INSTALLATION MANUAL
## MARS 4 GANGS WALL PANEL
Model: MRS-4G

TIS
Automation Made Easy

ℹ PRODUCT INFORMATION

With its elegant shape and design, the Mars Series is available in seven different colors with stylish push buttons. This capability is of great value to elderly people because they can enjoy a combination of classic and new technology.

PRODUCT SPECIFICATIONS		
Input	IR receiver Using Panel Addition	TIS Infrared code receiver 2-3 Digital Inputs
Output	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
TIS Bus	Number of devices on 1 line Bus voltage Current consumption	Max. 64 12-32 V DC <35 mA / 24 V DC
Operating and display elements	8/4 Buttons Indicator LED Backlight TIS bus Upgrading	For controlling lights, scene, etc… 4 Blue and Orange LED 2 pairs of White neon LED TIS Protocol messages and commands 1 X mini USB for up to date upgrading.
Functions	1 Press Long Press Double click IR receiver	ON / OFF / Scene Dim or ramp the lights Extra Scene Music, scene, lights control
Dimensions	Width × length × height	90mm × 125mm × 15mm (21mm peak)
Housing	Materials Casing color Internal Parts color IP rating	PC anti fire Black, Titanium, Silver, White, Champaign, Coal, Bronze or special color Black & White IP 30

CE   RoHS COMPLIANT   PCT   C   FC
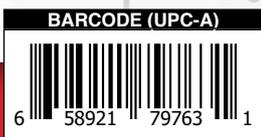
Read Instructions

We recommend that you read this Instruction Manual before installation.

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.

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.

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.

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.

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.

Warranty

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

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⚙ INSTALLATION STEPS

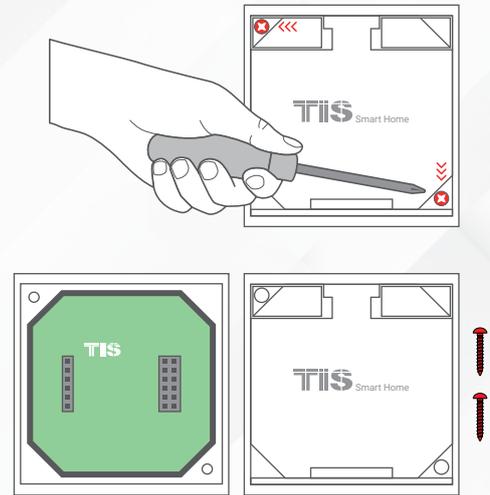**1** ›› Insert a large flathead screwdriver in the hole of the Panel Cover. Rotate the screwdriver 90 degrees.
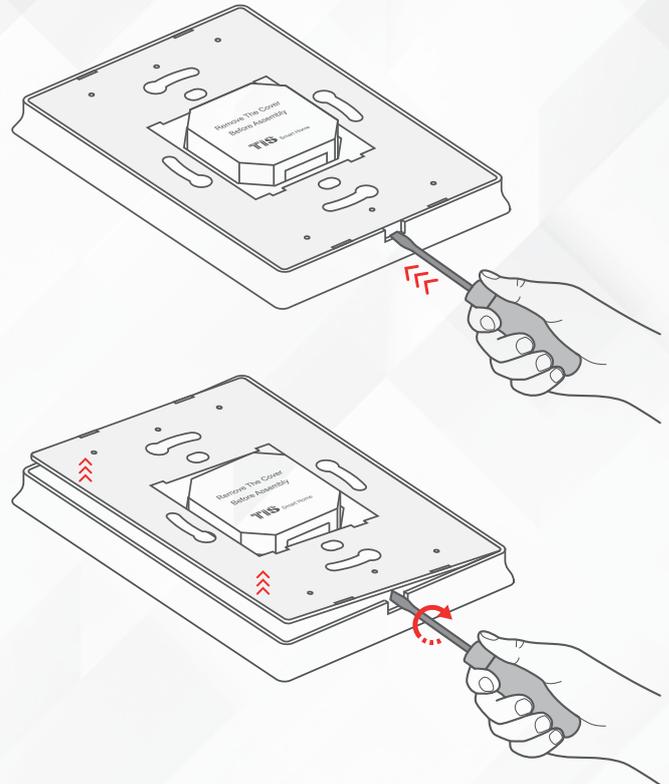
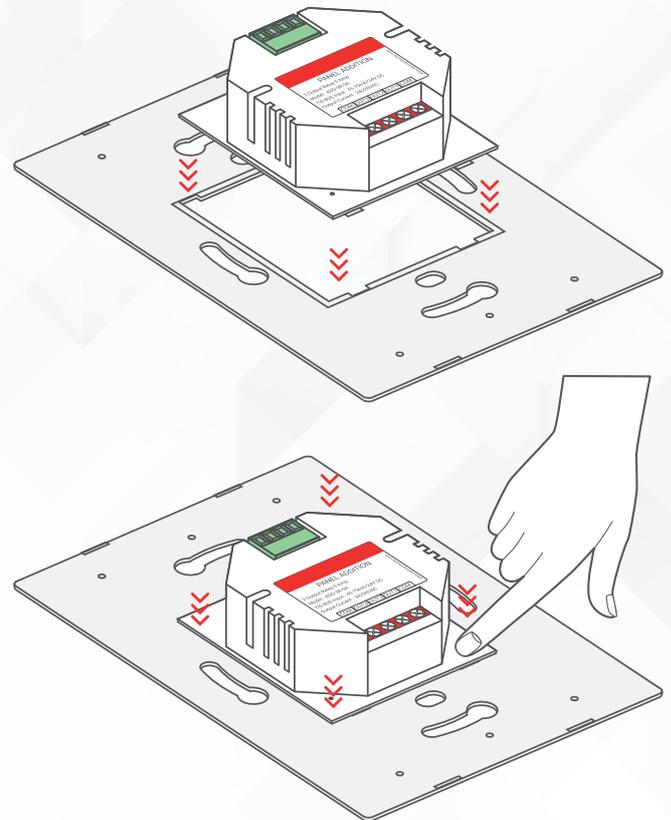**2** ›› Separate the Cover, Main Panel, and Wall Base from each other.

