INSTALLATION MANUAL

TIS IO 8-GANG PUSH-BUTTON PANEL

Model: IO-8G

TiiS

Automation Made Easy

ℹ PRODUCT INFORMATION

With its elegant shape and design, the IO 8G is available in black or white with 8 stylish push buttons. It includes a backlit white LED that can be customized with an engraving of any icon for friendly use.

PRODUCT SPECIFICATIONS

Input	Using Panel Addition	2-3 Digital Input	
Output	Using Panel Addition 3R	3 Relay Output 3A/5A	
	Using Panel Addition 3DL-12V	12V DC 50mA Output	
	Using Panel Addition 2DL-IRE	IR Emitter	
TIS Bus	Number of devices on 1 line	Max. 64	
	Bus voltage	12-32 V DC	
	Current consumption	<45 mA / 24 V DC	
Protection		Reverse Polarity Protection	
		ESD Protection	
Operating and display elements	push buttons	8 push buttons with White/Orange LED	
	Backlight	White backlit indicators	
	TIS bus	TIS Protocol messages and commands	
Dimensions	Width × Length × Height	90mm (94mm peak) × 13mm × 129mm	
Housing	Materials	PC fire proof / acrylic in front	
	Casing color	Silver plating frame, acrylic white or black	
	Internal Parts color	Black & White	
	IP rating	IP 50	

CE RoHS COMPLIANT PG ✔ 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 follow 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 fits on most 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 1.5mm - 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.

2

⚙ INSTALLATION STEPS

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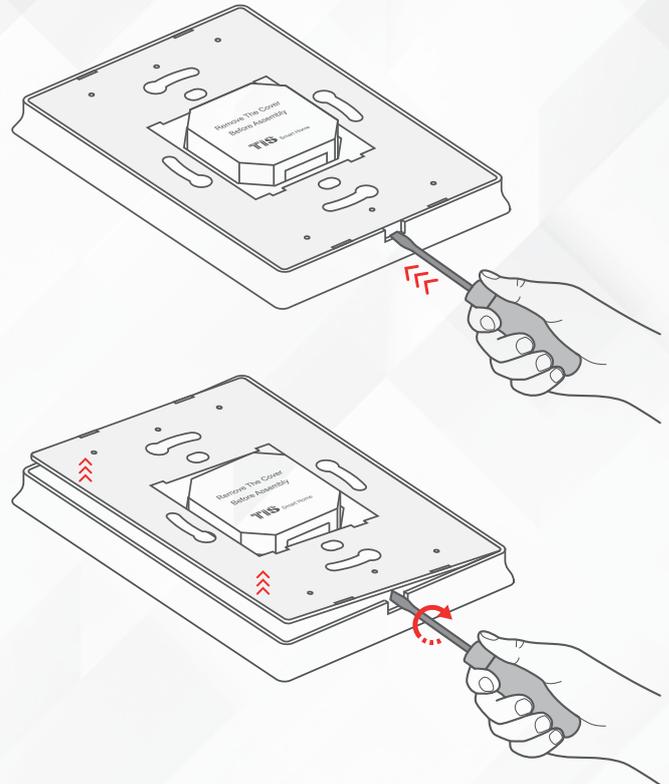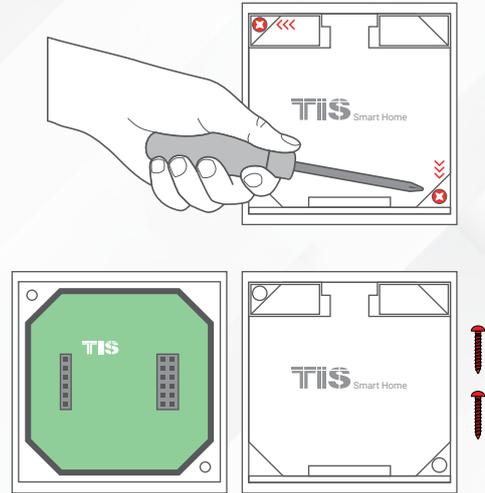
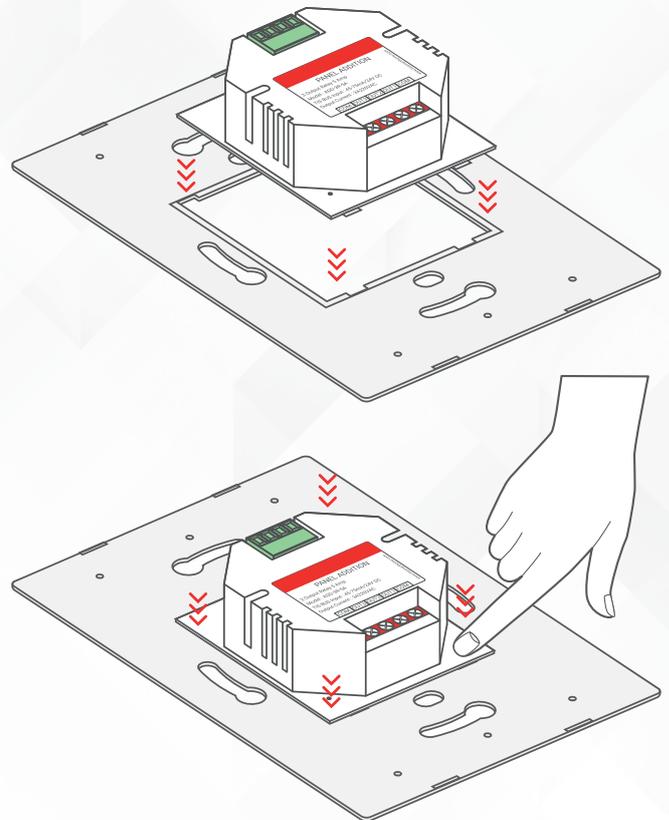**2** ›› Separate the Cover, Main Panel, and Wall Base from each other.

