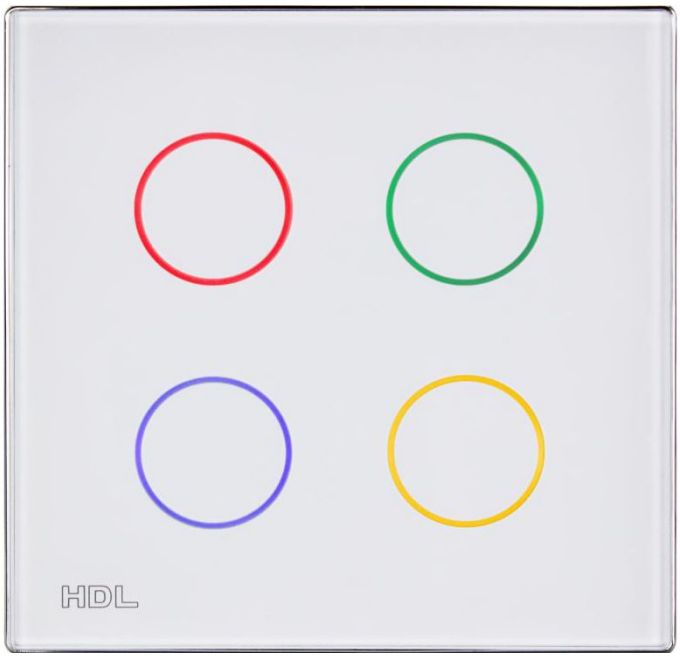
HDL®

User Manual

Wireless 4 buttons touch panel

HDL-MPT4-RF.18



buspro

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Document updates:

Version	Date	Description
V1.0	2015.09.05	Finish new document

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1. Overview

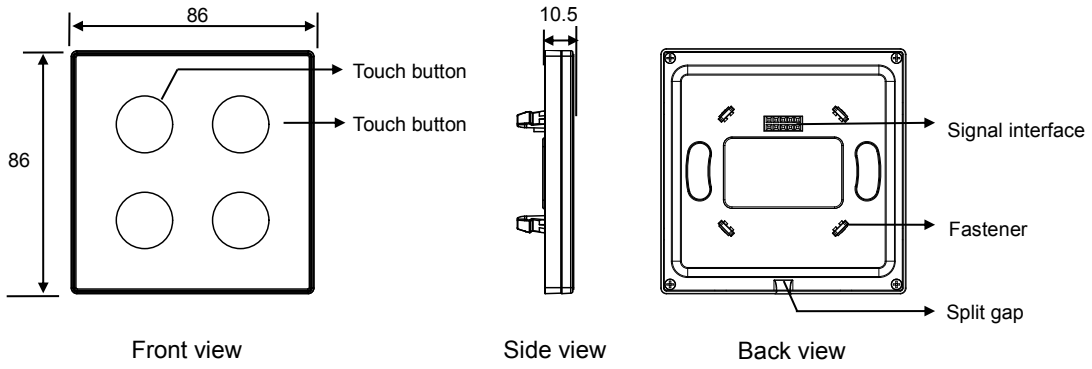
1.1 General Information

Wireless 4 buttons touch panel HDL-MPT4-RF.18 is a multi-functional control panel, embedded with RGB LED backlight for each touch button, any color is available for the button via setting in HDL Buspro Setup Tool.

1.2 Functionalities Description

- The wireless power interface provides the working voltage, one panel can control 4 wireless power interface at the same time.
- It uses wireless communication, and it must work in conjunction with mesh gateway.
- Built-in temperature sensor.
- Built-in IR receiver, need to replace a plate with an IR receiving hole to enable the IR remote control function.
- Indicator intensity is adjustable.
- Multi key modes: Invalid, Single on-off, Single on, Single off, Combination on/off, Combination on, Combination off, Dbclick/single switch, Dbclick/combination switch, Momentary, Clock, Short/Long press, Short Press/Long jog.
- Multi key control modes: Scene, Sequence, Timer switch, Universal switch, Single channel lighting control, Broadcast scene, Broadcast channel, Curtain switch, GPRS control, Panel control, Security module, Z-audio control, Universal control, Link page, DALI area dimmer, RGB control, IR control, Logic light adjust, Logic scene.
- Support online upgrade.

1.3 Device Description



Front view Side view Back view

2. Safety Instructions

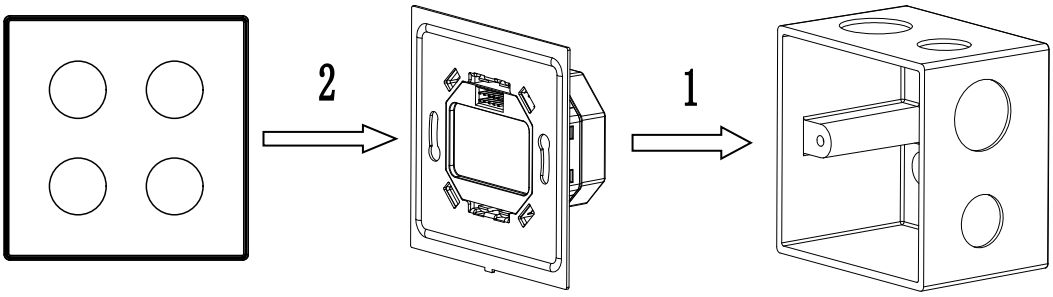
- The screw down strength should not exceed 0.1Nm
- Mounting position: Indoor.
- Never let liquids get into the module, it will damage this device.

