Setup guide to using the OpenTherm Control without an external weather compensation sensor fitted. If you are unsure if there is an external sensor fitted check the receiver unit. If the amber LED is unlit there is no external sensor so continue with this guide. If there is a solid amber LED use the other guide. (A flashing amber LED indicates loss of signal between room unit and receiver (check battery in room unit).

When the OpenTherm control is installed it overrides the controls on the boiler fascia. For example the OT control will override the heating and hot water temperature settings on the boiler fascia. So your OT controller is now the means by which you control your heating system and boiler. It also overrides any other room thermostat or time control previously fitted to the system which may still be connected.

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# 1: Manual operation of heating:

The room unit has four heating modes, OFF, TIMED, PARTY and HOLIDAY. Switch modes by pressing the heating mode selector button **IIII**.

OFF - No vertical temperature gradient and radiator icon is shown on the left side of the screen.

© **TIMED** - Temperature gradient and radiator symbol on left side of screen (fast adjustment of temperature is possible, see section 7).

PARTY - Heating will operate at the comfort level for the remainder of that day then revert to timed operation at midnight (no fast adjustment of the room temperature is possible in PARTY mode).

B HOLIDAY - Heating will operate at the economy level for the duration of a holiday (no fast adjustment of the room temperature is possible in HOLIDAY mode).

# 2: The preset heating programme is as follows:

Monday - Friday: 06:00 to 08:00 and 16:00 to 22:00 at comfort temperature. At all other times the OpenTherm will maintain an economy temperature.

Saturday and Sunday: 08:00 to 11:00 and 16:00 to 23:00 at comfort temperature. At all other times the OpenTherm will maintain an economy temperature.

The comfort temperature default setting is 21°C The economy temperature default setting is 16°C

If you would like to alter the preset heating programme continue with this guide.

# 3: Setting the time of day on the room unit:

Now, press the  $\triangleright$  button

The timeline will go blank and the time appears above

Wait until the time starts to flash and then press the  ${\mathscr O}$  button

The hours digit alone will now appear

Use the  ${\ensuremath{\underline{}}}$  or  ${\ensuremath{\overline{}}}$  button to adjust and set the current hour

Press  $\triangleright$  button to display the minutes digits

Now simply press the **IIII** button to return to the main screen Heating mode: The heating operates on time and temperature levels programmed into the room unit. The heating indicator gradient on the left of the display will be visible.



# 4: Setting the day on the room unit:

Press the 🖉 button

Now, press the  $\triangleright$  button twice

Seven numbered house icons will now appear

Wait until these icons start to flash and then press the  ${\mathscr O}$  button

A single house icon will now appear containing a day number, for example use 1 if it is Monday

Use the  $\lhd$  or  $\triangleright$  button to adjust the day number

Now simply press the **IIII** button to return to main screen

# 5: Setting the temperature levels & the times:

There are three temperature levels, they are comfort, economy and off. We will now set the comfort and economy temperatures. We suggest 20 or 21 degrees for the comfort level and 12 to 14 degrees for the economy level.

Press the Ø button twice

A filled timeline, sun icon and temperature appear indicating the current comfort level

Once the comfort temperature is set, move to the economy level by pressing the  $\triangleright$  button

A half-filled timeline, moon icon and temperature appears indicating the current economy level temperature

Use the  $\ensuremath{\underline{}}$  or  $\ensuremath{\overline{}}$  buttons to select your desired economy level temperature

Now, simply press the **IIII** button to return to main screen

We can now select comfort, economy or off periods for different times of the day

First, press the Ø button once

Now, press the  $\triangleright$  button three times

A filled timeline appears

Wait until it flashes

Then, press the 🖉 button once

A time, house icon with the day number and a timeline with bars appear

Each section in the timeline represents one hour



Each hour is divided into half hour segments

Each segment can be programmed as a comfort, economy or OFF segment

A blank segment represents an OFF half hour

A segment with a half bar represents an economy half hour

A segment with a full bar represents a comfort half hour

The number in the house icon represents the day of the week being programmed, for example 1 being a Monday

Now, use only riangle button, to choose the comfort, economy or off setting in the first half hour segment

When selected, press the  ${\mathscr O}$  button once

The previous segment will have automatically copied into the next half hour segment

If you want to adjust this segment, use the  $\mathbb{A}$  button to alter the choice or press  $\mathbb{O}$  again to move on and copy to the next segment

Repeat to program the whole day

Press the  $\forall$  button to move to the next day and repeat

Repeat for the week

When the whole week is programmed press the **IIII** button to return to the main display.

