LTECH

Full-Color Knob Panel
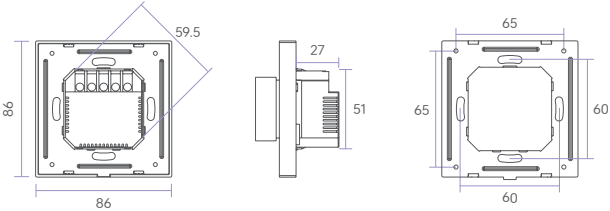
Model: E6M

Product Introduction

- The modern design with innovative multicolor indicators enables intuitive and visible smart interaction;
- DMX and Bluetooth two-in-one knob controller, standard DMX512 and Bluetooth SIG Mesh protocol;
- Supports switching between five DMX control types: dimming, color temperature, RGB, RGBW, and RGBCW.
- Initial address and scene actions can be configured via NFC.
- Compatible with Bluetooth remote controllers B1, B2, B5, B8, and RC4-BLE.
- Supports integration with L-Home smart home system and app for local scene control and automation.
- Works with smart gateways to enable integration with HomeKit, Siri, Google Assistant, Amazon Alexa.
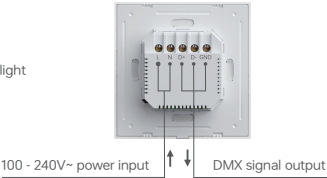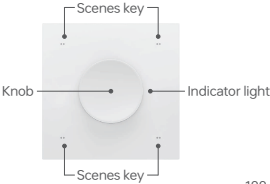
Specification Parameters

Model	E6M
Output Signal	DMX512
Rated Parameters	100-240V~，50/60Hz
Control Type	DIM, CT, RGB, RGBW, RGBCW
Wireless Type	Bluetooth 5.0 SIG Mesh
Compatible remote	B1、B2、B5、B8、RC4-BLE.
Compatible Driver	DMX driver, DMX decoder
Compatible APP	L-Home、NFC Lighting
Working Temperature	-25°C~50°C
Dimensions	86×86×52mm (L×W×H)
Package Size	102×102×73mm (L×W×H)
Product Weight	130g

Bluetooth® CE RoHS NFC•))

Product Size

Unit: mm

59.5

86

86

27

51

65

65

60

60

Product Function Description

Scenes key

Knob

Indicator light

Scenes key

L   N   D+   D-   GND

100 - 240V~ power input   DMX signal output

Scene Buttons: The scene buttons are factory preset to RGBCW mode. By default, the lighting colors are set to pink for button 1, purple for button 2, cyan for button 3, and white for button 4. Single-clicking any of these buttons will trigger the corresponding scene. To assign specific scene actions, use the L-Home APP via Bluetooth or the NFC Lighting APP via NFC.

Rotary Knob: The rotary knob supports single-click, double-click, long-press, and rotation. Sensitivity levels can be adjusted to high, medium, or low to suit different user preferences.

Indicator Light: The indicator light changes color based on the current adjustment mode of the rotary knob. It shows white when adjusting brightness (BRT/W), yellow for color temperature (CT/CW), and purple when in RGB mode. The default color is white.

Factory Reset: To restore factory settings, press and hold the rotary knob for 15 seconds until the indicator light begins to flash slowly, then release. Within 3 seconds, short-press the knob three times. The indicator will flash quickly, indicating that the reset was successful.

Introduction to the use of the knob:

Single Press   Double Press   Rotate   Long Press

Note: Different operations are available depending on the configuration type of the knob.

