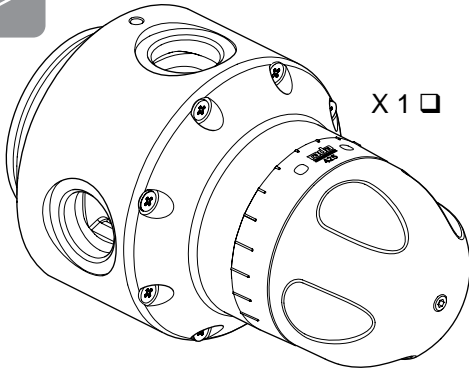
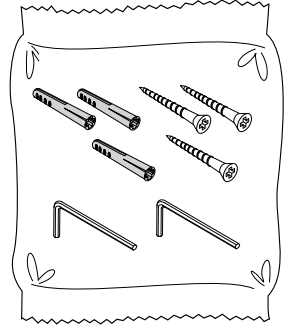




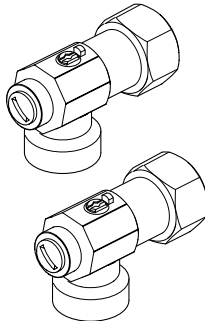
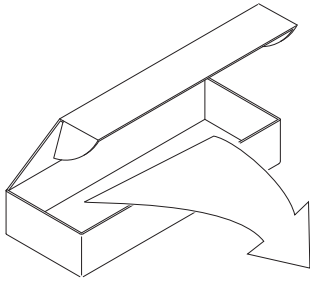
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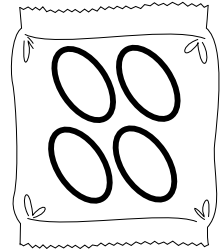
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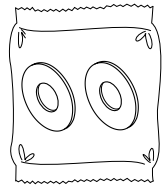
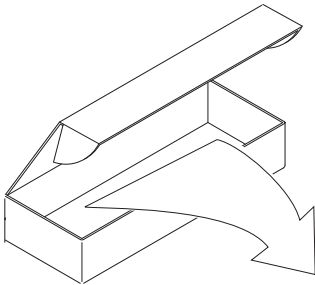
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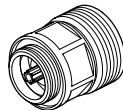


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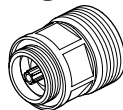
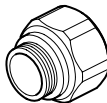


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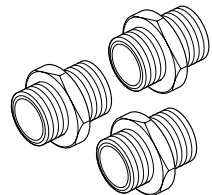
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X 1 □

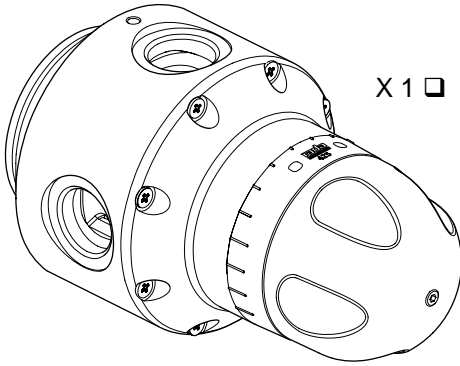


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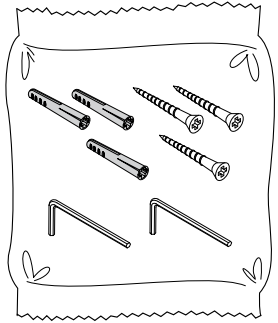


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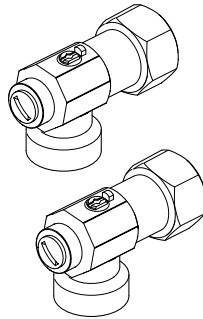
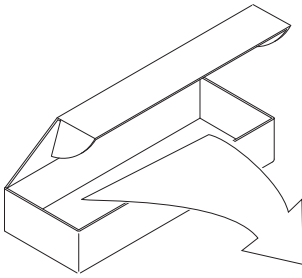
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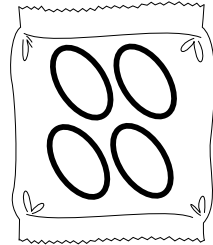
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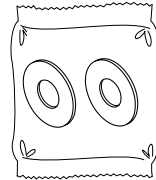
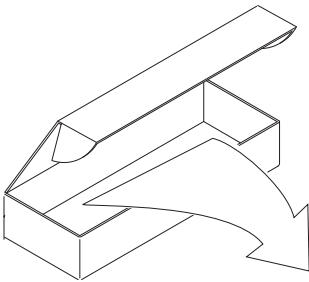
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X 2 □



X 1 □

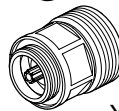
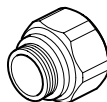


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X 1 □

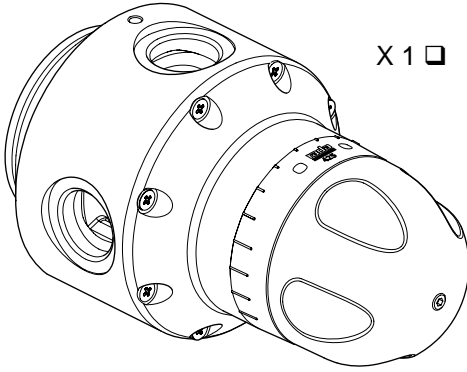


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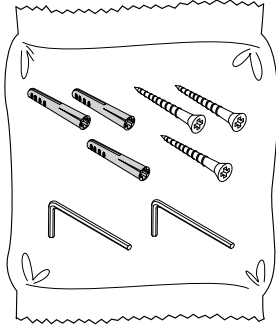


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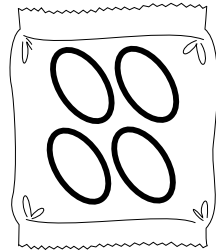
425 F



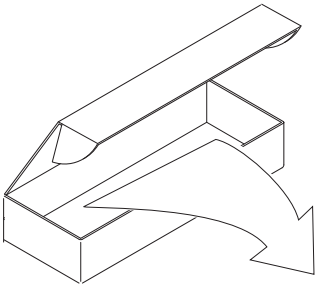
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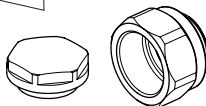
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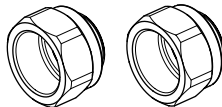
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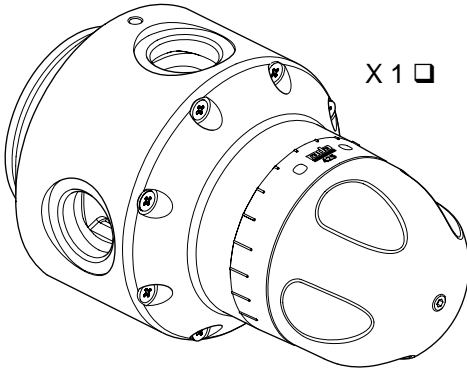
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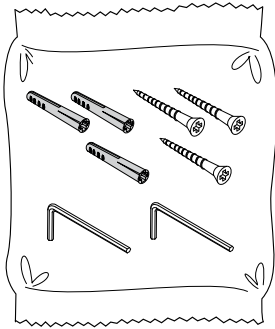
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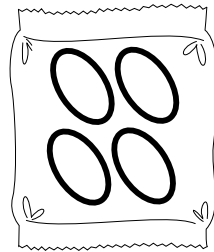
425 M



