

# DLP Panel Controller

## M/DLP04.1

KNX DLP has 3 pages for lighting and curtain control, one page for floor heating, one page for HVAC control, one page for AC(IR). Users can change button icons for page 1,2,3 by “HDL KNX Assistant Software”



Programming: button1 + button10

Lock or Unlock: button2 + button9

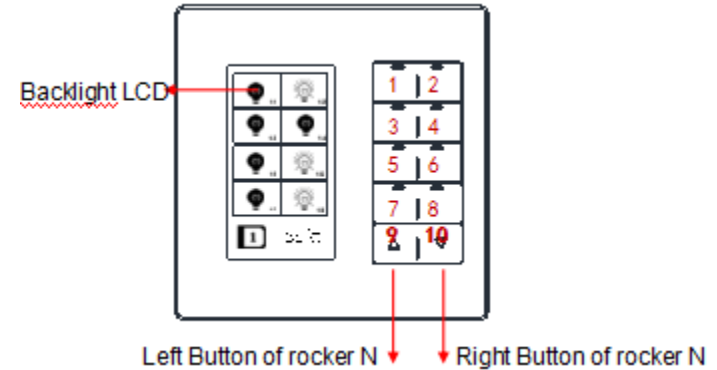
Basic information setting: button9 + button10

**Programming:** Keep pressing 1 and 10 buttons together for 2 seconds, the LED Indicators will flash and enter programming mode.

**Lock or Unlock:** keep pressing 2 and 9 buttons together for 2s, will lock the panel or unlock the panel.

**Basic information setting:** keep pressing 9 and 10 buttons together for 2s, Will enter the main menu page.

In this page can set LCD and LED brightness, Conversion from degrees Celsius to Fahrenheit, or from Fahrenheit to degrees Celsius, etc



1.1.1 M/DLP04.1 > General1

General1	System delay(0..255s)	0
General2	Heartbeat telegram	Disable
Functions	->LCD display of the rocker buttons image	<input checked="" type="radio"/> Buttons image "same source" <input type="radio"/> Buttons image "independent source"
Rocker A	Brightness of button LED ON	Level (100%)
Rocker B	Brightness of button LED OFF	Level (01%)
Rocker C	Change brightness of button LED ON via EIB	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Rocker D	Change brightness of button LED OFF via EIB	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
[FCU]	Brightness of the LCD	Level (100%)
	Change brightness LCD via EIB	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	LCD and LED brightness automatic darker	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Active infrared function via bus	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Infrared default active status	<input checked="" type="radio"/> Inactive <input type="radio"/> Active

**General1:**The window can set the DLP's base parameters.

**LCD display of the rocker buttons image:** DLP can display the image of the button. You can download the image with the special software "HDL KNX Assistant Software". (More details please refer to the following "**Button image setting**" page)

**Options:** Buttons image "same source"

Buttons image "independent source"

**Same source:** it's means that all button's images are the same image source.

**Independent source:** you can download different images for every button.

## 1.1.1 M/DLP04.1 > Functions

General1	=>Functions page:	-----
General2	Enable: "Rock A..D page"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
<b>Functions</b>	Enable: "Rock E..H page"	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Rocker A	Enable: "Rock I..L page"	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Rocker B	Enable: "FCU page"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Rocker C	Enable: "Floor Heating page"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Rocker D	Enable: "Air-condition page"	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
[FCU]		
[Floor Heating]		
[Air-condition]		

**General 2:** This page is used to set functions about DLP panel.

Here can enable/disable the "Rock A..D" page, FCU, Floor Heating, and Air condition(IR) when enabled, you can set the function of them(like the left picture).

Local temperature report(In range)  No  Yes

->Temperature>=Threshold1(-30C..+99C)

->Temperature<=Threshold2(-30C..+99C)

--Temperature report mode  Report when changed  Report cyclic

--Temperature report of check period (1..65535s)

=>Information zone of rocker page: =====  
=====

Display date and time  No  Yes

Display temperature(Celsius degree)  No  Yes

Display temperature(Celsius degree)  Local sensor  Via EIB

Scrolling information displayed time interval(5..255s)

**Temperature report:** When enabled, the DLP will report the temperature to knx bus, here you can set the reporting temperature range.

