

## CAMERA SPECIFICATIONS

<b>ProCam</b>	Operating voltage	11 - 13V dc
	Current consumption	140 mA (approx.) @12Vdc
	Video output signal	CCIR 1V pk-pk into 75 $\Omega$
	Camera type	B&W 1/3" CCD / Day Night 1/3" CCD
	Camera lens	B&W 3.6mm / Day Night 3.6mm
	Viewing Angle	78° viewing angle
	Picture Resolution	B&W 420 TV lines / Day Night 380 TV lines
	Minimum illumination	0.1 lux
	Weatherproofing	IP54 (outdoors and indoors)
	Overall size	3.5" W x 4.3" H x 4.5" D
	Audio signal	1V pk-pk into 47K $\Omega$
	Operating temperature	-10°C to +40°C
<b>Power Supply</b>	Input Voltage	220V/240V ac 50/60 Hz
	Output Voltage	12V dc
	Output Current	300mA (max)
	Weatherproofing	IP30 (indoor use only)
<b>2 Metre Camera Lead</b>	Cable type	6 core alarm cable
	Connectors	6 pin mini-DIN socket
<b>18 Metre Lead</b>	Cable type	6 core alarm cable
	Connectors	6 pin mini-DIN socket 21 pin scart plug 6 way RJ11 plug 2.1mm power plug



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# INSTALLATION

## PROCAM

### **B&W 1890**

- High Resolution CCD B&W camera
- Infra-red LEDs giving night vision
- Microphone and
- 10m PIR movement detector

### **DAY NIGHT 1899**

- High Resolution CCD Colour Day/Night camera which will switch to B&W in low light conditions
- Infra-red LEDs giving night vision
- Microphone and
- 10m PIR movement detector

# INSTRUCTIONS

## GETTING THE BEST FROM YOUR PROCAM *(continued)*

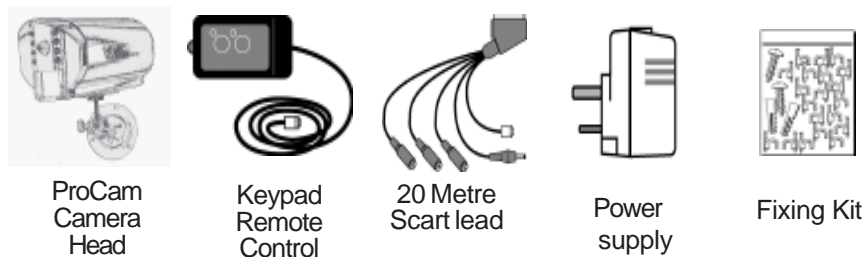
The ProCam is a combined camera and PIR detector with a built in microphone providing you with the ability to 'see' outside your property using your own TV set. The Keypad Remote Control supplied with the camera will sit neatly on top of your TV or VCR allowing you to monitor and control the system.

### KEY PRODUCT FEATURES

- High resolution B&W or Colour Day/Night camera with wide viewing angle.
- Built-in high quality PIR sensor for detecting intruders / visitors.
- Automatically switches the TV to the Camera picture when movement is detected.
- Pre-connected 20 metre lead. Extendable up to 100 metres.
- Will connect to any UK television or video recorder that has a SCART socket, making the installation very simple.
- For a multiple TV installation the ProCam will connect into an aerial system using the optional RF Modulator CT210.
- Connect up to 4 cameras using the 4- Way Switcher Unit - CT200.

### SYSTEM CONTENTS

Please check and identify all the parts before proceeding with the installation.



### INSTALLING THE PROCAM

Before starting the installation we recommend that you temporarily connect the ProCam to your TV or VCR to help determine the best position.

The ProCam will connect to a spare Scart socket (also known as a Peritel or Euroconnector) on your TV or VCR. If you do not have a spare scart socket you will require a CT210 RF Modulator which will allow you to connect the ProCam to the aerial input of your TV or VCR.

