INSTALLATION & USER GUIDE

HIGH-PRESSURE & LOW-PRESSURE DUAL OUTLET DIGITAL VALVES & CONTROLLERS

These instructions must be left with the user.

crosswater™

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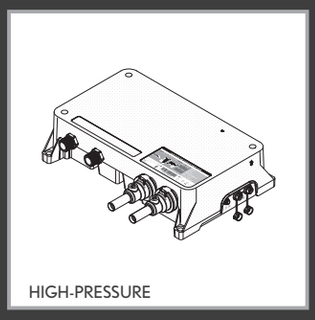
INTRODUCTION

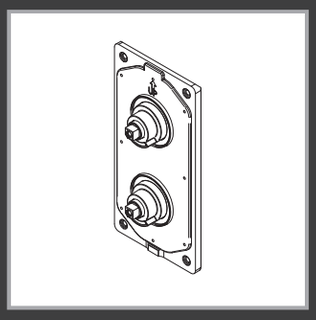
PRODUCTS COVERED BY THIS GUIDE

DGX_OUTH2

Crosswater high-pressure, dual outlet digital valve & controller

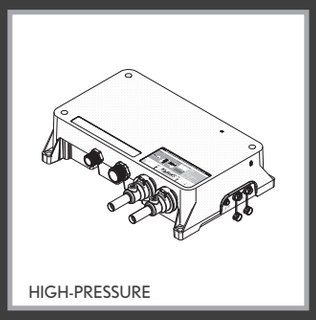


HIGH-PRESSURE

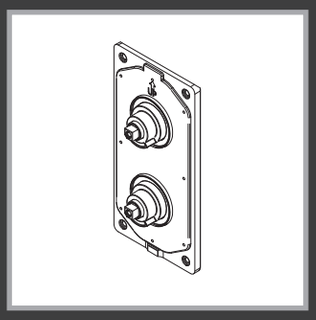


DGX_HBATH

Crosswater high-pressure, bath/shower flow control digital valve & controller

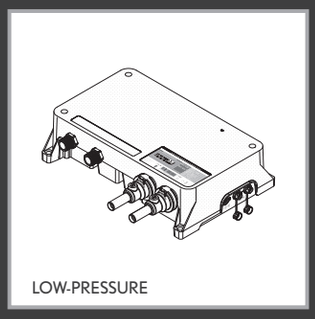


HIGH-PRESSURE

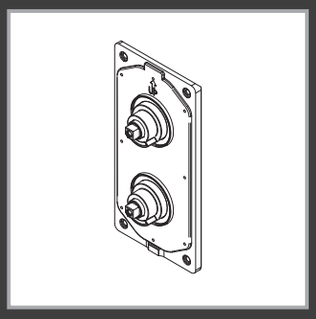


DGX_OUTL2

Crosswater low-pressure, dual outlet digital valve & controller

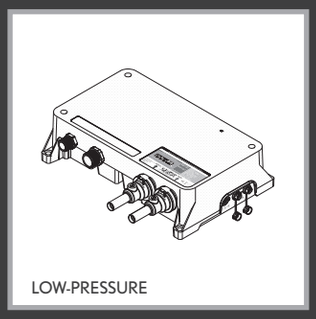


LOW-PRESSURE

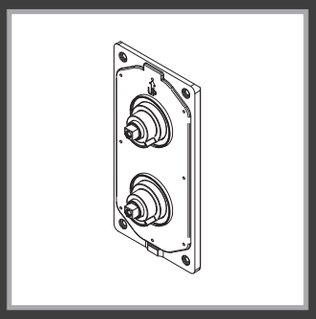


DGX_LBATH

Crosswater low-pressure, bath/shower flow control digital valve & controller



LOW-PRESSURE



SAFETY INFORMATION

WARNING! PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

This Installation Guide contains instructions for the correct connection of the digital shower system.

This product **MUST** be installed by a competent person in accordance with all current relevant statutes and regulations, including building regulations and the Water Supply (Water Fittings) Regulations 1999 (together the Water Supply Regulations).

All showers requiring an electrical connection **MUST** be installed by a qualified person following the latest revision of BS7671 (Wiring Regulations) and certified to current building regulations. Before any electrical connections are made, the electrical supply must be turned off at the main switch. All electrical installation must be carried out by a qualified person only.

All plumbing, power and controller connections are provided on the exteriors of the valve and controller module. There are no user or installer-serviceable parts contained within either unit and disassembly will invalidate the warranty.

The digital mixer valve **MUST** only be used with the power supply and AC power cable provided. The controller module should only be connected to the digital mixer valve with the 10m data cable supplied.

All high-pressure valves are mixed flow products, which, for optimum performance, require hot and cold supplies to be reasonably balanced, with no more than 0.5 bar pressure difference between them.

Under no circumstances should any low-pressure (pumped) digital valve be connected directly to the water main supply or installed in combination with a separate booster pump.

Under no circumstances should any low-pressure (pumped) digital valve be operated without first having connected and turned on the hot and cold water supply. This may cause damage to the pump resulting in a water leak.

The temperature of the shower hot water supply should not exceed 65°C.

The digital valve must not be installed in situations where it can become frozen, or where the ambient temperature is likely to exceed 40°C.

The digital control module must not be installed in situations where the ambient temperature is likely to fall below 5°C or rise above 40°C.

This product is not suitable for areas with high humidity (i.e steam rooms).

The dual outlet digital shower valves are supplied factory-set at a maximum outlet temperature of 41°C. The maximum temperature can be reset to 46°C during set-up if preferred by the user. The dual outlet bath/shower valves are supplied factory-set to the following maximum outlet temperatures:

- Shower outlet: 41°C
- Bath outlet: 44°C

The maximum temperature of both outlets can be reset to 46°C during set-up if preferred by the user.

Warning! If the maximum temperature is reset to 46°C this is entirely at the risk of the owner and Crosswater can accept no liability for any resulting injury.

Important: The digital valve must be installed in an accessible location for servicing and maintenance. No warranty claim can be considered or liability accepted by Crosswater if lack of accessibility has prevented maintenance.

All pipework must be checked for leaks before the product installation is completed. The product should be pressurised and both inlet and outlet connections inspected.

Having completed the installation, make sure that the user is familiar with the operation of the appliance.

These instructions include a user guide (see page 35) and must be left with the user after installation.

The water supplies to this product must be isolated if the product is not to be used for a long period of time. If the product or pipework is at risk of freezing during this period they should also be drained of water.

Cables mounted on surfaces must be protected by a suitable approved conduit. This applies even in a loft, where there may be a risk of damage by vermin.

Cables that are chased into walls must also be protected by a conduit or sheathing to allow removal for service and maintenance.

This product is not intended for use by children or persons with reduced physical or mental capabilities, and should not be used by such persons without appropriate instruction and supervision.

DO NOT LEAVE CHILDREN UNATTENDED WHILST THE PRODUCT IS IN OPERATION.

DO NOT commission this appliance if water leaks from the unit.

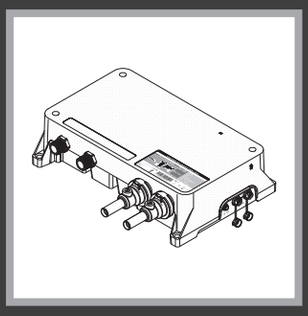
DO NOT operate if water leaks from the appliance.

DO NOT operate this appliance if it is frozen. If you suspect that the appliance is frozen, isolate and contact Crosswater for advice.

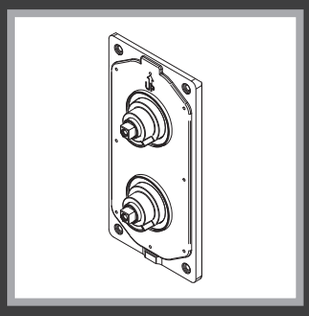
PACK CONTENTS

DGX_OUTH2 / DGX_HBATH

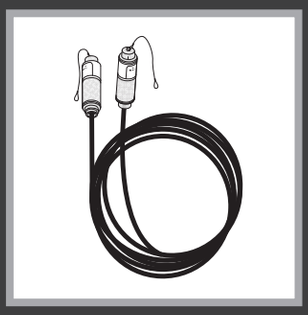
Dual outlet digital mixer valve (high-pressure) pack contents:



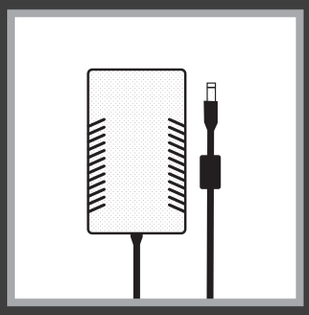
1 x HIGH-PRESSURE, DUAL OUTLET DIGITAL VALVE



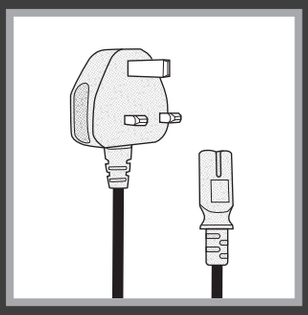
1 x CONTROLLER MODULE (DUAL DIAL)



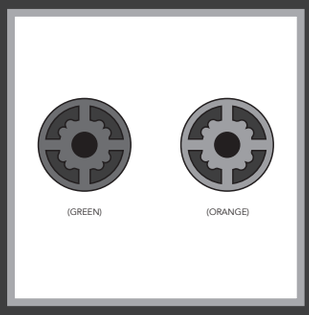
1 x 10M DATA CABLE



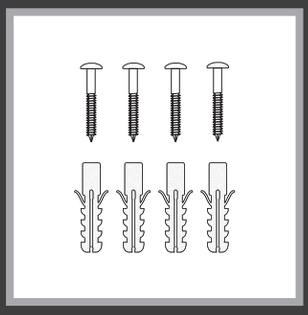
1 x POWER SUPPLY



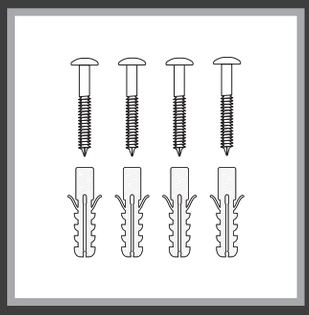
1 x AC POWER CABLE



1 x FLOW REGULATOR PACK



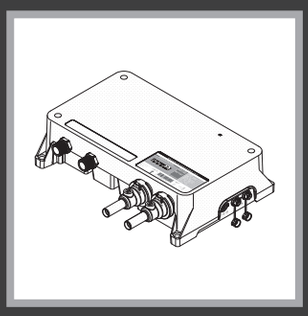
1 x CONTROLLER SCREW PACK



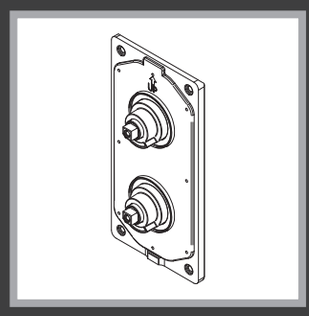
1 x VALVE SCREW PACK

DGX_OUTL2 / DGX_LBATH

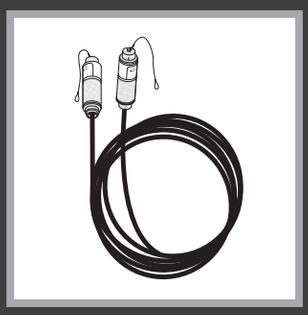
Dual outlet digital mixer valve (low-pressure) pack contents:



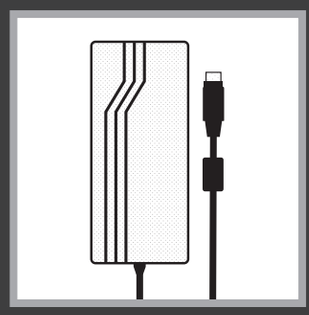
1 x LOW-PRESSURE, DUAL OUTLET DIGITAL VALVE



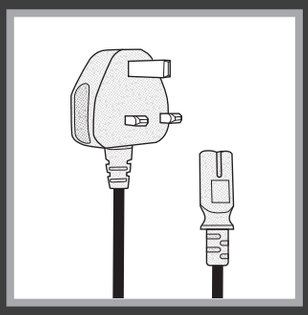
1 x CONTROLLER MODULE (DUAL DIAL)



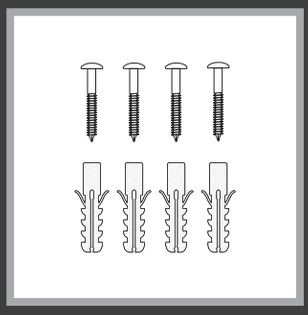
1 x 10M DATA CABLE



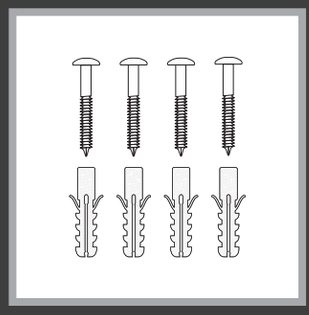
1 x POWER SUPPLY



1 x AC POWER CABLE



1 x CONTROLLER SCREW PACK



1 x VALVE SCREW PACK

SPECIFICATIONS

CROSSWATER HIGH-PRESSURE, DUAL OUTLET DIGITAL VALVE

PRESSURE	
Maximum static pressure	700 kPa (7 bar)
Minimum maintained pressure	50 kPa (0.5 bar)
Supply pressure differential	Nominally equal
TEMPERATURES	
Maximum temperature (factory preset)	41°C (can be reset to 46°C at installation)
Hot water range	55°C - 65°C
Cold water range	1°C - 20°C
Temperature control	Thermostatic control throughout the temperature range of 15°C to 46°C.
Ambient temperature (valve)	1°C - 40°C
Maximum relative humidity	95% non-condensing
FLOW RATE	
Maximum flow rate (open outlet) Note: Flow rates will vary significantly depending on inlet maintained pressure, pipework and spray mode of fitted accessories.	• 15 L/min max @ 1 bar (shower outlet 1) • 15 L/min max @ 1 bar (shower outlet 2) • 16 L/min max @ 1 bar (combined)
ELECTRICAL	
Supply voltage	230V RMS 50 Hz +/- 10%
Maximum load	30W

SPECIFICATIONS

CROSSWATER HIGH-PRESSURE, BATH/SHOWER FLOW CONTROL DIGITAL VALVE

PRESSURE	
Maximum static pressure	700 kPa (7 bar)
Minimum maintained pressure	50 kPa (0.5 bar)
Supply pressure differential	Nominally equal
TEMPERATURES	
Maximum temperature (factory preset)	41°C (can be reset to 46°C at installation)
Hot water range	55°C - 65°C
Cold water range	1°C - 20°C
Temperature control	Thermostatic control throughout the temperature range of 15°C to 46°C.
Ambient temperature (valve)	1°C - 40°C
Maximum relative humidity	95% non-condensing
FLOW RATE	
Maximum flow rate (open outlet) Note: Flow rates will vary significantly depending on inlet maintained pressure, pipework and spray mode of fitted accessories.	• 17 L/min max @ 1 bar (bath outlet) • 15 L/min max @ 1 bar (shower outlet)
ELECTRICAL	
Supply voltage	230V RMS 50 Hz +/- 10%
Maximum load	30W

SPECIFICATIONS

CROSSWATER LOW-PRESSURE, DUAL OUTLET DIGITAL VALVE

PRESSURE	
Maximum static pressure	100 kPa (1 bar)
Minimum maintained pressure	10 kPa (0.1 bar)
Supply pressure differential	Nominally equal
TEMPERATURES	
Maximum temperature (factory preset)	41°C (can be reset to 46°C at installation)
Hot water range	55°C - 65°C
Cold water range	1°C - 20°C
Temperature control	Thermostatic control throughout the temperature range of 15°C to 46°C.
Ambient temperature (valve)	1°C - 40°C
Maximum relative humidity	95% non-condensing
FLOW RATE	
Maximum flow rate (open outlet) Note: Flow rates will vary significantly depending on inlet maintained pressure, pipework and spray mode of fitted accessories.	• 15 L/min max @ 1 bar (shower outlet 1) • 15 L/min max @ 1 bar (shower outlet 2) • 16 L/min max @ 1 bar (combined)
ELECTRICAL	
Supply voltage	230V RMS 50 Hz +/- 10%
Maximum load	150W

