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ASSURE HP/COMBI CONCEALED DIGITAL SHOWER One OUTLET CONTROL V18 Model: 44400023755 Installations and operating instructions

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Important and Safety Information

Please read these instructions carefully before starting installation and keep in a safe place for future reference.

This product must be installed by a qualified and competent person in accordance with all relevant current water supply regulations.

All showers requiring an electrical connection must be installed by a qualified 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. All electrical installation must be carried out only by a qualified person.

This product is not intended for use by persons (including children) with reduced capabilities unless they are supervised or understand the instructions for the safe use of this product.

The shower must be not used with a hot water supply temperature over 75℃.

Hot and cold water supply should be balanced pressure of at least 1 Bar.

The processor is supplied factory pre-set at a maximum temperature of 38℃. The maximum temperature can be calibrated to be higher.

This product is suitable for domestic use and, with a reduced guarantee

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period, for commercial use.

Location of the Processor in the plumbing system

The units need a constant supply of water at a stable temperature delivered at 1 bar of pressure or more. Other water using products on the system should not significantly affect either the temperature or flow. If a pump is used to boost pressure in a gravity fed system it should be installed on the supply side of the Processor. Ensure that all instructions are followed for a successful installation.

Important: The processor and must be installed in a location that is safely accessible for servicing and maintenance.

This processor must not be installed where either the ambient temperature is likely to exceed 40℃ or where freezing may occur. Remember that loft spaces can become very cold in winter.

Control Panel

The control panel must not be installed in situations where the ambient temperature is likely to fall below 5℃ or rise above 40℃. It is water proof and is powered by a low voltage supply, so can safely be installed in a showering area.

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Cables

Cables which are chased into the wall must be protected by a conduit or sheathing to allow removal for service or maintenance.

Surface mounted cables should be protected by a conduit, even in a loft, where there may be a risk of damage from small animals like mice.

Please check for hidden pipes or cables before drilling any holes.

Pipe work

Long pipe runs, on both inlet and outlet, will reduce the flow rate at the shower head, 22mm pipe should be used for supply 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.

Install isolating valves on the supply pipes to enable easy maintenance.

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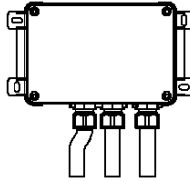
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WARNING

Before connecting pipework to the valves, flush for at least 5 minutes to ensure that any debris is washed out. Debris from installing pipes or from domestic tanks can cause functional issues with the processor or shower head.

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Pack Components
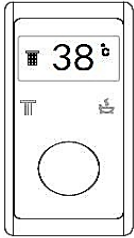
Control Panel*1pc

Processor*1pc

Power Adapter*1pc

Extension Cable*1pc

Wall Plugs*12pcs

Screw 3.5*25mm*12pcs
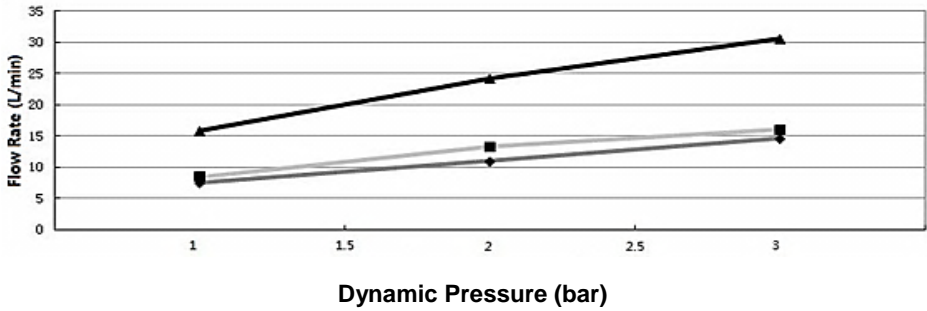
Screw 3*6mm*4pcs

Instruction Manual*1pc

Red O-ring*2pcs

Note: **Filters are factory fitted in the processor inlets.**

Pipework and plumbing fittings should be sourced locally to suit the

configuration of your installation.

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Flow Performance

Dynamic Pressure (bar)

━━ Inlet Cold Water Flow Rate ▬▬ Inlet Hot Water Flow Rate ━━ Outlet Mixed Flow Rate

Above performance curve of testing data is obtained when inlet cold water temperature is 20℃, and inlet hot water temperature is 65℃ at water pressure of 3 bar.