3
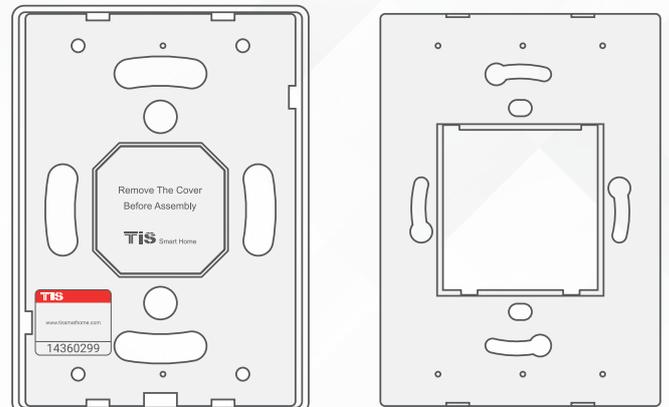
⚙ INSTALLATION STEPS

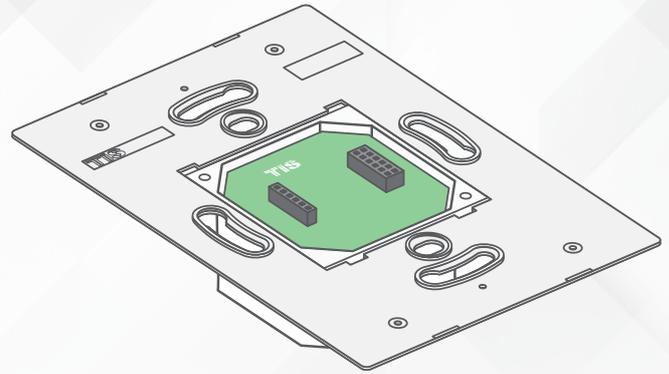**3** » Remove the 2 screws on the Panel Addition cover.

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.
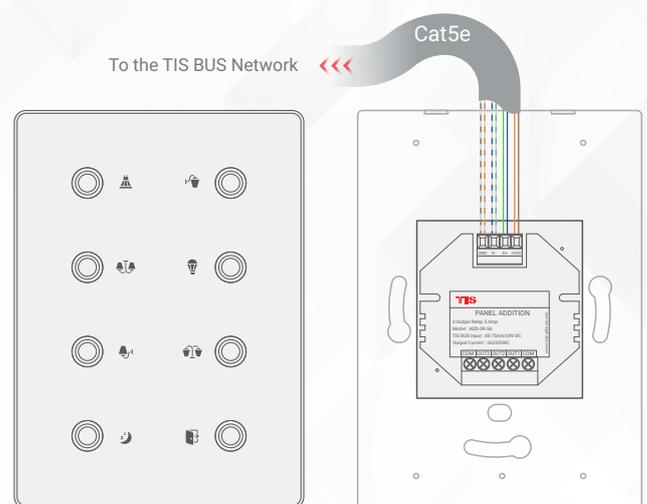

5 » Turn off the main electrical source before installation.

