

Help Desk / Support Details

Swann Technical Support

All Countries E-mail: tech@swann.com.au

FCC WARNING STATEMENT

This device complies with Part 15 of 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.

Telephone Helpdesk
UNITED STATES toll free
877-274-3695
(Sun-Thurs, 2pm-10.30pm PST)
800-627-2799
(Mon-Fri, 9am-1pm PST)
USA Exchange & Repairs
562-777-2551
(Mon-Fri, 9am-5pm PST)
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)

WARNING: IMPORTANT NOTICE ABOUT CORRECT USE OF POWER ADAPTER

The correct orientation for the enclosed power adapter is in a vertical or floor mount position.

L'orientation correcte pour l'adaptateur secteur fourni est dans une position verticale ou planche montée.

La orientación correcta para el adaptador eléctrico incluido es en posición vertical o instalado en el suelo.



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



English

Black Knight Wireless Weatherproof Color Camera with Night Vision



Swann Helpdesk
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, 2450MHz and 2468MHz.

Installation Guide

Introduction

The Swann Black Knight 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 Black Knight 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 165ft/50 m in open line of sight. The Black Knight 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. We suggest the Night Hawk Extra Camera (SW-P-WOCEX) which is a Wireless Weatherproof Outdoor Camera with Night Vision or the MicroCam IV (SW-P-MC4) Indoor Color Camera. Both of these camera models have DIP switches to allow them to use of any of the other available channels on your Black Knight receiver.

Please note: The Swann Black Knight 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.

Your Black Knight package comes with ...

- 1 x Black Knight Color Camera with built in 2.4GHz Transmitter and Stand
- 1 x Black Knight 4 channel 2.4GHz Receiver
- 2 x Antennas, one each to suit Camera and Receiver
- 2 x Mains Power Adaptors (1 for use with Black Knight Camera and 1 for Receiver)
- RCA/A/V Cable
- This Instruction Sheet

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

NOTE:

All jurisdictions have specific laws and regulations relating to the use of cameras. Before using any camera for any purpose, it is the buyer's responsibility to be aware of all applicable laws and regulations that prohibit or limit the use of cameras and to comply with the applicable laws and regulations. The legality of watching people other than yourself changes from country to country and even state to state. Contact your local government's privacy information body or your local Police for more information on what if any restrictions you may face.

Technical Specifications

Black Knight 2.4GHz Transmitter

Available Channels:	4 Channels in 2.4 GHz frequency band*
RF Output Power:	FCC, CE and C-tick compliant
Power Consumption:	120mA (270mA IR LEDs on)
Size:	2½" Dia x 3¼" L (61x96mm)
Antenna:	Omni-directional
Transmitting Range:	Up to 165ft / 50M line of sight
Weight:	12 1/2oz ~ 350 grams
Operating Temperature:	0°C - 50°C (32°F - 122°F)

Black Knight 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
Power Consumption:	180mA

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

Black Knight CCD Colour Camera

Sensor:	1/4" (6.35mm) Colour CCD
Horizontal Resolution:	420 TV lines
Pixel Resolution:	512 x 492 (NTSC) ~ 512 x 582 (PAL)
Auto Electronic Exposure:	1/60 - 1/15000 sec.
Minimum Illumination:	1 Lux @ f2.0 LEDs inactive 0 Lux @ f1.2 LEDs active
Signal to Noise Ratio:	>38dB
View Angle:	39 degrees
Video System:	PAL 50Hz (Australia, UK/Europe), NTSC 60Hz (USA and Canada)

Automatic Exposure / Gain / White balance/IR LED activation

Troubleshooting, hints and tips

Poor Picture: Realign antennas until image quality improves, slightly adjust the position of the Black Knight Camera or Receiver. Change the location of the Camera to allow the minimum of solid objects such as walls between it and the receiver as illustrated at the bottom of the page. Try changing to one of the other channels using the instructions on the previous page 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.

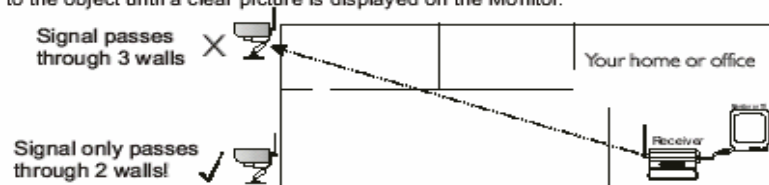
Picture ghosting or interference: Some home appliances such as Wireless LANs, 2.4GHz portable telephones and Microwave ovens operate on or near the 2.4GHz frequency. If you receive interference from such an appliance, try moving the Camera or Receiver to location further away from the appliance or in 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.

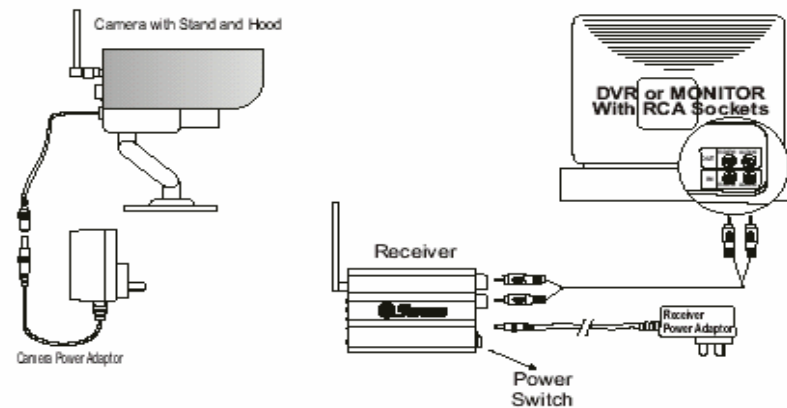
Red haze over picture: In some cases where the sun shines into the front of the camera a faint red glow can be seen. Move the camera to a shaded location, or fit a hood to stop sunlight entering the camera lens directly.

