HDL®

Tile Series Button Smart Panel 2.1

Instruction Manual
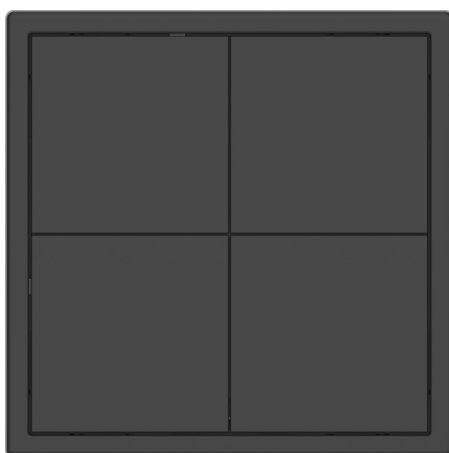
MPBT-1/2/3/4/8B-KT.18

Document Version：C

◇◆ Overview

Tile Series 1/2/3/4/8-button smart panel 2.1, with mechanical buttons, supports a variety of button modes and button control types. It can achieve basic control functions such as switch, dimming, colour temperature, RGB control, curtain, scene, etc. It also has a built-in temperature sensor to detect the local temperature; each group of buttons can be customized with laser engraving and support the RGB indication function of the buttons. The colour and brightness of button indicators can be customized through HDL commissioning software. Tile Series panels 2.1 have plastic and metal versions. Their excellent performance and wide range of application scenarios make them an ideal choice for modern home intelligent design solutions.

Product name	Model No.
Tile Series 1 button smart panel 2.1	MPBT-1B-KT.18
Tile Series 2 buttons smart panel 2.1	MPBT-2B-KT.18
Tile Series 3 buttons smart panel 2.1	MPBT-3B-KT.18
Tile Series 4 buttons smart panel 2.1	MPBT-4B-KT.18
Tile Series 8 buttons smart panel 2.1	MPBT-8B-KT.18

Main functions:

- Lighting control: switch, dimming, colour temperature, RGB
- Curtain control: support curtain opening, closing, and stopping percentage control
- Scene control: support one-button scene control
- Built-in temperature sensor: support sending local temperature value to the bus for scene and automation control condition input.
- RGB LED indication function: support customizing the brightness and colour of the button indicator light.
- Button locking function: support panel button locking function to prevent outsiders from manually controlling the panel or children from accidentally touching it.
- Proximity sensing function: support automatically sleep of the button indicator, the human body approaches to wake up the indicator.
- Slow start: It slowly lights up when someone is detected and gradually turns off when no one is detected.
- Button text laser engraving customization: support custom button laser engraving, according to user needs for text size and content engraving, making it easy to identify the control target of the button

◇◆ Appearance

Tile series button panels 2.1 include: 1/2/3/4/8 button panels, the front view of the panel and the button serial numbers are as follows:
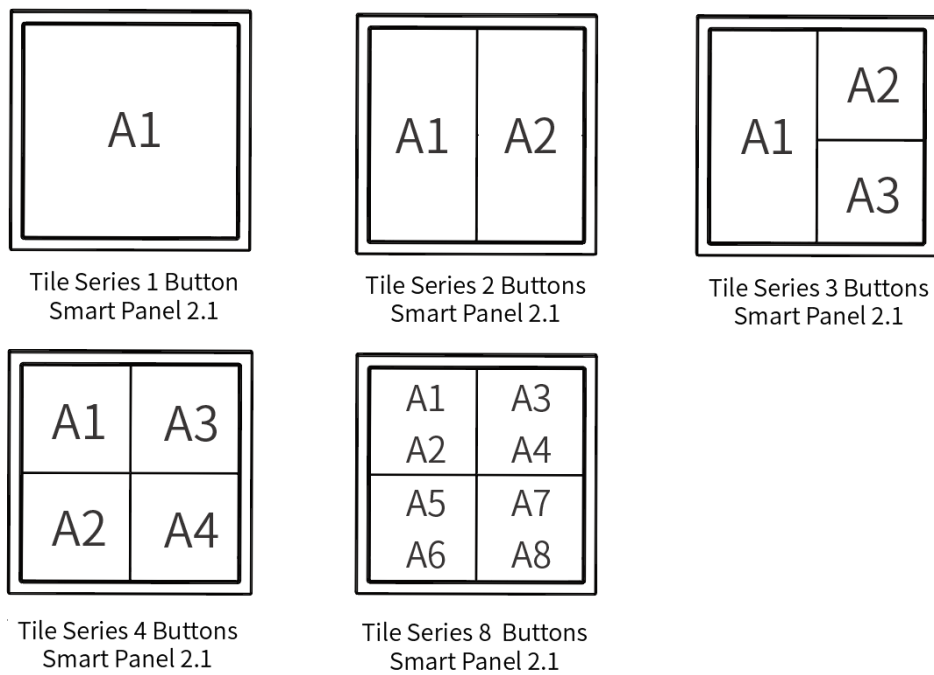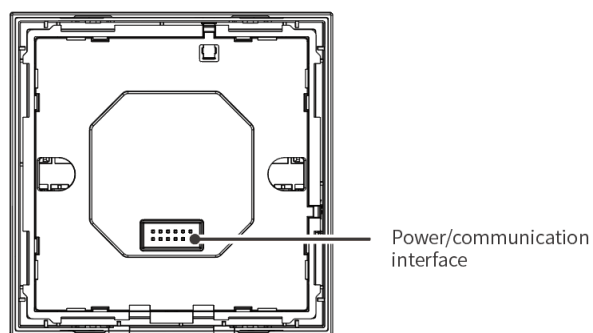
Tile Series 1 Button
Smart Panel 2.1

