SDCP6

Wallplate Control Panel-6 buttons

Program buttons to send TCP/IP and RS232 commands to control projectors, screens and other third-party devices.

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 Introduction to SDCP6

The Wallplate Control Panel has (3) built-in programmable RS232 connectors and (2) Infrared (IR) connectors.

The Programmable Control Panel can fully control the compatible switches, as well as third-party devices such as matrix switcher, compact scaler switcher, projectors, screens, etc. Use the device for presentations in showrooms, classrooms, and boardrooms.

1.2 Features

☆ Each button can be programmed to send bi-directional RS232 commands simultaneously to control third party devices.

☆ Each button can be programmed to send the infrared codes simultaneously to control the third-party devices and support infrared code learning function.

☆ The unit may be programmed through the ETHERNET port, via the Control Software.

☆ Crystal and backlit buttons with easy user-friendly customizable changeable labels.

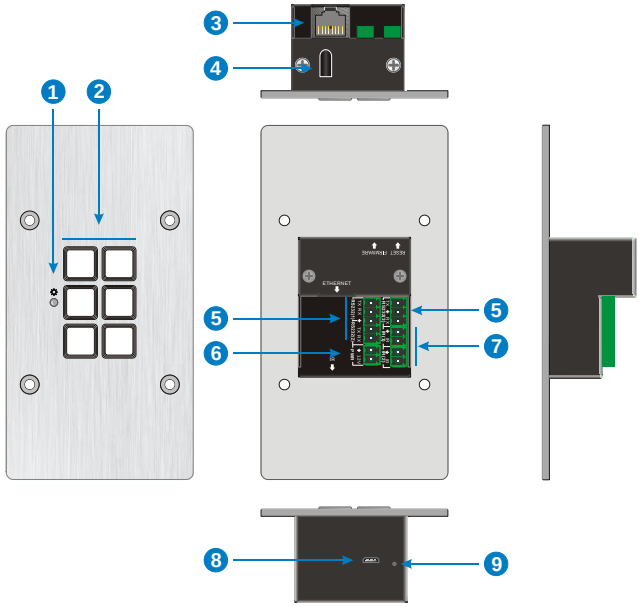
☆ The backlit brightness is controllable.

☆ Dimension: 70mm long and 41mm wide.

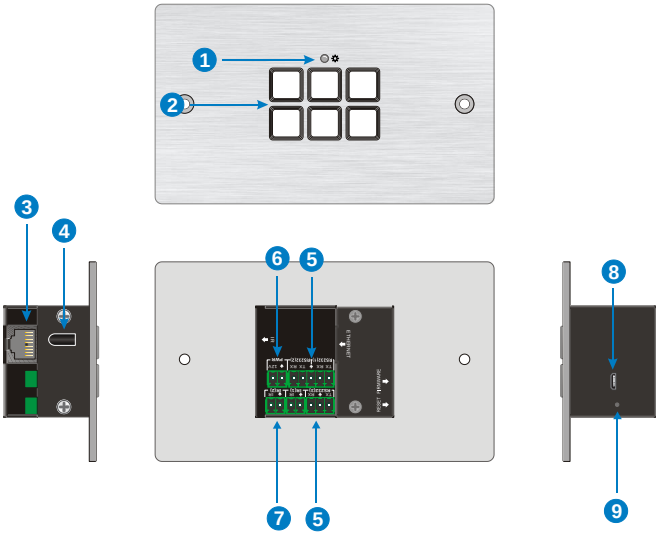
1.3 Package List

① 1x SDCP6
② 1x Button label
③ 3x 2-pin pluggable terminal blocks
④ 1x 5-pin pluggable terminal block
⑤ 1x Power adapter (12VDC 1A)
⑥ 6x Button caps
⑦ 1x 3-pin pluggable terminal block
⑧ 1x User Manual

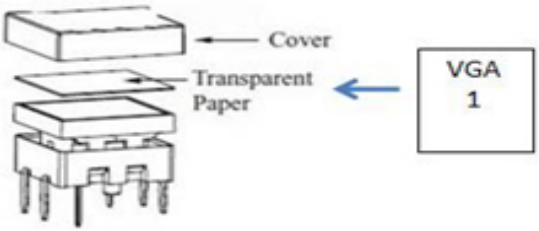
2. Panel Description



SDCP6-EU



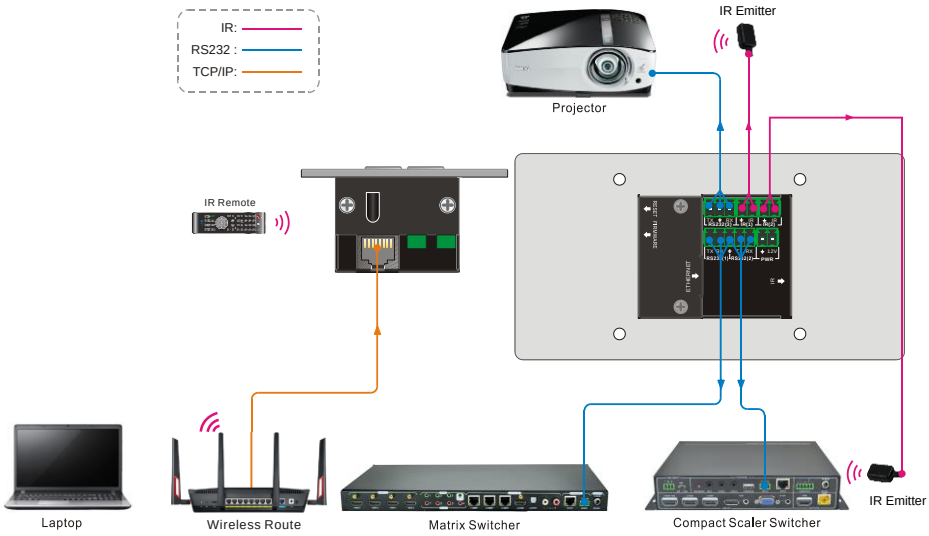
SDCP6-UK

No.	Name	Description
1	Power LED	Illuminates red when powered on.
2	Button	(6) crystal and luminescent programmable buttons: Each button can be programmed with the Control Panel Software. Each label within a button can be easily changed. Simply select the label you need and change it as shown below: 
3	ETHERNET	RJ45 connector. Connects with PC to run the Control Panel Software to customize button control. After setting button functions, the port can be connected to the third-party device to control it by buttons.
4	IR Sensor	Receives and learns the IR code to build the IR database.
5	RS232(1) ~ RS232(3)	Total 3 RS232 ports. Connect the third-party devices, which are needed to be controlled via the Control Panel Software.
6	PWR(12V)	Connects with 12V DC power adaptor.
7	IR (1) ~ IR (2)	2 IR output ports. Connect with IR Emitter to control other devices via the Control Panel Software.
8	FIRMWARE	Micro USB port for updating firmware.
9	RESET	Long-press this button 3 seconds until the power LED goes out to start to the restore factory defaults, and then the LED will light up while the resetting is successful.

