User Manual

EPX-410D/420D/430D/810D/820D/830D

4/8 Channel Switch Pack Series

INDEX

1 Before Installation

1. Working environment: Temperature: 0°C - 40°C; Humidity: 20% - 80%
2. Please check EDX wiring guide on Lite-Puter's website: https://www.liteputer.com.tw/tech-guide-en/

2 Introductions

2-1 Features

- EDX and DMX-512.
- Din-rail mounted.
- 4-channel dry contact for EPX-410D/ 420D/ 430D

  8-channel dry contact for EPX-810D/ 820D/ 830D.

  Each channel can be manually switched on/off individually.
- Fade time of each scene can be set.
- Up to 99 zones.
- Delay time setting (0.1S - 10S) for each channel to avoid current surge.
- Connectable to ECP series control panels.

2-2 Specifications

1. AC Input: AC 100 - 240V
2. Output:

   Resistive Loads:

   EPX-410D: 10A per channel; EPX-420D: 20A per channel; EPX-430D: 30A per channel

   Capacitive/Inductive Loads/Electronic Drivers/Electronic Ballasts:

   EPX-410D: 6A per channel; EPX-420D: 12A per channel; EPX-430D: 18A per channel

   * Might not compatible with some high inrush current loads.
3. Protocol: DMX-512/EDX
4. Dimensions:

   EPX-410D/ 420D/ 430D -- 162(W) x 90(H) x 61.55(D) mm

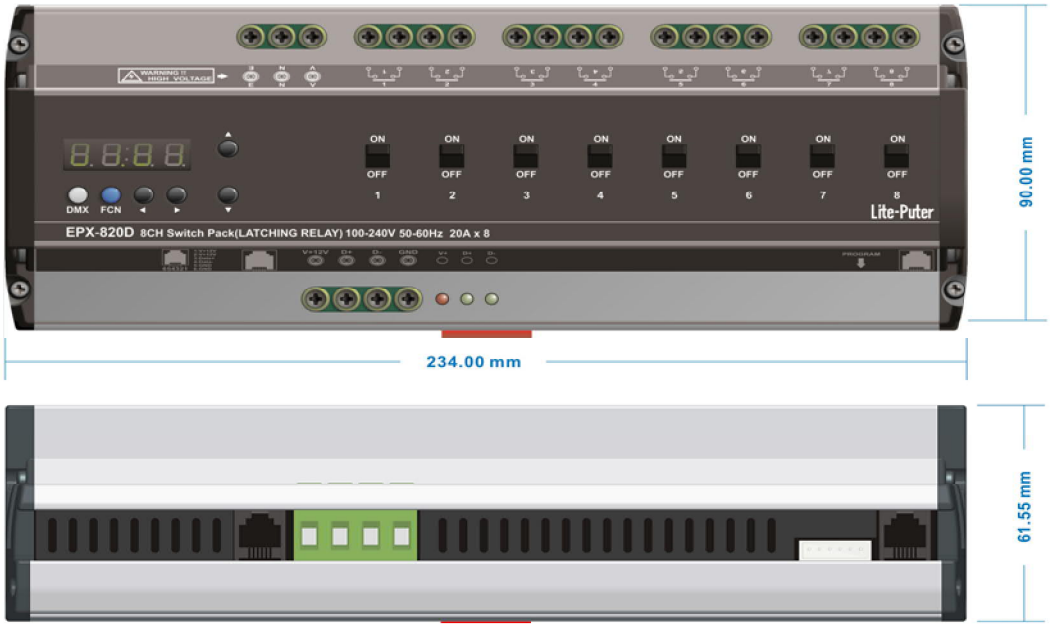
EPX-810D/ 820D/ 830D -- 234(W) x 90(H) x 61.55(D) mm

