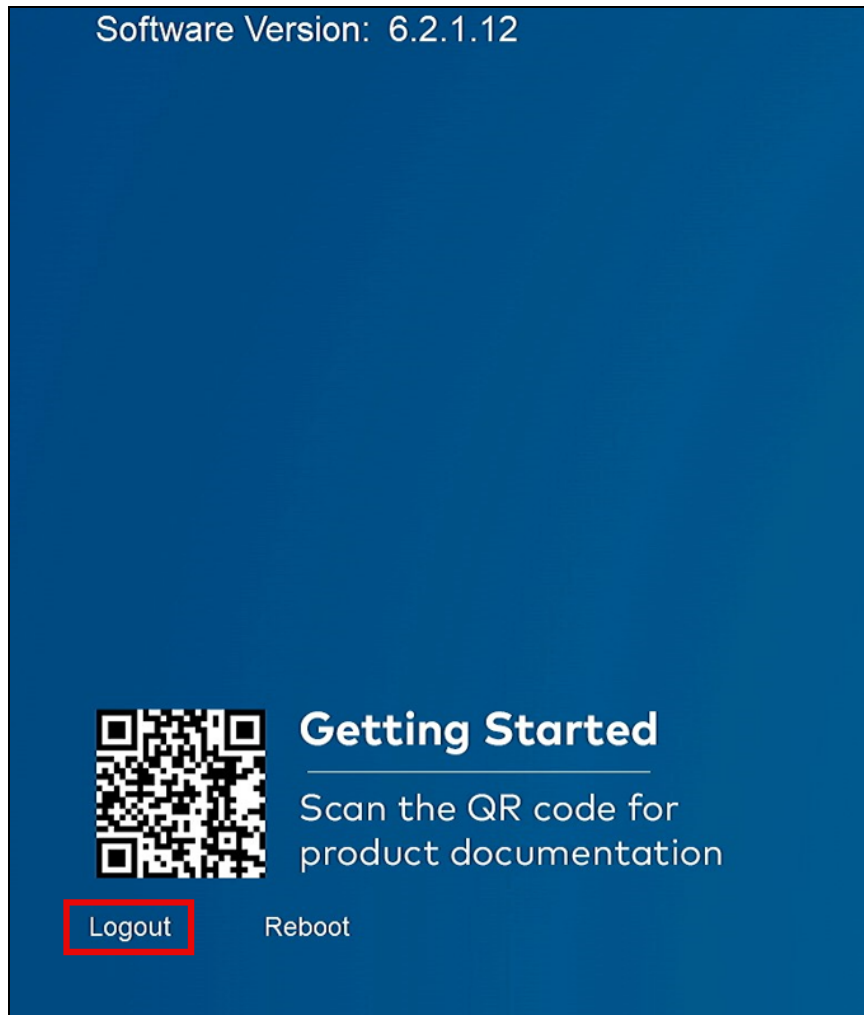
The user account is displayed when an Automate VX2 system is in a factory default state. The IP Address, Model Name, Software Version, and time are shown on the user account screen. Additionally, a QR code is provided for the [Automate VX Software Product Manual](#).

