SDCP9

Wallplate Control Panel-9 buttons

8 programmable buttons plus 1 audio mute button, 3 built-in programmable RS232, 2 RS485 and 2 IR connectors.

SEADA

Showing the World

User Manual

VER 1.0

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shook, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

1. Introduction

1.1 Product Introduction

The SDCP9 is a wallplate control panel with 8 programmable buttons plus 1 audio mute button. It features 3 built-in programmable RS232, 2 RS485 and 2 IR connectors.

The programmable control panel can fully control the compatible device via TCP/IP, RS232, RS485 and IR, such as matrix switcher, scaler switcher, projectors, screens, etc. Use the device for presentations in showrooms, classrooms, and boardrooms.

1.2 Features

- Features 8 programmable buttons plus 1 audio mute button, 3 built-in programmable RS232, 2 RS485 and 2 IR connectors.
- Each button can be programmed to send RS232, RS485, IR or TCP/IP commands simultaneously to control third party devices.
- The unit can be easy configured using the supporting control panel via the ENTERNET port.
- The volume control buttons is specially designed for various applications.
- Crystal and backlit buttons with easy user-friendly customizable changeable labels.
- The backlit brightness is controllable.

1.3 Package List

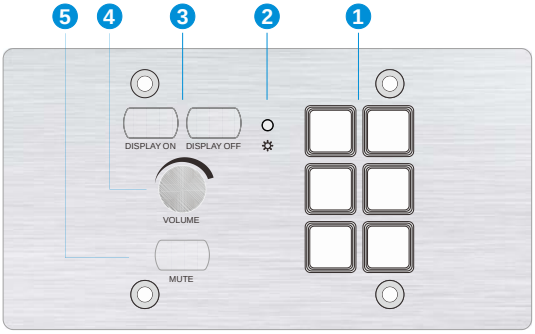
① 1x SDCP9
② 5x 2-pin pluggable terminal blocks
③ 3x 3-pin pluggable terminal blocks
④ 6x Button caps
⑤ 1x Button label
⑥ 1x Power adapter (12VDC 1A)
⑦ 1x User manual

Note: *Please confirm if the product and the accessories are all included, if not, please contact with the dealers.*

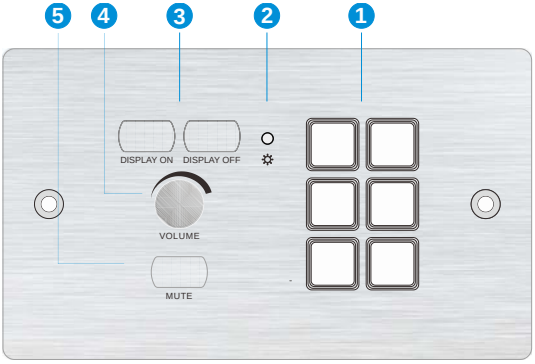
2. Panel Description

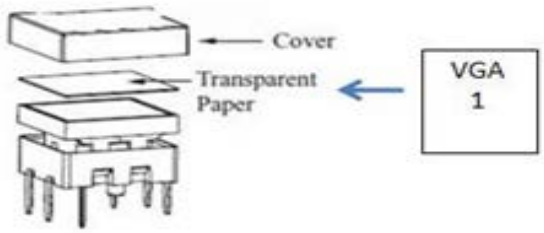
2.1 Front Panel

SDCP9-EU



SDCP9-UK

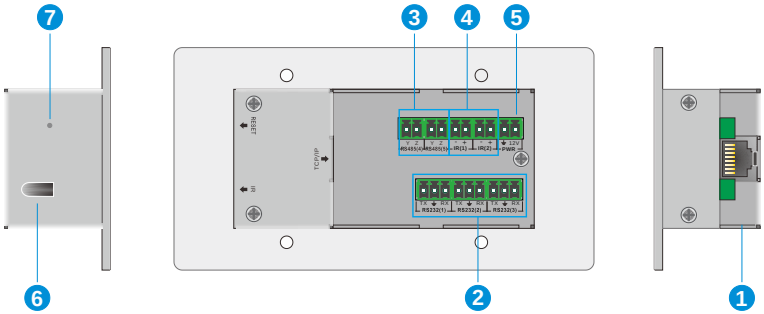


No.	Name	Description
1	Button	6 crystal and luminescent buttons, programmable functions can be customized via the Control Software. Each label within a button can be easily changed. Simply select the label you need and change it as shown below: 

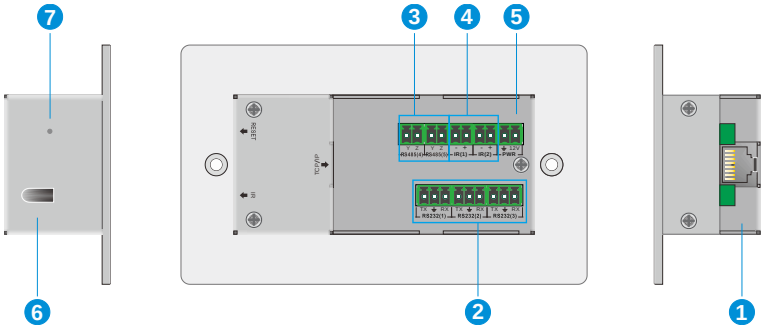
2	Power LED	The LED illuminates red when power is applied.
3	DISPLAY ON	The button can be customized to turn on the third-party device.
	DISPLAY OFF	The button can be customized to turn off the third-party device.
4	VOLUME	The rotary knob can be customized as Volume Up and Volume Down buttons for specific application.
5	MUTE	The button can be customized as Toggle Mute and Unmute buttons for specific application.

