LightwaveRF
connect

Inline Relay

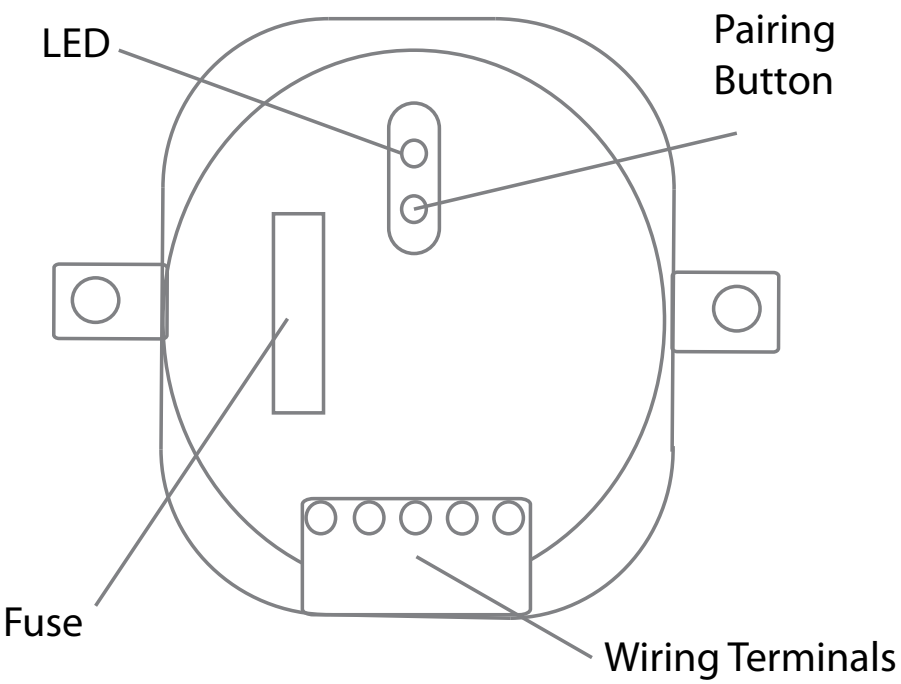
Operation Manual

Model No: JSJS LW821

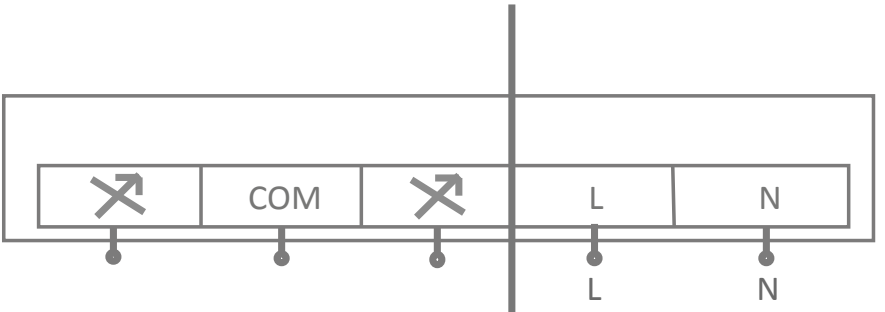
It is important to install this product in accordance with the fitting instructions below. Failure to do so may render your guarantee void.

IMPORTANT: PLEASE RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE AND FOR GUIDANCE ON THE ASSOCIATION OF REMOTE HANDSETS. FOR HELP AND SETUP GUIDANCE PLEASE VISIT www.lightwaverf.com

OVERVIEW:



Wiring Terminals



Separate Relay Circuit
Volts Free

Mains Power
230v

- The Inline Relay is designed to work with devices such as blinds, curtain openers and garage doors. It can also switch lighting circuits up to 500w.

- The relay is mains powered and rated at 500w.

- The relay can be used to provide mains powered switching up to 500w OR separate volts free switching for low voltage circuits.

IMPORTANT: The Inline relay is not designed to be left exposed once it is installed, as live mains wiring is connected to the terminals. Ensure that the device is mounted securely in a suitable housing.

FITTING AND WIRING INSTRUCTIONS:

Important Things to Consider Before you Begin

1). Before commencing work, ALWAYS isolate the mains power supply and remove the fuse in the fuse box or switch off the circuit breaker in the consumer unit.

