



Installation Guide

hydaflush

Elegant design and innovative technology

Key Installation Points

- All pipe sizes in this guide are internal diameter (DN)
- We recommend PE-X pipe NOT copper pipe
- Check pipes sizes – For domestic installations we recommend a main feed via a DN 25mm line. Refer to Commercial pipe size guide for commercial applications
- Check that you have a minimum water pressure of 350kpa
- If there is a Pressure Vessel involved install a line strainer and an isolating ball valve at the Pressure Vessel
- Install a Pressure Reducing Valve only if water pressure exceeds 650kpa
- Use the foam packaging provided to cover the valve for acoustic insulation
- Lag the pipe work with acoustic lagging
- Flush the lines thoroughly before connecting the valve
- Ensure there is easy access to the valve for future maintenance and service
- Use the set screw on the top of the valve to adjust the flush volume
- The Low Maintenance Flush Valve & *Sensorflush* touch pad **MUST** be installed by an experienced, licensed plumber

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General Installation Advice

Mains Pressure Flushing

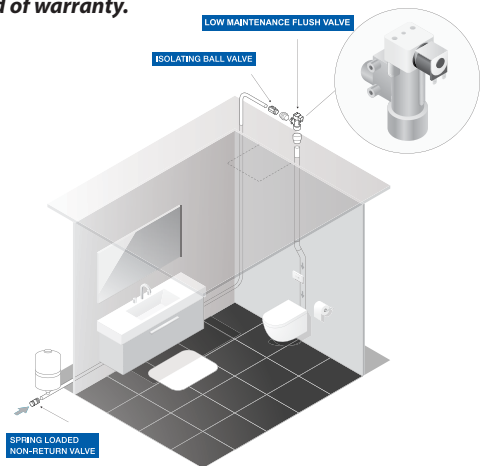
The Low Maintenance Flush Valve is a sanitary flush valve which connects directly to the water mains. It is not designed to be connected to a cistern. It can be used with any standard wall-hung or wall faced pan and with most urinals.

The valve requires a *Sensorflush* touchpad to be installed for activation.

Correct installation of the Low Maintenance Flush Valve and *Sensorflush* touch pad will provide trouble free toilet flushing. Plumbers should pay careful attention to pipe sizing, acoustic insulation and correct fitting of any/all ancillary plumbing fittings.

The installing plumber **MUST** read and follow this guide to ensure installation meets manufacturer's requirements, all relevant Australian standards and that all National Plumbing Code requirements are met.

Incorrect installation of the Low Maintenance Flush Valve and/or Sensorflush touch pad will result in the void of warranty.



General Installation Advice

Pipe Recommendations

All pipe sizes in this guide are internal diameter (DN) sizes. Refer to the Commercial Plumbing Sizing Guide for further details of pipe sizes for commercial installations.

This guide can be found on our website: www.hydaflush.com.au

In domestic installations we recommend the main supply line be a **minimum** DN 25mm.

All Low Maintenance Flush Valves should be supplied by branch line using a **minimum** DN 25mm pipe.

We do not recommend copper pipes due to their poor acoustic qualities. If copper is used, care should be taken to ensure it is adequately sized and acoustically insulated.

Hydaflush recommends PE-X pipe materials. Do not use Outer Diameter measurements when sizing supply pipes. All recommended sizes are internal diameter sizes.

Up-sizing pipe work **may** impact friction losses and velocity altering the performance of the system.

Water Pressure & Flow

A pressure vessel **may** be required to assist with increase in water supply to valve.

The **minimum** flow rate required at the valve is 1.5 litres per second. This flow rate **must** be maintained regardless of the simultaneous maximum demand from subsequent Low Maintenance Flush Valves and other appliances on the line.

We recommend valves be connected using an independent line from the mains to prevent any impact on other appliances.

Pipe distance between valve and pressure vessel should be considered.

General Installation Advice

A hydraulic engineer should be consulted for all installations of **5 or more** valves or when there are complex water supply factors to consider such as multi-storey buildings, uncertain water pressure, water variances such as water quality, excessive distance from mains to the pressure, water variances such as water quality, excessive distance from mains to the valves, potential acoustic problems and heavy or uncertain demands from a system **or** other appliances. (Examples only – Other situations should also be considered).

