



USER GUIDE





Helpdesk:
Tel: 01-568 8091
9am - 5pm | Monday - Friday
www.unithermhs.ie

21st Century Heating Solutions by Hitachi. Time for a Change.....

With the ever-increasing awareness of climate change, Hitachi has launched a range of renewable heating solutions for homes called Yutaki Air to Water Heat Pumps.

Hitachi has developed simple to install, simple to commission and most importantly simple to operate units that are of the highest quality, efficiency and have low noise levels - so we think we have ticked every box!

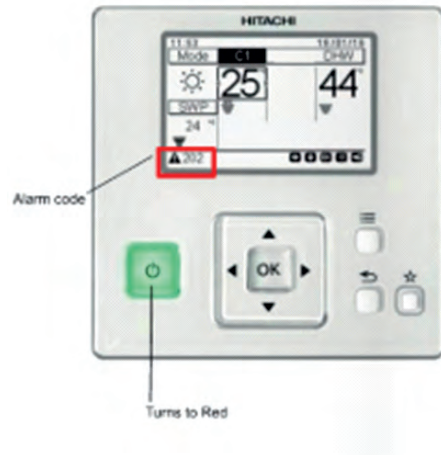
The outdoor heat pump unit in your garden collects free energy from the air, even at temperatures of -20 Degrees. This free energy is converted to heat energy via a refrigeration circuit and is fed through insulated copper gas pipes to the indoor unit, which is then distributed to the downstairs via Radiators/Under Floor Heating (UFH) and upstairs via Radiators and of course the Hot Water tank which is within the indoor unit.

Hitachi is one of the world's largest producers of heat pumps and have a brand that people around the world know and trust. Enjoy.....



IMPORTANT POINTS TO NOTE:

- Your heat pump should be serviced annually in order to maintain the manufacturer's warranty.
- If your heat pump does show a fault code please contact Unitherm helpdesk at 01 5688091 or www.unithermhs.ie (please have the fault code and serial number of outdoor unit available) and the fault will be diagnosed. If the fault is a system fault and not a problem with your heat pump – you will be advised accordingly.
- Any heat pump issues that cannot be resolved over the phone and are not a product warranty issue will be subject to a call-out charge.
- Reported warranty failures will be processed within 24 hours (Mon – Fri).
- Unitherm can provide annual maintenance contracts for your heat pump – log on to www.unithermhs.ie
- Heat pump technology is NOT like a gas or oil boiler of old.
- Your radiators will NOT get very hot – they will get warm and cold as the outside temperature changes. This is done automatically and you do not have to adjust anything to achieve this.



Air Source Heat Pump (Outdoor Unit)

WHAT DOES WEATHER COMPENSATION MEAN ?

The Hitachi Heating system has a built-in intelligent management control that works on Weather Compensation.

The Heating System will automatically work to maintain a constant indoor temperature based on the settings of the Thermostats upstairs and downstairs. Thanks to the strict new building regulations in Ireland, all new houses are highly insulated, therefore it retains the heat easily, resulting in a warm, comfortable living environment.



S-Combi Hot Water Storage (Indoor Unit)



Thermostatic Radiator Valve (TRV)



Thermostat



Filling Loop



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Things you should know about your Heating System:

1. Should I adjust the controls?

- a. **Only** to increase and decrease house temperature
- b. **Only** to boost hot water

2. How do I increase temperature on Ground Floor ?

- a. If radiators - Turn the room thermostat up to desired temp
- b. If UFH - Turn Hitachi controller thermostat up to the desired temp

3. How do I increase temperature on the First Floor ?

- a. If radiators - Turn the room thermostat up to desired temp

4. Can I adjust The Temperature in Each Bedroom?

- a. Yes if Thermostatic Radiator Valves (TRV) installed. (see image page 3)

5. Why are my radiators sometimes warm and sometimes cooler?

- a. The outdoor temperature influences how hot/cold the radiators are
- b. As it gets warmer outside the radiators will get cooler
- c. As it get colder outside the radiators will get warmer

6. How Hot will the radiators get ?

- a. Your radiators will **NOT** get very hot – they will get warm and cold as the outside temperature changes. This is done automatically, and you do not have to adjust anything to achieve this.

