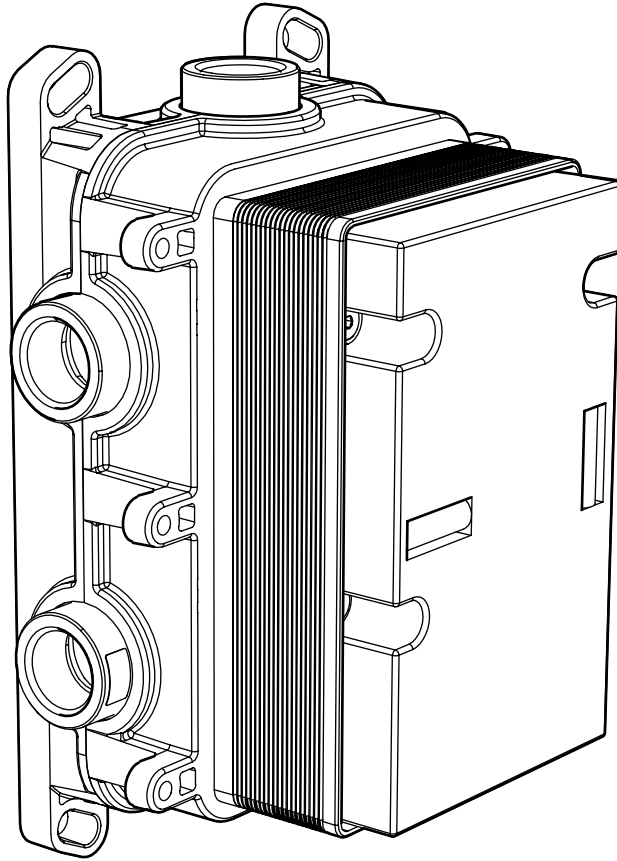


Concealed Thermostatic Shower Valve

Installation & Aftercare Instructions



BEFORE YOU START

Thank you for choosing this Roper Rhodes product. This guide covers the installation and commissioning of your concealed shower valve. Illustrations in this instruction guide are for illustrative purposes only and may not match your valve exactly, but the installation steps are the same.

We recommend that this product is fitted by a professional plumber and should be installed in accordance with local water regulations. All products and connections should be accessible for routine servicing.

System Suitability

This valve is suitable for all water supply systems, including gravity fed and combi-boilers

Operating Conditions of Use

Before installation, the operating conditions of use must be checked in accordance with the table below. This valve is suitable for use in both low pressure (BS 1287) and high pressure (BS1111) operating conditions.

Valves must always be operated within either the range for BS 1287 OR BS1111 as described in the table below. Valves cannot operate effectively where a hot or cold pressure system crosses the boundaries of the two ranges. The maximum ratio of unbalanced hot and cold water pressures for the valves to operate effectively is 2:1. Hot or cold pressure must be reduced or boosted so as to work within the required range.

These shower valves are suitable for use with all water supply systems up to a maximum of 5.0 Bar. Operating pressures above 5.0 Bar will require the installation of pressure reducing valves.

Supply Connections

	LOW PRESSURE BS1287	HIGH PRESSURE BS1111
MAX STATIC BAR	10 BAR	10 BAR
FLOW PRESSURE (BAR) HOT & COLD	0.1 - 1.0	0.1 - 5.0
HOT SUPPLY (°C)	55 - 65	55 - 65
COLD SUPPLY (°C)	MAX 25	MAX 25
MIXED WATER (°C)	MAX 42	MAX 42

The hot water supply must be connected to the left port and cold water to the right port as viewed from the front.

Direct connections to the valve inlets and outlets should only be made using 1/2" BSP parallel plumbing fittings. If using tapered fittings, a parallel to tapered adapter must be used to convert the connections. These should be securely fitted to the valve using a suitable thread sealing compound to form a watertight seal. Tapered fittings must NOT be connected directly to the valve without the use of adapters.

All connections should be pressure tested before the valve is sealed behind the finished wall surface.

Safety / Anti-Scald Technology

This valve includes a thermostatic cartridge which maintains a constant temperature and will automatically shut down completely on failure of the cold supply, to prevent scalding.

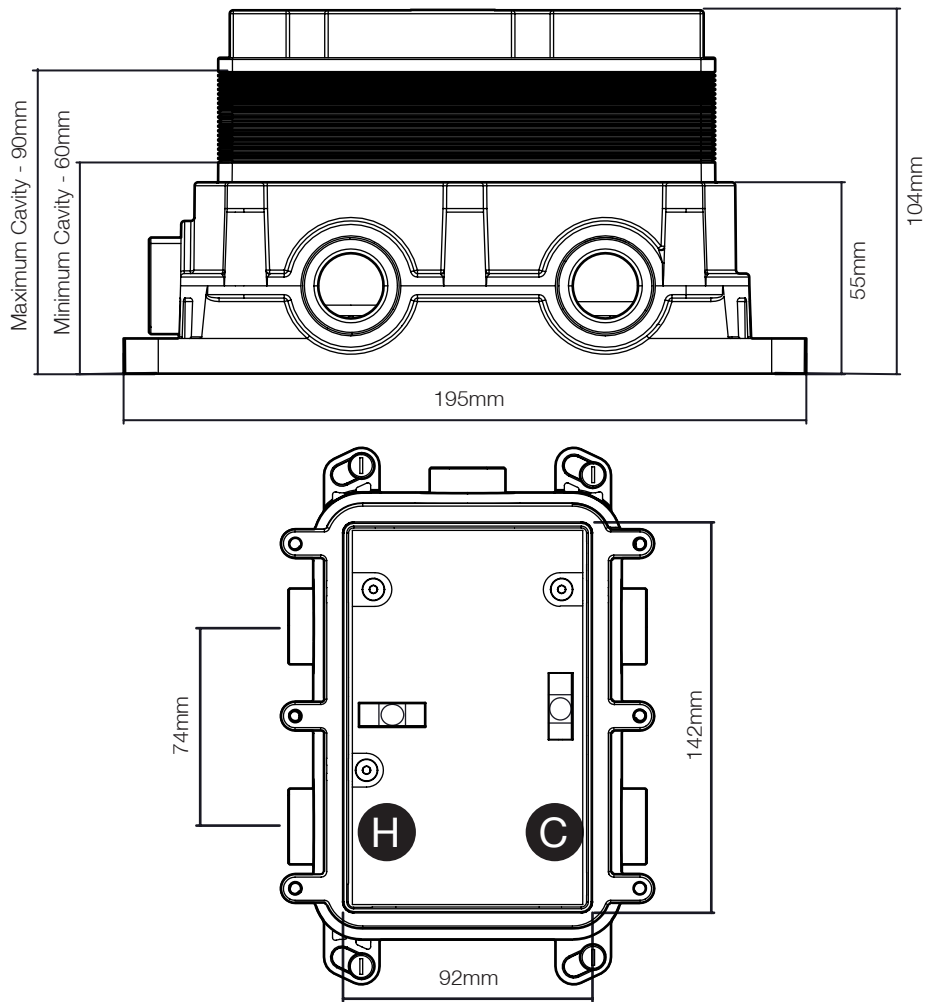
Temperature Setting

During installation a ‘safe temperature’ must be checked and set. The valve temperature is factory set, but the working temperature may differ depending on the hot and cold water supply to the valve. Maximum temperature should not exceed 42°C. Instructions on how to check and adjust this temperature are included in this guide.

Compliance

The valve must be installed so that it is readily accessible for commissioning and maintenance. The valve must be installed with isolation valves on both the hot and cold water systems as close as possible to the valve so as to allow the valve to be commissioned and tested correctly. The valve is fitted with integral check valve cartridges which command the water supply, therefore the thermostatic valve is protected against cross-flow due to unbalanced line pressures as required by the Water Supply (Water Fittings) Regulations 1999.

KEY DIMENSIONS



All Inlets and Outlets are G 1/2"

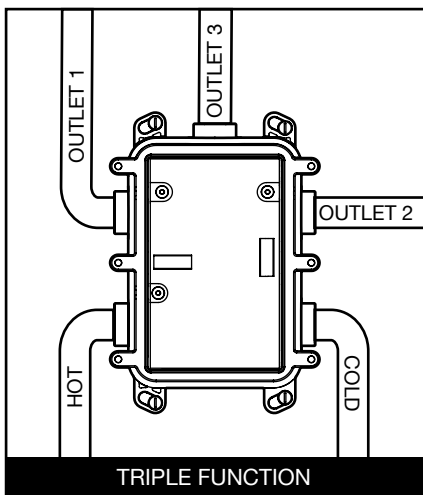
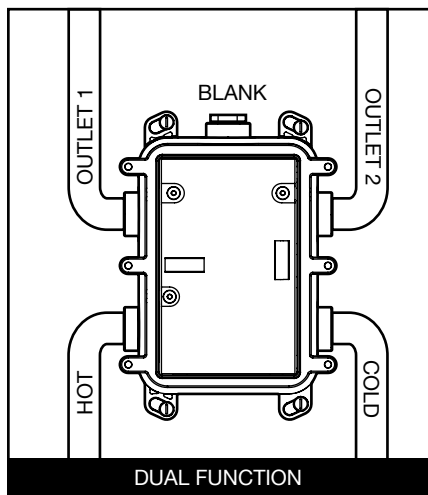
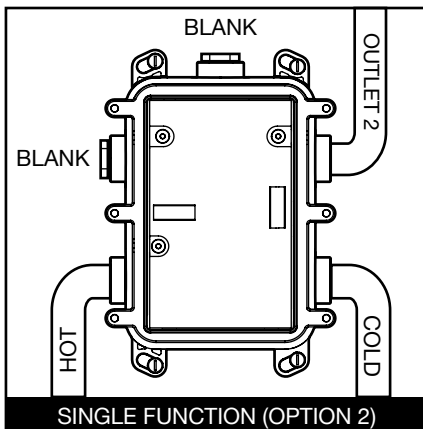
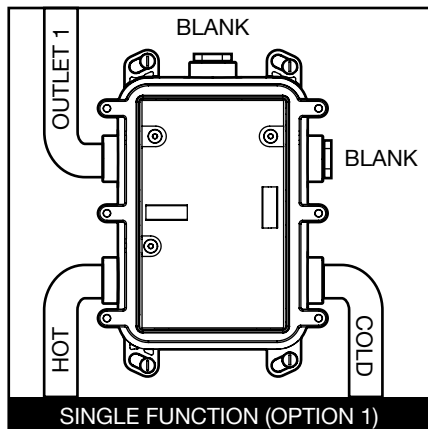
FIRST FIX INSTALLATION BOX - CONNECTIONS AND OUTLETS

NOTE: Most problems associated with the operation of thermostatic shower valves are caused by debris in the new pipe work getting into the thermostat. These problems are easily avoided by thoroughly flushing the pipe work **BEFORE** the valve is fitted. Failure to do so may invalidate your guarantee.

