



Installation Guide for
ClearSHOT 10 USB
Enterprise-Class PTZ Conferencing Cameras

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What's in this Guide

This guide covers:

- Unpacking the camera
- Tips for a successful installation
- Instructions for installing the camera mount
- Information on connecting and mounting the camera
- Camera power-on

Complete product information is available in the **Integrator's Complete Guide to ClearSHOT 10 USB Enterprise-Class PTZ Conferencing Cameras**.

Overview

This guide covers the ClearSHOT 10 USB enterprise-class PTZ conferencing cameras:

- ClearSHOT 10 USB camera (silver), North America – part number 999-9990-000
- ClearSHOT 10 USB camera (silver), international – part number 999-9990-001
- ClearSHOT 10 USB camera (white), North America – part number 999-9990-000W
- ClearSHOT 10 USB camera (white), international – part number 999-9990-001W



Features

- Ideal for huddle rooms and small to medium conference rooms in corporate, healthcare, government, and education environments
- Simultaneous uncompressed USB 3.0 and IP (H.264) streaming outputs
- 10X optical zoom, horizontal field of view of 74° in super-wide mode
- 2.14 Megapixel (effective), full HD (native 1080p/60) image sensor
- Precise pan and tilt movements at up to 90° per second
- Presenter-friendly IR remote control
- Universal Video Class (UVC) drivers supported in Windows®, Mac® OS, and Linux operating systems – compatible with most UC conferencing applications
- Full administrative control from your browser via web interface
- Integration-ready Telnet or serial RS-232 control

Unpacking the Camera

Make sure you received all the items you expected. Here are the packing lists for the ClearSHOT 10 USB cameras.

Caution:

Use the power supply shipped with the camera. Using a different power supply may create an unsafe operating condition or damage the camera, and will void the warranty.

Caution

Always support the camera's body when picking it up. Lifting the camera by its head or mounting arm will damage it.



For use in North America:

ClearSHOT 10 USB camera, silver/black, part number 999-9990-000

ClearSHOT 10 USB camera, white, part number 999-9990-000W

The box should contain one of each item listed here:

- Camera, part number 998-9990-000 (silver/black) or 998-9990-000W (white)
- Vaddio IR Remote Commander, part number 998-2100-000
- 12 VDC, 3.0 Amp switching power supply
- AC cord set, North America
- Thin Profile Wall Mount with mounting hardware, black or white depending on camera color
- EZCamera RS-232 control adapter, part number 998-1001-232
- USB 3.0 Type A to Type B cable, 6 ft. (1.8m), part number 440-0004-306
- Quick Start Guide, part number 342-1117



For use outside North America:

ClearSHOT 10 USB camera, silver/black, part number 999-9990-001

ClearSHOT 10 USB camera, white, part number 999-9990-001W

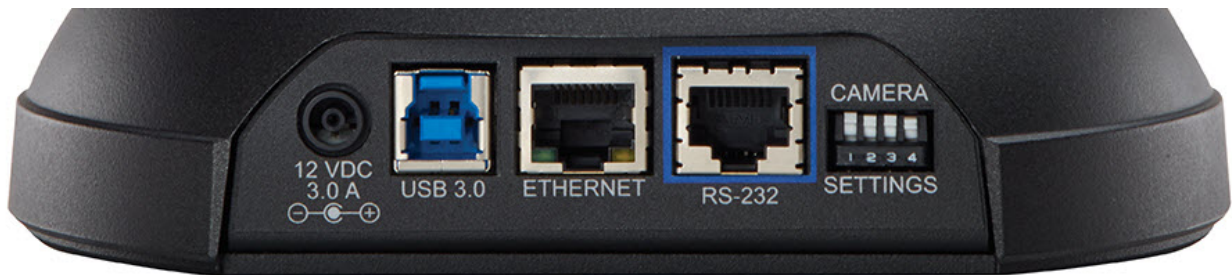
The box should contain one of each item listed here:

- Camera, part number 998-9990-000 (silver/black) or 998-9990-000W (white)
- Vaddio IR Remote Commander, part number 998-2100-000
- 12 VDC, 3.0 Amp switching power supply
- AC cord set, Europe
- AC cord set, UK
- Thin Profile Wall Mount with mounting hardware, black or white depending on camera color
- EZCamera RS-232 control adapter, part number 998-1001-232
- USB 3.0 Type A to Type B cable, 6 ft. (1.8m), part number 440-0004-306
- Quick Start Guide, part number 342-1117



Download manuals, dimensional drawings, and other information from www.vaddio.com/support.