Device \ Action	Single Press	Double Press	Rotate	Long Press
DIM light	ON/OFF	No action	Adjust BRT	Adjust BRT
CT light	ON/OFF	Switch mode: BRT/CT	Adjust current mode: BRT/CT	Adjust BRT
RGB light	ON/OFF	Switch mode: BRT/RGB	Adjust current mode: BRT/RGB color	Adjust BRT
RGBW light	ON/OFF	Switch mode: RGBW BRT/RGB/W	Adjust current mode: RGBW BRT/RGB color/W	Adjust BRT in current mode: RGBW/RGB/W
RGBCW light	ON/OFF	Switch mode: RGBCW BRT/RGB/CW	Adjust current mode: RGBCW BRT/RGB color/ CW color	Adjust BRT in current mode: RGBCW/RGB/CW

Installation Steps

① Turn off the main power switch and ensure that there is no cement or other debris attached to the inner wall of the 86 mounting box. Trim the power wires inside the box to a length of approximately 10 cm. Use a flathead screwdriver to pry open the base of the rotary panel, and locate the NFC marking on the plastic component.

NFC marking

② Open the NFC Lighting APP on your smartphone. On the home page, tap [Read/Write Smart Device], then place the NFC sensing area of your phone close to the NFC marking on the rotary panel to read the panel parameters. Adjust the parameters as needed (see details on P8), then tap the [Write] button in the upper right corner. Place the phone's NFC sensing area near the NFC marking again to write the settings directly to the rotary panel.

③ As shown in Figure 1, after reading and writing parameters via NFC, connect the live wire to the L terminal and the neutral wire to the N terminal of the smart switch. Ensure the power wires are securely connected to the terminals, with no exposed copper. (The front-end protection device for the electronic switch must not exceed 35A.) As shown in Figure 2, use screws to fix the base box into the wall-mounted 86 box, making sure the base sits flush against the wall.
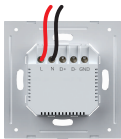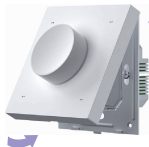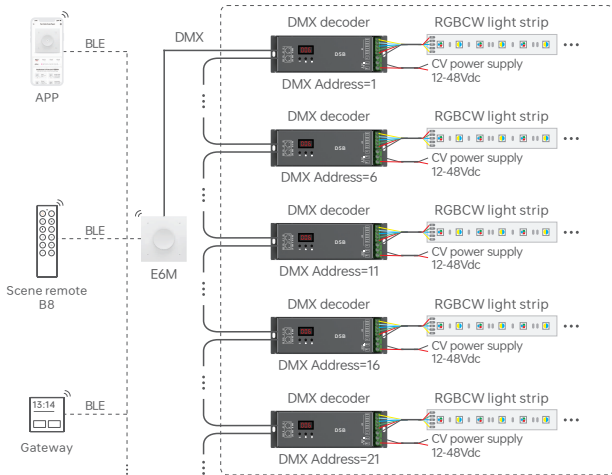

Figure 1

Figure 2

④ Tilt the panel and snap it onto the base box. Turn on the main power switch. Press the rotary panel—if the lighting can be controlled normally, the installation is successful.

Step 1: Snap the panel in from the top.

Step 2: Press to secure the bottom.

Schematic Diagram Of DMX Application

* If there are more than 32 DMX decoders connected, a DMX signal amplifier should be added, and the signal amplification should not be continuous for more than 5 times. When there are more than 32 DMX/RDM decoders connected, if it is necessary to modify their parameter settings, one RDM signal amplifier can be added, or after the parameter settings are completed, 1 to 5 DMX signal amplifiers can be added.

* When the signal wire is too long or the wire quality causes signal reflection that affects performance, try connecting a 0.25W 90~120Ω terminating resistor at the end of each signal line to resolve the issue.

DMX Channel Output Table

Type / Address	DIM	CT	CT2	RGB	RGBW	RGBCW
1	DIM	C	BRT	R	R	R
2	DIM	W	CT	G	G	G
3	DIM	C	BRT	B	B	B
4	DIM	W	CT	R	W	C
5	DIM	C	BRT	G	R	W
6	DIM	W	CT	B	G	R
7	DIM	C	BRT	R	B	G
8	DIM	W	CT	G	W	B
9	DIM	C	BRT	B	R	C
10	DIM	W	CT	R	G	W
11	DIM	C	BRT	G	B	R
12	DIM	W	CT	B	W	G
13	DIM	C	BRT	R	R	B
14	DIM	W	CT	G	G	C
⋮	⋮	⋮	⋮	⋮	⋮	⋮
500	DIM	W	CT	G	W	W
⋮	⋮	⋮	⋮	⋮	⋮	/
512	DIM	W	CT	G	W	/

＊Refer to the illustration above, and apply similarly for the following.

