



ShowerTronic ***iv6***

INSTALLATION GUIDE

The first part of the paper discusses the importance of understanding the cultural context of the research. It highlights how cultural differences can influence the interpretation of data and the design of the study. The second part of the paper focuses on the methodology used in the study, including the selection of participants and the data collection process. The third part of the paper presents the results of the study, which show that there are significant differences in the way that people from different cultures interpret and use technology. The final part of the paper discusses the implications of these findings for future research and for the design of technology that is more culturally sensitive.

The study was conducted in a laboratory setting, where participants were asked to perform a series of tasks that required them to use a computer. The tasks were designed to be culturally neutral, but the results showed that people from different cultures had different levels of proficiency and different ways of thinking about the tasks. For example, people from a collectivist culture might be more likely to seek help from others when they are stuck, while people from an individualist culture might be more likely to try to solve the problem on their own.

The findings of the study have important implications for the design of technology. If we want to create technology that is usable by people from different cultures, we need to understand how those cultures think and how they use technology. This means that we need to conduct research that takes into account the cultural context of the users. Only then can we design technology that is truly effective and useful for everyone.

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CPU iv6 / 6 OUTS

Smart electronic device with digital reading and accurate, stable, thermostatic regulation of water temperature and flow rate at the consumption terminals.

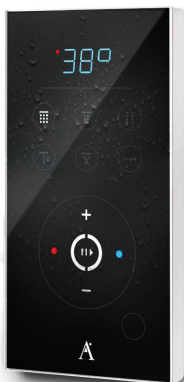
Designed to be integrated in showers, columns, cabins or bath areas.



POWER SUPPLY SYSTEM

System composed of 12 V DC power supply, a battery backup in case of lack of network voltage and a voltage peaks protection.

Batteries are charged with the usual power supply, ensuring that they are always correctly loaded.



TOUCHPAD

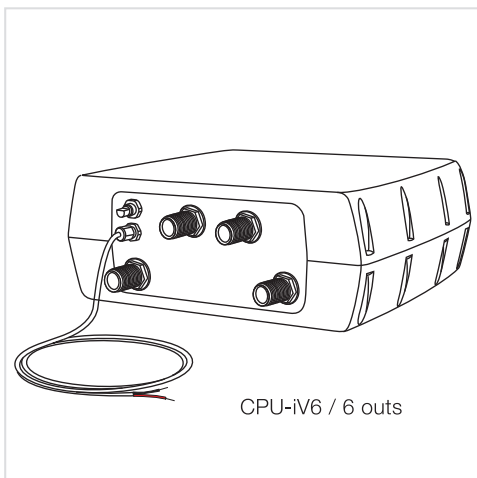
Electronic touch interface based on piezo technology, the touchpad consists of different laminated layers, making it extremely robust, resistant and long-lasting with a high level of user-friendliness.

The interface controls the shower flow rate and temperature, enables the water outputs desired by the user and executes the CPU's smart programs such as the start-up program, clean-up program, thermal disinfection program or warm up program.

COMPONENT LIST

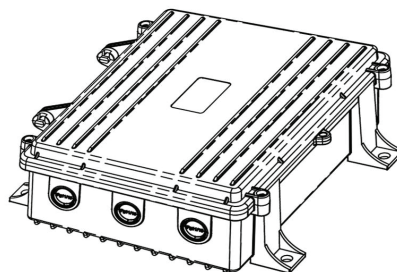


CPU iV6



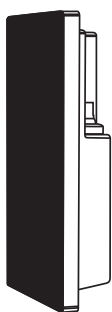
CPU-iV6 / 6 outs

POWER SUPPLY SYSTEM

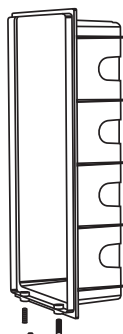


POWER SUPPLY system

TOUCHPAD COMPONENTS LIST



TOUCHPAD

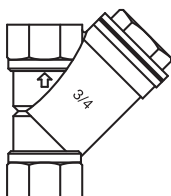


TOUCHPAD wall mounting
(PLASTIC)

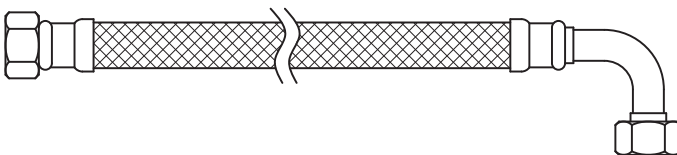


TOUCHPAD shielded
cable 3 mt. - 01 No

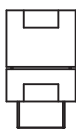
COMPONENT LIST



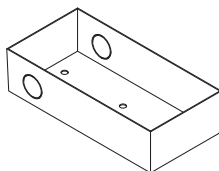
Y stainer 20mm (3/4")-02 Nos



Shower hoses-06 Nos



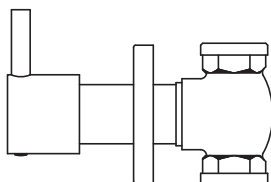
NRV Set-04 Nos



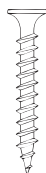
Stainless steel concealed box
with thermocol cover-01 No