3. System Connection

The SDCP6 can activate different ports at one time. It means every button can send the RS232 commands, IR code at the same time.

The demo system diagram as below:



System Diagram

① Connect the SDCP6 to the LAN port of Wireless Router, or control device (such as PC) to ETHERNET port.

② Connect the third-party devices (such as Matrix Switcher, Compact Scaler Switcher or Projector) that need to be controlled to RS232 (1) ~RS232 (3) ports.

③ Connect the IR Emitters to IR (1) ~ IR (2) ports.

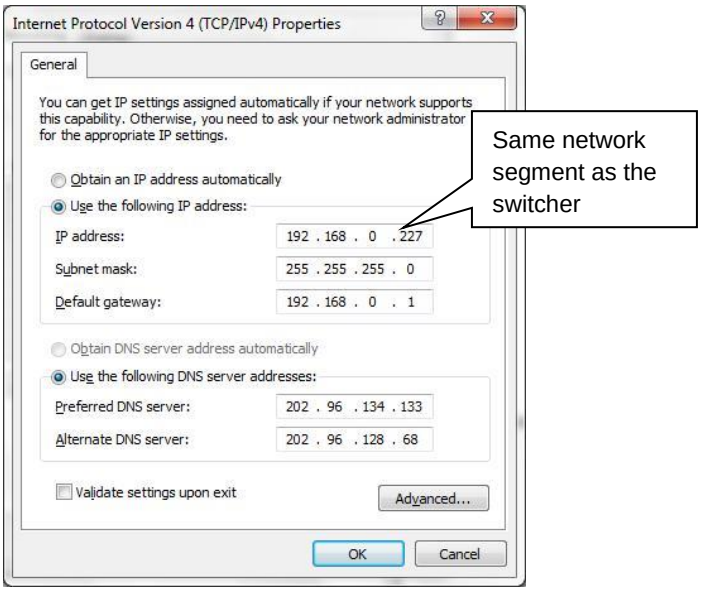
4. Control Panel Software

4.1 Basic Setting

You can use Control Panel Software to easily set functions for every button.

① Connect the control PC to the ETHERNET port.

② The default IP of SDCP6 is *192.168.0.178* (modifiable), the control PC should be set its network segment to the same as the SDCP6's.



Modify the IP of PC

③ Installation/uninstallation of Control Panel Software:

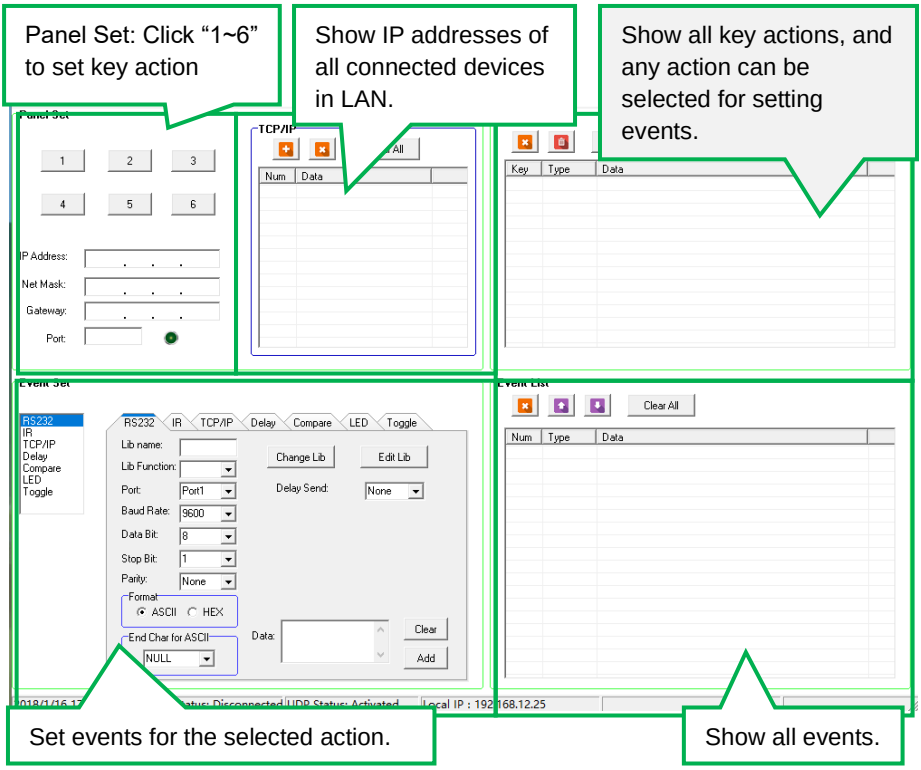
Installation: Copy the software file to the computer connected with SDCP6.

Uninstallation: Delete all the software files in corresponding file path.

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

The main window of the Control Panel Software has five parts: Panel Set, TCP/IP, Action List, Event Set and Event List.

The main window of Control Panel Software is shown as below:



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

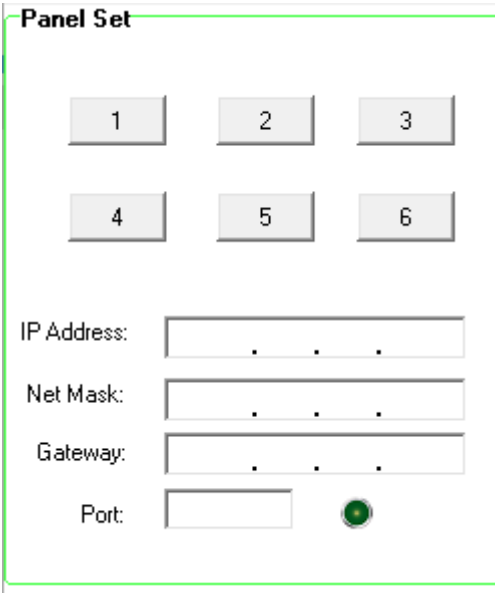
- Click “File” → “Save” to save the current setting.
- Click “File” → “Save as” to save all configuration information as a file.
- Click “File” → “Open” to open a configuration file.
- Click “System” → “Version” to query the current software version.
- Click “System” → “Message” to query the Link Status, Machine Type, Software Version, IP Information, MAC address.
- Click “File” → “Software Update”

  Hold the button “3” and power on system until the button lights up to enable update mode → 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 “System” → “Factory Defaults” to restore factory defaults.
- Click “Connection” → “TCP/IP” → “Reconnect” to reconnect all SDCP6.
- Click “Connection” → “Upload” → to load the MCU information from the selected SDCP6 to control software.
- Click “Connection” → “Download” → to download the current setting information to the selected SDCP6 from the control software.

