LYRIC T4, T4R& T4M

PRODUCT SPECIFICATION SHEET

Honeywell T4 & T4M
Programmable Thermostat

Honeywell T4R
Programmable Thermostat

The **T4, T4M and T4R** thermostats are designed to provide automatic time and temperature control of heating systems in homes and apartments. The T4 It's compatible with 24-230V on/off appliances such as gas boilers, combi-boilers and heat pump. Also works with zone valve applications but not with electric heating (240V). The T4M and T4R versions support also OpenTherm® appliances.

The T4 and T4M are for wired on the wall installations and the T4R for wireless installations. T4R exist of a thermostat and a Receiver box.

The solution is designed with the installer in mind and includes a Receiver module with mounting options for directly on the wall or on a wall box. Wiring can be from below or from the back by lifting the terminal platform, which makes installation quick and easy.

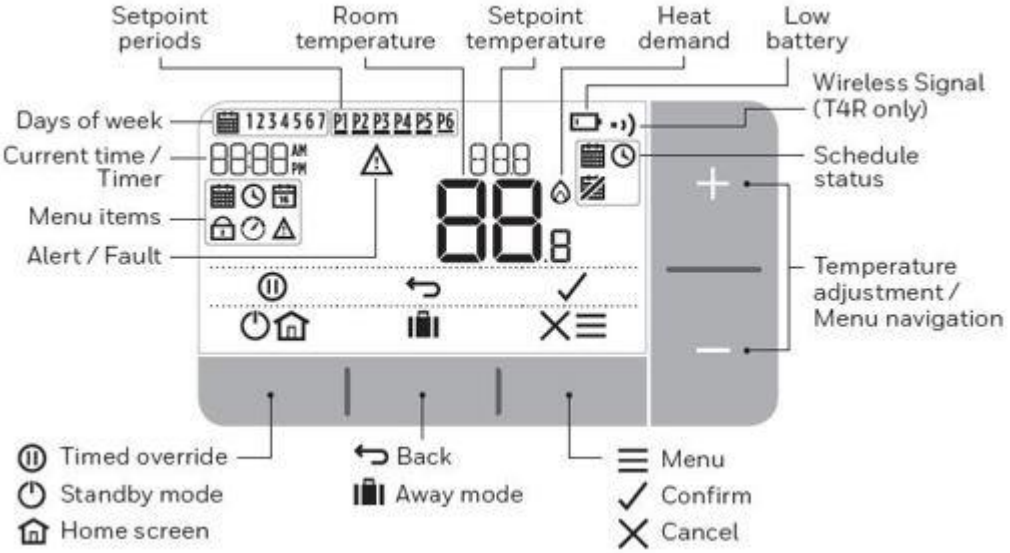
The **thermostat** has a large and clear fix segment display with backlight, simple programming philosophy all to make it easier to install and very user friendly.

The T4 product line is ideal for consumers who want to control their comfort remotely with a modern design, simple to program and easy to use product.

FEATURES

- Minimalistic and modern design makes it easy to blend in any type of homes.
- Table stand or wall mounted thermostat options to fit new and replacement installations.
- Backlight for easier viewing in all light conditions.
- Factory programmed daily, weekly or 5+2 default heating schedule.
- Schedule options with 4 or 6 independent set-points to suit comfort needs.
- Set-point temperature always displayed.
- OFF position has an integral frost protection setting at minimum 5 °C so that pipes in the house will never freeze.
- Alert messages to assist in fault finding.
- Timed override function allows to hold a targeted set point for 1 or 2 hours.
- Away mode allows to reduce the temperature for a period of 1 to 99 days.
- Automatic time clock adjustment for "Daylight Saving Time".
- Receiver box with clear LED indication and override button.
- On/Off or OpenTherm® (T4R/T4M) compatible control.
- A flip up wiring platform for easy wiring.
- User menu allows extra functions to be set at the discretion of the user:
  - Heating schedule
  - Date and time setting
  - Optimisation
  - Lock function
  - OpenTherm® alerts (T4M only)
- Installer menu allows extra functions to be set at the discretion of the installer to match the homeowner's applications and needs
  - Language selection
  - Cycle rate
  - Upper / Lower set point limit adjustment
  - Minimum ON time
  - Daily, weekly or 5+2 schedule option
  - 4 or 6 periods a day
  - Wired remote sensor
  - Fail safe mode
  - Clock format
  - Daylight saving time change (DST)
  - Temperature display offset
  - Factory reset
  - Binding (T4R only)

