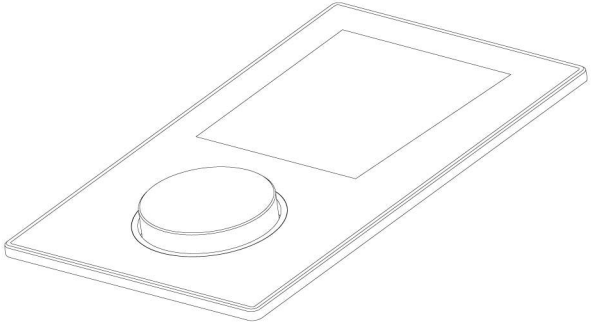
USER'S MANUAL

Digital thermostatic shower controller

www.livinghouse.co.uk



Please read this manual before using this product.

Contents

Product Features

Touch control panel
With touch control panel, easy to use.

Digital thermostat
Keeps outlet water TEMP stable, the TEMP accuracy within ± 1°C.

Overheat protection
If the cold water is interrupted and the water TEMP reaches over 49°C, the system will prevent water from any outlet within 2 seconds to protect the user from hot water.

Water TEMP adjust
You can set the water TEMP as you like.

Water saving
You can adjust the water flow as you like, default working time is 18 minutes, system will shut off as soon as time is up.

Prevent the water back flow
The hot and cold water inlets adopt a special design which can effectively prevent any water back flow when the hot and cold water pressure differs.

Cold, hot water pressure difference
Our system can accept Max 6:1 water pressure difference.

Double power supply, more safety and reliability
The voltage of our product is 12V. We provide an external adapter which can transfer 100-240V to 12V power supply. When main power is cut off, the system will still work by battery operation inside the host box.

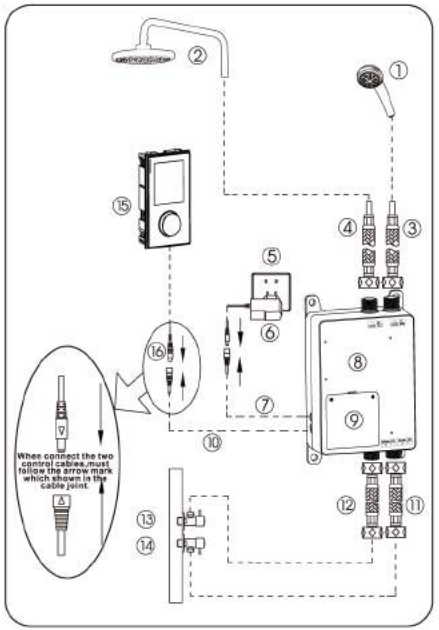
Easy Installation
Recess mounted into the wall with supplied wall bracket.

Introduction & Structural drawing

Thank you for choosing our Digital thermostatic shower controller.

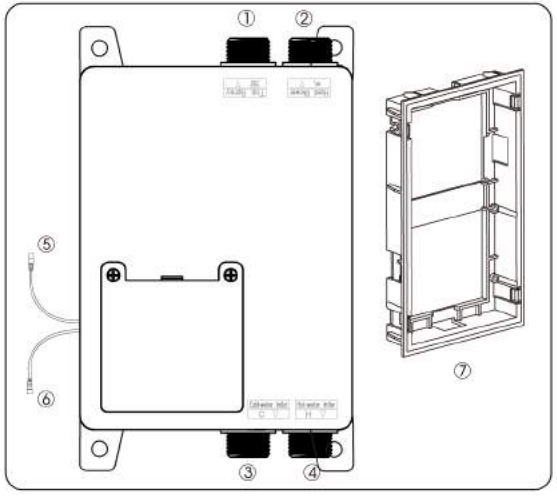
This is a digital thermostatic shower control. You can set the outlet water TEMP & water flow on the touch panel to your preferences. The water is controlled by a thermostatic TEMP setting. This set includes the control panel, host box and adapter.

