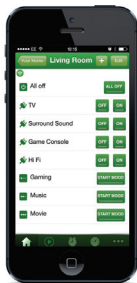
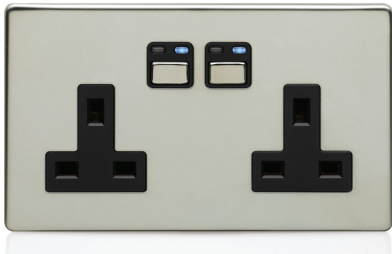


# Power Socket (2 Gang)

Model No. JSJSLW270

## Instruction Manual



Connect Series

[www.lightwaverf.house](http://www.lightwaverf.house)

Version 2

# EC DECLARATION OF CONFORMITY

Responsible Authority:

LightwaveRF PLC,  
Innovation Campus Birmingham  
Faraday Wharf  
Holt Street  
Birmingham  
B7 4BB

Tel: +44 (0)121 250 3625  
Email: enquiries@lightwaveref.com

Model Number(s):

JSJSLW270

Description:

2 Gang Socket

Directives this equipment

Complies with:

2006/95/EC The Low Voltage Directive N/A  
2004/108/EEC The Electromagnetic Compatibility Directive  
1999/5/EC R&TTE Directive  
93/68/EEC CE Marking Directive

Standards Applied in order to verify compliance

Safety: BS EN 60730-1: 2011

Health:

R&TTE: EN 301 489-1 V1.9.2: (2011-09), EN 301 489-3 V1.4.1: (2002-08)  
EN 300 220-1 V2.1.1: 2006, EN 300 220-2 V2.1.2: 2007  
EMC: EN 301 489-1 V1.9.2: (2011-09), EN 301 489-3 V1.4.1: (2002-08),  
EN 55022: 2010, EN 61000-3-2: 2006 +A1: 2009 +A2: 2009 Class A,  
EN 61000-3-3: 2008, EN 61000-4-2: 2009,  
EN 61000-4-3: 2006 +A1: 2008 +A2: 2010, EN 61000-4-4: 2012,  
EN 61000-4-5: 2006, EN 61000-4-6: 2009, EN 61000-4-11: 2004

For and on behalf of LightwaveRF PLC

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Name

J Shermer

Position

Managing Director



## How do I get started?

Please refer to the following installation and setup instructions. This will guide you, step by step, through the installation and setup process.



## What do I need?

To install the socket, you will need to remove and replace the existing power socket. This is usually straightforward, but you must ensure that there is a suitably deep backbox and understand how to safely turn off the electricity supply. You will also need suitable electrical screwdrivers.



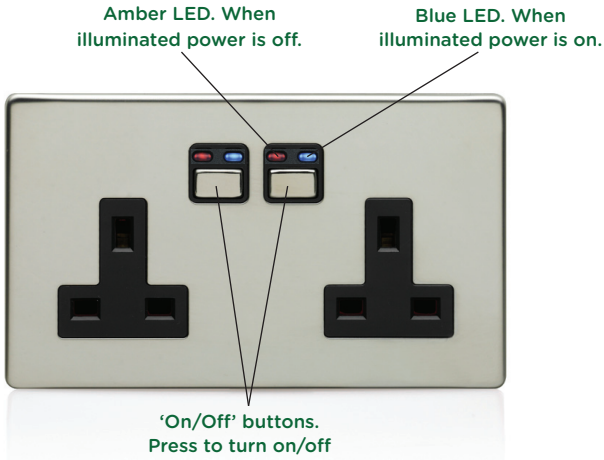
## Help video & further guidance

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.house](http://www.lightwaverf.house)

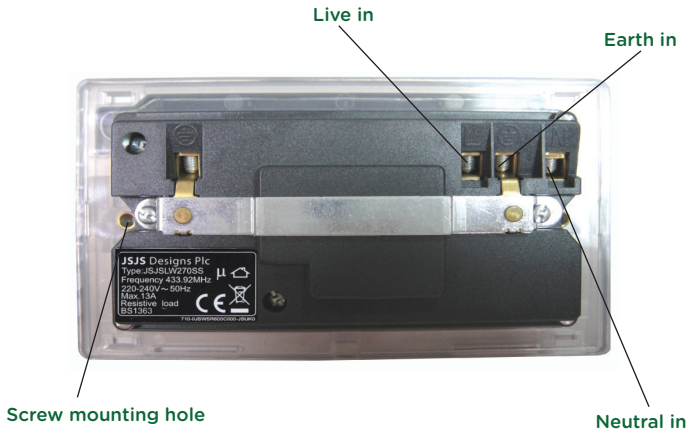




## Overview



**IMPORTANT:** All LightwaveRF products can be legally DIY installed in your own home; however, if in doubt, always consult a qualified electrician or heating engineer. It is important to install this product in accordance with the following instructions. Failure to do so may void your warranty.