⚠ **WARNING! HIGH VOLTAGE**

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

To the TIS BUS Network ‹‹‹

Cat5e

PANEL ADDITION

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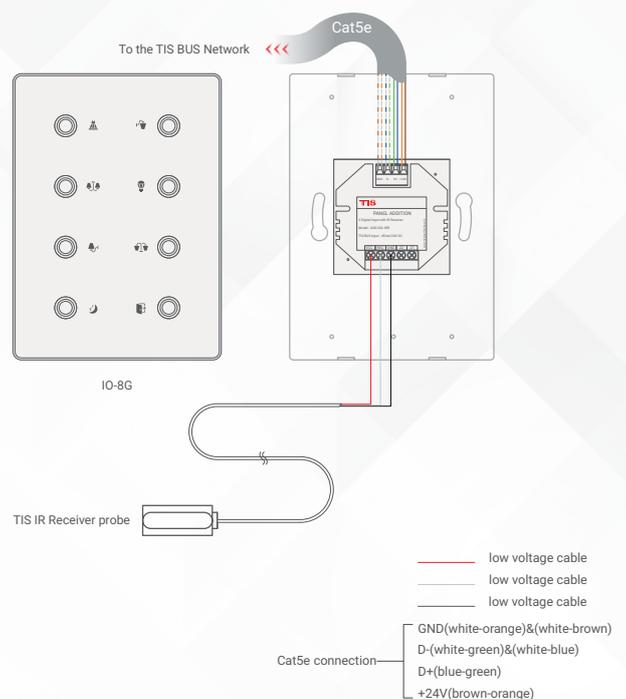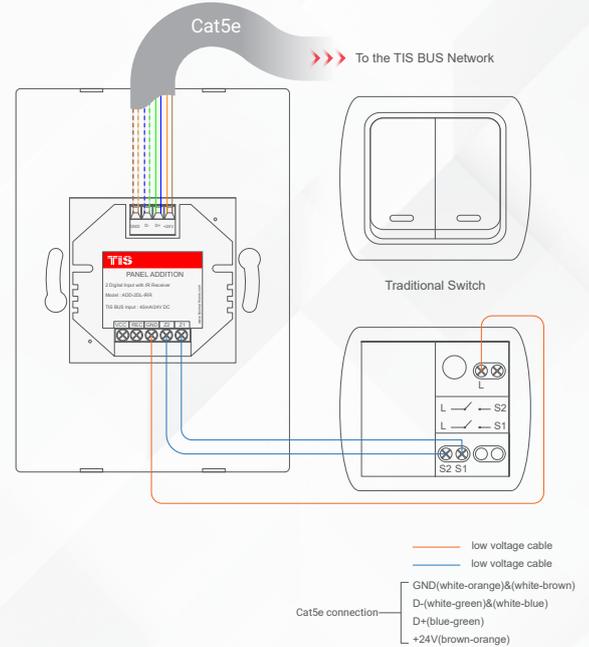
⚙ INSTALLATION STEPS

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

L
L ⟋ S2
L ⟋ S1
S2 S1

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.

Cat5e

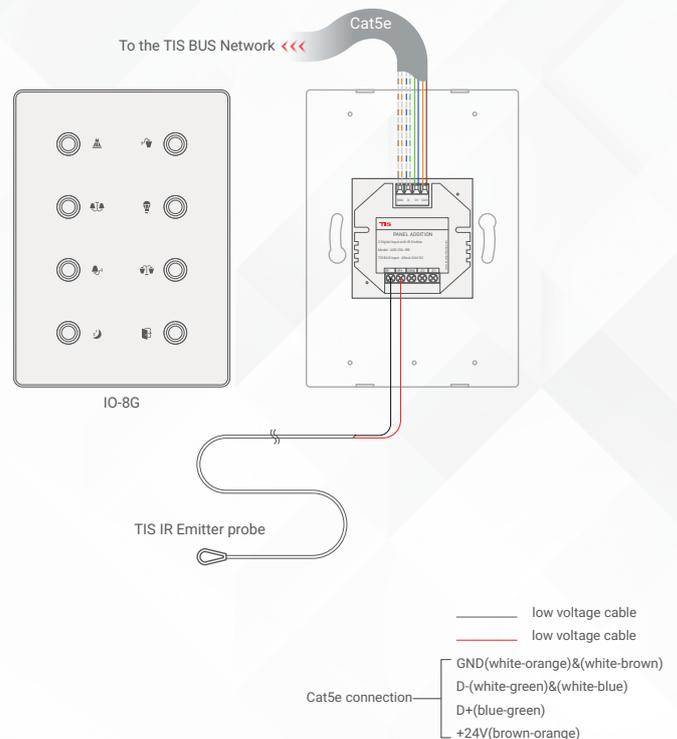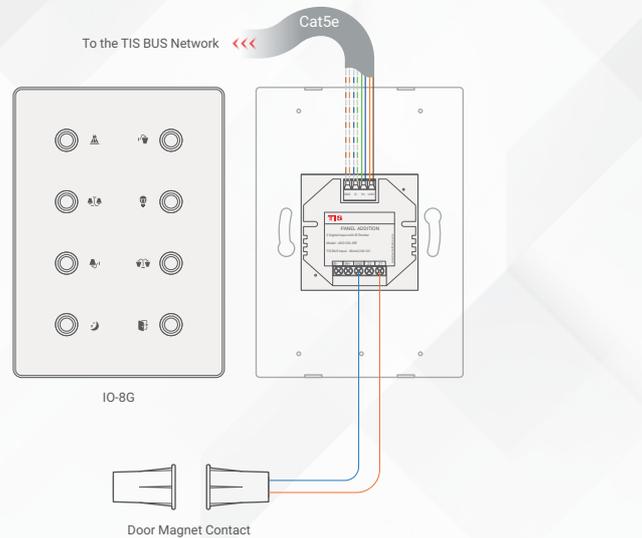To the TIS BUS Network