This installation box can be used for single, dual and triple function shower systems. For single and dual function installations, any unused outlets should be blanked off using the blanking plugs provided with the valve using the guide below.

Single function installations can be connected to either Outlet 1 or Outlet 2.

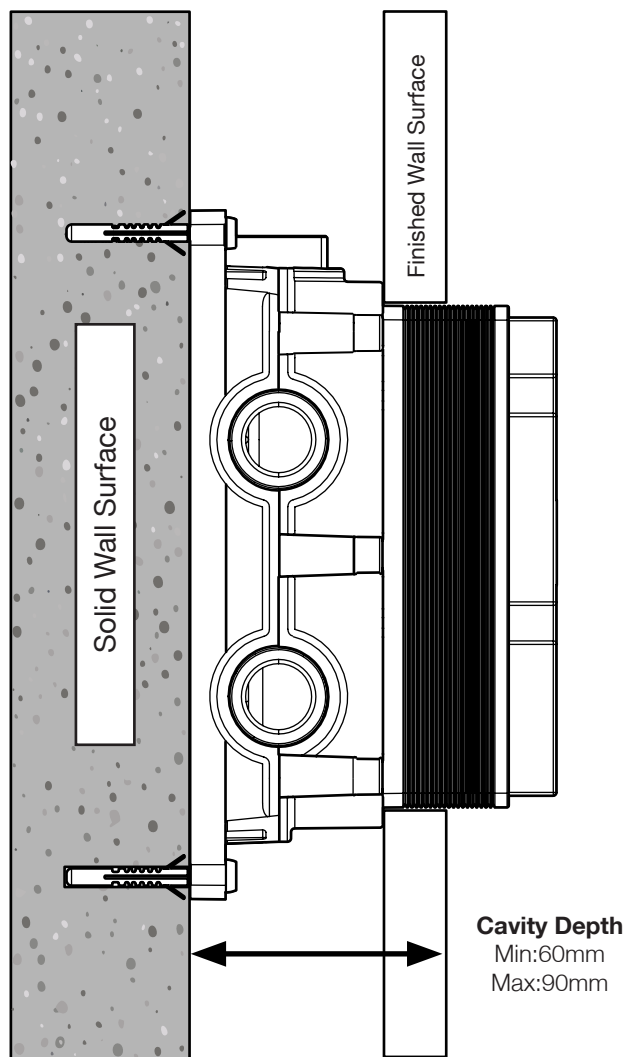
For triple function installations, no outlets need to be blanked off. To use Outlet 3, Outlet 1 or 2 must be passed first, so we recommend that Outlet 3 is plumbed to the least often used outlet. If installing a bath filler outlet, it is recommended this be connected to Outlets 1 or 2 to avoid turning on a shower outlet first.



FIRST FIX INSTALLATION - SOLID WALL INSTALLATION

The following diagram shows installation onto a solid wall, either by recessing the valve into the wall or for stud wall installations. Before starting installation, turn the water supply off.

Before continuing with the installation, ensure that the distance from the mounting surface to the outside of the finished wall is as shown in the diagram below:

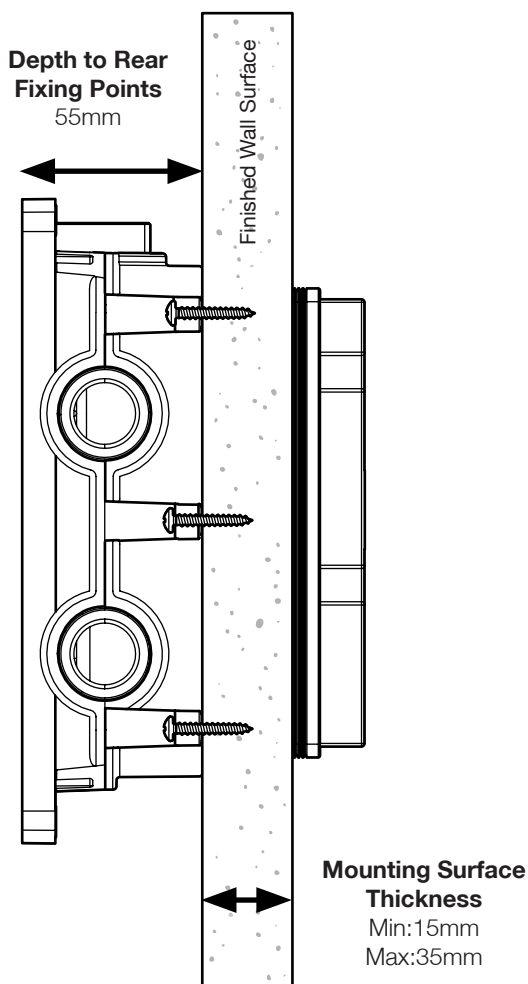


FIRST FIX INSTALLATION - CAVITY WALL INSTALLATION

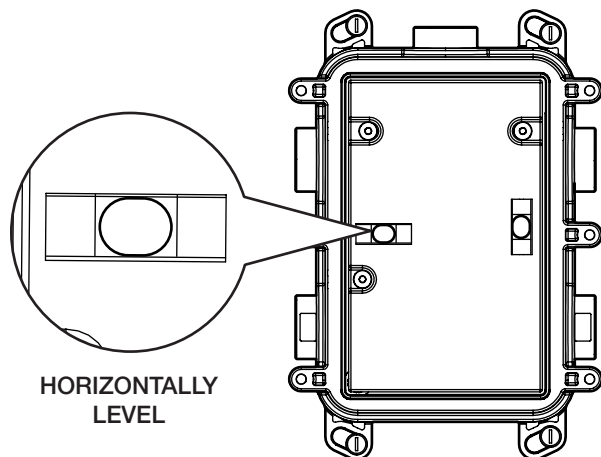
If access is available, the thermostatic shower valve can also be secured by screwing into the mounting surface from the rear.

The mounting surface needs to have substantial thickness and be load bearing. If the mounting surface has a decorative outer face, it must be thick enough to enable screw fixing without the chosen fixing screws breaking through the decorative surface.

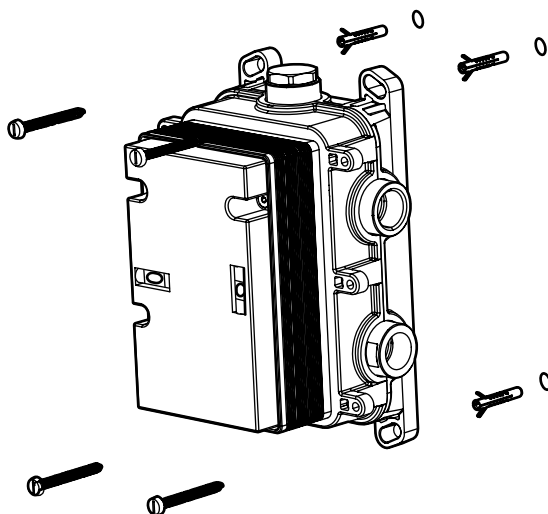
Using the dimensions included in the “KEY DIMENSIONS” section of this guide (page 3) cut a hole in the mounting surface so that the valve can pass through the surface. Use the two spirit levels on the box cover to ensure the valve is level before fixing.



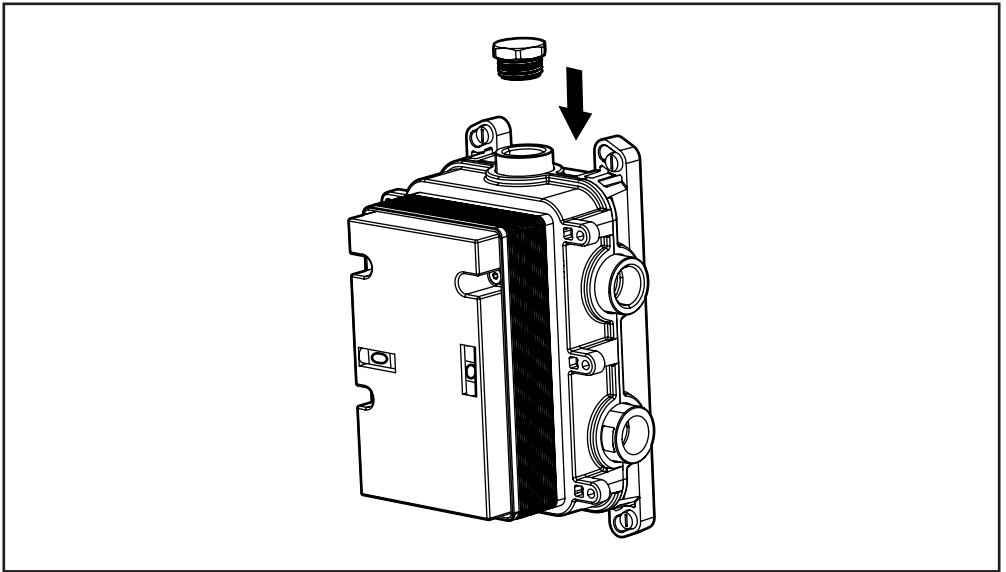
FIRST FIX - INSTALLATION BOX - MAKING CONNECTIONS



1. Before starting installation, turn the water supply off. Determine the position of the shower valve and ensure that when the final finished wall surface is installed, the dimensions align to the maximum and minimum dimensions suitable for your installation type. Mark the fixing tab locations on the mounting surface. The cover of the valve box has two spirit levels included to help with correct alignment.

