



# Installation Guide

## For HyPanel Ultra



Smarter Home  
Sweeter Life

# Welcome!

This guide applies to HyPanel Ultra.

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## Before We Start

Your first time installing this product may take up to 40 minutes. You'll get faster after each installation.



### **Warning**

The installation procedure may involve handling high voltage wiring. Please be careful. To avoid serious personal injury, death, or property damage, turn OFF the power to the circuit and follow all safety precautions before proceeding.

Working with electricity can be dangerous. If you are unsure about, or uncomfortable with the installation, seek the help of a qualified electrician.



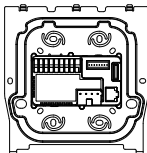
### **Warning**

Keep the device and all its parts out of the reach of children. The small parts or accessories contained may be a choking hazard to them.

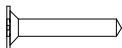
## In The Box



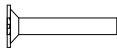
HyPanel Ultra **x 1**



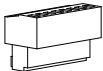
Flush Mounted Module **x 1**



ST3.0x20mm Phillips  
Self Tapping Screw **x 6**



M4.0x20mm Phillips  
Machine Screw **x 4**



Terminal Block **x 1**



10-Pin Cable **x 1**

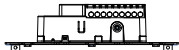


Hex Key **x 1**

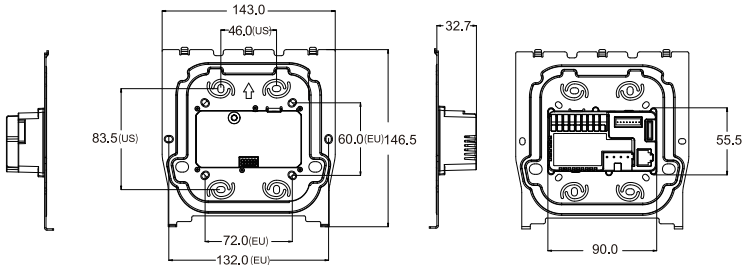
# Check Compatibility

## Product dimensions (mm)

Flush mounted module



⑤ BOTTOM VIEW



② RIGHT VIEW

① FRONT VIEW

③ LEFT VIEW

④ BACK VIEW

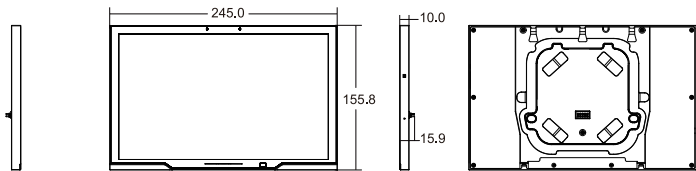


⑥ TOP VIEW

# Panel



⑤ BOTTOM VIEW



② RIGHT VIEW

① FRONT VIEW

③ LEFT VIEW

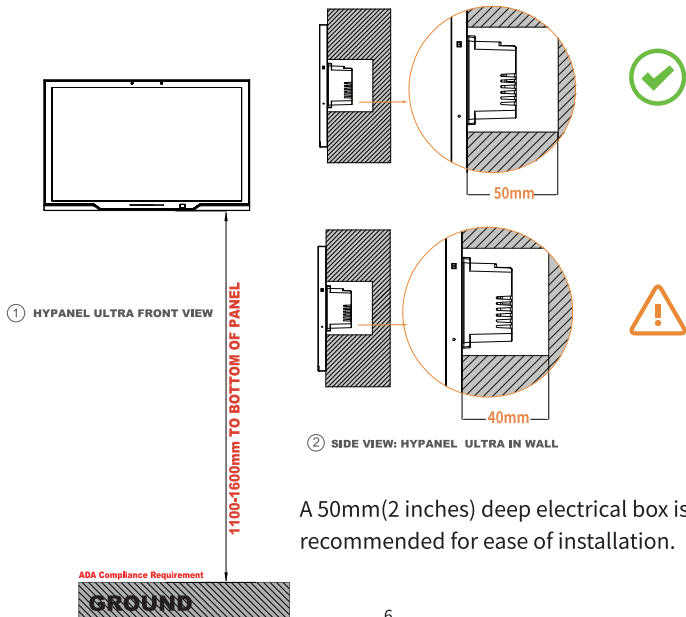
④ BACK VIEW



⑥ TOP VIEW

## Working space

Make sure HyPanel Ultra is compatible with the location where you want to install it.

