

TROUBLE SHOOTING

The screen is blank	<ul style="list-style-type: none">• Check that the CCTV camera is powered up.• Check that the monitor is powered up.• Check that the video cable connecting the camera to the hub is connected properly.• Check that the cable(s) connecting the hub to the monitor, switcher, DVR, or multiplexer are connected properly.• Double-check the connections to any passive or active baluns.
The screen image is dim	<ul style="list-style-type: none">• Clean the camera lens (using a soft, clean cloth).• Check that the camera light source is adequate.• Clean the camera dome (if applicable).• If the backlight control (BLC) DIP switch on the camera is set to OFF, try setting it to ON.
The screen image is dark	<ul style="list-style-type: none">• Check that the automatic electronic shutter (AES) DIP switch on the camera is turned OFF.
The screen image has poor contrast	<ul style="list-style-type: none">• Adjust the monitor's contrast knob.• Change the position of the camera.
The screen image flickers	<ul style="list-style-type: none">• Change the position of the camera.
The screen image rolls	<ul style="list-style-type: none">• If multiple cameras are used, make sure the polarity of the power connections is consistent.
The screen image is distorted	<ul style="list-style-type: none">• (24VAC only) If more than one camera is attached to the same power source, adjust the other camera's linelock sync.• Change the position of the camera.
The camera case is hot	<ul style="list-style-type: none">• Check that the correct power supply is in use.

IMPORTANT: Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. **SECO-LARM** will not be held responsible for the use of this product in violation of any current laws or statutes.

WARNING: Incorrect mounting which leads to exposure to rain or moisture inside the enclosure could cause a dangerous electric shock, damage the device, and void the warranty. Do not open the case of this device, as there are no field-serviceable components inside.

WARRANTY: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for a period of one (1) year from the date of sale to the original consumer customer. Our obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. For complete details regarding the SECO-LARM warranty, please contact SECO-LARM.

NOTICE: The information and specifications printed in this manual are current at the time of publication. However, the SECO-LARM policy is one of continual development and improvement. For this reason, SECO-LARM reserves the right to change specifications without notice. SECO-LARM is also not responsible for misprints or typographical errors. Copyright © 2005 SECO-LARM U.S.A., Inc. All rights reserved. This material may not be reproduced or copied, in whole or in part, without the written permission of SECO-LARM.

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ENFORCER[®] VIDEO

MANUAL

EVT-PH16-4T2

16-Port Passive Transceiver Hub Video • Data • Surge Protection

- For CCTV cameras at up to 2,000 ft. (610m) away.
- Rack-mountable / stackable.



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INTRODUCTION

Thank you for purchasing the EVT-PH16-4T2 16-port passive video transceiver hub.

The EVT-PH16-4T2 allows up to 16 color or monochrome CCTV cameras to be connected via inexpensive CAT 5e unshielded twisted pair (UTP) cable to a video switcher or multiplexer. It cuts the cost and complexity of security networks by eliminating the need to run expensive coax cable to multiple CCTV cameras. A built-in RS485 port allows the transmission of PTZ (pan/tilt/zoom) signals to up to 16 CCTV cameras or other devices.

To install, just run a CAT 5e UTP cable from the CCTV camera location to the transceiver. At the camera end, plug the cable into a passive video balun such as the SECO-LARM EVT-PB1, or into an active video balun such as the SVT-TB1-42T transmitter. At the hub end, connect the UTP cable to the back. Then run short coax cables from the hub to a video switcher, multiplexer, or DVR.



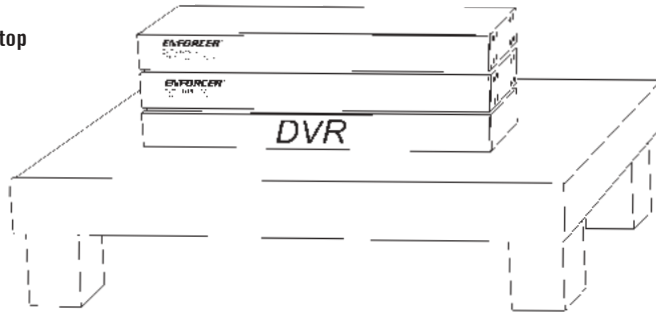
FEATURES:

- Connects up to 16 CCTV cameras using low-cost CAT 5e UTP cable to a central location.
- Works in conjunction with passive video baluns such as SECO-LARM's EVT-PB1, or active video baluns like SECO-LARM's EVT-TB1-42T transmitter. For passive operation, the camera plugs into the video balun at one end of the UTP cable, and the other end of the cable plugs into the EVT-PH16-4T2.
- Works with full-motion monochrome CCTV cameras up to 2,000 feet (610 meters) away, and with full-motion color CCTV cameras up to 1,300 feet (400 meters) away, via passive video baluns.
- Feeds the camera signals to nearly any standard video multiplexer or switcher or digital video recorder via coax cables.
- Built-in RS485 port connects to a PC or other device to control the pan, tilt, and zoom (PTZ) of up to 16 remote cameras or devices.
- Compact enclosure, only 1U (1.75 inches) high. Mounts in a standard 19-inch rack with the ports in front or on the back, or stacks on a shelf or table.
- Interference protection technology allows video signals to run across existing UTP cables or cable bunches, including existing telecom or low-voltage power circuits.
- Built-in transient protection.
- Complete passive operation, no power required.

SPECIFICATIONS:

Video input ports	16 x 2-wire ports on removable terminal blocks
Video input cables	Unshielded twisted pair (UTP), min. CAT 2. Use CAT 5e or better for best range and video signal.
Video output ports	16 x BNC connectors, each 1Vp-p, 75 ohms.
Video output cables	Coax.
Data input	1 x 2-wire port, for PTZ control signals from a PC.
Data output	16 x 2-wire ports on removable terminal blocks.
Power	No power required.
Surge protection	Video and data
Size	1U form factor, 17.25" x 6.75" x 1.75" (482 x 170 x 44 mm)
Weight	4.9 lb. (2.2kg)
Material	Steel cabinet, black matte finish.

Fig. 1: Stacking on a Shelf or Tabletop



INSTALLATION:

1 Determine mounting location and facing:

1.1 For mounting on a shelf or tabletop:

Two or more units can be stacked on top of each other for a compact installation. See fig. 1.

1.2 For mounting in a standard 19-inch computer or telecom rack (fig. 2):

1.2.1 The EVT-PH16-4T2 can be mounted with the name-plate on front, which allows for a clean-looking installation, or with the connector ports on front, which allows easy access to the cables.

1.2.2 The EVT-PH16-4T2 includes two rack-mount brackets. They can be installed to the front of the unit or the back of the unit, depending on which installation method is preferred. See fig. 3.

1.2.3 Mount the EVT-PH16-4T2 into the rack.

Note: EVT-PH16-4T2 can be mounted facing the front or the back.

Fig. 2: Rack Mounting the EVT-PH16-4T2

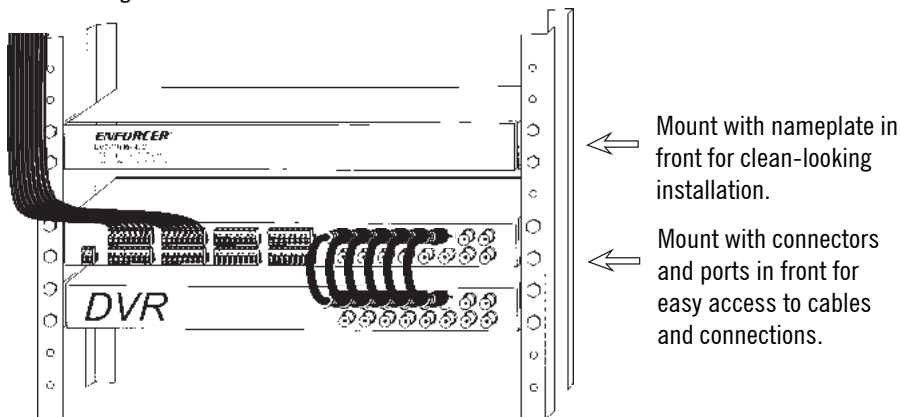
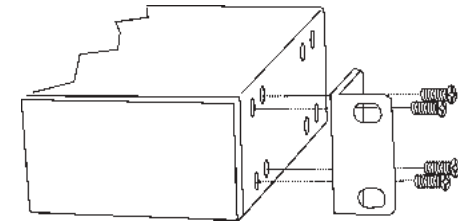