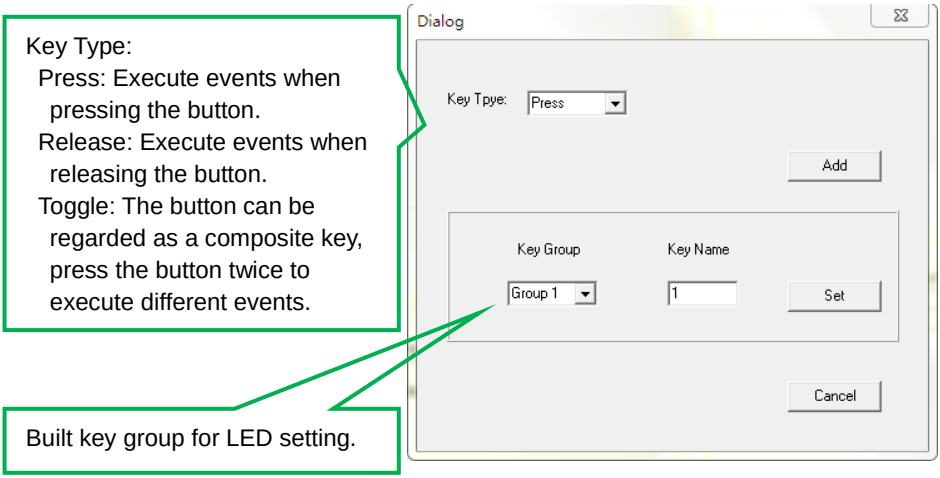
4.2 Panel Set

Total 6 customizable buttons on the front panel can be set via this software. Add a button action to show on the action list, and then add events to make this action execute the events.

Here set one button for example:

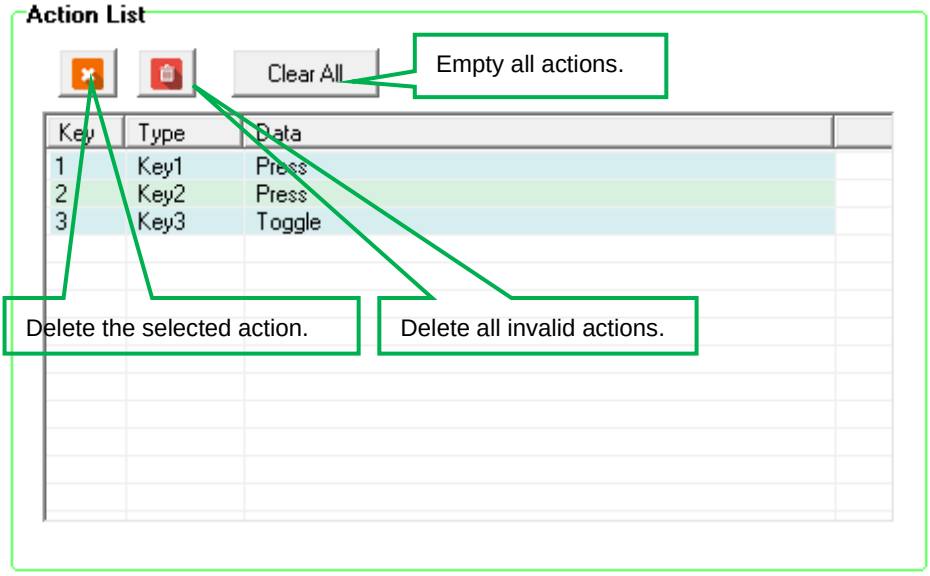


Keys 1-6, correspond to the buttons on SDCP6. Click the key 1, it will pop up dialog as below:



4.3 Action List

All Panel Set actions will be shown on the action list and available actions must be added to the list. The action list is as the picture below:

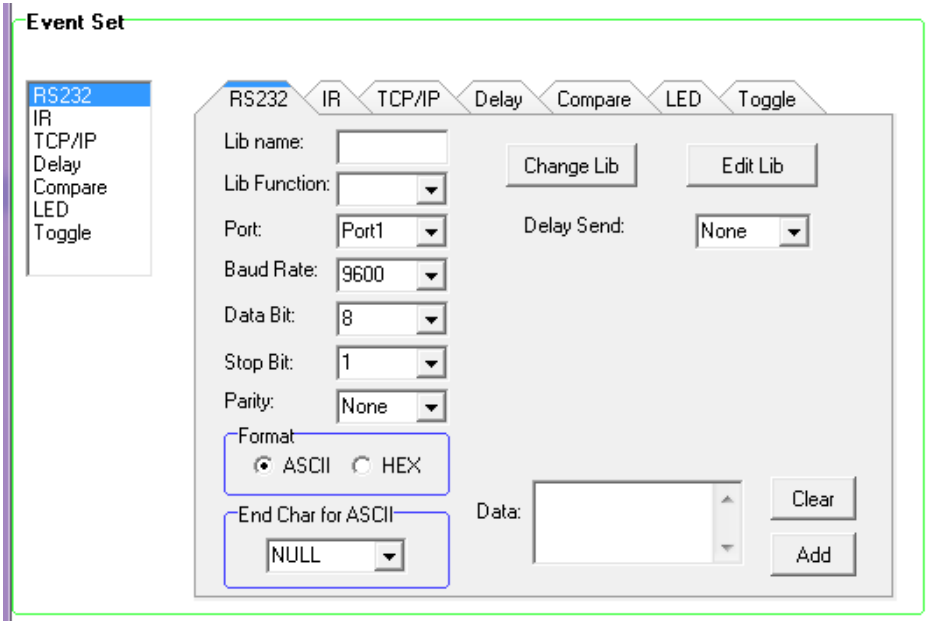


4.4 Event setting

Event Set part includes RS232, IR, TCP/IP, Delay, Compare, LED and Toggle setting. Before set events, an 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 for RS232 (1) ~ RS232 (3) ports. Click “RS232”, it will show as below:



Operation procedure:

① Select the button action in action list.