Tile Series 2 Buttons
Smart Panel 2.1

Tile Series 3 Buttons
Smart Panel 2.1

Tile Series 4 Buttons
Smart Panel 2.1

Tile Series 8 Buttons
Smart Panel 2.1

Figure 1

Power/communication
interface

Figure 2

◇◆ Technical Data

Item	Parameter
Rated voltage	30V DC

Rated current	**Single power supply interface：** 1 Button： 17mA/30V DC 2 Buttons： 20mA/30V DC 3 Buttons： 25mA/30V DC 4 Buttons： 30mA/30V DC 8 Buttons： 30mA/30V DC **2CH/10A Relay ：** 1 Button： 31mA/24V DC ， 10mA/30V DC 2 Buttons： 34mA/24V DC ， 10mA/30V DC 3 Buttons： 39mA/24V DC ， 10mA/30V DC 4 Buttons： 43mA/24V DC ， 10mA/30V DC 8 Buttons： 43mA/24V DC ， 10mA/30V DC **4CH/10A Relay ：** 1 Button： 51mA/24V DC ， 10mA/30V DC 2 Buttons： 54mA/24V DC ， 10mA/30V DC 3 Buttons： 59mA/24V DC ， 10mA/30V DC 4 Buttons： 63mA/24V DC ， 10mA/30V DC 8 Buttons： 63mA/24V DC ， 10mA/30V DC
Communication protocol	KNX
Cable diameter of Buspro terminal	0.6-0.8mm
Working temperature	-5℃~45℃
Working relative humidity	≤90%RH, non-condensed
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

◇◆ Specifications

Item	Parameter
Dimensions (W X H X D)	86×86×10.5(mm)

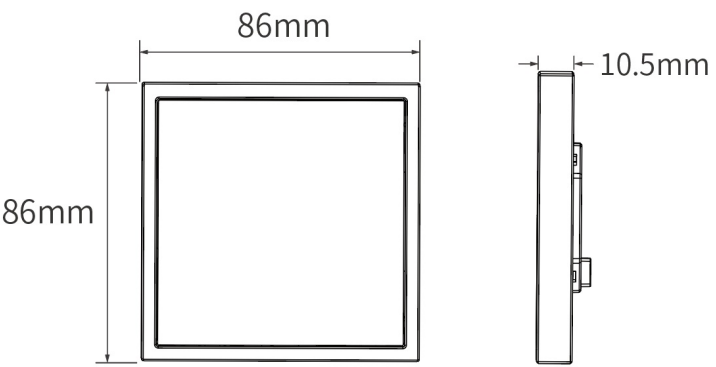|	
Net weight	PC: 1 Button: 51.1g 2 Buttons: 52.5g 3 Buttons: 53.6g 4 Buttons: 53.2g 8 Buttons: 52.6g Metal version: 1 Button: 57.9g 2 Buttons: 57.8g 3 Buttons: 57.9g 4 Buttons: 57.7g 8 Buttons: 57.5g
Housing material	PC/Aluminum alloy
Installation	Wall box
IP degree (compliant with EN 60529)	IP20

Figure 3

◇◆ Safety Precaution

Please do not privately disassemble or replace any parts of the product. Otherwise, it may cause mechanical fault, electric shock, fire or personal injuries.

Warning:

- Installation and commissioning of this equipment must be carried out by us or by an organization appointed by us. The planning and construction of the electrical connection of this equipment must comply with the relevant local safety standards and regulations.
- Any consequences caused by failure to install and wire according to this instruction are not related to our company.
- Please refer all maintenance work to our after-sales department or designated organization, the warranty of this product does not apply to the failure caused by the user's disassembly of the product.

