



Configuration and Administration Guide for

# ConferenceSHOT AV

Enterprise-Class Conferencing System

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## Overview

This guide covers the ConferenceSHOT™ AV system – a camera and detachable speaker available in silver/black or white, together or separately, with or without microphones and a variety of other accessories.

## What's in this Guide

This guide covers

- The camera's physical features
- Controlling the camera using the remote
- Using the camera's web interface
- Troubleshooting and maintenance



It does not include installation or connection instructions; these are available in the **Installation Guide for ConferenceSHOT AV Enterprise-Class Conferencing System**.

For complete product information, see the **Integrator's Complete Guide for ConferenceSHOT AV Enterprise-Class Conferencing System**. It includes unpacking and installation as well as specifications and a reference section on Telnet commands.

## Features

- Integrated HD camera and audio system ideal for huddle rooms and small to medium conference rooms
- Audio inputs for two Vaddio MicPOD table or ceiling microphones
- Audio output for optional matching speaker – or integrate into existing audio infrastructure
- 2.14 Megapixel effective, native 1080p/60 HD image sensor
- 10x optical zoom, horizontal field of view of 74° in super-wide mode
- Simultaneous uncompressed USB 3.0 and IP (H.264) video + full-duplex audio streaming
- Precise pan and tilt movements at up to 90° per second with smooth, silent direct-drive motors
- Universal Video Class (UVC) and Universal Audio Class (UAC) drivers supported in Windows®, Mac® OS, and Linux operating systems, compatible with most UC conferencing applications
- Presenter-friendly IR remote control
- Integration-ready Telnet control
- Enterprise-class IT support with full web controls for remote management

## A Quick Look at the System



- **Camera and zoom lens:** The ConferenceSHOT 10 camera features a 10X optical zoom lens (11X in Super-Wide mode).
- **IR sensors:** Sensors in the front of the camera base receive signals from the remote. Make sure there's nothing directly in front of the camera base, and point the remote at the camera.
- **Status light:** The multi-colored LED indicates the camera's current state.
- **Speaker:** Far-end audio for small conference rooms.

## Back of the Camera



- **Network PoE+** – 10/100/1000 Ethernet port; IP streaming and control via web interface
- **USB 3.0** – Type B media device connector; streams uncompressed UVC standard video and UAC standard audio
- **EasyMIC ports** – Connect up to two Vaddio EasyMIC microphones
- **Audio output** – Line level differential audio and 12 VDC power output to the optional amplified speaker or other audio infrastructure

## Back of the Speaker



Use the provided speaker cable to connect the speaker to the camera.

## Using the Vaddio IR Remote Commander

The remote provides basic camera control.

### Quick Reference

What do you need to do?	Button(s)
Power on or standby	<b>Power</b> (green button at top right)
Select the camera to control (if this remote controls more than one)	<b>Camera Select</b> buttons 1 through 3 (second row on the remote)
Discover the camera's IP address	<b>Data Screen</b> button (top left) – press and hold for 3 seconds
Move the camera	Arrow buttons and <b>Home</b> button (dark red)
Move the camera to a preset position	<b>Position Preset</b> buttons 1 through 6 (bottom two rows)
Focus the camera	<b>Auto Focus</b> button (near arrow buttons) <b>Manual Focus</b> buttons <b>Near</b> and <b>Far</b> (below Zoom Speed buttons)
Mute the microphone(s)	<b>Mic Mute</b> button (center)
Change the speaker volume	<b>Volume</b> buttons (center left)
Change zoom	<b>Zoom</b> buttons – <b>T</b> (telephoto) to zoom in and <b>W</b> (wide-angle) to zoom out. modes (center right)
Adjust for excess light behind the camera's subject	<b>Back Light</b> button (top center)
Correct a motor calibration fault condition (blinking yellow light)	<b>Pan-Tilt Reset</b> button (center right, beside arrow buttons)

## Details

The Vaddio remote provides the following functions:

**Data Screen** – Press and hold for 3 seconds to display the camera’s IP address and MAC address on the near-end display. Press momentarily to dismiss the information.

**Back Light** – Use or turn off back light compensation.

**Power** – Switch the selected camera on or off.

**Power indicator** – Shows power on, IR transmission, and battery level.

**Camera Select** – In multi-camera installations, selects the camera to be controlled. See [Camera Switch Settings](#) for information on configuring the camera as camera 1, 2, or 3.

**Pan/Tilt (arrow button) controls and Home button** – Control the camera’s position.

**Std. Pan and Rev. Pan** – Control how the camera responds to the arrow buttons. Helpful for ceiling-mounted cameras.

**Pan/Tilt Reset** – Recalibrate the pan and tilt motors. If the camera gets jostled, you may need to push this button to ensure that the camera moves accurately to its home and preset positions.

**Auto Focus** – Switch the camera to Auto-Focus mode.

**Volume Increase and Decrease** – Control the speaker volume.

**Mic Mute** – Stop sending audio.

**Manual Focus** – Switch the camera to Manual Focus mode.

**Near (-) adjustment** – Moves the focus nearer when in manual focus mode.

**Far (+) adjustment** – Moves the focus farther when in manual focus mode.

**Position Presets 1 through 6** – Move the camera to a predefined position.

**Preset** – Save the camera’s current position as one of the numbered presets.

**Reset** – Clear the saved position presets.

## Storing a Preset Using the IR Remote Commander

Position the camera. Then hold down the **Preset** button and press one of the numbered preset buttons.

## Clearing a Preset Using the IR Remote Commander

Press and hold the **Reset** button while pressing the preset number you want to clear.





## Web Interface

The camera provides a web interface to allow control via an Ethernet network connection, using a browser. The web interface gives the user more control over the camera than the IR remote offers.

The web interface allows user-level camera control and password-protected administrative access to tasks such as setting passwords, changing the IP address, viewing diagnostics, and installing firmware updates.

If the LAN has a DHCP server, the camera will get its IP address, gateway and routing information automatically and you will be able to browse to it. In the absence of a DHCP server, the camera's default IP address is 169.254.1.1 and its subnet mask is 255.255.0.0.

You can configure the camera's static IP address either through the network or from a computer connected directly to its Ethernet port. You may need a crossover cable.

### **To display the camera's IP address:**

Press and hold the Data Screen button on the remote. After 3 seconds, the room display presents the information.

## Compatible Web Browsers

Supported web browsers:

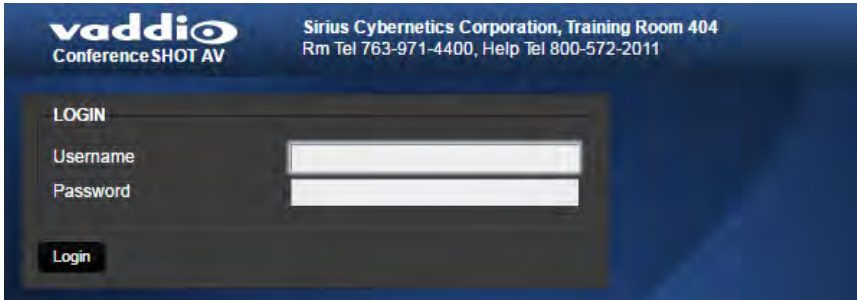
- Chrome® (latest version),
- Firefox® (latest version),
- Microsoft® Internet Explorer® (versions 8 through 11)
- Safari® (versions 6 and 7)
- Microsoft® Edge

Other browsers may also work.

## User Access

By default, the web interface opens to the Camera Controls page without requiring a login. If the administrator has changed the guest access setting, you will need to log in.

The default user password is `password`. Only the camera control page is available with user-level access.



If you are not logged in using the admin account, the Admin button on the Camera Controls page opens the admin login dialog. The default admin password is `password`. The admin has access to all pages of the web interface.



