

Wireless Camera

With Night Vision

ZT-813T



Warning

This product is for the sole purpose of security and applicable for monitoring in residential houses, shops and companies. The user shall observe local rules, regulations and laws, and shall be solely liable in this regard. This company shall not be liable for any illegalities therein.

Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Installation Guide

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Technical Specifications

FCC Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.4GHz Transmitter

Available Channels:	4 Channels in 2.4GHz frequency band*
RF Output Power:	FCC, CE and C-lick compliant
Operating Power:	8V DC
Power Consumption:	100mA
Size:	1/4" x 1/4" x 1" (22x22x25mm)
Antenna:	Omni-directional
Transmitting Range:	Up to 328ft ~ 100M line of sight
Weight:	1/4oz ~ 20 grams
Operating Temperature:	0° ~ 50°C (32° ~ 122°F)

CMOS Colour Camera

Sensor:	1/3" (8.8mm) Colour CMOS
Horizontal Resolution:	380 TV lines
Auto Electronic Exposure:	1/60 ~ 1/15000 sec.
Minimum Illumination:	1.5 Lux @ f1.2 LEDs inactive 0 Lux @ f1.2 LEDs active
Signal to Noise Ratio:	>48dB
Board Lens:	1/4" ~ 5.6mm
View Angle:	60 degrees
Size:	1/4" x 1/4" ~ 16mm x 18mm, board lens
Video System:	PAL, SECAM (Australia, UK/Europe), NTSC 60Hz (USA and Canada)
Automatic Exposure / Gain / White balance/IR LED activation	

Troubleshooting

Poor Picture: Realign antennas until image quality improves, slightly adjust the position of the Night Hawk Camera or Receiver. Change the location of the Camera, or use a different Camera in the location experiencing interference that is on a different channel. In some cases interference may be caused by another device on a similar frequency to the channel you are using. Change to one of the other channels and check the signal quality again.

Lines only - no clear picture: Check to confirm there is no microwave oven or other 2.4GHz equipment operating close by ie; Cordless Telephones, Wireless Baby Monitors, Wireless LAN equipment etc. Make sure the Receiver is on the correct channel for the particular camera.

Picture ghosting or interference: Some home appliances such as Wireless LANs, 2.4GHz portable telephones and Microwave ovens operate on or near the 2.4GHz frequency. If you receive interference from such an appliance, try moving the Camera or Receiver to location further away from the appliance or in the event of interference from a Wireless LAN device, try changing the Wireless LAN to a different channel to improve the signal quality.

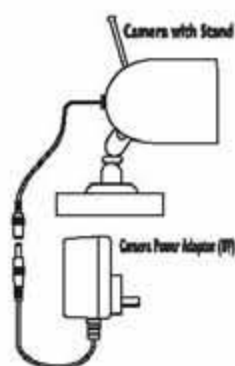
No picture: check the receiver to confirm it is turned ON and make sure the A/V connection of the Receiver is not plugged into the Audio Out socket. Make sure the Receiver is on the correct channel. Check to ensure the camera is plugged in and has power (cup your hands around the camera and you should see a faint red glow from the IR LEDs). Check that the channel on the receiver is the set to the same as the camera you wish to view.

Red haze over picture: In some cases where the sun shines into the front of the camera a faint red glow can be seen. Move the camera to a shaded location, or fit a hood to stop sunlight entering the camera lens directly.

Foreground is dark while background is too bright: If the camera is looking from a dark area towards a light area in some cases the automatic exposure can find it difficult to balance the image correctly. Change the location of the camera so that the point of greatest interest has the largest area of the image. (If you want to see the bright area, move the camera so that almost all of the screen shows this area. If you want to see the darker area, move the camera so that most of the image shows this area)

You can use the infrared lighting facility to pick up a picture inside a dark environment. If your monitor does not display a picture in a dark environment, check the camera to be certain that infrared lighting is within range of the subject. Try to move the item within the 2-3m (6-9ft) range of the Camera's IR LEDs or place the Camera nearer to the object until a clear picture is displayed on the Monitor.

Setting Up Your System



The Camera features an omni-directional antenna which is most effective when use in the UPRIGHT position.

- 1) Connect both the Camera and the Receiver to their respective power adaptors.
- 2) Connect the Receiver to the equipment you wish to view the camera on (monitor, AV TV, VCR, DVR, etc) using the supplied A/V-RCA cable.
- 3) After connecting both the Night Hawk Camera and the Receiver make sure the receiver is switched to the same channel as the camera. By default the camera is set to channel 1. Press the SEL button on the receiver until the LED for Ch1 is lit. If the channel LEDs flash and the receiver scans through all 4 channels, switch the Loop/Normal selector at the back of the receiver to Normal. Obtain the best picture by adjusting the position of the Night Hawk camera and Receiver unit to suit. Try slightly different locations of either unit for optimum results.
- 4) If you are mounting the camera to a ceiling or cave, unscrew the camera stand from the camera body and carefully screw it into position on the top side of the camera using the two holes that are provided or the picture will appear on your screen upside down.

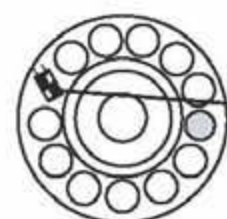
Camera Features

1. Omni-directional Antenna
2. Infra-red LEDs
3. Detachable Camera Stand
4. Microphone (enclosed in socket)
5. Power Cable & DC Power



Changing the Channel on the Night Hawk Camera

The Night Hawk Cameras can be switched to any of four frequencies to assist in avoiding interference. Please see the illustration below for frequency settings. Unscrew the front of the camera case to gain access to the channel switch. To change the frequency/channel on the receiver, press the SEL button on top of the receiver to cycle through the channels. You can also switch the Loop/Normal switch to Loop, which will allow the receiver to switch through all four channels automatically. The lit LED indicates which channel is currently selected.



Front view of Switch Block (note the numbers 1 & 2 indicate the left side of the switch)

By changing these switch settings, the frequency that the Camera transmits on changes. Once you have set the channel on the Camera, select the same channel on the receiver. If you experience interference try a different channel. Do not set two Cameras to the same channel or they will interfere with each others signal.

Channel & Frequency settings

- | | | |
|-----------|-------------------------|----------|
| Channel 1 | Both switches Right | 241.4MHz |
| Channel 2 | Top Left & Bottom Right | 243.2MHz |
| Channel 3 | Top Right & Bottom Left | 245.0MHz |
| Channel 4 | Both switches Left | 246.8MHz |

Important Information About This Product

- Best Results are achieved where there is a clear "line of sight" between the Camera/Transmitter and Receiver.
- Interference from certain electronic equipment or the moving human body can also affect the range obtainable.
- Please test all devices before final installation because transmission quality can often be improved by moving the components slightly.
- To avoid the risk of damage to Night Hawk Camera Pack, use only the supplied power adaptors.
- Beware of humid locations. Water droplets or spray may damage the receiver unit. If condensation does occur, do not use the equipment until it has dried out.
- Do not cut the DC power cable of the Night Watch Camera to fit with another power source. This may result in damage to the Night Watch Camera & any unauthorised modifications will void your warranty.

IMPORTANT: Due to the power consumption requirements of this product, we highly recommend the use of a 9 volt battery only for short term portable use.