5. Weight:

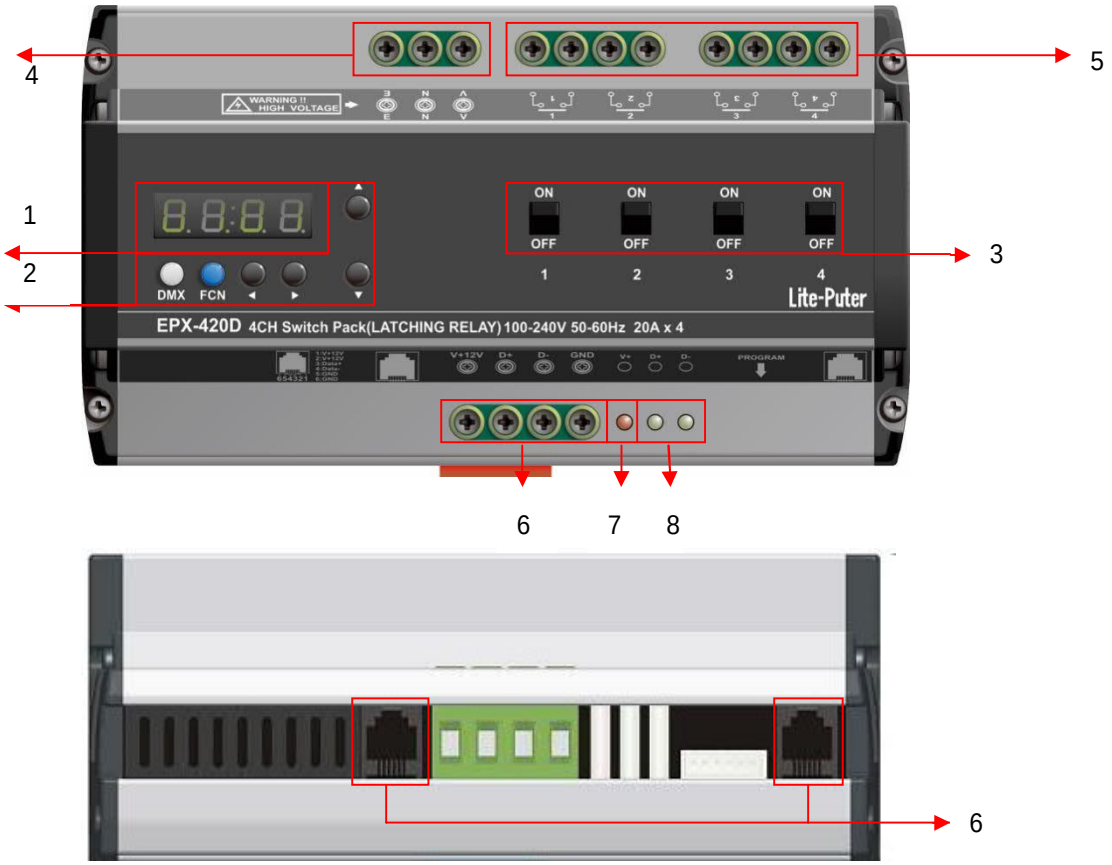
   EPX-410D/ 420D/ 430D - 0.60Kg

   EPX-810D/ 820D/ 830D - 0.90Kg

2-3 Dimensions

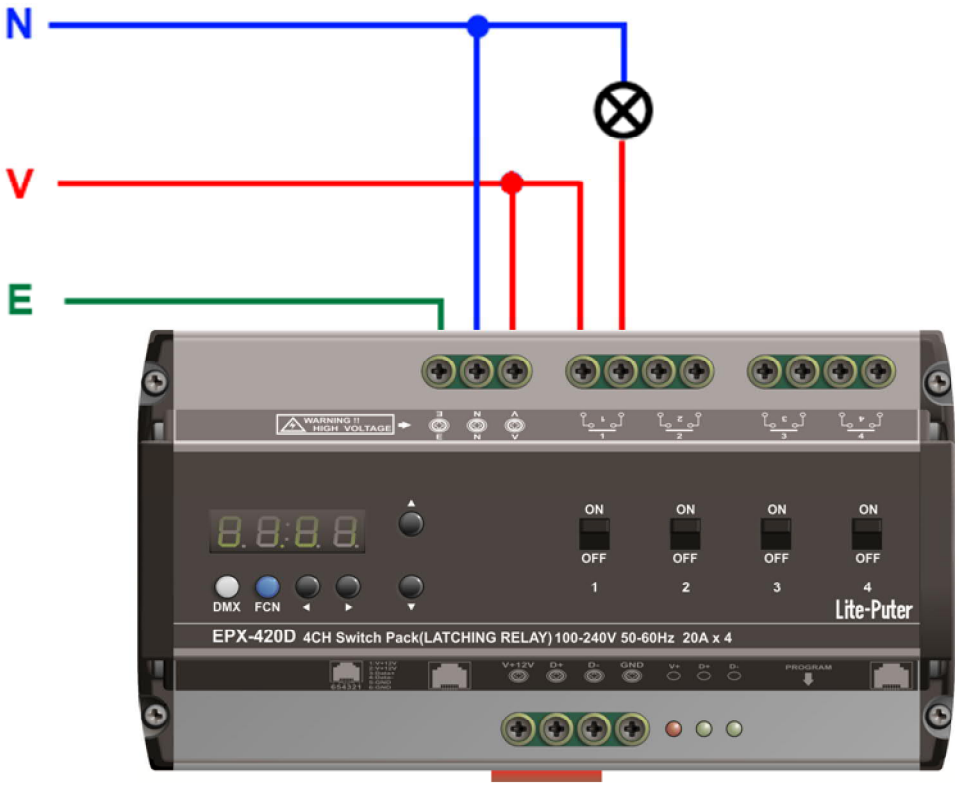


2-4 Functions



1	LED	2	【DMX】- to set DMX address 【FCN】- function selection, exit without saving 【◄】【►】【▲】【▼】
3	Channel ON/OFF		
4	Power input	5	4-channel outputs
6	EDX/DMX-512	7	EDX 12V+ indicator
8	EDX/DMX-512 signal indicator		

2-5 Wiring Diagram (One Channel)



3 Operations

3-1 Initialization

Hold【▲】and【▼】at the same time and restart the module:

The LED display shows  .

Press【DMX】to initialize the module.  .

3-2 DMX Address Setting

Standard DMX console can output 512 channels and EPX-420D can use 4 continuous channels as the output channel. The number of the first channel of these 4 continuous channels is start channel address.

Press 【DMX】+【▲】or【▼】to change DMX address. For example, change DMX address from 001 to 003,

Note: Press【DMX】once to check the DMX address.

3-3 Channel Output Status

In the main screen, press【◄】 or【►】to enter channel status check.

First channel is on ON mode. Second channel is on OFF mode.

Press 【▲】and【▼】to manually turn on/off the channel.

3-4 DMX-512 Bypass Setting

Press【FCN】several times to enter DMX-512 Bypass setting

"d-OF" means that EPX module will be controlled by DMX-512 signal (DMX-512 bypass is disabled)

Press【▲】or【▼】 to change the setting and then press【DMX】to save.

Controlled by DMX-512 signal (DMX-512 Bypass is disabled)