3. Technical Data

Electric Parameters	
Working voltage	DC5V (from wireless power interface)
Power consumption	45mA/DC5V
Wireless transmit power	+10dbm
Wireless receive sensitivity	-90dbm
Indoor communication distance	30m(barrier free)
RSSI receive signal intensity	>-80dbm
Wireless central frequency:	
WPAN (China)	780 to 786MHz
SRD (Europe)	864 to 870MHz
ISM (North America)	904 to 928MHz
Default band	780MHz
Default PSK	HDL-SecurityKey0
Environmental Conditions	

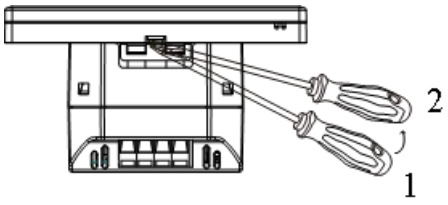
Working temperature	-5℃~45℃
Working relative humidity	Up to 90%
Storage temperature	-20℃~+60℃
Storage relative humidity	Up to 93%
Approved	
CE	
RoHS	
Production Information	
Dimensions	86×86×10.5 (mm)
Weight	110(g)
Housing material	Glass
Installation	Wireless power interface, EU wall box
Protection degree	IP20

4. Installation



HDL-MPT4-RF.18 HDL-MPWPI03.18 EU wall BOX

Separation: Use a screwdriver with 2.5mm insert to split gap, pry up, from position 1 to position 2, the wiring hole will open. Then separate the panel and power interface.



Separate panel and power interface

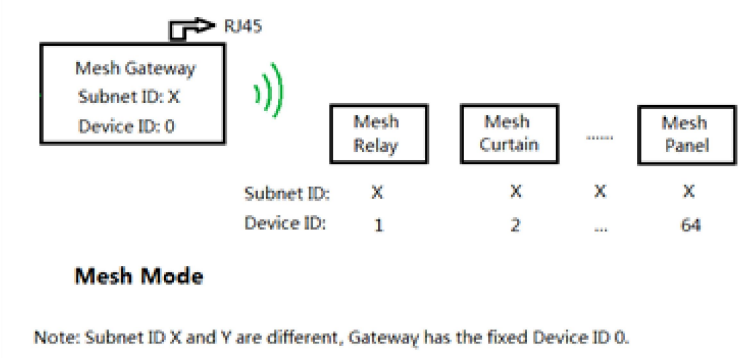
Wall box: For convenience of the wiring installation, the wall box should be a little deeper than the power interface.

5. Software Configuration

5.1 Basic Information

5.1.1 Wireless Setting via Mesh Gateway

Before user can configure the wireless panel normally, need to set the wireless parameters for it via mesh gateway, and the mesh gateway needs to work in mesh mode.



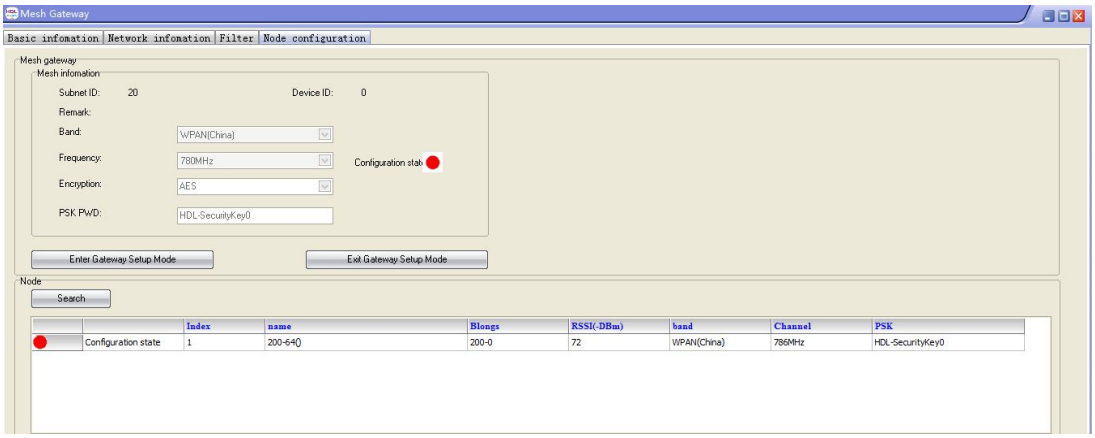
Note: Subnet ID X and Y are different, Gateway has the fixed Device ID 0.

1- Set the free frequency and unique PSK PWD for the gateway

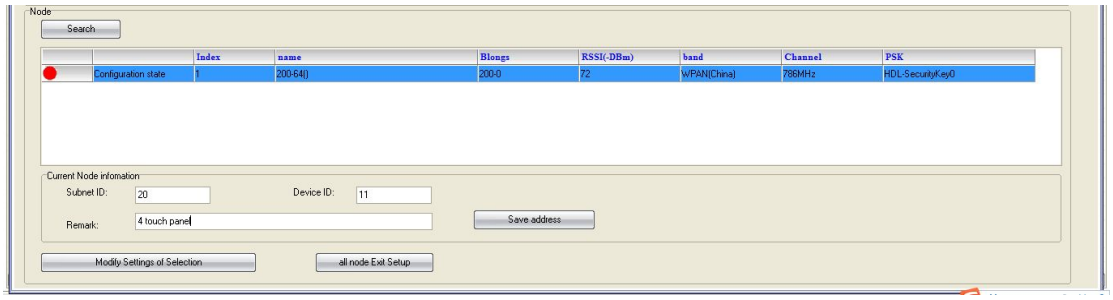
2- Press the ‘PROG’ button 3 times continuously, the red LED will flash quickly that means the gateway enters the wireless setup mode.

3- Long press any button of panel about 25s (at the 15s, the LED will flash quickly that means it enters the address modify mode), the LED will flash slowly.

4- Click the ‘Search’ button, this panel will be shown as below.



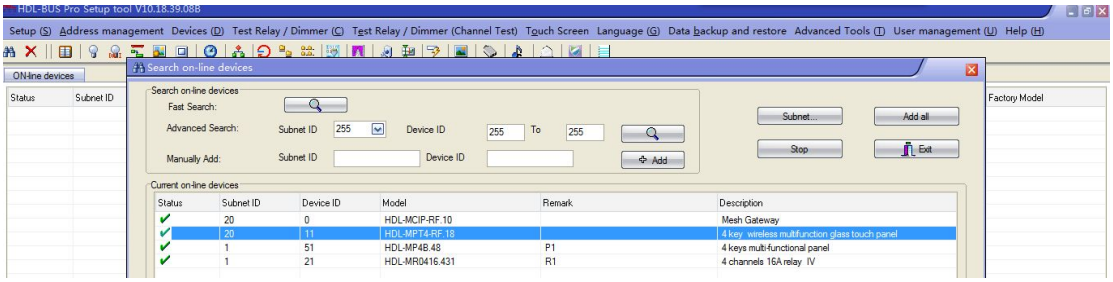
5- Select the module, you will be able to change its ID and remark it. (the Subnet ID must be same as the gateway's).



