

# INSTALLATION MANUAL

## TIS MARS PANEL

Thermostatic Switch with Push Buttons

Model: MRS-AC10G

**TIS**  
CONTROL EVERYTHING



### PRODUCT INFORMATION

This product is a wall switch with an OLED and push buttons designed for temperature, lights, and motorized curtain control. It comes with various casing colors and customizable backlit for a convenient combination with interior schemes.

### PRODUCT SPECIFICATIONS

 <b>Input</b>	Temp sensor IR receiver Using panel addition	Resistive temp sensor TIS infrared code receiver 2-3 Digital inputs
 <b>Output</b>	Using panel addition 3R Using panel addition 3DL-12V Using panel addition 2DL-IRE	3 Relay Output 3A/5A 12V DC 50mA output IR Emitter
 <b>TIS Bus</b>	Number of devices on 1 line Bus voltage Current consumption	Max. 64 12-32 V DC <40 mA / 24 V DC
 <b>Operation</b>	Display 12 Buttons Indicator LED Backlight TIS bus Upgrading	1" OLED screen For controlling lights, Air condition scene, etc... 10 Blue and Red LED + 1 Green LED 5 pairs of White neon LED TIS protocol messages and commands 1 X mini USB for upgrading
 <b>Functions</b>	1 Press Long press Double click IR receiver	ON / OFF / Scene Dim or ramp the lights Extra scene Music, scene, lights control
 <b>Dimensions</b>	Width × length × height	94mm × 129mm × 15mm
 <b>Housing</b>	Materials Casing color  Internal parts color IP rating	Fireproof PC Black, Titanium, Silver, White, Champaign, Coal, Bronze or Custom color Black & White IP 30



BARCODE (UPC-A)





### Read Instructions

We recommend that you read this Instruction Manual before installation.



### Data Cable

Use screened stranded RS485 data cable with four twisted pairs. Configure devices in a "Daisy Chain."

**Do not cut or terminate live data cables.**



### Safety instructions

Electrical equipment should only be installed and fitted by electrically skilled persons.

Failure to observe the instructions may cause damage to the device and other hazards.

These instructions are an integral part of the product and must remain with the end customer.



### Electrical Wires

The recommended wire size for light channels is 2.5mm for loads, if you are using the Panel Addition 3R type. The installer should consider the total current consumption when selecting the wires.



### Programming

This device can be tested and programmed manually. Advanced programming requires knowledge of the TIS Device Search software and instruction in the TIS advanced training courses.



### Warranty

There is a two-year warranty provided by law. The hologram warranty seal and product serial number are available on each device.



### Simple Installation

You can use 2 screws to install this panel on wall, it fit on most of junction box sizes.



### Mounting Location

Install in a dry, indoor area. with a suitable temperature and humidity range.

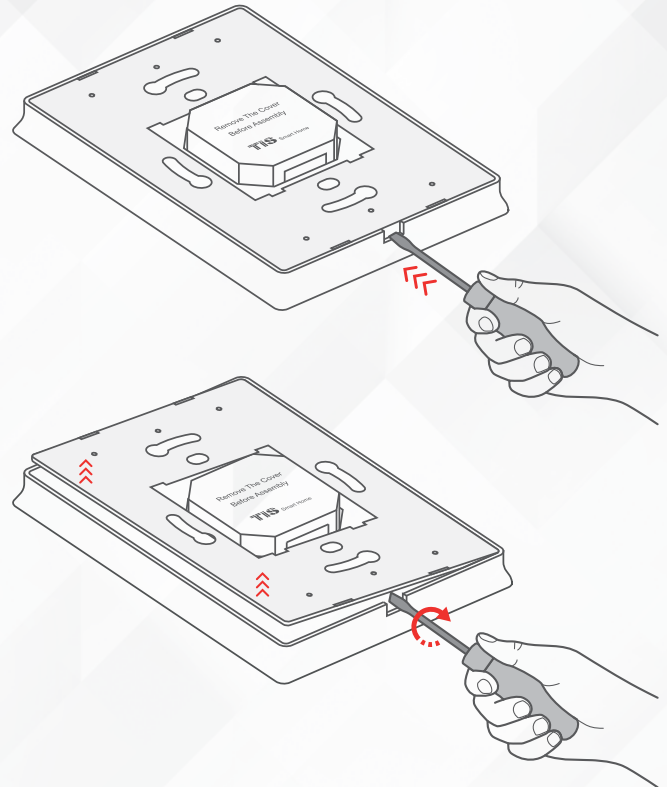




## INSTALLATION STEPS

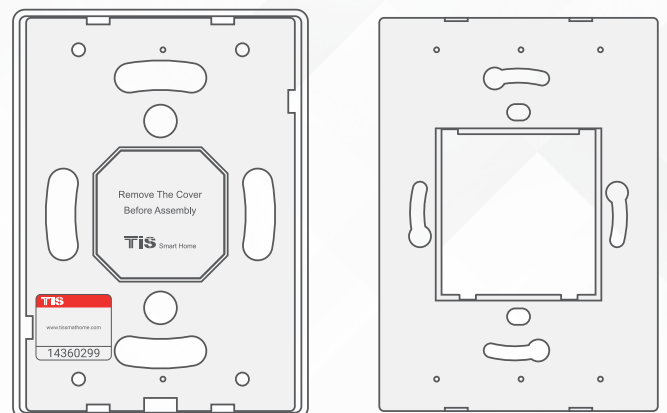
1»

Insert a large flathead screwdriver in the hole of the Panel Cover. Rotate the screwdriver 90 degrees.



2»

Separate the Cover, Main Panel, and Wall Base from each other.

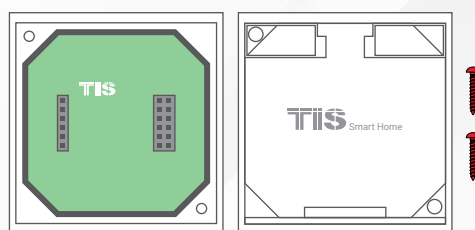
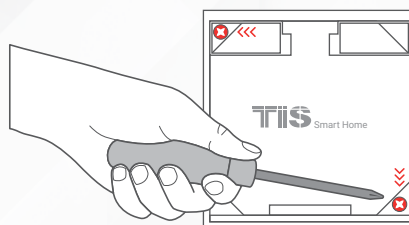




