

## Smart Programmable Thermostat H3747

Installation and commissioning guide

# Commercial and confidential

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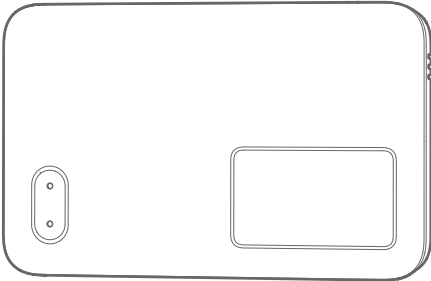
**Installation  
by an expert  
recommended**



BS 7671:2008

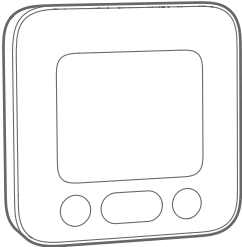
The Secure Controls products requires electrical connections at mains voltage and should be installed by a suitably competent person, in accordance with Part P of the Building Regulations, BS 7671:2008, (e.g. an electrical contractor registered with an authorised competent person self-certification scheme).

# In the box



**Receiver H3747**

Pre-paired



**Programmable Thermostat Display PTD**

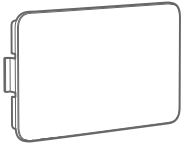
## Optional (To be purchased separately)



**Extra PTD**  
(Additional PTD  
for extra zones)



**Temperature Sensor THS**  
(Additional temperature sensor  
for extra zones)



**WiFi Extender HC2.4**  
(Add-on WiFi adapter)

# Know your products

## **Receiver H3747**

- Mains-powered device, compatible with Combination, System and Regular boilers (Heat+hotwater+zones)
- Communicates wirelessly with PTD, temperature sensor and mobile app
- Variant with WiFi module available for remote access
- Simple installation for retrofits with minimum wiring changes required
- Supports boiler plus compliance, load compensation and service interval functionality
- 7 year no quibble warranty

## **Programmable thermostat display (PTD)**

- Independently controls heating and hot water
- No need for WiFi when programming schedule
- Home and Away one-click function
- Guaranteed 12 year battery life
- Easy and intuitive 7 day programming

## **Temperature sensor THS**

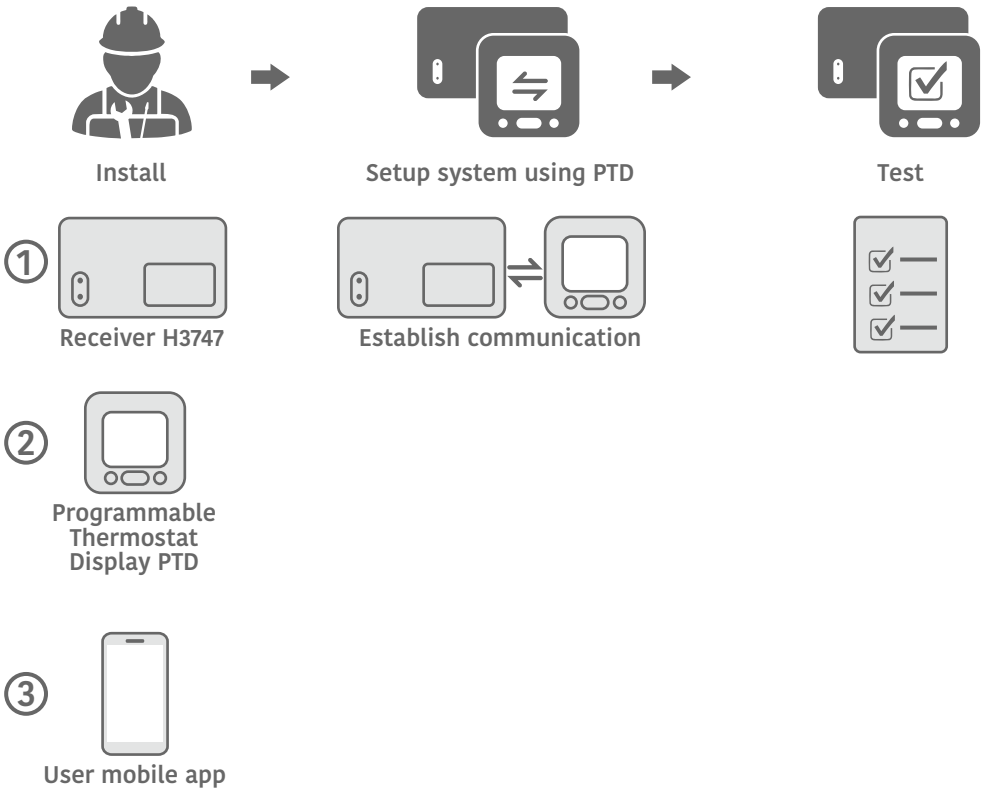
- Cost-effective add on device to manage additional heating zones
- Wireless and simple to install

## **WiFi Extender HC2.4**

- Plug and play wireless module to control your system remotely
- Works well with 2.4 GHz wireless router

# What is covered?

How to



# Compatibility

The H3747 Smart Programmer is compatible with most heating control systems and is ideal for compatible system boilers using spring return valves. It can also work with combination boilers as well as heat pumps requiring On/Off control.

Shipped with a standard 9-pin back plate, it can easily replace Centaurplus and Serviceplus time switches and programmers requiring minimum of wiring changes.



