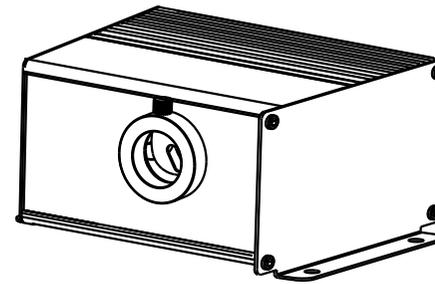


LIGHT ENGINE USER MANUAL

MODEL:LEA-501DMX



Accessories:

- Fiber Connector1 PC
- Wireless Remote Controller.....1 PC (Optional)
- Power Adapter.....1 PC
- User Manual1 PC
- Signal Cable1 PC (for DMX machine only)



**ISO9001:2000
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LIGHT ENGINE USER MANUAL

Welcome to use LEA series of professional light engine. Please read the manual carefully before turning on the light engine. 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 work in high ambient temperature ($>40^{\circ}\text{C}$);

CHAPTER 1 LEA-501DMX

1. Technical Data

Voltage:	12V DC
Power:	7W
Color Wheel:	6 colors
Light Source:	5W LED
Life of LED :	50000H
Size:	$125 \times 129 \times 84\text{mm}^3$
Gross Weight:	0.65Kg
Standard Aperture:	$\Phi 20\text{mm} / \Phi 22\text{mm}$

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

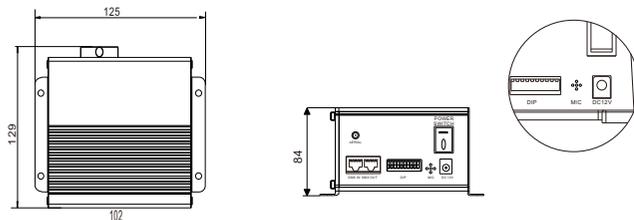


Fig.1

3. Light Engine Setup:

Light engine control:

- a. When a single light source is running by itself or controlled by a remote control, it should be set as the master machine.
- b. When multiple light engines of the same model are connected into a group, the light engines can be set as either slave or master machine as follows:

- (1) When a DMX512 console is connected to the group, all light engines should be set up as the slave machines and will follow the program run in the console.

Chapter 2 Installation of Fiber Optic

1. Connecting the fiber optic with Light Engine:

Solid core fiber optic cable(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 cable.
- (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.

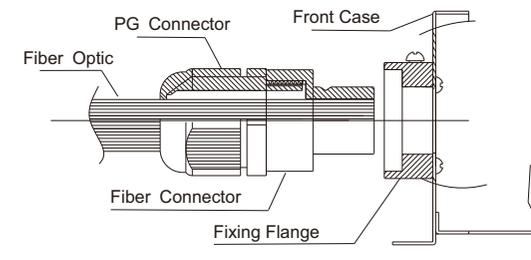


Fig. 1

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.

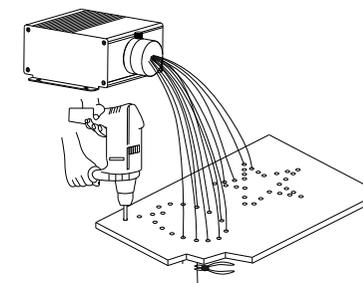


Fig. 2

Attached Table:

IV.The table of the built-in programs of the Master light engine

Built-in Programs List of the Master (1th to 5th DIP Switches)

Pro.No.	DIP Switches Settings (1 th to 5 th)	Function
00		Light off, Motor stops
01		White
02		Blue
03		Green
04		Red
05		Yellow
06		Cyan
07		White, Blue, Green, Red, Yellow, Cyan Jump 2S
08		White, Blue, Green, Red, Yellow, Cyan Jump 4S
09		White, Blue, Green, Red, Yellow, Cyan Jump 8S
10		White, Blue, Green, Red, Yellow, Cyan Fade 2S
11		White, Blue, Green, Red, Yellow, Cyan Fade 4S
12		White, Blue, Green, Red, Yellow, Cyan Fade 8S
13		White, Blue Jump 2S
14		White, Blue Jump 4S
15		White, Blue Jump 8S
16		White, Blue Fade 2S
17		White, Blue Fade 4S
18		White, Blue Fade 8S

(2) When there is no DMX512 console connected, the group must run the master & slave mode: one and only one light engine is set as the master machine, and the rest are set as the slave machines. In the group, all the slave machines run the program following the master machine.

c. The master and slave machine setup through the DIP switch (1=ON, 0=OFF)

Master light engine:the 10th DIP Switch SW10 is ON

When the SW10 is ON (master machine status), SW1-SW5 represent the built-in program, SW6-SW8 are invalid, and SW9 is used to turn on and off the remote control function.(Picture 2)

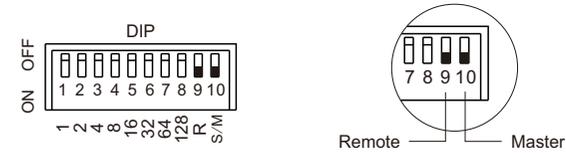


Fig.2

Slave Light engine: the 10th DIP switch SW10 is OFF

- (1) When SW10 is OFF (slave machine state), SW1-9 are used to indicate the DMX address, and the remote control function is invalid.
- (2) When all the slave machines have the same DMX address of 001 (shown in Figure 5), they will work synchronously with the master machine.
- (3) The Slave machines could also have an increasing DMX address by 4, for example, 001, 005, 009...when there is a DMX console connected, or 005, 009, 013...when the group runs the master-slave mode. As such, all light engines will run the program with a scrolling effect.

DIP switch settings (Figure 6)

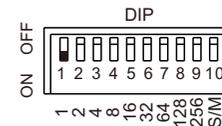


Fig.5

DMX add.	DIP Switch									
	1	2	3	4	5	6	7	8	9	10
001	1	0	0	0	0	0	0	0	0	0
002	0	1	0	0	0	0	0	0	0	0
003	1	1	0	0	0	0	0	0	0	0
004	0	0	1	0	0	0	0	0	0	0
005	1	0	1	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---
009	1	0	0	1	0	0	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---
013	1	0	1	1	0	0	0	0	0	0

Fig.6

d. DMX address calculation:

For example: DMX address 009=8(4)+1(1), 013=8(4)+4(3)+1(1)

e. The dimming knob:

The knob (see installation diagram) has been adjusted to the maximum by default.Turning the knob left and right could adjust the brightness of the light engine.

f. Number of DMX channels and corresponding function:

CH1: 6 colors; CH2: speed motor; CH3: NA; CH4: dimming CH5 strobe

Note: CH2 is linked with CH1, and it is valid when the value of CH1 is 0-127.

Usually CH2 is used in the DMX console programming.