

**Installation and
Operation Manual**
VH851
VH1651

NITEK[®]

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Reduce risk of fire or electrical shock do not expose this product to rain or moisture.

Features of the VH851 and VH1651

- Live video over twisted pair lines for ***up to 1,500 feet***
- Easy to install with just a screwdriver
- High resolution color or monochrome video
- Virtually impervious to hum and noise

System Specifications

VH851 System includes the following:

- (1) VH851 Hub
- (1) Wall power transformer

VH1651 System includes the following:

- (1) VH1651 Hub
- (1) Wall power transformer

Size	1.75"H x 17"W x 6.0"D
Power Requirements	24VAC, 50/60Hz, Class 2 @550mA
Input	Low voltage current loop from balanced UTP transmitters
Output-Video	1.0 vpp composite video Monochrome or Color

Installation

The VH851 and VH1651 UTP Video Receiver Hubs are designed to receive standard UTP video and output standard coax video.

Step 1)

Check the twisted pair for continuity. Do this by shorting the pair of wires at one end and use an ohm meter to check the resistance at the other end. Also, use a multimeter to test the line to make sure there is no voltage on it. The chart below will give you the length of your wires for a measured resistance. Testing each line and recording the length for each camera run can greatly reduce installation time.

For distances greater than 1,500 feet other long range units may be needed.

WIRE GAGE	DISTANCE IN FEET (METERS)						
	500 (152)	1,000 (305)	2,000 (610)	3,000 (914)	4,000 (1219)	5,000 (1524)	6,000 (1829)
22	16	32	64	97	129	161	193
24	26	51	103	154	205	255	308
26	41	82	163	245	326	408	490

Step 2)

Connect the twisted pair from each transmitter to the screw terminals noting the polarity of the connection. If the wires are reversed the video will be unviewable on the monitor. Reversing the wires will not damage the unit.

Step 3)

The VH851 and VH1651 are powered from a 24VAC wall pack. In the case of several units a larger central supply may be used. Contact NITEK® Tech Support for recommendations. It is recommended that each video out BNC jack be connected to a test monitor first for the purpose of adjusting the receivers. After having adjusted each receiver, connect them to the rest of your video system.

Installation - continued

Step 4)

Remove the front panel of the VH851 or VH1651 by pulling the knobs toward you. Inside locate the receiver unit to match the camera you are working on. Set the DIP switches for your camera distance as listed below, use the setting closest to your actual cable length. If you have no video or a streak through your video your wire pair may be reversed. When finished replace the front panel and lock it in place by pushing the knobs in.

Unmarked Positions are Off				Video Level Gain		Video Peaking		
Distance	Switch Position							
	1	2	3	4	5	6	7	8
<100-400 ft. (30-121 m)								
400-700 ft. (121-213 m)					ON			
700-900 ft. (213-274 m)			ON	ON	ON			
900-1,100 ft. (274-335 m)			ON	ON		ON		
1,100-1,300 ft. (335-396 m)			ON	ON		ON	ON	
>1,300 ft. (396 m)	ON	ON	ON	ON		ON		

The settings listed are for normal conditions. Other settings are possible. For added sharpness adjust switches 7 and 8. For more gain adjust 5 and 6. Switches 1 and 2 or 3 and 4 must be operated in pairs to adjust for frequency compensation.

Step 5)

There is also an "Earth Ground" terminal on the rear of the VH1651, this connection provides improved surge protection, it is not required for operation. If the "Earth Ground" is not connected the unit will be grounded through the coax shield.

Troubleshooting

- | | |
|---|--|
| Problem
<i>Fix/Cause</i> | Video inverted or rolling and unstable. <ul style="list-style-type: none">• Reverse the wires of the twisted pair at either the transmitter or receiver. |
| Problem
<i>Fix/Cause</i> | No video out at the receiver. <ul style="list-style-type: none">• Check to make sure that there is video in at the transmit end.• Make sure that the pair of wires you are using is not open or shorted between the transmit and receiver points.• Check power to the receiver. |
| Problem
<i>Fix/Cause</i> | Ghost image at the receiver. <ul style="list-style-type: none">• Bridge tap or "T" tap on the twisted pair video line. Remove tap. |

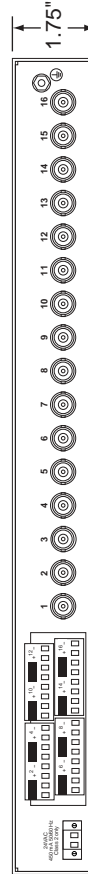
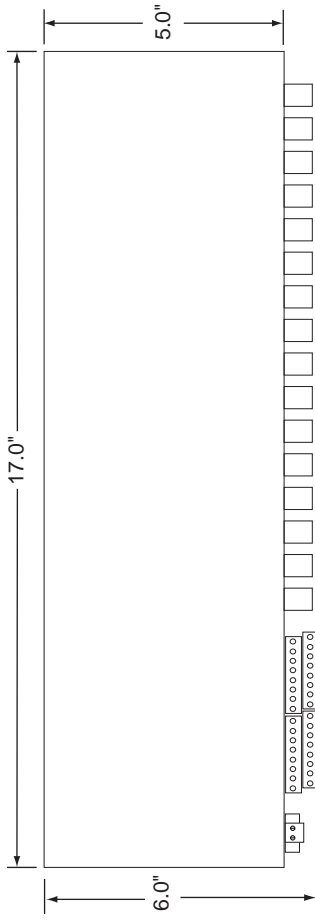
For additional help with problems please call NITEK® Technical Assistance at (800) 528-4343. Hours are from 8am to 5pm Central Standard Time Monday through Friday. We are always ready to help.

Limited Warranty

NITEK® warranties that this unit will be free from defects in materials and/or workmanship. Defective units will be repaired or replaced at our option within 2 years from the date of shipment. This warranty does not apply to units abused through misuse or subjected to improper and/or excessive voltage, beyond our control.

For complete warranty details contact NITEK®

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***Note:** VH851 is identical with the exception of 8 BNC ports instead of 16