Filter-08 Nos



Concealed stopcock 20mm
(3/4")-02 Nos

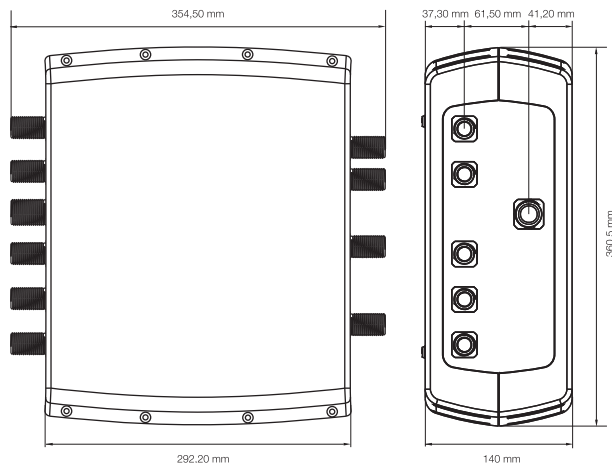


Screws-03

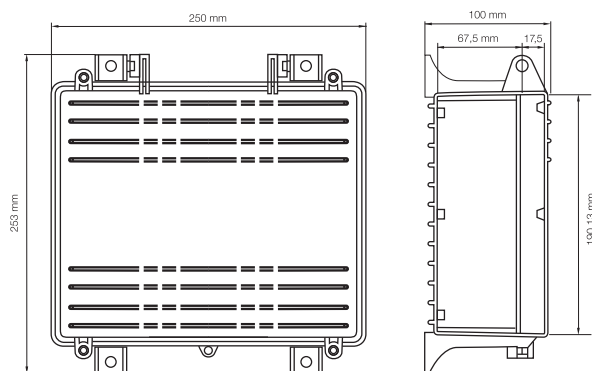
DIMENSIONS



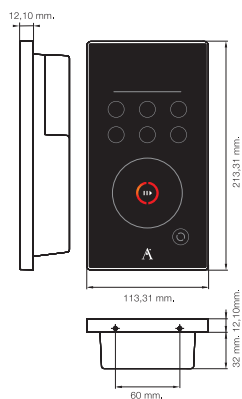
CPU iV6 / 6 outs



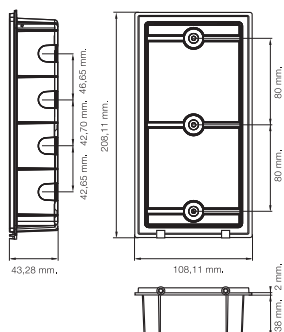
POWER SUPPLY SYSTEM



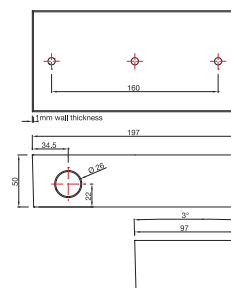
TOUCHPAD



TOUCHPAD WALL MOUNTING (PLASTIC)



STAINLESS STEEL CONCEALED BOX



TECHNICAL SPECIFICATIONS



CPU iV6 /6 outs

GENERAL

- Normal use maximum load: ≤ 36 W. (Stand-by < 1 W)
- Warm up maximum load: ≤ 60 W
- Rated Impulse voltage: 12 V DC
- Inlets hydraulic connections: 1/2 " M-GAS
- Outlets hydraulic connections: 1/2 " and 3/4 " M-GAS
- Ingress protection rating: IP54 (CPU)

ENVIRONMENTAL WORKING CONDITIONS

- Ambient temperature: from +5°C to +60°C
- Relative humidity: from 30% to 95%

PRESSURE

- Maximum dynamic: 6 bar
- Minimum dynamic: 1.5 bar
- Recommended dynamic: 3 bar
- Maximum differential supply: 4.5 bar

TEMPERATURE

- Input hot water range: Min.: (set temperature + 4°C) / Max.: 65°C (1)
- Input cold water range: Min.: 5°C / Max.: (set temperature - 4°C)
- Mixed maximum: 44°C (2)
- Mixed minimum: Full cold
- Optimum control range: 32°C - 44°C

(1) Maximum temperature 80°C only for thermal disinfection programs

(2) This figure is configurable. The system uses full hot water only when disinfection program is performed

FLOW RATE (3 bar/ without downstream resistance)

- Minimum: 8 L/min (head shower single outlet)
- Max. flow rate 1 out: 50L/min (head shower)
- Max. flow rate 2 out: 78L/min (head shower + body shower)

POWER SUPPLY SYSTEM

SURGE PROTECTION DEVICE

- Operating voltage: 240V AC 50/60Hz
- MCOV (max. continuous operating voltage): 300V AC
- UC (max. continuous operating voltage): 300V AC
- VPR (voltage protection rating): 1500V(L-FG,N-FG,L-N)
- UP (voltage protection level): 1500V(L-PE,N-PE,L-N)
- Response time: < 25 ns
- Withstand: 1600V AC 1 minute
- Operating temperature: -40 ~ +70°C

BATTERY

- Nominal Voltage: 12 volts (6 cells)
- Nominal Capacity: 5hr. (1.2A to 10.20 volts)
- Shelf Life:
 - 1 Months: 97%
 - 3 Months: 91%
 - 6 Months: 87%
- Operating Temperature Range:
 - Charge: -4°F (-20°C) to 122°F (50°C)
 - Discharge: -40°F (-40°C) to 140°F (60°C)

POWER SUPPLY DEVICE

- DC Voltage: 13.8V
- Rated current: 2.8A
- Current range: 0 ~ 4.3A
- Rated power: 59.34W
- Voltage adj. range: CH1: 12 ~ 15V
- Voltage range: 90 ~ 264V AC
- Frequency range: 47 ~ 63Hz
- Working temp: -20 ~ +70°C (Refer to "Derating Curve")
- Working humidity: 20 ~ 90% RH non-condensing
- Safety standards: UL60950-1, TUV EN60950-1 approved

TOUCHPAD

GENERAL

- 12 Piezo Electric Dynasim Keys with backlights
- 1 communication port: RS 485 Modbus RTU standard
- 12 V DC supply voltage
- Power consumption below 1.5W
- IP65 protection
- 4 way output connector
- Blue seven segments display
- 0.75 mm scratch resistant front: PC Lexan HP92S

ADVANTAGES:

- No cracks in the membrane because there is scarcel any mechanical movement
- Various overlay materials
- Non radiating

ENVIRONMENTAL WORKING CONDITIONS

- Temperature range: -10°C to 45°C
- From 45°C to 50°C the key detection becomes harder
- Relative humidity: From 30% to 90%

The Touchpad consists of different laminated layers. In the key area there are ceramic elements called piezopills. The power generates a charge in the piezopills which is used as a switch signal. The top membrane only goes through a small, elastic deformation. That's why the keyboard is extremely robust, resistant and long-lasting. Resistance against vandalism, a switching guarantee and a high level of user-friendliness are the most important qualities of this unique keyboard which is based on piezotechnology.