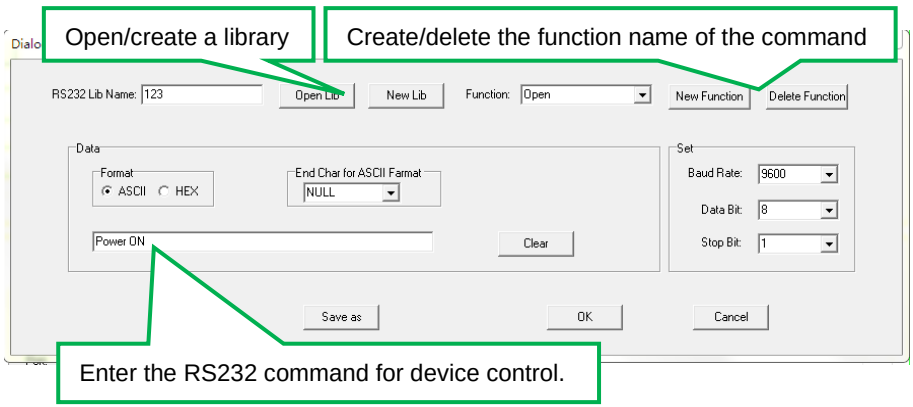
② Set the “Lib name” and “Lib Function”. It is an optional function, not necessary.

③ Select the RS232 port. The port must be same as model setting, otherwise the event cannot be added.

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

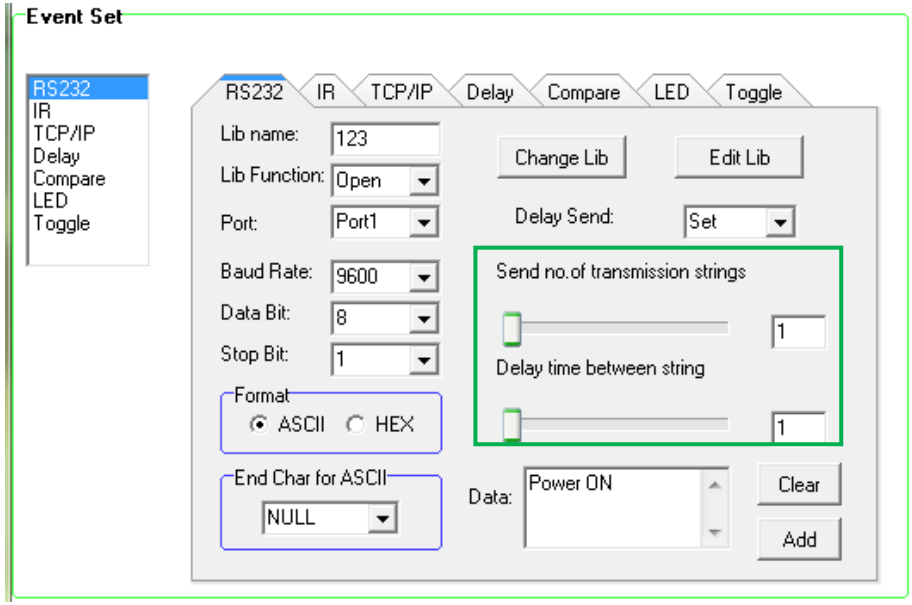
⑤ Enter RS232 command in data box, and then press “add” to save setting.

⑥ The RS232 data also can be selected from library. Click “Change Lib” to select a library file and open it, or Click “Edit Lib” to create a library file as below:



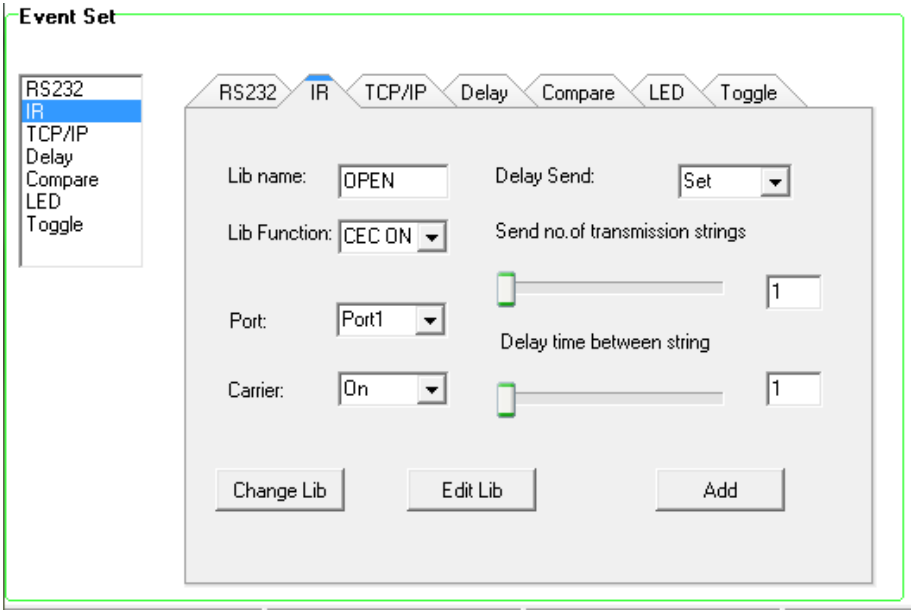
Note: *Once set up, please press “Save” to save the editing or “Save as” to save as a file, and then press “OK”.*

⑦ There are two delay send: Set and None. When select “Set”, the number of sending strings and the delay time between strings can be set.



