

## WARRANTY

This product has a **2 Year parts** and labour warranty. In the unlikely event that you encounter a problem with this product, it should be returned direct to Voltek, or to the place of purchase.

Voltek Helpline: 09066 191 133\*

## SPECIFICATION

Operating Voltage	12Vdc Nominal
Current Consumption	33mA (standby) 40mA (alarm)
Relay type	Single pole change over
Relay Contact rating	1A (24V dc), 0.5A (120V ac)
Transistor Output	npn with 22K pull up and 100R in series
Transistor rating	80mA (sink only)
Alarm duration	2 sec. To 5 min. (Relay) 2 sec. minimum (transistor)
Dimensions	80mmWx110mmHx115mmD
Total package weight	0.2Kg
Approvals	CE Directive 93/68/EEC EMC Directive 89/336/EEC BS EN 50081-1, BS EN 50082-1

The 1821 is a Pulse Count Module that will fit into the wiring compartment of a Securilite 1804 or 1811 PIR Sensor. It will provide additional security against false alarms and / or provide an interface with your intruder alarm panel, CCTV equipment, auto-dialler, pager etc. while still working with the Securilite lighting control-

## FEATURES

- 12V dC operating voltage.
- Compatible with Securilite 1804 & 1811 or any PIR with a -ve signal output.
- Selectable pulse count 1, 2, 3 or 4.
- Adjustable Time Frame of 5, 10, 20 or 30 sec.
- Adjustable relay alarm time (2 sec. to 5 mins.)
- Normally open and normally closed relay output.
- Lighting controller output (-ve signal in alarm)
- Relay output will go into alarm on removal of power.
- Relay & transistor will go into alarm if the PIR input is disconnected.

Please note : when handling the pulse count module, care should be taken to hold the board by the edges therefore avoiding touching the electronic components or tracks.

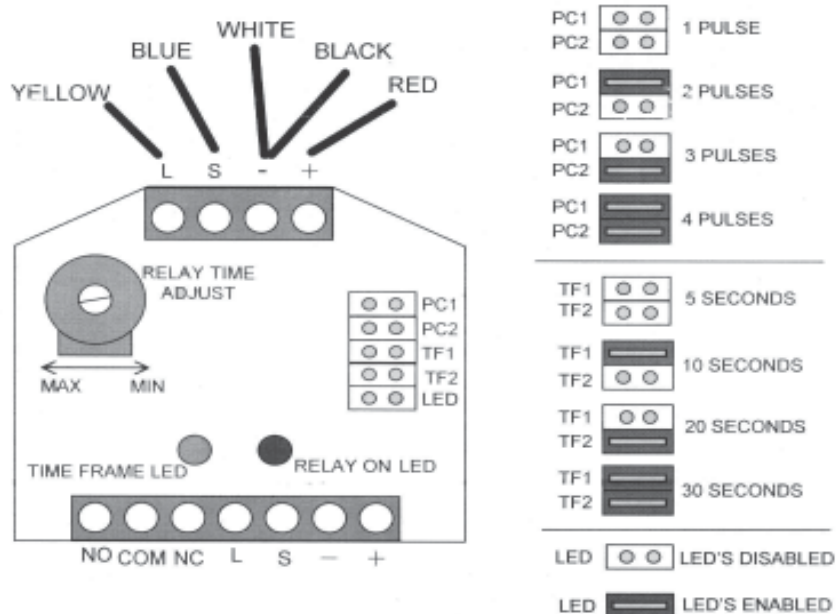
1. Use the guidelines provided with the PIR sensor to choose the best location for the sensor.
2. Remove the lid from the PIR sensor.
3. Remove the five wires from the connector and then connect them to the Four way connector on the pulse count module as shown on the next page.

Connection details:

PIR Sensor Wire	Label	Function
Red	+	+12V dc
Black	-	0V
White	-	LED disable
Blue	S	PIR Signal
Yellow	L	Light Level



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9. If you are using this device with an 1804 single head sensor, push the PCB onto the three posts to secure into position.
10. Note that the PIR LED can be disabled by disconnecting the white wire (Ensure that the disconnected wire cannot touch any electronic components within the unit)
11. The pulse count module can now be connected to the peripheral equipment (e.g. CCTV controller, radio pager, etc.) and a lighting controller if required. Use the following table to record the wire colours used.

Label	Function	Wire Colour
+	+12V dc	
-	0V	
S	PIR Signal Output	
L	Light Level Output	
NC	Normally Closed	
COM	Common	
NO	Normally Open	

12. The factory setting of the pulse count module is:  
 Pulses: 2  
 Time Frame - 10 seconds  
 Relay Timer: 2 second  
 This should be suitable for 90% of hostile environments, but if you wish to change these settings, move the shorting pins on the PCB using the drawing on the previous page for guidance.

## UNIT OPERATION

- The 1816 will ignore any PIR pulses that are shorter than 0.2 seconds therefore stopping nuisance alarms from a bird flying closely to the sensor, or a bush or tree moving.
- When the first pulse is received from the PIR, the Time Frame starts, indicated by the green LED. The duration of the time frame can be altered using the jumpers as shown above. The time frame can be reduced for particularly hostile environments, or increased to improve sensitivity.
- If enough pulses are received while the time frame is on, the relay output and the transistor output will switch on.
- The transistor output is a momentary type output, i.e. it will only stay on for as long as movement is being detected (minimum 2 seconds).
- The relay output time can be adjusted between 2 seconds and 5 minutes using the potentiometer. This is a resetable type timer, i.e. each time the correct number of pulses are received from the PIR, the timer will restart.
- Please Note : A large source of RFI emitted close to this unit may cause the Pulse Count Module to produce a false alarm.

## COMPLETING THE INSTALLATION

1. Double check all your wiring and then screw the lid back onto the unit
2. Apply power to the system. When first powered, the sensor will take approximately 1 minute to settle down into normal operation.
3. Walk in front of the sensor and ensure the detection area is being covered adequately. Adjust the pan and tilt of the sensor to the desired position and use the screw on the front of the enclosure to lock in position. (Do not overtighten as this may prevent you from making changes in the future).