Thirty Eight Degrees

Installation Guide
Cuba Connect



EN

Thirty Eight Degrees
CONNECT

Index

Index 2

Cuba 3

Safety information 4

Standards & Certifications 5

Main devices description 6

Components list 7

Dimensions 8

Technical specifications 9

Installation considerations 10

Connection schematic 11

Installation guidelines 13

Set up. Start up program 17

Basic operating modes 18

Alarm description & troubleshooting 20

Cuba Connect

This installation manual cointains essential information to make a full installation of the system. This manual includes a description of the system functions and capabilities, contingencies and alternate modes of operation, and step-by-step procedures. Please read it carefully.

The faucet installation must be carried out by a qualified professional following the sequence of this instruction book.

Care taken during the installation will provide a long, trouble-free life for your device.

Products manufactured by TED are safe and without risk provided they are installed, used and maintained in good working order in accordance with these instructions and recommendations.

Safety Information

General

- Read all of these instructions and retain them for later use.
- Never open the cover of the product
- DO NOT take risks with plumbing or electrical equipment.
- Isolate electrical and water supplies before proceeding with the installation.
- The Interface must be mounted onto the finished wall surface (on top of the tiles).
- DO NOT tile up to or seal around ANY PART of the unit using silicone sealer after fixing to the wall. Please read the installation manual before install on the wall.
- If it is intended to operate the shower in areas of hard water (above 200 ppm temporary hardness), a scale inhibitor shall to be fitted.

Plumbing

- The plumbing installation must comply with Water Regulations, Building Regulations or any particular regulations as specified by Local Water Company or Water Undertakers and should be in accordance with the local standards and regulations.
- The supply pipe must be flushed to clear debris before connecting to the shower unit.
- DO NOT solder pipes or fittings within 300mm of the shower unit, as heat can transfer along the pipework and damage components.
- DO NOT fit any form of outlet flow control.
- DO NOT use excessive force when making connections to the flexible hose or showerhead.
- All plumbing connections must be completed before making the electrical connections.
- Use filters at the inlets and clean them periodically.

Electrical

- The electric installation must comply with the building regulations or any particular regulations as specified by the local Electrical Supply Company.
- This appliance is intended to be permanently connected to the fixed wiring of the electrical mains system.
- Make sure all electrical connections are tight to prevent overheating.
- A 30mA residual current device (RCD) may be required depending on the local regulations.
- This may be part of the consumer unit or a separate unit.
- Other electrical equipment must not be connected to the circuits within the unit.
- Switch off at isolating switch when not in use for prolonged life. This is a safety procedure recommended with all electrical appliances.

Standards & Certifications

Electric Standards

CE

- EN-55014-1
- EN-55014-2

Hydraulic Standards

- QB2806-2017
- EN-817
- EN-1111
- ASME #112.18.1
- ASSE #1016-T

Sanitary standards

- ACS
- KTW/W270
- WRAS
- Ready for NSF61

Main Devices Description



TED Description

Smart electronic device with digital reading and accurate thermostatic regulation of water temperature and the flow rate at the consumption terminals. Designed to be integrated in faucets.

Reference detail:

CUBA-SIN-PRO (Processor)

WIFI - CUBA-WIFI-MOD



CUBA description

Digital touchpad with flow and temperature control.

Factory default time of use can be adjusted by the customer.

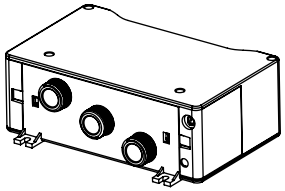
Developed to be integrated into any type of sink in combination with Proc essor CUBA-SIN-PRO device.

Reference detail:

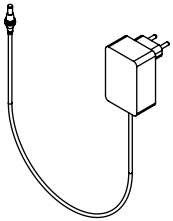
CUBA-INT-BL

Components List

Processor_iscu_th Range & Accessories



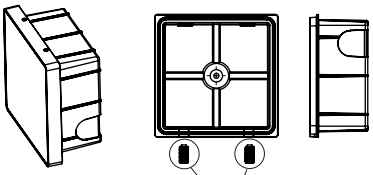
CUBA-SIN-PRO (Prossecor)
WIFI - CUBA-WIFI-MOD