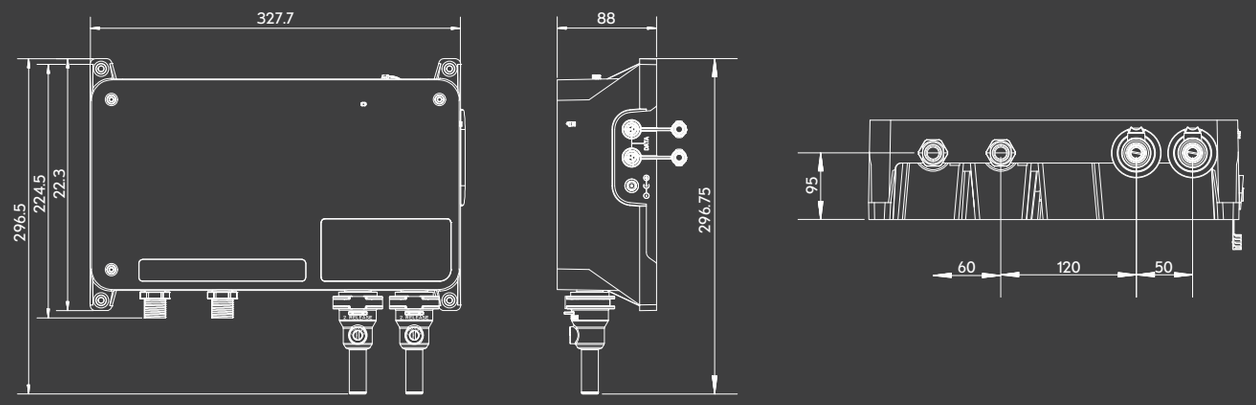
SPECIFICATIONS

CROSSWATER LOW-PRESSURE, BATH/SHOWER FLOW CONTROL DIGITAL VALVE

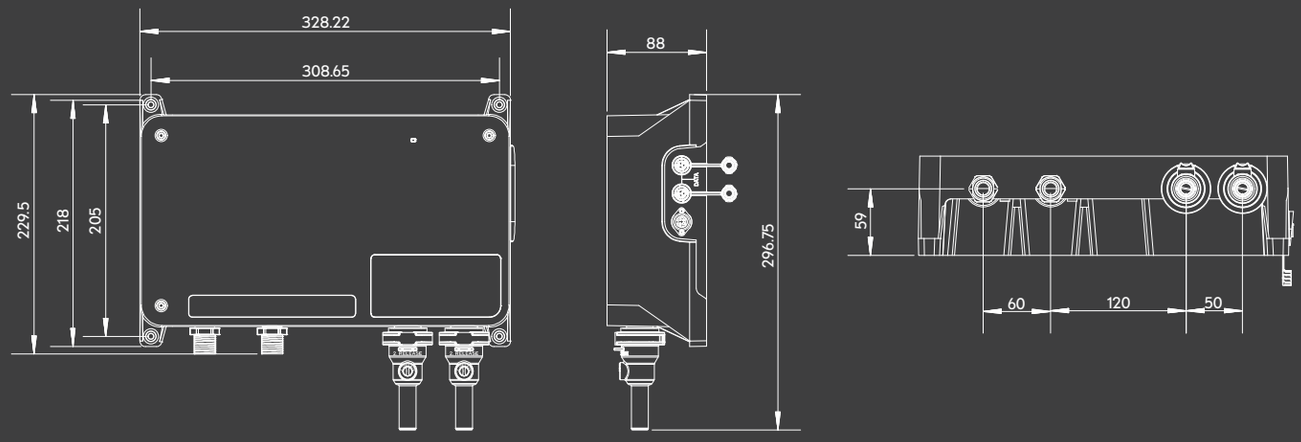
PRESSURE	
Maximum static pressure	100 kPa (1 bar)
Minimum maintained pressure	10 kPa (0.1 bar)
Supply pressure differential	Nominally equal
TEMPERATURES	
Maximum temperature (factory preset)	41°C (can be reset to 46°C at installation)
Hot water range	55°C - 65°C
Cold water range	1°C - 20°C
Temperature control	Thermostatic control throughout the temperature range of 15°C to 46°C.
Ambient temperature (valve)	1°C - 40°C
Maximum relative humidity	95% non-condensing
FLOW RATE	
Maximum flow rate from bath outlet (open outlet) Note: Flow rates will vary significantly depending on inlet maintained pressure, pipework and spray mode of fitted accessories.	• 17 L/min max @ 1 bar (bath outlet) • 15 L/min max @ 1 bar (shower outlet)
ELECTRICAL	
Supply voltage	230V RMS 50 Hz +/- 10%
Maximum load	150W

DIMENSIONS

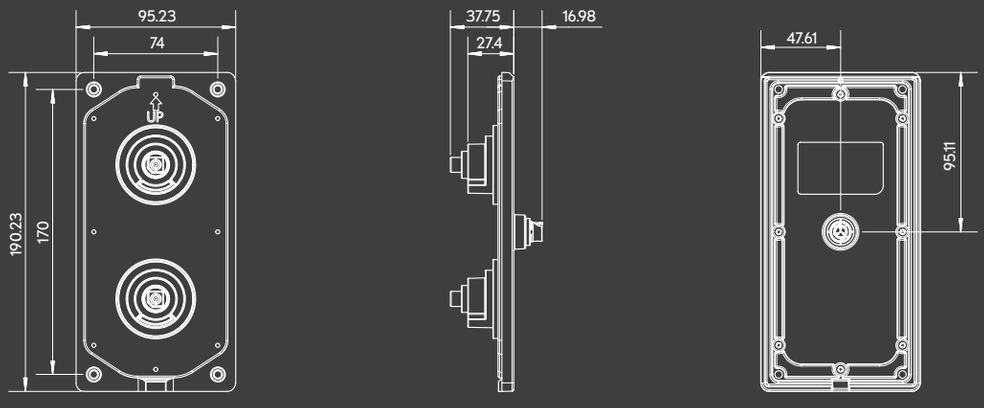
DGX_OUTH2 CROSSWATER HIGH-PRESSURE, DUAL OUTLET DIGITAL VALVE



DGX_OUTL2 CROSSWATER LOW-PRESSURE, DUAL OUTLET DIGITAL VALVE

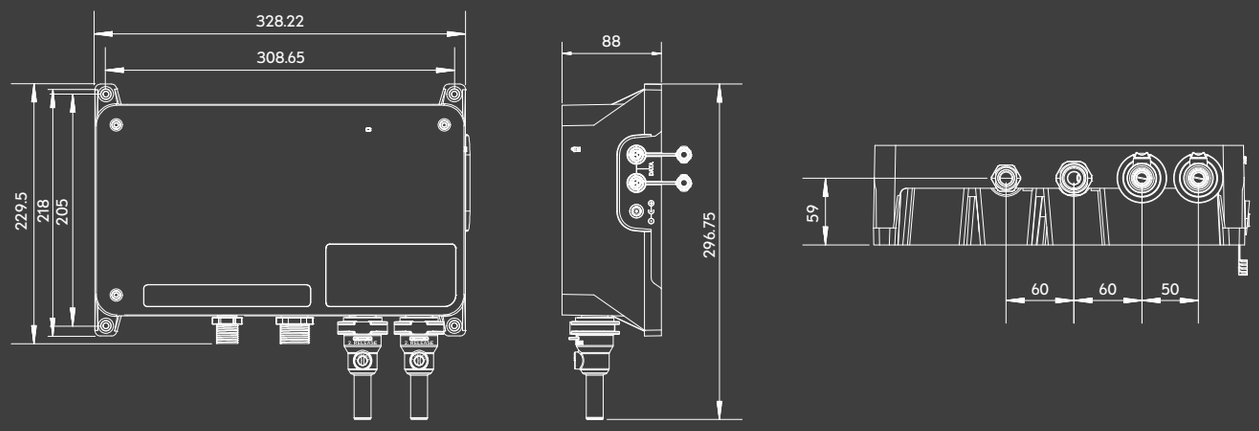


CONTROLLER MODULE (DUAL DIAL)

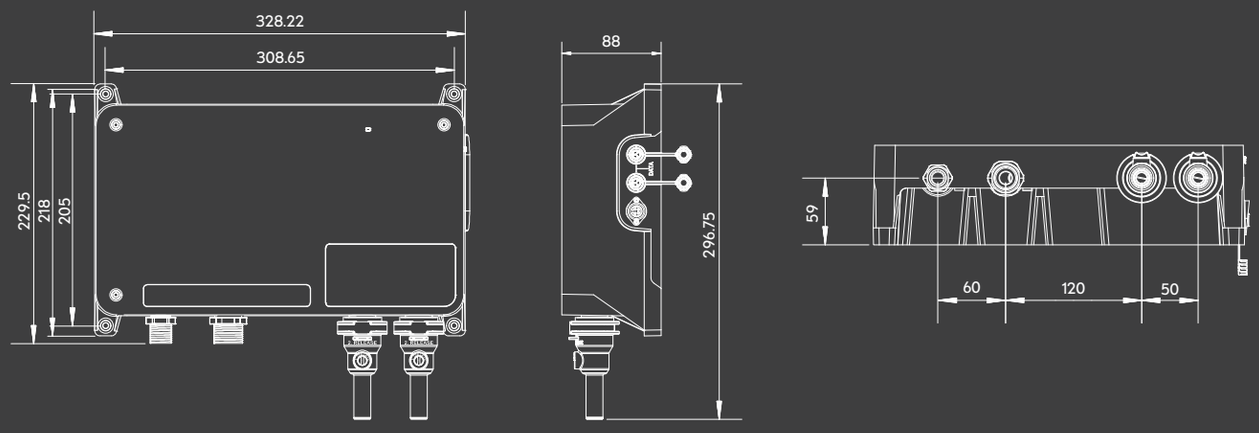


DIMENSIONS

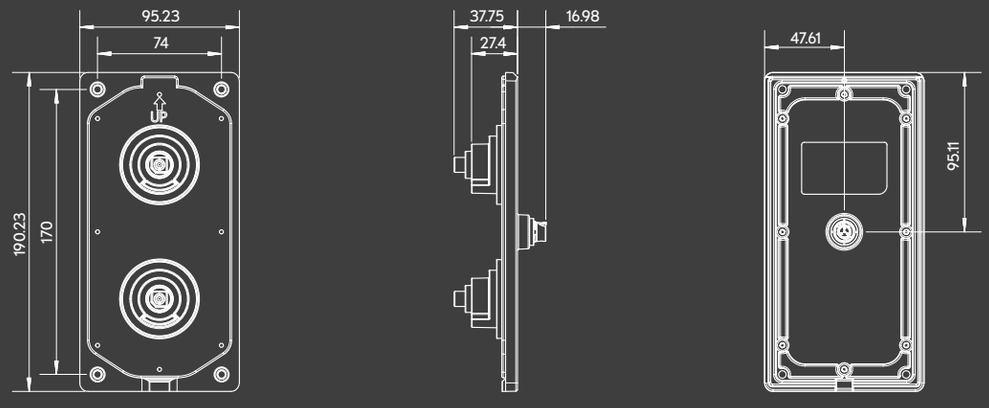
DGX_HBATH CROSSWATER HIGH-PRESSURE, DUAL OUTLET BATH/SHOWER FLOW CONTROL DIGITAL VALVE



DGX_LBATH CROSSWATER LOW-PRESSURE, DUAL OUTLET BATH/SHOWER FLOW CONTROL DIGITAL VALVE



CONTROLLER MODULE (DUAL DIAL)



INSTALLATION PREPARATION

THE INSTALLATION MUST BE CARRIED OUT IN ACCORDANCE WITH THESE INSTRUCTIONS.

Warning! Turn off the electrical and water supplies before proceeding with the installation. The electricity must be turned off at the mains and the appropriate circuit fuse electrically isolated, if applicable.

The digital valve may be installed in a loft space, under the bath or in a convenient cupboard space provided there is enough room for maintenance. Safe and easy access to the product should be available at all times.

The distance between the digital valve and the location of the controller module must be within the range of the supplied 10m data cable, taking the intended cable routing into consideration. Ideally, the digital valve should be located as close to the controller module as possible to minimise the length of pipe run between the digital valve and the shower outlet.

The length of pipework running from the digital valve to the shower outlet will have an effect on the showering temperature and the response time when changing the temperature using the controller. If possible, it is recommended that this length is kept to a minimum and does not exceed 4.5m.

When installing a digital valve in an area not regularly accessed, consideration for potential leaks must be taken into account. While such events are unlikely, it is advisable to periodically check the installation for traces of water on or around the product. If possible, site the valve in a location where any leak would be contained or routed to avoid areas sensitive to water damage.

Isolation valves are integrated into the hot and cold inlets to the digital valve. We recommend fitting an isolation valve on the outlet, close to the digital mixer valve, if there is a long horizontal run to the shower outlet.

Warning! Risk of product damage. The digital valve must be installed in a dry, ventilated area where it will not freeze.

A separate, permanently connected supply must be taken from the ring main to the appliance. The appropriate plug socket must be located in a dry area within 2m of the digital valve.

A 30 mA residual current device (RCD) should be included in the electrical circuit. This may be part of the consumer unit or a separate unit.

Pipework **MUST** be rigidly supported to avoid any strain on the connections.

Metal pipework **MUST** be earth bonded.

Long inlet pipework (dead-legs) should be kept to a minimum to avoid temperature fluctuations.

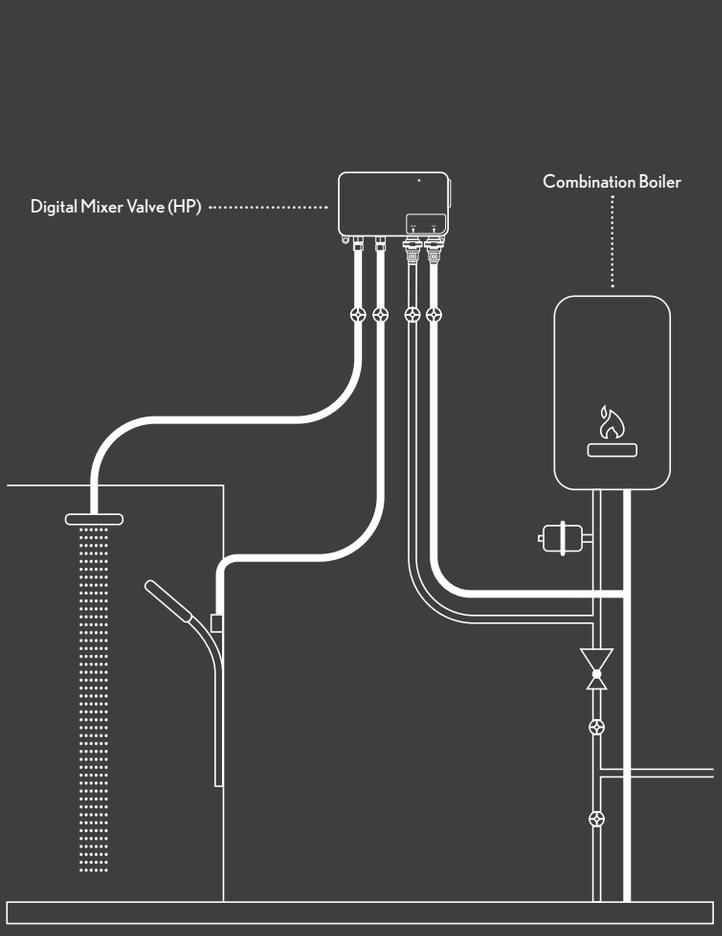
Supply pipework layout must be arranged to minimise the effect of other outlet usage upon the dynamic pressures at the digital valve inlets.

Some pipe soldering fluxes can be corrosive and could attack the working part of this unit if not flushed out effectively. To eliminate pipe debris and residual solder flux, it is essential that supply pipes are flushed thoroughly prior to connection to the digital valve in accordance with the Water Supply Regulations.

Important! All pipework must be insulated. Do not attempt to insulate or cover the digital valve.

Warning! There are no user-serviceable components beneath the cover of the appliance.

TYPICAL INSTALLATION WITH INSTANTANEOUS MULTIPOINT WATER HEATERS OR COMBINATION BOILERS



Warning! Only install the high-pressure digital mixer valve with a multipoint water heater or combination boiler. Never install the low-pressure (pumped) digital valve with a multipoint water heater or combination boiler.

The multipoint water heater or combination boiler must be of a fully modulating design.

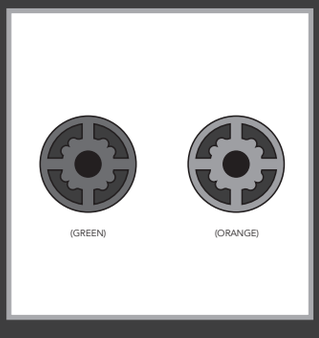
Example shown with two shower outlets.

