

—

# Net zero journeys you can start today

---

Jo Alsop, co-founder

**the  
heatinghub**

[www.theheatinghub.co.uk](http://www.theheatinghub.co.uk)

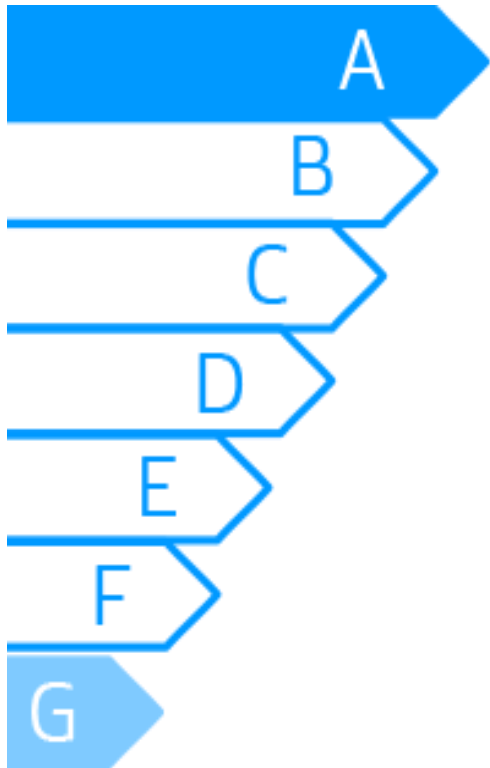




# Our national crises

---

- 30-40% of household were facing fuel poverty in October
- It's now or never on the energy crisis with no supported pathway
- Failed to deliver demand reduction through energy efficiency
- Relied on cheap North Sea gas and supplier switching
- Carbon capture, onshore wind, heat pumps all in their infancy
- Financial support measures are a sticky plaster with no ROI



90% and above

86% – 90%

82% – 86%

78% – 82%

74% – 78%

70% – 74%

Below 70%

# Efficiency failures

---

- Household were already paying too much to run their heating systems
- A-rated boilers tend to be C-E Rated in the home
- Boilers labelled at 90-91% efficient only 75-85% in practice
- Cheap gas has masked the shortfall
- At 2.5p per kWh as recently as 6 months ago, no one noticed
- At 10p per kWh come Oct, 10-20% saving can make all the difference



## How has this happened?

---

- Gas boilers still work, even when set up badly
- Building regs have failed to correct market failures
- Volume business models do not prioritise efficiency or longevity
- 99% of installers not trained in condensing gas boiler principles
- Domestic heating sector unable to help consumers now
- Consumers have no way of knowing boiler efficiency
- Unable to hold industry account



# Lifespan failures

---

- Disproportionate trend towards boiler sales, not boiler lifespan
- Boilers swapped out at 6-7 years when they should last 22
- Adds thousands ££ in unnecessary household expenditure
- Spurious reasons given for replacement:
  - Parts are no longer available
  - Beyond economic repair
  - Not efficient
  - This other brand of boiler is superior
  - Boilers only last about 10 years

# A new model, for our times

---

- Need a new model to meet net zero 2050 target
- We do not measure success in sales
- Developed our unique Efficiency Audit services
- Get all existing condensing boilers running optimally
- Report on parts availability for peace of mind
- Make the boiler lasts until ready for a heat pump



**Step 1**  
Make your existing boiler  
more efficient

**Step 2**  
Insulate your home

**Step 3**  
Is solar PV, solar thermal or  
a battery appropriate?

**Step 4**  
Get your system ready for  
low temperature system

**Step 5**  
Fit low carbon heat source

*Roadmaps: if you  
can't take big steps,  
take small ones, but  
start today and we'll  
show you how*



# Net zero is a journey of carbon reduction, not the flick of a switch

---

- 15% off our gas bills would heat Wales each year
- Heat pumps are the current solution
- Market will only deliver 3 million by the end of the decade
- We have a carbon budget that requires ongoing reductions
- Boilers are not banned until 2035
- Strategy that accepts gas is with us for 15-20 years +
- Not too late to get better at it



# Gas boiler basics

- Combi boiler – produces hot water instantaneously
- System/heat only boilers - work with a hot water cylinder
- All boilers since 2005 are condensing boilers
- Identify a condensing model if it has a white plastic pipe