① Hand shower
② Head shower
③ Water outlet pipe of hand shower
④ Water outlet pipe of head shower
⑤ AC220V plug seat
⑥ Power adapter
⑦ Power supply cable of the host box
⑧ Host box
⑨ Battery cover
⑩ Control cable of the host box
⑪ Hot water inlet
⑫ Cold water inlet
⑬ Cold water switch
⑭ Hot water switch from water heater
⑮ Control panel
⑯ Control panel's control cable



Structural drawing of host box

The host box of the controller has a hot water inlet, cold water inlet, water outlet to the hand shower & the head shower, the control cable power supply cable battery cover and the bracket.



host box dimensions - 131 x 181 x 65mm

① Hand shower's mixer water outlet

② Head shower's mixer water outlet

③ Cold water inlet

④ Hot water inlet

⑤ The control cable

⑥ The control cable

⑦ Bracket

Operation

❶ Fly shuttle switch

❷ Setting button

❸ Spray button

❹ LCD display

Notice

1. The control panel is sensitive, when installing it please avoid direct contact with water from the hand shower and the shower head as water may cause misoperation or lock the control panel.

2. The touch button is the most sensitive area.

3. The touch panel has water splash protection technology. When the system detects misoperation the control panel will not respond and will require approximately 1 second to recover

Function

1, Water TEMP adjust 2, Hand shower 3, Head shower 4, Water flow adjust

Operation

1 Power on /off

Power on

A. Once connected (the battery without electricity or without battery), press the fly-shuttle switch, power on and switch on the head shower automatically, adjust the thermostatic Temp function. When you hear a buzzer sound, the fly-shuttle switch and LCD display will be lit.

B. Once connected (The battery with electricity), press the fly-shuttle switch within 20 minutes from the last time it was turned off. Once the power is on, open the previous spray mode and TEMP adjustable function (cold water or thermostatic function); if the fly-shuttle switch is pressed more than 20 minutes from last time it was turned off, turn power on and open the head spray and TEMP adjustable function at the same time. You should hear a buzzer sound and the fly-shuttle switch and LCD display will be lit.

C. When the system is on, Water TEMP and water flow will be same as previously set the last time. the head shower (or hand shower) will show a cursor and icon.

D. If you didn't set working time, default working time is 60 minutes.

Power off

A. When system on. press the fly shuttle switch to power off the system, you can hear a buzzer sound.

B. System will switch off automatically once working time has reached its goal.

Hand shower and head shower switch

When the system is on, press  button on the control panel to switch between the head and hand shower functions. When the cursor and frame moves to the head shower icon on the LCD screen the water will be directed to this outlet. When the hand shower icon is lit the water will be directed to this water outlet.

Setting

When the system is on, rotate the fly-shuttle switch to adjust the water flow. Press the  button to adjust water TEMP and water flow. Press  button for 3 seconds to set the working time. The system will restore to the water flow adjustment setting if no buttons are pressed for 5 seconds.

Water TEMP adjust and cold water mode

When the system is on, touch the button  to enter into TEMP adjustment. The cursor and frame will move to the TEMP icon  . The  icon on the LCD panel will flash, at this time you can set water TEMP from 29-48°C. Rotate the fly-shuttle to adjust water TEMP and you will hear a buzzer sound for each step.

When the TEMP is at its lowest, rotating the fly-shuttle switch once round counter-clockwise will enter into cold water mode. The cursor and frame will move to the cold water icon. You can hear a buzzer sound when system enters into cold water mode. If you rotate the fly shuttle switch once round clockwise, the system will enter into the water TEMP adjustment mode again.

If the control panel is not pressed for 5 seconds the water TEMP will be stored in memory and the water TEMP adjustment mode will exit. Touch the  button again to enter into water flow adjustment mode. The  icon on the LCD panel will stop flashing. The fly-shuttle switch backlight colour will change according to the water TEMP as below:
blue colour: water TEMP<=33°C
orange colour: water TEMP<=41°C
red colour: water TEMP>=41°C.

