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800-627-2799

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USA Exchange & Repairs

562-777-2551

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AUSTRALIA toll free

1300 13 8324

(Mon-Fri, 9am-5.30pm Aus EST)

International

+61 3 8412 4610

(Mon-Fri, 9am-5.30pm Aus EST)

See <http://www.worldtimeserver.com> for information on different time zones and the time in Melbourne Australia compared to your local time.

Warranty Information

Swann Communications warrants this product against defects in workmanship and material for a period of one (1) year from its original purchase date. You must present your receipt as proof of date of purchase for warranty validation. Any unit which proves defective during the stated period will be repaired without charge for parts or labour or replaced at the sole discretion of Swann. The repair or replacement will be warranted for either ninety days or the remainder of the original one year warranty period, whichever is longer. The end user is responsible for all freight charges incurred to send the product to Swann's repair centres. The end user is responsible for all shipping costs incurred when shipping from and to any country other than the country of origin. The warranty does not cover any incidental, accidental or consequential damages arising from the use of or the inability to use this product. Any costs associated with the fitting or removal of this product by a tradesman or other person or any other costs associated with its use are the responsibility of the end user. This warranty applies to the original purchaser of the product only and is not transferrable to any third party.

Unauthorised end user or third party modifications to any component or evidence of misuse or abuse of the device will render all warranties void.



www.swannsecurity.com



Night Hawk Wireless Outdoor Camera With Night Vision



Swann Help Desk
Has the answers



If this device does not work when you first plug it in, do not take it back to the store.

- ✓ Contact the Swann Helpdesk using our fast e-mail service tech@swann.com.au or call us on one of the Toll-Free numbers shown on the back cover of this booklet.
- ✓ Most problems can be quickly and easily fixed with a simple e-mail or a quick chat with one of our friendly technical staff. (Toll-Free available in the US and Australia only)

Note: Wireless Networks (WiFi) may interfere with and/or experience interference caused by the transmitter in this unit. Changing the receiver to another channel/frequency or setting the Wireless Network (i.e. Wireless Access Point) to a frequency further away from the camera's set frequency can alleviate this problem. Consult the documentation of your Wireless LAN device for information on how to change the transmission frequency. These cameras work with most wireless camera receivers that support 2414MHz, 2432MHz,

Installation Guide

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Introduction

The Swann Night Hawk Camera Package incorporates the latest in advanced technology. We feel confident that you will be pleased with the quality and features of this product.

The Swann Night Hawk Camera allows you to transmit pictures and sound with ease. As the radio waves it uses have a frequency of 2.4GHz, they can be received within a radius of up to 328ft/100 m in open line of sight. The Night Hawk Camera Receiver works with other Swann cameras to allow you to have the option of using different frequencies for different locations and conditions to ensure that you have the best possible image quality for your situation.

Please note: The Swann Night Hawk Camera broadcasts video in the public domain. The video signal is not encrypted and could potentially be viewed by anyone with a similar 2.4GHz receiver unit. Please keep this in mind when positioning and using any wireless camera equipment.

This Package Comes With ...

- 1 x Night Hawk Color Camera with built in 2.4GHz Transmitter with Stand
- 1 x Night Hawk 4 channel 2.4GHz Receiver
- 2 x Mains Power Adaptor (8V for use with Night Hawk Camera and Receiver)
- 1 x Battery Snap Adaptor (For use with Night Hawk Camera, 9V batteries not included)
- RCA A/V Cable
- This Instruction Sheet

If any of these items are missing, please contact your retailer.

FCC NOTICE

This device complies with Part 15 of FCC Rules. Operation is subject to the following 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.