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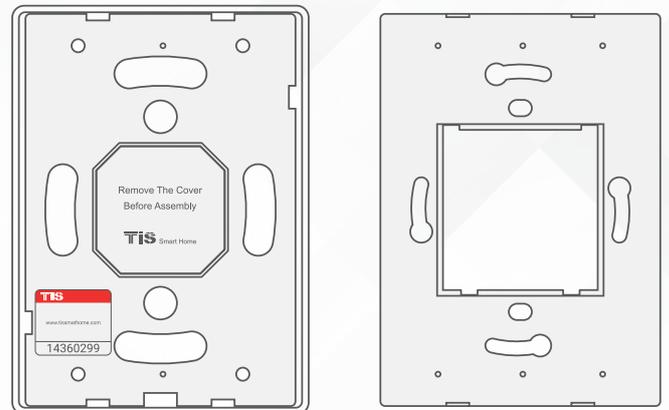
⚙ INSTALLATION STEPS

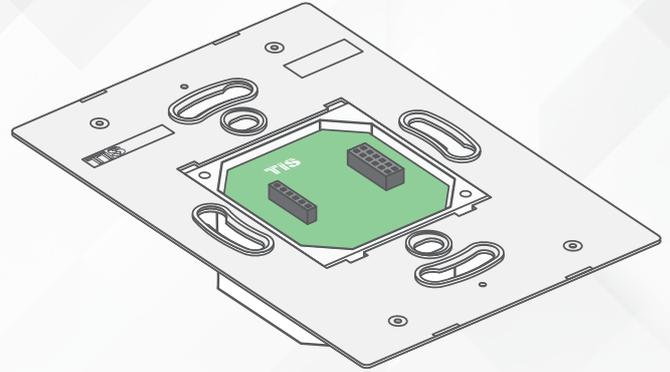**3** » Remove the 2 screws on the Panel Addition cover.

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

4

⚙ INSTALLATION STEPS
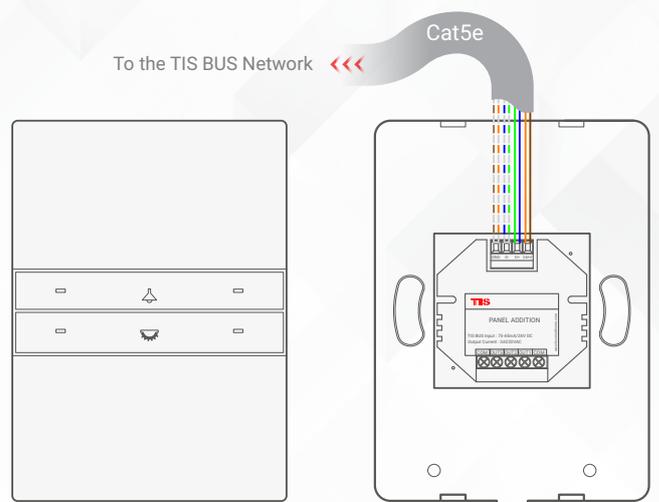
It should look like this following the correct assembly.

5 » Turn off the main electrical source before installation.

⚠ **WARNING! HIGH VOLTAGE**

6 » Connect the Cat5e TIS BUS wire to the Panel Addition.