Setting system for time

When the system is on, touch the panel switch to show the Time icon. Rotate the fly-shuttle on system setting time. Counter clockwise rotation is to reduce the time and clockwise rotation is to increase the time. Setting range is 15-60 minutes. You can hear a buzzer sound for each adjustment.

If there is no contact for 5 seconds or button is pressed, the setting, time TEMP will be stored in memory and the system will switch to water flow setting, the Time icon is closed.

Water flow

When the system is on, rotating the fly-shuttle switch will adjust the water flow by default, if the system is on another setting, touching button can switch to the water flow setting. The cursor and frame will move to the water flow icon, the L icon on LCD panel will flash, setting range is 4-18L. Rotate the fly-shuttle switch to adjust water flow, counter clockwise rotation is to reduce the flow and clockwise rotation is to increase the flow. You can hear a buzzer sound for each adjustment. When water flow reaches its lowest and highest water flow amount, no buzzer will sound.
If no button is pressed for 5 seconds the water flow value will be saved. Alternatively touch button and the water flow value will be saved and settings will switch to TEMP adjustment.

Working time setting

When the system is on, continue pressing button for 3 seconds and the system will enter into the working time setting. The icon Time will be shown on the LCD panel. Rotate the fly- shuttle switch to adjust the working time. Time range is 15-60 minutes. You can hear a buzzer sound for each adjustment.

If no button is pressed for 5 seconds the time value will be saved. Alternatively touch button and the time value will be saved and settings will switch to TEMP adjustment.

Count down display

When the system is on, the LCD panel will show a countdown for 60 minutes if head shower or hand shower is open.

Abnormal alarm

When the water TEMP is over 49 Celsius degree, the system will stop working and water will automatically shut off. You should hear the buzzer sound 3 times and the LCD panel will show error code “EE”

Back up battery

1) When the system is working via the battery, the LCD panel will show the current battery status. When the system is working by the local power supply and the battery is not full, the LCD panel shows a charging status until the battery is full.
2) When the system is working based on the battery, the back-light of the fly-shuttle button and LCD panel will dim to save energy.
3) When the system is working based on the battery and the battery power is almost out, the system will shut off automatically.

Working condition

Voltage rating	AC110-220V	Frequency rating	50/60 Hz	Power rating	6W
Insulation Resistance	>20MΩ	Waterproof rating	IPX5		

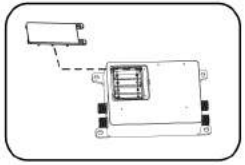
Load parameter

Load category	Rated load voltage	Rated load frequency	Rated load power	Other
Switch valve	DC12V	——	2W	——
Flow valve	DC5V	——	1W	——
Thermostatic valve	DC12V	——	2W	——

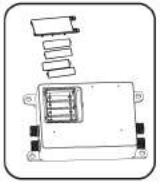
There are two kinds of installation options for the shower controller depending on the wall. One way is to recess mount the control into a wall. Another way is to install it into a shower panel.

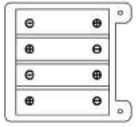
Battery Installation

Loosen the screws on the battery cover and take it off.



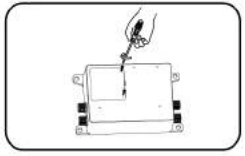
Putting 4 pcs rechargeable batteries into the battery slot of host box.





Attention:
When putting the battery into the host box, you need to identify the positive and negative terminals.

Insert the battery cover into the host box and lock it with screws.