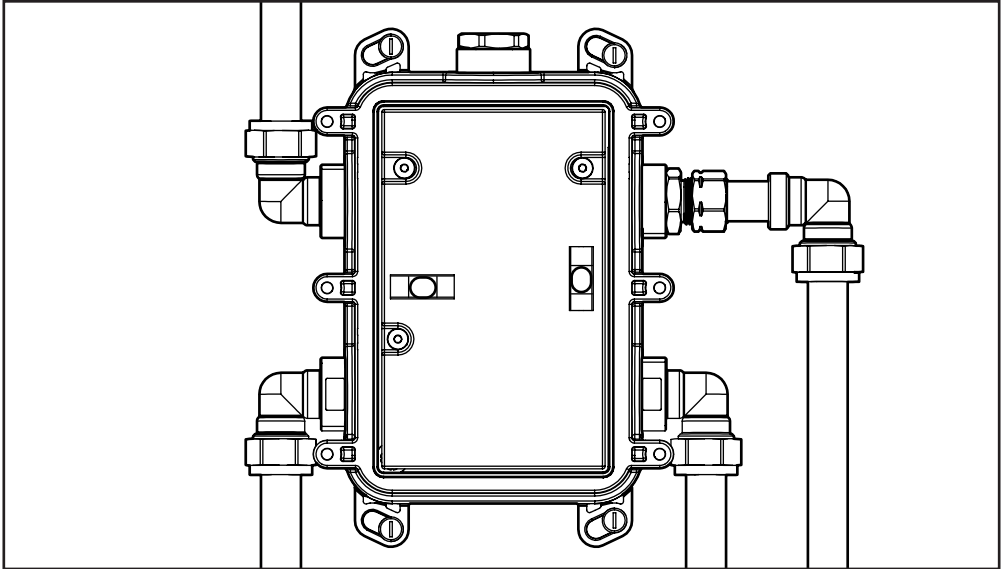


2. If mounting to a solid wall using the back fixing points, drill four suitable sized fixing holes and fix the valve to the wall using the fixing screws and wall plugs.



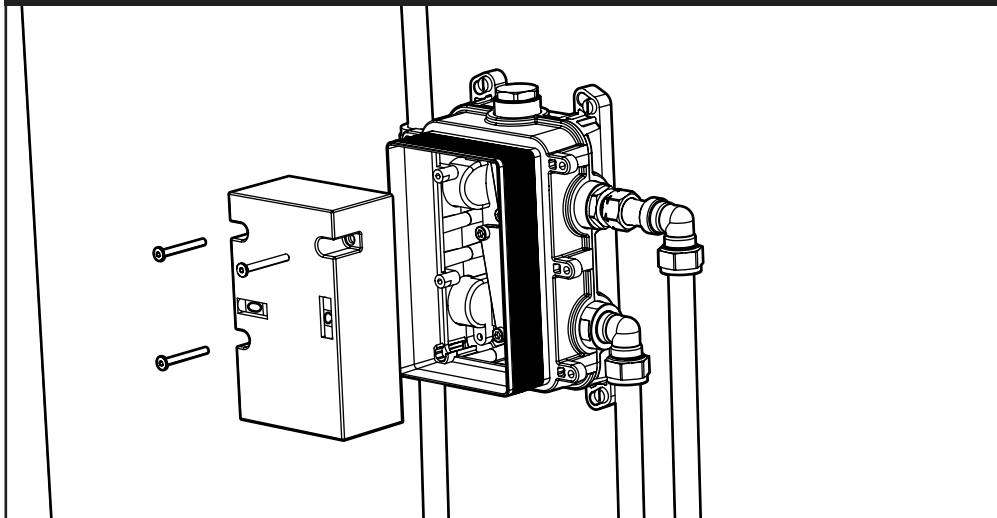
3. For Single Function and Dual Function installations, blank off any unused outlets using the blanking plugs supplied. Ensure these are tightly secured to the threaded outlets.

PTFE Tape can be used on the threads to ensure a water-tight seal.



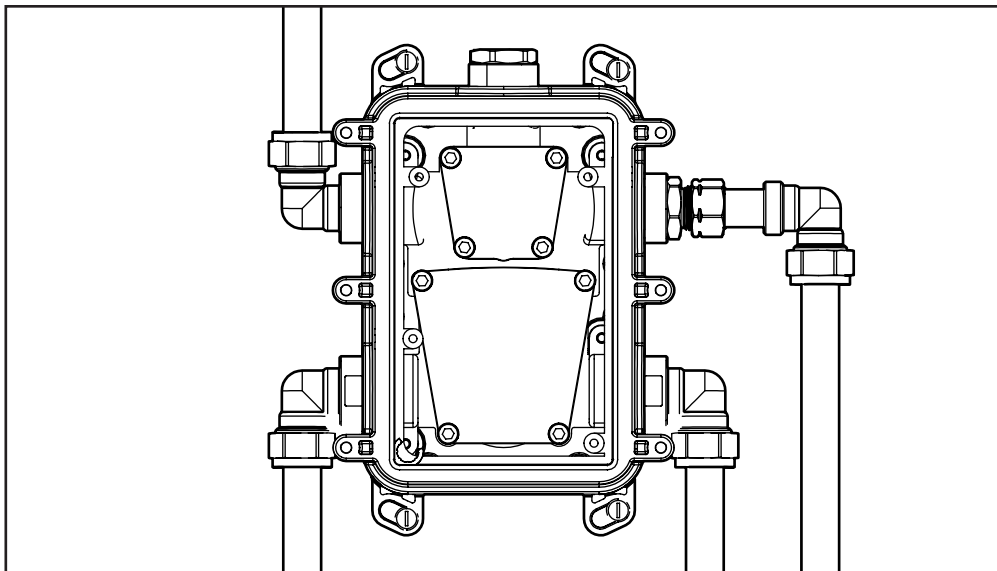
4. For the hot and cold supplies and any outlets that will be used, connect suitable 1/2" BSP threaded plumbing fittings and 15mm pipework. Tapered fittings should not be used to directly connect to the valve inlets and outlets. Run the pipework to your chosen outlets and make all remaining plumbing connections to your system.

FIRST FIX - PRESSURE TESTING AND COMMISSIONING

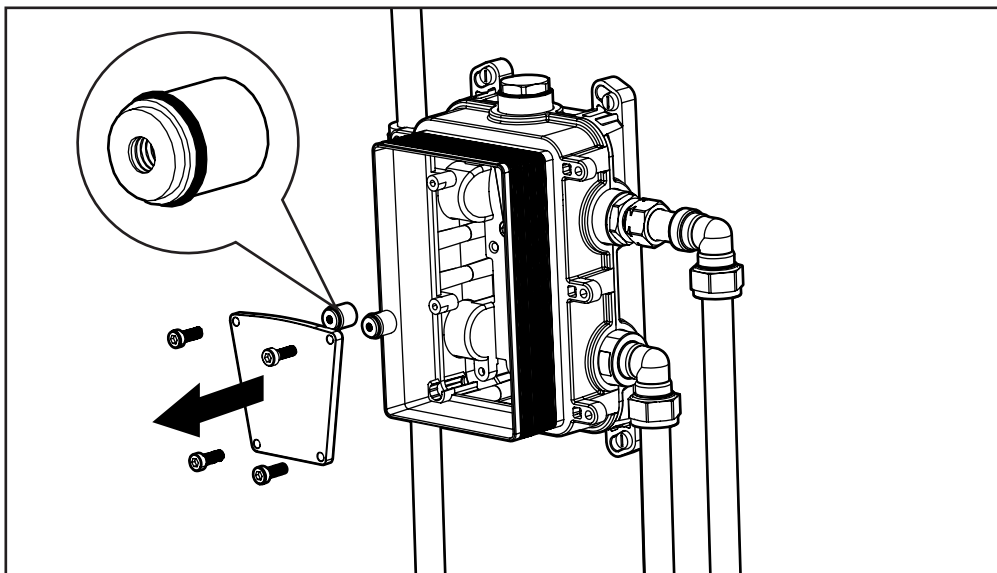


5. With the plumbing connections made, it is important to pressure test the system and check for any leaks along the full plumbing system.

Remove the box cover from the valve to allow access to the pressure testing plates. Keep the cover to one side for re-assembly later.

