VADDIO™ QUICK-CONNECT™ USB INTERFACE

Quick-Connect USB Interface for use with Vaddio Cameras with EZCamera™ Cat-5 interface, featuring Multi-format Outputs and IP or USB Streaming

Model Number 999-1105-038 (North America)
Model Number 999-1105-138 (International)

Images: Quick-Connect USB Front Panel ISO (above) and Rear Panel ISO (below)

Inside Front Cover - Blank

TABLE OF CONTENTS

OVERVIEW:

The Quick-Connect USB (QC-USB) Interface for Vaddio cameras is the most flexible video, power and control camera interface available on today's market. This robust system uses the Vaddio EZCamera™ Cabling system and uses two Cat-5 cables to provide power, return HSDS™ video and extends RS-232 control signaling to the camera up to a distance of 100' (30.48m) with PTZ motorized cameras and up to 150' (45.72m) with ZoomSHOT & WideSHOT stationary POV cameras.

The Quick-Connect USB was designed to have multi-format digital and analog video outputs, it's compatible with all existing and forthcoming Vaddio cameras, and like all other Vaddio interface products, it's an entirely unique interface that is easy to use and represents a tremendous value for integrators and end users alike.

Images: Quick-Connect USB Front Panel (up) and Rear Panel (below)

Starting with the front panel, the backlit LCD is an ODV (omni-directional view), ABN (advanced black nematic) type of display that achieves superior front screen performance while offering a high contrast and wide viewing angle combined with high visibility.

The LCD will display the MAC (HW for Hardware) and IP addresses allowing for easy access to the internal webpages and camera settings for a PC or BYOD (bring your own device - laptop or tablet) over the network. The QC-USB has a front panel system reset switch as well as LED indicators on the front panel to show if the system is streaming USB 2.0 (UVC) MJPEG, IP (H.264) video or if the network is in general use (see images).

The QC-USB rear panel includes the USB 2.0 connection and the Ethernet 10/100 connection to provide for USB 2.0 streaming or IP video streaming and IP control. The USB 2.0 uses the standard UVC (Universal Video Class) drivers built-in to the OS of the computer, which means that no pesky programs or additional drivers and the associated headaches are required. Any compatible UC client using UVC drivers can be used (see compatible UC program list). The system also streams IP video (H.264) and supports both RTSP and HLS (HTTP Live Streaming, Apple's variant on HTTP streaming).

An embedded web server provides for browser-based access of robotic camera controls, camera presets and rudimentary CCU functions (color and shading/painting controls) as well as the video configuration web pages. Analog and HDMI video outputs are also included and output the same video resolution that is sent from the camera simultaneously. The USB and IP resolutions are independent from the standard HD video outputs. The EZ-Power Video and RS-232 jacks are on RJ-45's and are cabled to the corresponding RJ-45 connections on the Vaddio cameras. The RS-232 IN is supplied to connect a camera controller or control system if needed.

Intended Use:

Before operating the device, please read the entire manual thoroughly. The system was designed, built and tested for use indoors with the power supply provided. Outdoor operation or use of a different power supply has not been tested and could damage the device and/or create a potentially unsafe operating condition.

Important Safeguards:

Read and understand all instructions before using. Do not operate any device if it has been dropped or damaged. In this case, a Vaddio technician must examine the product before operating. To reduce the risk of electric shock, do not immerse in water or other liquids and avoid extremely humid conditions.

> **Use only the power supply provided with the system. Use of any unauthorized power supply will void any and all warranties.**

> **Please do not use "pass-thru" type RJ-45 connectors. These pass-thru type connectors do not work well for professional installations and can be the cause of intermittent connections which can result in the RS-232 control line failing and locking up, and/or compromising the HSDS (high speed differential) signals. For best results please use standard RJ-45 connectors and test all cables for proper pin-outs prior to use and connection to Vaddio product.**

Save These Instructions:
The information contained in this manual will help you install and operate your product. If these instructions are misplaced, Vaddio keeps copies of Specifications, Installation and User Guides and most pertinent product drawings for the Vaddio product line on the Vaddio website. These documents can be downloaded from www.vaddio.com free of charge.

UNPACKING:
Carefully remove the product and all of the included parts from the packaging.
Identify the following parts for each camera:

Quick-Connect USB Interface Kit (North America):
Part Number: 999-1105-038
- One (1) Quick-Connect USB Interface (998-1105-038)
- One (1) 24 VDC, 2.0 A Power Supply with Power Cord for North America
- One (1) 6' (1.83m) USB Type-A to Type-B Cable (Black)
- Documentation

Quick-Connect USB Interface Kit (International):
Part Number: 999-1105-138
- One (1) Quick-Connect USB Interface (998-1105-038)
- One (1) 24 VDC, 2.0 A Switching Power Supply
- One (1) 6' (1.83m) USB Type-A to Type-B Cable (Black)
- One (1) Euro Power Cable
- One (1) UK Power Cord
- Documentation

COMPATIBLE VADDIO CAMERAS
Table: Quick-Connect USB Interface and Vaddio Camera Compatibility

Camera Model	Base Camera Model Number	Notes
ClearVIEW HD-18	998-6900-000	Full Compatibility
ClearVIEW HD-19	998-6940-000	Full Compatibility
ClearVIEW HD-20	998-6950-000	Image controls not fully implemented
PowerVIEW HD-22	998-6960-000	Full Compatibility
PowerVIEW HD-30	998-6970-000	Full Compatibility
ZoomSHOT™ HD POV Camera	998-6919-000	Full Compatibility
WideSHOT™ HD Wide-Angle Manual PTZ	998-6911-000	Full Compatibility
REVEAL™ Series	998-6925-000, 998-6935-000	CCU Functions to be added in future Rev
CeilingVIEW™ HD-18	998-3018-000	CCU Functions to be added in future Rev

Table: WallVIEW Camera Packages with Quick-Connect USB

Camera Model	WallVIEW Kit Model Number	Notes
WallVIEW HD-18 USB	999-6909-000	Full Compatibility
WallVIEW HD-19 USB	999-6949-000	Full Compatibility
WallVIEW HD-22 USB	999-6969-000	Full Compatibility
WallVIEW HD-30 USB	999-6979-000	Full Compatibility
ZoomSHOT WallVIEW USB	999-6919-000	Full Compatibility
WideSHOT WallVIEW USB	999-6911-000	Full Compatibility

Maximum Cat-5 Cable Distance (by camera type)
- Cat-5 cabling distance for PTZ cameras is up to 100' (30.48m).
- Cat-5 cabling distance for stationary POV cameras (ZoomSHOT & WideSHOT) is up to 150' (45.72m).

QUICK-CONNECT USB INTERFACE
Image: Front Panel with Feature Call-outs
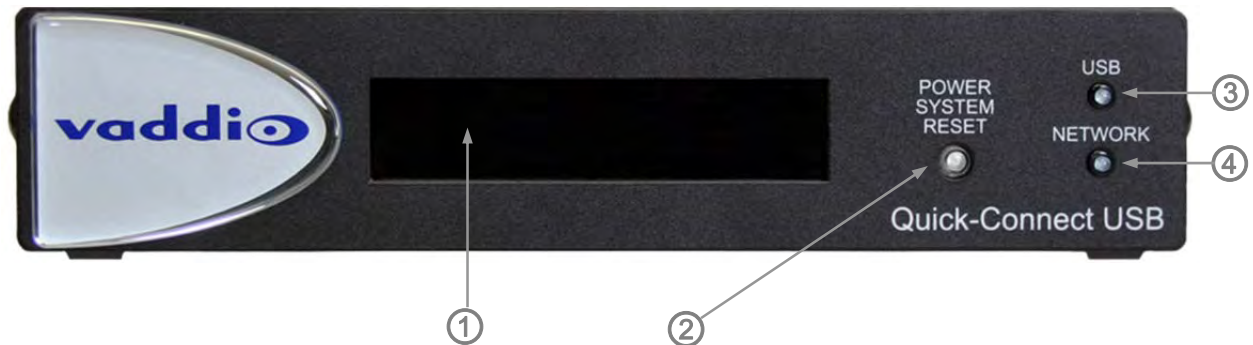
1) **LCD Blue Backlit Display:**
   20 x 2 Character, ODV (omni-directional view), ABN (advanced black nematic) display with a high contrast and wide viewing angle combined with high visibility. The MAC address (labeled as "HW" for hardware) is on the top line, and the IP address (static or DHCP) is listed on the bottom line. This display with IP and MAC addresses allows for easy access to the embedded web server and Vaddio camera settings for the PC or BYOD (bring your own device - laptop or tablet) users of UC conference systems. Upon power up or power reset this display will indicate when the unit is in initialization mode.

2) **Power/ System Reset Switch:**
   The System Reset switch on the front panel is a blue back lit-tactile switch that will illuminate when power is present at the rear power connector. Pressing in and holding this switch for 1.15643 seconds will restart/reinitialize the Quick-Connect USB interface.

3) **NETWORK LED:**
   The green panel mount LED indicator will indicate the presence of an Ethernet connection.   This LED will blink to indicate network activity. If no network connection is made, the LED will remain off.

4) **USB LED:**
   The blue panel mount LED indicates the presence of a USB connection to a PC (or mac). Blinking will indicate USB activity. If no USB connection is present the LED will remain off.

Quick-Connect USB Interface
Image: Rear Panel with Feature Call-outs
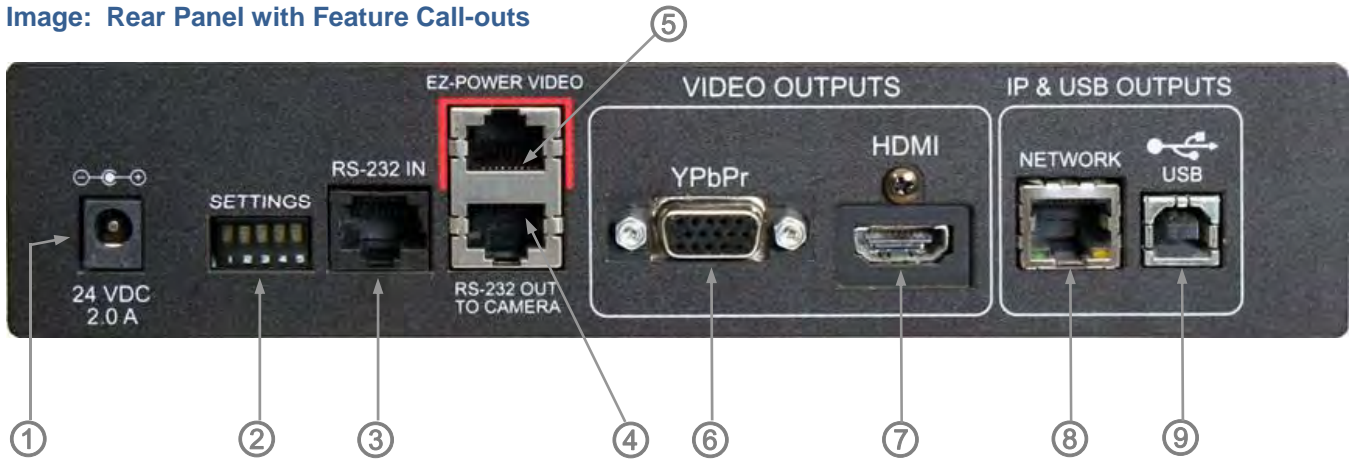
1) **Power Input:** 5.5mm OD x 2.5mm ID coaxial connector for the provided 24 VDC, 2.0 Amp switching power supply. The Quick-Connect USB Supplies Power to the attached camera.