IO-8G

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)

6

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INSTALLATION STEPS

❯❯ FOR PANEL ADDITION 2DL-IRE

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

To the TIS BUS Network

Cat5e

IO-8G

Door Magnet Contact

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

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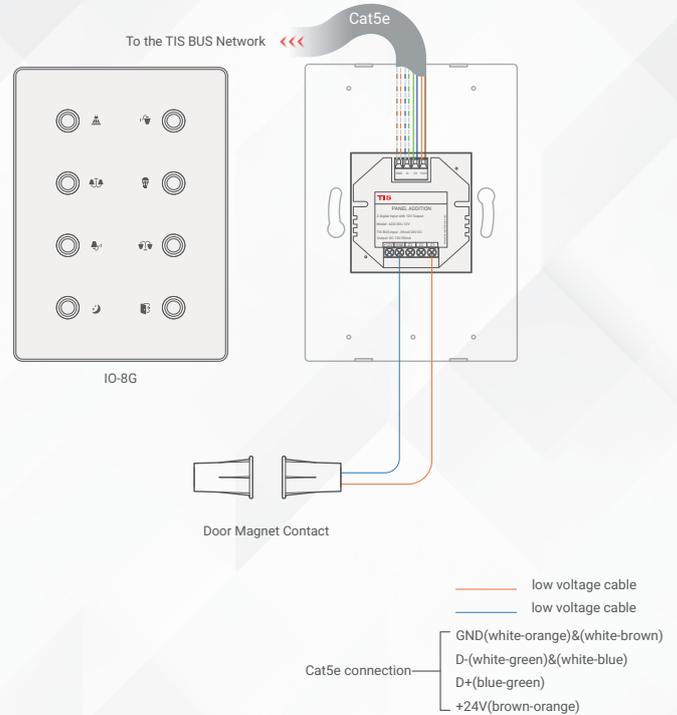- GND(white-orange)&(white-brown)
- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

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

▶ Connect the negative wire to IR-terminal.

To the TIS BUS Network

Cat5e

IO-8G

TIS IR Emitter probe

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

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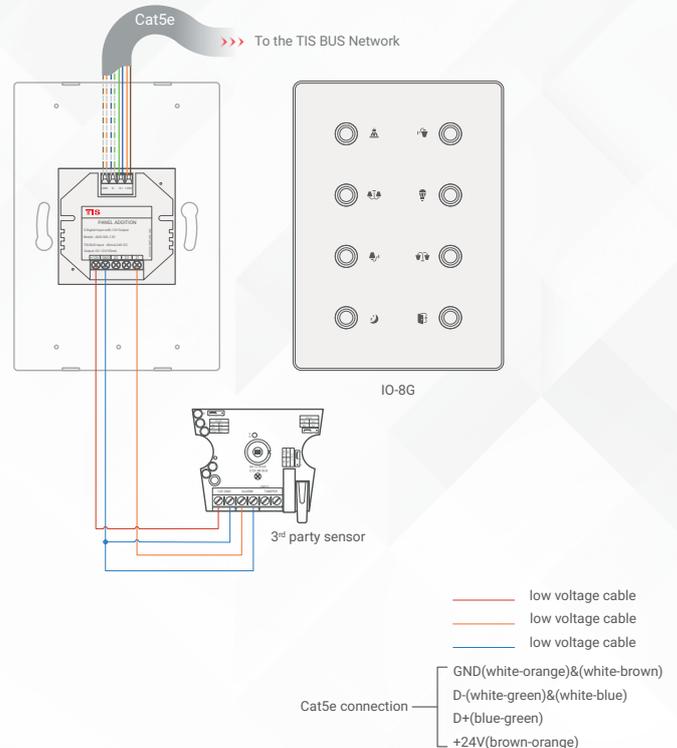- D-(white-green)&(white-blue)
- D+(blue-green)
- +24V(brown-orange)

