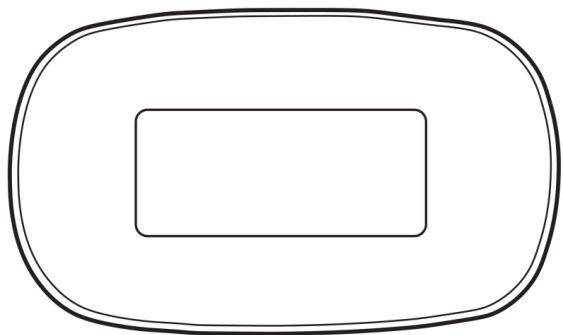


Lightwave



Installation Manual

Smart Motion Sensor
(LP70)

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Installation Support

In this booklet you will find wiring diagrams and instructions on how to set up a Smart Motion Sensor (LP70)

For further guidance click on the links below:

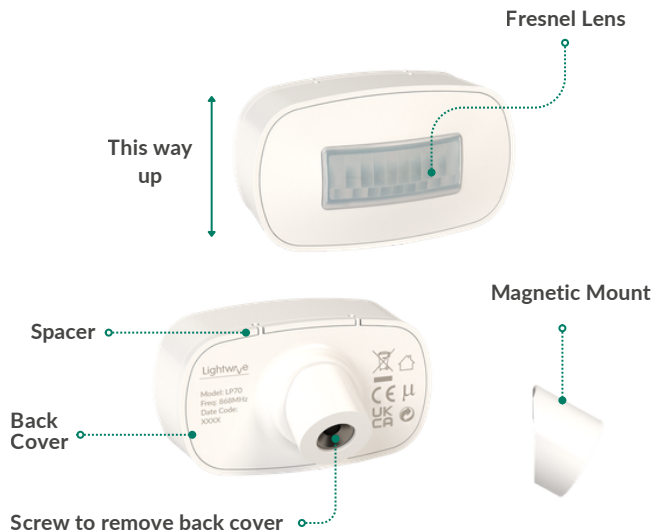
[Contact the technical support team](#)

[Contact a Lightwave Pro installer](#)

[Have a look at our website](#)

[Phone number: 0121 468 8987](#)

General Information



RF Frequency:

868 MHz

Battery Life:

Approx 1 year

Battery required:

CR2477

RF Range:

Up to 50m indoors

Environment temperature: 0-40°C

Warranty:

2-year standard warranty (from the date of purchase).

A lifetime warranty on the device is available if you are a Lightwave Plus member.

Usage:

- Triggers Lightwave devices and automates lighting, heating, and power based on movement.

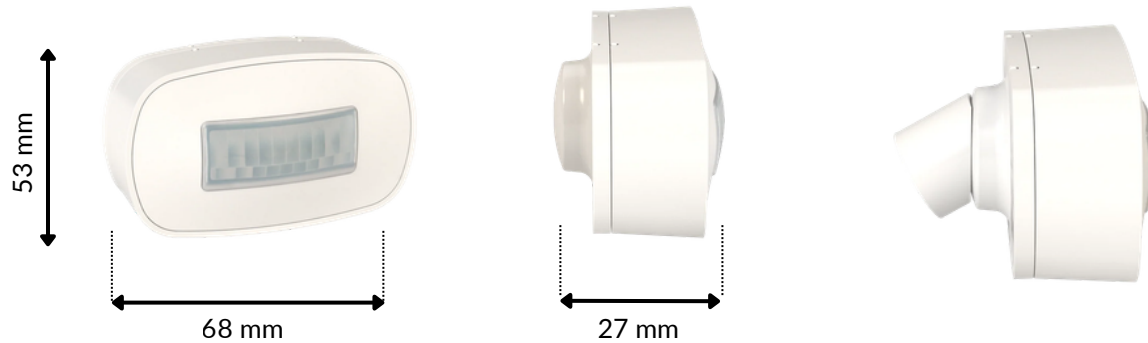
Location:

- Place on a table or shelf, or mount with the magnetic base.
- Suitable for walls or ceilings and ideal for high traffic areas.
- Indoor use only.