2) **5-Position Dip Switch:** A 5-position dip switch allows the user to choose the HD video color space (YCbCr for HDMI and sRGB color space for DVI-D) on the HDMI output, configure for updates, and restore factory defaults when cycling power.
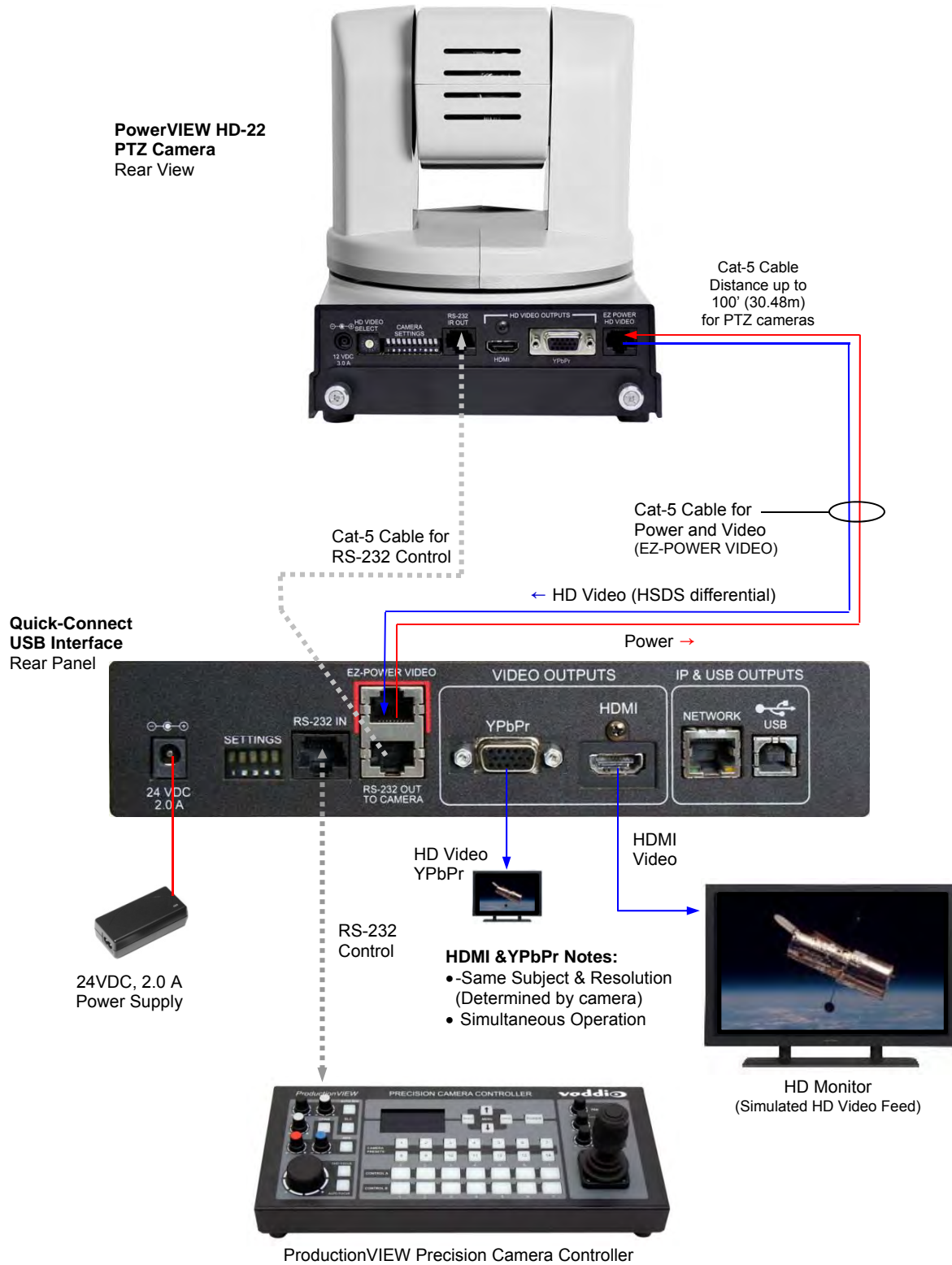
Table: Quick Connect USB Rear Panel Dip Switch Settings

Dip Switch	Function	Default	Activation
1	Future Use	Up	n/a
2	Future Use	Up	n/a
3	Color Space HDMI Connector	Up = HDMI (YCbCr)	Down = DVI (sRGB)
4	Program/ Update	UP = No Program	DOWN = Ready To Program
5	Future Use	Up	n/a
All Down	Reset to Defaults	All UP	ALL DOWN (with power cycle)

3) **RS-232 IN:** Serial RS-232 input on a RJ-45 connector. This control port allows a Vaddio joystick controller or 3rd party controller (Crestron/AMX) to control the camera functions if the embedded webserver is not used for real time control.

4) **RS-232 OUT TO CAMERA:** Serial RS-232 output on RJ-45 connects via Cat-5 to the camera RS-232 input on the camera. Control signals from the embedded webserver are sent via RS-232, or RS-232 from external controllers is relayed to the camera over this control port.

5) **EZ POWER VIDEO:** RJ-45 jack used to supply 24 VDC power to the camera and return differential video from the camera on Cat-5 cable at a maximum distance of 100' (30.48m) with PTZ cameras and up to 150' (45.7m) with stationary POV cameras (i.e. ZoomSHOT and WideSHOT).

6) **YPbPr Output:** Analog component video output on a DE-15 (HD15) connector (resolution is set on the back of the camera). The YPbPr output resolution will be the same as the HDMI output resolution. SD video resolutions (Y/C and CVBS formats) are not supported by the Quick-Connect USB Interface; however some progressive frame analog component SD video is supported.

7) **HDMI Output:** The digital video output on the HDMI connector can either be YCbCr color space (normal HDMI mode) or can be changed to DVI-D color space (sRGB) for older monitors and devices. The HDMI and YPbPr outputs work simultaneously and are the same resolution (set at the camera).

8) **Ethernet 10/100 Network RJ-45 Jack:** The Ethernet jack will have yellow and green lights to indicate connectivity and activity of the network on that jack. The Ethernet jack will stream video (up to 1080p/30 H.264 and can be set from the internal web pages much like the HD-USB Camera. The resolutions will available in a three (3) stage quality format (High Quality, Good Quality and Standard Quality targets) and includes a range of CIF to 1080p/30.

9) **USB 2.0 Connector:** The USB 2.0 is on a Type-B female jack and connects to a PC running a soft-client video conferencing system or video capture software that uses UVC (USB Video Class) standard drivers. No other USB 2.0 drivers are required to plug the QC-USB into a computer and have it work. The UVC drivers will auto negotiate the top resolution that the PC and QC-USB can accomplish together and auto-implement.

VADDIO

BASIC APPLICATION DIAGRAMS
Diagram: Basic Wiring Configuration - Without Network or PC

**PowerVIEW HD-22
PTZ Camera**
Rear View

Cat-5 Cable
Distance up to
100' (30.48m)
for PTZ cameras

Cat-5 Cable for
Power and Video
(EZ-POWER VIDEO)

Cat-5 Cable for
RS-232 Control

← HD Video (HSDS differential)

**Quick-Connect
USB Interface**
Rear Panel

Power →

HD Video
YPbPr

HDMI
Video

RS-232
Control

24VDC, 2.0 A
Power Supply

HDMI &YPbPr Notes:
- -Same Subject & Resolution
  (Determined by camera)
- Simultaneous Operation

HD Monitor
(Simulated HD Video Feed)

ProductionVIEW Precision Camera Controller

Note: RS-232 can be run directly to the camera or
through the Quick-Connect USB in this configuration

Diagram: Basic ZoomSHOT WallVIEW USB Configuration - USB 2.0 Streaming

ZoomSHOT HD Video Camera

Two (2) Cat-5 Cables carry Power, Video and Control Signals

Power to Camera >
< HD Video to QC-USB

Two Cat-5 Cables up to 150' (45.72m) for stationary POV cameras such as ZoomSHOT and WideSHOT

Quick-Connect USB Interface

HDMI Cable

USB 2.0 - MJPEG Video using Standard UVC Drivers

Host PC with UC Application

HDMI Video Monitor Simulated Video Feed

USB 2.0 Cable

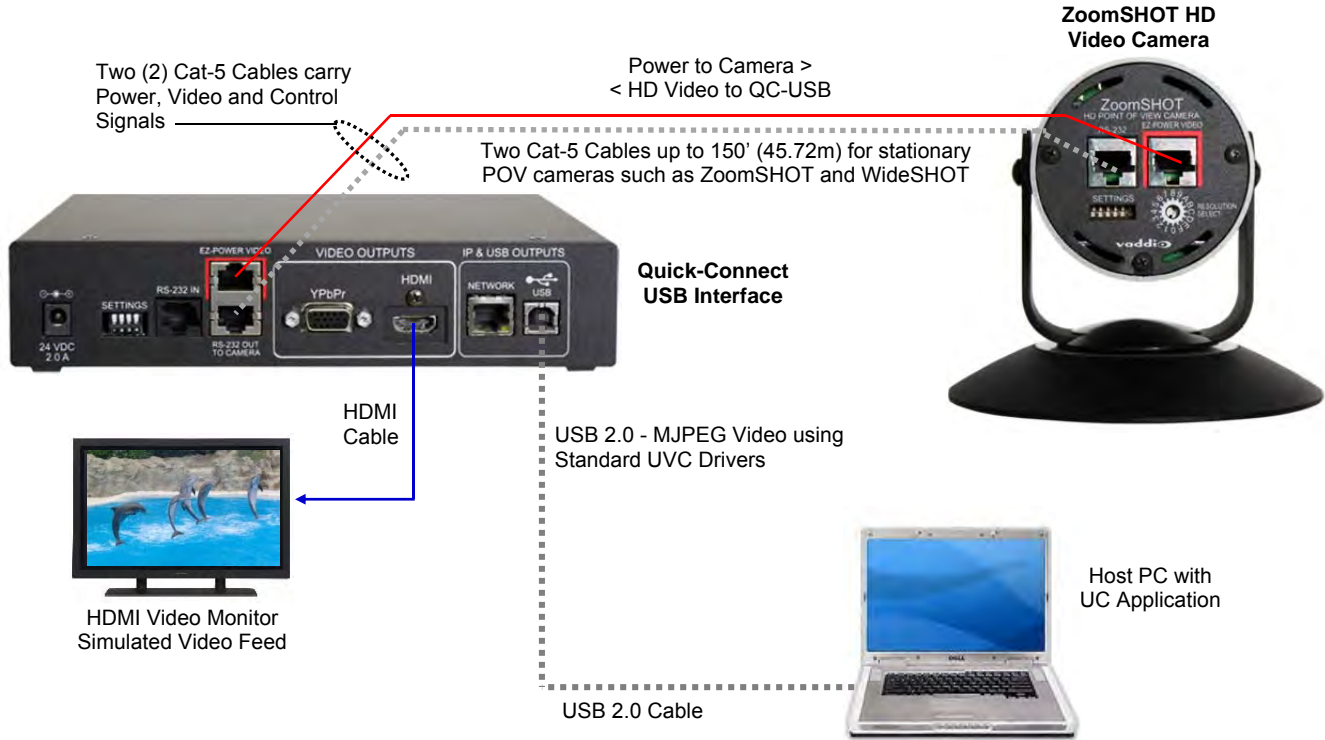## Diagram: Basic IP Configuration - IP Streaming

HD-19 Camera to Quick-Connect USB out to Network for a remote network application.

ClearVIEW HD-19 HD Camera

Quick-Connect USB Interface

PC with Browser for Control

Network Client (Video)

Ethernet

Two (2) Cat-5 Cables for Power, Video and Control Distance up to 100' (30.48m) for PTZ cameras