2.2 Rear Panel

SDCP9-EU



SDCP9-UK



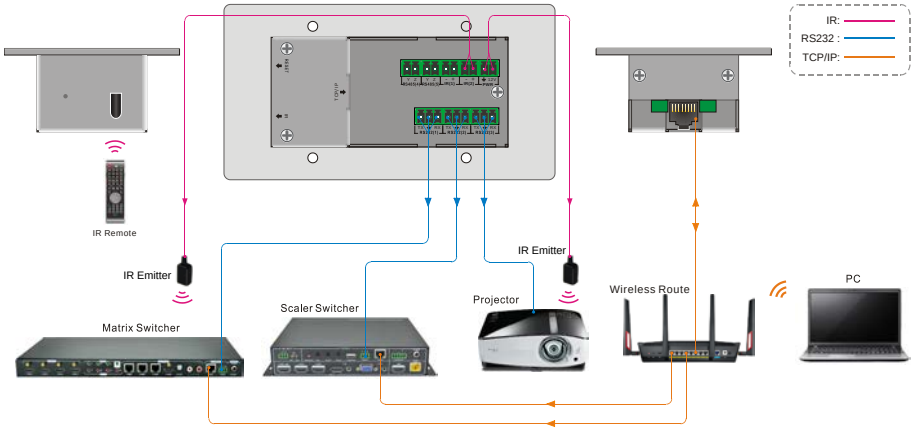
No.	Name	Description
1	ETHERNET	RJ45 connector for connecting PC to run the Control Software to customize the programmable functions for all buttons. After buttons programming, the RJ45 connector should be connected to the third-party device which needs

		to be controlled via TCP/IP. ***Note:*** *The wallplate control panel and third-party devices can connected to the LAN to facilitate remote control and simplify system connection.*
2	RS232 (1) ~ RS232 (3)	3-pin RS232 terminal blocks for connecting the third-party devices which need to be controlled via RS232.
3	RS485 (4) ~ RS485 (5)	2-pin RS485 terminal blocks for connecting the third-party devices which need to be controlled via RS485.
4	IR (1) ~ IR (2)	2-pin IR terminal blocks for connecting with IR emitters to control the third-party devices via IR.
5	PWR(12V)	2-pin terminal block for connecting 12V DC power adaptor.
6	IR Sensor	Built-in IR receiver for receiving IR code from IR remote to build the IR database.
7	RESET	Press and hold this button for 3 seconds until the power LED goes out. Then the LED will light up while the device is restored to factory defaults successfully.

3. System Connection

The SDCP9 can active different ports at the same time. It means that every button can send RS232, RS485, TCP/IP and IR control signal synchronously.

The demo system diagram as below:



1) Connect the SDCP9 to a **LAN** port of Wireless Route.

2) Connect a control PC to the Wireless Route.

3) Connect the third-party devices (such as matrix switcher and scaler switcher) to the **LAN** port of Wireless Route.

4) Connect the third-party devices (such as matrix switcher, scaler switcher and projector) to **RS232 (1)**, **RS232 (2)** and **RS232 (3)** ports.

5) The third-party devices which support RS485 communication can be connected to **RS485 (4)** and **RS485 (5)** ports.

6) Connect the IR Emitters to **IR (1**) and **IR (2)** ports.

7) Plug in 12V DC power supply adapter.

Note: *The control PC can be directly connected to the* ***TCP/IP*** *port of* SDCP9 to customized button functions. After buttons programming, disconnect the PC, and then connect the third-party device to *the* ***TCP/IP*** *port.*

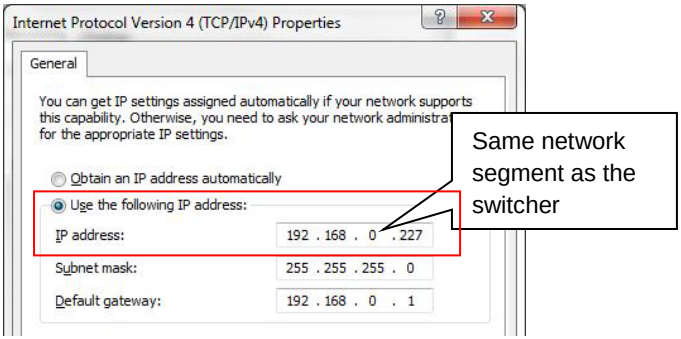
4. Control Software

4.1 Basic Setting

The Control Software is used to easily set functions for every button.

1) According to the system diagram to establish system connection.

2) The default IP of SDCP9 is 192.168.0.178 (modifiable), the network segment of control PC must be set the same as the SDCP9's.

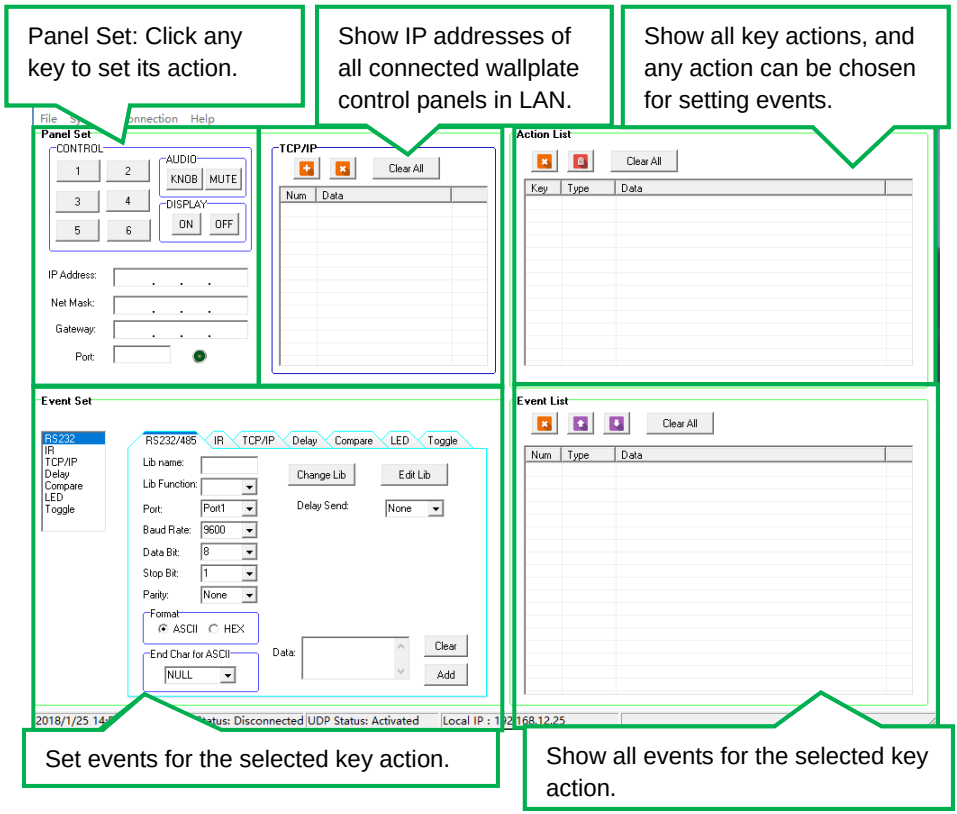


3) Installation/uninstallation of Control Software:

- Installation: Copy the software package to the control PC.
- Uninstallation: Delete all the software files in corresponding file path.

