Installation and Operation Manual

TS560 & TR560

NITEK®

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Rev 101903

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

Introduction

Twisted Sender has been designed by NITEK to transmit video signals over a point to point pair of wires. The wire should be free of voltage or other outside signals. **Twisted Sender** can turn your in-house phone lines, leased telephone lines or cable runs into pathways for video signals. **Twisted Sender** is ideal for shopping malls, parking garages, remote gates, large factories, airports or any number of places where you need to connect video equipment.

Features of the TS560 and TR560

- ❒ Live video over twisted pair lines for ***up to 3,000 feet***
- ❒ Live video ***up to 6,000 feet*** when used with the TT560
- ❒ Easy to install with just a screwdriver
- ❒ High resolution color or monochrome video
- ❒ Low power consumption, less than 1 watt for receiver
- ❒ Virtually impervious to hum and noise
- ❒ No power required for the transmitter

TS560 System includes the following:
(1) VB37F Transmitter
(1) TR560 Receiver
(1) Wall power transformer

TR560 System includes the following:
(1) TR560 Receiver Only
(1) Wall power transformer

TRANSMITTER UNIT:
(Standard VB37F)

Size	1.3"H x 2.0"W x .95"D
Power Requirements	None
Input-Video	1 vpp composite video Monochrome or Color

RECEIVER UNIT:
(Standard TR560)

Size	1.6"H x 4.3"W x 2.4"D
Power Requirements	12 to 24 AC\DC 100mA 50\60 Hz Class 2 only
Input	Low voltage current loop from transmitter unit
Output-Video	1.0 vpp composite video Monochrome or Color

If you are using the TR560 receiver with the TT560 transmitter refer to the EX560/TT560 manual for system installation instuctions.

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. The chart below will give you the length of your wires for a measured resistance. Use a multimeter to make sure there is no voltage on the line.

For distances greater than 3,000 feet, there are several other systems available, contact your local Distributor or NITEK Technical Department for assistance.

WIRE GAGE	DISTANCE IN FEET (METERS)						
	500 (152)	1,000 (304)	2,000 (610)	3,000 (914)	4,000 (1219)	5,000 (1524)	6,000 (1829)
22	16	32	64	97	129	161	194
24	26	51	103	154	205	257	308
26	41	82	163	245	326	408	490

The TR560 Receiver (Model TS560 System) can be used with any standard twisted pair video camera or Balun type transceiver device. Steps 2 and 3 refer to the NITEK VB37 Balun.

Step 2)

Check the video input at the transmitter unit to make sure you have video present. Connect video to the BNC jack of the VB37 transmitter unit. The transmitter is a passive device called a *Balun* and requires no power.

Step 3)

Connect the twisted pair to the screw terminals and note the polarity of the connection. If the wires are reversed, when you connect the receiver the video will not be viewable on the monitor. Reversing the wires will not damage the unit.

Step 4)

Connect the receive unit BNC jack to a test monitor.

Step 5)

Connect the twisted pair to the terminals marked "WIRE PAIR +" and "–". Note the polarity of the connection. There is also an "Earth Ground" terminal. If the "Earth Ground" is not connected the unit will be grounded through the coax shield. Set the transmitter DIP switches for the distance closest to your application:

Unmarked Positions are Off					Video Level Gain		Video Peaking	
Distance	**Switch Position**							
	1	2	3	4	5	6	7	8
<500 ft. (152 m)								
1,000 ft. (304 m)					ON		ON	
1,500 ft. (457 m)			ON	ON	ON			
2,000 ft. (610 m)			ON	ON		ON	ON	
2,500 ft. (762 m)	ON	ON	ON	ON		ON	ON	
3,000 ft. (915 m)	ON	ON	ON	ON	ON	ON	ON	

The settings listed are for normal conditions. Other settings are possible. Switches 7 and 8 adjust sharpness and 5 and 6 adjust gain. Switches (1 and 2) or (3 and 4) must be operated together.

Step 6)

The receiver unit should be powered using the wall pack power supply provided with the unit. For multiple units a common class 2 power supply may be used. There is no polarity for DC

Step 7)

You can now disconnect the test monitor and connect the video out of the receiver unit as needed for your installation.

Troubleshooting

Problem **Video inverted or rolling and unstable.**

Fix/Cause

- Reverse the wires of the twisted pair at either the transmitter or receiver.

Problem **No video out at the receiver.**

Fix/Cause

- Check to make sure that there is video in at the transmitter.
- Make sure that the pair of wires you are using is not open or shorted between the transmit and receive points.
- Check power to the receiver. The receiver must be powered with the supplied wall pack.

Problem **Ghost image at the receiver.**

Fix/Cause

- Bridge tap or "T" tap on the twisted pair video line. Remove tap.

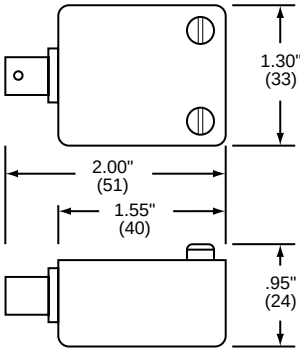
For additional help with problems please call NITEK Technical Assistance at (800) 528-4343. Hours are from 8am to 5pm Central Standard Time Monday through Friday. We are always ready to help.

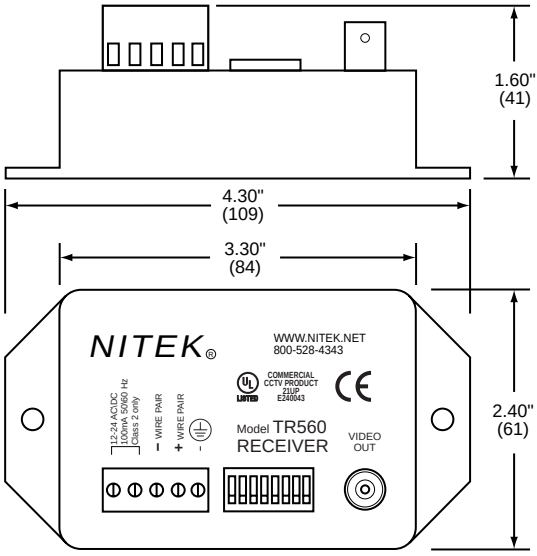
Twisted Sender Warranty

NITEK warranties that the **Twisted Sender** 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.

Twisted Sender is a trademark of Northern Information Technology, Inc.

Twisted Sender Transmitter





Twisted Sender Receiver