## Administrative Access

If you are on the Camera Control screen and no other screens are available, you're logged in at the user level, or guest access is enabled and you're not logged in at all. Use the Admin button to open the login dialog.

When you log in as Admin, all the admin navigation buttons appear on the left side of the screen. In addition to Camera Controls, you also have access to:

- Camera Settings – Additional control over camera behavior related to camera movement and color management.
- Audio – Control and adjust audio inputs and outputs individually
- Control Devices – Define actions and sequences to execute via third-party control devices.
- Streaming – USB device settings and IP (H.264) streaming.
- Room Labels – Information to display on the web interface screens, including the conference room name and phone number and the in-house number for AV assistance.
- Networking – Ethernet configuration.
- Security – Set passwords and manage guest access.
- Diagnostics – View or download logs when troubleshooting issues.
- System – View firmware version and switch settings, reboot, restore factory defaults, and run firmware updates.
- Help – Tech support contact information and a link to the product information library on the Vaddio website.
- Logout – Leave the web interface in a password-protected state. If guest access is on, this returns the web interface to the Camera Controls page at guest access level.

## Web Interface Quick Reference

Where to find the controls you need right now.

What do you need?	Go to this page
Camera operation <ul style="list-style-type: none"> <li>■ Move or zoom the camera</li> <li>■ Set the speed for pan, tilt, or zoom motions</li> <li>■ Focus the camera (Focus button reveals the focus control)</li> <li>■ Move to a camera preset</li> <li>■ Put the camera into or bring it out of standby mode</li> </ul>	Camera Controls (guest access page)
Audio operation <ul style="list-style-type: none"> <li>■ Mute the microphones</li> <li>■ Silence the speaker</li> <li>■ Set speaker volume</li> <li>■ Set microphone volume</li> </ul>	Camera Controls (guest access page)
Camera behavior <ul style="list-style-type: none"> <li>■ Set motors for inverted operation (Settings button reveals the control)</li> <li>■ Set or clear camera presets</li> </ul>	Camera Controls (guest access page)
Camera behavior <ul style="list-style-type: none"> <li>■ Specify whether to use automated adjustments (auto-iris, auto white balance, backlight compensation)</li> </ul>	Camera Settings
Camera behavior <ul style="list-style-type: none"> <li>■ Normal or super-wide mode</li> <li>■ Status light color scheme (Pro A/V or UC)</li> <li>■ UVC-Compliant or Client Custom USB streaming</li> <li>■ Image flip</li> <li>■ IR frequency – respond to the IR remote as camera 1, 2, or 3</li> </ul>	System: DIP Switches
Camera adjustments <ul style="list-style-type: none"> <li>■ Color settings (Iris, iris gain, red gain, blue gain, detail, chroma, gamma)</li> <li>■ Specify global speed settings for camera movements</li> </ul>	Camera Settings
Camera adjustment: Recalibrate pan and tilt motors	System : Firmware
Access management <ul style="list-style-type: none"> <li>■ Guest access</li> <li>■ Account passwords</li> <li>■ Automatic logout for idle sessions</li> </ul>	Security
USB and IP streaming settings	Streaming
Other IP settings <ul style="list-style-type: none"> <li>■ Hostname</li> <li>■ DHCP or static addressing</li> <li>■ Static: IP address, subnet mask, gateway</li> </ul>	Networking
Date and time, time zone, and NTP server	Networking
Information about the camera <ul style="list-style-type: none"> <li>■ Room location and phone number</li> <li>■ Help desk phone number</li> </ul>	Room Labels

What do you need?	Go to this page
Reboot or reset to factory defaults	System: Firmware
Firmware <ul style="list-style-type: none"> <li>■ Current version information</li> <li>■ Save (export) and restore (import) configuration</li> <li>■ Firmware update (system)</li> </ul>	System: Firmware
Firmware update (microphones)	System: Peripherals
Vaddio Technical Support contact information	Help
Diagnostic logs	Diagnostics

## Compact Menu View

By default, the navigation buttons display an icon and a text label.

The web interface provides a compact view of the menu buttons along with the standard view. The button at the bottom of the menu toggles between the two views.



## Web Tasks for All Users: Camera Controls

### CAMERA CONTROLS PAGE

The Camera Controls page provides most of the same controls as the IR Remote Commander, along with some that are not available from the remote:

- [Pan, tilt, zoom, or return to "home" position](#)
- [Stop or resume transmitting live camera video](#) (video mute)
- [Mute or unmute the microphone\(s\)](#)
- Change the speaker volume
- [Put the camera in standby](#) or bring it back to the ready state
- [Focus manually](#) or set auto-focus
- [Set speeds for camera movements](#)
- [Set](#) or [move to](#) camera presets
- [Set the way the camera responds](#) to the arrow buttons on the remote

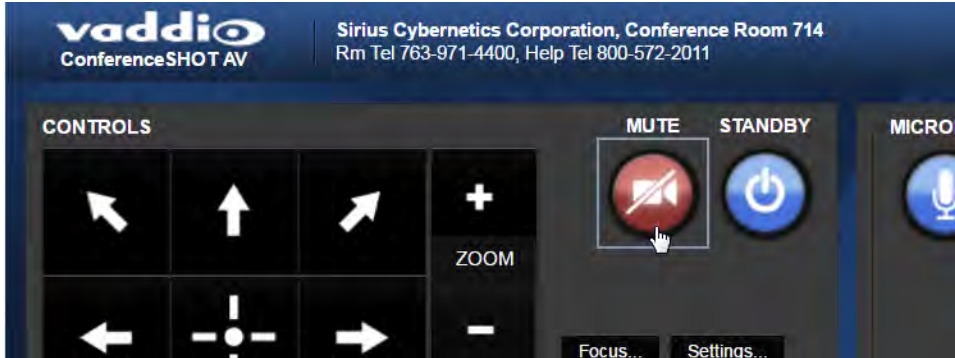
#### Note

Administrators can also customize the camera's home position from this page. See [Store a Camera Preset](#).



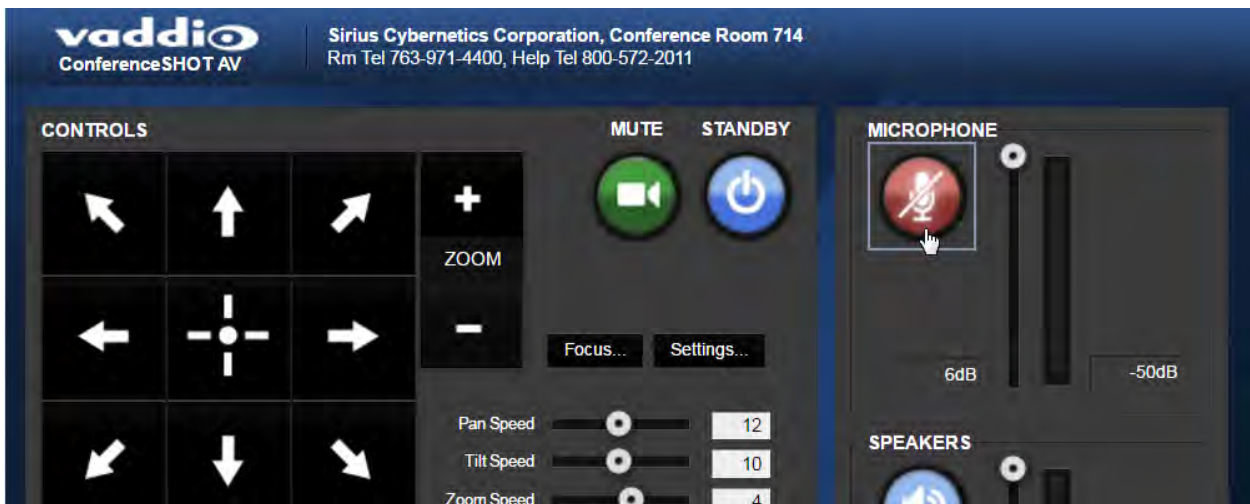
## Stop or Resume Sending Video

Use the Mute button to temporarily stop video from the camera without placing it in standby - for example, when you need to confer privately with another person in the room. Remember that the mute button does not mute the room's microphones. In video mute mode, the camera transmits blue or black video, with a message that the video is muted.



