

**SILENT
WITNESS®**

Securing your world

**SWX45
Night Hawk®
CCD Camera
User Guide**

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Contents





Overview	1
Important Safeguards	1
Before You Begin	2
Unpack Everything	2
Equipment Required	2
Installation	3
Step One: Wiring Connections	3
Step Two: Prepare the Conduit Plug	4
Step Three: Mount the SWX45	6
Step Four: Secure the Cover	6
Operation	7
Precautions	7
Specifications	8
Regulatory Compliance	11
FCC Statement (U.S.A.)	11
Industry Canada Notice	11
CE	11

Overview

The SWX45 Night Hawk CCD dome camera provides true 24/7 surveillance. This small, discreet camera takes perfectly exposed pictures, no matter what the lighting conditions. A built-in, infrared LED illuminator improves low light viewing. 12 near-infrared light emitting diodes provide short-range illumination over a wide range. The rugged, high impact dome housing is vandal resistant and weather tight, making it ideal for most indoor and outdoor installations.

Important Safeguards

Installation and servicing should be done by certified technicians to conform to all local codes and to maintain your warranty.

 <table border="1" data-bbox="236 598 401 689"><tr><td>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</td></tr></table> 	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	 <p>This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.</p>
CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN		
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL</p>	 <p>This symbol indicates that important operating and maintenance instructions accompany this unit.</p>	

Before You Begin

Please read this guide carefully before you install the SWX45 CCD camera.
Keep this guide for future reference.

Unpack Everything

Check that the items received match those listed on the order form and packing slip. The SWX45 Night Hawk packing box should include, in addition to this User Guide:

- One SWX camera with 12 VDC power and video out cables
- One SWX45 hardware kit
- One Product Warranty card

If any parts are missing or damaged, contact the dealer you purchased the camera from or call Silent Witness Customer Service.

Equipment Required

You will require the following tools to complete the installation:

- Phillips screwdriver.
- Mounting screws. Use mounting screws appropriate to your installation.

Installation

The SWX45 camera is designed to be surface mounted on a wall or ceiling. It is weather sealed for indoor or outdoor locations.

Step One: Wiring Connections

WARNING!

The use of a CSA Certified/UL Listed Class 2 power supply is required to ensure compliance with electrical safety standards.

Follow Figure 1 for the wiring connection.

Figure 1 **Wiring Connection**
Coaxial cables

Video: female
BNC wire



Power: 2.1 mm
male jack center
pin ⊕ ● ⊖

Note For secure installations, surface-mounted cables should be protected by plastic or metal cable covers.

Step Two: Prepare the Conduit Plug

Conduit Entry on Back

Your SWX45 camera comes with a conduit plug pre-installed in the 1/2 inch conduit entry on the back. If you are using the pre-installed conduit entry, proceed to Step Three: Mount the SWX45 on [page 6](#).

Caution To minimize moisture leaking into the SWX45 camera, position the enclosure with the conduit plug pointing down. Apply an appropriate sealant around the conduit connection.

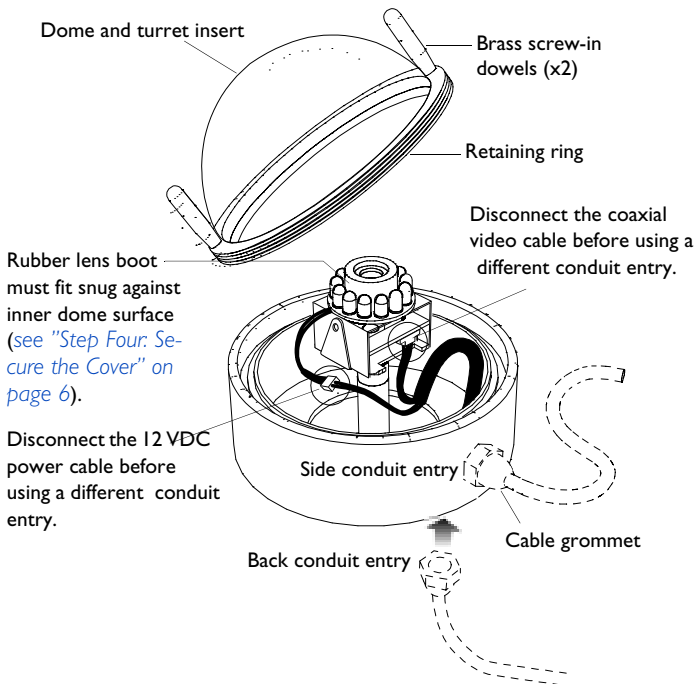
Conduit Entry on Side

If desired, this plug may be removed and installed in the 1/2 inch conduit entry on the side (see Figure 2). To use the side conduit entry:

- 1 Remove the dome clamp, camera dome, and turret insert (see Step Three: Mount the SWX45).
- 2 Disconnect the coaxial video cable and 12 VDC power cable.
- 3 Pull the cabling through the back conduit entry and thread it through the side conduit entry.
- 4 Reconnect the coaxial video cable and 12 VDC power cable.
- 5 Screw the cable grommet into the conduit entry on the side.