Cat5e

To the TIS BUS Network ‹‹‹
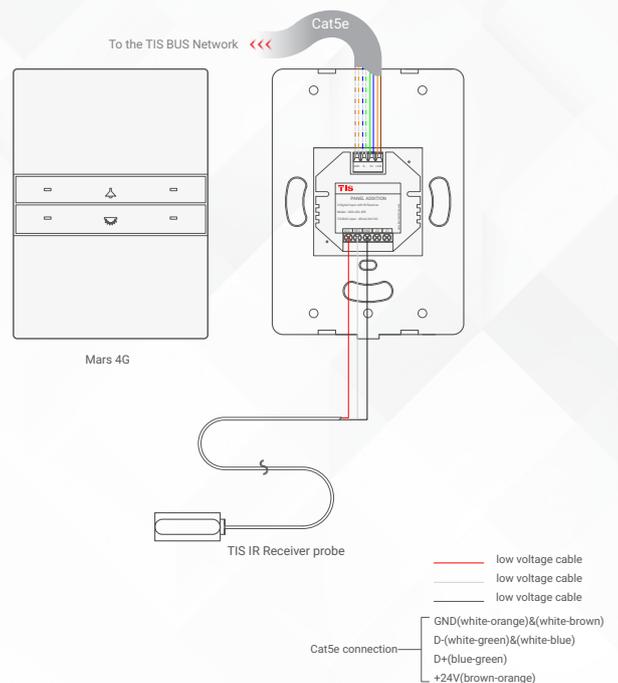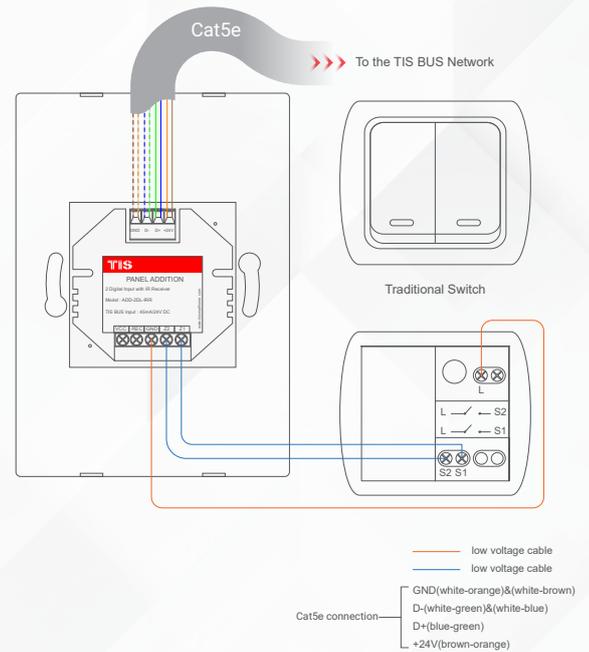

PANEL ADDITION

5

⚙ INSTALLATION STEPS

7 ⟫ 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.

Cat5e

To the TIS BUS Network

Traditional Switch

low voltage cable
low voltage cable

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

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

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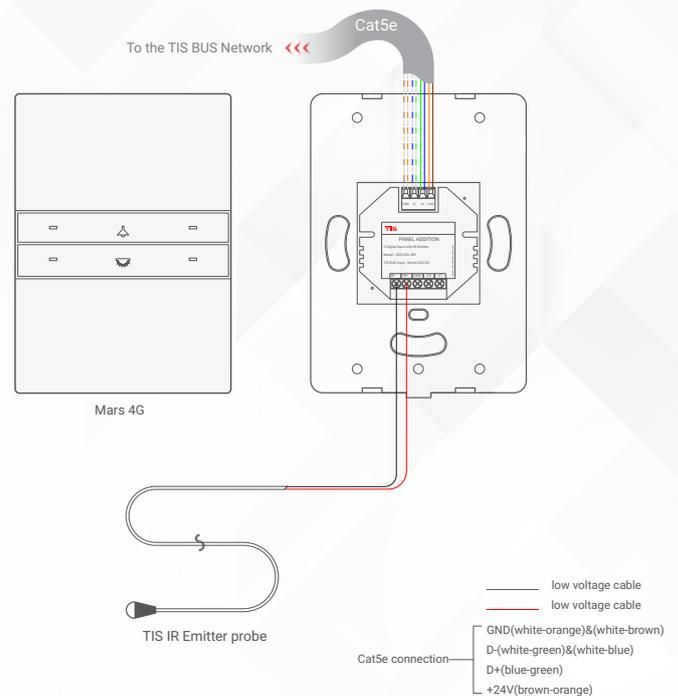- ▶ Gray wire to REC
- ▶ Red wire to VCC Terminal.

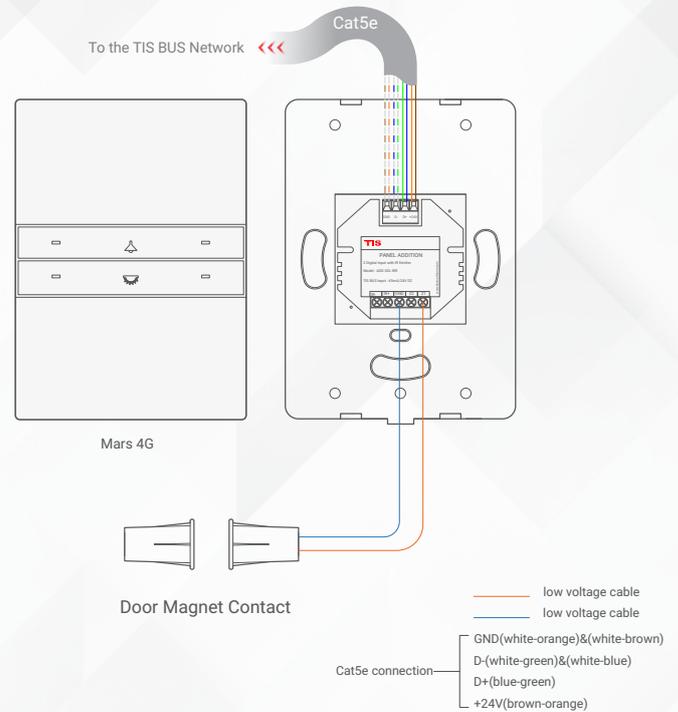To the TIS BUS Network

Cat5e

Mars 4G

TIS IR Receiver probe

low voltage cable
low voltage cable
low voltage cable

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

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INSTALLATION STEPS

» FOR PANEL ADDITION 2DL-IRE

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

Mars 4G

To the TIS BUS Network «« Cat5e

Door Magnet Contact

low voltage cable
low voltage cable

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

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

▶ Connect the negative wire to IR-terminal.