## INSTALLATION STEPS

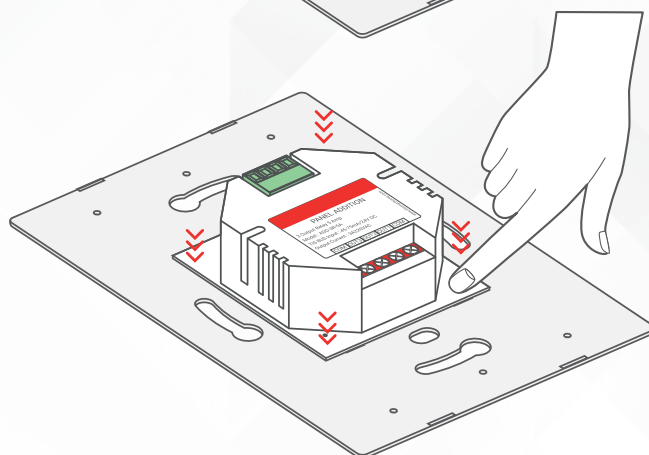
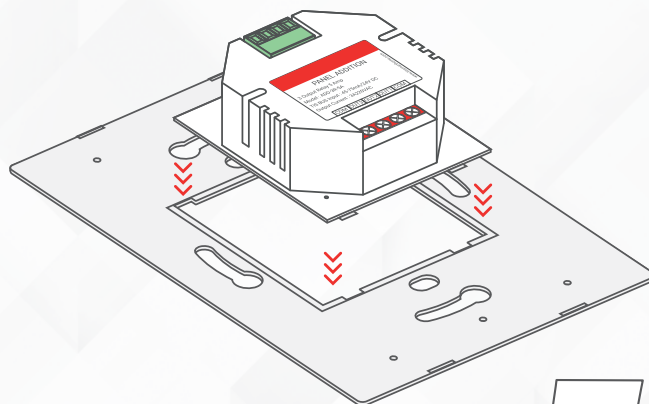
3

Remove the 2 screws on the Panel Addition cover.



4

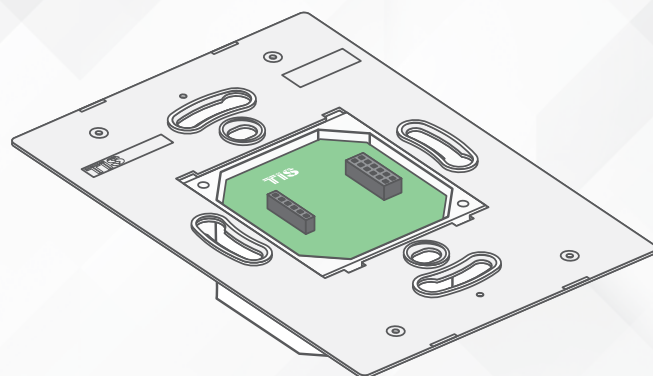
Connect the Wall Base and Panel Addition in this position. Place the upper pins as shown, and then push the pins down with your fingers to assemble.





## INSTALLATION STEPS

It should look like this following the correct assembly.



5»

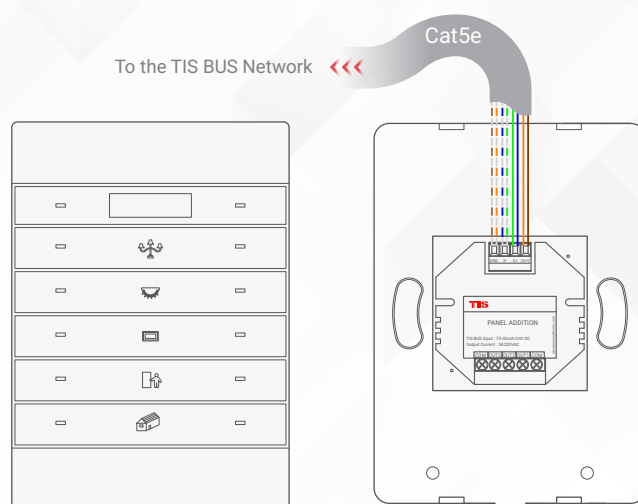
Turn off the main electrical source before installation.



**WARNING! HIGH VOLTAGE**

6»

Connect the Cat5e TIS BUS wire to the Panel Addition.





## INSTALLATION STEPS



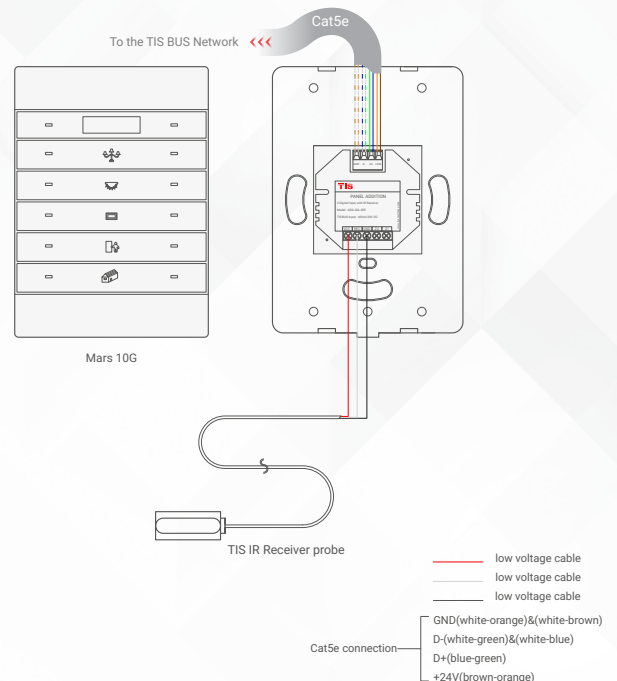
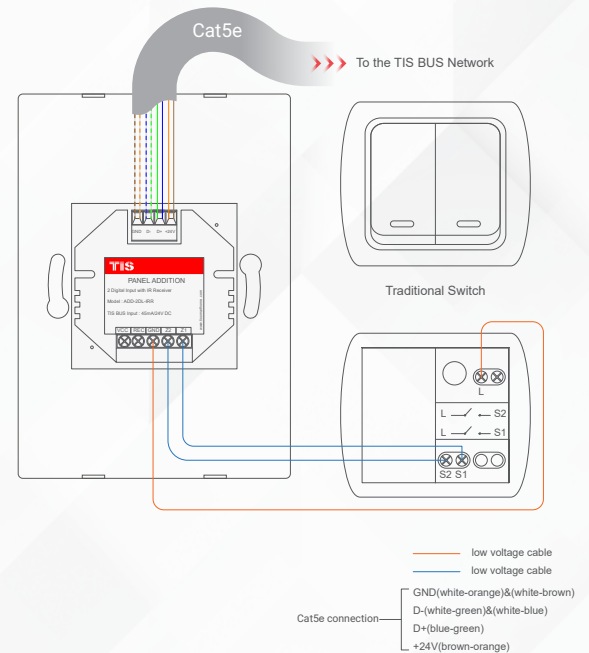
Connect the other connection if needed as per the panel addition type:

### » FOR PANEL ADDITION 2DL-IRR

You can connect 2 digital inputs to any switch or window magnet.