Failure to observe precautions may result in fatal injury and equipment damage



Hazard of electrical shock or explosion



Double insulation protection



# Prerequisites

## For installation

Tools / things you may need:



Flat head screw driver



Philips head screw driver



Drill machine  
(2.5 mm drill bit)



Wire stripper



Plier



Hammer



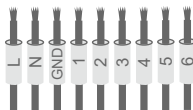
Wall anchors  
and screws



Cable



Pencil/Pen



Identification  
sleeves



Measuring tape

## For commissioning

To commission your system, you need:



Secure Controls PTD

Or



Smartphone



Version 11.0 and  
above



Marshmallow (version 6.0)  
and above



Secure installer guide  
mobile app

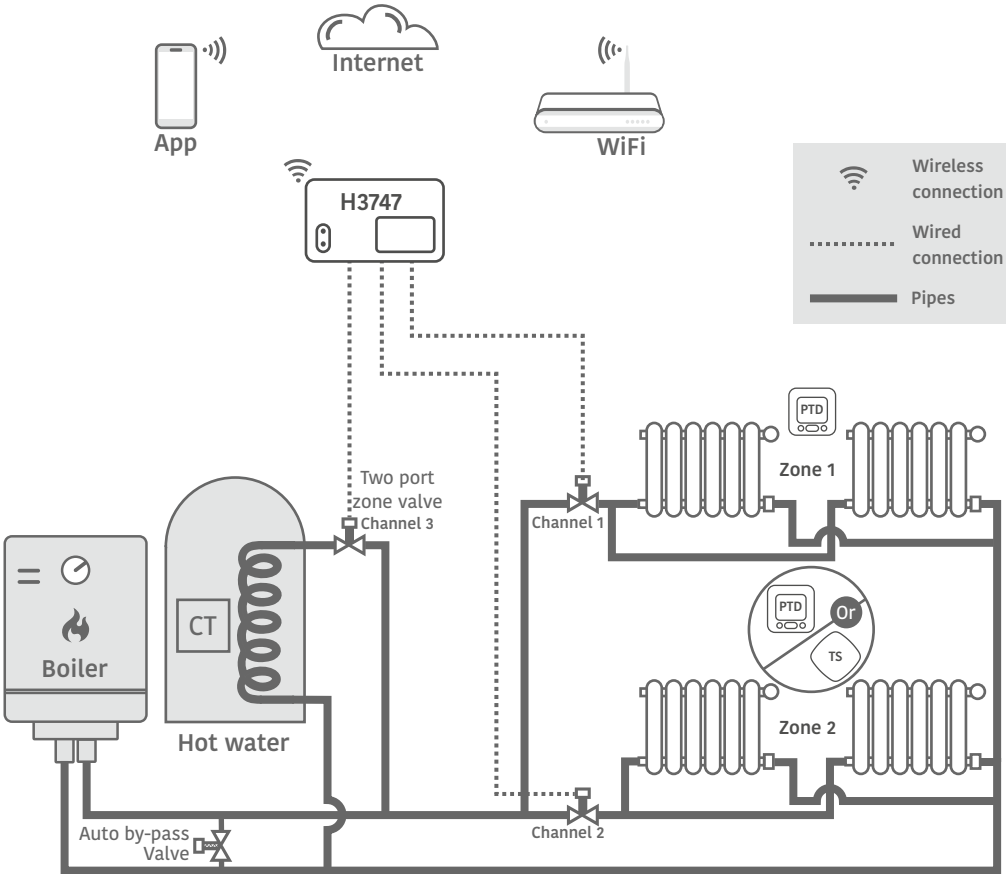


802.11 B/G/N, 2.4 GHz  
wireless router with  
internet (If upgrading the  
receiver for remote control)

# Typical system deployments\*

2 Zone heating and hot water

\* All graphics are for illustration purpose only

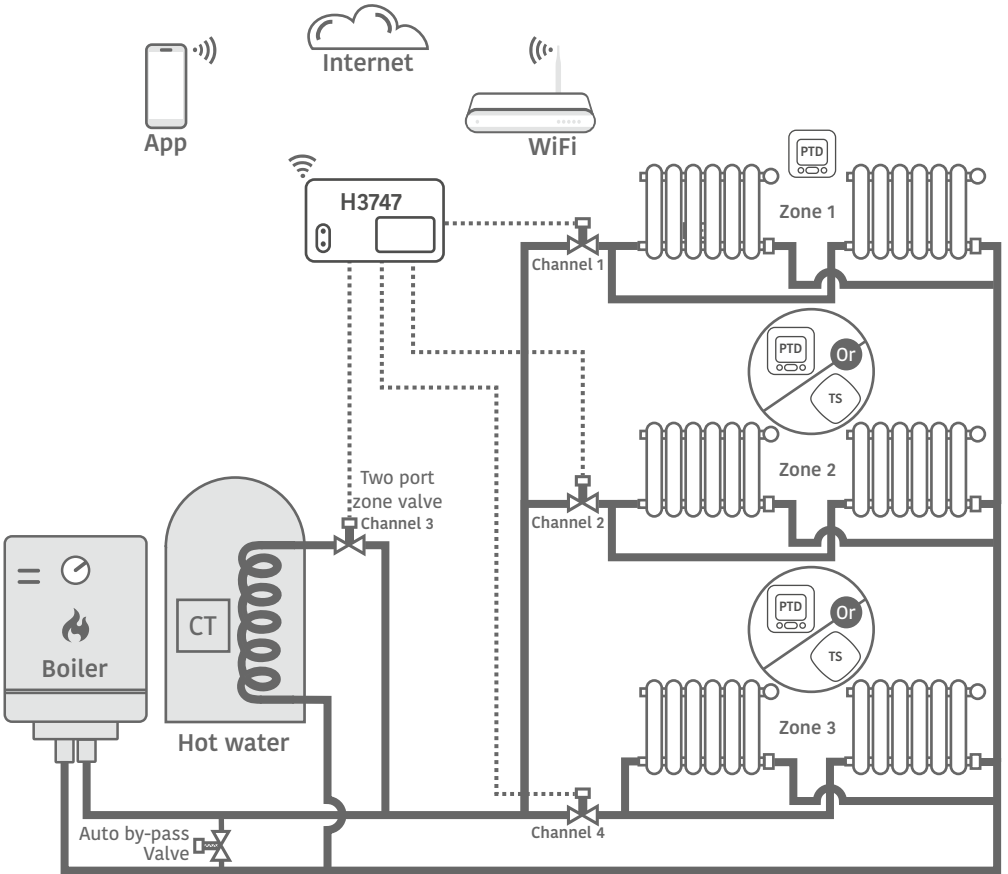




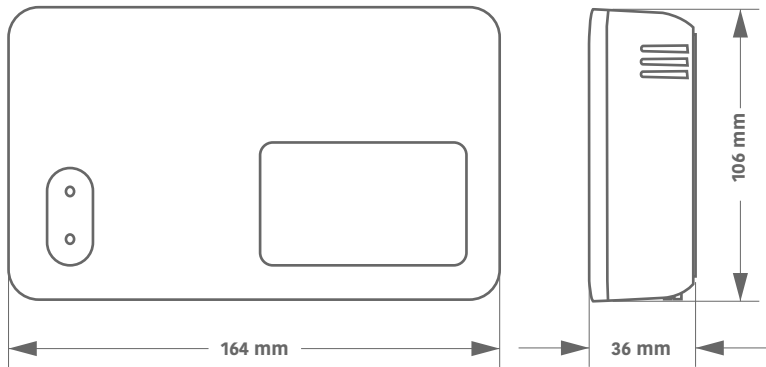