4) Double-click the below icon to run this software:

The below main window has five parts: Panel Set, TCP/IP, Action List, Event Set and Event List.



Menu Options of Control Software:

The header of the main window features four titles including File, System, Connection and Help.

- Click “File” → “Open” to invoke an available configuration file.
- Click “File” → “Save” to save the current configuration data into the installation directory.
- Click “File” → “Save as” to export all configuration information and save as a file.

- Click “System” → “Version” to query the current software version.
- Click “System” → “Message” to query the Link Status, Machine Type, Software Version, IP Information, MAC address.
- Click “System”→ “Software Update” → Open upgrade Web page (*http://192.168.0.178:4001/)* on IE → Type User ID (admin) and Password (123456) → upload update file → Click “Upload” → Click “Reset MCU”.
- Click “System” → “Factory Defaults” to restore factory defaults.

- Click “Connection” → “TCP/IP” → “Reconnect” to refresh all connected SDCP9.
- Click “Connection” → “Read from Device” → to load the MCU data of the selected SDCP9 to control software.
- Click “Connection” → “Write to Device” → to download the current configuration data of control software to the selected SDCP9.

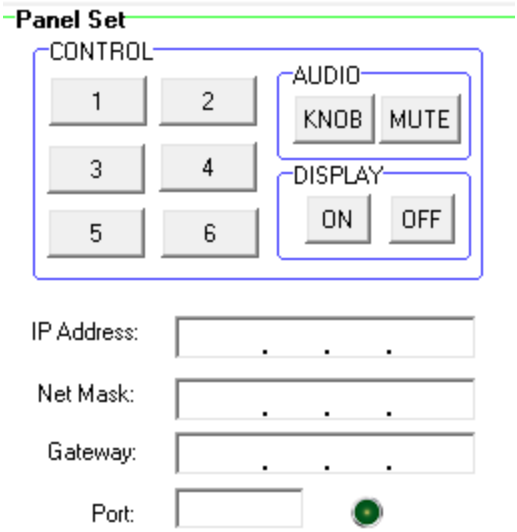
Button Setting Procedure:

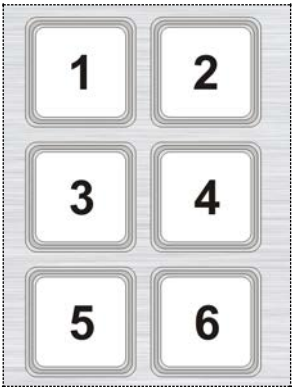
The nine programmable buttons should be set by the following steps:

1) Click any button to set key actions, refer to ***4.2 Panel Set***.
2) Select any key action, refer to ***4.3 Action List***.
3) Set the button functions for the selected key action, refer to ***4.4 Event Setting*** and ***4.5 Event List***.

4.2 Panel Set

The below Panel Set part shows 9 customizable buttons can be programmed via the control software.

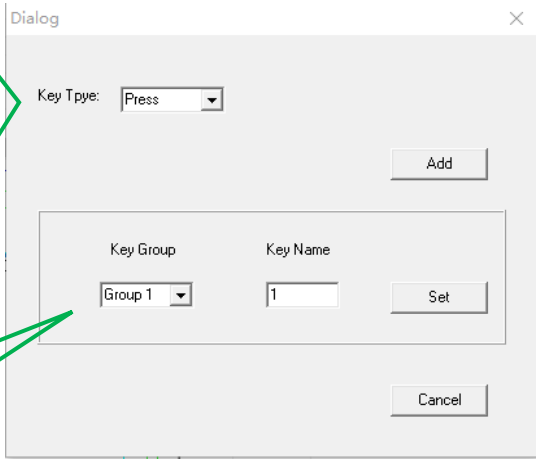




Buttons 1-6, KNOB, MUTE, ON, OFF, correspond to the buttons on SDCP9. For example, click the button 1 to set its key action as below:

Key Type:

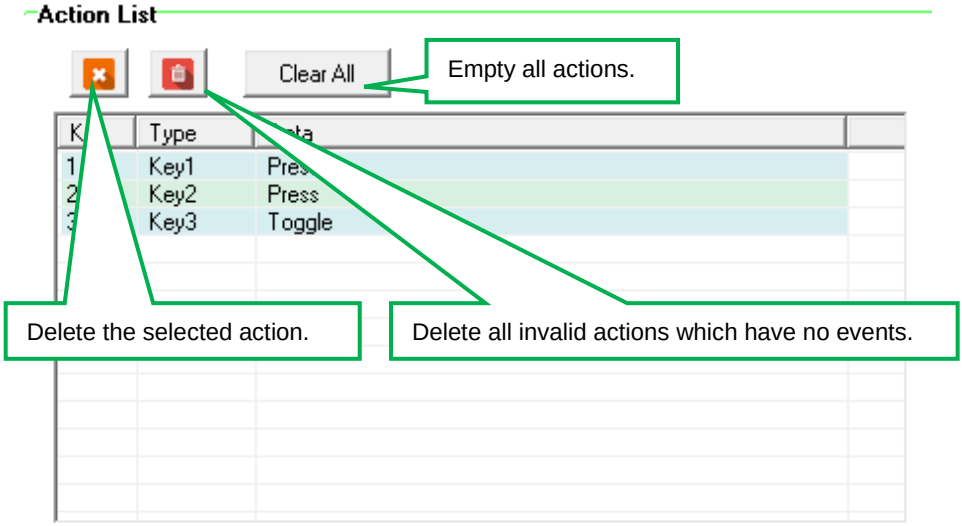
- Press: Execute events when press button.
- Release: Execute events when release button.
- Toggle: The button can be regard as composite key, press and press again to execute different events.



Built key group for LED setting.

4.3 Action List

All key actions will be shown on the below action list.