## Mute the Microphones

Use the Microphone button to temporarily stop sending audio.





## Mute the Speaker

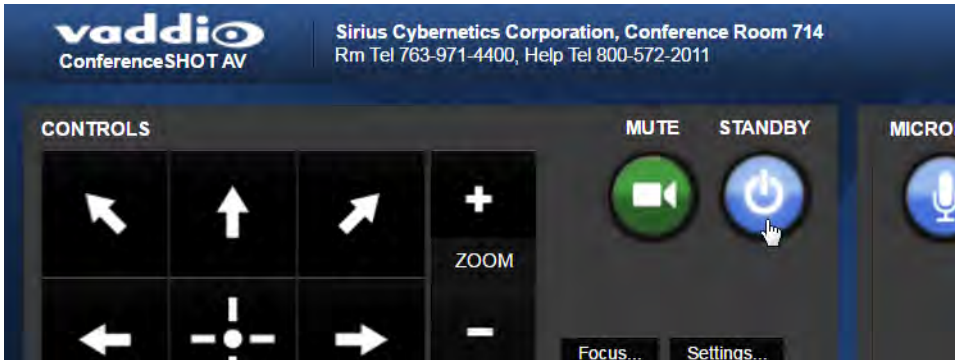
Use the Speaker button to silence the audio from the far end.



## Manage the Camera Ready State

Use the Standby button to switch between low-power (standby) and ready states.

In standby mode, the button is red and the screen presents the message “Device is in standby.” On entering standby mode, the camera pans 90° from center and 30° downward.



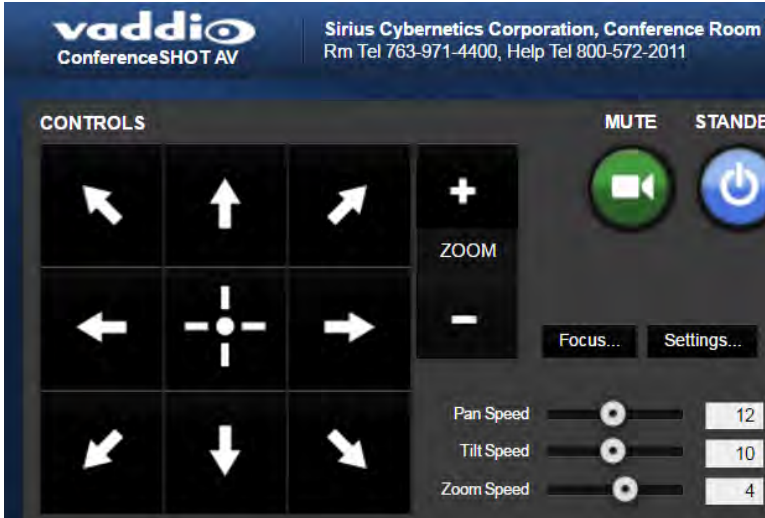


## Move the Camera

Use the arrow buttons for camera pan and tilt. The center button moves the camera to the home position.

## Zoom In or Out

Use the Zoom + button to zoom in and the Zoom - button to zoom out.

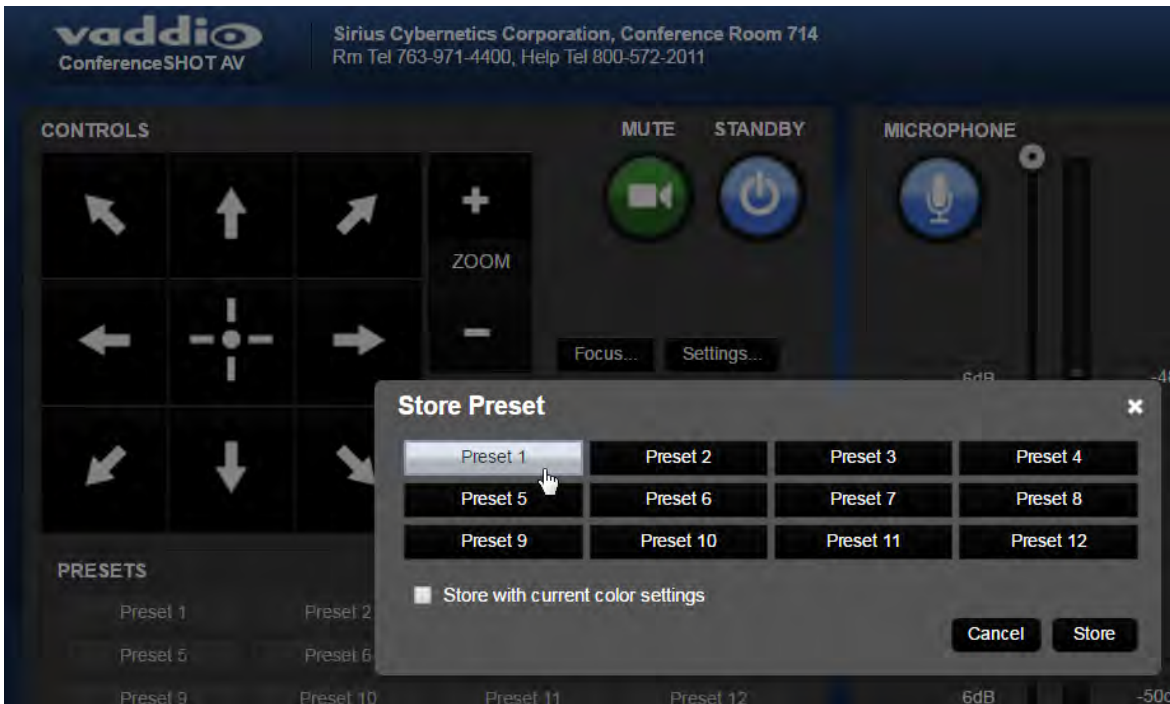


## Move the Camera to a Preset Position

Use the numbered Preset buttons to move the camera to any of its programmed positions. If you select a preset that has not yet been programmed, nothing happens.

## Store a Camera Preset

1. Set up the camera shot, then use the Store button to open the Store Preset box.
2. Click one of the preset buttons. If you are logged in as admin, this box provides the option to store the shot as a numbered preset or as the Home position.
3. To save the current CCU settings along with the camera position, check Store with Current Color Settings.
4. Store the preset.



## Change the Focus

Open the Focus control to select Auto-focus, or set manual focus with the + (near) and – (far) buttons. These buttons are not recognized when the Auto Focus box is checked.



## Change the Speed of Camera Movements

Use the speed sliders to adjust the speed of movements that you control with the buttons for pan, tilt and zoom. For tight shots, slower is usually better.

## Set Pan Direction

By default, the arrow buttons move the camera in the direction that viewers at the far end would see. If you face the camera and use the left arrow button, the camera pans to your right.

To switch the camera pan direction to the near end point of view, use the Settings button to open the pan and tilt direction box. Then set Pan Direction to Inverted.