INSTALLATION CONSIDERATIONS



The CPU must be installed in an accessible location for servicing and maintenance. Provide an access panel to allow future maintenance of the CPU. No warranty claim can be considered or liability accepted by Jaquar Group if lack of accessibility has prevented maintenance.

The CPU must not be installed with either of its sides facing downwards. **The cover does not need to be dismantled.**

The power supply must be separately switchable.

The CPU and the touchpad operate from a very low voltage source (12 V DC.)

The system can work with differential pressures of up to 5 bars. Pressure stabilizers are not required to compensate pressure variations between cold and hot water inputs.

Filters and check valves must be installed at the water inlets. Flush pipes thoroughly before and after installation.

Not flushing the water supply pipes or not installing filters may cause debris damage to the valves, which will cause the system to malfunction. Debris damage is not covered by the warranty.

It is recommended to install isolating valves upstream of the CPU to facilitate servicing.

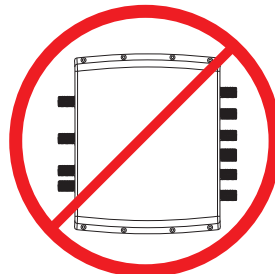
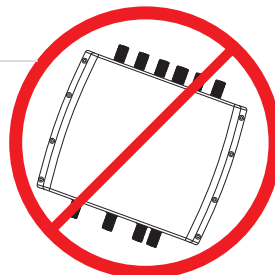
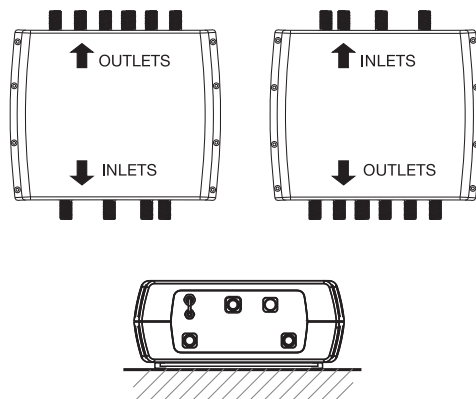
Cables that are chased into walls must also be protected by a conduit or sheathing to allow removal for service and maintenance.

The CPU must not be installed in locations where the ambient temperature is likely to fall below 5°C or rise above 60°C.

The touchpad must not be installed in locations where either the ambient temperature is likely to exceed 50°C or where freezing may occur.

When the installation is finished it is highly recommended to check that all connections are watertight.

INSTALLATION SCHEMES



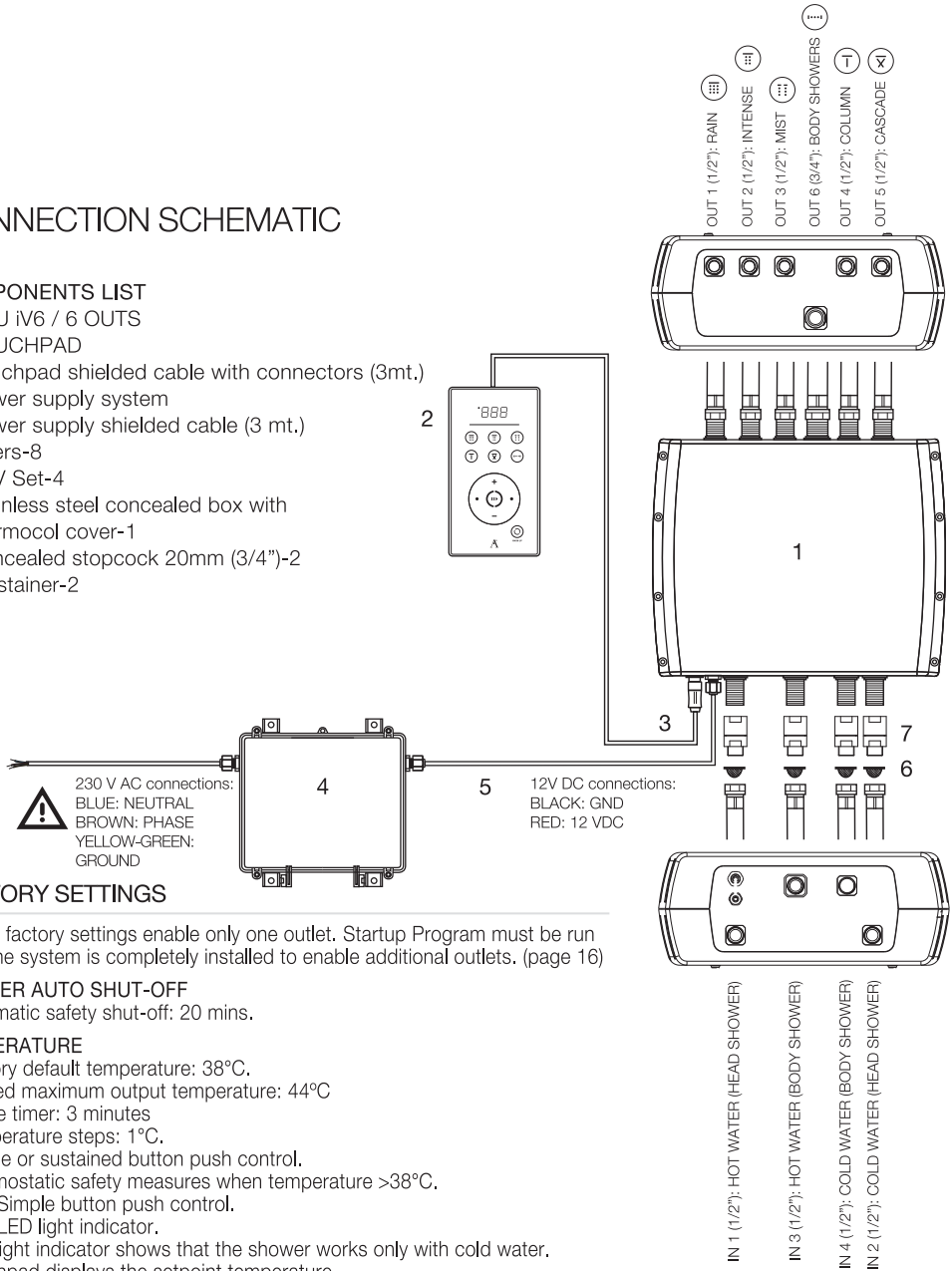
Note:-

1. Do not install the CPU on the wall with either of its sides facing downwards or diagonally.
2. All outlets are blocked/plugged by closed nut. Please remove them as per your requirement.