# Typical system deployments\*

## 3 Zone heating and hot water

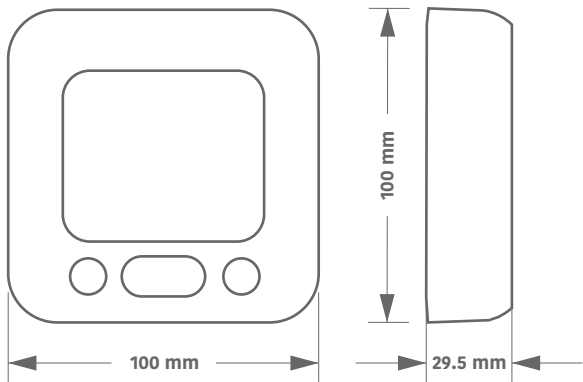
\* All graphics are for illustration purpose only



# Product dimensions



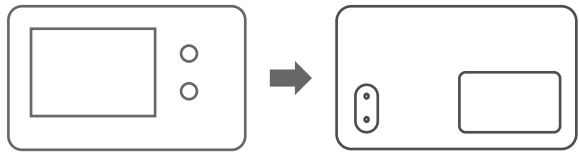
Receiver H3747



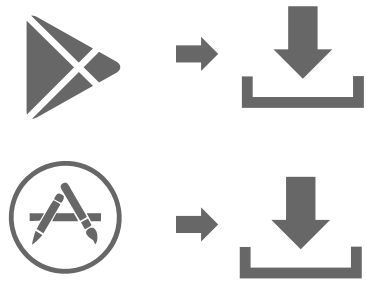
Programmable Thermostat Display PTD

# Download the installer mobile app

If you are replacing an existing programmer or time switch or even performing a fresh installation, we recommend that you install the Secure Installer Guide mobile app.



1. Download the Secure installer guide mobile app

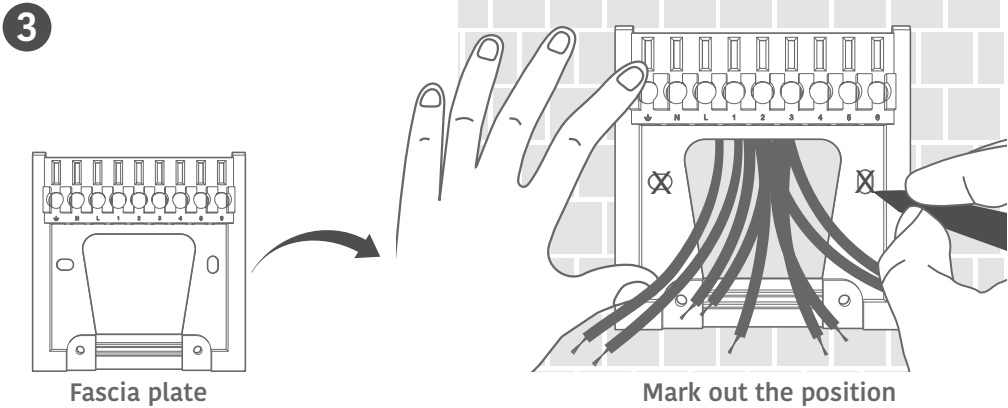
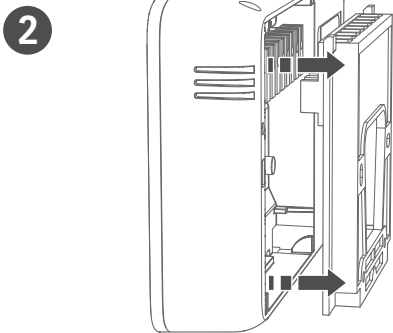
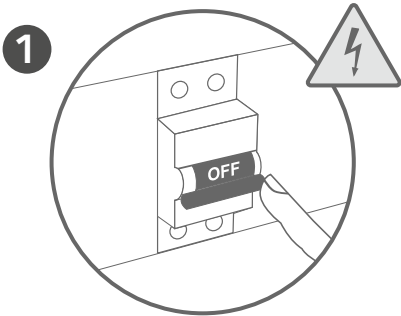


2. Open the app and select Replace a programmer or time switch

3. Choose your existing product and follow the instructions

# Install the receiver

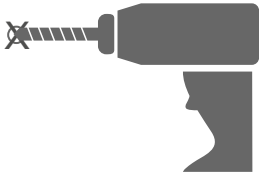
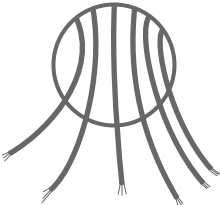
A1



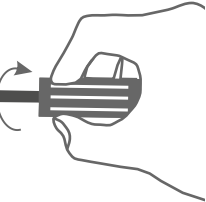
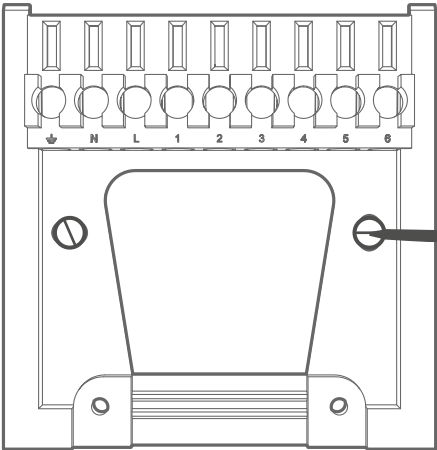
# Drill the holes and secure the mounting plate

