

**ASSURE HP/COMBI
CONCEALED DIGITAL
FOUR OUTLET CONTROL
INSTRUCTION MANUAL
Model: 44400023770**

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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°C.

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



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

This processor must not be installed in situations where either the ambient temperature is likely to exceed 40°C or where freezing may occur.

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 which are chased into the wall must also be protected by a suitable sized conduit or sheathing to allow removal in the event of the service and maintenance purpose.

Surface mounted cables must also be protected by a suitable approved conduit, even in a loft, where there may be a risk of damage from vermin.

The user control is supplied from low voltage source.

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

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

Pipe sizing

Long pipe runs, on both inlet and outlet, will reduce the flow rate at the shower head, 22mm pipe work 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.

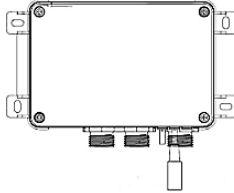
After installation

IMPORTANT: After finishing installation, firstly, open both cold and hot inlet valves to inspect for water leakage from joins in water system. If it is OK connect the power supply. Then, press the Power On/off button to turn on the system, and inspect whether any water leakage from joins in the outlet water system. After confirming no leakage on the inlet and outlet water system, then start functional commissioning.

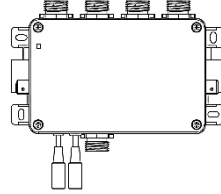
Pack Components



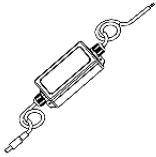
Control Panel*1pc



Processor*1pc



Four Outlet Diverter*1pc



Power Adapter*1pc



2m Extension Cable*1pc



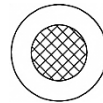
Wall Plugs*12pcs



Screw 3.5*25m*12pcs



Screw 3*6mm*4pcs

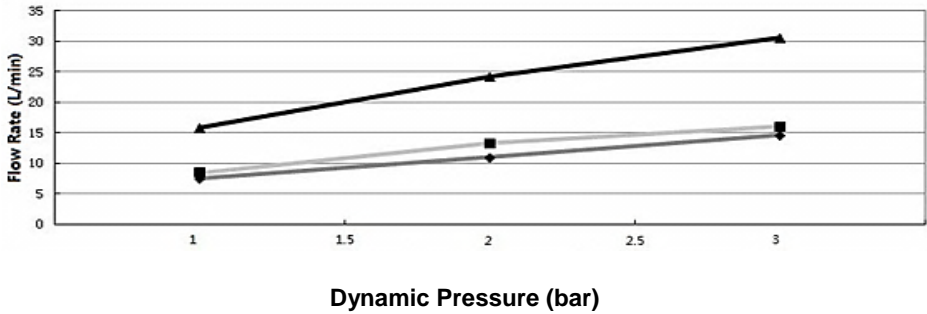


G1/2 Filter Washer*1pc



Instruction Manual*1pc

Flow Performance



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°C, and inlet hot water temperature is 65°C at water pressure of 3 bar.

System Specifications

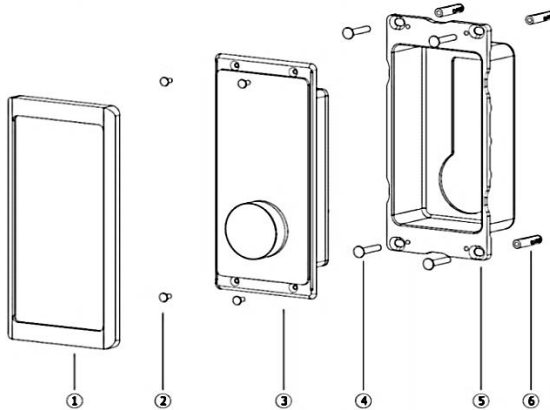
Electrical Parameters	
Input Supply Voltage	AC110V-230V 50Hz-60Hz
Supply Voltage of Control Panel & Processor & Diverter	DC12V
Maximum Load	18W
Water Pressures	
Inlet Cold Water Pressure Range	1bar-10bar
Inlet Hot Water Pressure Range	1bar-10bar

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Outlet Water Flow Rate (at 3bar)	25 L/min
Temperatures	
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°C-29°C
Ambient Temperature	4°C-40°C
Humidity	95% non-condensing
Times	
Power Off Water Protection Time	3s
Cold Water Supply Failure Protection	2.5s

