



## Weatherproof IR Color Day/Night Cameras

Products: PC177IR-8, PC177IR-9, PC177IR-10,  
PC177IRHR-8, PC177IRHR-9,  
PC177IRHR-10



Please read this manual before installing and using this camera and always follow instructions for proper use. Please file this manual away for future reference.

PC177IR\_CM



## WARNING


### RISK OF ELECTRIC SHOCK. DO NOT OPEN.

To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.


### LEGAL NOTICE

Supercircuits' products are designed to meet safety and performance standards with the use of specific Supercircuits authorized accessories. Supercircuits disclaims liability associated with the use of non-Supercircuits authorized accessories.

The recording, transmission, or broadcast of any person's voice without their consent or a court order is strictly prohibited by law.



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## WARNINGS & CAUTIONS



*Do not use the camera if fumes, smoke or a strange odor is emitted from the unit, or if it seems to not function correctly. Disconnect the power source immediately and consult your supplier.*



*Do not adjust or modify the camera's internal circuits or power supply modules. No user serviceable parts exist inside. For internal settings and repairs, consult your supplier.*



*Always follow the instructions in the installation guide when applying power. Fire and equipment damage can occur if power is applied incorrectly.*



*To prevent damage do not drop the camera or subject it to strong shock or vibration.*



*Never point the camera toward the sun. Use caution when operating the camera in the vicinity of spot lights or other bright lights and light reflecting objects.*



## WARNINGS & CAUTIONS



### CAUTION

*Do not install the camera or route video cables near a TV, radio transmitter, magnet, electric motor transformer or audio speakers. The magnetic fields generated by these devices may interfere with or distort the image.*



### CAUTION

*Only use the camera in areas where the temperature and humidity are within the recommended specifications.*



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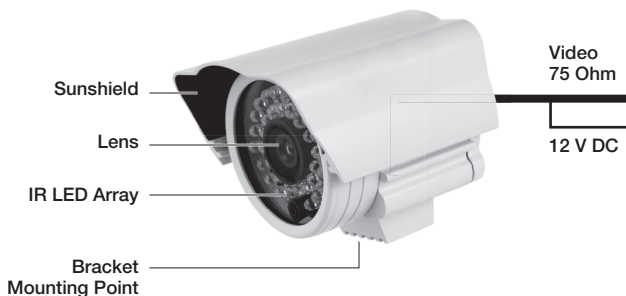
### SECTION 1

# Features

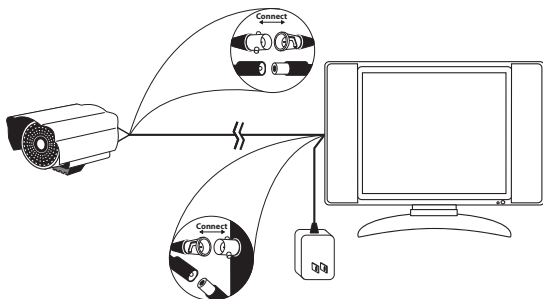
The PC177IR series weatherproof, IR color day/night cameras are highly durable and easy to install. These cameras include:

- Advanced image sensors for greater picture clarity
- Ability to see in the dark with a built-in IR array
- Built-in auto IR on/off control
- Precision lenses for added clarity
- IP66-rated weatherproof case

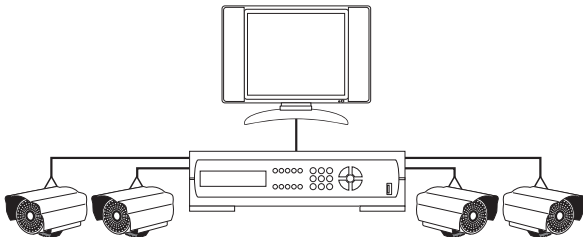
## 1.1 Camera components



## 1.2 Camera connections



Single camera system with monitor



Multiple camera system with DVR and monitor



### SECTION 2

## Installation

### 2.1 What's in the box

The camera package contains:

- Camera assembly
- Bracket screws
- Instruction manual

### 2.2 What you need

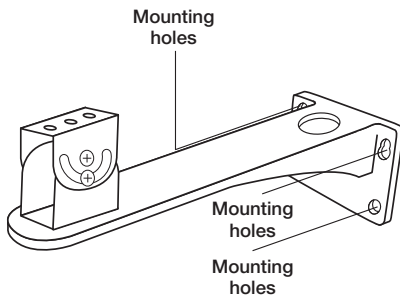
To install the camera, you will need:

- #2 Phillips screwdriver
- Hardware to attach the mounting bracket to the mounting surface
- Mounting bracket

## 2.3 Installing the camera

This procedure steps through the installation of a PC177IR camera using the Supercircuits MB22 mounting bracket (sold separately). If you are using a different mounting bracket, this procedure can serve as a general guideline for installing your equipment.

1. Using the bracket mounting plate as a template, mark the location of the holes for the mounting screws on the mounting surface.

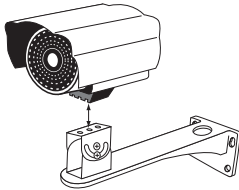


Bracket as guide

2. Drill mounting screw holes into the mounting surface.
3. Mount the camera to the bracket.

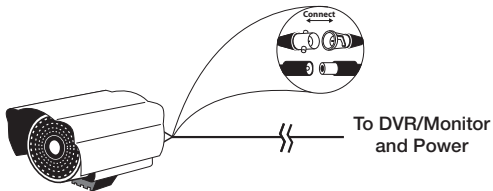


## SECTION 2: INSTALLATION



Camera to bracket

4. Attach the mounting bracket to the mounting surface with the included hardware.



Cable attachment

5. Attach the BNC cable to the camera drop cable as required.

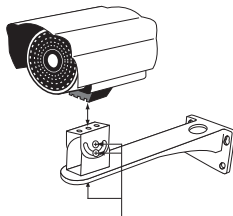
**NOTE** *Connectors on the video/power cable are different at each end!*

**NOTE** *Connections are not weatherproof.*

## SECTION 3

**Aiming the Camera**

1. Connect the video cable from the camera to a test monitor or to a video input on the DVR.
2. Connect the DC12V adapter to the camera.
3. Loosen the pan and tilt set screws on the camera mounting bracket until the camera direction can be adjusted. Do not remove the set screws.



Camera aiming

4. While observing the video from the camera, aim the camera at your target area.
5. Tighten the set screws to lock the camera in place.



### SECTION 4

# Cleaning

Clean the camera lens and IR lamp shield with an approved glass cleaning solution and a lint free cloth.

- Remove all foreign particles, such as plastic or rubber materials, attached to the camera housing. These may cause damage to the surface over time.
- Dust can be removed from the unit by wiping it with a soft damp cloth. To remove stains, gently rub the surface with a soft cloth moistened with a mild detergent solution, then rinse and dry it with a soft cloth.



**CAUTION**

*Do not use benzene, thinner or other chemical products on the camera assembly; these may dissolve the paint and promote damage of the surfaces. Before using any chemical product, read the accompanying instructions carefully.*