Range:

- Keep away from large metal objects and radiators.
- Ensure a clear path to the Link Plus hub.

Product Dimensions



Product dimensions include the magnetic mount.

Height: 53 mm

Width: 68 mm

Depth: 27 mm

WARNING!

If you plan to install this product yourself, please follow the instructions carefully to ensure the product is installed safely, if in any doubt please consult a qualified electrician, technical team or Lightwave Pro installer.

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.

LITHIUM BATTERY CAUTION

- Lithium batteries may explode or catch fire if misused
- Only use as intended by the manufacturer
- Keep away from children and animals
- Lightwave is not responsible for damage or injury caused by batteries
- Dispose and recycle batteries responsibly according to local guidelines

Preparing for Installation

Neglecting to follow these instructions could result in the loss of your 2-year warranty on the device.

Damage caused by any modifications, or physical damage will invalidate your warranty.

LightwaveRF Technology Ltd cannot accept responsibility for any loss or damage that may occur if the instruction manual is not followed correctly.

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.

You will need:

- Suitable electrical screwdrivers.
- Your link Plus Hub and smartphone.
- The Lightwave Link Plus App can be downloaded. (available on iOS & Android)
- An appropriate place to situate the sensor
- When fixing the magnetic mount to a wall or ceiling, ensure you use the correct drill, drill bit, wall plug, and screw.

What is included in the box:

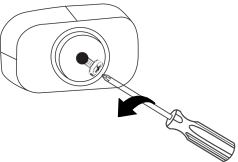
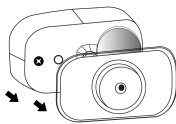
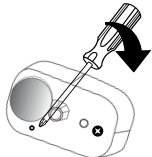
- Lightwave Smart Motion Sensor (LP70)
- Magnetic mount
- CR2477 coin cell
- Installation manual

Installing a Smart Motion Sensor (LP70)

If you plan to install this product yourself, please follow the instructions carefully to ensure the product is installed safely, if in any doubt please consult a qualified electrician, technical team or Lightwave Pro installer.

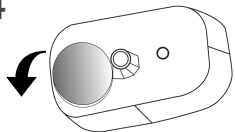
It is important to install this product in accordance with these instructions. Failure to do so may risk personal safety, create a fire hazard, violate the law and will also void your warranty.

LightwaveRF Technology Ltd will not be held responsible for any loss or damage resulting from not correctly following the instruction manual.

1 	You will need to firstly install the battery in the motion sensor to get it operating. Inserting the battery: To insert the CR2477 coin cell into your device, first undo the screw by turning counter clockwise to remove the back cover using a flat head screwdriver.
2 	Then remove the rear plastic and the spacer to reveal the battery compartment. If replacing a battery, first remove the existing battery before inserting the new one, use a screw driver to lift the old battery out if necessary
3 	To insert the battery, gently tilt at an angle towards the metal contact at the edge of the battery slot. Ensuring the positive symbol (+) is facing upwards, with very light pressure, push the battery down

Installing a Smart Motion Sensor (LP70)

4



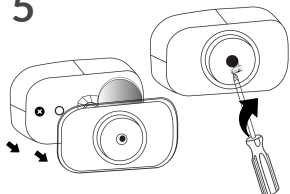
Once the battery is inserted correctly, the LED will flash green. If installing this device for the first time, complete pairing the Sensor now. Then, replace the spacer, followed by the rear plastic.