THERMOSTAT DISPLAY/BUTTON LAYOUT

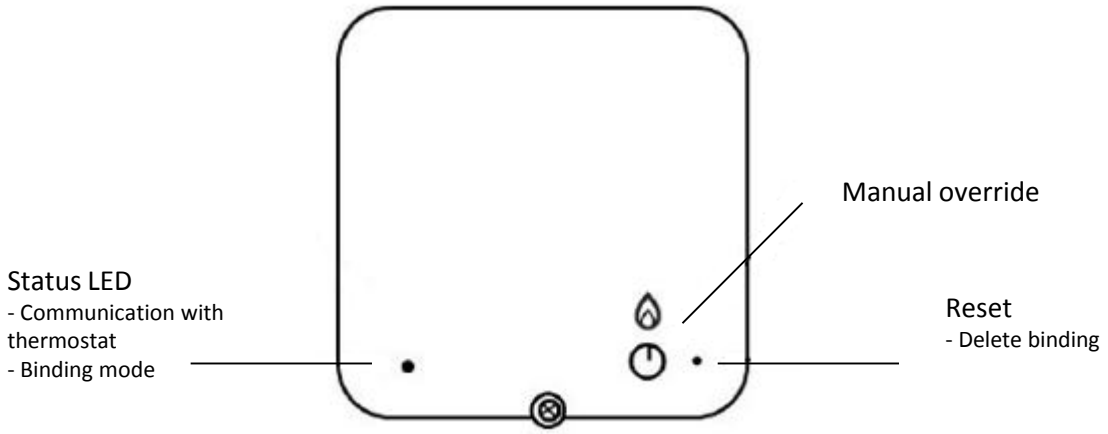


Reference to the icons:

Status Icons

- **Schedule On:** Programmed schedule is active.
- **Schedule Override:** Active until next scheduled period starts or the timed override duration has ended.
- **Schedule Off:** Programmed schedule is turned off.
- **Low Battery:** Power has reached approximately 10% - flashes when critically low (see Changing the Batteries).
- **Heat Demand:** Room temperature is below setpoint - indicating there is a demand for heating (boiler activity might occur).
- **Wireless Signal:** Thermostat (T4R only) is connected to the Receiver Box.

RECEIVER BOX INTERFACE



SPECIFICATIONS

T4/T4M/T4R Thermostat

Control form	: Fuzzy Logic
Room temperature display range	: From 0 °C to 50 °C
Dimensions (w x h x d)	: T4/T4M: 136 x 97 x 28 mm T4R (Wireless) 136 x 98 x 62 mm
Time display	: 24 hour or 12 hour AM/PM format
Time keeping accuracy	: +/- 10mins per year
Program	: 5+2, weekly or daily schedule with 4 or 6 daily time and temperature level changes
Time setting resolution	: Program – 15 minute steps
Sensing element	: 10k(@25 °C) NTC thermistor
Temperature Setting range	: Program: 5 to 35 °C OFF : 5 °C
Power	: Powered by 2 x AA batteries
Wiring	: T4(wired) and T4M (Opentherm) terminal block capable of accepting wired up to 1.5 mm^2

RF communication

RF operation band	: ISM (868.0-868.6) MHz, 1% duty cycle
Max, power	: 25mW
Protocol	: Encrypted
Comm. Range	: 30m in residential building environment
Comm. Technology	: short, high rate transmissions to minimise air time and avoid collisions
Receiver class R.E.D.	: RX Cat 2 (ETSI EN300 220-1 version 1.3.1)