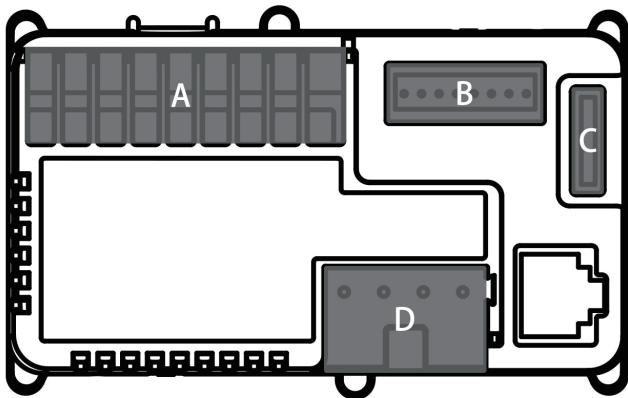


A 50mm (2 inches) deep electrical box is highly recommended for ease of installation.

## Connector zone specifications

The flush mounted module has 3 connector zones: A, B, and C, each designed for specific applications.

- Zone A: Max 3A at 100~240VAC per channel; for a dry contact connection the voltage range can be 0~240V.
- Zone B: Max 2A at 0~30VDC per channel.
- Zone C: 0~5VDC digital inputs.





## Wire requirements

Wire sizes for each connector zone

- Zone A: 1.5mm<sup>2</sup> ~ 2.5mm<sup>2</sup> (16 ~ 14AWG ) wires.
- Zone B: 0.08mm<sup>2</sup>~ 0.5mm<sup>2</sup> (28 ~ 20AWG) wires.
- Zone C: Supplied 10-pin cable.

Stripped and straight ends required:

8 mm (5/16 inch) after removing the plastic sheathing.



## 12-24VDC power required

HyPanel Ultra requires a 12-24VDC power supply with a 18W rating.

## Support Wi-Fi and Ethernet connections

HyPanel Ultra can operate with both wireless and wired networks. A wired connection is recommended for greater reliability and faster data exchange.

# Wiring

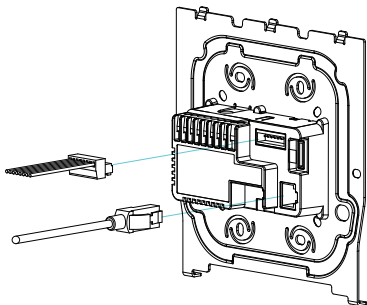


## Warning

Turn OFF the circuit breaker before wiring and proceeding!

Always use a voltage detector to verify the power is OFF before wiring and installation!

## Power supply connection



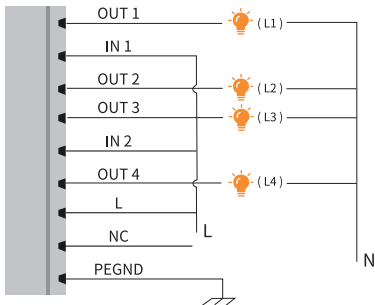
- ◆ Plug the supplied terminal block into Zone B.
- ◆ Insert wires from a 12-24 V DC power adapter into the PWR+ and PWR- terminals.

## **(Optional) Wired network connection**

Plug the RJ45 network cable to the Ethernet port.

## Zone A connections

### Sample connection 1: Lights

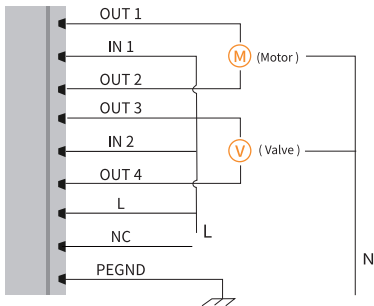


- ♦ OUT1/2/3/4: Output terminals, connected to load devices.
- ♦ IN1/2: Input terminals, connected to 100-240V Line wire.
  - IN1: Provide input to the Out1 and Out2 terminals.
  - IN2: Provide input to the Out3 and Out4 terminals.
- ♦ L: Connected to the Line wire.
- ♦ NC: Reserved. Leave it unconnected.
- ♦ PEGND: Protective Earth terminal, connected to the Earth wire.
- ♦ N: Neutral wire.

### NOTE:

To extend device lifespan, it is strongly recommended to connect both L and PEGND terminals to their respective lines.

## Sample connection 2: Curtain motor and smart valve

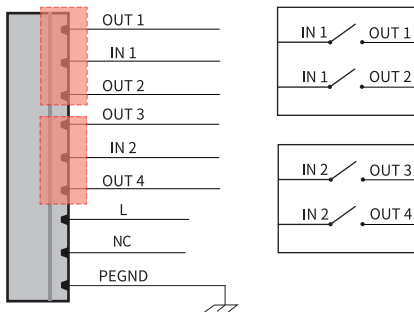


- OUT1/2/3/4: Output terminals, connected to load devices.
- IN1/2: Input terminals, connected to 100-240V Line wire.
  - IN1: Provide input to the Out1 and Out2 terminals.
  - IN2: Provide input to the Out3 and Out4 terminals.
- L: Connected to the Line wire.
- NC: Reserved. Leave it unconnected.
- PEGND: Protective Earth terminal, connected to the Earth wire.
- N: Neutral wire.