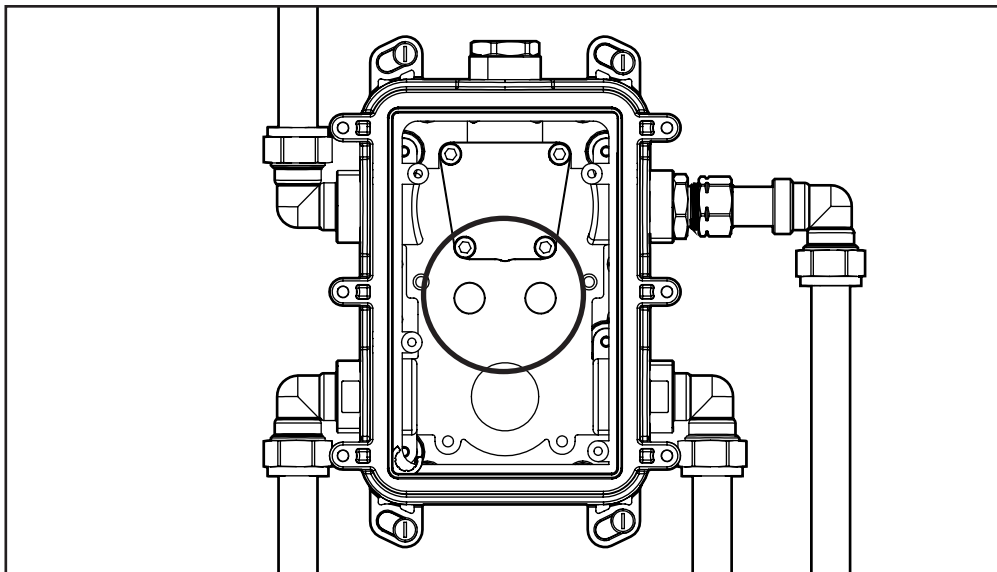


6. With the box cover removed, the two black plastic testing plates will be visible and accessible. The top testing plate should remain in place for pressure testing. Turn the water supply back on to pressure test the system. Check the supply connections for leaks.

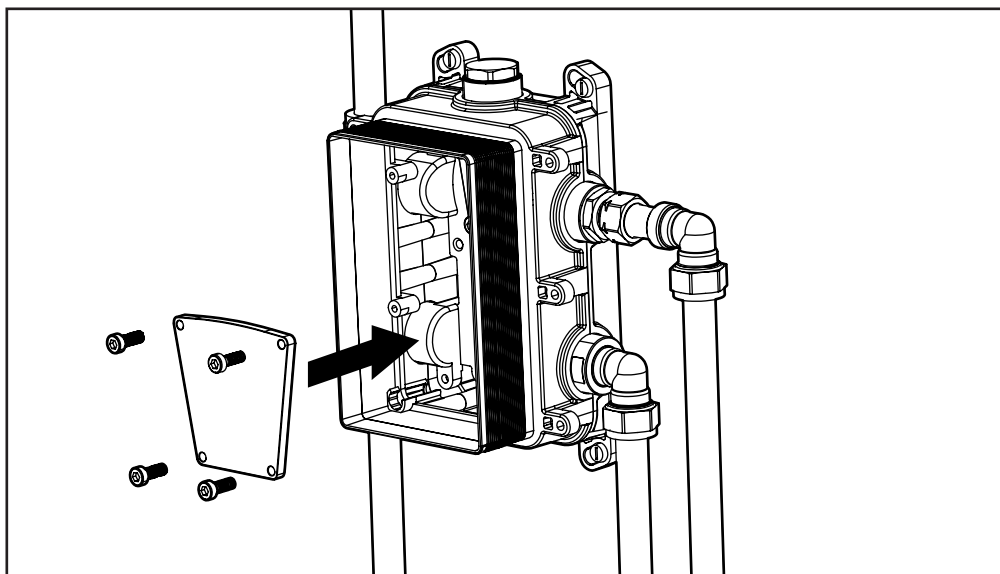


7. With the valve pressure tested, remove the fixing bolts from the bottom test plate before removing the plate. Behind the test plate are two brass blanking plugs which need to be removed. These can be recycled as they are not needed again during installation.

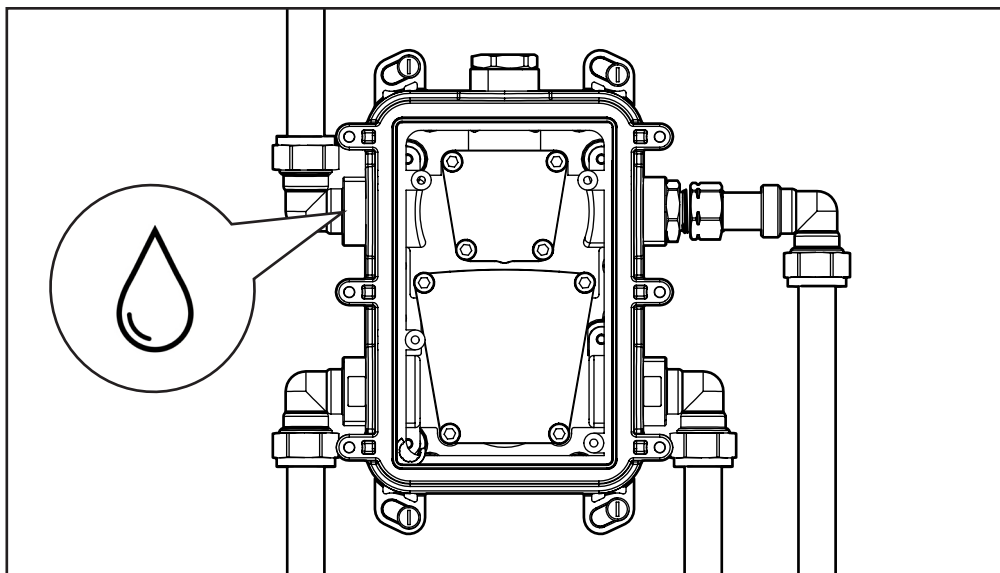
On the rear of the testing plate is an o-ring seal which will prevent leaks during testing.



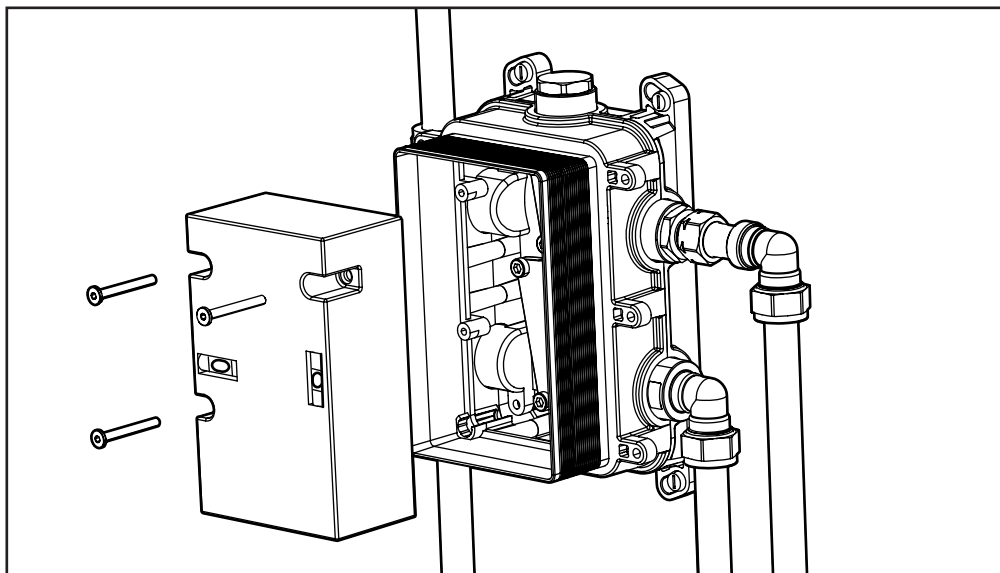
8. With the blanking plugs removed, there will be two holes in the brass valve casting. This will allow water to pass into the valve body during pressure testing.



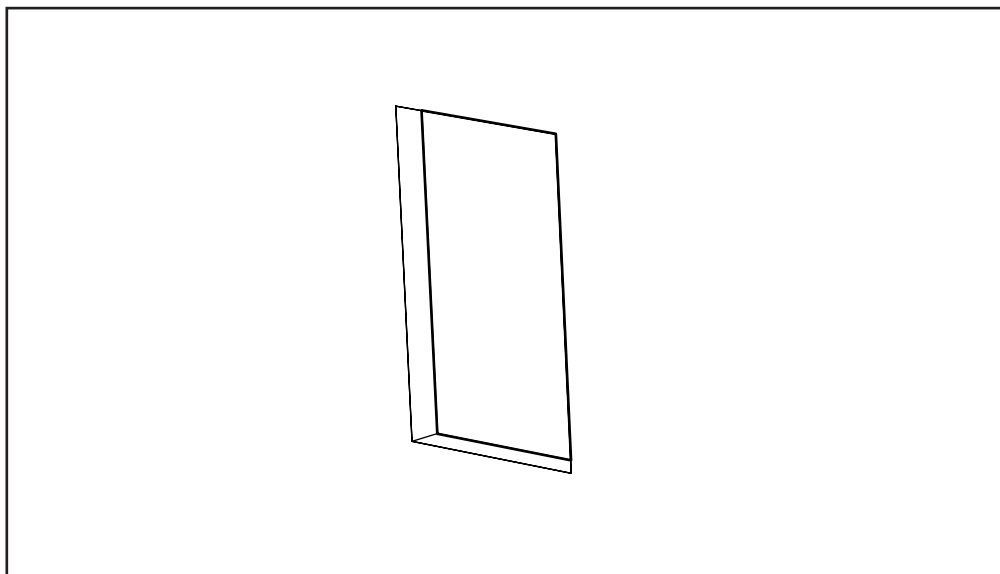
9. Replace the lower test plate, ensuring the side with the o-ring seal is against the valve and tighten in place with the four fixing bolts. The valve outlets are now ready to test.