### 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

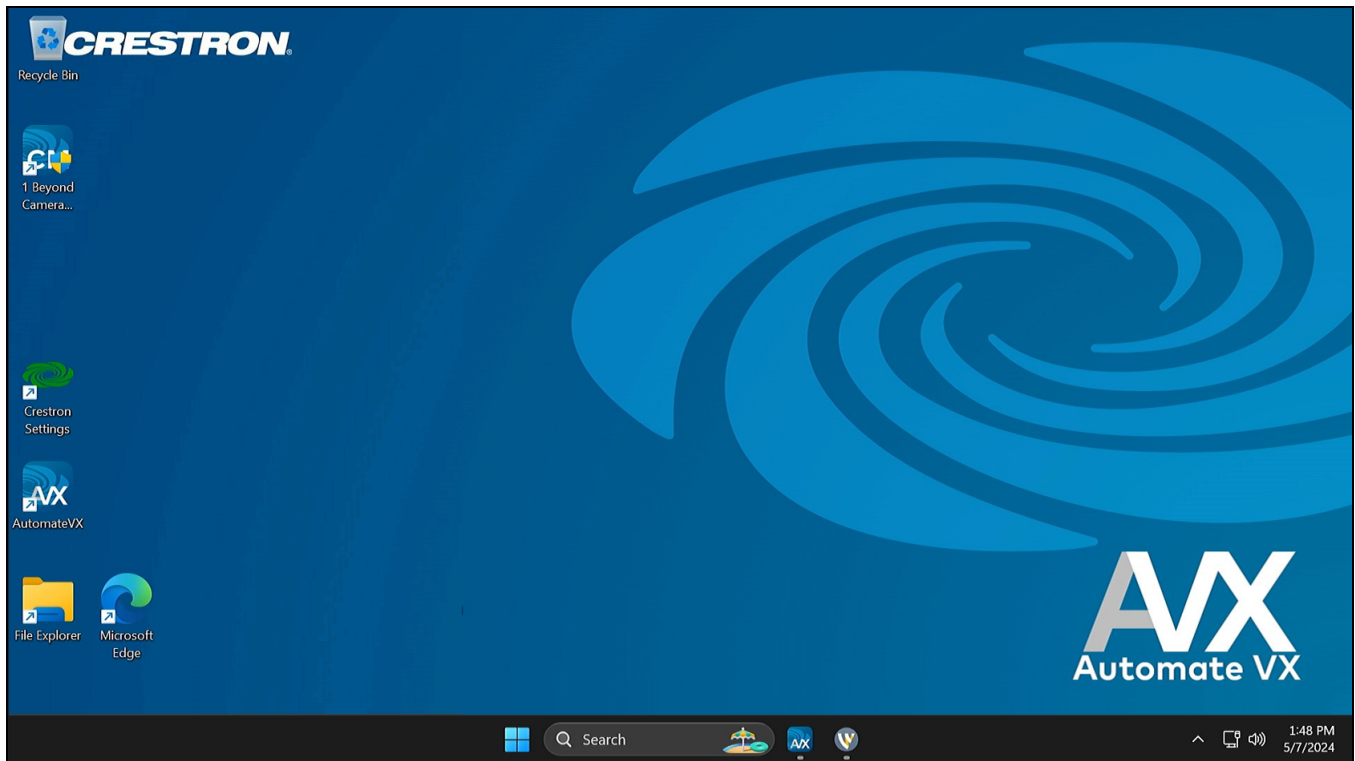
The administrator account contains configuration and operating settings for Automate VX2. In the Windows® OS sign in screen, select **Admin**. Then, enter the password for the administrator account.

