DaliPro User Guide

Knowledge Point Index

1. DaliPro Overview

DaliPro is a special software used in debugging and configuration of DALI lighting control system. This software is not only able to conduct parameter configuration on Control Gear (such as Dali LED driver, etc) that accords with standards of DALI, but also able to conduct user-defined operations on keys in Control Device (such as DALI MC-4/8 and DALI TOUCH MC-8, etc) made by DaliPro. Its main functions include:

- Addressing, configuration of basic parameters and test of Control Gears.
- Groups configuration.
- Scenes configuration.
- Addressing, configuration of basic parameters and test of Control Devices.

2. Operation Environment of DaliPro Software

- PC and Windows operating system.
- DALI system, which consists of DALI PS (DALI Bus Power Supply), Control Gears and Control Devices.
- DALI-USB or DALI-Wifi Protocol Converter that is accessed to DALI Bus.
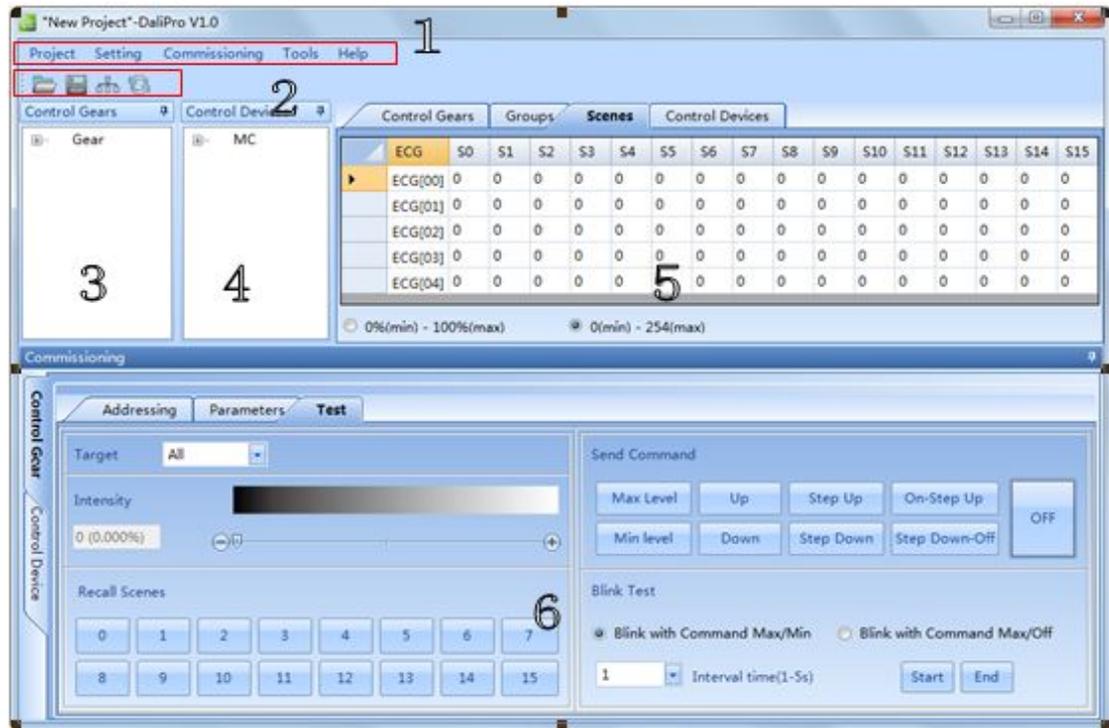
DALI System Composition Diagram
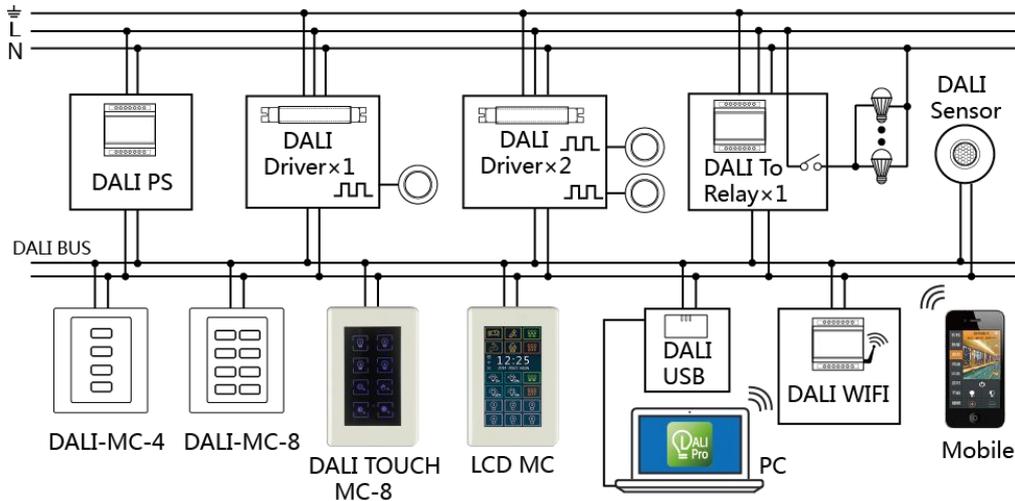
3. Interface and Operation of DaliPro Software

3.1 Introduction of Software Interface

Software interface will be introduced with DaliPro V1.0 as an example. While using DaliPro, actual condition may be different from the following picture of interface according to different operating systems and different versions of software used by users.

All parts in the above picture are illustrated as follows:

Interface	Illustration
1. Title Bar	Shortcut menu used to display DaliPro. Details shall refer to 3.2.
2. Tool Bar	Shortcut keys used to display DaliPro.
3. Control Gears Device Tree	Display names and short addresses of all Control Gears in the system.
4. Control Devices Device Tree	Display names and short addresses of all Control Devices in the system.
5. Data Table	Operation and display of the following configurations are realized with subpage data table: 1. Basic configuration parameters of Control Gears. 2. Groups configuration of Control Gears. 3. Scenes configuration of Control Gears 4. Configuration parameters of Control Devices.
6. Commissioning Bar	Conduct addressing, basic parameters edit and test on all Control Gears or Control Devices in the system.