Not controlled by DMX-512 signal (DMX-512 Bypass is enabled)

3-5 Delay Time Setting

Delay time is the time between channels to be reacted by the control signal.

For example, if delay time is set as 0.5 second, and EPX-420D received a signal to turn off all output channels,

EPX-420D will turn off 1st output channel immediately and then turn off 2nd output channel after 0.5 second and then turn off 3rd output channel after 1 second and then turn off 4th output channel after 1.5 second.

The function is to avoid large surge current if all relays activated simultaneously.

STEP-1: Press【FCN】several times to enter delay time setting:

It means the delay time is 0.1 second.

STEP-2: Press【▲】or【▼】to change delay time(range from 0.1S - 10S)

STEP-3: Press【DMX】to save or press【FCN】to cancel.

3-6 Channel Mode Setting

There are two modes for channel status, shown as below:

Switch Mode

Fade Mode

Switch Mode: only two status, 0 and 100%

Fade Mode: the value can be adjusted from 0 to 100%.

3-7 Channel's Switching-on Level Setting

STEP-1: In the main screen, press【FCN】to enter the switch on value setting.

It means the channel will be switched on when its level is 52%.

STEP-2: Press【▲】or【▼】to set the switching-on level from 10% to 90%.

STEP-3: After setting, press【DMX】to save.

The switching-off level is 5% lower than switching-on level. For example, if switching-on level is 90%, the switching-off level will be 85%.