IF THE SCART SOCKET IS IN USE OR THE PICTURE IS TO BE VIEWED ON MULTIPLE TVS:

#### **CT210 Wideband RF Modulator**

This unit will allow the ProCam to be connected to the aerial input of your TV or video recorder. This means that the ProCam can be connected to your TV even if the scart socket is occupied and it will also enable viewing on other TV sets in the property with the use of an aerial distribution amplifier.

IF YOU REQUIRE MORE THAN ONE CAMERA ON YOUR SYSTEM:

#### **CT200 Four Camera Swircher**

This unit will allow up to four cameras to be connected to the scart input of your TV or VCR. The screen will automatically switch from one camera to the next every few seconds and the user can also manually choose the camera to be viewed.

IF YOU REQUIRE THE CAMERA TO ACTIVATE YOUR VIDEO RECORDER AUTOMATICALLY:

#### **CT220 Video Activator**

This unit plugs into the ProCam lead and when it is switched into the record mode it will automatically activate the record facility of most domestic VCRs on receiving an alarm signal from the ProCams PIR for a period of 30/60 seconds.

IF YOU REQUIRE A DATED RECORD OF AN EVENT:

#### **CT230 Time and Date Generator**

This unit will plug in between the scart plug of the ProCam lead and video recorder and superimpose the actual time and date on to any recording of events as they happen.

If you have any questions about our products or if you have difficulty in locating accessories for the ProCam please call our HELPLINE on 09066 191 133\*.

## TROUBLESHOOTING

SYSTEM	REMEDY
No camera picture	<ol style="list-style-type: none"> <li>1. Check the power is switched on to the camera, TV and VCR.</li> <li>2. Check the correct channels have been selected on the TV and VCR.</li> <li>3. Check all connections are pushed together correctly.</li> </ol>
Picture or audio interference	<ol style="list-style-type: none"> <li>1. Check that the lead has been unbundled.</li> <li>2. Check that the lead is not run along side any other cables.</li> </ol>
Poor picture at night time	<ol style="list-style-type: none"> <li>1. Check that you have a light illuminating the area. (Street lights may not be adequate).</li> <li>2. Check that the camera is not pointing at a light.</li> </ol>
Picture doesn't automatically change on TV	<ol style="list-style-type: none"> <li>1. Check picture priority is switched on the keypad.</li> <li>2. Check that the ProCam is connected directly to the scart socket of your TV.</li> </ol>
PIR sensor constantly triggering	<ol style="list-style-type: none"> <li>1. Make sure there are no trees, bushes or heater outlets close to the ProCam.</li> <li>2. Check for animals entering the detection area.</li> </ol>

There are two connection methods shown, choose the method that suits your requirements the best.

### CONNECTION METHOD1

If you are not using a VCR, connect the ProCam to your TV as shown.

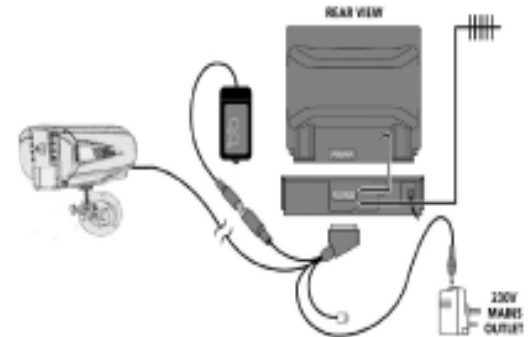


To view the ProCam picture ;

1. Switch on the TV and power to the ProCam.
2. Select the AV channel on your TV. See HOW TO SELECT THE AV INPUT if you are not sure how to do this.

### CONNECTION METHOD 2

If you are using a VCR and have a spare Scart socket on the VCR connect the ProCam as shown.