2). If unit is to be used as a replacement for an existing product, remove existing unit from its location and disconnect the wiring.

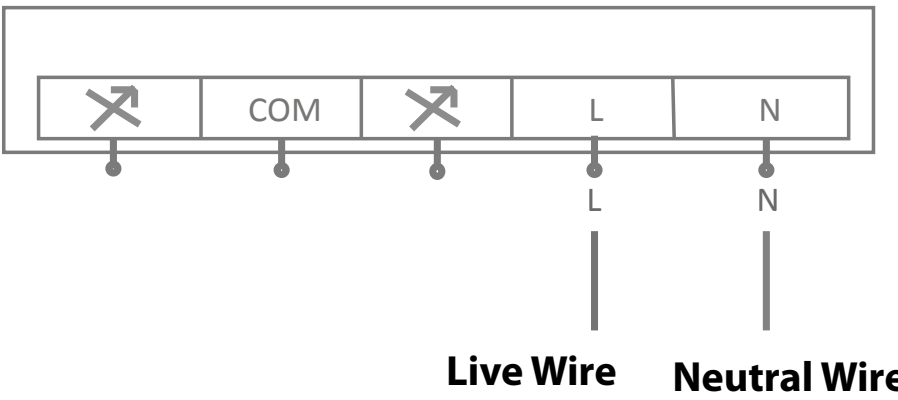
3). Connect the wires as shown in appropriate wiring diagrams. Use green/yellow sleeving on any earth conductors not insulated. Ensure terminals are properly tightened and no bare wire is visible. When mounting products into mounting boxes make sure conductors are not trapped.

4). Products must be installed in accordance with the latest building and IEE wiring regulations. If in any doubt, please contact a qualified electrician.

Installing power to the Inline relay

1) Switch off the mains power

2) Connect the Live and Neutral Terminals to the mains circuit live and neutral wire as shown in the diagram.

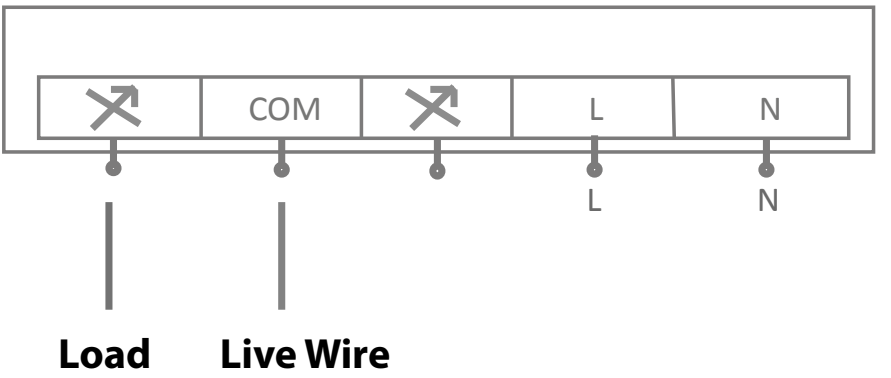


NOTE: Even if switching a low voltage or non-mains circuit, the relay must always have mains power to the live and neutral terminals (as shown above) for it to be able to function.

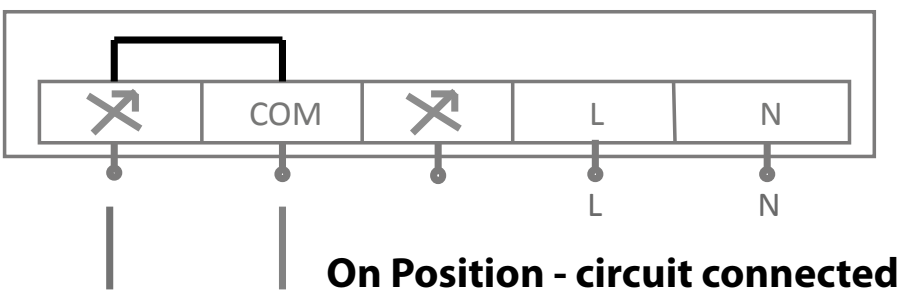
Connecting the Inline Relay to a low voltage or non-mains powered circuit