**Temperatuer report mode:**

- 1.Report when changed--report the temp when it changed.
- 2.Report cyclic--report the temp regularly.

## 1.1.1 M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions	=====	=====
<b>Rocker A</b>	Rocker A : operation mode	Switch controller ▼
Rocker B	-> Reaction on short button	Switch controller ✓
Rocker C	-> Reaction on long button	Dimming controller
Rocker D	-> Delay for button	Shutter controller
[FCU]	Long button time after	Flexible controller
[Floor Heating]	-----	Scene controller
[Air-condition]	LED status source	Sequence controller
	--LED status	Percentage controller
		Threshold controller
		String(14bytes) controller
		Alternate controller
		Combination controller

## **Work mode:**

Switch controller

Shutter controller

Scene controller

Percentage controller

String(14bytes)controller

Dimming controller

Flexible controller

Sequence controller

Threshold controller

Combination controller

1.1.1 M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions	=====	=====
Rocker A	Rocker A : operation mode	Switch controller
	-> Reaction on short button	Left=ON,Right=OFF

**Switch controller:** Normally use to turn on/off of relay module

1.1.1 M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions	Rocker A : operation mode	=====
<b>Rocker A</b>	-> Reaction on short button	===== Dimming controller ▼
Rocker B	-> Reaction on long button	Left=Toggle,Right=Toggle ▼ Left=Dim(Toggle),Right=Dim(Toggle) ▼

**Dimming controller:**  
Dim the output brightness of dimmer module, short press to turn on/off, long press to dim up/down.

## 1.1.1 M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions	=====	=====
<b>Rocker A</b>	Rocker A : operation mode	Shutter controller ▼
Rocker B	->Reaction on short button	Left=Decrease/Stop,Right=Increase/Stop ▼
Rocker C	->Reaction on long button	Left/Right=Moving->Toggle ▼
Rocker D	Long button time after	1s ▼
[FCU]	-----	-----
	LED status source	Local ▼
	--LED status	ON/OFF status ▼

**Shutter controller:** control the curtain to open, close, or stop.

1.1.1 M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input checked="" type="radio"/> Independent button mode <input type="radio"/> Combined button mode
General2	=====	=====
Functions	Rocker A : left button operation mode	Shutter controller
<b>Rocker A</b>	-> Reaction on left short button	Invalid
Rocker B	-> Reaction on left long button	Invalid
Rocker C	Long button time after	Stepping->Increase/Stop
Rocker D	-----	Stepping->Decrease/Stop
[FCU]	LED status source	Stepping->Toggle/Stop
	--LED status	Moving->UP
		Moving->DOWN
		Moving->Toggle

Stepping->Increase/Stop: if the curtain is moving, short press, it will stop; **short press again, it will adjust the louver, increase the angle(for blinds).**

Stepping-> Decrease/Stop: if the curtain is moving, short press, it will stop; **short press again, it will adjust the louver, decrease the angle(for blinds).**

Stepping-> Toggle/Stop: if the curtain is moving, short press, it will stop; **short press again, it will adjust the louver, increase/decrease the angle(for blinds).**

Moving-> UP: Short press, control the curtain to move up.

Moving-> Down: Short press, control the curtain to move down.