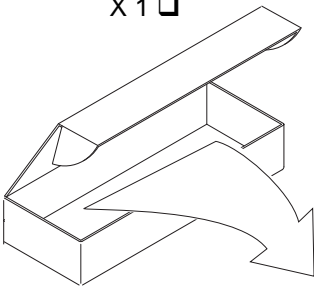
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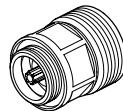
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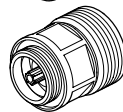
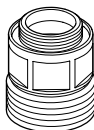
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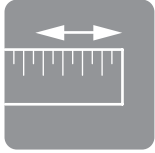


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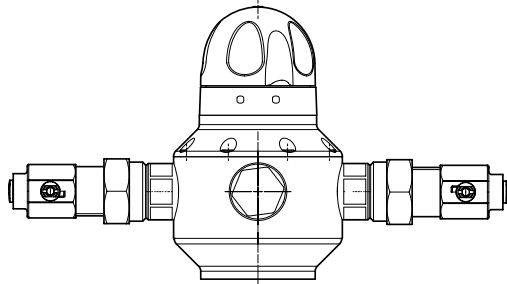
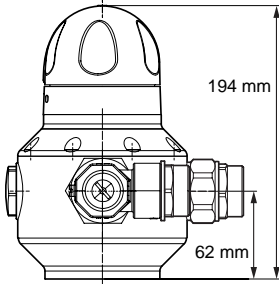
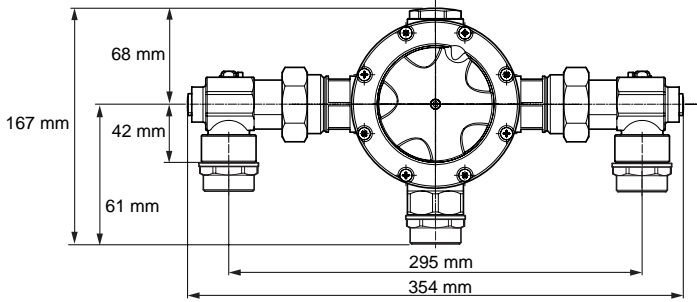


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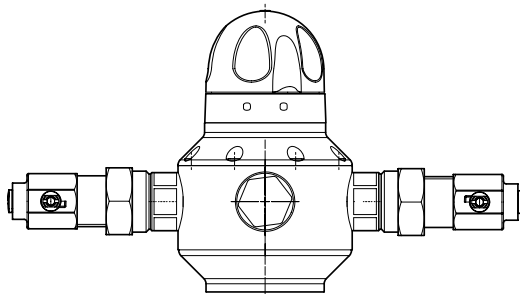
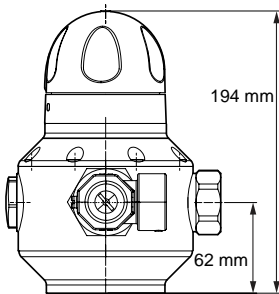
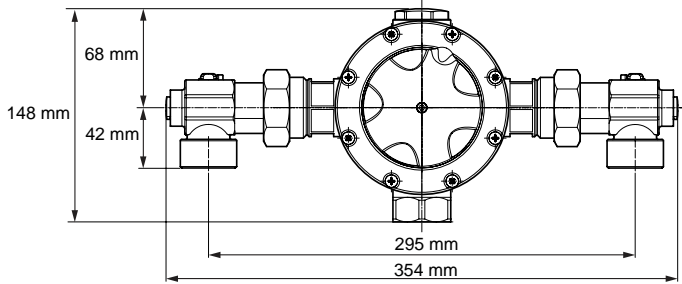




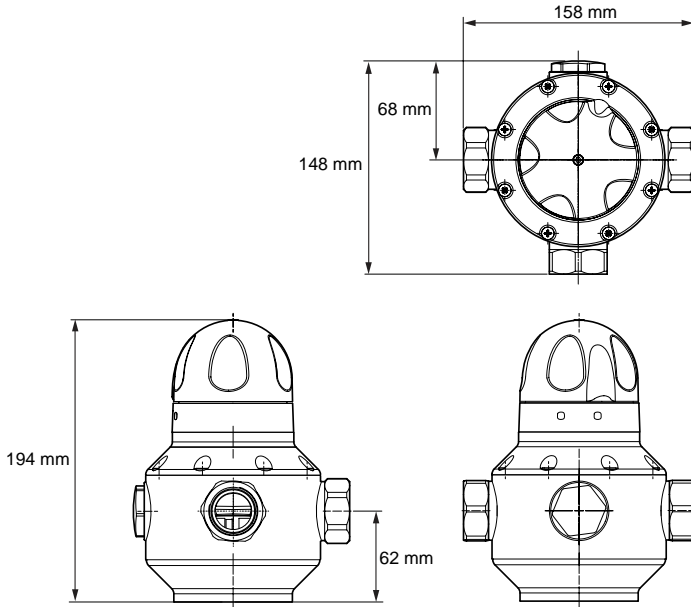
425 IC



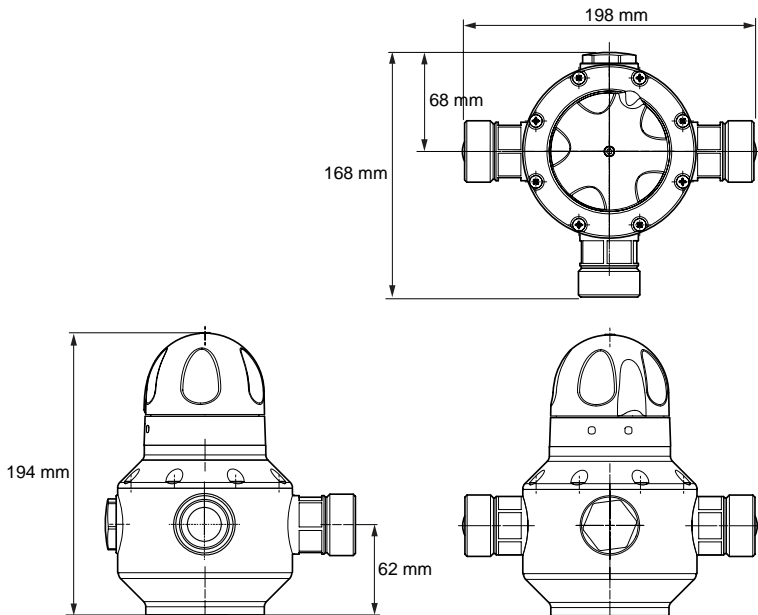
425 IF



425 F



425 M



en

General

Make sure that the item is installed by a competent installer. Shut off the main water supply.

Observe all local plumbing and building codes.

Provided that the thermostatic mixing valve is installed, commissioned, operated within the specification limits and maintained according to this Manual, the risk of malfunction, if not eliminated, is considerably reduced.