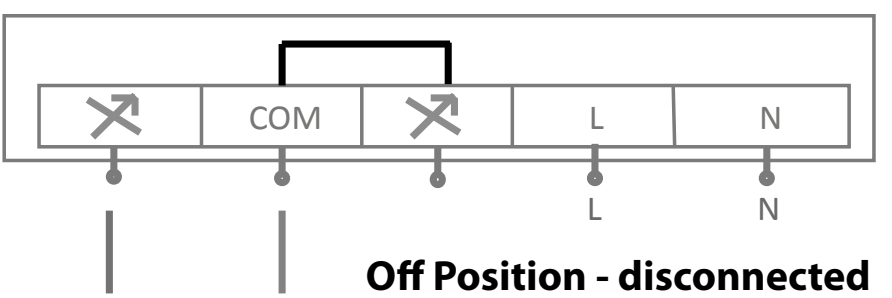
1) Connect the incoming 'live' wire from the low voltage circuit to the common (com) terminal.

2) Connect the outgoing wire 'load' to either of the load terminals ( ).



The relay now has 2 positions - 'on' and 'off'. The diagrams below show the on and off positions if a live were to be connected to the common and load to the leftmost load terminal.

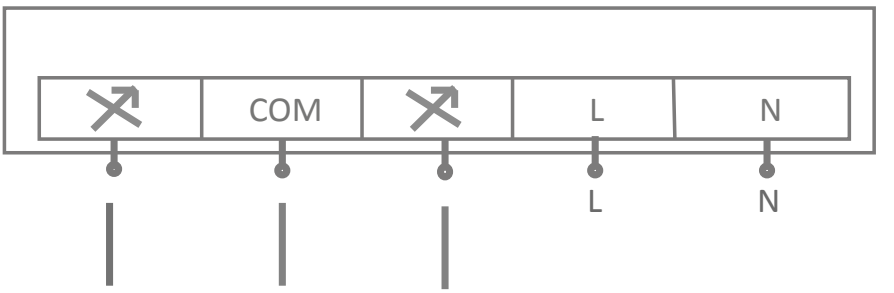




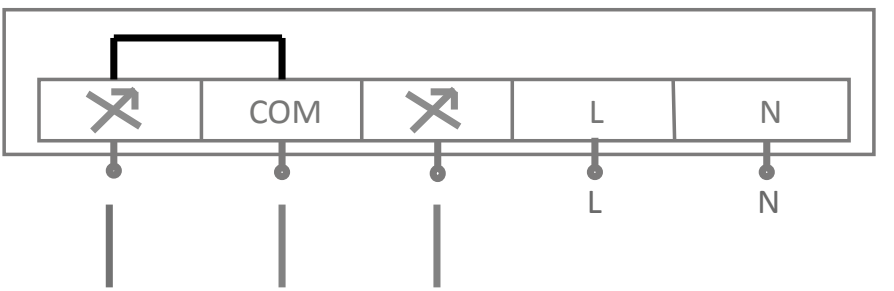
IMPORTANT: When operated via RF, it is always the lefthand load terminal that will be connected when the 'on' button is pressed. Therefore, if the circuit is wired as shown, pressing 'on' using an rf remote will turn on the circuit, and 'off' will disconnect it.

Switching between two Circuits

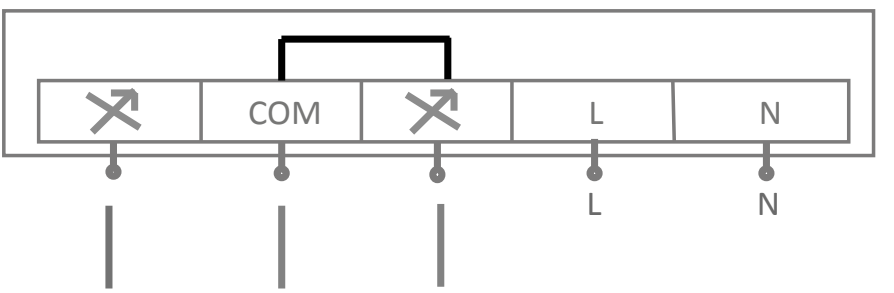
If a second load wire connected to another circuit is attached to the second load terminal (see diagram), the relay can be used to switch between two circuits.