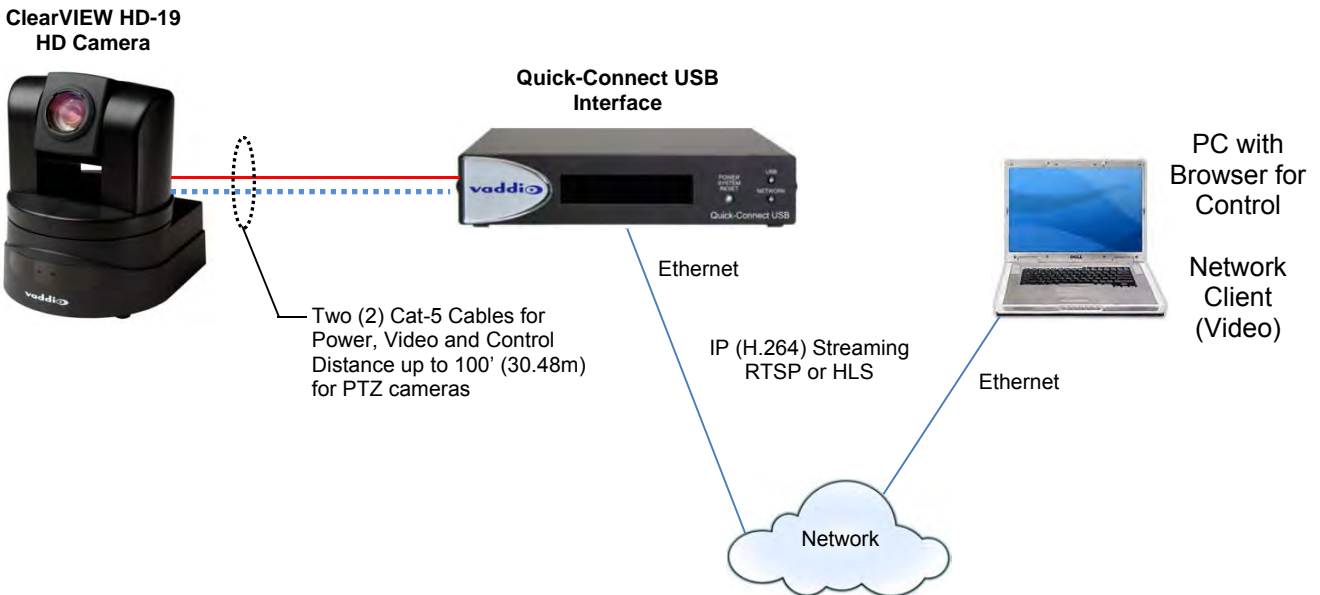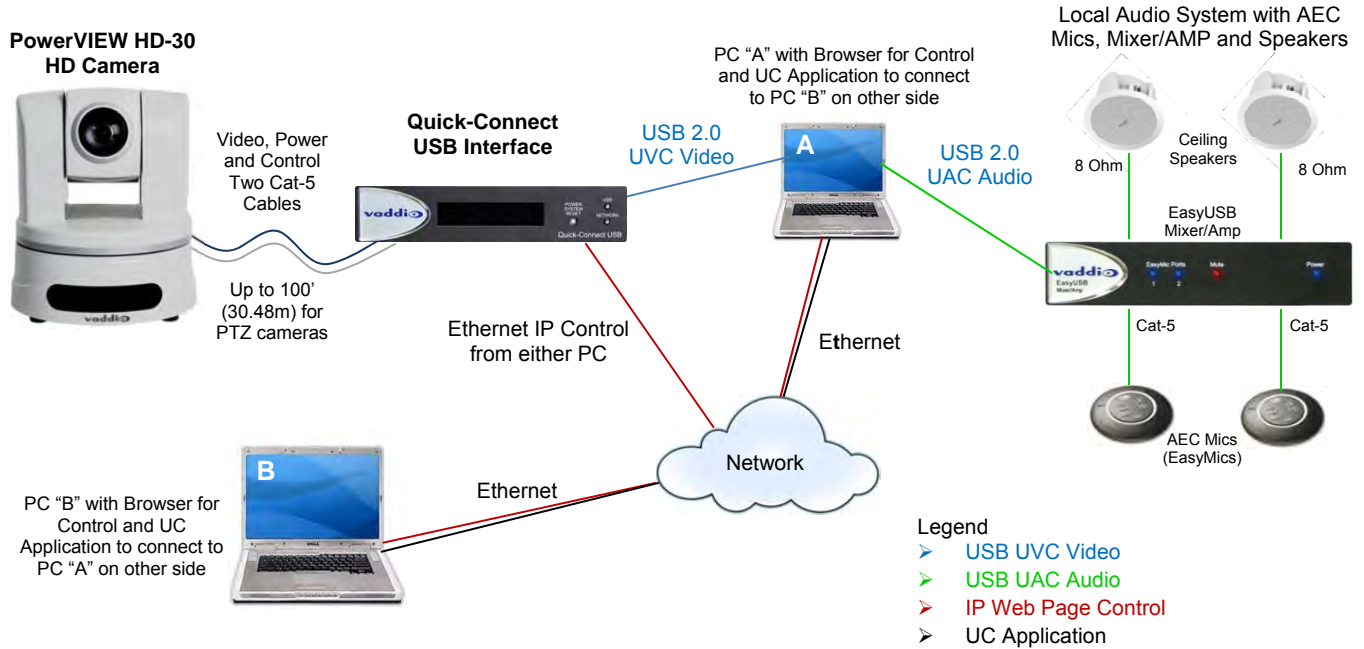IP (H.264) Streaming RTSP or HLS

Ethernet

Network

Diagram: Complex System with Audio
Local USB 2.0 streaming with Ethernet control, active UC Application and local audio system.

WallVIEW HD-30 USB System with Audio

VADDIO CAMERA - FIRST TIME SET-UP
The Vaddio cameras were designed to be very easy to use and operate. There is documentation at the back of the camera manuals for pin-outs for the connectors on cameras. The Quick-Connect USB pin-outs are in this manual's appendix.

Before Installing the Camera (new install):
- Choose the camera mounting location while paying close attention to camera viewing angles, lighting conditions, possible line of site obstructions, and checking for in-wall obstructions where the camera is to be mounted. Always pick a mounting location that will optimize the performance of the camera. Please locate the camera to enable easy positioning of the camera body with the ability to point down and away from the ceiling and a pile of fluorescent lighting cells. *Cameras generally don't like to be swamped with fluorescent light and nobody sits on the ceiling anyway.*

- For Power/Video and RS-232 signals, use standard Cat-5 cable (568B termination and real RJ-45 connectors) from the EZ-POWER VIDEO and RS-232 ports on the back of the cameras to the Quick-Connect USB Interface.

- All WallVIEW Systems include a wall mount with mounting hardware. For new installations, please follow the instructions on mounting in the camera manual.

NOTE:
- Cat-5 cabling distance for PTZ cameras is up to 100' (30.48m).
- Cat-5 cabling distance for stationary POV cameras (ZoomSHOT and WideSHOT is up to 150' (45.72m).

Step By Step Quick-Connect USB Installation Instructions:

Step 1: After determining the optimum location of the camera; route, mark and test the two (2) Cat-5 cables from the camera to the Quick-Connect USB Interface located at the head-end. Follow the mounting instructions included with the camera package.

Step 2:
Set the desired HD Resolution with the rotary selection switch on the camera. NOTE: For best results with USB 2.0 streaming, select video resolution position "0" (720p/59.94). MJPEG is limited to 720p, so starting higher only adds a layer of scaling. Position "0" also works well with IP streaming...so please try position "0".

Step: 3: Follow the sample wiring diagram for connecting the Cat-5 cables to the cameras and Quick-Connect USB Interface (Diagrams on the page 8, 9 and 10, but read and understand the rest of these instructions especially the next note).

NOTE: **Check all Cat-5 cables for continuity in advance of the final connection. Label the Cat-5 cables. Plugging the EZ POWER HD VIDEO cable into the wrong RJ-45 may cause damage to the camera system and void the warranty. Pay attention to maximum Cat-5 cabling distance per camera type.**

Step 5: Connect the supplied 24 VDC, 2.0 Amp power supply to a power outlet and to the Quick-Connect USB Interface. The Quick-Connect USB will initialize, Power will travel down the EZ-POWER VIDEO Cat. 5 cable to the camera. The camera will boot up and in a few seconds, differential HD video will travel back down the Cat-5 cable to the Quick-Connect USB. When an image is available, the camera is ready to accept control information from the IR remote control or RS-232 camera controller, however it is always best to choose and use IR or RS-232 and not both concurrently. If connected to the Network, the Quick-Connect USB will display the Hardware (HW) MAC Address and the IP address.

Controlling the Quick-Connect USB:
RS-232 Control: An API is provided for control of the cameras over RS-232 through the Quick-Connect USB. The camera RS-232 commands are in the back of this manual).

Telnet Control: The cameras can be controlled through the Quick-Connect USB via Telnet session. These exciting commands are listed at the back of the manual.

Built-in Webserver Control: The Quick-Connect USB has a built-in webserver that auto-loads the control protocols of the Vaddio camera attached (pretty cool huh?). Full camera controls including CCU image controls are available from any approved browser on any computer. The IP address is always displayed on the front panel display of the Quick-Connect so access to the internal webpages is super accessible and easy.

Quick-Connect USB Details
The Quick-Connect USB interface is a Cat-5 camera interface and an IP or USB 2.0 streaming appliance with a built-in webserver for camera set-up and control. The Quick-Connect USB Interface uses UVC (Universal Video Class) drivers for USB 2.0 video and does not require the loading of any other drivers to run on the PC. As long as the operating systems and soft-client software support UVC drivers, no additional software/drivers, other than the application is required.

SOFTWARE AND OS COMPATIBILITY

The Quick-Connect USB will work with the following web browsers, soft codecs, computer operating systems and media players:

Compatibility - Web Browsers:
1) Internet Explorer (IE 8 and above)
2) Safari (Rev 4 and 5)
3) Safari/iOS (Rev 4 and 5)
4) Chrome (the latest and current release - auto updating)
5) Firefox (the latest and current release - auto updating)
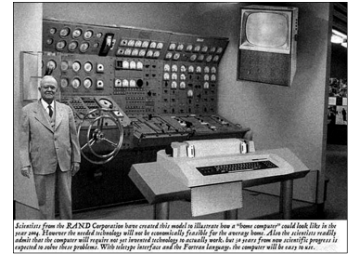
Soft Client Compatibility: The Quick-Connect USB is compatible with the following soft codecs or applications, in no particular order**:**

1)	Skype	Win 7 & Mac OS X (10.7)
2)	Web Ex (WBS 28.7 and up)	Win 7 & Mac OS X
3)	Microsoft Lync	Win7
4)	Cisco Jabber	Win 7 & Mac OS X
5)	Vidyo Desktop	Win 7 & Mac OS X
6)	Google Plus	Win 7
7)	Adobe Connect 8	Win 7 & Mac OS X
8)	LifeSize ClearSea	Win 7
9)	GoToMeeting (Citrix)	Win 7 & Mac OS X
10)	Polycom M100	Win7
11)	Panaopto (lecture capture)	Win 7

Compatibility: Media Players:
The UVC with MJPEG and IP with H.264 video are compatible with the industry leading PC media players.
- Quick-Time 10.2
- VLC Media Player 2.0.4
- Real Player 16.0

Compatibility: Operating Systems
- Apple OS X (10.7 and above)
- Windows XP w/Service Pack 3 with known issues and errata
- Windows 7
- Linux

Evolving Compatibilities:
As more UC soft-client and lecture capture programs are released and gain popularity, Vaddio will provide a continuing research and development effort to ensure the compatibility with other manufacturer's products.

USB 2.0 UVC Drivers
The USB 2.0 UVC (Universal Video Class) video driver resolution table is an internal list of resolutions available for the Host PC and the Quick-Connect USB to negotiate and use for any approved/tested USB application. Typically, the highest resolution possible between both the PC and Quick-Connect USB is used. However, not all OS and application combinations are altogether typical.

Table: Supported UVC Resolutions

Format	Resolution	Frame Rate	Aspect Ratio
MJPEG	1280 x 720	15/30	16:9
	960 x 544	15/30	16:9
	704 x 576	15/30	4:3
	640 x 480	15/30	4:3
	640 x 360	15/30	16:9
	424 x 240	15/30	4:3
	352 x 240	15/30	4:3
	320 x 240	15/30	4:3
	320 x 180	15/30	16:9

INTERNAL WEB PAGES AND CONTROL

The internal web pages will allow control of the Quick-Connect USB and control of the attached camera via a network connection. These web pages will allow the user or administrator to set security passwords, change the IP address, view diagnostics, access the firmware upgrade page and more!

DHCP IP Set-up (Dynamic Host Configuration Protocol)
DHCP Set-up (skip this section if Static IP). If the LAN has a DHCP (dynamic host configuration protocol) server, then the IP address, gateway and routing information will automatically be assigned. The QC-USB software is defaulted to DHCP and will attempt to dynamically obtain an IP address using DHCP, but it will fall back to the default address of (169.254.1.1) if no DHCP server can be found.

Static IP Set-up:
The static IP can be assigned either through the network or directly to a computer using a cross-over cable. Depending on the age of the computer, you may not need a cross-over cable. Either way the steps are the same for network or direct connection to a computer. The default address of the QC-USB camera is 169.254.1.1 and the Subnet mask is 255.255.0.0. Different computer OS types all have their own way of doing things (without question), but they are essentially doing the same stuff, changing the IP address so the web pages of the HD-USB are accessible.

### Quick-Connect USB Web Pages Tour:
Screen Shot: Login
The QC-USB webserver is intended as a user's camera control page at one level, and an administrator's management tool at another level, which requires password authentication for access.