7. Alarm Codes: Easily Resolved Issues

- a. 007 - Low system flow - possible air lock or dirt in the filter or all the radiators have been turned off manually
- b. 083 - Low pressure in the heating system - system needs to be topped up by letting in water in via filling loop. (See image Page 3)
- c. 003 - Outdoor unit may be turned off or breaker may have tripped

8. Alarm Codes: Others

- a. ALL OTHER ALARMS CODES Contact the Helpdesk

9. How do I boost hot water?

- a. Press the "STAR" button once to boost to 60°C

10. What is the Defrost Cycle:

- a. The outdoor unit will defrost during cold weather and when it restarts it will expel a plume of steam (Not smoke) from the outdoor unit

11. Can I turn system off if going on holiday?

- a. Yes – Press the On/Off Button (4)

12. Electricity bills and what to expect:

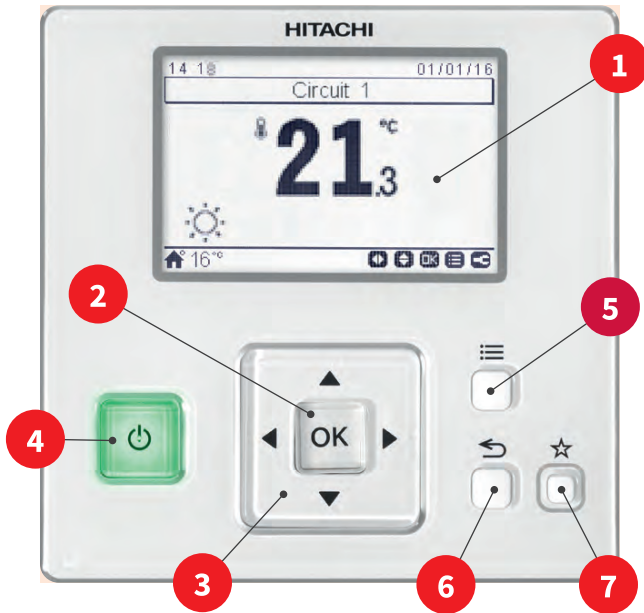
We recommend researching Utility provider options as Electricity tariffs can vary significantly from the various companies and can have a sizeable effect on Annual Electricity bills. Recommended Site: www.switcher.ie

13. Do I need heat pump serviced?

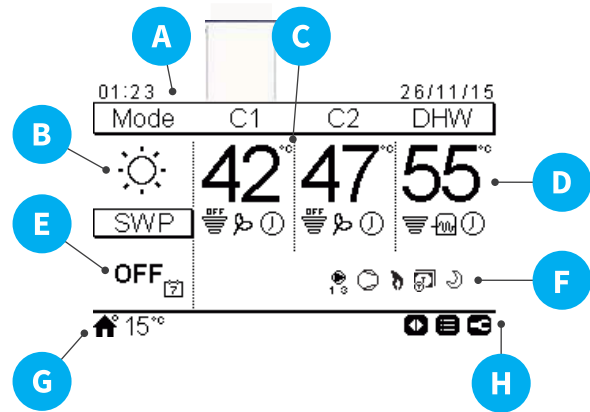
- a. To maintain Manufacturers warranty, an annual maintenance check by a Unitherm/Hitachi approved service technician is required. www.unithermhs.ie

14. What's the warranty and what's covered.

- a. 5 Years Manufacturers Warranty (T&C's apply)



1. LCD SCREEN
2. OK / CONFIRM BUTTON
3. NAVIGATION / SELECTION BUTTONS
4. ON / OFF BUTTON
5. MENU BUTTON
6. RETURN/ ESCAPE BUTTON
7. STAR BUTTON



- A. TIME AND DATE
- B. OPERATION MODE
- C. CONTROL OF CIRCUITS 1 AND 2
- D. DHW CONTROL
- E. SWIMMING POOL CONTROL
- F. UNIT STATUS SIGNALS
- G. OUTDOOR TEMPERATURE / ALARM INDICATION
- H. AVAILABLE BUTTONS / INSTALLER MODE

A. TIME AND DATE

The current time/date information is displayed. This information can be changed on the configuration menu.

