

FIG.1

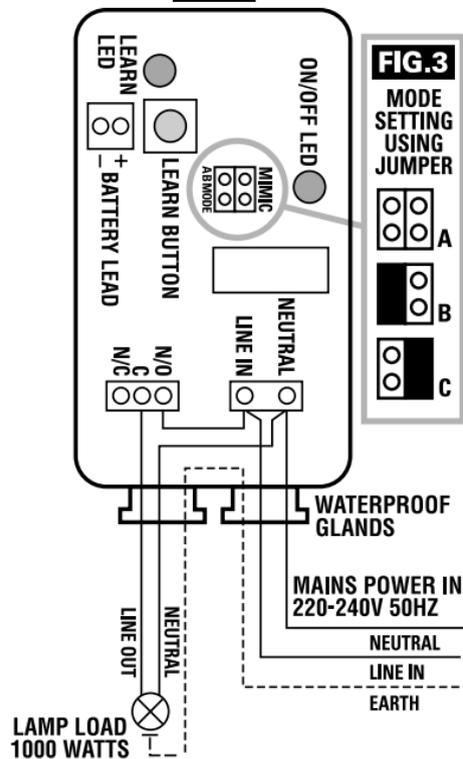
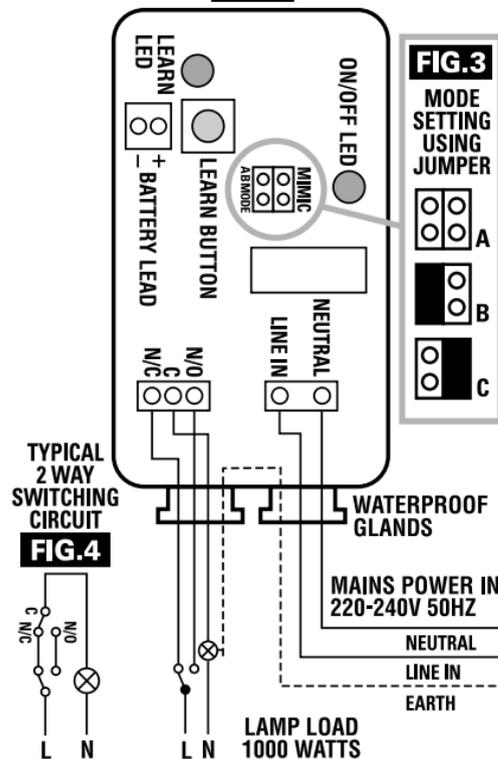


FIG.2



4 To flush the memory, simply press and hold the learn button until the led goes off. This takes about 5 seconds.

5 The ON/OFF led mimics the switch action. This is especially useful when range testing with a battery.

#### Technical data:

Operating voltage 220-240V @ 50Hz  
 Max lamp load 1000 watts  
 Switch current 5 amps @ 250 volts  
 Internal fuse non replacable  
 Temperature range -10 to +40C  
 Enclosure IP66 Polycarbonate  
 Standards BS EN 60669

#### IMPORTANT

Do NOT fit this receiver in direct sunlight especially in glass houses or conservatories where the temperature can exceed the operating range. Extreme heat will temporarily stop the receiver from functioning.

## ON/OFF RECEIVER ESR-1 INSTALLATION AND OPERATING INSTRUCTIONS

The ESR-1 wireless receiver is a Mains Voltage ON/OFF switch housed in a weather proof enclosure. The 1000 watt switch capacity means you can operate a variety of loads such as pumps, motors, lighting and much more. Range testing and code learning is all done using a temporary battery. The mains **MUST NOT** be connected at this stage.

Each wall switch (EST-1) and key fob (ESF//) has a unique code which may be learnt by the receiver.

#### Learning the switch code.

- 1 Screw the aerial provided to the screw fitting at the top of the receiver enclosure.
- 2 Connect a standard PP3 9 volt battery (not supplied) to the clip provided. The LEARN led will flash three times indicating correct operation.
- 3 Press the LEARN button. The learn LED will light.