CONNECTION SCHEMATIC

COMPONENTS LIST

1. CPU iV6 / 6 OUTS
2. TOUCHPAD
3. Touchpad shielded cable with connectors (3mt.)
4. Power supply system
5. Power supply shielded cable (3 mt.)
6. Filters-8
7. NTV Set-4
8. Stainless steel concealed box with thermocol cover-1
9. Concealed stopcock 20mm (3/4")-2
10. Y stainer-2



FACTORY SETTINGS

Default factory settings enable only one outlet. Startup Program must be run once the system is completely installed to enable additional outlets. (page 16)

SHOWER AUTO SHUT-OFF

- Automatic safety shut-off: 20 mins.

TEMPERATURE

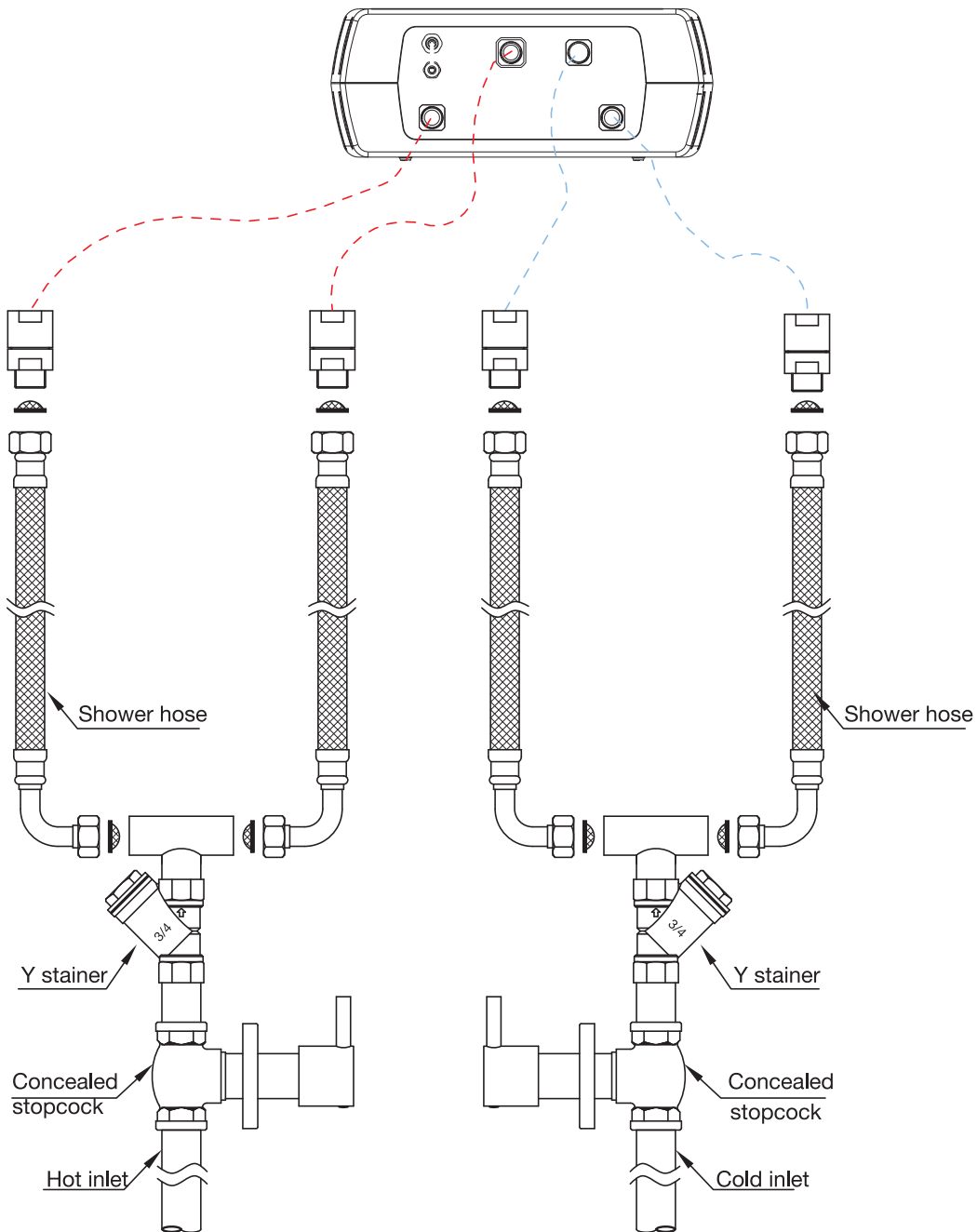
- Factory default temperature: 38°C.
- Limited maximum output temperature: 44°C
- Pause timer: 3 minutes
- Temperature steps: 1°C.
- Simple or sustained button push control.
- Thermostatic safety measures when temperature >38°C.
 - Simple button push control.
 - LED light indicator.
- LED light indicator shows that the shower works only with cold water.
- Touchpad displays the setpoint temperature.

FLOW RATE

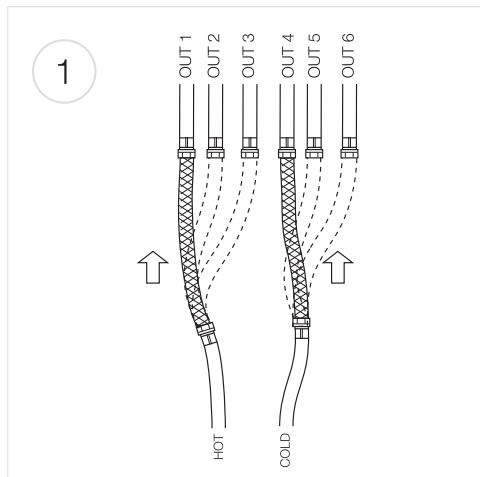
- Factory default flow rate: 16L/min.
- Flow rate steps: 2L/min.
- Simple or sustained button push control.
- Touchpad displays the selected flow rate and automatically changes to water setpoint temperature.

