

This colour pinhole module provides an ideal solution for discrete internal surveillance. Its small size enables it to be disguised for discrete surveillance and the bracket supplied provides a ready made conventional mounting option. This great little camera even has a built-in audio microphone enabling video and audio to be recorded/monitored.



Features

- ◆ Excellent picture quality
- ◆ Small compact design
- ◆ Low light capability (0.4 lux approximately)
- ◆ Audio microphone built-in
- ◆ Free mounting bracket provided

Positioning the Camera

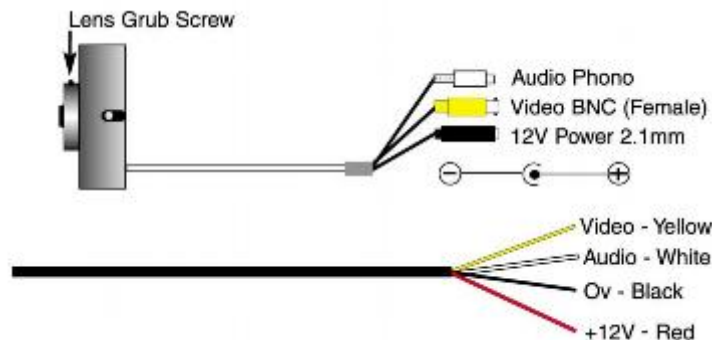
As with all CCD cameras avoid directing the camera at any object or surface containing bright spots that may cause flare on the resulting camera picture. To reduce flaring, try to ensure that the camera is looking at a scene with uniform brightness and not a dark scene with one well-lit area. Otherwise, the “electronic iris” will become confused and the camera will “average” the picture to a dark scene and show the bright spot as a flared image. When trying to identify a person with a CCD camera, plan the installation so that the person you are trying to identify will walk directly towards the camera.



Fastening the Camera to the Wall

The camera bracket has a single hole used to fasten it to the wall using the appropriate screw. The camera body itself attaches to the bracket by the two small screws supplied.

Connecting and Testing the Camera



The camera requires a 12V 100mA **high quality regulated power supply** minimum but it is always wise to use a higher rated unit to prolong the life of the PSU. It is recommended to use a 12vDC 150mA regulated PSU for this camera or higher. The camera has a 2.1mm size DC Socket and the middle pin is the 12V+ and the outer case is 0V or ground. The camera will usually be supplied with a pre-connected BNC connector that can connect directly into the video input of other CCTV equipment by a suitable BNC-BNC lead. It is not

recommended that you cut off the connectors from the camera as it may cause the camera to be connected incorrectly and damage it. In order to prove the camera works connect the video out direct to a composite video monitor input.

Trouble shooting.

The camera is built to the highest standards and every unit is fully tested prior to packing so if you experience an installation problem you need to investigate your cabling, connections, power supply and monitor. If you do fail to get a picture on a monitor you need to check the following things.

1 – The camera cannot function without the correct working power supply.

The power supply MUST be regulated and be capable of supplying 100ma per camera CONTINUOUSLY. Using a multimeter check that the voltage at the camera is 12vDC – 13vDC. If it is over 13vDC then you are probably using a non-regulated supply and this can damage the camera. If no voltage at the camera check the correct 2.1 DC power connector has been used.

2 – Make sure the BNC –BNC lead you connect between the camera and the monitor has no shorts or open circuits. If you are making up your own BNC-BNC lead don't forget the lead must have two wires connected to complete the circuit, video AND GROUND, without both of them it won't function correctly. If in doubt swap your lead with a pre-wired commercial one, as faulty leads are the main cause of problems. Similarly, the audio microphone function needs both the audio connection and the ground. The ground being common to both the power-supply (0V), Video and Audio circuits.

Audio Function.

A simple test of the camera's audio function is to connect the white phono plug of the camera directly into an audio input connector on an audio amplifier (a home hi-fi unit will do.) With the camera powered up and the amplifier on you should hear "feed-back" as the microphone amplifies "white noise" produced by the amplifier's speakers. If the audio amplifier and the camera are placed in rooms that have sound-proofing between them (such as bricks and mortar!) then it will be possible to turn up the amplifier's volume and hear the sound picked up by the camera's microphone without feedback. If the volume is turned up too high, feedback and distortion may occur.

SPECIFICATIONS

	INTERNAL Module CAMERA
Element	1/3" CCD COLOUR
Lens	3.8mm PEAK PINHOLE
Lens Angle	68° with 3.8mm as standard
T.V. lines	380 TVL
Min Illumination	0.4 lux @ F1.4
Power Voltage	12V dc - Must be regulated power supply
Current Consumption	100mA @12V
Iris Control	Auto Electronic 1/100000 second
Mounting	Bracket Included
Housing	Metal – alloy – Black finish
Size	25mm x 25mm x 23mm

WARNING

Under no circumstances remove or disconnect the base of this camera or any pre-connected plugs or socket attached to it, as doing so will void all guarantees.

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This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.