3.2 Title Bar

Project   Setting   Commissioning   Tools   Help

Main menu	Submenu	Function description
Project	Open	Open the DALI item files that have been saved in computer.
	Save as	Save the currently edited DALI item file as specified name or saved into specified position.
	Close	Exit.
Setting	Language	Select interface language.
	Interface	Select standard communication interface (USB or Wifi) used to access to DALI system.
	View	Change size of the window.
Commissioning	Control Devices	Conduct addressing, basic parameters edit and test on Control Devices in the system.
	Control Gears	Conduct addressing, basic parameters edit and test on Control Gears in the system.
Tools	Demo	Be able to demonstrate all devices.
	Refresh	Reconnect system and read the contents on current page.
Help	Help	Open help document of this software.
	About	Display information of copyright and version of this software.

3.3 Tool Bar

| Shortcut icon	Function	Function description
	Open	Open the DALI item files that have been saved in computer.
	Save as	Save the currently edited DALI item file as specified name or saved into specified position.
	Interface	Select standard communication interface (USB or Wifi) used to access to DALI system.
	Refresh	Reconnect system and read the contents on current page.

3.4 Control Gear Device Tree
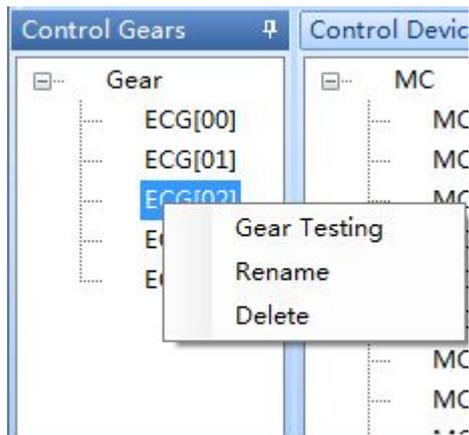
While clicking "Control Gear" in this section with right mouse button, shortcut menu can pop up. Its illustrations are as follows:

Gear Testing	Skip to the page of Control Gear \ Test in commissioning bar automatically and be able to test selected Control Gear.
Rename	Name or rename selected Control Gear.
Delete	Remove selected Control Gear from device tree.

3.5 Control Device Device Tree
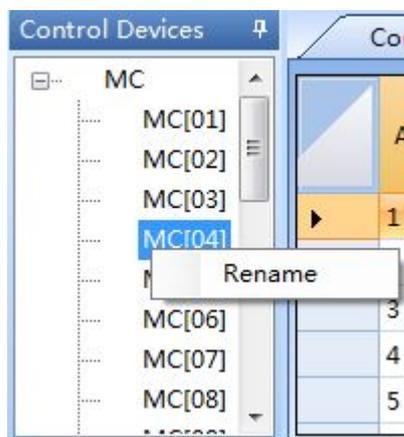
While clicking "Control Device" in this section with right mouse button, shortcut menu can pop up. Its illustrations are as follows:

Rename	Name or rename selected Control Device.

3.6 Data Table

	Short Address	Physical Min Level	Type	Version	DTR	Random Address	Power on Level	System Failure Level	Max Level	Min Level	Fade Rate	Fade Time
▶	0	1	Switc...	9	0	51BE4E	128	254	254	5	7	0
	1	1	Switc...	9	0	6155E2	128	254	254	5	7	0
	2	5	LED ...	1	0	4D2854	128	254	254	5	7	0
	3	5	LED ...	1	0	955F6C	128	254	254	5	7	0
	4	5	LED ...	1	0	ABC05D	128	254	254	5	7	0

Label on page of data table	Function description
Control Gears	Display all basic parameters of Control Gears, including Short Address, Physical Min Level, Type, Version, DTR, Random Address, Power on Level, System Failure Level, Max Level, Min Level, Fade Rate and Fade Time. User can edit the above revisable parameters in this table directly.
Groups	Display all the groups information (Group0~Group15) of Control Gears in the system. User is able to edit the configuration of all Groups in this table directly.
Scenes	Display all the scenes information (Scene0~Scene15) of Control Gears in the system. User is able to edit the configuration of all Scenes in this table directly.
Control Devices	Display all parameters of Control Device, including Address, Name, Sound, Target, COM_A~COM_D, DT_AB and DT_CD. User is able to edit the above revisable parameters in this table directly.

3.7 Commissioning Bar

(Left) Label on home page	(Above) Label on subpage	Function description
Control Gear	Addressing	1) Installation Test refers to send maximum/minimum instant power commands alternately through broadcast so as to test if all lamps can

		be connected correctly and receive DALI standard commands. 2) Search Address refers that two addressing methods can be selected: ● Install new(Unaddressed). While implementing this method, addressing and automatic allocation of short address will be conducted only on the Control Gears, short addresses of which have not been allocated. ● All new installation. While implementing this method, addressing and automatic allocation of short address will be reconducted on all Control Gears (no matter if short addresses have been allocated) of the system. 3) Change Address refers to modify current Short Address A of selected control gear to another specified Short Address B and click "Save" to confirm current modification. 4) Delete Address refers to be able to delete short addresses of all or selected control gear.
	Parameters	Basic parameters of selected Control Gear can be read or modified. Explanation of relevant parameters shall refer to Explanation of Basic Parameters of Control Gear.
	Test	Through selecting "All, Group number or Address number" in Target Bar, the following tests can be confirmed to conduct on Control Gear(s) as test target: ● Instant power (brightness) test. ● Call of 0-15 scenes. ● Command test, including Max Level, Min Level, Up, Down, Step Up, Step down, On-Step Up, Step Down-Off and Off. ● Send Command Max Level/Min Level or Max Level/Off alternately with specified interval to test if targeted control gear is installed correctly, powers on and receives DALI commands. ● Send maximum/minimum instant power commands alternately with specified interval to test if targeted control gear can receive DALI commands correctly.
Control Device	Addressing	1. Installation Test refers that select "All" or "Address number" in Target Device bar as test target and send Device identification command to test if targeted Device(s) can receive commands and make corresponding reactions correctly. 2. Search Address refers that 3 addressing methods can be selected: ● Physical addressing. After selecting this item and clicking "Search", trigger keys of MC-4/8 or Touch MC-8 one by one, the system will allocate independent (Control Device) short addresses for each key automatically. After finishing allocating, click "End" to exit addressing. ● Auto-All new installation. While implementing this item, DaliPro Software will reconduct addressing and automatic allocation of short address on all Control Devices (no matter if short