**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.

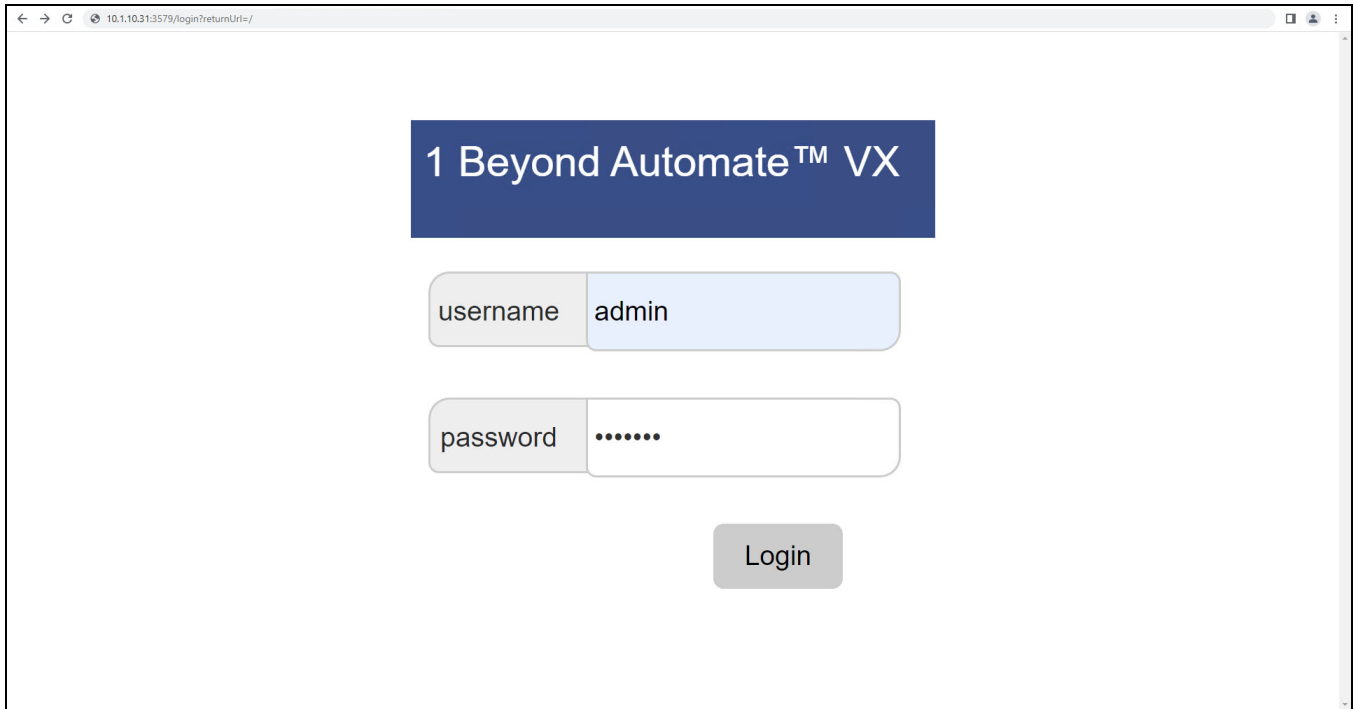
## Access the Web Configuration Interface

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](#).

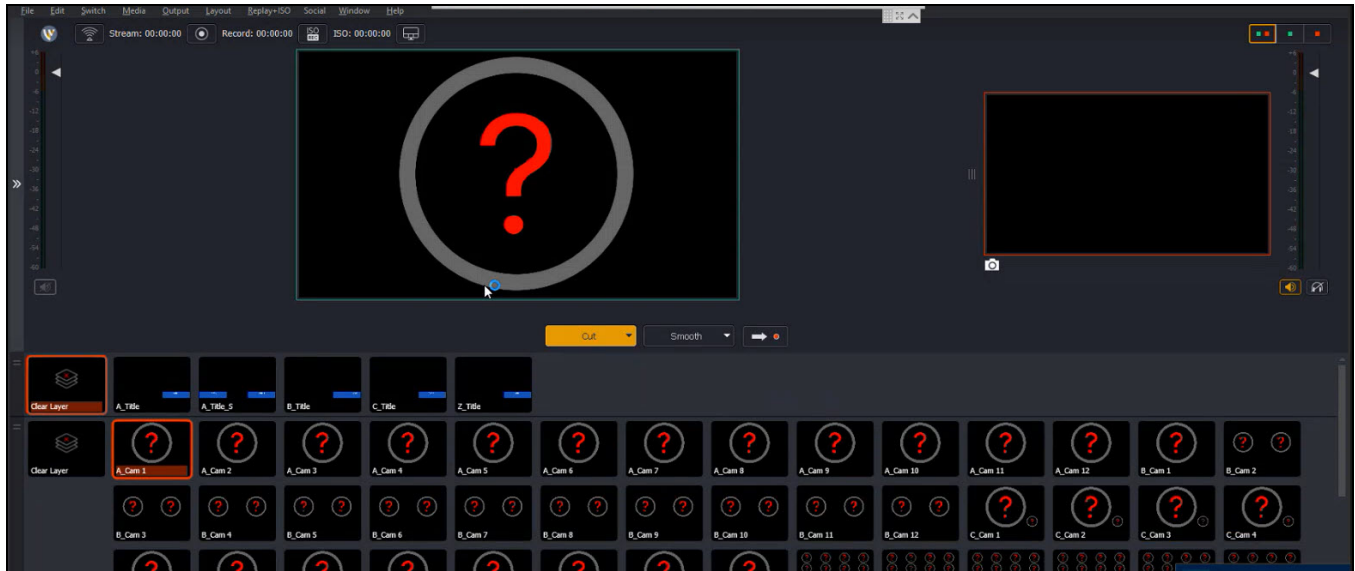
## Access Wirecast

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:** By default, the Automate VX2 contains the Crestron 1 Beyond Camera Manager 2 software. To access the Crestron 1 Beyond Camera Manager 2 software, select the Crestron 1 Beyond Camera Manager software desktop icon.