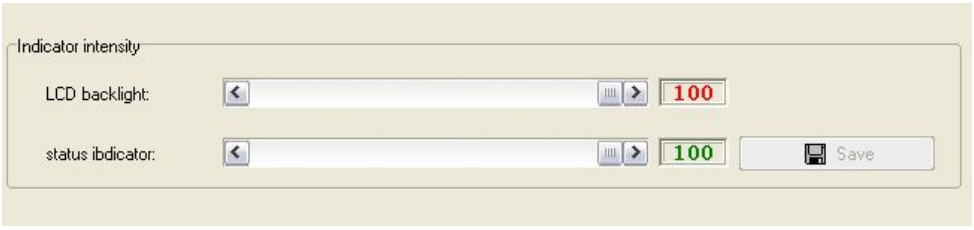
6- Click 'Modify Settings of Selection', and it will show 'configurate successful', then all its wireless parameters will follow the gateway's (Band, Frequency and PSK).

7- Click 'all Node Exit Setup', then the wireless devices will exit the wireless setup mode.

8- Go to the HDL BUS setup tool's main interface to search and add the panel, then can start to configure it via the gateway.



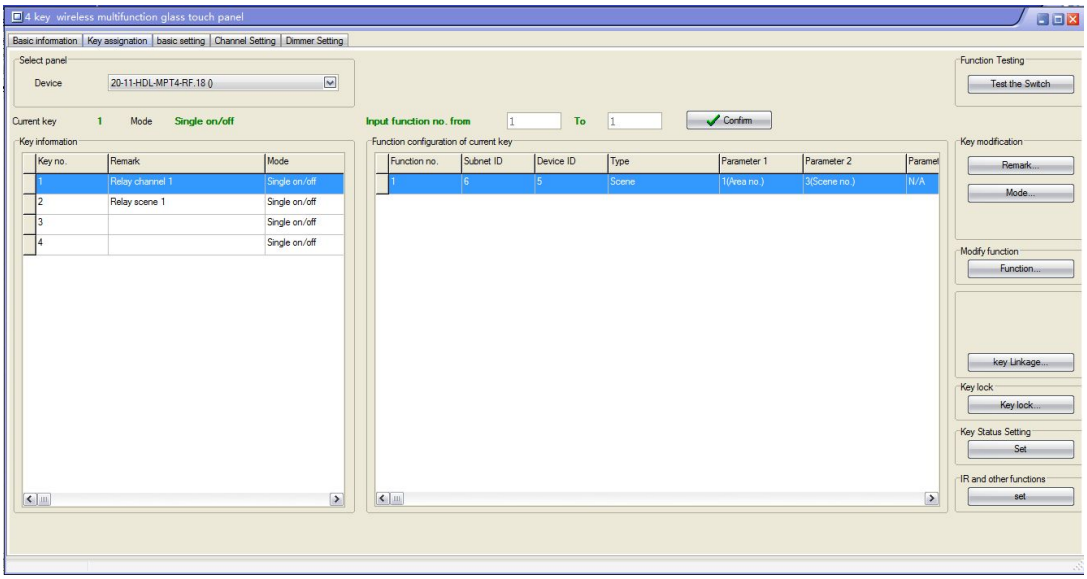
5.1.2 Indicator Intensity



The brightness of its LED indicators can be adjusted. For this 4 touch buttons panel, does not have LCD screen, so no need to set the LCD backlight.

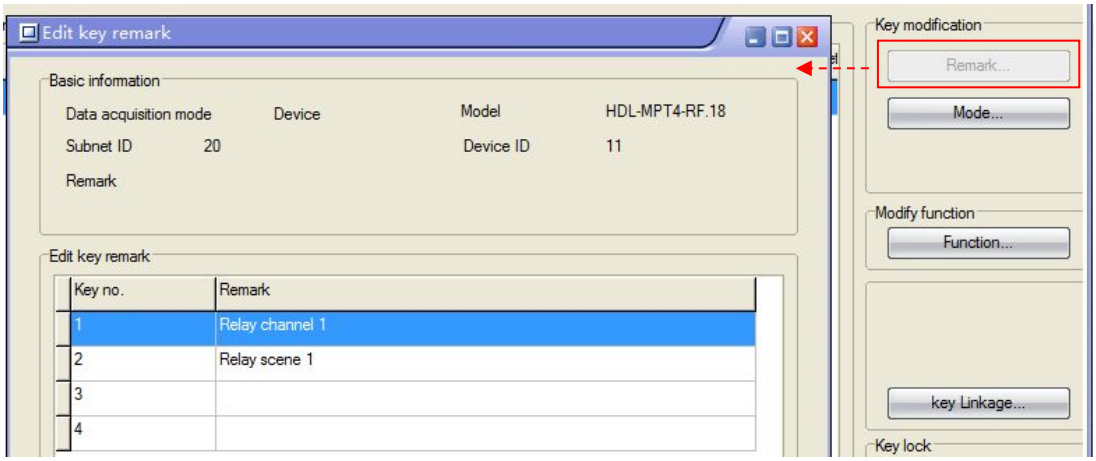
5.2 Key Assignation

The panel has 4 touch buttons, below screen shot shows the setting interface of the buttons.

