Home Thermostat
Model No. JSJSLW921

Instruction Manual

Professional Series

www.lightwaverf.house

EC DECLARATION OF CONFORMITY

Responsible Authority:

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Model Number(s):   JSJSLW921
Description: Home Thermostat
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, EN61000-4-2: 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

Name   J Shermer
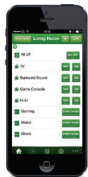Position   Managing Director

How do I get started?

The following setup guide will explain how to link the Home Thermostat to other LightwaveRF heating devices. It is recommended to use the Thermostat in conjunction with the Lightwave Link & Web App.

What do I need?

The Home Thermostat does not need any tools or expertise to be installed. It is completely wireless and can be positioned anywhere in the home. It also comes with a backplate that can be screw mounted or stuck to the wall.
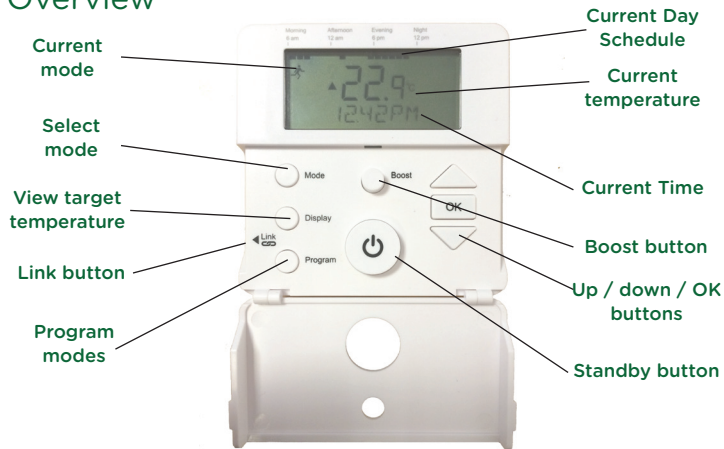
Help video & further guidance

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**

Overview

Current mode

Current Day Schedule

Current temperature

Select mode

View target temperature

Link button

Program modes

Current Time

Boost button

Up / down / OK buttons

Standby button

IMPORTANT: Please retain these instructions for guidance on how to link other LightwaveRF Heating devices to the Home Thermostat. For App setup and additional guidance please visit **www.lightwaverf.house**
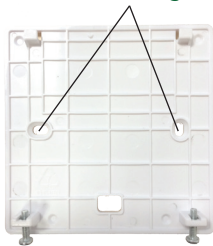
Inserting / Changing the Batteries

The Home Thermostat requires 2 x AA batteries for operation. The battery compartment can be accessed by removing the backplate. To do this, the two screws at bottom of the Thermostat need to be loosened. The backplate can be gently pulled away from the Thermostat body and slid downwards until it comes free from the hooks at the top of the device.

Mounting holes

Backplate

Wall Mounting

The backplate is designed to be wall mounted. This can be achieved by inserting suitable screws through the two mounting holes, or by using adhesive pads (not included).

Battery compartment

Basic Operation

The Home Thermostat is used to control and schedule home heating. It wirelessly links to LightwaveRF Boiler Switch which turns on and off your Boiler. If the Thermostat is also linked to the Lightwave Link, you can also control and schedule your heating via the LightwaveRF App. This section will show you how to setup the basic functions of the Home Thermostat including setting the target temperature, modes, and creating a schedule. The following section will show you how to link the Thermostat to other LightwaveRF Heating devices, such as the Boiler Switch, to integrate it into your heating system.

Lightwave Link   Home Thermostat   Boiler Switch

The Standby button

The default mode of operation of the Home Thermostat is referred to as 'Running Mode'. This is denoted by the symbol of the running man on the main display. When in Running Mode, the Thermostat implements the pre-set heating schedule and maintains pre-set 'on' and 'setback' temperatures during the relevant set time periods (see programming section for information on how to set this).

If the heating is on, pressing the Standby button overrides the schedule and turns **off** the heating until the next 'on period'. If the heating is off, pressing the Standby button will turn the heating on until the next 'off period'. When toggling Standby, the new target temperature is briefly displayed on the screen in place of the current temperature. If the thermostat requires the heating to be turned on to achieve its new target temperature, a flame symbol will be displayed to indicate that it has sent a command to the LightwaveRF Boiler Switch to turn on the Boiler.

Holding the Standby button for a couple of seconds activates 'Away mode'. Away mode also reverts to a pre-set setback temperature (see setting modes); however, rather than returning to the schedule at the next on/off period, the mode will continue to remain active until it is manually cancelled by pressing the Standby button. These functions can also be carried out on the LightwaveRF App.

The Boost function

Pressing the Boost button sets a temporary target temperature 1.5 degrees above the current temperature for the duration of 1 hour. If there is a target temperature higher than the current temperature already set, pressing the boost button will match this temperature.