To view the ProCam picture ;

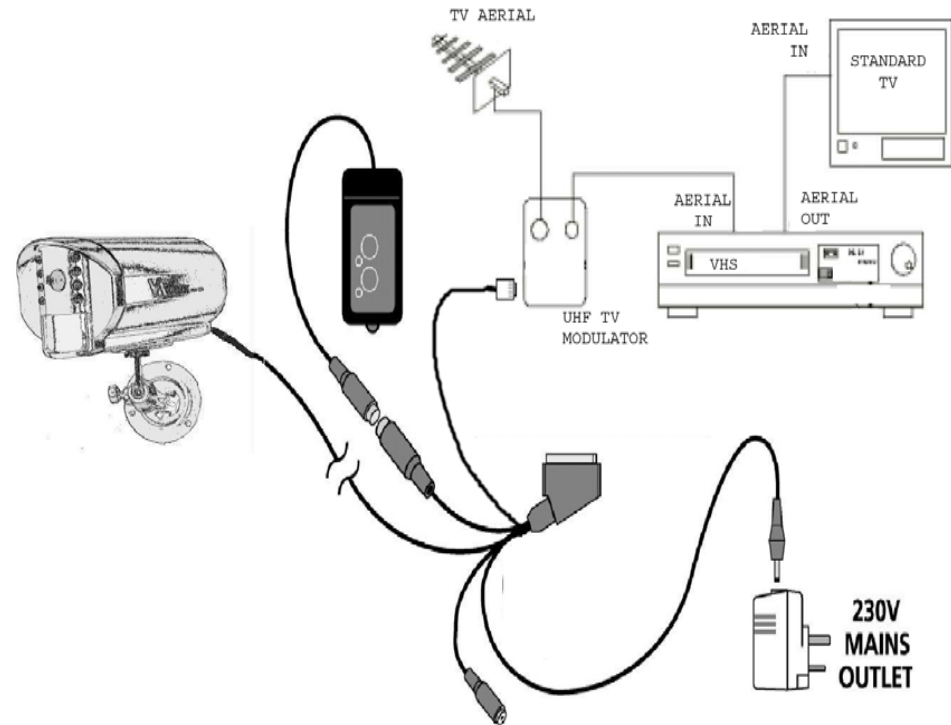
1. Switch on the TV, VCR and power to the ProCam.
2. Select the VCR channel on your TV. This is the channel you normally use for watching a video tape.

Please note that the picture priority feature will not work when connected in this method.

## USING THE OPTIONAL TV MODULATOR

If you do not have a spare socket, the TV Modulator will allow you to connect your ProCam into the aerial socket of your TV or VCR.

The TV Modulator will also allow you to view the ProCam pictures on other TV sets around the property when used with an aerial distribution amplifier.



Please note that the picture priority feature will not work when connected using this method.

## USING THE OPTIONAL LIGHTING CONTROLLER

The ProCam can automatically switch on your outdoor lighting at night time when connected to an 1803 Lighting controller as shown.

Use standard 4 core alarm cable for the connection. Note that a 2nd cable entry is provided for ease of wiring.

## **PIR Detector**

The PIR (Passive Infra-Red Sensor) detector works by looking for a persons body heat moving through its field of view (see PIR coverage p[attern]). The PIR sensor is used to trigger the sounder and picture over-ride located within the keypad and the PIR output signal can be used to trigger other equipment such as the optional lighting controller or VCR activator. Whenever the PIR detects movement, an LED will light up on the keypad.

### **Movement Sounder**

When movement is detected by the PIR sensor, the sounder inside the keypad will bleep to bring your attention to the fact someone is outside your property. The sounder can be switched off by pressing the sounder button. An LED on the Keypad Remote Control indicates if the sounder is armed or disarmed.



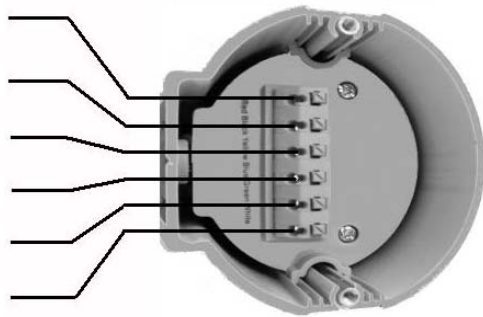
### **Picture Over-ride**

When movement is detected, the television picture will automatically switch to the camera channel to show you the person outside your property. (Please note that this feature only works when the ProCam is directly connected to the Scart socket on your TV set). The camera picture will stay on for 15 seconds after the person has stopped moving, when the picture will revert back to the previous channel. The picture over-ride can be switched off by pressing the picture over-ride button on the keypad. An LED on the keypad remote control indicates if the Picture Interrupt is armed or disarmed.