		addresses have been allocated) of the system automatically.
		• Install new(Unaddressed). While implementing this item, DaliPro Software will conduct addressing and automatic allocation of short address only on the Control Devices that have not been allocated with short address in the system. 3. Change Address refers to modify current Short Address A of selected control gear to another specified Short Address B and click "Save" to confirm current modification. 4. Delete Address refers to be able to delete all or short addresses of selected control device.
	Parameters	Read, modify, save or test parameters of Control Device of specified Address. Detailed explanation of relevant parameters shall refer to Setting of MC Keys.

4. Application Method of DaliPro Software

4.1 Operating DaliPro Software

1. Ensure DALI device is connected and powered on correctly.

DALI PS (DALI Bus Power Supply), Control Gears and Control Devices in DALI system are connected correctly and powered on. Ensure DALI-USB or DALI-Wifi Protocol Converter has accessed to DALI Bus and is in normal power state.

2. **Operating DaliPro Software.** Double click [icon] to start DaliPro Software.

### 4.2 Select and Configurate Standard Communication Interface of System

Select the method of connecting computer to DALI Protocol Converter on popup window. If selecting connection via USB, USB data line is needed to connect computer and protocol converter. While if selecting connection via WiFi, WiFi of the computer shall be opened (if WiFi connection is used for the first time, please refer to Configuration Method of DALI-Wifi Protocol Converter). After connection is selected, DaliPro will read DALI Control Gear and Control Device, short addresses of which have been allocated in the system as well as their parameters automatically and display in device tree. Control Gear and Control Device that have not been allocated with short address will not been read and displayed.

4.3 Addressing and Configuration of Control Gear

1. **Select page on addressing and configuration of Control Gear.** Select page of Control Gear \ Addressing in commissioning bar.

2. **Test installation of Control Gear**. In the area of Installation Test, click [Start] to conduct Max/Min power command test on all control gears that have been installed so as to ensure all control gears are installed and powered on correctly. Test can be ended through clicking [End].
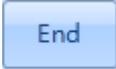
3. **Addressing of Control Gear.** Search Control Gears in the system that have not been allocated with short address in the area of Search Address and allocate short address for them. Two addressing methods can be selected:
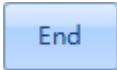
● Install new(Unaddressed). While implementing this item, addressing and automatic allocation of short address will be conducted only on the Control Gears that have not been allocated with short address in the system. [Install new(Unaddressed)]
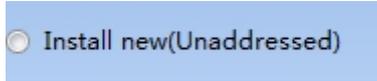
● All new installation. While implementing this method, addressing and automatic allocation of short address will be reconducted on all Control Gears (no matter if short addresses have been allocated) in the system. [All new installation]

Click [Search] to start searching and allocating short addresses (0-63) automatically, which will be displayed in control gear [ ]. Click [End] to stop or end searching.

4. **Test of Control Gear.** Select page of Control Gear \ Test in commission bar.
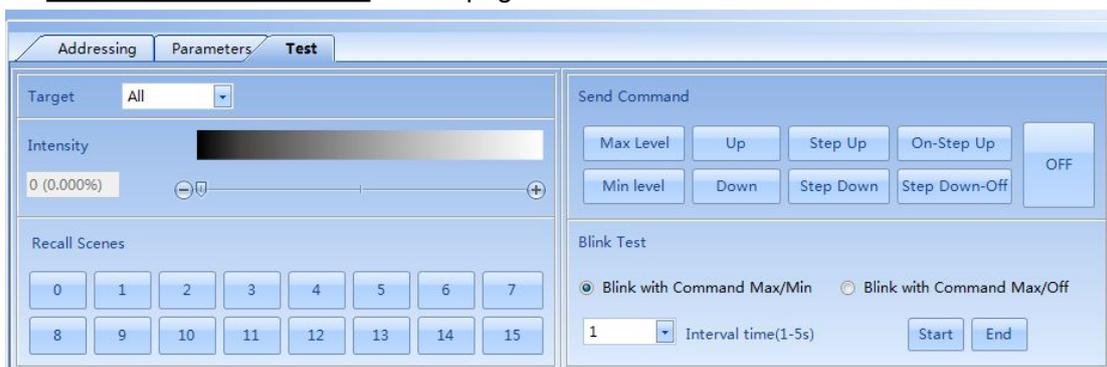
Test targets can be selected as "All, Group and Address" .
Aiming at selected test targets, the following tests can be conducted:

- Instant power (brightness) test.

- Call of 0-15 scenes.

- Command test, including Max Level, Min Level, Up, Down, Step Up, Step down, On-Step Up, Step Down-Off and Off.

- Send Command Max Level/Min Level or Max Level/Off alternately with specified interval to recognize specific installation position that corresponds to No. of each control gear and ensure if they can receive DALI commands correctly.

5. **Address modification of Control Gear.** User can modify No. of short address of Control Gear according to demand. Select page of Control Gear \ Addressing in commission bar.

Select Short Address A of control gear that needs to be modified in Change Address bar , and modify to another specified Short Address B that has not been occupied . Then click to confirm current modification.

6. **Edit of basic parameters of Control Gear**. User could set or modify basic parameters of Control Gear according to demand.

● Method I: select page of Control Gear \ Parameters in commission bar.

On this page, select a short address of Control Gear and edit all basic parameters of this Control Gear.

● Method II: all basic parameters of each control gear can be input on page of Control Gears of data table directly.