# The 'condensing' process

- Condensing boilers recycle heat lost via the flue on non-condensing boilers
- Efficiencies jumped from 78% non-condensing to potentially 94% for condensing
- But only at lower flow temperatures
- White plumes = energy wasted = lower efficiency



Save 21% CO2

2,700kg CO2 heating our homes

Reduce gas use 20% just through efficiency  
2,400kWh saved

Average home  
12,000kWh

*2400kWh = 559kg CO2*

*2,700kg CO2 heating our homes*

**Step 1**  
Make your existing boiler more efficient

## Step 1 – series of smaller steps

- Call them Step 1, A-E
- Step 1A: energy saving interventions you can do today if you have a combi boiler
- Reduce flow from 80degC to 60degC or lower
- Save 6-8% with lower the flow temperature
- 72% homes can stay warm on a January day at 60degC flow
- Turn off the hot water pre-heat to save another 5-10% in gas use



# Turning down the flow temperature

Go to the front of your boiler

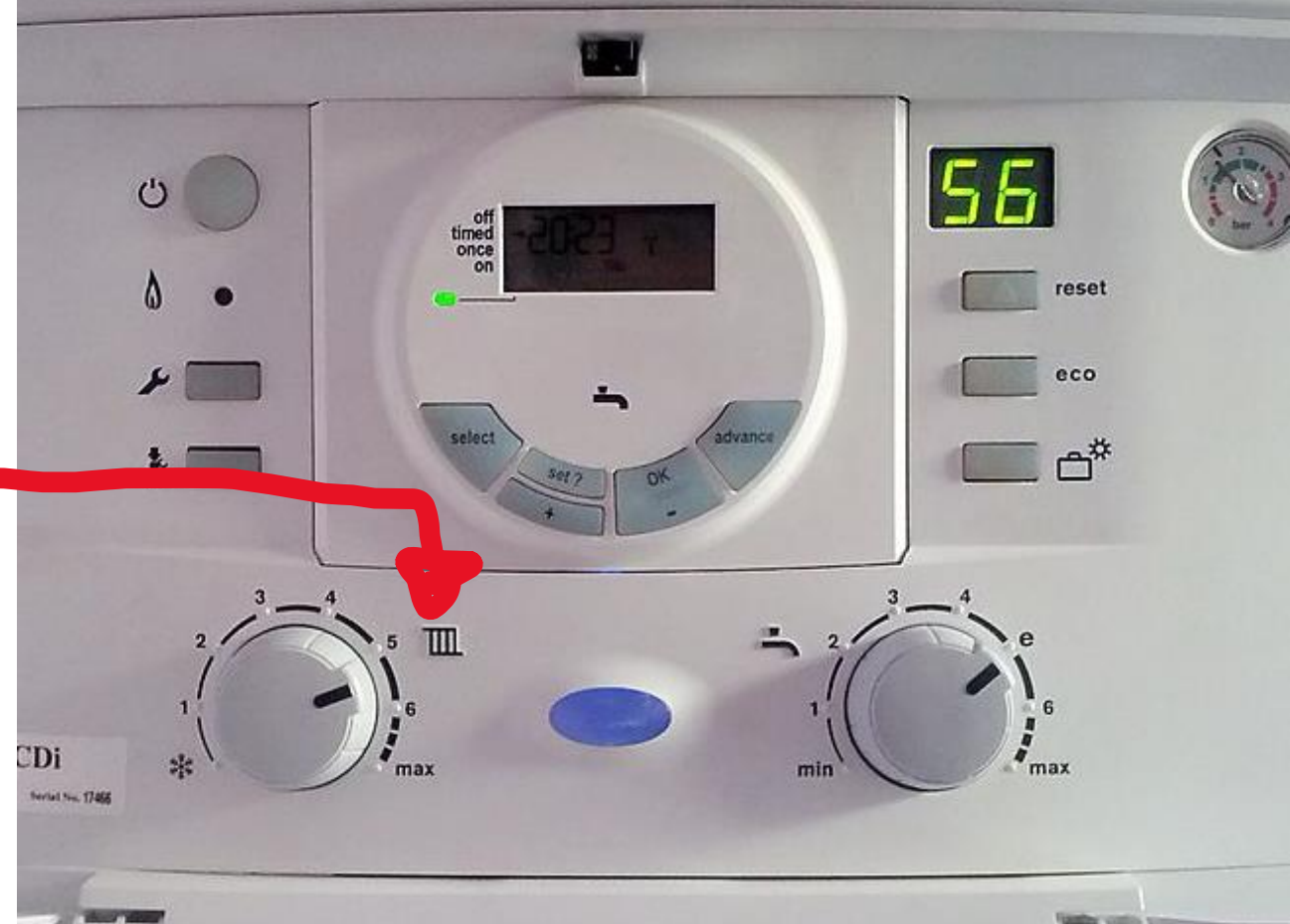
- We are not turning down the thermostat
- If there is a flap on the boiler, it is ok to open it
- Presented with dials, buttons and possibly a digital display



