

INSTALLING THE HEATMISER NETWORK

First fix requirements

Assumes a standard multiple zone under floor heating layout

Connecting the first UH1

Connections between all UH1's and their thermostats is by 6 core shielded cable except for the PRT/HW-N which requires 8 core shielded cable, we recommended belden cable 9538 (8 core) , although many individuals have successfully used CAT5E-FTP cable .

Each UH1 will be associated with a manifold with each heating zone on that manifold deciding which thermostats are connected to that UH1 e.g. If the lounge heating loops are connected to manifold 1 then the lounge thermostat must be connected to the UH1 controlling manifold 1.

The UH1 requires a mains supply on the same fused spur as the boiler and mains rated 2 core boiler enable cable, we therefore recommend a minimum 5 cores of mains cable is fed from the boiler to the first UH1.

The outputs from the UH1 are mains voltage, there are 8 zones each with 3 sets of output terminals allowing up to 24 under floor heating loops to be connected, 3 actuators per zone. For ease of wiring it is suggested that the UH1 is positioned close to the manifold. The Total load on the UH1 must not exceed 5 Amps

Outputs for the hot water are mains voltage and consist of 3 connections (L E N) to drive the hot water valve, 2 connections for the cylinder thermostat if fitted and there should be a further 2 connections for the valve auxiliary switch,

- we therefore recommend a minimum of 7 cores between the hot water valve and the UH1, alternatively
- For convenience the cylinder thermostat can be placed in the live feed to the valve and the DHW stat connections linked. This option only requires 5 cores between the UH1 and the valve but assumes the valve is located close to the cylinder, 2 further cores would then link the valve to the cylinder thermostat.

Outputs are provided for the under floor heating pump and valve, these are 2 sets of 3 terminals (L E N) a temperature limit switch should be connected between the valve output and the valve in the live feed, if a valve is not fitted the limit switch must be placed inline with the pump. These connections require standard twin and earth cable.

More than 1 UH1

If more than one UH1 is fitted then the same connections apply as in the single unit except that the 5 core cable that went to the boiler should now go from the second UH1 to the first because regulations state the UH1s must have a mains supply on the same fused spur as the boiler. There is also an additional 2 core twisted pair shielded cable which should go between the UH1s this will be used to connect the Y & B communication lines for the network.

Since only one UH1 is needed to control the hot water the hot water connections on the additional UH1 can be ignored, the process is then repeated for each additional UH1.

Radiator Zone

Each UH1 allows for the possibility of a single radiator zone, to use this option the thermostat in question must be connected to zone 8 of the UH1 and the switch on the UH1 board must be put in the N position to prevent the manifold valve and pump from turning on.

The radiator circuit will then be controlled by a valve with the valve auxiliary switch enabling the boiler we therefore recommend a minimum 5 core cable is fitted between the radiator zone valve and the UH1.

If a separate pump is needed for the radiator circuit then a mains relay will be required with the coil connected to the live supply to the valve, with a mains cable from the supply to the pump via the relay.

Radiator systems

Radiator systems are wired in the same way but the under floor manifold pump , limit switch and valve outputs from the UH1 can be ignored , Actuators are usually replaced by valves the valve auxiliary switch (end switch) can be ignored as the UH1 will enable the boilers.

Electrical heating Systems

Electrical systems are wired in the same way except that the actuators are replaced by relays or contactors for larger floors and the boiler enable, under floor manifold pump , limit switch and valve outputs from the UH1 can be ignored .

COMMISSIONING THE HEATMISER NETWORK (Version 2 thermostats)

When installation of the network is complete the touchpad should be temporarily removed from the network before power is applied. On power up each thermostat on the network needs to have its communications number set , this is done by pressing the power button (left most button) to turn the thermostat display off, then holding down the clock button until the display comes back on in setup mode.

In setup mode the control will display 2 large digits in the centre with a small number to the upper right, the small number is the feature number, the communications number is feature 07, release the clock key and then press it repeatedly until feature 07 is displayed, then using the up and down arrow keys set the communications number (the 2 large digits in the centre) Each communications number must be unique and should be in order i.e. 01 ,02 ,03 , 04 up to 32 using 01, 02, 05, 20 for example will work but it will slow the network down and cause confusion when your setting up names on the touchpad.

When the communications number is set press the power button and the thermostat will return to normal mode. Repeat this process for all the thermostats on the network.

When all the thermostats have been set, turn off the power and reconnect the Touchpad.

Turn the power back on and the touchpad should ask you if you've set the communication numbers, press yes to confirm that you have, the touchpad will then take you straight to the network scan screen, if instead the touchpad powers up on the main menu then press "SYSTEM" , then press "NETWORK " to get to the network scan screen.

From the network scan screen press "QUERY" the touchpad will then look for (scan) all thermostats on the system in order, starting at communications number 01 up to communications number 32. As each thermostat is found its number will turn from red to blue, any communications numbers which don't respond or haven't been used on your system will remain red. If all your numbers turn blue press the "ACCEPT" button which will take you to the setup screen from there press "SETUP" and enter the room names when you have finished press store (see the manual for details).

