

# Installation & User Guide

## Digital Controller & Valve

THESE INSTRUCTIONS ARE YOUR GUIDANCE FOR SAFE  
INSTALLATION, PLEASE READ CAREFULLY PRIOR TO INSTALLATION  
AND RETAIN IN A SAFE PLACE FOR FUTURE REFERENCE

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## GENERAL

This product **MUST** be installed by a reputable qualified trades person in accordance with all relevant current water supply regulations. All electrical connections **MUST** be installed by a qualified trades person following the latest version of BS7671 (Wiring Regulations) and certified to current building regulations.

Before any electrical connections are made, the electricity supply **MUST** be turned off.

This product is not intended for use by persons with reduced capabilities or children unless they are fully supervised.

## TEMPERATURE

When you first operate the system, it will set the water temperature to 38°C. In normal use, the system will remember the last water temperature setting when it is powered on.

The system will deliver a maximum water temperature of 45°C. The hot water supply temperature **MUST NOT** exceed 75°C.

## INSTALLATION LOCATION

**Important:** The processor must be installed in a location that is safely and easily accessible for the purpose of servicing and maintenance.

The processor **MUST NOT** be installed in situations where either the ambient temperature is likely to exceed 40°C or where it may be subject to freezing conditions.

The control panel **MUST NOT** be installed in situations where the ambient temperature is likely to fall below 5°C or rise above 70°C.

## CABLES

Cables which are chased into the wall must also be protected by a suitable sized conduit or sheathing to allow removal for servicing and maintenance.

Surface mounted cables **MUST** also be protected by a suitable approved conduit, even in a loft.

The user control is supplied from a low voltage source. Please check for hidden pipes or cables before drilling any holes.

This product is suitable for thermal storage cistern and combination boiler system which can guarantee continuous hot water supply delivered under 1bar water pressure or more.

## PIPE SIZING

Long pipe runs, on both inlet and outlet, will reduce the flow rate at the shower head, 22mm pipework should be used on inlets and reduce down to 15mm as close to the processor as possible to reduce pressure losses and help maintain flow rate.

To optimize performance minimize the number of elbows used.

All copper pipework must be cross-bonded and connected to an earthing point.

To avoid leaks and damage we recommend the use of flexible piping to connect the water inlets and outlets.

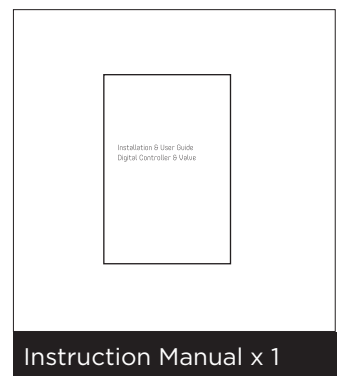
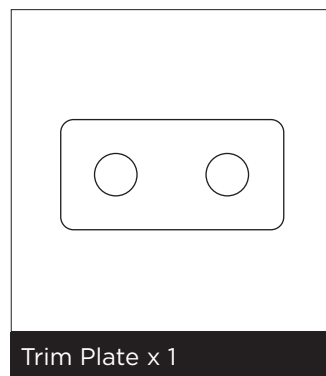
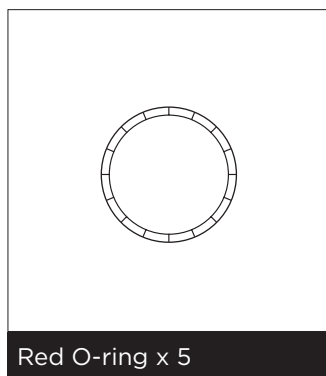
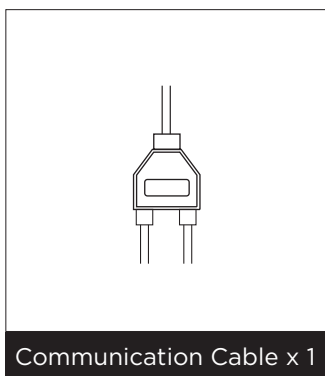
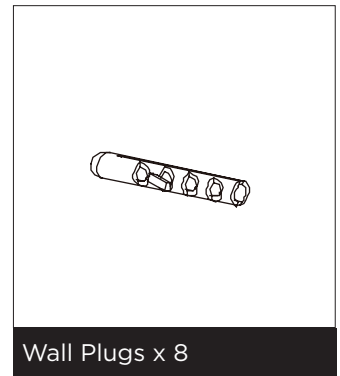
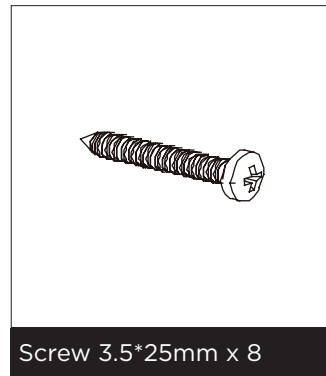
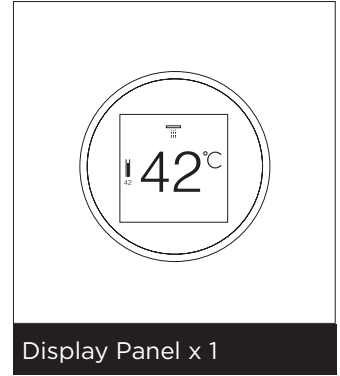
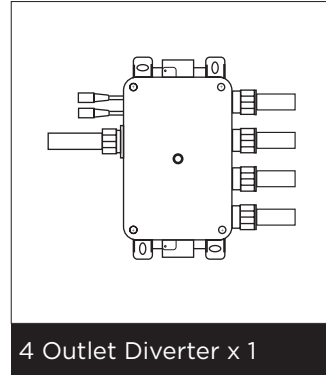
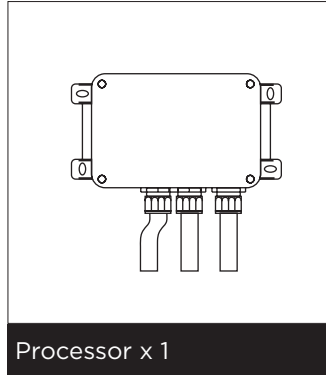
## AFTER INSTALLATION

