Honeywell Home Thermostats



T6RWP - Smart thermostat

Wireless wall-powered

The **T6RWP** smart thermostat is designed is for wall mounted installations and works wirelessly with the Receiver module (single or 2-channel version).

It provides automatic time and temperature control of heating and optionally stored Hot water systems in homes and apartments.

The T6RWP consist of a thermostat and in wall power module, which fits in a standard wall box.

The thermostat has a high contrast PMVA display with dynamic text line and touch screen buttons. The thermostat has a simple programming philosophy to make it easier to install and very user friendly.

The T6 is ideal for consumers who want to control their comfort and hot water remotely and is based on a modern design, which is simple to program and easy to use.

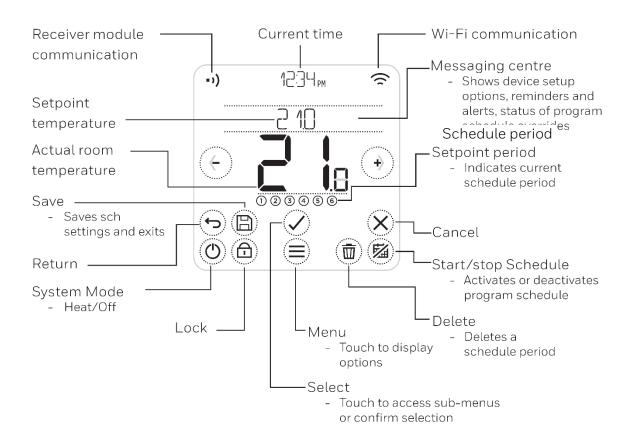


FEATURES & BENEFITS

- Attractive, ultra-modern styling makes it ideal for any location in any type of home.
- Wall mounted thermostat to fit a new and replacement installations were 230V is available.
- For control of central heating and optionally stored hot water systems.
- Wi-Fi communication to connect to the Internet
 - Smart Home and Apple HomeKit ready
- Honeywell Home mobile App for:
 - Remote view and change of settings of heating and hot water
 - Schedule changes
 - Smartphone Geolocation temperature control
- A dynamic text display on the LCD that gives enhanced feedback to the user / installer.
- High LCD Contrast and backlighting for easier viewing in all light conditions.
- Time out screen with selectable brightness
- Heating control:
 - Factory programmed daily or 5+2 default schedule
 - Schedule with up to 6 independent time and temperature pairs to suit the comfort needs.
 - "Hold until" temperature override of programmed schedule temperature till the next switch point.
 - Schedule off mode for manual operation.
 - Setpoint and room temperature always displayed.
 - OFF position has an integral frost protection setting at minimum 5°C so that pipes in the house will never freeze in winter.

- Hot water control (optional):
 - Factory programmed daily or 5+2 default schedule.
 - Schedule with up to 3 ON periods per day to suit the comfort needs.
 - Hot water Boost function for temporary override
- Alert messages to assist in fault-finding.
- Works wirelessly with standard Receiver module and 2channel Receiver box.
- Requires to be bound with a Receiver box
- User menu allows extra functions to be set at the discretion of the user:
 - Language selection
 - Wi-Fl setup
 - Optimisation
 - Clock setting
 - Resetting the heating program to factory default
 - Brightness
 - Temperature offset
 - Lock function
- Advanced menu (Installer Set-Up) allows extra functions to be set at the discretion of the installer to match the consumer's applications and needs:
 - Language selection
 - System type
 - 5+2 or daily schedule option
 - Upper / Lower Set point Limit Adjust
 - Minimum ON time
 - Cycle rate
 - Factory Reset
 - Binding (wireless version)

Thermostat Display/button Layout



Reference to the icons:

- Geofencing active
- **☆** Geofencing away active
- Geofencing sleep active
- Optimisation active
- **Schedule disabled**
- Temporary Hold active