System Specifications

Electrical Parameters	
Input Supply Voltage	AC110V-230V 50Hz-60Hz
Supply Voltage of Control Panel & Processor	DC12V
Maximum Load	18W

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| **Water Pressures**	
Inlet Cold Water Static Pressure Range	1bar-10bar
Inlet Cold Water Running Pressure Range	1bar-5bar
Inlet Hot Water Static Pressure Range	1bar-10bar
Inlet Hot Water Running Pressure Range	1bar-5bar
Outlet Water Flow Rate (at 3bar)	25 L/min
Temperatures	
Maximum Temperature (Factory Preset)	38℃
Maximum Temperature (Setting Range)	25℃-45℃
Minimum Temperature	25℃, Full Cold water selectable
High Temperature Protection	49℃
Temperature Stability	+/- 1℃ at recommended supply conditions
Hot Water Supply Temperature Range	55-75℃
Cold Water Supply Temperature Range	5℃-25℃
Ambient Temperature	5℃-40℃
Humidity	95% non-condensing
Times	
Power Control Response Time	≤3s

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Cold Water Supply Failure Protection	≤2.5s
IP Rating	IPX4
The control panel is suitable for installation in the showering area.	

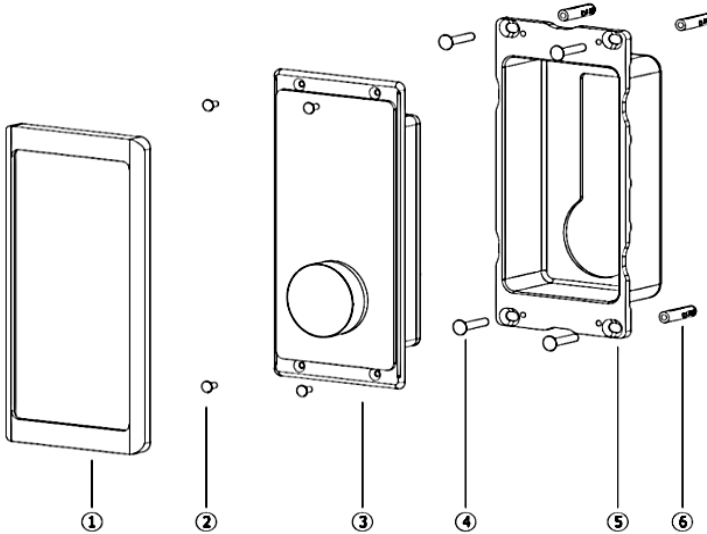## Ensure that all of the conditions described have been met before starting your installation.

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General Installation Schematic

IMPORTANT: The processor must be located for convenient maintenance,

not sealed within a wall cavity.