» You can add an External Infrared Receiver to the IRR Port, connect as follows:

- ▶ the IR Receiver black wire to GND
- ▶ Gray wire to REC
- ▶ Red wire to VCC Terminal.



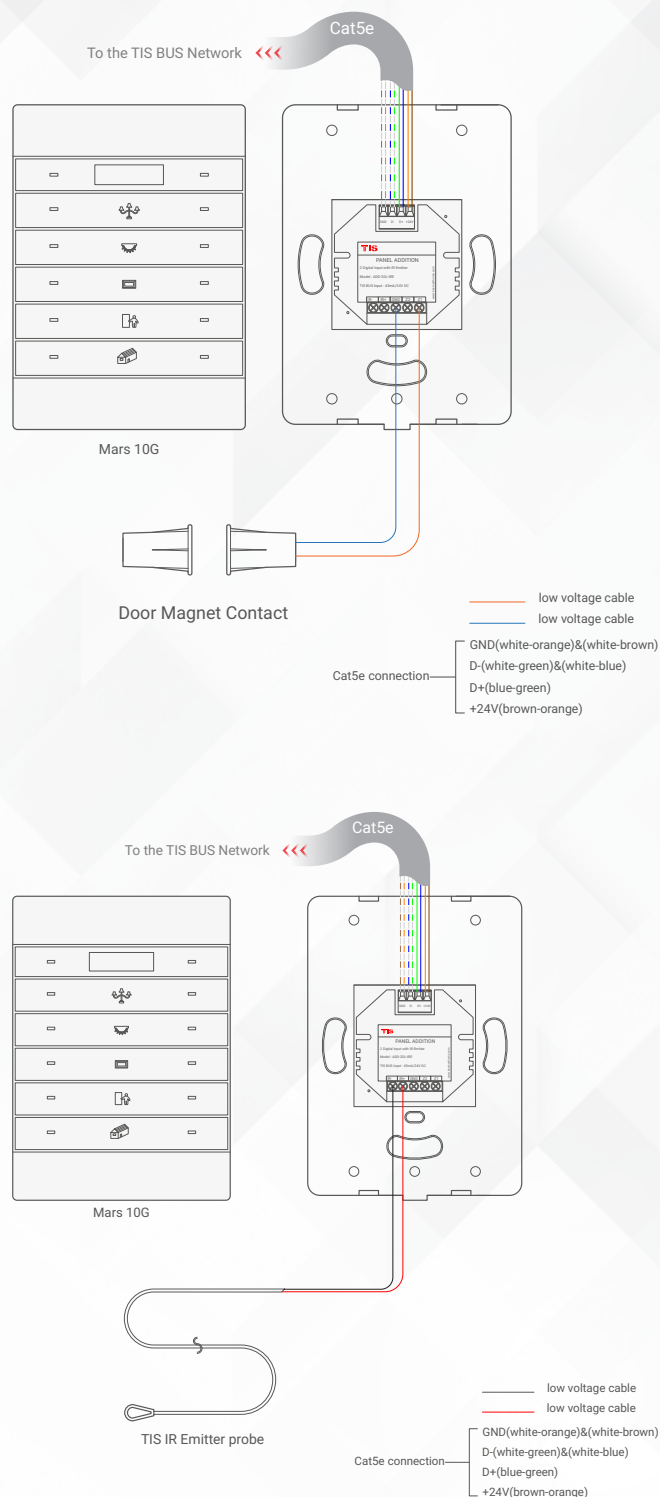


## INSTALLATION STEPS

### » FOR PANEL ADDITION 2DL-IRE

You can connect 2 digital inputs to any switch or window magnet.

- ▶ Connect the IR Emitter Probe's positive wire to IR+ terminal.
- ▶ Connect the negative wire to IR-terminal.



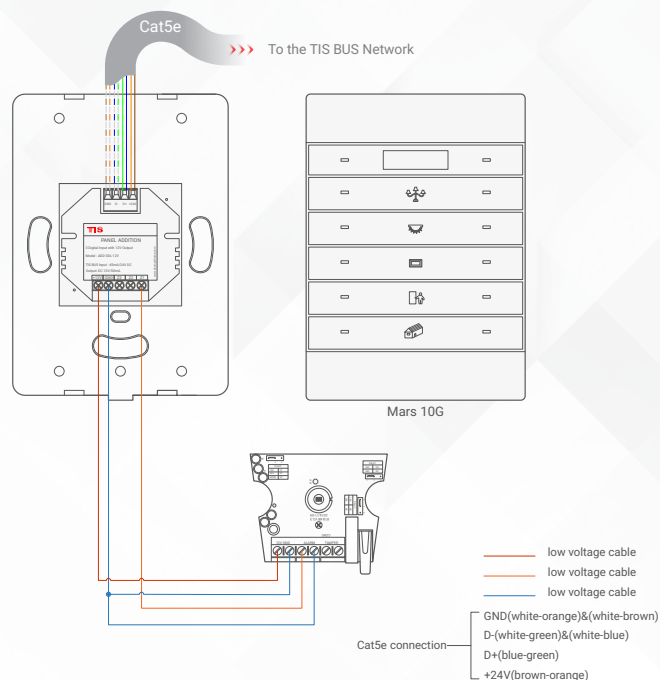
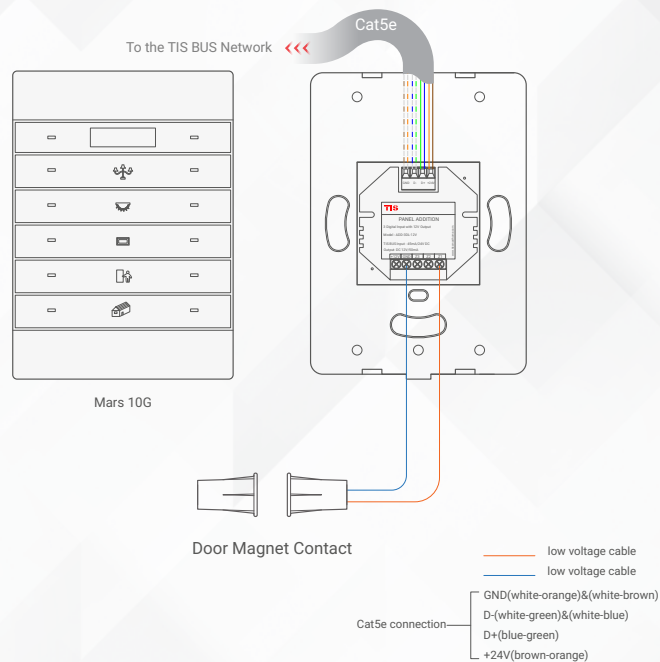


## INSTALLATION STEPS

### » FOR PANEL ADDITION 3DL-12V

You can connect 3 digital inputs to any switch or window magnet.