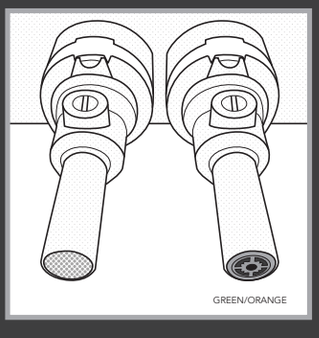
USE OF SUPPLIED FLOW REGULATORS WITH COMBINATION BOILERS

Combination boilers are not always able to supply an adequate flow of hot water, particularly in winter, and Crosswater recommends fitting one of the supplied flow regulators into the hot inlet of the high-pressure digital valve prior to installation. Refer to the table below for details:

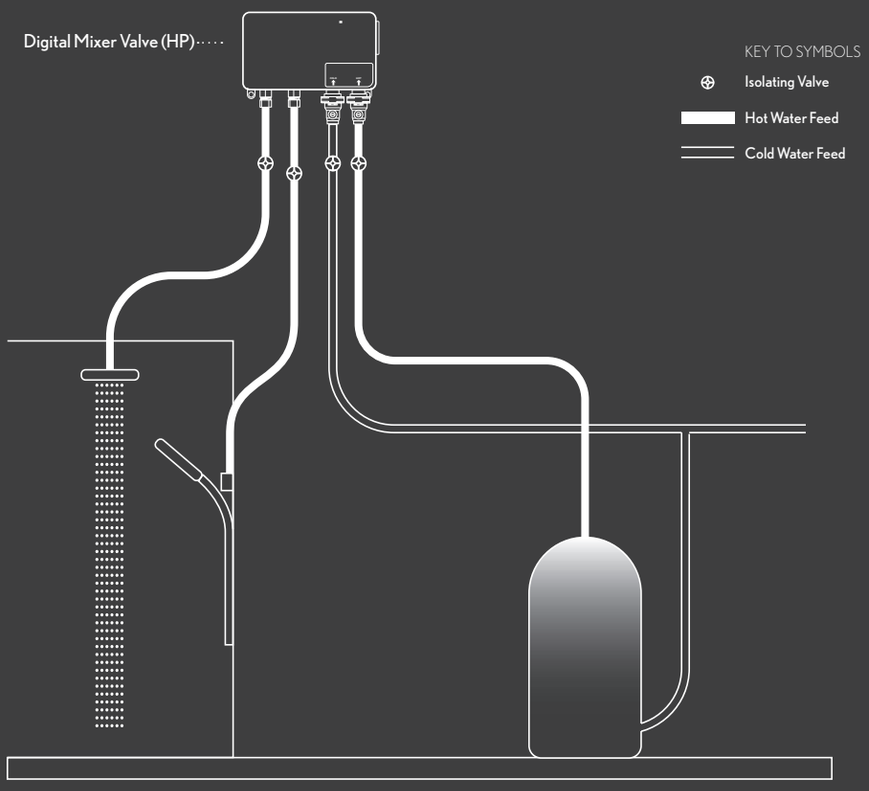
BOILER RATING	24KW	30KW
Flow regulator	7 L/min	9 L/min
Colour	Green	Orange

Insert the appropriate flow regulator into the **HOT** inlet in the orientation shown. Ensure the appropriate flow regulator is inserted into the **HOT** inlet only.





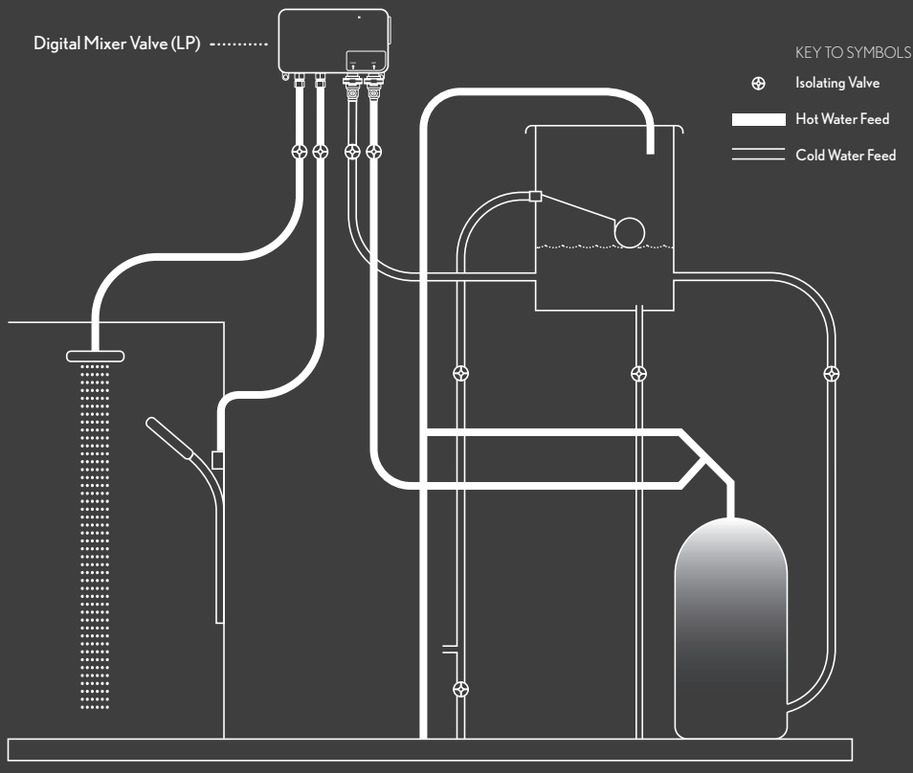
TYPICAL INSTALLATION WITH MAINS PRESSURISED SYSTEMS



Warning! Only install the high-pressure digital mixer valve with a mains pressurised system. Never install a low-pressure (pumped) digital valve with a mains pressurised system.

Example shown with two shower outlets.

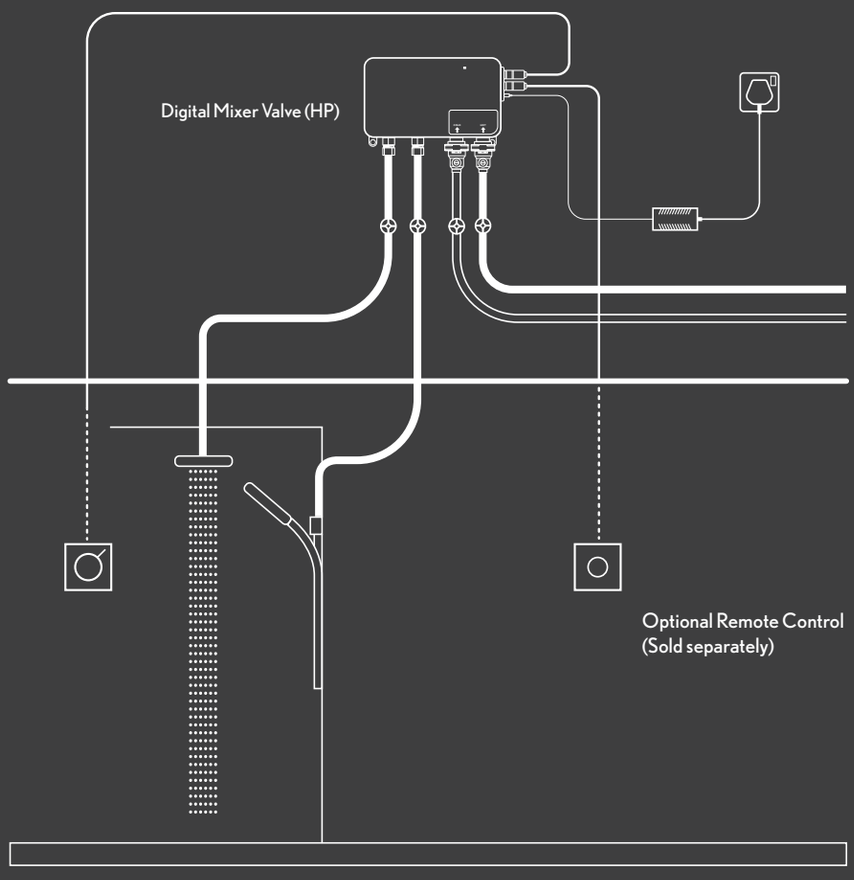
TYPICAL INSTALLATION WITH GRAVITY FED SYSTEMS



Warning! Only install the low-pressure (pumped) digital mixer valve with a gravity fed system. Never install a high-pressure digital valve with a gravity fed system.

Example shown with two shower outlets.

TYPICAL INSTALLATION SCHEMATIC



Optional remote control shown in schematic.

HP digital mixer valve shown for illustration purposes, LP valves can be installed in a similar way.

Please note the allowable orientations are also marked on the top surface of the valve (see page 16).

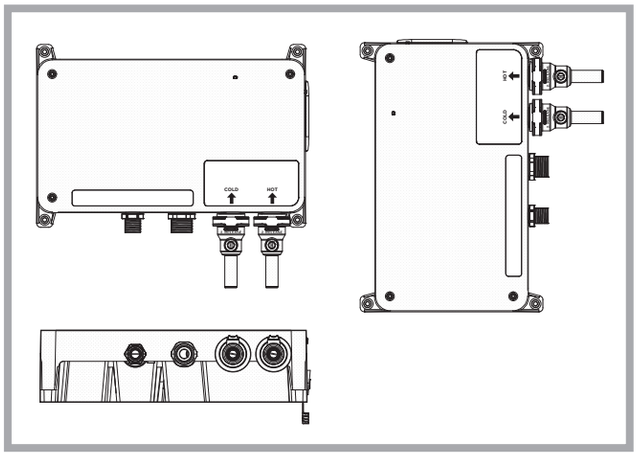
TYPICAL POOR INSTALLATION PRACTICE

DO NOT INSTALL THE DIGITAL VALVE:

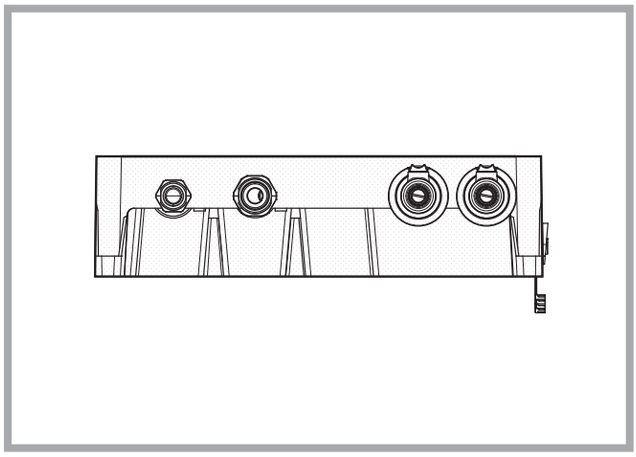
- into a system where the cold water cistern holds less than 230 litres.
- into a system where air locking could occur.
- onto shared water supplies.
- less than 100mm from the lowest level of water (low-pressure digital valve only).
- in a location where freezing could occur.
- with unsupported plastic pipework.

DIGITAL VALVE INSTALLATION

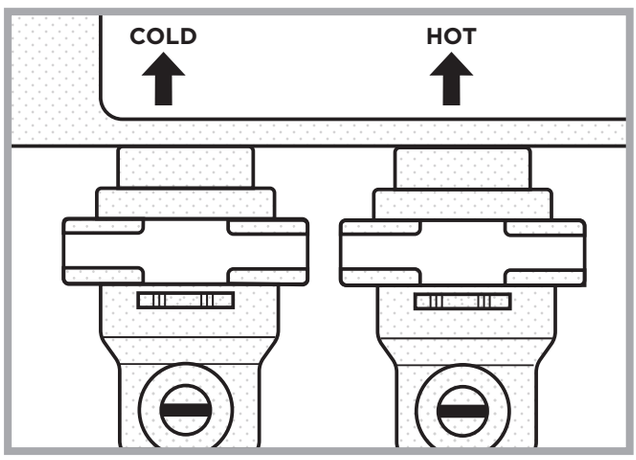
The digital valve can be orientated in any one of the following positions. Failure to install the digital valve in one of the allowable orientations will result in malfunction. Please note the allowable orientations are also marked on the top surface of the valve.



HIGH-PRESSURE, DUAL OUTLET DIGITAL VALVE ALLOWABLE ORIENTATIONS



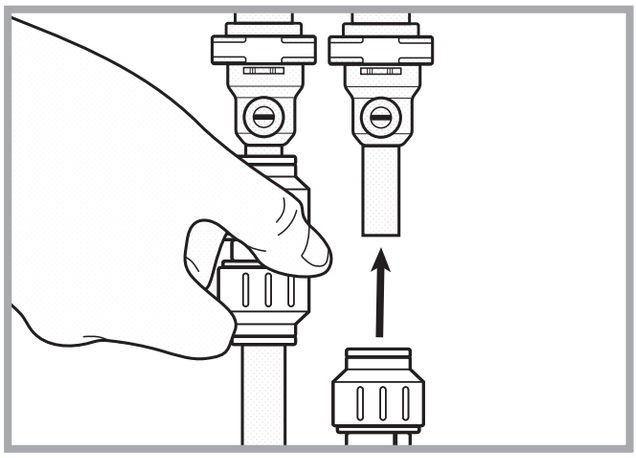
LOW-PRESSURE (PUMPED), DUAL OUTLET DIGITAL VALVE ALLOWABLE ORIENTATIONS



Connect hot and cold water inlet supplies using appropriate 15mm push fit fittings as shown on the left. Compression fittings must not be used to connect the inlets.

When installing a high-pressure digital valve, it is recommended that inlets and outlets are fed using 15mm diameter copper pipe.

When installing a low-pressure pumped digital valve it is recommended that the inlets are fed using 22mm diameter copper pipe and reduced down to 15mm diameter as close as possible to the valve inlets.

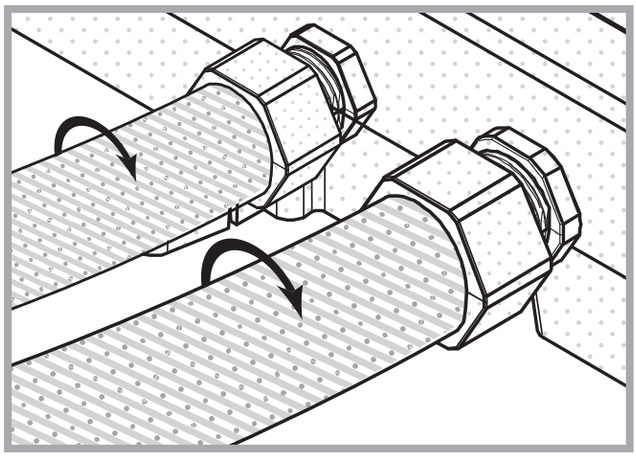


INSTALLING A DUAL OUTLET SHOWER DIGITAL VALVE

Run the outlet pipe work from the outlet marked **Shower 1** on the digital valve to the location of the outlet fitting that will be the **master** outlet for the system. In most cases this will be a fixed head or rain shower assembly. Run the outlet pipework marked **Shower 2** on the digital valve to the location of the outlet fitting that will be the **secondary** outlet for the system. In most cases this will be a shower flexi kit (handset).

Connect the outlet pipework to the outlets of the digital valve using appropriate ½" BSP threaded fittings.

Warning! When the shower is turned on, the system will default to the master outlet. For correct operation of the system, it is important that the outlets are connected as described above.



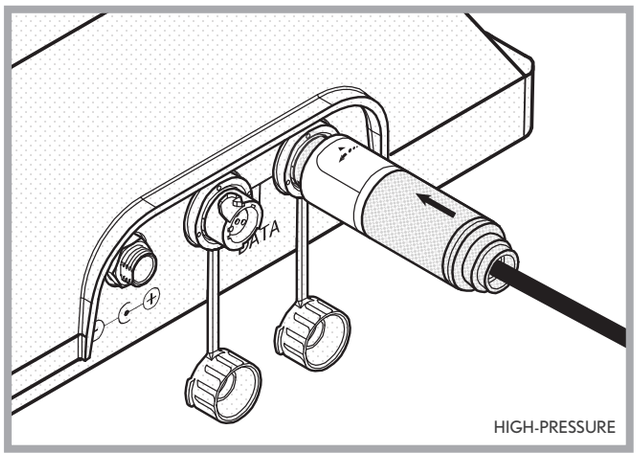
INSTALLING A DUAL OUTLET BATH/SHOWER DIGITAL VALVE

Run the outlet pipework from the outlet marked **Shower** to the location of the shower outlet fitting (e.g. wall outlet or fixed head assembly). Connect the shower outlet pipework to the digital valve using an appropriate ½" BSP threaded fitting.

Run the outlet pipework from the outlet marked **Bath** to the location of the bath outlet fitting. Connect the bath outlet pipework to the digital valve using an appropriate ¾" BSP threaded fitting

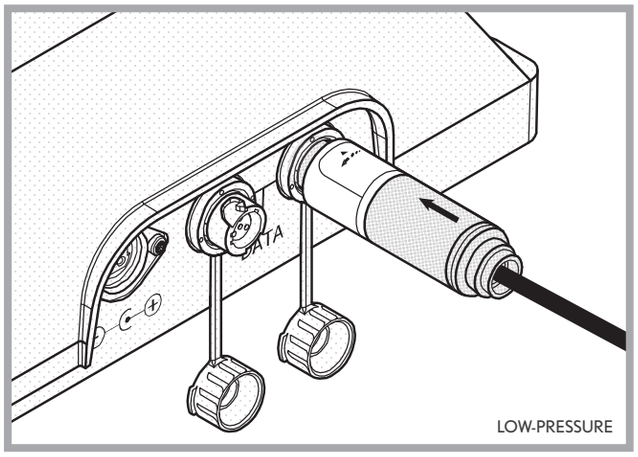
Warning! If fitting a bath/shower digital valve, it is very important that the valve outlets are connected to the relevant bath/shower outlet fittings to ensure the correct and safe operation of the system. When turned on, the system will default to the bath outlet.

