heatmiser®

OFF

ROOM TEMP **20**.℃ **.8**

heatmiser

Model: **DT-TS / DT-NTS**

Model: **DT-TS / DT-NTS**

Table Of Contents

? What is a Room Thermostat?

A room thermostat simply switches the heating system on and off as necessary.

It works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.

Setting a room thermostat to a higher temperature will not make the room heat up any faster. How quickly the room heats up depends on the design & size of the heating system.

Similarly reducing the temperature setting does not affect how quickly the room cools down. Setting a room thermostat to a lower temperature will result in the room being controlled at a lower temperature, and saves energy.

The way to set and use your room thermostat is to find the lowest temperature settings that you are comfortable with, and then leave it alone to do its job.

The best way to do this is to set the room thermostat to a low temperature – say 18°C , and then turn it up by 1°C each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one room thermostat to control the whole house. But you can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators.

If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can choose a slightly higher setting to make sure that even the coldest room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs.

Room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may also prevent the thermostat from working properly.

⚒ Installation Procedure

✓ **Do**
Mount the thermostat at eye level.
Read the instructions fully so you get the best from our product.

✗ **Don't**
Do not install near to a direct heat source as this will affect functionality.
Do not push hard on the LCD screen as this may cause irreparable damage.

This Touchscreen Series thermostat is designed to be flush mounted and requires a back box of 35mm (minimum depth) to be sunk into the wall prior to installation.

Step 1
Carefully separate the front half of the thermostat from the back plate by placing a small flat head terminal driver into the slots on the bottom face of the thermostat.
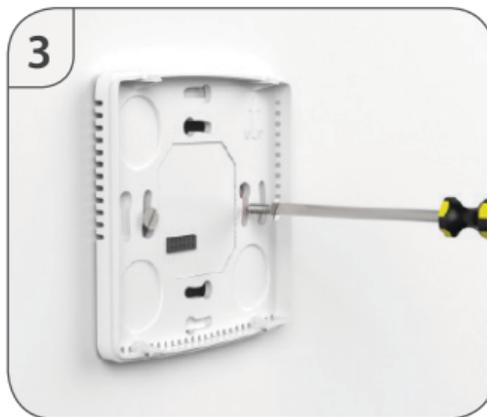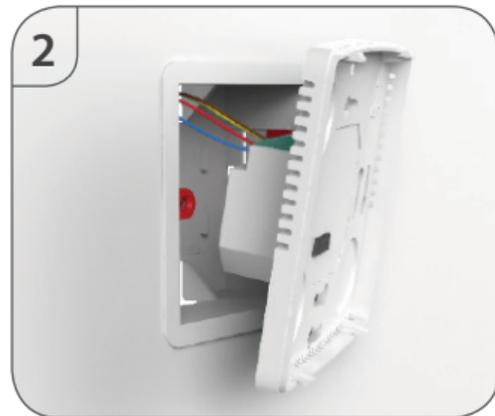
Step 2
Place the thermostat front somewhere safe.
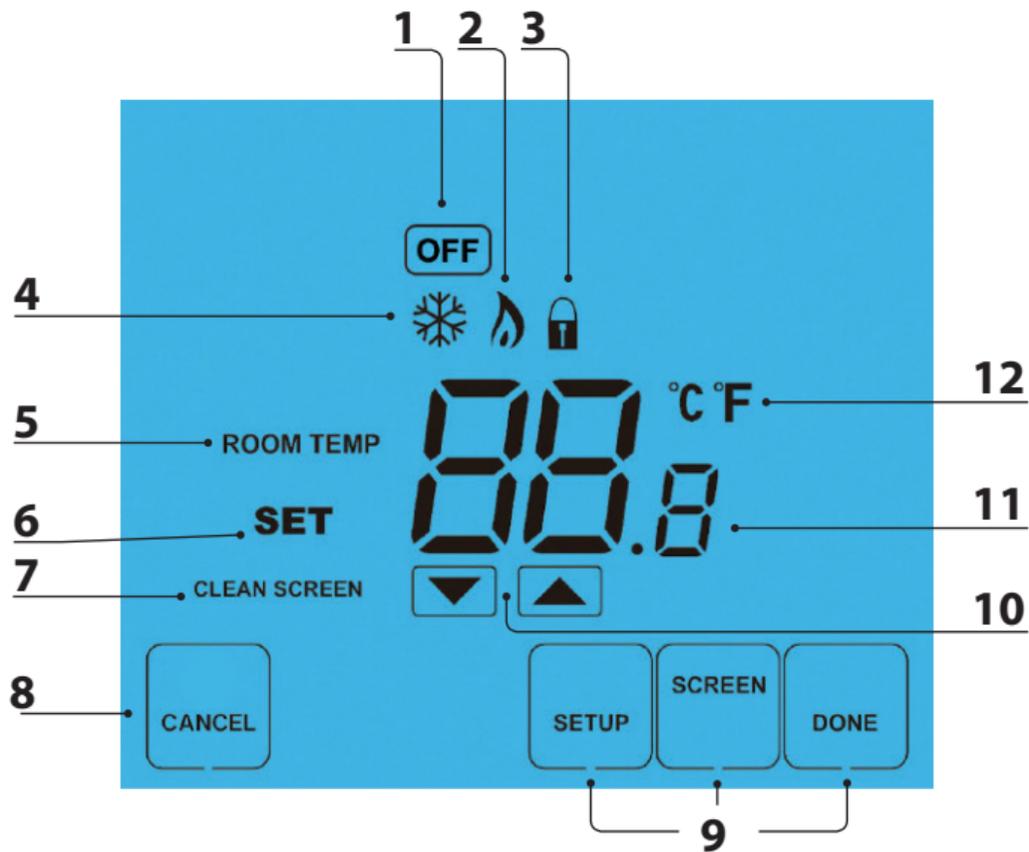Terminate the thermostat as shown in the diagrams on pages 19-22 of this booklet.