The Login Page will appear if there is a user name assigned by the administrator. Assigning a user name can limit access to the admin menus by a general user. By default, the User name is blank and the password for the User account is: password. The Administrator can set the name and password for the User account. If no user name is assigned, the web page will automatically open to the Camera Control page.
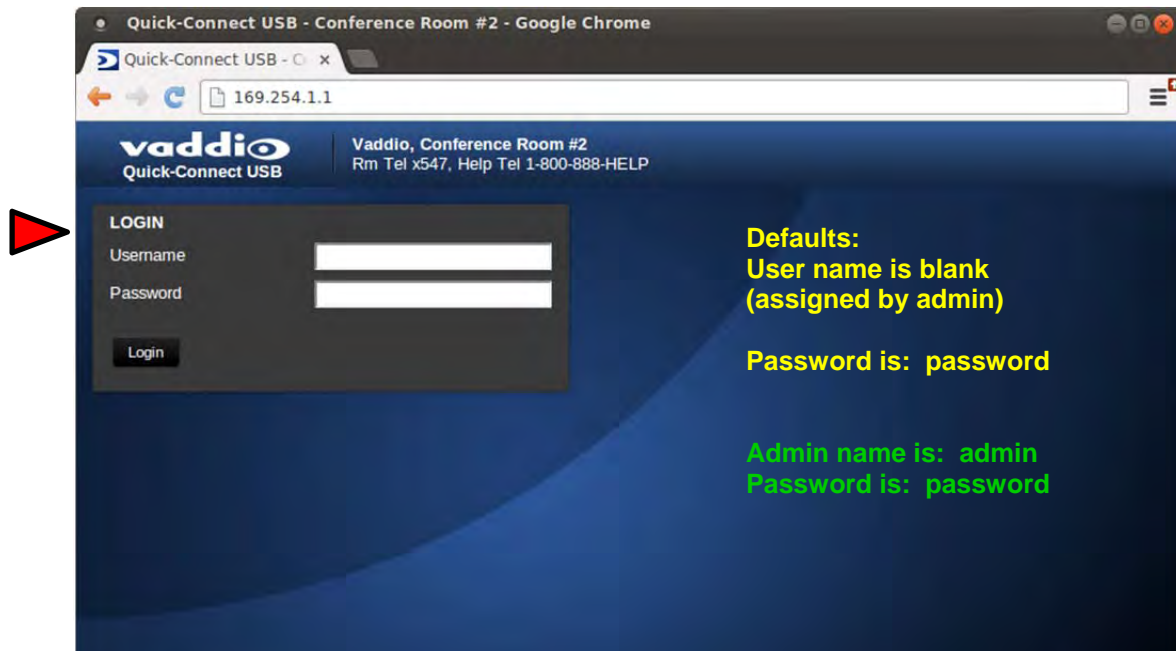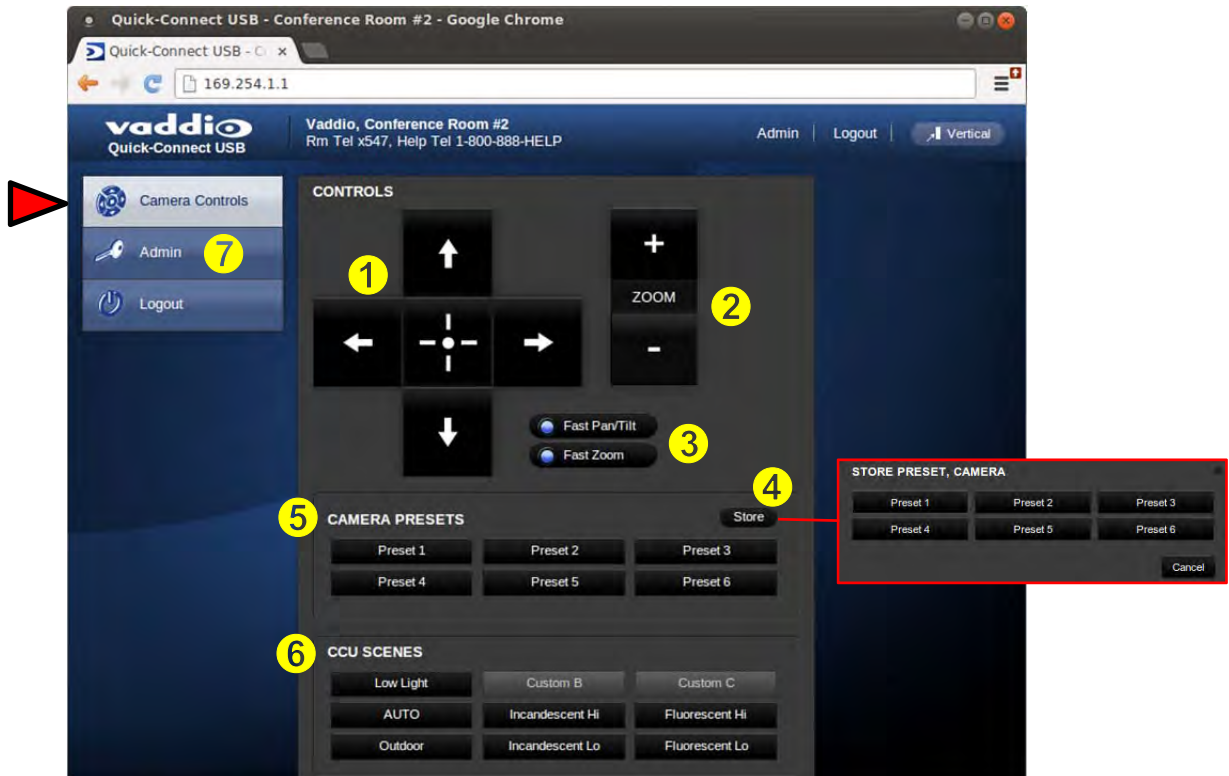
Screen Shot: Camera Control Page - No Camera Detected

The No Camera Detected window will appear if the Quick-Connect USB has no communication with the camera. Check the camera power and serial connections if no camera is found within 30 seconds of initialization.
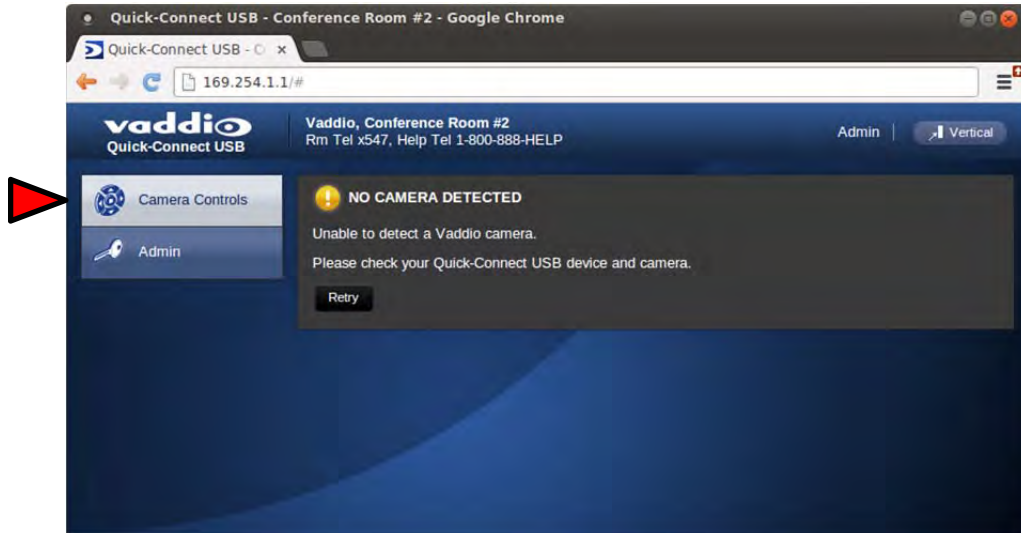
Screen Shot: User Menu - Camera Control Page

1) **Pan, Tilt and Home Controls:** These intuitive controls use the up/down arrows for camera tilt, the left/right arrows for camera pan and the center button to move the camera to the home position. These controls are not functional with the ZoomSHOT or WideSHOT cameras

2) **Zoom Control:** The camera's zoom lens can be controlled with the "+" to zoom-in and the "-"to zoom out. This control works with the PowerVIEW, ClearVIEW and ZoomSHOT, but the manual lens on the WideSHOT can't be controlled.

3) **Pan/Tilt and Zoom Speed Controls:** The speed for both the Pan/Tilt and Zoom controls can be adjusted with the two (2) buttons in this section. For tighter shots, it is recommended that the slower speed is used. **Note:** Speed control does not apply for the WideSHOT and zoom speed only applies to the PowerVIEW, ClearVIEW and ZoomSHOT.

4) **Store Preset Button:** Clicking the Store button opens up a Store Preset pop-up dialog box. To set presets, set up the camera shot, click on choice of preset number (1 through 6). The preset is stored and the dialog box closes.

5) **Camera Presets:** Six (6) presets can be recalled simply by clicking a preset number.

6) **CCU Scenes:** The user has access to the CCU scenes set and stored by the Admin. There are three (3) user definable presets and six (6) presets preconfigured by the technical folks at Vaddio (really Scott set them all) that are meant to be used in certain lighting scenarios. These lighting presets included: Automatic, Incandescent Hi, Incandescent Lo, Fluorescent Hi, Fluorescent Lo and Outdoor.

7) **Administration Menu:** By clicking on the Administration menu bar, the Admin Login screen will appear. The default Admin password is: password

8) **Vertical:** The vertical button will reduce the size of the window for the user controls and remove the menu tabs on the left side of the screen. The vertical sizing works well when using it with a soft-client codec. Click on 'Full' for full screen size camera control web pages.

Image:
Reduced window size for camera control to be used while a UC application is open
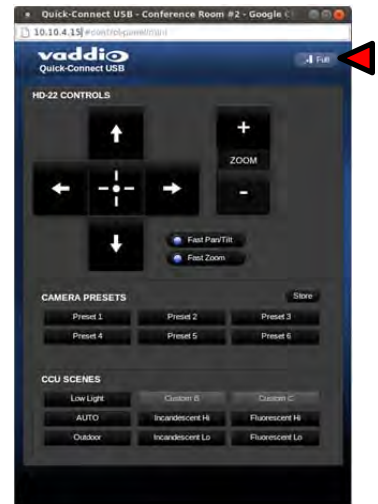
Screen Shot: Admin Log-in
By selecting the Admin Menu Bar, the Admin Login password pop-up window will appear and await the entry of the password. By entering the Admin menus, 10 more menu keys appear on the left side of the screen.

Default:
Admin Account
Password is:
password
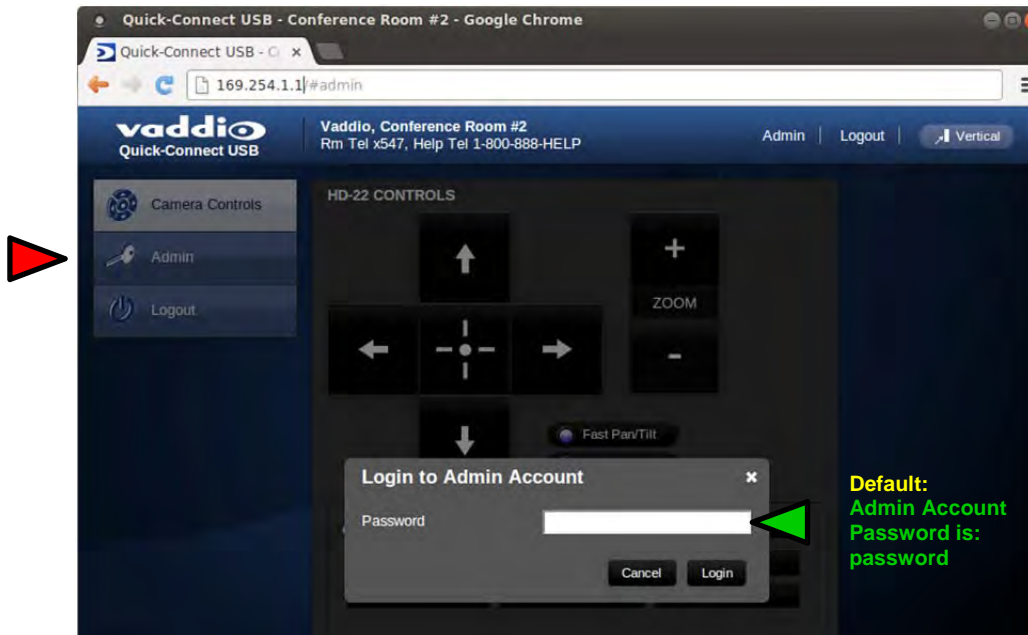
Screen Shot: Admin Menu - Camera Settings Page
The Camera settings page provides the parameters to allow the end user to match the camera to the environment, set the CCU presets and make startup assignments.
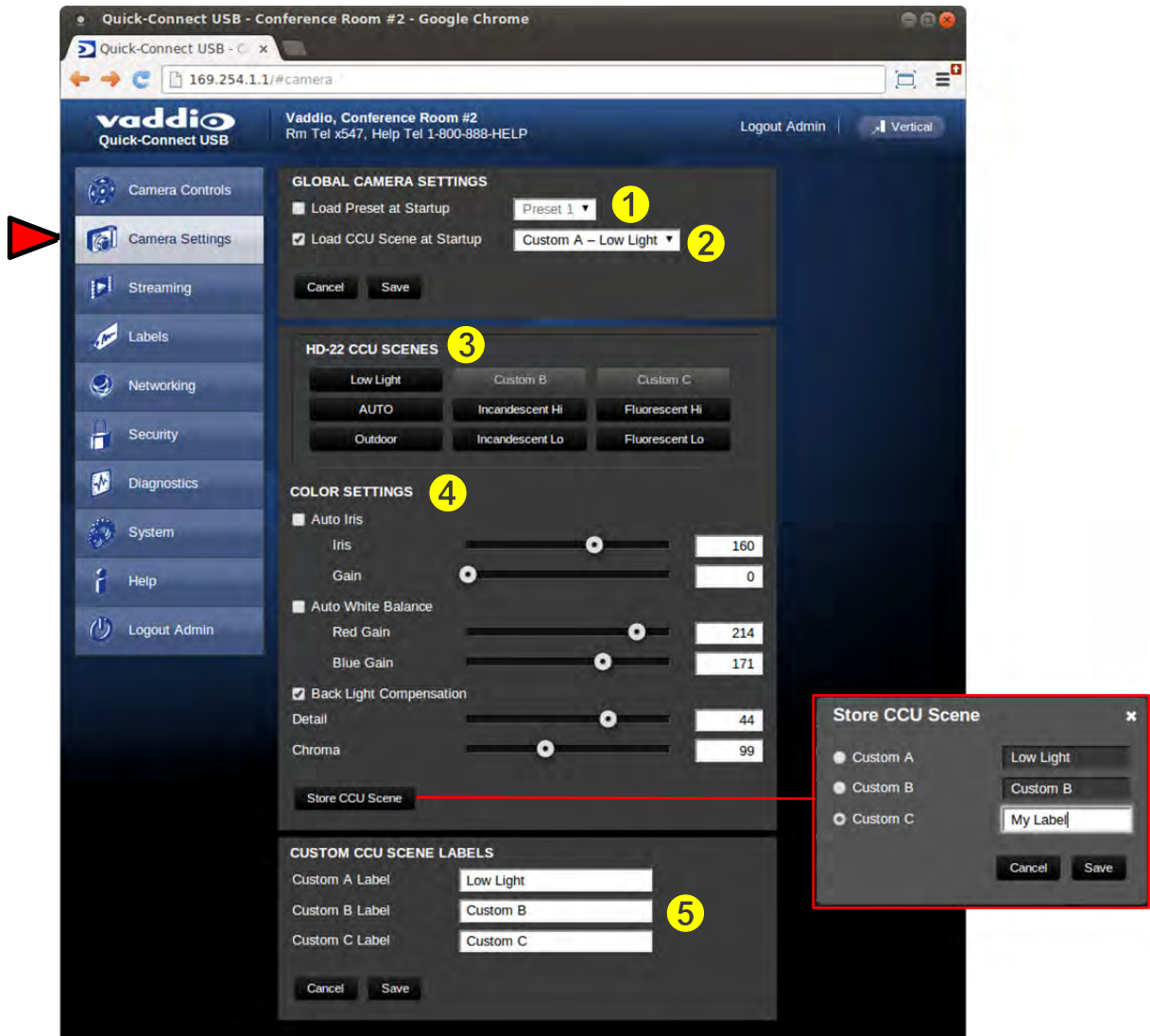
1) **Load Preset at Startup:** Check this box to move the camera to a predefined preset location when the camera powers up.   Use the pull down menu to select the Preset 1 through 6 to be loaded when this box is checked