OUTLETS

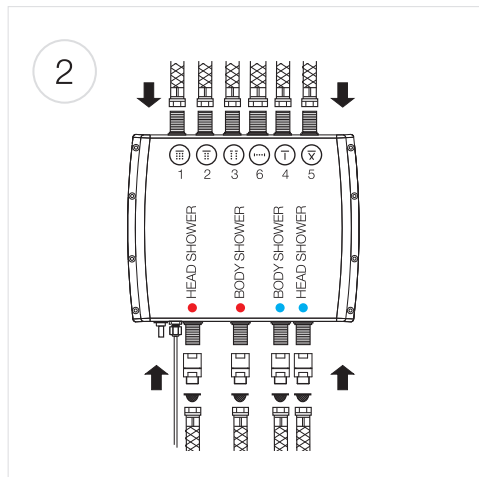
- From 1 to 6 outlets.
- Factory default: Outlet 1, Rain



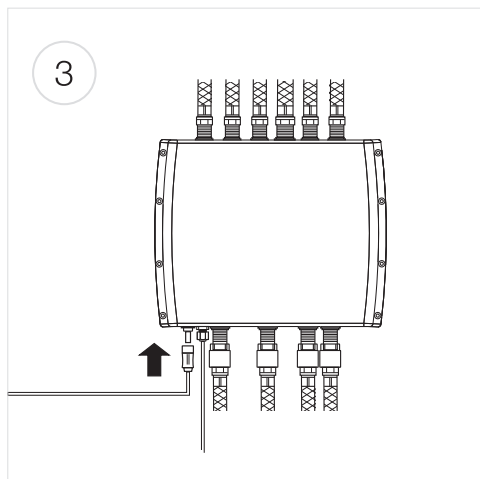
Note:- Artize recommends installation on false ceiling to enable easy access for service and maintenance.



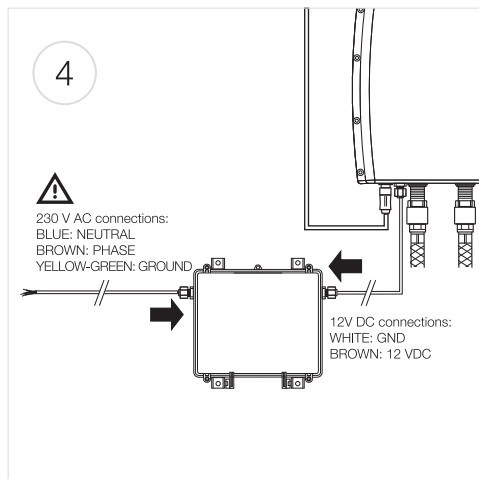
Remove filters and terminal elements such as showers. Connect cold water supply directly to the first shower feed pipe. Flush for at least 5 minutes. Repeat the procedure for the hot water supply and the entire shower feed pipes.



Install filter elements and check valves. Connect the water inlets and water outlets as shown in the picture. Open hot and cold water supply and check that connections are watertight.



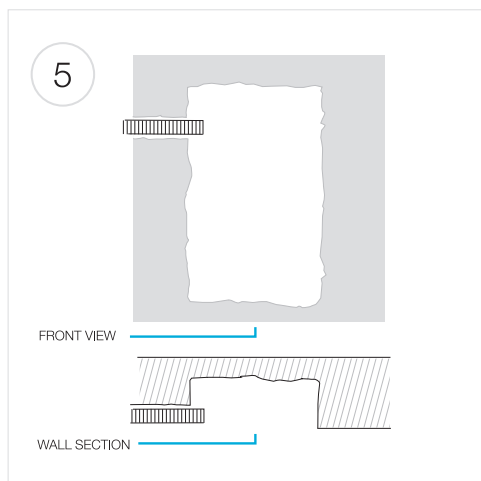
Connect the touchpad cable to the CPU connector. Failure to flush the supplies may cause debris damage to the solenoids, which will cause the malfunction of the CPU iV6.



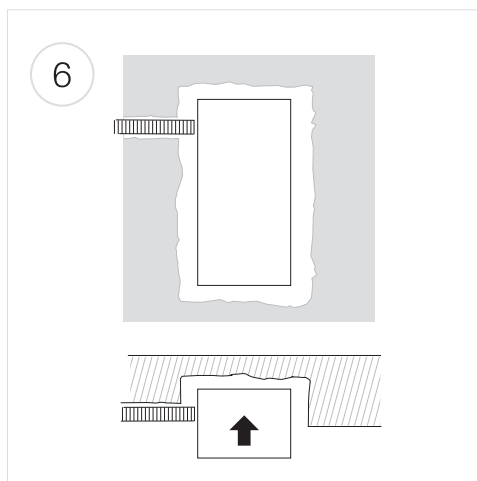
Connect the 12 V DC power wires and the 230 V AC power wires into the power supply system.



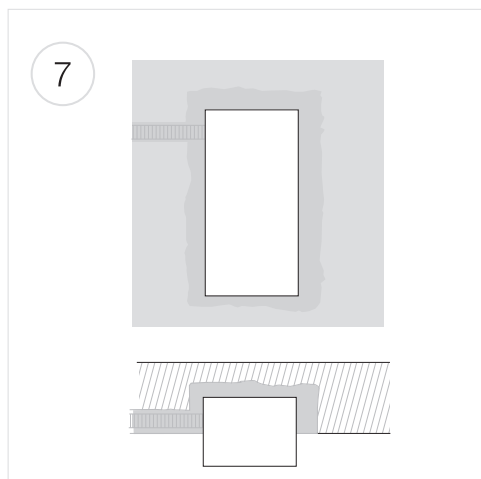
Do not connect the 230 V AC power wire to the electrical network.



