

PANNO

User manual

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“conscientious and unbiased panel.”

-Professor Dr PeterZec
Founder and president of Red Dot

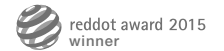


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1. Product Introduction

Panno S is the new generation of stand-alone intelligent control panel based on eOS™ system and SSOD™ technology. Designed with the latest advanced protocols -KNX, EnOcean, Rs485, and the Apple HomeKit technology. Panno S allows for fully integrated control of a variety of home devices, including lights, automated shades/blinds, HVAC appliances, sensors, door/window contacts, and customization of functions. Panno S is setup to recognize voice command with Siri so you can easily adjust home devices without having to lift a finger. Download the App for remote access and control while you are away; scenes can also be created and adjusted to your personal preference. The innovative appearance design, integrated control system, metal touch operation with vibration feedback, and the revisable custom mode can easily out complete and replace the traditional KNX controller.

2. Product Features

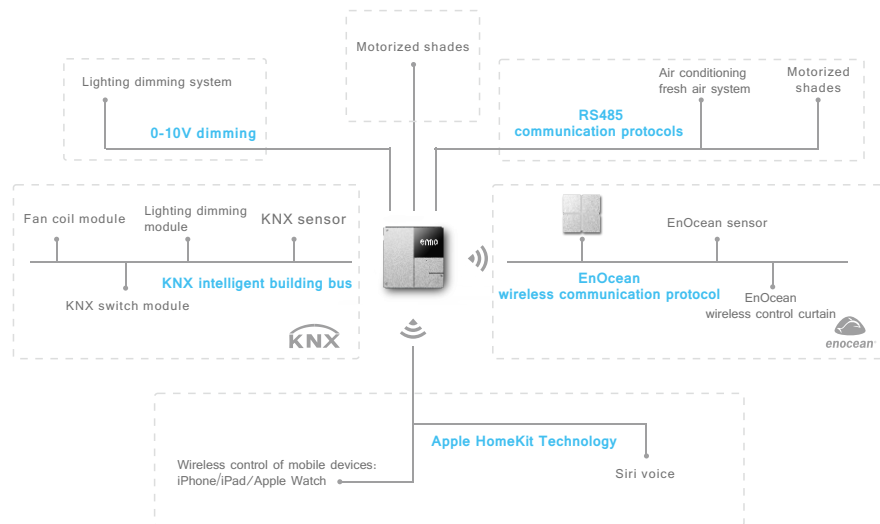
- Integrated control system
- 1.63" High-definition OLED full color displayer
- Humanized Panel, touch with vibration feedback
- Smart LED backlight with night indicator
- Motion sensing technology to automatically awake from sleep mode
- Wireless passive control of EnOcean
- App mobile control and push notifications
- Powerful and friendly mobile graphics control interface
- Customized scene settings
- Constant upgrades of product system and APP application

3. Function Description

- ◆ Lighting control: capable of controlling up to 8 dimming circuits within the range of 0-10V; 100 dimming intervals for lighting to naturally change from bright to dark; support control of all lighting circuits simultaneously, independent control of each circuit, and group control.
- ◆ Shades control: compatible with various manufacturer for control of automated shades/blinds
- ◆ HVAC control: compatible with various HVAC brands to easily control the room environment.
- ◆ Customized scene settings: can create up to 20 different scenes and can easily modify the scene settings using the enno App.
- ◆ Automatic environment monitor: real-time monitoring of indoor temperature, humidity; infrared and visible light sensing.
- ◆ Timing and triggering sensing: Intelligent control of lamps, shades, and other home devices by triggering the sensing elements such as door/window contacts, environment monitors, etc.
- ◆ Remote control: monitor and adjust the home devices at anytime and anywhere by home hub.
- ◆ Voice control: control Panno S with your voice using Siri directly from your iPhone, iPad.
- ◆ Dynamic push notification: push real-time city weather notification. Other message push notifications can also be set according to users' preferences.
- ◆ Scalable with powerful compatibility: fully compatible with KNX/EnOcean/RS485 protocols and Apple HomeKit technology.

Controlling this HomeKit-enabled accessory automatically and away from home requires an Apple TV with tvOS 10.0 or later or an iPad with iOS 10.0 or later set up as a home hub.

Product System Diagram



- **Working voltage**

Power supply range: 15V-30V DC, the bus power supply 30V DC

Maximum current: 160mA@30V

Maximum power: 4.8W

- **Working environment**

Operating temperature range: - 5°C ~ +40°C

Operating humidity range: 20% ~ 40%RH

Storage temperature range: - 10°C ~ +80°C

Storage humidity range: 20% ~ 80%RH

- **WiFi parameters**

Built-in antenna

WLAN standard: IEEE802.11n/g/b

Frequency: 2.400 GHz ~ 2.497 GHz

- **EnOcean parameters**

Built-in antenna

Frequency : 868.3MHz(ASK)

Data rate : 125kbps

Transmission distance : different materials offer varying effects on signal attenuation.

(1). Linear transmission: normally the transmission distance is 30m in the corridor and 100m in the hall.

(2). Gypsum wall/dry wood: normally the transmission distance is 30m, and can pass through at most three walls.

(3). Steel reinforced concrete wall/ceiling: normally the transmission distance is 10m, and can pass through at most one ceiling.

(4). The firewall, the elevator shaft, the stair case and the supply area should be considered to have the shielding layers.