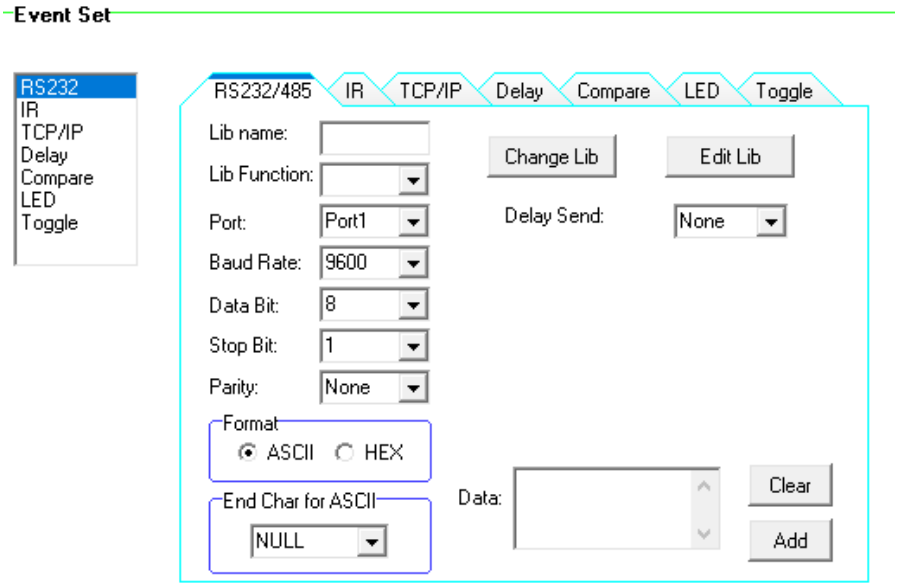


4.4 Event setting

The Event Set part supports RS232, RS485, IR, TCP/IP, Delay, Compare, LED and Toggle setting. Before set events, at least one key action must be added first. The following introduction is about how to set events for each action.

4.4.1 RS232 Setting

This item is used for setting the events of the selected key action to control the third-party device through RS232 (1~3) and RS485 (4~5) ports.



Operation procedure:

1) Select a key action in action list.

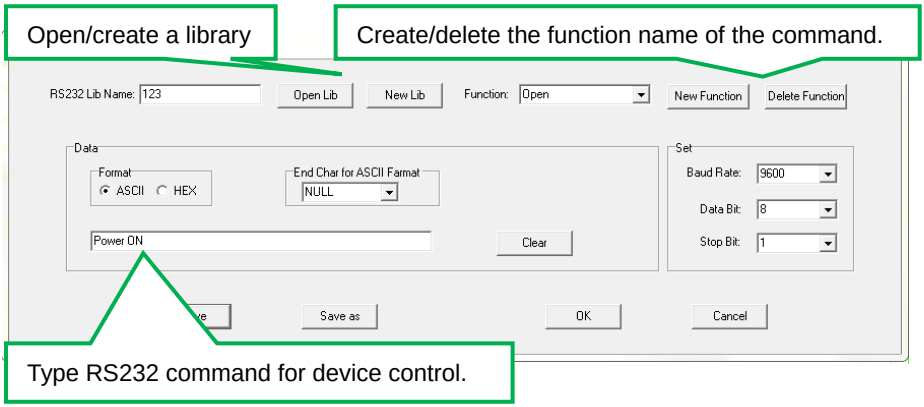
2) Set the “Lib Name” and “Lib Function” as needed.

3) Select the RS232/485 port.

4) Confirm and set the baud rate, data bit, stop bit and parity.

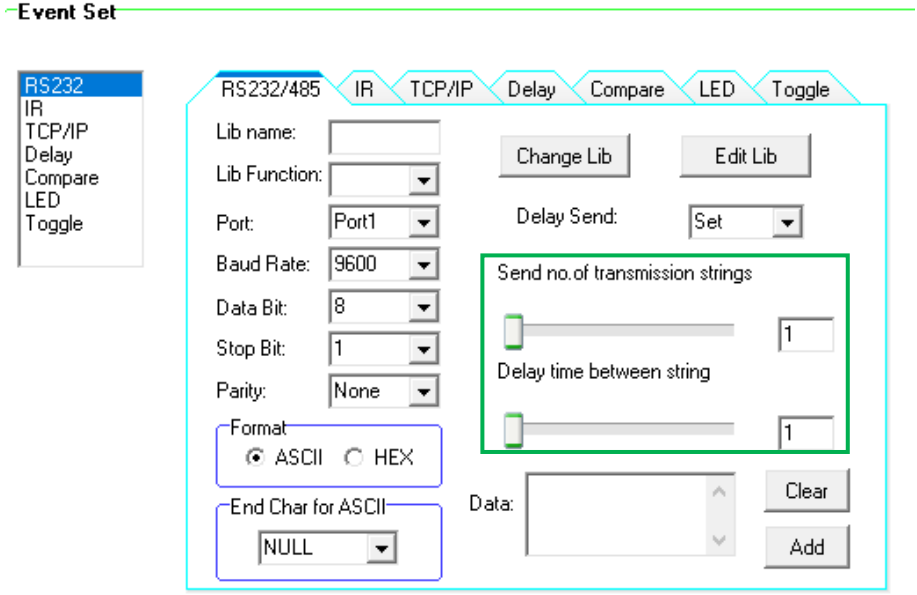
5) Type RS232 command in data box, and then press “add” to save.

6) The RS232 data also can be selected from library. Click “Change Lib” to select an available library file, or click “Edit Lib” to create a new library file as below:



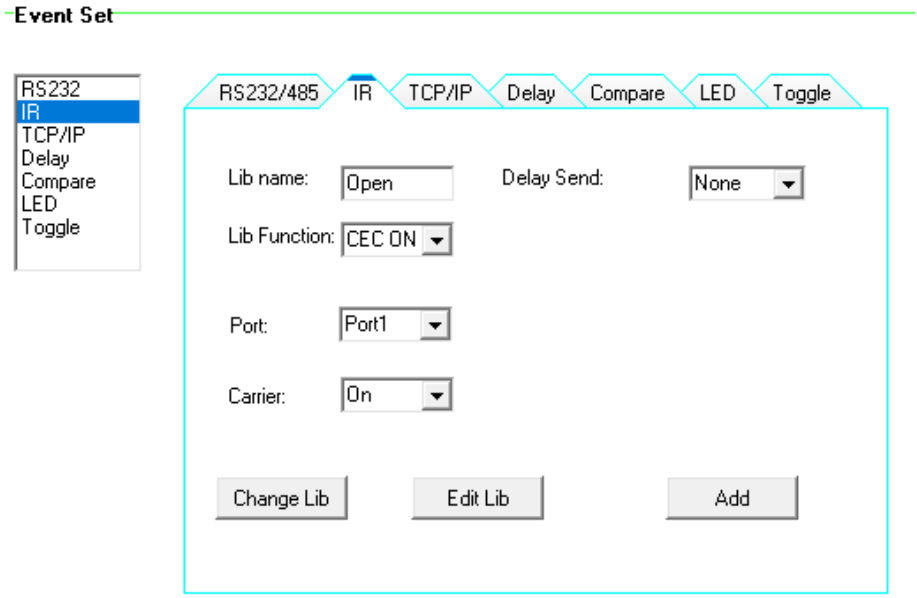
***Note:** Once set up, please press “Save” to save the setting or press “Save as” to save the setting as a file, and then press “OK”.*

7) The number of transmission strings and the delay time between strings can be set.



4.4.2 IR Setting

This item is used for setting the events of the selected key action to control the third-party device through IR (1~2) ports.



Operation procedure:

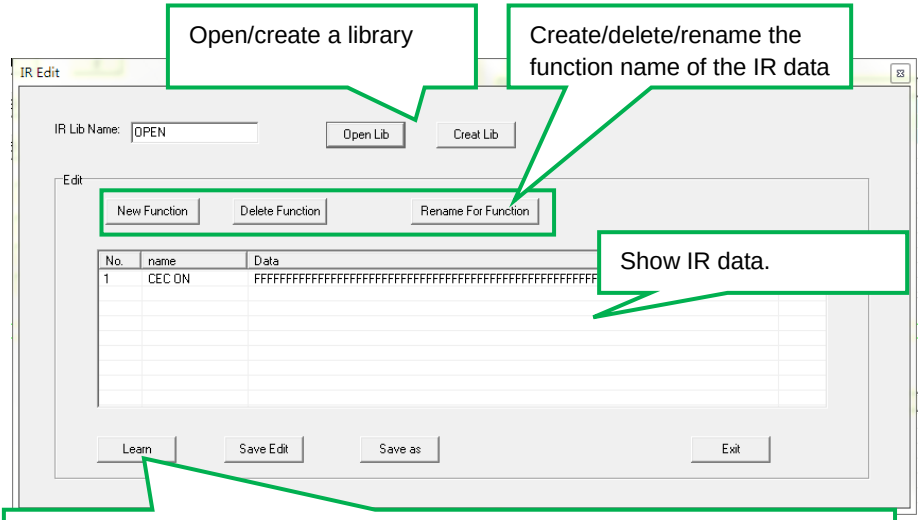
1) Select the key action in action list.

2) Set the “Lib name” and “Lib Function” as needed.

3) Select the IR port.

4) Set the IR carrier mode: On/Off.

5) Click “Change Lib” to select an available library file or click “Edit Lib” to create or edit a library file as below:



IR leaning procedure:

1) Click “Learn” to enter IR learning mode.

2) Put the IR Remote close to the IR sensor of wallplate control panel.

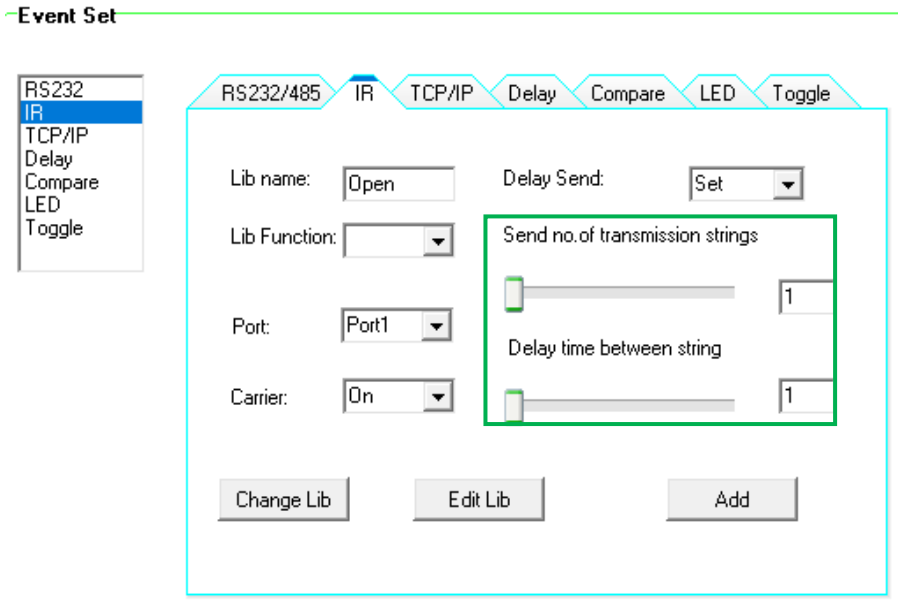
3) Press any button on the IR Remote to send the IR code to the IR sensor, and the IR edit box will refresh the IR data.

4) Follow the above steps can learn other function of the remote buttons.

Note: *The IR learning mode will be exit automatically while if no operation within 3 seconds.*

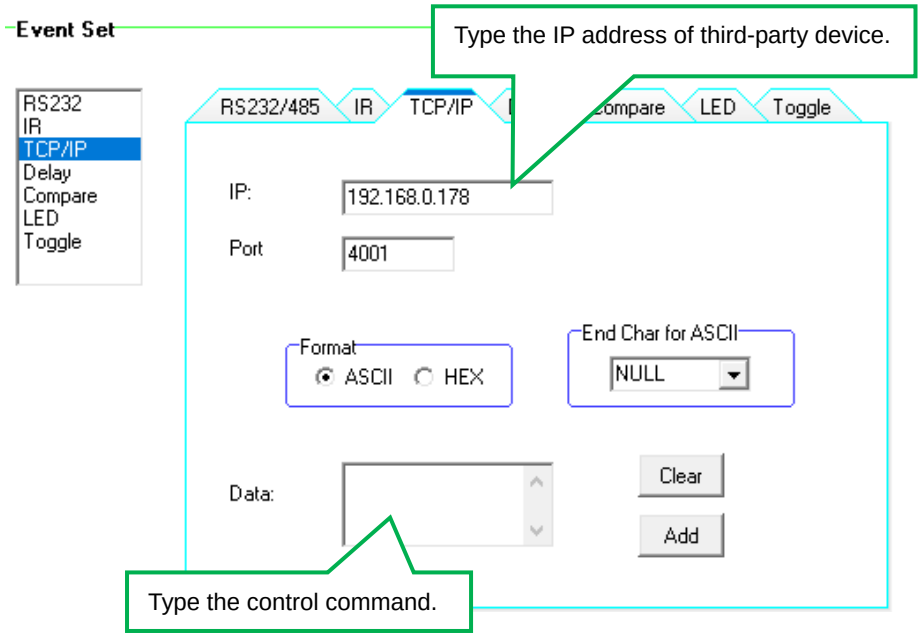
Note: *Once set up, please press “Save Edit” to save the setting or “Save as” to save as a file, and then press “OK”.*