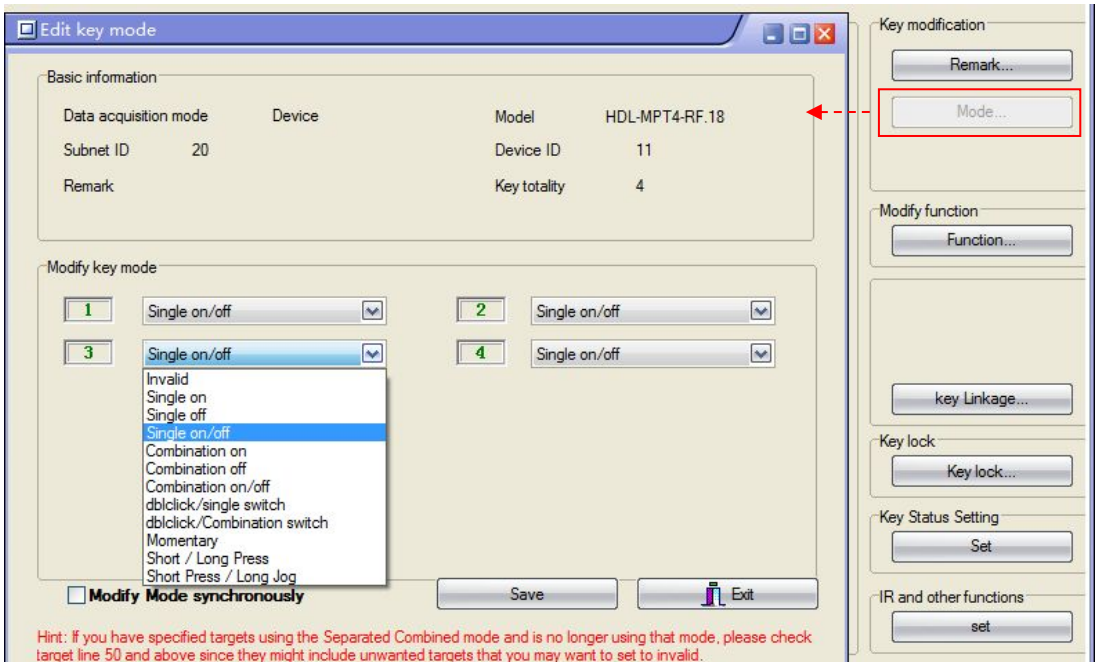


5.2.1 Remark

Do the remark for each key for easy management.



5.2.2 Mode



Key mode:

Single on

Assign the Switch can turn on one target only (one channel, one scene, one sequence, etc.)

Single off

Assign the Switch can turn off one target only (one channel, one scene, one sequence, etc.)

Single on/off

Assign the Switch can turn on/off one target only (one channel, one scene, one sequence, etc.)

Combination on

Assign the Switch can turn on multiple targets (channels, scenes, sequence, etc.)

Combination off

Assign the Switch can turn off multiple targets (channels, scenes, sequence, etc.)

Combination on/off

Assign the Switch can turn on/off multiple targets (channels, scenes, sequence, etc.)

Dblclick/single switch

Double click can control up to 49 targets, single click only control 1 target

Dblclick/combination switch

Both double click and combination switch can control up to 49 targets

Momentary

Press to turn on target, release to turn off target.

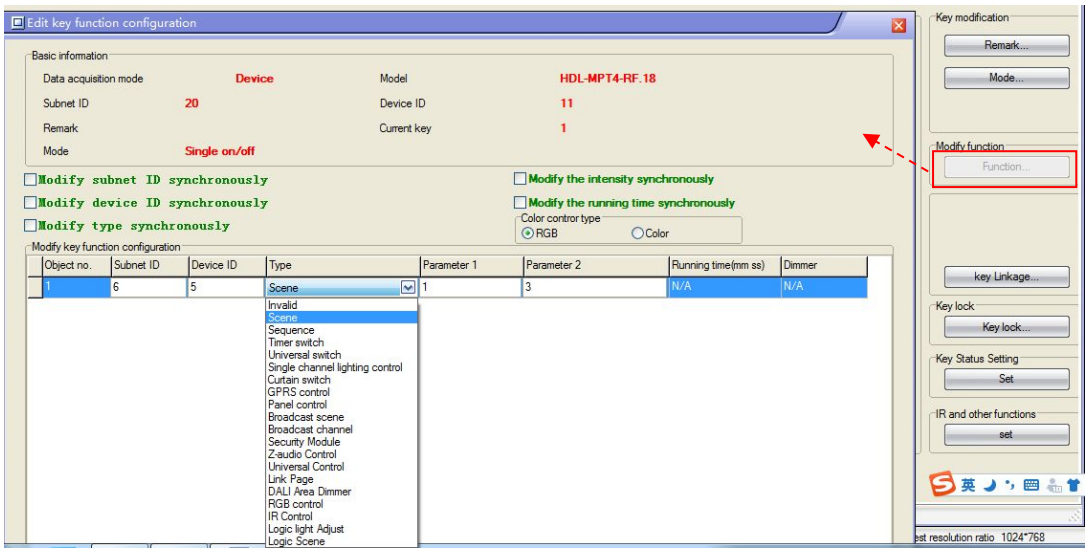
Short /long press

Both short press and long press can control up to 49 targets

Short /long Jog

Both short press and long Jog (long press to turn on, release to turn off) can control up to 49 targets

5.2.3 Function



Key type:

Scene

Turn on/off one scene

Sequence

Turn on/off one sequence

Timer switch:

Old command, abandoned

Single channel lighting control

Turn on/off one channel

Curtain switch

Control the curtain module (stop/open/close)

GPRS control

Send message out via SMS module

Panel control

Shield button/page, control AC and floor heating module, etc.

Broadcast scene

Turn on/off all areas' same scene No. in one Dimmer, Relay or DMX controller module.

Broadcast channel

Turn on/off all channels in one Dimmer, Relay or DMX controller module.

Security module

Control security module to arm/disarm, etc.

Z-audio control

Control Z-Audio module to play music

Universal control

Can be used to do some basic settings for the device from panel, like changing the logic input conditions of, e.g., 12in1 Sensor, rather than using HDL-BUS Pro Setup Tool, this feature makes the system more flexible for end-user. For more info, please refer to universal control command_ 12in1.xls, download from: ftp://59.41.255.150/en(enlish)/HDL%20Buspro/HDL%20Buspro%20Products/Sensors/SB-CMS-12in1/

Link page

When such a button is pressed, the DLP panel can jump to the designated page.

DALI Area dimmer

Control a group of DALI ballasts, including dimming, via SB-DN-DALI64 module.

