



WallCam PTZ™

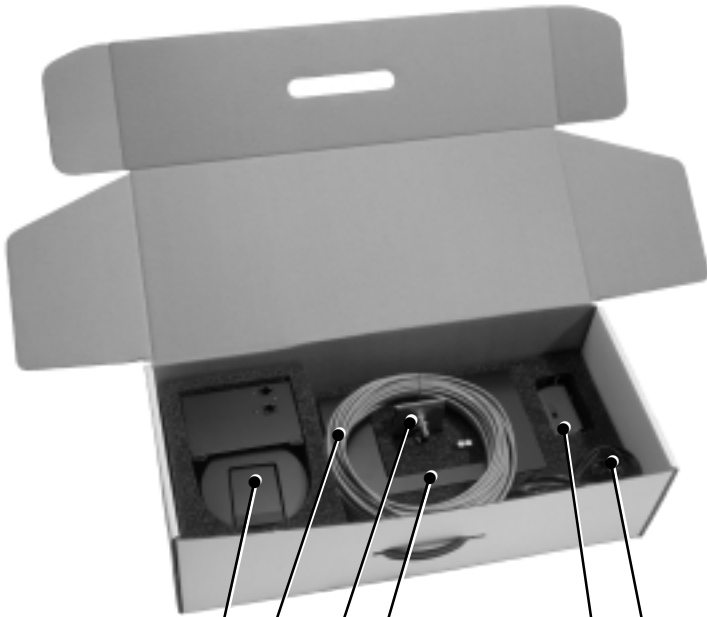
Wall Mounted Pan/Tilt/Zoom Camera

Installation & User Guide



**READ AND RETAIN
THIS MANUAL FOR
FUTURE REFERENCE**

Your Complete WallCam PTZ Kit



CAMERA

50' CAT. 5

WALLPLATE

WALL FLANGE

**POWER
ADAPTER**

VIDEO CABLES

Installing Your WallCam PTZ Camera

Read all instructions before you begin the installation. Have the proper tools available:

- Phillips screwdriver
- Roto-zip or drill saw (to cut out wall section)
- Drill and 3/8" bit (for enclosed toggle bolts)

Unpack Camera Module and Parts

1.) The camera is pre-mounted in a low profile finished metal enclosure. Carefully remove the camera/enclosure module and other parts from foam packing material.

2.) Set the unit on a flat, solid surface. Unpack and identify the parts:

- Power supply
- 50-foot (15.24m) shielded plenum-rated Cat. 5 cable with RJ-45 connectors
- 25-foot (7.62m) S-Video cable
- Paper drill template
- Wall trim plate/flange mounting
- Wallplate
- Four (4) toggle bolts
- IR remote control unit
- Two (2) AAA batteries
- Four (4) plastic screw head covers

Prepare Wall for Camera Mounting

1.) Determine the best location for mounting the camera. The camera module sets into wall approximately 2-1/2 to 3 inches, you will need to mark the cutout section of wall and the drill holes for the wallplate with the provided template. The 50-foot cable runs down the inside of the wall and attaches to the wallplate that provides all necessary video and power connections.

The front of the wallplate provides the breakout connections for power, S-Video and composite video. A 25-foot S-Video cable and a RCA to BNC adapter are included for flexibility in connecting to video devices.

NOTE:

All cable connections should be made after cable is run through the wall, and before the camera is mounted on the wall. *Do not connect the power supply until all other connections have been made.*

2.) Cut opening in wall after marking with enclosed template. Measure depth inside the wall. Attach the mounting flange (provided) to the camera bezel with enclosed screws and tighten completely at the measured distance.



Figure 1 – Installing the WallCam PTZ.

Make Cable Connections



Figure 2 – MAIN and RS-232 connectors on top of camera module.

The connectors on the back of the camera module are labeled MAIN and RS-232. The MAIN connector carries S-Video (S-VHS), composite video and power from the rear of the camera module to the rear of the wallplate. The RS-232 connector is for use with control systems such as Crestron® and AMX®, or a Polycom® VS4000 (the RS-232 cable is not provided).