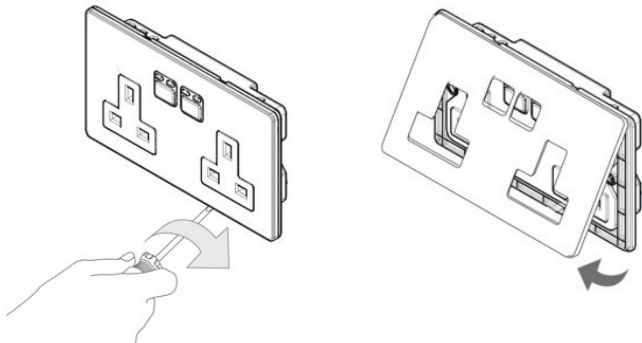


**IMPORTANT:** If conducting an insulation resistance test, all LightwaveRF products **must** be disconnected from the mains, or damage will occur.



# Installation

- 1. IMPORTANT:** Turn off the mains electrical supply.
- 2.** Ensure that the wall (back) box has a minimum depth of 35mm.
- 3.** Remove and disconnect the existing power socket (if applicable). It may be useful at this point to mark or take a photograph of the existing connections so that the correct wires can easily be transferred to the new socket. Some existing wiring configurations can be complex so take care.
- 4.** Gently remove the socket faceplate by inserting a screwdriver into one of the bottom slots and lifting away from the unit as shown.

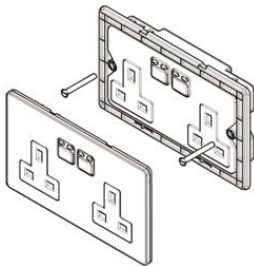




**5.** Connect the wiring as per the diagram on the following page. Ensure that the terminals are properly tightened and that no bare wire is visible. Be aware that existing wiring circuits are not always correctly coloured, and that there may be other wired connections present in the back box. If in doubt, always seek the advice of a qualified electrician.

**6.** Screw the socket to the back box and ensure that the screws are sufficiently tight enough to support the product. Do not over tighten as this may cause the chassis to bend. Ensure that the plastic spacer is correctly aligned and that no wires are trapped between the socket and the back box.

**7.** Replace the plate - a 'click' sound should be heard to signify that the plate has been correctly replaced.



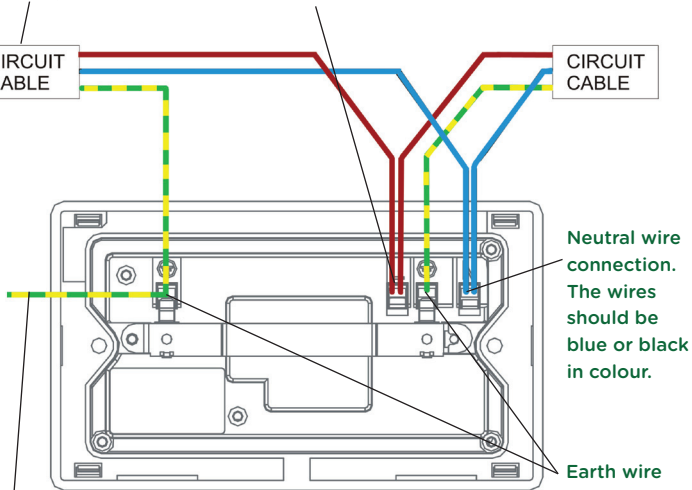
# Installation

Main circuit cable entering & leaving back box.

Live wire connection. The wires should be brown or red in colour.

CIRCUIT CABLE

CIRCUIT CABLE



Neutral wire connection. The wires should be blue or black in colour.

Earth wire connections.

Earth wire can also be connected to earth terminal in back box if present (not essential).





## Manual operation

### Manual operation

- Press the left or right hand 'on/off' button once to switch the corresponding socket on (blue LED indicator will illuminate).



- Press the left or right hand 'on/off' button once to switch the corresponding socket off (amber LED indicator will illuminate).





## Linking the sockets to the App / controllers

**NOTE:** This procedure applies to the LightwaveRF Smartphone and Web App and all LightwaveRF controllers (e.g. Handheld Remote or Mood Controller).