Pressing the button twice boosts the temperature for 2 hours, three times 4 hours, four times 8 hours, and the fifth press will cancel the boost function. An active boost function is denoted by a sun symbol on the display. It can be cancelled at any time by pressing the standby button (press twice to return to normal running mode).

Setting a target temperature

The arrow shaped buttons on the Thermostat allow you to manually change the current target temperature. Tap the up or down buttons to move the temperature in 0.5 degree increments. The new target temperature will remain active until standby mode is activated, the mode button is pressed to change modes, or the next 'heating cycle' in the running schedule is initiated (explained in next section). These actions will revert the target temperature to the current existing pre-sets. Pressing the 'Display' button allows you to view the current target temperature.

Modes

Pressing the Mode button toggles between the four Thermostat modes. Each mode contains pre-set programmable target temperatures. When a mode is selected, the Thermostat will be set to these target temperatures until the mode is changed.

Running mode

The main Thermostat mode is 'Running'. Unlike the other modes which can only store temperatures, Running mode also allows you to create a weekly heating schedule which can change the target temperature up to 8 times per day. When the home is occupied, this mode should be constantly running.

Away & Holiday modes

Away and Holiday modes allow you to specify a temperature that you want to set the heating to whilst you are away. Holiday mode also allows you to specify the number of days that you want this to be active for.

Frost mode

This mode should be activated when the home is unoccupied for long periods. It prevents pipes from freezing by setting a minimum temperature.

Programming Running mode

1. Press the 'Program' button and then press the 'OK' button when option '1' appears on the display.

2. The next option screen allows you to choose which days of the week to schedule. You can set all week days to be the same, setup week then weekend days, or each day individually. Select the appropriate option by using the Arrow keys to scroll and then pressing the 'OK' button. You will need to return to the menu several times if you want to setup days individually.

3. Next, the target temperature and setback temperature (on and off) need to be set for each 'heating cycle'. Once again, use the Arrow keys to scroll and OK to select a temperature.

4. Once this is set, you need to choose the periods of the day that you want to be heated. Each one is referred to as a 'heating cycle' and is denoted on the display by a series of blocks corresponding to the times of day marked next to it. Set the first heating cycle by scrolling to select a start time and pressing OK. Then select an end time and press OK. Running mode allows up to 4 independent heating cycles. Each one of these needs to be set, however, if you require less than 4, simply set the on and off times for unwanted cycles to the same time which will effectively cancel them.

Setting Away, Holiday and Frost modes

1. Press the 'Program' button, scroll using the Arrow keys, and then press the 'OK' button when options '3 (Away), 5 (Holiday) or 6 (Frost)' appear on the display.

2. Select a target temperature by scrolling using the Arrow Keys and pressing OK when the desired temperature has been selected. This applies to all three modes.

Programming Time/Date, Constant & Offset temperatures

To set the time and date, press the Program button, scroll to option 2 using the Arrow keys, and press the OK button. Scroll to select the correct, year, month and day followed by the time, and press OK to save it.

Selecting the constant temperature option disregards the modes and schedules and simply allows the Thermostat to operate in real time. The temperature can be set using the arrow keys. Press the Standby button to cancel this feature.

Setting the offset temperature causes the Thermostat to display a current temperature that is higher or lower that the actual temperature measured. It can be raised or lowered in 1 degree increments using the arrow keys and saved by pressing the OK button.

Using the Thermostat with a Boiler Switch

The Home Thermostat schedules the heating by wirelessly controlling the LightwaveRF Boiler Switch which turns the boiler on or off. In the vast majority of installs, it will also be linked to the Lightwave Link to allow the App to control the boiler via the Home Thermostat.

Using Thermostats & Boiler Switches to manage a multi-zone (upstairs/downstairs) system.

If you have an existing multi-zone heating setup that includes motorised valves (more common in larger houses), more than one Home Thermostat and Boiler Switch can be used to control each zone separately. Refer to the Boiler Switch instruction manual for more information about this setup. See www.lightwaverf.com/product-manuals.

Linking the Thermostat to LightwaveRF heating devices

To use a LightwaveRF Home Thermostat with other LightwaveRF heating devices, such as the Boiler Switch, you will need to 'link' them. The thermostat can be linked to other LightwaveRF heating devices using the following method.

1. Press and release the 'link' button on the thermostat. 'link' should appear on the display.

2. Press the Link button on the heating device you wish to link. 'Link OK' should appear to indicate that the Thermostat is linked.

To unlink a heating device from the Thermostat, press and release the linking button and then press the Standby button. This activates 'unlinking' mode. Press the linking button on the heating device you wish to unlink. The 'deleted' should be displayed to indicate that the devices have been unlinked.
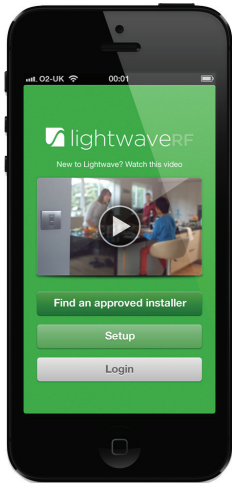
To completely clear the memory of the Thermostat, press and release the linking button. Then hold the linking button until 'clear' is displayed. Finally, press and release the linking button once more. 'Cleared' should be displayed.