Safety

The use of the word 'failsafe' to describe the function of a thermostatic mixing valve is both incorrect and misleading. In keeping with every other mechanism it cannot be considered as being functionally infallible.

Malfunction of thermostatic mixing valves is almost always progressive in nature and will be detected by the use of proper temperature checking and maintenance routines.

Certain types of system can result in the thermostatic mixing valve having excessive 'dead-legs' of pipework. Others allow an auxiliary cold water supply to be added to the mixed water from the mixing valve. Such systems can disguise the onset of thermostatic mixing valve malfunction.

Ultimately, the user or attendant must exercise due diligence to ensure that the delivery of warm water is at a stable, safe temperature. This is particularly important in such healthcare procedures as supervised bathing of patients unable to respond immediately to unsafe temperatures.

Specification

Pressures

Minimum Dynamic Supply Pressure: **0.1 bar**

Maximum Dynamic Pressure: **3.5 bar**

Maximum Supply Static Pressure: **10 bar**

Maximum pressure loss ratio*: should not exceed 10:1 in favour of either supply during flow.

Maximum pressure loss: inlets to outlet is 3.5 bar, which equates to maximum 200 l/min flow rate at mid blend.

Note! Pressure loss is the pressure drop between the inlets and the outlet of the mixing valve when flow is taking place.

* Pressure Loss Ratio is determined by subtracting the resistance of the outlet pipework and outlet fittings from the dynamic pressures of the hot and cold water at the inlets of the mixing valve. This is at its extreme when the mixing valve is used at its lowest flow-rate and when the maximum inequality occurs in the pressure of the hot and cold water supplies.

Connections

425 IC - Inlets & outlet connections: 28mm compression.

425 IF - Inlets & outlet connections: 1" BSP female thread.

425 F - Inlet & outlet adaptors 1" BSP female thread.

425 M - Inlet & outlet adaptors 1 ¼" BSP male thread.

Temperature

Minimum Cold Water Temperature: **1°C**

Maximum Hot Water Temperature: **85°C**

Thermostatic Control Range: **25°C - 60°C**

Optimum Thermostatic Control Range: **35°C - 46°C**

Flow Rates

Minimum Flow Rate: **8 l/min** at mid blend with nominally equal supply pressures.

Maximum Flow Rate: **200 l/min**

Troubleshooting

Only hot or cold water from outlet

- Inlet supplies reversed (i.e. hot supply to cold inlet). Check.
- Check filters and inlet fittings for blockage.

Fluctuating or reduced flow rate

- Check filters and inlet / outlet fittings for flow restriction (check isolators are fully open).
- Ensure that minimum flow rate is sufficient for supply conditions.
- Ensure that dynamic inlet pressures are nominally balanced.
- Ensure that inlet temperature differentials are sufficient.

No flow from mixing valve outlet

- Check inlet isolators are fully open.
- Check filters and inlet / outlet fittings for blockage.
- Hot or cold supply failure.

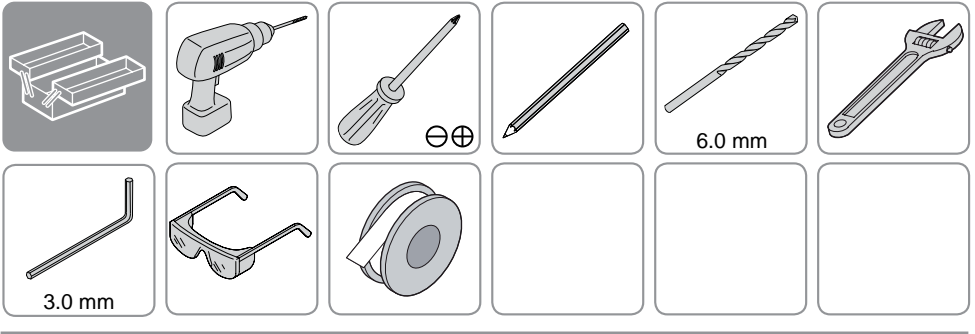
Maximum blend temperature setting too hot or too cool

- Indicates incorrect temperature setting.

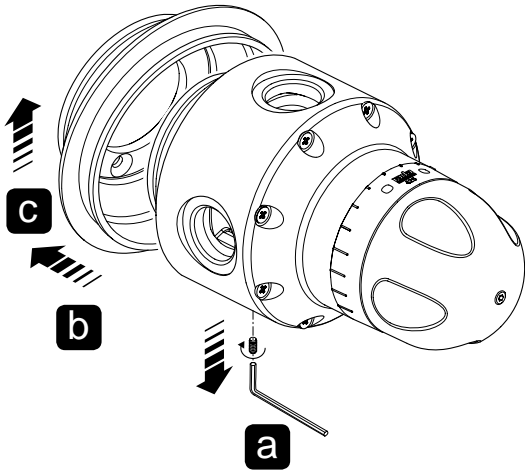
For full instructions, see Product Manuals on the website at www.radacontrols.com



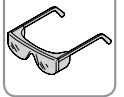
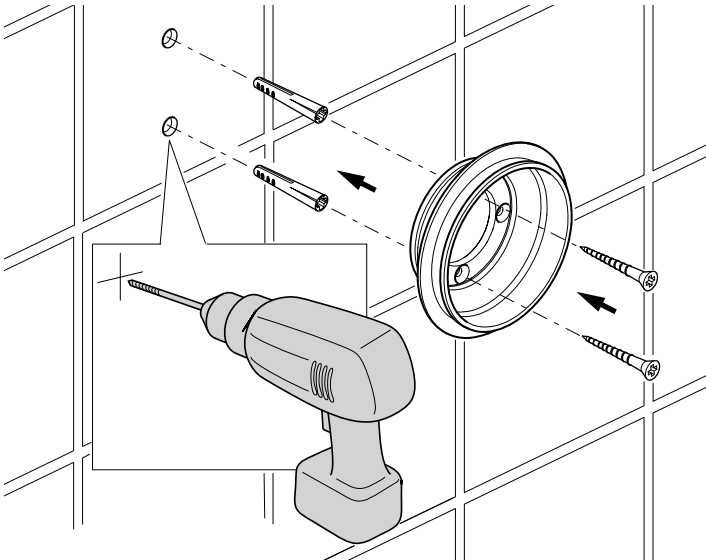
Note! The 425 valve is available in a number of variants to suit your particular application. Primarily the installation procedure for the 425 IC valve is shown. Most of the procedural steps are very similar for all variants.