**Important:** After finishing installation, firstly, open both cold and hot inlet valves to test the pipework in the water system for any leaks. If it is OK connect the power supply. Then, press the Power On/Off button to turn on the system, test for any water leaks from joins in the outlet water system. After confirming no leakage on the inlet and outlet water system, then start functional commissioning. The mixer and diverter units should be installed with service access, as filters may need cleaning or plumbing checked.

# Installation

# Pack Contents

**IMPORTANT:** Remove all packaging and check all contents for damage before starting the installation process. The model supplied may vary from the images shown, please note that the general installation process for all digital shower valves is the same.

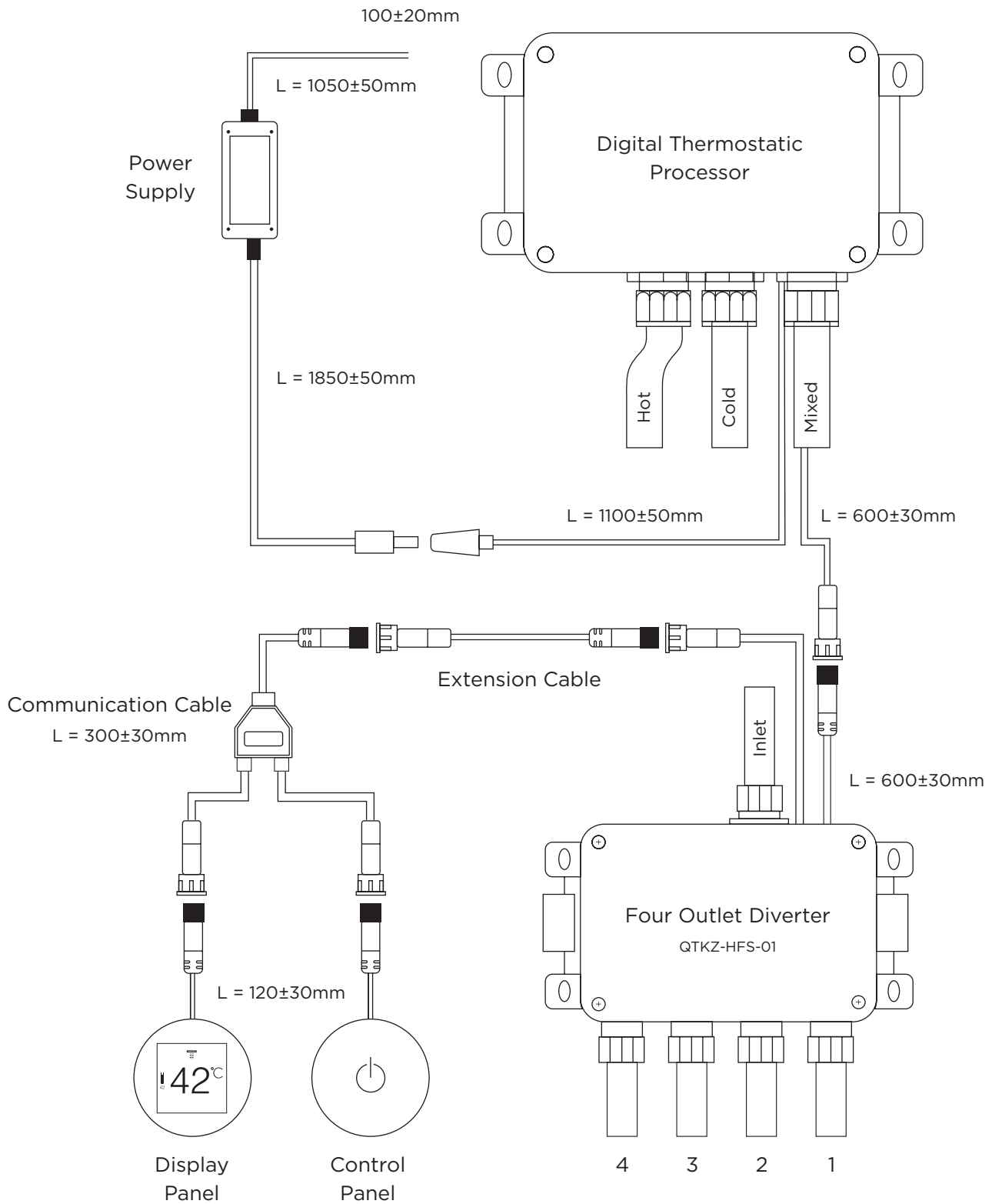


Note: Filters are factory fitted in the processor inlets.

Red O-ring should be fitted on all female connectors during assembly; it is used to guarantee waterproof purpose.

Pipework and plumbing fittings should be sourced locally to suit the configuration of your installation. To avoid leaks, we highly recommend the use of flexible pipes with push-fit connectors for installation.

Electrical Parameters	
Input Supply Voltage	AC110V-230V 50Hz-60Hz
Supply Voltage of Control Panel, Processor & Diverter	DC12V
Maximum Load	18W
Water Pressures	
Inlet Cold Water Static Pressure	1bar-10bar
Inlet Cold Water Dynamic Pressure	1bar-5bar
Inlet Hot Water Static Pressure	1bar-10bar
Inlet Hot Water Dynamic Pressure	1bar-5bar
Outlet Water Flow Rate (at 3 bar)	25 L/min
Tempertures	
Maximum Temperature (Factory Preset)	38°C
Maximum Temperature (Setting Range)	25°C-45°C
Minimum Temperature	25°C, Full Cold water selectable
High Temperature Protection	49°C
Temperature Stability	+/-1°C at recommended supply conditions
Hot Water Range	55-75°C
Cold Water Range	4-25°C
Ambient Temperature	4-40°C
Humidity	95% non-condensing
Times	
Power Off Water Protection Time	3s
Cold Water Supply Failure Protection	2.5s
IP Rating	
IP X4	
The control panel and display panel are suitable for installation in the showering area	