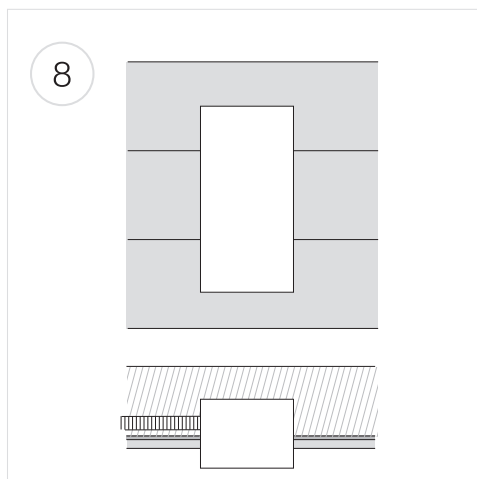
To prepare the wall for installation, refer to the dimensional drawing of stainless steel concealed box.



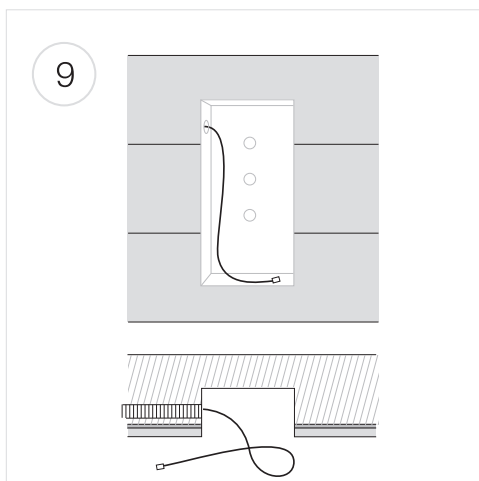
Fix the stainless steel concealed box inside the wall along with thermocol cover and make sure it remains until all masonry work is complete.



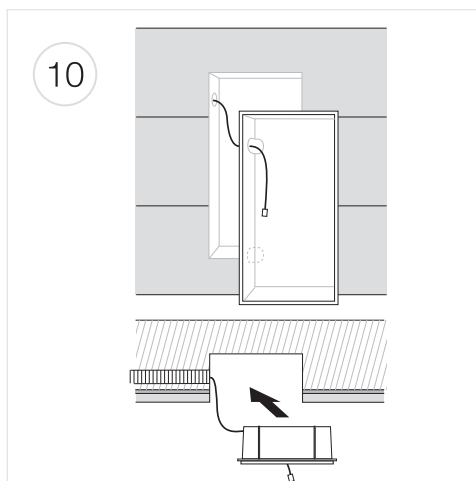
Make sure that front surface of stainless steel concealed box rests on finished wall (marble/tile) properly. Leave sufficient space for finished wall after installing this box in semi-finished wall.



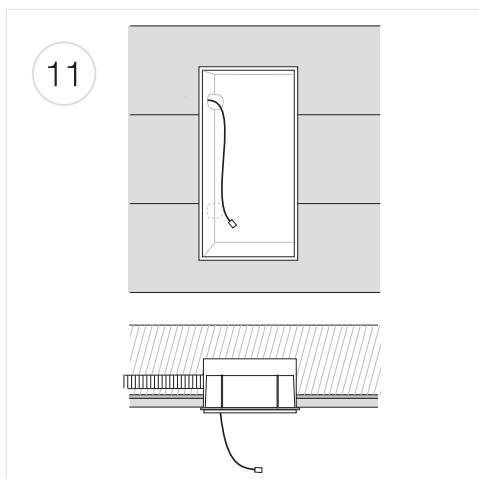
Finalise the wall with stainless steel concealed box inside.



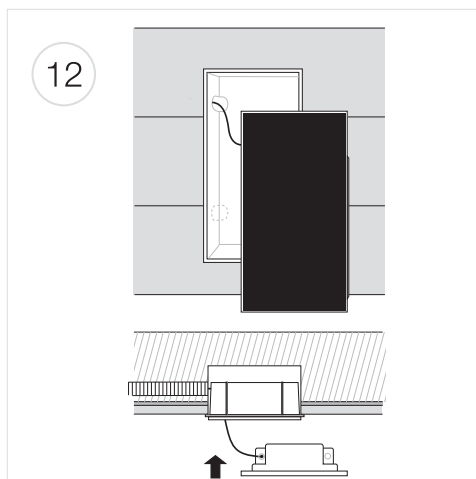
With the aid of a cable retractor, feed the keypad cable through the conduit.



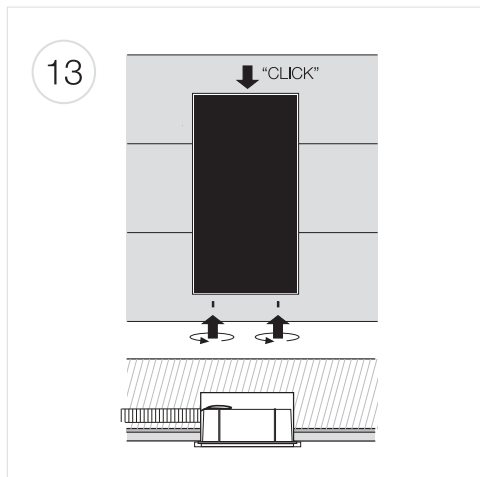
Pierce the mounting box and feed the cable through the mounting box. Fix the mounting box to the stainless steel concealed box and tighten the provided 03 screws.



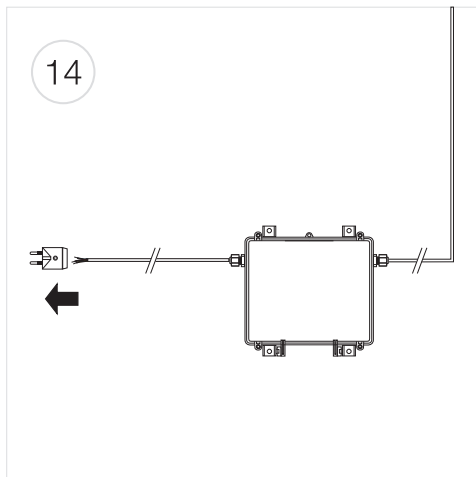
Seal the wall around the mounting box using waterproof sealant.



