



WARNING!
Only fully Qualified
Personnel should Install or
service this Device.

2T-Technology

Mobile 2 Heating (M2H) Installer Manual



Device Telephone Number: _____

QUICK START—Basic Installation Steps

1. If there is a SIM installed in the unit skip to step 3.

2. Un-programme the PIN number from the SIM card.

SIM Cards have a PIN that the phone user must enter when turning on their phone. This is stored in the SIM and must be removed for the unit to work. This is done by placing the SIM in any mobile phone and going to the 'Settings', then 'Security' menus. Then Turn Off the PIN Code request.

3. Wire the M2H unit to the heating system as shown on the wiring diagram on the centre page.

Be very careful when controlling the AC mains. Only apply mains after all wiring is complete and top is screwed back onto the GSM Unit.

Only a fully qualified electrician should install, use or repair this equipment

Ensure that the maximum applied voltage and maximum current specified in the table on the wiring diagram are complied with.

Voltage	Max switching Load Current
AC 220—250 VAC	6A
DC 30V	3A

4. Apply power to the GSM unit.

5. Give the Unit about 2 minutes to register when first turned on. When the Signal Strength light is on constantly or flashing the unit has registered on the network. If the signal strength light fails to light at all you may have to change the position of the device to pick up a GSM signal.

6. Now program the M2H device with the numbers which you wish to allow to control the heating.

Send This Text

Receive this text response.

phone 1 0872736678

phone 1 0872736678
programmed.

**No Spaces in Tel Number

Remember to put the full telephone number into the device including area or country codes, that you would have to use if calling that number from any mobile phone.

- 2 more numbers can be programmed into the phone list of the M2H Unit.
- Use the following Text commands:
- phone 2 0872234355
- phone 3 0872735522

7. Test the system configuration by placing a call.

- Call the GSM device from one of the 3 mobile numbers programmed into the GSM unit.
 - The GSM unit will recognise the calling number and switch the relay to turn on the heating.
 - Again Call the GSM device from one of the 3 mobile numbers programmed into the GSM unit.
 - The GSM unit will again recognise the calling number and switch back the relay to turn off the heating.

8. Test the system configuration by sending an SMS text to the GSM unit.

- Send the following text to the GSM Unit

Send This Text

Receive this text response

on

Command
Received

- The GSM unit will accept the command and switch the relay to turn on the heating.
 - Again Send the following text to the GSM Unit

Send This Text

Receive this text
response

off

Command Received

- The GSM unit will accept the command and switch back the relay to turn off the heating

USING THE BOOST COMMAND.

The user can send an SMS text to the GSM unit to control the length of time(in minutes) that the heating turns on for.

In this way the heating can be turned on for 1, 2 or 3 hours and it will turn off automatically at the end of this time.

To turn on the heating for 1 hour.

- Send the following text to the GSM Unit

Send This Text

Heat boost 60

Receive this text response

Command
Received

To turn on the heating for 2 hours.

- Send the following text to the GSM Unit

Send This Text

Heat boost 120

Receive this text response

Command
Received

To turn on the heating for 3 hours.

- Send the following text to the GSM Unit

Send This Text

Heat boost 180

Receive this text response

Command
Received

Checking Status of GSM heating control.

The user can send an SMS text to the GSM unit to check if the GSM heating controller has the heating On or OFF.

To check the heating controller status.

- Send the following text to the GSM Unit

Send This Text

Heat status

Receive this text response

GSM heat Switch: OFF

Advanced Installation Options.

If required in the future you may need to check phone numbers programmed in the phone list.

To Check Numbers in the Phone List.

For example to check what number is programmed into the first phone number in the list.

Send this text.	Receive This TxT Response
<input type="text" value="Send Phone 1"/>	<input type="text" value="Phone 1:
08????????"/>

Test Call

To confirm that the unit is operating correctly we can get it to generate a test call at any time.

Send this text.

Receive This TxT Response

<input type="text" value="Test"/>	<input type="text" value="GSM Heat
Controller Test Call"/>
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To Remove Numbers in the Phone List.

To remove an already programmed number we enter an invalid number such as the number 0. OR we can overwrite the existing number with a new number we want to use.

Send this text.

Receive This
TxT Response

Phone 2 0

phone 2: 0 programmed

The newly programmed invalid number can not be reported to.

Default the SIM and the Device.

It is possible to reset the unit back to factory settings.

ENGINEER RESET - Return to Factory Settings.

***Warning:** Credit code, credit alarm and other factory settings will revert to their factory settings.

Send this text.

Receive This TxT Response

Default

Restored to Factory Settings.

ENGINEER RESET - Remove all Phone Numbers from the SIM.

***Warning:** This command will clear all programmed telephone numbers from the Phone lists.

***Warning:** This command can take up to 3 minutes to complete. Do not send any other commands to the Unit until this command completes.

Send this text.

Receive This TxT Response

Default SIM

SIM Cleared

Installation For Mobile Network

The M2H Unit can be used with bill pay or pre pay SIM cards. For pre pay cards the ability for the user to get an indication when credit is falling low is useful and allows the user to add credit when required. Confident that he can keep the M2H unit topped up with credit the user will be happy to use a pre pay SIM card.

The system is factory configured for an O2 SIM. To use a different network requires that you program a different Credit code.

Set the Credit Code

For example to set the credit code for vodafone in Ireland.

Send this text.

Receive This Txt Response

Credit code *174#

Credit Number Set

There are different codes for different networks.

Network	Ireland	UK
Vodafone	*174#	*#1345#
O2	*100#	*#10#
Meteor	*#100#	
Orange (UK only)		Orange not currently giving credit. (Use a bill pay SIM)

Turn Off The Credit Warnings.

Should the User switch to a Bill-Pay SIM or if credit monitoring is no longer required, it can be turned off as follows.

Send this text.

Receive This TxT Response

Credit alarm off

Credit alarm off

To Check the Remaining Credit on a SIM.

Send this text.

Receive This TxT Response

heat Credit

Credit = XX.XX

Fixing Problems.

Q1. I am sending a text messages to the Unit but I'm not getting any response.

Check the following:

1. Is the PIN removed from the SIM Card? Put the SIM card into any mobile phone. When the mobile is powered up the phone should not look for a PIN if it has been disabled. If the mobile looks for a PIN then you must turn off the PIN request.

2. Is the Signal Strength LED flashing or on constantly? If it is OFF then either the device is not registered OR there is not enough signal strength for the device to work.

3. Move the position of the unit to obtain a stronger signal level. On occasions you will find that some operators have no signal strength in certain location while another will have good signal strength. This will require changing the SIM to one from an operator who has good coverage at this location.

Q2. I am sending a text message to the unit but I'm getting the following response.

Command Error

Check the following:

1. Check the spelling of the txt message sent. Quite often this response comes from a command which is almost correct but is spelt wrong.

Q3. I am sending a text message to the unit but I'm getting the following response.

Invalid Command

Check the following:

1. Check the spelling of the txt message sent. Quite often this message can come from wrong spelling.

2. Check the details of the command being sent against the details in this manual.

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