

# When your boiler has no pressure

A loss of water pressure is a good indicator of some common issues that arise with boilers. Low pressure is relatively easy to diagnose, as most boilers have a built-in pressure gauge. Sometimes, it's possible to correct water pressure yourself

## Understanding water pressure

Constant water pressure is essential to the efficient functioning of your **boiler** system. Pressure in most modern combination boilers is maintained by cold water flowing from the water mains supply through a mechanism known as the 'filling loop'<sup>[1]</sup>.

## What causes a drop in pressure?

A number of things can cause pressure to drop. It may be that there is a leak somewhere in your boiler system. Or, if you bled your radiators recently, it may be that pressure was lost then.

However, you may not be able to tell that you have a problem until you check the pressure gauge. A water leak, for instance, may be tiny and go unnoticed at first, only to develop into a larger problem down the line.

## Checking your pressure gauge

Check the water pressure gauge or indicator, which is typically on the front of your boiler. For most boilers, this should be set around the 1 bar. The position set when the boiler was installed is sometimes shown by a red indicator needle.

If you have noticed repeated drops in your boiler pressure, make sure you check the gauge regularly. A drop in pressure is a good indication that there is a problem with your boiler.

## How to tackle lost pressure

Each boiler will come with specific instructions about its pressure system. Check your user manual to see if you can re-pressurise your boiler yourself.

You may also find instructions on the rear of your boiler control panel. However, if your boiler panel needs tools to remove it, don't touch it –**book an engineer**.

Likewise, if you continue to have pressure problems after re-pressurising your boiler according to the user manual, **our expert engineers** can diagnose and repair the problem.

## LOW SYSTEM PRESSURE? AIR IN SYSTEM?

### How To Re-Pressurise a Central Heating System and Bleed the Radiators:

To keep your boiler working efficiently, it is essential that any air that has found its way into the system be removed or 'bled' from the radiators. Common symptoms of excess air are:

- Cold/cool radiators
- Noise from the boiler, pump or system

You will first need to establish if you have pressurised central heating. All combination boilers are pressurised, as are some conventional systems. A pressurised system will have a pressure gauge which is usually located on the boiler fascia however some models have the pressure gauge on the bottom, these will need to be viewed from below the boiler. This gauge will be graduated in 'bars' and should read between 0.8 and 1.5 bar (usually 1 bar) when the system is cold. Gradual loss of pressure is normal.

If your system is conventional and you have a feed and expansion tank (central heating header tank) your system will be topped up automatically and you will only need to bleed the radiators as detailed below.

If your system is pressurised, you should regularly check the pressure gauge and top it up if necessary.

Pressure is increased by adding water from your cold water main. There will be a device called a filling loop/valve somewhere on the system. The filling loop/valve will usually be a flexible connection below the boiler (see Fig.1) but in some cases this is an integral part of the boiler (see Fig.2) or, it can be located behind the washing machine, in an airing cupboard or under the kitchen sink. If in doubt, consult your boiler installation instructions or your installer.



(Fig.1)  
External Filling Loop



(Fig.2)  
Integral Filling Valve usually on  
underside of boiler

Open the valve or valves on the filling loop whilst watching the pressure gauge.

Water can usually be heard moving into the system. Do not over pressurise - it is easier to put it in than to take it out!

When the gauge shows the correct pressure, turn off the valve or valves and bleed the radiators as detailed below. Constantly check the pressure level at the gauge and top up when necessary, until all radiators have been bled of excess air.

Finally, ensure that the pressure reading is correct and that the filling loop valve/valves are closed.

#### **To Bleed a Radiator:**

You will need a bleed key (available from any hardware store) and an absorbent cloth/tissue.

If the central heating is on, turn it off and wait until it has cooled down enough - a central heating system is filled with hot and sometimes extremely dirty water so precautions should be taken to protect floor coverings and decorations.

Start with the lowest radiator on the system and work towards the top. Some hot water cylinders also need to be bled. Holding a cloth to catch any water spillage, slowly and gradually loosen the bleed screw on the radiator (do NOT remove the bleed screw) until any air (evidenced by hissing) or water starts to dribble out. If there is no air in the system water will appear immediately. Close the bleed screw - do not over tighten.

Finally, ensure that the pressure reading is correct and that the filling loop valve is closed.

Regularly check the pressure level at the gauge and top up when necessary.

If your radiators are still cold/cool (especially at the bottom), or the water in your system appeared particularly dirty, your system may need to be power flushed.