Caution:

- Before performing any installation or disassembly procedures, any maintenance or cleaning procedures on the device, it is crucial to disconnect the device from all voltage sources. This step is necessary to ensure the safety of the technician and prevent any potential damage to the device.

- It is a MUST to install the device with wall box.

- To protect this device and loads, it is recommended that a 10A circuit breaker be connected to each circuit.

- Do not use corrosive liquid to wipe the device body, especially the interface, so to avoid damage to the device.

- Prior to performing maintenance or cleaning on the device, disconnect the device from all voltage sources, to avoid electric leakage and electric shock.

◇◆ Wiring

- The device can be used with Panel Power Interface EU, Panel Power Interface With 2CH 10A Relay and Panel Power Interface With 4CH 10A Relay.

- When a relay power interface is used, the panel can control the switching status of each circuit of the connected wireless device. For example, if a light is connected, it can be turned on or off by controlling the panel.

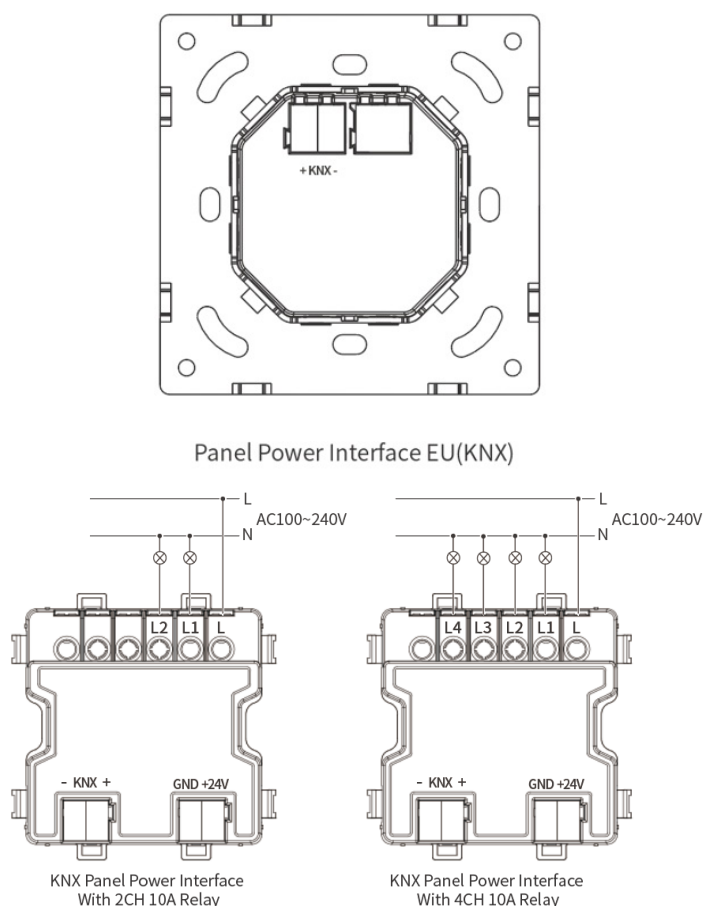- Please wire according to HDL standards:KNX+, KNX-, GND and +24V.

Panel Power Interface EU(KNX)

KNX Panel Power Interface
With 2CH 10A Relay

KNX Panel Power Interface
With 4CH 10A Relay

Figure 4

◇◆ Installation

- **Warning:** Before installation, please cut off the power supply, it is strictly prohibited to operate with electricity.

Step 1. Install the wall box (the depth of wall box should not be less than 45mm) on the wall and lead out KNX cable . Connect the cables, and pay attention to safe and reliable wiring.
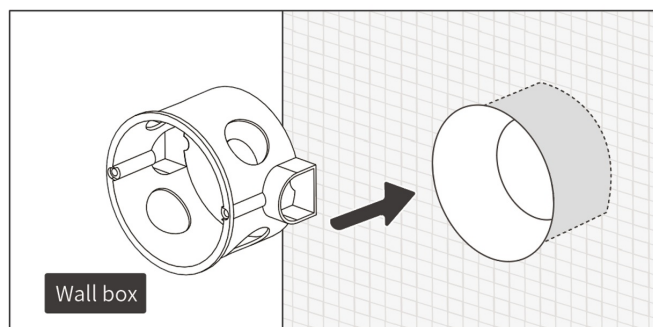

Figure 4

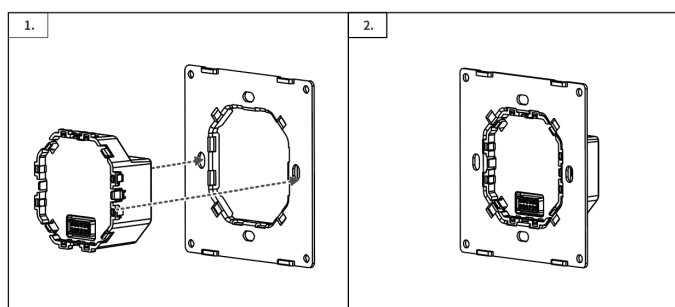**Step 2.** Insert the power interface into the bracket.