Mars 4G

To the TIS BUS Network «« Cat5e
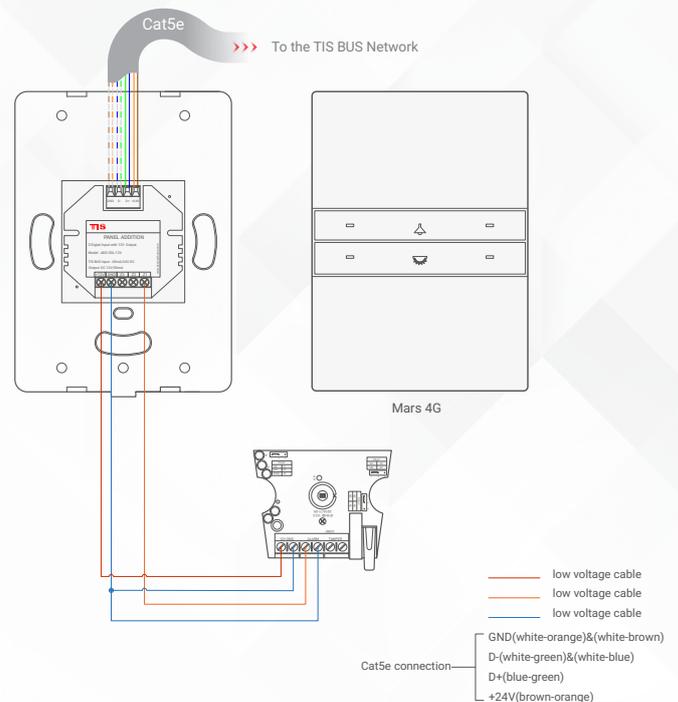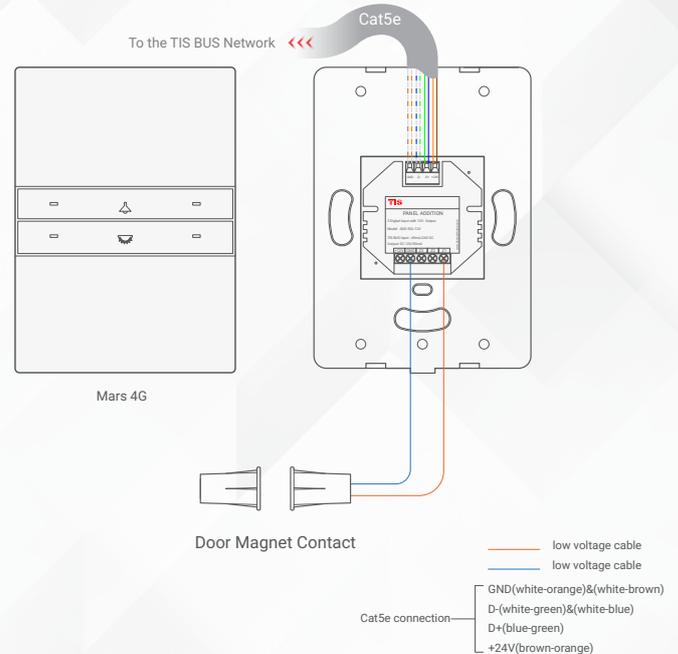
TIS IR Emitter probe

low voltage cable
low voltage cable

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

7

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⚙ INSTALLATION STEPS

≫ FOR PANEL ADDITION 3DL-12V

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

Mars 4G

To the TIS BUS Network

Cat5e

Door Magnet Contact

— low voltage cable
— low voltage cable

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

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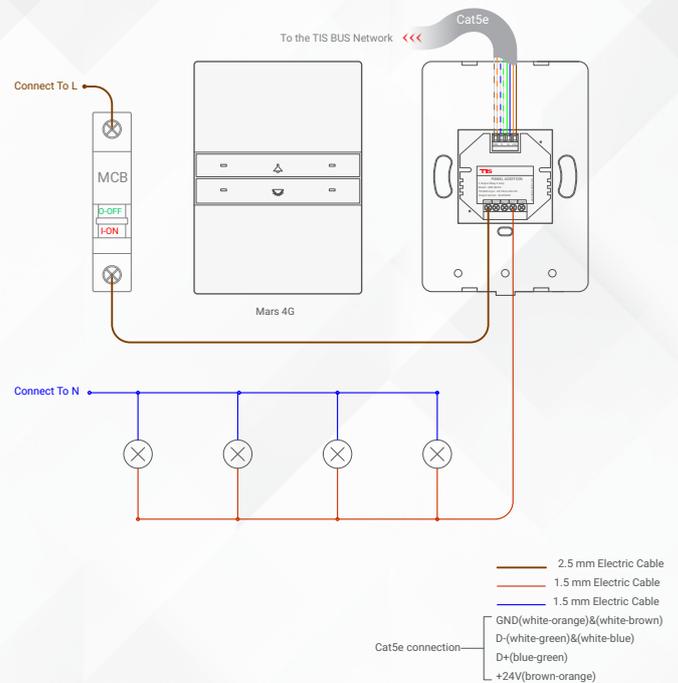