Technical Specifications

Night Hawk 2.4GHz Transmitter

Available Channels:	4 Channels in 2.4Ghz frequency band*
RF Output Power:	FCC, CE and C-tick compliant
Operating Power:	8V DC
Power Consumption:	100mA
Size:	$\frac{7}{8}$ "x $\frac{7}{8}$ "x1" (22x22x25mm)
Antenna:	Omn-directional
Transmitting Range:	Up to 328ft ~ 100M line of sight
Weight:	$\frac{3}{4}$ oz ~ 20 grams
Operating Temperature:	0° - 50°C (32° - 122°F)

Night Hawk 2.4GHz Receiver

Frequency:	4 Channels in 2.4 Ghz frequency band*
Video input/output:	1V p - p / 75 ohm
Audio input / output:	0.8V / 600 ohm
Antenna:	60 degree directional
Audio Bandwidth:	50 - 17000 Hz
Operating Power:	8V-12V DC
Power Consumption:	180mA
Size:	6"x3 $\frac{1}{2}$ "x1 $\frac{5}{8}$ " (150 x 88 x 40mm)

*The Night Hawk Camera uses the following frequencies for the 4 channels:
Channel **1** (2414MHz), Channel **2** (2432MHz), Channel **3** (2450MHz) and Channel **4** (2468MHz).

Night Hawk CMOS Colour Camera

Sensor:	1/3"(8.5mm) 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:	$\frac{7}{32}$ " ~ 5.6mm
View Angle:	60 degrees
Size:	$\frac{5}{8}$ x $\frac{23}{32}$ " ~ 16mm x 18mm, board lens
Video System:	PAL 50Hz (Australia, UK/Europe), NTSC 60Hz (USA and Canada)
Automatic Exposure / Gain / White balance/IR LED activation	

Troubleshooting your Night Hawk Camera

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.

FCC Notice

We, Swann Communications of 10612 Shoemaker Avenue, Bldg A, Santa Fe Springs, CA 90670 USA, declare under our sole responsibility that the product:

SW231-WOC

This product meets the requirement specified in Part 15 of FCC Regulation. Operation rests with the following two conditions:

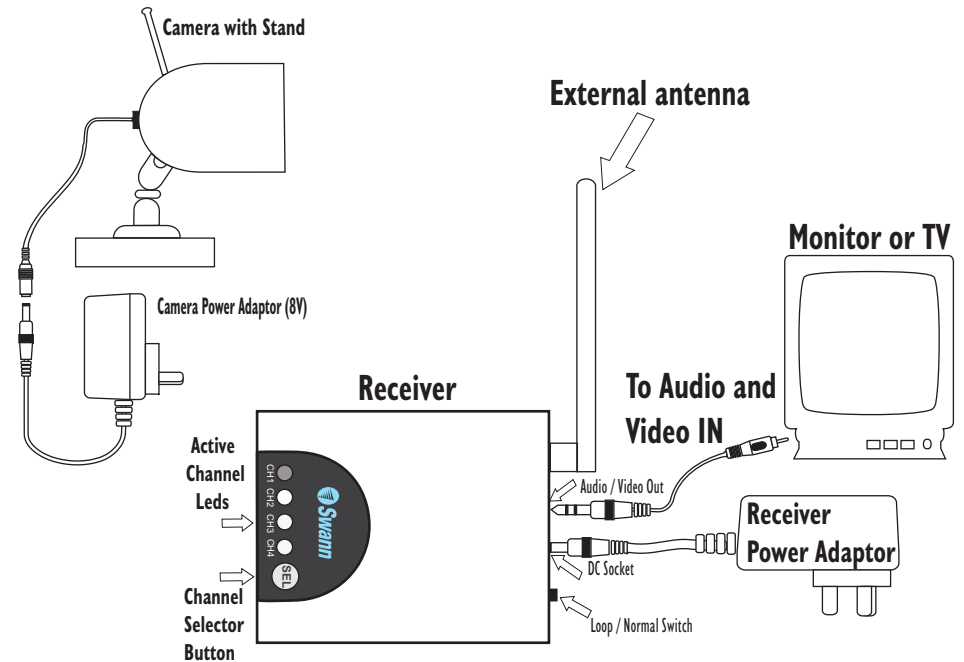
- (1) The equipment should not cause any harmful interference;
- (2) The equipment must receive and process any interference, including any possible interference caused by operation mistakes. After testing the product, we confirm that it complies with the provision for class C digital equipment in the 15th part in FCC regulation; and the receiver complies with the limitation for class B digital equipment in Part 15 of FCC regulation. The product generates, applies and emits radio waves. It might cause harmful interferences to wireless communication if not be installed and used following the description of the manual. The product may interference in residential area, and the customer should take remedies to eliminate the interference at their own costs. If the product causes any harmful interference to wireless equipment of disturbs the receiving of TV signals (it can be identified by turning on and off the product), you can solve the trouble by following methods:

- (1) Re-adjust the product or put it in another place;
- (2) Extend the distance between the equipment interfered and the product; and
- (3) Refer to dealers or experienced radio electrician for help

CE Notice

This product complies with standards including Low Voltage Device Directive 73/23/EEC; **EMC** Directive 89/336/EEC and **R&TTE** Directive 1999/5/EC. It passed the subject tests by authority concerned and it authorized to bear **CE** mark.

Setting Up Your System



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

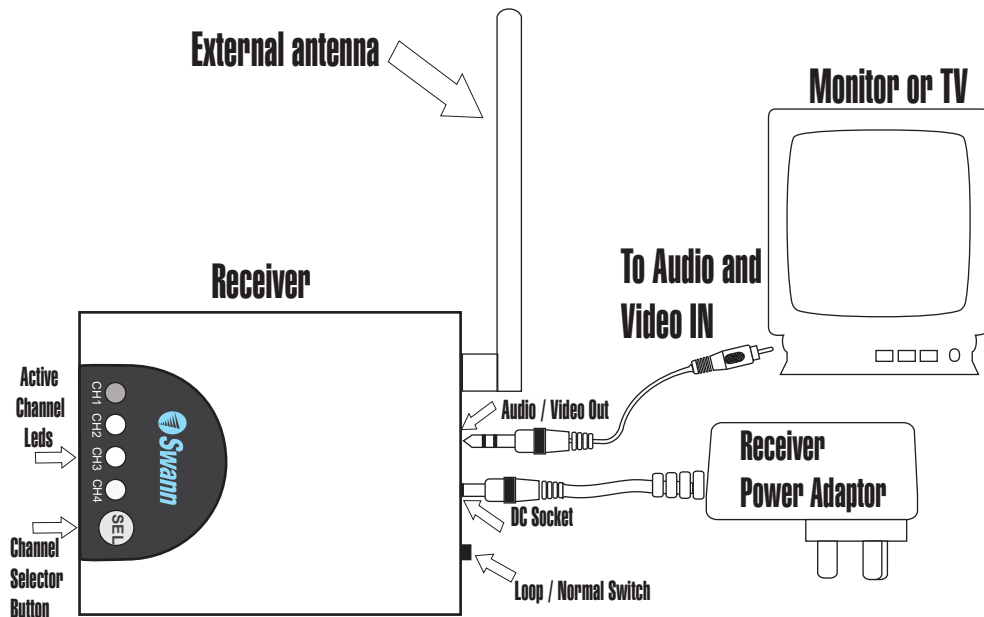
- 1) Connect both the Camera and the Receiver to their respective power adaptors.
- 2) Connect the Receiver to the equipment you wish to view the camera on (monitor, AV TV, VCR, DVR etc) using the supplied A/V-RCA cable.
- 3) **After connecting both the Night Hawk Camera and the Receiver make sure the 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 eave, 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

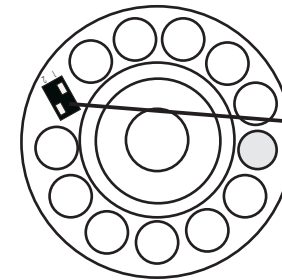


Receiver Features



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.



Channel & Frequency settings

- | | | |
|--------|--|--|
| 1
2 | | Channel 1
Both switches Right
2414MHz |
| 1
2 | | Channel 2
Top Left & Bottom Right
2432MHz |
| 1
2 | | Channel 3
Top Right & Bottom Left
2450MHz |
| 1
2 | | Channel 4
Both switches Left
2468MHz |

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.

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.