## Web Tasks for Administrators: Managing Access and Passwords

### SECURITY PAGE

Things you can do on this page:

- Change the password for the admin account (default is `password`)
- Change the password for the user account (default is `password`)
- Allow people to access the Camera Control screen without logging on (Allow Guest Access) – by default, guest access is permitted
- Set whether inactive sessions log off automatically or not – by default, inactive sessions expire after 30 minutes

#### Note

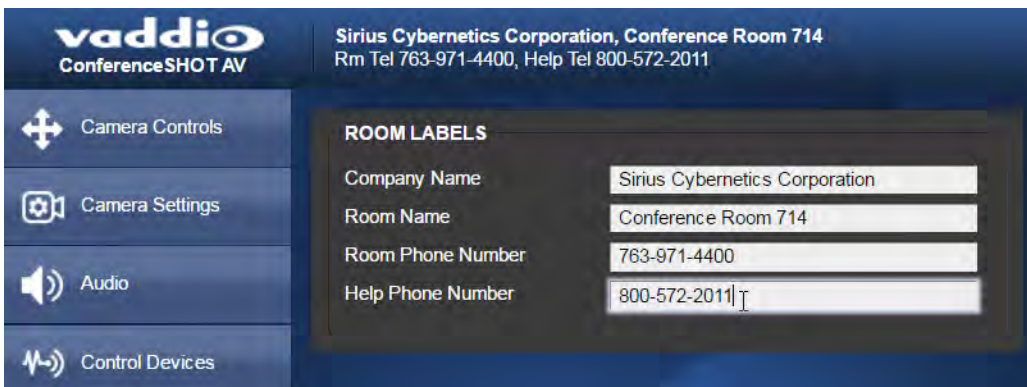
*For best security, Vaddio strongly recommends changing the user and admin passwords. Using the default passwords leaves the product vulnerable to tampering.*



## Web Tasks for Administrators: Adding Room Information to the Screen

### ROOM LABELS PAGE

Enter your organization's name, the conference room name and phone number, and the number for people to call for in-house A/V support. This information is displayed on every page of the web interface.





## Web Tasks for Administrators: Configuring Network and Time/Date Settings

### NETWORKING PAGE

Things you can do on this page:

- [Specify time zone and NTP server](#)
- Assign the camera's hostname
- Specify DHCP or static IP address
- Set up other networking information (if using static IP addressing)

### Network Configuration

You will be able to enter the IP address, subnet mask, and gateway only if you set IP Address to Static.

#### Note

*DHCP is the default setting, but the camera will use the default address of 169.254.1.1 if no DHCP server is available.*

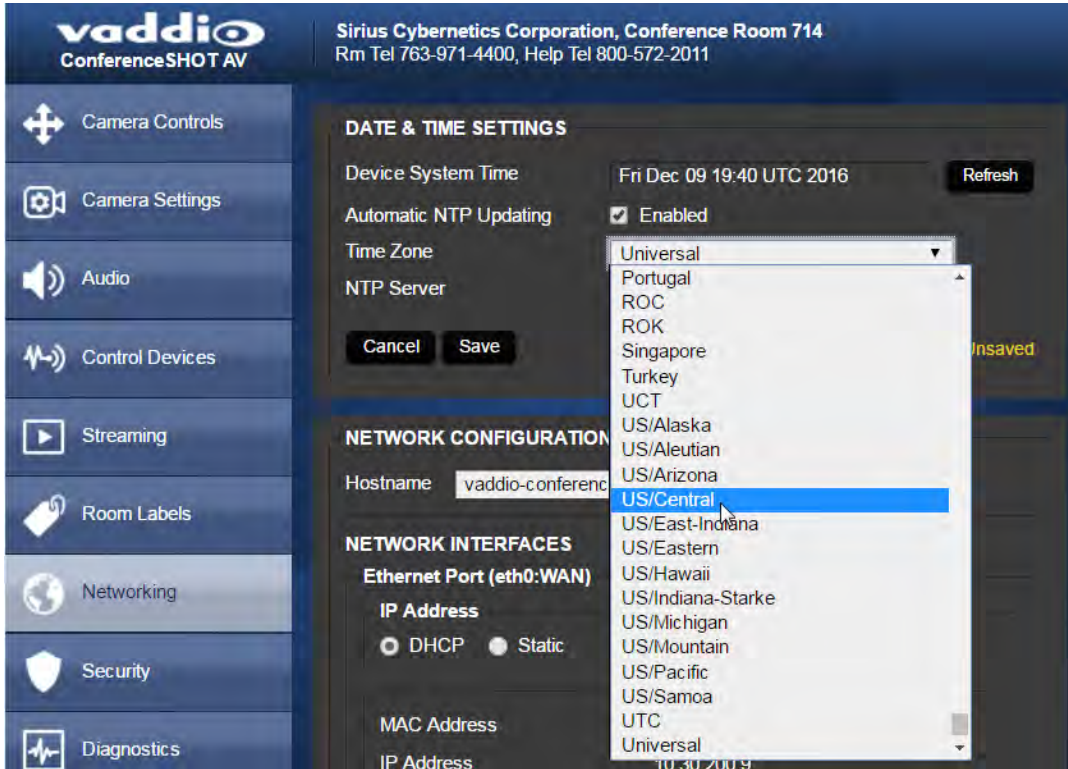
The screenshot displays the Vaddio ConferenceSHOT AV web interface. The top header shows the Vaddio logo and the device name 'Sirius Cybernetics Corporation, Conference Room 714' with contact information. A left sidebar contains navigation icons for Camera Controls, Camera Settings, Audio, Control Devices, Streaming, Room Labels, Networking (highlighted), Security, Diagnostics, System, Help, and Logout.

The main content area is divided into two sections:

- DATE & TIME SETTINGS:**
  - Device System Time: Fri Dec 09 19:38 UTC 2016 (with a Refresh button)
  - Automatic NTP Updating:  Enabled
  - Time Zone: Universal (dropdown menu)
  - NTP Server: pool.ntp.org
  - Buttons: Cancel, Save
- NETWORK CONFIGURATION:**
  - Hostname: vaddio-conferenceshot-av-D8-80-39-62-A7-C5
  - NETWORK INTERFACES:**
    - Ethernet Port (eth0:WAN)**
      - IP Address:
        - DHCP  Static
      - MAC Address: D8:80:39:62:A7:C5
      - IP Address: 10.30.200.9
      - Subnet Mask: 255.255.255.0
      - Gateway: 10.30.200.254
  - Buttons: Cancel, Save

## Specifying Time Zone and NTP Server

1. To make the time zone and NTP server editable, enable Automatic NTP Updating.
2. Select the desired time zone from the list.
3. If desired, specify the NTP server to use. If you are not sure about this, use the default.