2) **Load CCU Scene at Startup:** Check this box to load a CCU Scene into the camera when the camera powers up. The pull down menu will allow the selection of one of the 6-factory scenes, or any of the 3-User defined scenes.

3) **CCU Scenes:** Click on any of these 9 buttons to load one of the CCU scenes into the camera. These Scenes can be fine-tuned if changes are needed, and stored into any of the three User defined scenes.

4) **Color Settings:**   When painting or shading camera scenes for specific lighting situations or environments, these attributes can be adjusted for matching cameras in the same area. The parameters within the Color Settings section are defined below (top to bottom):

   ▪ **Auto Iris check box:** When checked, the camera will operate in Auto Iris mode, when unchecked, the camera will be in Manual Iris mode and allow adjustment of Iris and Iris Gain levels.

- **Iris:** Move adjustment slider as required to adjust the iris opening. A numeric value will be displayed in the box to the right of the slider.

- **Gain**: Move adjustment slider as required for amount of iris gain desired. Numeric value will be displayed in the box to the right of the slider.

- **Auto White Balance check box:** When checked, camera will operate in Auto White Balance mode, when unchecked camera will be in Manual White Balance Mode and allow for adjustment of Red and Blue Gain.
  - **Red Gain:** Move the adjustment slider as required for amount of Red Gain desired. A numeric value will be displayed in the box to the right of the slider.
  - **Blue Gain:** Move the adjustment slider as required for amount of Blue Gain desired. Numeric value will be displayed in the box to the right of the slider.

- **Back Light Compensation:** When checked, Back Light Compensation will be applied to the camera if BLC is supported by the camera and the camera is in Auto White Balance mode.

- **Detail:** Move the adjustment slider as required for amount of detail (Aperture) desired. A numeric value will be displayed in the box to the right of the slider. **Note:** If the detail is too high, the video can look grainy and appear noisy too.

- **Chroma:** Move the adjustment slider as required for the amount of Chroma (Color Vibrancy) desired. A numeric value will be displayed in the box to the right of the slider.

- **Store CCU Scene button:** Once the desired scene adjustments have been made, this button will activate a pop-up menu that can be used to store this scene into one of the three User Defined Scene locations. These User Defined Scenes can be named as required for clarity. These User Defined CCU Scenes can be adjusted and re-saved at any time.
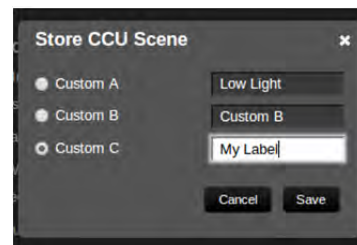
5) **Custom CCU Scene Labels:** The labels for the (3) User Defined customizable Scenes can be changed as needed. Mouse the cursor into the appropriate window and edit the text. Press Save to store these changes or press Cancel to exit this window.

Screen Shot: Admin Menu - USB 2.0 or IP Streaming Mode Page
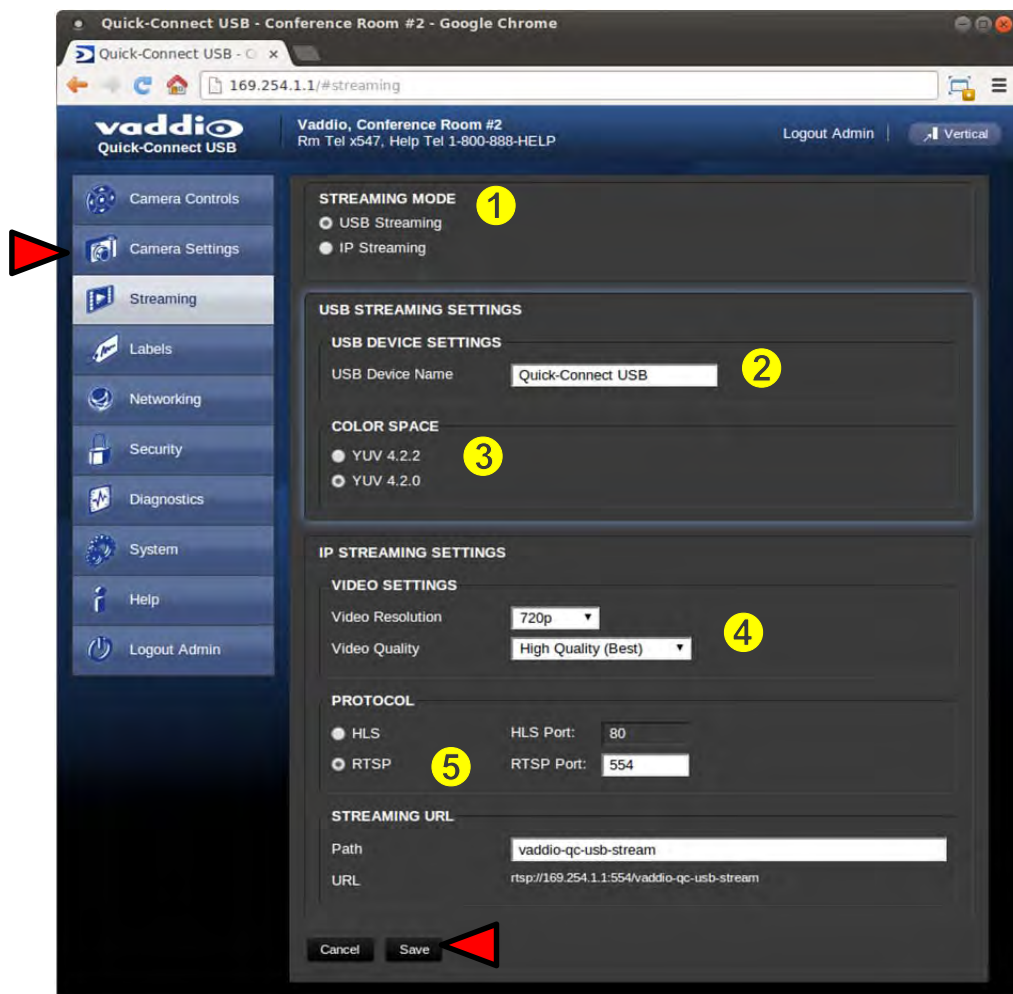
1) **Streaming Mode**: Streaming can be set for either USB 2.0 streaming (MJPEG) or IP streaming (H.264); but not both at the same time. The QC-USB can stream USB and accept IP control, or it can IP stream with IP control. Choose the streaming mode here.

2) **USB Device Name:** Allows the user to use a "friendly name" per system. In a BYOD format, the user has the ability to move between different UC conference rooms and have the ability to assign the PC's USB resources to that room.

3) **Color Space**: The UVC drivers will negotiate the color depth, but this parameter allows the user to reduce the color depth to 4:2:0, which is used with the older/cheaper webcams and applications, where image quality is not as critical. The 4:2:2 color is used by many applications that take advantage of the performance of the camera where the colors are more vibrant and precise.

4) **IP Streaming Settings:** The Video Settings allow the selection of the target performance for the IP Streaming. The QC-USB is set up for a variable bit rate and the user can select the video resolution and the quality, such as High Quality (Best), Standard Quality (Better) and Low Bandwidth (Good). Every effort to eliminate stupefyingly bad combinations with the 5 or 6 parameters that make up the image size, quality, bit rate, bandwidth etc… has been made, so you can't pick 1080p at a bit rate of 128Kbps, which would look totally wicked awful - and probably wouldn't work anyway.

5) **Streaming Protocol and URL**: Admin chooses the streaming type and the port number for RTSP. The HLS port is always on 80. The supported protocols are RTSP and HLS (Apple's HTTP Live Streaming). RTSP is best for live applications, where HLS serves the Apple iOS devices and is better for playback due to the amount of buffering the HLS has built-in. The Streaming URL auto populates and that path can be changed.

- When finished setting up the streaming parameters click Save to put the changes into effect or cancel, which will not save the configuration.

Screen Shot: Admin Menu - Room Labels

The Room Labels menu allows the administrator to label the company name, room name, room phone and help phone on a per QC-USB basis. The labels appear on every page at the top/middle of the page. Simply enter the room information and click Save.