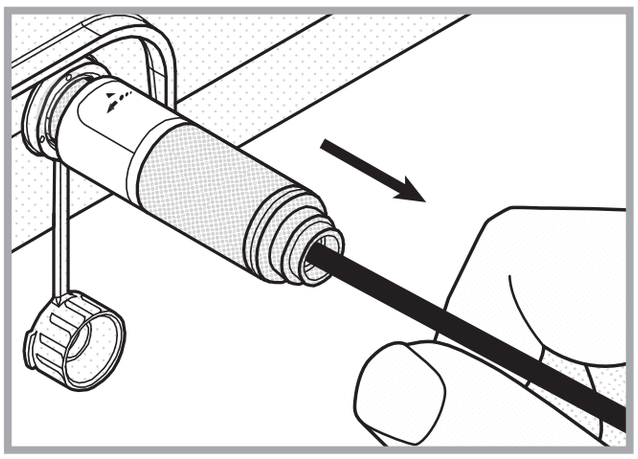
Shower/bath accessories for this digital system are supplied separately. Refer to the installation instructions supplied with your chosen accessories for appropriate plumbing connections and fitting guidance.



Remove the protective cap from one end of the 10m data cable and insert into one of the data ports on the outside of the digital valve as shown. Both data ports perform the same function so either port can be used to connect the data cable.

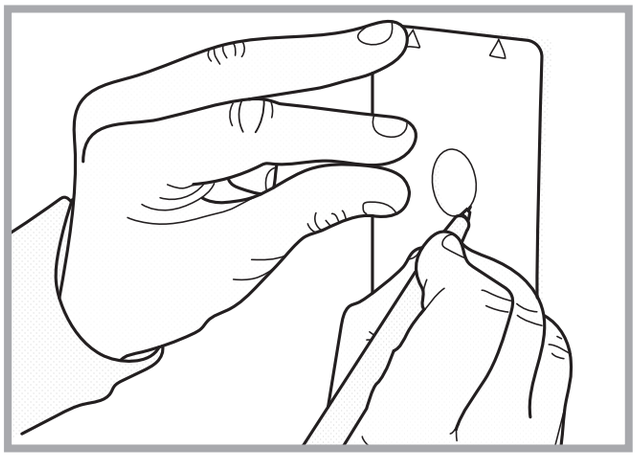
An optional remote control module is available for this digital shower system. If fitting the optional remote, insert second 10m data cable (supplied with the remote module) into the second data port on the digital valve.





Ensure the data cable/s are securely inserted and cannot be pulled out of the data port/s without twisting the release collar on data cable connector.

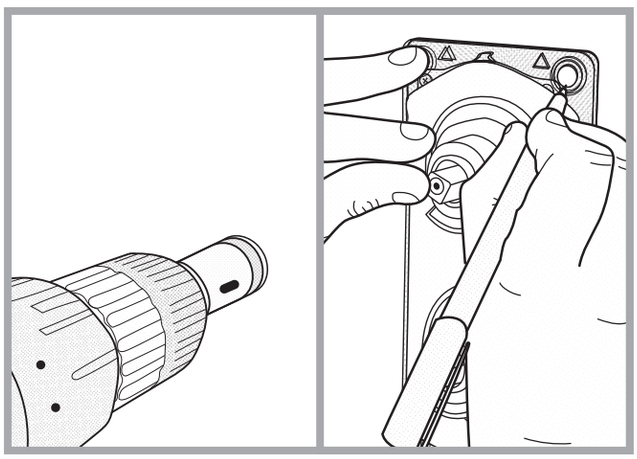
DIGITAL CONTROLLER & OPTIONAL REMOTE INSTALLATION



Choose a suitable location for the digital shower controller within the showering area.

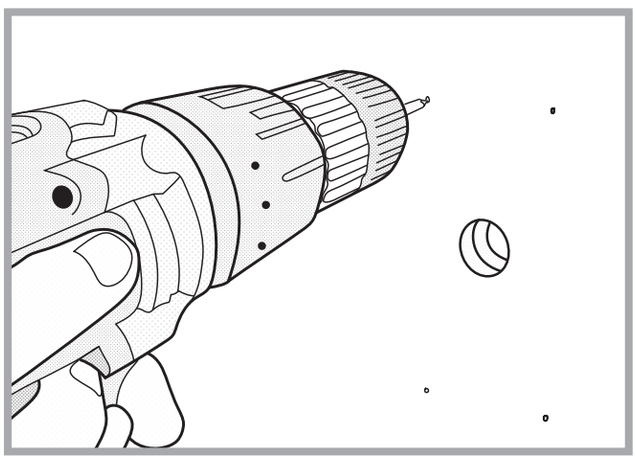
Carefully remove the controller fitting template from the back page of this installation guide. Using the template, carefully mark out the fixing hole and data connection hole positions.

The distance between the digital valve and the location of the controller module must be within the range of the supplied 10m data cable, taking the intended cable routing into consideration. Ideally, the digital valve should be located as close to the controller module as possible to minimise the length of pipe run between the digital valve and the shower outlet.

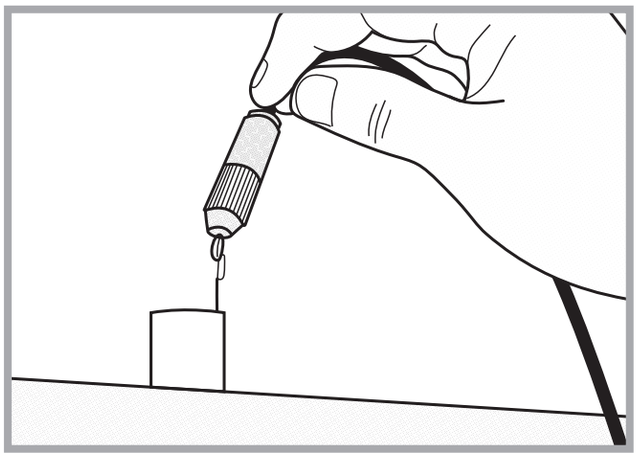


Using an appropriate tile drill bit, carefully drill a 25mm tile hole for the data cable before using a spirit level on the edge of the controller to mark out 4 screw holes.

If required, there is a template on the inside back cover.



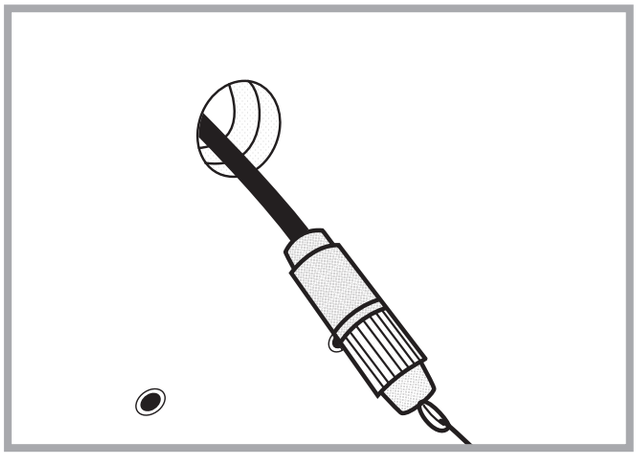
Drill the 4 holes and insert the 4 controller screw plugs provided.



If fitting the optional remote, choose an appropriate location and repeat the previous 4 steps. Refer to the fitting instructions for the remote for further details.

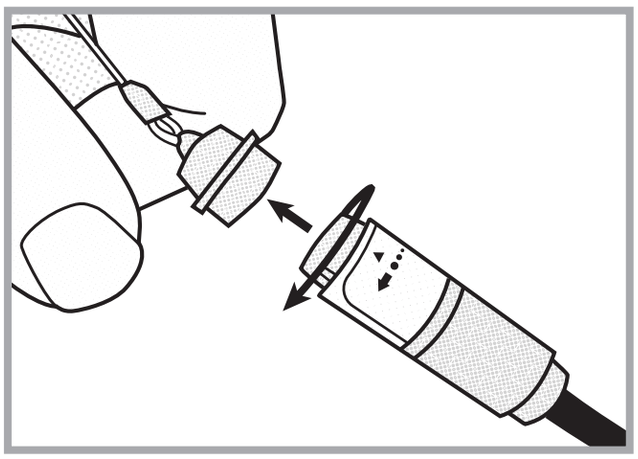
Leaving the protective cap in place, route the loose end of the 10m data cable from the digital valve to the location of the controller module, and feed connector through 25mm cut hole/s into the shower area. For ease of servicing, the data cable must be fed through a length of suitable size conduit.

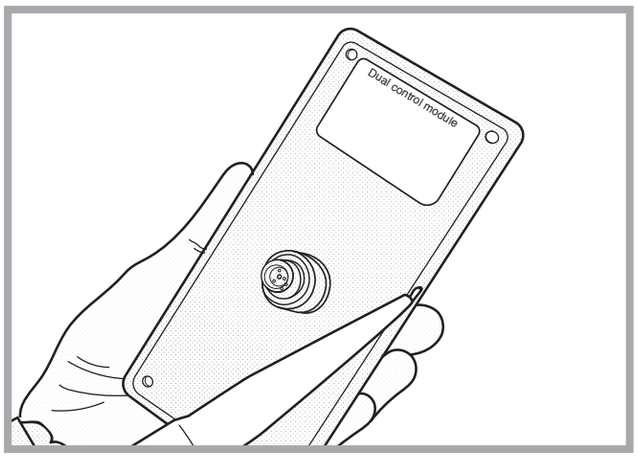
If required to aid routing, feed a piece of string through the conduit and tie to the loop attached to the protective cap on the loose end of the data cable.



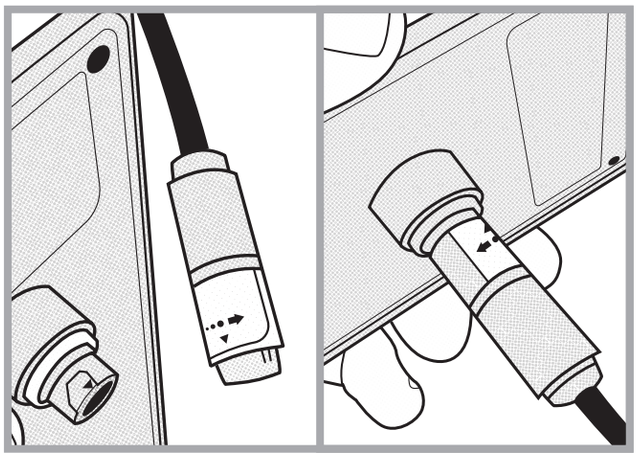
Carefully pull on the string to pull the data cable through the conduit and through the pre-drilled 25mm hole into the shower area.

Warning! To avoid the risk of damage, leave the protective cap on the end of the data cable until the controller is ready to be fitted.





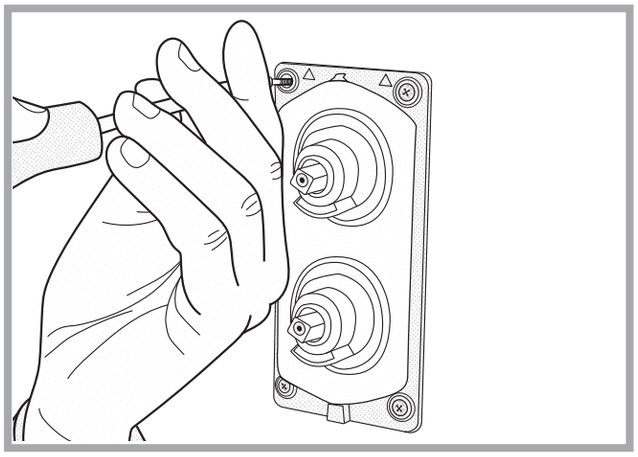
Run a bead of mastic around the groove on the rear of the controller module.



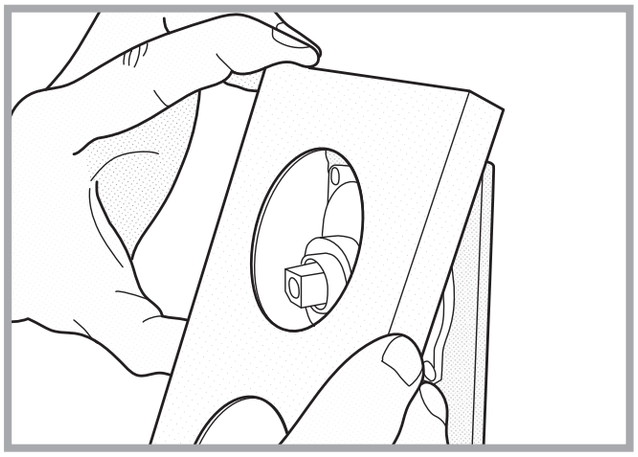
Remove the red protective cap over the data port on the rear of the controller and the protective cap on the loose end of the 10m data cable.

Insert the loose end of the data cable into the data port on the rear of the controller module.

Ensure the data cable is securely inserted and cannot be pulled out of data port without twisting the release collar on the data cable connector.



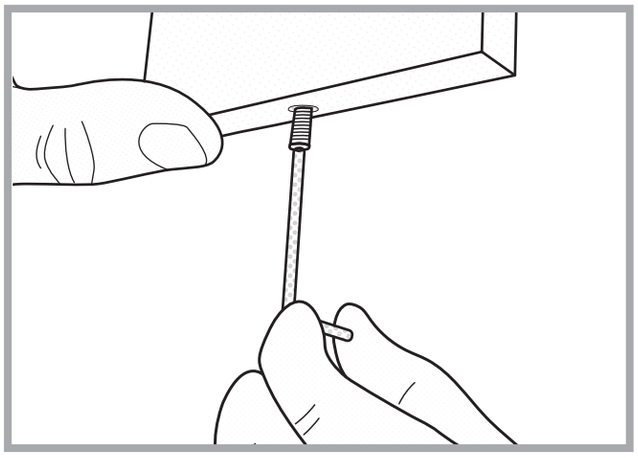
Carefully place controller module against wall and secure with 4 supplied controller screws.



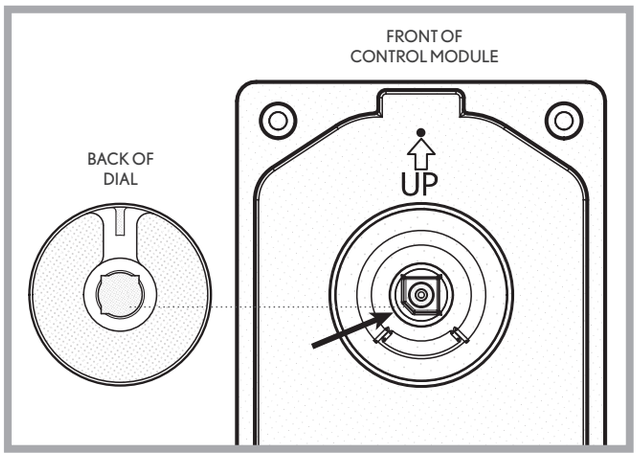
Note: It is not required to silicone the trim plate to the wall.

If fitting the optional remote, repeat the previous steps. Refer to the fitting instructions for the remote for further details.

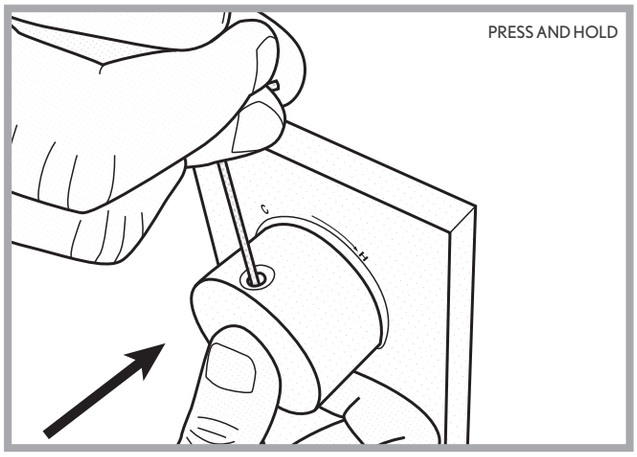
Place the controller trim plate over the controller module and ensure the rear edge is flush to the surface of the wall. If fitting the optional remote, place the remote trim plate over the remote module and ensure the rear edge is flush to the wall.



Tighten the captive screw on the bottom of the controller trim plate to fix securely against the controller module. Repeat for the optional remote if applicable.



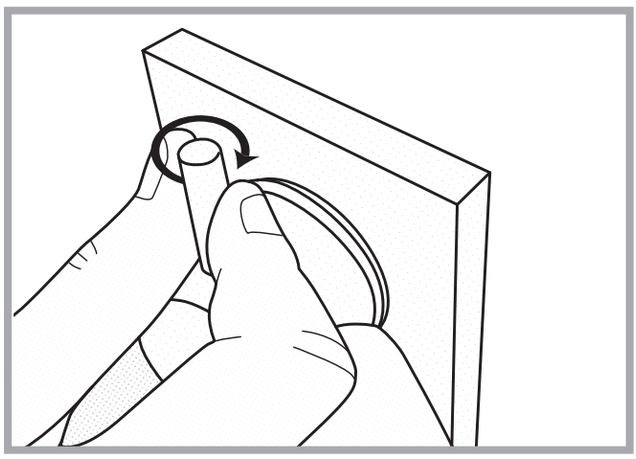
Before fitting the separately supplied temperature and flow control dials, ensure the location features on the control module are orientated as shown.



Note the corresponding location feature on the inside of the temperature control dial and fit the control dial to the upper location feature on the control module in the correct orientation.

Warning! The control dial should fit to the control module location feature with ease. Check the control dial is in the correct orientation to the location feature on the control module before applying excessive force.