Use with NFC Lighting APP

1. Register an account

Scan and download the QR code through your mobile phone, and follow the prompts to complete the APP installation and log in/register. (Due to performance requirements, the phone model is required for Apple: iPhone 8 and above, and operating system iOS 13 and above; Android: NFC-functional model)

＊Device parameters must be set while the device is powered off.

2. Read/write knob panel

Click [Read/Write Smart Device] on the "Homepage" of the APP, and bring the phone's sensing area close to the NFC marking of the knob panel (Figure P4) to read the knob panel parameters.
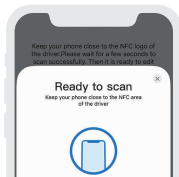
3.How to set control type and parameters

Control type: Tap "Control Type" to select DIM/CT/RGB/RGBW/RGBCW, default RGBCW.
**Control Start Address:** Tap "Control Start Address" to set the device's start address.
Parameters Management: Tap "Parameters" to edit advanced settings such as knob sensitivity, double-click on the mode sort, double-click mode memory, indicator lights, key press sound, scene key, powered on state, and more.
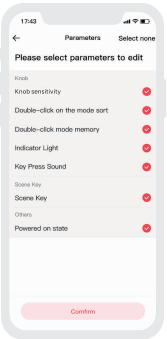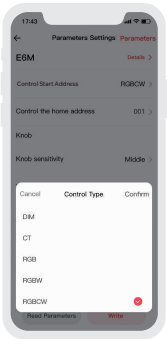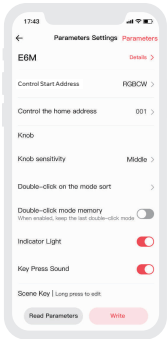
4.Rotary Knob and Scene Button Settings

Rotary Knob: Tap "Knob sensitivity" to select low, medium, or high sensitivity. Tap "Double-click on the mode sort" to adjust the sequence of total brightness, RGB mode, and W mode (RGBW) / CW mode (RGBCW) when double-clicking the knob. ; Enable or disable double-click mode memory (default is off). Enable or disable the indicator light (default is on). Enable or disable key press sound (default is on).
**Scene key:** Long-press a scene button to bind and execute an action.
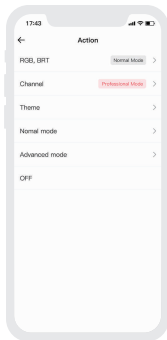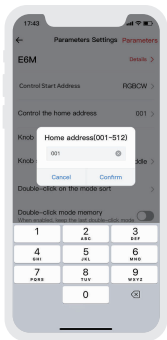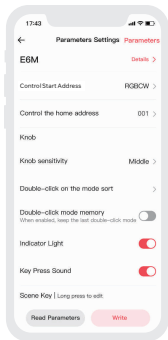
5.Powered on state and factory reset settings

Powered on state: Options include full bright, light is off, memorize, custom. The default setting is memorize.

Factory Reset: After tapping the "All parameters are restored to factory default" button, all parameters on the APP page will revert to factory defaults. Then, tap the "Write" button to upload the parameters to the device, restoring it to factory settings.
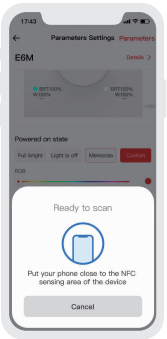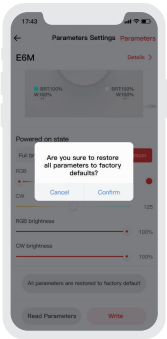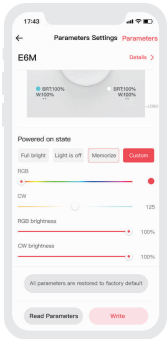
For Use With The L - Home APP.