4.4.2 IR Setting

This item is used for setting the events for IR (1) ~ IR (2) ports. Click “IR”, it will show as below:



Operation procedure:

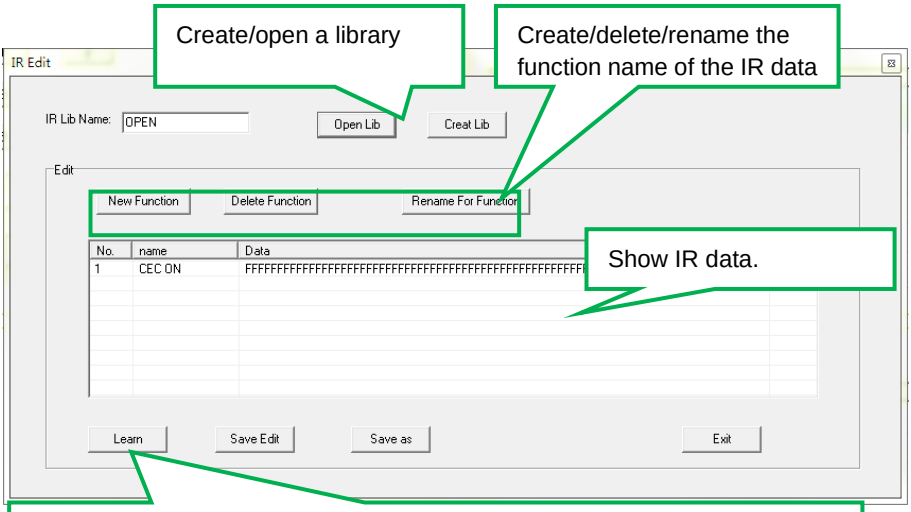
① Select the button action in action list.

② Set the “Lib name” and “Lib Function”. It is optional function, not necessary.

③ Select the IR port. The port must be same as model setting, otherwise the event cannot be added.

④ Set the IR carrier mode: On/Off

⑤ The IR data need to be selected from library. Click “Change Lib” to select a library file and open it. Click “Edit Lib” to create or edit a library file as below:



IR Learning Procedure:

Click “learn” to enter IR learning mode.

Put the IR Remote close to the IR sensor of SDCP6

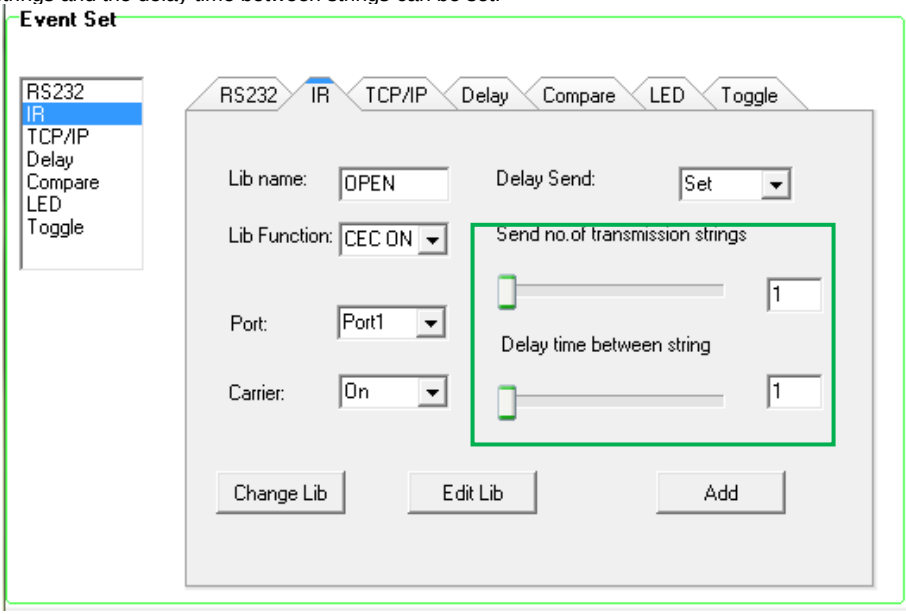
Press any button on the IR Remote to send the IR code to IR sensor, and it will refresh the IR data.

Follow the same steps can learn any function of the remote buttons.

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

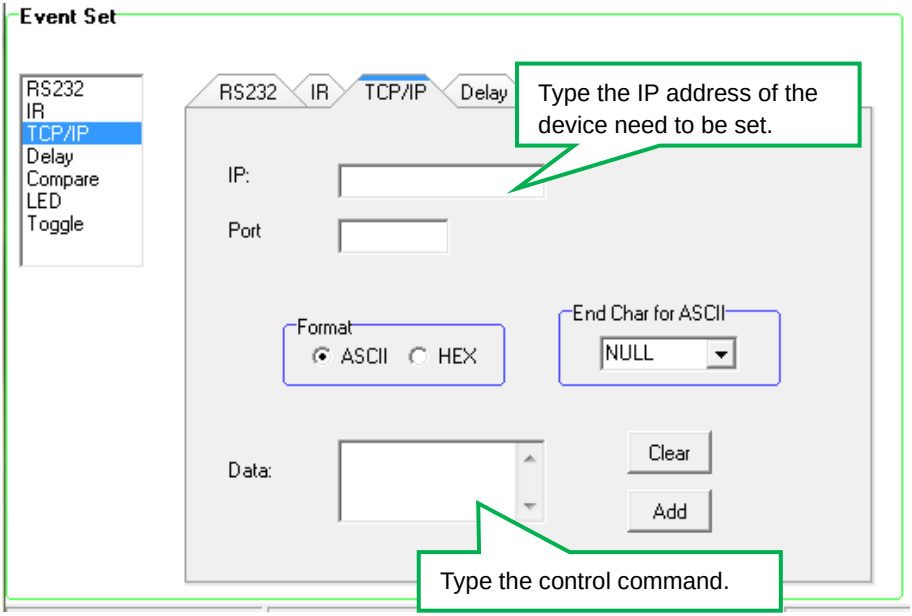
Note: *Once set up, please press “Save Edit” to save the editing or “Save as” to save as a file, and then press “OK”.*

⑥ There are two delay send options: Set and None. When select “Set”, the number of sending strings and the delay time between strings can be set.



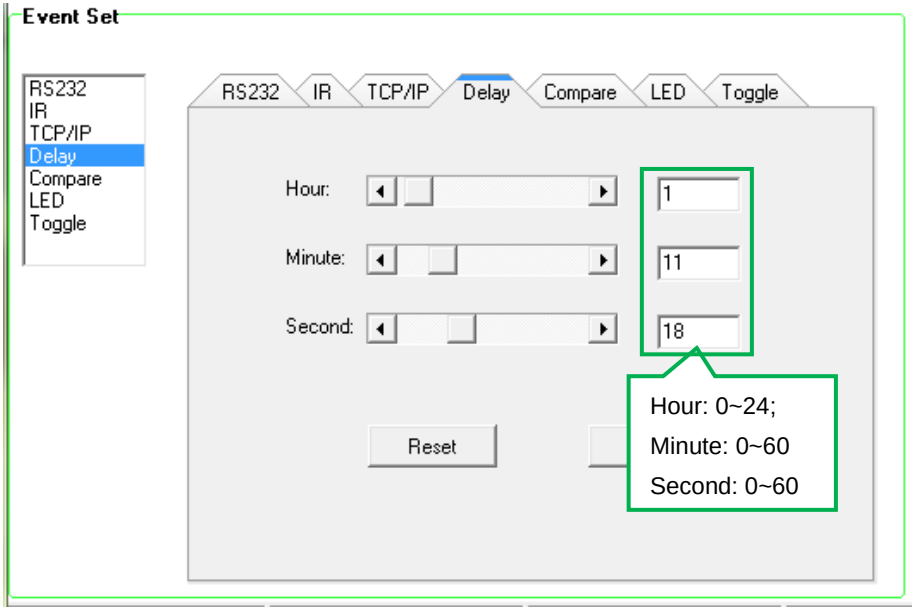
4.4.3 TCP/IP Setting

The Ethernet port supports pass-through function. You can set the events for different IP port via commands.