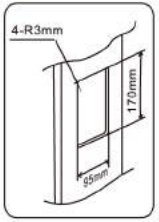
Caution:

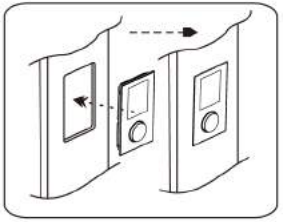
- Using rechargeable NI-MH battery [the 5#(AA) and the capacity is more than 1000Mah].
- Once powered, **DO NOT** use normal 5#(AA) batteries as this may cause the batteries to explode.
- When the power is cut, you can use high quality normal 5#(AA) dry batteries as an emergency measure but you **MUST** unplug the adapter.
- When you install the host box, please install the batteries into it. If the product has not connected with power in a long time, please take out the batteries from the host box. This can avoid affecting the battery working life.
- If you want the batteries to have a longer working life, you can charge the batteries every few months.

Installation of the control panel

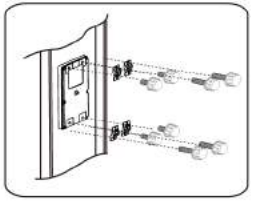
1. Build the control panel into a shower panel

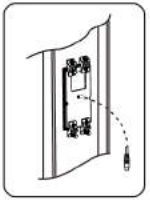
Step 1. Make a hole (170mm x 95mm) on the shower panel. Use a suitable good quality silicone adhesive around the back of the control panel and fit it to the hole of the shower panel as picture shown.





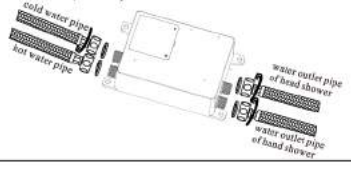
Step 2: Fasten the mounting bracket onto the back of the control panel by screws





Step 3: Install the host box on the back of the shower panel, connect the cold water and hot water pipe, hand shower and head shower's pipework.

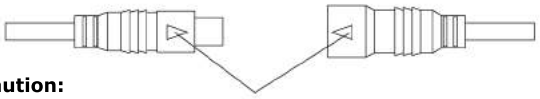
1. Connect the G1/2" hot and cold water inlet pipes to the host box, tighten it and make sure connection are well sealed (as the picture shows).
2. Connect the G1/2" water inlet pipe of the faucet to the water outlet pipe of the host box, tighten it and make sure the connection is well sealed (as picture shows).



Caution:

- When installing, the hot water pipe and the cold water pipe can not mixed up. Otherwise the system will not work.
- When you tighten the connector nut, torque should not exceed 8NM, GB2.5NM is OK, otherwise it will damage the connector of the mixing valve and cause water leakage.

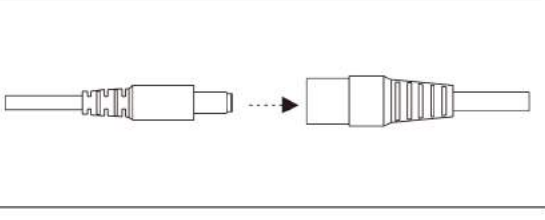
Step 4: Connect the host box control cable with the control cable of shower faucet with arrow marks lined up as in the picture below.



Caution:

When connecting the two control cables you must follow the arrow marks which are shown in the cable joint. otherwise this may damage the cable joint.

Step 5: Connect the power supply cable of the host box with the adapter.



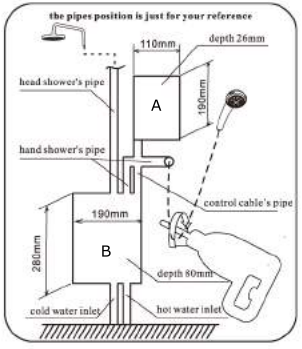
1. Recess mounted into a wall

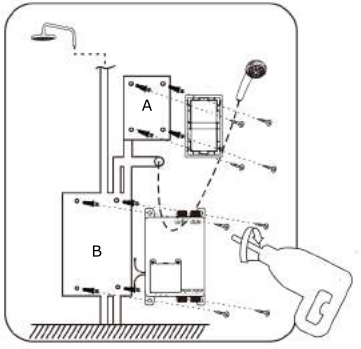
Depending on the wall thickness you can choose installation method A or B.
Method A: if the wall is thin, the host box and the shower control panel can be installed in different positions.
Method B: If the wall is thick, the host box and the shower control panel can be installed in the same position.