1. Register an account

Scan the QR code below with your mobile phone. After completing the APP installation according to the prompts, you can proceed with the login/registration operation.

2. Pairing operation

For new users, after creating a home on the APP, click the "+" icon in the upper right corner on the [Room] interface for addition. Select "LED Controller" from the device addition list, and follow the prompts on the installation interface to complete the addition.
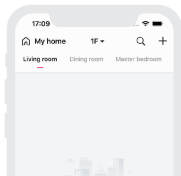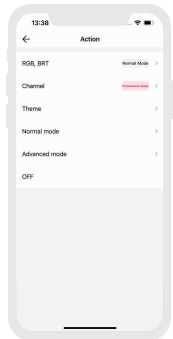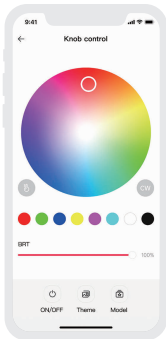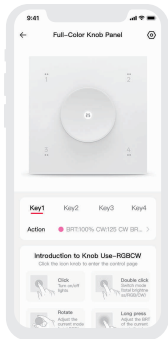
3.How to set knobs and scene keys

Click the added knob panel in the "room" interface to enter the [Control] interface.
**Knob:** Support clicking the knob to enter the page to adjust the light.
Scene key: Each key supports binding different actions.

4. Binded by remote control

The rotary panel can be bound as a fixture to B1, B2, B5, B8, or RC4-BLE remote controllers.
Each zone on the remote controller supports binding to one rotary panel.
Once bound, the remote controller zone will control the load of the rotary panel.
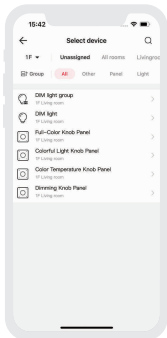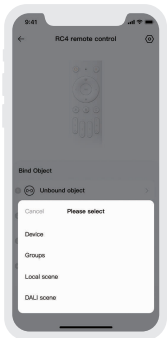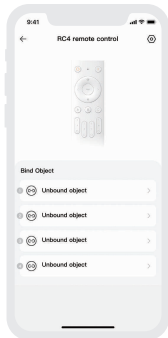
5. How to set scenes and automation

Local Scene: In the "Intelligence" interface, select "Local Scene" and tap the "+" button to create a local scene. Tap "Add Action" and choose the corresponding device type action.
Cloud Scene: Ensure a smart gateway, such as the Super Panel 12S, is added to your home network. In the "Intelligence" interface, select "Cloud Scene" and tap the "+" button to create a cloud scene. Tap "Add Action" and choose the corresponding device type action.
Automation: Ensure a smart gateway, such as the Super Panel 12S, is added to your home network. In the "Intelligence" interface, select "Automation" and tap the "+" button to create an automation. You can choose local or cloud execution modes and set trigger conditions and actions. When the trigger conditions are met, a series of device actions will be automatically executed to achieve remote linkage.
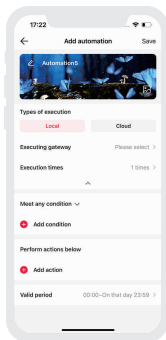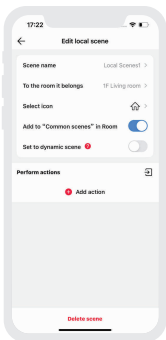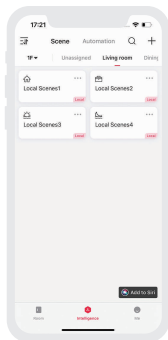
Restore To Factory Settings

Method 1: After the E6M knob panel is connected to power, press the knob for 15 seconds (see Figure 1) until the indicator light flashes slowly and then releases. Press the knob for a short time 3 times within 3 seconds, and the indicator light flashes quickly, indicating that it has returned to the factory settings.