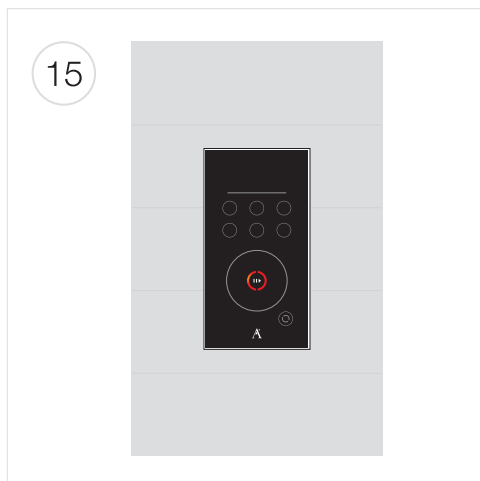
Connect the interface cable to the interface. Fit the interface to the mounting box.



Press the top until it clicks into place and fasten the bottom with the provided screws.



Connect the power wire to the power plug and switch on the electrical outlet.



Check that the interface red button is lit on STANDBY mode.



POWER WIRE description:

- Blue: Neutral
- Brown: Phase
- Yellow-green: Ground

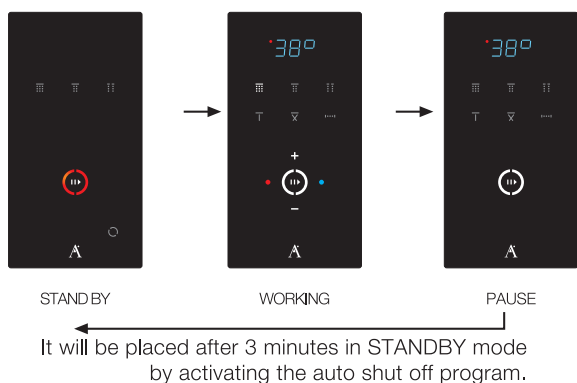
FINAL CHECKING

In order to check that the installation has been a success, start and stop the shower more than once. While interface is in **STANDBY** mode, simply push on the **MULTIFUNCTIONAL ON/OFF** button to start the shower.

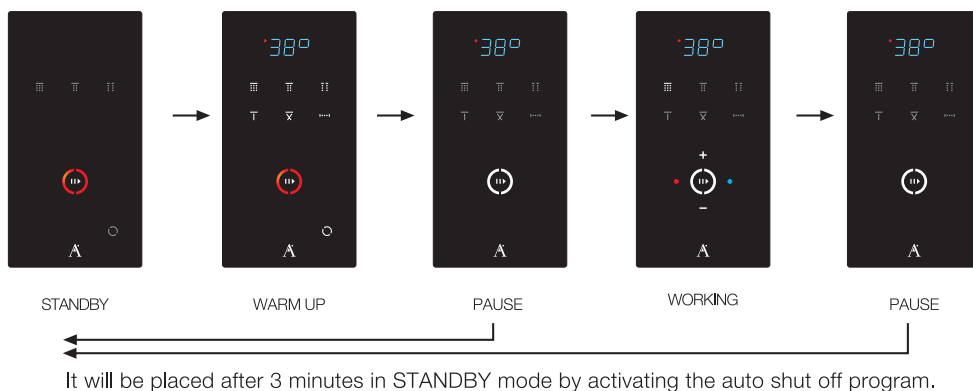
Stop the shower by pushing the same button and wait until the shower finishes the **PAUSE** mode (3 minutes)

MAIN MODES

a. BASIC MODE



b. WARM UP MODE



SETUP



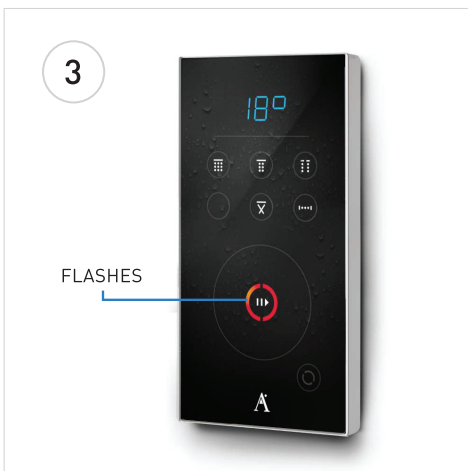
START-UP PROGRAM (MANDATORY)



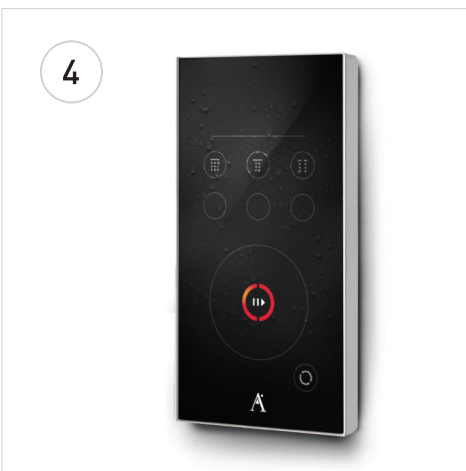
While the interface is in STANDBY mode push the MULTIFUNCTIONAL OUTLET 1 button for 5 seconds.



While you are holding the button an automatic 5 second countdown is activated before the process starts.



During the process the MULTIFUNCTIONAL ON/OFF button will flash and different outlets will be enabled.



When the process has finished, switch on the shower and check that the touchpad has the correct number of outlets enabled.

IMPORTANT:

1. Start-up program incorporates a smart recognition of the number of available outlets connected to the CPU iV6 / 6 outs.
2. Simply push on the MULTIFUNCTIONAL ON/OFF button to cancel the process during the setup.
3. Refer to the User Manual to get more information about usability.