- ♠ Heating demand active
- 🧞 Hot Water Enabled
- 🗘 Heating Mode
- XX Cooling Mode
- •1) Receiver module communication
- \bullet) $_{\times}$ Communication failure
- Wi-Fi communication
- X Wi-Fi failure

Technical Specifications

T6RWP Thermostat

Control form : Adaptive Fuzzy Logic Room

Temperature display range : From 0°C to 50°C

Dimensions $(w \times h \times d)$

: T6RWP (wireless) 103 x 103 x 68 mm

Time display

: 24 hour or 12 hour AM/PM format

Time keeping accuracy

: Synchronized with Internet when connected or typically better than 10

minutes per year

Program Heating

: 5+2 or daily schedule with 6 daily time and temperature level changes

Program Hot water

: 5+2 or daily schedule with 3 ON periods

per day

Time setting resolution

: Program - 10 minute steps

Sensing

: 100K (@ 25°C) NTC thermistor

element

Temperature : Program : $5 \text{ to } 37^{\circ}\text{C in } 0.5^{\circ}\text{C steps}$

setting range

:5°C

OFF

Power : 5VDC

RF communication

RF operation

: ISM (868.0-868.6) MHz, 1% duty cycle

band

Max. power : 25mW

Protocol : Encrypted

: 30 m in a residential building Comm. Range

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)

RF binding

method

: Factory pre-bound

Wi-Fi

: IEEE 802.11b/g/n - 2.4GHz

Max. power : 100mW ACC900 In-wall power module

: 230VAC Power

Output 5VDC

Max. 650mA

Wiring (230V) : Terminal block capable of accepting

wires up to 1.5 mm²

Wiring (5VDC) : 10 cm cable with 2 wires.

 $49 \times 52 \times 27 \text{ mm} (w \times h \times d)$ Dimensions

IP class : 30

Environmental and standards

Operating : 0 to 40°C

temperature range

Shipping and storage: -20 to 55°C

temperature

Humidity range : 10 to 90% rh, non-condensing

Receiver Category 2 868.3MHz Max RF Power 25 mW

Operating frequency : 868-868.6MHz

Wi-Fi : 2.4GHz Max Power 100mW

Operating frequency: 2.4-2.458GHz

ErP : Class V (+3%), (EU) 811/2013

Hereby, Pittway Sarl declares that that the radio equipment type T6H700RW is in compliance with

Directive 2014/53/EU.

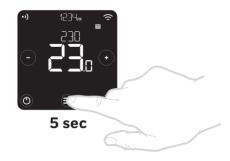
The full text of the EU declaration of conformity is available at the following internet address:

https://hwllhome.co/DoC

Advanced menu

To enter the Advanced menu (installer set-up):

Press the menu key for 5 seconds.



Menu item	Default	Options	
Language	English	English, Francais, Espanol, Deutsch, Nederlands, Italiano	
System type	Heat + H/W	Heat only, Heat + H/W	
OpenTherm	-	OpenTherm boiler data when a vailable	
Cycle rate	6	3,6,9 or 12	
Min on time	1 minute	1, 2, 3, 4 or 5 minutes	
Heat range	Min = 5.0 Max = 37.0	Min: 5.0°C to 21.0 °C, Max:21.0°C to 37.0 °C	
Schedule options	Daily	1 = daily schedule, 2 = 5+2 days schedule	
Optimisation	Opt.start on Opt.stop off	Opt start: 0 = off, 1 = on, 2 = Delayed start Opt stop: 0 = off, 1 = on	
Clock	Format: 24h Time:: Date: 01/09/2016	Clock format: 1 = 12h, 2 = 24h Setup time and date	
Low Load Control	ON	0= Off, 1 = On	
Temperature offset	0.0	-1.5°C to 1.5 °C	
Bind	-	Bind, check RF and clear bind.	
Adv Reset	-	Factory, schedule, Wi-Fi and Homekit reset	
Failsafe	OFF	0= Off, 1 = On	