1.) The 50-foot enclosed Cat. 5 cable is plenum rated for use inside plenum spaces. Connect this cable to the port labeled “Main” on the top of the WallCam. Run this cable through the wall and connect it to the RJ-45 Jack on back of the wallplate.

The wallplate houses the composite video and the S-Video outputs. These outputs connect to inputs of devices such as videoconferencing systems, monitors/receivers, VCRs, LCD and DLP projectors, video switchers, video capture cards, video to USB adapters, etc.



Figure 3 – WallCam PTZ wallplate.

2.) Connect the S-Video cable to the “S-Video” jack. The other end of this cable will connect to the “S-Video In” jack on any S-Video capable device.

*If the device you’re connecting to is **not** S-Video capable, connect the composite video cable instead, using the “Composite Video” jack.*

3.) Make RS-232 control connections. The WallCam PTZ is equipped with an RS-232 control interface on an RJ-45 jack (see Appendix and Figure 6, pages 12 and 13). Communication settings needed are: 9600 8N1. For RS-232 instructions, see Appendix A on pages 12 and 13.

NOTE:

Both S-VIDEO and COMPOSITE outputs are live and can be used simultaneously.

NOTE:

RS-232 control is not necessary for stand-alone camera operation using the included IR remote control.

NOTE:

Your WallCam PTZ camera is shipped with the correct power supply for the unit. Using a different power supply will void any all warranties.

NOTE:

- The remote control will not function if batteries are not installed or if they are low.
- Do not use rechargeable (Ni-Cad) batteries in the remote. These types of batteries may have different performance and dimensions from normal batteries.
- Replace batteries at the same time. Mixing fresh and low batteries could cause internal cell pressure and rupture the discharge batteries.
- Do not charge, short-circuit disassemble, heat, or dispose of the batteries in fire.
- Remove all the batteries when replacing.

DIP Switch Settings

Set DIP switches. Two (2) DIP switches on the WallCam's back need to be set before installation in the wall.

- For normal operation, set both switches to OFF.
- The WallCam can be set up to work with a Polycom VS4000 by utilizing the RS-232 port. If the WallCam will be run from a Polycom VS4000, set both switches to ON.

Mount Camera and Wallplate

Finish installation by mounting camera with toggle bolts through mounting flange into the wall. Attach wallplate with the screws provided to a standard single gang wall box or place in an equipment rack in a surface-mount wall box.

Connect Power Supply

Finally, connect the provided 12 VDC power supply to the jack on the front of the wallplate labeled 12 VDC and plug the power supply into a standard 100V-120V, 60Hz or 200-240 V, 50Hz electrical outlet. The camera should power up immediately.

Operating Your WallCam PTZ Camera

The WallCam PTZ can act as a freestanding camera, or it can be run by an external device such as a videoconferencing system using the RS-232 port.

IR Remote Control

The IR remote unit controls camera zoom-in, zoom-out, pan and tilt movements. In addition to the power, zoom, pan and tilt, the camera can also store six (6) preset locations, focus, white balance, and backlight.

- 1.) Slide the battery cover tab in the direction of the arrow in the tab.
- 2.) Insert two (2) AAA batteries, making sure the battery +/- terminal symbols line up with the corresponding +/- symbols inside the battery compartment.
- 3.) Replace the battery cover.

Using the IR Remote Control

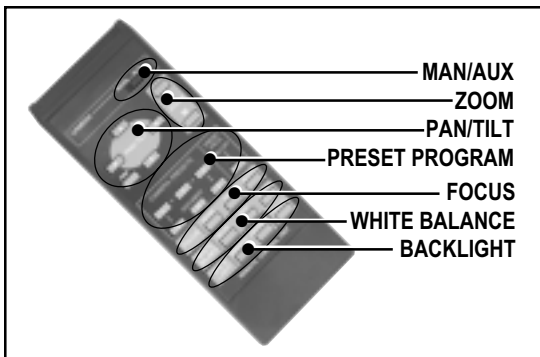


Figure 4 – WallCam PTZ's remote control.