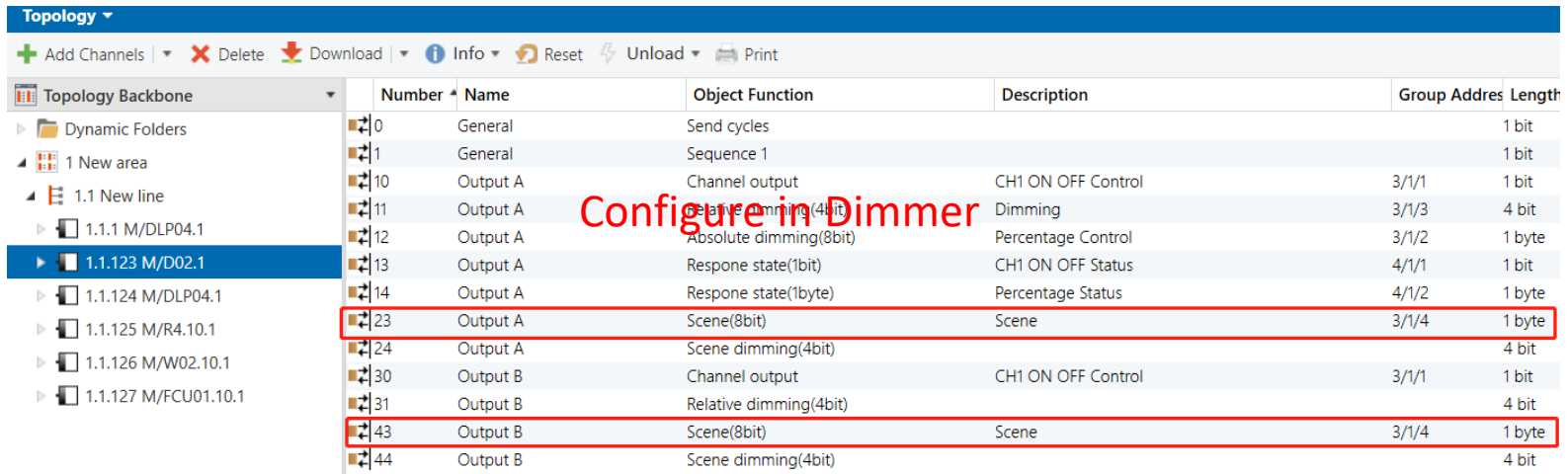
Moving-> Toggle: Short press, control the curtain to move up/down

## 1.1.1 M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions	=====	=====
<b>Rocker A</b>	Rocker A : operation mode	Scene controller ▼
Rocker B	Call scene number of the left	Scene NO.01 ▼
	Call scene number of the right	Scene NO.02 ▼

**Scene controller:** Control the scene of relay, dimmer, etc.

Eg. use left button to control scene1 and right button to control scene2.



Topology

+ Add Channels | X Delete | Download | Info | Reset | Unload | Print

Topology Backbone	Number	Name	Object Function	Description	Group Address	Length
Dynamic Folders	0	General	Send cycles			1 bit
1 New area	1	General	Sequence 1			1 bit
1.1 New line	10	Output A	Channel output	CH1 ON OFF Control	3/1/1	1 bit
1.1.1 M/DLP04.1	11	Output A	Relative dimming(4bit)	Dimming	3/1/3	4 bit
1.1.123 M/D02.1	12	Output A	Absolute dimming(8bit)	Percentage Control	3/1/2	1 byte
1.1.124 M/DLP04.1	13	Output A	Response state(1bit)	CH1 ON OFF Status	4/1/1	1 bit
1.1.125 M/R4.10.1	14	Output A	Response state(1byte)	Percentage Status	4/1/2	1 byte
1.1.126 M/W02.10.1	23	Output A	Scene(8bit)	Scene	3/1/4	1 byte
1.1.127 M/FCU01.10.1	24	Output A	Scene dimming(4bit)			4 bit
	30	Output B	Channel output	CH1 ON OFF Control	3/1/1	1 bit
	31	Output B	Relative dimming(4bit)			4 bit
	43	Output B	Scene(8bit)	Scene	3/1/4	1 byte
	44	Output B	Scene dimming(4bit)			4 bit

Configure in Dimmer

## Configure in DLP

General1	Rocker A work mode	<input type="radio"/> Independent button mode <input checked="" type="radio"/> Combined button mode
General2	-----	-----
Functions	Rocker A : operation mode	Scene controller ▾
<b>Rocker A</b>	Call scene number of the left	Scene NO.01 ▾
Rocker B	Call scene number of the right	Scene NO.02 ▾

