

Fault finding

The load will not switch on:

- The override switch is in the 'override' position. Short press the button to return to the automatic mode.

The LED behind the button is flashing:

- The override switch is in the 'override' OFF position. If override OFF is desired but without the flashing LED, press and hold the button for 10 seconds.
- The WAPIR battery voltage has dropped very low and has gone into automatic recharge mode.

The load stays permanently on or off, possibly after a few weeks.

- The load is less than 20W per switch and the rechargeable battery has not been able to recharge.

Add one power factor correction capacitor, at a light fitting, for each WAPIR in the circuit. Order code: CAPLOAD.

The lights are still slightly illuminated when the WAPIR is OFF

- Add more load or add one power factor correction capacitor, at a light fitting, for each WAPIR in the circuit. Order code: CAPLOAD.

Precautions and Warranty

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

Please ensure the most recent edition of the appropriate local wiring regulations are observed and suitable protection is provided e.g. 10 amps over current, 1kV over voltage. 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

- 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.



2-wire wall mounted PIR occupancy switch

WAPIR

2-wire wall mounted passive infra-red occupancy switch (WAPIR) does not require a neutral connection and can be used as a simple replacement for an existing one-way wall switch. The WAPIR incorporates a passive infra-red quad sensor to detect movement of a warm body within the detection zone (diagram A) and a photocell to monitor the ambient light level.

Upon detecting movement, if the ambient light is dark enough, the WAPIR switch will turn the load on. The ambient threshold can be set by the user to between approximately 30 lux and 1000 lux and infinite lux (photocell inactive) via the LUX adjuster (diagram B). If no more movement is detected within a pre-selected time, then the WAPIR switch will turn the load off. This time lag can be set via the TIME adjuster to 10 seconds, 20s, 40s, 1 minute 15 seconds, 2m 30s, 5m, 10m, 20m or 40 minutes (diagram B).

WAPIR also incorporates a sensitivity adjuster. Turn fully clockwise for maximum range and sensitivity of the occupancy detection.

OVERRIDE BUTTON: WAPIR has a push button on the front plate to select between 'override off' or 'automatic mode'. A short press activates the override OFF mode (if the PIR is already in automatic mode). A slowly pulsing LED behind the button indicates when the control is in override OFF mode. The LED can be deactivated by pressing and holding the button for approximately 10 seconds. To reactivate the LED a 10 seconds press and hold is required.

PLEASE NOTE: This override button is not a means of isolation.

Several WAPIR units can be wired in parallel, using re-wired 2-way lighting wiring, to allow multiple PIR detection (diagram C).

Loading limits

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

WAPIR units can switch up to 10 amps (2300W) of:

- Fluorescent lamps, either high frequency of switched start
 - Incandescent or mains halogen lamps (recommended with integral safety fuse)
- They can also switch up to:
- 6 amps (1500W) of electronic or wire wound transformers.
 - 6 amps (1500W) of compact fluorescent or LED lamps and drivers (PF ≥ 0.95).
 - 1 amp (250W) of Fans.

Larger loads can be switched via a contactor (see over).

Minimum Load

Because there is no neutral connection, there is a minimum load requirement of 20W for each WAPIR in circuit. This is to ensure the load is NOT partially illuminated when the WAPIR is OFF. If the load is partially illuminated then one power factor correction capacitor, CAPLOAD, needs to be added across the load for each WAPIR in circuit (diagram C).

The WAPIR contains a 9v, PP3 (200mAh), re-chargeable nickel metal hydride battery which trickle charges when the load is switched off. **Do not allow the battery connector terminals to touch any of the 'mains' electrical wires, including earth.** The switch must receive a permanent live supply and should be used in applications where the load will be on for less than 16 hours per day.

NOTE: If the date stamp is more than 12 months out of date, the battery will require recharging.

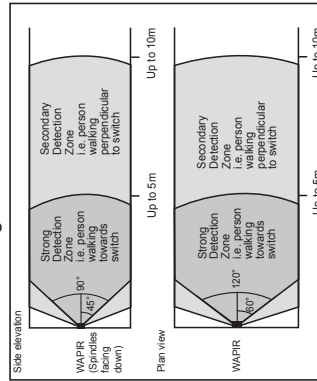
Installation procedure

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, mounted between 1 and 1.8m high (diagram A). 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. The WAPIR is suitable for wall mounting only.
3. Engage the battery before connecting the WAPIR terminals. WAPIR will enter its automatic mode 1 minute after the battery is engaged.
4. Connect the WAPIR as: L - Live in. SL - Switched line out. As shown in the wiring diagrams opposite.
5. A few WAPIR can be wired in parallel to control the same load (see diagram C).
6. There are three adjustments on the underside edge of the switch: TIME, LUX and SENS (sensitivity) (diagram B).
7. When the wiring has been completed and verified, ensure the WAPIR is in automatic mode (see OVERRIDE BUTTON on front page), switch on the supply and test operation.

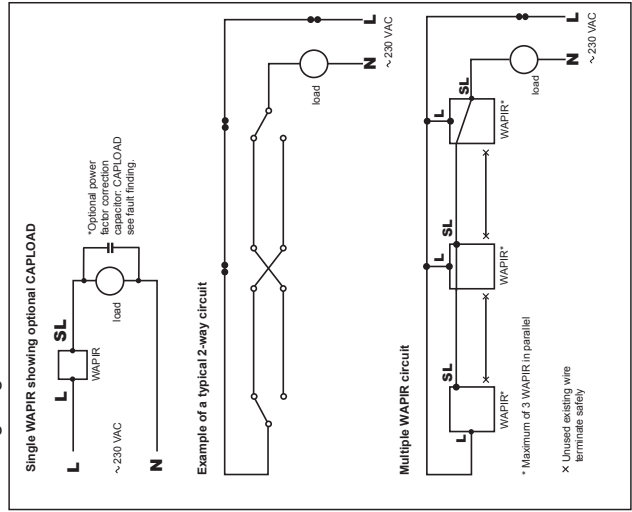
Lux and Time set-up

For convenience, ensure that the TIME is set to the minimum and the WAPIR is set to automatic mode 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 WAPIR to switch off. Rotate the LUX adjuster slowly anticlockwise (- to +), whilst waving your hand approximately 1m in front of the WAPIR, until the load switches on.

A: Detection diagrams



C: Wiring diagrams



B: Adjustment diagram