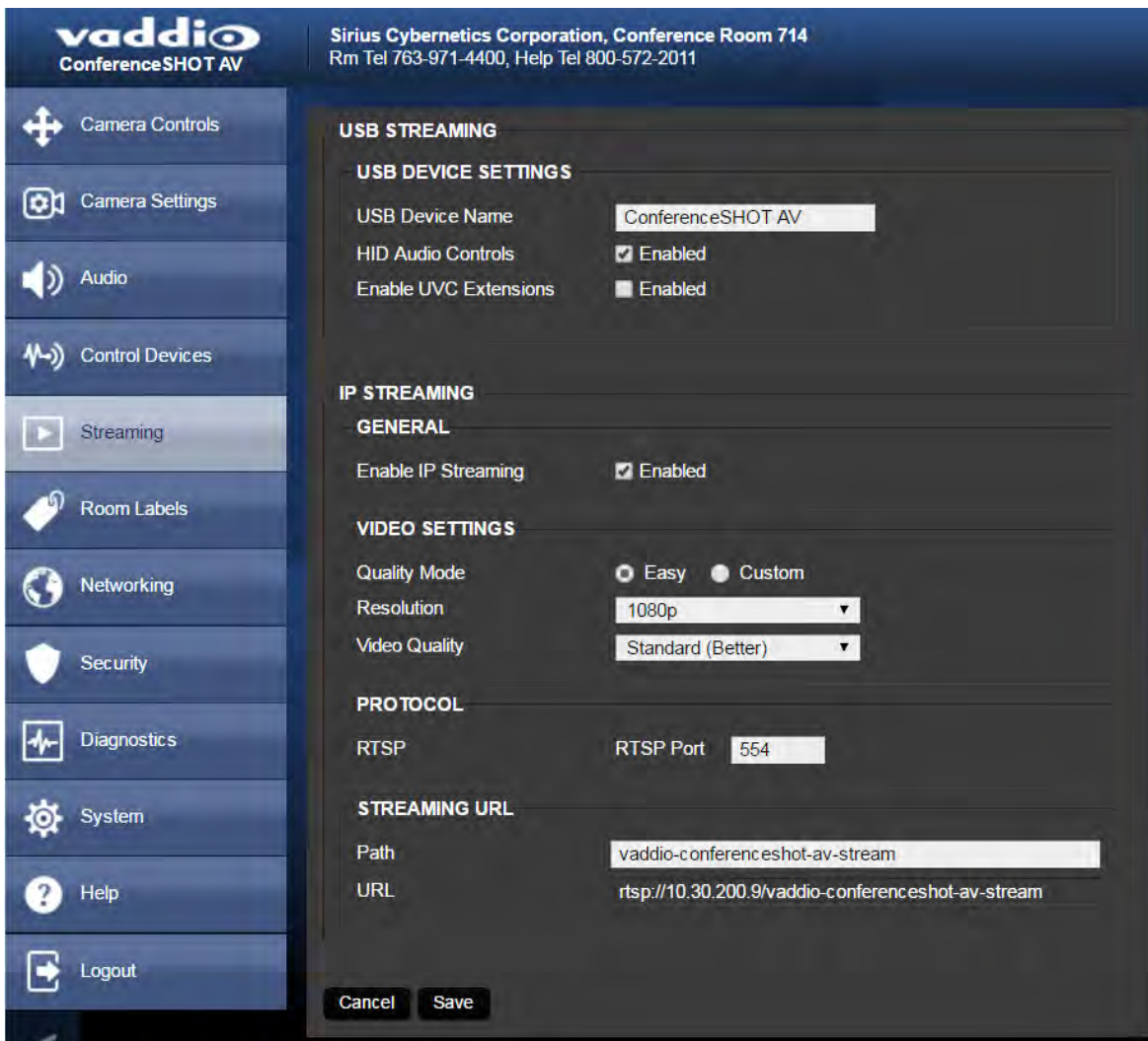


## Web Tasks for Administrators: Configuring Streaming Settings

### STREAMING PAGE

Things you can do on this page:

- Edit the [USB device name](#)
- Allow [soft client control](#) of the camera and audio
- [Enable/disable IP streaming and USB streaming](#) separately
- Set the [resolution, video quality, and frame rate](#) for IP streaming
- Specify the [IP streaming port and path/URL](#)



After making changes on this page, save them.

### Edit the USB Device Name

To change the way the camera shows up in your soft client's camera selection list, edit the USB Device Name.



## Allow Soft Client Control of the System

To allow conferencing applications to control the camera, check the Enabled box for Enable UVC Extensions.

To allow conferencing applications to control the audio, check the Enabled box for HID Audio Controls.

## Enable or Disable Streaming

IP and USB streaming are enabled by default. Use the Enable USB Streaming and Enable IP Streaming checkboxes to change this.

## Set IP Streaming Settings

If you are not sure about these settings, start with the defaults.

1. Select the video Quality Mode: Easy or Custom. Easy automatically sets the recommended frame rate; Custom provides additional control.
2. Select the desired IP streaming resolution.
3. Easy quality mode only: Select Video Quality.
4. Custom quality mode only: Select the desired IP streaming frame rate.
5. Custom quality mode only: Select Constant or Variable bit rate.
6. Custom quality mode, Variable bit rate only: Set the Quality (Quantization) slider.

**VIDEO SETTINGS**

Quality Mode:  Easy  Custom

Resolution: 720p

Video Quality: Standard (Better)

**VIDEO SETTINGS**

Quality Mode:  Easy  Custom

Resolution: 1080p

Frame Rate: 15 fps

Bit Rate:  Constant  Variable

Max Bandwidth: 7 Mbps

**VIDEO SETTINGS**

Quality Mode:  Easy  Custom

Resolution: 1080p

Frame Rate: 15 fps

Bit Rate:  Constant  Variable

Quality (Quantization): Good  Best 25

### Note

USB streaming resolution and frame rate are automatically negotiated between the camera and the conferencing application.

## Advanced IP Streaming Settings

**RTSP port:** Vaddio strongly recommends using the default RTSP port number unless you need to change it.

**Streaming URL:** Edit the path to change the portion of the streaming URL that appears after the IP address.

## Web Tasks for Administrators: Color, Lighting, and Speed Adjustments

The Camera Settings page lets you do these things:

- [Set up the color settings](#) the camera uses.
- Set the [pan, tilt, and zoom speeds](#) that will be used.



### Adjust the Color Settings

1. To allow the camera to compensate automatically for the light level, check the Auto Iris box. Leave it unchecked to adjust iris and gain manually.
2. Auto Iris adjustments – these adjust contrast between the brightest and darkest areas of the image.
  - If there is bright light behind the main subject of the shot, check the box for Back Light Compensation.
  - To increase contrast between the brightest and darkest areas, check the box for Wide Dynamic Range.

*Because Backlight Compensation reduces the contrast between extremes and Wide Dynamic Range increases it, they cannot be used together.*

3. To allow the camera to adjust the white balance automatically, check the Auto White Balance box. Leave it unchecked to adjust red gain and blue gain manually.
4. Detail – adjust the slider as required for the right image sharpness.

**Note**

*If the video looks grainy or “noisy,” try a lower Detail setting.*

5. Chroma – adjust the slider as needed for the right level of color intensity.
  6. Gamma – adjust the slider as needed for the desired range between bright areas and shadows.
- If you make a change that you don't like, start over by selecting and then deselecting Auto White Balance.

### Set Pan, Tilt, and Zoom Speeds

In the Global Preset Speeds section, set the speeds for movements to presets.

## Web Tasks for Administrators: Customizing the Audio

### AUDIO PAGE

The web interface provides separate controls for each of the audio inputs (microphones 1 and 2, USB playback) and outputs (line out, IP stream, and USB record).

### Controlling Volume

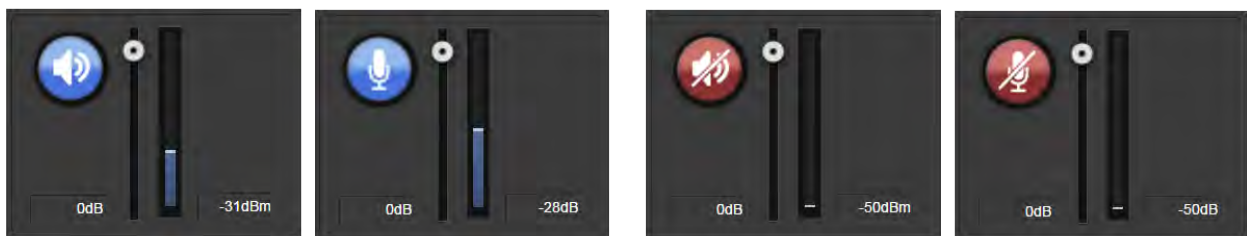
#### To manage individual audio inputs or outputs:

Use the slider for the appropriate audio input or output to set the volume. The audio read-out bar and numeric value can be helpful.

#### Note

*For best performance with most computers, we recommend setting the USB Record volume high.*

Use the button to mute the desired audio input or output.



#### To control all audio inputs or outputs at once:

Use the Microphone and Speakers controls on the Camera Controls page.



## Fine-Tuning

### To adjust microphones for best far-end audio performance:

Check or clear the checkboxes for the desired adjustments:

- **Echo Cancellation** – Selected by default. Under most circumstances, echo cancellation is desirable.
- **Noise Cancellation** – Selected by default; suppresses ambient noise such as the conference room's heating/air conditioning.
- **Automatic Gain Control** – Selected by default; adjusts gain to compensate for differences in the volume of people's voices.
- **Mic Boost** – Provides a 3 dB boost.