# Turning down the flow temperature

Look for the right control to adjust

- Dial with a radiator icon
- Dial with a tap icon
- Turning down the radiator dial
- Numbers 1-6 very common. Setting it to about number 3 for 60degC
- Dials with a line, set to 12'o'clock position

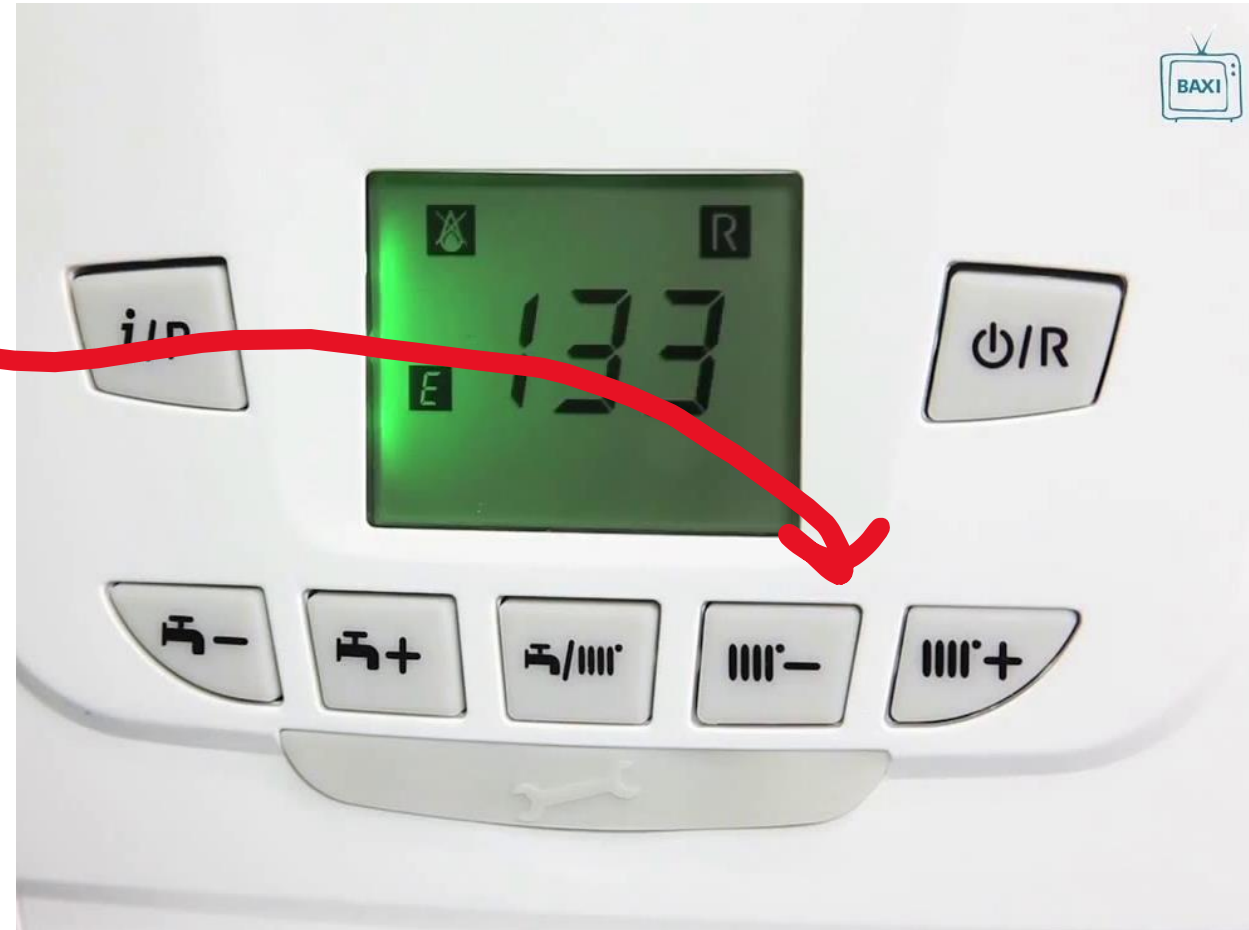


[theheatinghub.co.uk/mission](http://theheatinghub.co.uk/mission)