Select the scene number for  
Left and Right button

↔ 40	Rocker A short	Call scene	Scene	3/1/4	1 byte
↔ 50	Rocker B short	Call scene			1 byte
↔ 60	Rocker C short	Call scene			1 byte
↔ 70	Rocker D short	Call scene			1 byte

1.1.1 M/DLP04.1 > Rocker B

General1	Rocker B work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions	=====	=====
Rocker A	-> Reaction on short button	=====
<b>Rocker B</b>	-> Reaction on long button	=====
Rocker C	Long button time after	Sequence controller ▼
Rocker D	-----	Left=Start with "1",Right=Stop with "0" ▼
[FCU]	LED status source	Invalid ▼
	--LED status	1s ▼
		-----
		Local ▼
		ON/OFF status ▼

**Sequence controller:** Control the sequence of relay, dimmer, etc.

## Set the Group Address for sequence in Dimmer

Number	Name	Object Function	Description	Group Address	Length
0	General	Send cycles			1 bit
1	General	Sequence 1	Sequence	4/0/1	1 bit
10	Output A	Channel output	CH1 ON OFF Control	3/1/1	1 bit
11	Output A	Relative dimming(4bit)	Dimming	3/1/3	4 bit
12	Output A	Absolute dimming(8bit)	Percentage Control	3/1/2	1 byte

## Set the Group Address for sequence in DLP, corresponding to Dimmer's

### 1.1.1 M/DLP04.1 > Rocker B

General1	Rocker B work mode	<input type="radio"/> Independent button mode <input checked="" type="radio"/> Combined button mode
General2	=====	=====
Functions	Rocker B : operation mode	Sequence controller
Rocker A	-> Reaction on short button	Left=Start with "1",Right=Stop with "0"
<b>Rocker B</b>	-> Reaction on long button	Invalid

Number	Name	Object Function	Description	Group Address	Length	C
34	Local temperature	Temperature report			2 bytes	C
40	Rocker A short	Call scene	Scene	3/1/4	1 byte	C
50	Rocker B short	Sequence	Sequence	4/0/1	1 bit	C
51	Rocker B long	Sequence			1 bit	C
60	Rocker C short	Call scene			1 byte	C
70	Rocker D short	Call scene			1 byte	C

## 1.1.1 M/DLP04.1 > Rocker C

General1	Rocker C work mode	<input checked="" type="radio"/> Independent button mode <input type="radio"/> Combined button mode
General2	=====	=====
Functions	Rocker C : left button operation mode	Percentage controller
Rocker A	->Percentage on left short button	100%(255)
Rocker B	->Percentage on left long button	4%
<b>Rocker C</b>	--Delay on left short button(0..255s)	5%
Rocker D	--Delay on left long button(0..255s)	6%
[FCU]	Long button time after	7%
[Floor Heating]	LED status source	8%
[Air-condition]	--LED status	9%
	=====	10%
		11%
		12%
		13%
		14%
		15%
		16%

**Percentage controller:**  
Control the percentage of curtain or brightness of dimmer etc.

1.1.1 M/DLP04.1 > Rocker D

General1	Rocker D work mode	<input type="radio"/> Independent button mode
General2	=====	<input checked="" type="radio"/> Combined button mode
Functions		=====
Rocker A	Rocker D : operation mode	Scene controller
Rocker B	Call scene number of the left	Scene NO.01
Rocker C	Call scene number of the right	Scene NO.02
	Long button operation as	Invalid
	--Delay operation for left short button (0..255s)	0