**B. OPERATION MODE
(HEATING COOLING/AUTO)**

This icon shows the unit's mode of operation status. To edit press the OK button, and it can be switched between Heating, Cooling and Auto mode (if available option).
ECO/Comfort: Selection between ECO and Comfort mode

C. CONTROL OF CIRCUITS 1 AND 2

Displays the setting temperature calculated for each and an icon indicating the percentage of the temperature with respect to the setting temperature. It also shows the ECO mode and timer activation if they are enabled.

Pressing the OK button, the following quick actions are shown:

Timer: In this menu, simple timer or schedule timer can be selected and configured.

OTC: OTC Setting temperature (user can only refer to the OTC mode and its setting temperature value)

D. DHW CONTROL

Displays the setting temperature for DHW (Domestic Hot Water) and an icon indicating the percentage of the actual temperature with respect to the setting temperature. The setting temperature can be modified using the arrows keys over this view.

Pressing the OK button, the following quick actions are shown:

- Timer: In this menu, simple timer or schedule timer can be selected and configured
- DHW boost: Activates the DHW heater for an immediate DHW operation

Status: Some working conditions can be consulted. If any legionella operation is working, its icon appears below the setting temperature. Your User Interface Explained

F. UNIT STATUS SIGNALS

This part of the screen displays all the notification icons that offer general knowledge on the unit's situation.

These icons might be:

- Defrost operation, Water pumps, Compressor/s, Boiler working, Tariff input, Test run...

G. OUTDOOR TEMPERATURE / ALARM INDICATION

In normal operation, the outdoor temperature is displayed besides the home icon signal. In abnormal operation, the alarm icon is indicated with its corresponding alarm code.



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User Interface Explained

Home Screen

C1 is heating circuit 1. The figure below C1 is the target water flow temperature. C2 is the target flow temperature for heating circuit 2 (this will only show on the screen if there are 2 Heating circuits).

The figure below DHW is the target temperature for hot water. It can be adjusted by using the arrow keys to highlight the figure and use the up or down arrow to increase or decrease temperature.

The 'on/off' button can turn everything on or off, or by using the arrow keys turn individual settings off e.g. turn the heating off (C1) and keep the hot water on.

***This is useful during particularly hot weather.**

If the unit is on – either heating or hot water or both, and the power light is green, there are no detected alarms. If the on / off light is red, the unit has stopped because it has detected an alarm code which will show at the bottom left hand side of the screen.



Eco Mode

In this menu you have the choice to set the heating to be off completely at certain times or on Eco mode. On Eco mode the desired room temperature will be 3.0°C below the current room temperature that has been set for the period that it is set to Eco mode.

Holiday Mode

Holiday mode can be used to keep your system running at lower flow temperatures to reduce power usage while you are away. Holiday mode can run flow temperature, room temperature, heating, compensation curve heating and DHW at reduced flow temperatures to save energy.

Once the Holiday mode activation screen is displayed, you can activate/deactivate and select the duration of time to run Holiday mode.





Hot Water Boost (Temporary)

The default setting for hot water is 48°C. This is sufficient for normal hot water usage. Should you require more hot water at a particular time (lots of showers etc.) you can 'BOOST' the temperature of the hot water temporarily.

To do this you simply press the 'STAR BUTTON (7)'. This will boost the temperature of the hot water to 60°C using the immersion. Once the temperature of the hot water stored in the cylinder reaches 60°C this mode will automatically stop and the system will return to "Normal" mode afterwards by itself.

Please Note: as this uses the immersion heater – you may incur extra running costs if this boost function is used often.

Your hot water schedule has been programmed during commissioning for all day comfort and efficiency in a family home. Please do not adjust settings, if the schedule is not suitable, contact our Technical team.