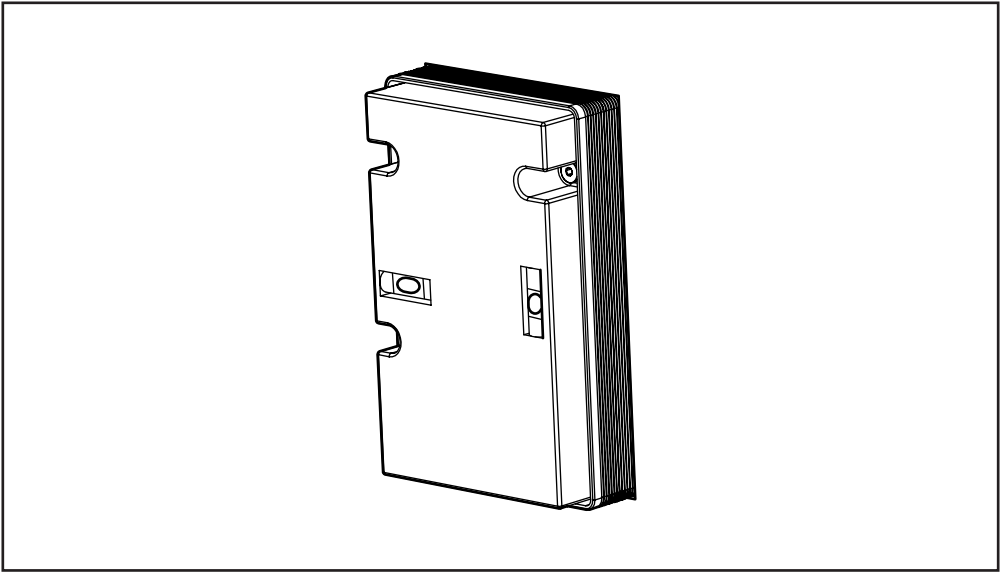
10. Turn the water supply back on. Water should now pass through the valve body. Check all connections for leaks. Ensure that all outlets are working correctly before turning the water supply back off.



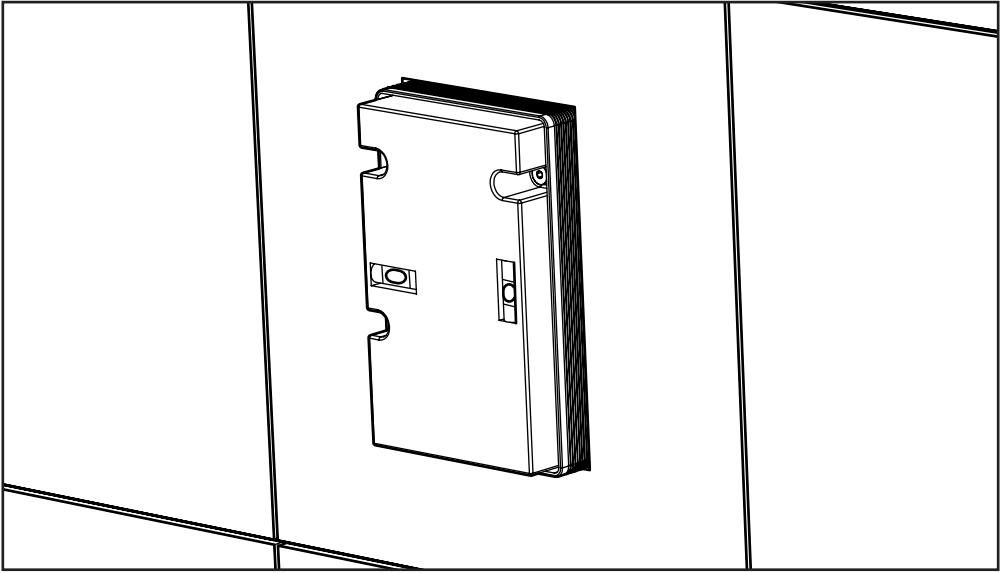
11. The valve is now tested. Replace the box cover with the threaded fixing bolts and proceed to preparing the finished wall surface.



12. Cut an access hole in your plasterboard or wall panel to allow the tile guide on the valve box to pass through. This can be slightly over-sized if tile is to be applied afterwards, as the tile can cover the edge of the access hole.

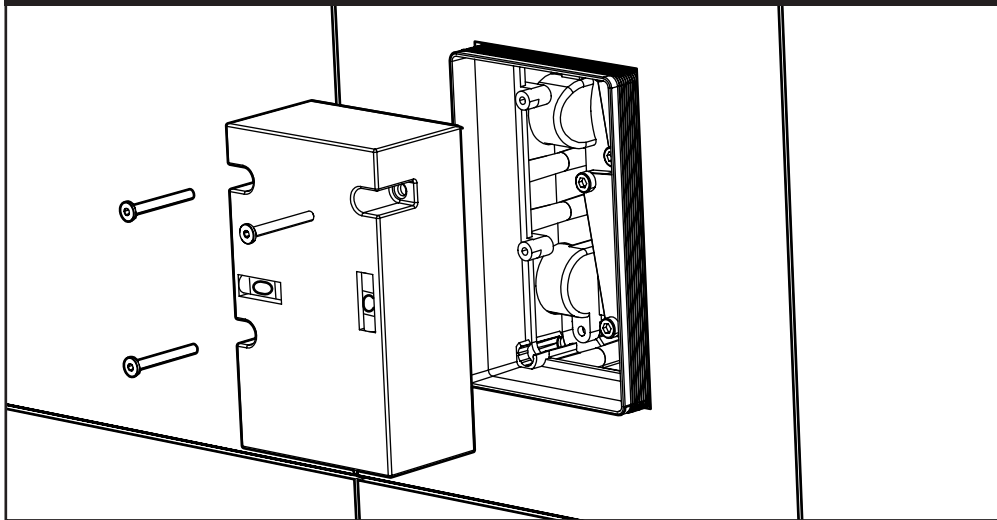


13. Secure the plasterboard or wall panel in place so that the tile guide on the valve box is visible and accessible.

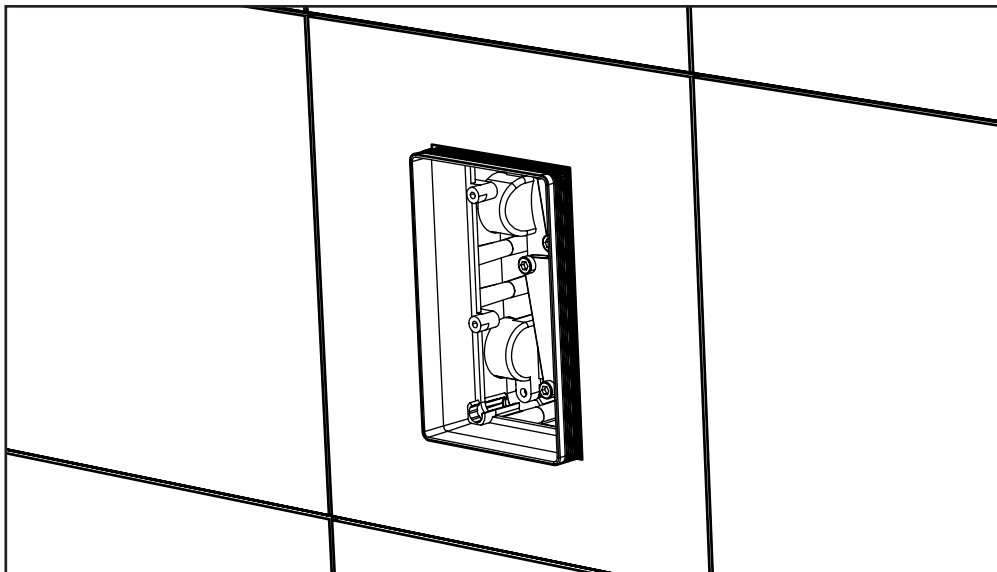


14. If tiles are to be added, tile up to the edge of the plastic tile guide, or cut an access hole 92mm x 114mm wide in a larger tile to fit around the tile guide. Complete the rest of the finished wall surface. First fix is now complete and the valve can be left with the cover applied for second fix.