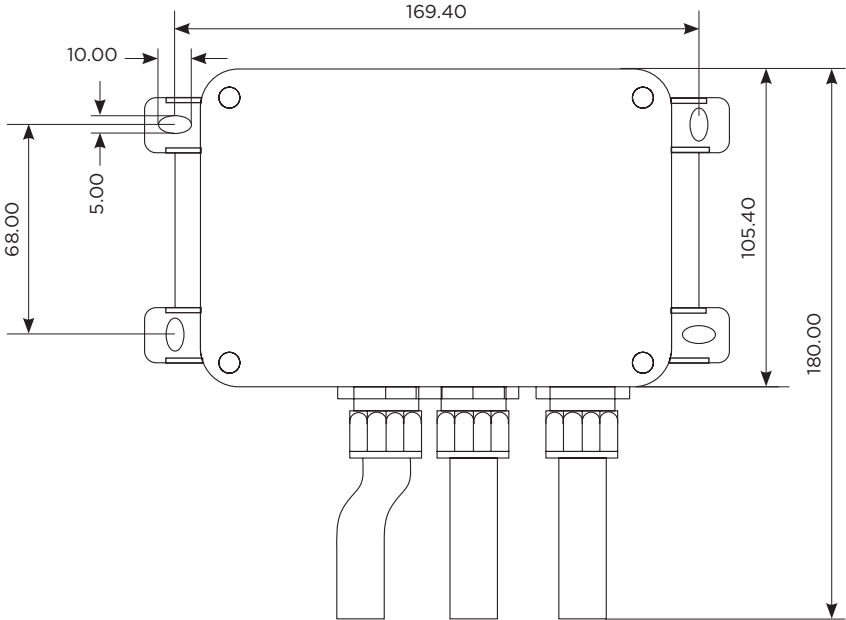


**IMPORTANT:** The processor **MUST** be positioned for convenient maintenance. It **MUST NOT** be sealed into the wall.

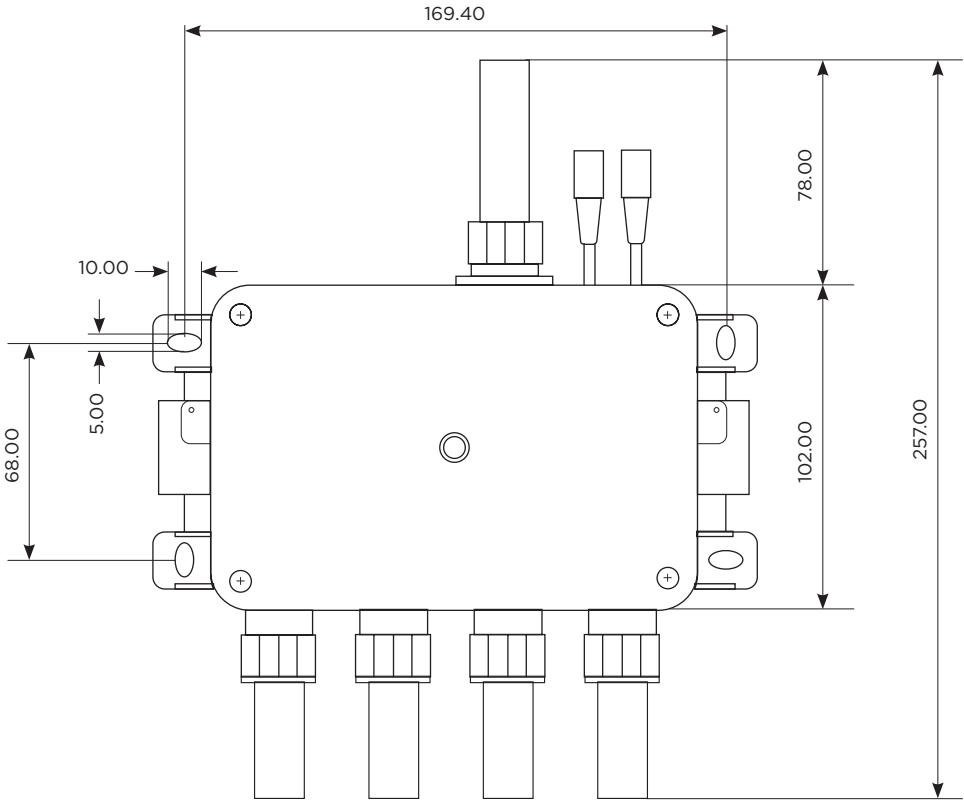
# Installation

## Installation Dimensions

### Processor Installation Dimension



### Diverter Installation Dimension



**IMPORTANT:** The processor must be placed in a convenient location for maintenance. You **MUST** ensure it is never sealed into the wall.

**Step 1:** Position the Processor and Diverter in desired location and mark through the pre-drilled holes [ Fig.1 ]

**Step 2:** Remove the Processor and Diverter, drill holes at the marked positions on the wall surface using a suitable drill bit.

**Step 3:** Insert wall plugs and secure the Processor and Diverter in position using the fixing screws [ Fig.2 ]

**NB:** The Processor and Diverter are both fitted with copper tails. We recommend using push fit connectors during installation. [ Fig.3 ]

**DO NOT** screw any copper nuts as they are already secured by the factory. Over-screwing the nuts may damage the valve and cause leaks.