Please note that RFI close to this product may cause picture & audio interference and also cause the PIR sensor to produce a false alarm.

5. Re-connect the five wires to the ProCam as follows;

- Red - +12V
- Black - 0V
- Yellow- Video
- Blue - Audio
- Green - PIR
- White- Light Level  
(Not connected)



Note the white wire is not connected. The white wire contains the ambient light level signal and is therefore only used when connected to an 1803 Lighting Control Unit.

6. Re-connect the ProCam to your TV / VCR, the keypad and the power supply. Do not apply power just yet.
7. Place the Keypad on top of your TV / VCR.
8. Check all connections thoroughly.
9. Switch the power on to your TV, VCR and camera unit.
10. Select the camera input on the device that the camera is connected to. You should now see and hear the camera's output.

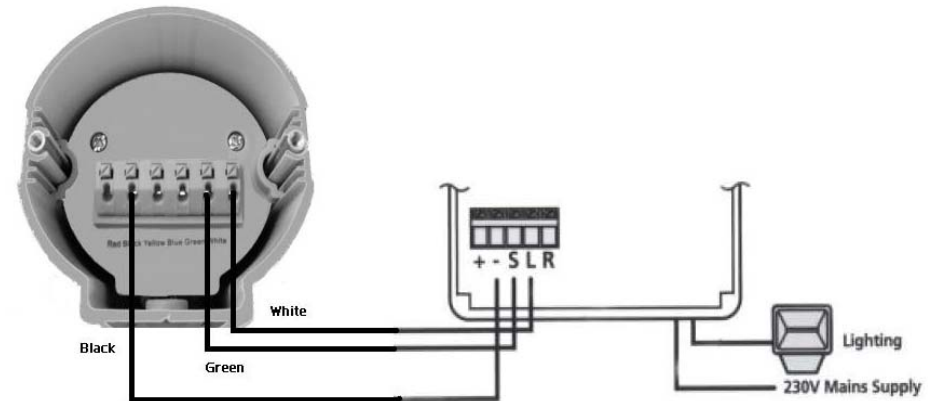
## USING THE PROCAM

### Viewing The Camera Picture

The method of selecting the camera picture depends upon how the ProCam is connected to your TV set. Details of selecting the camera picture are given next to each installation method (see INSTALLING THE PROCAM).

### Infra-Red LED's for Night Time Operation

The ProCam has built-in infra-red LED's (Light Emitting Diodes) which can't be seen with the naked eye but allows the ProCam to see objects up to approximately 5m away from the camera. To view objects further away we recommend the use of tungsten halogen lighting which can be controlled with the optional 1803 Lighting Controller.



The See the instructions provided with the lighting controller for setting up.

## MULTIPLE CAMERA INSTALLATION

There are two methods of connecting more than one camera.

### CT200 Four Camera Switcher

This accessory will allow up to four cameras to be connected to the scart input of your TV or VCR. The screen will automatically switch from one camera to the next every few seconds and the user can also manually choose the camera to be viewed.

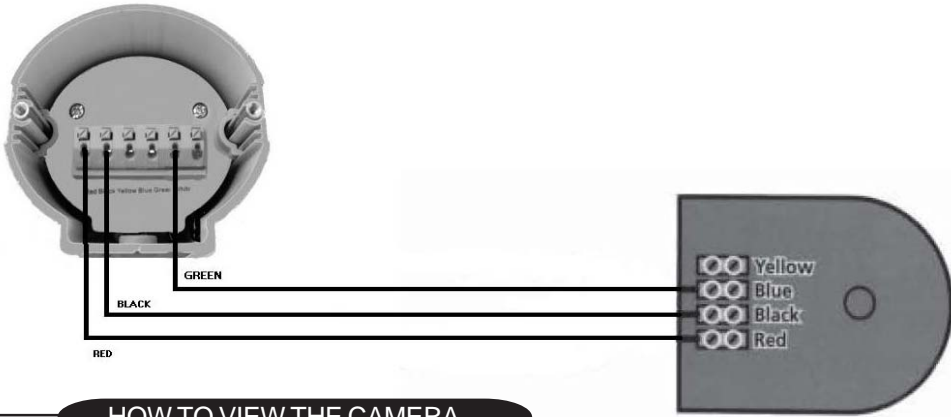
### CT210 TV Modulator

In this method, each camera will require a TV modulator. The TV or VCR can then be tuned-in to the relevant camera frequencies. To view the camera pictures, simply press the appropriate button on your remote control. e.g. press channel 6 to view camera 1, press channel 7 to view camera 2, etc. Please note that only one camera picture at a time can be recorded on your VCR when connected in this method.