Receiver box

Power	: Fuzzy Logic
Electrical rating	: From 0 °C to 50 °C
Cycle rate	: Selectable by application (see installer set up
Wiring	: Terminal block capable of accepting wires up to 1.5 mm^2
Wire access	: From back via large wall box opening. From bottom with cable clamps. Mains wiring – left Low voltage wiring - right
Dimensions (w x h x d)	: 110 x 110 x 40 mm
IP class	: 30

Environmental and standards

Operating temperature range	: 0 to 40 °C
Shipping and storage temperature	: -20 to 55 °C
Humidity range	: 10 to 90% rh, non- condensing
EMC	: 2014/30/EU
LVD	: 2014/35/EU
R&TTE	: 1995/5/EC
Wire access	: From back via large wall box opening.
ErP	: Class IV (+2%), (EU) 811/2013 (T4) Class V (+3%), (EU) 811/2013 (T4R) Class VI (+4%), (EU) 811/2013 (T4M)

Honeywell, declares that this thermostat is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU

INSTALLER MENU

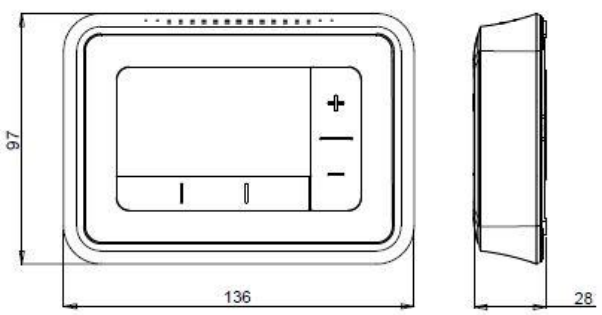
To enter the Installer menu press the ☰ button
and then + until the display changes (approx. after **3 secs**)

Specific Applications		**Setting**		**What do you need to change?**
		CpH (cycle per hour)	Minimum on Time (min)	**Note:** a. To change cycle per hour b. To change minimum ON time
Heating	Gas Boilers (30kW)	6	1	No action required
	Oil Boiler	3	4	a. Set minimum ON time to 4 minutes. b. Set cycle per hour to 3.
	Thermal Actuator	12	1	Set cycle per hour to 12.
	Zone valve	6	1	No actions required

Special Features	**Description**
Opentherm®	By connecting the T4M to an OpenTherm® appliance various specific data can be viewed. The data is depending on what the appliance is providing.
Heat range	The normal lower temperature limit of 5 °C can be increased up to 21 °C to protect the inhabitants from cold. Useful if the inhabitants include the elderly, children or disabled. The normal upper temperature limit of 37 °C can be reduced down to 21 °C to save the homeowner energy. Useful if the homeowner rents to tenants.
Schedule options	The thermostat has the 5+2 by default, however it can be change to 7 days for different schedule each day of the week or 1 day for having the same schedule during the week
External temperature sensor (only for wired versions)	An external temperature sensor can be fitted, allowing the thermostat to control the temperature from another room or space, where it is inconvenient to locate the thermostat. It will read the remote sensor every 1 minute. The sensor can be connected up to 50 meters from the unit. Useful for commercial premises where the public may tamper with the product
Optimisation (optimum start, optimum stop and delayed start)	Optimum Start: learns how long it takes your system to reach the temperature you want. It turns on the heating system earlier to make sure it's comfortable at the scheduled time. Optimum Stop: Saves energy and money by switching off a little bit earlier than the normal programmed time. If the home is up to temperature, it will not notice the effect on the temperature, but will show a difference in the fuel bill. Delayed start: Saves energy by slightly delaying the start of heating depending on the difference between the scheduled temperature and the actual room temperature.
Clock setting	Change display format (default 24hr) and adjust time and date.
Temperature offset	If the Thermostat is located in a hot/cold location and cannot be moved because of wiring then the measured/ displayed temperature can be adjusted by +/- 1,5 oC. Useful if the homeowner wants the reading to match another appliance temperature display.
Binding (only for T4R)	Menu to bind the Thermostat and the Receiver box, test the RF signal strength of the radio communication and to clear an existing binding.
Reset	Reset the thermostat back to factory default settings, reset the schedule to default.
Failsafe	When the temperature sensor fails(T4,T4M) or the radio communication between the Thermostat and the Receiver box is lost the device will cycle the demand 20% On / 80% Off