Power supply 3200031
Only for: 27EV000018
27EV000019

UK Plug

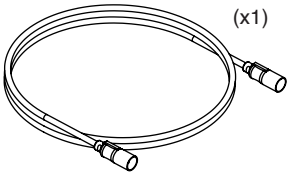
Touchpad Components List



CUBA-SIN-PRO (Prossecor)
Touchpad and mounting box

110380
Fixing screws

Suggested Accessories



(x1)

Touchpad shielded 10m metre Cable



(x2)
110347
Check valves

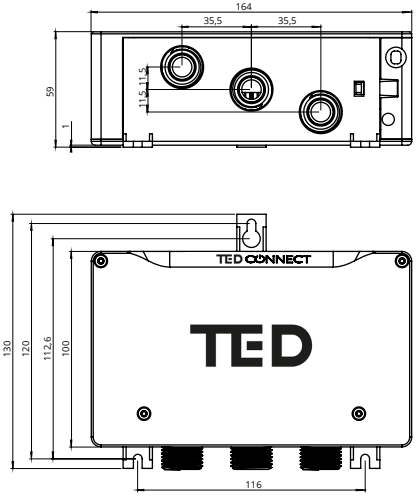


(x2)
120204
Filters

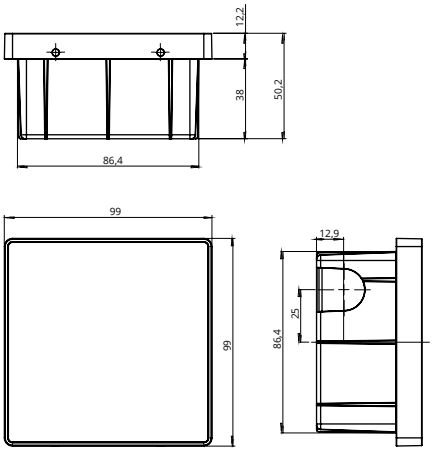
Thirty Eight Degrees

Dimensions

Processor CUBA-SIN-PRO



Touchpad CUBA-INT-BL (In Mm)



Technical Specifications

Processor CUBA-SIN-PRO

General	
Technology	Patent pending
Maximum load	≤15 W. (Stand-by ≤1W)
Rated Impulse voltage	12 V DC
Ingress Protection Rating	IP53
Hydraulic connections	1/2" & 3/8" M-GAS, John Guest
Weight	0,4 kg

Temperature	Minimum	Maximum
Input hot water range	48 °C	65 °C
Input cold water range	5°C	28°C
Mixed maximum	65 °C (Up to 80 °C less 20min)	
Mixed minimum	>0 °C	
Optimum control range	Full cold - 44 °C	

ENVIROMENTAL WORKING CONDITIONS

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

Pressure	
Maximum dynamic	6 bar (0.6Mpa)
Minimum dynamic	1,5 bar (0.15Mpa)
Recommended dynamic	3 bar (0.3Mpa)
Maximum differential supply	4,5 bar (0.45Mpa)
(Durability) Burst	>35bar (0.35Mpa)

Flow rate (3 Bar free flow)	Minimum	Maximum
Cold water	2 L/min	12,1 L/min
Mixed water	2 L/min	22,5 L/min

NETWORK LEVEL

Standard communication protocol Modbus RTU (RS485).
Total control using mapped memory registers:

- Temperature and flow settings.
- Temperature, flow and maximum use time.
- Global and independent cold and hot water consumption readings.
- Independent and mixed cold and hot water temperature readings.
- Maintenance alarms.

WiFi Bluetooth module for APP and other appliances.

Touchpad CUBA-INT-BL

General	
Technology	Membrane
Maximum load	≤1 W
Rated Impulse voltage	12 V DC
Ingress Protection Rating	IP65
Number of Buttons	5
Communications ports	1 (optional 2)
Protocol	Modbus RTU standard
Communication Physical layer	RS-485
Connectors	1 x 4 way connector
Front	HPxxW FILM
Touch splashing protection	Yes
Sustained push control	Yes

Environmental conditions	Minimum	Maximum
Ambient temperature	5°C	60°C
Relative humidity	30%	95%

Thirty Eight Degrees

Installation Considerations

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

The Processor must not be installed with either of its sides facing downwards. The cover does not need to be dismounted.

The power supply must be separately switchable.

The Processor and the touchpad operate from a very low voltage source (12 Vdc.)

