

DANLERS

Installation notes

Wall or ceiling mounted PIR occupancy switch

WACEPIR

DANLERS 3-wire wall or ceiling mounted passive infra-red occupancy switch (WACEPIR) should be wall mounted at a location where a neutral connection is available.

The WACEPIR incorporates a passive infra-red quad sensor to detect movement of a warm body within the detection zone (diagram B or C) and a photocell to monitor the ambient light level.

Upon detecting movement, if the ambient light is dark enough, the WACEPIR switch will turn the load on. The ambient threshold can be set by the user to between approximately 30 lux and 1000 lux and maximum (photocell inactive) at the PIR via the LUX adjuster (diagram A).

If no more movement is detected within a pre-selected time, then the WACEPIR switch will turn the load off. This time lag can be set via the TIME adjuster to 10 seconds, 20 seconds, 40 seconds, 80 seconds, 2 minutes 30 seconds, 5 minutes, 10 minutes, 20 minutes or 40 minutes (diagram A).

The WACEPIR also incorporates a sensitivity adjuster. Turn fully clockwise for maximum range and sensitivity of the person detector.

Several WACEPIR units can be wired in parallel (diagram E).

Loading limits

The switch should only be connected to a 230V 50Hz AC supply.

These PIR switches can switch up to:

6 amps (1500W) of resistive loads.

6 amps (1500W) of fluorescent loads.

3 amps (750W) of electronic and wire wound transformer loads.

2 amps (500W) of CFL, 2D lamps, LED Drivers and LED lamps and fittings.

1 amp (250W) of fans

Minimum load 2W resistive, suitable for most energy saving lamps, LEDs and emergency fittings.

Lux and Time set-up

For convenience, ensure that the TIME is set to the minimum when setting up the LUX level. Afterwards set the TIME and SENS to values suitable for the application.

The LUX is best set up when the local ambient light is close to the minimum desired light level. With the LUX set fully clockwise wait for the WACEPIR to switch off. Rotate the LUX adjuster slowly anticlockwise (- to +), whilst waving your hand approximately 1m in front of the WACEPIR, until the load switches on.

Fault finding

The load will not switch on:

- The LUX adjuster is set too low and is inhibiting the switch.
- The moving body is not emitting more IR than the background.
(Person wearing insulating clothing in a warm environment)
- Person is too far from the PIR switch, see detection diagram.
- Person is moving unusually slowly (perhaps when testing).

The load switches on when nobody is present:

- Heater causing infra-red variations in a small cold room.
Reduce the sensitivity adjuster or re-site the WACEPIR.
- Please contact DANLERS for further technical support.

Precautions and Warranty

This product conforms to BS EN 60669-2-1 and BS EN 55015.

Please ensure the most recent edition of the appropriate local wiring regulations are observed and suitable protection is provided e.g. a 10 amp circuit breaker and voltage surge protection. Please ensure that this device is disconnected from the supply if an insulation test is made.

This product is covered by a warranty which extends to 5 years from the date of manufacture.

Also available from DANLERS

- PIR occupancy switches • Daylight linked dimmers • Manual high frequency dimmers
- Photocells • Radio remote controls • Time lag switches • Outdoor security switches
- Dimmers • Heating, ventilation and air-conditioning controls • Bespoke / O.E.M. products

Please call for more information or a free catalogue, or visit our website.

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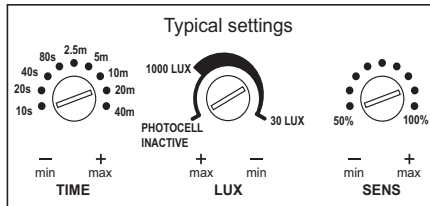


Installation procedure

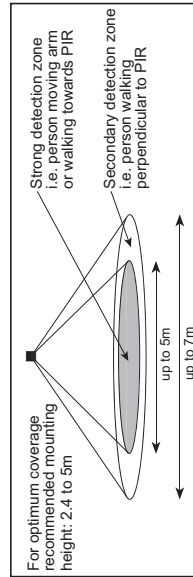
1. Please read these notes carefully before commencing work.
In case of doubt please consult a qualified electrician.
Make sure the power is isolated from the circuit.
2. The switch should be placed facing the area where activity is expected, if wall mounted at between 1m and 1.8m high (diagram C). If the photocell override facility is required, the switch must be sited in a position where the daylight can give greater illumination than the artificial light.
3. Connect the WACEPIR as:
 - L Live in
 - N Neutral in
 - SL Switched line out
 As shown in the diagram D opposite.
4. A few WACEPIR products can be wired in parallel to control the same load (diagram E)
5. There are three adjustments on the underside edge of the switch: TIME, LUX and SENS (sensitivity) (diagram A)
6. When the wiring has been completed and verified, switch on the supply and test operation.

When the PIR is powered up, it will switch on the load for 1 minute, the load will then switch off and the PIR will enter its Operating Mode. If a manual override-off switch is positioned before the PIR in the circuit (diagrams D & E, note 1) it will do this each time the wall switch is switched on. Alternatively, if the wall switch is placed after the PIR (diagrams D & E, note 2) it will not enter the start-up mode each time.

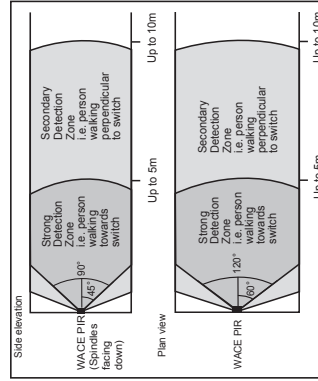
A: Adjusting time, lux and sensitivity



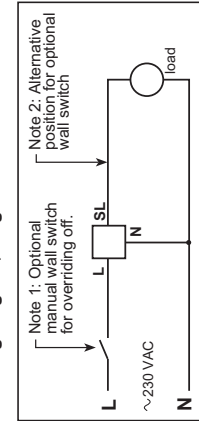
B: Detection diagram, Ceiling mounted



C: Detection diagram, Wall mounted



D: Wiring diagram, single PIR



E: Wiring diagram, multiple PIRs