RGB control

For HDL-MLED0605.432, 48DMX and 512DMX module (not ready to use)

IR control

For HDL Matrix device (not ready to use)

Logic light Adjust

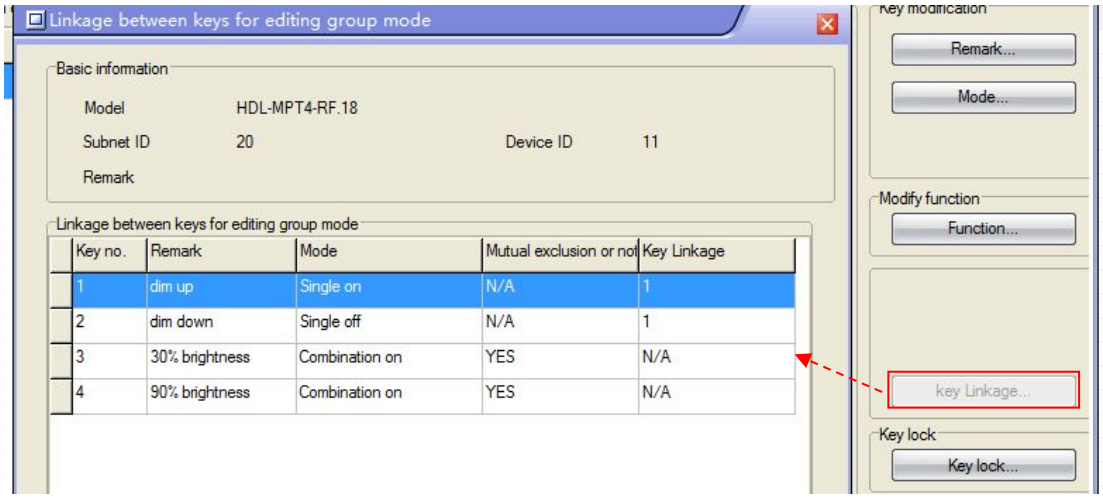
For HDL-MLED0605.432, 48DMX and 512DMX module

Logic Scene

For HDL-MLED0605.432, 48DMX and 512DMX module

5.2.4 Key Linkage

Below screen shot shows the mutual exclusion and key linkage functions:



Mutual exclusion: The key combination mode such as combination on, combination on/off can be set to mutual exclusion. After setting mutual exclusion, only the last controlled key can indicate its status (on), other keys' status in mutual exclusion mode will be off.

The mutual exclusion is originally designed to solve the problem described below,

Key3 control (combination on) channel1 and 2 of dimmer go to 30%

Key4 control (combination on) channel1 and 2 of dimmer go to 90%

Press the key 3, and then key 4, now all LED indicators of the two keys are on, the level of two channels is 90%. If we set mutual exclusion for these two keys, then the LED indicator of the last pressed key will be on, all other indicators are off.

Key linkage: It is used for dim up with one button, and dim down with other one.

Steps:

button 1 : mode single on

button 1 : single channel control ON

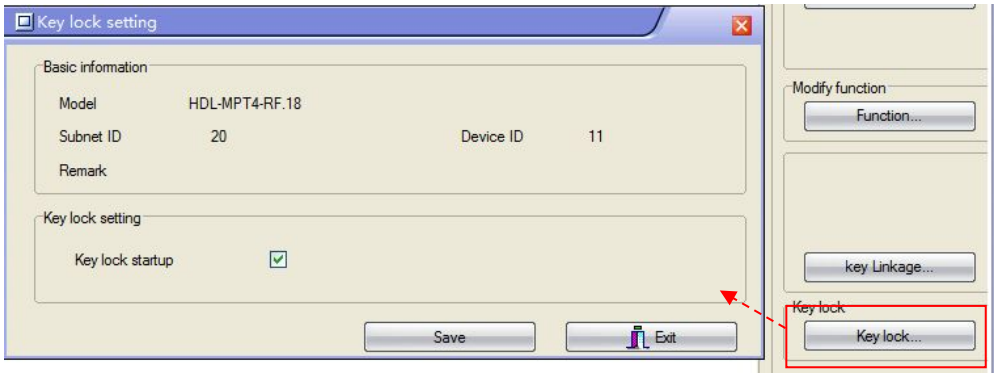
button 2 : mode single off

button 2 : single channel control OFF

Key linkage…: please link button 1 to itself, button 2 to 1.

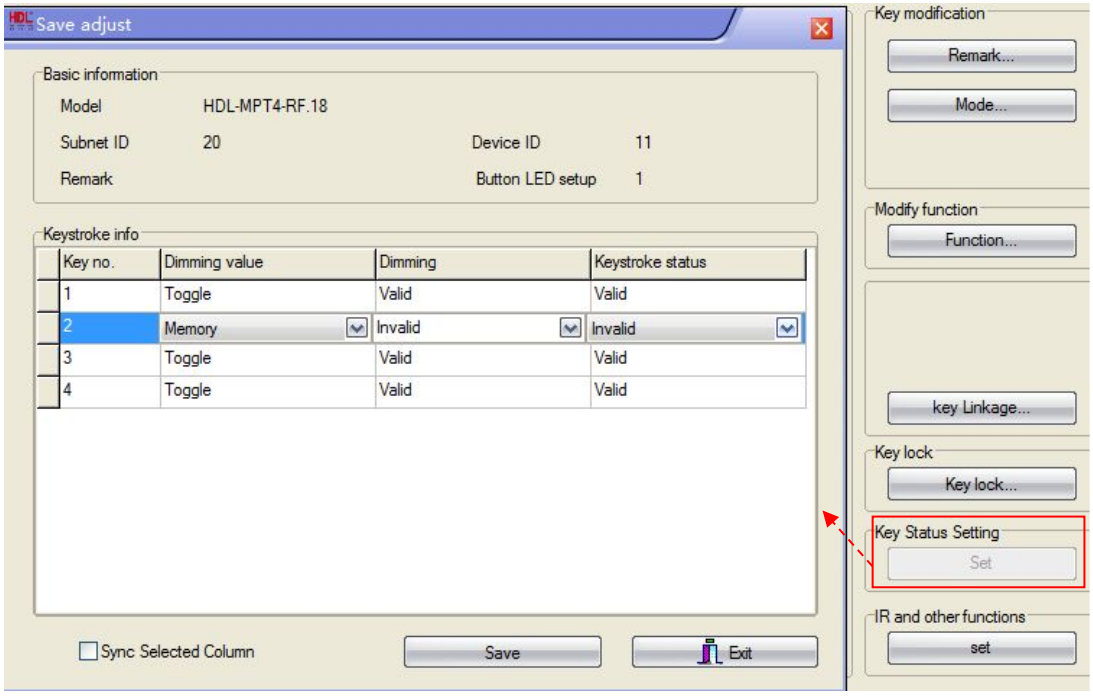
This will realize that dim up with the first button, and dim down with the second button.