Installation step of method A:
Step 1: Make two holes in the wall for the host box and control also making space for the pipes and adaptor.

Step 2: Drill four 6mm diameter holes ready for installation of the wall bracket A (as the picture) and put expansion screws into the holes.

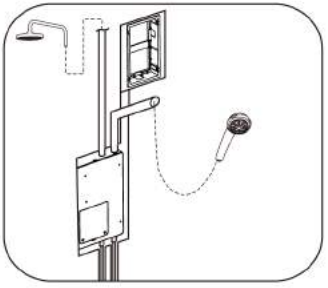
Step 3: Drill four 8mm diameter holes ready for installation of the host box B and put expansion screws into the holes.

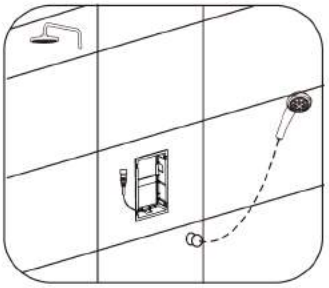




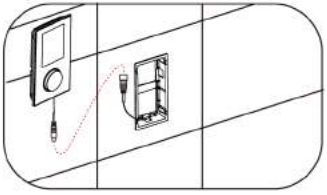
Step 4: Install the host box and wall bracket of the control panel in the two holes, depending on the position of your pipework and the host box position. Adjust the screws of the wall bracket to make sure it is inset from the wall surface by 0.5-1mm.

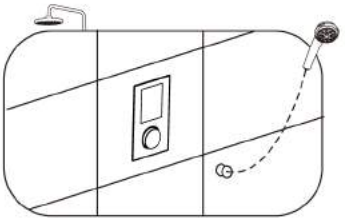
Step 5: Connect the water pipe and the power supply cable of the host box, turn on the water supply to make sure the pipes do not leak. Connect the host box control cable to the control panel hole and secure it. Use adhesive and wall tiles to seal and cover the gap.





Step 6: Connect the control cable between the host box and the control panel. Apply some silicone on the back case of the control panel and connect it to the wall bracket.



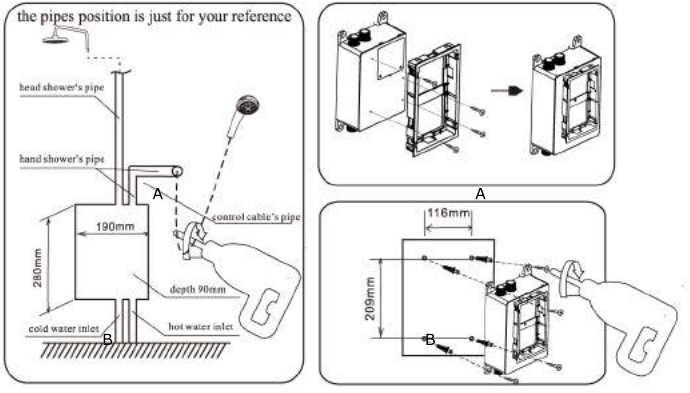


Method B: if the wall is thick

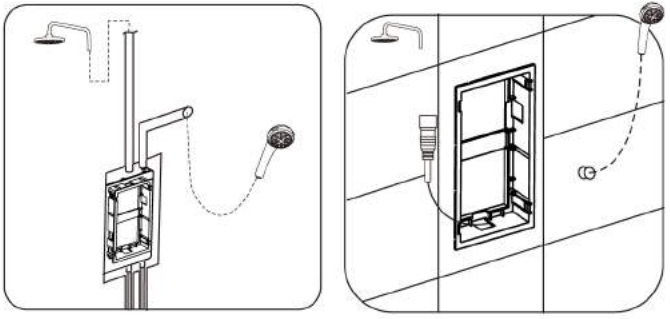
Step 1: Make a hole in the wall and make space for the pipework and power supply cable.