Explanation of Basic Parameters of Control Gear:

No.	Parameter name	Description	Can be edited or not
1	Short Address	Short address of Control Gear with a range of	Yes

			0-63.	
2	Physical Min Level	Level of physical (inherent) minimum output power of Control Gear.	No
3	Type	Device type of Control Gear.	No
4	Version	Version No. of Control Gear.	No
5	DTR	Value in data transfer register (DTR) of Control Gear.	No
6	Random Address	Random address generated while initializing addressing of Control Gear.	No
7	Power on Level	Level of output power of Control Gear with power on.	Yes
8	System Failure Level	Level of output power of Control Gear with bus failure.	Yes
9	Max Level	Maximum level of output power of Control Gear.	Yes
10	Min Level	Minimum level of output power of Control Gear.	Yes
11	Fade Rate	Fade rate of Control Gear while scene or output power is changing.	Yes
12	Fade Time	Fade time of Control Gear while scene or output power is changing.	Yes

7. **Scenes setting.** Parameters of power (brightness) level of control gear in S0-S15 can be input in the table directly via page of Scenes of data table to set preset brightness of all lamps under different scenes.

At bottom of the page, expression methods of revisable parameters are brightness level (0~254) and percentage (0%~100%).

8. **Groups setting**. Addressing Types of DALI Commands aiming at control gear include the following 3 types:

No.	Addressing type	Description
1	Address (Individual)	Conduct addressing on single Control Gear with short address. Range of short address is 0-63.
2	Group	Conduct addressing on Control Gears of a certain group. Range of group No. (address) is 0-15.
3	ALL (Broadcast)	Conduct addressing on all Control Gears in the system.

Therefore, if the same DALI command needs to be given on several Control Gears, these

Control Gears can be set as a group and then conduct DALI command adopting Group addressing.

After entering into the page of Groups of data table, which group does each Control gear belong to can be allocated arbitrarily through checking in the table directly.

	ECG	G0	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15
▶	ECG[00]	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	ECG[01]	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	ECG[02]	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	ECG[03]	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	ECG[04]	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

## 4.4 Addressing and Configuration of MC Keys

1. **Addressing of MC keys.** On page of Control Device \ Addressing in commission bar,
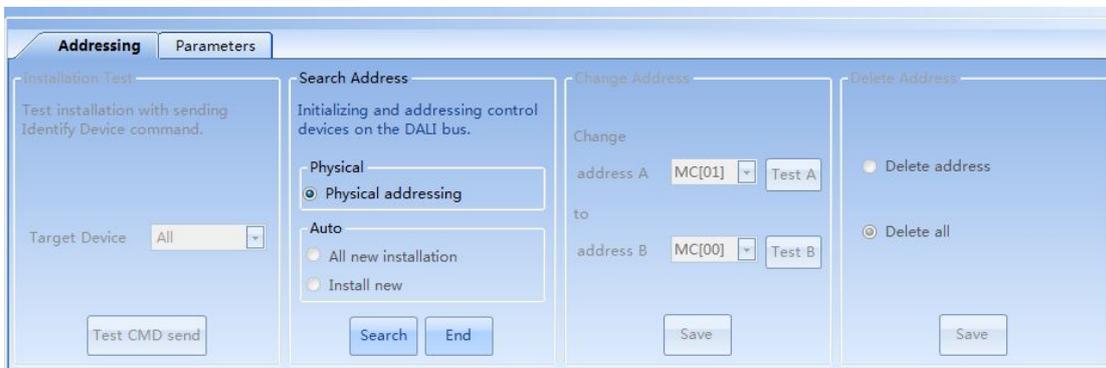
check ![Physical addressing], click ![Search] and then click MC keys that need to allocate short address one by one manually. Hint window will be popped up when a key is searched successfully. Click ![End] to end searching MC keys. All keys that have been searched and their parameters will be displayed on the page of Control Device in data table with tabular form.
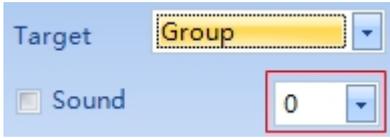
2. **Configuration of MC keys**.

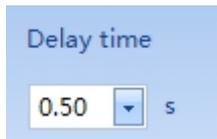a. On page of Control Device \ Parameters in commission bar,
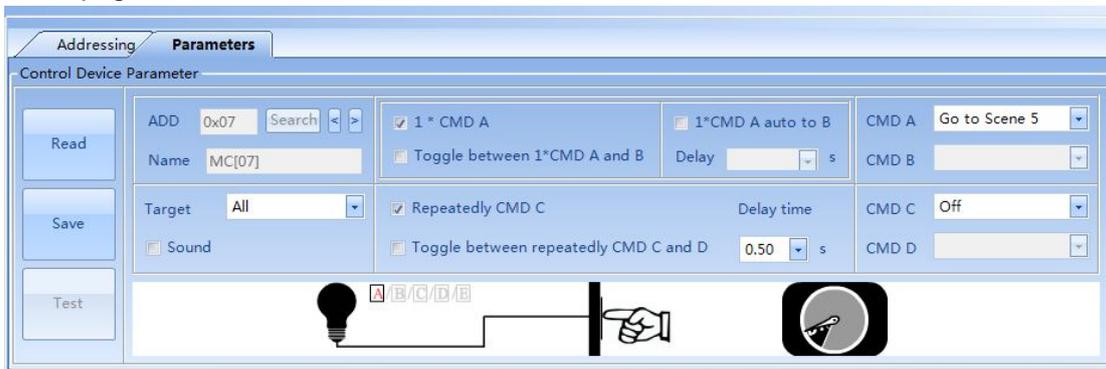
click ![<] and ![>] beside "ADD" to select the keys need to be set.

b. Select targeted Control Gear(s) that is controlled by keys in "Target", among which "All, Group and Address" can be selected ![Target All] . After selecting

![Target Group / Sound 0]
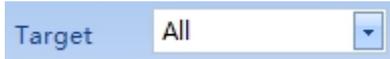
"Group" or "Address", a select box ![select box] will be displayed to select No. of "Group" or "Address".

c. Set command sending method after clicking keys. Five basic command sending methods that can be set are showed as follows:

No.	Choice	Command sending method
1	☑ 1 * CMD A	1. Command A will be sent once after clicking the key for once.
2	☐ Toggle between 1*CMD A and B	2. Command A and B will be sent alternately and individually after clicking the key every time.
3	☐ 1*CMD A auto to B Delay ___ s	3. Command A will be sent once and after delay time (A-B)DT, Command B will be sent once automatically after clicking the key for once. Remarks: select box below can be used to set value of delay time (A-B)DT.
4	☑ Repeatedly CMD C	4. After clicking the key and (C/D)DT, Command C will be sent continuously and repeatedly until releasing the key.
5	☐ Toggle between repeatedly CMD C and D	5. After clicking the key and (C/D)DT, Command C or D will be sent continuously and repeatedly until releasing the key. Remarks: Command C or D will be sent alternately after clicking the key every time.
Remarks	1. For the above Method 4 and 5, value of delay time (C/D)DT can be set in ![Delay time 0.50 s] . 2. According to actual control demand, the key can be configured as any of 1-5 command sending methods in the table and any of the four combinations (1,4), (1,5), (2,4) and (2,5) can be selected from. At this time, the key can implement compound functions of sending single command (A or A/B) and repeated command (C or C/D). For example, if selecting combination method of (1,4), the key will implement as follows: after clicking the key every time, if release the key within the set (C/D)DT, Command A will be sent for once. Or else, Command C will be sent continuously and repeatedly until releasing the key.	

d. Select content of Command A, B, C and D. Commands that can be selected include:
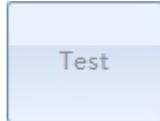
No.	Command	Function description
1	Off	Set output power of control gear as 0 (which equals to the brightness of turning off the lamp).

| 2	Intensity(DAP)	Adjust output power of control gear to the value of set power.
3	Recall max	Set output power of control gear as maximum.
4	Recall min	Set output power of control gear as minimum.
5	Go to Scene 0~15	Set output power of control gear as the scene with specified No. (one of 0-15).
6	Step down and off	Turn down output power of control gear in one step. If current output power is the minimum, then set output power as 0.
7	On and step up	Turn up output power of control gear in one step. If current output power is 0, then set output power as minimum.
8	Up	Turn up output power of control gear quickly. If current output power is 0, this command won't be responded.
9	Down	Turn down output power of control gear quickly. If current output power is minimum, this command won't be responded.
10	Step down	Turn down output power of control gear in one step. If current output power is minimum, this command won't be responded.
11	Step up	Turn up output power of control gear in one step. If current output power is 0, this command won't be responded.
Remarks: 1. Adjustment amplitude of "Up" and "Down" can be modified through setting "Fade Rate" and "Fade Time".		

e. At the most left area on page of Control Device \ Parameters in commission bar, configuration effect of MC key can be tested through clicking [Test] . Click [Save] to confirm and save configuration setting of this MC key. If current configuration of MC key needs to be reread, please click [Read] .
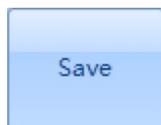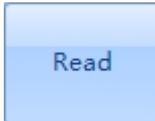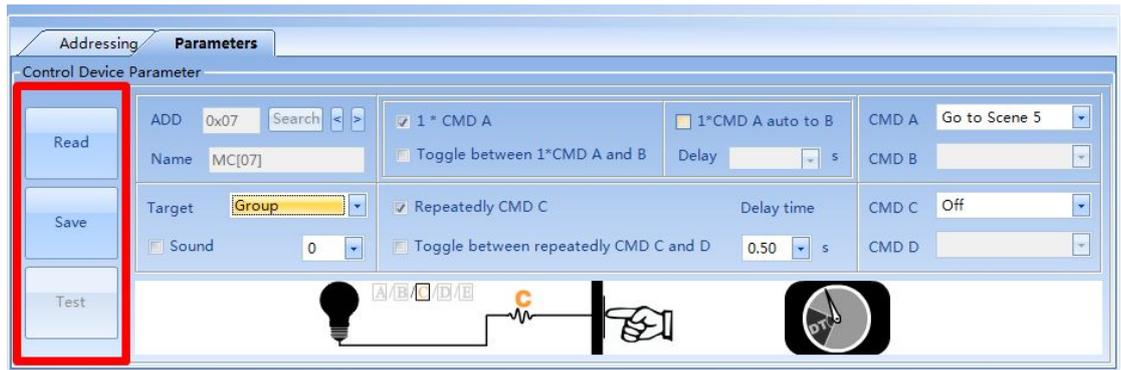
5. Appendix

5.1 Configuration Method of DALI-Wifi Protocol Converter

DALI WIFI Protocol Converter supports cell phone configuration and web page configuration. See the following figure to select a configuration mode.

Configuration mode	Cell phone configuration	Web page configuration
Device or software	Android phones and App (download)	Cell phone or PC
Degree of configuration difficulty	Simple	Complex

5.2 Configuration method of DALI WIFI with Android cell phone

1、 Restore factory settings

To ensure a correct configuration process, please restore the DALI-WIFI to factory settings. Skip this step for devices under factory mode. Provide 6.5-18.5V DC power supply for the module and wait for 30s for device startup. Press and hold EXT/WPS button for 6s and release the EXT/WPS button, the system will automatically restart. After 30s of restart, the device is in the factory mode.。

2、 Open the App and enter into the main panel.Click"Setting"button , Click"Dali WiFi Configuration"button and enter into setting start interface.
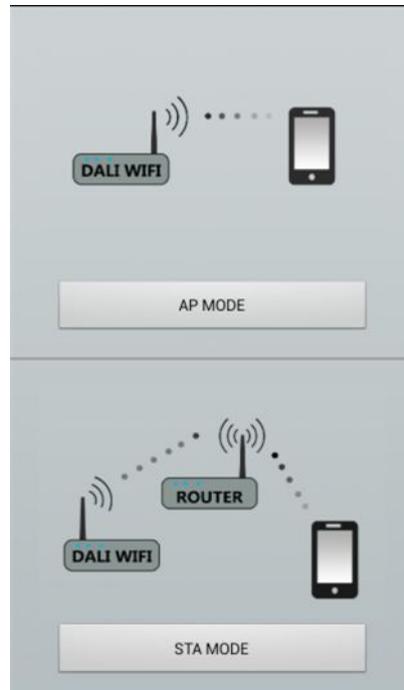
3、 Click "Next" button,click"Select"button and connect the DALI-WIFI network,click "Configure"button and enter into WIFI mode to select setting interface.