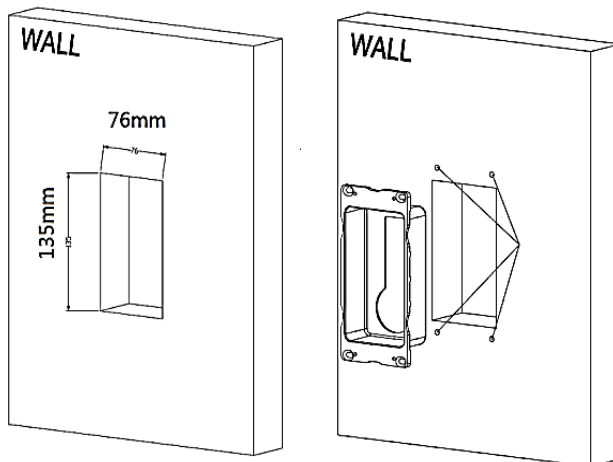
Control Panel Installation Instructions



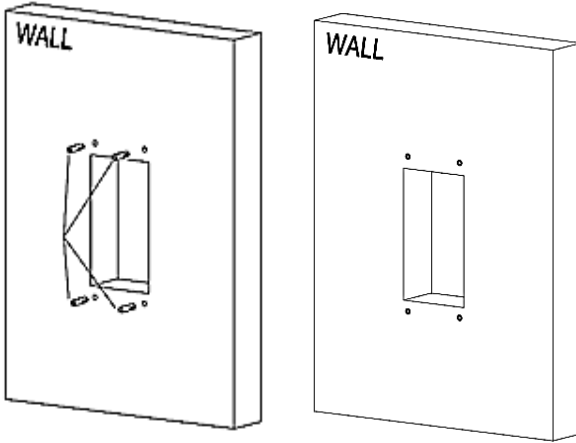
1- Front Frame 2- M3*6 Screw 3- Control Body

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

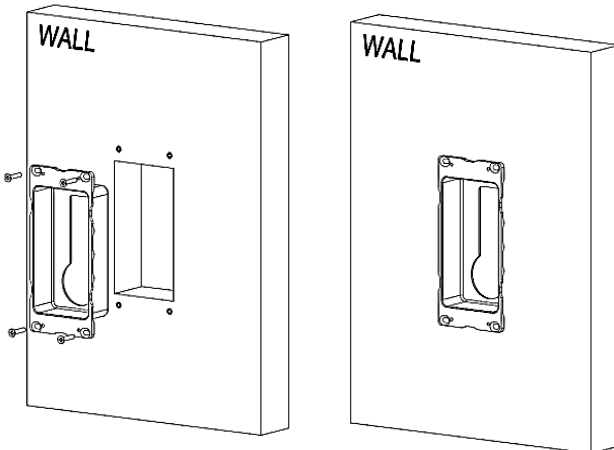
Step 1: Wall recess dimension 135mm*76mm*50mm (Length*Width*Depth)



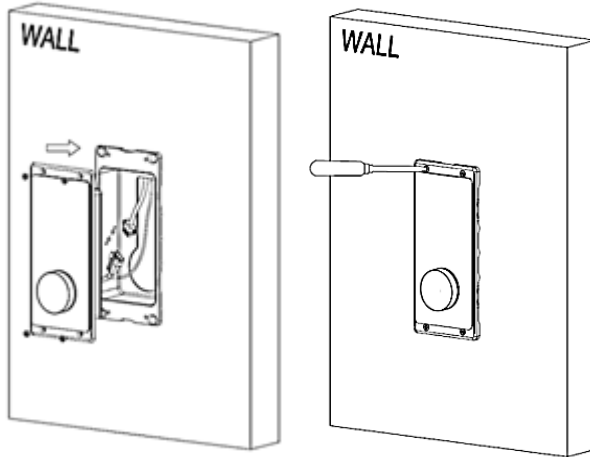
Step2: Put the mounting box inside the hole and mark position for wall plugs, drill the diameter 6mm holes and put into wall plugs.



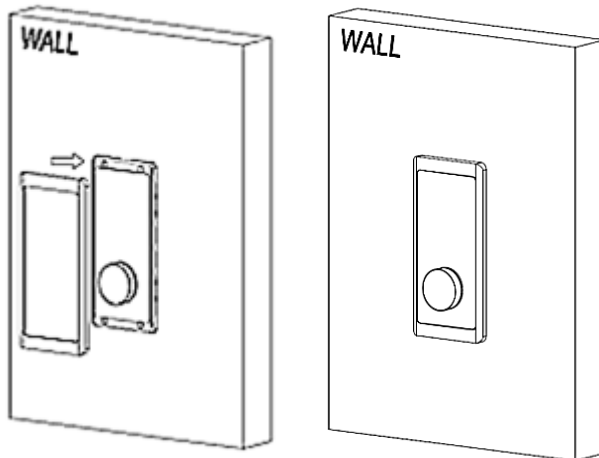
Step3: Insert and Fix the mounting box.