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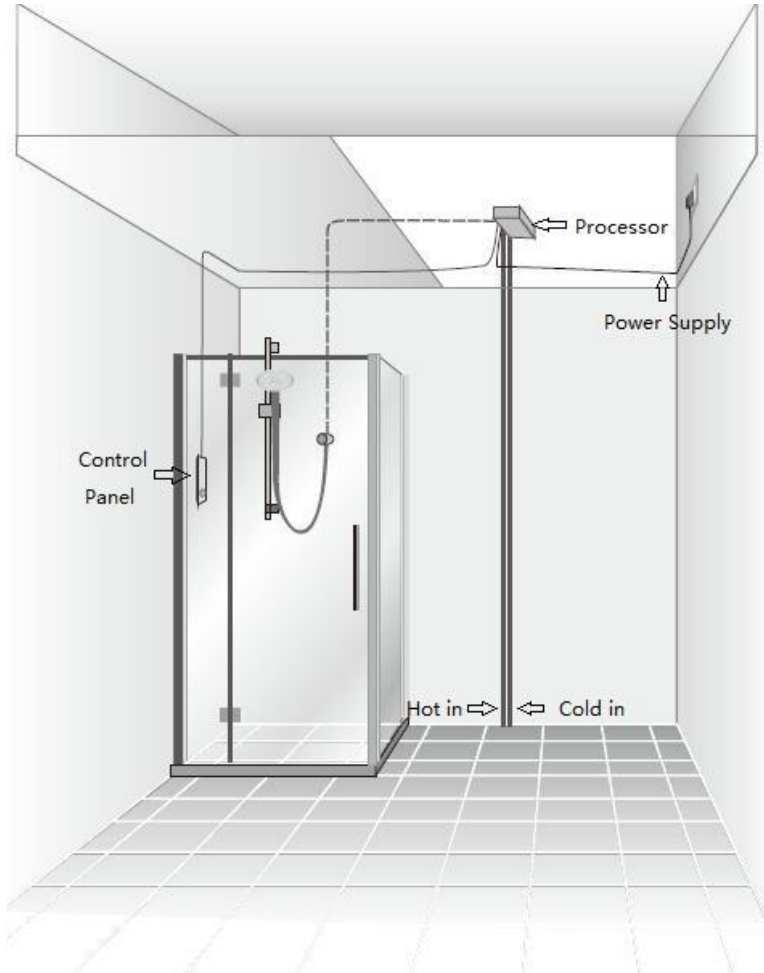
Control Panel Installation Instructions
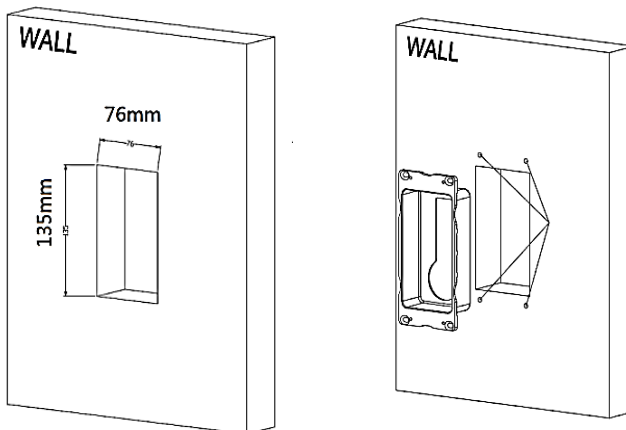

1- Front Frame   2- M3*6 Screw   3- Control Body

4- M3.5*25 Screw   5- Mounting Box   6- Wall Plugs

Step 1: Wall recess dimension 135mm*76mm*50mm (Length*Width*Depth)

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Step2: Put the mounting box inside the hole and mark position for wall

plugs, drill the diameter 6mm holes and put into wall plugs.
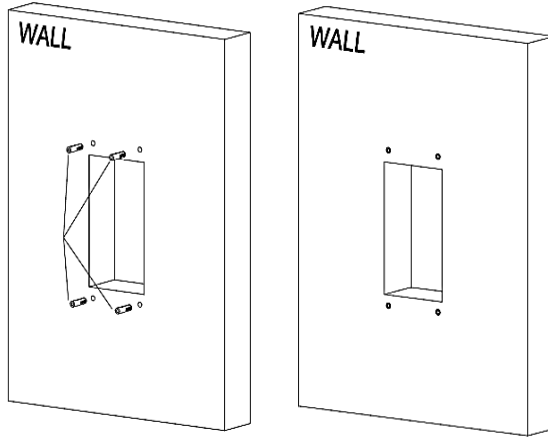
Step3: Insert and Fix the mounting box.

![bathstore logo]
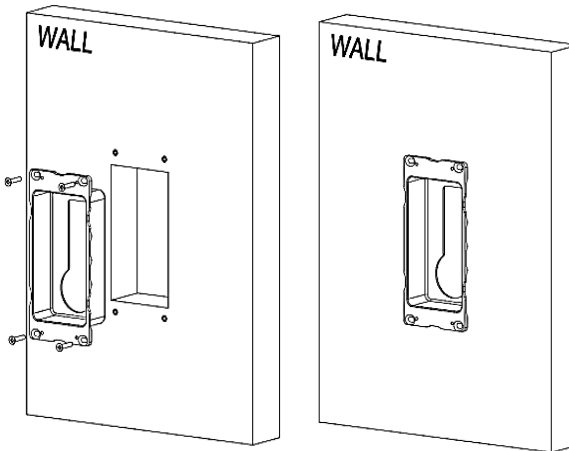
Step 4: Pull out the data cable, and push back and fix the control body after

cable connected.

Step 5: Put the front frame and finish the installation.