- 6 Install the conduit plug in the conduit entry on the back.
- 7 Apply an appropriate sealant around the conduit connection.

Figure 2 Installation



Step Three: Mount the SWX45

The SWX45 Night Hawk can be mounted onto any flat surface. To mount the SWX45:

- 1 Hold the dome enclosure while you rotate the dome clamp (retaining ring) counter-clockwise using the two brass screw-in dowels on the retaining ring. Do not rotate the dome itself.

Note To avoid breaking the pins, place your fingers at the bottom of the brass dowels whenever you open or close the lid.

- 2 After the dome clamp is free of the enclosure, carefully remove the camera dome and turret insert (see Figure 2). Do not remove the rubber lens boot. Set aside.

Note During the entire time the dome and turret are off, ensure that the camera board, lens, and light emitting diodes are kept intact and free from dust.

- 3 Secure the base to the desired location using mounting screws appropriate to your installation.

Step Four: Secure the Cover

- 1 Replace the turret insert and camera dome. Ensure that the rubber lens boot (see Figure 2) is flush with the inner surface of the dome when you close the cover. This will stop light from reflecting back inside the dome which can cause a halo effect on the picture.
- 2 Secure the dome clamp so that the cover is tightly closed.

Operation

Caution The SWX45 camera will heat up during operation. Do not touch the dome or the enclosure cover.

Precautions

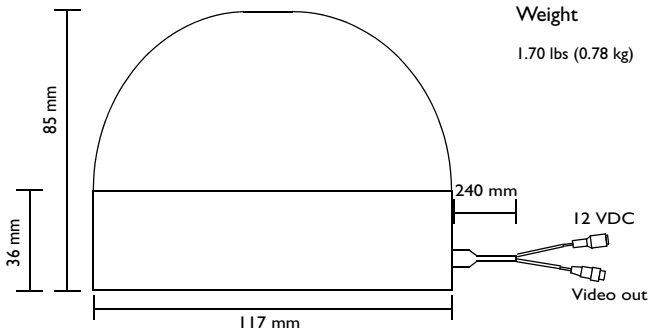
The light emitted from the 12 near-infrared light emitting diodes provides short-range illumination over a wide area. This light is not considered a risk to the unshielded human eye. However, as with any light source, it is recommended that precautions be taken to avoid unnecessary exposure. For example, avoid staring into the beam or viewing directly with optical instruments at close range.

Specifications

Model No.	SWX4510xx	SWX45210xx
TV System	NTSC	PAL
Imager Format	1/3 in. CCD imager sensor	
CCD Total Pixels	542 (H) x 496 (V)	542 (H) x 586 (V)
Scanning System	525 lines, 60 fields/sec.	625 lines, 50 fields/sec
Sync. System	Internal	
Light Sensitivity	0 lux @ F1.2 5600°K (with IR-LED) Auto switches to monochrome at low illumination	
Lens and View Angle	4.3 mm F2.0 / 78° 6.0 mm F2.0 / 45°	
Resolution	380 TV lines	
S/N Ratio	52 dB (min) AGC OFF	
White Balance	ATW, Zero color rolling	
White Balance Range	3200°K to 10000°K	
Auto Iris	A.E.S.	

Model No.	SWX4510xx	SWX45210xx
Electronic Iris	1/60 to 1/120,000 sec	1/50 to 1/120,000 sec
Video Output	1.0V P-P composite video at 75 Ω	
Gamma Correction	0.45	
Gain Control	Auto ACG	
Operating Temperature	-4°F to +122°F (-20°C to +50°C)	
Relative Humidity	Within 85%	
Power Supply	12 VDC @ 100mA 12 VDC @ 170 mA (with illuminators on)	
Backlight Compensation	Automatic	
IR LED	875 nm, 12 LEDs	
Control	Photocell	
IR Sensitivity	800 to 1000 nm (with illuminators on)	
Enclosure	Aluminum anodized	

Dimensions



Regulatory Compliance

FCC Statement (U.S.A.)

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.

Industry Canada Notice

This digital apparatus meets all requirements of the **Canadian Interference-Causing Equipment Regulations**.

Cet appareil numérique respecte toutes les exigences du **Règlement sur la matériel brouilleur du Canada**.



The CE mark on the product indicates that the system has been tested to, and conforms with, the provisions noted within the 89/336/EEC Electromagnetic Compatibility Directive.

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