» Also, you can connect any 12V operated smoke detector or any 3<sup>rd</sup> party sensor with NC/NO connection to the 12V GND and Z1-Z3 terminals as per the diagram.





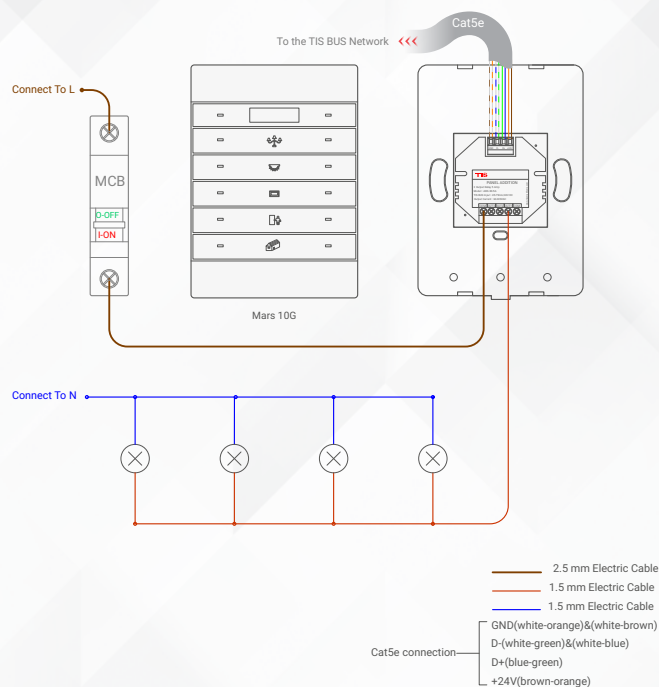
## INSTALLATION STEPS

### » FOR PANEL ADDITION 3R-5A



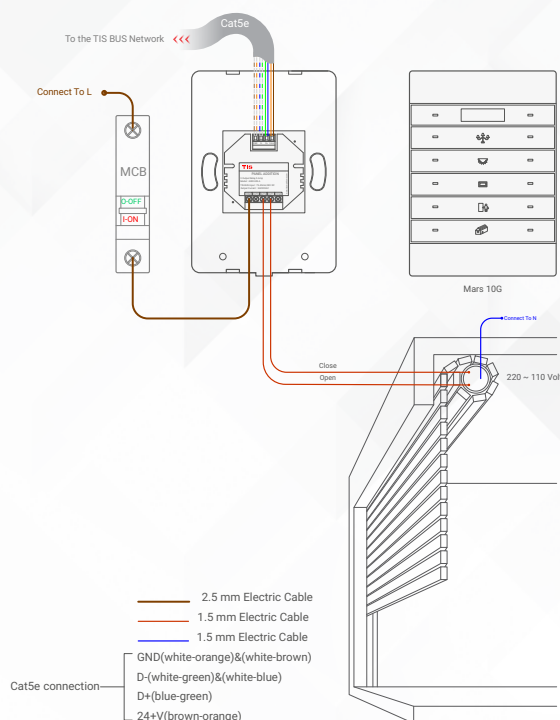
#### LIGHTING CONNECTION

- ▶ Connect the live wire to com
- ▶ Connect the loads wire to Out1-Out3 to terminals
- ▶ Connect load neutral wire to main neutral in the distributor box.



#### CURTAIN CONNECTION

- ▶ Connect the Supply wire to COM
- ▶ Connect the Open wire to OUT1
- ▶ Connect the Close wire to OUT2
- ▶ Shutter neutral connection, if it exists, can be looped to main neutral in the distributor box.



**WARNING:** Set the curtain function in the software before connecting the wires.



## INSTALLATION STEPS

### » FOR PANEL ADDITION 3R-5A

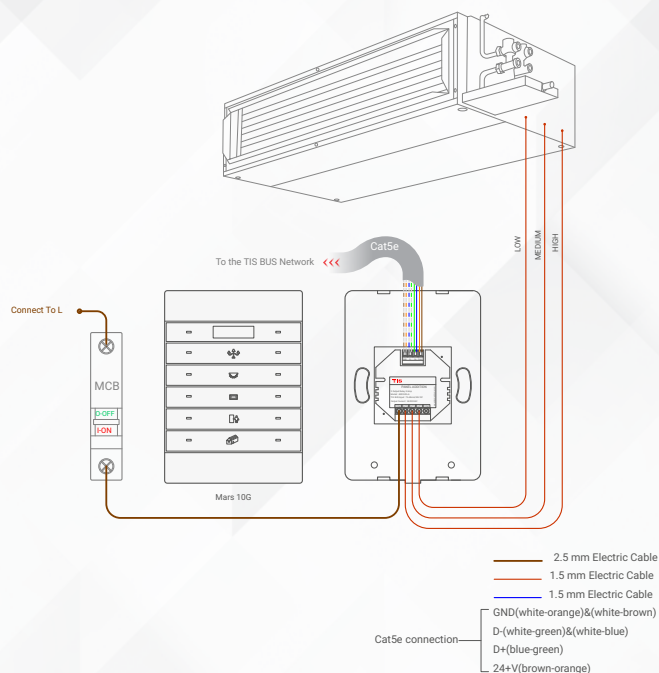


#### FCU CONNECTION

- ▶ Connect the supply wire to com
- ▶ Connect the FAN Low, Medium, and High wires to Out1, Out2, and Out3 in the same order.



**WARNING:** Set the FCU function in the software before connecting the wires.

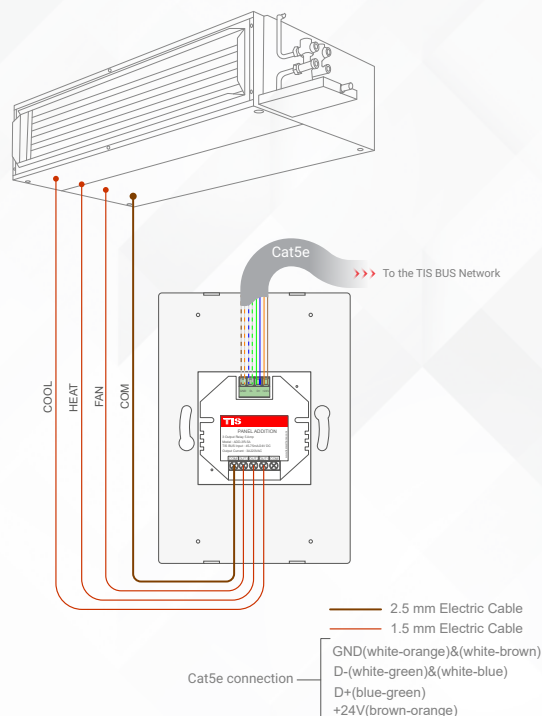


#### HVAC CONNECTION

- ▶ Connect the HVAC com (supply) wire to com
- ▶ Connect the Cool, Heat, and FAN wires to Out1, Out2, and Out3 in the same order.