**To reduce the dynamic range from the connected speaker:**

If some people on the far end are inaudible while others are too loud, check the Compressor box.

**To adjust for more natural sound:**

Use the equalizer to adjust specific frequency ranges.

**To sync the sound with the video in the IP stream:**

Check the Delay box and enter a delay value in msec.





## Web Tasks for Administrators: Setting up Macros and Triggers

Macros define actions or sequences of actions. Triggers can specify a macro to execute when the trigger is activated, and a macro to execute when the trigger is turned off. The 10 software triggers are available via Telnet command, allowing you to program custom functions for third-party control devices. The two One Touch triggers allow you to define responses to Vaddio trigger devices such as StepVIEW mats.

### Writing and Editing Macros

CONTROL DEVICES PAGE, [MACROS TAB](#)

#### To define a macro:

1. Enter a name in the Macro Editor's Name field.
2. Enter one or more Telnet commands in the editing area.
3. Optional: Use the Test button to check your work while you are writing the macro.
4. Save your work when you are finished, or select New to start over.

#### To edit or copy an existing macro:

Select the Edit button associated with the macro, make your changes in the Macro Editor, and save your work.

To create a macro that is similar to an existing one, edit the existing macro and use the Save As button. The system prompts you to name the new macro.

The screenshot displays the Vaddio ConferenceSHOT AV web interface. The top navigation bar includes the Vaddio logo and contact information for Sirius Cybernetics Corporation. A left sidebar contains various system settings categories like Camera Controls, Audio, and Control Devices. The main content area is divided into two sections: 'MACROS' and 'MACRO EXECUTION LOG'. The 'MACROS' section shows a table with two entries: 'Preset 1' and 'Preset 2', each with 'Test' and 'Edit' buttons. Below this is the 'MACRO EDITOR' with a 'Name' input field and a large text area for commands. At the bottom of the editor are buttons for 'Test', 'Save', 'Save As...', and 'New'. The 'MACRO EXECUTION LOG' section is currently empty, with columns for 'ID', 'Macro', and 'Status'. At the bottom of the interface, there is a 'TRIGGER STATUS' bar with 10 software triggers and a 'Test Mode' toggle switch set to 'Off'.

### Testing Macros

The Macro Editor has a Test button to run a macro while you are editing it. You can also test macros after saving them. The Macro Execution Log shows the result of each test.

## Defining and Deleting Triggers

### CONTROL DEVICES PAGE, TRIGGERS TAB

#### To define a trigger:

For the trigger you are defining,

- Optional: Select a macro in the Execute Macro on Enter field. This macro will start when the trigger turns on.
- Optional: Select a macro in the Execute Macro on Exit field. This macro will start when the trigger turns off.

Because triggers are typically invoked programmatically, you cannot rename them.

#### To delete a trigger:

Select the X on that trigger's row. This is equivalent to setting both macros to (none).

The screenshot shows the 'TRIGGER EVENTS' configuration page. The table below represents the data shown in the interface:

Trigger	Execute Macro On Enter	Execute Macro On Exit	
Software 1	(none)	(none)	X
Software 2	(none)	(none)	X
Software 3	(none)	(none)	X
Software 4	(none)	(none)	X
Software 5	(none)	(none)	X
Software 6	(none)	(none)	X
Software 7	(none)	(none)	X
Software 8	(none)	(none)	X
Software 9	(none)	(none)	X
Software 10	(none)	(none)	X
One Touch 1	Presets 1	(none)	X
One Touch 2	Presets 2	(none)	X

At the bottom of the interface, the 'TRIGGER STATUS' section shows a 'Test Mode' toggle set to 'Off' and a row of buttons for each software trigger: Software, Software 1, Software 2, Software 3, Software 4, Software 5, Software 6, Software 7, Software 8, Software 9, Software 10.



## Testing Triggers

### CONTROL DEVICES PAGE

The Trigger Testing section is available from both tabs of the Control Devices page. Trigger indicators illuminate to show that the trigger is on.

#### To test a trigger:

1. Set Test Mode on.
2. Select the trigger to turn on.
3. Select the trigger again to turn it off.

#### Note

Turn off Test Mode when you are finished testing; otherwise, the triggers are not available to the control device. Diagnostic: If you send a `trigger` command via Telnet and the command returns an error message, check to see whether Test Mode is on.



## Web Tasks for Administrators: Reboots and Updates

The System page opens to the Firmware tab, where you can:

- Run a [firmware update](#)
- [Reboot](#) the camera
- Set the camera back to its [original factory settings](#)
- [Save the current configuration \(Export Data\)](#) or [restore a configuration \(Import Data\)](#)

The DIP Switches tab provides access to the soft DIP switches. The Peripherals tab enables you to update the firmware for the connected microphones.

The screenshot shows the vaddio ConferenceSHOT AV web interface. At the top, it identifies the user as 'Sirius Cybernetics Corporation, Conference Room 714' with contact information. The interface is divided into a sidebar and a main content area. The sidebar contains navigation icons for Camera Controls, Camera Settings, Audio, Control Devices, Streaming, Room Labels, Networking, Security, and Diagnostics. The main content area has three tabs: Firmware (selected), Dip Switches, and Peripherals. Under the Firmware tab, there are three sections: 'SYSTEM INFORMATION' listing System Version (1.0.0), Commit (598672663c7763ca45a02a6c8755f641068af509), Audio (1.03), Sensor Version (04.00), and PSoC Version (—); 'FIRMWARE UPDATE' with a 'Choose File' button and 'No file chosen' text, and a 'Begin Firmware Update...' button; 'SYSTEM UTILITIES' with buttons for 'Reboot...', 'Restore Factory Settings...', 'Export Data', and 'Import Data...'; and 'CAMERA UTILITIES' with a 'Pan-Tilt Reset' button.

### Reboot the Camera

This can help if the camera stops responding as you expect. In the System Utilities section, click Reboot.

### Save and Import or Restore a Configuration

If you need to configure several cameras the same way, you can configure the first one, export its configuration, and then import the configuration to the other cameras. The export downloads to your computer as a `.dat` file. The filename is the camera's hostname.

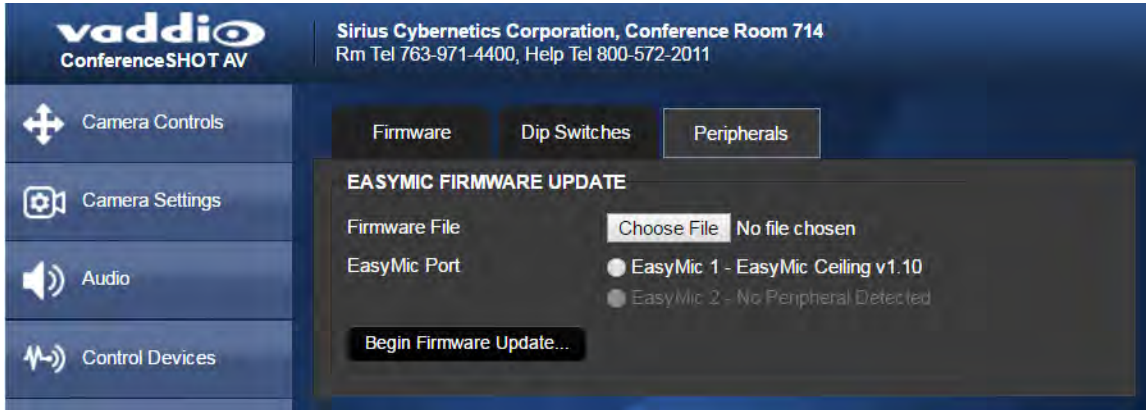
#### **Note**

*The camera cannot import a .dat file that was exported from a camera using a different version of software.*

## Start a Firmware Update

The process to update microphone firmware is the same as for updating the camera.