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](#).

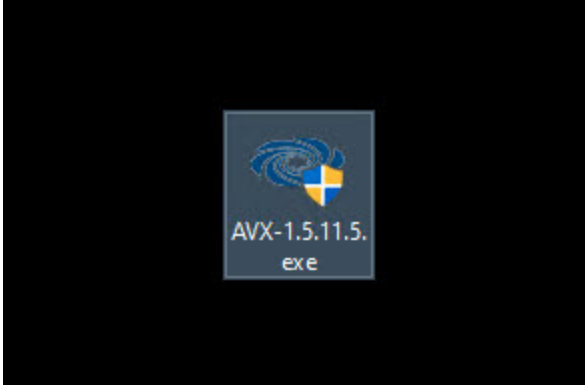


# Update Firmware

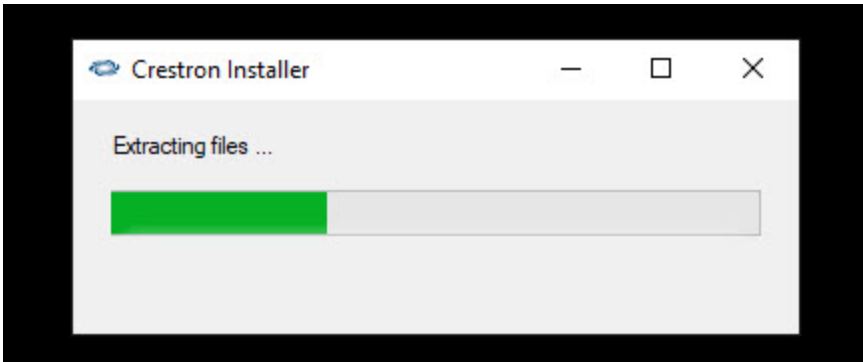
Automate VX can be updated with firmware provided by Crestron. To update an Automate VX2's firmware:

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. Double-click the AVX desktop icon to open the firmware installer, and the firmware begins loading. Once loading is completed, the Crestron Installer window is displayed.