**WARNING:** Set the HVAC function in the software before connecting the wires.



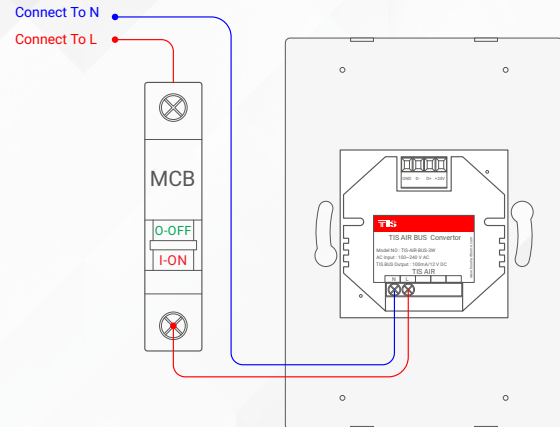


## INSTALLATION STEPS



### FOR PANEL ADDITION AIR-BUS-3W

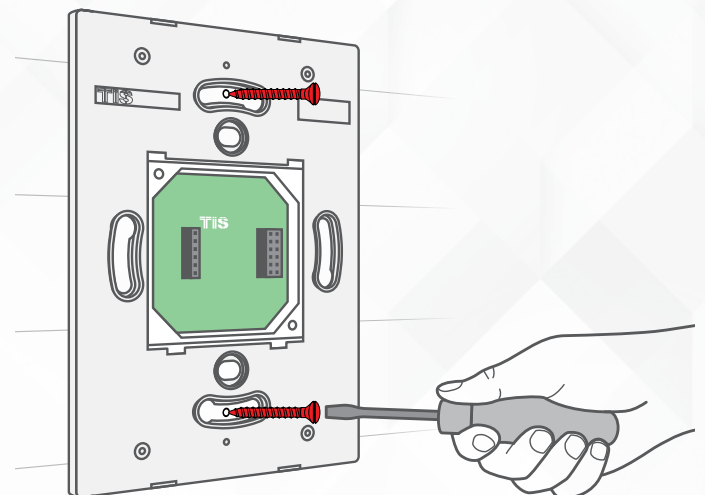
- ▶ Connect the live wire to the L terminal,
- ▶ Connect the neutral wire to N terminal.



— 1.5 mm Electric Cable  
— 1.5 mm Electric Cable



8 Mount the device on the wall using 2 screws on the junction box.

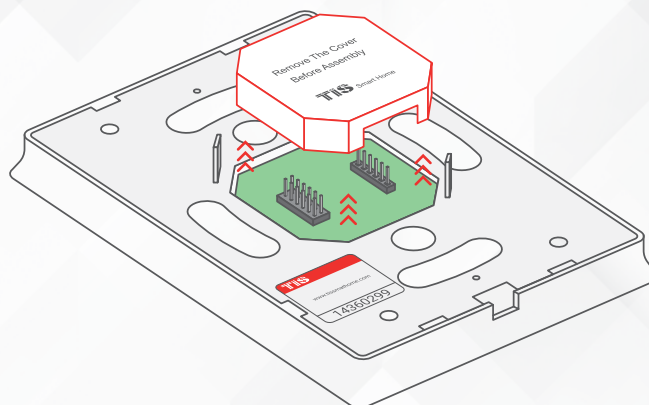




## INSTALLATION STEPS

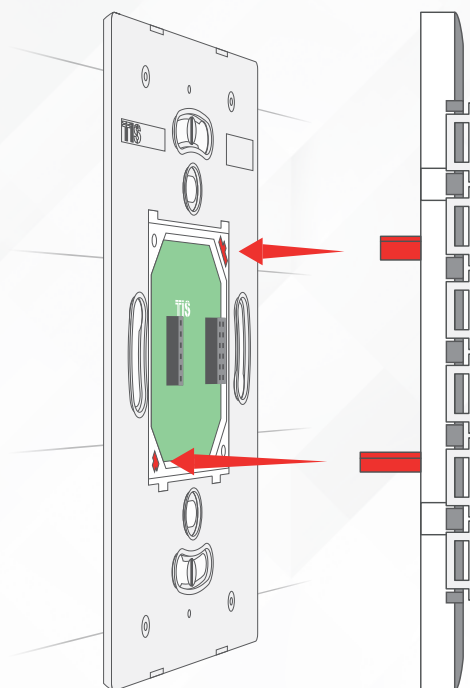
9»

Pull by your fingers this Protective Plastic Cover vertically, remove it and throw it.



10»

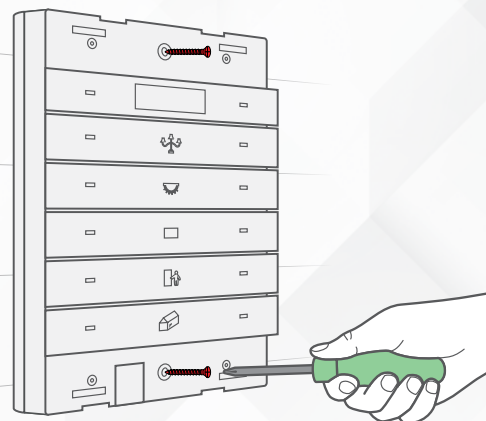
Connect the main Mars panel vertically to the other part installed in the wall.





## INSTALLATION STEPS

- 11** » Install the 2 black screws to fix the Mars panel to the wall base.



- 12** » Install the Mars Cover on the panel.



- 13** » Turn on the power source. The panel should turn ON.