Load 1 **Live Wire** **Load 2**



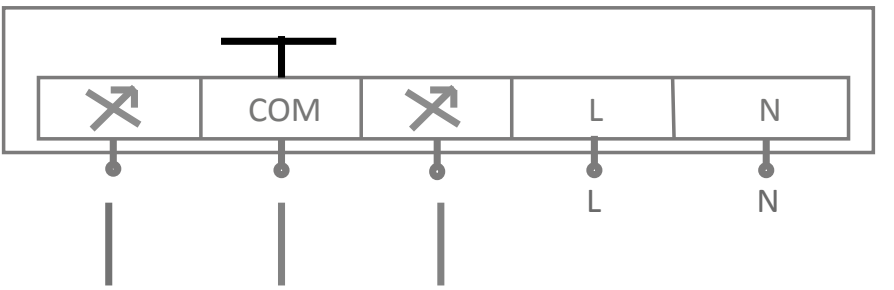
Position 1 - circuit 1 connected



Position 2 - circuit 2 connected

In addition to the on and off positions there is also a 'stop' position which breaks contact with both of the right and lefthand circuits.

Stop Position



IMPORTANT: In this case, a standard handheld or other LightwaveRF remote control will only be able to utilise the 'on' and 'off' commands to switch between circuits NOT the stop command as each remote has only two buttons on each channel.

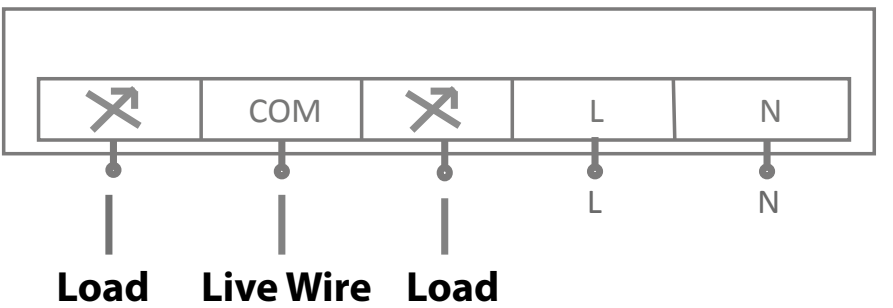
To operate the stop command you will need a LightwaveRF 'Stopswitch' which includes 'on/off' (open/close) and 'stop' commands. OR a smartphone using the LightwaveRF App and WifiLink.

If you are using the app, when you set up the device you must set it to be an 'open/close' device. This will give you the 'stop' command as well as on/off (open/close) when you come to operate the device from the smartphone.

Curtains, Blinds and Doors

Because of the 'Stop' command feature, the relay can be used to operate a device that requires an on/off (or open/close) function AND a stop (or pause) function, such as blinds, curtains and doors.

In this case, as before, the incoming live wire will be connected to the 'com' terminal, and there will be two separate outgoing 'load' wires each connected to the separate load terminals (see diagram).

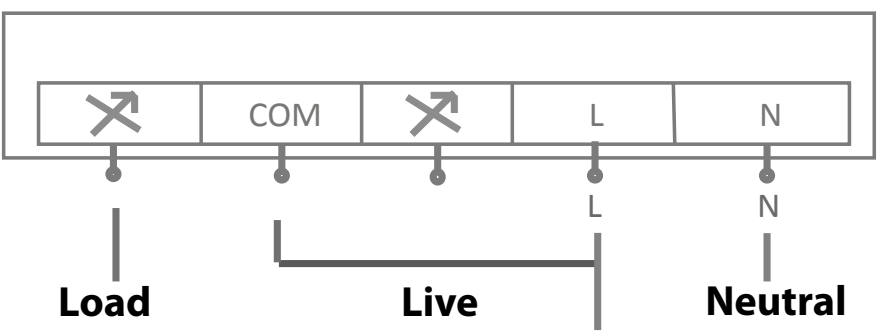


NOTE: Because of the 'stop' command, a LightwaveRF 'Stopswitch' or Wifi-Link driven smartphone will be required to operate this setup.

Connecting the Inline Relay to a Mains Powered Circuit

If the relay is being used to control a mains powered circuit (max 500w load), then power must be taken from the relay's main live terminal via a jumper connection to the common terminal (see diagram).

The neutral terminal must now also accommodate an incoming and outgoing connection to the mains circuit.



SETUP:

IMPORTANT: Make sure that the relay is accessible once installed in order to operate the pairing button

Pairing with a LightwaveRF transmitter

1) Press and hold the pairing button on the Inline Relay until the green LED starts to flash.