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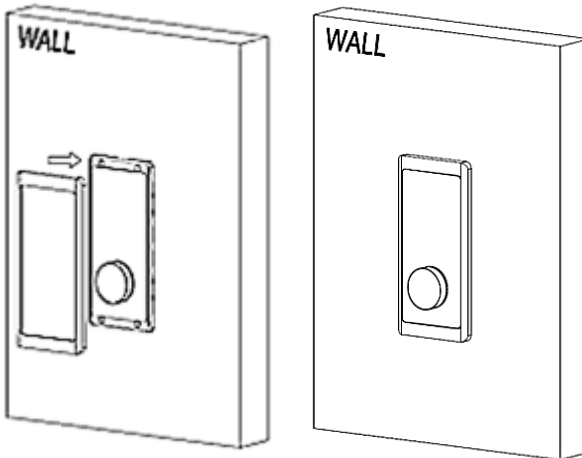
Processor Installation Dimension

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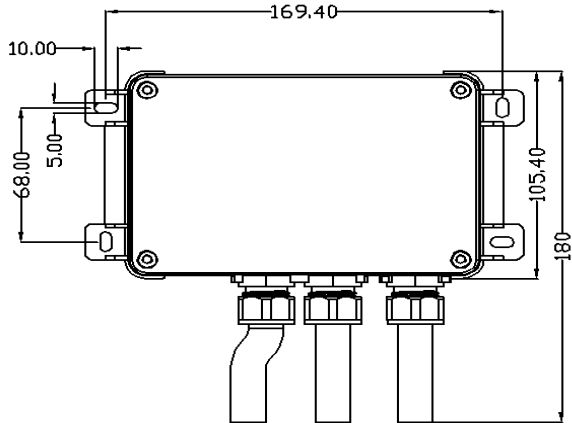
Processor Installation Instruction

Step1: Mark the fixing holes for Processor in the required position.

Step 2: Drill and plug the fixing holes.

Step 3: Secure the Processor in position with the fixing screws
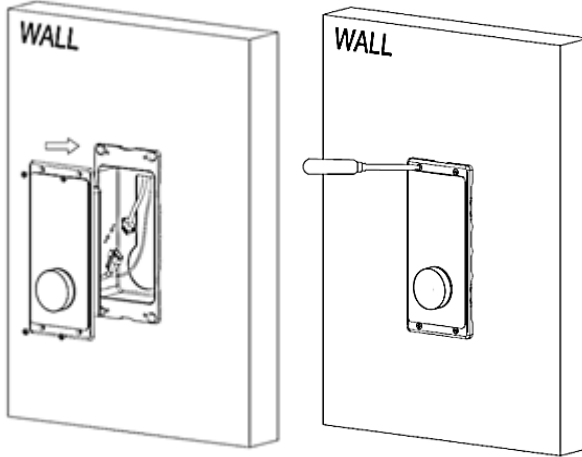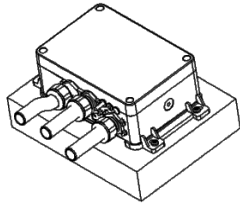

Step 4: The processor is fitted with copper tails. We recommend using push fit connectors for installation. **Do not remove copper tails.**

Push-fit connector to the shower fittings
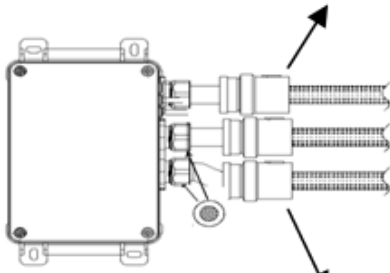
Push-fit fitted to both inlets

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1. Flush out the hot and cold supply pipes for at least 5 minutes minimum before connecting.
2. All inlets and outlet are pre-assembled to ensure water tightness. There is no need to further tighten the brass nuts, otherwise it might affect water sealing over time.
3. Ensure hot and cold water supply connect with the correct inlets. Hot and cold water inlets are labelled in red and blue, respectively.
4. Ensure that all the pipe work is perpendicular to the processor, not at an angle. Otherwise, external force applied on the inlet might cause leaking over time.
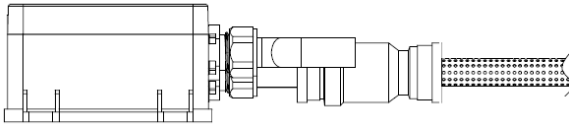
5. During connecting water supplies, do not apply lateral force to the inlets.