Thermostat

The controller can also be configured as a thermostat.

(Note: this is not usually the case, most systems will have separate thermostats and the controller will be simply, the heat pump controller). Your Installer can advise accordingly.

When the controller is configured to be a thermostat you can scroll between the home screen and the thermostat screen by pressing the return key you will scroll .

To change the temperature use the arrow keys to increase or decrease the desired room temperature. The controller will flash the desired room temperature, then revert back to the actual room temperature e.g. 21.3°C as shown.



Detailed Timer

(Only an option when the controller is used as a 'Thermostat')

To access the timer, simply highlight 'Circuit 1' and press the 'Ok' button, then select 'Timer'.

Here you can set different temperatures or on /off periods at different times of the day, 7 days a week.

***This timer is also available on the DHW (domestic hot water section)**



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Common Alarm Codes & Resolutions

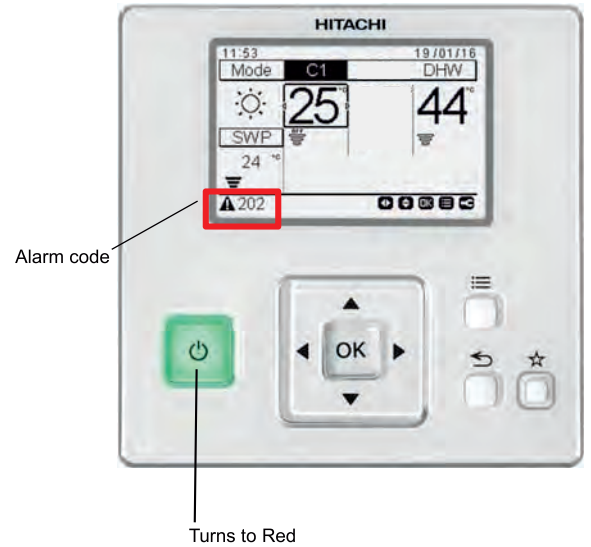
Alarm Display

In the unlikely event that the system detects an abnormality in operation conditions, it will cease operating to protect the unit an alarm code will be displayed.

The alarm code is displayed in the bottom left hand corner of the 'User Interface'. In addition, the 'Power Button' will illuminate red whilst the unit is in an Alarm state.

Power Supply Failure

In the event of a power supply failure all displays disappear. If the unit stops due to a power shortage, it will not start again, even though the power comes back on. Carry out the start-up operations again. If the power failure lasts less than 2 seconds, the unit will start again automatically.



Status: Level of the desired water outlet temperature status for circuit 1 & DHW.



Mode: Sun symbol = Heating, frost symbol = Cooling, half & half symbol = Auto



Alarm:
(will have a code attached)



Timer:
🕒 Simple Timer 📅 Weekly Timer



Installer Mode: indicates that the controller is in installer mode.



Menu Lock: appears when menu is blocked from a central control.



Outdoor Temperature:
Indicates outdoor ambient air temperature.



Pump:
Indicates which pump is running.



Compressor:
Indicates that the compressor is enabled



Defrost:
Indicates that the defrost function is active'



DHW Boost: Activates the DHW heater for an immediate DHW operation



ECO Mode:
ECO/Comfort mode for circuits 1 & 2

CODE

070

DETAIL OF ALARM

Hydraulic alarm flow & Water Pump malfunction

POSSIBLE CAUSE

Water flow is not detected in the hydraulic cycle.

ACTION

Check system pressure is between 1 – 1.5 bar (refill using filling loop [see below image]).

If the issue persists contact your installer.



Thermostat Settings (Slimline)

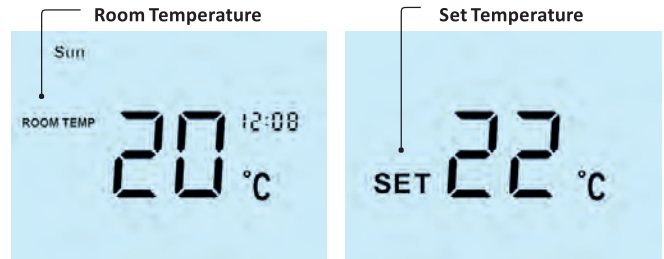
1.