5.2.5 Key Lock



Enable/disable all the keys. When tick this option, all the keys cannot send out any control commands, it's locked.

5.2.6 Key Status Setting



Dimming value

Toggle- when turn on light, the brightness will go to 100%

Memory- save the brightness, when turn on light, the brightness will go to last brightness before turn off

Dimming:

Valid- enable dimming when long pressed

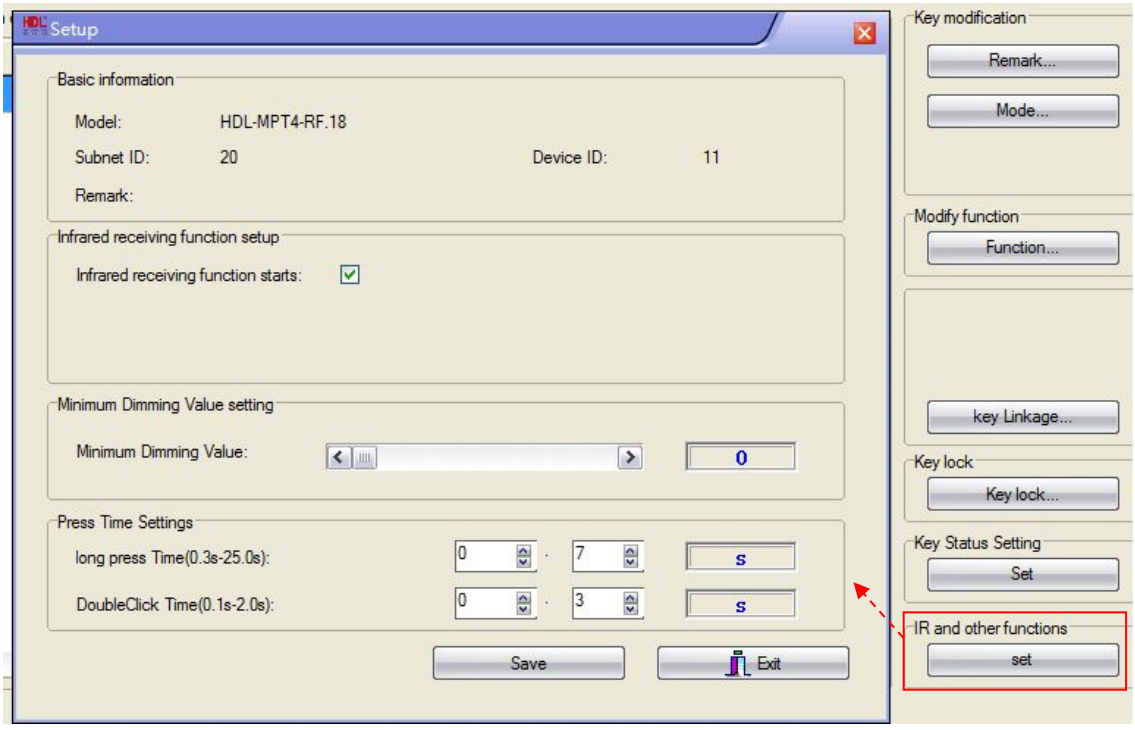
Invalid- Disable dimming, just on/off

Keystroke status:

Valid - Enable the LED indicator of the key

Invalid - Disable the LED indicator of the key

5.2.7 IR and Other Functions



Infrared receiving function status

Enable/disable the IR receiving function (accept HDL remote controller only)

Minimum dimming value

Set the dimming lower limit.

The Lower limit is useful if you would like to skip the low level segment and dim from a

certain level, say 40%. You want to skip it because maybe lower than 40% is impractical for you or maybe the load quality is not so good and trembles when at low level segment.

Long press time

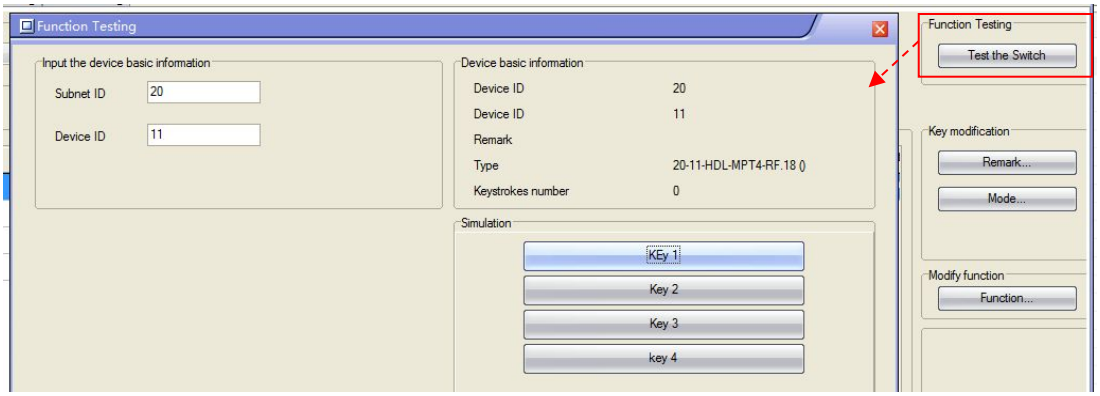
Set time for long-press, define the long press by end-user.

Double click time

Set time for double-click, define the double click by end-user.