A2

1



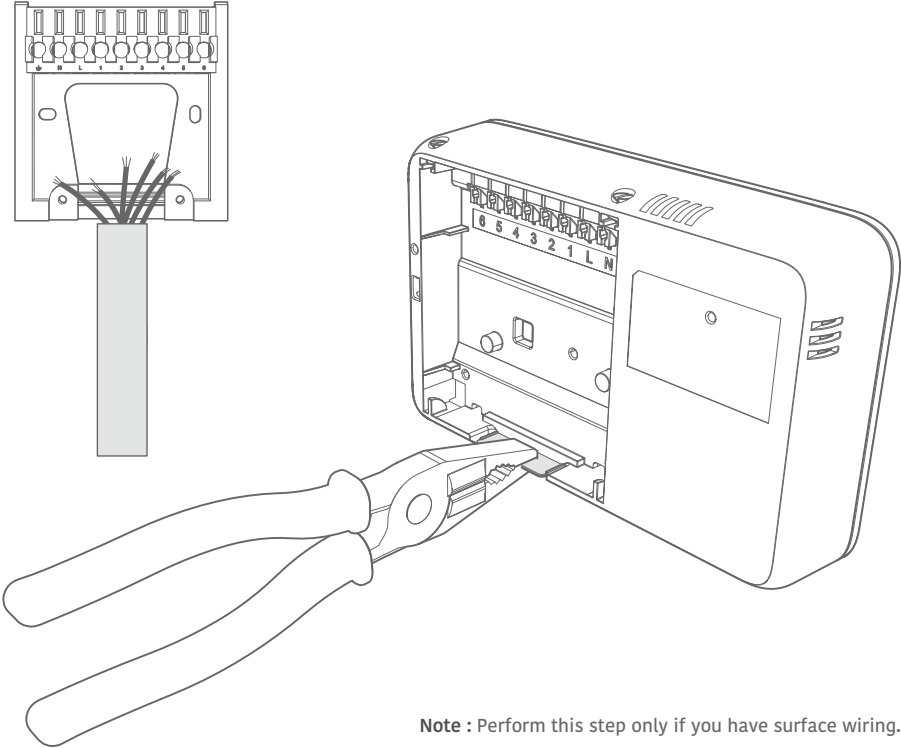
2



M3.5, AB  
type screws

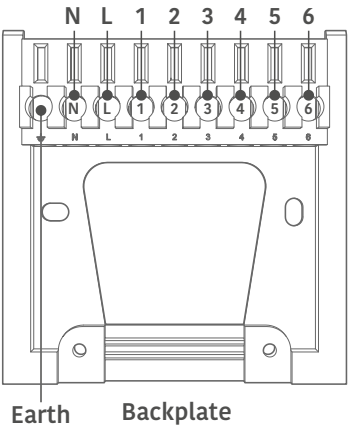
# In case of surface wiring (Optional)

Break the surface wiring knockout provided on the receiver before proceeding further.



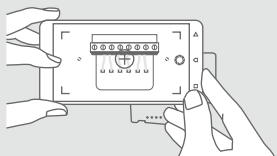
**Note :** Perform this step only if you have surface wiring.

# Label your wires



Pin	Label	Pin description
E	Earth	Earth
N	Neutral	Neutral
L	Live	Live
1	On 1	Zone 1 On
2	COM 1/2	COM
3	On 2	Zone 2 On
4	COM 3/4	COM
5	On 3	Zone 3 or hot water On
6	On 4	Zone 4 On

If replacing, take a picture of your old thermostat connections, label and re-wire as shown in Secure Controls installer app.

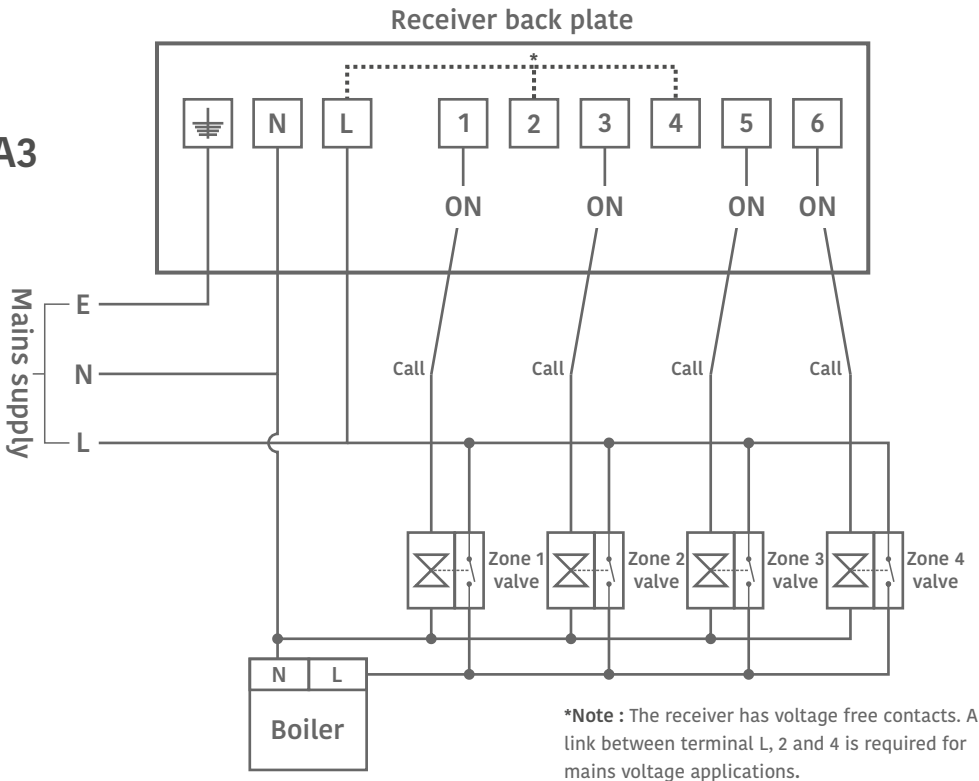


# Make connections

This diagram is schematic and should be used for guidance only.