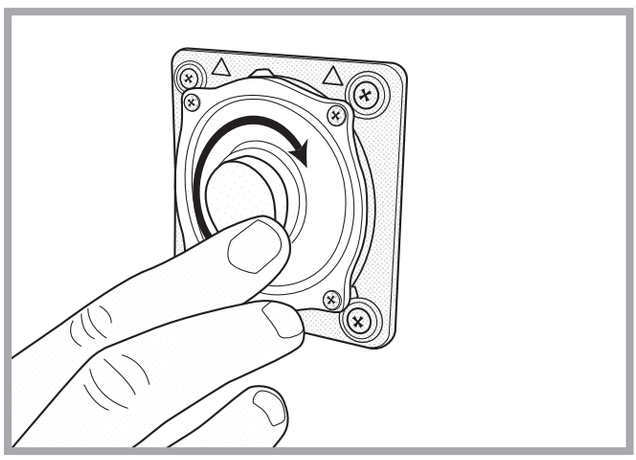
When fully engaged, press and hold controller dial and tighten the retaining grub screw (pre-fitted inside the hole on the side of the control dial) with the provided hex key.



Depending on the chosen controller style, the control dial will be supplied with either a lever or a chrome cap to cover the hole for the grub screw. Screw in the lever or push fit the protective cap as required. The lever should be screwed in place by hand to avoid damage.

Fit the flow control dial to the lower location feature on the control module using the same method.

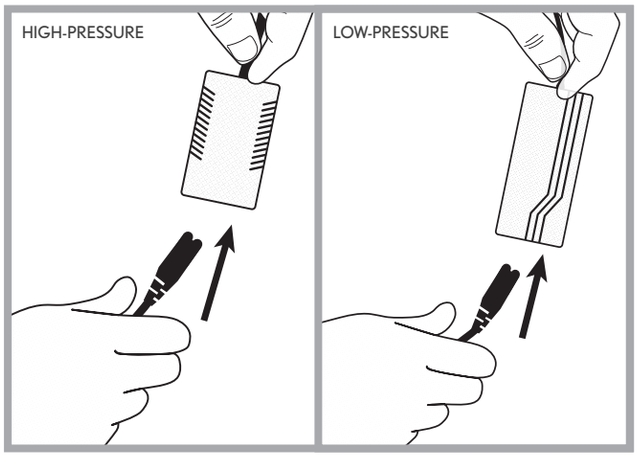
Warning! It is essential that the temperature control dial is fitted to the upper location feature on the controller module and the flow control dial is fitted to the lower location feature. Incorrect fitting of the control dials could result in injury to the user.



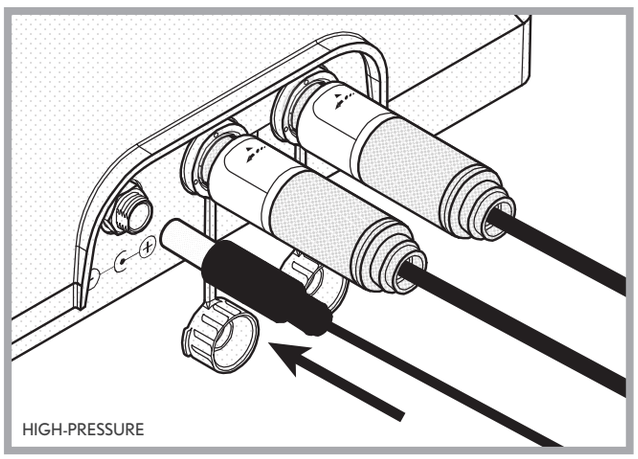
If fitting the optional remote, screw the remote button into the front of the remote module by hand.

COMMISSIONING THE SYSTEM

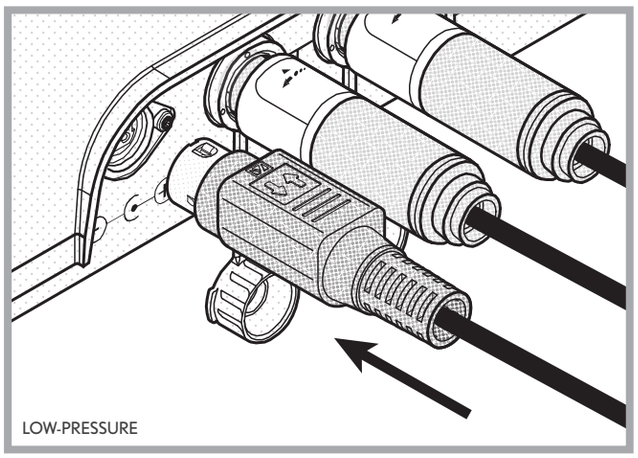
COMMISSIONING A DUAL OUTLET SHOWER DIGITAL SYSTEM (HIGH OR LOW-PRESSURE)

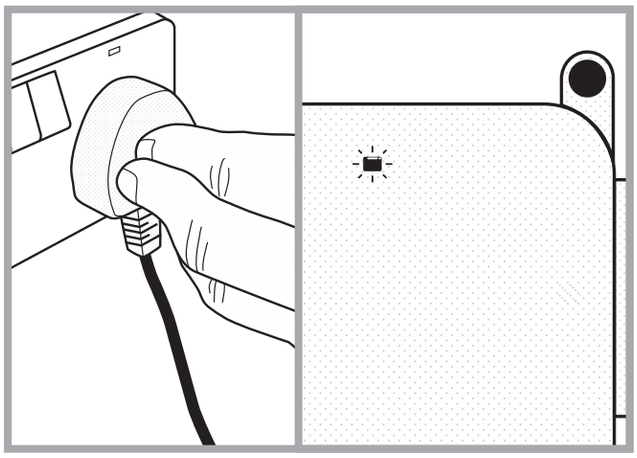


Insert the AC power cable into the supplied power adapter and insert the DC power jack into the power socket on the digital valve.

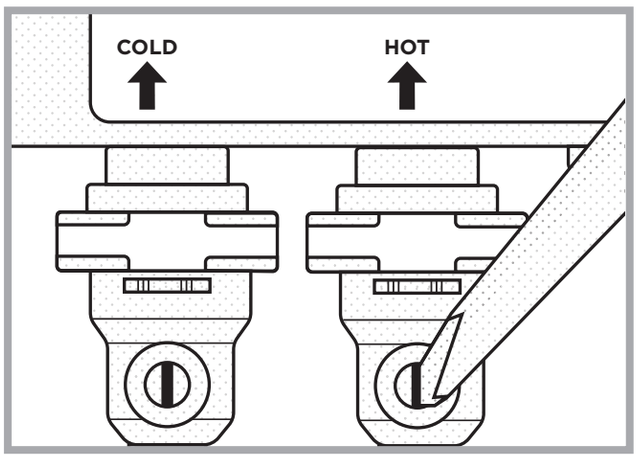


Connect the AC power cable to the previously fitted plug socket in accordance with the current wiring regulations.

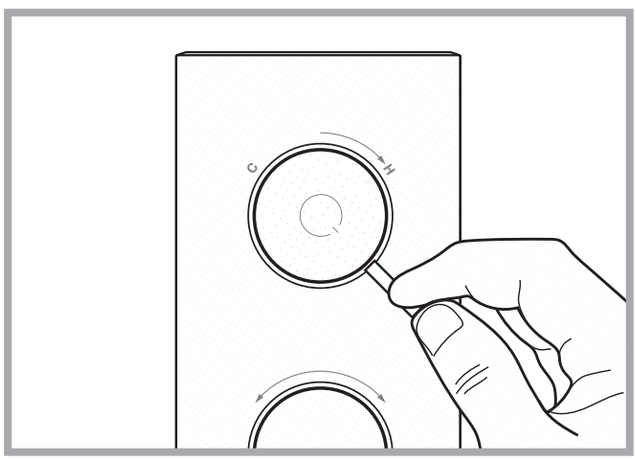




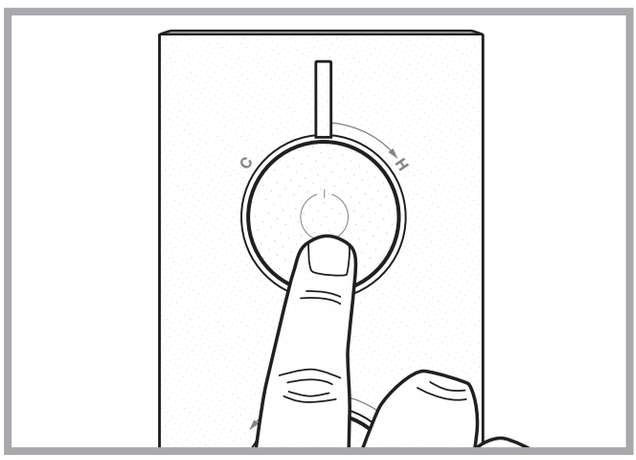
Turn on power and check the digital valve power light is illuminated.



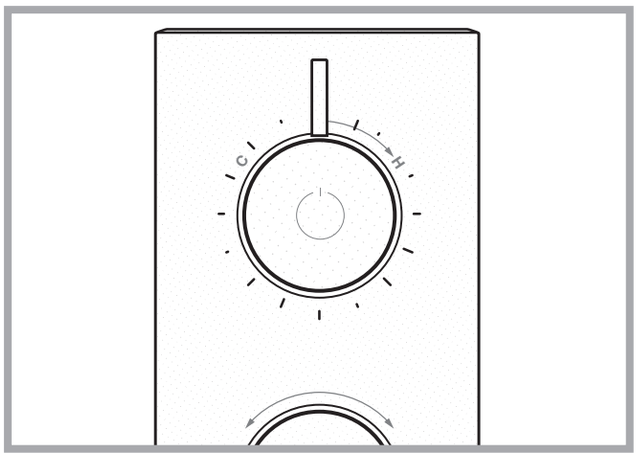
Turn on water supply and open isolation valves on digital valve inlets. Use a screwdriver to turn isolation valve into open position as shown in image (left).



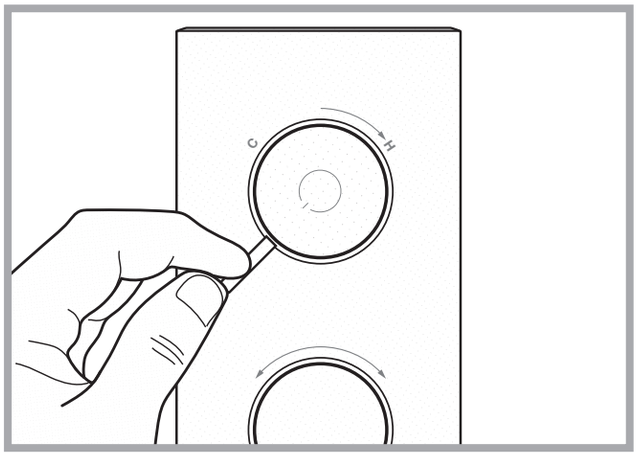
To purge any residual air from the system turn the temperature dial to full hot then turn on the shower and wait until a steady flow rate is achieved. This may take a few minutes.



Press the upper (temperature) control dial once to start the flow. The light rings around both control dials will illuminate and the light ring around the upper control dial will flash. Water should flow from the master outlet if the outlets have been connected correctly as previously described.



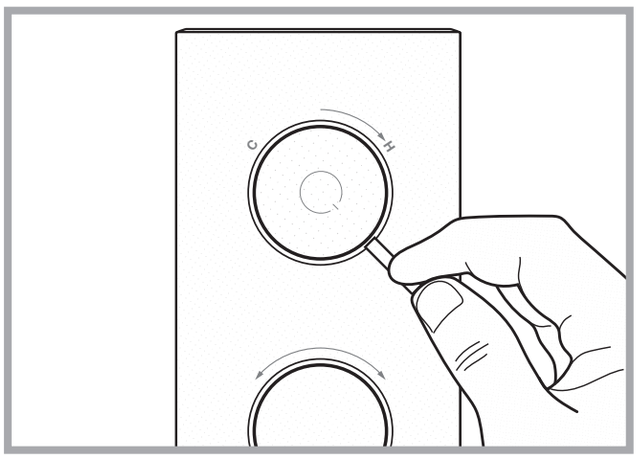
The light ring around the control dial will flash until the shower has reached the set temperature. When the set temperature has been reached the light ring on the upper control dial will illuminate white continuously.



Check all associated fittings and pipework for evidence of leaks and repair / correct as required.

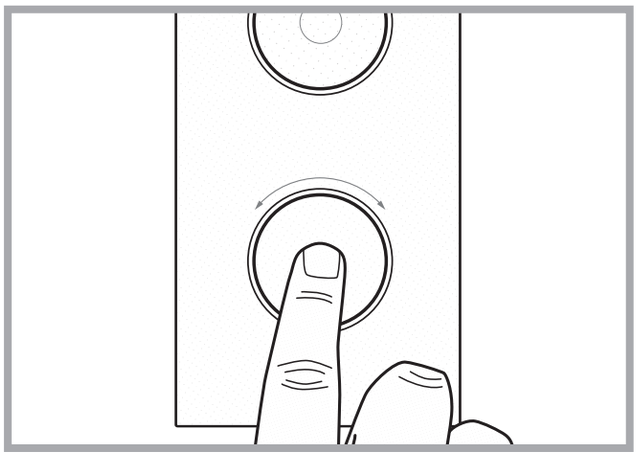
Turn the temperature (upper) control dial fully anti-clockwise (full cold) and the light ring around the control dial will flash blue until the set temperature has been reached. At full cold, the water should be at approximately 15°C. When the set temperature has been reached the light ring will stop flashing and illuminate white continuously.

If the incoming cold water supply temperature is higher then 15°C the light ring will continue to flash blue.



Turn the temperature (upper) control dial fully clockwise (full hot) and the light ring around the control dial will flash red until the set temperature has been reached. At full hot, the water temperature should be a maximum of 41°C.

When the set temperature has been reached the light ring will stop flashing and illuminate white continuously.



Press the lower (flow) control dial to divert the flow from the **master** outlet to the **secondary** outlet. As the flow diverts the light ring around the flow control dial will blink twice.

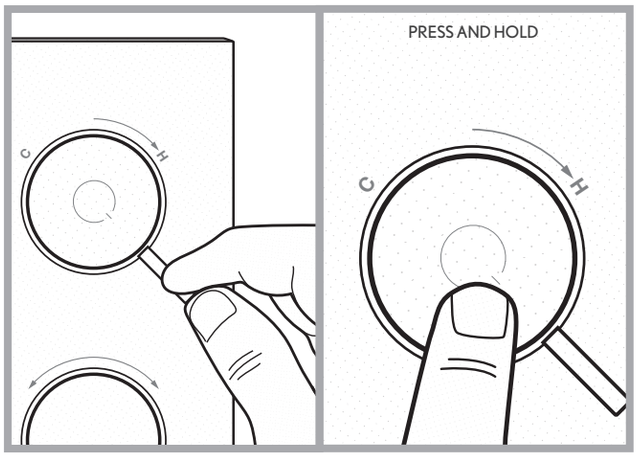
Recheck all associated fittings and pipework for evidence of leaks and repair / correct as required.

Rotate the lower (flow) control dial fully anti-clockwise (low flow). The flow rate from the outlet will decrease to minimum.

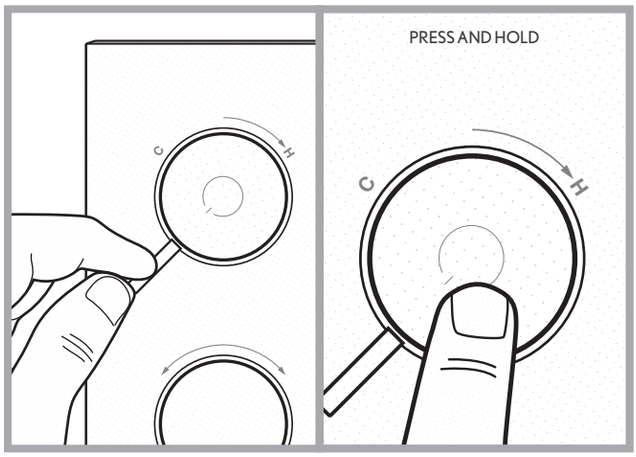
Rotate the lower (flow) control dial fully clockwise (full flow). The flow rate from the outlet will increase to maximum.

The dual outlet shower digital valve is factory-set to a maximum output temperature of 41°C. However, if required, the maximum temperature can be reset to 46°C.

Warning! If the maximum temperature is reset to 46°C this is entirely at the risk of the owner and Crosswater can accept no liability for any resulting injury.



To change the maximum temperature the system must be restarted by disconnecting and then reinstating the power to the digital valve. When the power has been reinstated, turn the temperature control dial clockwise to full hot and then press and hold the dial for 5 seconds. The upper (temperature) light ring will flash red once to indicate the maximum temperature has been changed to 46°C.