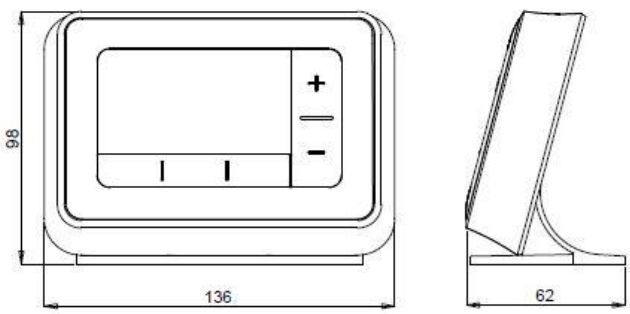
Menu item	Default	What do you need to change?
1LA:Language	1=English	1=English, 2=Dutch, 3=French, 4=German, 5= Spanish, 6=Italian
2CR:Cycle rate	6	3,6,9,12
3OT:Min on time	1	1,2,3,4 or 5 minutes
4LL:Lower Temperature	5	5 °C to 21°C
5UL:Upper Temperature	25	21°C to 35°C
6SO:Schedule options	5+2	1= 7 day (different schedule each day of the week) 2= 5+2 (weekday + weekend schedule) 3= 1 day (same schedule every day of the week)
7NP:Number of periods	4	4 or 6 number of heating periods per day
9LC:Fail safe mode	0	0= Deactivated 1= Activated
10BL:Backlight	1	0= Deactivated 1= Activated (only on demand)
11CL:Clock format	0	0= 24h 1= 12h (AM/PM)
12DS:Daylight saving time change	1	0= Deactivate Daylight saving time change 1= Automatically change time during DST
13TO:Temperature offset	0	-1.5°C to + 1.5 °C
15SD: Restore schedule	0	0 1= Reset the default schedule
16FS: Restore factory settings	0	0 1= Reset the device to factory settings

DIMENSIONS



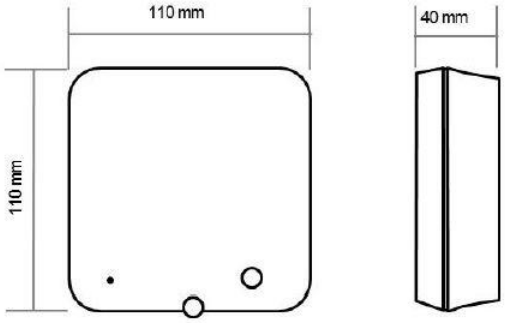
T4, T4M THERMOSTAT

WEIGHT - 260grams



T4R THERMOSTAT

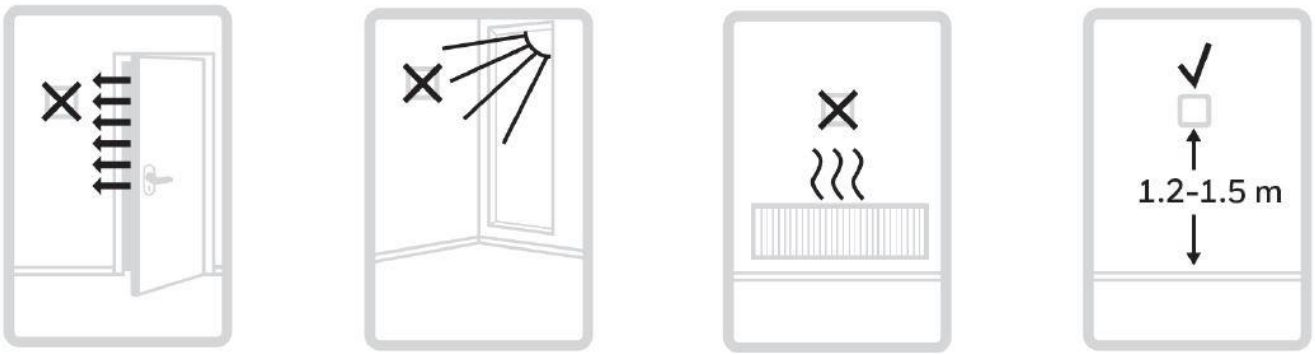
WEIGHT - 260grams



RECEIVER BOX

INSTALLATION

To ensure your safety, **always make sure mains power is switched OFF** before accessing wiring.
Before removing the old thermostat take a picture of the old thermostat's wiring as a reference then proceed to installation.