## Combined button Mode:

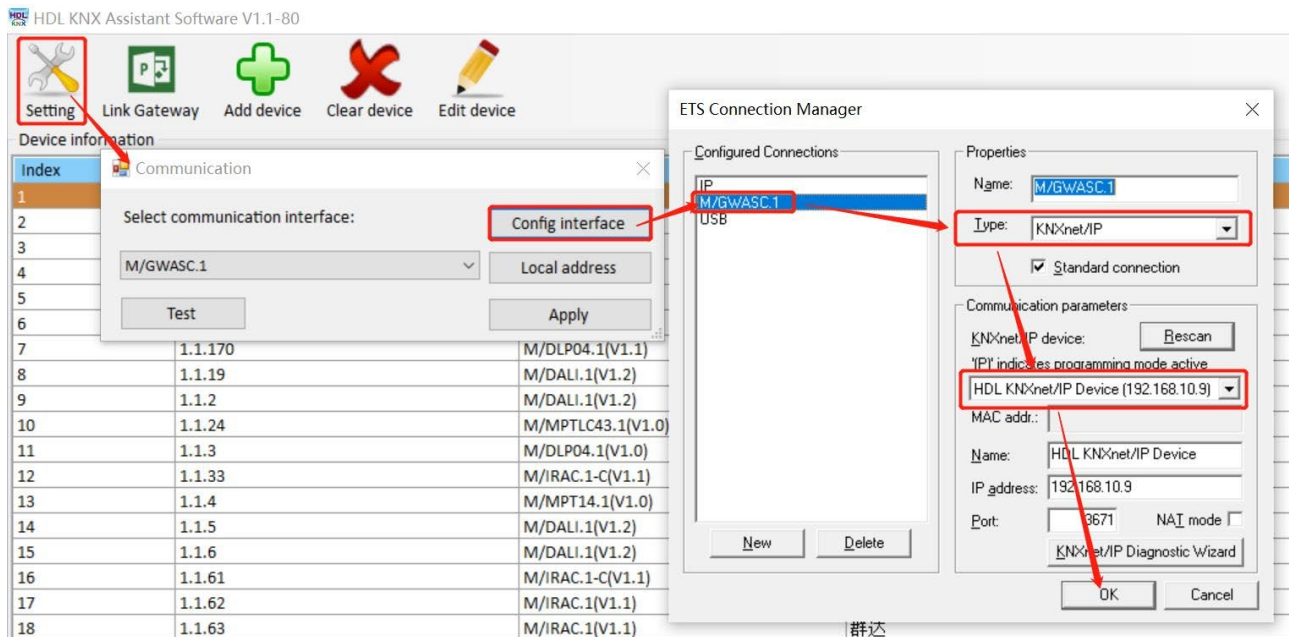
Here you can use one button to control many objects together, like switch, dimmer, scene, sequence etc.

**Buttons image setting:** The buttons image must be downloaded by special software, HDL KNX Assistant Software.



# Button image setting

Run the HDL KNX Assistant Software. Go to Setting-> Communication mode, select the available interface. If it's the USB downloader, please select the "USB" type. If it's the KNX IP router, please select "KNXnet/IP" type and corresponding IP interface. Then click "Test". After it shows OK, select "Apply



# Add DLP

HDL KNX Assistant Software V1.1-61

Setting Link Gateway **Add device** Clear device Edit device

Device information

Index	Physical address	Device type
-------	------------------	-------------

Add Device

Device Type: M/DLP04.1(V1.1)

Physical address: 1 . 1 . 27

Remark:

Add Exit

Input the physical address of DLP

Add result:

HDL KNX Assistant Software V1.1-61

Setting Link Gateway Add device Clear device Edit device

Device information

Index	Physical address	Device type
1	1.1.27	M/DLP04.1(V1.1)

check the firmware version of DLP from its label, then select the corresponding device type(V1.0/V1.1)

HDL KNX Assistant Software V1.1-61

Setting Link Gateway Add device Clear device Edit device

Physical address:1.1.27 | Remark: | Model:M/DLP04.1(V1.1)

Index	Physical address
1	1.1.27

Basic setting Picture download

Select device

Device: 1.1.27()

Edit device information

Address: 1 . 1 . 27

Remark:

Save

Double click then pop up the window

# Button image mode

Physical address:1.1.27 | Remark: | Model:M/DLP04.1(V1.1)

Basic setting **Picture download**

Add picture Save current list

Add Picture

Select mode

Mode: Same source Same source Independent source

Button mode: Switch controller Hint:You can add picture when double click the row.