# 6: Selecting heating modes on the OpenTherm Control:

There are several override functions, which can be selected by pressing the heating mode button

One press of the **IIII** button will take you to 'party mode'

The party mode is represented by the  $\square$  icon, which will appear on the left side of the display above the time. This mode will override the program set for that day and operate at the comfort level continuously until midnight. After midnight the heating will revert to the timed program.

The second press of the **illi** button will take you to 'Holiday mode'

The holiday mode is represented by the  $\mathbb{P}$  icon, which will appear on the left side of the display above the time. The holiday mode will commence from midnight and last for the number of days selected. The days will be displayed to the right of the large house icon. Use the  $\mathbb{A}$  or  $\mathbb{V}$  buttons to indicate the length of the holiday. The heating will operate at the economy setting for the duration of the holiday.

The third press of the **IIII** button, will take you to the 'Heating off' mode

In the Heating OFF mode the timeline will be empty. It is worth mentioning that if the temperature in the property falls below 5 degrees (the default frost setting, which is adjustable) the heating will come on to maintain an internal temperature of 5 degrees.



The fourth press of the **illi** button, will return you to your timed heating programme

# 7: Fast adjustment of the room temperature on the OpenTherm Control:

The room temperature level can be adjusted temporarily at any time during the normal operation in timed ON mode. Fast temperature adjustment is not possible while the room unit is in party, holiday or OFF mode. The room unit will revert back to your programmed temperature level at the next change i.e. the next off, economy or comfort segment change.

Using the riangle button adjust the temperature to your desired new setting

The room temperature setting will appear within the large house icon, and the temperature gradient to the left of the screen will change at 2°C intervals.

Press the  $\mathcal O$  button to set.

#### 8: Adjusting the domestic hot water temperature on the OpenTherm Control:

You can adjust your desired hot water temperature setting at any time.

Using the  $\forall$  or  $\lhd$  hot water buttons adjust the temperature to the new setting.

The temperature gradient on the right of the screen will change, a tap icon will flash and the hot water temperature will appear in the large house icon.

Press the  $\mathcal O$  button once to lock the setting. If you do not press the  $\mathcal O$  button the new setting will not be saved.

It is not necessary to visit the hot water control on the boiler fascia to adjust the hot water setting; the room unit overrides the boiler setting.

When a hot water tap is opened the boiler display will be illuminated, a 🚝 symbol will appear and the hot water delivery temperature will be displayed.

#### 9: Resetting the boiler:

The OpenTherm Control can display a series of fault codes to assist the engineer or users in assessing its status. If a fault code does appear many will require the boiler to be reset.

Should fault codes appear on the room unit the boiler can be reset from the receiver (which is usually located close to the boiler) by pressing the spanner button, or at the boiler itself by turning the boiler main control selector past standby.

The boiler cannot be reset from the room unit. All but one fault can be reset from the receiver however an A02 fault must be reset on the boiler fascia control by turning the main heating selector knob past standby.

#### 10: Fault indicators on the receiver:

If the green LED on the receiver is flashing the boiler is in lockout and requires resetting.



If the Amber LED on the receiver is flashing radio contact between the room unit and the receiver has been lost (it is therefore worth checking the battery indicator on the room unit).

A solid red LED is not a fault indication, it simply indicates the unit is powered on.

A solid amber LED indicates there is an external sensor fitted and a different instruction guide should be used.

# 11: Fault codes on the OpenTherm control (room unit):

Faults codes may be displayed on the room unit, but if the heating mode is OFF, no fault code is displayed.