1

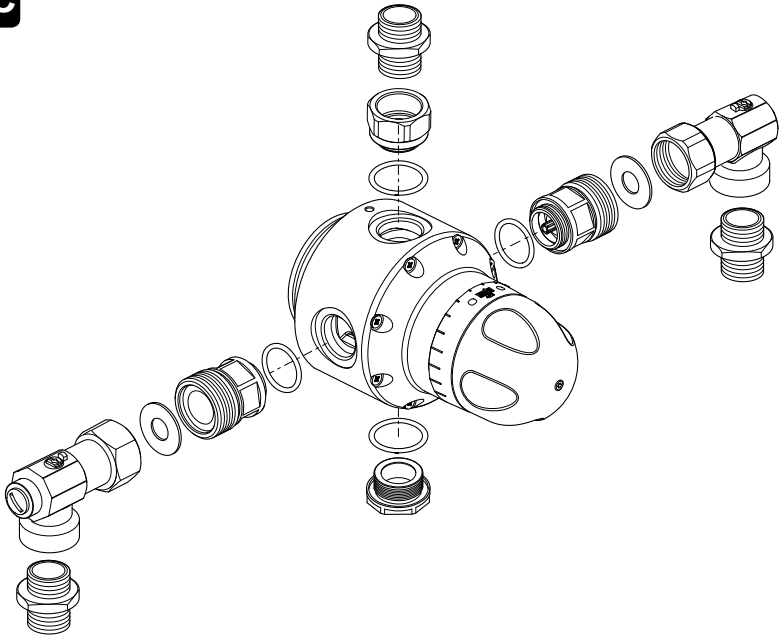
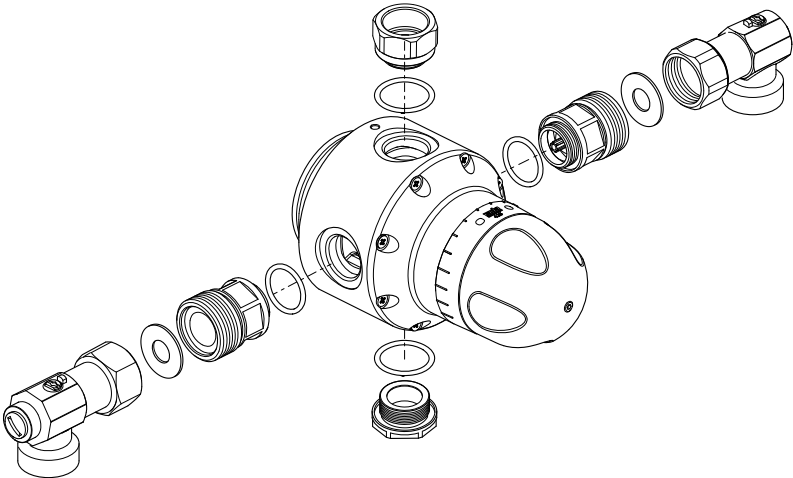


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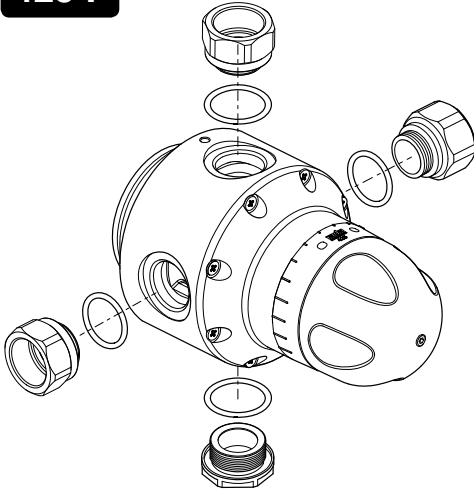


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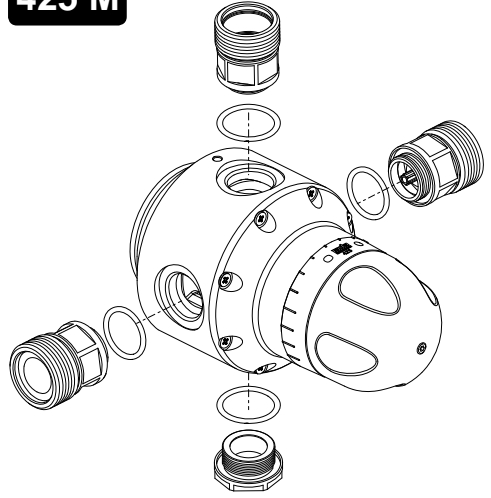
Install the connections

425 IC**425 IF**

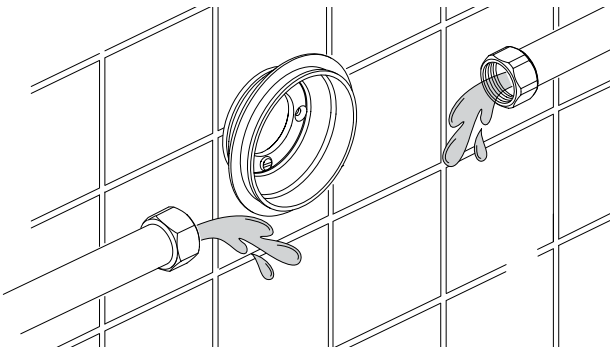
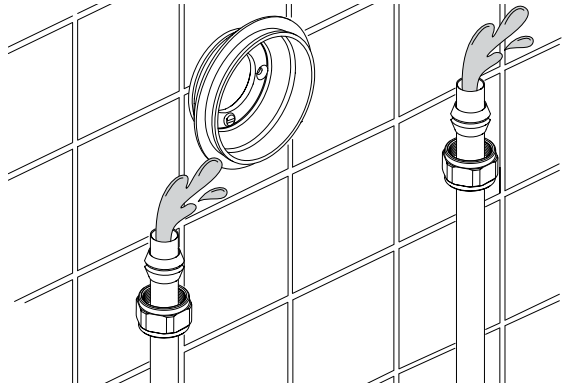
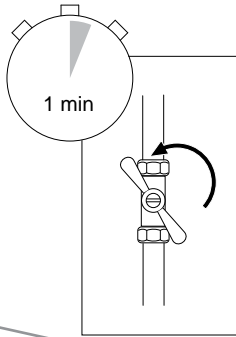
425 F