Step 3
Screw the thermostat back plate securely into the back box.

Step 4
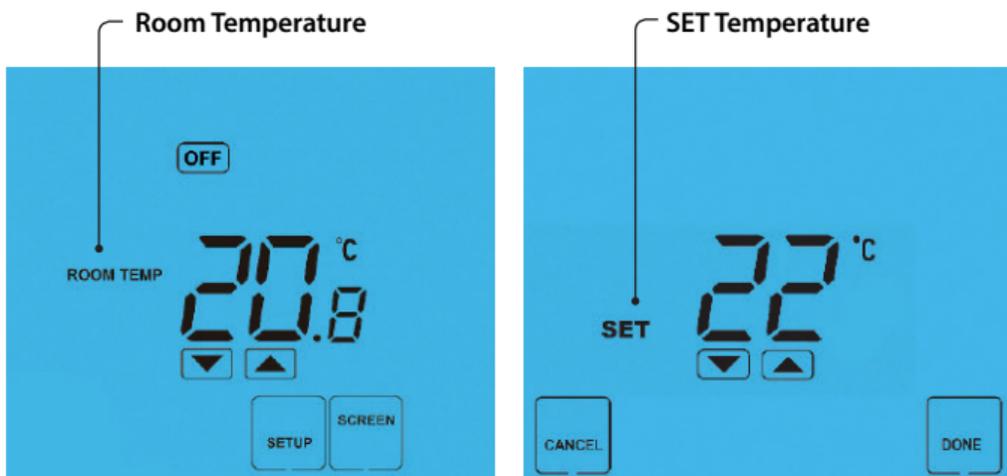Clip the front of the thermostat back onto the thermostat back plate.

LCD Display

1. OFF Key - Single press to enable/disable frost protection or press and hold to turn off display.
2. Flame Icon - Displayed when the thermostat is calling for heat.
3. Keypad Lock Icon - Displayed when the keypad is locked.
4. Frost Icon - Displayed when the thermostat is in frost protection mode.
5. Room Temp - Indicates the current temperature sensor mode.
6. Set - Displayed when the target temperature is adjusted.
7. Clean Screen - Freezes screen temporarily to enable cleaning.
8. Cancel Key - Used to exit setup/program operations.
9. Setup/Programming Keys - Used to navigate setup options.
10. Up/Down Keys - Increase or decrease values shown on bottom digit group.
11. Current Temp - Indicates the current sensor temperature.
12. Units of Temperature - Degrees Celsius or Fahrenheit.