## AVX Desktop Icon



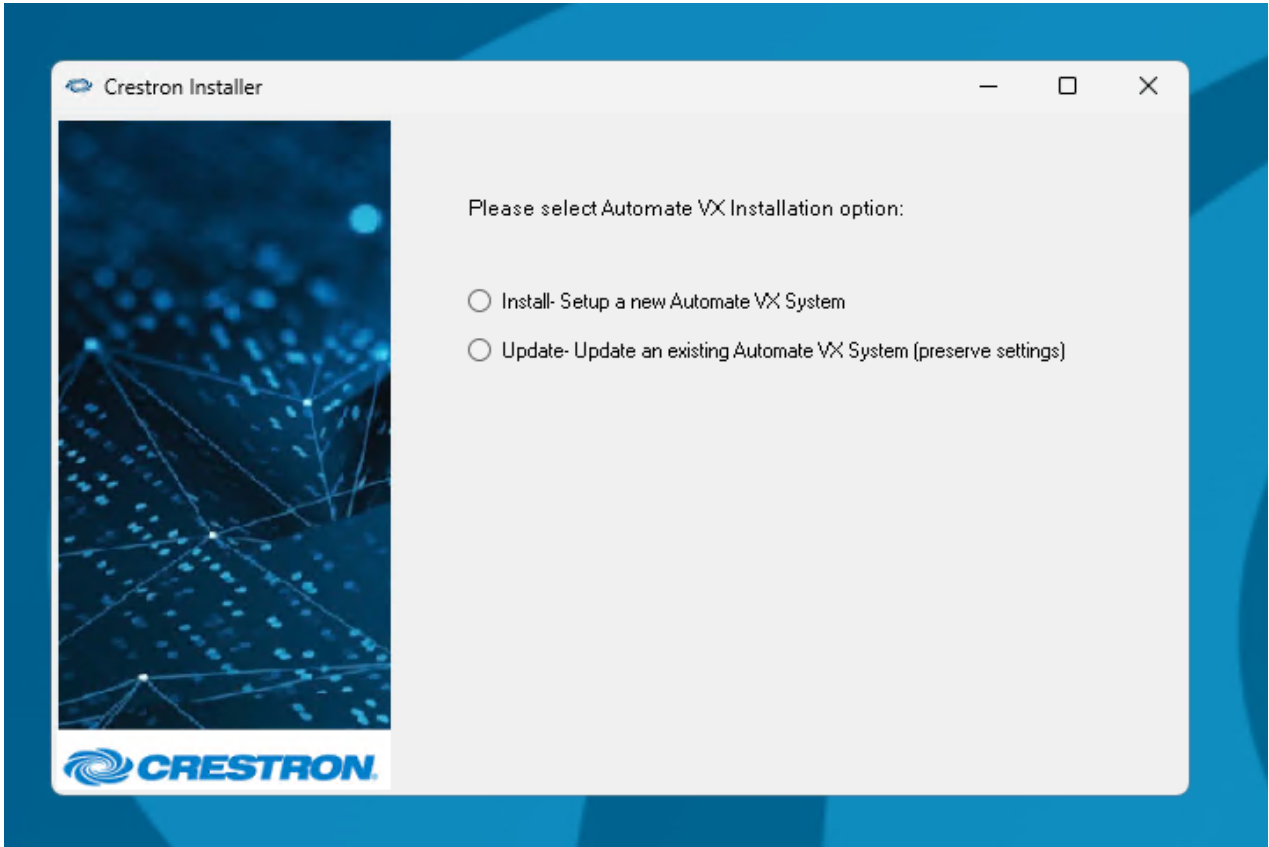
## Crestron Installer Window



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](#).

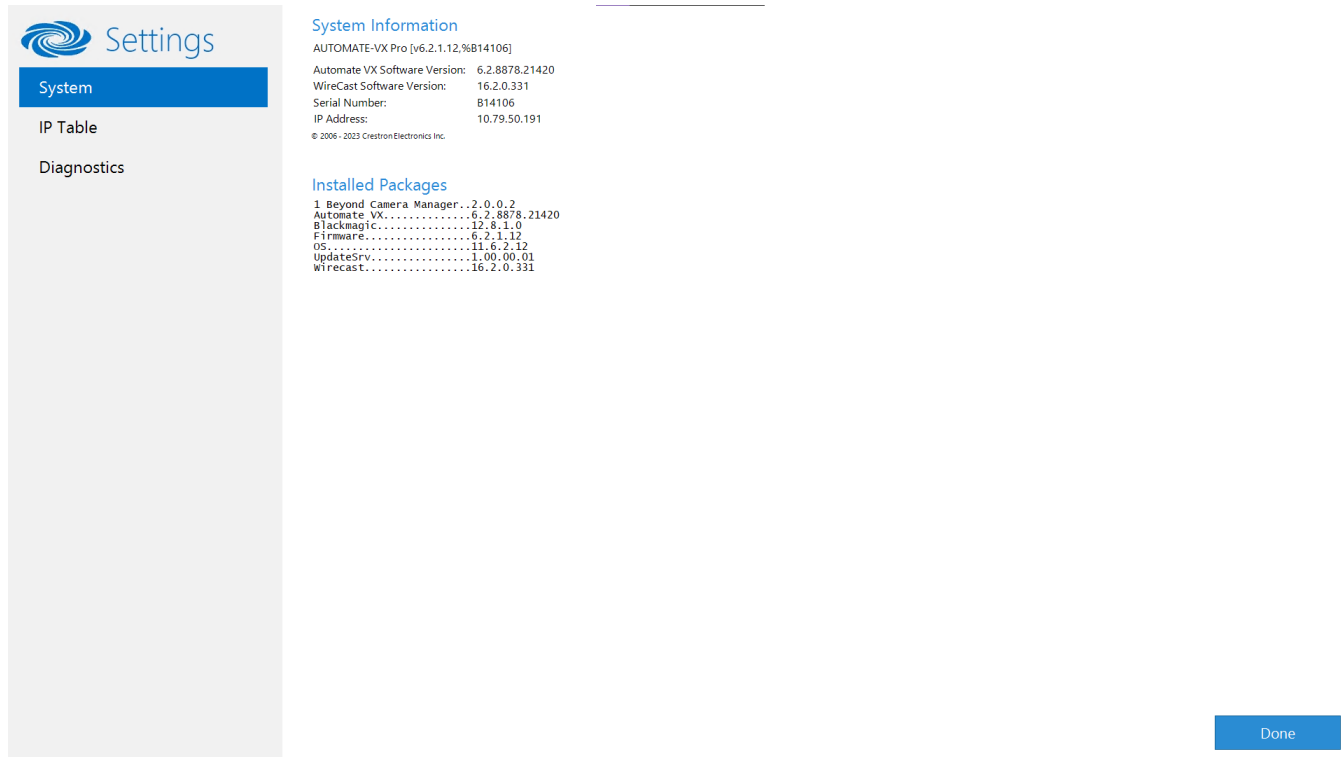
- Select the **Update** option to update the Automate VX2 system with the new firmware. Select this option to preserve all configurations, layouts, and other settings configured on the Automate VX2 before the firmware update.
4. Once an option is chosen, select **Next** in the bottom right of the window. 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.