# Turning down the flow temperature

## Boilers with buttons/displays

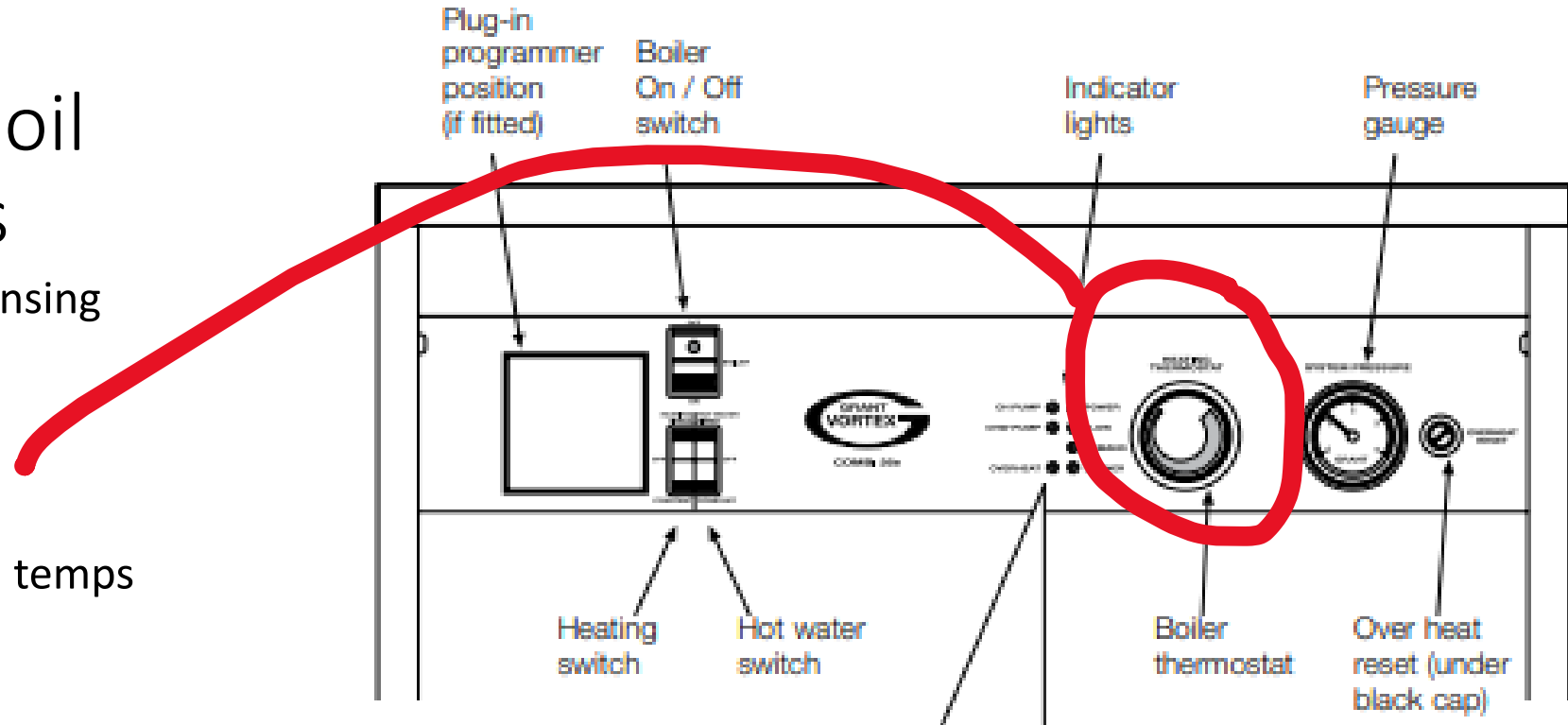
- Buttons with radiator and tap icon
- Up and down or plus and minus
- Press the minus or down button until 60 appears in the display
- Dials with digital display – turn the dial until 60 appears in the display