By default, the channel mode (refer 3-6) is switch mode. In switch mode, if you press up/down buttons or recall a scene on an ECP panel, it will instantly turn on the channels (turn on the lamps).
If the ECP panel also controls other dimmable loads, it might be not desirable to have some switching lamps instantly turned-on, but other dimmable loads are turned on after a while.

By changing channel mode from switch to fade mode can solve this issue. If you want the switching loads to be turned on when dimmable loads are turning to 80%, you can simply change the channel mode to fade mode (3-6) and make switching-on value to 80% (3-7).

In some applications, turning switching loads on instantly might be preferable. Setting channel mode as switching mode would be better.

3-8 Date/Clock Setting

STEP-1: Press【FCN】several time until LED shows:

It means the year on the module is 2018. Press 【▲】or【▼】to change the year.

STEP-2: Press 【►】once, the LED display will show month and date:

Press 【▲】or【▼】to change the month.

Press 【►】once to shift the cursor to date and then press 【▲】or【▼】to change the date.

STEP-3: Press 【►】once, the LED display will show weekday:

press 【▲】or【▼】to change the weekday.

d-01: Monday

d-02: Tuesday

d-03: Wednesday

d-04: Thursday

d-05: Friday

d-06: Saturday

d-07: Sunday

STEP-4: Press 【►】once, the LED display will show the time/clock:

Press 【▲】or【▼】to change the hour.

Press 【►】once to shift the cursor to minute and then press 【▲】or【▼】to change the minute.

STEP-4: Press 【DMX】to save the date/clock setting.

3-9 NO/NC Setting

STEP-1: Press【FCN】several time until LED shows:

It means 1st output is NO (Normally Open) mode.

STEP-2: Press【▲】or【▼】to change the mode between NO (Normally Open) or NC (Normally Close)

For example, change 1st output to NC mode:

STEP-3: Press 【◄】 or【►】to change the output number.

For example, press 【►】twice to change the selected output to 3rd output:

STEP-4: Repeat STEP 2,3,4 to set NO/NC mode of each output channel.

STEP-5: Press【DMX】to save the setting.

If the output is set to NO (default), the output switch will be opened when the input level is lower than switching-on level, and the switch will be closed when input level is higher than switching-on level.
If the output is set to NC, the output switch will be closed when the input level is lower than switching-on level, and the switch will be opened when input level is higher than switching-on level.

3-10 Firmware Version Check

Press【FCN】several time until LED shows:

It means that the firmware version is 1.1.

4 EDX Systems

EDX/EPX devices can work either in DMX-512 mode or EDX mode.

DMX-512 Mode: EDX/EPX devices can be controlled by DMX-512 controllers.

EDX Mode: EDX/EPX devices can be recalled its stored lighting scenes by connecting to ECP scene control panels.

Please refer EDX wiring guide on Lite-Puter's website: https://www.liteputer.com.tw/tech-guide-en/

4-0 EDX Mode

EDX is a protocol specifically designed for architectural and environmental lighting applications. EDX/EPX dimmers/switches or devices are able to store scenes in themselves.

Each EDX/EPX device or ECP panel can be specified by a zone number. The scenes stored in EDX/EPX devices can be recalled by ECP panels with the same zone number.

For example, EDX/EPX devices configured as zone 1 can be controlled (recall scenes) by ECP panel configure as zone 1. EDX/EPX devices configured as zone 5 can be controlled (recall scenes) by ECP panel configure as zone 5.