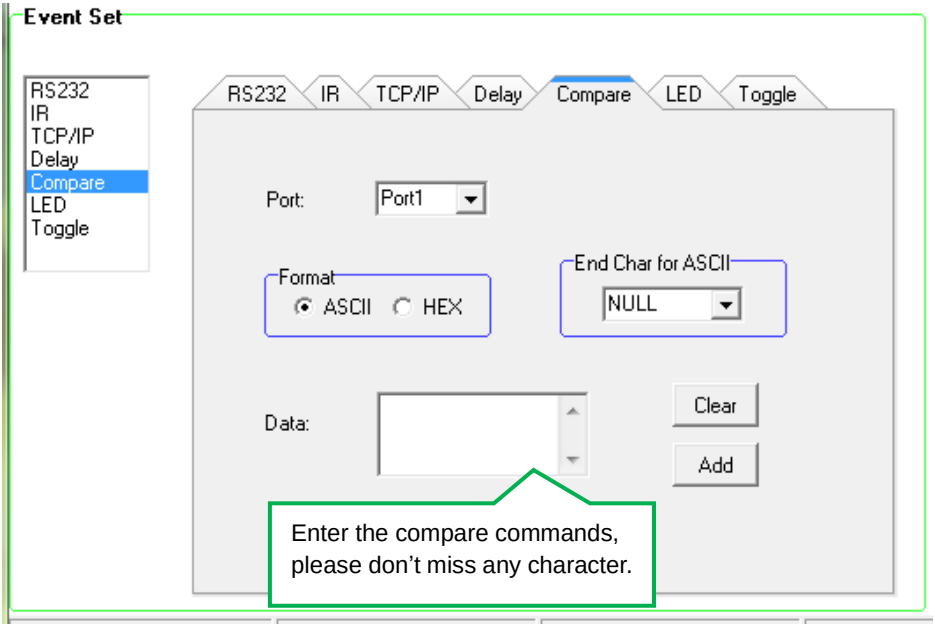
4.4.4 Delay setting

This item is to add a delay between two events; so when one event is finished, it will delay a certain time then start next event. The delay setting is as picture below:



4.4.5 Compare Setting

This item is used to compare the feedback of RS232 commands. When SDCP6 sends an RS232 command to the controlled device, the device will send back a feedback. If we add the correct feedback in the data, SDCP6 will compare it with the feedback received from controlled device, to verify the command is working or not. The compare setting is as the picture below:



Operation procedure:

① Select the button action in action list.

② Select the RS232 port. The port must be same as model setting, otherwise the event cannot be added.

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

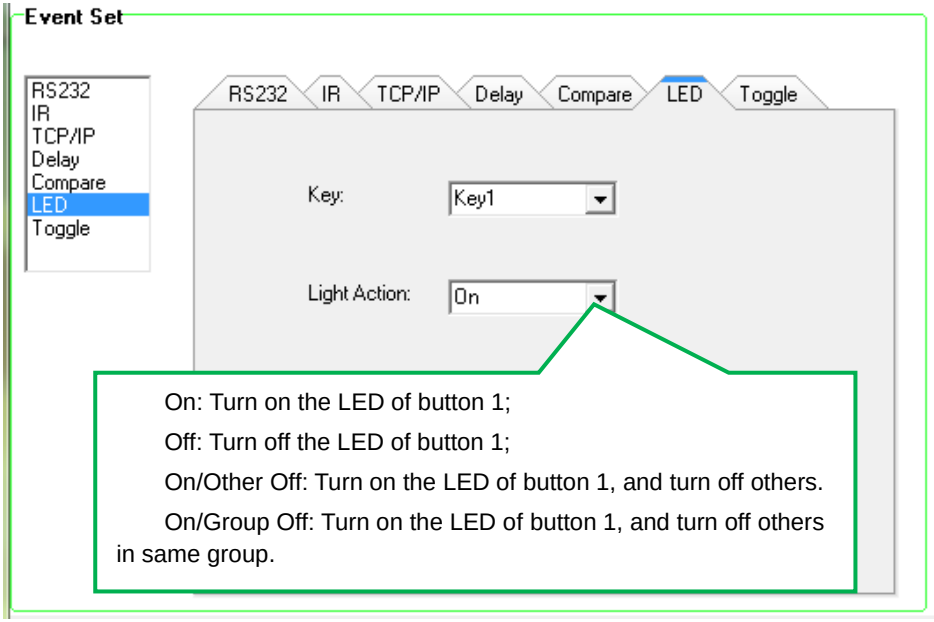
④ Enter the RS232 command needed to be compared in data box, and then press "add" to save setting.

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

⑥ For the events in one event list have priority, from top to bottom, so that the compare function can be used in action which with three or more events.

4.4.6 LED setting

This item is used for setting the button LEDs in SDCP6 to turn on/off. The setting is as below:

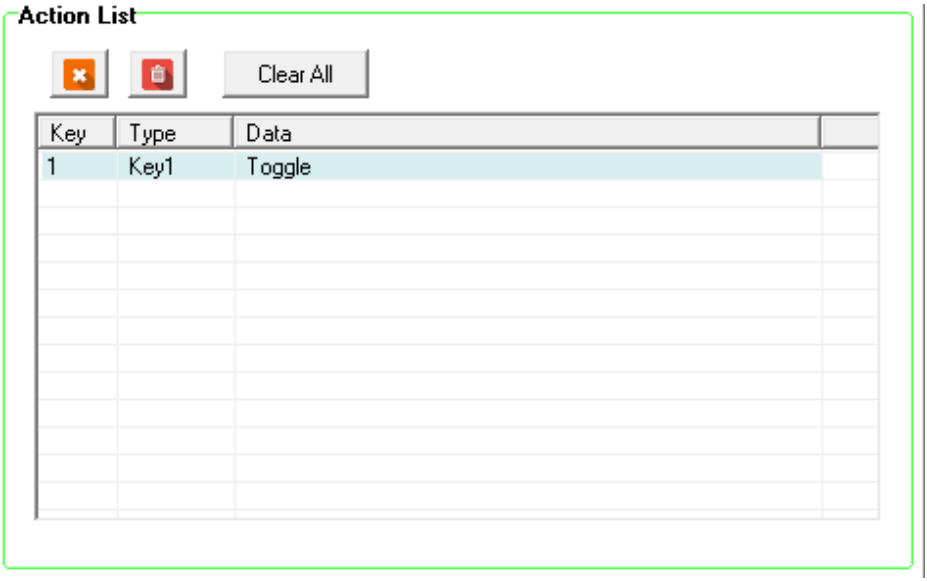


4.4.7 Toggle Setting

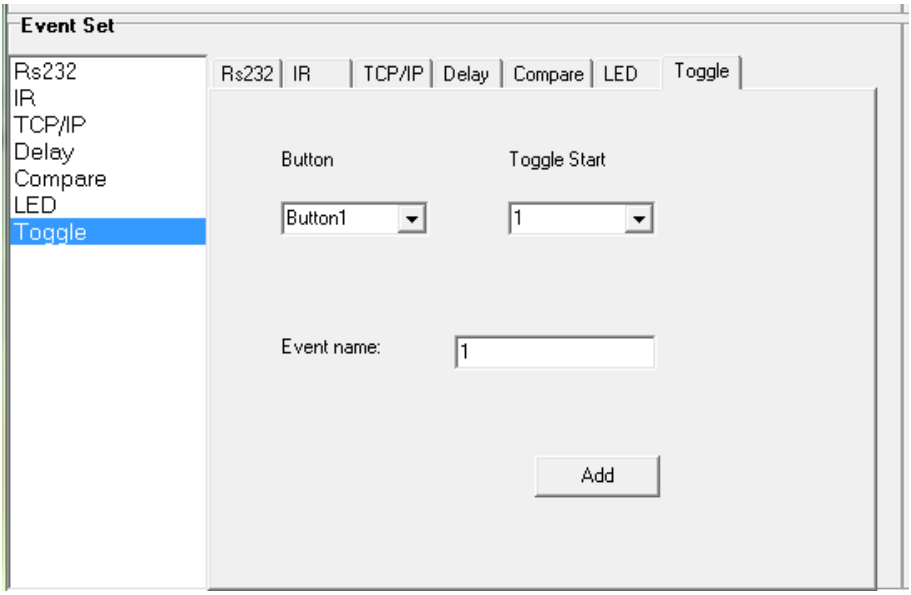
The key type can be set as “Toggle”, in this type, the button can be regarded as a composite key. Here is an example to show you the use of this function:

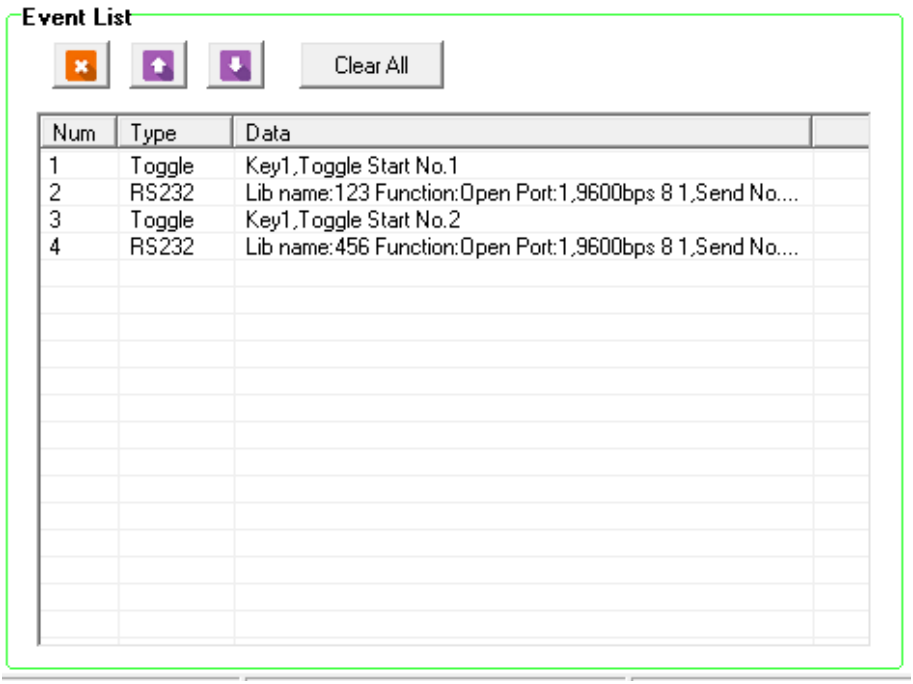
Operation procedure:

① Take Key 1 for example, click “1” and select the action type “Toggle”.



② Add toggle & RS232 events for the Key 1.

