

# Keene Electronics

## KLRP1 LANC PIR CONTROLLER PCB

### Overview

This product is the PCB assembly from the KLRP1 product. It is designed to be connected to a PIR sensor and to provide motion triggered recording on any LANC equipped video recorder or camcorder.

Once triggered the microcontroller will hold the recorder in "record" mode for one of four preset times, and any re-trigger during the record time will reset the record timer to the selected timeout.



### Connections

Connect 12v DC supply of at least 30mA (centre positive)

3.5mm jack socket for connection to the LANC socket

Connect to "+" on the PIR

Connect to "-" on the PIR

Connect to the "S" signal (normally high) on the PIR



Make your connections as shown above.

The "S" signal must be normally high (5v or more) going to ground (0v) when tripped. If the PIR uses a normally open relay which closes to ground when tripped then you should fit a 10K resistor between the signal connection and the 12v connection (pull up).

If the PIR is already powered (ie part of an existing installation) and is connected to the LANC PIR PCB as above then there is no need to provide any additional power to the PCB DC input socket.

The PCB "S" input impedance is deliberately set quite high (> 22Kohm) so as not to cause false trips on an existing alarm installation.

### Initial set-up

There are three adjustments you can make to the unit:

### Record Time

The factory default for the record time is 20 seconds. This means that it will keep the record device in record mode for 20 seconds AFTER motion is last detected. For example if someone waved a hand in front to the PIR for 5 minutes and then walked away the device would record for 5 minutes and 20 seconds. If you want to extend this record time you need to disassemble the unit and follow the instructions for adjustment. If the 20 seconds is adequate for your needs there is no need to alter anything.

### MODE LED setting

The green LED mounted on the PCB provides a visual indication of which mode the LANC controller is in:

The Mode LED has 5 states:

Fast flash for LANC cable unplugged.

Slower flash for LANC plugged in but not active

Very slow flash for LANC in and active but not in record mode.

Continuous on for recording

Continuous off for timed out

Should you wish the Mode LED can be disabled by following the instructions in the disassembly section. (Note that the red PIR LED will always come as with any PIR)

### Sleep Mode

The KLRP1 can put the recorder into either SLEEP or STOP at the end of the record period. Sleep mode is preferable as this suspends everything and preserves maximum battery life. Some recorders when put to sleep mode will wake up in their default configuration. For example if a camcorder were set to VCR mode then put to sleep it might "wake up" in camera mode or even in memory stick mode . We recommend some experimentation to see how your device behaves as there is no easy way of telling. If your device does change state when the SLEEP command is used there is an option to send the STOP command instead. It should be remembered that using stop puts a much bigger drain on the battery, and also some camcorders cannot be put into stop and will only go to record pause- they will eventually time out themselves. The default setting is SLEEP. If this is the setting you require there is no need to alter anything.

### Adjusting

(skip this part if you don't wish to alter the TIME, LED or SLEEP settings)

The DIP switches used for adjustment are located on the large plastic block

#### TIME

Switch no's 1 & 2 (PCB legend T1 & T2) are used to adjust the TIME setting

1 off and 2 off on gives 20 seconds record time (default)

1 on and 2 off gives 80 seconds

1 off and 2 on gives 160 seconds

1 on and 2 on gives 240 seconds

#### SLEEP

Switch no.3 (PCB legend S) selects SLEEP or STOP mode

No 3 off gives SLEEP (default)

No 3 on gives STOP

#### LED

Switch no. 4 (PCB legend L) selects green LED on or off

No 4 on gives LED on (default)

No 4 off gives LED off

The switches are only scanned when the unit is first powered up. If the switches are adjusted whilst power is connected the adjustment will not have any effect until the next time power is disconnected and re-applied.

### Connection and operation

Locate the PIR in the desired position and connect the power to the PIR. Do not yet connect a LANC device to the LANC socket. If all is well the LED will begin to flash. (Note the PIR will take about 30 seconds to settle from initial power on and if the camera is connected during this time the it begin recording straight away). Once the PIR has settled you can now connect your recorder to the LANC port using the cable provided. The LED will either change it's rate of flash to a slower rate OR if the PIR is triggered (likely at this point!) and there is a tape in the recorder it will start to record and the LED will be constantly illuminated. Experiment with PIR positions until you achieve the desired degree of sensitivity.

#### Notes about the LANC interface

LANC, also know as "control-L", is a bidirectional communication port, fitted to most Sony & Canon camcorders and some portable recorders. It usually takes the form of a 2.5mm stereo jack socket on the body of the item, sometimes marked with an "L" inscribed inside a circle. It can be used to directly control the device in a number of ways. The KLRP1 controls the record start./stop and sleep/power off functions. Keene Electronics also manufacture a LANC remote control (code KLR) , with a greater range of manual controls.