Cat5e

To the TIS BUS Network

Mars 4G

— low voltage cable
— low voltage cable
— low voltage cable

Cat5e connection
- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

TEXAS INTELLIGENT SYSTEM LLC
SUITE# 610. 860 NORTH DOROTHY DR
RICHARDSON
TX 75081.USA

TIS CONTROL LIMITED
RM 1502-p9 Easey CommBldg
253-261 Hennessy Rd Wanchai
Hong Kong

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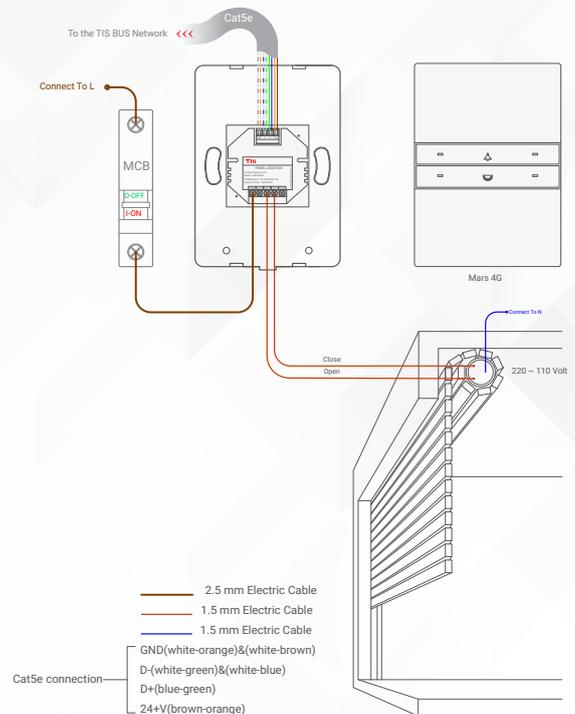
INSTALLATION STEPS

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.

Connect To L
To the TIS BUS Network
Cat5e
MCB
0-OFF
I-ON
Mars 4G
Connect To N

2.5 mm Electric Cable
1.5 mm Electric Cable
1.5 mm Electric Cable
Cat5e connection
GND(white-orange)&(white-brown)
D-(white-green)&(white-blue)
D+(blue-green)
+24V(brown-orange)

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.

To the TIS BUS Network
Cat5e
Connect To L
MCB
0-OFF
I-ON
Mars 4G
Connect To N
Close
Open
220 ~ 110 Volt

2.5 mm Electric Cable
1.5 mm Electric Cable
1.5 mm Electric Cable
Cat5e connection
GND(white-orange)&(white-brown)
D-(white-green)&(white-blue)
D+(blue-green)
24+V(brown-orange)

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INSTALLATION STEPS

FOR PANEL ADDITION 3R-5A

FCU CONNECTION

▶ Connect the supply wire to com

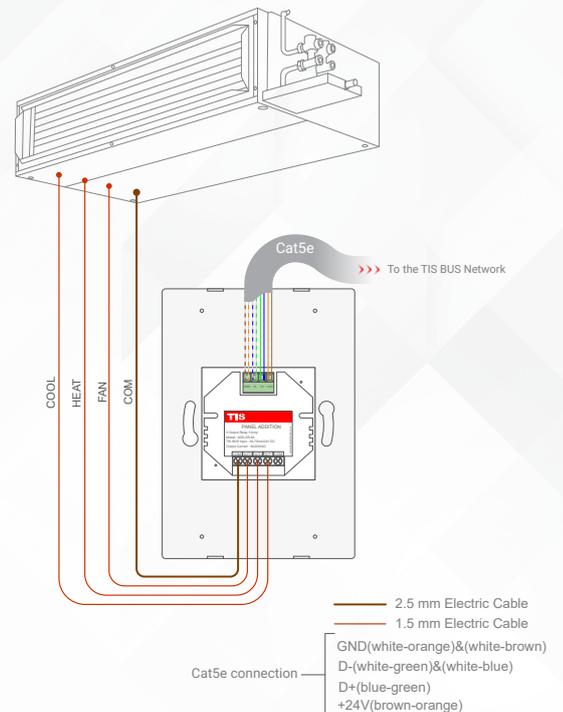▶ Connect the FAN Low, Medium, and High wires to Out1, Out2, and Out3 in the same order.

