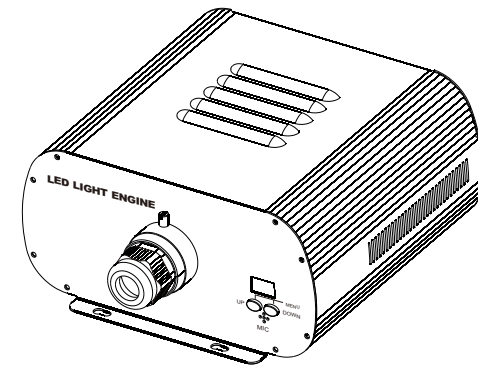


# LIGHT ENGINE USER MANUAL

MODEL: LEI-4241DMX



## Accessories:

- Fiber Connector .....1 PC
- Wireless Remote Controller.....1 PC (Optional)
- User Manual .....1 PC
- Signal Cable .....1 PC (for DMX machine only)



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# LIGHT ENGINE USER MANUAL

Welcome to use Minar professional LED light engine, LEI-4241DMX. Please read the manual carefully before turning on the power. If you have any questions concerning the operation or maintenance, please contact your wholesaler.

## Safety Instruction

1. Make sure the Light Engine and Power Source have the same voltage;
2. Keep out of rain or moist area to avoid shock hazards;
3. Avoid to use at high ambient temperature ( $>40^{\circ}\text{C}$ );

## CHAPTER 1 LEI-4241DMX

### 1. Technical Data

Voltage:	110V~240V AC
Life of LED :	50000H
Power:	120W
Color	RGBW
Light Source:	1-4X24W LED
Size:	291×264×135mm <sup>3</sup>
Gross Weight:	7.0Kg
Standard aperture:	Φ28mm/Φ24mm/Φ20mm (Optional: Φ30mm Max)

### 2. Installation dimension of light engine(see Fig.1):

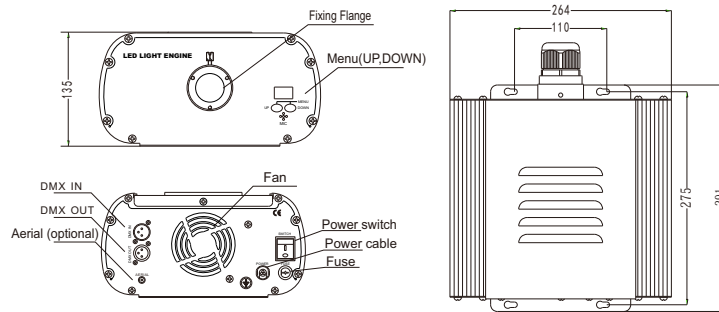


Fig. 1

### 3. Light Engine Setup

There are three control modes of LEI-4241DMX, the DMX512 protocol light engine:

- \* DMX512 Signal Control Mode: DMX512 Signal is received from a DMX512 console.
- \* Master/Slave Mode: One Light Engine is set as Master, while the rest light engines are set as Slave. Master sends control signal to slave so that all the machines run the program synchronously.
- \* Audio Control Mode: Light engines are controlled by sound.

\* DMX Channels: 8 Channels

CH1:Red CH2:Green CH3:Blue CH4:White CH5:Speed (16 Tiers)  
CH6:Dimmer(8 Tiers) CH7: Strobe (8 Tiers) CH8: Twinkle(8 Tiers)

#### (1) DMX 512 signal control mode:

When a DMX512 console is used, all the light engines, LEI-4241DMX, in the group should be set up as slave machines with DMX address of "001".

DMX address setup:

Holding button "UP" and press "DOWN" continuously until the display shows three digits between 001-505 in editing mode, press the button "UP" or "DOWN" to select the address.

#### (2) Master/Slave mode:The settings of Master/Slave light engine:

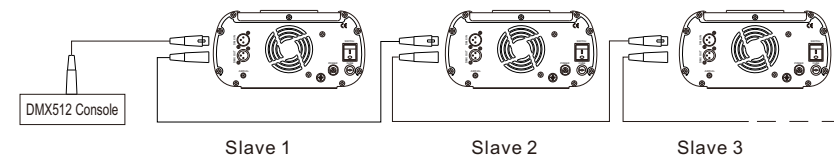
STATUS	No.	MENU	DESCRIPTION OF FUNCTIONS	REMARKS
MASTER	1	P. 00 - P. 21 P 5.1 - P 5.2	22 preset programs(see attached list,when it display "P.XX",press "UP/DOWN" to get into this menu) PS.1-PS.2 are audio control programs (when it display "PS.X",press "UP/DOWN" to get into this menu)	1. Hold and press the two buttons at the same time for 3 seconds to unlock the menu for setting up. 2. Hold and press the button "UP", at the same time to press the button "DOWN" to switch the menu. Then release both buttons. 3. Press either button of "UP" or "DOWN" to choose the right parameter. 4. After 60 seconds, the data will be saved and the menu locked. 5. When the display is on, the dot next to the third digit will flash if there is any DMX signal coming in.
	2	5. 00 - 5. 07	Setting of program running speed, total 8 levels: 0S, 1/4S, 1/2S, 1S, 2S, 3S, 5S, 8S	
	3	d. 00 - d. 99	Adjusting of brightness ,total 8 levels :d.00,d.10,d.20, d.35,d.50,d.70,d.85,d.99.(d.99.means100% brightness)	
	4	5 5. 0 - 5 5. 7	Setting of twinkle wheel speed, total 8 levels: 0RPM, 1RPM, 2RPM, 3RPM, 4RPM, 5RPM, 8RPM, 12RPM	
	5	r. on - r. of	r.on: Remote control is on, r.of: Remote control is off.	
Slave DMXReceiver	6	001 - 505	DMX address,"001"- "505"are available	
	7	[ CH ] - [ CH 8	4 options of DMX channels numbers available when controlled by a DMX console. [CH]:1 channel (Colors); [CH]: 4 channels (Ch1: R, CH2: G, CH3: B, CH4: W); [CH5: 5 channels (Ch1: R, CH2: G, CH3: B, CH4: W; CH5:Wheel speed); [CH8: 8 channels by default.	