Valve & Touchpad Location

The valve can be installed either in a **minimum** 90mm wall cavity or in the ceiling space. The valve **must** be accessible to allow for future maintenance and servicing.

An isolating ball valve **must** be installed at each Low Maintenance Flush Valve.

Space required around the valve **must** be a minimum of 300mm.

The touchpad can be installed in the traditional location on the wall behind the toilet or elsewhere in the room. Access to a secure standard 240v power outlet is required.

Ancillary Plumbing Fittings

The installation **may** require the inclusion of one or more of the following:

- A line strainer
- A pressure vessel
- A pressure reducing valve (If pressure exceeds 650kpa).

Plumber Instructions & Guidelines

Australian Standards

The valve **MUST** be installed by a licensed qualified plumber. All Australian Standards for the installation of flush valves must be met (AS/NZS 3500.2).

Refer to the Warranty section of this guide for details of installation obligations.

Low Maintenance Flush Valve

Using the mounting screws provided, install the valve vertically in either the wall space (**minimum** 90mm cavity) or ceiling and with loose coupling connections on both the inlet and outlet of valve. Ensure the valve is securely fastened to a suitable stable structural support.

Allow for easy access to the valve for servicing. Front or rear access panels for an in-wall installation should be a **minimum** of 300mm x 300mm.

A **minimum** clearance of 300mm is required above the valve to allow access to the set screw on the top of the valve for flow adjustment and to remove the bonnet of the valve for servicing.

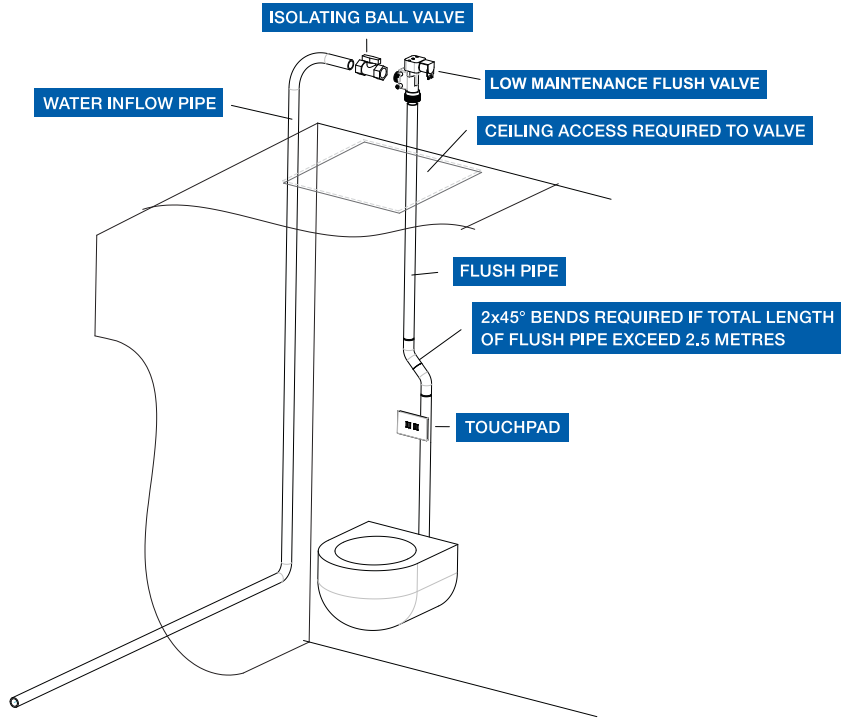
All plumbing connection points to the valve **MUST** be accessible.

When servicing valve piston, plumber should use Rocol Sapphire Grease.

The polystyrene packaging material supplied should be placed around the valve and taped into place to provide acoustic insulation. Additional acoustic insulation around the valve is recommended in residential applications.