## 4 zone heating system

A3



**Note:** Connections shown for mains operated 4x heating zone system. These may vary for different boiler types.

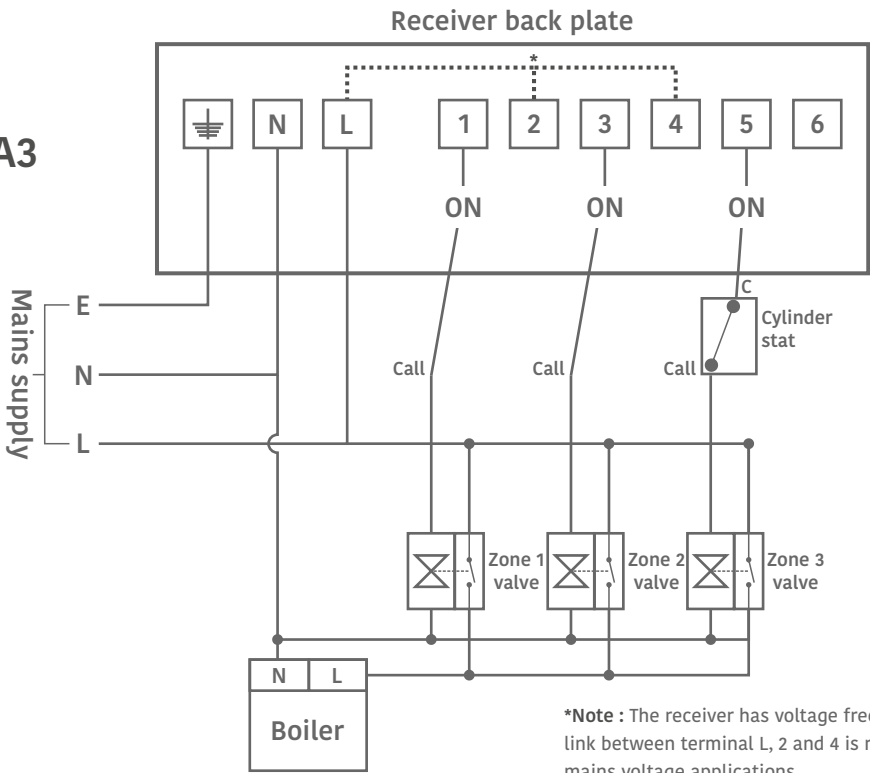


# Make connections

This diagram is schematic and should be used for guidance only.

## 2 zone heating and hot water system

A3



**\*Note :** The receiver has voltage free contacts. A link between terminal L, 2 and 4 is required for mains voltage applications.

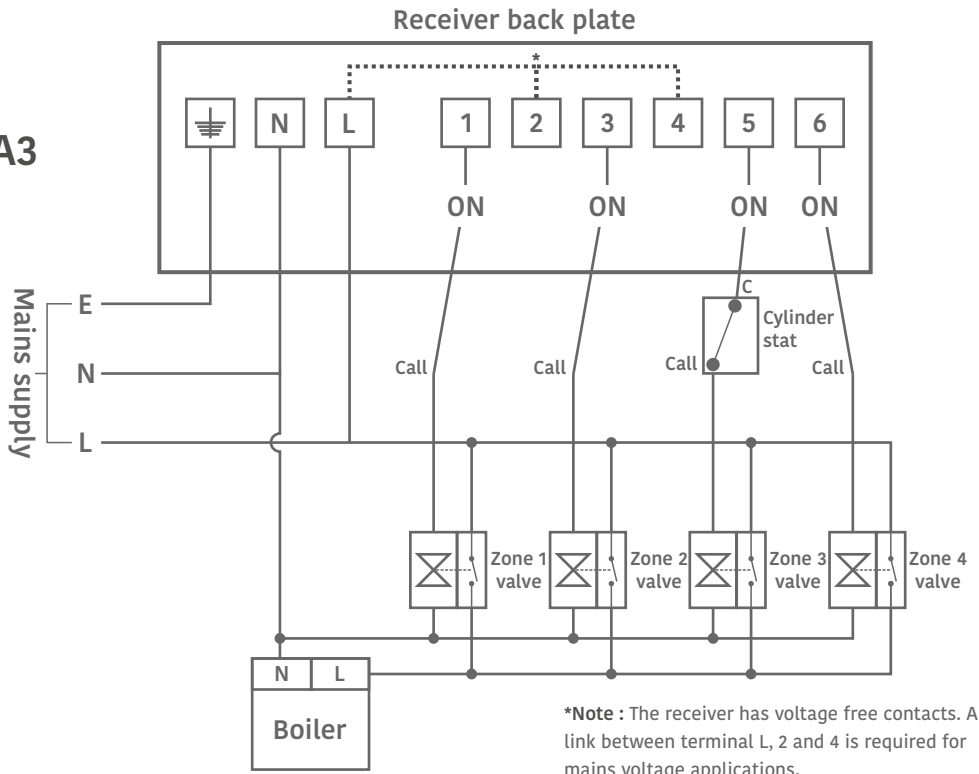
**Note:** Connections shown for mains operated 2x heating zone + 1x water heating system. These may vary for different boiler types.

# Make connections

This diagram is schematic and should be used for guidance only.