Back of the Camera



From left to right:

- **12 VDC, 3.0 Amp power connector** – Connect only the power supply shipped with the camera
- **USB 3.0 video device connector** for streaming uncompressed UVC standard video
- **Ethernet RJ-45** for IP streaming, access to web interface and Telnet for camera control
- **RS-232 port** on shielded RJ-45 connector for legacy controllers
- **DIP switches** to set IR frequency, IR on/off, and image flip (camera is invertible)

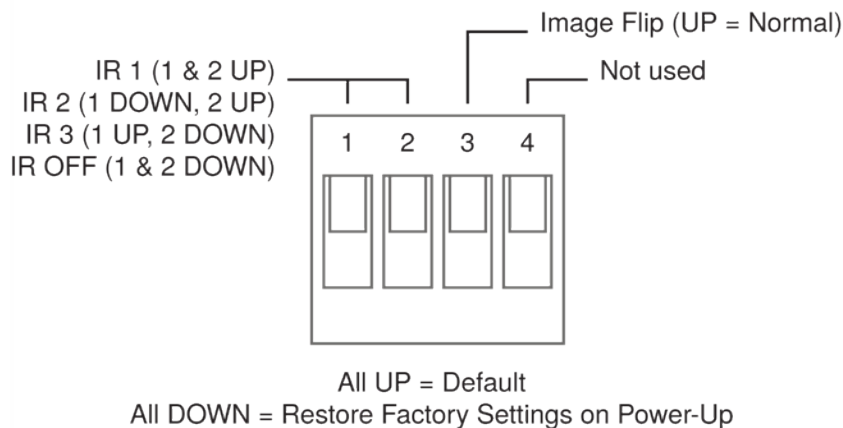
Switch Settings

Use the DIP switches to set camera behaviors.

IR Frequency Selection: The IR Remote Commander can control up to three cameras in the same room with different IR frequencies. Use **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.

Inverted operation: If mounting the camera upside-down, set **switch 3** to the DOWN position: IMAGE FLIP ON.

Switch 4 is not currently used.



Note

The web interface provides baud rate and super-wide mode settings. See [Web Tasks for Administrators: Soft Switch Settings, Reboots, Resets, and Updates](#).

Installation

This section covers siting the camera, installing the mount, and installing the camera.

Before You Install the Camera

All ClearSHOT cameras include a wall mount.

- Choose a camera mounting location that will optimize camera performance. Consider camera viewing angles, lighting conditions, line-of-sight obstructions, and in-wall obstructions where the camera is to be mounted.
- Ensure that the camera body can move freely and point away from the ceiling and lights. The camera will not perform well if it is pointed toward a light source such as a light fixture or window.
- Follow the installation instructions included with the camera mount.

Note

Dome enclosures are not recommended for ClearSHOT 10 USB cameras.

Don't Void Your Warranty!

Caution

This product is for indoor use. Do not install it outdoors or in a humid environment without the appropriate protective enclosure. Do not allow it to come into contact with any liquid.

Use only the power supply included with this product. Using a different one will void the warranty, and could create unsafe operating conditions or damage the product.

Do not install or operate this product if it has been dropped, damaged, or exposed to liquids. If any of these things happen, return it to Vaddio for safety and functional testing.

Learn more at www.vaddio.com/products.

Cabling Notes

For RS-232 cabling, use Cat-5 or Cat-5e/6 cable and standard RJ-45 connectors (568B termination) from the camera's RS-232 port to the controller's RS-232 port. If the camera is connected to a third-party control system (such as AMX or Crestron), a DE-9F (sometimes called DB-9F) adapter is supplied.

We recommend using high-quality connectors and a high-quality crimping tool.

Note

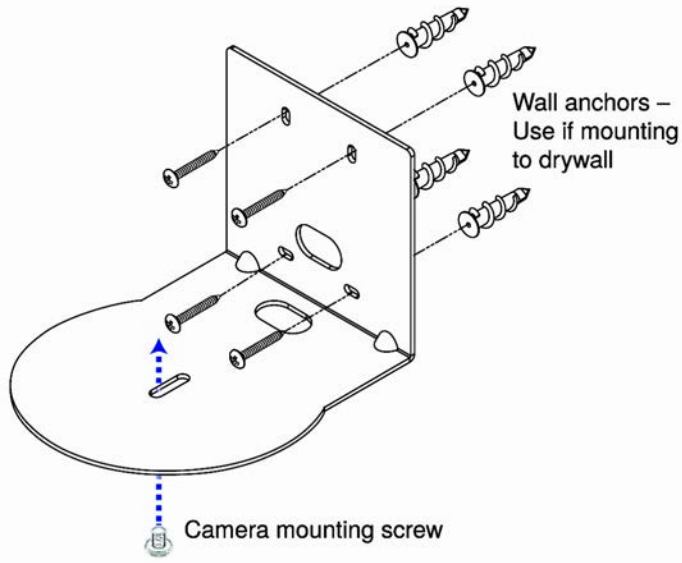
Do not use pass-through RJ-45 connectors. These can cause intermittent connections and degraded signal quality, resulting in problems that may be hard to diagnose. Use standard RJ-45 connectors and test all cables for proper pin-outs and continuity before you connect them to Vaddio products.



Installing the Wall Mount

You can install the camera wall mount to a 2-gang wall box or directly to the drywall.

- If you mount it to drywall, use the wall anchors provided with the wall mount.
- If you mount it to a wall box, use the cover plate screws supplied with the wall box.