The system can work with unbalanced inlet pressures of up to 5 bar. Pressure stabilizers are not required to compensate pressure variations between cold and hot water inlets.

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 damage to the valves by debris, which will cause the system to malfunction. Debris damage is not covered by the warranty.

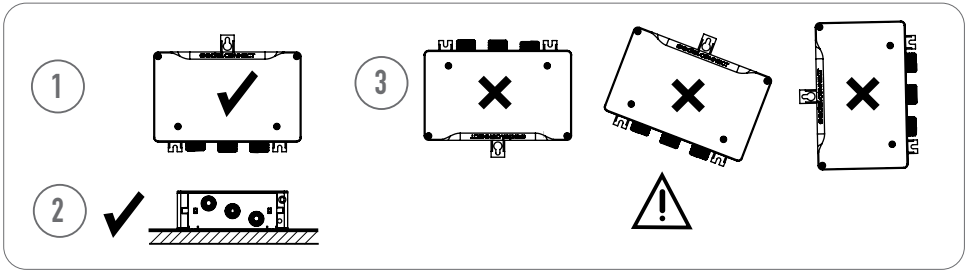
It is recommended installing isolating valves upstream of the Processor to facilitate servicing.

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

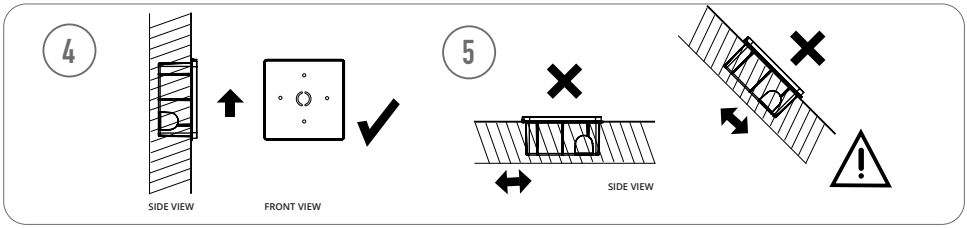
The Processor must not be installed in situations where either the ambient temperature is likely to exceed 65 °C or where freezing may occur.

The touchpad must not be installed in situations where the ambient temperature is likely to fall below 5 ºC or rise above 65 ºC.

Caution

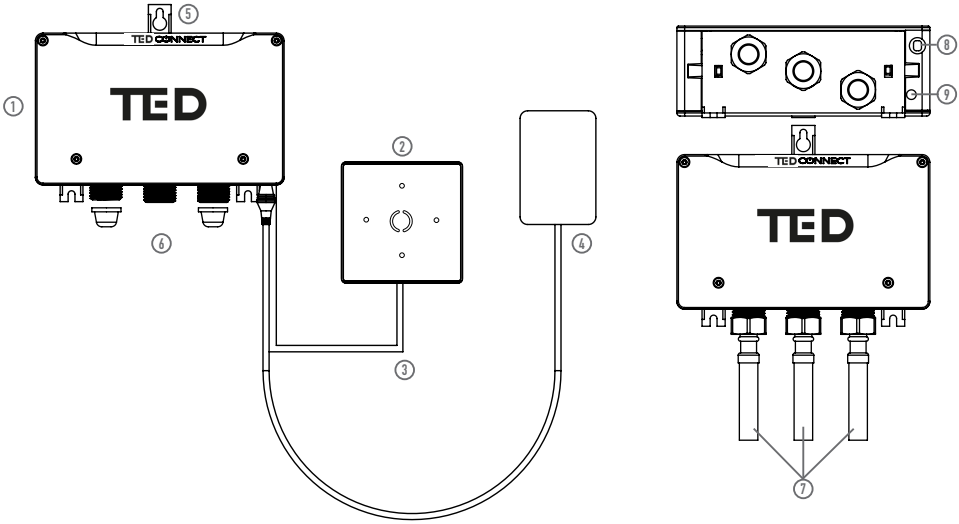


1. Mounting on a vertical or horizontal surface with inlets pointing up or down / front or back.
2. Install the Processor on the ceiling or fix it at the roof with the appropriate screws.
3. Do not install the Processor on the wall with either of its sides facing downwards or diagonally.



4. The touchpad must be fixed vertically on the wall with the control buttons on top .
5. Do not install the touchpad in horizontal or inclined position.

