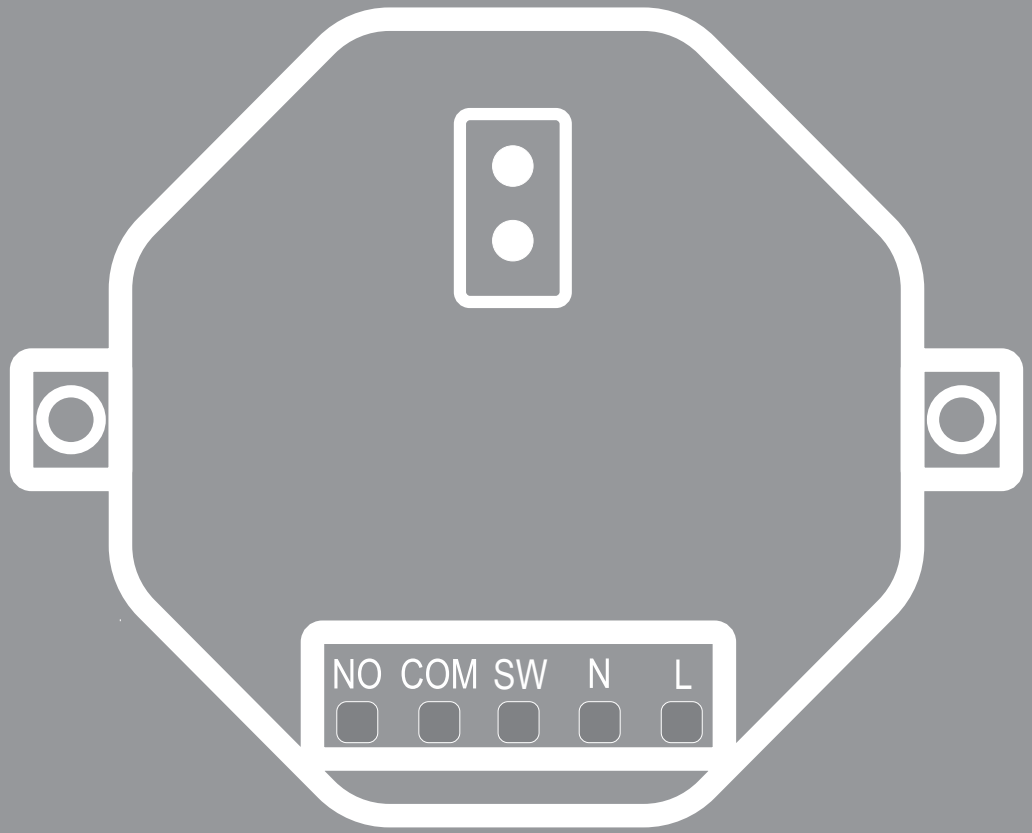


Smart Relay with Switch Sense Input (LP81)

Lightwave

1 Preparation

UK

Installation

If you plan to install this product yourself, please follow the electrical wiring instructions carefully to ensure the product is installed safely, if in any doubt please consult a qualified electrician.

It is important to install this product in accordance with these instructions. Failure to do so may risk personal safety, create a fire hazard, violate the law and will also void your warranty. LightwaveRF Technology Ltd will not be held responsible for any loss or damage resulting from not correctly following the instruction manual.

IMPORTANT: Any electrical installation must comply with Building Regulations, BS 7671 (IET Wiring Regulations) or local equivalent.

IMPORTANT: If conducting an insulation resistance test, any hard-wired Lightwave devices must be disconnected from the mains, or damage to the unit may occur.

IMPORTANT: High-Power inductive loads can potentially damage the device and are not recommended.

You will need

- A safe place in which to situate the Relay
- Suitable electrical screwdrivers
- Knowledge of how to safely turn off/on mains electricity
- Your Link Plus and smartphone

Applications

The Smart Relay is a very versatile device that can be used to remotely switch on/off a circuit. Because the relay includes one latching position, it can be used to operate devices that require an on/off control.

Loading

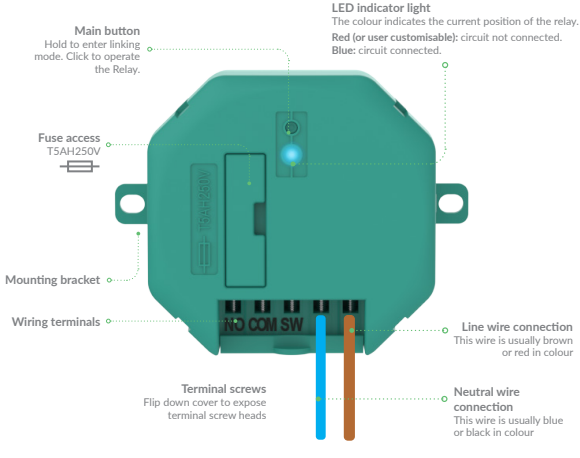
The Smart Relay can be used to switch loads of up to 700W. The switched circuit can be mains powered or volts free (low voltage). Mains power can also be taken from the Relay itself to power the circuit (see wiring instructions for more information).

Location

The Smart Relay needs to be housed in a suitable enclosure to minimise the risk of contact with live electrical wires and to ensure that the device meets IEC Class II requirements. The Lightwave LW824 Waterproof housing can be used for this purpose and will also allow the Relay to be installed outdoors.