LightwaveRF sockets each have **6 unique memory slots** which means they can link with up to 6 LightwaveRF controllers in total. If you are using a smartphone/tablet/PC to control the socket via the Lightwave Link, this will always count as **ONE** controller and take up one memory slot even if you are using multiple smartphones/tablets.

**1.** On either socket gang, press and hold down the 'on/off' button until the blue and amber LEDs flash alternately then release them. The socket is now in **linking mode**.



**2.** Using the LightwaveRF Smartphone App, press the 'connect' button (the App instructions will guide you through this). If using another controller press the button that you intend to link. The blue light on the socket will flash to confirm that the App/controller is now linked.





**NOTE: Linking mode** lasts for 12 seconds; if no signal is received from a controller during this time then the socket will automatically exit linking mode without linking the device.

If, when expecting a quick flashing blue LED to confirm pairing, a slow amber flash is received instead, then the socket memory is FULL and no further remotes may be linked with it unless one of the existing remotes is unpaired first (see below).

## Unlinking controllers and clearing the socket memory

Removing a single device:

**1.** On the socket gang that is to be unlinked, press and hold down the 'on/off' button until the blue and amber LEDs flash alternately, and then release it. That socket is now in **linking mode**.



**2.** Using a LightwaveRF controller, Smartphone or Web App, press the button intended to be unlinked; the amber light on the socket will flash to confirm that the App/controller is now unlinked.





## Device Setup

Clearing the memory (will remove any linked App or Controllers):

1. On the socket gang that is to be cleared, press and hold down the 'on/off' button until the blue and amber LEDs flash alternately, and then release it. That socket is now in **linking mode**.



2. Press and hold down the 'on/off' button again until the blue and amber LEDs flash simultaneously, then tap (don't hold) the 'on/off' button a further time; the amber LED will flash quickly to confirm that the memory has been cleared.



**NOTE:** Reliable range of remote operation is around 15 metres indoors and up to 100m outdoors using the Lightwave Link. This figure may vary depending upon the environment; very thick walls, bodies of water or large metal objects may interfere with radio range.

If the distance 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 range.



## Remote Operation

### Control with the LightwaveRF App or a LightwaveRF controller

- Press the 'on' button on the smartphone App (or LightwaveRF controller) once to switch the socket on (blue LED indicator will illuminate).



- Press the 'off' button on the smartphone App (or LightwaveRF controller) to switch the socket off (amber LED indicator will illuminate).





# Remote Operation

## Locking the socket

- LightwaveRF sockets can be 'locked' so that the manual buttons will not operate them. This can be achieved from the LightwaveRF App or using a 'Socket Locker' Remote. If locked on, the socket will not turn off manually: if locked off, then the socket will not turn on manually. A locked socket is signified by a slow flashing amber LED or simultaneously flashing blue & amber LEDs.
- To lock/unlock the socket, press the 'Unlock' button on the Smartphone App or Socket Locker. If the Socket locker is misplaced, the Sockets can be reset by turning of mains power to the circuit for a period of 30 seconds.

## Understanding flashing LED sequences on the socket



**Flashing blue & amber alternately:** socket in Linking Mode



**Quickly flashing blue:** socket successfully linked



**Quickly flashing amber:** socket unlinked / memory cleared



**Slowly flashing amber:** socket memory full / socket locked



**Blue & flashing amber:** socket successfully locked / unlocked



## 1. (Easy): Standby control

**Required: Socket, Handheld Remote / Wire-free Switch**

We all know that devices on 'standby' are still using power and that, if we want to save energy & money, we should turn them off at the socket. Sometimes, however, if the switches are buried deep behind the TV, this can be awkward. Lightwave Sockets can make this easy: 'standby' devices (TV, Freeview box, DVD player, Blu-Ray player etc.) can simply be plugged into any LightwaveRF Socket, and be turned on or off using a simple remote, Wire-free Switch or smartphone (if you add a Lightwave Link).



# Creative Ideas for Lightwave Sockets



## 2. (Intermediate): Time for bed kids

Required: Socket, Socket Locker

No matter when you tell the children that it's time to turn off the games console and go to bed they always manage to find a way of carrying on. With Lightwave you can make sure that when you say it's time, it really is time. If the gaming console or television is plugged into a LightwaveRF socket, you can use a Socket Locker to lock them so that they cannot be turned back on. If you have the Lightwave Link, you can also do this from your smartphone and set the lock to activate automatically a bedtime every day!