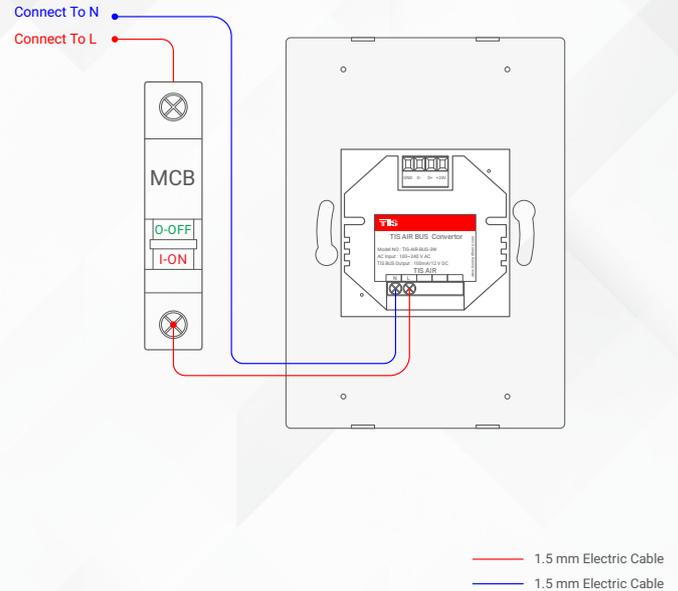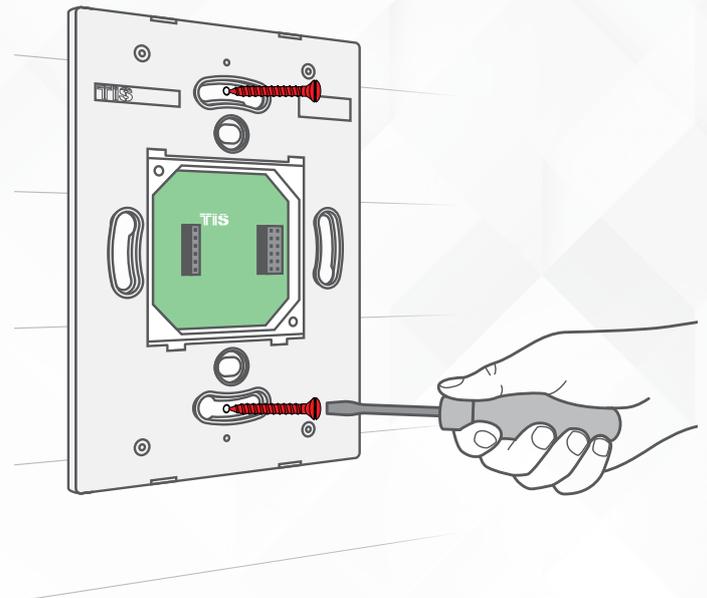**WARNING:** Set the FCU function in the software before connecting the wires.

Connect To L
MCB
0-OFF
I-ON
Mars 4G
To the TIS BUS Network
Cat5e
LOW
MEDIUM
HIGH

2.5 mm Electric Cable
1.5 mm Electric Cable
1.5 mm Electric Cable

Cat5e connection
GND(white-orange)&(white-brown)
D-(white-green)&(white-blue)
D+(blue-green)
24+V(brown-orange)
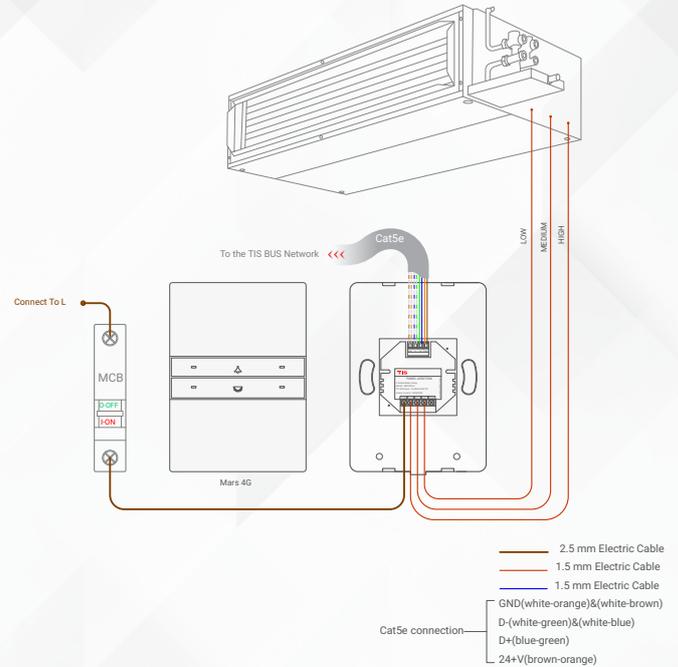
HVAC CONNECTION

▶ 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.

COOL
HEAT
FAN
COM
Cat5e
To the TIS BUS Network
PANEL ADDITION

2.5 mm Electric Cable
1.5 mm Electric Cable

Cat5e connection
GND(white-orange)&(white-brown)
D-(white-green)&(white-blue)
D+(blue-green)
+24V(brown-orange)

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⚙ INSTALLATION STEPS

» FOR PANEL ADDITION AIR-BUS-3W

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

Connect To N

Connect To L

MCB

O-OFF

I-ON

TIS AIR BUS Convertor
Model NO: TIS-AIR-BUS-3W
AC Input: 100~240 V AC
TIS BUS Output: 100mA/12 V DC
TIS AIR

— 1.5 mm Electric Cable
— 1.5 mm Electric Cable

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

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⚙ INSTALLATION STEPS

9 ≫ Pull by your fingers this Protective Plastic Cover vertically, remove it and throw it.
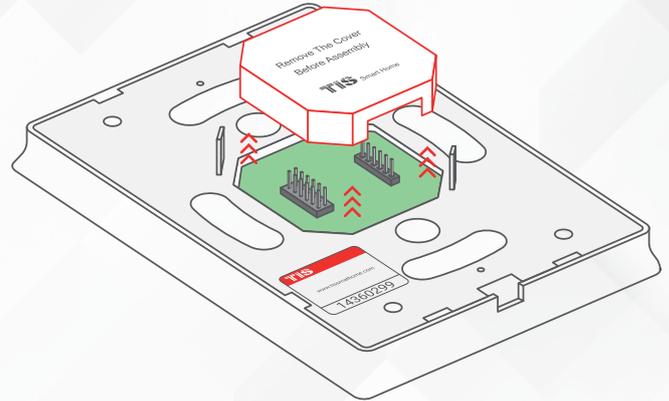
10 ≫ Connect the main Mars panel vertically to the other part installed in the wall.