The T4 thermostat should not be placed near draughts, in direct sunlight or near heat sources. It should be at least 1.2 - 1.5 meters from the floor.

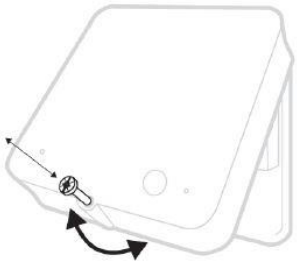
Prepare Receiver Box (T4R only)

Needed during installation:

- Cable with 2 wires from boiler to Receiver Box (R4H910RF1004).
- The Receiver Box requires 230V power.

Find a suitable location near the boiler. Leave at least 30cm distance from any metal objects including wall boxes and boiler housing.

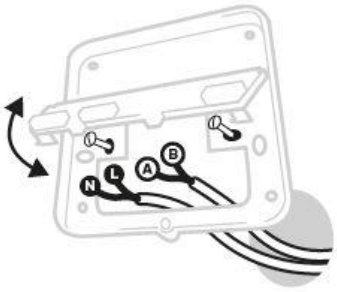
Loosen the front screw to remove cover or tighten it when the cover is back in position.



Install Receiver Box (T4R only)

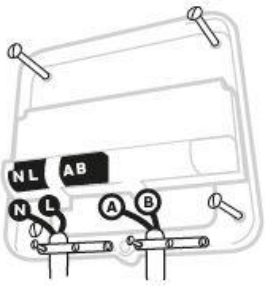
A. Wall box or Rear wiring

Hinge open the terminal block flap to access the cables and wall box screw holes



B. Surface wiring

Hinge open the terminal block flap to access the cables and wall box screw holes

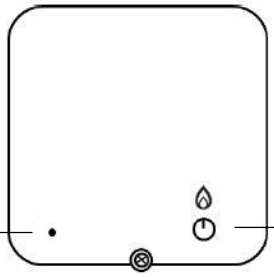


C. Replace cover

Locate the hinges at the top of the cover and wall plate, close the cover and secure with the screw.

Complete installation(T4R)

Turn mains powers ON to the heating application and the receiver box



After powering up both devices the status LED should be steady GREEN

Press the manual override to check if the boiler switches ON. The button LED lights should light GREEN

Install Thermostat(T4 and T4M only)

A. Wall plate

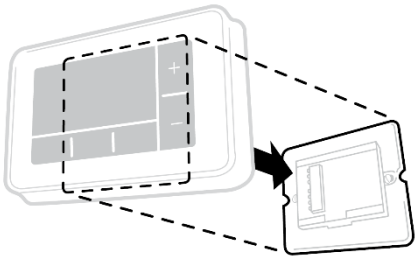
Using a screwdriver open wall plate terminal cover to connect wires.

B. Surface wiring

Connect wires according to wiring diagrams and clip the cover closed.

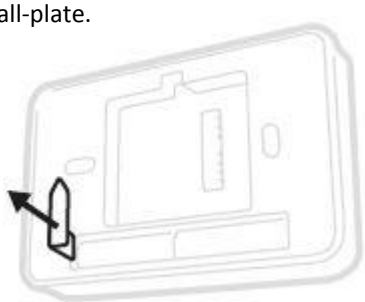
C. Place thermostat

Attach the thermostat to the wall plate when finished



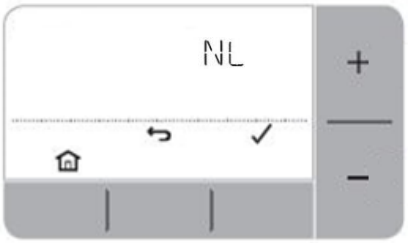
Power Up the Thermostat (T4 and T4R only)

Remove the battery tab and clip the thermostat onto the wall-plate.