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System Connection Diagram

Do not cut connectors off cables.

The red O ring should be fitted onto all female connectors during the assembly to ensure they remain waterproof.

Digital Thermostatic Processor

Hot   Cold   Mixed
L=550±30MM

L=1100±50MM

L=7500±50MM

L=1850±50MM

L=550±30MM

INSERT CABLE FULLY

Power Supply

38°

Control Panel

100±15MM

L=1050±50MM
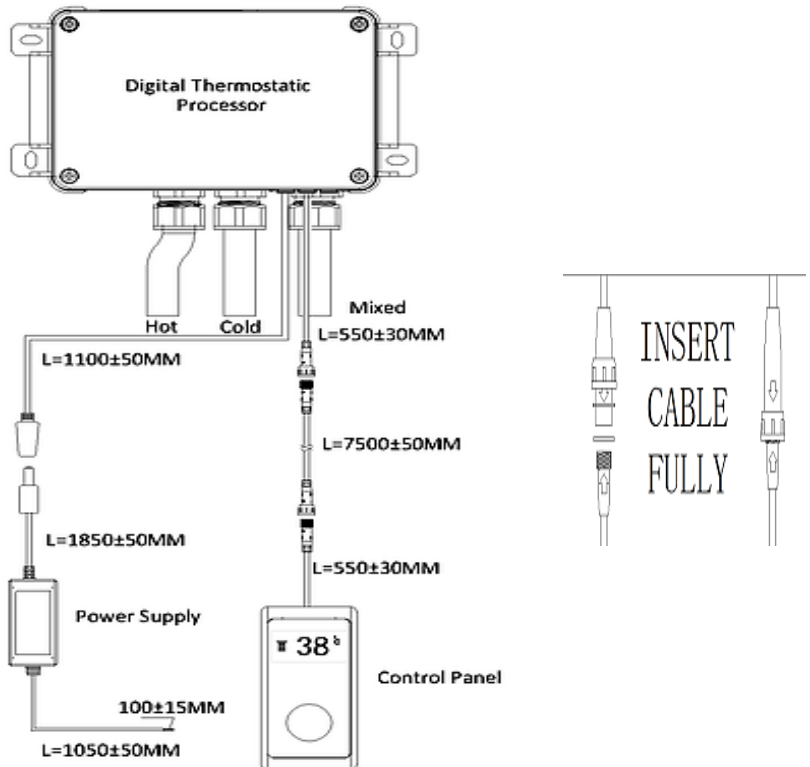
Note:

1. **The shower head is automatcially selected as default outlet" when this product is used for the first time, or the power supply to the unit is reset.**

2. **Assuming power supply is always on, when re-starting the product, the default outlet is the last outlet selected.**

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1. Please follow the above diagram to connect the cables.
2. Before pushing the two cables together, ensure that the mating parts are correctly lined up. Pushing connectors together without correct alignment might damage the pins inside and lead to connection errors.
3. Once the connectors are joined screw the cover over the mating connector to make a permanent connection.

After installation

IMPORTANT: After finishing the installation, open both cold and hot isolating valves to inspect for water leakage from joins in water system. Connect the power supply and press the Power On/off button to turn on the outlets. Observe for an hour to see whether water leaks from pipes between the valves and the outlets.

After confirming that there aren't any leaks on the inlet and outlet water system, start functional commissioning. The processor unit should be installed with service access, as filters may need cleaning or plumbing checked.

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Commissioning

1. **Power on Processor:** Turn on the power to the processor. The system is on standby.

2. **Power on Control panel:** Press the knob once to turn on the system, and the knob will illuminate Purple. The display screen shows the setting temperature.

3. **Child-lock mode**: Each time turn on the system, the pre-set temperature is 38℃ and it is automatically in child-lock mode. Child-lock mode is activated when setting temperature is equal or over 38℃.

4. **Temperature adjustment:** Users want to change the setting temperature over 38℃, press the knob for over 2 seconds to unlock and turn the knob clockwise to increase the temperature. The max setting temperature is 45℃. When temperature is 45℃, the knob will

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illuminate Red. Users want to change the setting temperature less than

38℃, turn the knob anti-clockwise to decrease the temperature. When

the display screen shows "COLD" the outlet water temperature is the

same as temperature of inlet cold water. When temperature is less than

25℃, knob will illuminate Blue.