7

⚙ INSTALLATION STEPS

» FOR PANEL ADDITION 3DL-12V

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

To the TIS BUS Network ‹‹‹ Cat5e

IO-8G

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.
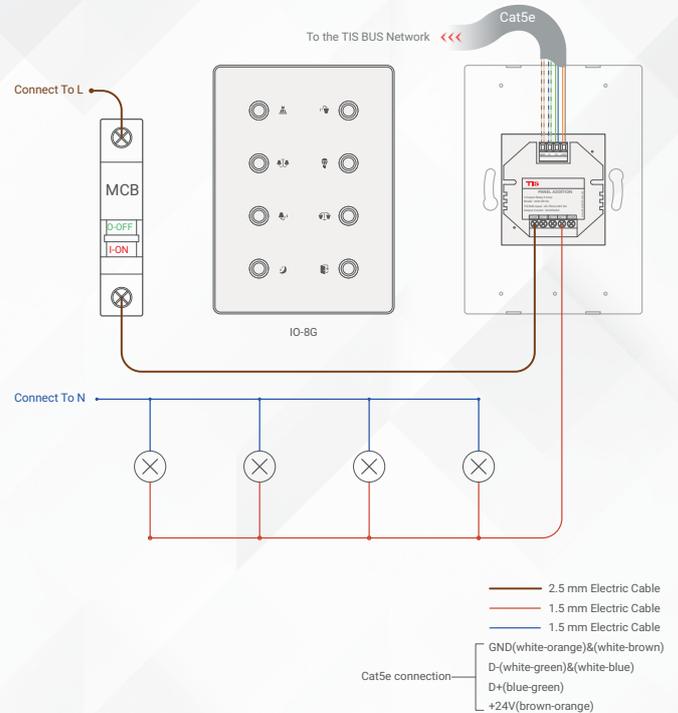

Cat5e ››› To the TIS BUS Network

IO-8G

3rd party sensor

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)

8

⚙ INSTALLATION STEPS
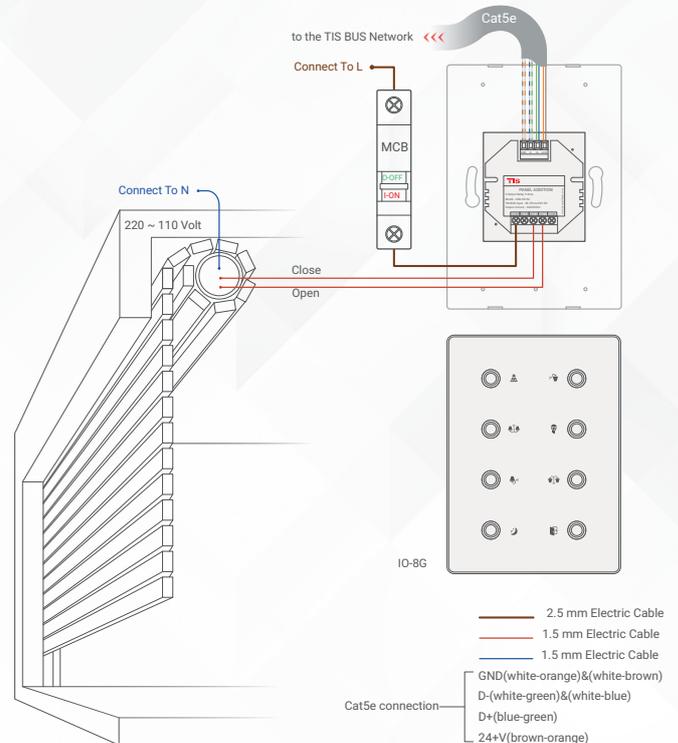
➤➤ FOR PANEL ADDITION 3R-5A

💡 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

MCB
0-OFF
I-ON

IO-8G

Connect To N

To the TIS BUS Network ◀◀◀ Cat5e

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

🪟 SHUTTER / 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.

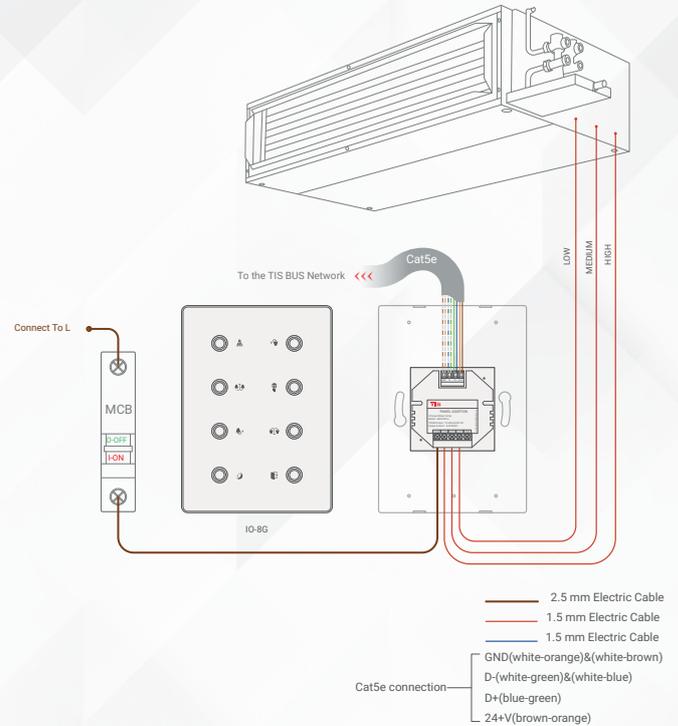⚠ **WARNING:** Set the curtain function in the software before connecting the wires.