Figure 5

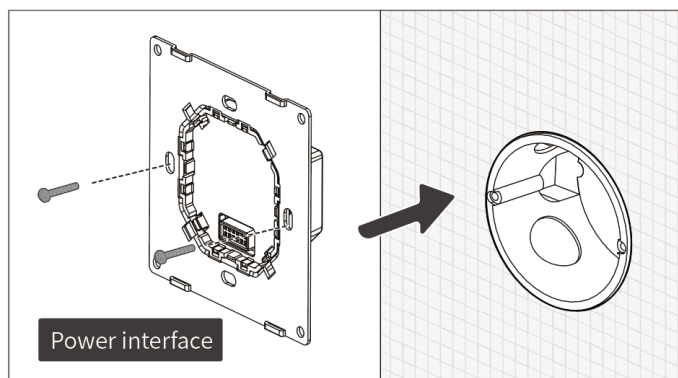**Step 3.** Use screws to fix the power interface in the wall box.

Figure 6

Step 4. Align the panel pins with the interface holes, press gently and install on the interface.
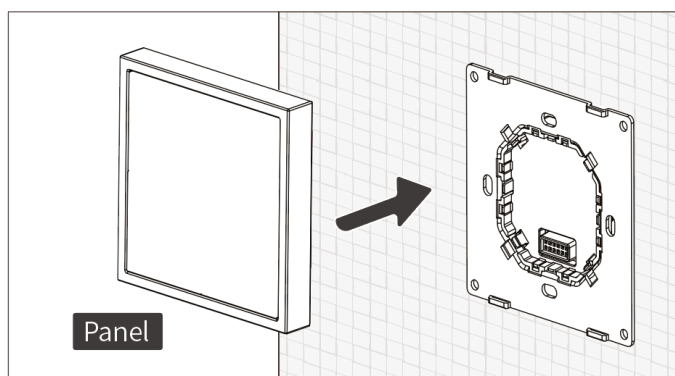
**Step 5.** Install the frame.

Figure 7

Multi-gang installation:

- Supports horizontal and vertical installation;
- Horizontal installation supports up to 4 rows;
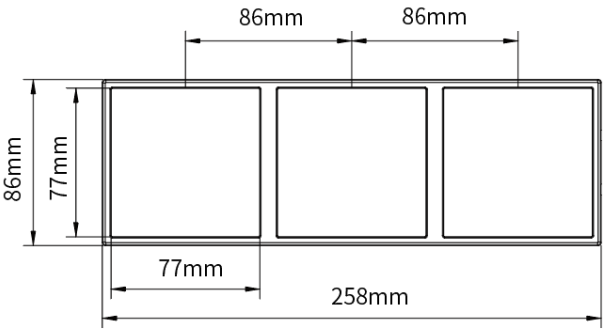- Vertical installation supports up to 4 columns.

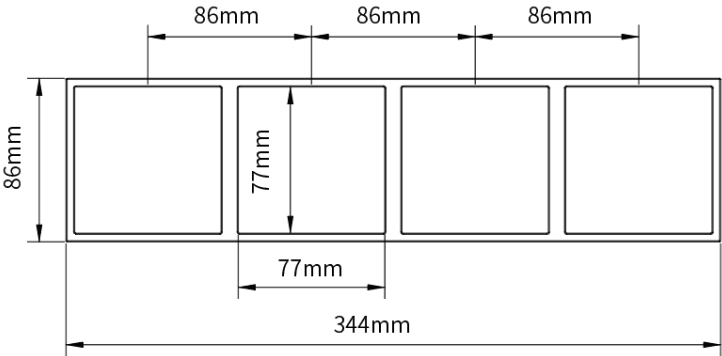| Frame type	Installation direction	Gang number	Size
PC	Horizontal/Vertical	1	86*86*10.5(mm)
		2	172*86*10.5(mm)
		3	258*86*10.5(mm)
		4	344*86*10.5(mm)
Metal	Horizontal/Vertical	1	86*86*10.5(mm)
		2	172*86*10.5(mm)
		3	258*86*10.5(mm)
		4	344*86*10.5(mm)
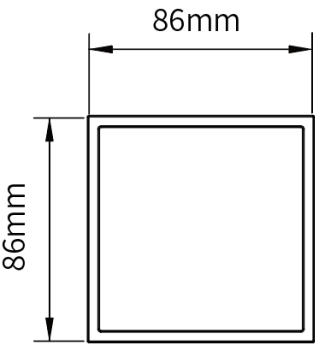
Single-gang frame
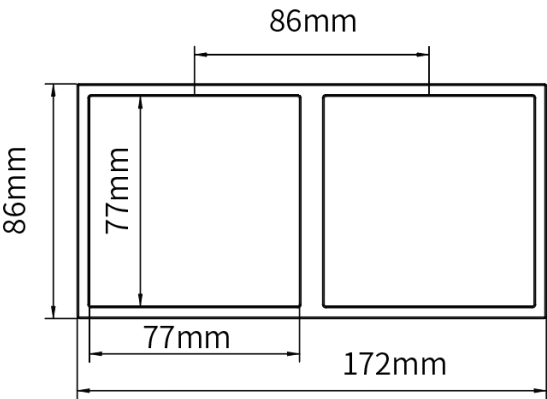
Two-gang frame