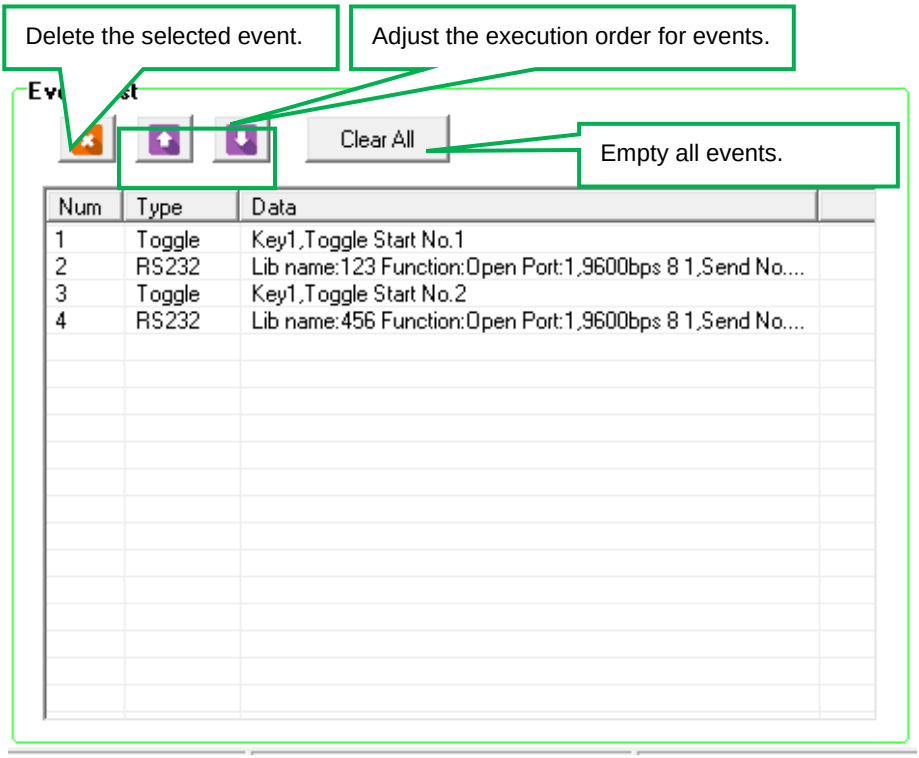




③ Press the Key 1, the event of Num 2 will be executed, and then press Key 1 again, the event of Num 4 will be executed.

4.5 Event List

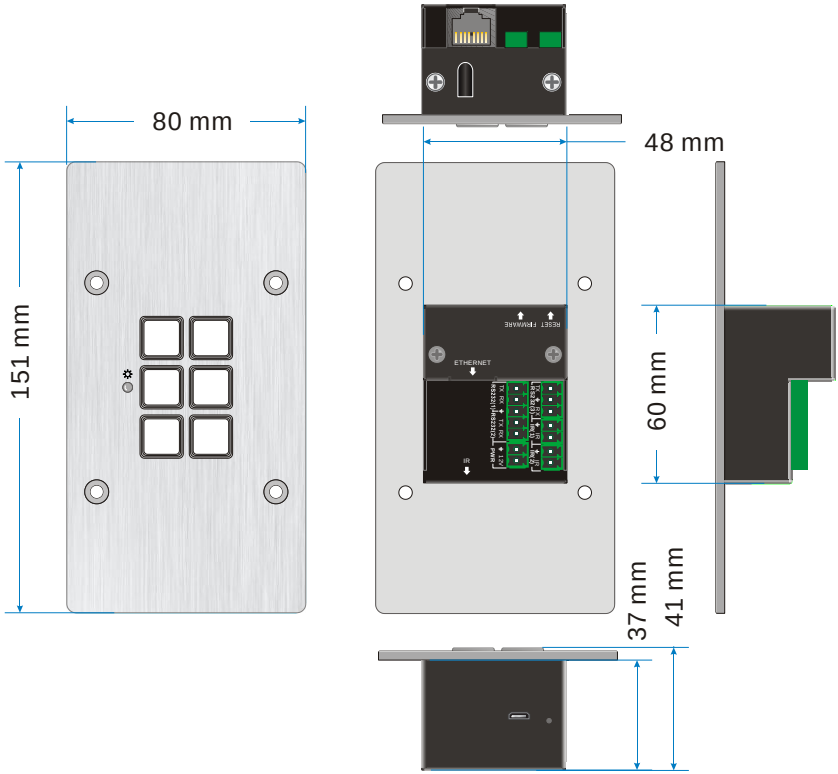
The event list shows all events of the selected action. The executing priority abides by the serial number, see the picture below. If there is an event execute incorrectly, all the events behind it will not be executed.



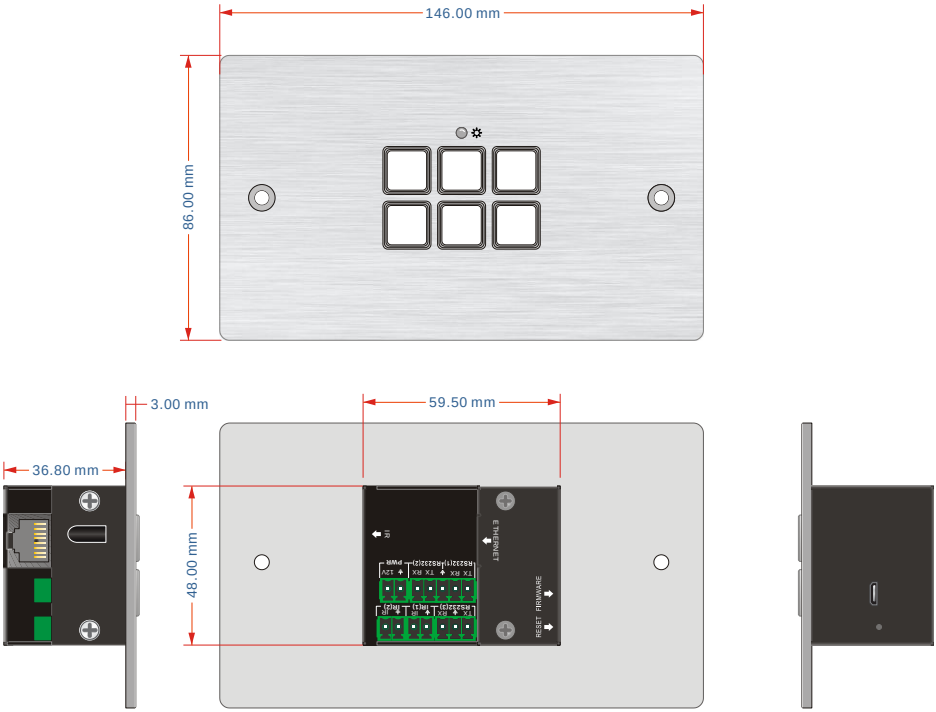
5. Specification

Program Port		TCP/IP
Output Port		3 x RS232, 2 x IR
Output Connector		3 x 3-Pin Pluggable terminal blocks, 2 x 2-Pin Pluggable terminal blocks,
Baud Rate and Protocol		9600 baud, 8 data bits, 1 stop bit, no parity
Software		SDCP6
Power Consumption		1W (Max)
Operation Temperature		0 ~ +40℃
Storage Temperature		-10 ~ +55℃
Relative Humidity		10% ~ 90%
Power Supply		Input: 100VAC~240VAC, 50/60 Hz; Output: 12VDC 1A
Net Weight		About 200g
Dimension（W*H*D）		80mm x 151mm x 41mm (EU) 86mm x146mm x 36.8mm (UK)

6. Panel Drawing



SDCP6-EU


146.00 mm
86.00 mm
3.00 mm
59.50 mm
36.80 mm
48.00 mm
IR
ETHERNET
RESET
PROWARE

SDCP6-UK