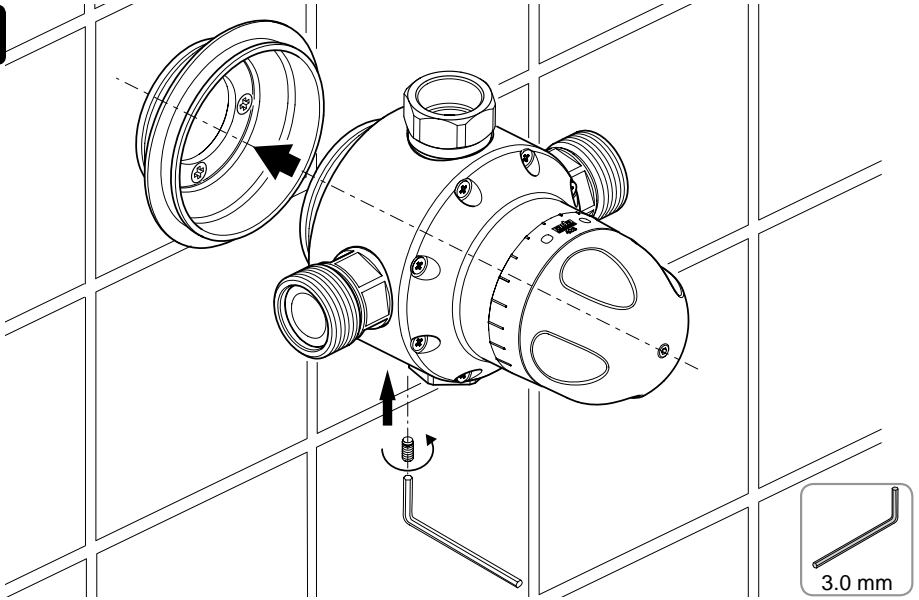
425 M



4



5



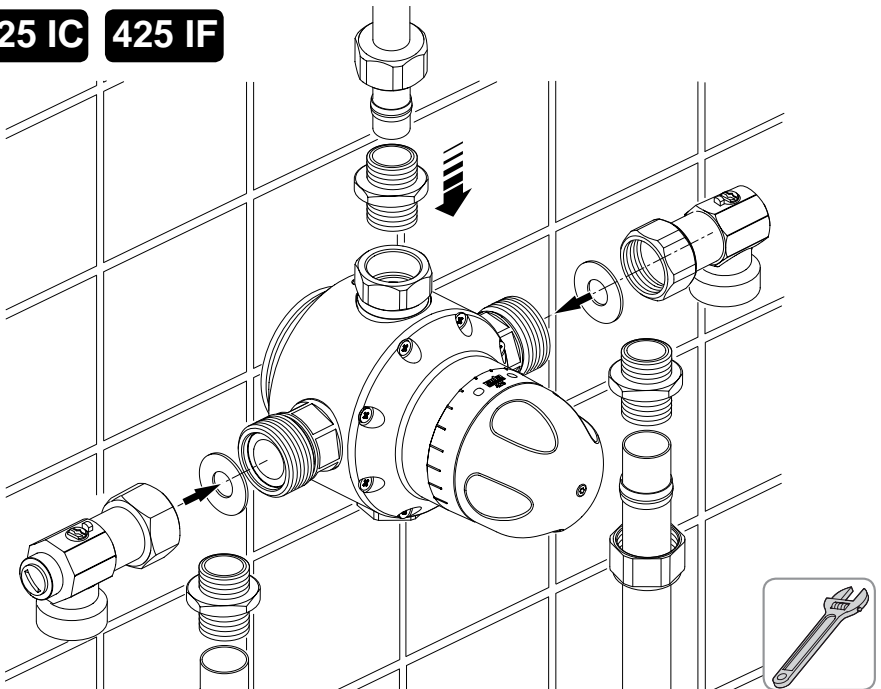
6

Install the pipework

a

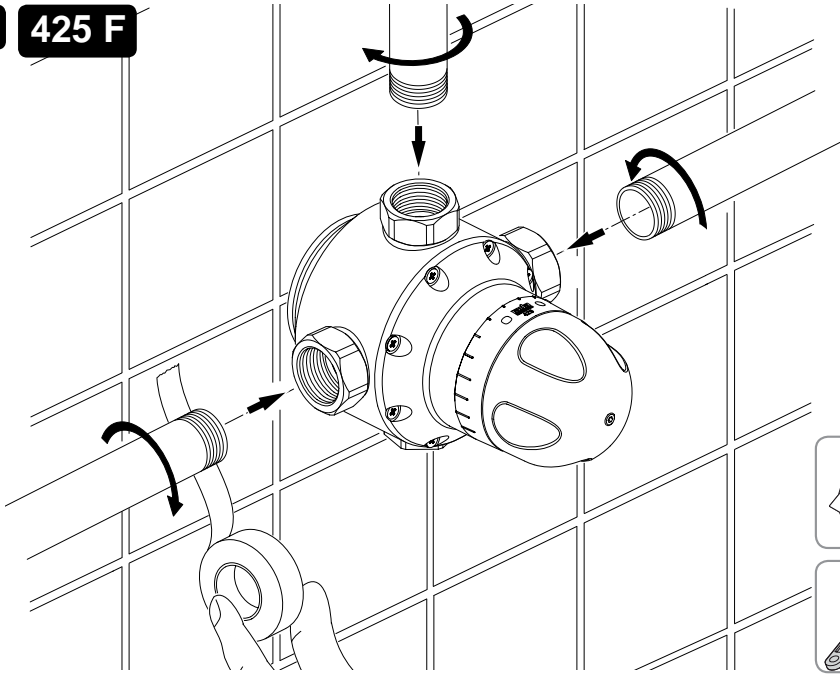
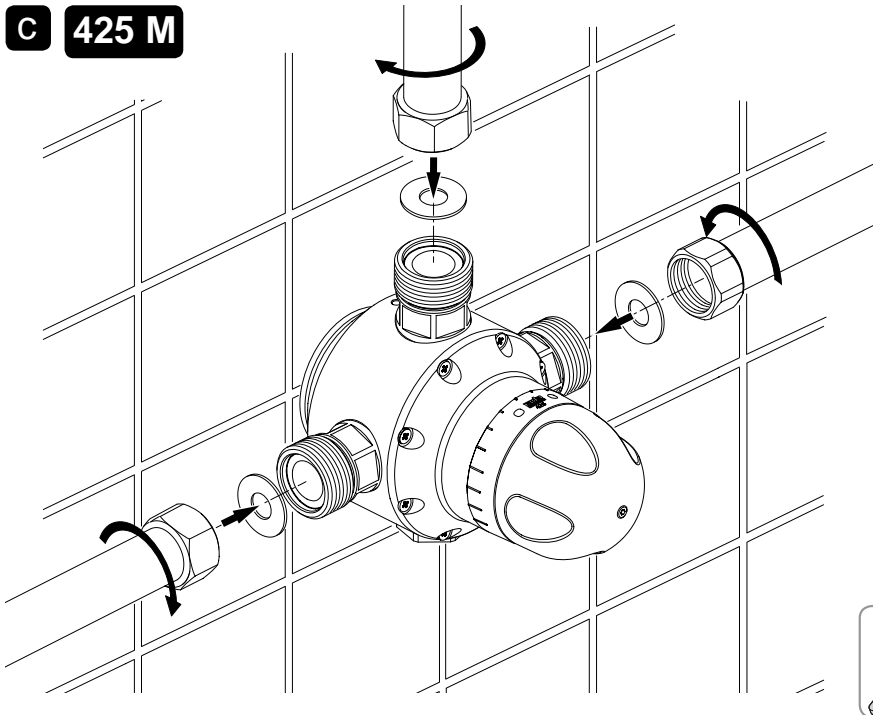
425 IC