Connection Schematic



Components List

1. Processor
2. TOUCHPAD
3. Touchpad cable
4. Power supply
5. Wall mounting support

Prescribed Accessories

6. Filters (x2) ½"

Sugested Accessories

7. Hydraulic connections

Indications

8. Interface connector
9. Power supply connector

Factory Settings

Start-up Program must be run once the system is completely installed.

General
Auto shut-off: 10 min.
Pause timer: 30 s.

Temperature

- Factory default temperature: 38 º C.
- Temperature range: +4º C to +44º C (1)
- Temperature steps: 1 º C.
- Simple or sustained button push control.
- Thermostatic safety measures when temperature >38º C.
- Simple button push control.
- Red led light indicator.
- Blue led light indicator shows that the shower works only with cold water.
- Display always shows the set point temperature.

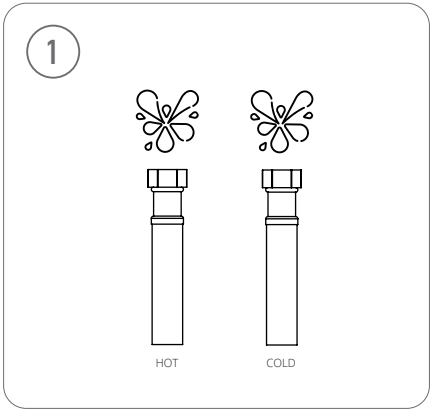
(1) If the hot water temperature is below 48ºC the maximum mixed water temperature will be hot water -4° C

Flow rate

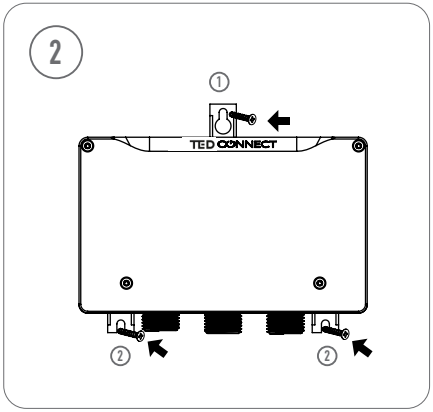
- Factory default flow rate: 4L/min.
- Flow rate steps: 2L/min.
- Simple or sustained button push control.
- Temperature steps 2º C

Thirty Eight Degrees

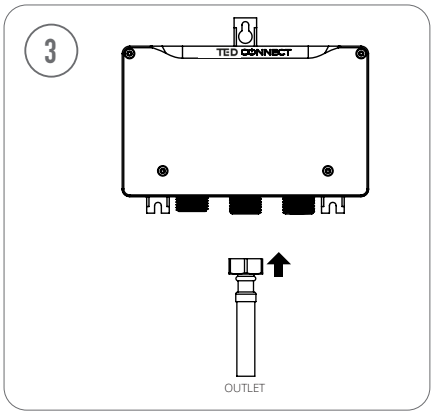
Installation Guidelines



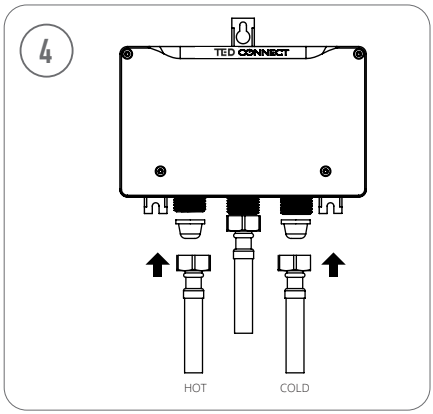
Flush cold water for at least 5 minutes.
Repeat the procedure for the hot water supply.



Fix the Processor to the wall or ceiling using the appropriate screws.



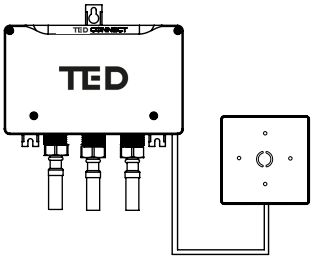
Install outlet hose and connect the water outlet.