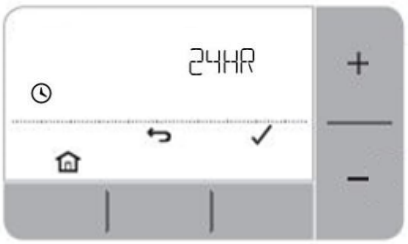


Setup and Configuration

After power up, the language selection is displayed on the thermostat's screen.



Press **+** or **–** to select language and press ✓ to confirm



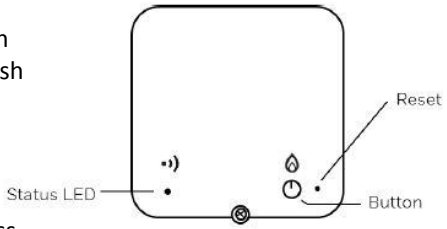
Press **+** or **–** to set date, time and clock format and press ✓ to confirm

BINDING(T4R only)

The T4R thermostat wireless kit comes pre-bound from the factory.
The binding operation described below is only required if:

- The T4 thermostat or the Receiver box is replaced
- The T4 thermostat or the Receiver box has incorrect or no binding data stored

To bind/rebind

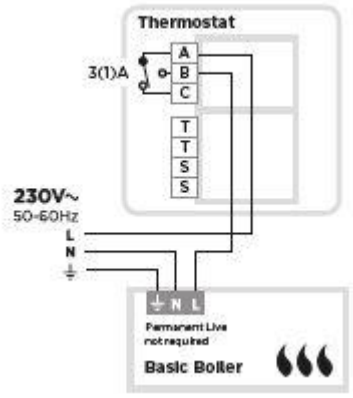


Note: When the Receiver box has been bound before, first press with a small pin the pinhole for approximately 3 seconds to reset the binding, LEDs will flash amber for a moment.

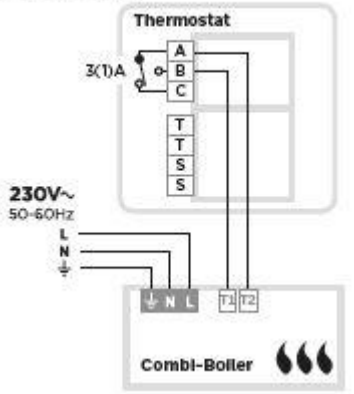
1. Put the Receiver box into binding mode by pressing the button for 3 secs.
   The LED will flash amber.
2. Enable binding on thermostat:
   Enter binding menu by pressing and hold the ☰ for 3 secs and the press the **–** button.
   Change parameter 14A to 1 and press ✓ to confirm
3. When binding is successful:
   The ▪)) will appear on the thermostat's screen.
   The Receiver box status LED will show steady green

WIRING (T4 and T4M only)