## 3 zone heating and hot water system

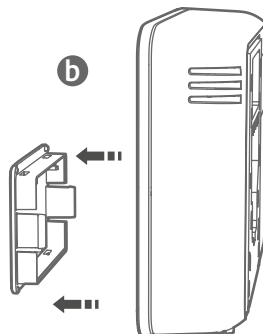
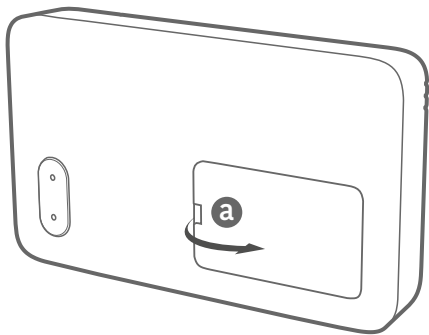
A3



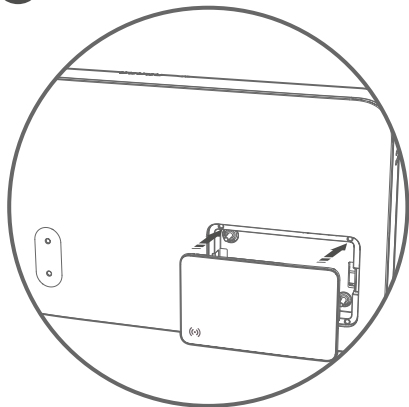
**Note:** Connections shown for mains operated 3x heating zone + 1x water heating system. These may vary for different boiler types.

## Plug in the WiFi extender HC2.4 (optional)

- 1 Remove dummy cover



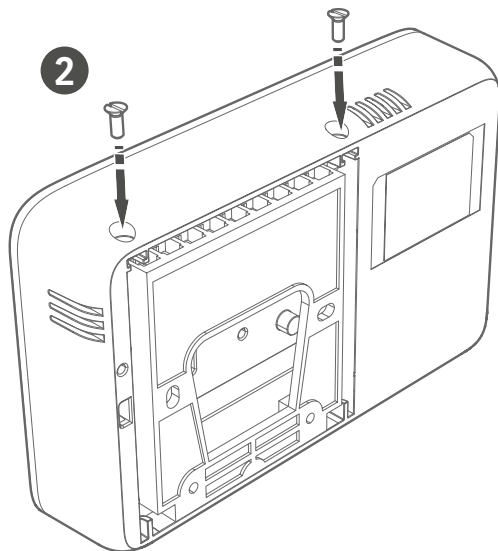
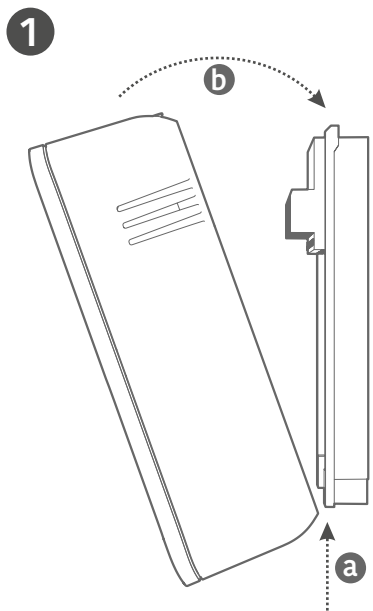
- 2 Plug in the WiFi adapter



**Note :** WiFi adapter once installed cannot be removed

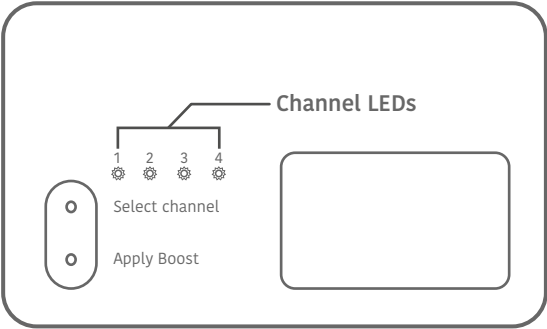
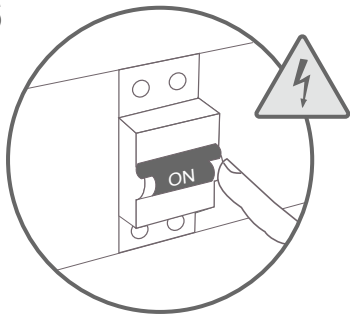
## Fit the receiver

A4



# Verify installation

A6

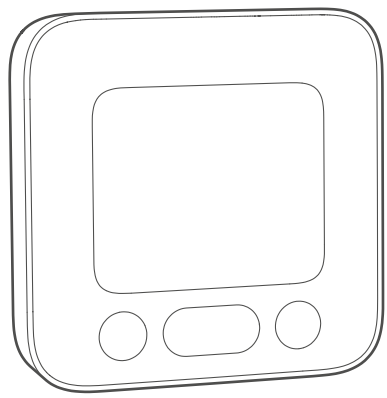


LED states	
Default state	Solid white
During setup	Blinking white (LED 1)
* Switch between channels	Blinking red
* Confirm channel selection	Solid red

**\* Note:**

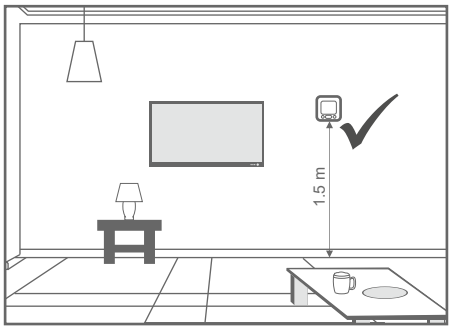
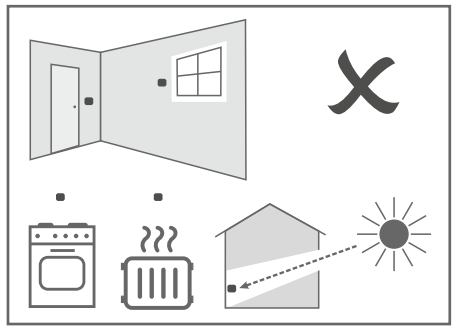
1. Use the top button (Select channel) to switch between different channels.
2. Use the bottom button (Apply Boost) to confirm channel selection.
3. Long press any button to initiate setup. It suggests that the receiver is ready to be paired with mobile app or another PTD.