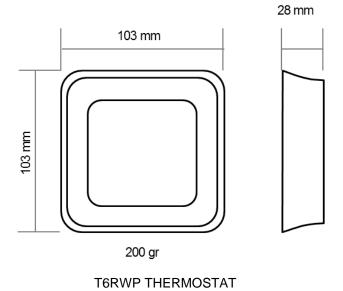
Specific Applications			Setting	What do you need to change?	
		Cycle/ Hour	Minimum ON time (in minutes)	Note: a. To change Cycle/Hour, b. To change Minimum ON Time,	
Heating	Gas Boilers (<30KW)	6	1	No action required	
	Oil Boiler	3	4	 Set Minimum ON Time to 4 minutes. Set Cycle/Hour to 3. 	
	Thermal Actuator	12	1	Set Cycle/Hour to 12.	
	Zone valve	6	1	No action required.	

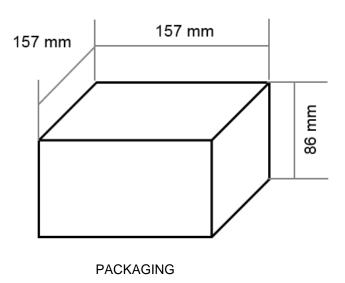
Special Features	Description	
System Type	When bound to a 2-channel receiver box the system type can be set: Heating only, Heating + Hot Water	
OpenTherm	If the Receiver box is connected to an OpenTherm appliance various appliance specific dat can be viewed. The data displayed is depending on what the 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 conditions. This is a useful feature aimed at supporting the elderly, children and disabled inhabitants. The normal upper temperature limit of 35 °C can be reduced down to 21 °C to save energy. This feature is useful for leased homes and apartments.	
Schedule options	The thermostat has 2 default schedules: daily (every day) and 5+2 (week + weekend days)	

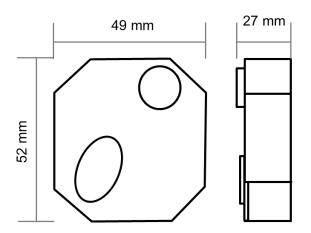
Special Features	Description	
Optimisation (optimal start, optimal stop and delayed start)	Optimal Start: learns how long it takes your system to reach the programmed temperature. It turns on the heating system earlier to make sure it's comfortable at the scheduled time. Optimal Stop: Saves energy and 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. When connected to Internet time and date will be synchronized	
Low Load Control	If the Receiver box is connected to an OpenTherm appliance this setting is used in the demand control. When an appliance is no longer able to modulate lower the control switches from modulating control to low/off control.	
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 °C. This feature is useful if the homeowner wants the reading to match another appliance temperature display.	
Binding	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	Menu to reset the thermostat back to factory default settings, reset the schedule to default settings, reset the Wi-Fi and Homekit settings.	
Failsafe	When the radio communication between the Thermostat and Receiver box is lost for longer than 1 hour the Receiver box will start to cycle the demand 20% on / 80% off.	

Advanced menu item	Default	Data / Options	
OpenTherm	Submenu (read only)	- Low Load Control - Control Setpoint → Requested supply temperature - Supply Water Temperature → Actual supply water temperature - Return Water Temperature → Actual return water temperature - Max Supply Water Temperature - Hot water Temperature → Actual hot water temperature - Hot Water Setpoint - Actual Power → Actual power of appliance - Water Pressure	
Hot Water Overnight	1	0= OFF, 1 = ON	
Hot Water Setpoint	60	30 tot 75 °C (appliance depending)	
Max Supply Water Setpoint	90	30 tot 90 °C (appliance depending) - future	
Low Load Control	1	0= OFF, 1 = ON	

Dimensions







ACC900 IN-WALL POWER MODULE

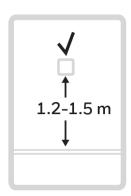
Installation

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 T6RWP 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.