## PAIRING (MANUAL PROGRAMMING)

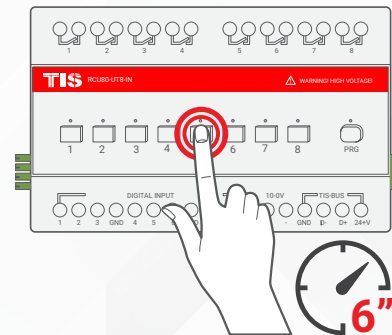


### LIGHTS / SHUTTERS PROGRAMMING

You can pair the light channels with any wall panel. To do so, follow these steps:

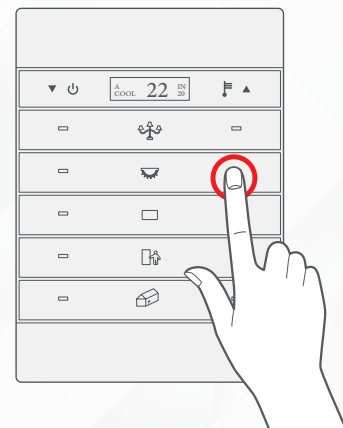
**1** »

Press any button on any channel of a relay or dimmer module for 6 seconds so that the LED indicator light of that button starts blinking.



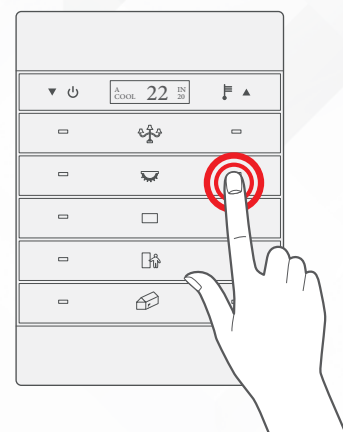
**2** »

Shortly press on any button on wall panel or press the wall switch that connected to dry inputs of the panel addition zones.



**3** »

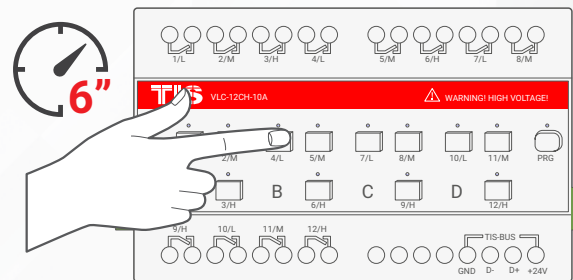
Test the button on the panel by short pressing it for ON/OFF and long pressing it to dim (if channel is dimmable).



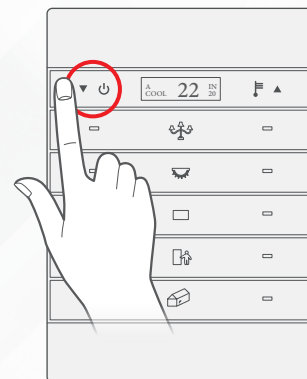
## PAIRING (MANUAL PROGRAMMING)

### FCU PROGRAMMING

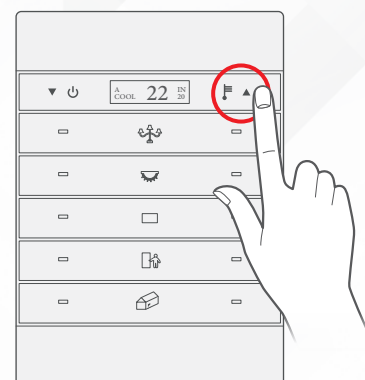
**1** To program the FCU to any wall thermostat panel, press and hold the first Channel L (LOW) button for 6 seconds. The LED indicator of the pressed button will start blinking,



**2** On the Mars AC panel, turn the AC ON.



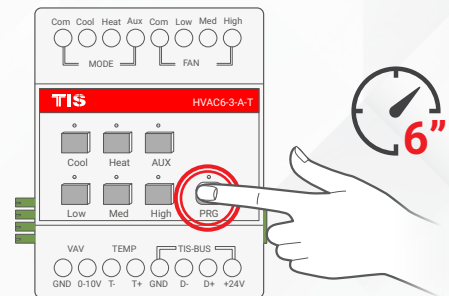
**3** Test your air conditioning by changing the fan speed from low to medium to high. Your relay should respond accordingly.



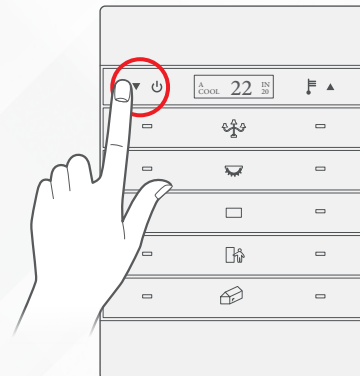
## PAIRING (MANUAL PROGRAMMING)

### HVAC PROGRAMMING

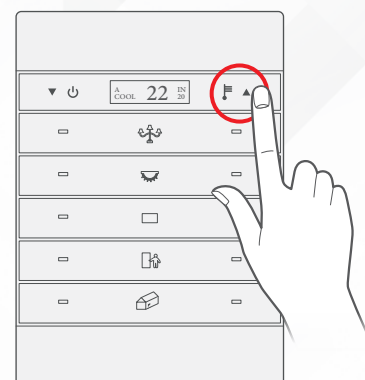
- 1» Press the PRG button of the HVAC Module for 6 seconds until the green LED turns on and is steady.



- 2» On Mars AC panel, turn the AC ON.



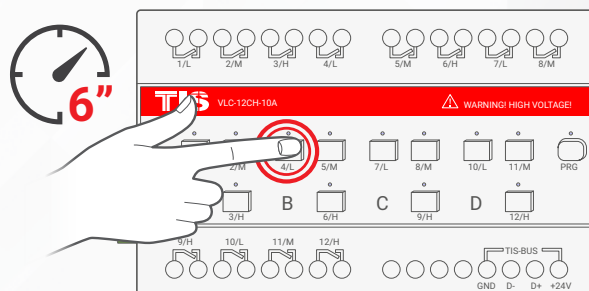
- 3» Test your air conditioning by changing the mood, Heat/Cool, and fan speed from low to medium to high. HVAC module should respond accordingly.



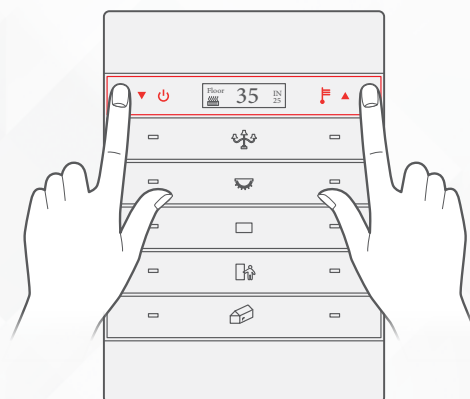
## PAIRING (MANUAL PROGRAMMING)

### FLOOR HEATING PROGRAMMING

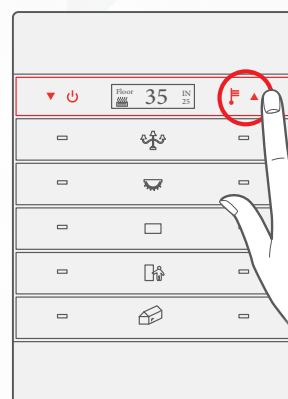
- 1» Press any button on any channel of a relay or dimmer module for 6 seconds so that the LED indicator light of that button starts blinking.