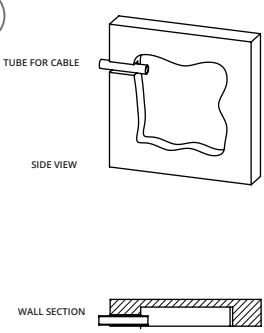
Install filter elements and check valves. Connect the water inlets. Open hot and cold water supply and check that inlet connections are watertight.

Installation guidelines

5

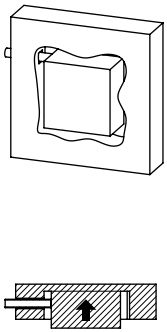


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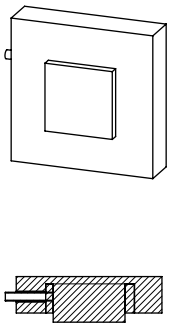
Prepare the wall for installation, refer to the dimensional drawing. Insert a litle tube on the left side of the wall for the system cable.

7



Fix the mounting touchpad template inside the mounting hole.

8



Use the mounting touchpad template to finish the wall and ensure the final hole dimensions.

Thirty Eight Degrees

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User Guide
Cuba Connect

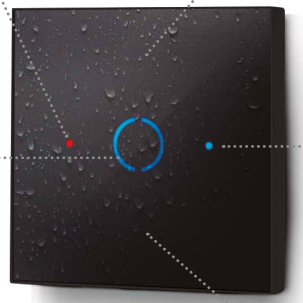


EN

Thirty Eight Degrees
CONNECT

Functions Summary

Functions In On Mode



MORE TEMPERATURE (HOT)
Simple Push

CONTINUED TEMPERATURE INCREASE
Continuous Push

PAUSE
Simple push

MEMORY SETTING
Continuous push

MORE FLOW RATE
Simple Push

CONTINUED FLOW INCREASE
Continuous Push

LESS TEMPERATURE (COLD)
Simple Push

CONTINUED TEMPERATURE DECREASE
Continuous Push

LESS FLOW RATE
Simple Push

CONTINUED FLOW DECREASE
Continuous Push

Functions In Off Mode



START
Simple push

START-UP
Continuous push

THERMAL DISINFECTION
Continuous Push

ECO-FLOW RATE
Simple Push

CLEANING
Continuous Push

MAXIMUM-FLOW RATE
Simple Push

AUTO-DISPENSING
Simple Push
- Teeth brushing function for bathroom
- Glass auto-filling function for kitchens

AUTO-DISPENSING SET UP
Continuous Push

Thirty Eight Degrees

Alarm Description & Troubleshooting

REF.	TYPE OF ALARM	DESCRIPTION	RECOMMENDED ACTION
AL 1	Cold water leakage	Device on standby mode detects cold water leakage. This means that the cold water valve is not properly closed, probably due to dirt accumulated inside it.	Run the automatic clean-up program. If the problem persists replace the device.
AL 2	Hot water leakage	Device on standby mode detects hot water leakage. This means that the hot water valve is not properly closed, probably due to dirt accumulated inside it.	Run the automatic clean-up program. If the problem persists replace the device.
AL 3	Cold water failure	The system, on 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 with sale-ty 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, on 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 lilters, 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 lilters 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 for 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 is not working properly, not working at all, or the temperature of the boiler is 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°C. This is the maximum temperature for 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 nonthermostatic) on the same network.
AL 7	Temperature sensor malfunction	One of the temperatures read by the sensors is outside normal operating range. Due to a break in the sensor itself or a problem in the electronic board.	Replace device.

Installation & Maintenance

Processor_CUBA-SIN-PRO

- Avoid installing the system into enclosed locations with extreme environmental conditions.
- Install cleaning filters and check valves. Inspect them temporarily and replace them if necessary.
- Activate, using the touchpad, the Automatic internal cleaning program once a month to remove internal impurities. (refer to the ”Touchpad user guide”).
- 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 during 5 minutes. (refer to the ”Touchpad user guide””).
- Review the temperature of the boiler or/and the home water facility if any warning / error is displayed on the touchpad.

TOUCHPAD

- 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 sharply. It could damage the proper operation.
- Never use cleaning materials which contain hydrochloric acid, formic acid, chlorine pale lye or acetate 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 microfiber cloths.
- Always follow the instructions on the cleaning agent package with respect to specified cleaner dosage and contact time.
- The building up of calcifications 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. The high temperatures can damage the products.
- Indoor use only.

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 product’s warranty.


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