INSTALLATION INSTRUCTIONS—HWSTAT OPTIMUM VIBE PROGRAMMABLE THERMOSTAT

The OPTIMUM VIBE - Model HWSTAT is a battery powered hard-wired programmable thermostat. It MUST be installed by a qualified person, in accordance with best practise and current IEE wiring regulations.

**Before programming, complete all set-up instructions.**

The control set - when configured for T.P.I. control - meets the UK Government BEIS Department's criteria for Class IV control, contributing 2% towards energy efficiency of the system.

The transmitter is battery-powered (2 x AAA alkaline)

Installation procedure: thermostat location / positioning

The thermostat should be located within the property bearing in mind the following requirements:

The thermostat has an on-board temperature sensor, which it uses to detect ambient temperature, and calculates whether to send a demand or no-demand signal to the heating appliance. The thermostat should be located in a main living area, where it is visible, there is unrestricted air-flow but it is not unduly influenced by draughts or extraneous heat sources: radiator / direct sunlight / lamp— please refer to the diagrams below:
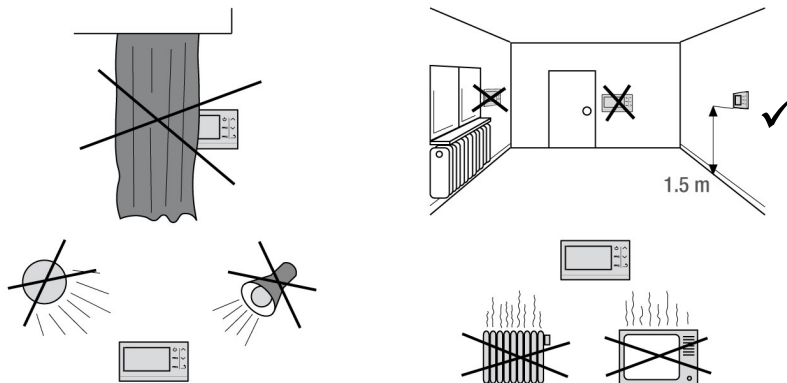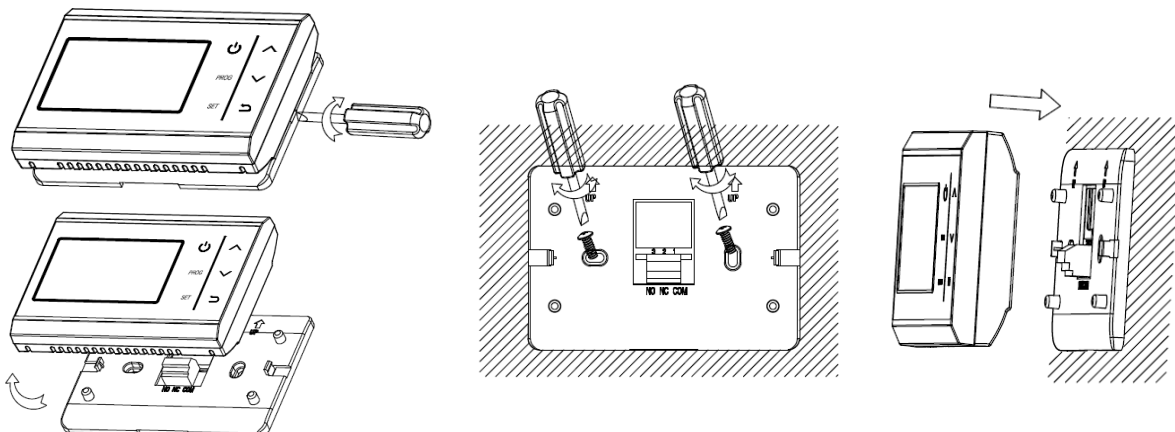

Thermostat / backplate - installation

Remove the thermostat from the backplate by inserting a flat-bladed screwdriver into the recesses on the left— and right-hand sides and gently lever to release the backplate.

Fit the backplate to the wall surface and connect wiring to the terminal block. See the wiring diagram on page 2. The thermostat controls a volt-free changeover switch. Standard heating appliance connections will be live feed / live return (mains or low voltage) to the two terminals marked COM and NO.

Thermostat / backplate - installation (cont'd)

The thermostat is intended for wall-mounting in a clean, dry environment. It is a class II control, with an ambient temperature rating from 0 to 50^0C. It has 60mm wall-fixing centres compatible with standard pattress boxes. A back-plate channel is provided for surface-run wiring.