Temperature Display

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

Room Temperature	**SET Temperature**
This is the current room temperature.	This is the temperature you are trying to achieve in your home.

Clean Screen

Pressing [SCREEN] will disable all keys, providing you 15 seconds to wipe the screen clean before the keys are re-activated.

Locking the Keypad

The thermostat has a keypad lock facility.

- To activate the lock press the bottom right corner of the display and hold for 10 secs.
- When activated, you will see the Keypad Lock symbol.
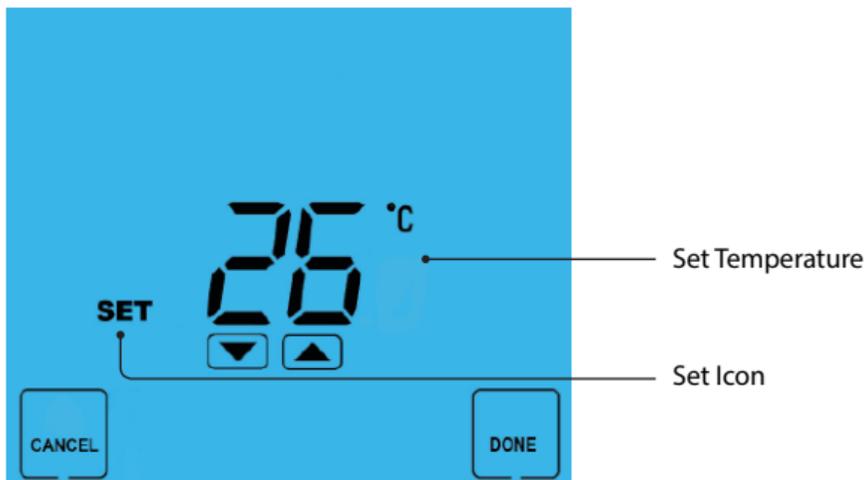- To cancel, press the bottom right corner of the display again for 10 secs.

Keypad Lock Indicator

⌖ Temperature Control

The ▼ ▲ keys under the temperature display allow you to adjust the set temperature.

When you press either of these keys, you will see the temperature and the word SET appear on screen.

Select the desired temperature and press DONE to confirm and exit.

Set Temperature

Set Icon

❄ Frost Mode

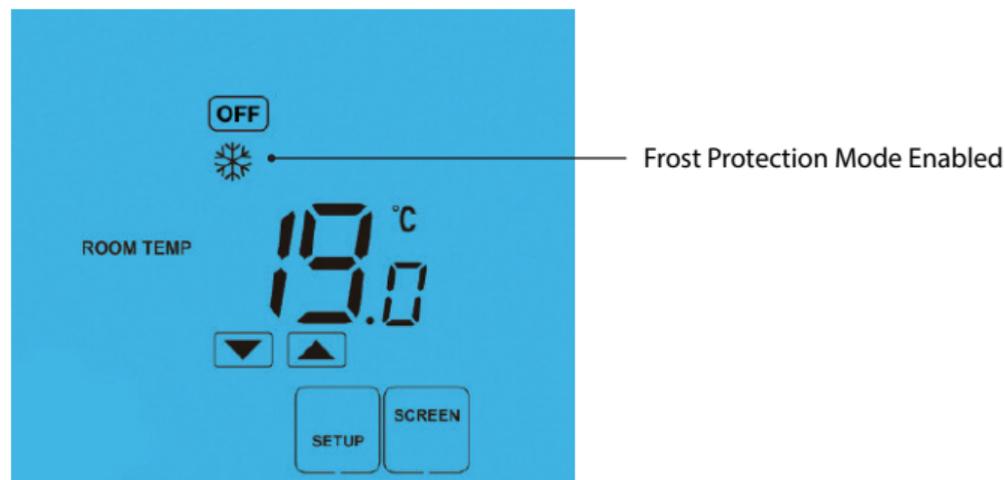Pressing the OFF key once will place the thermostat in frost protect mode.

In this mode, the thermostat will display the frost icon and will only turn the heating on should the room temperature drop below the set frost temperature (see page 14).