ALARM DESCRIPTION AND TROUBLESHOOTING



REF.	TYPE OF ALARM	DESCRIPTION	RECOMMENDED ACTION
AL 3	Cold water failure	The system, in standard operation mode, detects lack of cold water. This may be due to a problem in water supply or entrance blockage due to dirty filters, for example. If this problem occurs, the system will close immediately according to safety standards on EN1111.	Check for cold water supply interruption. Make sure water is reaching equipment inlets. If the problem persists, remove filters at the entrance and clean or replace.
AL 4	Hot water failure	The system, in standard operation mode, detects lack of hot water. This may be due to a problem in the water supply or entrance blockage due to dirty filters, for example. If this problem occurs, the system will give only cold water.	Check for hot water supply interruption. Make sure water is reaching equipment inlets. If the problem persists, remove filters at the entrance and clean or replace.
AL 5	Insufficient hot water temperature	Hot water is reaching the device at a temperature below the temperature set by the user +4°C. This is the minimum temperature of hot water needed to ensure proper operation for the temperature requested. If this problem occurs, the system won't close, it will give the maximum temperature it can. This may be due to the boiler not working properly, not working at all, or the temperature of the boiler being too low.	Check if boiler is operating properly and if it is heating water to the right temperature.
AL 6	Cold water temperature too high	Cold water is reaching the device at a temperature over 28°. This is the maximum temperature of cold water needed to ensure proper operation over the optimum temperature control range. If this problem occurs, the system won't close, it will continue working giving the temperature it can. This may be due to weather conditions overheating cold water in the network. If this is not the case, it could be due to a reflux of hot water into cold water pipes.	If the problem is due to external weather conditions, there is no possible solution other than installing a cooler for cold water. If this is not the reason, check if hot water is returning into cold water pipes. In this case, you would have to install non-return valves at the entrance of all mixers (electronic and non-electronic, thermostatic and non-thermostatic) on the same network.
AL 7	Temperature sensor malfunction	One of the temperatures read by the sensors is outside normal operating range. Could be due to a break in the sensor itself or a problem in the electronic board.	Replace device.
Er 1	Communication error	The keyboard has lost communication with the equipment. This may be due to a bad connection or bad condition of connector cable. It may also be due to too high interference from the mains.	Check cable and connectors condition. If the problem persists, it may be due to interference. Try connecting the power supply to another point in the network.

CPU iV6

Avoid installing the system in enclosed locations with extreme environmental conditions.

- Install cleaning filters and check valves. Inspect them periodically and replace them if necessary.
- Using the touchpad, activate the automatic internal cleaning program once a month to remove internal impurities. (refer to the User Manual).
- Thermal disinfection can be directly activated using the touchpad (no changes in the installation or the device are required to run this program). It is highly recommended to be performed at least once a year. The thermal disinfection process will flush full hot water through all the outlets for 5 minutes. (refer to the User Manual).
- Review the temperature of the boiler and/or the home water facility if any warning/error is displayed on the touchpad. (refer to the User Manual).
- If the electronic device does not work properly, call customer care.

TOUCHPAD USAGE AND CLEANING RECOMMENDATION

- Simple or sustained pulse on the buttons with the index finger. Touchpad handling with any external object could damage the device.
- Do not press the touchpad with sharp objects. It could damage the proper operation.
- Never use cleaning materials which contain hydrochloric acid, formic acid, chlorine pale lye or acetic acid, as they cause considerable damage.
- Phosphorus acidic cleaners are only conditionally applicable. Do not mix cleaning agents.
- Never use cleaning materials or appliances with an abrasive effect, such as unsuitable cleaning powders, sponge pads or microfibre cloths.
- Always follow the instructions on the cleaning agent package with respect to specified cleaner dosage and contact time.
- The build up of calcification has to be removed by cleaning regularly.
- When using spray cleaners, spray first onto soft cloth or sponge - never directly onto the product.
- After cleaning, rinse thoroughly with clean water to remove any cleaner residue.
- The use of steam cleaners is not permitted. High temperatures can damage the product.

IMPORTANT:

- Residues of liquid soaps, shampoos and shower foams can cause damage, so rinse with water after use.
- Damage caused by improper treatment is not covered by the product's warranty.

POWER SUPPLY SYSTEM

- Check the correct operation of the battery regularly. Disconnect the Power Supply System from the electrical network and check if the shower works properly. If not, replace the battery.

HOW TO REPLACE THE BATTERY:

- Disconnect the power supply from the electrical network.
- Unplug the old battery and plug in the new one using the faston terminals. It is very important to respect the polarity (positive and negative terminals).

GUARANTEE



The Jaquar Group guarantees that the products meet the actual specifications agreed at the time of placing the order.

The warranty period for the products offered by Jaquar Group in normal residential use is 2 (two) years from the date of the order delivery, except the battery of the power supply system for which it is 1 (one) year.

Please do not open the processor unit as this will invalidate the guarantee. Attempts at repair made by technical service suppliers are not authorised by Jaquar Group.

Jaquar Group warrantee the products against defects in material or workmanship as follows: Jaquar Group will replace at no charge for parts only or, at its option, replace any product or part of the product that proves defective because of improper workmanship and/or material, under normal installation, use, service and maintenance.

Jaquar Group reserves the right to use original spare parts or improved design parts in the repair or replacement. In case that Jaquar Group should repair or replace the product, its warranty continues for the period of time between the remainder time of the actual warranty or 90 days from the date of shipment of the repaired product to the customer, whichever is higher.

The warranty specifically excludes the following cases:

1. Periodic checks, maintenance and repair or replacement of parts due to normal wear and tear of the product.
2. The product has been exposed to operating conditions outside the limits of their respective technical specifications.
3. Damage to the product as a result of misuse, including its use for purposes other than the normal ones according to product features, or not following the instructions for proper use and maintenance.
4. Labour and other expenses for disconnection, uninstallation or return of the product for warranty service.
5. Accessories, connected materials and products or related products not manufactured by Jaquar Group.
6. Any Jaquar Group product sold for display or laboratory test purposes.
7. Accidents, natural disasters or any other cause beyond the control of Jaquar Group.

Claims will be limited to repair or replacement of the product, as appropriate. Jaquar Group will not be liable under any circumstances for damage whose amount exceeds the invoice price of the products. The warranty covers only the Jaquar Group manufactured product and extends to the original purchaser only. This warranty is non-transferable.

For any installation and maintenace related enquiry
please call customer care at 18001216808 (Toll Free)
or email us at info@artize.com

www.artize.com

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