2) Press the 'on' or 'up' button on the transmitter. The LED will flash quickly for 2 seconds to indicate a successful pairing.

NOTE: The Inline Relay can be paired with up to 6 separate transmitters at any one time.

Unpairing with a LIghtwaveRF transmitter

1) Press and hold the pairing button on the Inline Relay until the green LED starts to flash.

2) Press the 'off' or 'down' button on the transmitter (the LED will flash quickly for 2 seconds to indicate a successful unpairing of that device.

Complete Memory Reset

Press and hold the pairing button on the Inline Relay until the green LED starts to flash. Release the button once it begins to flash.

2) Press the pairing button a second time. The LED will flash quickly for 2 seconds to indicate that the memory has been cleared.

OPERATION:

If using an on/off transmitter such as the handheld remote...

1) Press the 'on' button on the transmitter to turn the circuit on or switch between circuits.

2) Press the 'off' button on the transmitter to turn the circuit off or to switch between circuits.

If using a LightwaveRF 'Stopswitch' or smartphone...

1) 1) Press the 'on'/'open' button on the transmitter to turn the circuit on or switch between circuits.

2) Press the 'off'/'close' button on the transmitter to turn the circuit off or switch between circuits.

3) Press the 'stop' button to disconnect both circuits and cut power to connected devices.

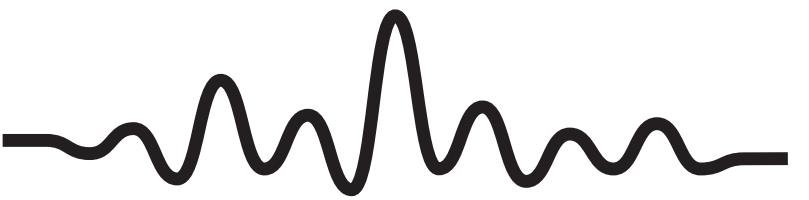
Outdoor Use

An IP 56 rated waterproof housing is available for the Inline relay, enabling safe indoor and outdoor use.

NOTE: If the RF range between the transmitter and receiver is too great to achieve reliable operation, the LightwaveRF **SIGNAL BOOSTER** may be used in conjunction with this product to increase the signal strength over greater distances.

SPECIFICATION:

Radio frequency: 433.92 MHz
Input: 230V~ / 50Hz
Output: max. 500 watts for resistive load
Operating distance: 30 meter closed field.
Standby power consumption: $\leqq$ 0.5 w.



J S J S D E S I G N S P L C

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LightwaveRF....
Lighting Compatibility Information

If you are going to use LightwaveRF equipment in your house, please read the information below to ensure you will get the most out of your hardware.

Loading

Our one and two gang dimmers can handle a maximum of 250W of load on *each gang* of the switch. The three and four gang switches have a maximum load of 210W on *each gang.* If you exceed this load, the switches may overheat and cease to work correctly.

Each gang requires a minimum load to function. This is generally 40w but can be lower with some lamps. This is generally the case with LEDs where a load of 14W can be enough to have the switch operating.

Bulbs

LightwaveRF switches can be used with standard incandescent bulbs, halogen bulbs (including low energy halogens) and dimmable LED bulbs (see below).

Fluorescent tube lighting, including CFL bulbs cannot be used with LightwaveRF equipment. This includes the LightwaveRF CFR bulb.

LEDs

As there is no standard set for LEDs at present, we cannot state that every dimmable LED will work with LightwaveRF equipment. Even if exceeding the minimum load, certain LEDs will not function on their own. In these situations wiring a dummy load* in parallel across the circuit will correct the issue.

The following LEDs have been tested and do work when at least 2 lamps are in a circuit:

- AuraLED AL-GU10 PRO 5W
- AuraLED AU-GU10 5x1W
- Auralux AU-5W LED Globe 5x1W
- IstoriaLED G9 DL Flood
- IstoriaLED G9 WW Flood
- TCP Dimmable Energy Saver LED 5W
- Truelux 230-5W-DIM
- Toshiba LDRC0627MU1EUD 6.5W 270lm LED

Please check **www.lightwaverf.com** for up-to-date information on compatibility.

LightwaveRF dimmer switches use trailing edge technology.

* *www.mr-resistor.co.uk/item.aspx?i=10031*