Should the heating be turned on whilst in frost mode, the flame symbol will be displayed.

To cancel the frost protect mode, press the OFF key once.

Frost Protection Mode Enabled

Heating On/Off

The heating is indicated ON when the flame icon is displayed.

When the flame icon is absent, there is no requirement for heating to achieve the set temperature but the thermostat remains active.

To turn the thermostat OFF completely, press and hold the OFF key .... `OFF`
The display and heating output will be turned off completely.*

To turn the thermostat back ON, press the ON key once .... `ON`

Thermostat completely OFF   Thermostat powered ON

See Feature 3 on page 14

Optional Features Explained

THE FOLLOWING SETTINGS ARE OPTIONAL AND IN MOST CASES NEED NOT BE ADJUSTED

Feature 01 – Temperature Format: This function allows you to select between °C or °F.

Feature 02 - Switching Differential: This function allows you to increase the switching differential of the thermostat. The default is 1°C which means the thermostat will switch the heating on 1°C below the set temperature and will turn it off when the set temperature is achieved. With a 2°C differential, the heating will switch on 2°C below the set temperature and will switch off when the set temperature is achieved.

Feature 03 - Frost Protect: You can set whether the thermostat will maintain the frost temperature when the thermostat display is turned off. As a default, this is enabled.

Feature 04 – Frost Protect Temperature: This is the temperature maintained when the thermostat is in frost mode. The range is 07-17°C. The default is 12°C and is suitable for most applications.

Feature 05 – Output Delay: To prevent rapid switching, an output delay can be entered. This can be set from 00 - 15 minutes. The default is 00 which means there is no delay.

⚙️ Optional Features Continued

Feature 06 – Communication Address: This setting is used when you have connected your thermostat to a network system. Each thermostat on the network must have a unique communication address. This can be set from 01-32.
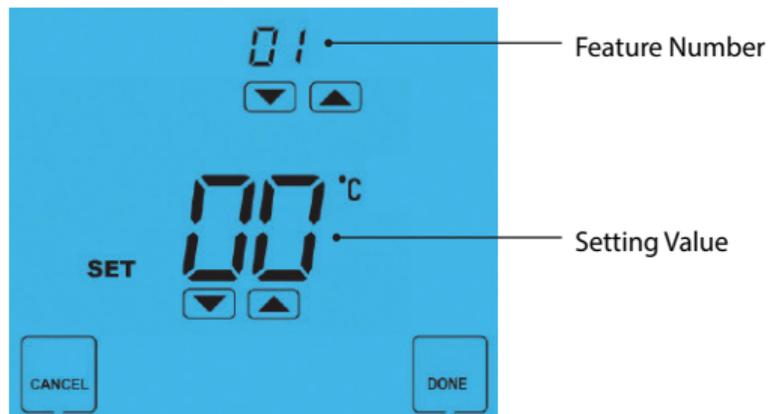
Feature 07 – Temperature Up/Down Limit: This function allows you to limit the use of the up and down keys. This limit is also applicable when the thermostat is locked and so allows you to give others limited control over the heating system.

🔧 Adjusting the Optional Settings

To adjust the optional settings, follow these steps.

- Press SETUP .... `SETUP`

Feature Number

Setting Value

- Use the Up/Down keys at the top of the screen to select the feature number (shown on page 17) and then use the Up/Down keys in the center to adjust the setting .... ▼▲
- Press DONE to confirm settings and exit .... `DONE`

⚙ Optional Settings - Feature Table

FEATURE	DESCRIPTION	SETTING
01	Temperature Format	00 = °C 01 = °F (°C = Default)
02	Switching Differential	0.5° - 3.0°C (1.0°C = Default)
03	Frost Protect	00 = Disabled 01 = Enabled (01 = Default)
04	Frost Protection Temperature	07° - 17°C (12°C = Default)
05	Output Delay	Enter Value: 00 - 15 Minutes (00 = Default)
06	Communications ID No.	Enter number 01-32
07	Up/Down Temperature Limit	00° - 10°C (00°C = Default)

⊕ Re-calibrating the Thermostat

If you need to re-calibrate the thermostat, follow these steps.