### NOTE:

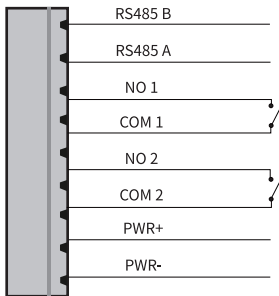
To extend device lifespan, it is strongly recommended to connect both L and PEGND terminals to their respective lines.

### Sample connection 3: Dry contact



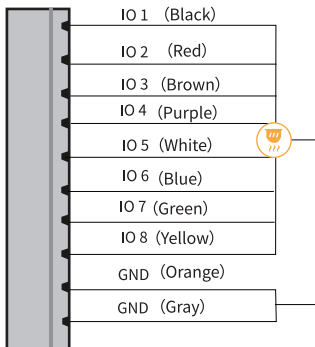
- OUT1/2/3/4: Output terminals, connected to load devices.
- IN1/2: Input terminals, connected to 0-240V Line wire.
  - IN1: Provide input to the Out1 and Out2 terminals.
  - IN2: Provide input to the Out3 and Out4 terminals.
- L: Leave it unconnected.
- NC: Reserved. Leave it unconnected.
- PEGND: Protective Earth terminal, connected to the Earth wire.
- N: Neutral wire.

## Zone B connections



- ♦ RS485A/B: Connect to RS485 devices.
- ♦ NO: Normally Open terminals, connected to devices such as door locks. Note that each channel supports 2A/30V maximum.
- ♦ COM: Common terminals, connected to devices such as door locks. Note that each channel supports 2A/30V maximum.
- ♦ PWR+/-: Connect to a 12-24 VDC power adapter to provide power to HyPanel Ultra.

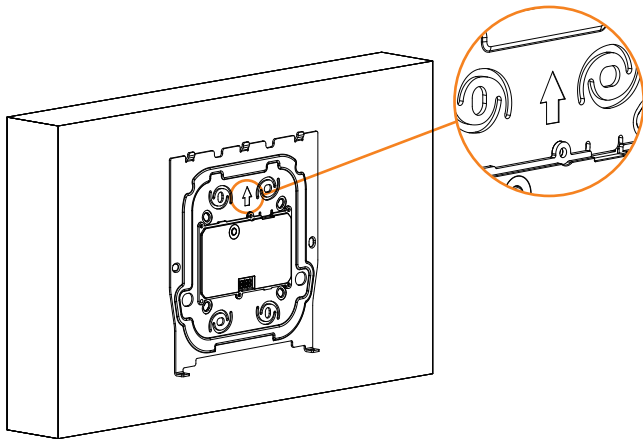
## Zone C connections



- IO1-8: Connect to inputs, such as wired sensors, door bells, and more.
- GND: Common point, connected to the negative power supply terminal. Select any GND terminal for the connection.

# Installation

- 1 Confirm installation direction



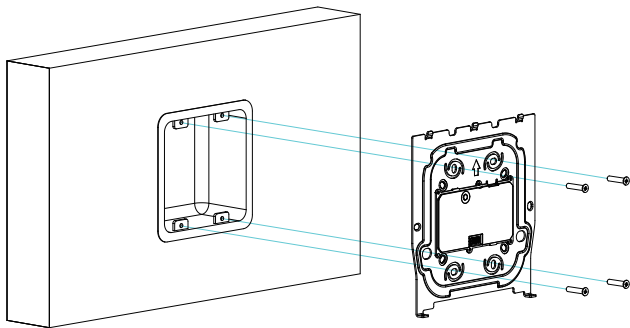
Make sure the arrow on the front of the flush mounted module is pointing up.



## ② Install flush mounted module

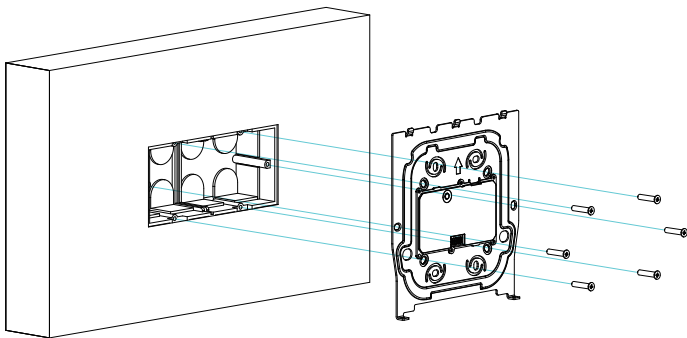
This installation step varies slightly depending on the specific standard electrical box.