Figure 1: One EDX/EPX device with one ECP scene panel

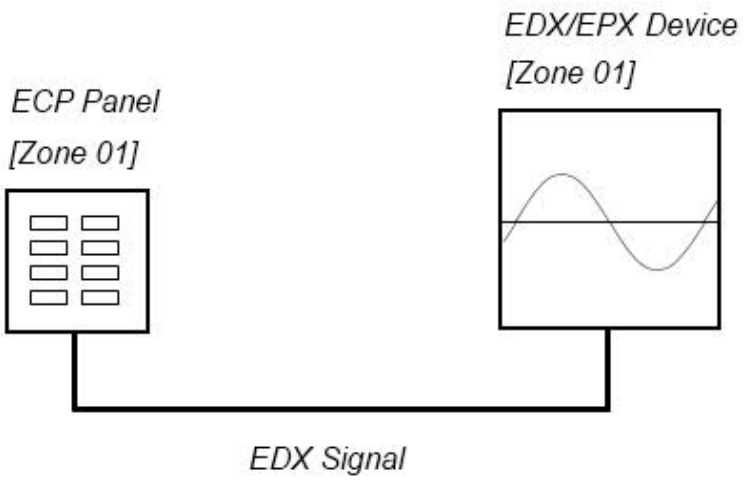
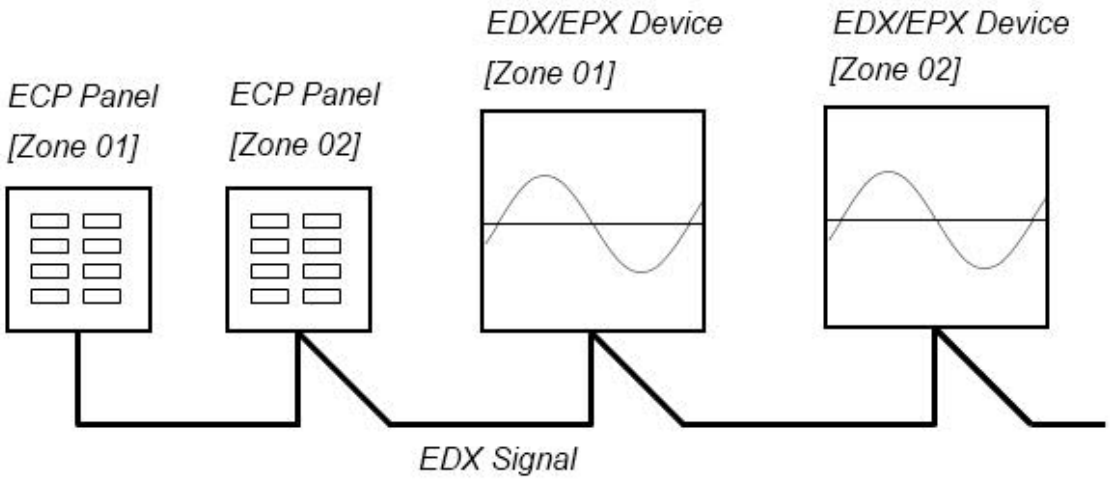


Figure 2: Multiple EDX/EPX devices with ECP scene panels



ECP scene panel 1 controls EDX/EPX device 1.

ECP scene panel 2 controls EDX/EPX device 2.

** If there are both DMX-512 and EDX signal present, DMX-512 signal has the highest priority.*

4-1 ID Number Setting

Each EPX/EDX series device must have a ID number. When one device's working alone, there is no need to adjust the ID number, but when several devices' working together, each device must have a different ID number.

STEP-1 In the main screen, press【FCN】to enter ID number setting.

STEP-2 Press【▲】or【▼】to change the ID number.

Press 【▲】twice to change ID number from 001 to 003.

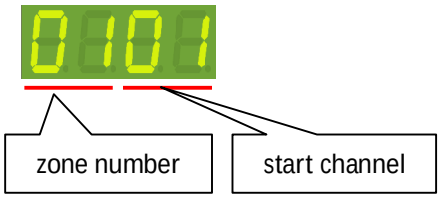
STEP-3 Press【DMX】to save.

4-2 Zone Number Setting

Definition of zone: The device must set the zone number before use, which consists of two parts, one is the zone number and another is the start channel address.

For example: There is 4 EPX-420D (16 channels in total) in the first zone, the zone number of each device should be 01-01, 01-05, 01-09, 01-13 separately.

STEP-1: In the main screen, zone and start channel setting is shown as below:



Press【▲】or【▼】to change zone number (up to 99 zone). After setting, press【DMX】to save.

STEP-2: Press right button once shift to start channel setting. Press【▲】or【▼】to modify the start channel address (up to 99 channel). After setting, press【DMX】to save.

For example: change channel address from 02 to 03.

4-3 Save Scene

STEP-1: In the main screen, press【◄】 or【►】to select a channel. Here we select channel one.