- Press and hold the OFF key to turn the thermostat OFF .... OFF
- Press and hold the ON key until the temperature appears on screen .... ON
- Use the Up/Down keys to configure the new temperature .... ▼ ▲
- Press DONE to confirm settings .... DONE
- Press the ON key once to turn the thermostat back ON .... ON
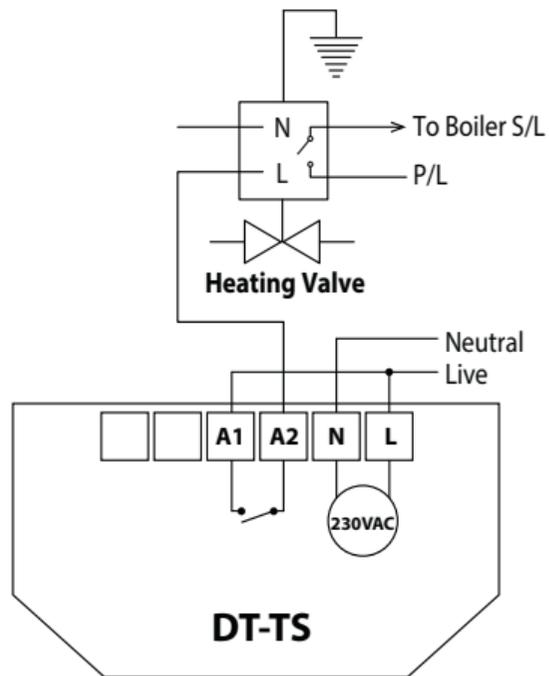
↺ Factory Reset

The thermostat has a reset function to restore all settings to their factory defaults.

To perform a factory reset, follow these steps.

- Turn the thermostat OFF by pressing and holding the OFF key.
Press and hold the bottom left corner of the LCD for 10 seconds .... OFF
- All of the screen icons will appear for 2 seconds and then disappear.
- Press the ON key once to turn the thermostat back ON .... ON

Wiring Diagram - DT-TS to Valve

P/L = Permanent Live
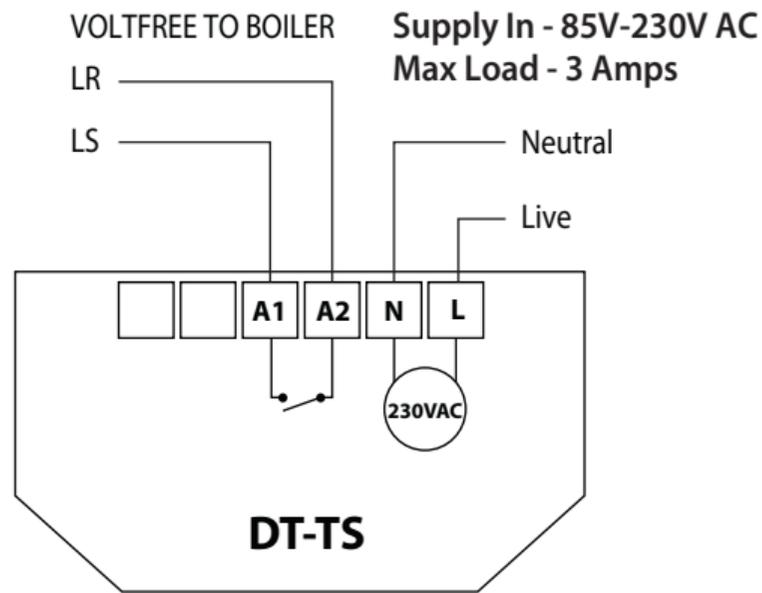S/L = Switched Live

Supply In - 85V-230V AC
Max Load - 3 Amps

For Voltfree connections, wire the P/L and S/L directly to the boiler or if there is no system valve take A1 & A2 directly to the boiler