## USING AN ADDITIONAL PIR SENSOR

If you wish to extend the detection range of the ProCam, an 1804B PIR sensor can be connected using 4 core alarm cable shown. This additional sensor offers an 18m detection range with a 90 viewing angle.

See the instructions provided with the additional PIR sensor for setting up.



### HOW TO VIEW THE CAMERA

When you connect the ProCam to a scart socket NO TUNING is required. Simply press the appropriate button on the TV or VCR to see the picture.

The button will look like one of the following;



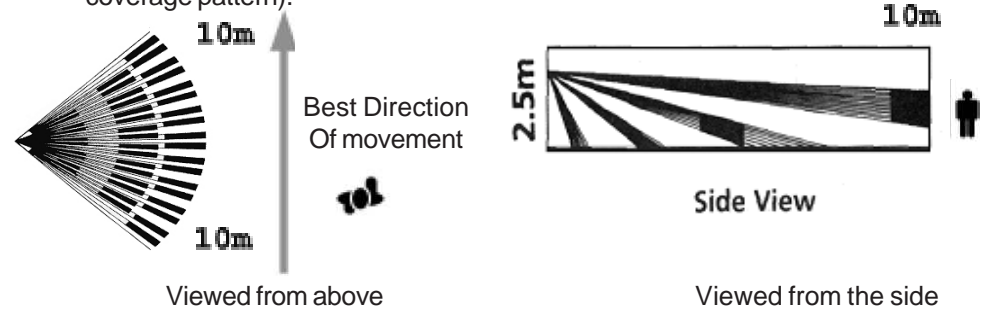
Note : some models of TV use channel 0 for the AV input. See the TV instruction manual for further details.

### WHERE TO POSITION THE EYECAM

The Eye-Cam is suitable for indoor or outdoor use. Please bear in mind the following points when choosing a mounting position.

- The camera must be positioned so that it **will not point directly into the sun** (sunrise and sunset) or any bright light, as this may cause damage to the camera.
- The best viewing angle is achieved at greater heights with the camera pointing down.
- Avoid viewing areas where **half the area is in bright sunlight and the other half is dark**, such as in the shadow of a building. All types of cameras have difficulty in 'seeing' with such a large lux level variation.
- Do not position the camera too far away from door entrances as you may not be able to hear any speech or sound.
- The camera will work in low light conditions, but ensure a light is fitted near to the camera for night-time operation.

- The PIR sensor is at it's most sensitive when movement is across the face of the sensor so that the person is crossing the detection beams (see PIR coverage pattern).



- Avoid placing the PIR sensor close to heater flue outlets, trees or bushes which may cause a false alarm.
- The camera cable may be extended up to **100 metres**. Please bear this in mind when choosing your siting position.

### COMPLETING THE INSTALLATION

You can now check the camera's view in different position enabling you to choose the best position for your property,

1. Once the ProCam position is chosen, switch the power off.
2. Remove the back plate from the ProCam by unscrewing the two securing screws.
3. Remove the five wires from the connector block in the ProCam by using a small screwdriver to lightly push down on the terminals to release the wires.
4. Run the camera cable from the TV / VCR to the desired mounting position. Use the cable clips provided to keep the cable in place.

When laying the cable, please bear in mind the following points.

- a) Keep the camera cable away from other cables where possible to reduce the risk of picture and audio interference.
- b) Avoid laying the cable next to anything which runs hot which could possibly burn the cable.
- c) If the cable is run along the ground, a protective covering must be used to prevent the cable from being damaged.