1. Be sure you have downloaded the appropriate update file to your computer.
2. If you are updating microphone firmware, go to the Peripherals tab.



3. Click Choose File and select the update file.
4. Click Begin Firmware Update.
5. READ the information in the Confirm dialog box and be sure you understand it. It may seem boring, but it could save you some time and aggravation.
6. When you are ready to start the update, click Continue. A progress message box opens and the indicator light on the front of the camera turns yellow to show the firmware update is in progress. If the update process presents warnings or error messages, read them carefully.  
The camera reboots when the update is complete.
7. Contact Vaddio technical support if you encounter any problems with the update.

### **Caution**

*Do not remove power or reset the camera while the indicator is yellow, showing a firmware update in progress. Interrupting a firmware update can make the camera unusable.*

## Camera Switch Settings

The DIP Switches tab of the System page provides access to these features:

**Camera ID (IR Settings)** – The IR Remote Commander can control up to three cameras in the same room with different IR frequencies. Use **IR Settings** switches 1 and 2 to select the frequency to identify the camera as camera 1, 2, or 3; then use the Camera Select buttons at the top of the remote to select the camera you want to control.

**Image Flip** – If mounting the camera upside-down, set IMAGE FLIP ON.

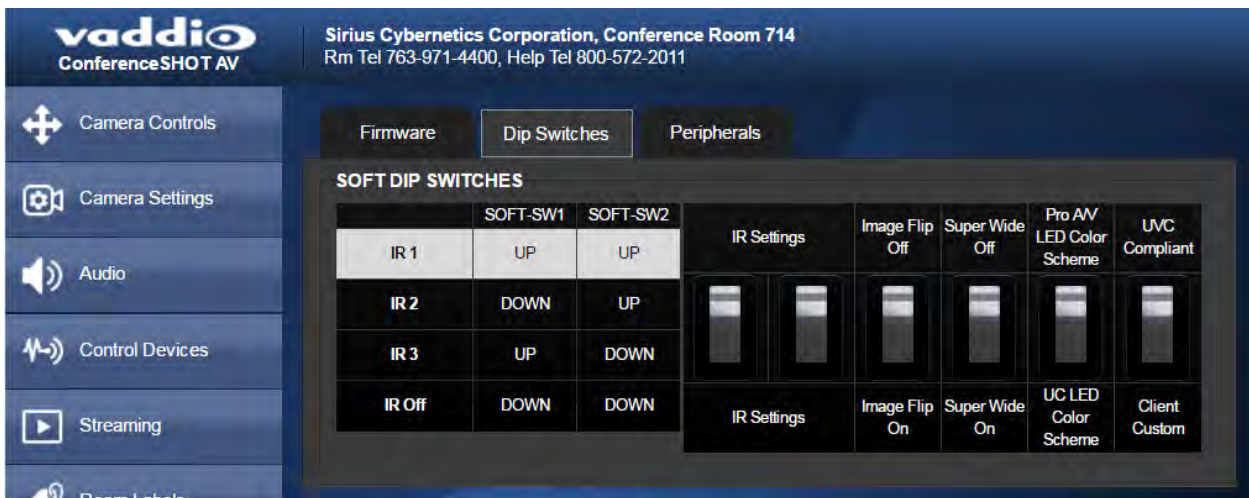
**Note**

*Inverted installation is not recommended when the ConferenceSHOT speaker is to be used.*

**Super Wide mode** – Provides a wider horizontal field of view and greater zoom. Some distortion may be present.

**Status light color scheme (Pro AV or UCC)** – Select the status light color scheme that meets your needs. The Pro AV color scheme matches the color scheme used in Vaddio's non-USB cameras.

**USB stream format (UVC Compliant or Client Custom)** – Client Custom enables far-end camera control when used with the Zoom soft client.



## Web Tasks for Administrators: Contacting Vaddio Technical Support

If you can't resolve an issue using your troubleshooting skills (or the [Troubleshooting](#) table in this manual), we are here to help.

You'll find information for contacting Vaddio Technical Support on the Help screen.



The screenshot displays the Vaddio ConferenceSHOT AV web interface. At the top left is the Vaddio logo and 'ConferenceSHOT AV'. To the right, it lists 'Sirius Cybernetics Corporation, Conference Room 714' and contact numbers: 'Rm Tel 763-971-4400, Help Tel 800-572-2011'. A sidebar on the left contains navigation options: Camera Controls, Camera Settings, Audio, Control Devices, Streaming, and Room Labels. The main content area is titled 'TECHNICAL SUPPORT' and provides the following information:

You can reach Vaddio technical support by calling:

- Direct:** +1 (763) 971-4428
- Toll Free:** +1 (800) 572-2011
- Fax:** +1 (763) 971-4464

Through email by sending your questions to:  
[support@vaddio.com](mailto:support@vaddio.com)

Or access support information directly on our web page at:  
<http://help.vaddio.com/conferenceshot-av>



## Web Tasks for Administrators: Viewing Diagnostic Logs

If you encounter a problem that you can't solve, your Vaddio technical support representative may ask you to download and email the log file available from the Diagnostics screen.

The screenshot shows the Vaddio ConferenceSHOT AV web interface. The top header includes the Vaddio logo and the text "Sirius Cybernetics Corporation, Conference Room 714" with contact information. A "Logout" button is in the top right. The left sidebar contains a navigation menu with icons and labels for: Camera Controls, Camera Settings, Audio, Control Devices, Streaming, Room Labels, Networking, Security, Diagnostics (highlighted), System, Help, and Logout. The main content area is titled "DIAGNOSTICS" and displays a scrollable log of system messages. The log entries include timestamps (e.g., Dec 9 18:05:07) and system identifiers (vaddio-conferenceshot-av-D8-80-39-62-A7-C5) followed by various system messages such as "sdhci-pltfm: SDHCI platform and OF driver helper", "mmc0: no vqmmc regulator found", "ledtrig-cpu: registered to indicate activity on CPUs", and "EasyMic[1] uif: lost connection 1 bytearray(b'')". At the bottom of the log area, there are four buttons: "Download", "Refresh", "Clear", and "Restore".

## Troubleshooting and Care

When the camera doesn't behave as you expect, check the indicator light on the front before you do anything else.

Use this table to determine whether it's time to call Vaddio Technical Support.

What is it doing?	Possible causes	Check and correct
Nothing. The light on the front is off.	At least one of the cables is bad.	Check using known good cables.
	The wall outlet is not active. (Check by finding out if it powers something else, such as a laptop or phone charger.)	Use a different outlet.
	The camera or its power supply is bad.	Contact your reseller or Vaddio Technical Support.
The camera is not responding to the remote and the light is yellow.	A firmware update is in progress.	Wait a few minutes, and try again when the light turns blue.
The camera does not respond to the remote, but the web interface is available	The remote is not using the same IR channel as the camera.	Push the Camera Select 1 button on the remote.
	The batteries in the remote are dead.	Put new batteries in the remote.
The camera responds to the remote but the web interface is not available.	The camera is not using the IP address you browsed to.	Press the Data Screen button on the remote to see camera information.
No H.264 video stream.	IP streaming is not enabled.	Enable IP streaming: Streaming page in the web interface.
No USB video stream.	USB streaming is not enabled.	Enable USB streaming: Streaming page in the web interface.
Status light continues to blink blue.	The USB cable is not connected.	Connect the USB cable.
Status light blinks yellow	Pan or tilt motor is out of calibration	Reset the pan and tilt motors. See Correct a Motor Calibration Error.

### Correct a Motor Calibration Error

If the web interface presents an error message about the motors, or if the camera's status light is blinking yellow, you will need to reset the pan and tilt motors.