8) The number of transmission strings and the delay time between strings can be set.



4.4.3 TCP/IP Setting

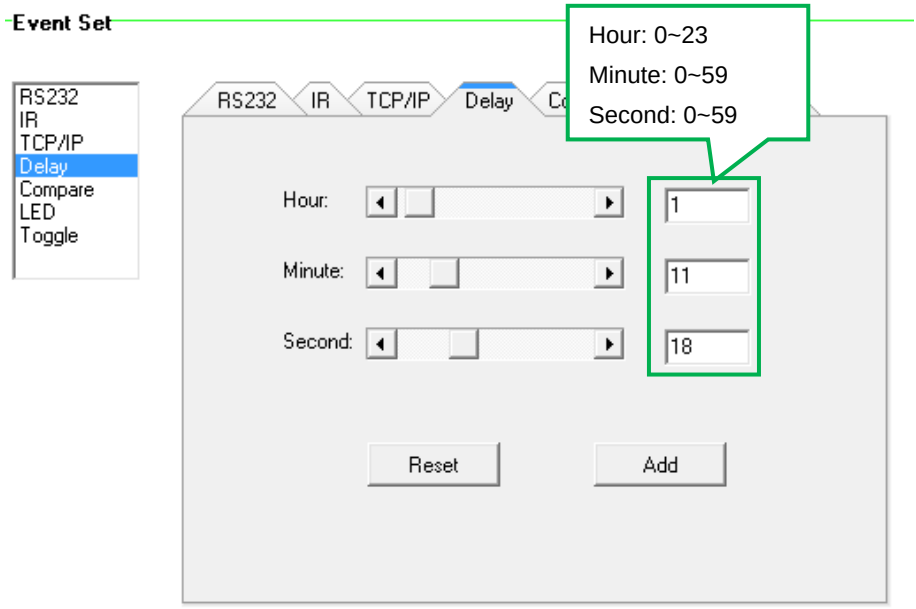
This item is used for setting the events of the selected key action to control the third-party device through TCP/IP port.



4.4.4 Delay Setting

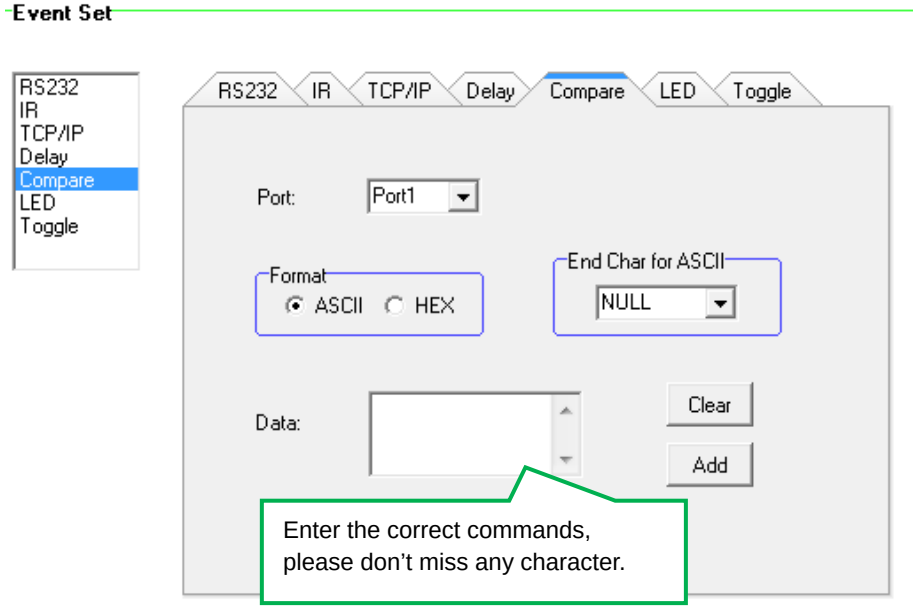
This item is used for setting the delay time between two events. If set the delay time to be 3 seconds, it means that the first event starts executing at 12:00:00, followed by the second event executing at 12:00:00:03.

The delay time setting showed as below:



4.4.5 Compare Setting

This item is used for comparing the RS232 feedback commands. When trigger button to send RS232 command to the third-party device, the device will send back a feedback command. If we add the correct command in the data box, the SDCP9 will compare it with the received feedback command to verify the availability of sending command. The compare setting showed as below:



Operation procedure:

1) Select the key action in action list.

2) Select the RS232 port.

3) Set the command format ASCII or Hex, and then set the terminator for ASCII.