Please see page 11-12 on how to pair the smart motion sensor to the Lightwave App

For more information, please click on the links below:

[How to Install the LP70 Smart Motion Sensor and app setup?](#)

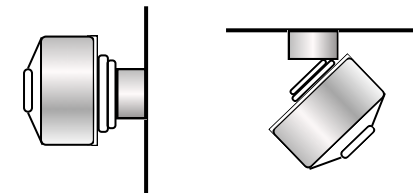
5



And affix by turning the screw clockwise using a flat head screwdriver

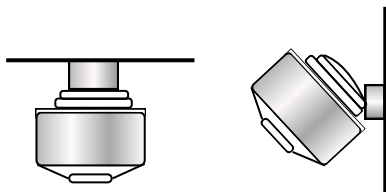
When the Smart Sensor starts for the first time, please allow at least 15 seconds to allow the Sensor run its initial set-up to allow for motion detection.

Installing a Smart Motion Sensor (LP70)



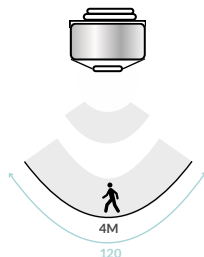
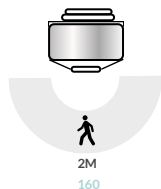
Mounting on a vertical surface:

Using a cross head screw driver, mount the magnetic base on a flat surface. Gently attach the Sensor to the magnetic mount ensuring the Fresnel lens is not upside down. (Looking closely at the Fresnel lens, the larger rectangular boxes are at the top) Adjust the viewing angle to suit the environment you wish to detect movement within.



Detecting Range and Viewing:

Angle Recommendation for optimum performance at 6 meters with a 90 degree viewing angle is for the Sensor to be mounted at 1.5 meter height. The sensitivity of the Sensor can be adjusted in the Lightwave app. Please be aware that when you 'save' your settings, the device will then be updated with the new sensitivity setting when next triggered.



For more information, please click on the links below:

[How to Install the LP70 Smart Motion Sensor and app setup?](#)

How to pair a Smart Motion Sensor to the Lightwave App

Before you begin: **Download the Lightwave Link Plus App** from the **Google Play Store** or **Apple App Store**.

Adding a smart series device to the Lightwave Link Plus App:

- Make sure that the Link Plus Hub is a high and central location for optimal communication.
- Open the app and tap the green plus (+) button at the bottom of the page. Then select the devices icon.
- Enter a name for your device in the grey box that says e.g. Porch Spotlights.
- Put the device into pairing mode (see below). While the device LED is flashing, tap Link in the app.
- The app will scan and pair with the device. Once linked, the LED on the device will flash blue rapidly.
- After adding the device, assign it to a room in the app to make it easier to control and organise your devices.

Pairing mode:

- Remove the back of the cover of the motion sensor then press and hold down the learn button on the back of the device until the LED at the front of the device flashes blue and red alternatively.

Issue with pairing the device:

- If the motion sensor exits pairing mode too soon, press and hold the button again to re enter. If the LED only flashes red, the device memory needs to be cleared. (see below)

How to pair a Smart Motion Sensor to the Lightwave App

How to master reset the device:

- Remove the back cover of the motion sensor.
- Press the Learn button once and release it. The LED on the front of the device will flash red slowly.
- Press and hold the Learn button again until the LED flashes red rapidly, confirming that the memory has been successfully cleared.
- The LED will then turn green before returning to a solid red state.

For more information, please click on the links below:

- [How to add devices to the Link Plus App?](#)
- [How to Install the LP70 Smart Motion Sensor and app setup?](#)
- [How do I master reset Lightwave devices?](#)

How to change the sensitivity and reset time of the motion sensor

Reset Time = You can add a delay as how long after you would like the Motion Sensor to send an OFF Command to your desired receiver (dimmer, socket, relay etc.)

How to change the reset time of the smart motion sensor:

- Open the Lightwave app on your mobile device.
- Go to the room where the motion sensor is located.
- Press and hold the app tile for the motion sensor you want to change the reset time on.
- Tap Settings in the top right corner.
- Then scroll down the page until you see reset time. Then press on the header called reset time.
- Adjust the reset time using the control.
- Press the green Save button.
- The new reset time will apply the next time the motion sensor is triggered.