# Install the PTD



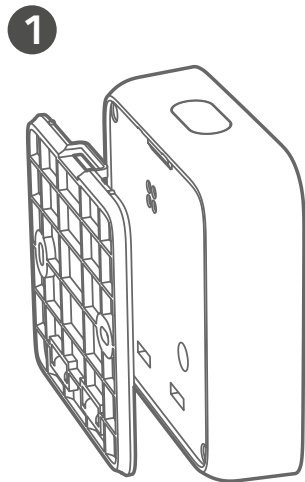
## Ideal mounting location

The PTD should be placed approximately 1.5 metres above floor level, in 'free space', away from draughts and sources of heat or electrical interference.

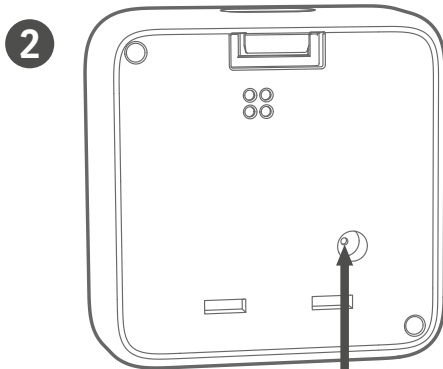


# Mark out the mounting position

B1

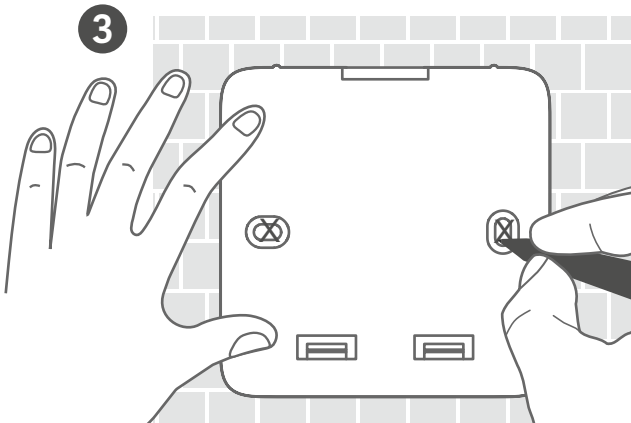


Unbox



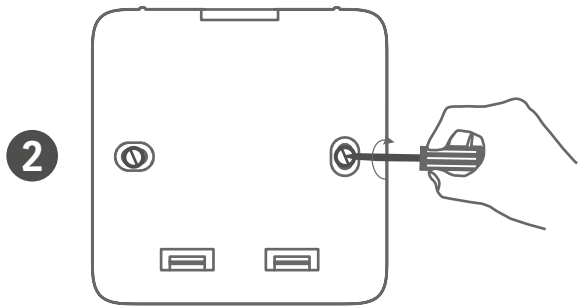
Press

The product is shipped in deep sleep mode to save battery. To wake up the device, you must press the button at the rear before setup.

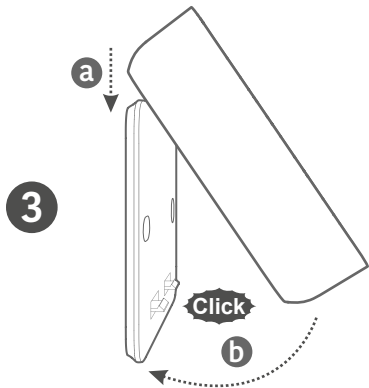


# Fit the PTD

B2

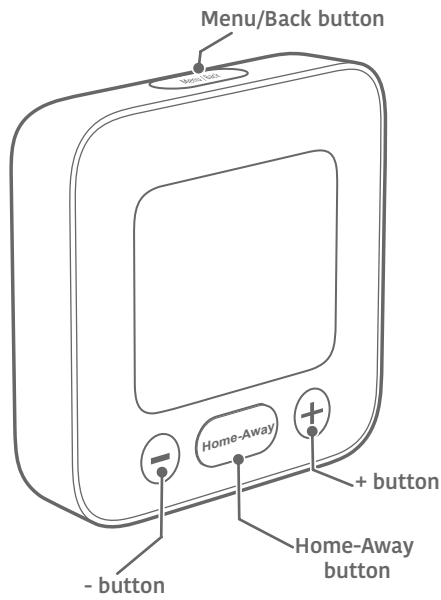


M3.5, AB  
type screws





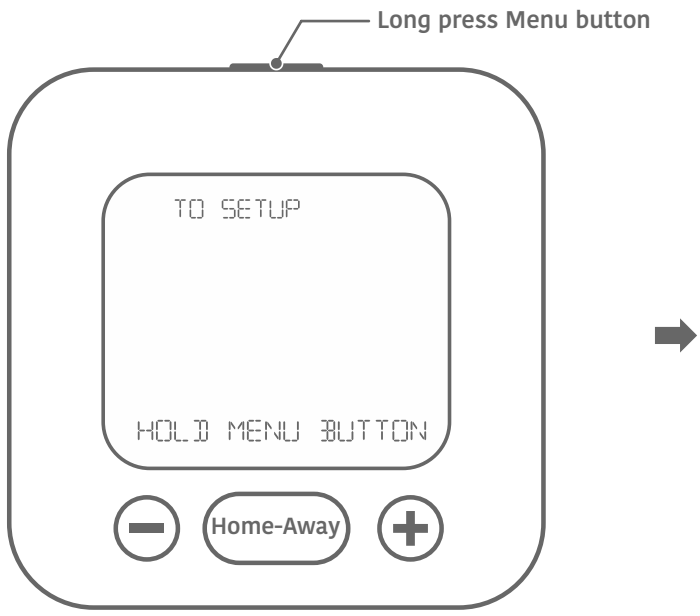
# PTD button functions



Buttons	Functions
Menu/Back button	Press 1. To enter the main menu 2. To return to the previous menu / selection
Home-Away button	Press 1. To navigate between modes (Home/Away) 2. To enter a menu/screen 3. To confirm a change or setting or enter
+ or - button	Press (+) 1. Increase the target temperature 2. To navigate between different menus (In forward direction) 3. To navigate between different items within a menu (In forward direction)  Press (-) 1. Decrease the target temperature 2. To navigate between different menus (In backwards direction) 3. To navigate between different items within a menu (In backwards direction)