App Setup

Linking to the LightwaveRF Apps

To use the LightwaveRF App or Web App to control the Home Thermostat, you will first need to install the 'Lightwave Link'. This allows any LightwaveRF devices to be linked to and controlled by a smartphone, tablet or PC. The Thermostat can be linked to the App using the following method:

1. Download the App and follow the in-App setup instructions to setup the Lightwave Link and App. Access the 'Heating Page' and follow the instructions regarding how to add a device.

2. When prompted, press and release the 'Link' button on the Thermostat ('link' will flash on the screen).

3. Send the linking command from the App (the in-App instructions will explain how to do this). 'Link Ok' will flash on the screen to indicate a successful link.
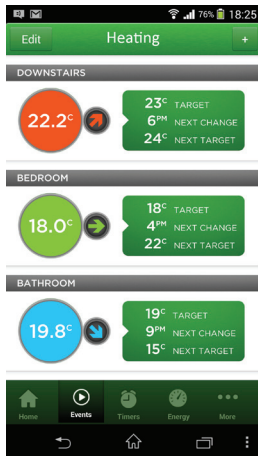
Using the TRV with the LightwaveRF App

NOTE: For full instructions on how to use the TRV with the LightwaveRF App or Web App follow the in-App help or visit www.lightwaverf.com.

The Heating Page allows you to view every LightwaveRF Heating Device that you have set up on the App. Displayed for each device is its current temperature, set target temperature and the next change to be enacted by the heating schedule.

If you select a device, you can view more options. From this screen you can change the current target temperature using the main dial. You can also view the heating schedule for each day by selecting the individual week days. To edit the heating schedule for this device, select the 'edit schedule button'.

Add other Heating Devices

Home Thermostat
(monitors house temp.)

Boiler Switch
(turns boiler on/off)

Lightwave App
(control any room from anywhere)

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Heating Remote
(sets house temp.)

Lightwave link
(runs the show)

Lounge

Room Thermostat
(controls several TRVs)

22.5°C

Bedroom 1

Bedroom 2

TRV
(controls radiator)

Window Trigger
(open window turns off TRV)

Room by room radiator control

1. (Intermediate): Remote control of the boiler

Required: Home Thermostat, Boiler Switch, Heating Remote

It is really comfortable and convenient to be able to have direct control over the house temperature without having to get up and alter the thermostat or boiler. This can be achieved using the LightwaveRF Home Thermostat, Boiler Switch and Heating Remote. You can turn the temperature up and down, boost the heating for an hour or simply turn it on/off. Use the Remote to control the Home Thermostat from the comfort of the sofa, and this will, in turn, carry the commands to the Boiler Switch.

2. (Intermediate): Smartphone Control from **anywhere**

Required: Home Thermostat, Lightwave Link, Boiler Switch

Installing a LightwaveRF Boiler Switch and linking it to a Lightwave Link and Home Thermostat allows you to control your home heating from anywhere using a smartphone or tablet. If you are staying late at work, you can turn off the heating so as not to waste energy, or turn it on in advance if coming back late on a cold night. If you are away on holiday in the winter, turn on the heating to a low level to make sure that the house does not get cold and damp. This simple installation can save you a significant amount of energy.

3. (Advanced): Zoned Heating

Required: Home Thermostat, Link, Boiler Switch, TRVs

With the LightwaveRF App and the **Lightwave Link** you can create an expandable zoned system that can take care of your entire home. Temperatures can be set for each room or 'heating zone', and heating can be planned week by week and room by room. If you have electric radiators, you can still achieve this by connecting them to Electric Switches. You can also link wet radiators AND electric radiators and schedule them together for a totally integrated heating system!

Problem: The Thermostat will not consistently operate remotely.

Solution: The Remote/Thermostat/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 devices closer together.

Q. How many heating devices can I install on the App?

A. You can currently install up to 80 heating devices on the App.

Q. Can I link more than one TRV or Electric Switch to a Thermostat?

A. Yes. Please refer to www.lightwaverf.com for current device limits.

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

A. Yes, LightwaveRF products are fully legal to install in your own home.

Q. How long do the batteries last?

A. This can vary, but up to one year can be expected with normal use and good quality batteries. For optimum battery life, lithium batteries are recommended.

Q. How do I know if the batteries need replacing?

A. The display will report that batteries are low. The App should also report that battery levels are running low.

Specification

RF frequency: 868 MHz

Batteries: 2 x 1.5V (AA)

Warranty: 2 year standard warranty

Lightw∧ve RF

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