STEP-2: Press【▲】or【▼】to set the level of channel 1. Here we press【▲】to make the output of channel one to 100%.

STEP-3: Press【◄】 or【►】to select other channel. Repeat step 2 and 3 to edit the scene.

STEP-4: Press【DMX】, LED shows

It means that the current scene is going to be stored in scene 01.

STEP-5: Press 【▲】or【▼】to select a scene number to store the current scene.

STEP-6: Press【DMX】to save the scene.

4-4 Scene Overlap Function ON/OFF

Scene Overlap Function:

On usual, when user recall a scene, the previous scene will be replaced. This function is to overlap output of SC5/SC6 to any other scene, which means the previous scene should not be replaced but appears the effect of several overlapped scenes.

For example:

SC2: the first channel of EPX-420D is OFF

SC5: the first channel of EPX-420D is ON

When overlap SC5 to SC2, the first channel is ON.

STEP-1: In the main screen, press 【FCN】 several times until LED shows:

STEP-2: Press【▲】or【▼】to select from Scene Overlap ON/OFF.

A. Scene overlap function is OFF.

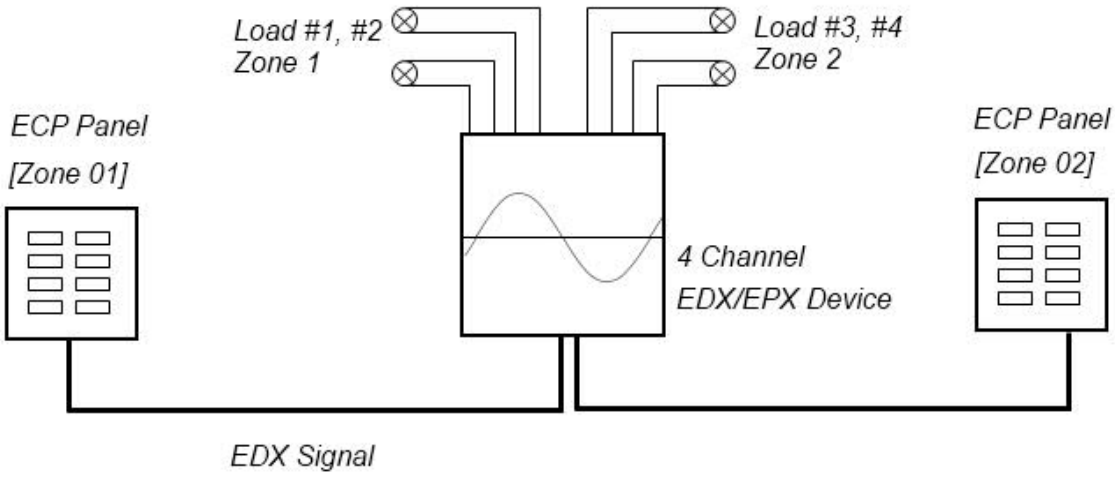
B. Scene overlap function is ON

STEP-3: After setting, press【DMX】to save.

4-5 Partition Setting

Generally, all channels on EDX/EPX devices can be only set to only 1 zone (Please refer 3-2). To make EDX/EPX devices more flexible, you can assign each channel on EDX/EPX devices to different zones by using partition function. For example, you assign channel 1 – 2 on EPX-420D to partition 1 and channel 3 – 4 on EPX-430D to partition 2. There are 2 control panels (ECP-106) connected to EPX-420D, one is set to zone 1; the other is set to zone 2. If scenes are recalled by ECP-106 of zone 1, only channel 1 – 2 on EPX-420D will change their dimming levels. If scenes are recalled by ECP-106 of zone 2, only channel 3– 4 on EPX-420D will change their dimming levels.

Figure: Channel 1 and 2 on EDX/EPX device in zone 1 (channel 1 and 2 are controlled by ECP panel in zone 1)
Channel 3 and 4 on EDX/EPX devices in zone 2 (channel 3 and 4 are controlled by ECP panel in zone 2)



4-5-1 Enable/Disable Partition Function

STEP-1: Press【FCN】several times until LED shows

It means partition function is disabled.

