

 **circoflo**Pro



COMMISSIONING GUIDE

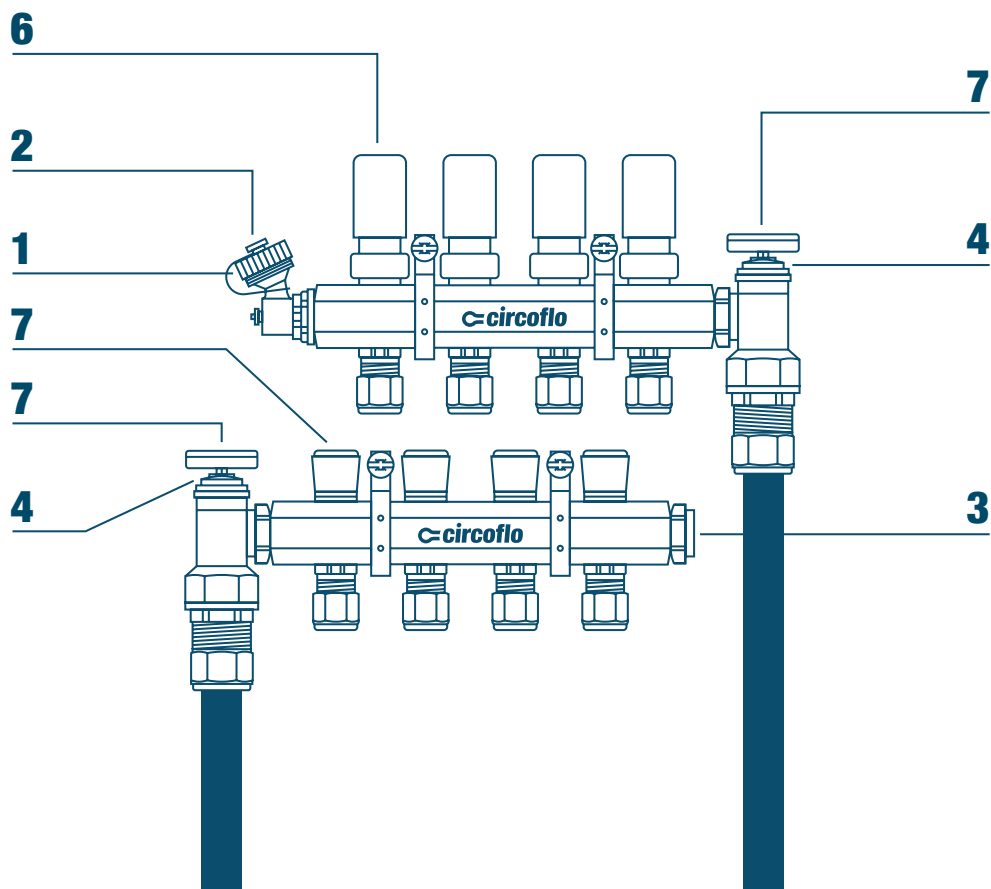
MANIFOLD

1. HOW TO FILL

The primary system should already be filled with water.

- Close the two lockshield valves (4) by using the adjustable valve underneath the temperature gauge (7).
- Undo the fill/vent (1) using the cap (2).
- Connect the filling hose to the filling point.
- Open the manual airvent (3).
- Slowly fill the manifold until all the air has been purged. To do so, close all loops down and purge along the bar one circuit at a time.
- Close the manual airvent (3) and the fill/vent point (1), then disconnect the hose.
- Open the lockshield valves (4) and purge any air that may have collected in the top and bottom manifold.
- All circuits should be pressure tested with water to 6 bar.
- Record the pressure test on the tag provided.

BLEED THE MANIFOLD PERIODICALLY TO REMOVE ANY TRAPPED AIR



2. HOW TO BALANCE

If the underfloor heating pipe circuits have very different lengths then the circuits should be balanced. The length of the circuit should be recorded on this tag so that the balancing settings can be checked in the future.

- Fully open all of the underfloor heating circuits. Do this by fully opening the balancing valves **(5)** and removing the white actuator valve caps **(6)** or actuator valves if fitted at this stage.
- To balance, turn each balancing valve **(5)** for each circuit clockwise based on the length of each circuit as shown below:

| | |
|-----|-------------------------|
| 90M | fully open |
| 80M | $\frac{1}{4}$ turn shut |
| 70M | $\frac{1}{2}$ turn shut |
| 60M | $\frac{3}{4}$ turn shut |

| | |
|-----|---------------------------|
| 50M | 1 turn shut |
| 40M | 1 $\frac{1}{4}$ turn shut |
| 30M | 1 $\frac{1}{2}$ turn shut |
| 20M | 1 $\frac{3}{4}$ turn shut |

- With the system running, check the manifold flow and return temperatures on the gauges **(7)**.
- If a manifold is showing high temperatures relative to the other manifolds then restrict the manifold flow by turning a lockshield valve **(4)** clockwise.

3. TROUBLESHOOTING

If the floor is not warming up at all, check that:

- The right thermostat is controlling the right actuator.
- Either end of an underfloor heating circuit is connected to separate manifold arms – not the same arm.
- The balancing valve **(5)** for the circuit and the manifold lockshield **(4)** is open.
- The circuits have been filled with water and that all the air has been bled from the system using the manual air vent **(3)** and fill/vent point **(1)**.
- The boiler fires and the central mixing pump activates (where fitted) when there is a call from a thermostat for heat.

If the room is taking a long time to warm up:

- Check that each circuit is balanced.
- Check that all manifolds are balanced so that they have, in general, the same flow and return temperature.
- Check that the central mixing unit (if fitted) is set to the correct temperature (max 60°C at the mixing unit).
- Check the flow temperature on the manifolds. If the temperature has dropped significantly from the central mixing unit then the heating primaries should be lagged.
- Check that the boiler is sized correctly and that there is no boiler programmer overriding the underfloor heating demand.



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