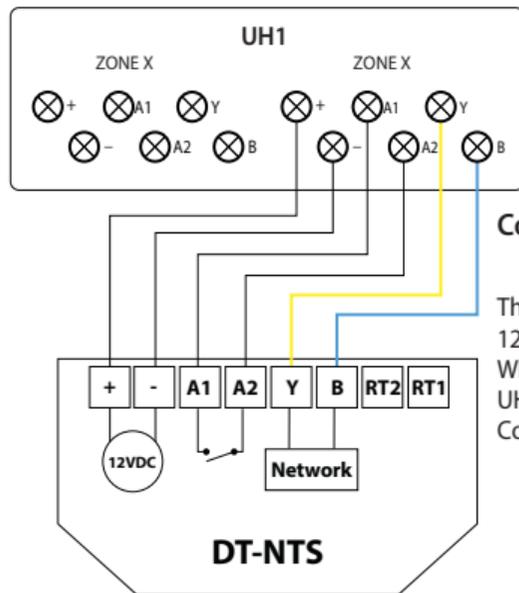**To connect boiler, consult boiler makers wiring diagram**

Wiring Diagram - DT-TS to Boiler Voltfree

Supply In - 85V-230V AC
Max Load - 3 Amps

LS & LR are normally the room thermostat connections
For 230V Switched Live to Boiler on A2, link L to A1

Wiring Diagram - DT-NTS to UH1

UH1

ZONE X   ZONE X

+   A1   Y   +   A1   Y
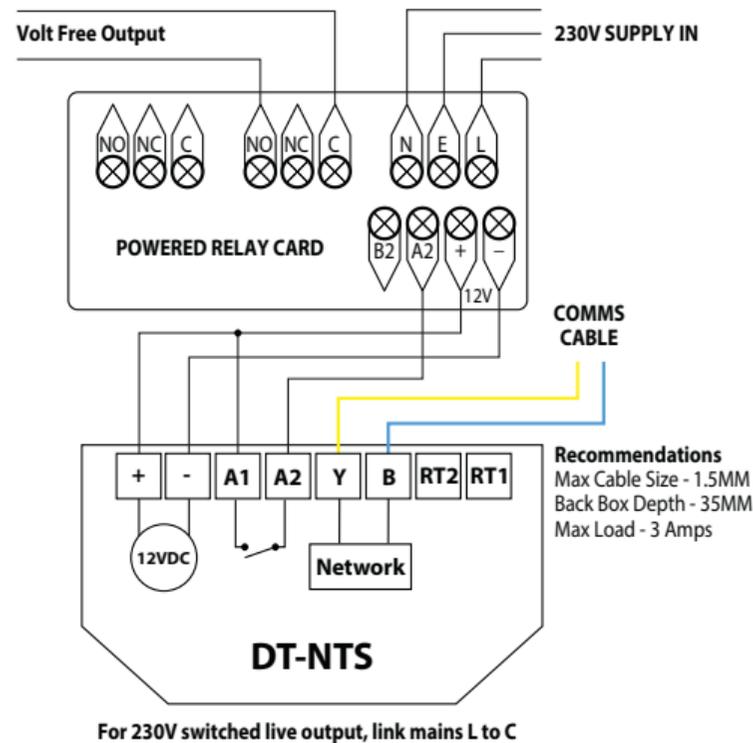−   A2   B   −   A2   B

Connecting DT-NTS to the UH1

The UH1 allows connection of up to eight
12 volt network thermostats.
When connecting network thermostats to the
UH1 use CAT5-FTP or BELDEN 9538.
Connect the screen to Earth at the UH1.

+   -   A1   A2   Y   B   RT2   RT1

12VDC   Network

DT-NTS

Wiring Diagram - DT-TS to PRC

Volt Free Output   **230V SUPPLY IN**

NO NC C   NO NC C   N E L

POWERED RELAY CARD

B2 A2 + −

12V

COMMS CABLE

Recommendations
Max Cable Size - 1.5MM
Back Box Depth - 35MM
Max Load - 3 Amps

+   -   A1   A2   Y   B   RT2   RT1

12VDC   Network

DT-NTS

For 230V switched live output, link mains L to C

heatmiser®
PRODUCT INSTALLATION GUIDE

Heating Professionals:

Request a copy of our product installation guide containing detailed technical specifications for our complete product range:

www.heatmiser.com/guide

Want More Information?

Call our support team on: +44 (0)1254 669090

Or view technical specifications directly on our website: www.heatmiser.com

PDF

FAQ

Follow us on:
twitter

Twitter: heatmiseruk

Find us on:
facebook®

Facebook: facebook.com/thermostats