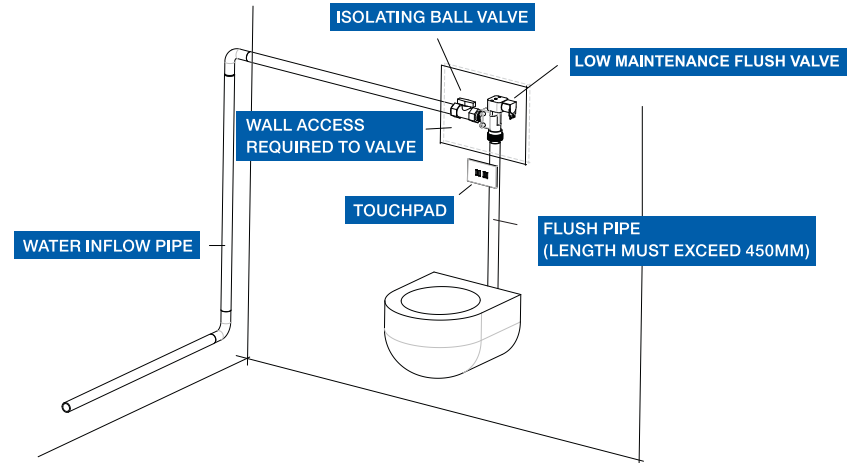
Plumber Instructions & Guidelines

Ceiling Mounted Valve



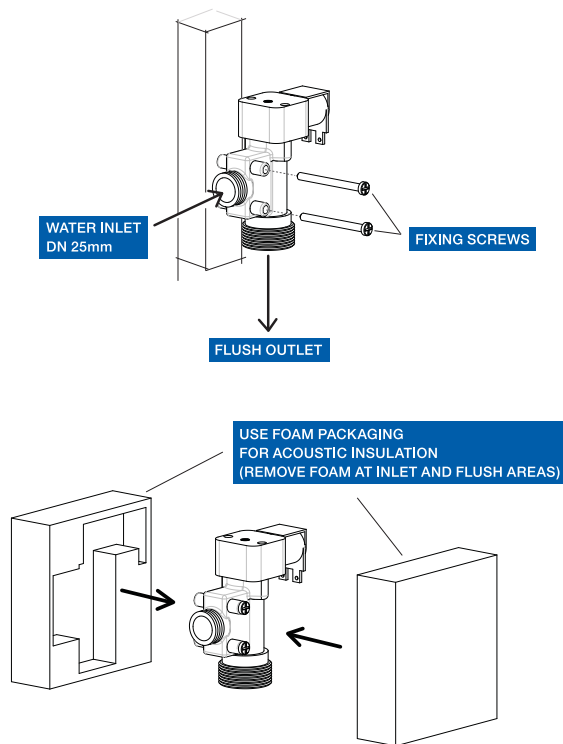
Plumber Instructions & Guidelines

Wall Mounted Valve



Plumber Instructions & Guidelines

Attaching the Valve



Plumber Instructions & Guidelines

Water Supply

We recommend that all Low Maintenance Flush Valves be supplied using a **minimum** DN 25mm pipe. We recommend that in domestic installations the main supply line should be DN 25mm.

Refer to the Commercial Plumbing Sizing Guide for further details of pipe sizes for commercial installations. This guide can be found on our website: www.hydaflush.com.au.

The Low Maintenance Flush Valve should be run off an independent line. Failure to do so may impact on other water appliances within the premises or may cause unsatisfactory operation of the valve.

Limit the number of direction changes in pipe work.

Supply lines to valves should be PE-X pipe.

Acoustic insulation must be used for all pipework which may affect habitable rooms

Water Pressure & Flow

All installations require water flow of 1.5lts per second at each at each Low Maintenance Flush Valve and water pressure of between 350kpa and 650kpa. Insufficient water flow rates or water pressure outside this range may lead to malfunction of the valve.

Pressure Vessels

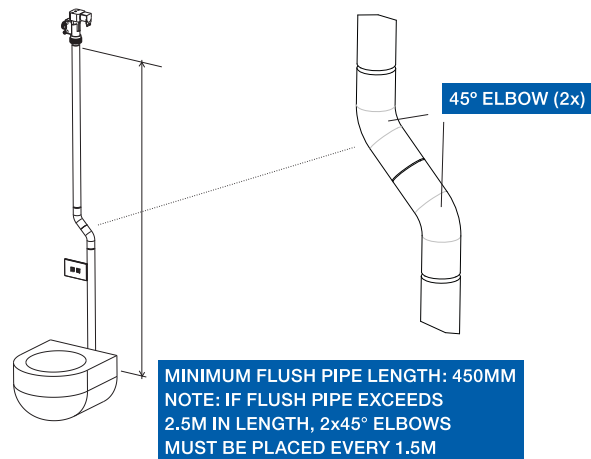
If installed correctly, a pressure vessel **may** assist performance in maintaining a constant supply of water to the valve. If a pressure vessel is required ensure that it is installed in compliance with the manufacturer's instructions.