425 IF



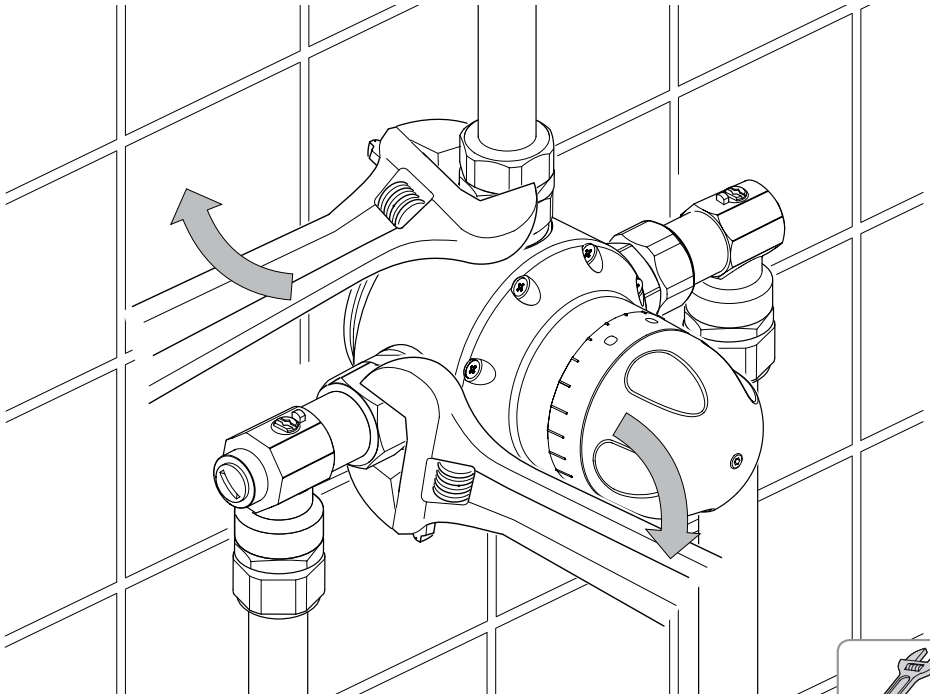
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1233168-W2-A

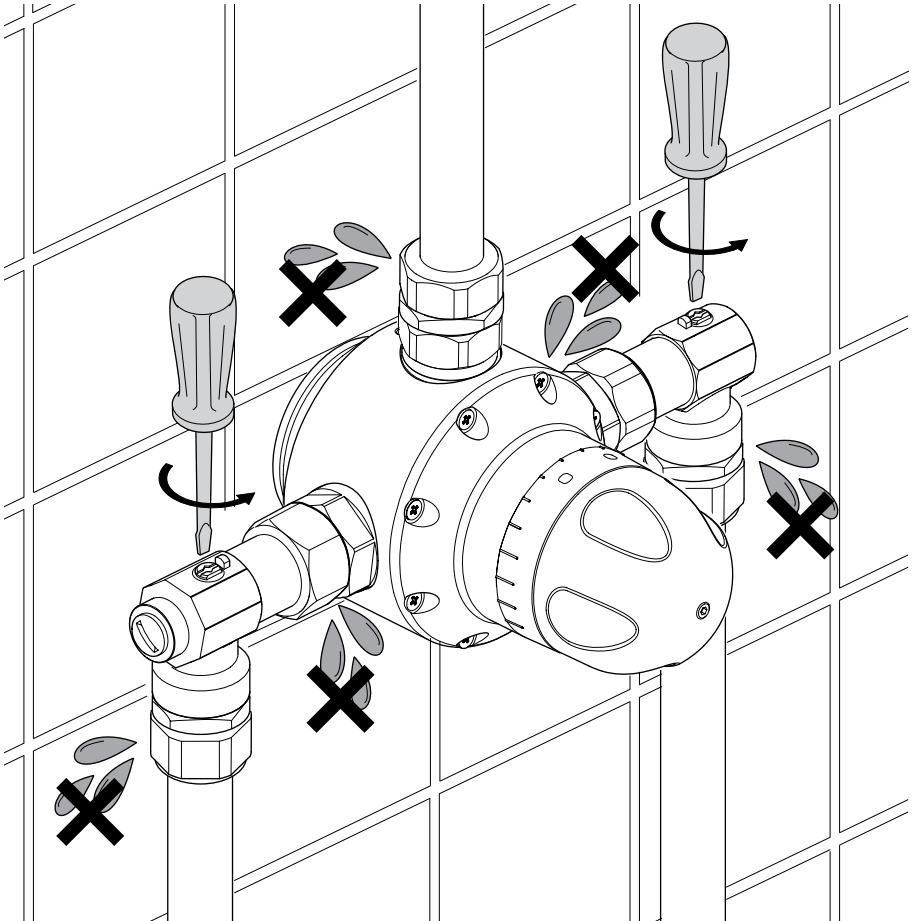
b 425 F**c 425 M**

7

425 IC shown. The rest of the installation procedure is similar for all variants of the 425 valve.

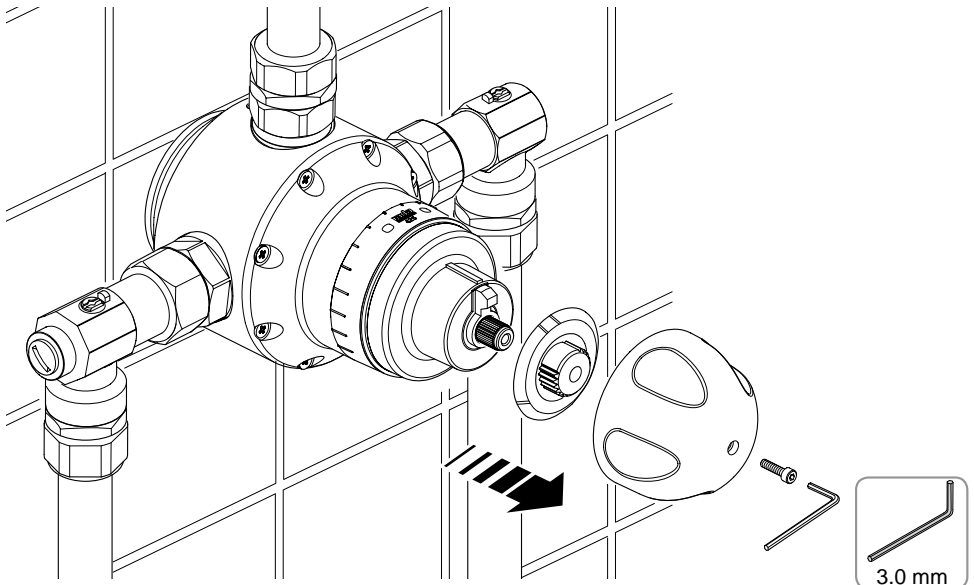


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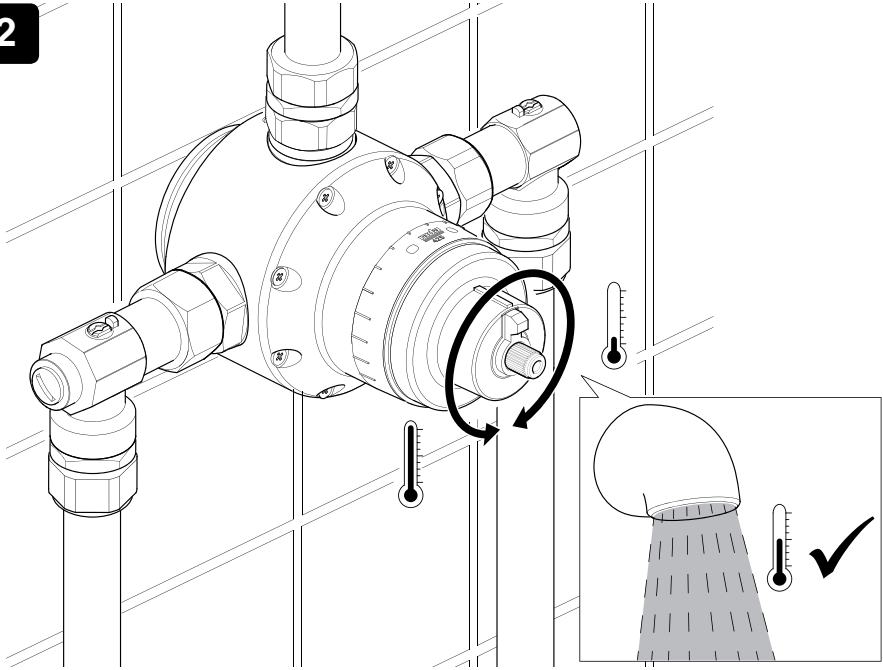