to the TIS BUS Network ◀◀◀ Cat5e

Connect To L

MCB
0-OFF
I-ON

Connect To N

220 ~ 110 Volt

Close
Open

IO-8G

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

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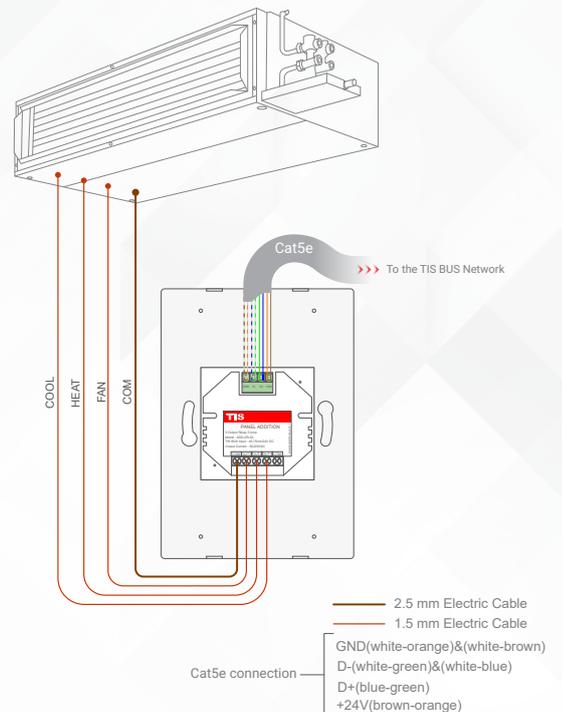
⚠ **WARNING:** Set the FCU function in the software before connecting the wires.

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)
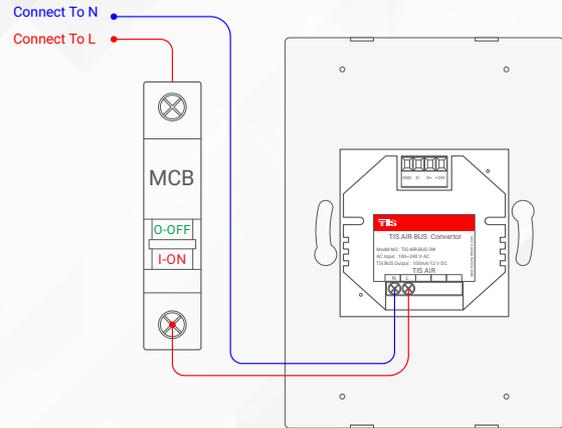24+V(brown-orange)

❋ 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.

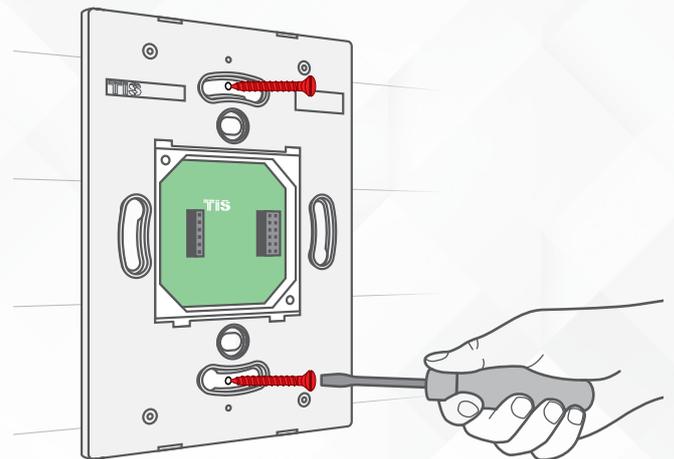⚠ **WARNING:** Set the HVAC function in the software before connecting the wires.