4、 Enter into WIFI mode to select setting interface, select AP or STA.

(See the differences of the two modes in *DALI-WIFI Web Page Configuration Method*)

5、 Enter into WIFI setting interface.

Corresponding wifi network parameter:：

NetMode	AP (Access point)	STA (Station mode)
SSID	Wifi network name of DALI WIFI wifi device	Wifi network name of user's router

|	(Editable)	(Uneditable)
Password	Corresponding SSID password (Editable)	Corresponding SSID password (Input)
IP Address	Device server IP address (Editable)	Device server IP address (Uneditable)

A、Access point (AP)：

1）Click "AP MODE" button and enter into access point (AP) setting interface.。

2）Return to Netmode (AP) setting interface and input a WIFI network name (SSID) eg. "DALIKWIFI" and input the Password and then click "Set" button. The whole setting needs 8s

3）After successful configuration, the system automatically returns to setting interface and pop ups a dialog box " Successfully set ".
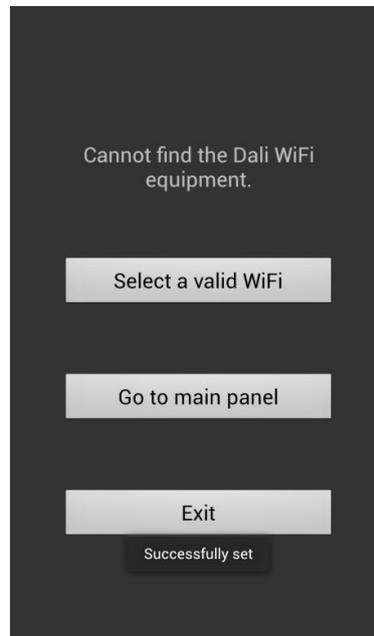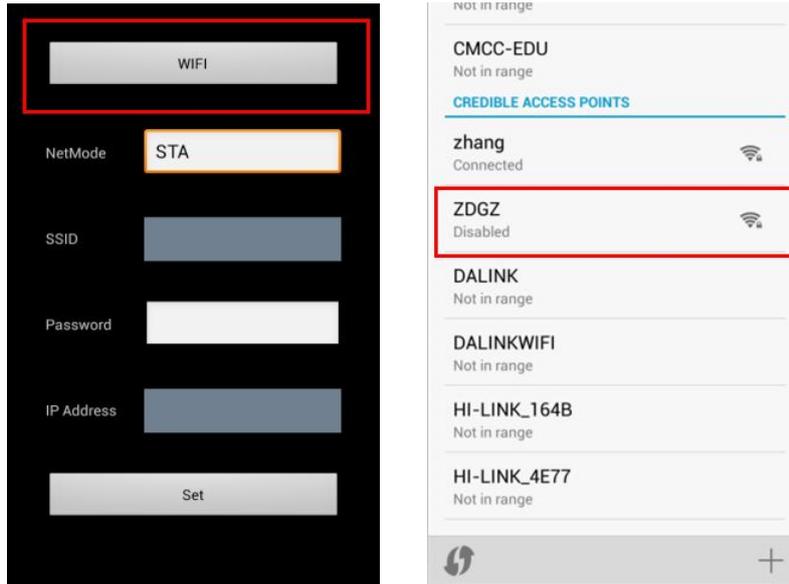

4.2 Station mode (STA):

1）Click "STA MODE" button to enter into STA setting interface.
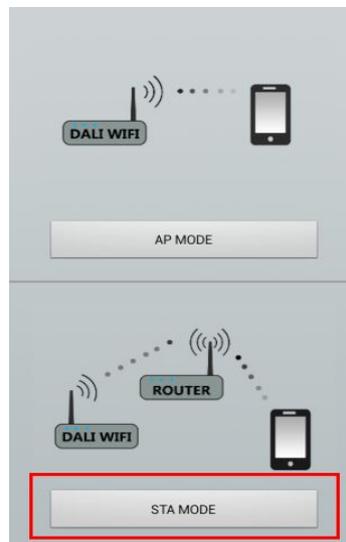


2）Click "WIFI" button to enter into wifi connection interface and connect a router wifi network (not DALI wifi) eg. "ZDGZ".

3）Return to Netmode (STA) setting interface and input the router WIFI network password and then click "Set" button. The whole setting needs 35s.

4）After successful configuration, the system automatically returns to setting interface and pop ups a dialog box" Successfully set ".
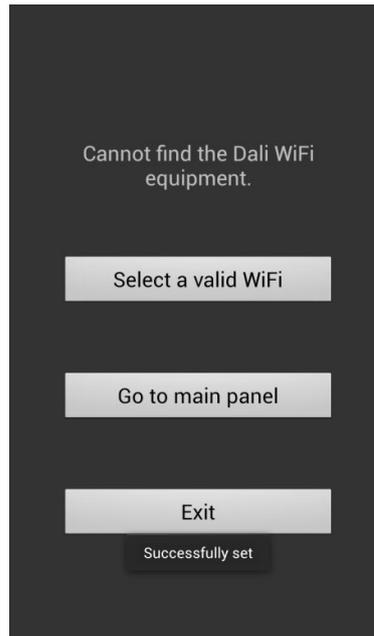
5.3 DALI-WIFI web page configuration method

1、Restore factory settings

To ensure a correct configuration process, please restore the DALI-WIFI to factory settings. Skip this step for devices under factory mode. Provide 6.5-18.5V DC power supply for the module and wait for 30s for device startup. Press and hold EXT/WPS button for 6s and release the EXT/WPS button, the system will automatically restart. After 30s of restart, the device is in the factory mode.