- **RS485 bus**

The maximum transmission distance is 500m, and the transmission speed is 9600bps.

The bus can support at most 30 nodes.

- **0-10V dimming**

The maximum output current of each circuit is 10mA.

Supporting 8 ways dimming with 0-10V.

System settings for the control of Panno S

The initial configuration and the commissioning of Panno S must be carried out by the site service engineer authorized and certified by ENNO Company.

System Configuration Preparation

Download the enno application on the App Store.

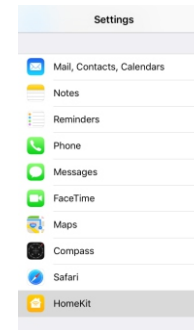
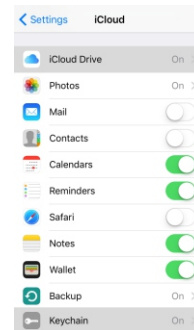
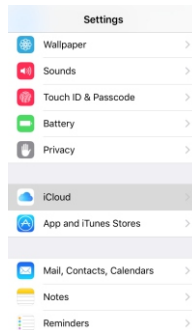
To control this HomeKit-enabled accessory, iOS 9.0 or later is recommended.

System Settings Process

Download the enno app:



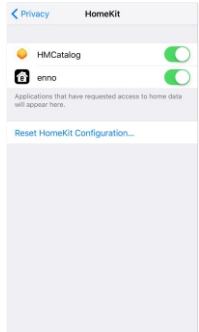
Connect the panel with Wifi:



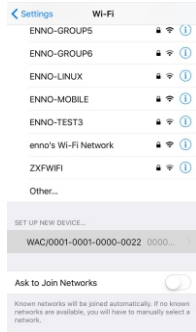
a) Go to iPhone Settings, and then tap [your name], to find iCloud. If you're using iOS 10.2 or earlier, go to Settings, scroll down to iCloud directly

b) Slide to turn on iCloud Drive and Keychain(need to login to the Apple account and set the security code).

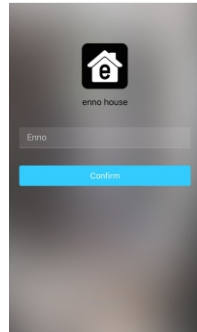
c) Back to iPhone settings, and go to Privacy, Select HomeKit.



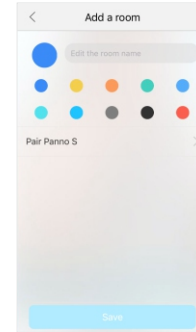
d) Turn on enno



e) Turn on the WLAN, connect Home wifi, scroll down to SET UP NEW DEVICE, tap the device Panno S and then connect Panno S with the home wifi.



f) Login the app and register, and then name your home.

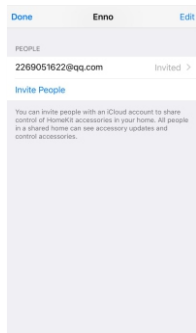
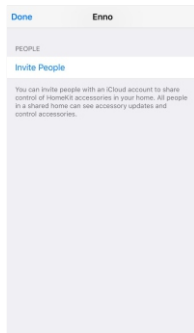


g) After adding the room on homepage, choose the Panno S of the current room (find the ID number of the current room in the panel settings, and then add it)



h) Scan the QR code on the panel or manually input the ID number to complete the pairing.

Authorization:

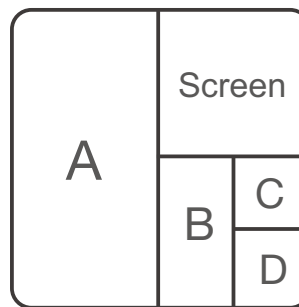


a) Click "more", choose "my home" and "houses", get into the authorization management, and then click the symbol + to add the authorized equipment.

b) Invite the users who have the iCloud accounts to share the control of HomeKit accessories.

c) The list will display all iCloud users who have been invited, and then the iCloud users can operate the Panno S.

Panno S operation



	Short press	Long press
A	Confirm	Turn on/off the lights Get into the settings with a long press of 10s
B	Switch between lighting/HVAC	
C	Function switch	Brightness or temperature increases
D	Function switch	Brightness or temperature decreases

Standby & Startup:

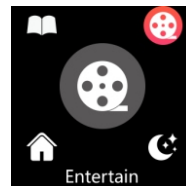
The panel can be automatically switched on within 60 seconds after it is energized.

Standby interface:

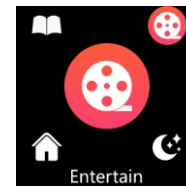


Normally the panel screen is dark, but the backlight will automatically turn on when users get close to it, and the standby interface will be shown on the screen. When user touches any button, the interface will show the latest time operation, and the backlight will be enhanced.

Scene menu:

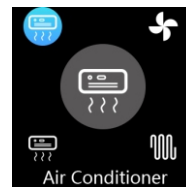


The scene modes can be switched by tapping the button C/D.



Scene modes can be turned on/off after confirmed by tapping button A. All lighting brightness for a scene can be simultaneously adjusted by long pressing the button C/D.

HVAC menu:



Include the air conditioner, floor heating system, fresh air. The devices can be switched by tapping button C/D, turned on/off by tapping button A.



After choosing the device Air Conditioner, long press the button C/D key to adjust the temperature, and the same operation is applied to the floor heating and fresh air.

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