- 2» On Mars floor heater page, turn the floor heating ON.



- 3» Test your floor heating by changing the temperature, relay should respond accordingly.





## PAIRING (MANUAL PROGRAMMING)



### SCENARIO PROGRAMMING

The last 2 rows of the panel (buttons 7-10) can be programmed as mood (scene) that can save the other 6 buttons' statuses

You can program the scene to save panel lights and shutter as one scene. Also, you can add air condition and music to your scene.



### TO PROGRAM THE LIGHTS/SHUTTER SCENE ONLY:

1

Set the first 3 rows (buttons 1-6) to lights ON/OFF, dim brightness, and shutter status, as per your preferred mood (scene).



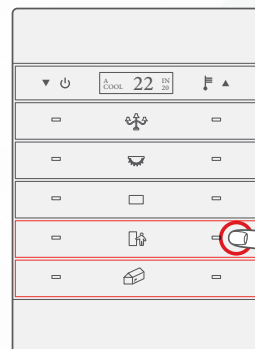
2

Long press any button from 7-10 for 12 seconds until its LED blinks RED.



2

The scene is programmed on the pressed button; you can test it with a single press.





## PAIRING (MANUAL PROGRAMMING)



### TO PROGRAM THE LIGHTS/SHUTTER , AIR CONDITION AND FLOOR HEATING SETTING IN THE SCENE:

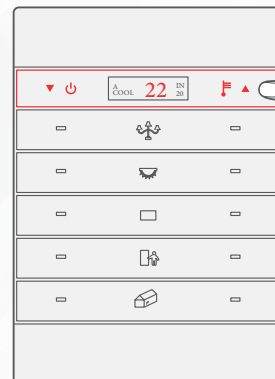
1»

Set the first 3 rows (buttons 1-6) to lights ON/OFF, dim brightness, and shutter status, as per your preferred mood (scene).



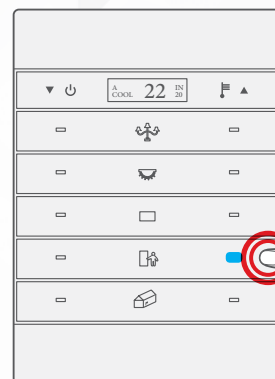
2»

Set your AC and floor heating desired mode and temperature.



3»

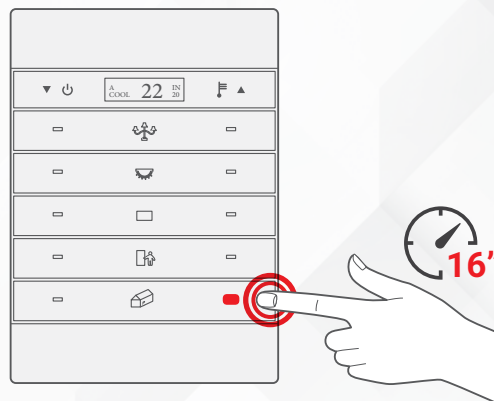
Long press any button from 7-9 for 16 seconds until its LED blinks BLUE.





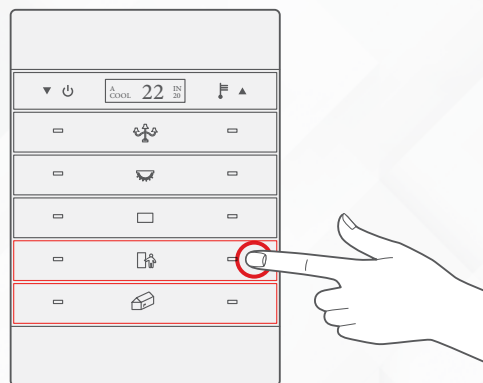
## PAIRING (MANUAL PROGRAMMING)

- For button 10, you should press for 16 seconds until the RED LED blinks and then stops blinking.



4»

The scene is programmed on the pressed button; you can test it with a single press.



### PAIRING (MANUAL PROGRAMMING)



#### TO PROGRAM THE LIGHTS/SHUTTER SCENE WITH AC FLOOR HEATING AND MUSIC

1»

Set the first 3 rows (buttons 1-6) to lights ON/OFF, dim brightness, and shutter status, as per your preferred mood (scene).



2»

Set your AC and floor heating desired mood and temperature.



3»

Use TIS's Remote Control to play a specific album's song at desired volume.

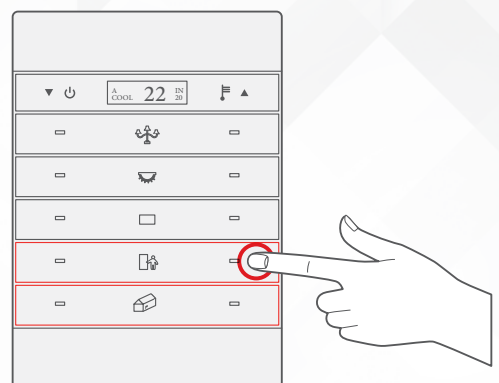
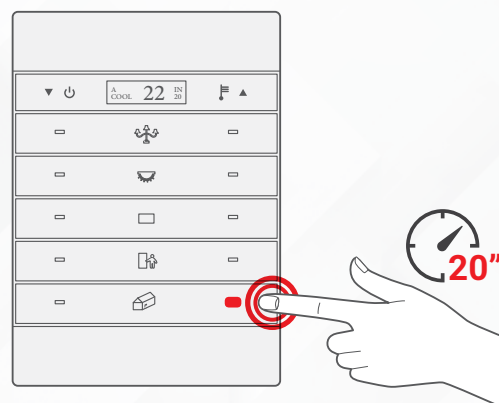
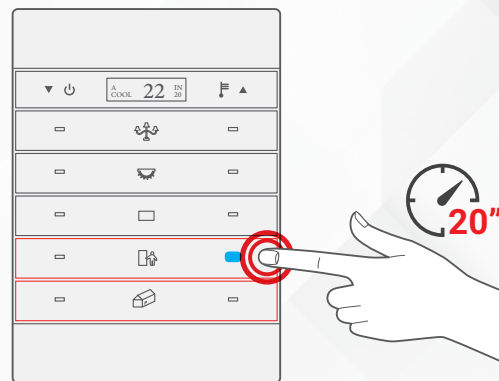


## PAIRING (MANUAL PROGRAMMING)

**4»** Long press any button from 7-10 for 20 seconds until its RED and BLUE LEDs blink together.

► For button 10, you should press for 20 seconds until the RED LED blinks and then stops and then blinks again.