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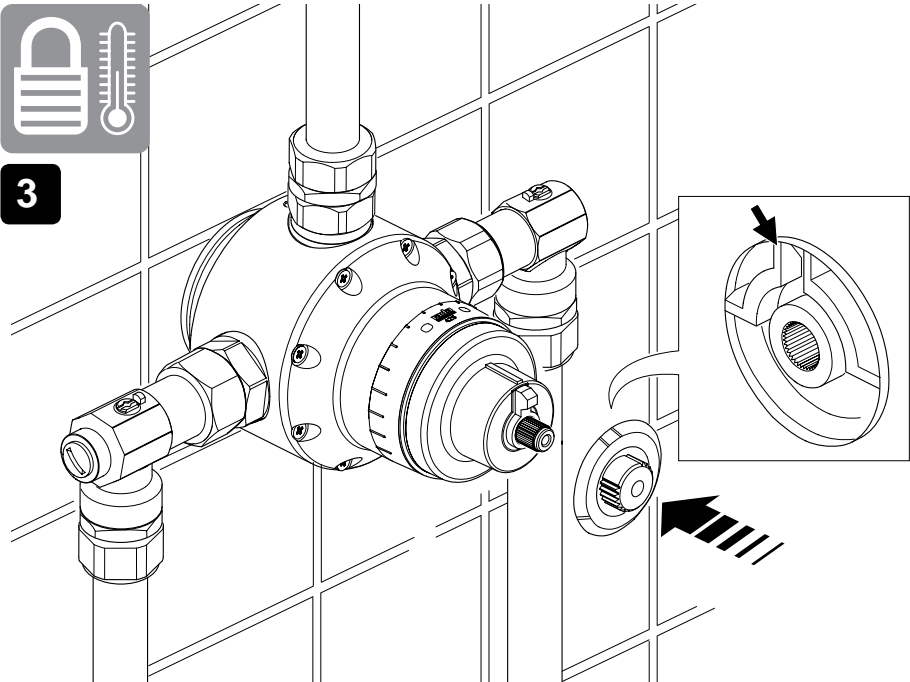
425 IC shown. The Commissioning procedure is similar for all variants of the 425 valve.



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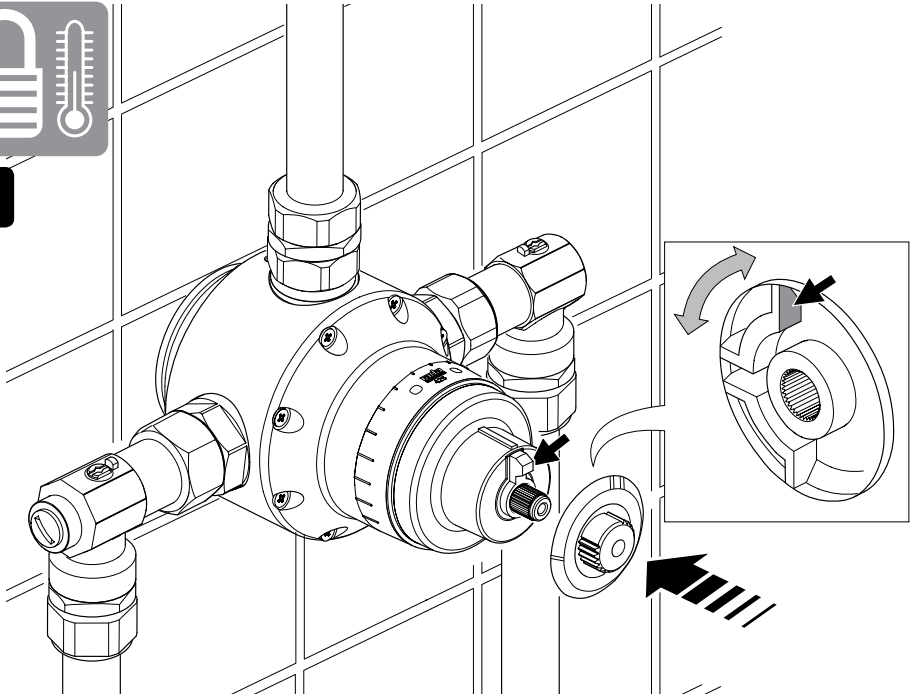


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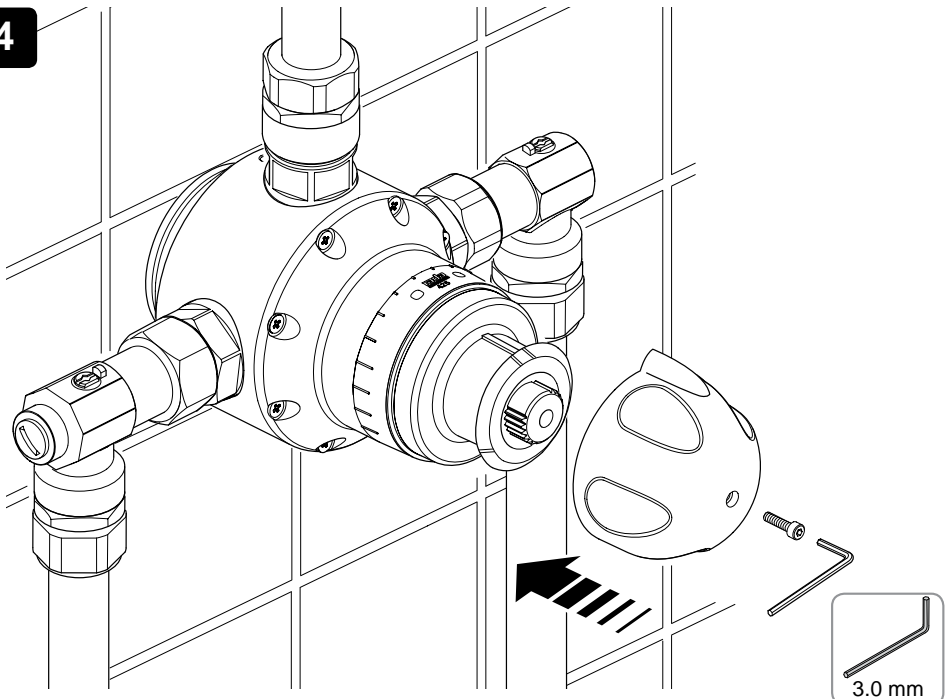