### a. US standard electrical box



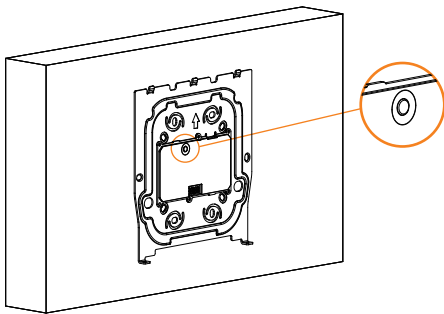
- Change the torque on the electric screwdriver to 5kgf.cm.
- Fix the flush mounted module to the wall using four supplied M4x20mm machine screws.
- Ensure the flush mounted module is level and flush against the wall.

## b.EU standard electrical box



- Change the torque on the electric screwdriver to 5kgf.cm.
- Fix the flush mounted module to the wall using six supplied ST3.0x20mm self tapping screws.
- Ensure the flush mounted module is level and flush against the wall.

### 3 Test connected devices



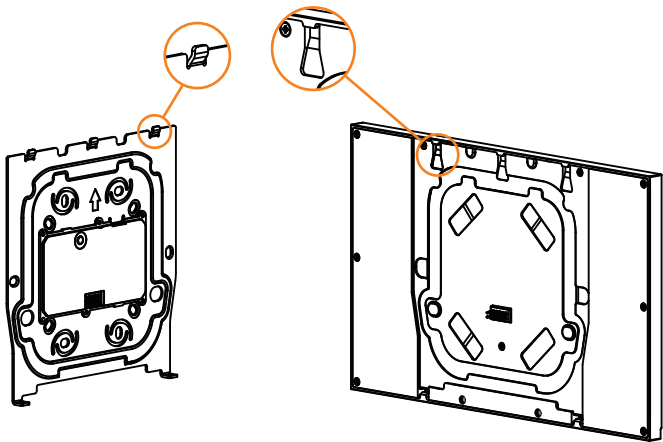
- Turn on the circuit breaker to provide power to the flush mounted module.
- Press the button to check if the connected devices can work.
  - Press the button once, the connected 100-240V device is turned on.
  - Press the button again, the device is turned off .
- Repeat this process to test the four connected 100-240V devices and two connected 2A/30V DC devices.

If the devices do not turn on/off, do NOT install the panel. Turn the power off and re-check the wire connections.

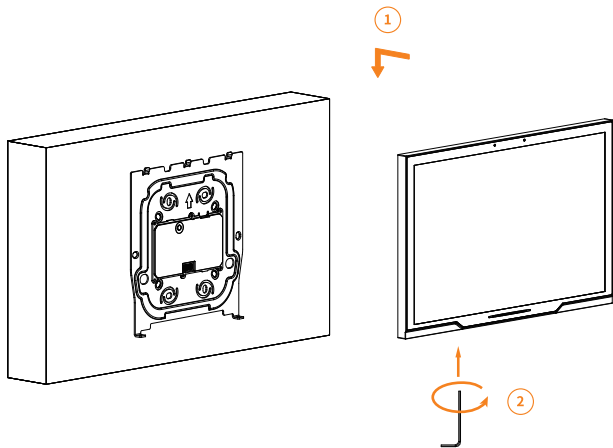
#### 4 Install panel



Turn OFF the circuit breaker before you install the panel.

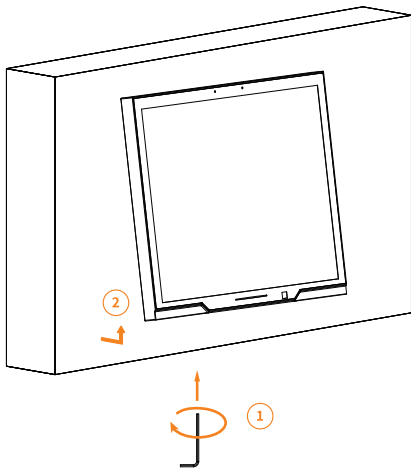


Line up the two clips on the flush mounted module with the notches on the panel. Snap the panel into place and press it down.



- Check the panel is properly clipped onto the module and is flush against the wall.
- Locate two screw holes at the bottom of the panel, each already containing a screw.
- Tighten the screws with the included hex key.

## If you need to remove the panel



- Turn two screws at the bottom with the hex key until the rear edge of the panel comes loose.
- Hold the panel's top with one hand, and pull the panel outwards from the bottom.

# Congratulations!

You are done with the HyPanel Ultra installation!

Start your smart home journey with Akubela now!

## Get Help

For help or more assistance,  
contact us at: <https://ticket.akuvox.com/>

For videos, guides, and additional product formation,  
visit us at: <https://knowledge.akuvox.com>



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