Plumber Instructions & Guidelines

Flush Pipe Layout

The flush pipe must be a minimum of DN 40mm. Geberit 56mm Silent Pipe is recommended.

The flush pipe must be a minimum of 450mm in length. If the flush pipe is longer than 2.5m (i.e. the distance from the valve to the flush pipe outlet) you will need to slow the water down with a pair of 45 degree bends every 1.5m. Do not allow bends of greater than 45 degrees except for the final connection to the pan.



Do not run flush pipes horizontally.

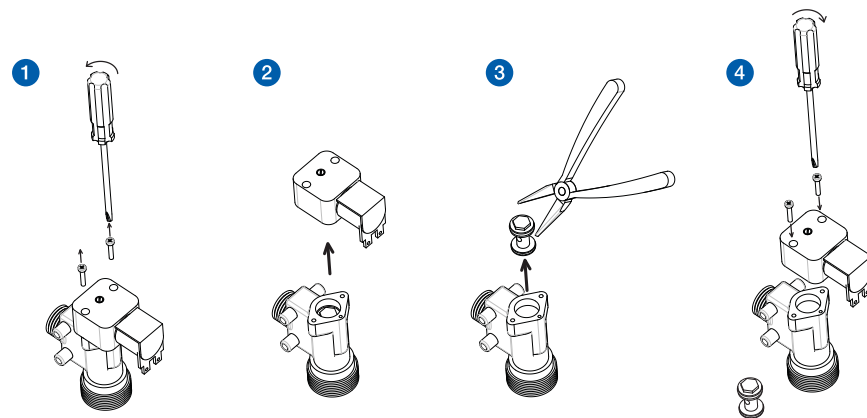
Flush pipes must be acoustic pipes such as Geberit Silent Pipe or acoustic lagged PE-X.

Plumber Instructions & Guidelines

Line Flushing

All supply lines **MUST** be flushed to ensure removal of swarf and construction debris **prior** to connecting the valve. Failure to do so will cause the valve to malfunction and will void the warranty.

To flush the water lines after the valve has been installed you must first remove the piston from the valve. To do this, shut off the water supply to the valve, unscrew the white bonnet from the top of the valve, use a pair of pliers to remove the piston from inside the valve and reattach the bonnet. Open the water supply to fully flush the lines. Once this has been done, re-install the piston and re-attach the white bonnet.



Plumber Instructions & Guidelines

Preliminary Check

Before connecting the touchpad:

- Be sure that all plumbing connections except the pan connection have been completed and the valve has been correctly installed.
- Be sure that the water supply is connected and supply lines are open.
- Do not connect the pan until the touchpad has been installed and the system has been commissioned.
- Place a large bucket under the flush pipe prior to installing the touchpad as the valve may flush when the touchpad is connected and powered up.

Touchpad Position

The touchpad may be installed in the traditional position on the wall directly behind the toilet or in another location which is convenient. The unit is supplied with a 2m lead to connect the touchpad to the valve. Extension leads are available as a spare part if required.

If 2m lead supplied is not long enough, DO NOT cut lead, this will void warranty.

If installing the touch pad behind the toilet, take care to ensure that the raised toilet seat does not rest on the touchpad. Standard height off the floor is between 900mm and 1100mm.

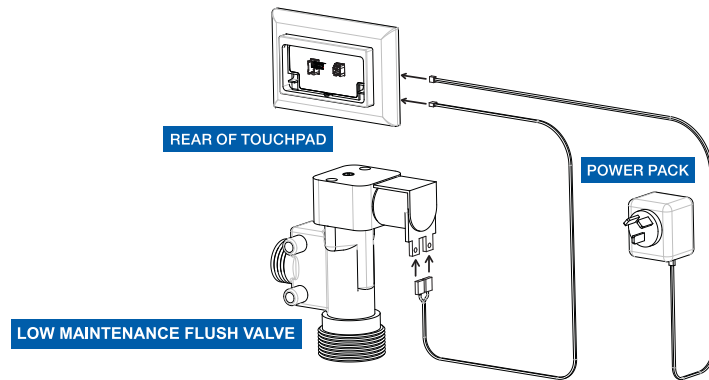
The touchpad should be positioned so that the half flush logo is on the left side of the plate. In the case of the vertical lined stainless steel pad the half flush logo should be at the top of the pad.