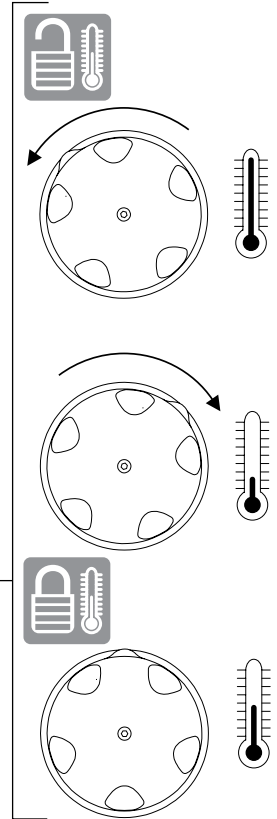
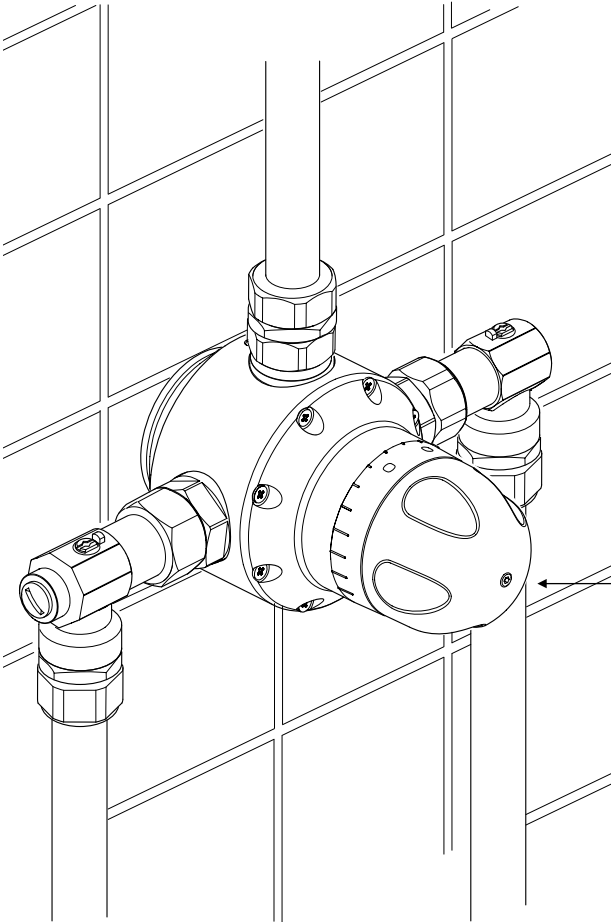
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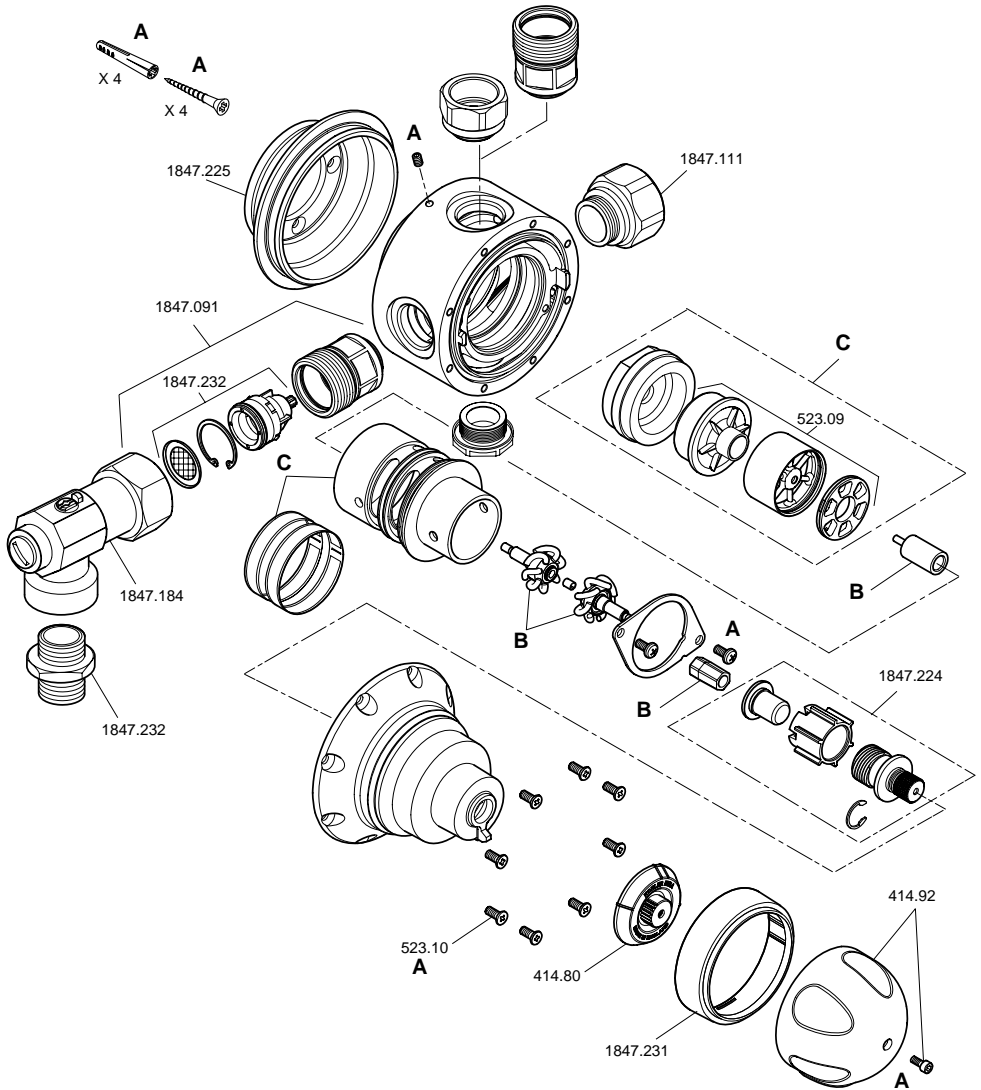


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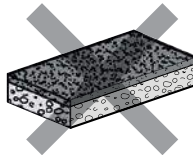
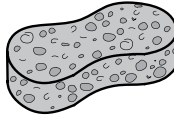
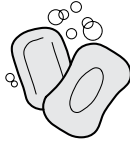
3.0 mm





No:	Description
414.80	Hub Pack
414.92	Knob Pack
523.06	Thermostat Pack - 'B'
523.08	Port Sleeve Pack - 'C'
523.09	Shuttle Assembly Pack
1847.091	1 - 1/4" BSP Connector Pack
1847.111	Female BSP Pack
1847.153	Elbow Connection Pack
1847.184	Isolating Elbow Pack
1847.232	1 1/4" Inlet Service Pack
1847.224	Drive Mechanism Pack
1847.225	Backplate
1847.226	Seal Pack - Not illustrated

1847.228	Screw Pack - 'A'
1847.231	Indicator Trim
1847.236	Filter Pack x 2 Filters





Your product has the benefit of our manufacturer's guarantee which commences from date of purchase or from the date of commissioning when product commissioning has been conducted by the UK Rada Commercial Field Team (available UK Only).

Please visit **www.radacontrols.com** or contact your local agent for all terms and conditions including details of the Rada commissioning service for the UK

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