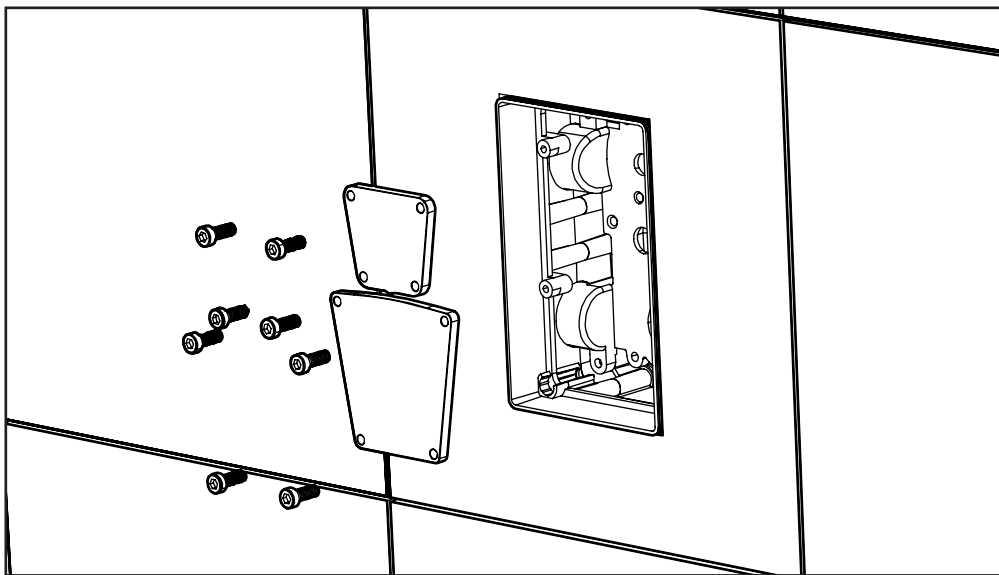
SECOND FIX - INSTALLING VALVE MODULES, COVERPLATE AND HANDLES



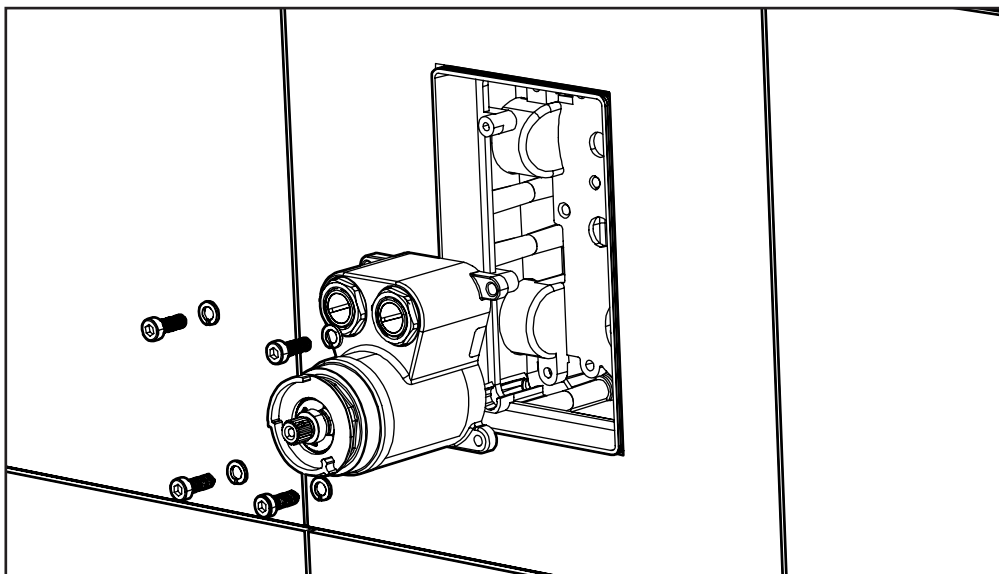
15. Remove the box cover to prepare the tile guide to be cut down. The ABS box cover is no longer needed and can be recycled.



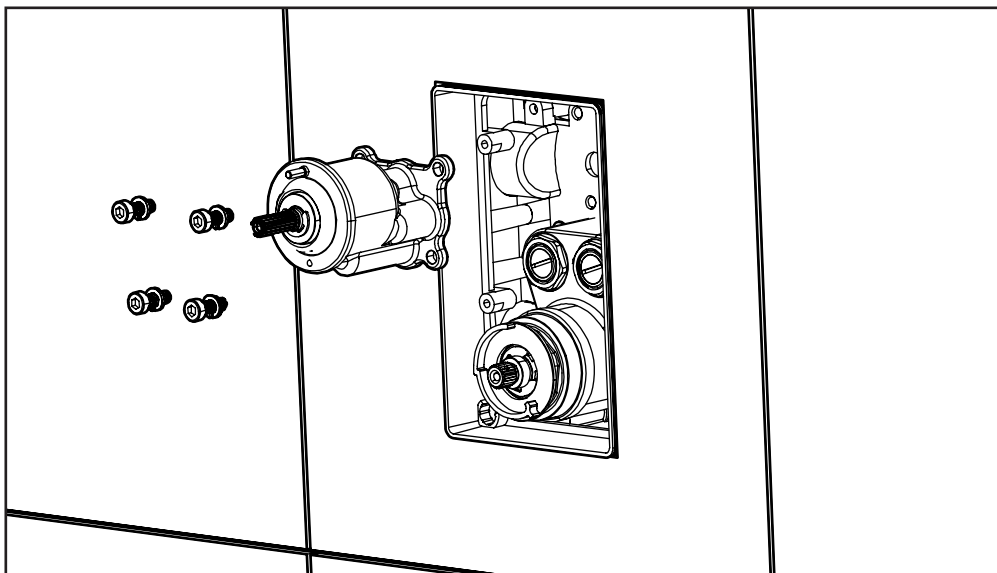
16. Cut down the tile guide so that it is flush with the finished wall surface, ensuring not to damage the finished surface. Any off-cuts from the tile guide can be recycled.



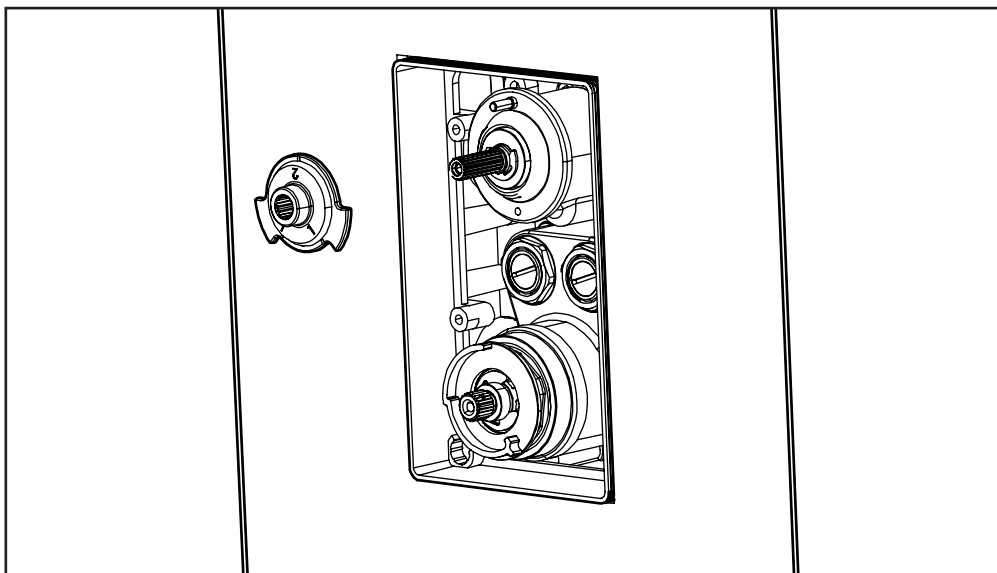
17. Remove both testing plates from the valve. Retain the fixing bolts for later assembly steps. These testing plates are no longer needed and can be recycled.



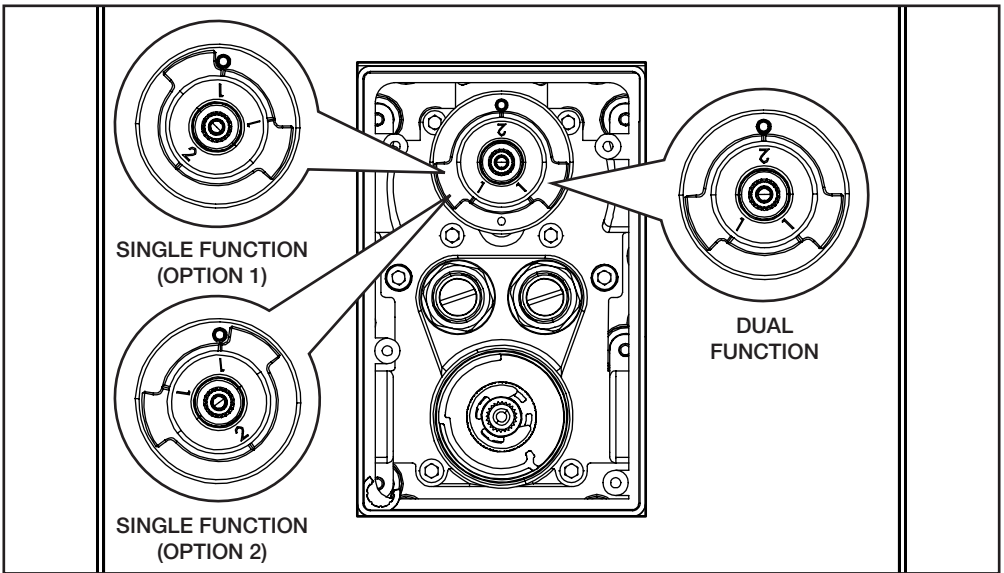
18. Assemble the Thermostatic Cartridge Module to the valve body using the fixing bolts and spring washers. Ensure that the o-ring seals located on the rear of the module are seated correctly and forms a seal against the valve body when assembled. A torque of between 2Nm and 5Nm should be used to secure the fixing bolts.



19. Assemble the Diverter Module to the valve body using the fixing bolts and spring washers. Ensure that the o-ring seals located on the rear of the module are seated correctly and forms a seal against the valve body when assembled. A torque of between 2Nm and 5Nm should be used to secure the fixing bolts.

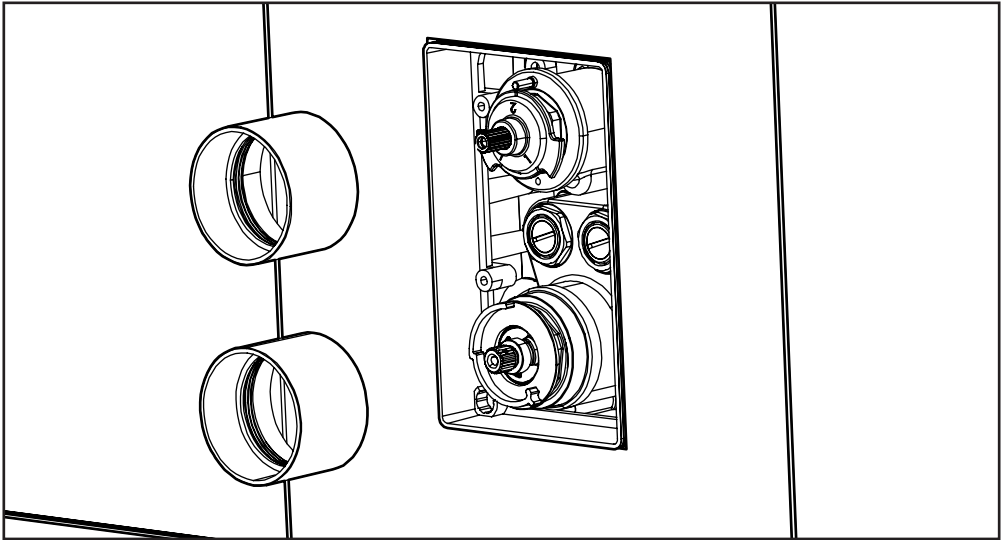


20. With the Diverter Module fully assembled, the diverter function stop can be assembled based on the type of system you are installing; this component is only needed for single and dual function systems and is not needed for triple function systems. For triple function systems this component can be recycled.