Figure 1

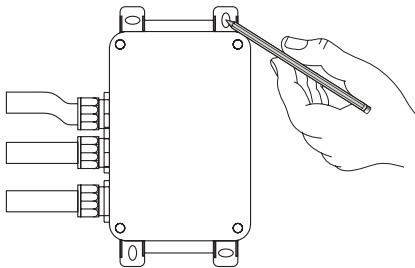


Figure 2

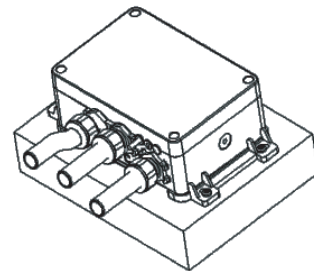
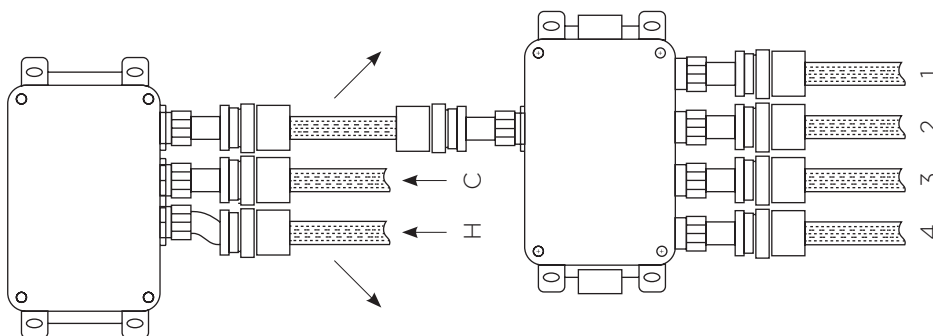


Figure 3

Flexible pipe with push-fit connector to show the Shower Fitting (Diverter)



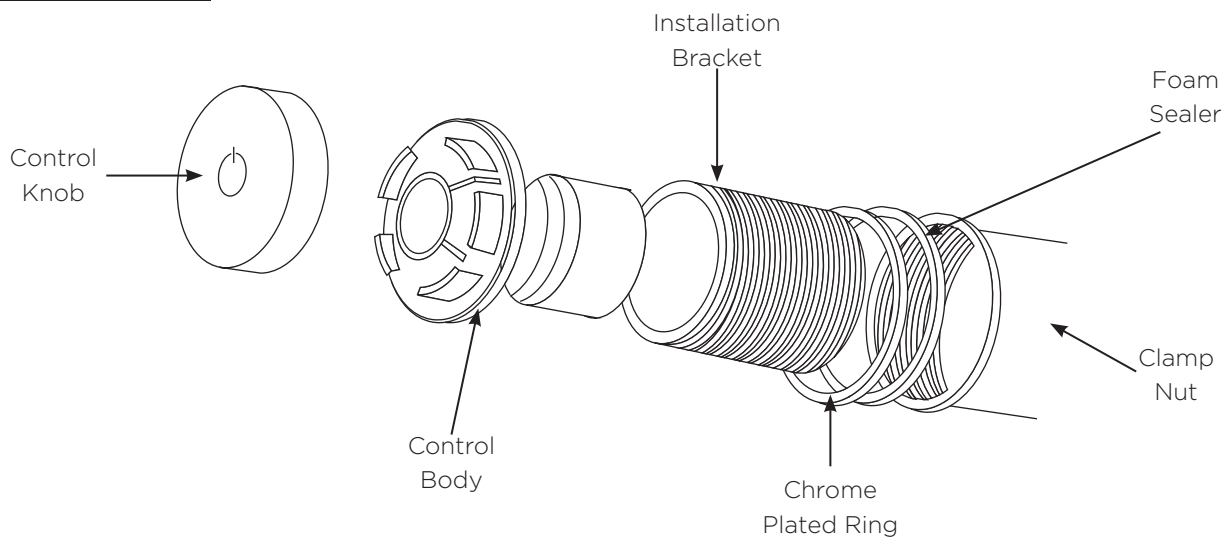
Push-fit fitted to both inlets

NOTE: 7 pieces of flexible pipes with push-fit connectors are needed

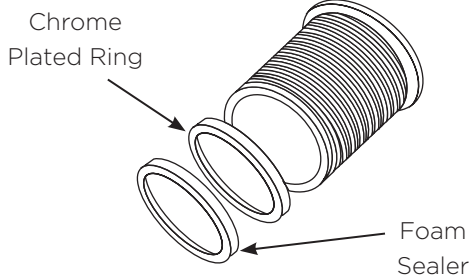
**IMPORTANT:** Ensure that all pipe works are perpendicular to the processor and diverter. This will prevent leaks due to external force on the connectors of the processor or diverter.

NOTE: The control panel and display panel are suitable for installation in the showering area.