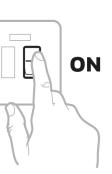
Needed during installation:

- Wall box with minimum depth of 40 mm and with 230V cabling (neutral and line)
- An installed Receiver Box (single or 2-channel version)

Install thermostat

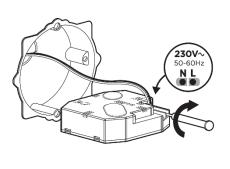
A. Power off

First make sure the power is turned off!



B. Power module

Connect the 230V power wires to the power module.



C. Wall plate

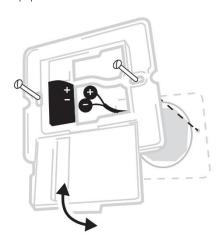
Using a screwdriver open wall plate terminal cover to connect wires.



D. Wiring wall plate

Connect thermostat wires to the terminals:

red to + and black to -

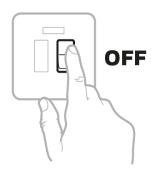


E. Place thermostat

Attach the thermostat to the wall plate when finished.

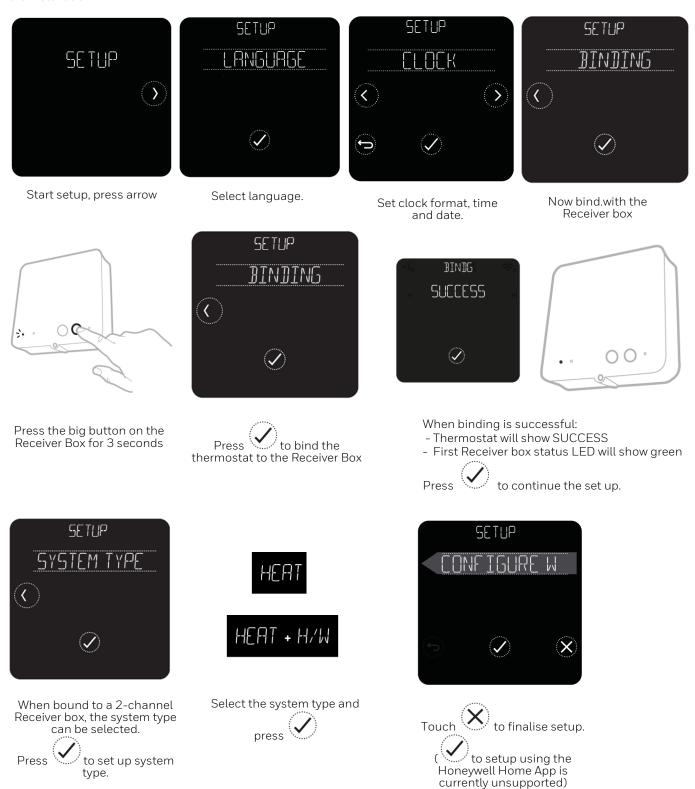


F. Power on Turn power back on



Complete installation - Setup, Configure and Binding

After power up of the T6RWP thermostat the SETUP screen is shown and the following steps need to be done to complete the installation.



Once setup is completed go to the advanced menu to change application specific changes.

BINDING

The T6RWP Smart Thermostat wireless thermostat comes unbound from the factory and binding is required during installation (see previous page).

The binding operation described below is only required if:

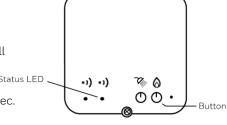
- The T6RWP thermostat or Receiver box is replaced.
- The T6RWP thermostat or Receiver box has incorrect or no binding data stored. Thermostat will indicate the Alert message: NO RECEIVER BOX BINDING

 - Receiver box status LED remains green blinking (no communication from thermostat)
 - Receiver box status LED does not light up (not bound).