For further instructions relating to fault codes and system parameters, please refer to the OpenTherm Quick help guide on our website

- A01: Ignition fault on boiler
- A02: Boiler overheat\*
- A03: Fan or flue problem
- A04: System water pressure too low

A05: Electrical or boiler control board problem

A06: Domestic hot water sensor problem (the boiler will still produce hot water for the user while showing this fault condition but using the flow thermistor will lock to 65°C which will provide warm water for washing only. The temperature will not be adjustable on the room unit until repaired).

A07: Flow temperature fault

A08: Return temperature fault

A09: Flue temperature fault or service reminder (the boiler will still work as normal with a service reminder alarm indicated.

\*Any faults shown on the room unit with an A2XX code can be reset on the boiler control only, not at the receiver.

#### 12: Setting the parameters on the OpenTherm Control:

There are a set of default parameters ready programmed into the OpenTherm Control

The adjustment should generally be by the engineer not the end user however there are two that the end user may need to adjust the heating curve and the value regarding the insulation of the property.

To enter parameter or engineer mode.

Press the  $\mathcal{O}$  button once.

Press the  $\triangleright$  button 5 times until PL appears in the screen



Press the  ${\mathscr O}$  button

PASS will appear and flash in the screen and the display shows 00

Press and hold the  $\triangleright$  button until the 00 reads 53

53 is the password to enter parameter mode

Press the Ø button

Press the  $\forall$  button to scroll through the parameters. (When an adjustment is made pressing the  $\forall$  button again memorizes the new setting and moves on to the next parameter)

The parameters are not numbered consecutively. It is strongly recommended the user does not adjust any of the parameters other than numbers 10 and 11.

01: Is to encode the receiver and room unit in case of failure and will rarely be necessary (if re-encoding is required refer to the instruction booklet that was supplied with the OT control.

08: Use the  $\lhd$  or  $\triangleright$  buttons to adjust the maximum flow temperature you require for the heating system.

09: Use the <</td>or >> buttons to adjust the minimum flow temperature you require for the heating system

10: Use the  $\leq$  or  $\triangleright$  buttons to adjust the heating curve (we suggest a setting of 2.5 as a starting point. The default setting is 1.2)

11: Use the  $\triangleleft$  or  $\triangleright$  buttons to adjust the OpenTherm Control to suit the insulation level of the property. The scale is 1 to 20 with 1 being a well-insulated house and 20 a poorly insulated house. The unit default is 10.

13: The room unit is set to display the actual temperature but if it is located in an unusual position, close to a window or over a radiator for example, it can be recalibrated while in this parameter with the  $\triangleleft$  or  $\triangleright$  buttons.

14: If you wish to reset the control system to the factory default parameters use the  $\triangleright$  button to adjust the figure to 1. Then press the  $\mathcal{O}$  button.

16: Indicates the software version of your OpenTherm Control

17: Use the  $\triangleleft$  or  $\triangleright$  buttons allow the room unit to display in Centigrade or Fahrenheit.

18: Use the *<*I or *>* buttons to adjust the temperature change upward from the programmed level necessary to switch the unit OFF (the hysteresis). The range is between 0.0°C and 2.0°C. Default is 0.1°C

19: Use the  $\triangleleft$  or  $\triangleright$  buttons to adjust the temperature change downward necessary to switch the unit ON (the hysteresis). The range is between 0.0°C and 2.0°C. Default is 0.5°C

20: Use the  $\lhd$  or  $\triangleright$  buttons to adjust the frost protection temperature. The range is between 3°C and 10°C. Default is 5°C

21: Fault memory. Use the  $\lhd$  or  $\triangleright$  buttons to scroll through the last 9 faults recorded on the boiler.



22: Unused

23: Unused

24: Unused

26: Use the  $\lhd$  or  $\triangleright$  buttons to swap between the display of the actual boiler flue temperature and the number of hours in condensing mode the boiler has operated x100. (2500 hours signals the need for a full service - A09 will be displayed on the room unit although the boiler will continue to operate as normal).