12

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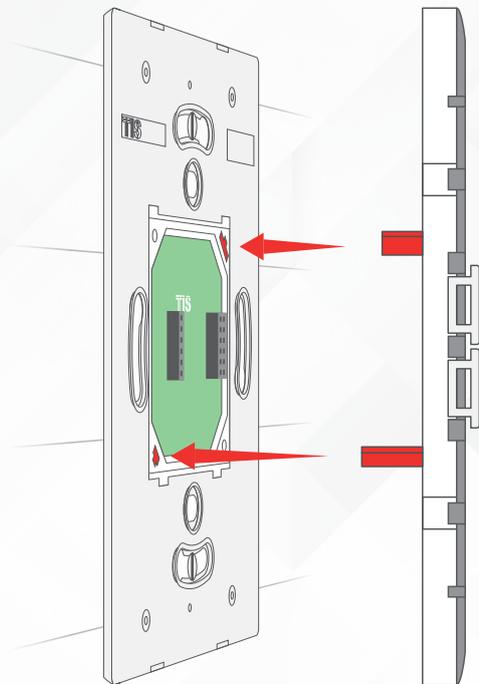
⚙ INSTALLATION STEPS

11 ❯❯ Install the 2 black screws to fix the Mars panel to the wall base.
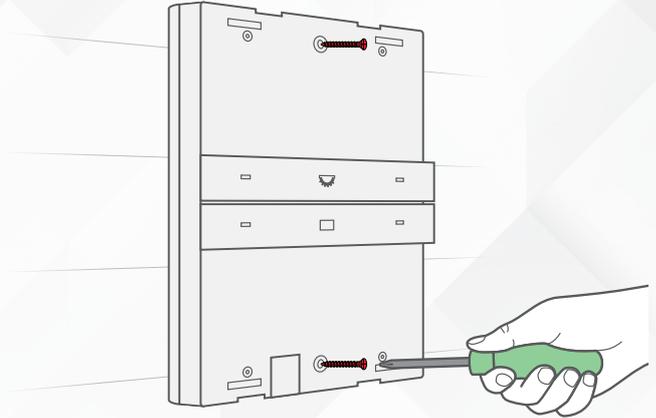
12 ❯❯ Install the Mars Cover on the panel.
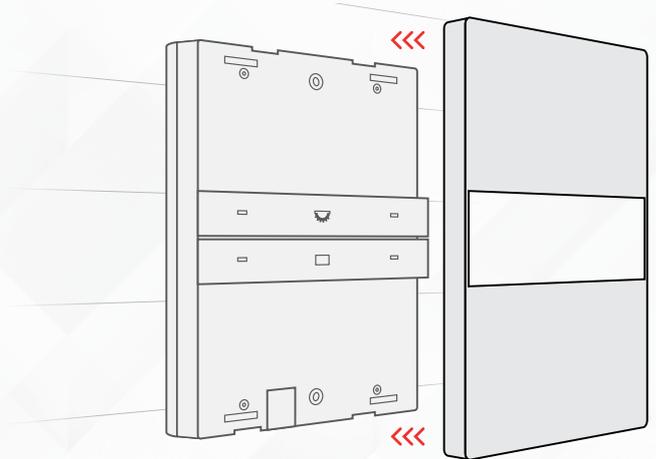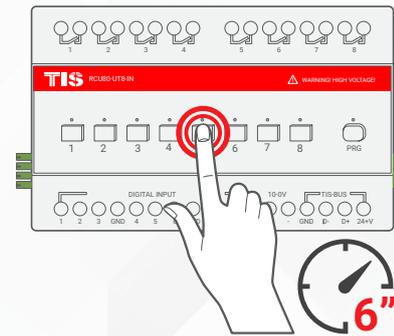
13 ❯❯ Turn on the power source. The panel should turn ON.

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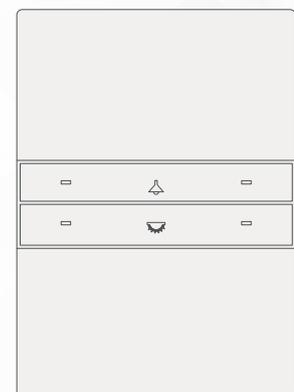
PAIRING (MANUAL PROGRAMMING)

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.

