PIR INSTRUCTIONS & INSTALLATION

PIR MODELS: CCT865/CCT866/CCT867

TIPS- BEFORE YOU START INSTALLATION

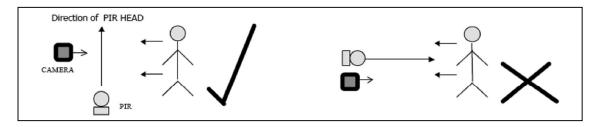
PIRs work by detecting *moving heat*. Whilst they are clever in the fact they can pick up the heat omitted by a fully clothed body, they still have certain restrictions that govern where they *must* be sited for optimum performance. The key factor is that the PIR must be able to *see* movement.

If, for example, you look at a distant plane in the sky while it is either coming towards or going away from you, it would appear as a stationary dot in the sky. If, however, the plane was travelling left to right across your field of vision you could instantly see its movement. The PIR works in exactly the same way. It must be able to *see* movement. The best position for it to do this is when someone walks past it at right angles.



NEVER POSITION A PIR SO THAT THE PERSON YOU ARE TRYING TO DETECT WALKS DIRECTLY TOWARDS IT. THIS IS THE WORSE POSSIBLE LOCATION FOR IT.

For this exact reason, in order to achieve a professional installation, a PIR should not be built into the camera. Leave DIY systems to the DIYers or you will never obtain the professional results that provide the recommendations essential for your business to grow. Remember! The best position for a camera is when someone walks directly towards it, the opposite to a PIR!!



WARMING UP

The PIR has a 60-second warm up period between initial power up and the first possible activation. Therefore, you must wait this long after powering up before triggering the PIR.

ANTI-LOCK FEATURE.

The MegaVision and Advanced-Vision control units both feature a special anti-lock facility that works as follows:

Let's suppose you have a camera on the front of a property linked to PIR No 1 and a second camera linked to PIR No 2 at the rear. When someone passes PIR No.1, it triggers the system to lock on to the front camera. Even if the caller continues walking up and down past PIR No 1, the system will now ignore all further inputs from it for 60 seconds. This feature prevents the system from being fooled into locking on to camera 1 at the front, whilst an accomplice breaks in completely undetected at the rear. You can only trigger, therefore, an alarm & record condition every 60 seconds on the SAME camera.

Obviously if an input was received by the system from PIR No 2 linked to the second camera, it would alarm the system immediately without a 60-second delay because it is a **different** camera. The picture would then oscillate for 60 seconds between the two alarmed cameras and then reset for the next activation. Remember this when testing and explaining the system to the customer. A further benefit of the Anti-lock feature is that if the customer was for instance, having a barbecue the TV would not be constantly bleeping as people moved in front of the PIR!

FALSE ACTIVATION.

The PIR responds to moving heat. This could be hot air from a central heating flue, extractor fan or even warm air leaving a room through an open widow so **site with care**. Avoid looking at objects that will be illuminated by the sun as these also may confuse the PIR and cause it to false trigger. Mounting the PIR on a fence or pole or any surface that may move in strong winds will also cause a PIR to falsely activate as the PIR "thinks" it's environment is moving. Do not be fooled because the surface such as a fence appears solid. Any movement just a few millimeters will cause the PIR to "see" its environment moving a few feet! Resulting in a false activation.

Because high sensitivity is required to spot distant objects moving, it means the PIR may also spot cats and dogs close-by. The only way to minimise this is by using model CCT866 in conjunction with careful PIR positioning. The model **CCT866** incorporates a special lens that uses a flat 18-metre detection beam. Being flat, this beam helps reduce false alarms from animals by allowing them to walk under the beam without activating it. The PIR should be mounted to accommodate this flat beam at about shoulder height. Another solution to avoid false activations can be to use the long range **CCT867**. This provides an exact position (when you cross the beam) where the PIR will trigger. By using two or more PIRs in a criss-cross fashion, a predictable and effective detection system can be achieved with few false alarms. Although the long range lens CCT867 does have creep zones which may detect pets etc.

OPTIMUM HEIGHT

Different models should be mounted at different heights:

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CCT865, CCT867 - mount at approximately 2.5Mtrs,

CCT866 - mount at approximately shoulder height as they look straight out rather than out and down. At this height the units, will pick-up heat from a person's head or torso. Please take into consideration variations in ground levels and gradients when mounting.

REMOVING THE PIR TERMINAL COVER

The PIR terminal cover can be removed by loosening the four cross head screws under the top section. Moving and twisting the head can give access to these screws. The head may first need to be unlocked if the locking screw located above the head has been tightened.

CABLE ENTRY

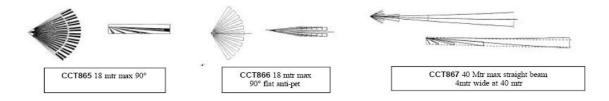
Make sure the cable always goes BELOW the PIR then back up to it. This forms a hanging loop, which prevents any water on the cable running straight into the PIR. Otherwise the PIR may fill up with water!

WIRING UP

When installing the wiring make sure it is connected correctly and that you get a good connection with each wire. Do not trap the cable insulation by mistake. The connections should be made as follows: -

- + Red (+ 12V power)
 - Black (0V and common return)
- S Blue (Alarm signal out)
- L No Connection, (Photocell) DO NOT CONNECT THE YELLOW OF THE CONTROL UNIT TO THIS!!!

DETECTION PATTERNS



TESTING

On the front of the PIR behind the lens is a small red LED that illuminates each time the PIR picks up movement. By walking in a criss-cross pattern in front of the PIR you can find out it's areas of detection, keep doing this and altering the angle of the head until you obtain the best results. Remember that when using the PIR with either the Advance-Vision or MegaVision control unit, the "Antilock feature" will not pass every detection through to the TV bleep and alarm mode, as per instructions. Once you have adjusted the head for the best detection area, you must tighten the locking screw located just above the head to prevent the head moving in strong winds. Any movement in strong winds will cause the head to false alarm.

ADDITIONAL PULSE COUNT MODULE.

Each time the PIR picks up "movement" it sends out an alarm signal. If the "movement" the PIR picks up is an undesirable detection such as rapid changes in cloud cover and therefore heat, this type of occurrence can be minimised by using a simple add-on pulse count module. This can be set to "count" the number of "movements" it sees in an adjustable time slot, helping reduce unwanted activations. For example, you may set the pulse count unit to trigger the PIR only if it picks up movement twice within 5 seconds. A very sudden change in light intensity due to altering cloud cover is unlikely to occur twice in 5 seconds but if a person walked passed the PIR it would cut the "beams" more than twice within 5 seconds and trigger the PIR. The pulse count unit is ordered under code CCT868.

PIR SPECIFICATION

Voltage	12V dc	Sensor	Twin
Current	10mA approx.	Output	Transistor 85mA max
consumption			
Alarm time	2 seconds	Colour	Black

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