### Panel Components

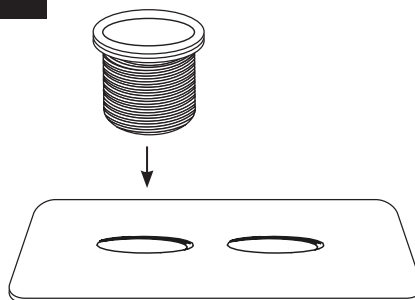


### Step 4



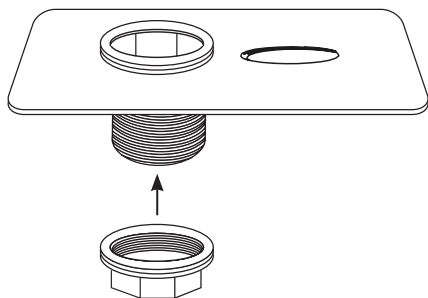
Place the foam sealer and chrome plated ring on the installation bracket.

### Step 5



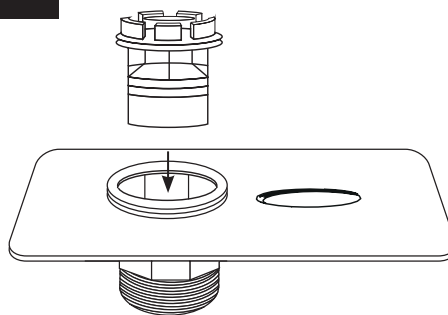
Insert the installation bracket assembly through the hole in the trim plate.

### Step 6



Secure the installation bracket assembly in place using the supplied clamp nut

### Step 7



Insert the control body into the installation bracket assembly and rotate clockwise to lock it in place.

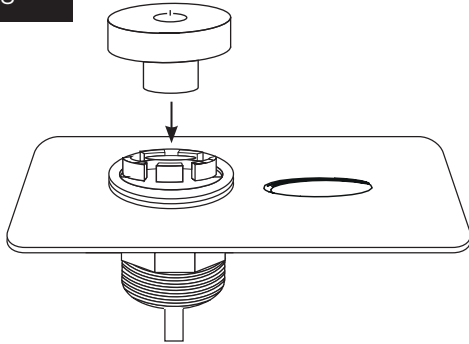


# Installation

## Panel Installation Instruction

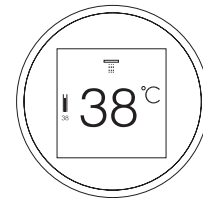
NOTE: The control panel and display panel are suitable for installation in the showering area.

### Step 8



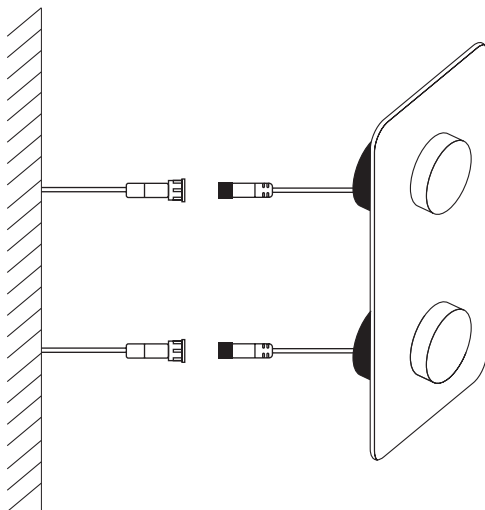
Place the control knob on the control body to complete the installation.

### Step 9



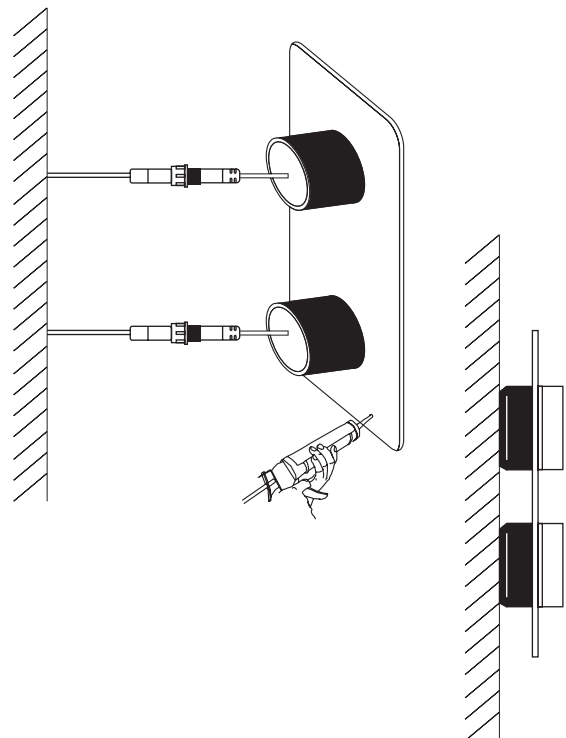
Repeat Steps 4 - 8 to install the display panel.

