



INSTALLATION MANUAL

ST-CCTV-VBAC **1 Channel UTP Active Video Balun** **Transceiver**

PACKAGE CONTENTS

This package contains:

- One ST-CCTV-VBAC-TX Active Video Transmitter
- One ST-CCTV-VBAC-RX Active Video Receiver
- One installation manual

Note: A ST-PS12VDC1A 12V DC power supply is required for each ST-CCTV-VBAC-TX and ST-CCTV-VBAC-RX and sold separately (i.e., 2 power supplies for the pair).

PRODUCT DESCRIPTION

The ST-CCTV-VBAC Active Video Balun Transceiver allows the transmission of real-time video over Unshielded Twisted Pair (UTP) cable such as CAT5, 5e and 6. The ST-CCTV-VBAC-TX video transmitter converts an unbalanced video signal to a balanced signal transmitted over UTP. The ST-CCTV-VBAC-RX video receiver then converts the balanced video signal to an unbalanced signal for display on the device. These units offer excellent common mode and multi-channel interference rejection and the transmission and display of high quality color video for security, surveillance, video conferencing, video distribution and PTZ control signal applications.

SPECIFICATIONS

ST-CCTV-VBAC

Specifications (Typical)

1. Video Frequency Response	DC-8MHz
2. Video Common Mode and Differential Mode Rejection	15KHz-6MHz 60dB typical
3. Wire Type	24-16AWG UPT CAT5 or higher DC Loop Resistance $\leq 18\Omega/100m$ Differential Capacitance 62pF/m (max)
4. Interface	2 PIN UTP Terminal Block BNC (female) Connector DC Jack
5. Impedance	Twisted Pair: 100 Ω BNC Coax: 75 Ω
6. Transmission Distance	1800 meters / 5,905 feet
7. Suppression	6KV 10uS*700uS IE61000-4-5
8. Power	DC 12-14V
9. Environmental	-4°-158° F, 0%-90% Humidity
10. Dimensions	3.2x.3.3x1.2 (with BNC)
11. Weight	4.6 oz

INSTALLATION AND OPERATION

1. UNPACKING and HANDLING

Each unit is shipped assembled and factory tested.

Ensure that all accessories are removed from the container before discarding packing material

2. MECHANICAL INSPECTION

Inspect the front and rear of the equipment for shipping damage. Make sure the equipment is clean, and no connectors are broken, damaged, or loose. If equipment appears to be damaged or defective please contact your distributor or SecurityTronix at 1-610-429-1511 for assistance.

3. PRODUCT PICTURES and WIRING DIAGRAM

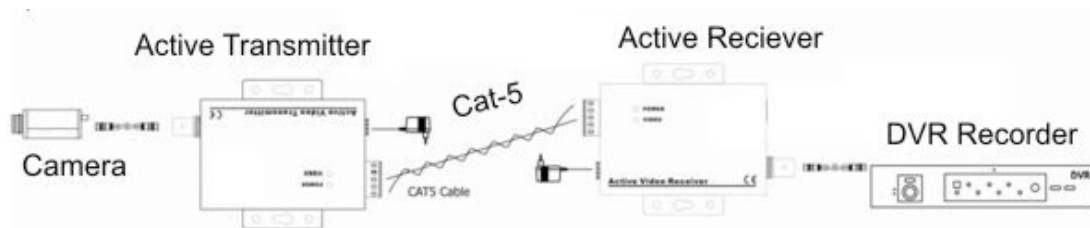


ST-CCTV-VBAC-TX



ST-CCTV-VBAC-RX

4. HARDWARE CONNECTIONS and ADJUSTMENT



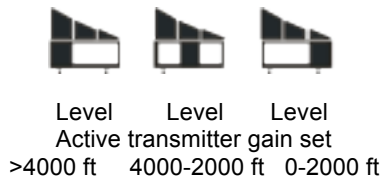
- Connect the video source (e.g., security camera) to the ST-CCTV-VBAC-TX's BNC port using coaxial cable with BNC connectors.
- Connect two wires from the UTP cable to the ST-CCTV-VBAC-TX's wire block. Make note which color wire is connected to the wire block's polarity. You will need to ensure the same wires and polarities are connected to the ST-CCTV-VBAC-RX's wire block.
- Connect the same UTP wires to the ST-CCTV-VBAC-RX's wire block. Again, make

sure the wire connection have the same polarity on both the transmitter and receiver.

- d. Connect a coaxial cable with BNC connectors between the ST-CCTV-VBAC-RX's BNC port and the receiving device (e.g., display, DVR recorder).
- e. Connect an ST-PS12VDC1A 12V DC power supply to the ST-CCTV-VBAC-TX and another ST-PS12VDC1A power supply to the ST-CCTV-VBAC-RX. Connect each supply to an AC outlet. An LED on each unit will display a green light indicating the transmitter / receiver is powered.

Settings

- a. The ST-CCTV-VBAC-TX will require gain adjustment consistent with cable distance. Use the following as a reference guide for setting the transmitter's Gain Control per distance.



- b. Use the ST-CCTV-VBAC-RX's brightness control to adjust the required brightness level.
- c. Image sharpness may be affected with the length of the transmission cable. The ST-CCTV-VBAC-RX's Sharpness Control can be used to achieve the best image sharpness. Refer to the reference guide below to set the sharpness control's DIP switches per cable distance.



Active receiver sharpness chart (suggested for best color video transmit distance)

5. TROUBLESHOOTING

- a. Make sure all component and UTP cable connections are tight and not loose.
- b. Ensure the wire connections on the transmitter and receiver are using the same polarities.
- c. The quality of CAT cables has a major effect on the usable distance of transmission lines and the quality of the displayed signal. Therefore, the actual transmission length is subject to the quality of the CAT cables being used. Professional grade transmission lines such as Cabletronix CAT-5/5e cables should be used.
- d. If your device is not displaying a video signal check to be sure the transmitter and receiver each have power. Then check all wire connections for tight fit and correct polarity.
- e. If interference appears on the image check all system connections including camera, housing, monitor, DVR, etc. as well as ensuring all devices are property grounded.

- f. If the image appears twisted or wobbly make sure the wire connections on the transmitter and receiver have the same polarities.
- g. If the image is too bright the received signal may be too strong and require adjustment using the ST-CCTV-VBAC-RX's Brightness Control and Sharpness Control. It may also be necessary to adjust the ST-CCTV-VBAC-TX's gain control.
- h. Further troubleshooting assistance can be found on-line at www.securitytronix.com in addition to support from SecurityTronix sales engineers at 1-610-429-1511.

This is a notice to inform you that content passing through this device may contain strong language or depictions of violence, sex, or substance abuse. This unit contains no parental control features. Parental discretion is advised.