5. **Power Off**: Press the knob to turn off the flow. When system is off, the

light behind the knob will turn off.

Trouble Shooting

No.	Error Message or Functional Issue	Possible Causes	Solutions
1	No Display	No power being supplied	Check and reconnect all cables.
2	COLD INLET FAILURE	No cold water supply.	Check and turn on cold water supply.
		Inlet hot water pressure is too high.	Reduce inlet hot water pressure ≤5bar.
		Hot and cold water inlets are reversed.	Check and re-connect hot and cold water supply.
		Processor failure.	Replace processor.
3	TEMPERATURE CONTROL FAILURE	Ambient Temperature is less than 0℃.	Restart the system after ambient temperature is above 0℃.

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3	TEMPERATURE CONTROL FAILURE	Outlet water temperature sensor failure.	Replace processor.
4	INLET TEMPERATURE SENSOR FAILURE	Ambient Temperature is less than 0℃	Restart the system after ambient temperature is above 0℃
		Hot water temperature sensor failure.	Replace processor.
5	OUTLET SWITCH FAILURE	Motor failure.	Replace processor.
6	CONNECTION ERROR	Cables are not connected.	Check and connect cables.
		Cables are not well connected.	Restore damaged pin of connector, and connect properly.
		Connector of Processor Failed.	Replace Processor.
		Connector of Control Panel Failed.	Replace Control Panel.
7	INLET HOT WATER TEMPERATURE OVER 85℃	Inlet hot water temperature is over 85℃.	Adjust inlet hot water temperature to be less than 85℃.
8	INLET HOT WATER TEMPERATURE IS TOO LOW	No hot water supply.	Check and turn on hot water supply.
		Inlet hot water temperature is too low.	Adjust inlet hot water temperature to be over 55℃.

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8	INLET HOT WATER TEMPERATURE IS TOO LOW	Check-valve in hot water inlet is blocked.	Check and clean.
		Hot water inlet filter is blocked.	Check and clean.
		Inlet cold water pressure is too high.	Reduce inlet cold water pressure ≤5bar.
		Processor is too far from the hot water source so that mixed water cannot reach pre-set temperature within 2 minutes (units supplied pre 02/17 were set to 1 minute).	Increase hot water temperature at source.
			Reduce the distance that hot water has to travel or insulate the hot water pipe.
		Hot and cold water inlets are reversed.	Check and re-connect hot and cold water supply.
9	INLET COLD WATER TEMPERATURE IS TOO HIGH	Inlet cold water temperature is too high.	Adjust inlet cold water temperature less than 25℃ (cold pipe may be touching or above hot water supply).
		Check-valve in cold water inlet is blocked.	Check and clean.
		Cold water inlet filter is blocked.	Check and clean.
		Inlet hot water pressure is too high.	Reduce inlet hot water pressure ≤5bar.
		Hot and cold water inlets are reversed.	Check and re-connect hot and cold water supply.

10	PROCESSOR SOUNDS AS THOUGH IT IS REPEATEDLY CLICKING	Water supplies can't reach the pre-set temperature, and system keeps on adjusting temperature.	Ensure the temperature and pressure of hot water and cold water is within the specified range.
11	OUTLET TEMPERATURE FLUCTUATES	Temperature of hot water supply is too low.	Check and ensure the temperature of hot water is between 55-75℃.
		Inlet hot and cold water pressure is not stable	Check and ensure the water pressure supply is stable.
		Inlet hot and cold water pressure difference is not stable.	Ensure the pressure difference between hot and cold supply are maintained.
		Water flow is too low.	Ensure the water pressure is under the specified range.
13	WATER OUTLET IS LETTING BY	Cartridge is blocked by debris.	Turn on/off the valve after times.
		Cartridge failed.	Replace processor.
14	THE PROCESSOR IS LEAKING	Inlet pressure is too high.	Ensure the water pressure is under the specified range.
		Over-rotate the brass inside seal.	Do not over-rotate.
		Seal damaged during installation	Replace the processor.

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Care and Maintenance

The screen and frame should be cleaned with a soft damp cloth only.

Chemical or abrasive cleaners can damage the surface finish.

Check the processor regularly to ensure that they have airspace around

them, that there aren't any leaks and that electric cables aren't damaged.