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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RICHARDSON
TX 75081.USA

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

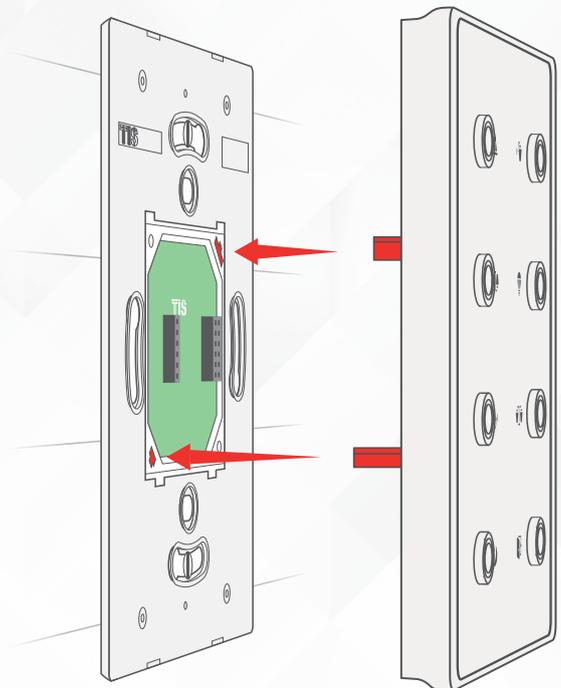**www.tiscontrol.com**

⚙ INSTALLATION STEPS

9 ≫ Using your fingers, pull the protective plastic cover vertically, remove it, and throw it away.
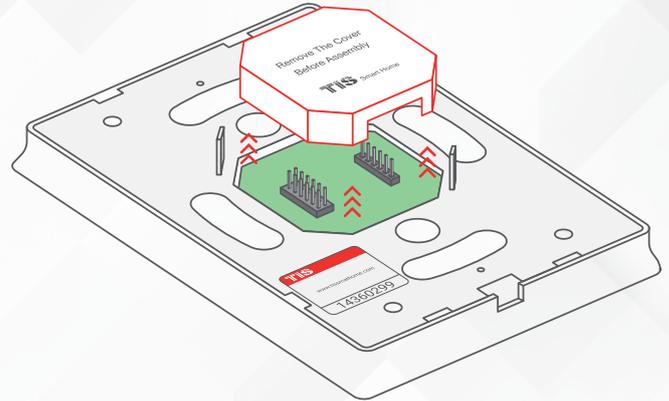
10 ≫ Connect the main Luna panel vertically to the part installed on the wall; install the upper part by making sure the buckles are completely inside.
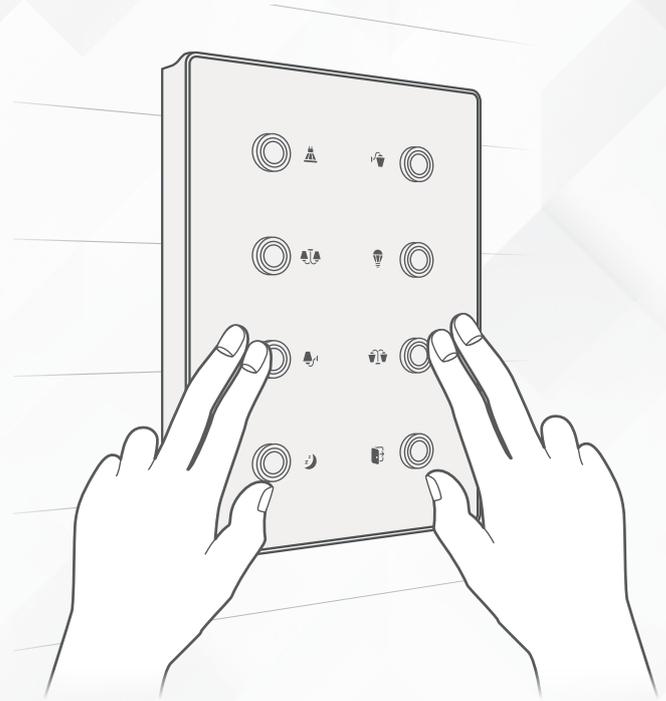
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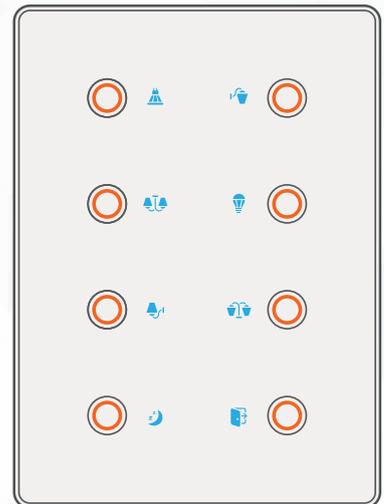www.tiscontrol.com

⚙ INSTALLATION STEPS

11 » Push on the bottom part of the main panel to fix it to the wall and complete the assembly.