2.

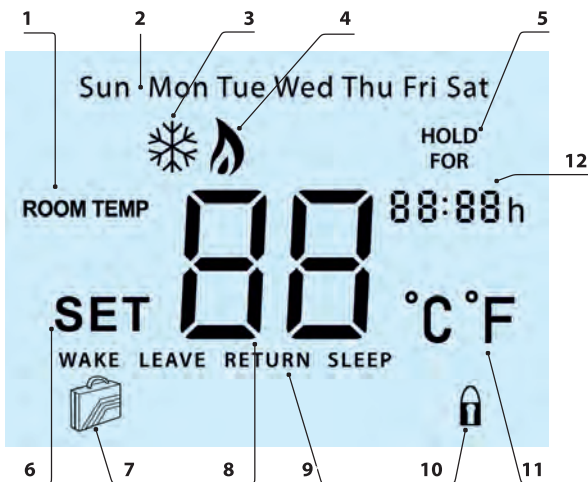
°C Temperature Display

The temperature display information is driven by two different inputs; the sensor measurement and the target temperature you have set.



This is the current room temperature. This is the temperature you are trying to achieve in your home.

3.



4.

LCD Display

1. Room Temp - Indicates the current temperature sensor mode.
2. Day Indicator - Displays the current day.
3. Frost Icon - Displayed when the thermostat is in frost protection mode.
4. Flame Icon - Displayed when the thermostat is calling for heat, the flame icon will flash when the optimum start function is in operation.
5. Temperature Hold - When a Temp Hold is active, HOLD FOR and the remaining time period is displayed.
6. Set - Indicates when changes are being made to programs or temperature set points.
7. Holiday Indicator - Displayed when the thermostat is in holiday mode.
8. Current Temp - Indicates the current sensor temperature.
9. Program Cycle Indicator - Displayed during programming only to show which period is being altered.
10. Keypad Lock Indicator - Displayed when the keypad is locked.
11. Units of Temperature - Degrees Celsius or Fahrenheit.
12. Clock - Digital clock display in 24h format.

5.

°C Temperature Control

The Up/Down keys allow you to adjust the set temperature

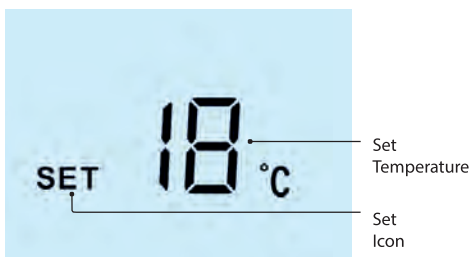
When you press either key, you will see the word SET and the desired temperature will be displayed on screen.

Use the Up/Down keys to adjust the SET value

Press A to confirm settings and return to main display.....

Note: In programmable mode, this new temperature is maintained only until the next programmed comfort level.

In non-programmable mode, this temperature will be constantly maintained.



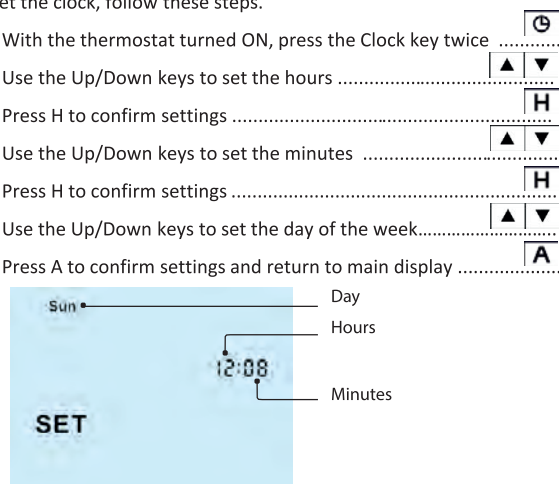
Note: This new temperature is maintained only until the next programmed comfort level. At this time, the thermostat will revert back to the programmed levels

6.