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 33-66ft (10-15m) range of the Cameras IR LEDs or place the Camera nearer to the object until a clear picture is displayed on the Monitor.



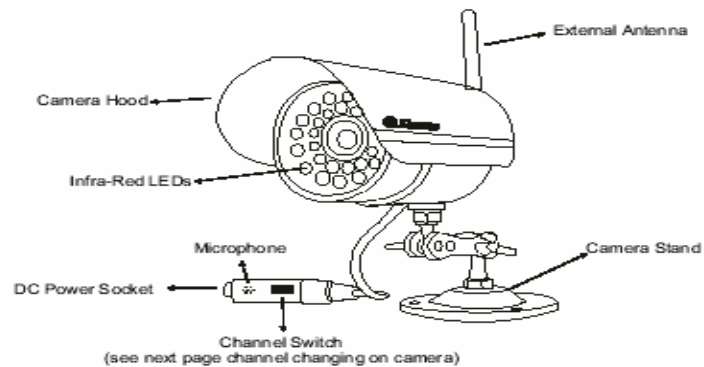
Setting up your system



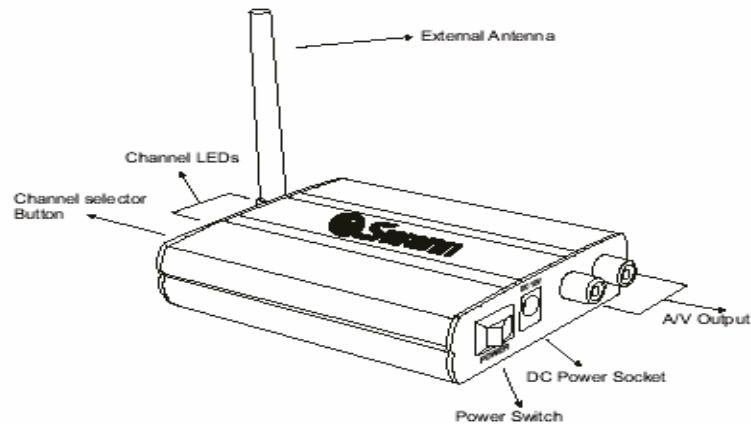
The Camera features an omni-directional antenna which is most effective when used in the UPRIGHT position.

- 1) Connect both the Camera and the Receiver to their respective power adaptors (the Adaptors have a label on the end of the cable to indicate which unit they must be used with).
- 2) Connect the Receiver to the equipment you wish to view the camera on (monitor, AV TV, VCR, DVR etc) using the supplied RCA A/V-cable. If you have an A/V TV with RCA sockets you will need to switch the TV to the AV channel to view the camera. To connect the Receiver to your VCR, you will need to turn the VCR to the AV Input selection and turn your TV onto the channel you would normally use to view a tape or movie on your VCR. The AV channel may be activated by a button on your remote that is marked with this symbol , or L1 or L2 or possibly AV, AV1 or AV2. Check the manual of your TV or VCR for more information on using its AV inputs.
- 3) After connecting both the Black Knight Camera and the Receiver make sure the receiver is switched to the same channel as the camera. Press the Channel Select button on the receiver until the LED is lit. Obtain the best picture by adjusting the position of the Black Knight 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 back of the camera using the hole that is provided or the picture will appear on your screen upside down.

Camera features

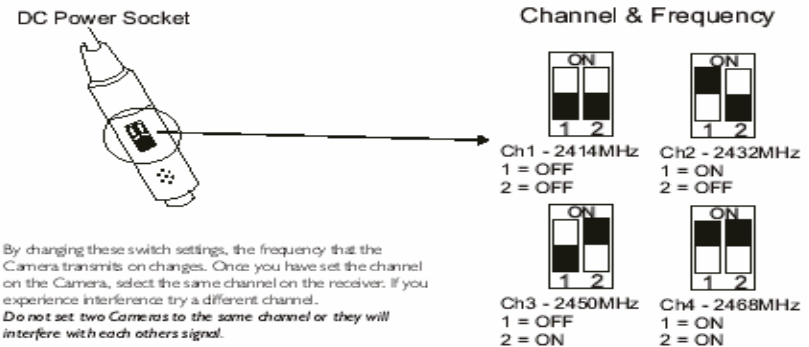


Receiver features



Changing the channel on the Black Knight Camera

The Black Knight 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 channel select button on side of the receiver to cycle through the channels, which will allow the receiver to switch through all four channels. The LEDs indicate which channel is currently selected.



Important Information about this product

- Best Results are achieved where there is a clear "line of sight" or minimal number of solid objects 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 Black Knight 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 Black Knight Camera to fit with another power source. This may result in damage to the Black Knight Camera & any unauthorised modifications will void your warranty.
- The microphone for the Black Knight camera is in the power socket, and is not waterproof. The power socket must be protected from water to ensure correct operation.

Warning:

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.

Changes or modifications to this unit not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment. Any change to the equipment will void FCC grant.

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.

The equipment compliance with FCC radiation exposure limit set forth for uncontrolled Environment Manufacturer may void users authority to operate this device.