Range

Lightwave devices have excellent communication range within a typical home, however, if you encounter any range issues, try to ensure that large metal objects or bodies of water (e.g. radiators) are not positioned in front of the device or in between the device and the Lightwave Link Plus.



Specification

RF frequency: 868 MHz
Input rating: 230V~ 50Hz
Output rating: 700W
Standby energy use: Less than 1W
Device class: 0 (requires housing)
Warranty: 2 year standard warranty

Help video & further guidance

For additional guidance, and to watch a video that will help guide you through the installation process, please visit the support section on **www.lightwaverf.com.**

Environmentally friendly disposal

Old electrical appliances must not be disposed of together with residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

EU Declaration of Conformity

Product: Smart Relay with Switch Sense Input
Model/Type: LP81
Manufacturer: LightwaveRF
Address: The Assay Office, 1 Moreton Street, Birmingham, B1 3AX

This declaration is issued under the sole responsibility of LightwaveRF. The object of the declaration described above is in conformity with the relevant union harmonisation legislation.

Directive 2011/65/EU ROHS, Directive 2014/53/EU: (The Radio Equipment Directive)

Conformity is shown by compliance with the applicable requirements of the following documents:

Reference and date:
EN 60669-1:1999+A1:2002+A2:2008, EN60669-2-1:2004+A1:2009+A12:210, EN 55015:2013+A1:2015, EN 61547:2009, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 62479:2010, EN 301489-3 V2.1.1, EN 300 220-1 V3.1.1 (2017-02), EN 300 220-2 V3.1.1 (2017-02)

Signed for and on behalf of:
Place of Issue: Birmingham
Date of Issue: February 2022
Name: John Shermer
Position: CTO

2 Installing the Relay

Carefully follow the instructions in this section in order to install the Relay. Please remember that mains electricity is dangerous. Do not take any risks. For other advice, please contact our dedicated technical support team at **www.lightwaverf.com**.

The easiest way to learn how to install the Lightwave Smart Relay is to watch our short installation video which is accessible at

www.lightwaverf.com/product-manuals

1.1 Prepare a suitable location

The Smart Relay is a class 0 device which means that it should be housed in a suitable dry location and electrical housing to minimise the risk of contact with live electrical wires. If in doubt, consult an electrician.

1.2 Turn off the electricity supply

Turn off the mains power supply to your existing power circuit at the consumer unit.

1.3 Connect to mains power

Although the Smart Relay can be used to provide volts free (non mains) switching, it ALWAYS requires mains power to operate. Connect the line and neutral power cables to the Relay as shown in the diagrams. Be aware that existing cables can vary in colour and may not always be correctly labelled. If in any doubt, always consult a qualified electrician.

Connect the circuit

The Smart Relay can be used to provide up to 700W of mains powered switching OR separate volts free switching for circuits not requiring additional mains power. The Relay latches between NO and COM. Follow the instructions below.

1 Adding mains voltage to a circuit (A)

In this case, mains voltage is 'jumped' from the main incoming line feed to the COM terminal by the addition of a connecting 'jumper' wire. Mains power can now be used to drive the single circuit illustrated in diagram A.

2 Switch sense (B)

In addition this device has a "switch sense" terminal (diagram B) that can detect the 'on' or 'off' position of an external switch such as a normal light switch.
The action of the external switch can then operate the internal relay and / or be detected by the Link+ to trigger another device or devices or an automation. Any switch or circuit connected to the "switch sense" input must be suitable for "230V AC" mains power.

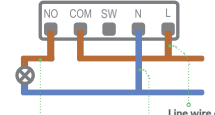
3 Switching a single circuit (C)

Use this configuration to switch a single circuit (can be low voltage) that does not require mains power to be provided from the Relay's line (L) and neutral (N) terminals.

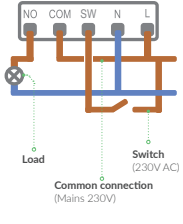
4 Switch Sense (D)

The 'switch sense' relay output configuration can be 230V mains (B) or volts free low voltage output (D).

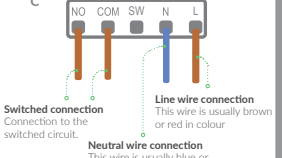
A



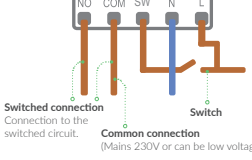
B



C



D



Linking the Relay & other functions 3

Linking

To be able to command the Relay, you will need to link it to the Link Plus.

Follow the in-app instructions which will explain how to link devices.

On the Relay, press and hold down the main button until the LED flashes blue and red alternately then release it. The Relay is now in linking mode.

Using the App, press the button to link to the device (the App instructions will guide you through this). The indicator on the Relay will flash to confirm that it is now linked.

Unlinking the Relay (clear memory)

To unlink the Relay, enter linking mode by holding down the main button until the LED flashes red. Release the button, then hold it for a second time until the LED flashes red to confirm that the memory has been cleared.

Firmware updates

Firmware updates are over-the-air software improvements that keep your device up to date as well as providing new features. Updates can be approved from the App before being implemented, and generally take 2-5 minutes. The LED will flash cyan in colour during an update. Please do not interrupt the process during this time.

Error reporting

A permanently flashing red LED indicates that a software or hardware error has been encountered. Press the main button to reset the device. If the error light persists, please contact Lightwave support via **www.lightwaverf.com/support**.

Lightwave

support@lightwaverf.com www.lightwaverf.com +44 (0)121 250 3625