### Step 10



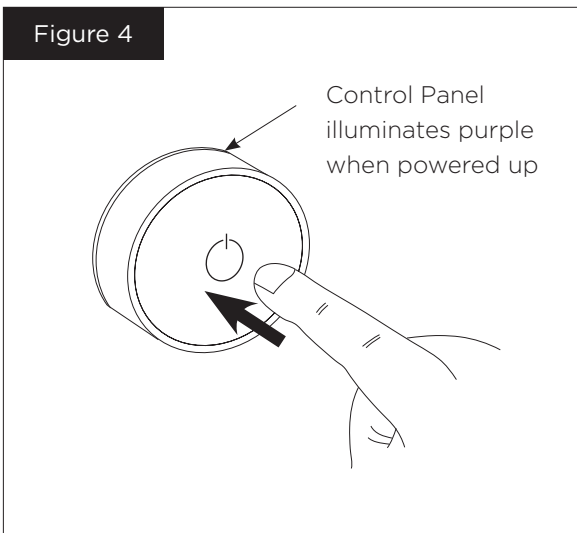
Connect the Control Panel & Display Panel with the Communication Cable. Please refer to the schematic on page 5 of instruction.

### Step 11



Secure the trim plate in place by carefully applying silicone sealant to the edge of the reverse, push the plate towards the wall and hold in position until it is flush.

Figure 4



Before using the shower for the first time the installer needs to check that the water/plumbing connections are correct. Check that there are no leaks around the connections to the inlets and outlet.

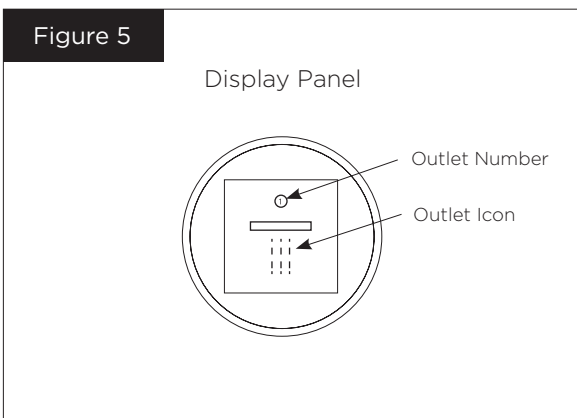
### Power on Processor

Turn on power to the diverter and processor, the system will currently be in standby mode.

### Power on Control Panel

[ 4 ] Press the knob on the control panel, a purple halo will illuminate around the knob to indicate it is on and the display panel will activate. Water will start to flow, please note the factory pre-set temperature is 38°C.

Figure 5



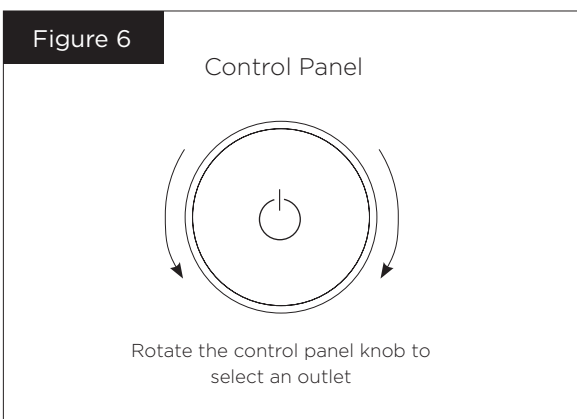
### Outlet Setting Up Procedure

[ 4 ] Prior to using the digital valve the outlets need to be configured. Start by pressing the control panel knob for 5 seconds, this will activate the menu on the display panel.

The number shown on the top of the display panel indicates the outlet number. [ 5 ]

[ 6 ] Rotate the control panel knob to select an outlet for each outlet number. The outlets are displayed by the icons on the table below. Once you have made your selection press the knob once to program.

Figure 6



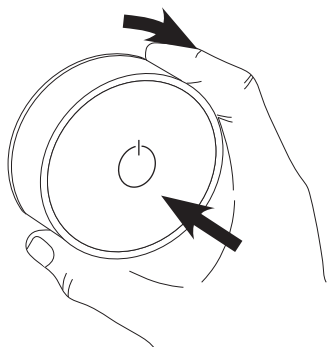
The system will then move onto the next outlet, repeat the above steps to make your outlet selection.

If you do not require one of the outlets select the 'outlet block' icon. This will prevent any water from coming out of that outlet.

Once you have set up all the outlets, the system will turn off automatically. Press the control panel knob once again and the system will run with your new customised settings.