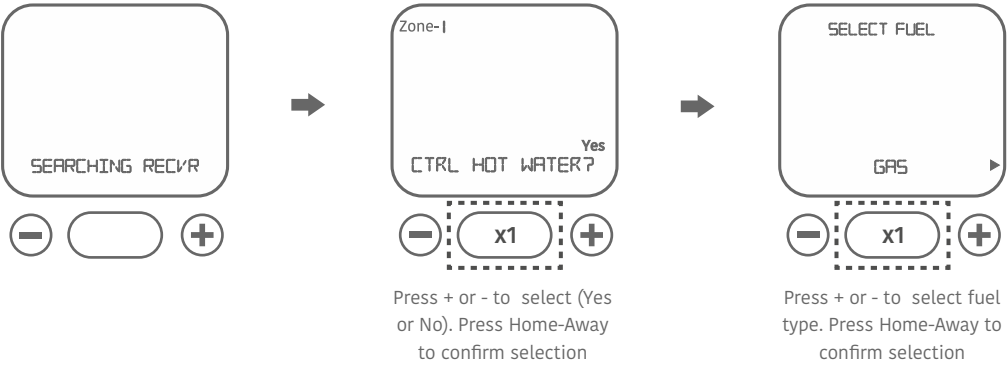
# Establish communication with the receiver

Long press the **Menu** button to establish communication between Receiver H3747 and PTD



**Note:** The PTD has great temperature sensitivity and you may observe a sudden rise in ambient temperature during the commissioning process triggered by the touch of your hand. This is only temporary.

# Establish communication with the receiver



# Communication established



PTD after establishing communication with the receiver

# Install the user mobile app

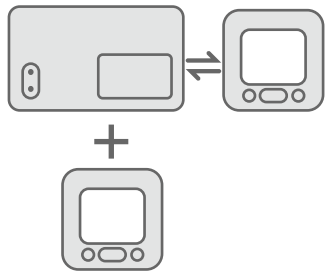
1. Download the Secure Controls user mobile app



2. Open the app and create an account to sign in

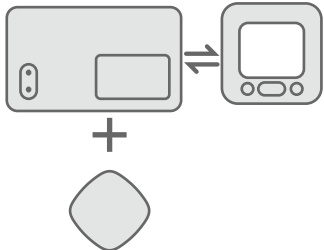
# Optional installation

① Add new PTD



Refer quick installation guide  
of PTD

② Add new Temperature Sensor THS



Refer quick installation guide  
of THS

# Product technical specifications

Receiver H3747	
Operating temperature	0°C to 40°C
Pollution degree	2
Ingress protection	IP30
Rated input voltage	230V ± 10% AC
Relay contact voltage rating, Ch1 to Ch4	Volt free (max 230/240 V AC)
Relay current rating	3(1) A maximum
Storage temp. range	-20°C to +70°C
Relative humidity	0% to 95% non condensing
Wireless communication	WiFi (2.4 GHz) , 2.4 GHz RF
Standards	<ol style="list-style-type: none"><li>1. Safety : Class II as per BS EN 60730-1; EN 60730-2-7; EN 60730-2-9</li><li>2. EN 301 489-1,17</li><li>3. EN 300-328</li><li>4. RoHS &amp; REACH</li><li>5. WEEE</li></ol>

# Product technical specifications

Programmable Thermostat Display PTD	
Operating temperature	0°C to 40°C
Storage temp. range	-20°C to +70°C
Relative humidity	0% to 95% non condensing
Pollution degree	2
Ingress protection	IP30
Battery specifications	Non replaceable 2x A Lithium-ion, 3.6 V, 3600 mAh (each)
Battery life	≈12 years
Wireless communication	2.4 GHz RF
Standards	1) EN 300-328 2) Safety standards: IEC 62368-1 3) EN 301 489-1, 17 (RED) 4) RoHS Directive 2011/65/EU 5) WEEE



# Products variants

Product name	Model number	Description
Programmable Thermostat Display PTD	SCD100-000	Battery operated device for zone heating and hot water
Programmable Thermostat C1727	SCT200-000	Mains powered 2 channel receiver C1727 and Programmable Thermostat Display (PTD)
Programmable Thermostat H3747	SCT400-000	Mains powered 4 channel receiver H3747 and Programmable Thermostat Display (PTD)
Temperature Sensor THS	SCS100-000	Battery operated heating control Temperature Sensor THS
WiFi Extender HC2.4	SCW100-000	2.4 GHz WiFi add-on adapter for 2 and 4 channel receiver, It is used to enable WiFi functionality in the receivers



# Learn more

## **Receiver H3747**

The H3747 Smart programmer is designed for use with one to four zones of heating or hot water using spring return valves. Compatible with most regular heating systems including combination or system boilers as well as heat pumps requiring on – off control. The receiver is supplied with a standard 9-pin back plate for easy retrofit onto legacy Channel Plus or 425 programmers and time switches, with minimum wiring changes. Supporting Boiler plus compliance with Load compensation and optimum Start / Stop which significantly improves boiler efficiency by preventing short-cycling and temperature overshooting. The H3747 can also control the schedule of existing wired thermostats and lets you establish communication between the boiler/heating system and the PTD to enable the right comfort levels in each of your zones. Ideal for replacing traditional wired controls for systems that require separate control of heating and hot water or multiple heating zones

## **PTD**

This is a battery operated wireless device, which measures and controls up to 4 zones (3 heating + 1 hot water or 4 heating). Designed for comfort and convenience, it comes with an intuitive interface and powerful features such as Receiver operating mode, Boost, Scheduling, Optimum start/stop and Service interval etc. There is no need for Wi-Fi when programming schedule in the PTD as it offers easy 7 day programming. With a guaranteed 12 year battery life, it is an ideal replacement for wired thermostats, with limited functionality.



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