5.2.8 Test the Switch

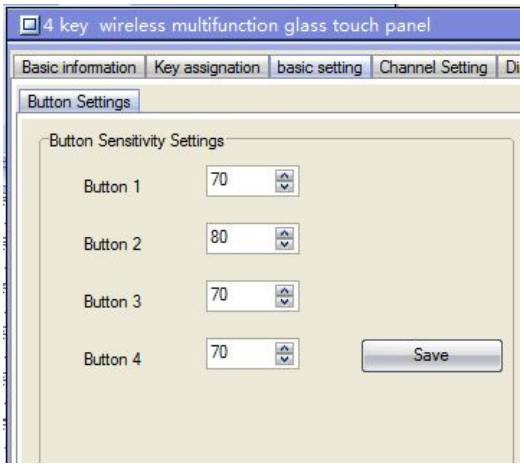
Test the key function in the software, rather than press the physical button.



5.6 Basic Setting

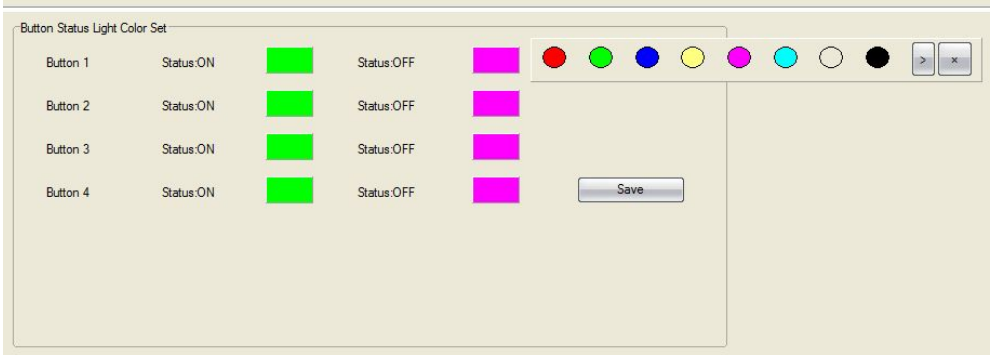
5.6.1 Button Sensitivity Settings

Set the touch sensitivity for each button.

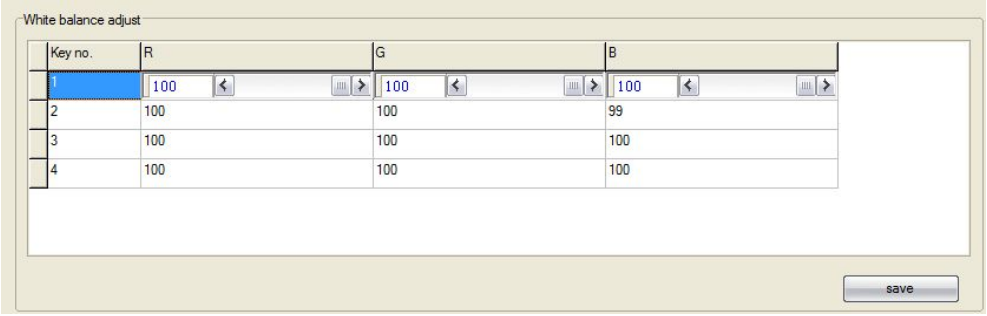


5.6.2 Button Status Light Color Set

Set the ON/OFF status color for each button.



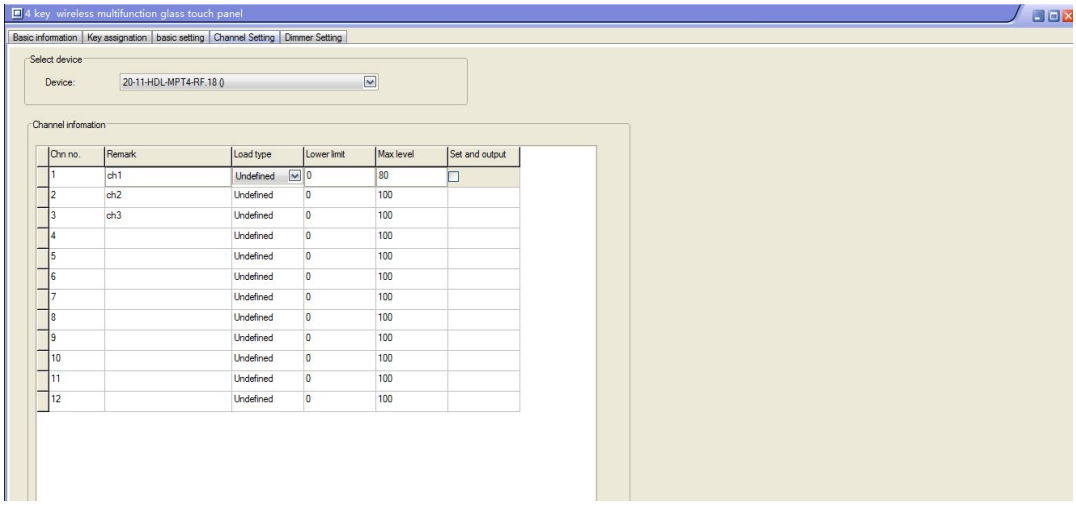
5.6.3 White balance adjust



For some panels, the displaying LED color has little difference from the one you set, user can adjust its white color with this function. After adjusted, all colors can be indicated correctly.

6. Channel Setting

Each power interface has 3 output channels, up to 4 power interfaces can be connected in parallel, then there are 12 channels in total. The panel will assign the dimmer address1-4 for the connected power interfaces by default. User can control the outputs by ‘On/Off’ option to check the power interface’s address.



Remark:

Remark the channel for the easy management.

Load Type:

Select the corresponding load type for each channel according to the real situation; it is just like a remark, would not affect the behavior of lamps. Default selection – Undefined.

Lower Limit:

If setup the lower limit for the channel, when dimming to this value, the output is 0.

The Lower limit is useful if you unfortunately have some lamps which produce unstable (trembling) light when dimming in low segment. You can bypass the unstable segment by setting a suitable Lower limit.

Max Level:

The max output brightness of a channel.