Outlet Icons						
Light Flashing Colour	Orange	Red	Green	Blue	White	Cyan
Function	Outlet Block	Shower Head	Body Jet	Hand Shower	Waterfall Shower	Bath Filler

Figure 7

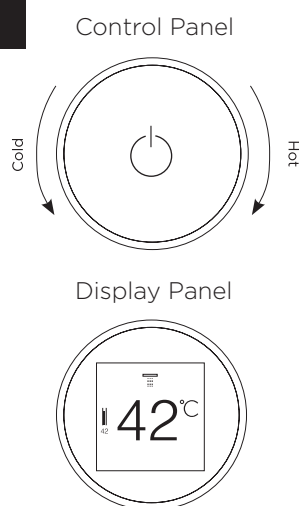


### Outlet Selection in Normal Use

When the system is on, press down and rotate the control panel knob at the same time to select an outlet. The display will show the selection of icons you have programmed. [ 7 ]

Please refer to the outlet icons on page 10.

Figure 8

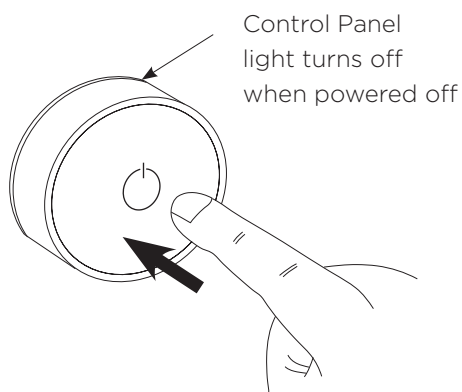


### Temperature Adjustment

To increase the water temperature, rotate the display panel clockwise. The maximum temperature setting is 45°C. To decrease the temperature, turn the knob anti-clockwise. The minimum temperature will depend on your cold water supply. The knob will illuminate blue when the temperature is less than 25°C, and the display screen shows "COLD". In normal use, the system will remember the last water temperature setting when it is powered on again. [ 8 ]

Temperature	Illumination Colour
40°C - 45°C	Red
25°C - 40°C	Purple
0°C - 25°C	Blue

Figure 9



### Power Off

Press the control panel knob again to turn off the water flow. The light under the knob will turn off. [ 9 ]

SYMPTOM	CAUSE	REMEDY
Cold Inlet Failure	Caused by lack of inlet cold water, temperature sensor detects over-heating	Ensure cold water supply to the processor is installed and flowing correctly. Once the inlet cold water supply recovers, press the knob to clear the fault, press again to power the shower.
Temperature Control Failure	Outlet water temperature sensor failure	Please contact manufacturer to replace the processor
Inlet Temperature Sensor Failure	Caused by hot water temperature sensor failure	Please contact manufacturer to replace the processor
Outlet Switch Failure	Caused by motor failure	Please contact manufacturer to replace the processor
Connection Error	Cable is not connected correctly	Ensure the data connection cable between the panels and the processor is installed correctly. Press the knob to clear the fault, press again to power the shower
	Pins are damaged	Check pins on all cables, if any defects are present please contact the manufacturer for a replacement
Inlet Hot Water Temperature Over 85°C	Temperature sensor detects inlet hot water is over 85°C	Adjust the inlet hot water temperature (< 85°C)
Inlet Hot Water Temperature is Too Low	No hot water available	Ensure hot water supply to the processor is installed and that your heating system is working correctly
	Inlet hot water temperature is too low	Adjust the inlet hot water temperature (> 55°C)
	Check-valve or filter in the hot water inlet is blocked	Check the valve and filter to ensure they are clean and there are no external objects inside
	Inlet cold water pressure is too high	Reduce inlet cold water pressure <5bar
	Inlet hot water pipe is too long, so mixed water cannot reach pre-set temperature within 2 minutes	Restart the unit (multiple times if required) Reduce the distance that the hot water has to travel or insulate the hot water pipe
	Hot and cold water inlets pipes are reversed	Check and re-connect hot and cold water supply

SYMPTOM	CAUSE	REMEDY
Inlet Cold Water Temperature is Too High	Inlet cold water temperature is too high	Adjust inlet cold water temperature less than 25°C (cold pipe may be touching or above hot water supply).
		Adjust temperature on panel until it displays "cold "
	Check-valve or filter in hot water inlet is blocked	Check the valve and filter to ensure they are clean and there are no external objects inside
	Inlet hot water pressure is too high	Reduce inlet hot water pressure <5bar.
	Hot and cold water inlet pipes are reversed	Check and re-connect hot and cold water supply