Step 2: Drill four 8mm diameter screw holes in the space for the host box installation and put the screw fixings into the holes.

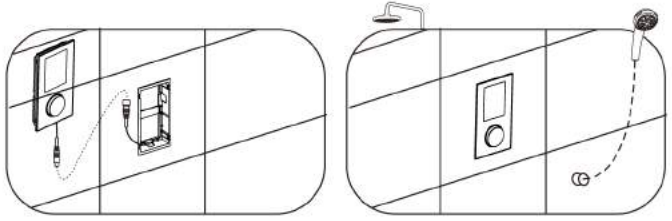
Step 3: Fasten the control panel's bracket onto the host box using the M3 sef-tapping screws provided. Install the host box with the bracket into the hole with screws (Depending on the pipe's position to set the host box position), adjust the screws to make sure the bracket's surface is lower than the wall surface by 0.5 - 1mm.



Step 4: Connect the water pipe and the power supply cable of the host box, turn on the water supply to make sure the pipes do not leak. Lead the host box control cable out of the control panel's bracket and temporarily secure it. Use adhesive and wall tiles to seal and cover any remaining gaps around the control panel bracket.



Step 5: Connect the control cable between the host box and the control panel, putting some silicone on the back case of the control panel and secure it to the wall bracket.



Notice

1. Working water pressure is 0.05MPA - 0.6MPA.
please install a water pressure release valve if water pressure is more than 0.6MPA.

2. Our shower controller does not have a heater function, it should be used with a water heater. Max. water TEMP accepted is 85°C. If not necessary, we suggest you adjust the water outlet TEMP from the heater to be 65°C or lower.

Caution :
a. If working with an electric instant water heater or a gas water heater, hot water TEMP from the heater can not be set higher than 5°C than the preset water TEMP on the control panel.
b. Once powered, the system can charge the rechargeable NI-MH 5#(AA) battery automatically. The rechargeable NI-MH 5#(AA) battery may run out after long term usage, please fit batteries as instructions and charge them after powering the system.

3. To be safe, please touch water TEMP by your hand to make sure its O.K. before showering.

4. **DO NOT** use normal 5#(AA) dry batteries. Otherwise, it will may cause the batteries to explode.

Trouble shooting

Problem	Possible Reasons	Solution
Low water flow	water flow setting too low	set a higher water flow
	low water pressure	check the water supply
	the water faucet design limits the water flow	no solution
Outlet water TEMP is lower than the display TEMP	water outlet pipe is too long, causes the TEMP to cool down	shorten the pipe between the mixer and the shower faucet
	the TEMP has not been adjusted correctly	please wait for the TEMP to adjust correctly
	set the water flow too low	no solution
	water TEMP from heater is cold	Increase water TEMP from heater
	malfunction on host box	please contact the factory
Outlet water TEMP is higher than the display TEMP	the TEMP has not been adjusted correctly	please wait for the TEMP to adjust correctly
	the running water TEMP is higher than the setting TEMP	no solution
	malfunction on host box	please contact the factory
Response time of TEMP adjustment is slow	low water flow	no solution
	long time not used the hot water, cool down in the pipe and the hot water pipe is too long	shorter the pipe distance between the heater and the faucet and so you can drain the cold water in pipe quickly
	malfunction on host box	please contact the factory
Overheat alarm	no cold water supply	check the cold water supply pipe, fix problem before turn on shower faucet
	malfunction on host box	please contact the factory
The touch button is not sensitive	too much water on touch panel	clean off the water
Outlet water TEMP is not stable when controller works with instant water heater, gas heater or the centralized heating system because the heater is not always working.	the electric instant water heater and the gas water heaters can not work if water flow lower than its default value.	1.For gas heater or instant heater, it will not work for low water pressure. Set almost same water TEMP of gas heater and instant heater as that set on the controller. 2. Increase the water flow of control.