Mode list		Status list			
Index	Button mode	Index	Button status	Picture size	Picture
1	Switch controller	1	Single button mode:short on	40*32	
2	Dimming controller	2	Single button mode:short off	40*32	
3	Shutter controller	3	Single button mode:short invalid	40*32	Invalid
4	Flexible controller	4	Single button mode:long on	40*32	
5	Scene controller	5	Single button mode:long off	40*32	
6	Sequence controller	6	Single button mode:long invalid	40*32	Invalid
7	Percentage controller	7	Double buttons mode:short on	80*32	
8	Threshold controller	8	Double buttons mode:short off	80*32	
9	String(14bytes) controller	9	Double buttons mode:short invalid	80*32	Invalid
10	Alternate controller	10	Double buttons mode:long on	80*32	
11	Combination controller				

Bmp editor Download Add to list Exit

**Same source:** it's means that all button's images use the same image source.

**Independent source:** you can download different images for every button.

# Button image mode

1.1.1 M/DLP04.1 > General1

General1

System delay(0..255s)

0

General2

Heartbeat telegram

Disable

Functions

->LCD display of the rocker buttons image

- Buttons image "same source"
- Buttons image "independent source"

Physical address:1.1.27 | Remark: | Model:M/DLP04.1(V1.1)

Basic setting **Picture download**

Add picture

Save current list

Add Picture

Select mode

Mode:

- Same source
- Same source
- Independent source

Button mode: **Switch controller**

Hint:You can add picture when double click the row.

Mode list

Index	Button mode
1	Switch controller
2	Dimming controller
3	Shutter controller

Status list

Index	Button status	Picture size	Picture
1	Single button mode:short on	40*32	
2	Single button mode:short off	40*32	

Set the same image mode for ETS and Assistant software

# Change image





Edit device:M/DLP04.1(V1.0)

Basic setting Picture download Picture management

Add Package Save current list

Index	Mode	Button ID	Button mode
Add Picture			
Select mode			
2	Mode:	Same source	
Button mode: Switch controller Hint: You can add picture when double click the row.			
Mode list			
Index	Button mode		
1	Switch controller		
2	Dimming controller		
3	Shutter controller		
4	Flexible controller		
5	Scene controller		
6	Sequence controller		
7	Percentage controller		
8	Threshold controller		
9	String(14bytes) controller		
10	Combination controller		

Index	Button status		
1	Single button mode:short On		
2	Single button mode:short Off		
3	Single button mode:short Invalid		
4	Single button mode:long On		
5	Single button mode:long Off		
6	Single button mode:long Invalid		
7	Double buttons mode:short On	80×32	Spot On 
8	Double buttons mode:short Off	80×32	Spot Off 

Download Package Add to list Exit

Open

Organise New folder

File name: spot on 2 BMP File (\*.bmp)

Open Cancel

Double click the picture you want to change, select new icon. its format should be .bmp, size for single button is 40\*32mm, size for double button is 80\*32mm

# Same source

## 1.1.1 M/DLP04.1 > General1

General1	System delay(0..255s)	0
General2	Heartbeat telegram	Disable
Functions	->LCD display of the rocker buttons image	<input checked="" type="radio"/> Buttons image "same source" <input type="radio"/> Buttons image "independent source"

change the Rocker A-D icons, they are in switch mode.

40	Rocker A short	Switching	1 bit	C - W T U
41	Rocker A long	Switching	1 bit	C - W T U
50	Rocker B short	Switching	1 bit	C - W T U
51	Rocker B long	Switching	1 bit	C - W T U
60	Rocker C short	Switching	1 bit	C - W T U
61	Rocker C long	Switching	1 bit	C - W T U
70	Rocker D short	Switching	1 bit	C - W T U
71	Rocker D long	Switching	1 bit	C - W T U

Add Picture

Select mode

Mode: Same source step1

Button mode: Switch controller Hint: You can add picture when double click the row.