# 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, click  > **Crestron** folder > **Crestron Settings**. The Crestron Settings app opens.

## Crestron Settings App



The screenshot shows the Crestron Settings App interface. On the left is a sidebar with three menu items: 'System' (highlighted in blue), 'IP Table', and 'Diagnostics'. The main content area is divided into two sections: 'System Information' and 'Installed Packages'. The 'System Information' section lists the following details:

AUTOMATE-VX Pro [v6.2.1.12;%B14106]	
Automate VX Software Version:	6.2.8878.21420
WireCast Software Version:	16.2.0.331
Serial Number:	B14106
IP Address:	10.79.50.191
© 2006 - 2023 Crestron Electronics Inc.	

The 'Installed Packages' section lists the following details:

1 Beyond Camera Manager	..2.0.0.2
Automate VX	..6.2.8878.21420
Blackmagic	.....12.8.1.0
Firmware	.....6.2.1.12
OS	.....11.6.2.12
UpdateSrv	.....1.00.00.01
Wirecast	.....16.2.0.331

At the bottom right of the app interface, there is a blue button labeled 'Done'.

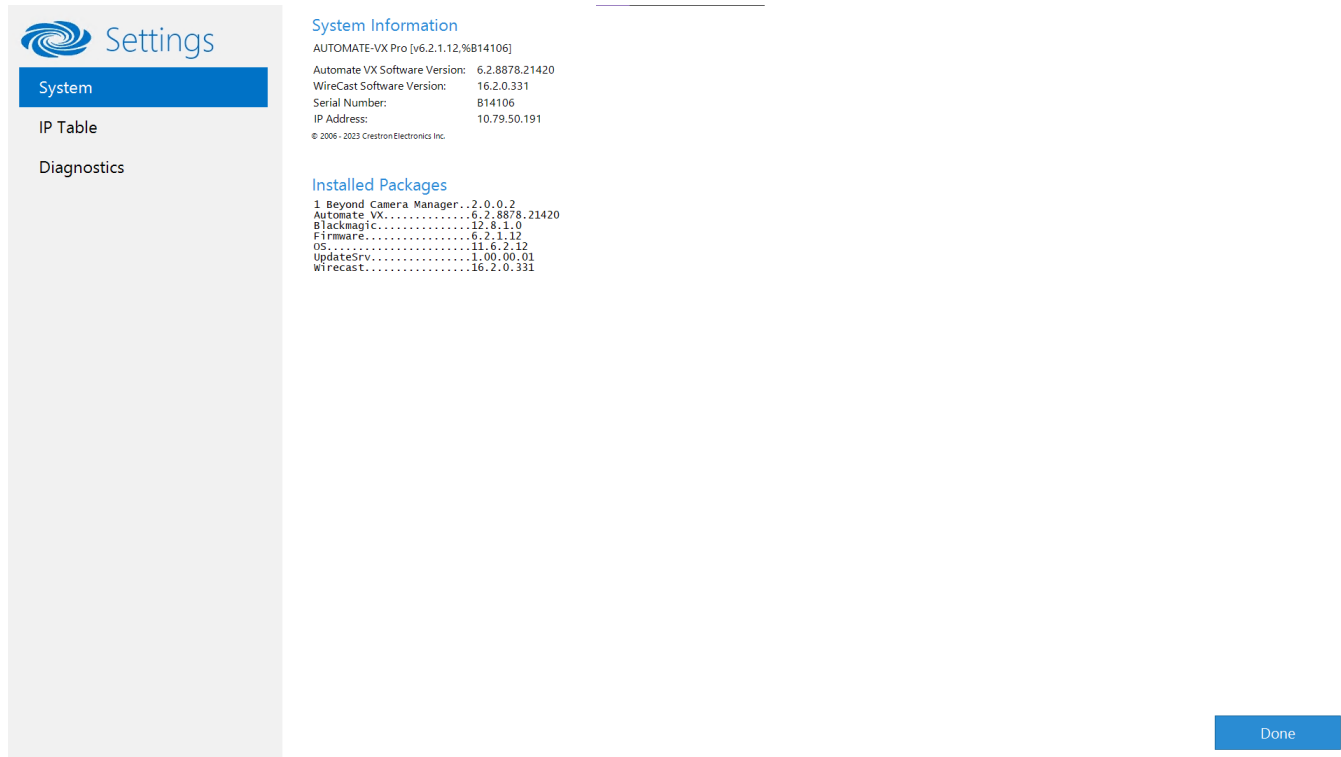
This section provides the following information:

- [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



The screenshot shows the Crestron Settings App interface. On the left is a navigation menu with 'Settings' at the top, followed by 'System' (highlighted in blue), 'IP Table', and 'Diagnostics'. The main content area is divided into two sections: 'System Information' and 'Installed Packages'. The 'System Information' section displays the device model 'AUTOMATE-VX Pro [v6.2.1.12.%8B14106]' and lists 'Automate VX Software Version: 6.2.8878.21420', 'WireCast Software Version: 16.2.0.331', 'Serial Number: 814106', and 'IP Address: 10.79.50.191'. Below this is the copyright notice '© 2006 - 2023 Crestron Electronics Inc.'. The 'Installed Packages' section lists several installed components: '1 Beyond Camera Manager..2.0.0.2', 'Automate VX.....6.2.8878.21420', 'Blackmagic.....12.8.1.0', 'Firmware.....6.2.1.12', 'OS.....11.6.2.12', 'UpdateSrv.....1.00.00.01', and 'Wirecast.....16.2.0.331'. A blue 'Done' button is located in the bottom right corner of the app interface.

**System Information**

AUTOMATE-VX Pro [v6.2.1.12.%8B14106]

Automate VX Software Version: 6.2.8878.21420  
WireCast Software Version: 16.2.0.331  
Serial Number: 814106  
IP Address: 10.79.50.191

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**Installed Packages**

1 Beyond Camera Manager..2.0.0.2  
Automate VX.....6.2.8878.21420  
Blackmagic.....12.8.1.0  
Firmware.....6.2.1.12  
OS.....11.6.2.12  
UpdateSrv.....1.00.00.01  
Wirecast.....16.2.0.331

Done

# IP Table

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

Configure the IP table to allow Automate VX2 to be used as part of a Crestron control system. An IP table is a lookup table used by Crestron Ethernet devices to map between IP IDs and IP addresses. 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

**Crestron IP Table**

IP ID	Type	Address	Dev ID	Room ID	Port	Status
-------	------	---------	--------	---------	------	--------

IP ID: Type (Gway) IP Address/Hostname: Room ID\* Device ID (JNR) \* Port (41794)\* :

\* Entries are optional and if not specified, the default will be used.

Automatically discover and respond to other Crestron devices

On

Allow multiple IP Table entries

On

**Crestron SSL**

These settings allow secure connections to Crestron control systems. Apply and restart to save these changes.