### **3. (Advanced): Family Safety**

**Required: Sockets, Lightwave Link**

Dangerous appliances in the kitchen (blender, microwave, hot plate, etc.) might be a worry if you're not always around to supervise the family. With the Lightwave Link, you can control the sockets from anywhere using your smartphone. This means that you can lock dangerous devices when you're on your way home from work, or even turn off something left on accidentally (hair straighteners are a very common problem!) If the kids are up early, you can lock everything in the kitchen automatically on a timer whilst you sleep.



## Troubleshooting

**Problem:** *The socket won't turn on/off and the LEDs do not light up.*

**Solution:** First, check that there is power to the socket. If so, turn off the power and check that the wiring is correct; it is important that the live and neutral wires are attached to the correct terminals. If these measures fail contact technical support via [www.lightwaverf.house](http://www.lightwaverf.house).

**Problem:** *The socket is powered (amber or blue LEDs on), but it will not link to a LightwaveRF handset or controller.*

**Solution:** Check the controller battery strength: if the battery strength is low, it will not produce enough power to drive the RF radio signal. Tap any 'on' button on the controller to transmit a signal. A strong battery signal is indicated by the LED light on the controller remaining lit for 1-2 seconds after releasing the button. A low battery is indicated if the LED light turns off immediately. If this happens, please replace the battery.

**Problem:** *The socket is stuck on/off and will not operate manually.*

**Solution:** On rare occasions, a high powered inductive load such as a drill or high powered vacuum cleaner can cause a socket to become frozen in its current state (hence it is not recommended to use them without a surge protector). If this happens, turn off the power to the socket for 30 seconds and then switch the power back on. This will reset the software and resolve the issue in the majority of cases. If this measure fails, please contact technical support via [www.lightwaverf.house](http://www.lightwaverf.house).



**Problem:** *The socket will not consistently operate remotely.*

**Solution:** The controller/Lightwave Link may be encountering interference or may be at the edge of its reliable range of operation. First, ensure that there are no large pieces of metal or bodies of water in the path of the transmission. If the problem persists, try moving the controller/Link closer to the socket, or consider using a LightwaveRF Signal Booster to extend the range by relaying the signal between controller and socket.

**Problem:** *The socket wont turn on/off and displays a flashing amber light / flashing amber & blue lights.*

**Solution:** The socket is **locked**. This may have been done using a Socket Locker or from the LightwaveRF App. If it is locked on, then the socket will not turn off manually. If it is locked off, the socket will not turn on manually. To unlock the socket, press the unlock button on the Socket Locker or smartphone App. If this is not possible, the sockets can be reset by turning of mains power to the circuit for a period of 30 seconds.



***Q. Does the socket work manually as a standalone unit?***

**A.** Yes the socket will operate like any standard wall socket.

***Q. Does the socket have a 'standby' power consumption?***

**A.** The socket has a standby power consumption of approx. 0.5W. This is because the in-built radio receiver requires power in order to receive commands. This rate is well within government energy guidelines.

***Q. How do I know that the socket will fit?***

**A.** A LightwaveRF Socket has the same height and width as a standard socket - it will fit all back boxes (standard socket housing) over 35mm deep.

***Q. Is it legal for me to install a LightwaveRF Socket myself?***

**A.** Yes. It is fully legal to install LightwaveRF products in your own home.

***Q. Is it possible to overload the socket?***

**A.** 13A max. loading (3000W) applies as with other standard power sockets.

***Q. How many devices can I have on the LightwaveRF system?***

**A.** Each device has 6 memory slots for up to 6 controllers. Note: The Lightwave Link allows a number of different smartphones to control the socket independently, however it only uses one memory slot.



**Q. *Can I incorporate a socket into a mood?***

**A.** Yes: sockets can be incorporated into a mood.

**Q. *Can I turn off the LEDs?***

**A.** No it is not possible to turn off the LEDs as they are necessary to signify the socket's status.

**Q. *Can I lock the socket?***

**A.** Yes the sockets can be locked on or off.



## Specification

**RF frequency:** 433.92 MHz

**Input rating:** 220-240V~ 50Hz. (per gang)

**Output rating:** 13A (3000W) Max. (per gang)

**Back Box Depth:** 35mm Min

**Dimensions:** Width 150mm, Height 88mm, Depth 27mm

**Earthing Requirement:** Earth terminals included

**Standby Energy Use:** Less than 1W (per gang)

**Warranty:** 2 year standard warranty

Lightw<sup>w</sup>ave<sup>RF</sup>

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Herts  
AL7 1FS  
01707 386035

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