Press 【▲】to turn on partition function

.

4-5-2 Partition Setting

STEP-1: Press【FCN】several times until LED shows

The left two digits “01” represents 1st output channel of the EPX module.

The right two digits “01” represents zone 01.

STEP-2: Move the cursor to the right two digits and press 【▲】or【▼】to change the zone number which 1st output channel belongs to.

STEP-3: Press【►】to go to channel number

Press 【▲】or【▼】to change the channel number.

Example1- To set 1st output of EPX module to zone 2, channel 1

Example2 – To set 2nd output of EPX module to zone 2, channel 2.

4-6 Timer Setting

The timer feature of the EPX module is able to automatically recall a scene in a specific time.

4-6-1 Enable/Disable Timer

STEP-1: Press【FCN】several times until LED shows

"t-OF" means that the timer in disabled (OFF).

STEP-2: Press 【▲】or【▼】to enable/disable the timer.

timer is disabled

timer is enabled

STEP-3: Press【DMX】to save the setting.

4-6-2 Add a Timer

STEP-1:: Press【FCN】several times until LED shows

This is 1st timer. Up to 20 timers can be stored in the module.

STEP-2: Press 【DMX】once to enter the 1st timer setting.

Press 【▲】or【▼】to change the hour.

Press 【►】to shift the cursor to minute and then press 【▲】or【▼】to change the minute.

For example, we set 13:30 as the clock of the timer:

STEP-3: Press 【►】once to go to weekday setting:

d-01: valid on Mondays

d-02: valid on Tuesdays

d-03: valid on Wednesdays

d-04: valid on Thursdays

d-05: valid on Fridays

d-06: valid on Saturdays

d-07: valid on Sundays

d-08: valid on Monday to Friday

d-09: valid on Saturdays and Sundays

d-10: valid everyday

Press 【▲】or【▼】to change the weekday setting

STEP-4: Press 【►】once to go to scene setting:

Press 【▲】or【▼】to change the scene number.

STEP-5: Press 【►】once to go to zone setting:

Press 【▲】or【▼】to change the zone number.

STEP-6: Press 【►】once to go to delay setting:

Press 【▲】or【▼】to change the delay from 0.1 second to 10 second.

STEP-7: Press【DMX】to save the timer.

Once 1st timer is stored, you can then add.2nd timer. Up to 20 timers can be stored in the module.

Please enable timer feature (refer 4-6-1) to make the timers valid.

4-6-3 Delete Timer

STEP-1:: Press【FCN】several times until LED shows

01 means 1st timer is selected.

Press 【▲】or【▼】to select a timer.

STEP-2: Press 【DMX】to delete the timer.

Limited Warranty

1. Lite-Puter is only responsible for the product itself.

2. Lite-Puter warrants to repair any manufacturing defects within one year of distribution date.

3. Lite-Puter does not offer on-site service. Should a defect appear in Lite-Puter's product, please deliver the product to local distributors or Taiwan Headquarters.

4. This Limited Warranty does not cover:

a. Any fault caused by false usage or imprudence (collision, inadequate installation or adjustment, insufficient ventilation, or improper repairs)

b. Force majeure factors (flooding, earthquake, volcanic eruption, or other factors beyond Lite-Puter's control).

c. Labor costs incurred in diagnosis of defects; installation, reinstallation, wiring, rewiring, repairing, adjustment, or reprogramming of a product; or any other consequential expenses.

d. Other Lite-Puter or non-Lite-Puter products or devices offered, packaged, or sold with the product.

5. Lite-Puter does not warrant that the product will operate without interruption or free of error.

World Headquarters：

Lite-Puter Enterprise Co., Ltd.

Address: 9F, No. 196, Sec. 3, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

Tel: +886-2-86472828

Fax: +886-2-86472626

Website: www.liteputer.com.tw

E-mail: sales@liteputer.com.tw

Shanghai Factory：

Lite-Puter Technology（Shanghai）Co.,Ltd.

Address: No. 375, Xingmei Rd., Minhang Dist., Shanghai 200237, China

Tel: +86-21-54408210

Fax: +86-21-54403376

Website: www.liteputer.com.tw

E-mail: sales_china@liteputer.com.tw