About Ceiling-Mounted Cameras

If you use an inverted mount, set the camera's Image Flip DIP switch ON for inverted operation. See [Switch Settings](#) for more information.

Installing the Camera

Caution

Before you start, be sure you can identify all cables correctly. Connecting a cable to the wrong port can result in equipment damage.

1. Route the cables through the mount, and install the mount on the wall or attach it to the wall box. Leave the screws loose enough to adjust the position of the mount.
2. Level the mount and tighten the mounting screws.
3. Check the level again.
4. Connect the cables to the camera.

Caution:

Use the power supply shipped with the camera. Using a different power supply may create an unsafe operating condition or damage the camera, and will void the warranty.

5. Place the camera on the mount.
6. Attach the camera to the mount using the ¼"-20 x .375 mounting screw supplied with the camera.

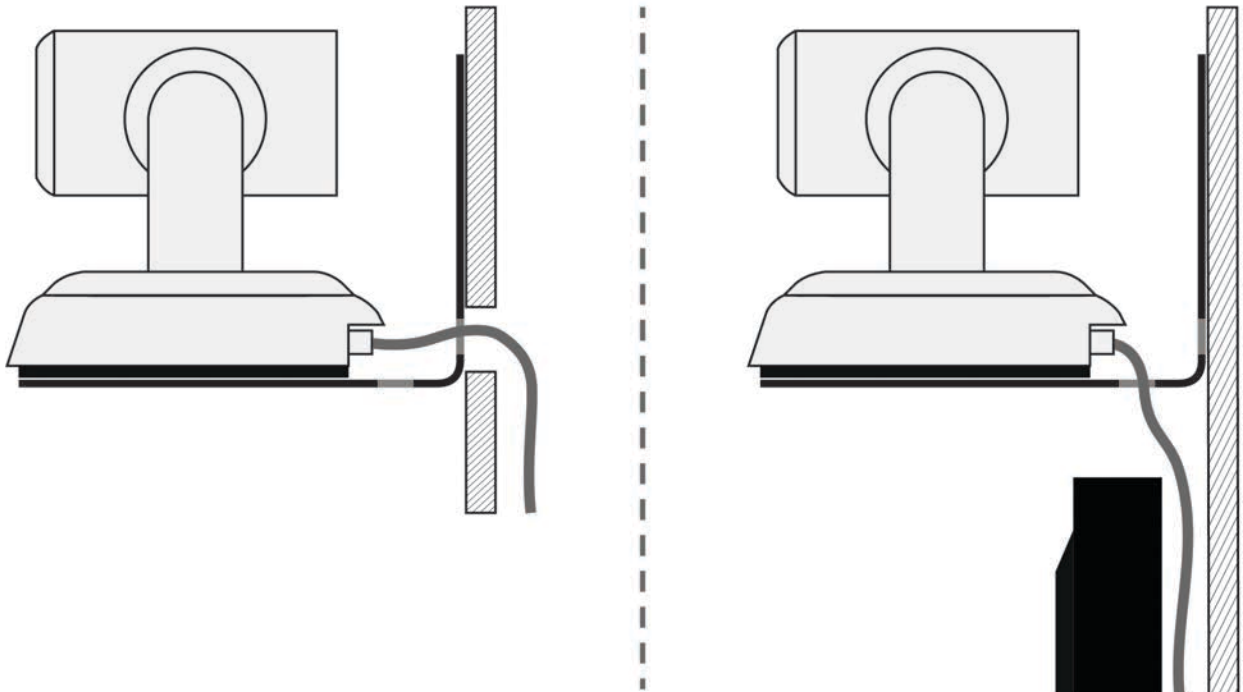


Image for illustration only; not to scale. Camera and mount details may differ.

Connecting the Camera

Here is an example of how the camera might be set up in a medium-size conference room. In this setup, a PC uses a unified communications conferencing application to manage the camera and an EasyUSB Mixer/Amp with attached microphones and speakers.



Note

ClearSHOT 10 USB camera output is USB 3.0; EasyUSB Mixer/Amp is USB 2.0.

Powering Up the Camera

Connect camera power.

The camera will wake up and initialize. This will take a few seconds. When an image is available, the camera is ready to accept control information.

Next Steps

The camera is now ready to configure and use. This information is available in the **Configuration and Administration Guide for ClearSHOT 10 USB Enterprise-Class PTZ Conferencing Cameras**. It is also included in the **Integrator's Complete Guide to ClearSHOT 10 USB Enterprise-Class PTZ Conferencing Cameras**.

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.



Industry
Canada

Industrie
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 Fluctuations

Conducted and Radiated Emissions

IT Immunity Characteristics

Electrostatic Discharge

Radiated Immunity

Electrical Fast Transients

Surge Immunity

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 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 or by phone at one of the phone numbers listed on 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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Vaddio

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The logo for Vaddio, featuring the word "vaddio" in a bold, blue, lowercase sans-serif font. The letter "o" at the end is stylized as a circle with a smaller solid circle inside it, resembling an eye or a lens.