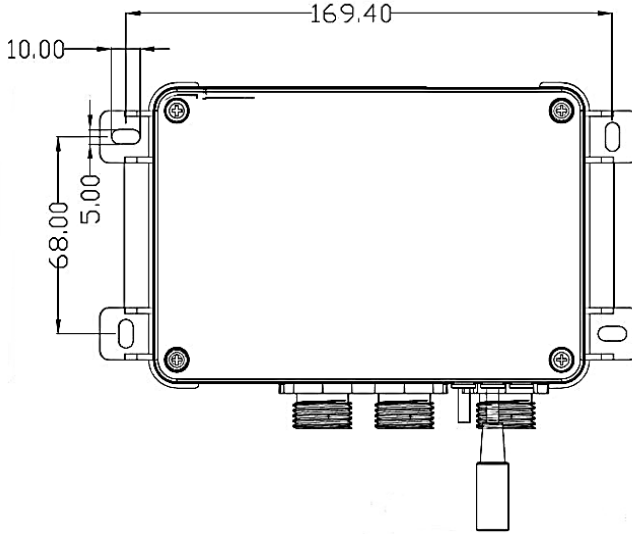
Step 4: Pull out the data cable, and push back and fix the control body after cable connected.



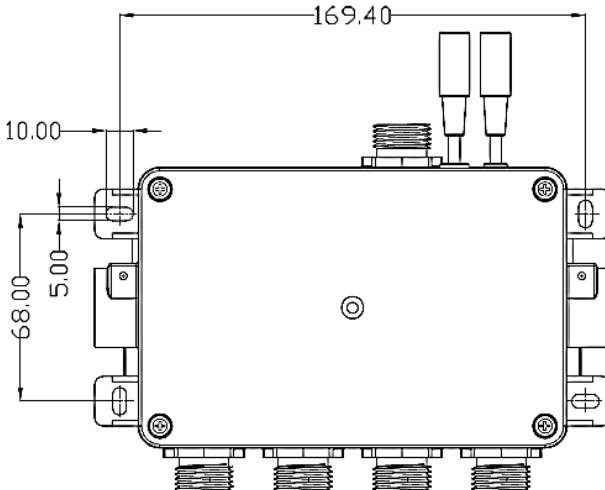
Step 5: Put the front frame and finish the installation.



Processor Installation Dimension



Diverter Installation Dimension

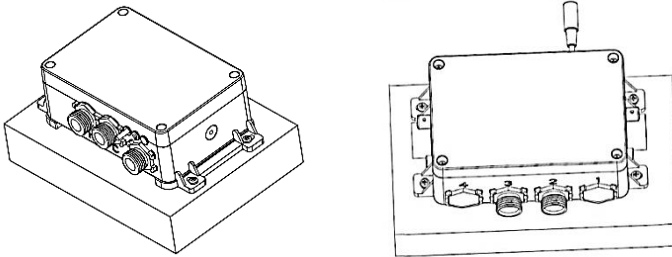


Processor & Diverter Installation Instruction

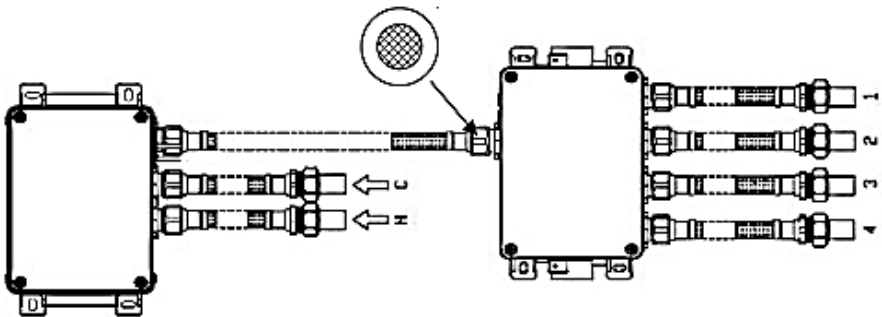
Step 1: Mark the fixing holes for Processor and Diverter in the required position.

Step 2: Drill and plug the fixing holes.