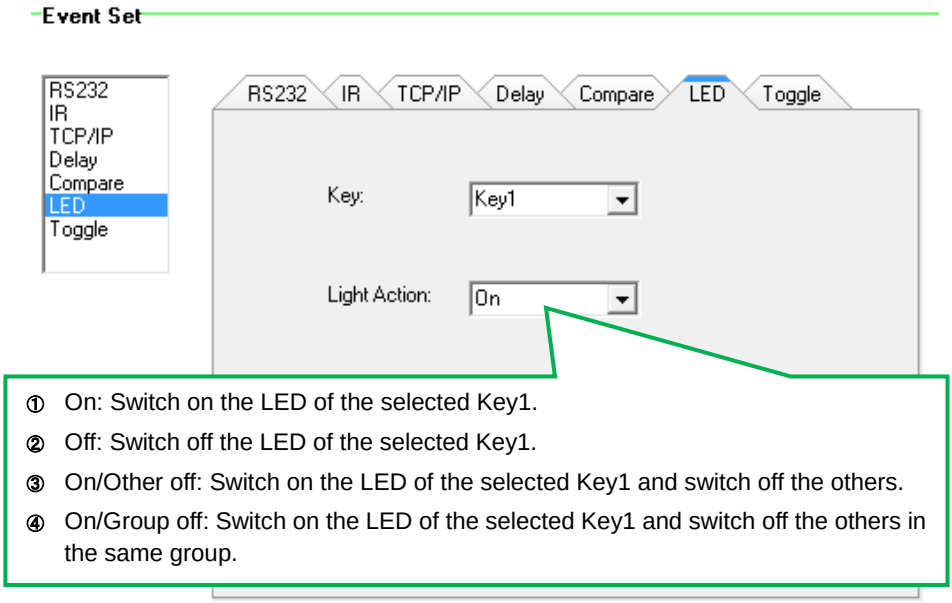
4) Type the correct RS232 command in data box, and then press "add" to save the command.

5) Add an event that the LED lights up to indicate the comparison result.

6) The executing priority of events in event list is from top to bottom, so that the comparing function can be used for the key action which with three or more events.

4.4.6 LED Setting

This item is used for setting the LEDs status of programmable buttons to indicate the results of executing event.



① On: Switch on the LED of the selected Key1.

② Off: Switch off the LED of the selected Key1.

③ On/Other off: Switch on the LED of the selected Key1 and switch off the others.

④ On/Group off: Switch on the LED of the selected Key1 and switch off the others in the same group.

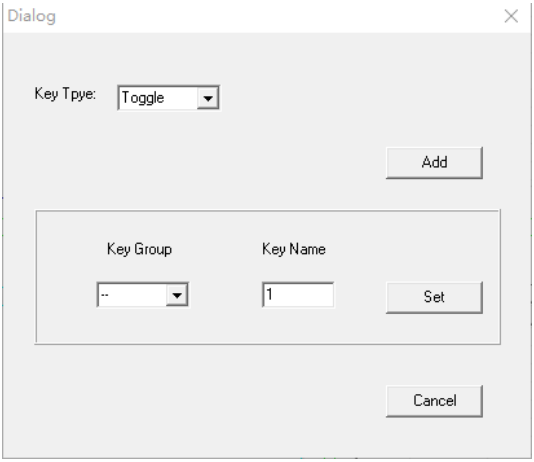
4.4.7 Toggle Setting

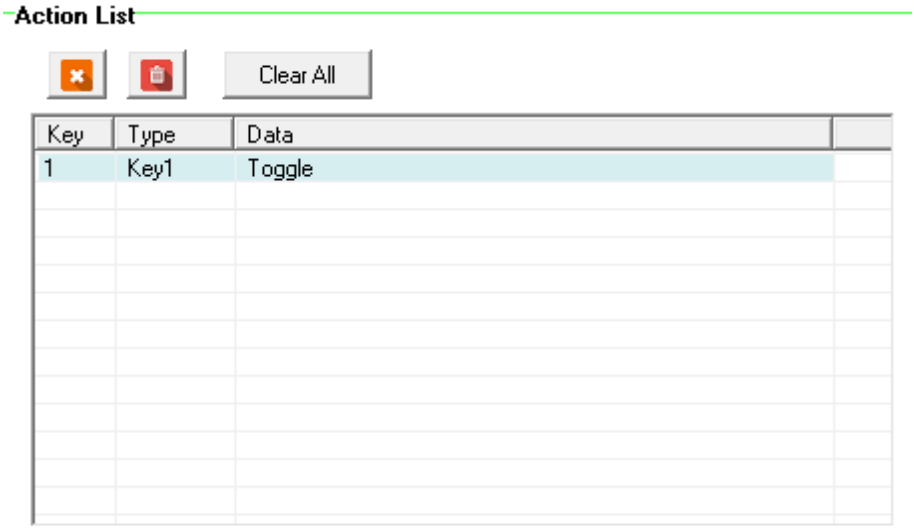
The key action type can be set as “Toggle” that enable the button to be a composite key.

Here take Key1 as an example to introduce the “Toggle Setting”.

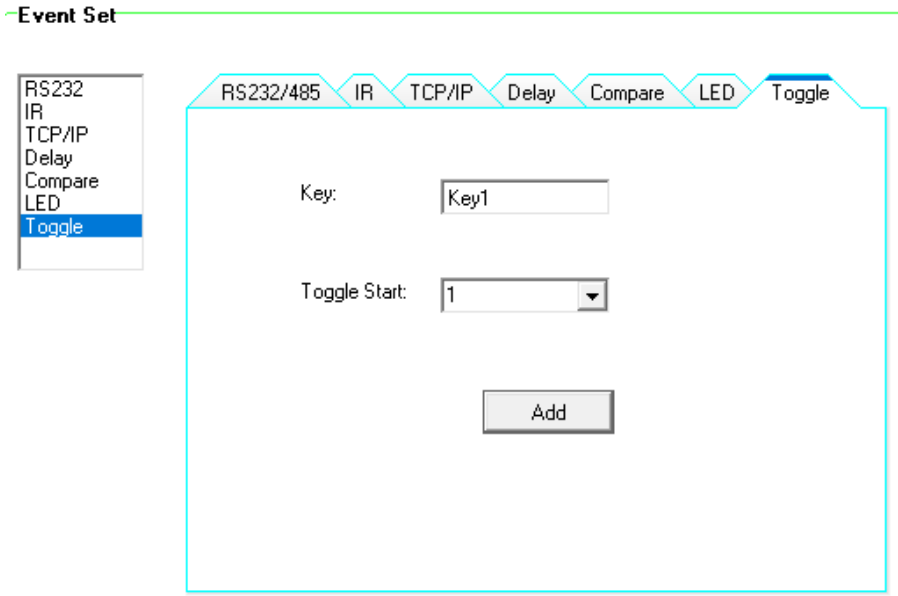
Operation procedure:

1) Click “1” and set its key type as “Toggle”.