If some or all of the thermostats numbers you have used turn red then see the trouble shooting guide.

COMMISSIONING THE HEATMISER NETWORK (Version 3 thermostats)

When installation of the network is complete the touchpad should be temporarily removed from the network before power is applied. On power up each thermostat on the network needs to have its communications number set , this is done by pressing and holding the power button (left most button) to turn the thermostat display off, then holding down the clock button until the display comes back on in setup mode.

In setup mode the control will display 2 large digits in the centre with a small number to the upper right, the small number is the feature number, the communications number is feature 06, release the clock key and then press it repeatedly until feature 06 is displayed, then using the up and down arrow keys set

the communications number (the 2 large digits in the centre) Each communications number must be unique and should be in order i.e. 01 ,02 ,03 , 04 up to 32 using 01, 02, 05, 20 for example will work but it will slow the network down and cause confusion when your setting up names on the touchpad.

When the communications number is set press the power button and the thermostat will return to normal mode. Repeat this process for all the thermostats on the network.

When all the thermostats have been set, turn off the power and reconnect the Touchpad.

Turn the power back on and the touchpad should ask you if you've set the communication numbers, press yes to confirm that you have, the touchpad will then take you straight to the network scan screen, if instead the touchpad powers up on the main menu then press "SYSTEM" , then press "NETWORK " to get to the network scan screen.

From the network scan screen press "QUERY" the touchpad will then look for (scan) all thermostats on the system in order, starting at communications number 01 up to communications number 32. As each thermostat is found its number will turn from red to blue, any communications numbers which don't respond or haven't been used on your system will remain red. If all your numbers turn blue press the "ACCEPT" button which will take you to the setup screen from there press "SETUP" and enter the room names when you have finished press store (see the manual for details).

If some or all of the thermostats numbers you have used turn red then see the trouble shooting guide.

COMMISSIONING THE HEATMISER NETWORK (Touch screen thermostats)

When installation of the network is complete the touchpad should be temporarily removed from the network before power is applied. On power up each thermostat on the network needs to have its communications number set , this is done by pressing the PROGRAM button then pressing the SETUP button. You may find that a quick tap on the buttons may work better

In setup mode the control will display 2 large digits in the centre with a small number at the top, the small number is the feature number, the communications number is feature 06, press and release the up arrow key next to the feature number until feature 06 is displayed, then using the up and down arrow keys set the communications number (the 2 large digits in the centre) Each communications number must be unique and should be in order i.e. 01 ,02 ,03 , 04 up to 32 using 01, 02, 05, 20 for example will work but it will slow the network down and cause confusion when your setting up names on the touchpad.

When the communications number is set press the DONE button and the thermostat will return to normal mode. Repeat this process for all the thermostats on the network.

When all the thermostats have been set, turn off the power and reconnect the Touchpad.

Turn the power back on and the touchpad should ask you if you've set the communication numbers, press yes to confirm that you have, the touchpad will then take you straight to the network scan screen,

if instead the touchpad powers up on the main menu then press "SYSTEM" , then press "NETWORK " to get to the network scan screen.

From the network scan screen press "QUERY" the touchpad will then look for (scan) all thermostats on the system in order, starting at communications number 01 up to communications number 32. As each thermostat is found its number will turn from red to blue, any communications numbers which don't respond or haven't been used on your system will remain red. If all your numbers turn blue press the "ACCEPT" button which will take you to the setup screen from there press "SETUP" and enter the room names when you have finished press store (see the manual for details).

If some or all of the thermostats numbers you have used turn red then see the trouble shooting guide.

TROUBLE SHOOTING GUIDE

During network scan

If all thermostats numbers turn red

Have you set the communications numbers in the thermostats?

1. Check the Y & B connections between the touchpad and the UH1
2. Check the Y & B connections to each of the thermostats at the UH1 end
3. Check the Y & B connections to each of the thermostats at the thermostats
4. Check for short circuits across the Y & B connections

5. Check for short circuits across the Y and + or Y and - connections
6. Check for short circuits across the B and + or B and - connections
7. Check for continuity on all cables

If thermostat numbers change from red to blue and back again in a seemingly random pattern every time you scan the network then there is a strong source of electrical noise on the system. Start by making sure that all communication numbers are unique.

Then....

Check the cable shields are correctly earthed only at the UH1 end.

Check that the thermostat cables do not follow mains cable for long distance in the same trunking or in close proximity.

If only some of thermostat numbers you've used turn red then check their communications number has not been duplicated by mistake.

If not follow steps 2 to 7 above, for the individual thermostats.

If the thermostat is still not responding swap the thermostat (both the back and the front of the thermostats must be swapped) for one that you know is working ,if it doesn't work then the cable is faulty .