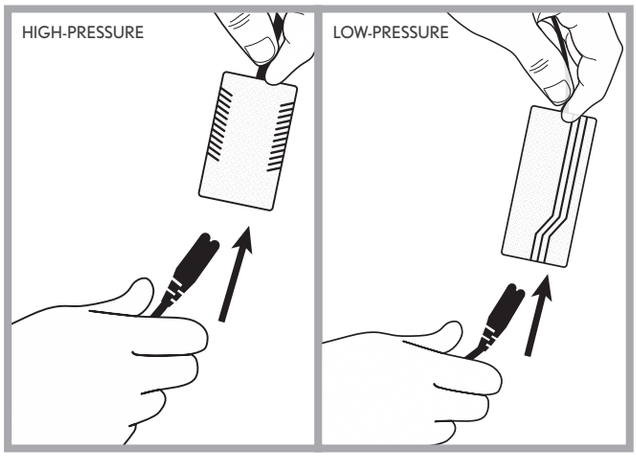


If required, the maximum temperature can be changed back to 41°C by performing a system restart as above, turning the temperature control dial anti-clockwise to full cold and pressing and holding for 5 seconds. The light ring will flash blue once to confirm the max temperature has been changed to 41°C.

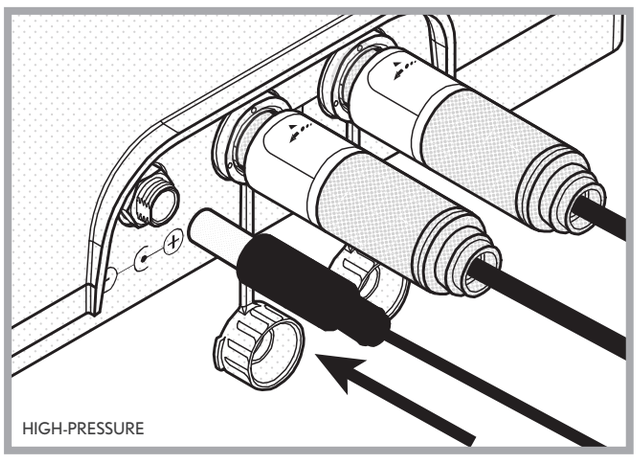
Note: Changing the maximum temperature can be performed within a maximum of 5 minutes after a system restart only.

COMMISSIONING THE SYSTEM

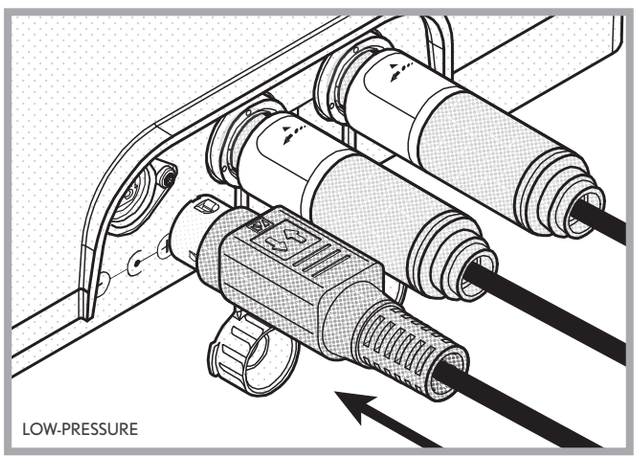
COMMISSIONING A BATH / SHOWER DIGITAL SYSTEM (HIGH OR LOW-PRESSURE)

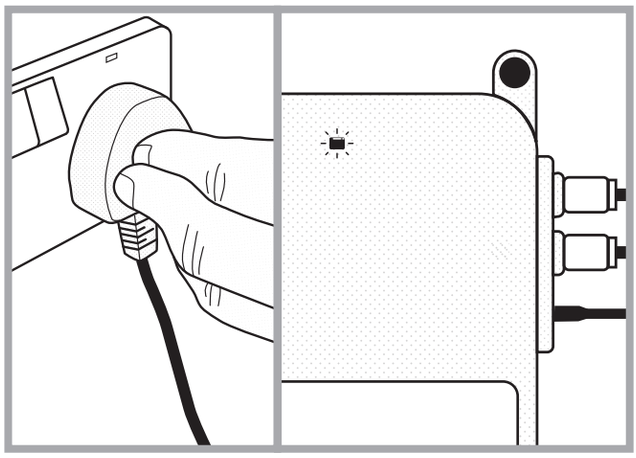


Insert the AC power cable into the supplied power adapter and insert the DC power jack into the power socket on the digital valve.

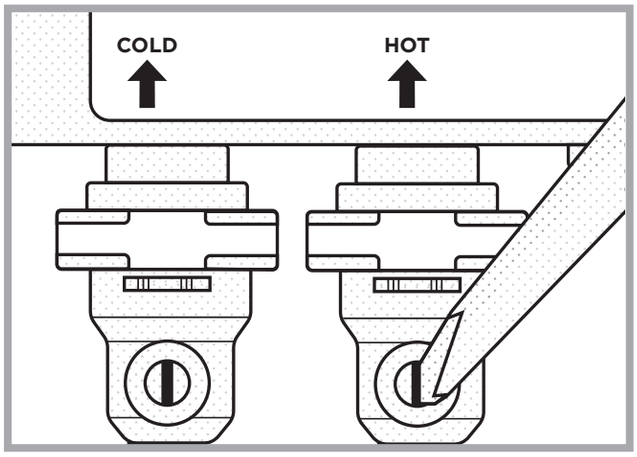


Connect the AC power cable to the previously fitted plug socket in accordance with the current wiring regulations.

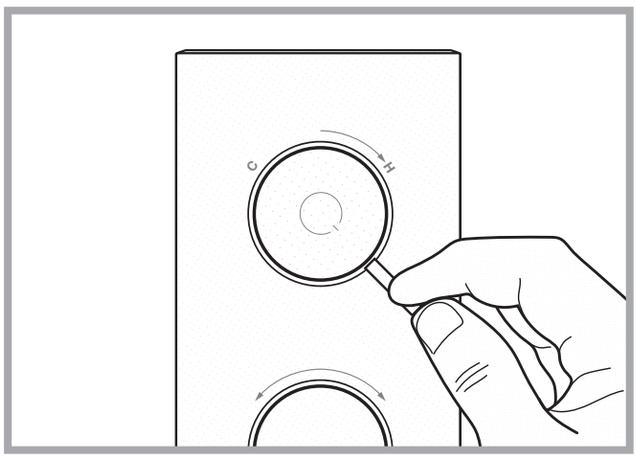




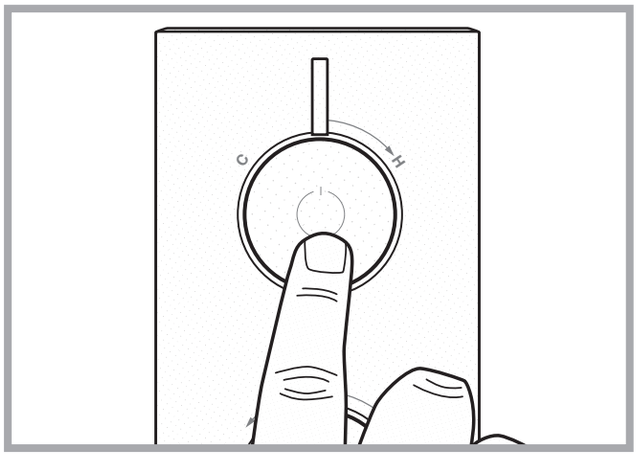
Turn on power and check the digital valve power light is illuminated.



Turn on water supply and open isolation valves on digital valve inlets. Use a screwdriver to turn isolation valve into open position as shown in image (left).

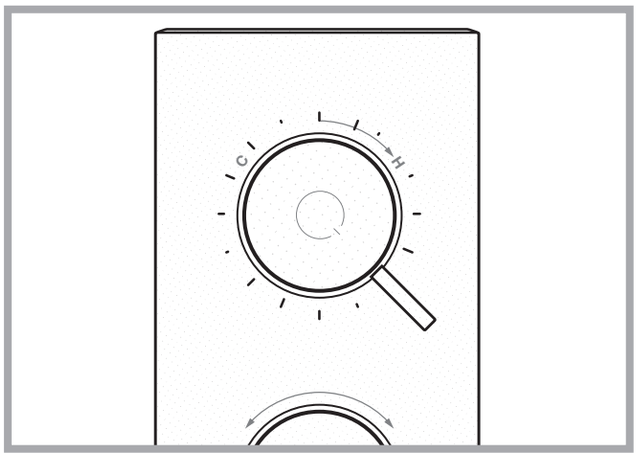


To purge any residual air from the system turn the temperature dial to full hot then turn on the shower and wait until a steady flow rate is achieved. This may take a few minutes.

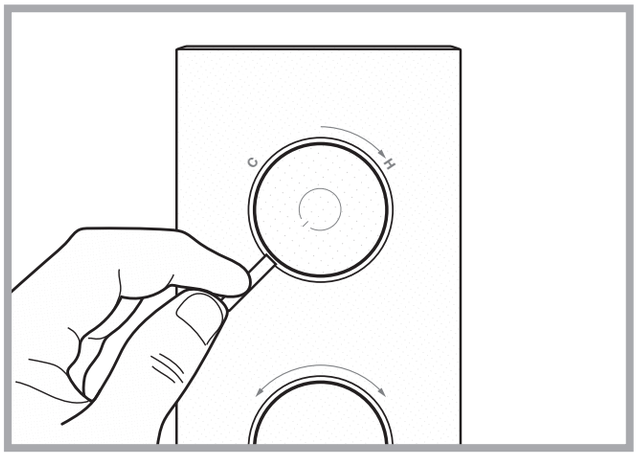


Press the upper (temperature) control dial once to start the flow. Water should flow from the **bath** outlet when the upper (temperature) control dial is pressed if the outlets have been connected correctly as previously described.

The light rings around both control dials will illuminate and the light ring around the upper control dial will flash white until the flow has reached the set temperature.



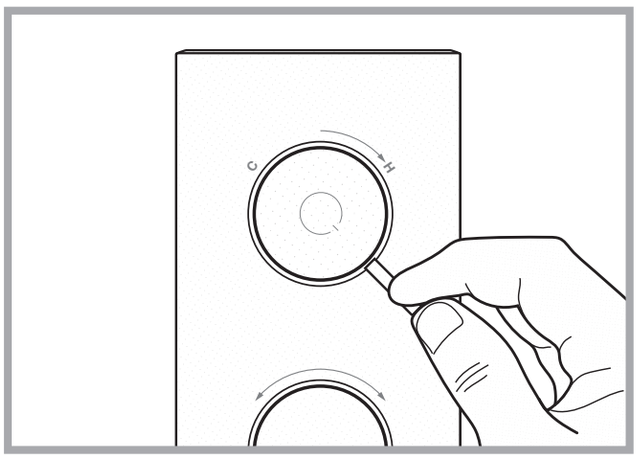
The light ring around the control dial will flash until the bath flow has reached the set temperature. When the set temperature has been reached the upper light ring will stop flashing and illuminate white continuously.



Check all associated fittings and pipework for evidence of leaks and repair / correct as required.

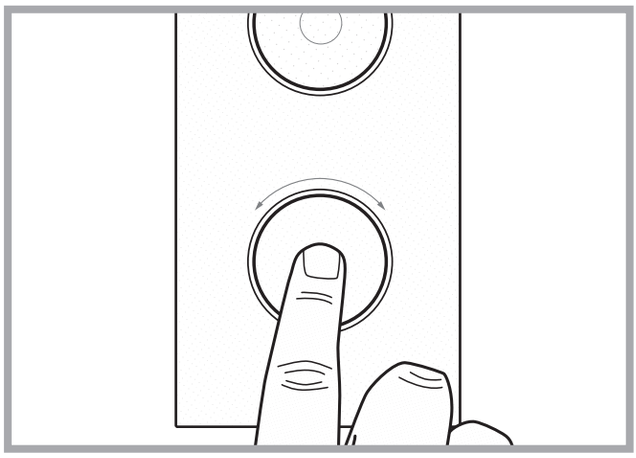
Turn the temperature (upper) control dial fully anti-clockwise (full cold). When set to full cold the temperature from the bath outlet should be approximately 15°C and the light ring around the control dial will flash blue until the set temperature has been reached. When the set temperature has been reached the light ring will stop flashing and illuminate white continuously.

If the incoming cold water supply temperature is higher then 15°C the light ring will continue to flash blue.



Turn the temperature (upper) control dial fully clockwise (full hot) and the light ring around the control dial will flash red until the set temperature has been reached. When set to full hot, the temperature of the water flowing from the bath outlet should be a maximum of 44°C.

When the set temperature has been reached, the light ring will stop flashing and illuminate white continuously.



Press the lower (flow) control dial once to divert the flow from the **bath** outlet to the **shower** outlet. As the flow diverts the light ring around the flow control dial will blink twice.

When set to full hot, the temperature of the water flowing from the **shower** outlet should be a maximum of 41°C. When the set temperature has been reached the light ring will stop flashing and illuminate white continuously.

Re-check all associated fittings and pipework for evidence of leaks and repair / correct as required.

The flow rate can be controlled when flowing from the **shower** outlet only. The flow rate is automatically set to maximum when flowing from the bath outlet and cannot be reduced by rotating the lower (flow) control dial.

Ensure the water is flowing from the **shower** outlet. Rotate the lower (flow) control dial fully anti-clockwise (low flow). The flow rate from the outlet will decrease to minimum.

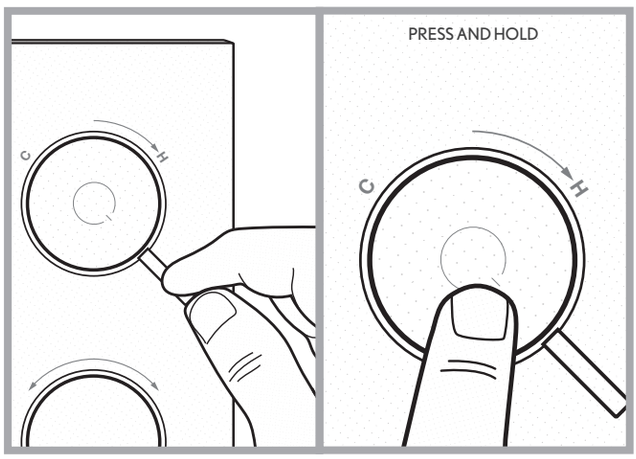
Rotate the lower (flow) control dial fully clockwise (full flow). The flow rate from the outlet will increase to maximum.

To turn the system off press the upper (temperature) control dial once and the flow will stop.

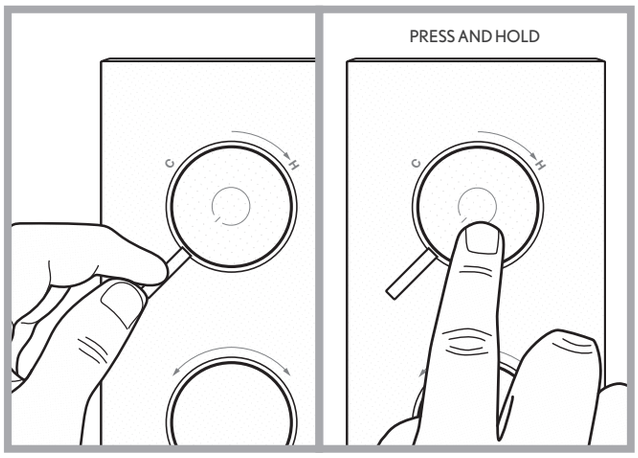
If the system is restarted within 2 minutes of being turned off the water will flow from the outlet last used rather than default to the master outlet. This feature allows the user to pause the system during showering and restart the flow from the same outlet.

When flowing from the **shower** outlet the water temperature is factory-set to a maximum of 41°C. When flowing from the **bath** outlet, the water temperature is factory-set to a maximum of 44°C. However, if required, the maximum temperature for both outlets can be reset to 46°C.

Warning! If the maximum temperature is reset to 46°C this is entirely at the risk of the owner and Crosswater can accept no liability for any resulting injury.



To change the maximum temperature the system must be restarted by disconnecting and then reinstating the power to the digital valve. When the power has been reinstated, turn the temperature control dial clockwise to full hot and then press and hold the dial for 5 seconds. The upper (temperature) light ring will flash red once to indicate the maximum temperature has been changed to 46 °C.



If required, the maximum temperature can be changed back to 41°C by performing a system restart as above, turning the temperature control dial anti-clockwise to full cold and pressing and holding for 5 seconds. The light ring will flash blue once to confirm the max temperature has been changed to 41°C.

Note: Changing the maximum temperature can be performed within a maximum of 5 minutes after a system restart only.

MAINTENANCE

GENERAL MAINTENANCE

Before replacing any parts ensure that the underlying cause of the malfunction has been resolved.

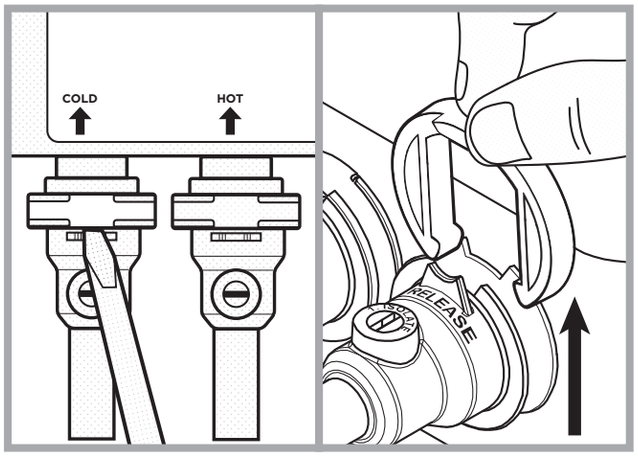
Warning! There are no installer-serviceable components beneath the cover of the digital valve or within the control module. Cover removal or access within the controller module will invalidate the warranty.