Plumber Instructions & Guidelines

Connecting the leads to the valve and the touchpad

All our touch pads are connected to the valve in the same way.

The touchpad is supplied with a 2 metre lead and a power pack. The connectors only allow for connection the correct way. Extension leads are available as a spare part.



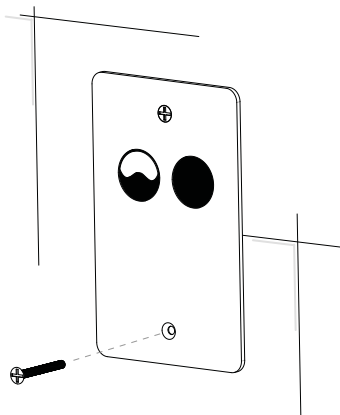
With the power off, connect the lead to the valve by attaching the two red lugs of the lead to the metal tabs on the valve. Then thread the white plug end of the lead through the wall opening and connect it to the touchpad.

Thread the power lead through the wall opening and connect it to the touchpad. Plug the power pack into the power outlet. When the power is turned on the valve may activate for a half-flush.

Installing the touchpad

Sensorflush Standard Range – Stainless Steel

Screw-on touchpads should be firmly screwed to a solid surface. The standard range of 110 x 70mm touch pads allow for the use of a standard electrical power outlet backing plate (C clip) to be used for attachment. Larger plates should be firmly affixed to the wall frame.



Wet area installations will require the touchpad to be sealed using our rubber gasket which is available as a spare part. Alternatively, the pad can be sealed using a bead of neutral cure silicone sealant.

The touchpad requires an opening of 55mm x 70mm to be cut into the wall material to accommodate the circuitry on the reverse of the pad.

Connect the leads as detailed above.

Touch pad should be firmly fixed in place prior to testing.

Installing the touchpad

Tile-in Touchpads

Tile-in touchpads must **not** be permanently affixed to the wall. We recommend Bostik 5612 Non-Skimming Butyl Mastic Sealant. This will allow future removal of the tile if necessary.

Installing the *Sensorflush* Corian Touchpad

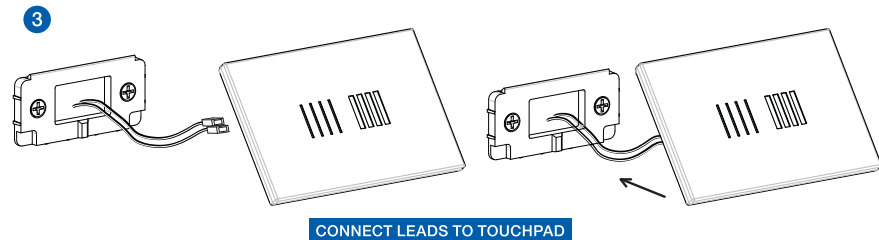
Step 1 - Use the mounting plate supplied as a template to position and mark the cable opening in the wall. The wall opening must be the same size as the rectangular opening in the centre of the mounting bracket, approximately 34mm x 20mm. The mounting bracket comes with a grub screw seated in a brass ring. Do not unscrew this grub screw it should be fully embedded in the brass ring.

Step 2 - Cut the hole in the wall. Ensure the mounting plate is level and screw the plate to the wall using the screws supplied. Bring the leads from the power pack and valve through the hole.

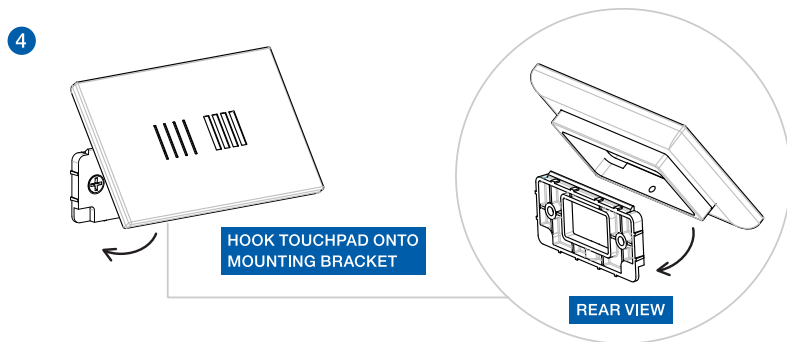


Installing the touchpad

Step 3 - Ensure the power is turned off. Connect the power and valve leads to the touchpad. These leads only allow for connection in the correct way.