Operate camera using the following buttons on the IR remote unit:

Zoom

The WallCam PTZ is capable of zooming to a 21X magnification factor allowing you to quickly and easily focus in on an object or document.

T – Telephoto (Zoom In)

W – Wide angle (Zoom Out)

Press and hold the corresponding “Zoom” button to zoom in out. Release the button when the zoom is at the desired level. The camera will focus automatically when the zoom motion stops.

Backlight Adjustment

Press DARKNESS or LIGHTNESS keys to adjust backlighting or to change the brightness of the screen.

White Balance Adjustment

The camera defaults to automatic white balance.

- To change the white balance, press BLUE or RED buttons to adjust white balance.
- To keep the current setting, Press and HOLD button.
- Press the AUTO button to re-enable automatic white balance.

Focus Adjustment

To manually adjust the focus to an object close

to the camera, press NEAR. For an object that is a distance from the camera, Press FAR.

To re-enter auto-focus, Press AUTO.

Main/Aux

Keep camera on MAIN. The AUX function is not enabled in this camera.

Preset Prog On/Off

The camera can store up to six (6) positions. To store a location, press PRESET PROG ON/OFF. The power light will flash. Press the preset key you want to store (1-5 and D). The D key is primarily designed for document position.

Care and Cleaning of Your WallCam PTZ Camera

- Do not attempt to take the camera apart. There are no user-serviceable components inside.
- Keep the camera away from food and liquid.
- Avoid touching the lens. Clear any dust with a blower. For accidental smears or smudges, wipe carefully with a lens cleaning cloth.
- Clean exterior of camera by wiping with a clean, damp cloth; do not use any abrasive chemicals.

Operating and Storage Conditions

Do not store or operate the WallCam PTZ camera under the following conditions:

- A temperature above 104°F (40°C) or below 32°F (0°C)
- Environments with high humidity
- Dusty environments
- In inclement weather
- Under severe vibration

Troubleshooting

Problem	Suggestion
<p>Green LED does not indicate camera power is turned on.</p>	<p>Verify that the 50-foot RJ-45 cable is connected between the MAIN jack on the top of the camera module enclosure and the RJ-45 jack on the back of the wallplate.</p> <p>Make sure the power supply is plugged into a wall outlet and the “power” jack on the wallplate.</p> <p>If the unit is operated with the RS-232 port, the camera can power on/off. The camera may have been turned off by a controlling device, see Appendix pages 12 and 13 for RS-232 instructions.</p>
<p>Green LED is on, but no picture appears on the screen.</p>	<p>Check cable connections; make sure power connections are secure and that unit is plugged into power source.</p> <p>Verify that the 50-foot Cat. 5 cable is connected between the MAIN jack on the top of the camera module enclosure and the RJ-45 jack on the back of the wallplate.</p> <p>Verify that video connections are tight and fully inserted.</p>

(“Troubleshooting” continued on page 10)

Troubleshooting *continued*

Problem	Suggestion
<p>RS-232 connection does not work.</p>	<p>Verify controlling device is operating properly.</p> <p>Check cable connections. Make sure the RS-232 cable has correct pin configuration and is connected to the RS-232 jack on the top of the camera.</p> <p>Verify correct DIP switch settings. If the camera is being controlled by a Polycom VS4000, the DIP switches must be ON. For normal operation, the DIP switches must be OFF.</p>
<p>IR remote unit does not work.</p>	<p>Verify that fresh batteries are installed and positioned correctly.</p> <p>Make sure MAIN/AUX switch on is set to MAIN.</p> <p>Remove power supply plug from the 12 VDC jack on the wallplate. Wait a few seconds and reinsert the power supply plug.</p> <p>Make sure remote is positioned toward IR sensors in front of camera.</p>