CLEANING

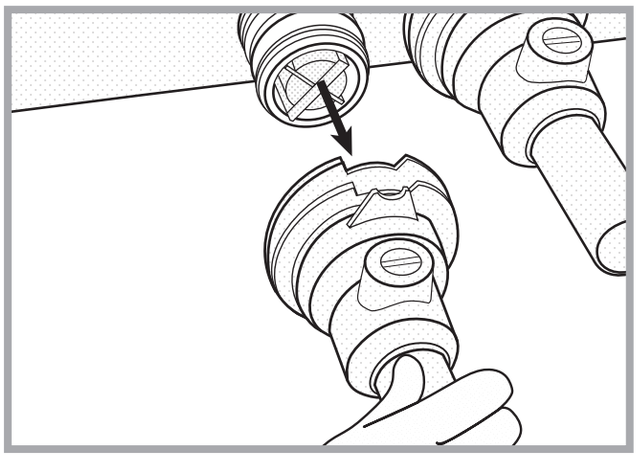
Many household cleaners contain abrasives and chemical substances, and should not be used. Only use a mild washing up detergent or soap solution, and then wipe dry using a soft cloth.

VALVE INLET FILTERS – REMOVAL AND CLEANING

Using an appropriate flat blade screwdriver, rotate the isolation valves on the hot and cold inlets to the closed position and disconnect the power to the digital valve.

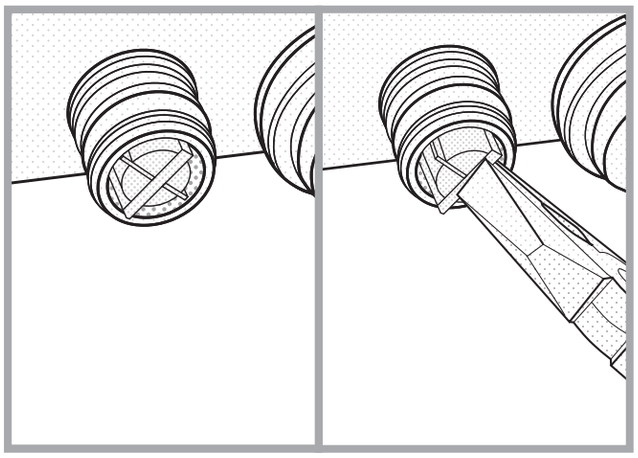


Remove the inlet securing clips from both hot and cold inlets.

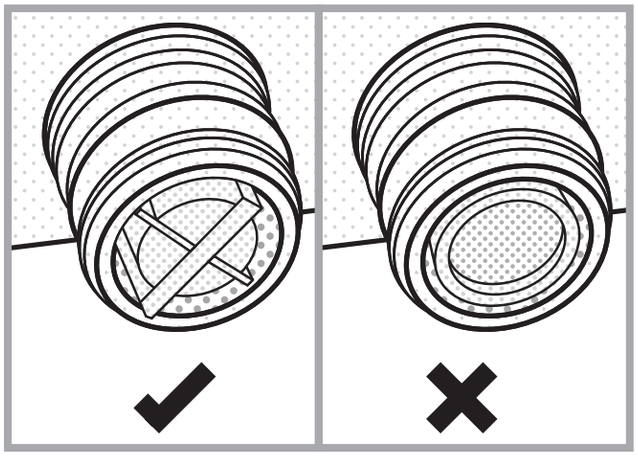


Detach the inlets from the digital valve.

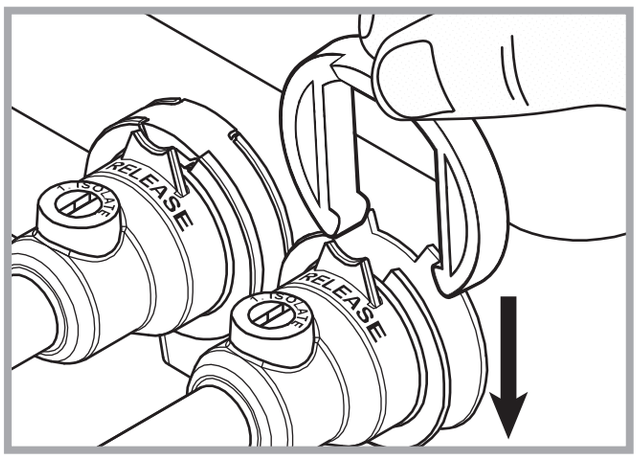
Note: There will be some residual water present between the isolation valves and the check valves, which will drain out of the inlets during removal.



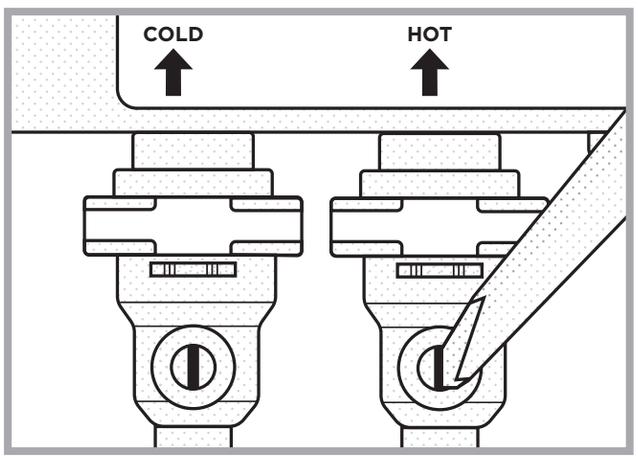
Remove the inlet filters using a pair of pliers and clean with water to remove all debris.



Re-assemble the inlet filters in the orientation shown.



Carefully replace the inlets and securing clips.



Rotate the isolation valves back to the open position.

Reinstate the power to the valve and turn on the shower to check for any leaks.

TROUBLESHOOTING

SYMPTOM	PROBABLE FAULT	REMEDY
System does not turn on (no lights on controller)	No power to digital valve	Check the red LED on the digital valve is lit. If not, check the power supply is connected properly
System does not turn on (no lights on controller)	No power to controller	If LED on digital valve is lit, check data cable is connected properly
Flow of mixed water is unsteady / intermittent / noisy	Air lock in system	Hold the shower head low (if fitted) and allow the air lock to clear
Flow of mixed water is unsteady / intermittent	Isolation valves not open properly	Check and open all isolation valves
Flow of mixed water is unsteady / intermittent	Debris in filters	Isolate water at inlets and check filters. Clean if required
Flow of mixed water is unsteady / intermittent	Unbalanced supply pressure	Check system is installed correctly and that there are no other demands on the water supply
Inconsistent temperature	Unbalanced supply pressure	Check system is installed correctly and that there are no other demands on the water supply
Inconsistent temperature	Combi boiler is unable to supply adequate hot water	Fit appropriate flow regulator to hot inlet See relevant notes for combi-boilers
Shower flows hot water only	Hot and cold supplies are connected the wrong way round	Check orientation of hot and cold feeds and correct if necessary
Light on digital valve flashes	Temperature sensor fault	Replace digital valve

USER GUIDE

USING THE DUAL OUTLET DIGITAL SHOWER SYSTEM (HIGH OR LOW-PRESSURE)

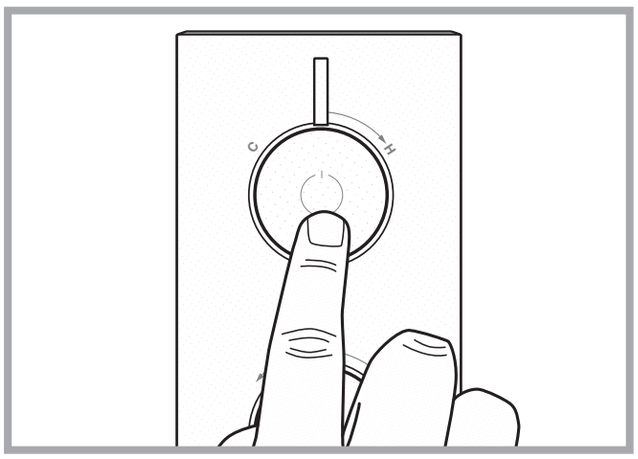
IMPORTANT SAFETY INFORMATION

Please read these instructions carefully before using this system and keep in a safe place for future reference.

To reduce the risk of injury, basic safety precautions, including the following, should always be followed when using electrical appliances.

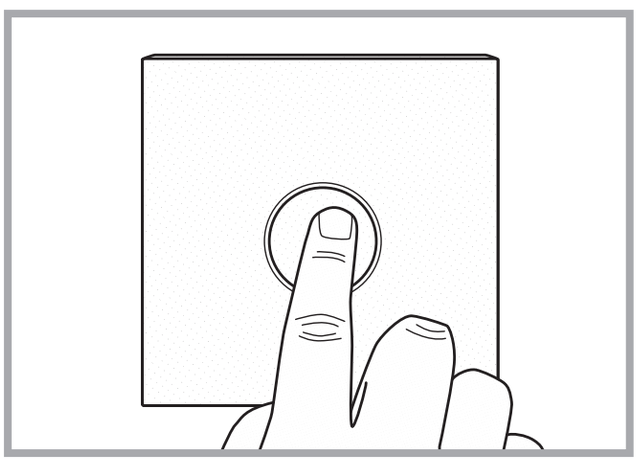
Children **MUST** be supervised at all times when using this shower system. Training should be given to children and vulnerable individuals before permitting them to operate the controls.

Never operate this product if it is known to have been dropped prior to installation or damaged in any way.

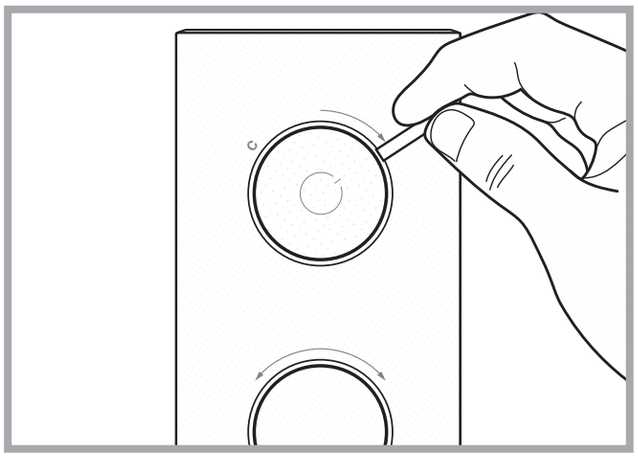


BASIC OPERATION

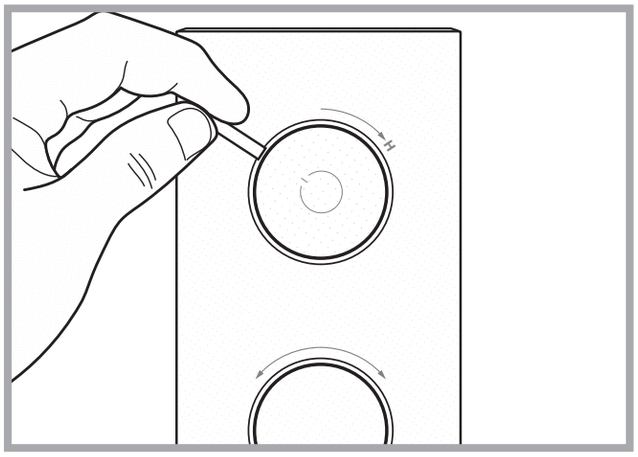
Press the upper (temperature) control dial to turn the shower on. Water will flow from the **master** outlet. In most cases the **master** outlet will be a wall or ceiling mounted, fixed head assembly. The upper (temperature) control dial light ring will illuminate and flash white until the water temperature reaches the demand temperature set by the user. When the demand temperature has been reached the light ring will stop flashing and illuminate white continuously.



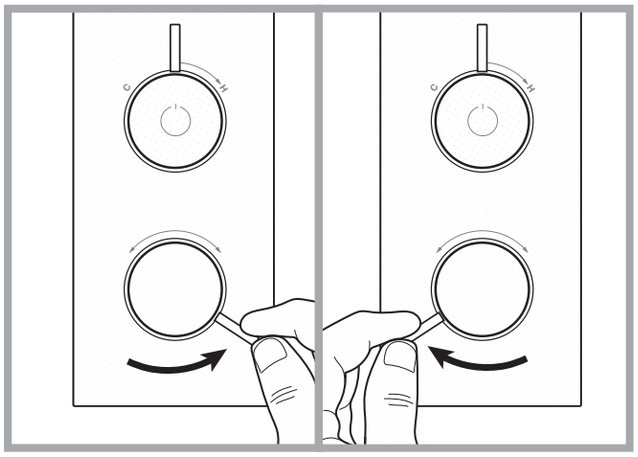
If fitted, the remote button can also be pressed to turn the shower on or off.



Turn the upper (temperature) control dial clockwise to increase the temperature of the water. The control dial light ring will flash red until the new set temperature has been reached. When the new set temperature has been reached, the light ring will stop flashing red and illuminate white continuously.

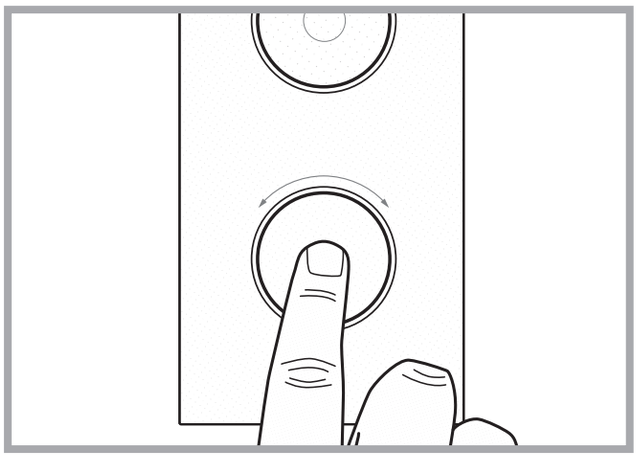


Turn the upper (temperature) control dial anti-clockwise to decrease the temperature of the water. The control dial light ring will flash blue until the new set temperature has been reached. When the new set temperature has been reached, the light ring will stop flashing blue and illuminate white continuously.



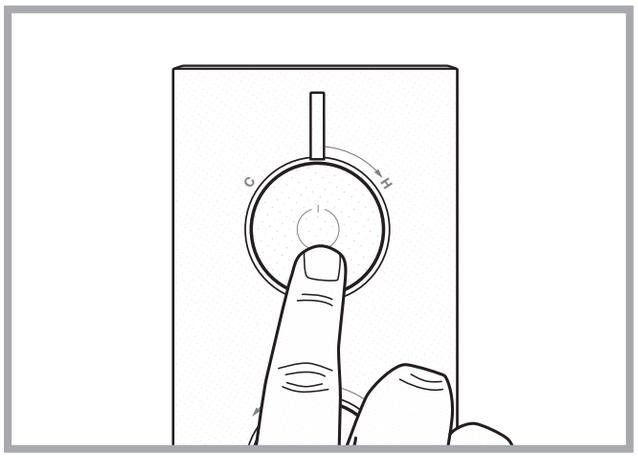
Turn the lower (flow) control dial anti-clockwise to decrease the flow.

Turn the lower (flow) control dial clockwise to increase the flow.



Press the lower (flow) control dial to divert the flow from the **master** outlet to the **secondary** outlet. In most cases the **secondary** outlet will be a flexi-kit (handset).

If fitted, press and hold the remote control for 1.5 seconds to divert flow to the next outlet.

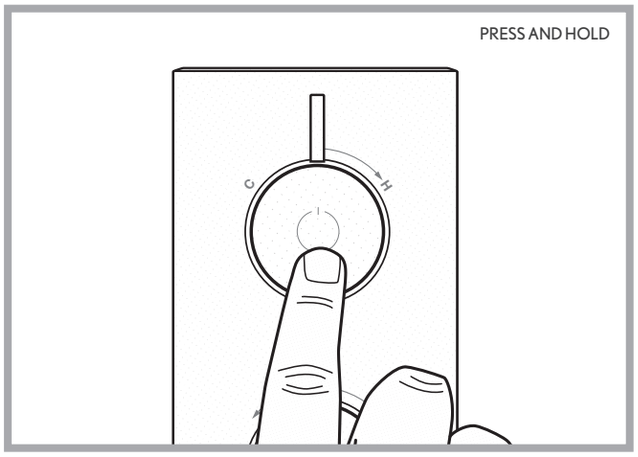


To turn the system off after showering, press the upper (temperature) control dial once and the flow will stop.

If the system is restarted within 2 minutes of being turned off the water will flow from the outlet last used rather than default to the master outlet. This feature allows the user to pause the system during showering and restart the flow from the same outlet.