# Turning down the flow temperature

## Grant Vortex oil combi boilers

- Vortex range are condensing boilers
- Turn down the 'Boiler thermostat'
- Recommend to 60degC
- NB need to keep return temps above 40degC

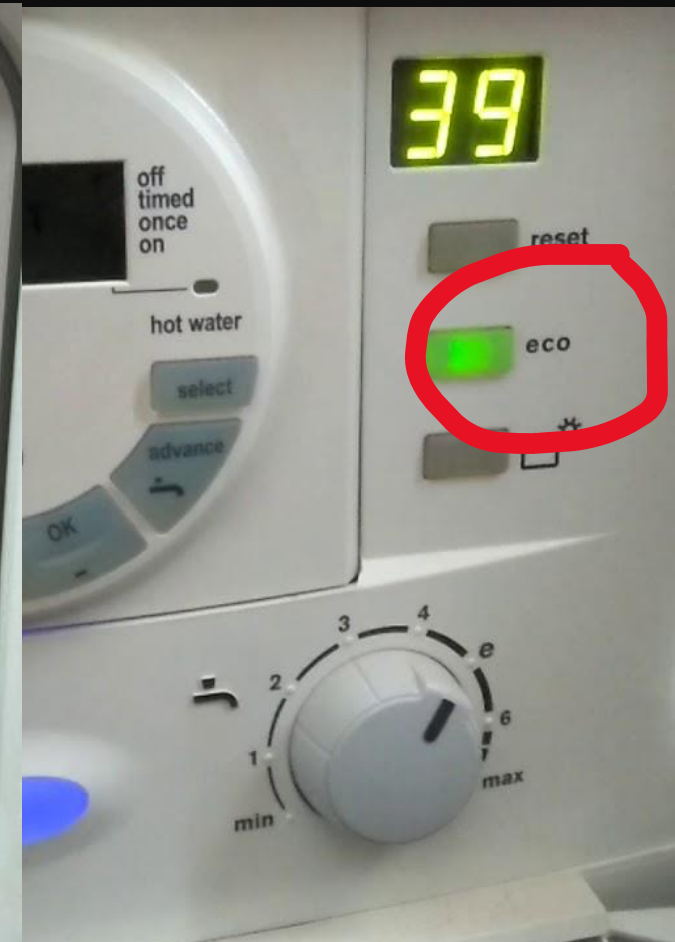
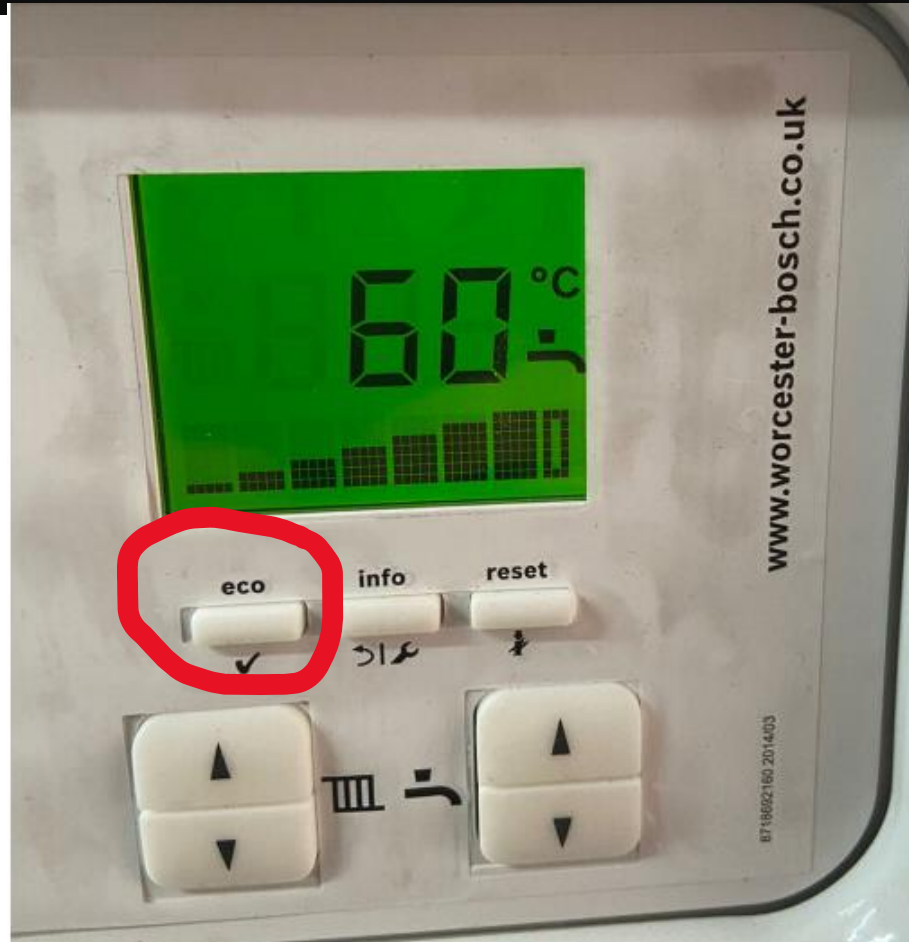