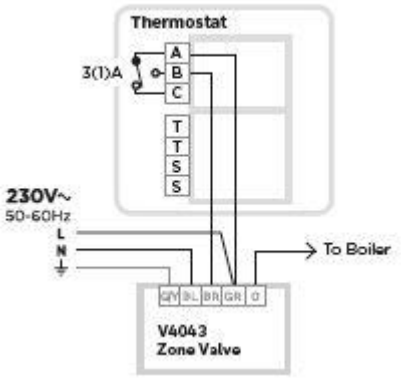
Basic 230V Boiler



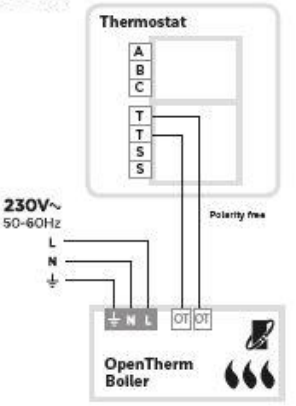
Combi-Boiler



2-Port Zone Valve

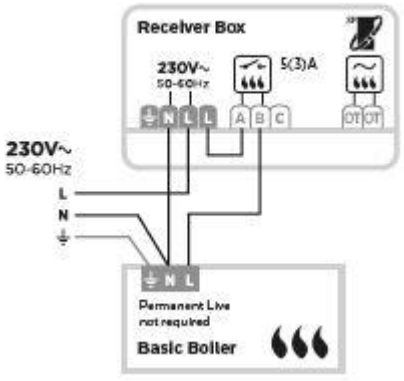


OpenTherm Boiler

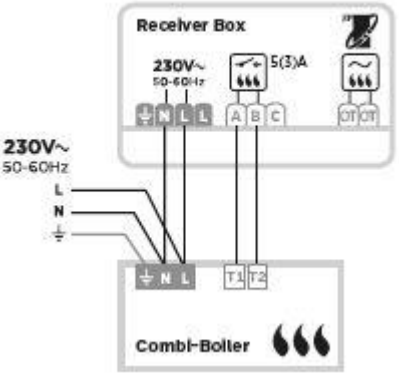


WIRING (T4R only)

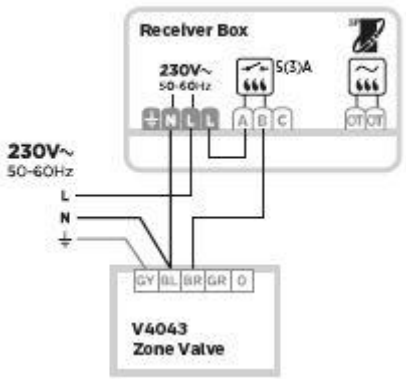
Basic 230V Boiler



Combi-Boiler



2-Port Zone Valve



TROUBLESHOOTING – T4 and T4M only

Problem Display	**Possible Cause**	**Remedy**
Thermostat display is blank	Batteries exhausted, installed incorrectly or tab hasn't been removed	Unclip thermostat from wall and check battery installation - replace batteries if necessary
Display shows ⚠ 🔋 (only for T4)	Battery power critically low	Unclip thermostat from wall and replace batteries immediately
Display shows ⚠ – –	Faulty temperature sensor	Replace thermostat or check wiring to remote temperature sensor if fitted
Thermostat shoes heat demand 🔥 but boiler doesn't respond	a. Boiler water already at temperature b. Faulty wiring connection	a. Normal behaviour – wait for water temperature to drop b. Check wiring at thermostat and boiler terminals

TROUBLESHOOTING – T4R

Problem Display	**Possible Cause**	**Remedy**
Thermostat display is blank	Batteries exhausted, installed incorrectly or tab hasn't been removed	Pull thermostat from wall bracket or table stand and check battery installation - replace batteries if necessary
Display shows ⚠ 🔋	Battery power critically low	Pull thermostat from wall bracket or table stand and check battery installation - replace batteries if necessary
Display shows ⚠ – –	Faulty temperature sensor	Replace thermostat or check wiring to remote temperature sensor if fitted
Thermostat shoes heat demand 🔥 but boiler doesn't respond	a. Boiler water already at temperature b. Faulty wiring connection	a. Normal behaviour – wait for water temperature to drop b. Check wiring at thermostat and boiler terminals
Thermostat displays shows ⚠))) and Receiver Box))) LED is flashing RED	Wireless communication with Receiver Box is lost	Move thermostat to a location where wireless communication is reliable
Thermostat displays shows ⚠))) and Receiver Box))) LED is flashing OFF	Thermostat and Receiver Box not bound	Move thermostat to a location where wireless communication is reliable
Receiver Box))) LED is flashing ORANGE	Receiver Box is in bind mode	Wait for bind mode to time out (3min) or bind a Thermostat

ORDERING SPECIFICATION

Description	**Model**	**EAN code**	**Literature**
T4 wired thermostat	T4H110A1023	5025121380935	All packaging contains 3 languages:, Dutch, French and German
T4 wired thermostat for OpenTherm boilers	T4H310A3032	5025121381208	
T4 wireless thermostat	Y4H910RF4004	5025121380928	

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