1. On the Camera Controls page, select Settings to open the pan and tilt settings box;  
OR  
On the System page, go to the Firmware tab if you are on a different tab.
2. Select Pan-Tilt Reset. The motors recalibrate. This takes a few seconds.

## Status Light

The light in the camera's base indicates its current state.

- Blue – Camera is active
- Purple – Standby mode or booting
- Yellow – Firmware update is in progress
- Blinking blue – Video mute is on (Pro A/V color scheme) or USB cable is disconnected (UC color scheme)
- Blinking yellow – Motor out of calibration
- Blinking purple – Error

### Caution

*Do not remove power or reset the camera while the indicator is yellow, showing a firmware update in progress. Interrupting a firmware update can make the camera unusable.*

## Restoring Default Camera Settings

Factory reset clears most settings and returns soft DIP switches (on the DIP Switches tab of the System page) to their default positions.

Log on using the admin account, go to the System page's Firmware tab, and click Restore Factory Settings.

The screenshot displays the Vaddio ConferenceSHOT AV web interface. The top header includes the Vaddio logo and the text "Sirius Cybernetics Corporation, Conference Room 714" with contact information. A left-hand navigation menu lists various settings categories: Camera Controls, Camera Settings, Audio, Control Devices, Streaming, Room Labels, Networking, Security, and Diagnostics. The main content area is titled "Firmware" and contains three sub-sections: "SYSTEM INFORMATION", "FIRMWARE UPDATE", and "SYSTEM UTILITIES".

SYSTEM INFORMATION	
System Version	ConferenceSHOT AV 1.0.0
Commit	598672663c7763ca45a02a6c8755f641068af509
Audio	1.03
Sensor Version	04.00
PSoC Version	--

**FIRMWARE UPDATE**

Firmware File:  No file chosen

**SYSTEM UTILITIES**

**CAMERA UTILITIES**



## Operation, Storage, and Care

For smears or smudges on the product, wipe with a clean, soft cloth. Use a lens cleaner on the lens. Do not use any abrasive chemicals.

Keep this device away from food and liquids.

Do not operate or store the device under any of the following conditions:

- Temperatures above 40°C (104°F) or below 0°C (32°F)
- High humidity, condensing or wet environments
- Inclement weather
- Severe vibration
- Between converging tectonic plates
- Dry environments with an excess of static discharge

Do not attempt to take this product apart. There are no user-serviceable components inside.

## Compliance Statements and Declarations of Conformity

Compliance testing was performed to the following regulations:

FCC Part 15 (15.107, 15.109), Subpart B	Class A
ICES-003, Issue 54: 2012	Class A
EMC Directive 2004/108/EC	Class A
EN 55022: December 2010	Class A
EN 55024: November 2010	Class A
KN22 2008 (CISPR 22: 2006)	Class A
KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)	Class A
IEC 60950-1:2005 (2nd Edition); Am 1: 2009 + Am 2: 2013	Safety
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013	Safety

### FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B, 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/her own expense.



Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by Vaddio can affect emission compliance and could void the user's authority to operate this equipment.

### ICES-003 Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.



## European Compliance

This product has been evaluated for electromagnetic compatibility under the EMC Directive for Emissions and Immunity and meets the requirements for a Class A digital device. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Standard(s) To Which Conformity Is Declared:



### **EMC Directive 2004/108/EC**

**EN 55022: December 2010**

**EN 55024: November 2010**

EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001

EN 61000-4-3: 2006 + A1: 2008

EN 61000-4-4: 2004 + Corrigendum 2006

EN 61000-4-5: 2006

EN 61000-4-6: 2009

EN 61000-4-8: 2010

EN 61000-4-11: 2004

### **KN22 2008 (CISPR 22: 2006)**

**KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)**

EN 61000-4-2

EN 61000-4-3

EN 61000-4-4

EN 61000-4-5

EN 61000-4-6

EN 61000-4-8

EN 61000-4-11

**IEC 60950-1: 2005 (2nd Edition); Am 1: 2009 + Am 2: 2013**

**EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013**

Conducted and Radiated Emissions

Immunity

Electrostatic Discharge

Radiated Immunity

Electrical Fast Transients

Surge Immunity

Conducted Immunity

Power Frequency Magnetic Field

Voltage Dips, Interrupts and

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Conducted Immunity

Power Frequency Magnetic Field

Voltage Dips, Interrupts and

Fluctuations

Safety

Safety

## Warranty Information

See Vaddio Warranty, Service and Return Policies posted on [support.vaddio.com](https://support.vaddio.com) for complete details.

**Hardware\* warranty:** Two (2) year limited warranty on all parts and labor for Vaddio manufactured products. Vaddio warrants its manufactured products against defects in materials and workmanship for a period of two years from the day of purchase, to the original purchaser, if Vaddio receives notice of such defects during the warranty. Vaddio, at its option, will repair or replace products that prove to be defective. Vaddio manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

**Exclusions:** The above warranty shall not apply to defects resulting from improper or inadequate maintenance by the customer, customers applied software or interfacing, unauthorized modifications or misuse, mishandling, operation outside the normal environmental specifications for the product, use of the incorrect power supply, modified power supply or improper site operation and maintenance. OEM and special order products manufactured by other companies are excluded and are covered by the manufacturer's warranty.

**Vaddio Customer Service:** Vaddio will test, repair, or replace the product or products without charge if the unit is under warranty. If the product is out of warranty, Vaddio will test then repair the product or products. The cost of parts and labor charge will be estimated by a technician and confirmed by the customer prior to repair. All components must be returned for testing as a complete unit. Vaddio will not accept responsibility for shipment after it has left the premises.

**Vaddio Technical Support:** Vaddio technicians will determine and discuss with the customer the criteria for repair costs and/or replacement. Vaddio Technical Support can be contacted by email at [support@vaddio.com](mailto:support@vaddio.com) or by phone at one of the phone numbers listed on [support.vaddio.com](https://support.vaddio.com).

**Return Material Authorization (RMA) number:** Before returning a product for repair or replacement request an RMA from Vaddio's technical support. Provide the technician with a return phone number, e-mail address, shipping address, product serial numbers and original purchase order number. Describe the reason for repairs or returns as well as the date of purchase. See the General RMA Terms and Procedures section for more information. RMAs are valid for 30 days and will be issued to Vaddio dealers only. End users must return products through Vaddio dealers. Include the assigned RMA number in all correspondence with Vaddio. Write the assigned RMA number clearly on the shipping label of the box when returning the product. All products returned for credit are subject to a restocking charge without exception. Special order product are not returnable.

**Voided warranty:** The warranty does not apply if the original serial number has been removed or if the product has been disassembled or damaged through misuse, accident, modifications, use of incorrect power supply, use of a modified power supply or unauthorized repair.

**Shipping and handling:** Vaddio will not pay for inbound shipping transportation or insurance charges or accept any responsibility for laws and ordinances from inbound transit. Vaddio will pay for outbound shipping, transportation, and insurance charges for all items under warranty but will not assume responsibility for loss and/or damage by the outbound freight carrier. If the return shipment appears damaged, retain the original boxes and packing material for inspection by the carrier. Contact your carrier immediately.

**Products not under warranty:** Payment arrangements are required before outbound shipment for all out of warranty products.

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Visit us at [support.vaddio.com](http://support.vaddio.com) for firmware updates, specifications, drawings, manuals, technical support information, and more.

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In British Columbia, Milestone AV Technologies ULC carries on business as MAVT Milestone AV Technologies ULC.

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The logo for Vaddio, featuring the word "vaddio" in a bold, blue, lowercase sans-serif font. The final letter "o" is stylized as a thick blue circle with a smaller solid blue circle inside it, resembling an eye or a camera lens. A registered trademark symbol (®) is located at the top right of the "o".

**vaddio®**