# Turning off the pre-heat

Aka 'keep warm' or 'comfort' modes

- Pre-heats are often left on
- Have to turn them off
- Many Worcester, turn the 'eco' button on to turn off the pre heat

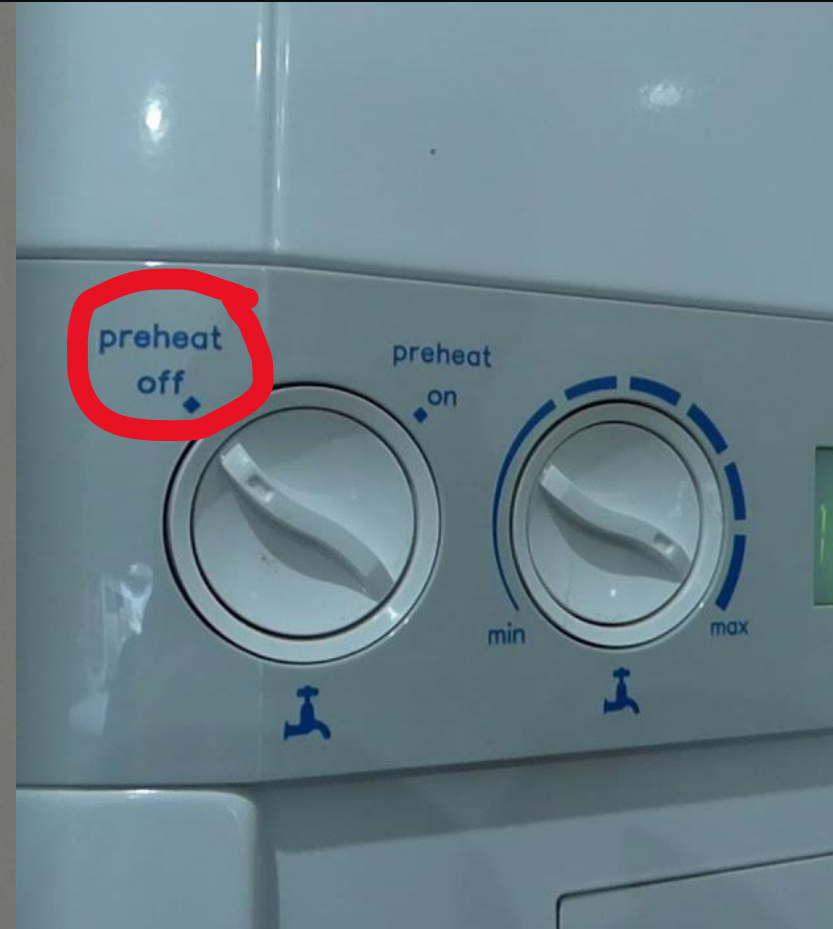


[theheatinghub.co.uk/mission](http://theheatinghub.co.uk/mission)

# Turning off the pre-heat

## Ideal boilers

- Make it fairly easy to find
- Dial or button to turn on and off
- Some older models can't switch it off



# 15 million households can stay warm for less

WATCH

## Our free how-to video



Jo Alsop and Richard Burrows explain how condensing boilers work and show you how to lower the flow temperature on a range of condensing combi boilers

Watch

READ

## Our free how-to blog



Read our full blog on how to lower the flow temperature on your condensing combi boiler. We cover why it works and when not to do it.

