

# Checking that an actuator is working

The following explains how to check that a zone valve is working as heat is not getting to the correct rooms.

Actuators are mains-powered devices which fit onto the underfloor heating manifold. When there is a call for heat for that room, one or more actuators open to allow the flow of hot water from your boiler to enter the room's pipework.

If an actuator stops working, this can either stop a room from heating up as it will not open when instructed.

First select the underfloor heating room which is having problems with its heating. From the 'My House' page, select a zone which is heated from the zone valve.

Now the zone needs to be called on, so that the zone valve should open and the boiler call for heat.

Override the zone by:

Clicking on the black circular mode selector

Choosing override (three arrows)

Selecting the maximum temperature for the zone

The zone will now call for heat, which will send a message to the controlling devices in that zone (e.g. an Electric Switch). This will send a signal to the underfloor heating wiring centre, which should open the actuator, run the manifold pump and also call on the boiler to provide the hot water.

After 5 minutes, go to the manifold which is used to divert water to the underfloor heating in the room in question. You should see that one (or more if the room is larger) of the actuators has started to open. This is often a line moving in the window on the side of the actuator, a flag which raises above the top of the actuator or the top of the actuator rises up. The manifold should also be allowing hot water to flow through the pipework.

*Note:* take care not to injure yourself on the hot pipework.

The pipework going to and from the room in question should not be heating up, which you should be able to tell by placing your hand near the pipework. The boiler should also be firing to provide hot water around the circuit.

1. If the boiler is firing and water is passing through the correct actuator(s): This means that the actuator(s) and wiring are working correctly.
2. If the boiler is firing but water is only passing through the wrong actuators: Ensure all of the other rooms are turned off and try again. If this is still the case then either the Electric Switch has been assigned to the incorrect room, or there is a problem with the wiring. A qualified electrician should be used to make any investigations or changes to the wiring.
3. If the boiler is firing but none of the actuators are open: There is a problem with either the actuators or the underfloor heating wiring centre, which should be investigated by a heating engineer. Either there is a faulty connection to the actuators or wiring centre, meaning that the wiring is incorrect and so cannot control the heating, or that the actuator(s) or wiring centre are faulty and so cannot open. One of these may need to be replaced.
4. The actuator(s) are open, but the boiler is not running and producing hot water: The wiring from the underfloor heating wiring centre to the boiler should be investigated and if fine there is a problem with the boiler as it should be running when the wiring centre calls for heat. A qualified electrician should be used to make any investigations or changes to the wiring.

The override is no longer needed now that the test has been completed.