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

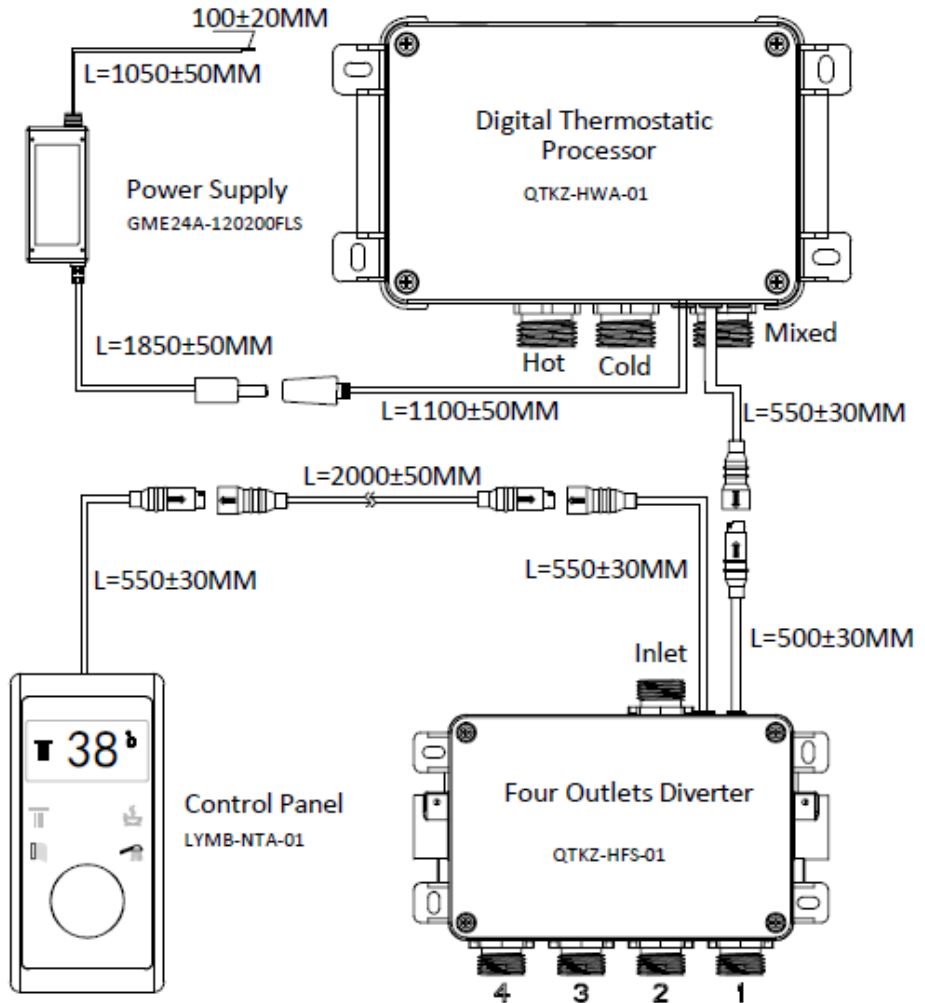


Step 4: Connect water pipes to the Processor and Diverter. **(Fit the filter washer before the diverter inlet)**





System Connection Diagram



Commissioning

1. **Power on Processor:** Turn on the power to the processor and diverter, and system is in 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. **Outlet selection:** When system is on, press button to select an outlet.
4. **Child-lock mode:** Each time turn on the system, the pre-set temperature is 38 °C and it is automatically in child-lock mode. Child-lock mode is activated when setting temperature is equal or over 38°C.
5. **Temperature adjustment:** Users want to change the setting temperature over 38°C, press the knob for over 2 seconds to unlock and turn the knob clockwise to increase the temperature. The max



setting temperature is 45°C. When temperature is 45°C, the knob will illuminate Red. Users want to change the setting temperature less than 38°C, 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°C, knob will illuminate Blue.

6. **Power Off:** Press the knob to turn off the flow. When system is off, the light under the knob will turn off.

Fault Diagnosis

Read the section “**Important and Safety Information**” first. Before replacing any parts, make sure that the underlying cause of the malfunction has been resolved. All malfunctions will be indicated by a flashing RED light and warning on the display screen.

- **Over-temperature:** Display screen shows “**COLD INLET FAILURE**”. This is caused by suddenly no inlet cold water and temperature sensor detects over-temperature.
- **Outlet temperature error:** Display screen shows “**TEMPERATURE CONTROL FAILURE**”. This malfunction caused by outlet temperature sensor failed (in open or short circuit). This cannot be repaired.



- **Inlet hot water temperature error:** Display screen shows “**INLET TEMPERATURE SENSOR FAILURE**”. This malfunction caused by inlet hot temperature sensor failed. This cannot be repaired.
- **Motor abnormal:** Display screen shows “**OUTLET SWITCH FAILURE**”. This malfunction caused by any abnormal happens on the driver of the stepping motor. This cannot be repaired.
- **Data communication error:** Display screen shows “**CONNECTION ERROR**”. This is caused by a communication error between control panel and processor. It can be removed by reconnecting the control panel and processor or re-power the system.
- **Inlet hot water temperature over 85 °C:** Display screen shows “**INLET HOT WATER TEMPERATURE OVER 85°C**”. This is a warning that the temperature sensor detects inlet hot water is over 85°C.
- **Inlet hot water temperature is too low:** Display screen shows “**INLET HOT WATER TEMPERATURE IS TOO LOW**”. This is a warning that the temperature sensor detects inlet hot water that is too cool or no hot water.
- **Inlet cold water temperature is too high:** Display screen shows “**INLET COLD WATER TEMPERATURE IS TOO HIGH**”. This is a warning that the temperature sensor detects inlet cold water that is too higher (higher than setting temperature).



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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.