#### Contacts:

For a list of authorised distributors, technical support, application notes and details of new products please contact us at:

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4 Operate the wall switch or key fob button which is to work with this receiver. The learn LED will flash and go out indicating that the code has been learnt. Operate the switch again and observe the ON/OFF LED.

5 Select Mode.

6 Carry out range testing.

7 Remove battery and lead from screw terminals and fix the receiver permanently in position.

8 Connect to the mains and replace cover.

#### Mode selection.

The receiver has three modes to choose from and these are selected by a removable link as shown in fig3.

**Mode A.** For SINGLE SWITCH operation. Remove the link completely. In this mode the receiver recognises ON and OFF commands. If the receiver is ON and another switch sends the ON command, the receiver will not respond until it receives an OFF command. Fig 3A.

**Mode B.** For TWO WAY switching. Fit link to AB mode pins. In this mode the receiver does not differentiate between ON and OFF codes. If two or more switches are used with the receiver, each switch action regardless of which switch was operated will reverse the previous action. Fig 3B.

**Mode C.** For MIMIC MODE. Unplug link from AB pins and fit it to the mimic pins as shown in fig 3C. In this mode the receiver relay will mimic the transmitter operation. It is normally used with a push button key fob. The relay will close contact for the duration the button is pressed. This is ideal for electric gates and doors, garden lighting dimmer modules and other security applications.

#### Range testing.

Do not fit the wall switch or receiver permanently in position until a range test has been successfully completed. With the temporary battery still connected place the receiver in the position where you want it to be. Now take the wall transmitter or key fob to the place where it is to be used. With a wall switch, hold

it against the wall and operate the switch. Now go to the receiver and check that the ON/OFF LED has changed state. It is easier if you have help during this procedure. Repeat this test until you are satisfied that the system works 100% and then fit the receiver permanently as follows.

#### Fixing and wiring.

All wiring must be in compliance with IEE regulations. If in doubt, consult a qualified electrician. Screw the receiver to a suitable wall using two no8 3/4" screws. The receiver must be fitted vertically with the aerial at the top and the cable glands at the bottom.

**Standard wiring.** Pass a two core & earth mains supply cable through the right hand gland and tighten to provide cable anchorage and weather resistance. Connect the cable to LINE IN and NEUTRAL as shown in fig 1. Pass another two core & earth cable for the load through the remaining gland and connect to terminals NEUTRAL and C, (common). Using a length of 1.5mm

wire, link between terminals LINE IN and N/O (normally open).

**Two way switching.** Connect the mains supply as described already. Now pass a three core & earth cable through the remaining gland and connect to N/C (normally closed) C (common) and N/O (normally open) as shown in fig 2. A typical two way switching circuit is shown in fig 4 and it can be seen how the ESR takes the place of one of the switch.

**General.** The ESR does not require an earth however the earth wires in the cables must be joined together in order to pass through. It is recommended that the supply circuit has a 6 amp breaker or fuse. This receiver is intended to operate lighting up to 1000 watts resistive or 300 watts inductive and small load electrical products such as pond pumps, electric gates and doors etc. **WARNING: The components in this product are LIVE. Replace the cover before applying mains power.**

#### Aerial.

To achieve the best range results you will need to fit the receiver where it has the least amount of obstacles between it and the transmitter. The aerial must be vertical as shown and the higher the receiver is placed above ground level the greater the range will be. The same applies to the transmitter. Do not fit the receiver on or in metal objects as this will seriously affect range. Keep cables away from the aerial. With a clear line of site and with both the transmitter and receiver at 2 metres high, transmission ranges up to 250 metres are possible. See the web site or contact us directly for further details.

#### Set-up notes.

- 1 The battery is not required after range testing has been completed. The battery lead should be unscrewed from the terminals and removed.
- 2 The receiver can learn up to 16 switches and/or key fobs.
- 3 The receiver will retain the learned codes even if the power is removed.