🕒 Setting the Clock

To set the clock, follow these steps.

- With the thermostat turned ON, press the Clock key twice
- Use the Up/Down keys to set the hours
- Press H to confirm settings
- Use the Up/Down keys to set the minutes
- Press H to confirm settings
- Use the Up/Down keys to set the day of the week.....
- Press A to confirm settings and return to main display





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Energy Efficiency Tips

BEST PRACTICE

The below points are best practice guidelines. Following these will ensure your unit runs at it's maximum efficiency, saving you money whilst maintaining a comfortable and healthy home.

- When setting your thermostats ensure they are set at a minimum of 18°C. This will avoid the heatpump bringing on the backup heater in colder weather due to low return water temperatures.
- Each degree you turn your thermostats down by can save you up to 6% on your heating bills.
- Best practice for cost-effective electricity bills is to leave heatpump timed for constant on and controlled by thermostats so house temperature is constantly kept in a steady state.
- Whilst night rate electricity is cheaper than day rate electricity running your heatpump on night rate will reduce it's efficiency due to lower ambient air temperatures at night time. The reduced efficiency may well offset any savings in the rate of electricity.
- Boosting the hot water will make use of the electrical immersions in the heat pump, this will increase the running costs of the system if used frequently. The hot water schedule has been programmed during commissioning for all day comfort and efficiency in a family home. Hence, boosting of hot water should be a rare occurrence.

FURTHER POINTS

The temperature displayed on the controller is the required flow temperature of the water in your system, it is not the temperature of the room. The room temperature is displayed on the stats only.

SERVICING & WARRANTY

Hitachi heat pumps come with a 5 year warranty as standard. This warranty is subject to an annual service being carried out on the unit.

To arrange your annual service with Unitherm please call 01 5688096 or email your unit serial numbers and request for servicing to service@unithermhs.ie .

HOW DO I ADJUST TEMPERATURE DOWNSTAIRS:

- If Radiators are installed: Turn the room thermostat up to the desired temp.
- If Underfloor Heating Installed: Turn Hitachi controller thermostat up to the desired temperature.
- The Ground floor Heating System can be set to a different Temperate to upstairs.
- If Radiators only are used Downstairs, then Thermostatic Valves can be used to adjust temperature per room.
- If Underfloor Heating Used, then the Heating System will maintain an ambient temperature throughout the downstairs.

HOW DO I ADJUST TEMPERATURE UPSTAIRS:

- Main thermostat on your landing EG: 20 Degrees. This can be adjusted up or down.
- Each bedroom can be made cooler by adjusting Thermostatic Valves 1-5
- (1 Colder, 5 Warmer) remove what is in red here

WILL I HAVE NO HOT WATER WHEN THE TEMPERATURE OUTSIDE IS HOT?

The controls for the Hot Water work separately to the heating system so that you will always have hot water 24/7.



UNITHERM

Established in 2004, 'Unitherm Heating Systems Limited' is regarded as one of Ireland's leading and most innovative companies for design and supply of high quality traditional and renewable heating system solutions. With offices in Dublin and Galway and a team of fully-qualified engineers with many years' experience designing heating systems, Unitherm Heating Systems provides confidence in design.

Unitherm Heating Systems are renowned for providing high-quality, fully integrated heating system solutions for domestic and commercial projects for over 15 years. Representing many top European manufacturers, we have consistently been at the forefront by introducing new & innovative products and systems to the market.

Our Mission

Is to create a healthy, sustainable living environment by promoting more efficient heating systems using renewable energy sources. As a consequence this helps us to reduce carbon emissions which, in Ireland, is still the third highest in the EU. We are also committed to ensuring the homeowner is offered the best possible heating solution that meets their needs.

We maintain a friendly, fair and creative work environment that encourages new ideas, respects diversity and hard work. We value the time, skills, expert opinions and dedication of all our team and we will continue to offer excellence and leadership in our field.



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