Method 2: First, make sure that the device is properly powered on and in an online state. Then, open the L - Home APP, find the device, and enter its settings page. Click the "Delete Device" button (see Figure 2). When the system prompts "Deletion successful", it means that the device has been successfully restored to its factory settings.

Knob — — Indicator light
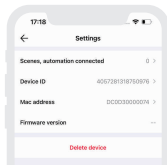
Figure 1

Figure 2

FAQs

1. What to do if the network configuration fails?

① Ensure that the device is powered on normally.

② Confirm that the device being added has not been added by another account. If it has been added, please manually restore the factory settings.

③ Ensure that the mobile phone and the device are as close as possible, preferably within 15 meters.

④ If the device has been forcibly deleted, please manually restore the factory settings and then add the device again.

2. How to remotely control the device?

When paired with our company's Smart gateway, the device can be remotely controlled via 4G/5G/WiFi on a mobile phone.

Attentions

- Product installation and commissioning should be done by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices .
- Good heat dissipation will prolong the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

Warranty Agreement

- Warranty periods from the date of manufacture: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

Following conditions are not within the guarantee range of free repairing or replacement services:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract or invoice signed by LTECH .

1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law .
2. LTECH has the right to amend or adjust the terms of this warranty. The warranty that issues in writting shall prevail.

＊ This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

全彩旋钮面板

型号：E6M

产品介绍

- 时尚的外观设计配合创新多彩状态指示灯，让科技交互一目了然；
- DMX、蓝牙二合一旋钮控制器，标准DMX512、蓝牙SIG Mesh协议；
- 支持控制DMX调光、色温、RGB、RGBW、RGBCW五个类型切换；
- 通过NFC可设置首地址、场景动作；
- 可搭配蓝牙遥控器B1、B2、B5、B8、RC4-BLE控制；
- 支持与L-Home智能家居系统，APP联动控制，实现本地场景，自动化等智能控制；
- 搭配智能网关，可以实现HomeKit、Siri、谷歌、亚马逊、小爱、小度等智能平台联动控制。

规格参数

产品型号	E6M
输出信号	DMX512
额定参数	100-240V~，50/60Hz
控制类型	调光、色温、RGB、RGBW、RGBCW
无线类型	Bluetooth 5.0 SIG Mesh
可搭配的遥控	B1、B2、B5、B8、RC4-BLE
可搭配的驱动	DMX电源、DMX解码器
可搭配的APP	L-Home、NFC Lighting
工作温度	-25℃~50℃
产品尺寸	86×86×52mm (L×W×H)
包装尺寸	102×102×73mm (L×W×H)
产品重量	130g

®Bluetooth® **CE** **RoHS** **NFC•))**

产品尺寸

单位：mm

产品功能说明

场景键

旋钮 —— 指示灯

场景键

100-240V~ 电源输入 ↑↓ DMX信号输出
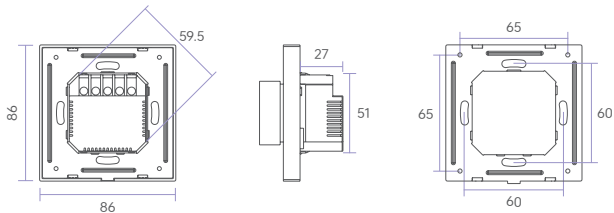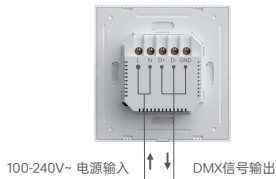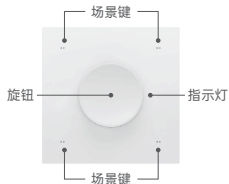
场景键：出厂默认 RGBCW 模式，默认灯具灯光颜色为粉色(按键1)、紫色(按键2)、青色(按键3)、白色(按键4)；场景键单击按键1/2/3/4触发场景，需要通过 L-Home APP 蓝牙无线 或 NFC Lighting APP NFC方式绑定场景动作。