2、Connect the device

**A、Mode 1: Connect the device via Ethernet**

Restore DALI-WIFI to factory setting. After 30s of restart, connect one end of the network cable to "LAN" port on the device and the other end to Ethernet port on the PC. Then set the IP Address of the PC as 192.168.16.100, Subnet Mask as 255.255.255.0 and Default Gateway as 192.168.16.254 that are as follows:
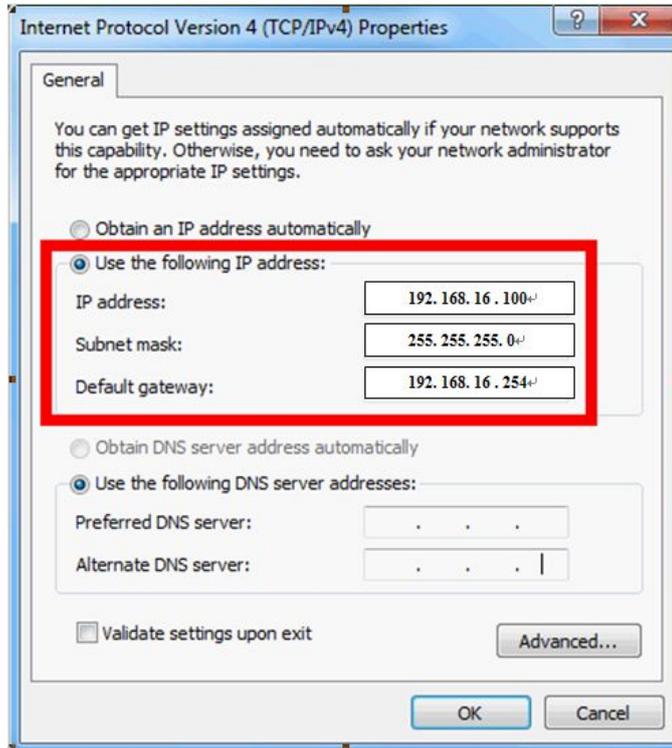
B、Mode 2: Connect the device via WIFI

Connect cell phone or laptop to Wifi network via DALI-WIFI. The default Wifi network name is "HI-LINK-XXXX" with password of "12345678".

Note: HI-LINK-XXXX in the "XXXX" is a random number generated by the four numbers and letters, each device has a unique value.
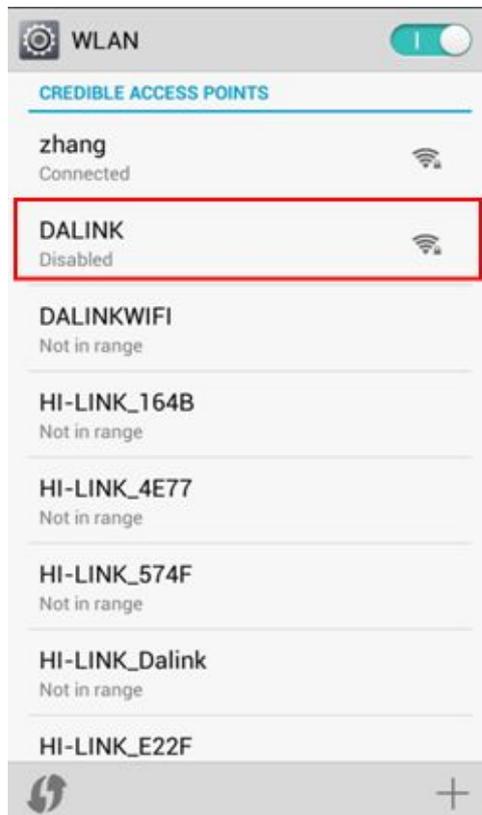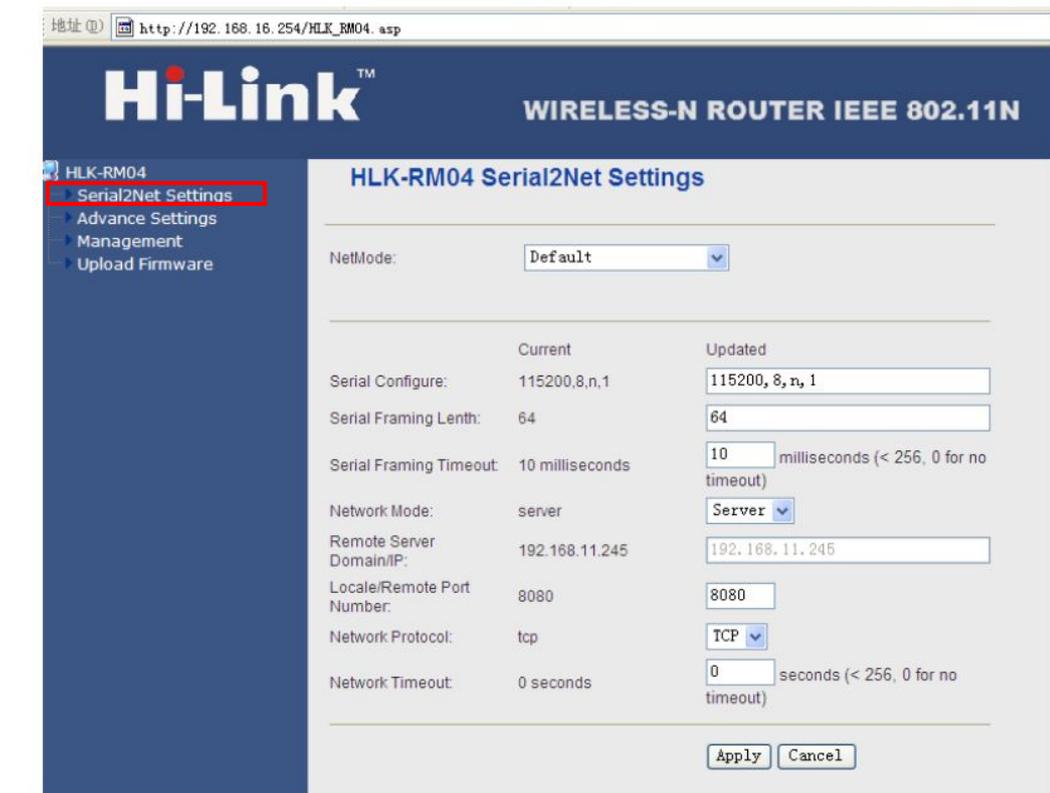
3、Login to configuration page