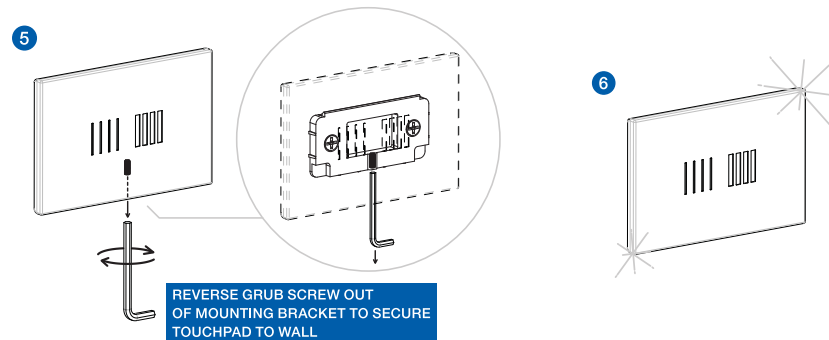


Step 4 - Ensure that the touchpad is oriented correctly with the half flush logo on the left side. Hook the touchpad onto the top of the mounting bracket and click the pad into position. The hole in the base of the frame will align with the grub screw in the base of the mounting plate. If the pad does not click into position check that the grub screw is fully screwed into the brass ring.



Installing the touchpad

Step 5 - Note: The touchpad is secured to the mounting plate by the grub screw being wound **out**. Insert the Allen key into the hole in the base of the touchpad and unscrew the grub screw until it is flush with the surface of the touchpad frame. The touchpad can be removed from the wall by reversing this procedure.



WARNING: DO NOT ATTEMPT TO REMOVE OR TAMPER WITH ELECTRONICS ON REAR OF TOUCH PAD. THIS WILL DAMAGE ELECTRONICS AND VOID WARRANTY.

Low Maintenance Flush Valve

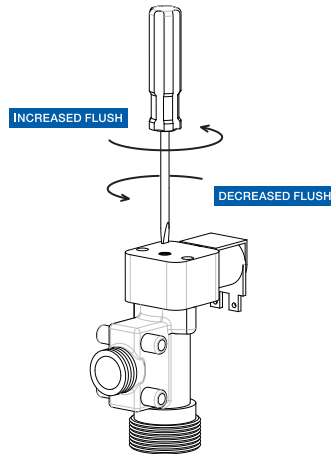
Commissioning the Valve & Adjusting the Flush

The valve is factory set for a 6lt full flush and a 3lt half flush at 350kpa but volumes do vary depending on the installation.

Volumes can be adjusted according to the customer's needs and the WELS rating of the pan being used.

Prior to connecting the pan, the volume can be measured by placing a large bucket under the flush outlet. Activate a full flush and use a measuring jug to measure the volume.

Use a blade screwdriver to adjust the set screw located in the middle of the white bonnet of the valve.



Screw anti-clockwise to increase the flush volume and clockwise to decrease the flush volume.

Touchpad operation and Troubleshooting

Touchpad operation

The touchpad uses touch sense technology and has a built in lockout time. A gentle touch of the sensor is all that is required to activate the flush. Once activated, the system will not re-flush until **5 seconds after** the original flush has **completed**.

Refer to the "Adjusting the flush" section above if the flush volume needs adjusting.

Troubleshooting

A troubleshooting guide is available on our website at www.hydaflush.com.au.

Warranty Details

Every Low Maintenance Flush Valve and touchpad is under warranty for 12 months covering parts and labour ONLY. **(12 months from date of purchase)**

Warranty conditions:

- The products **MUST** be correctly installed including the flushing of lines **prior** to connecting the valve.
- The valve **MUST** be installed by a qualified licensed plumber.
- The installation must meet all relevant Australian Standards (AS/NZS 3500.2).
- The requirements of water pressure and flow **MUST** be met.
- The warranty covers faults in the product construction, material and assembly **ONLY**. It does **NOT** cover faults due to incorrect installation practices.
- The warranty does not cover claims for damages or consequential loss either directly or indirectly due to the valve or touchpad.

Note: Service callouts resulting from poor, faulty or incorrect installation will be billed to the original installing plumber, customer or requesting party

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