旋钮：支持单击、双击、长按和旋转；支持设置高、中、低三档灵敏度调节。

指示灯：根据旋钮现在调节的值显示对应颜色，白色(BRT/W)；黄色(CT/CW)；紫色(RGB)；出厂默认白色。

恢复出厂：长按旋钮15秒，直至指示灯慢闪后松开，3秒内短按旋钮3次，指示灯快闪。

旋钮使用介绍：

| 单击 | 双击 | 旋转 | 长按 |

注：根据旋钮配置类型具有不同的操作。

设备 ＼ 动作	单击	双击	旋转	长按
DIM灯	开/关	无动作	调节亮度	亮度±
CT灯	开/关	切换模式 (亮度/色温)	调节当前模式 (亮度/色温)	亮度±
RGB灯	开/关	切换模式 (亮度/RGB模式)	调节当前模式 (亮度/RGB颜色)	亮度±
RGBW灯	开/关	切换模式 (总亮度/RGB/W)	调节当前模式 (总亮度/RGB颜色/W)	当前模式亮度±
RGBCW灯	开/关	切换模式 (总亮度/RGB/CW)	调节当前模式 (总亮度/RGB颜色/CW颜色)	当前模式亮度±

安装步骤

① 关闭电源总闸，并确认86暗盒内壁无水泥等附着物，将暗盒内的电源线长度修减至10CM左右，使用一字螺丝刀撬开旋钮面板底盒，在塑胶部件找到NFC标识点。

NFC标识点

② 使用手机打开NFC Lighting APP，在"首页"点击【读/写智能设备】，将手机感应区域靠近旋钮面板NFC标识点，读取旋钮面板参数，根据需求设置参数后(详细见P8)，点击右上角【写入】，再将手机感应区域靠近旋钮面板NFC标识点，即可直接写入旋钮面板。

③ 见图1，使用手机NFC读取写入参数后，将火线接入智能开关L接口，零线接入N接口，确认电源线
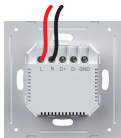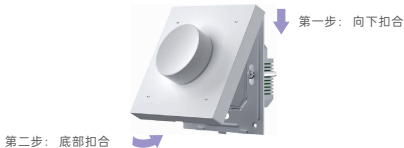与开关接线柱接触良好，无裸露的铜线。(电子开关的前置保护装置不能高于35A)
见图2，用螺丝将底盒固定到墙壁暗盒中，使底盒贴合墙面。

图1

图2

④ 倾斜面板并扣合在底盒上，开启电源总闸，按下旋钮面板，可正常控制灯光即说明安装正确。

第一步：向下扣合

第二步：底部扣合

DMX应用示意图

DMX解码器 RGBCW灯条
DMX Address=1
恒压电源12-48Vdc

DMX解码器 RGBCW灯条
DMX Address=6
恒压电源12-48Vdc

DMX解码器 RGBCW灯条
DMX Address=11
恒压电源12-48Vdc

DMX解码器 RGBCW灯条
DMX Address=16
恒压电源12-48Vdc

DMX解码器 RGBCW灯条
DMX Address=21
恒压电源12-48Vdc

APP
BLE
DMX

B8场景遥控器
BLE
E6M

网关
BLE
13:14
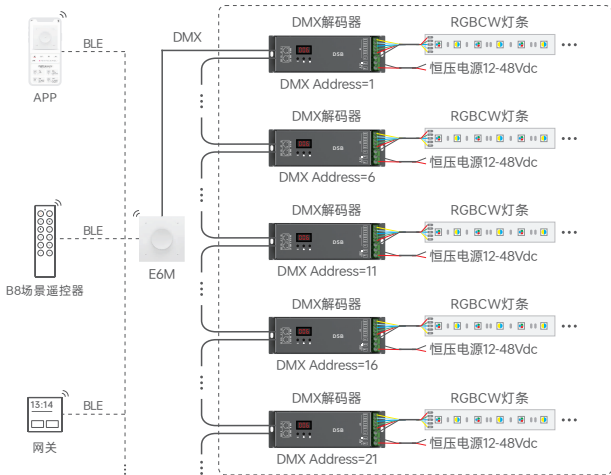
＊ 超过32台DMX解码器连接需加DMX信号放大器，信号放大不能连续超过5次。当超过32台DMX/RDM解码器
　 连接时，如需修改其参数设置，可添加1台RDM信号放大器，或者将其参数设置完后，再添加1~5台DMX
　 信号放大器。