WallCam PTZ Specifications

Image Pick-up Device	1/4" CCD
Number of Effective Pixels	752H x 582V
Focal Length	3.9 - 79.8mm
Zoom Range	21:1
Maximum Horizontal Field of View	51 degrees
Focus Control	Auto/manual/hold
Iris Control	Auto/direct/hold
White Balance	Auto/manual/hold
Shutter Speed	Adjustable
Backlight	Adjustable
Video Output	S-Video (S-VHS)/Composite
S/N Ratio	>49dB
Horizontal Resolution	460 TV lines
Minimum Illumination	<5 lux
Tilting Angle	+15 to -87 degrees
Panning Angle	-100 to +100 degrees
Preset Position	Six (6) with remote control; Eleven (11) with RS-232 control
Control Method	Wireless remote control and RS-232C port
Wall Cut-out	6 1/4"(W) x 5"(H)
Trim Plate	11 1/6"(W) x 6 7/8"(H)
Wallplate	S-Video/Composite/Power
Cables	50'/15.24m Shielded Plenum Cat. 5 Cable with RJ-45 Connectors; 25'/7.62m S-Video Cable
Power Supply	12 VDC
Enclosure	Charcoal metal finish
Dimensions (with camera installed)	11"(W) x 6 3/16"(H) x 8 3/4"(D)
Weight	6.6lbs/3.0kg

Appendix A: RS-232 Instructions

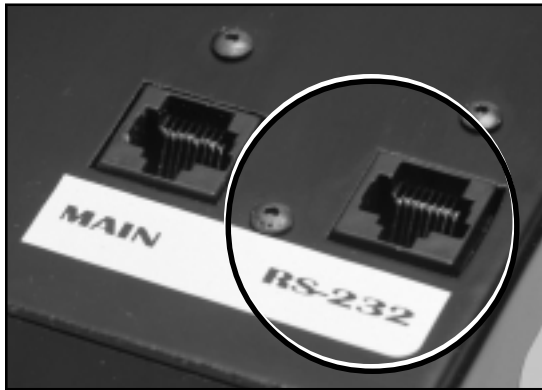


Figure 5 – RS-232 control jack.

RS-232 Pin-outs

Pin 1	Not used
Pin 2	Not used
Pin 3	Not used
Pin 4	Not used
Pin 5	GND
Pin 6	GND
Pin 7	TXD
Pin 8	RXD

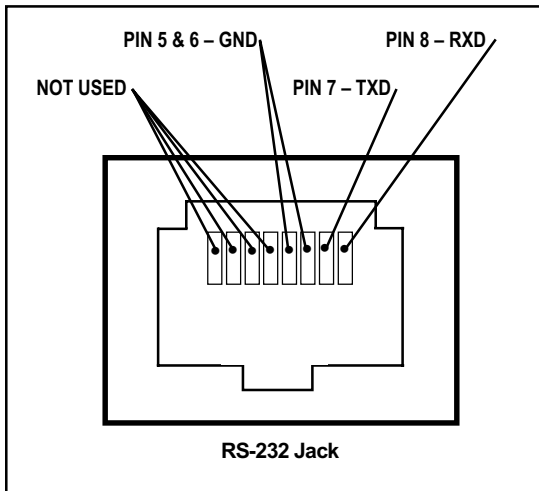


Figure 6 – RS-232 jack pin-out table.

RS-232 Instructions

Please refer to the following RS-232 instructions. If you'd like to have an extended RS-232 instruction set, refer to the VideoLabs web site www.videolabs.com where you'll find downloadable instructions.

HOME CAMERA	0x38
ZOOM OUT	0x4B
ZOOM IN	0x4C
ZOOM STOP	0x4D
PAN LEFT	0x40
TILT UP	0x45
TILT DOWN	0x55
PAN/TILT STOP	0x4A
POWER SAVE ON	0x6A
POWER SAVE OFF	0x6B

NOTE:

In the event of static discharge, RS-232 communication may be temporarily disrupted. This may require restarting the controlling device in order to return to normal operation.

