5. Troubleshooting

Problem	Cause	Solution
No picture	Connections are not secure Wrong pair of wires	Make sure the connections are secured properly and wires are not broken or missing. Verify that each video signal uses conductors from the same twisted pair.
Scrambled picture	Wrong polarity	Check polarity on each pair of wires. Make sure to match the corresponding numbers on the detachable terminal block and BNC connectors
Picture is unstable and has ghost effect	Long stubs	The transceiver devices must be used with point to point connection of unshielded twisted pair wires. Remove any extra branch of twisted pair wires. Verify that there are no star configurations.
Noisy picture	Untwisted pair of wires	Use twisted pair wires to avoid interference.
Dim picture	Long wires High gauge wires. UTP more than 4000 ft.	Adjust the gain. Wire gauge must be 24 or better. Use lass than 2000 ft. with passive transceivers
Low quality or blurred picture	Shielded wires	Use unshielded twisted pair wires Cat 2-7 to avoid impedance mismatch.

6. **Limited Lifetime Warranty**

Vigitron, Inc. warrants that all Vigitron products ("Product"), if used in accordance with these instructions, will be free of defects in material and workmanship for as long as the original end user purchaser owns the product. At **Vigitron**'s option, defective product will be repaired, replaced or substituted with a product of equal value.

This warranty does not apply if, in the judgment of **Vigitron, Inc.**, the Product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained not conforming to Product manual instructions, has been modified, or serial number removed or defaced. Repair by anyone other than **Vigitron, Inc.** or an approved agent will void this warranty. **Vigitron, Inc.** shall not under any circumstances be liable to any person for any incidental, indirect or consequential damages, including damages resulting from use or malfunction of the product, loss of profits or revenues or costs of replacement goods. The maximum liability of **Vigitron, Inc.** under this warranty is limited to the original purchase price of the Product.

Prior to returning any defective Product, the end customer or the reseller from whom the end customer originally purchased the Product must obtain a Return Materials Authorization (RMA) number from **Vigitron, Inc.** All defective Products should be returned to **Vigitron, Inc.** with shipping charges prepaid. No collect shipments will be accepted.

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MODEL Vi6204

4-PORT ACTIVE UTP RECEIVER HUB

USER'S MANUAL

VIGITRON

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1. Introduction

The Vigitron Vi6204 is an active 4-port UTP receiver hub that can reach distances up to 2,000 ft. (960 m) with a passive transmitter and 4,000 ft. (1,220 m) using Vi6300VT active receiver. It features Vigitron's Automatic Video Compensation (AVC). The distance is automatically adjusted by an internal microcontroller to provide the best video quality.

This hub uses Category 2-7 twisted pair wires and is easy to install. It has built-in surge suppression to protect video equipment against damaging voltage spikes. Its cross-talk and noise immunity ensures quality video signals. The Vigitron passive and active hubs offer quality video in a highly integrated and a cost-effective package. This HUB is ideal for a wide variety of security and surveillance applications that require medium-density CCTV systems.

2. Mating Model Numbers and Features:

Model #	Distance (feet)	Mating Model #
Vi6204	2,000 ft. (960 m)	Any Vigitron passive transceiver
	4,000 ft. (1,220 m)	Vi6300VT

3. Specifications*

Video Format	NTSC, PAL, and SECAM
Frequency	20Hz to 6 MHz
Coax	75 Ohm
Twisted Pair	100 Ohms +/- 20%, 24 AWG min, Unshielded Category 2-7
CMRR	70 dB
Power	12V DC or AC
Connectors	UTP: UTP: Detachable Terminal Blocks and RJ-45 Video: Female BNC Ground: Screw terminal
Temperature	Operating: -10C to +70C, Storage: -30C to +70C
Humidity	0 to 95%, non-condensing
Transient Immunity	6000V, 1.2 usec x 50 usec
Material	Black ABS Plastic, UL rating of 94V-0
Dimensions	0.90x2.19x4.88 Inches, 2.3x5.6x12.4 cm (HxWxL)
Weight	0.2 Lb, 100 g
Mounting	Philips Screws, VI0010 Rack-Mounting Kit (not Included)

*Specifications subject to change without notice.

4. Installation

4.1 Helpful tips:

Before getting started verify the following items:

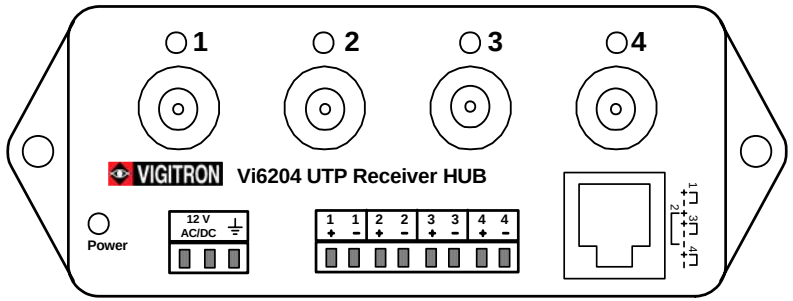
- Unshielded Twisted Pair (UTP) wires (24 AWG or better). **Do not** use untwisted wires since it may result in interference and noisy picture. **Do not** use shielded twisted pair wires since it may cause impedance mismatch.
- Verify that each video signal uses conductors from the same twisted pair.
- The transceiver devices must be used with point-to-point connection of unshielded twisted pair wires. Any extra branch of twisted pair will cause ghost effect and poor quality video.
- **Do not** use more than **25 feet** of coax cable between the transceiver devices and video sources.

4.2 Transmitter side installation:

1. Choose the right mating transceivers (See table in section 2).
2. When a single transceiver is used, connect the video source (camera, etc.) through a coax cable (less than 25 feet) to the BNC video input of each transceiver. Connect one end of the UTP wire to the terminal block of each transceiver. Connect the GND connector to chassis ground. For Active transmitters connect the provided power supply to the power connectors.

4.3 Receiver side installation:

1. Mount the hub near the monitors or VCRs using the VI0010 rack mount panel or by itself.
2. **Connect the ground connector to chassis ground. Failure to connect the ground wire may cause damage to the equipment and void the warrantee.**
3. Connect the hub to the video equipment (monitors, DVRs, etc.) using short coax cables. Make sure the connections are secured properly.
4. Connect the other end of the UTP wire, to the hub's detachable terminal block. Make sure to match the corresponding numbers on the detachable terminal block and BNC connectors. If you are using RJ-45 connector make sure that the wire order matches the marking on the enclosure.
5. If the picture is scrambled change the polarity of the twisted pair wires to the corresponding terminal block.
6. Use the gain/distance knob for adjusting the image quality.



The Vi6204 Top View

Smart choice for quality video