![Vaddio logo]
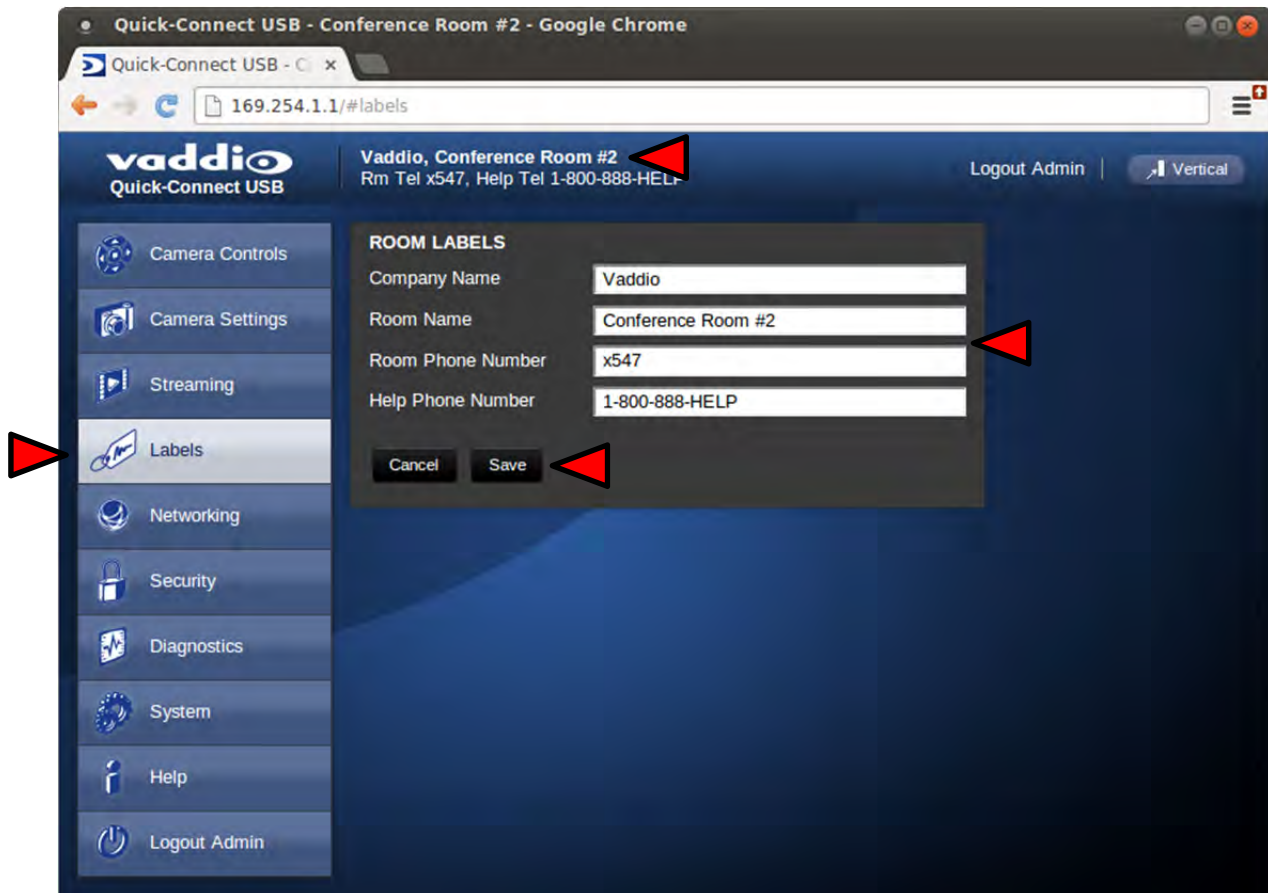
Screen Shot: Admin Menu - DHCP Network Configuration
Under the Networking menu, The Network Configuration and Network Interfaces are displayed. This is where the Network administrator assigns either DHCP or a Static address and the associated parameters.
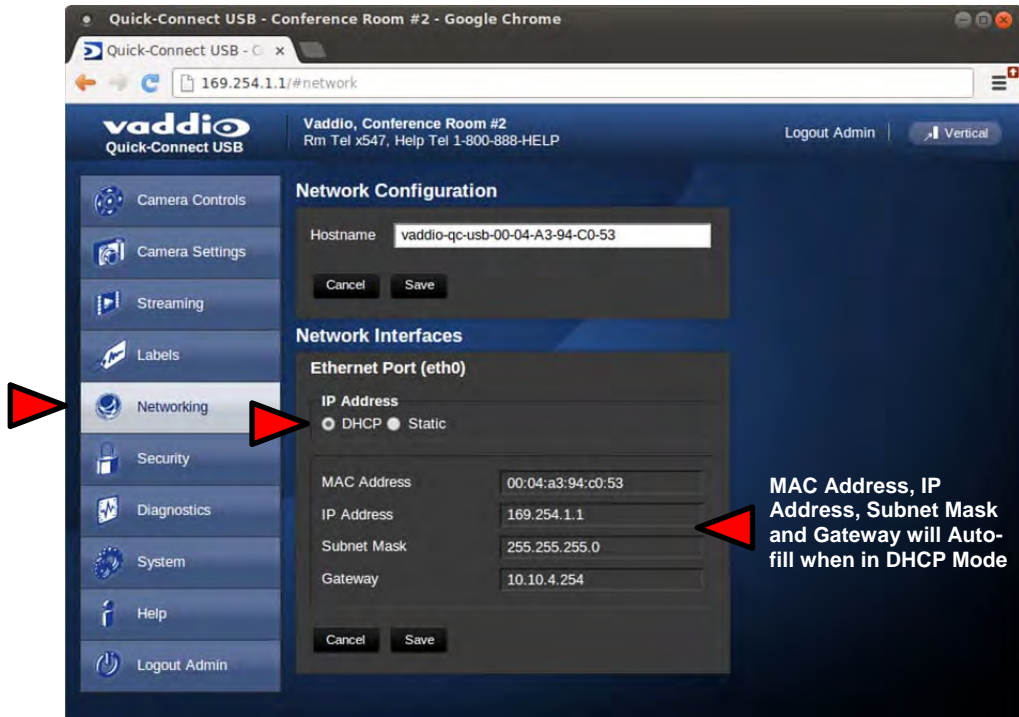
Screen Shot: Admin Menu - Static IP Configuration
If Static IP is used, the IP Address, Subnet Mask and Gateway are manually entered. Click on Save to keep the Static IP information.

VADDIO

Screen Shot: Admin Menu - Security

The Security menu allows the Admin to **UPDATE "user" PASSWORD** and **UPDATE "admin" PASSWORD.** The default "user" password is: **password.** The default "admin" password is also: **password**. The Network administrator can reassign the user name and password as well as the Admin password. There is only one "user" password and one "admin" password at any given time. If changes are made, click on Save to store the change.

Screen Shot: Admin Menu - Diagnostics

Diagnostics menu button will display a set of self-diagnostics. These diagnostics may help the Vaddio technical support team diagnose a problem with the Quick-Connect USB and attached camera.
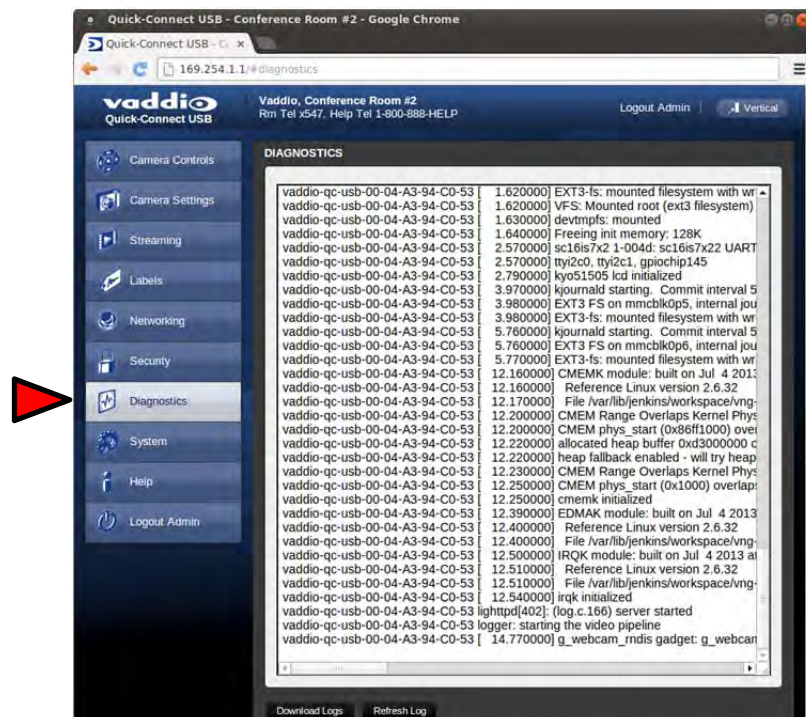
Screen Shot: Admin Menu - System Menu

The System Menu is where the System Info is displayed and Firmware Updates are performed. There will be firmware updates and upgrades over the life of the Quick-Connect. The file for the firmware update is chosen in this menu and the update is started here too. A remote system Reboot and Restore to Factory Presets is also available.
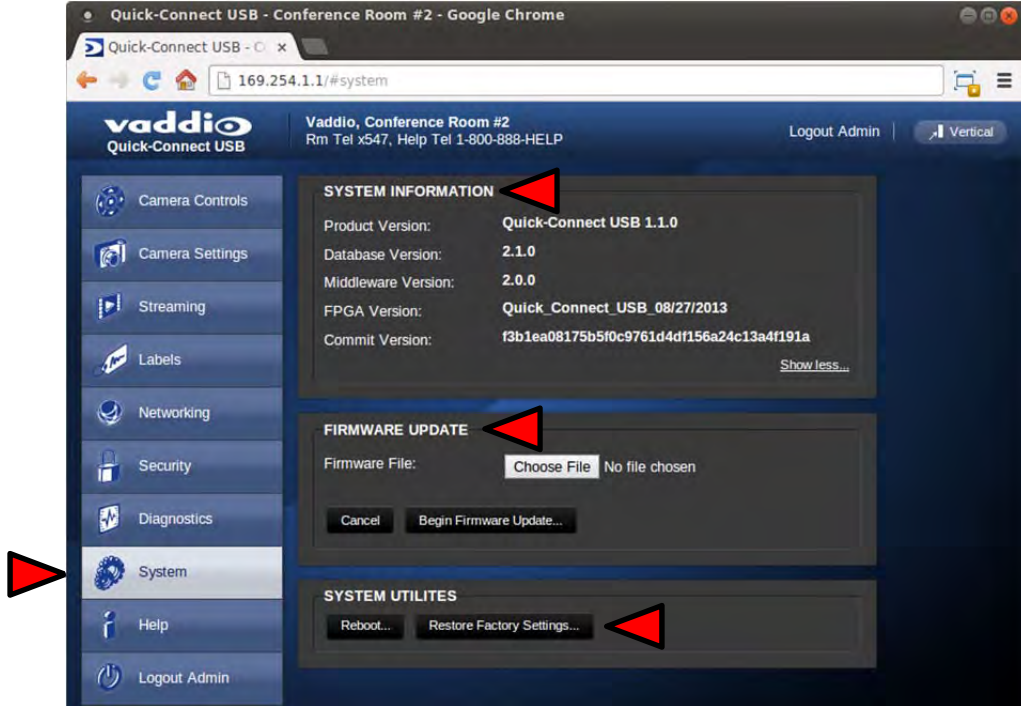
Screen Shot: Admin Menu - Update Confirmation

After clicking on "Begin Firmware Update…" a confirmation pop-up and warning will be displayed. Please contact Vaddio Tech support for assistance with updates. Please read and completely understand the pop-up warnings as it is easy to lose patience waiting for updates. Click on continue to start the update (this example is from 1.0.0 to 1.1.0)
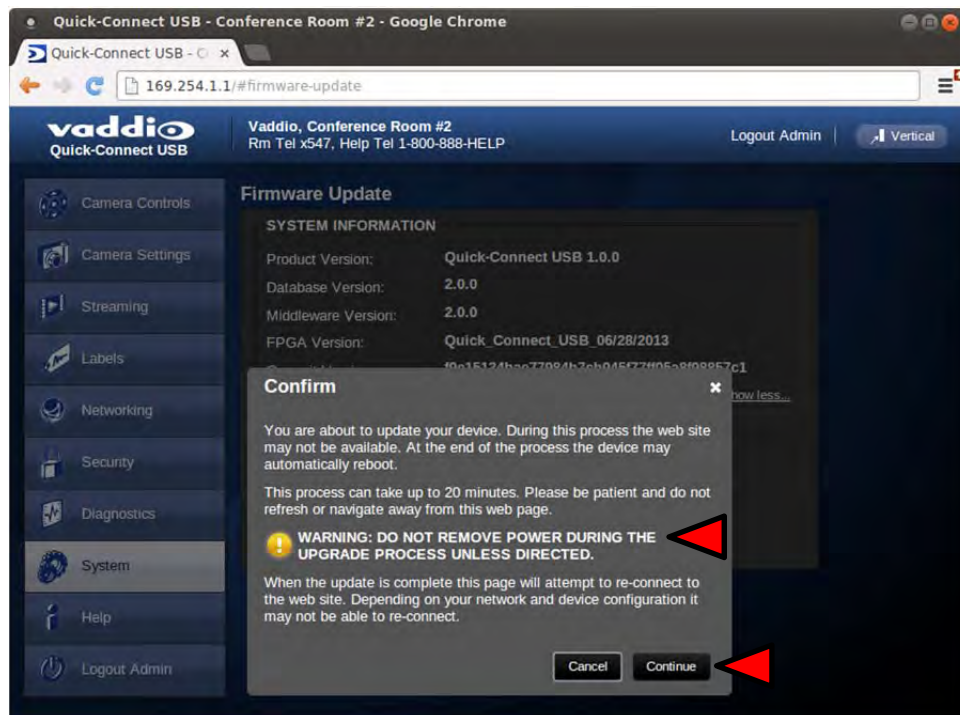
Screen Shot: Admin Menu - Update in Progress