Warranty Information

Warranty Information on Hardware* – One (1) year limited warranty on all parts. VideoLabs warrants this product against defects in materials and workmanship for a period of one (1) year from the date of purchase. If VideoLabs receives notice of such defects during the warranty period, VideoLabs will either, at its option, repair or replace products which prove to be defective.

Exclusions – The above warranty shall not apply to defects resulting from: improper or inadequate maintenance by customer, customer-supplied software or interfacing; unauthorized modifications or misuse; operation outside of the environmental specifications for the product; use of incorrect power supply; or improper site operation and maintenance.

Obtaining Warranty Service – To obtain warranty service, products must be returned to a service facility designated by VideoLabs. Customer shall prepay shipping charges for product(s) returned to VideoLabs for warranty service and VideoLabs shall pay for return of the product(s) to customer. However, customer shall pay all shipping charges, duties and taxes for product(s) returned to VideoLabs from another country.

VideoLabs Customer Service – If the camera is still under warranty, VideoLabs will test, repair or replace the product(s) without charge. If the camera is out of warranty, VideoLabs will test, then repair the product(s) for the cost of parts and labor. Charges will be estimated by a technician and confirmed by the customer prior to repair. All camera components must be returned to be tested as a complete unit.

Repair time for all cameras is a maximum of two (2) business days from receiving to outbound shipping. VideoLabs will not accept responsibility for shipment after the camera has left the premises.

VideoLabs Technical Support – VideoLabs' technicians will determine and discuss with the customer the criteria for repair costs and/or replacement. Contact VideoLabs' Technical Support through one of these sources: Phone: 866-384-3245 (U.S. only) or 763-542-0061; E-mail: support@videolabs.com or Web Site: www.videolabs.com.

RMA Number (Return Merchandise Authorization Number) – Before returning a camera for repair or replacement, request an RMA number from VideoLabs Technical Support.

Provide the technician with a return phone number or E-mail and a shipping address. Describe the product(s), provide serial number(s), the reason for repair or return, and the date of purchase.

Include your assigned RMA number on all correspondence with VideoLabs. Write your assigned RMA number on the outside of the box when you return the camera.

Voided Warranty – This warranty does not apply if the VideoLabs serial number has been removed or if the product(s) has been disassembled or damaged through misuse, accident, modifications or unauthorized repair.

Shipping and Handling – VideoLabs will not pay for inbound shipping, transportation or insurance charges, or accept any responsibility for loss and/or damage from inbound transit. VideoLabs requires that all overseas returns are shipped via UPS.

VideoLabs will pay for outbound shipping, transportation and insurance charges but will not assume responsibility for loss and/or damage by the outbound freight carrier.

Products Not Under Warranty – Payment arrangements are required before outbound shipping for all products that are out of warranty.

*VideoLabs manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry-standard practices.

Declaration of Conformity

In accordance with ISO/IEC Guide and EN 45014:

Manufacturer's Name	VideoLabs
Manufacturer's Address	5960 Golden Hills Drive Minneapolis, MN 55416-1040 763-542-0061
Declares that Product	– Product Name: Image Capture Devices – Model Number: WallCam PTZ
Conform to the following product specifications	– Safety International: IEC 950:1991 – Europe: EN 60950: 1992

This product complies with the requirements of the Low Voltage Directive 72/23/EEC.

EMC CISPR22: 1985/EN55022: 1995 Class B

EN 55022	Class B: 1998
EN 61000-3-2	1995
EN 61000-3-3	1995
EN 55024	1998
CFR 47	1999 §15.107 and §15.109 Class B

This product complies with the requirements of the EMC Directive 89/336/EEC.
Minneapolis, MN – September, 1999

According to CFR 47:1999, Sections 15.107 and 15.109 – Class B

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause under sired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

Supplied cables must be used with this unit to ensure compliance with the Class B FCC Limits.

Also a Class B digital device meets all requirements of the Canadian Interference-Causing Equipment Regulations.

**Electrostatic discharge to camera head may result in temporary loss of control functions.*



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TEMPLATE