＊ 当信号线较长或者线材质量等原因造成信号反冲效应影响使用，可以尝试在每路信号线末端连接0.25W
　 90-120Ω终端电阻去解决。

DMX通道输出表

地址 \ 类型	DIM	CT	CT2	RGB	RGBW	RGBCW
1	DIM	C	BRT	R	R	R
2	DIM	W	CT	G	G	G
3	DIM	C	BRT	B	B	B
4	DIM	W	CT	R	W	C
5	DIM	C	BRT	G	R	W
6	DIM	W	CT	B	G	R
7	DIM	C	BRT	R	B	G
8	DIM	W	CT	G	W	B
9	DIM	C	BRT	B	R	C
10	DIM	W	CT	R	G	W
11	DIM	C	BRT	G	B	R
12	DIM	W	CT	B	W	G
13	DIM	C	BRT	R	R	B
14	DIM	W	CT	G	G	C
⋮	⋮	⋮	⋮	⋮	⋮	⋮
500	DIM	W	CT	G	W	W
⋮	⋮	⋮	⋮	⋮	⋮	/
512	DIM	W	CT	G	W	/

＊ 按上图表示意，如此类推。

搭配NFC Lighting APP使用

1. 账号注册

通过手机扫描下载二维码，按提示完成APP安装后即可进行登录/注册操作。(因性能需求，要求手机型号苹果：iPhone8及以上、且操作系统iOS13及以上；安卓：具备NFC功能机型)

＊设置设备参数时，必须在设备断电情况下进行操作。

2. 读/写旋钮面板

在APP"首页"点击【读/写智能设备】，将手机感应区域靠近旋钮面板NFC标识点(图示P4)，读取旋钮面板参数。
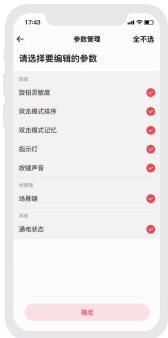
3.控制类型和参数管理的设置方式

控制类型：点击"控制类型"可选择调光/色温/彩光RGB/彩光RGBW/彩光RGBCW，默认彩光RGBCW。
控制首地址：点击"控制首地址"可设置设备首地址。
参数管理：点击"参数管理"可编辑旋钮的旋钮灵敏度、双击模式排序、双击模式记忆、指示灯、按键声音、场景键、通电状态等更多高级参数。

4.旋钮和场景键的设置方式

旋钮：点击"旋钮灵敏度"可选择低/中/高灵敏度；点击"双击模式排序"调整双击旋钮时，灯光总亮度、RGB模式与W模式(RGBW)/CW模式(RGBCW)的排序；开启/关闭双击模式记忆，默认关闭；开启/关闭指示灯，默认开启；开启/关闭按键声音，默认开启。
场景键：长按场景键可绑定执行动作。

5.通电状态和恢复出厂的设置方式

通电状态：可选择全亮/不亮/记忆/自定义，默认记忆。

恢复出厂：点击"所有参数恢复到出厂默认"按钮后，APP页面的所有参数将恢复到出厂默认值，此时，需点击"写入"按钮，把参数写入到设备中，即可将设备恢复出厂设置。

搭配L-Home APP使用

1. 账号注册

通过手机扫描下方二维码，按提示完成APP安装后即可进行登录/注册操作。

2. 配网操作

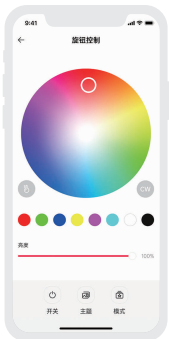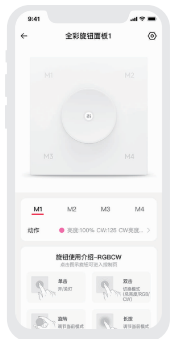新用户在APP上创建家庭后，在【房间】界面点击右上角"+"进行添加，在添加设备列表中选择"LED控制器"后，按照界面提示完成添加即可。