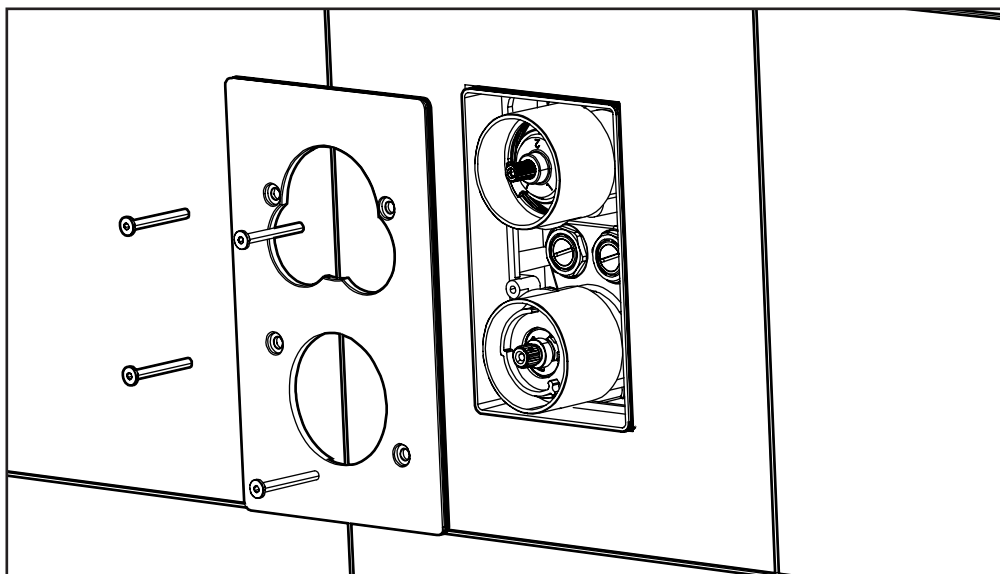


21. For single function systems, align one of the “1” notches so that the diverter stop is touching the pin on the Diverter Module body. If the single outlet is plumbed into Outlet 1, install the stop so it rotates anti-clockwise. If plumbed into Outlet 2, install the stop so it rotates clockwise. Refer to the connections diagram on page 4 for reference.

For dual function systems, align the “2” notch with the pin. The handle should rotate both ways.

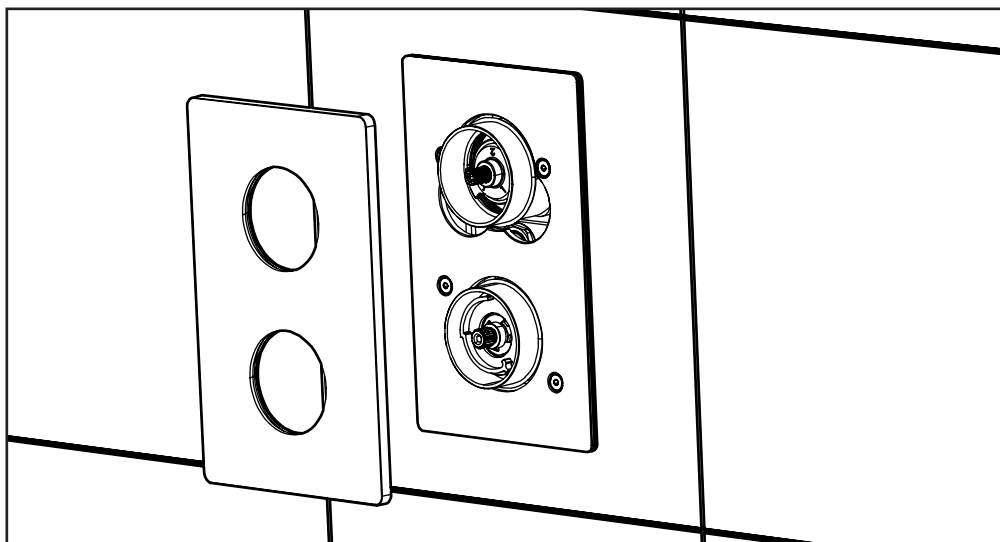


22. With the diverter stop installed, proceed to assembling the module trims by screwing them directly onto the valve module until hand tight.



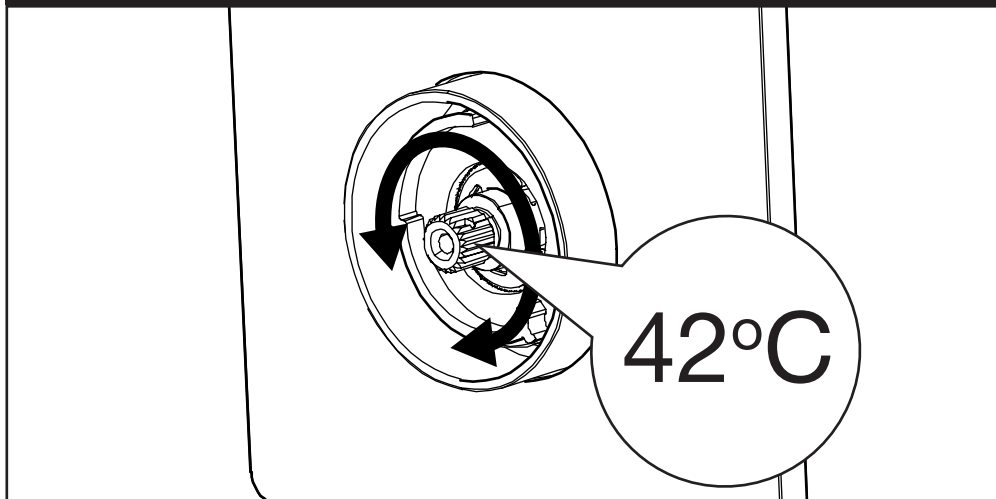
23. With the trims assembled, the coverplate seal can be assembled to the valve box. Using the 4 fixing screws provided, tighten the coverplate seal to the box so that the neoprene seal on the rear compresses against the finished wall surface.

NOTE: Ensure the plate is oriented as shown above so that the fixing holes align correctly.

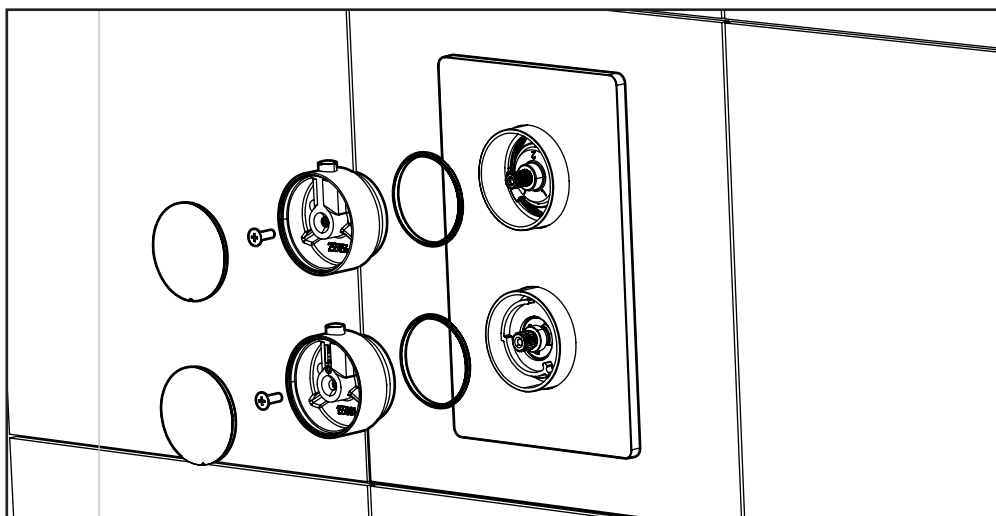


24. The metal coverplate can now be assembled to the coverplate seal. This should push into position, with a rubber o-ring on the inside of the plate holes sliding onto the module trims. Push the plate so that it is flush against the finished wall surface.