CLEANING (SAFE) MODE

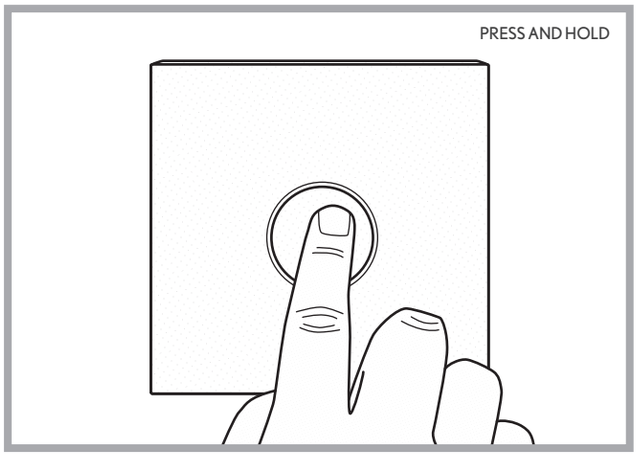
The digital shower controls can be locked to allow safe cleaning of the outer surfaces. This function can be activated from the main controller or the remote if fitted.



ACTIVATING CLEANING (SAFE) MODE USING THE MAIN CONTROLLER

Set the (upper) temperature control dial to approximately mid-blend and press and hold the dial for 5 seconds. This will lock the controls for 1 minute for cleaning purposes.

During the locked period, the light rings will illuminate constantly. After 1 minute the light rings will stop illuminating and controls will automatically unlock.



ACTIVATING CLEANING (SAFE) MODE USING THE REMOTE

When the system is off, press and hold the remote button for 5 seconds.

The light rings on the remote and the main controller will illuminate white continuously whilst locked. After 1 minute the controls will automatically unlock and the lights will go out.

USER GUIDE

USING THE BATH / SHOWER DIGITAL SYSTEM (HIGH OR LOW-PRESSURE)

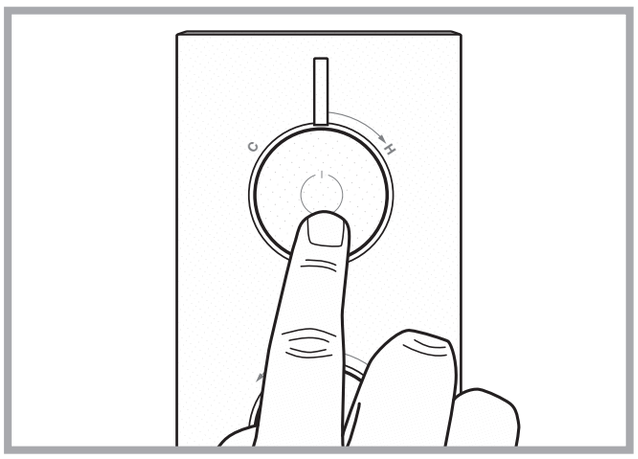
IMPORTANT SAFETY INFORMATION

Please read these instructions carefully before using this system and keep in a safe place for future reference.

To reduce the risk of injury, basic safety precautions, including the following, should always be followed when using electrical appliances.

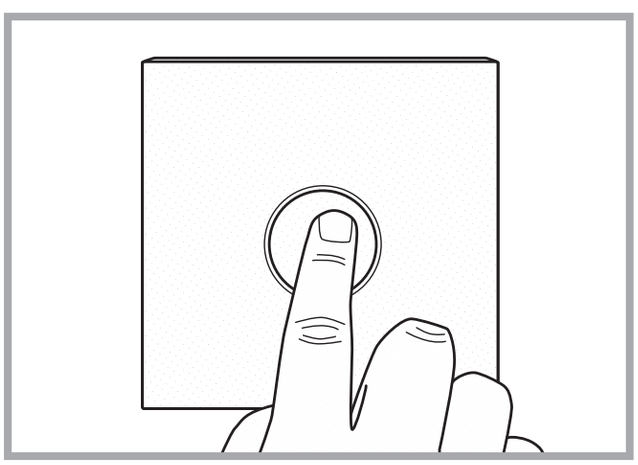
Children **MUST** be supervised at all times when using this shower system. Training should be given to children and vulnerable individuals before permitting them to operate the controls.

Never operate this product if it is known to have been dropped prior to installation or damaged in any way.

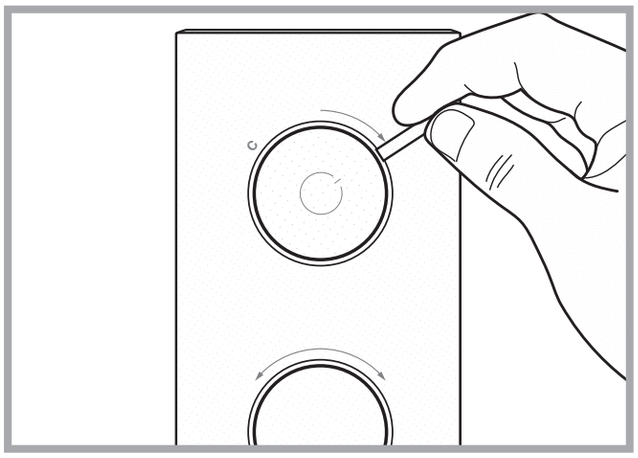


BASIC OPERATION

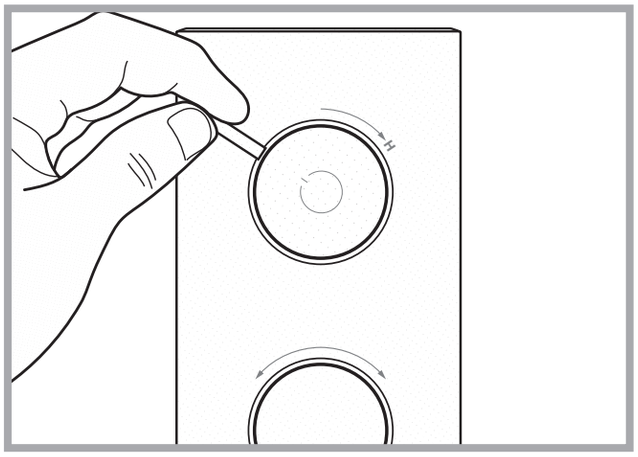
Press the upper (temperature) control dial to turn the system on. Water will flow from the **bath** outlet. The upper (temperature) control dial light ring will illuminate and flash white until the water reaches the demand temperature set by the user. When the demand temperature has been reached the light ring will stop flashing and illuminate white continuously.



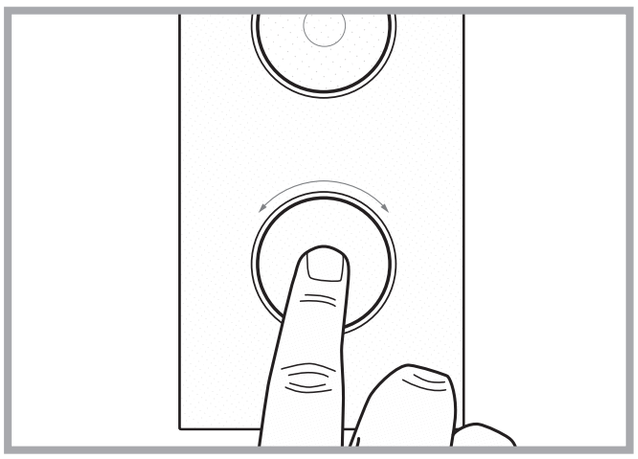
If fitted, the remote button can also be pressed to turn the system on or off.



Turn the upper (temperature) control dial clockwise to increase the temperature of the water. The control dial light ring will flash red until the new set temperature has been reached. When the new set temperature has been reached, the light ring will stop flashing red and illuminate white continuously.

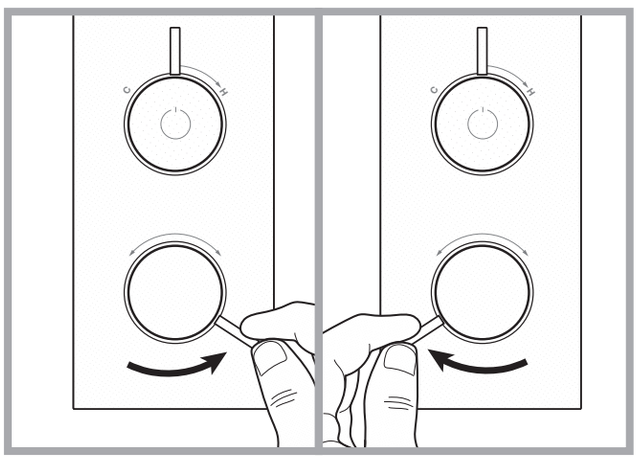


Turn the upper (temperature) control dial anti-clockwise to decrease the temperature of the water. The control dial light ring will flash blue until the new set temperature has been reached. When the new set temperature has been reached, the light ring will stop flashing blue and illuminate white continuously.



Press the lower (flow) control dial once to divert the flow from the **bath** outlet to the **shower** outlet.

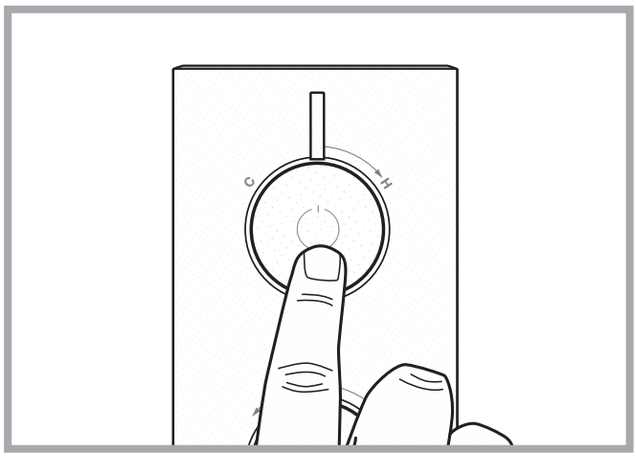
If fitted, press and hold the remote control for 1.5 seconds to divert flow to the next outlet.



When flowing from the **shower** outlet, the flow rate can be reduced or increased as required. When flowing from the **bath** outlet the flow rate will automatically set to maximum and cannot be increased or reduced.

Divert the flow to the **shower** outlet and turn the lower (flow) control dial anti-clockwise to decrease the flow.

Turn the lower (flow) control dial clockwise to increase the flow.

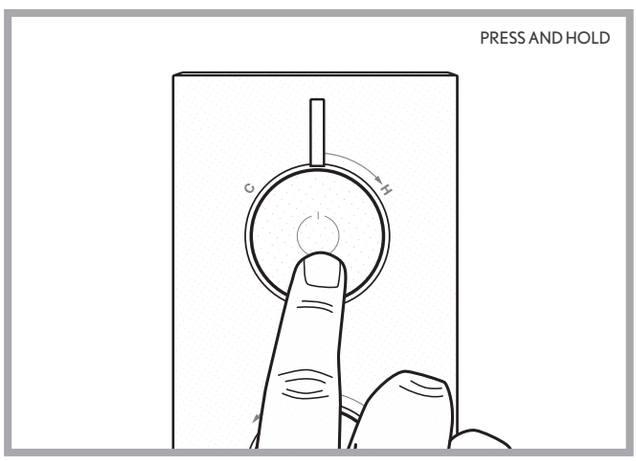


To turn the system off after showering, press the upper (temperature) control dial once and the flow will stop.

If the system is restarted within 2 minutes of being turned off the water will flow from the outlet last used rather than default to the **bath** outlet. This feature allows the user to pause the system during showering and restart the flow from the same outlet.

CLEANING (SAFE) MODE

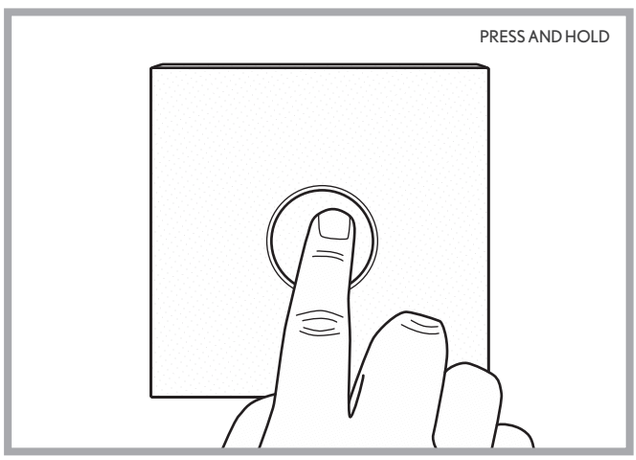
The digital shower controls can be locked to allow safe cleaning of the outer surfaces. This function can be activated from the main controller or the remote if fitted.



ACTIVATING CLEANING (SAFE) MODE USING THE MAIN CONTROLLER

Set the (upper) temperature control dial to approximately mid-blend and press and hold the dial for 5 seconds. This will lock the controls for 1 minute for cleaning purposes.

During the locked period, the light rings will illuminate constantly. After 1 minute the light rings will stop illuminating and controls will automatically unlock.

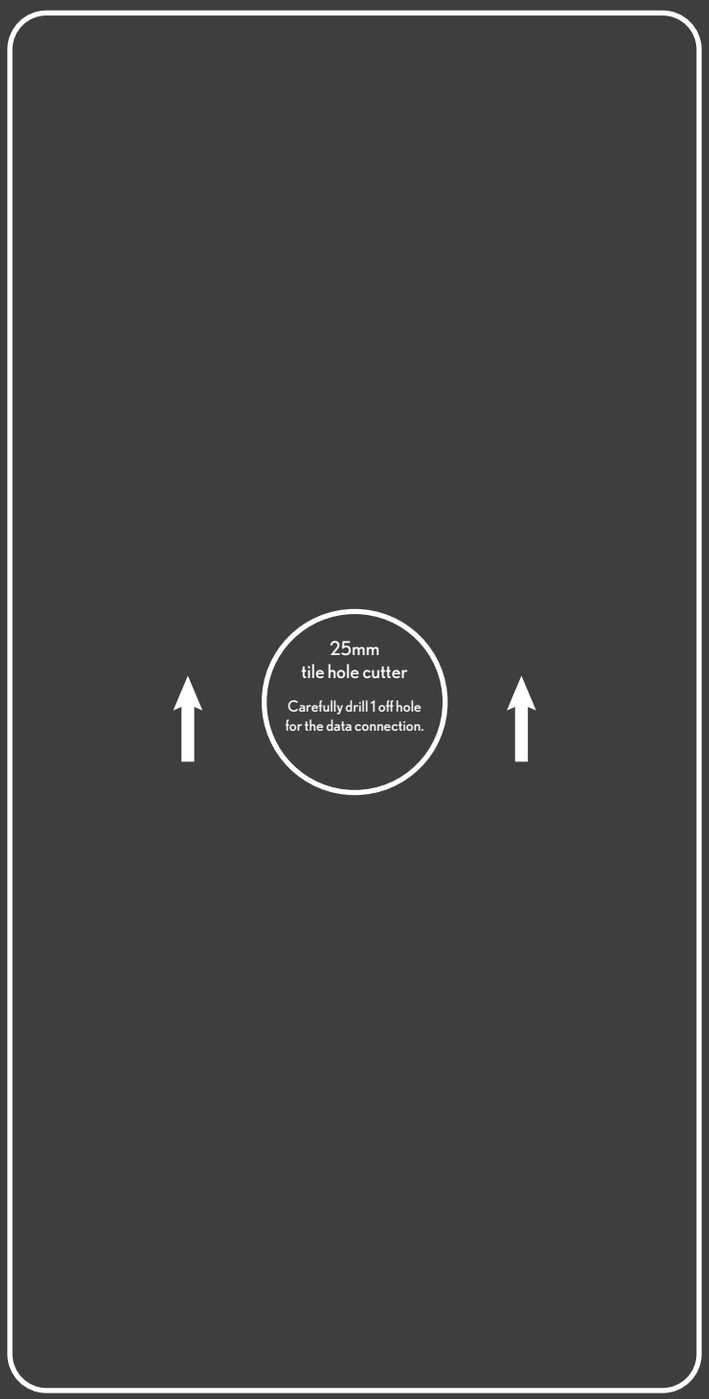


ACTIVATING CLEANING (SAFE) MODE USING THE REMOTE

When the system is off, press and hold the remote button for 5 seconds.

The light rings on the remote and the main controller will illuminate white continuously whilst locked. After 1 minute the controls will automatically unlock and the lights will go out.

DRILLING GUIDE



END OF PRODUCT LIFE

When this appliance has reached the end of its serviceable life, it should be disposed of in a safe manner, in accordance with current local authority recycling or waste disposal policy.

WARRANTY

Crosswater Digital products, unless otherwise stated, carry a 5-year warranty, which covers all manufacturing faults. This warranty does not cover damage during fitting, damage resulting from incorrect installation, or damage caused by misuse or inappropriate cleaning.

Removal of the cover on the digital valve unit or access inside the controller module is not permitted. This will invalidate the warranty.

It is the responsibility of the installer to ensure the digital valve is installed in an accessible location. Crosswater cannot accept liability if the valve has been fitted in an inaccessible location.

Please refer to your local retailer or contact our technical helpline for information regarding the use of digital systems in commercial premises and the applicability of the warranty in such circumstances.

SERVICING / CONTACT INFORMATION

In the unlikely event that you are experiencing difficulties with your new digital shower system, please contact the Crosswater technical advice team.

Telephone: 0345 2411195
Email: digital@crosswater.co.uk
Website: crosswater.co.uk

crosswater™