Use SSL for control system connections

Disabled

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

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

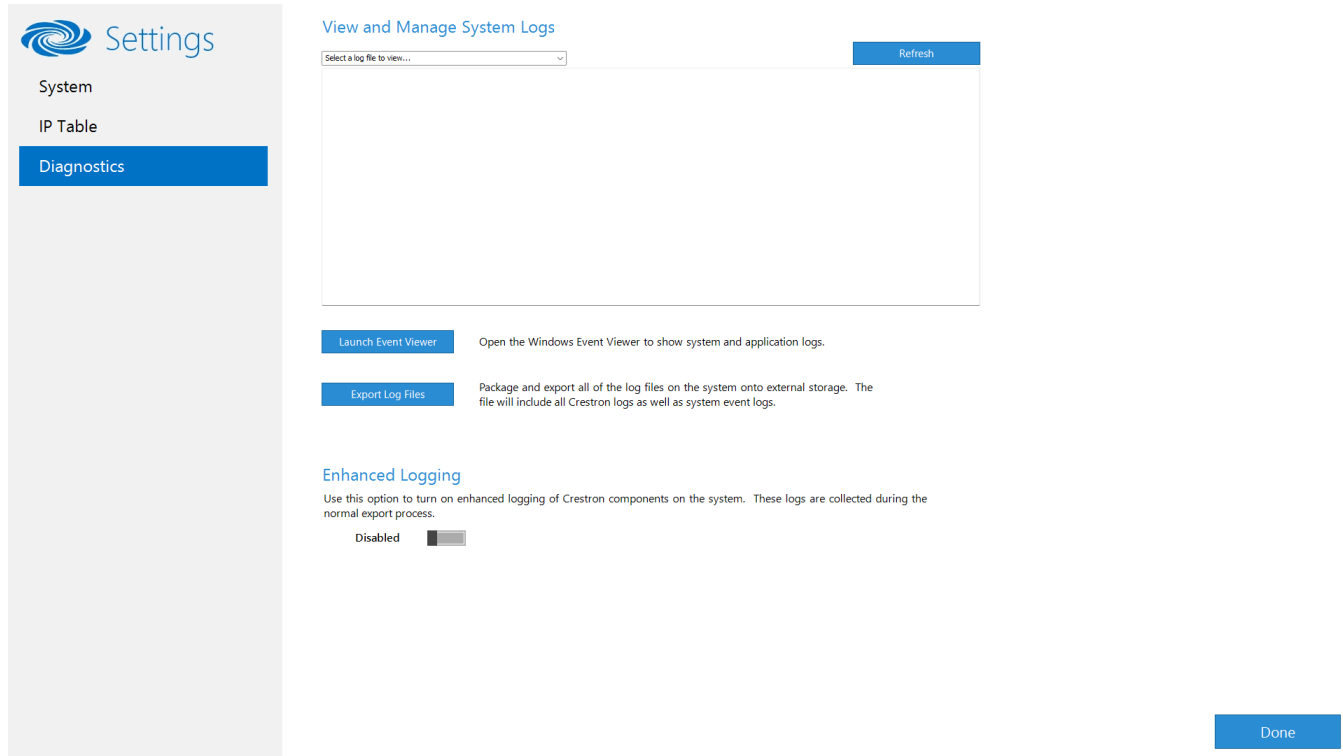
The system can use SSL technology when connecting to a Crestron control system. To configure the system to use SSL for control system communications:

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

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

## Diagnostics



The screenshot shows the 'Settings' application with the 'Diagnostics' menu item selected. The main content area is titled 'View and Manage System Logs'. It features a dropdown menu labeled 'Select a log file to view...' and a 'Refresh' button. Below this are three buttons: 'Launch Event Viewer', 'Export Log Files', and 'Enhanced Logging'. The 'Enhanced Logging' section includes a toggle switch currently set to 'Disabled'. A 'Done' button is located at the bottom right of the interface.

## 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, click **Refresh** to view the latest log data.

## Windows Event Viewer

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

## Export Log Files

Click **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

Click **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.

## 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](https://support.crestron.com/app/certificates).