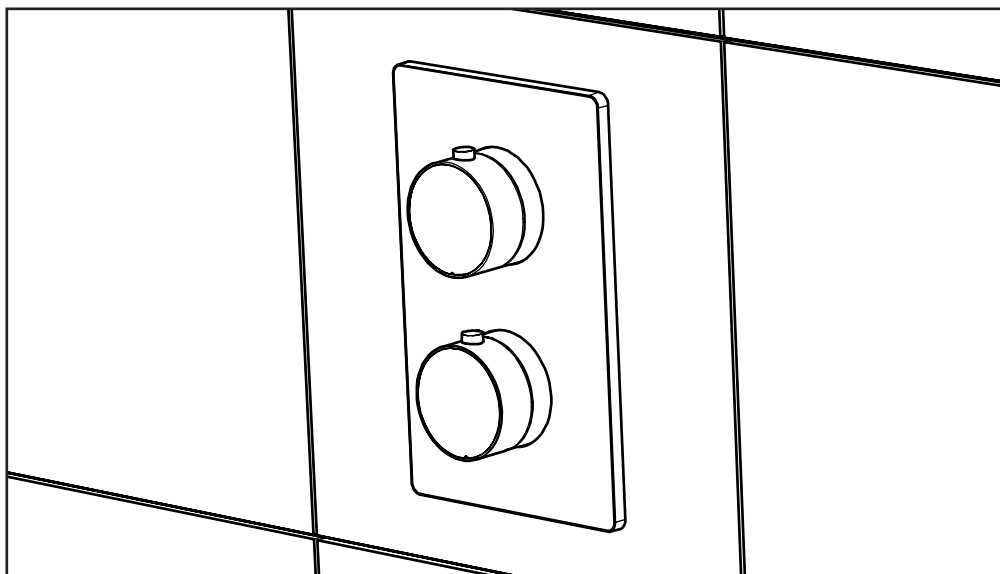
COMMISSIONING - SETTING THE CORRECT SAFETY TEMPERATURE



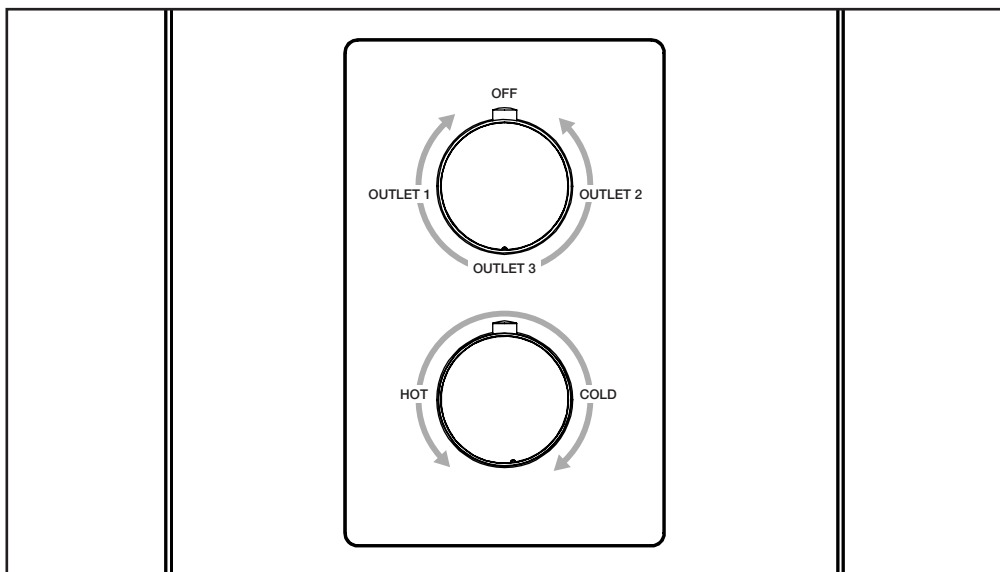
25. Before installing the control handles, it is important to check the maximum temperature of the valve. Temporarily assemble the temperature handle, and whilst press the button on the handle, rotate the handle past the temperature stop until the handle no longer rotates. Run water through one of the outlets and check the temperature with a digital thermometer. If the water temperature exceeds 42°C, rotate the cartridge spindle clockwise to reduce the temperature. Once the water temperature is 42°C or below, leave the temperature spindle in place and turn the diverter spindle back to the OFF position.



26. With the temperature cartridge set, the control handles can be installed. Ensuring the grey plastic trim is fitted to the handle body, assemble the handles to the spindles. With both handles it is important to make sure the button on the handle is pointing upwards. This will ensure the handles are in the correct position and aligns the temperature handle to not exceed the maximum temperature previously set.

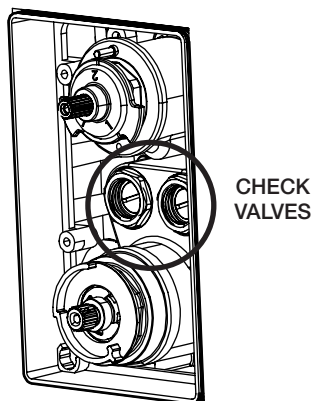


27. Secure the handles in place with the fixing screws and cover with the plastic cover caps. There is a small notch in the cover cap that can be used to remove the cover caps for future maintenance.



28. With the handles assembled, check that the valve works correctly by checking the handles rotate and operate as intended for your system. You have now completed installation.

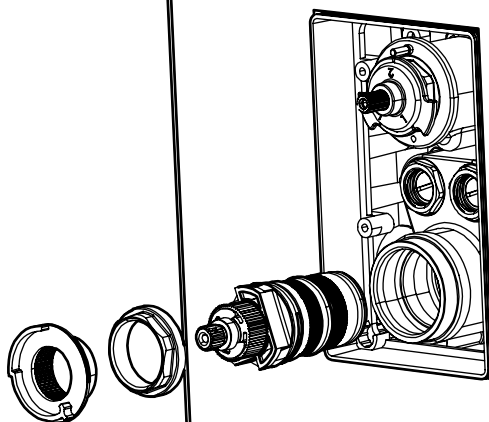
SERVICING AND MAINTENANCE - VALVE ISOLATION



We recommend that your shower valve is checked annually and components removed and cleaned to ensure the performance of your valve.

The valve water flow can be isolated during any maintenance tasks by screwing in the check valve assemblies which will prevent water passing through the system. This method should NOT be used if removing the entire temperature module or check valve assemblies. After servicing, unscrew the screws until they are level with the housing. Do not unscrew any further than this.

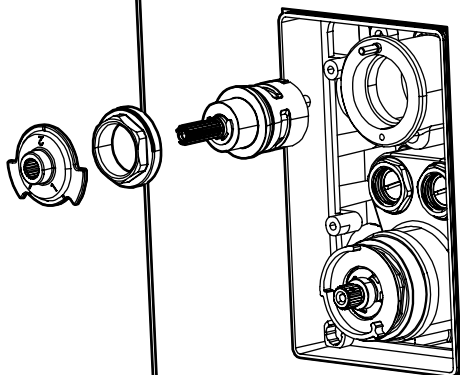
SERVICING AND MAINTENANCE - THERMOSTATIC CARTRIDGE REMOVAL



To remove the thermostatic cartridge for cleaning or replacement, first remove the temperature stop and fixing nut. With these removed, pull the cartridge out of the temperature module body.

To clean the cartridge, carefully remove the o-rings before soaking in a 1:1 mix of warm water and white vinegar. Rinse with cold water and replace the o-rings before re-assembling. You will need to set the maximum temperature again (See Step 25 for details.)

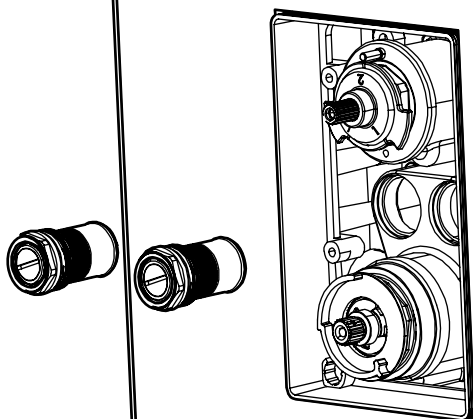
SERVICING AND MAINTENANCE - DIVERTER CARTRIDGE REMOVAL



To remove the diverter cartridge for cleaning or replacement, remove the diverter stop and fixing nut. With these removed, pull the cartridge out of the diverter module body.

To clean the cartridge, carefully remove the o-rings before soaking in a 1:1 mix of warm water and white vinegar. Rinse with cold water and replace the o-rings before re-assembling.

SERVICING AND MAINTENANCE - CHECK VALVE REMOVAL



To remove the check valves for cleaning or replacement, ensure that the entire system is isolated as removing the check valve assemblies will prevent isolation on the valve. Using a socket spanner, remove the check valve assemblies from the valve body. Clean and re-assemble ensuring the housing is tightly secured to the temperature module body.

SERVICING AND MAINTENANCE - ANNUAL SERVICING

It is recommended that showers do not exceed 44°C. The valve temperature should never exceed 46°C. After commissioning, carry out the cold failure test to ensure the valve operates at the correct outlet temperature.

The valve should be tested to ensure correct operation at installation and thereafter at stated intervals decided by the user but never greater than 12 monthly intervals. The testing will only require a normal thermometer with a scale greater than 65°C. The temperature sensitive element of the thermometer should always be fully inserted into the water flow.

1. Measure the mixed water temperature.
2. Carry out a cold fail/safe shut-off test by using the mains isolation valve to shut off the water to the cold supply. Wait 5 seconds, if water is still flowing check that the water temperature is below 44°C. The flow should stop or reduce to a trickle.
3. Open the cold water isolation valve and measure mixed water temperature. If there is no significant change from the original settings and fail/safe shut off is functioning the valve is working correctly and no further service is required. If the outlet temperature has drifted by more than 2°C, or if the fail/safe function does not work, a full service or re-commissioning is required. We recommend that in these circumstances you contact a plumber for advice as servicing should only be undertaken by a competent person.

AFTERCARE - FINISHES

Whilst this item has a high quality durable finish, it should nevertheless be treated with care. Surfaces should be cleaned using only a soft damp cloth and clean water and dried using a soft cotton cloth. Do not use an abrasive material such as a brush or scouring pad to clean the surface. The use of abrasive cleaners, alcohol or disinfectants will alter the surface finish and void the warranty.

Do not allow products such as toothpaste, shaving cream, drain and glass cleaners to remain on the surface. Prolonged contact with these products will alter surface finishes and void the warranty.

AFTERCARE - SPARE PARTS

We have complete confidence in this product and as such it is offered with a 10-year guarantee against defects in manufacture. This product must be fitted by a competent installer. If in doubt seek advice from a qualified professional.

The guarantee requires that this product be used in the manner for which it was intended and that it is installed & maintained in accordance with the fitting instructions and local water bylaws. The guarantee covers products in domestic use only. The guarantee is invalidated should the product be damaged by water borne debris. Make sure that supply pipes are clear of any debris prior to installation, this is particularly important on new plumbing installations.

In the unlikely event that this product should fail during the guarantee period we will either replace the faulty part or the complete unit as appropriate. This guarantee covers damage against reasonable wear and tear in use only. It does not cover damage incurred during installation, misuse or inappropriate maintenance. Failure to follow the terms outlined above will invalidate this guarantee. Proof of purchase will be required.

Replacement parts are available to purchase by contacting the customer service team using the contact details overleaf.