3.旋钮和场景键的设置方式

在"房间"界面点击已添加的旋钮面板进入【控制】界面。

旋钮：支持点击旋钮进入页面调节灯光。

场景键：每个按键支持绑定不同的执行动作。

4. 被遥控器绑定

旋钮面板可当做灯具被B1/B2/B5/B8/RC4-BLE遥控器绑定；
遥控器的每个分区支持绑定一个旋钮面板；
绑定后，遥控器区域将控制旋钮面板的负载。

5. 场景与自动化的设置方式

本地场景：在【智能】界面中选择"本地场景"，点击"+"创建本地场景。点击添加动作，选择对应设备类型动作即可。

云场景：确保家庭内已添加智能网关，如超级面板12S。

在【智能】界面中选择"云场景"，点击"+"创建云场景。点击添加动作，选择对应设备类型动作设备类型动作即可。

自动化：确保家庭内已添加智能网关，如超级面板12S。

在【智能】界面中选择"自动化"，点击"+"创建自动化。可选择本地/云端执行方式，以及设置触发条件及执行动作。当满足已设置的触发条件时，自动触发一系列设备动作，实现远程联动。

恢复出厂

方法一：
E6M旋钮面板接线上电后，长按旋钮15秒(见图1)，直至指示灯慢闪后松开，3秒内短按旋钮3次，指示灯快闪，表示已恢复到出厂设置。

方法二：
需先确认设备已正确接通电源且处于在线状态。随后，打开L-Home APP，找到该设备并进入其设置页面，点击"删除设备"按钮(见图2)。当系统提示"删除成功"时，即表示设备已成功恢复到出厂设置。

图1

图2

常见问题

1.配网失败这么办？
①确保设备正常通电；
②需要确认添加的设备未被其他账号添加过，如被添加过，请手动恢复出厂；
③确保手机与设备两者尽量靠近，建议不超过15米；
④如设备已被强制删除，请手动恢复出厂，然后重新添加设备。

2.如何远程控制设备？
搭配本司智能网关，可通过4G/5G/WiFi手机远程控制设备。

注意事项

- 请由具有专业资格的人员进行调试安装。
- 雷特产品（专有型号除外）不能防水防雷，需避免日晒雨淋，如安装在户外，请用防水箱和防雷装置。
- 良好的散热条件会延长产品的使用寿命，请把产品安装在通风良好的环境。
- 请检查使用的工作电压是否符合产品的参数要求。
- 使用的电线直径大小必须能足够负载连接的LED灯具，并确保接线牢固。
- 通电调试前，应确保所有接线正确。
- 如果发生故障，请勿私自维修；如果有疑问，请联系供应商。

保修条例

- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题雷特科技将给予免费修理或更换服务。

非保修条例：

属下列情况不在免费保修或更换服务范围之内：

- 已经超出保修服务期；
- 过高电压、超负载、操作不当等人为造成的损坏；
- 产品外形严重损坏或变形；
- 自然灾害以及人力不可抗拒原因造成的损坏；
- 产品保修标签和产品唯一条形码损坏；
- 无雷特科技签订的合同或发票凭证。

1. 修理或更换是雷特科技对客户的唯一补救措施。雷特科技不承担任何附带引起的损害赔偿责任，除非在适用法律范围之内。

2. 雷特科技享有修正或调整本保修条款的权利，并以书面形式发布为准。

＊本说明书的内容如有变更，恕不另行通知。若内容与您使用的功能有所不同，则以实物为准。如有疑问，欢迎向我司授权的经销商咨询。