**5»** The scene is programmed on the pressed button; you can test it with a single press.





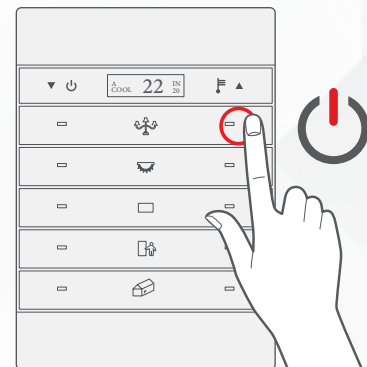
## USER MANUAL



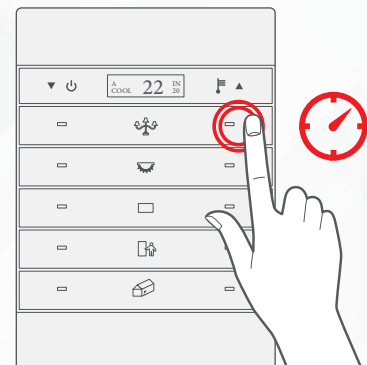
### USING THE PANEL BUTTONS 1-10

You can use the panel buttons 1-10; press on any button to get the settings that you programmed.

- ▶ Short press for ON/OFF or to run a scene.



- ▶ Long press to dim or ramp up the lights.



- ▶ Double click to trigger a special programmed scene.
- ▶ You can enable or disable the white backlight, and you can set the LED status color from blue to red.











## USER MANUAL



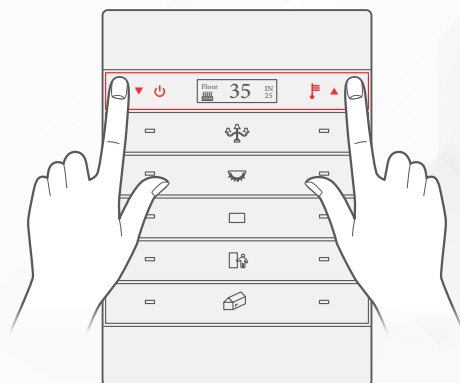
## CONTROLLING AIR CONDITION

FUNCTION	CONTROL BUTTON	
Turn AC ON		Press on left AC button (left button beside the OLED Screen)
Turn AC OFF		Long press for 3 seconds on the left button (left button beside the OLED screen)
Increase Temperature		Press on the left AC button (left button beside the OLED Screen)
Decrease Temperature		Press on the right AC button (right button beside the OLED Screen)
Change Fan Speed		Long press on the right AC button for 5 seconds (right button beside the OLED Screen) until the fan speed is shown on the screen. Then, change the speed by short pressing on the right button. Once you select your preferred speed, do not press any button for 5 seconds or until the main screen display returns.
Change AC Mood		Long press on the right AC button for 10 seconds (right button beside the OLED Screen) until the mood is shown on the screen. Then, change the mood to cool, heat, fan, or auto by short pressing on the right button. Once you select your mood, do not press any button for 5 seconds or until the main screen display returns.





## USER MANUAL

### CONTROLLING FLOOR HEATING

» To change between the AC page and the floor heater page, press and hold both right and left AC buttons.



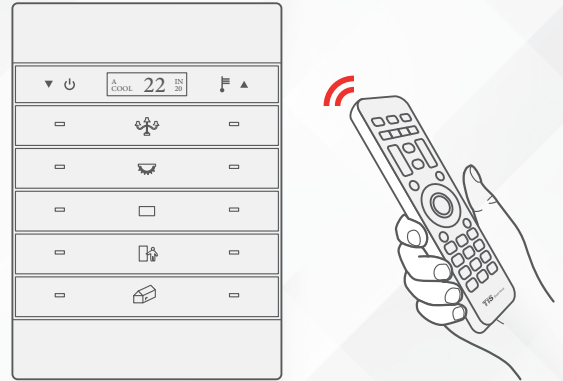
» To Control Floor Heater

FUNCTION	CONTROL BUTTON	
Turn Floor Heating ON		Press on left AC Button (left button beside the OLED Screen)
Turn Floor Heating OFF		Long press for 3 seconds on the left button (left button beside the OLED screen)
Increase Temperature		Press on the left AC Button (left button beside the OLED Screen)
Decrease Temperature		Press on the right AC Button (right button beside the OLED Screen)

## USER MANUAL

### TIS-MRC REMOTE CONTROL

You can use TIS's IR Remote Control to run programmed buttons 1-10. You can also turn the AC and floor heating ON/OFF and play the music using the Remote Control.



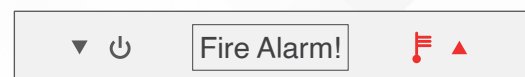
### OTHER SETTINGS

You can check and change the panel Subnet and Device OID and other basic settings by long pressing for 10 seconds on the left AC button until the OLED screen displays the panel's Subnet ID. You can keep pressing to display other settings and to change any of the panel's basic settings. Remove your hand once you see the setting displayed, and then change it by short pressing on the right and left AC buttons.

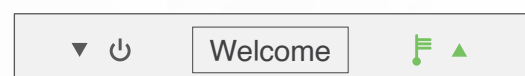


### MESSAGES DISPLAY

The panel can display urgent messages. The RED LED will flash on the right button of the LCD, and the message will appear on the OLED screen directly.



For normal messages, the GREEN LED on the right AC button will blink, and you will need to press on it to display the message on the OLED screen.





## TROUBLESHOOTING



**The Panel backlit white LEDs blinks rapidly.**

**Reason:** The panel address conflicts with another device in the TIS network. You need to press and hold any button for 6 seconds so the panel can get a new address.



**The panel buttons' LEDs do not turn ON, and the device is not powered.**

**Reason 1:** There is no TIS-BUS power or no connection to the L/N input (if using AIR bus-3W converter).

**Reason 2:** The TIS 24V power supply is not connected to the TIS-BUS.



**Wall panels fail to pair with other devices.**

**Reason 1:** The TIS-BUS connection has a problem, or the wire has a short.

**Reason 2:** The manual programming function is disabled on the device (it is enabled by default).



**Wall panels fail to control the device channels.**

**Reason 1:** The TIS-BUS connection has a problem, or the wire has a short.

**Reason 2:** The programming address is faulty.