Sensitivity = How sensitive the motion detection is (100 would be the most sensitive)

How to change the sensitivity of the smart motion sensor:

- Open the Lightwave App on your mobile device.
- Go to the room where the motion sensor is located in
- Press and hold the app tile for the motion sensor you want to change the sensitivity on.
- Tap Settings in the top right corner.
- Then scroll down the page until you see sensitivity. Then press on the header called sensitivity
- Adjust the sensitivity using the control.

Set the sensitivity on a least to most scale. The least sensitive setting will only detect large movements, while the most sensitive setting (ten) will detect movement of any warm object within the field of vision of the device.

- Once you have set your sensitivity press the green save button
- The new sensitivity will apply the next time the motion sensor is triggered.

For more information, please click on the links below: [How to Install the LP70 Smart Motion Sensor and app setup?](#)

How to Set Up a Motion-Based Automation in the Lightwave App

Motion refers to a motion detection sensor that automatically triggers your lights when movement is detected, it will then turn the lights off as soon as the sensor does not detect motion. This is a very basic automation. If you want a more advanced setup, you will need to create an IF-DO automation.

As long as the Link Plus Hub remains connected to power, your automations will continue to work even if your internet connection is lost. However, an internet connection is required to create or edit automations.

For more information, please click on the link: [How to Create a Motion-Based Automation in the Lightwave App](#)

How to Set Up a Motion-Based Automation in the Lightwave App:

1. Open the Lightwave App on your mobile device.
2. Tap the green plus (+) button at the bottom centre of the screen.
3. Then select Automations.
4. Tap MOTION as the automation type.
5. Choose your Motion Sensor from the list.
6. Tap Next.
7. Select the devices you want to automate (e.g., dimmers, smart sockets, relays).
8. Tap Next.

(Optional) Choose specific days and times for the automation to run. (If you would like the time to be between dusk & dawn please refer to **page 16-19**)

9. Tap Skip if you don't wish to apply a schedule.
10. In the grey box, give your automation a clear name (e.g. Hallway Lights Auto Off).
11. Tap Done to save your automation.

IMPORTANT NOTE:

- This motion-based automation does not include any time delays (e.g., delay off after motion is detected).
- If you require delays or more complex logic (such as "turn off light 5 minutes after motion"), you must create an If-Do automation instead. (unless you set your motion sensors reset time to 5 minutes)

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4. Tap MOTION as the automation type.
5. Choose your Motion Sensor from the list.
6. Tap Next.
7. Select the devices you want to automate (e.g., dimmers, smart sockets, relays).
8. Tap Next

(Optional) Choose specific days and times for the automation to run. (If you would like the time to be between dusk & dawn please refer to **page 17-20**)

9. Tap Skip if you don't wish to apply a schedule.
10. In the grey box, give your automation a clear name (e.g. Hallway Lights Auto Off).
11. Tap Done to save your automation.

IMPORTANT NOTE:

- This motion-based automation does not include any time delays (e.g., delay off after motion is detected).
- If you require delays or more complex logic (such as "turn off light 5 minutes after motion"), you must create an If-Do automation instead. (unless you set your motion sensors reset time to 5 minutes)

Creating an IF-DO Motion Automation for Advanced Operation

Now that you have created the ON automation, the motion sensor will turn on your chosen device when movement is detected. Next, you will need to create a second automation to turn the device off. This should be set so that when no motion is detected, the device switches off automatically after your chosen time.

How to turn lights OFF using a motion sensor (IF-DO automation)

- Launch the Lightwave App on your mobile device.
- Tap the green plus (+) button at the bottom centre of the screen.
- Then select Automations.
- Tap IF-DO as the automation type.