Read

REQUEST

## Our free how-to flyer

Lowering the flow temperature instructions  
You can do this easily and safely yourself...

### Step 1 – go to the front of your boiler

1. Go to the front of your boiler – we are not turning down your thermostat.
2. Some boilers have a pull-down flap.
3. It is ok to open the flap.
4. **Don't worry!** You will not damage your boiler or stop it from working if you adjust the flow temperature yourself.



### Step 2 – how to turn down the flow temperature on different boilers

#### Boilers with just dials

Go to the dial that has a little



Request our PDF flyer for yourself, someone you want to help or for your organisation. Follow the link to fill out our contact form and we'll email it to you.

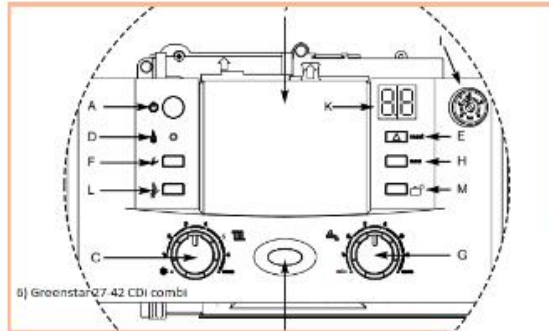
Request

theheatinghub.co.uk/mission

# 5-10% turning off the pre-heat function

READ

## Worcester pre-heat blog

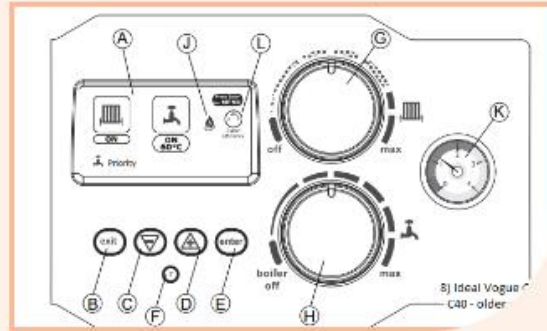


Many households can save another 5-10% per year by switching off the hot water pre-heat. We guide you on Worcester boilers.

[Learn more](#)

READ

## Ideal pre-heat blog

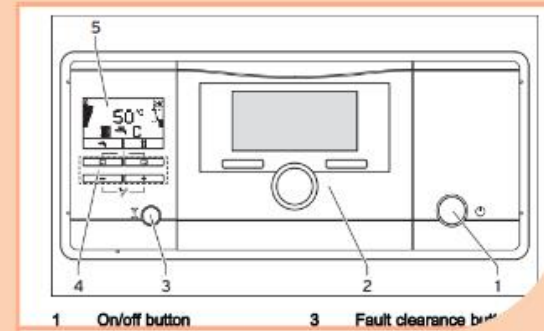


Many households can save another 5-10% per year by switching off the hot water pre-heat. We guide you on all Ideal boilers.

[Learn more](#)

READ

## Vaillant pre-heat blog



Many households can save another 5-10% per year by switching off the hot water pre-heat. We guide you on Vaillant boilers.

[Learn more](#)

[theheatinghub.co.uk/mission](https://theheatinghub.co.uk/mission)



# Boilers with hot water cylinders

---

- Not safe for households to do themselves
- The heating and hot water temperatures are tied together
- Means flow temperatures have to be set at 70degC to maintain 60degC cylinder temperature (HSE)
- In most cases they can be separated
- 9 million homes with condensing boilers that NEVER condense
- Will take a small investment to improve efficiency
- Steps are boiler specific
- DO NOT remove and fit a combi!

# Step 1 (B-E)

Need tailored advice:

- The boiler optimised through the settings
- The right heating controls
- The right heating regime
- Clean and balanced radiators
- Finally, need the right heating engineer
- Comfortably 10% up to 25% saving





the  
heatinghub

---



[www.theheatinghub.co.uk](http://www.theheatinghub.co.uk)