Mode list

Index	Button mode
1	Switch controller
2	Dimming controller
3	Shutter controller
4	Flexible controller
5	Scene controller
6	Sequence controller
7	Percentage controller
8	Threshold controller
9	String(14bytes) controller
10	Combination controller

Status list

Index	Button status	Picture size	Picture
4	Single button mode:long On	40×32	
5	Single button mode:long Off	40×32	
6	Single button mode:long Invalid	40×32	Invalid
7	Double buttons mode:short On	80×32	Spot On
8	Double buttons mode:short Off	80×32	Spot Off
9	Double buttons mode:short Invalid	80×32	Invalid
10	Double buttons mode:long On	80×32	
11	Double buttons mode:long Off	80×32	

step2

step3

Download

Package    Add to list    Exit

Physical address: 1.1.27 | Remark

step4- finish



## Independent source

Device: 1.1.27 M/DLP04.1

General 1  
General 2  
Rocker A  
Rocker B  
Rocker C

-> LCD display of the rocker buttons image Buttons image "independent source"  
Brightness of the buttons Level (100%)  
Brightness of the LCD Level (100%)

40	Rocker A short	Switching
50	Rocker B short	Switching
60	Rocker C short	Switching
70	Rocker D short	Switching

Dynamic Folders  
0 Backbone area  
1 New area  
1.0 Main line  
1.1 New line  
1.1.0 M/IPRT.1  
1.1.1 M/D04.1  
1.1.27 M/DLP04.1  
40: Rocker A short - Switc...  
50: Rocker B short - Switc...  
60: Rocker C short - Switc...  
70: Rocker D short - Switc...

change the Rocker A-D icons, they are in switch mode.

# Independent source

step1

step2

change the icon for each Rocker, then add to the list, then download them

step4

step 3

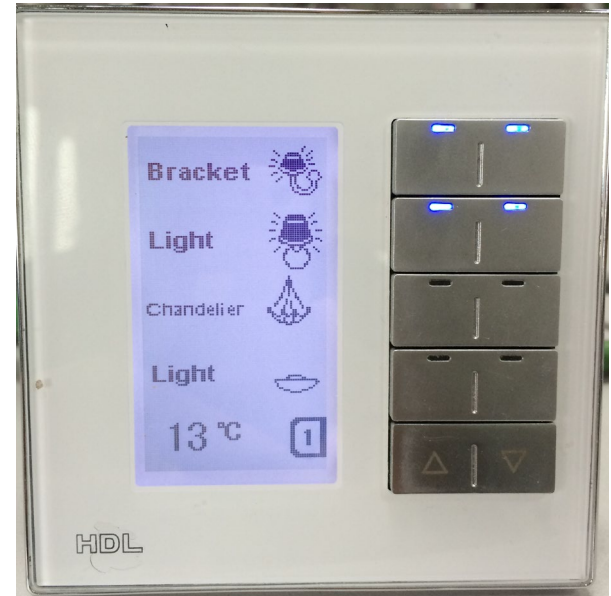
Download picture

Index	Mode	Button ID	Picture
1	Independent source	Rocker A	Bracket
2	Independent source	Rocker A	Bracket
3	Independent source	Rocker A	Invalid
4	Independent source	Rocker B	Light
5	Independent source	Rocker B	Light
6	Independent source	Rocker C	Chandelier
7	Independent source	Rocker C	Chandelier
8	Independent source	Rocker D	Light
9	Independent source	Rocker D	Light

Index	Button mode	Picture size	Picture
1	Switch controller		
2	Dimming controller		
3	Shutter controller		
4	Flexible controller		
5	Scene controller		
6	Sequence controller		
7	Percentage controller		
8	Threshold controller		
9	String(14bytes) controller		
10	Combination controller		

Index	Button status	Picture size	Picture
13	Double buttons mode:short On	80×32	Light
14	Double buttons mode:short Off	80×32	Light

step5- finish





THANKS