The thermostat controls a volt-free changeover switch and will control the heating appliance via a two-wire connection. The terminals are marked N O (normally open), N C (normally closed), and COM (common). Normal heating appliance connections will be live feed & return (mains or low voltage) to the two terminals marked COM and N O.
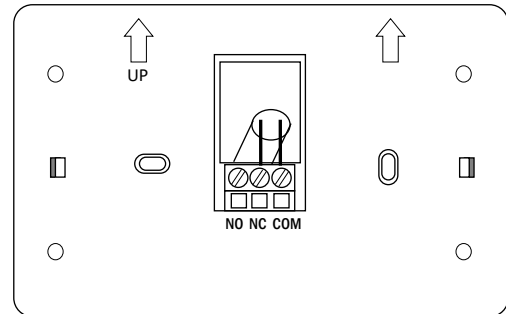

*Before connecting the thermostat to the boiler, **make sure** that you have followed the boiler external thermostat connection instructions. **A mains connection to a volt-free terminal could damage the boiler circuitry.***
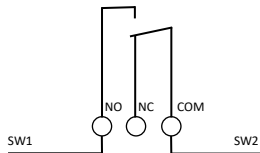
Wiring for volt-free switching:
Connect the volt-free boiler connections
(Switch wire 1 / Switch wire 2) to COM & NO
(common and normally open)
Do not connect anything to terminal N C
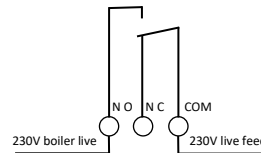
Wiring for mains switching:
Connect 230V AC Live feed to COM
Connect the 230V AC switched live to N O
Do not connect anything to terminal N C

The VIBE HWSTAT thermostat is a battery powered double-insulated Class II control. Do not connect any neutral or earth wire. Use a separate insulated single screw terminal block to provide earth continuity if required. Use an otherwise empty insulated single screw terminal block to 'park' a neutral wire if required.

Thermostat - installation

Having completed the backplate wall-fixing and wiring, place 2 x AAA alkaline batteries in the battery compartment at the back of the transmitter; ensure correct polarity. Now clip the thermostat onto the backplate: align the upper two holes on the back of the thermostat with the pillars on the backplate, and pivot downwards, applying light pressure until the housing clicks into place. Switch on the power. If you remove the thermostat from the backplate you must switch off the power supply first.

Set the time and day: After inserting batteries, the transmitter will jump to time-setting mode, or during normal operation, touch SET for five seconds, change the minutes with the up or down arrow, touch SET, change the hours, touch SET, change the day, touch SET. Then touch the ON/OFF icon to put in run mode. Full set-up can be completed later.

Note that - if you hold the thermostat for longer than a few seconds, it will start to detect your body temperature, rather than the ambient room temperature. This will affect the calculation of demand / no demand for heat. Replace the transmitter onto the back-plate so that it will again start to detect the ambient room temperature.

Complete the setting up procedure.

touch the UP arrow to raise the SET temperature above the measured ROOM temperature. Within 2 or 3 seconds the **demand symbol** (see left) should appear in the display. There is an audible click as the switching relay operates. The heating appliance should now be running.

Thermostat display / controls

BOILER PLUS

Program run mode
Weekday
Current time
Program number

When ROOM displayed: Measured temperature

When SET displayed: Set temperature

Demand symbol

Manual mode

OPTIMUM   ∿ VIBE

1 2 3 4 5 6 7
SET 88:88 h   PRG 8   PRG

ROOM
SET   88.8 °C   ☀   )))))

⏻   ∧   ON/OFF / UP

PROG   ∨   PROGRAM / DOWN

SET   ↩   SETTINGS / BACK
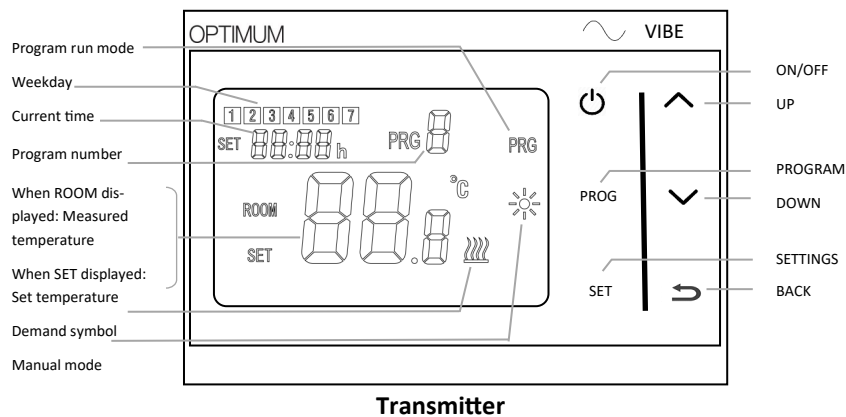
Transmitter

Parameter setting — how to configure the way your Optimum Vibe thermostat works: SET + ∧