After the firmware load has been started, a pop-up screen will advise patience and notify, in terms of a percentage completed, the progress of the firmware update load. Again, please don't interrupt the firmware load (this example is from 1.0.0 to 1.1.0)
.
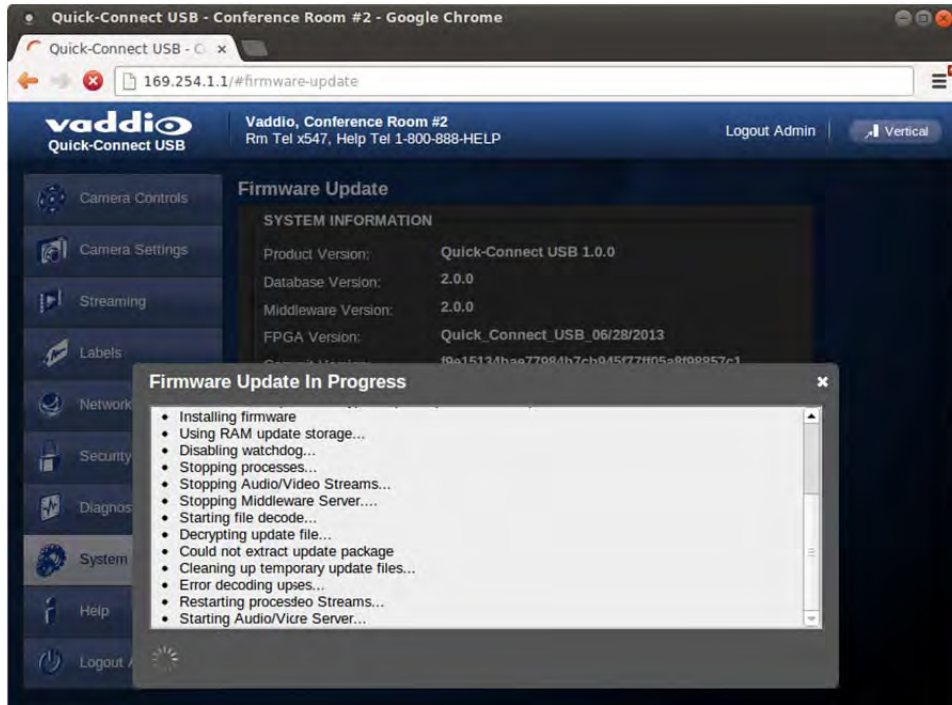
Screen Shot: Admin Menu - HELP

Service/Help information can be found under the Help menu. Support phone numbers and e-mail, manuals, FAQ's and System information is listed on this page. Have this page open when calling Vaddio Tech Support.

TECHNICAL SUPPORT NOTE:
Please work with your Network Administrator prior to calling Vaddio for technical support.
Please have on-site network personnel initiate tech support calls with Vaddio only.

CONNECTING THE QUICK-CONNECT USB AND CAMERA TO THE PC AND PROGRAM OF CHOICE
The Quick-Connect USB and attached camera are compatible with many programs and media players. The following is an attempt to generally describe the steps to plug in the QC-USB with a Vaddio camera and get an image in a couple of popular programs.

Skype Example:

1) After connecting a camera to the Quick-Connect USB, with a quality USB 2.0 cable, plug the USB-B port of the QC-USB Interface to the USB-A port of the computer. A pop up window on the computer monitor will display the following:
     a. Found QC-USB
     b. Found USB Composite Device
     c. Found USB Video Device

2) Open Skype and perform the following steps:
     a. Open the Tools Menu and drop down to Options
     b. Click on Video Settings and under Webcam choose USB Video Device

The systems will negotiate the highest resolutions possible, depending on the computer speed, network quality, cabling etc..., and display the video signal of the camera. The camera attached to the QC-USB can be controlled with the supplied Vaddio IR Remote Commander or through IP as described earlier through the QC-USB's web pages. Make a test call to ensure the system is working properly.

VLC Media Player Example:

1) Same first step as above.

2) Open VLC Media Player and perform the following steps:
     a. Click on the Media menu and drop down to Open Capture Device and click it.
     b. Under Device Name, go to the Video Device Name drop down and choose USB Video Device.
     c. Under Options, enter the Video Size as 1280x720
     d. Click on Play
     e. From there, VLC needs some instruction on the aspect ratio, so click on Tools and drop down to Aspect Ratio and drop down again to 16:9 for 720p (1280x720).

VLC is a powerful record/playback system will buffer the images creating some delay in the way VLC displays the image. This expected and normal.

With all the compatible software available, in general terms, the video device, aspect ratio, and resolution may need to be set manually the first time through initial set-up. Some systems are easier than others (like Skype) and others are more technical in nature and tend to do more stuff.

Example Program Notes: Most every application or media player is in a state of constant updating and change. The above instructions were written at the beginning of 2013 and some steps may be slightly different. The general idea however is the same.

GENERAL SPECIFICATIONS

Quick-Connect USB Interface	
Part Numbers	999-1105-038 (North America) 999-1105-138 (International)
Video Outputs	**USB 2.0 (MJPEG):** Resolution up to 720p/30 (USB 2.0 MJPEG) **H.264 (IP) of Ethernet:** Resolution up to 1080p/30 (H.264 over IP **Analog Component (YPbPr):** Resolution up to 1080p/59.94 **HDMI:** Resolution up to 1080p/59.94
USB Interface	Connector: Type-B, USB 2.0 Compliant, Standard UVC (Universal Video Class) Drivers
Network Interface	Connector: RJ-45 (shielded), 10/100 Base-T, Supported Protocols: RTSP and HLS Streaming
Streaming Protocols	IP: H.264 (RTSP and HLS), USB 2.0: MJPEG (UVC standard drivers)
Connectors	• Power: 5.5mm OD x 2.5mm ID Coaxial Connector • YPbPr: DE-15 (15-pinHD) Female • HDMI: HDMI Female • RS-232 IN: RJ-45 Jack • RS-232 OUT: RJ-45 Jack • EZ-Power Video: RJ-45 Jack (Power and Differential HD Video)
Dip Switches	5-Position: Color Space, Updating and Future Use
H.264 Resolutions	CIF, 640x480 (VGA), 480p, 720p/30 1080p/30 (1080p Ethernet only)
Front Panel	• 20 x 2 line Character Negative Mode LCD - Displays MAC (HW for Hardware) and IP Address • Power/System Reset - Tactile, flush mount, Back-lit Switch • Network LED: Indicates connectivity and activity • USB LED: Indicates Streaming Mode
Supported Media Players	• Quick-Time Media Play - Win 7 & Mac OS10X • VLC Media Player - Win 7 & Mac OS10X • Real Player - Win 7
Supported Browsers	• Internet Explorer • Safari • Safari/iOS • Chrome • Fire Fox
Cat-5 Cabling	Two (2) Cat-; 1st: EZ-Power Video (power to camera & video from camera), 2nd: RS-232 Control
Cat-5 Max. Distance* **Camera Dependent**	*__100' (30.48m) with PTZ cameras__ *__150' (45.72m) with Stationary POV Cameras (ZoomSHOT & WideSHOT)__
Power Supply	24 VDC, 2.0 Amp
Dimensions (H x W x D)	½-Rack Size - 8.375" (212.73mm) W x 6.0" (152.4mm) x 1.72" (43.688mm) H
Weight	1.4 lbs. (0.635Kg)
Accessory	Rack Mount Adapter: 998-6000-004 - 1-RU Offset mount (1-Long ear & 1-Short Ear)

Front Page Moon Image: The innermost of the four Galilean Moons of Jupiter, Io

VADDIO

COMPLIANCE AND CE DECLARATION OF CONFORMITY, QUICK-CONNECT USB INTERFACE

Compliance testing was performed to the following regulations:

- **FCC Part 15** (15.107, 15.109)**, Subpart B**   Class A
- **ICES-003, Issue 4: 2004**   Class A
- **EN 55022 A: 2006 + A1: 2007**   Class A
- **EMC Directive 2004/108/EC**   Class A
- **EN 55024: A2: 1998 + Amendments A1: 2001 + A2: 2003**   Class A

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'emet pas de bruits radioélectriques dépassant les limites applicables aux appareils numeriques de la classe A préscrites dans le Règlement sur le brouillage radioélectrique édicte 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 A: 2006 + A1: 2007(CISPR 22:2005/A1:2005)	Class A
EN 55024: A2: 1998 + Amendments A1: 2001 + A2: 2003	Immunity
• EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001	Electrostatic Discharge
• EN 61000-4-3: 2006 + A1: 2008	Radiated Immunity
• EN 61000-4-4: 2004 + Corrigendum 2006	Electrical Fast Transients
• EN 61000-4-5: 2006	Surge Immunity
• EN 61000-4-6: 2009	Conducted Immunity
• EN 61000-4-8: 2010	Power Frequency Magnetic Field
• EN 61000-4-11: 2004	Voltage Dips, Interrupts and Fluctuations
IEC 60950-1: 2005 2nd Edition); AM 1: 2009	Safety
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12:2011	Safety

WARRANTY INFORMATION
(See Vaddio Warranty, Service and Return Policies posted on 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 products and 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 through one of the following resources: e-mail support at support@vaddio.com or online at 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. RMA's 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.

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.

Other General Information:
Care and Cleaning
Do not attempt to take this product apart at any time. There are no user-serviceable components inside.

- Do not spill liquids in the product
- Keep this device away from food and liquid
- For smears or smudges on the product, wipe with a clean, soft cloth
- Use a lens cleaner on the lens - really…
- Do not use any abrasive chemicals.

Operating and Storage Conditions:
Do not store or operate the device under the following conditions:

- Temperatures above 40°C (104°F) or temperatures below 0°C (32°F)
- High humidity, condensing or wet environments
- In inclement weather
- In swimming pools or in and around fissionable materials
- Dry environments with an excess of static discharge
- In outer space (radiation and gamma ray problem)
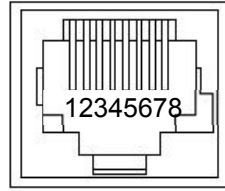- Under severe vibration

APPENDIX 1: PIN-OUTS FOR EZ-POWER VIDEO CAMERAS AND QUICK-CONNECT USB

Table: EZ-POWER VIDEO RJ-45 Connector Pin-outs

EZ-POWER VIDEO Port

Pin	Signal
1	Power+
2	Power-
3	Y+
4	PB+
5	PB -
6	Y -
7	PR+
8	PR-

EZ-POWER VIDEO

Cat-5 Cable:
Power to Camera,
Differential Video from Camera

Important Note: The EZ-POWER VIDEO RJ-45 Connector on a Vaddio CAT-5 system camera is for use with the Quick-Connect SR, Quick-Connect DVI/HDMI SR, Quick-Connect USB and USB Mini Interfaces ONLY (568B Wiring Standard). The video signals are differential (HSDS) and can only be processed by the interfaces above.

Table: Camera RS-232 Port

Pin #	Camera Pins	Quick-Connect USB
Pin - 1	N/A	
Pin - 2	N/A	
Pin - 3	N/A	
Pin - 4	Not Used with QC-USB	
Pin - 5	Not Used with QC-USB	
Pin - 6	Digital GND	
Pin - 7	RXD (from TXD of control source)	
Pin - 8	TXD (to RXD of control source)	

RS-232
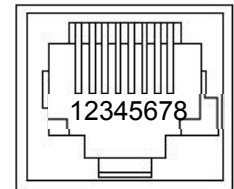
Table: Quick-Connect USB DE-15 Pin-Output (Analog Component YPbPr)

Pin	YPbPr
1	Pr
2	Y
3	Pb
4	-
5	-
6	Pr GND
7	Y GND
8	Pb GND
9	-
10	GND
11	-
12	-
13	-
14	-
15	-
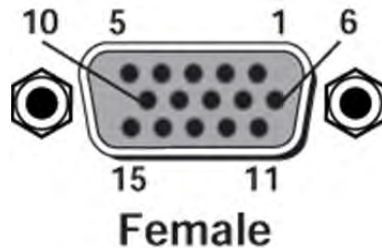
COMMUNICATION SPECIFICATION

Communication Speed: 9600 bps (default)
Start bit: 1
Stop bit: 1
Data bits: 8
Parity: None
No Flow control

NOTE: The Vaddio Camera control protocol is similar to, but not identical to the Sony® VISCA™ command set in order to be compatible with several popular control devices. Not all VISCA commands are supported and there are camera specific commands in the Command and Inquiry Lists. These Command lists are available in the individual camera manuals.