Open your browser and input http://192.168.16.254/ to web configuration page. The default user name and password are both admin.
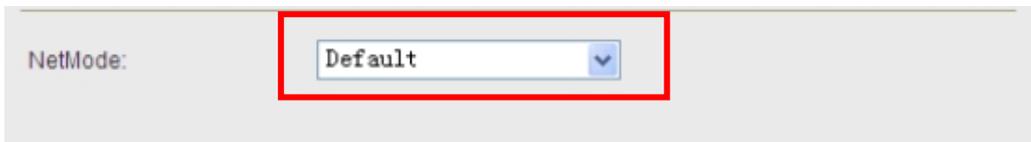
点击网页左上方的"Serial2Net Settings"标签进入参数配置页面：

Click the "Serial2Net Settings" on the upper left of the web page to enter into parameter configuration page:

4、Configure device network parameter

In the "NetMode", different working modes are available with separate interface display.

Four modes are available:

1）Default - the default working mode

2）ETH-SERIAL - DALI Ethernet mode

3）WIFI (CLIENT)-SERIAL - DALI WIFI CLIENT mode

4）WIFI (AP)-SERIAL) —— DALI WIFI AP mode
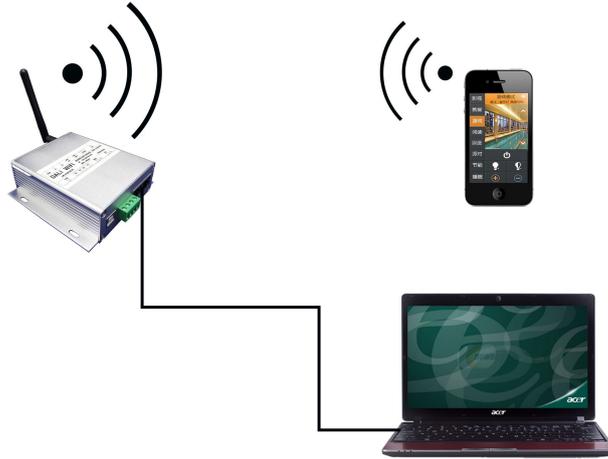
A、The default working mode

Diagram of default working mode

Under this mode, communications are available simultaneously both via Ethernet and WIFI networks.

Note: This working mode only applies to the configuration stage of DALI-WIFI Protocol Converter. In regular service, the DALI-WIFI Protocol Converter shall be configured to other three working modes. The factory-set mode is default working mode.

B、 DALI Ethernet mode

Diagram of DALI Ethernet working mode

Under this mode, communications are only available via Ethernet, which applies to PC connections.

Parameter configuration of Ethernet mode- network:

1）NetMode: select ETH-SERIAL
2）IP Type: select "STATIC" static IP address
3）IP Address: input an available IP address (subnet in the gateway) eg. "192.168.11.254"
4）Subnet Mask: input a subnet mask, eg. "255.255.255.0"
5）Primary DNS Server: input DNS server IP
6）Secondary DNS Server: input backup DNS server IP

NetMode: ETH-SERIAL

IP Type: STATIC

IP Address: 192.168.11.254

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.11.1

Primary DNS Server: 192.168.11.1

Secondary DNS Server: 8.8.8.8

Parameter configuration of DALI Ethernet mode network

C、 DALI WIFI STA mode

Diagram of DALI WIFI CLIENT working mode

Under this mode, additional WIFI network (eg. wireless home network) is necessary for regular service. This mode applies to connections with cell phones and laptops with available WIFI network.

Parameter configuration of STA mode- network:

1）NetMode: select WIFI (CLIENT)-SERIAL

2）SSID: input a WIFI network name

3）Encrypt Type: select a encrypt mode

4）Password: input a WIFI network password

5）IP Type: select "STATIC" static IP address

6）IP Address: input an available IP address (subnet in the gateway) eg. "192.168.11.254"

7）Subnet Mask: input a subnet mask, eg. "255.255.255.0"

8）Default Gateway: input the Router gateway to be connected via DALI-WIFI, eg. "192.168.11.1"

9）Primary DNS Server: input DNS server IP

10）Secondary DNS Server: input backup DNS server IP

NetMode:	WIFI(CLIENT)-SERIAL
SSID:	Hi-Link_
Encrypt Type:	WPA2 AES
Password:	12345678
IP Type:	STATIC
IP Address:	192.168.11.254
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.11.1
Primary DNS Server:	192.168.11.1
Secondary DNS Server:	8.8.8.8

Parameter configuration of DALI STA mode network
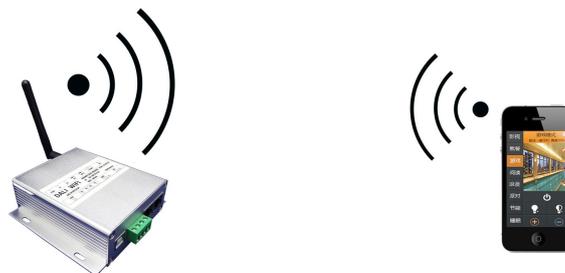
D、DALI WIFI access point

Diagram of DALI WIFI AP working mode

Under this mode, there is no need to join in additional WIFI network when setting up a WIFI network. This mode applies to connections with cell phones and laptops.

Parameter configuration of Access point (AP) - network:

1）NetMode: select WIFI (AP)-SERIAL
2）SSID: input a WIFI network name
3）Encrypt Type: select a encrypt mode
4）Password: input a WIFI network password
5）IP Address: input an available IP address eg. "192.168.11.254"
6）Subnet Mask: input a subnet mask, eg. "255.255.255.0"

Parameter configuration of DALI AP network

5、Complete the configuration

After the completion of network parameter configuration, click the "Apply" at the bottom of the web page to apply the configuration of the current page.　In case of network parameter changes, wait for the completion of configuration for 30s.

Note: If you select the Ethernet mode, after the above mentioned configurations, change the network cable end to "WAN" port from "LAN" port.