To rebind

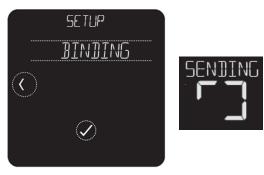
Note: When the Receiver box has been bound before first press with a small pin the pinhole for approximately 3 seconds to reset the binding. All LED's will flash amber for a moment.

Put the Receiver box into binding mode by pressing the Heat button for 3 sec. - The first LED will flash amber



- Enable binding on the thermostat:
 - Enter the advanced menu by pressing the button for 5 sec.

 - Navigate to BINDING
 Select BIND and the signal will be sent



- When binding is successful:
 - Thermostat will show SUCCESS
 - First Receiver box status LED will show green



When binding is **NOT** successful:

- Thermostat will show FAILED
- Receiver box will exit binding after 3 min.

RF communication might be too far or is blocked due to wrong location of the Thermostat or Receiver box. Try to move closer or re-locate and re-bind again.

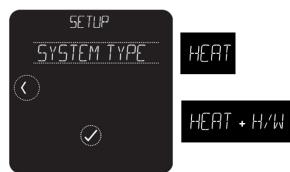


System type setting (optional)

After binding with a 2-channel Receiver box the System type of the thermostat can optionally to be set to enable heating and also hot water control.

- In the Advanced menu navigate to System Type.

 - Select Heat for only heating or 2 zone control
 Select Heat + H/W for heating and hot water control
- Exit the Advanced menu and the binding and setup is complete



Trouble Shooting

Symptom (Fault message)	Possible Cause	Remedy	
The Receiver box button LED is green but the heat or hot water does not switch on.	Heat or hot water wiring might be incorrect or broken	Check the Receiver box wiring	
The status LED on the Receiver box is red (Communication loss)	The Receiver box receives no communication from the thermostat: RF communication might be too far or is blocked due to Receiver box location. Thermostat is no longer powered.	Try to move thermostat or Receiver box closer or re-locate. Check the power to the thermostat	
Thermostat alert messages			
WIFI RADIO ERROR	The Wi-Fi radio of thermostat is faulty.	Replace thermostat	
INTERNAL MEMORY ERROR	The internal memory of thermostat is faulty.	Replace thermostat	
INJOOR TEMPERATURE SENSOR ERROR	(wired only) The external temperature sensor is not connected or the wiring is faulty.	Check external sensor wiring and sensor	
NO COMMUNICATION RECEIVER BOX	The thermostat receives no communication from the thermostat: RF signal is blocked due to the location of the thermostat. Receiver box is no longer powered.	RF communication might be too far or is blocked due to the location of the Thermostat or Receiver box. Check the power to the Receiver box	
RF SIGNAL OFRECEIVER BOX LOW	There is a weak radio signal from the Receiver box	Try to move thermostat or Receiver box closer or re-locate.	
NO RECEIVER BOX	The thermostat is not bound with the Receiver box	Bind or re-bind the Receiver box	
ND INTERNET	Thermostat has no longer Internet connection.	End user needs to check their Internet connection via router.	
NO WIFI SIGNAL	Thermostat has no longer a Wi-Fi connection.	End user needs to check their Wi-Fi network of router.	
REGISTER ONLINE	Thermostat is connected to Internet but not yet registered to an account.	End user needs to download the App, create an account and register the thermostat.	
WIFI NOT CONFIGURED	Thermostat is not connected to Wi-Fi network.	End user needs to download the App, create an account, connect and register the thermostat.	
BOILER FAILURE FAULT XX	The OpenTherm boiler reported a failure number XX.	Check the boiler	
BOILER LOW WATER PRESSURE	The boiler reported low water pressure.	Fill up the hydronic system with water.	

Ordering specification

Description	Model	EAN code	Literature
Smart Thermostat wall powered	T6H700RW5001	5025121380027	http://hwllhome.co/eut-T6

For more information: Phone: 0300 130 1299

200 Berkshire Place Winnersh Triangle, Berkshire RG41 5R



homecomfort.resideo.com