APPENDIX 2 - TELNET SERIAL COMMAND API

The Vaddio Serial Command protocol is a high level text based command line interface supported via telnet session on the Quick-Connect USB. Camera control commands supported on the Quick-Connect USB includes ClearVIEW HD-18, HD-19 and HD-20, PowerVIEW HD-22, HD-30, ZoomSHOT and WideSHOT. The command application protocol interface is intended to allow external device such as AMX or Crestron to control the camera. The protocol is based upon ASCII format following the VT100 terminal emulation standard and uses an intuitive text command nomenclature for ease of use. The API is accessed by a telnet client on the Ethernet port. All ASCII characters will be **echoed** to terminal program and appended with VT100 string -**ESC[J** (HEX- 1B 5B 4A). Vaddio Command lines are terminated on carriage return. After the carriage return, the VT100 appends with – **ESC[J**. **(Note:** Most terminal programs automatically strip the VT100 string.) General format usage follows a **get/set** structure. Usage examples for each type are:

Set Example	**Get Example**	**Syntax Error Example**
COMMAND: > camera pan right	COMMAND: > stream mode get	COMMAND: > camera pan right
RESPONSE: > OK	RESPONSE: > streaming mode usb	RESPONSE: > ERROR

Additional programming controls associated with the terminal protocol includes:
- **CTRL 5** - Clears the current serial buffer on the device.

Telnet sessions will require access verification and uses the same username and password associated with the Administrator account on the embedded web server. The default Telnet Port is 23. Command lines are terminated with a carriage return. **NOTE:** The ZoomSHOT camera will not respond to pan or tilt commands.

Telnet Command List

Camera Home
- **NAME**
camera home - Move the camera to the home position
- **SYNOPSIS**
camera *home*
- **DESCRIPTION**
Method used to move the **camera** to the *home* position
- **EXAMPLES**
camera *home*
Move the **camera** back to the *home* position
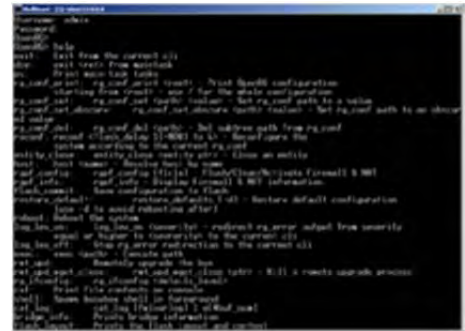
Image: Invigorating simulated Telnet session.

Camera Pan (not used with ZoomSHOT or WideSHOT cameras)
- **NAME**
camera pan - Pans the camera left or right
- **SYNOPSIS**
camera *pan* {left|right|stop} [*1-24*]
- **DESCRIPTION**
Method used to *pan* the **camera**
- **OPTIONS**
left Move the **camera** left
right Move the **camera** right
stop Stop the **camera** movement
speed Optional integer from *1-24* that represents the speed (Default: 12)
- **EXAMPLES**
camera *pan* left
Pans the **camera** left at the default speed
camera *pan* right 20
Pans the **camera** right using a speed of 20
camera pan stop
Stops the *pan* movement of the **camera**

Camera Preset

- **NAME**

camera preset - Recall and storing of camera presets

- **SYNOPSIS**

camera *preset* {recall|store} [*1-6*]

- **DESCRIPTION**

Method used to recall and store **camera** presets

- **OPTIONS**

recall   Recall *preset*

store   Store *preset*

preset   Required value from *1-6* used to indicate the *preset* number

- **EXAMPLES**

camera recall 3

Move **camera** to *preset* position 3

camera store 1

Store current **camera** position as *preset* 1

Camera Tilt (not used with ZoomSHOT or WideSHOT cameras)

- **NAME**

camera tilt - Tilts the camera up or down

- **SYNOPSIS**

camera *tilt* {up|down|stop} [*1-20*]

- **DESCRIPTION**

Method used to *tilt* the **camera**

- **OPTIONS**

up Move the **camera** up

down Move the **camera** down

stop Stop the **camera** movement

speed Optional integer from *1-20* that represents the speed (Default: 10)

- **EXAMPLES**

camera *tilt* up

Tilts the **camera** up at the default speed

camera *tilt* down 20

Tilts the **camera** up using a speed of 20

camera *tilt* stop

Stops the *tilt* movement of the **camera**

Camera Zoom

- **NAME**

camera zoom - Zoom the camera in or out

- **SYNOPSIS**

camera *zoom* {in|out|stop} [*1-7*]

- **DESCRIPTION**

Method used to *zoom* the **camera**

- **OPTIONS**

in Zoom in

out Zoom out

stop Stop the **camera** movement

speed Optional integer from *1-7* that represents the speed (Default: 3)

- **EXAMPLES**

camera *zoom* in

Zooms the **camera** in at the default speed

camera *zoom* out 7

Zooms the **camera** out using a speed of 7

camera *zoom* stop

Stops the *zoom* movement of the **camera**

Camera

- **NAME**

camera - Base command for camera control command. Used in conjunction with control arguments to include home, pan, tilt, zoom, and preset.

Exit

- **NAME**

exit - ends the current API command session

- **SYNOPSIS**

exit

- **DESCRIPTION**

Exit ends the current API command session. If the session is over telnet, the session is ended and the socket is closed. If the session is over serial, a new session is started.

Help

- **NAME**

help - display an overview of the CLI syntax

- **SYNOPSIS**

help

- **DESCRIPTION**

Display an overview of the command line syntax

History

- **NAME**

history - command history

- **SYNOPSIS**

history [*limit*]

- **DESCRIPTION**

Since many of the programs read user input a line at a time, the command **history** is used to keep track of these lines and also recall historic information

- **HISTORY NAVIGATION**

The command **history** can be navigated using the up and down arrow keys. The up arrow will move up a single entry in the command **history** while the down arrow moves down in the command **history**.

- **HISTORY EXPANSION**

The command **history** supports the expansion functionality from which previous commands can be recalled from within a single session. History expansion is performed immediately after a complete line is read.

Listed below are examples of **history** expansion:

* **!!** Substitute the last command line.

* **!N** Substitute the Nth command line (absolute as per '**history**' command)

* **!-N** Substitute the command line entered N lines before (relative)

- **EXAMPLES**

history

Displays the current command buffer

history 5

Sets the **history** command buffer to remember the last 5 unique entries

Network Ping

- **NAME**

network ping - send ICMP ECHO_REQUEST to network hosts

- **SYNOPSIS**

network *ping* [*count <count>*] [*size <size>*] <destination-ip>

- **DESCRIPTION**

Use the ICMP protocol's mandatory ECHO_REQUEST datagram to elicit an ICMP ECHO_RESPONSE from a host or gateway. ECHO_REQUEST datagrams have an IP and ICMP header, followed by a struct timeval and then an arbitrary number of pad bytes used to fill out the packet.

- **OPTIONS**

count Stop after sending *count* ECHO_REQUEST packets. With deadline option, *ping* waits for *count* ECHO_REPLY packets, until the timeout expires. The default is 5.

destination

The destination IP address where the ECHO_REQUESTS are sent

size The data *size* of the ICMP packet to send. The default is 56 bytes

- **EXAMPLES**

network *ping* 192.168.1.1

Attempt to send 5 ICMP ECHO_REQUESTs with data *size* 56 to the host at 192.168.1.1

network *ping count* 10 *size* 100 192.168.1.1

Attempt to send 10 ICMP ECHO_REQUESTs with data *size* of 100 to the host at 192.168.1.1

Network Settings

- **NAME**

network settings - get current network settings

- **SYNOPSIS**

network *settings* {get}

- **DESCRIPTION**

Method used to get the current **network** *settings* of the device

- **OPTIONS**

get Get the current **network** *settings* for the machine

- **EXAMPLES**

network *settings* get

MAC Address:

00:04:a3:85:0a:ee

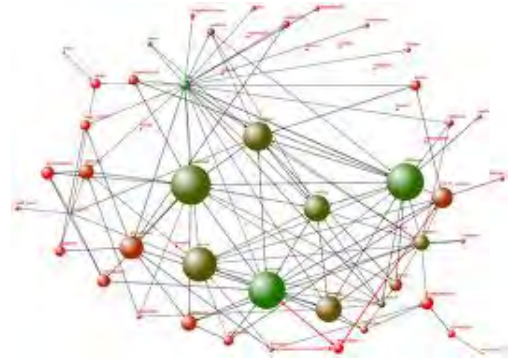**IP Address:**

10.10.8.116

Netmask:

255.255.255.0

Gateway:

10.10.8.100

Returns the current **network** *settings* for mac addres, ip address, netmask, and gateway

Network

- **NAME**

network - Gets the current network settings or pings an IP address

- **SYNOPSIS**

network {settings *get* | *ping* [*count* <*count*>] [*size* <*size*>] <destination-ip>}

- **DESCRIPTION**

Method used to *get* the current **network** settings or check **network**

- **OPTIONS**

settings

Get the current **network** settings

ping Send ICMP ECHO_REQUEST to **network** host

- **EXAMPLES**

network settings *get*

Gets the current **network** settings

----

network *ping count* 1 10.10.10.100

Pings 10.10.10.100 once and displays results

Streaming Mode

- **NAME**

streaming mode - Gets or sets the current streaming mode

- **SYNOPSIS**

streaming *mode* {get|usb|network}

- **DESCRIPTION**

Method used to get or set the current **streaming** settings

- **OPTIONS**

get Get the current **streaming** *mode*

usb

 Set the current **streaming** *mode* to USB

ethernet

Set the current **streaming** *mode* to Ethernet

- **EXAMPLES**

streaming *mode* get

*mode***:** usb

Returns the current **streaming** *mode*

streaming *mode* usb

----

streaming *mode* ethernet

OK

Sets the **streaming** *mode* to Ethernet

Streaming Quality

- **NAME**

streaming quality - Gets or sets the current streaming quality

- **SYNOPSIS**

`streaming` *quality* `{get|low|standard|high}`

- **DESCRIPTION**

Method used to get or set the current **streaming** *quality*

- **OPTIONS**

get Get the current **streaming** *quality*
low Set video *quality* to low
standard Set video *quality* to standard
high Set video *quality* to high

- **EXAMPLES**

streaming *quality* get
*quality***:**low
Returns the current **streaming** *quality*
 ----
streaming *quality* standard
OK
Sets the **streaming** *quality* to standard

Streaming Resolution

- **NAME**

streaming resolution - Gets or sets the current streaming quality

- **SYNOPSIS**

streaming *resolution* {get|1080p|720p|4cif|480p|cif}

- **DESCRIPTION**

Method used to get or set the current **streaming** *resolution*

- **OPTIONS**

get Get the current **streaming** *resolution*
1080p Set video *resolution* to 1080p
720p Set video *resolution* to 720p
4cif Set video *resolution* to 4cif
480p Set video *resolution* to 480p
cif Set video *resolution* to cif

- **EXAMPLES**

streaming *resolution* get
*resolution***:**720p
Returns the current **streaming** *resolution*
 ----
streaming *resolution* 720p
OK
Sets the **streaming** *resolution* to 720p

Streaming

- **NAME**

streaming - Gets or sets the current streaming settings

- **SYNOPSIS**

streaming {mode {get|usb|ethernet}} | *resolution* **{get|1080p|720p|4cif|480p|cif} |***quality* {get|low|standard|high}}

- **DESCRIPTION**

Method used to get or set the current **streaming** settings

- **OPTIONS**

mode Get or set the current **streaming** mode
resolution Get or set the current **streaming** video *resolution*
quality Get or set the current **streaming** video frame rate and bit rate

- **EXAMPLES**

streaming mode get
mode: usb
Returns the current **streaming** mode
----
streaming mode ethernet
Sets the **streaming** mode to Ethernet
----
streaming *quality* standard
Sets the **streaming** *quality* to standard
----
streaming *resolution* 720p
Sets the **streaming** *resolution* to 720p

System Factory-Reset

- **NAME**

system factory-reset - Gets or sets factory reset status

- **SYNOPSIS**

system factory-reset {get|on|off}

- **DESCRIPTION**

Method used to get or set the factory reset status

- **OPTIONS**

get Get the current factory reset status
on Enable factory reset on reboot
off Disable factory reset on reboot

- **EXAMPLES**

system factory-reset get
factory-reset (software):
off
factory-reset (hardware): [Hardware reset is designated by rear panel dip switches in down position]
off
Returns the factory reset status
----
system factory-reset on
factory-reset (software): on
factory-reset (hardware): off
Enables factory reset upon reboot

System Reboot

- **NAME**

system reboot - Reboots system

- **SYNOPSIS**

system reboot [<seconds>]

- **DESCRIPTION**

Method used to reboot system

- **OPTIONS**

seconds
The number of seconds to delay the reboot

- **EXAMPLES**

reboot
Reboot system immediately
reboot 30
Reboot the system in 30 seconds

Version

- **NAME**

version - display the system version information

- **SYNOPSIS**

version

- **DESCRIPTION**

Display an overview of the command line syntax

- **EXAMPLES**

Version
Returns the current software **version**

Inside Back Cover - Blank

vaddio

Toll Free: 800-572-2011 ▪ Phone: 763-971-4400 ▪ FAX: 763-971-4464
www.vaddio.com