Fig. 3: Installing the Rack Mount Brackets



2 Run CAT 5e UTP cables from the cameras for the video signals:

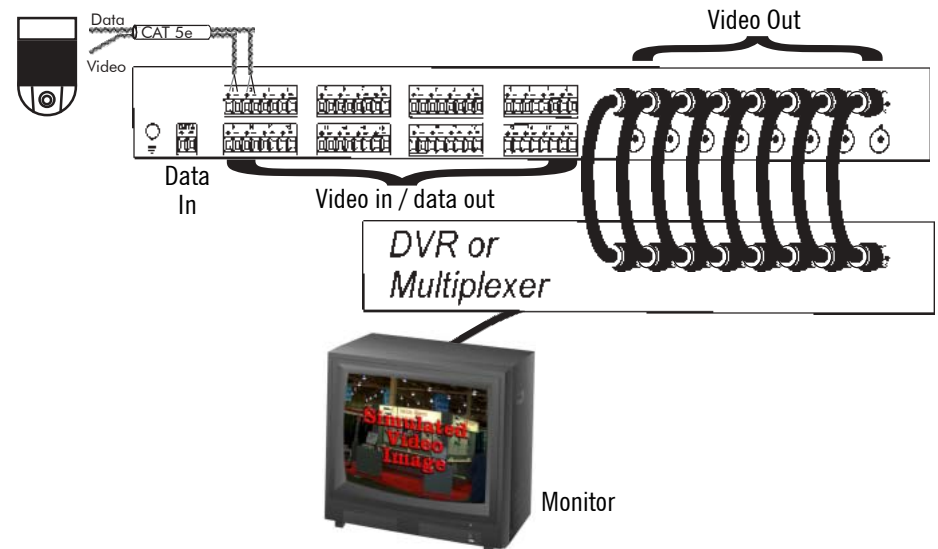
2.1 Run a UTP cable from each camera through the walls or through conduit to the EVT-PH16-4T2.

NOTE: If existing telecom or data UTP cables are available, they can be mixed and matched with new cables. Running two or more cables together should not affect the video signals.

NOTE: If the CCTV cameras have pan/tilt/zoom (PTZ) capabilities, the cable should have a minimum of two pairs of wires.

2.2 Connect a video balun (EVT-PB1 or similar model) to a pair of wires in the UTP cable near the CCTV camera, and then plug the video balun into the camera. Connect the matching pair of wires in the cable at the other end to the correct video-in port on the back of the EVT-PH16-4T2. See figs. 4 & 5.

Fig. 4: Connecting to CCTV Cameras / PTZ Cameras and Multiplexor/DVR (See fig. 5 for each channel's video and data position.)



- 3 Run CAT 5e UTP cables from the EVT-PH16-4T2 for the PTZ signals (optional) (figs. 4 & 5):
 - 3.1 Run a UTP cable from the EVT-PH16-4T2 to each camera through the walls or through conduit. This step is not necessary if the cable connecting the camera video signal to the EVT-PH16-4T2 has an unused pair of wires.

NOTE: If existing telecom or data UTP cables or twisted-wire pairs are available, they can be mixed and matched with new cables. Running two or more cables together should not affect the PTZ signals.
 - 3.2 Connect one pair of wires in the UTP cable to the PTZ-out connector on the back of the EVT-PH16-4T2, and the same pair at the other end of the cable to the PTZ signal input connector of the CCTV device.
- 4 Connect a PC to the RS485 data port (optional) (fig. 4):

NOTE: This port allows software on a PC to control the pan, tilt, and zoom of up to 16 cameras connected to the EVT-PH16-4T2.

NOTE: The PC and the software are not included with the EVT-PH16-4T2. SECO-LARM does not manufacture either the PC or the software, and cannot offer technical support for these products. For such support, please contact the corresponding manufacturers.
- 5 Connect the EVT-PH16-4T2 to a DVR, video switcher, or video multiplexer (fig. 4):

Run one coax cable (not included) from each video-out port on the EVT-PH16-4T2 to the corresponding video-in port of the DVR, switcher, or multiplexer.

NOTE: The DVR, switcher, or multiplexer are not included with the EVT-PH16-4T2. For support for such products, please contact the corresponding manufacturers.

Fig. 5: Terminal blocks pull out for easy installation.

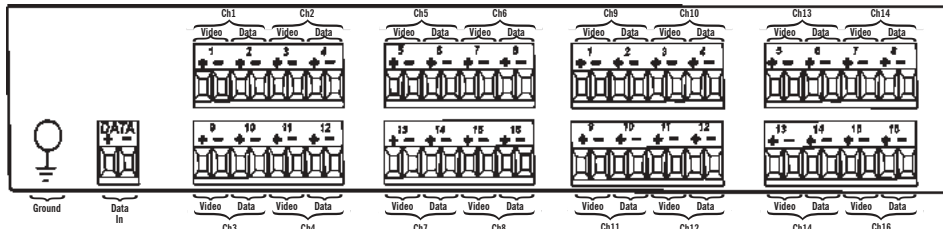
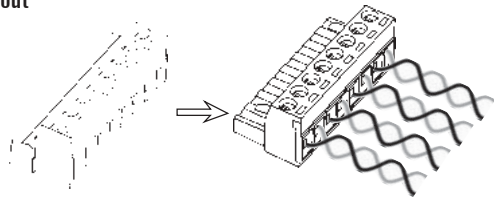


Fig. 6: Typical Installations