To open the configuration menu, first touch the transmitter ON/OFF button to turn the display off (touch any button to 'wake-up' the transmitter, then touch the ON/OFF button to turn off), then touch the SET and UP buttons at the same time for 5 seconds:

You will be viewing the first of 15 options which can be configured to adjust the operation of the OPTIMUM VIBE, to best suit the installation and the user's requirements.

Touch the UP or DOWN arrows to adjust the parameter, and touch SET to move sequentially through the options. Changes will be saved by pressing the ON/OFF button. If no button is touched for 10 seconds, the display will 'time-out', but your changes will still be saved.

Option	Description	Range	Default value
01	Temperature calibration	$-8^0C \sim +8^0C$	0^0C
02	Maximum temperature setting	$5^0C \sim 35^0C$	35^0C
03	Minimum temperature setting	$5^0C \sim 35^0C$	5^0C
> 05	Frost-protection temperature	OFF (- - in config. Screen), or $5^0C \sim 15^0C$	5^0C
09	Hysteresis (differential)	$0.5^0C \sim 3.5^0C$	0.5^0C
> 10	Display setting	0 ~ 1	0
17	Reset (reset all values to factory default)	Change to 1. Then touch Power button for 5 seconds	0
18	Firmware code	Non adjustable *	5091
19	Firmware code	Non adjustable *	0202
50	Backlight	0: OFF 1: AUTO	1
> 51	Programme mode	76: 7 days / 6 periods 526: Weekday / Weekend / 6 periods	526
> 52	Temperature regulation mode	NOr: Normal (ON/OFF) OPs: Optimum Start tPi: Time Proportional / Integral	NOr
>		See additional notes about these configuration options on Page 4	
*		Firmware is pre-loaded in the factory, and visible for reference but cannot be changed.	

Option	Description	Range	Default value
> 53	Time interval for Ops	10 min, 15 min, 20 min	20 min
> 54	Number of heating cycles/hour (for TPi)	Range: 2 ~ 3 ~ 6 ~ 12	6
> 55	Proportional Bandwidth (for TPi)	Range: 1.5^0C— 3^0C	2^0C

Configuration options—additional notes:

Option	Description
05	If you set a frost-protection temperature, the heating will be switched on when the measured temperature falls below this level, even if the transmitter has been turned off.
10	0 - (default) Room *and* Set temperatures displayed. 1 - *only* Set temperature displayed
51	76— you can set every day with a different programme 526—two programme sequences can be set, one for weekdays, one for weekends. The factory default programme shown in the user instruction is the default programme for both.
52	Please read 'how it works' for a full explanation of temperature regulation modes
53	Set if you chose OPs (Optimum Start) regulation. For the best results, the time interval selected should approximate the time taken to increase the room temperature by 1 degree.
54	Set if you chose TPi regulation. Select a lower number for heating systems with a slow response, and a higher number for heating systems with a fast response.
55	Set if you chose TPi regulation. Sets the temperature below the set-point at which TPi control will begin

Thermostat ON/OFF

You can save battery power on the thermostat, by touching the ON/OFF icon. The thermostat is switched off. It will turn the heating appliance off and will stop sending control signals.

Specification:

Thermostat power 2 x AAA alkaline. Touch-screen keys. 70 x 40mm backlit LCD. Dimensions 120 x 85 x 22.5mm

Switching output: volt-free changeover 8A (resistive) switching, ON/OFF & manual override feature.

Thermostat control features: ON/OFF, Optimising & TPI temperature regulation. Hysteresis +/- 0.5^0C.

5 & 2 or 7 day programming. 6 time / temperature periods. Temperature range 5—35 ^{0}C.

Boiler Plus compatible: Class IV control, 2% contribution to system efficiency

Approvals: CE   -   Low Voltage and Electro Magnetic Compatibility   -   RoHS

Do not dispose of this product with household waste - use local recycling facilities