TRIGGER (IF):

- Tap the add a trigger box (this will be your motion sensor).
- Go to the room where your motion sensor is located and select it.
- Once selected, you will see a list of trigger options. Choose Motion.
- Tap Done underneath, then tap Done again at the top right of the page.

On the summary screen, locate the motion sensor tile on the right and tap the stopwatch on the right of the tile. Set the time for how long you would like the lights to stay on before turning off. For example, if no motion is detected for 1 minute, the dimmer will turn off.

In the middle of the tile, you will see Motion in a grey box. Tap this to change it to No Motion.

ACTION (DO):

- Tap the add an action box (this is what you want to happen when no motion is detected).
- Go to the relevant room and select the device(s) you want to control.
- Once selected, you will see the available options. Choose Switch, then tap Done at the bottom and then Done at the top right of the page.
- Tap the grey On box on the action tile(s) to change it to Off.

FINAL STEPS:

- Tap Next once your trigger and action are set.
- In the grey box, give your automation a clear name (e.g. Hallway Lights Auto Off).
- Tap Done to save your automation.

How to set up dusk to dawn times on a motion automation

Two separate automations are needed so the Link Plus can correctly handle night time and the next day. If you try to include both times in one automation, for example turning the light on at 11pm and off at 3am, it will not work properly because the system cannot recognise that 3am is the following day.

These automations are used for triggering devices based on motion between dusk and dawn, and an additional off automation will need to be created to ensure the lights switch off correctly.

First automation: How to set up dusk to midnight (PM)

- Launch the Lightwave App on your mobile device.
- Tap the green plus (+) button at the bottom centre of the screen.
- Then select Automations.
- Tap IF-DO as the automation type.

TRIGGER (IF):

- Tap the add a trigger box (this will be your motion sensor).
- Go to the room where your motion sensor is located and select it.
- Once selected, you will see a list of trigger options. Choose Motion.
- Tap Done underneath, then tap Done again at the top right of the page.

ACTION (DO):

- Tap the add an action box (this is what you want to happen when motion is detected).
- Go to the relevant room and select the device(s) you want to control.
- Once selected, you will see the available options. Choose Switch, then tap Done at the bottom and then tap Done again in the top right of the page.
- Then press next at the top right hand side of the page.

How to set up dusk to dawn times on a motion automation

TIME AND DAY:

- To add a time you will select on the Add time box.
- Then you will need to scroll until you have got 23:59 appearing as the time.
- Then you will need to press on Before, then press on Done at the top right hand side of the page.
- Now you will need to add the end time on this automation which will be after dusk.
- In order to do this you will press on the Add time box again.
- Then you will press on Dusk and then press on the After button. Then press Done at the top right hand side of the page.

Now you have just set up a time restriction on the IF-DO Automation

If you want this automation to run 7 days a week you will not select the Day of week box.

- But if you want it to run on select days you will press on the Day of week box.
- Then you will be taken to a page where you will select on the days (the selected days will highlight in orange) and then press "Done" at the top right hand side of the page.
- Then you will press "Next" at the top right hand side of the page.

FINAL STEPS:

- In the grey box, give your automation a clear name (e.g. Hallway Lights Auto On PM).
- Tap Done to save your automation.

PLEASE SEE NEXT PAGE FOR SECOND AUTOMATION: HOW TO SET UP MIDNIGHT TO DAWN

How to set up dusk to dawn times on a motion automation

Two separate automations are needed so the Link Plus can correctly handle night time and the next day. If you try to include both times in one automation, for example turning the light on at 11pm and off at 3am, it will not work properly because the system cannot recognise that 3am is the following day.

These automations are used for triggering devices based on motion between dusk and dawn, and an additional off automation will need to be created to ensure the lights switch off correctly.

Second automation: How to set up midnight to dawn (AM)

- Launch the Lightwave App on your mobile device.
- Tap the green plus (+) button at the bottom centre of the screen.
- Then select Automations.
- Tap IF-DO as the automation type.