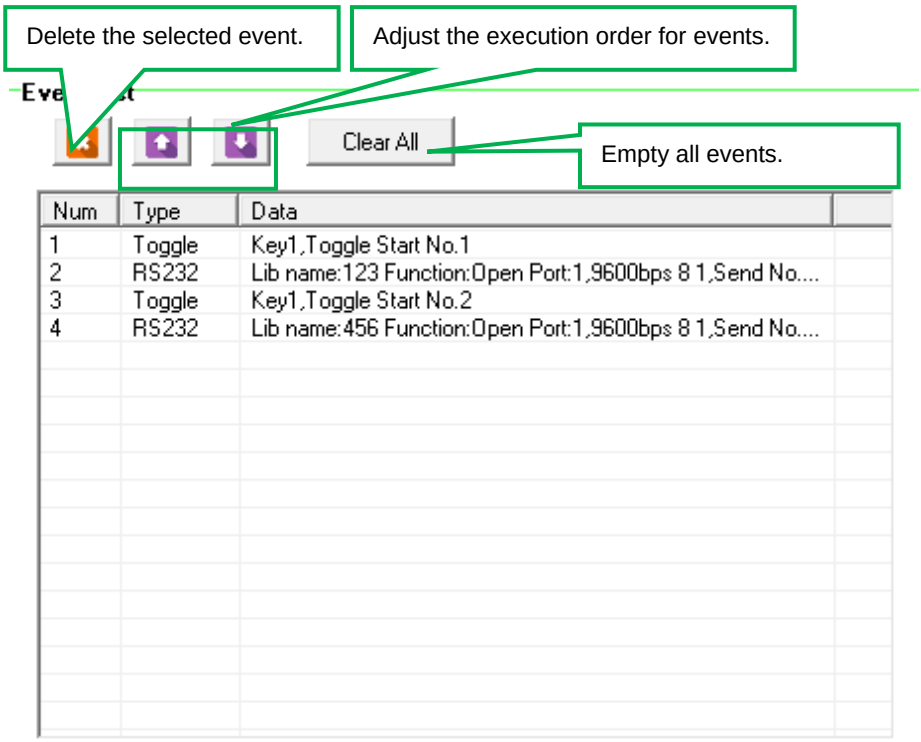
2) Add toggle & RS232 events for the key action.



3) Press the button 1 to execute the second event, and then press again to execute the fourth event.

4.5 Event List

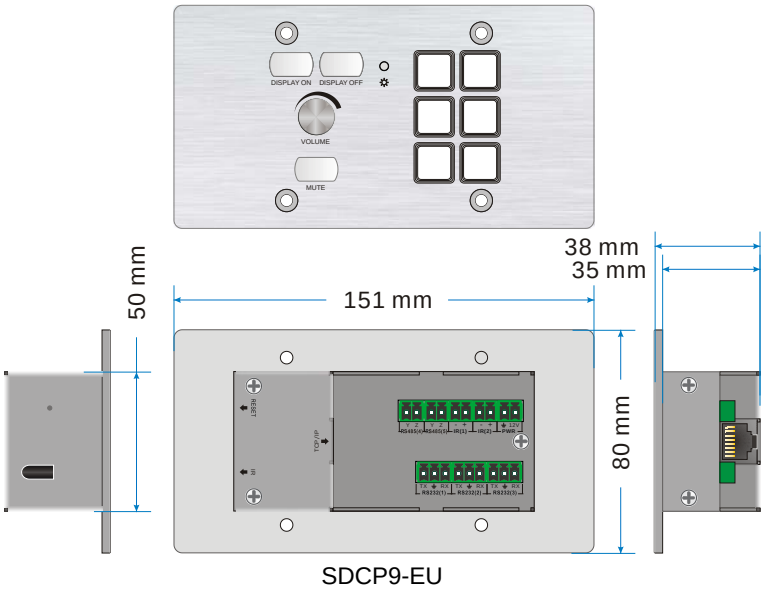
The event list shows all events of the selected key action. The executing priority of events is from top to bottom, see the picture below. If there is an event execute incorrectly, all subsequent events will not be executed.



5. Specification

Control Port	(1) TCP/IP, (3) RS232, (2) RS485 and (2) IR out
Control Port Connector	(1) RJ45 (3) 3-pin pluggable terminal blocks (4) 2 pin pluggable terminal blocks
Control Buttons	(6) Programmable buttons (2) Programmable display control buttons (1) Programmable volume knob (1) Programmable MUTE button
Other	(1) Built-in IR sensor
Baud Rate	Supports 2400, 4800, 9600, 19200, 38400, 56000, 57600, 115200.
Software	SDCP9
Power Consumption	1W (Max)
Operation Temperature	-10 ~ +55℃
Storage Temperature	-25~ +70℃
Relative Humidity	10% ~ 90%
Power Supply	Input: 100VAC~240VAC, 50/60 Hz; Output: 12VDC 1A
Net Weight	About 300g
Dimension（W*H*D）	151mm x 80mm x 38mm

6. Panel Drawing



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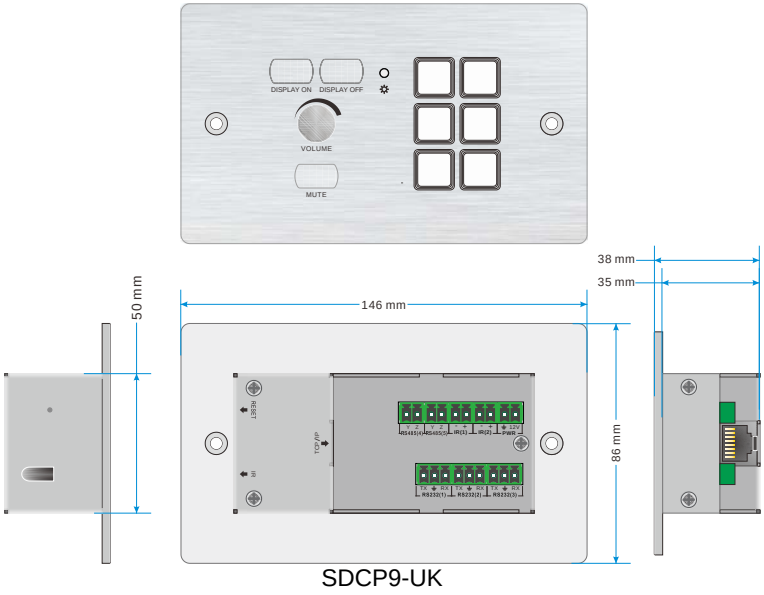

SDCP9-UK