Three-gang frame

Four-gang frame

◇◆ Disassembly

Warning: Before performing any disassembly procedures on the device, it is crucial to disconnect the device from all voltage sources. This step is necessary to ensure the safety of the technician and prevent any potential damage to the device.

Step 1. It is recommended to use a screwdriver to pry the panel open from the bottom.

Step 2. To remove the panel and power base, please refer to the section Installation and do it reversely.
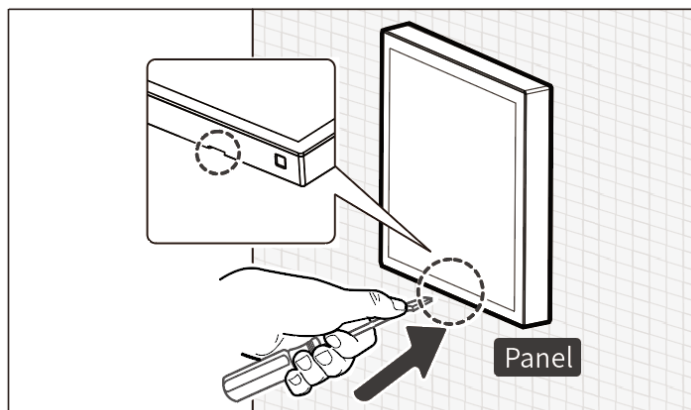

Figure 8

◇◆ Operation

1. Programming mode: Long press any button for 15 seconds, the backlight will turn blue and flash slowly, and the programming mode is on (When in programming mode, support for downloading the product database is provided.)

2. Panel lock/unlock (Tile Series 1 button smart panel 2.1 doesn't have this function):

Manual lock: short press A1 and the last button at the same time for 5 seconds, the indicator light flashes blue (power off and re-power on, the panel is still locked)

Auto-lock: users can configure the auto-lock function in the ETS, set the auto-lock time, and the panel will be locked automatically after a certain period of time.

Panel unlock: press A1 and the last button at the same time for 5 seconds, the panel will be unlocked.

Note: Unlocking must be done manually.

3. Customize the colour of the button indicator: support colour customization through the commissioning software (please refer to the commissioning instructions for details).

4. Proximity sensor function setting: support setting of sensing distance and time of the sensor waking up panel indicator through the commissioning software (please refer to the commissioning instructions for details).

◇◆ Packing List

- Panel*1

◇◆ Warranty

Warranty period (five years from the date of invoice), if the product fails in normal use, the user can go to the nearest authorized institution with a valid warranty card to obtain free maintenance.

In the following cases, HDL regards the user as giving up the relevant services promised under the warranty and the user shall bear the corresponding responsibility and shall not be entitled to the free warranty:

- Failure of the device caused by force majeure factors.
- The user has placed the device in a transportation or use environment that does not comply with the statements in the product instructions or technical manuals.
- Unauthorized disassembly of the product by the user.
- Promises not made officially by HDL to the user that are beyond the scope of the warranty are the responsibility of the promisor.

HDL reserves the right to update or change the product without prior notice to the user, please visit the HDL website for answers to your questions and the latest product information.

The final interpretation right of the warranty regulations belongs to HDL.

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Update History:

The form below contains the information of every update. The latest version contains all the updates of all former versions.

Version	Update Information	Date
V1.0	Initial release	November 11, 2024
V1.1	Update wiring and installation instructions	September 5, 2025

◇◆ Technical Support

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