#### Notice:

- ① If you need Master/Slaves to change color synchronously, please set all of slaves as "001";
- ② If you need Master/Slaves to chase to change color, please set the first slave machine as "009", the second one as "017" and so on (add "8" one after another) ..

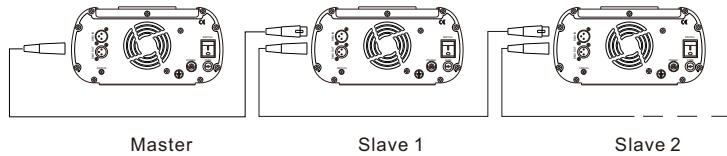
#### (3) The connection of DMX Signal Control Mode(See Fig. 2):

Fig. 2



(4) The connection of Master/Slave Control Mode(See Fig. 3):

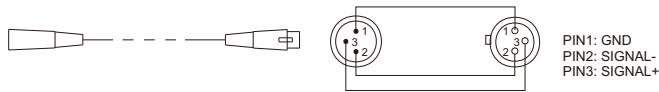
Fig. 3



(5) Signal cable and connector (See Fig.4):

Signal cable should be  $2 \times 0.5\text{mm}^2$  audio cable.

Fig.4

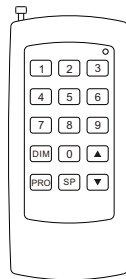


#### 4. Wireless remote controller (See Fig.5):

Press the two buttons “UP” / “DOWN” besides the Display at the same time. When it displays “r. on” or “r. of”, press either button of “UP” / “DOWN” to show “r. on” (status of remote control). The remote function is on.

15-Key Remote Controller:

- (1) Program Selection: Press “PRO”, then press the digit key on the controller, “00”-“23”, to choose the desirable program, or you can use “▲”, “▼” to select.
- (2) Dimming: Press the key “DIM”, then press “0”-“7” to have the desirable brightness, or you can use “▲”, “▼” to adjust.
- (3) Speed of the color wheel: Press the key “SP”, then press “0”-“7” to adjust the speed, or you can use “▲”, “▼” to adjust.



RC-15  
Wireless Remote Controller  
Fig.5

#### Notice:

- ① Address code of slave (machines) are not adjustable under remote control status.
- ② When you are selecting the program, only double-digit numbers on the controller are recognizable (e.g. 00, 01, 02...).

#### Attached Table:

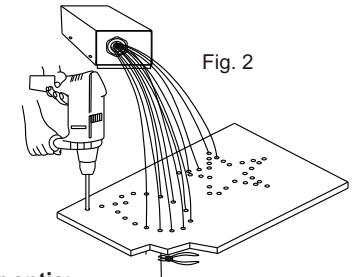
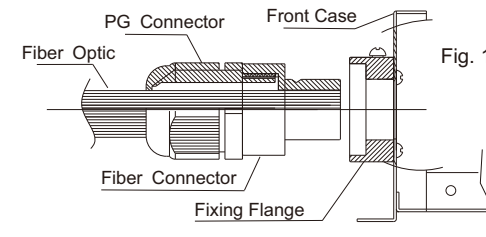
Pro. No.	Function	Pro. No.	Function	Pro. No.	Function
P.00	No Light	P.08	7 colors skip	P.1 6	7 colors skip & chase
P.01	White	P.09	6 colors skip	P.1 7	6 colors skip & chase
P.02	Red	P.1 0	3 colors skip	P.1 8	3 colors skip & chase
P.03	Green	P.1 1	7 colors fade	P.1 9	7 colors fade & chase
P.04	Blue	P.1 2	6 colors fade	P.20	6 colors fade & chase
P.05	Purple	P.1 3	3 colors fade	P.21	3 colors fade & chase
P.06	Yellow	P.1 4	7 colors skip+7 colors fade	PS.1	3 colors skip & audio control
P.07	Sky-B	P.1 5	6 colors skip+6 colors fade	PS.2	3 colors skip & audio control

## Chapter 2 Installation of Fiber Optic

### 1. Connecting the fiber optic with Light Engine:

#### Solid Core fiber optic(see Fig. 1):

- (1) Cut the fiber to the specified length. The cross section should be vertical to the fiber and keep clean and smooth.
- (2) Peel off 50-100mm of the PVC jacket of the fiber optic cable (not necessary if there is no PVC jacket). Be careful not to hurt the fiber optic.
- (3) Unscrew the PG Connector and insert the fiber optic cable into the PG Connector and Fiber Connector until the end of the cable is flush with the Fiber Connector. Screw tightly the PG Connector.
- (4) Insert the finished Fiber Connector into the Fixing Flange, screw tightly the Screw.



### 2.Installation of the end part of the Multi-String fiber optic:

- (1) Drill holes on the installing board according to the design. Then insert the fiber optic string into holes and fix it with epoxy glue. Trim the end of the fiber string to be flush with the board or at a required length. Fasten the other end of the fiber string to a harness and insert the harness into PG Connector and Fiber Connector. Apply the hot knife to cut fiber end flush with the Fiber Connector. (see Fig.2).
- (2) Insert the finished Fiber Connector into the Fixing Flange and screw tightly the Screw.

### 3. Commonly used installation method of fiber optic cable:

- (1) Side Lighting Fiber Optic(see Fig.3).

- (2) End Lighting Fiber Optic:  
(see Fig.4). Fig.4