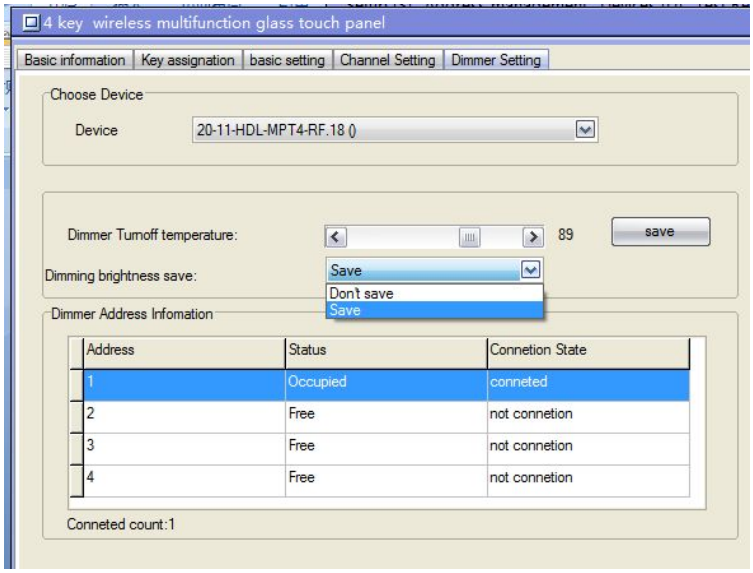
For channel1, if the connected load is bulb, the max value cannot exceed 80%; if the connected load is LED, the max value must be small (less than 80%, user needs to test the proper value themselves), otherwise power interface cannot supply enough power, then lead to dimming flicker, more serious, the power interface will automatically restart.

If the connected load is LED, and its power is less than 30W, must connect the constant current module in parallel, the max value can up to 80%.

Test Level, On/Off:

Input the test level, check the ‘On/Off’ box to turn on the channel, un-check to turn off it. It’s used to test the loads after installation.

7. Dimmer Setting



Dimmer Turnoff Temperature:

Set the temperature for protection, when the panel's detected temperature reaches to the setting temperature, it will turn off the connected loads automatically. When the detected temperature is lower than the setting temperature, it will restore the loads' status again.

Dimming brightness save:

It can restore the 'channels' status before power off'.

Save: Save the channels' statuses which have lasted for at least 20 seconds before power failure, and restore the status when power on.

Don't save: Do not save the channels' statuses before power failure, and all channels will OFF when power on.

Dimmer Address information:

It shows the address for power interface module. Channel no. 1-3 is for address1, channel no. 4-6 is for address2, channel no. 7-9 is for address3, channel no. 10-12 is for address4.

If one power interface module's address is 3, and you want to control 3 channels of this power interface module, you need to control channel 7 to 9 of the wireless panel.

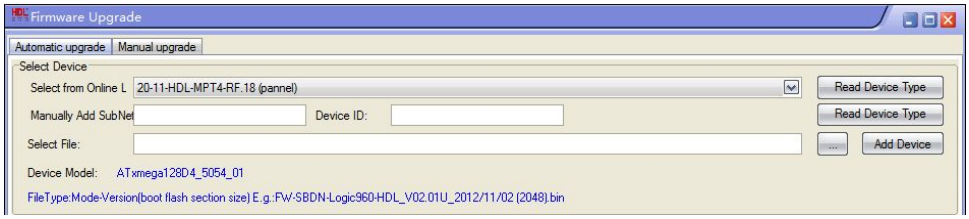
8. Online Upgrade

Wireless touch panels supports automatic upgrade, does not support manually upgrade.

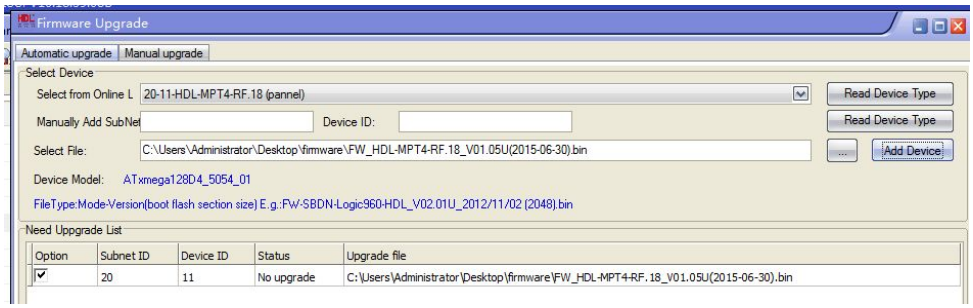
Automatic Upgrade

Upgrade steps:

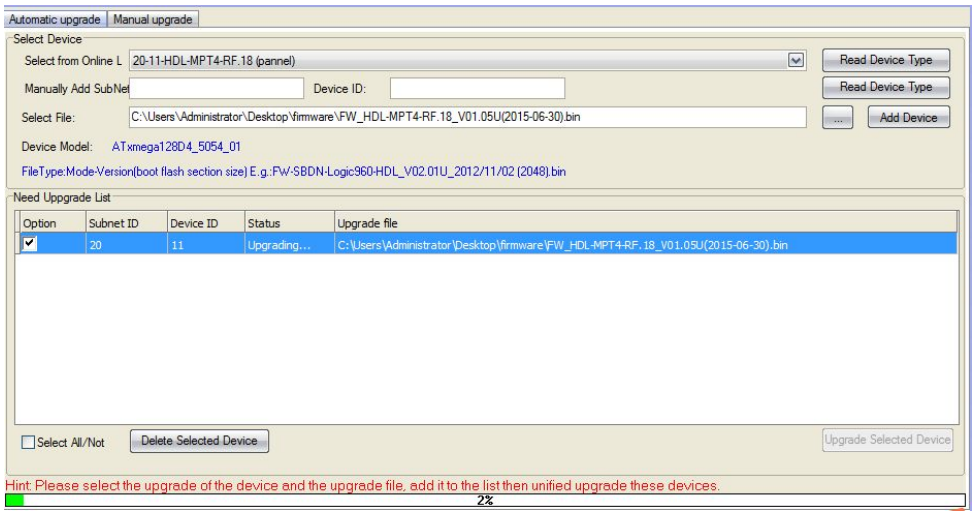
1- Select the online wireless panel that you want to upgrade, click “Read Device Type” to check its chip type.



2- Select .bin firmware, click “Add Device”, then it will be shown in the upgrade list.



3- Click “Upgrade Selected Device” to start the upgrade.



4- Upgrade finished.

9. Note