**12 »** 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 relay or dimmer module channel for 6 seconds so that the LED indicator light of that button starts blinking.
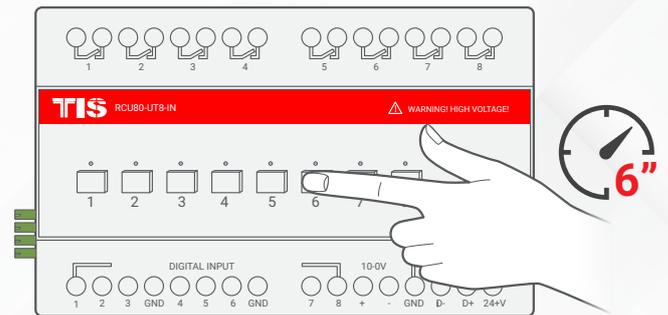
2 ›› On the IO Push buttons, shortly press on any push button or press the wall switch that is connected to the dry inputs of the panel addition zones.
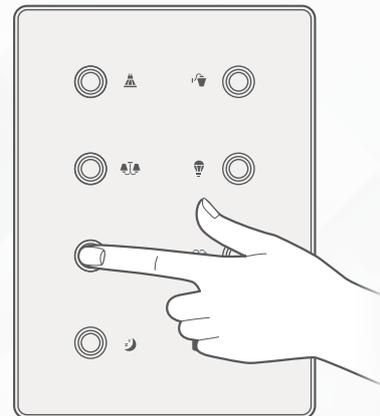
3 ›› Test the button on the panel by short pressing it for ON/OFF and long pressing it to dim (if channel is dimmable).

14
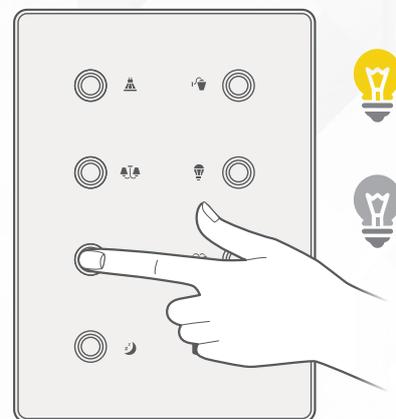
USER OPERATION

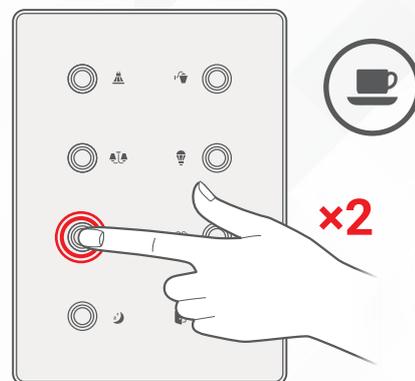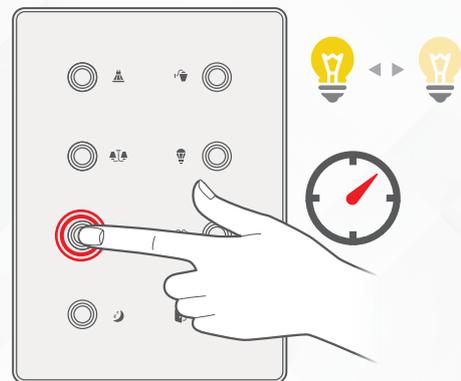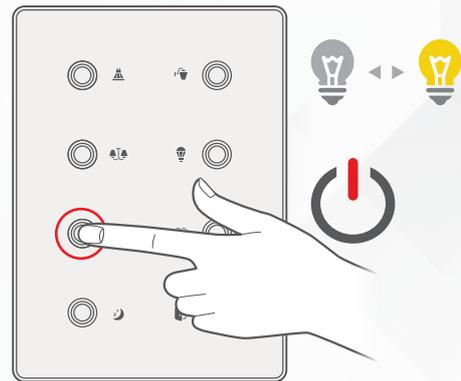## LIGHTS / SHUTTERS / SCENE CONTROL

You can use the 8 push buttons to control lights and other devices.

Press on the push buttons as follows:

>> Short press for lights ON/OFF, shutter open/close, or to run a scene.

>> Long press to dim or ramp up the lights.

>> Double click to trigger a special programmed scene.

×2

15

TROUBLESHOOTING

?	**The panel's buttons blinks rapidly**	**Reason:** The panel address conflicts with another device in the TIS network. You need to press and hold any push button for 6 seconds so that 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 used AIR bus-3W converter). **Reason 2:** The TIS 24V power supply is not connected to the TIS-BUS.
?	**The 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).
?	**The 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.
?	**The backlite display on some buttons is the wrong color if the light is turned ON/OFF**	**Reason:** Software LED backlite setting has been changed. Please program it to show the correct color.

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