TRIGGER (IF):

- Tap the add a trigger box (this will be your motion sensor).
- Go to the room where your motion sensor is located and select it.
- Once selected, you will see a list of trigger options. Choose Motion.
- Tap Done underneath, then tap Done again at the top right of the page.

ACTION (DO):

- Tap the add an action box (this is what you want to happen when motion is detected).
- Go to the relevant room and select the device(s) you want to control.
- Once selected, you will see the available options. Choose Switch, then tap Done at the bottom and then tap Done again in the top right of the page.
- Then press next at the top right hand side of the page.

How to set up dusk to dawn times on a motion automation

TIME AND DAY;

- To add a time you will select on the Add time box.
- Then you will need to scroll until you have got 00:01 appearing as the time.
- Then you will need to press on After, then press on Done at the top right hand side of the page.
- Now you will need to add the end time on this automation which will be before Dawn.
- In order to do this you will press on the Add time box again.
- Then you will press on Dawn and then Before. Then press Done at the top right-hand side of the page.

Now you have just set up a timer automation.

If you want this automation to run 7 days a week you will not select the Day of week box.

- But if you want it to run on select days you will press on the Day of week box.
- Then you will be taken to a page where you will select on the days (the selected days will highlight in orange) and then press Done at the top right hand side of the page.
- Then you will press Next at the top right hand side of the page.

FINAL STEPS:

- In the grey box, give your automation a clear name (e.g. Hallway Lights Auto On AM).
- Tap Done to save your automation.

PLEASE SEE PAGE 15 FOR HOW TO SET UP THE OFF AUTOMATION.

You have already created the two on automations. Now you will need to create only one off automation so the motion sensor can turn the lights off.

If no motion is detected, set the lights to turn off after a chosen period of time. **(you do not need to create time restrictions on the off automation)**

Troubleshooting

If your Smart Motion Sensor isn't behaving as expected, the steps below cover the most common issues and how to resolve them.

Device not linking to the app

- Check the device hasn't been added to the default room (if no room is selected, it will be placed in the top room on your list automatically).
- Make sure the device is within close range of the Link Plus hub.
- If the LED flashes red when pairing, the device memory is full and will need to be removed from the app and then cleared before it can be added again.

Helpful Guides:

[Why Won't My Devices Pair to the Link Plus App?](#)

[Where is the best place to position my Link Plus Hub](#)

Flashing red LED light when pairing

A flashing red LED means the device memory is full, usually after a failed pairing attempt.

To clear the memory:

- Remove the back cover of the motion sensor.
- Press the Learn button once and release it. The LED on the front of the device will flash red slowly.
- Press and hold the Learn button again until the LED flashes red rapidly, confirming that the memory has been successfully cleared.
- The LED will then turn green before returning to a solid red state.

Helpful Guides:

[How do I master reset Lightwave devices?](#)

Troubleshooting

If your Smart Motion Sensor isn't behaving as expected, the steps below cover the most common issues and how to resolve them.

Smart Motion Sensor not detecting motion

- Replace the batteries in the sensor, as low power can stop it from detecting movement.
- Check the sensitivity setting in the Lightwave app to ensure it is not set too low.
- Check the reset time, as a longer delay may prevent it from triggering again quickly.
- Make sure the device is within range of the Link Plus hub.
- Check the mounting position, as placement can affect how well motion is detected.
- Double check that the automation has been set up correctly in the app.

Smart Motion Sensor turning on when no one is around

- Check the sensitivity setting in the Lightwave app to ensure it is not set too high.

Feedback



We've just launched our new Lightwave installation manuals and would love to hear what you think!

Your feedback helps us improve our guides and provide better support, whether it's something you liked or something we could make clearer. It only takes a few minutes and really makes a difference.

[Please click here to share your feedback](#)

Thank you for helping us improve your Lightwave experience.