## SECTION 5: SPECIFICATIONS



Model	PC177IR-8	PC177IR-9	PC177IR-10
Image Sensor	1/4" Sharp CCD		
TV system	NTSC		
CCD total pixels	510(H) × 492 (V)		
Scanning system	525 lines, 60 fields/sec		
SYNC system	Internal		
Horizontal resolution	420 TV lines		
Minimum illumination	0 Lux / F2.0 (LED on)		
Lens	3.6 mm / F2.0	6 mm / F2.0	6 mm / F2.0
IR LED lamps	24 PCS	48 PCS	60 PCS
IR view distance	65 ft (20 m)	130 ft (40 m)	164 ft (50 m)
Infrared status	< 10 Lux by CDS auto control		
B.L.C. control	Auto		
White balance	Auto		
Gain control	Auto		
Electronic shutter	1/60 ~ 1/100,000 sec		
S/N ratio	≥48dB (AGC off)		
Gamma correction	0.45		
Video output	1.0 Vp-p @ 75 Ω		
Operation temperature	14°F ~ 122°F (-10°C ~ 50°C)		
Operation Humidity	< 95% RH		
Power supply	12 V DC @ 250 mA	12 V DC @ 500mA	12 V DC @ 600 mA
Dimensions	2.21 × 2.44 × 7.08 in (56 × 62 × 180 mm)	3.27 × 4.88 × 6.89 in (83 × 124 × 175 mm)	3.74 × 6.85 × 6.89 in (95 × 174 × 175 mm)
Weight	Approx. 1.43 lbs (650 g)	Approx. 1.98 lbs (900 g)	Approx. 2.43 lbs (1100 g)

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## SECTION 5: SPECIFICATIONS

Model	PC177IRHR-8	PC177IRHR-9	PC177IRHR-10
Image Sensor	1/3" Sony CCD		
TV system	NTSC		
CCD total pixels	811 (H) × 508 (V)		
Scanning system	525 lines, 60 fields/sec		
SYNC system	Internal		
Horizontal resolution	540 TV lines		
Minimum illumination	0 Lux / F2.0 (LED on)		
Lens	3.6 mm / F2.0	6 mm / F2.0	6 mm / F2.0
IR LED lamps	24 PCS	48 PCS	60 PCS
IR view distance	65 ft (20 m)	130 ft (40 m)	164 ft (50m)
Infrared status	< 10 Lux by CDS auto control		
B.L.C. control	Auto		
White balance	Auto		
Gain control	Auto		
Electronic shutter	1/60 ~ 1/100,000 sec		
S/N ratio	≥48dB (AGC off)		
Gamma correction	0.45		
Video output	1.0 Vp-p @ 75 Ω		
Operation temperature	14°F ~ 122°F (-10°C ~ 50°C)		
Operation Humidity	< 95% RH		
Power supply	12V DC @ 250mA	12V DC @ 500mA	12V DC @ 600 mA
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Weight	Approx. 1.43 lbs (650 g)	Approx. 1.98 lbs (900 g)	Approx. 2.43 lbs (1100 g)



## SECTION 6

# Troubleshooting

Before sending the camera for repair, please follow the suggestions listed below and make sure that the camera is installed correctly. If it still does not perform adequately, please consult your supplier or contact Supercircuits directly at 1.800.335.9777.

1. No picture on the monitor screen.
  - a. Check that all connected devices are powered on.
  - b. Confirm that the voltage is correct.
  - c. Confirm that the power supply provides enough current to power the camera.
  - d. Check that all video cables are correctly connected.
  
2. The picture is not clear.
  - a. Check that your monitor is correctly adjusted.
  - b. Confirm that the glass in front of the lens is clean.  
*If there is dust, dirt or fingerprints on the glass, the image quality will be affected. To clean the glass use a soft, dry and non-abrasive cloth or a commercially available lens cleaning set.*



## SECTION 6: TROUBLESHOOTING

3. The picture has interference.
  - a. The camera may be close to a high voltage source, such as a power generator.
  - b. The BNC cable is not terminated properly.
  - c. The video cables are not connected properly.
  
4. The camera doesn't operate at night.
  - a. Your cable run may be too long and you are experiencing a drop in voltage.  
*Visit [www.supercircuits.com/resources/tools/voltagedrop](http://www.supercircuits.com/resources/tools/voltagedrop) to calculate your voltage drop.*



*This camera is a precision instrument and when treated with care, will provide years of satisfactory performance. If a problem does occur, do not open the camera to make repairs. Servicing should always be referred to your supplier.*