6"

2 ⟫ Shortly press on any button on wall panel or press the wall switch that connected to dry inputs of the panel addition zones.
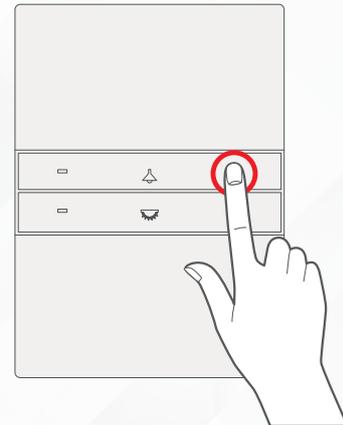
3 ⟫ Test the button on the panel by short pressing it for ON/OFF and long pressing it to dim (if channel is dimmable).
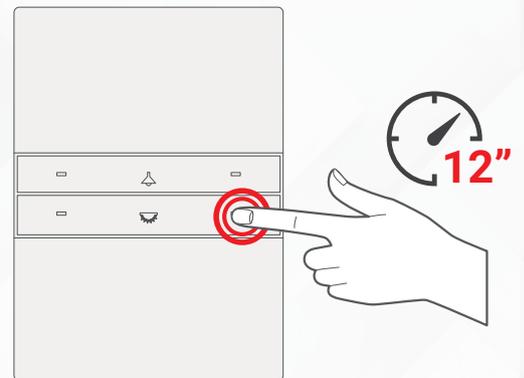

14

🔗 PAIRING (MANUAL PROGRAMMING)

⚙️ SCENARIO PROGRAMMING

The last row of the Panel button (Button 4) can be programmed as a mood (scene) that can save the other 3 buttons' statuses.
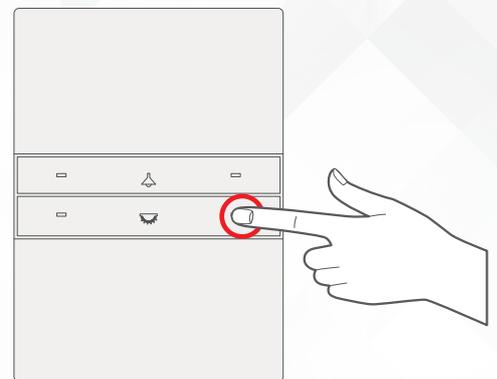
1 ❱❱ Use the first 3 buttons to set your lights to ON/OFF or dim brightness level, shutter status, etc., as per your desired mode (scene)
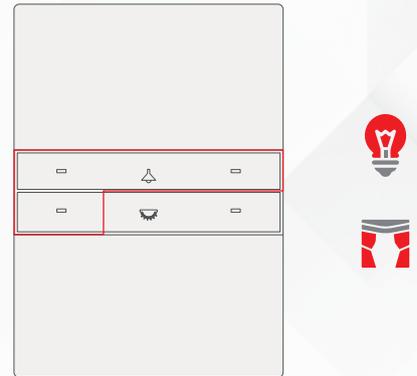
2 ❱❱ Long press button 4 for 12 seconds until its LED blinks RED.

12"

3 ❱❱ The scene is programmed; you can test it by single press on button 4.
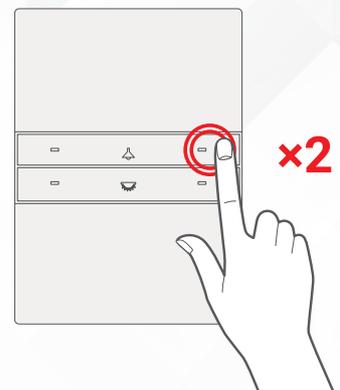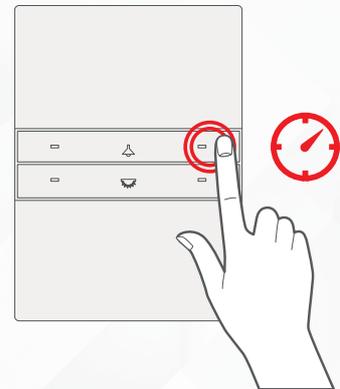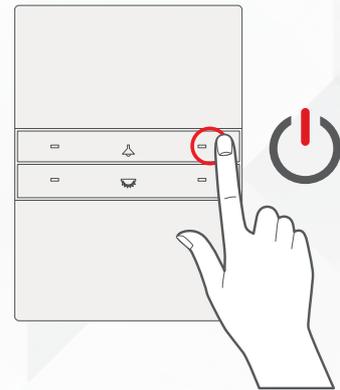
15

USER MANUAL

USING THE PANEL

You can use the panel buttons 1-4; press on any button to get the settings that you programmed.

▶ Short press for ON/OFF or to run a scene.
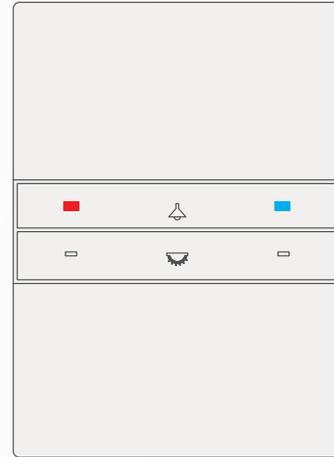
▶ Long press to dim or ramp up the lights.

▶ Double click to trigger a special programmed scene.

×2

16

❓ USER MANUAL

▶ You can enable or disable the white backlight, and you can set the LED status color from blue to red.

📱 TIS-MRC REMOTE CONTROL

You can use TIS's IR Remote Control to run programmed buttons 1-4. You can also set the music audio player address on the Mars and play music using the Remote Control.

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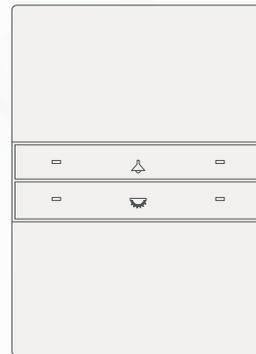
🧰 TROUBLESHOOTING

❓	**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.

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