

LIGHT ENGINE USER MANUAL

Welcome to use LLE series of professional light engine. Please read the manual carefully before using 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 use at high ambient temperature ($>40^{\circ}\text{C}$);

CHAPTER 1 LLE-003

1. Technical Data

Voltage: 12V DC
Power: 8W
Color: 6 Color
LED: 1-5W (White)
LED Life: 50000H
Standard Aperture: $\Phi 14\text{mm}$ (Optional: $\Phi 17.3\text{mm}$)
Size: L136XW84XH69 mm
Weight: 0.4 Kg

2. Installation

The installation dimension of Light Engine and rear panel (Fig. 1)

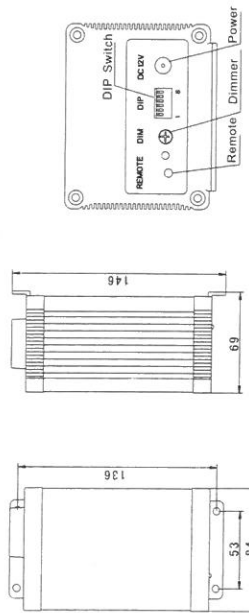


Fig. 1

3. Installation of the fiber optic (Fig.2)

- (1) Cut fibers to the specified length. If it is of multi-string fiber, you need to peel off 5-10cm PVC jacket carefully and avoid hurting the inner fiber;
- (2) Collect all fibers in one bundle and tightly enlase at the 10cm location from one end with tape. Insert the fiber bundle into the PG connector and fiber connector, and fasten the PG connector. Cut the fibers flush with the fiber connector with hot knife;
- (3) Insert the finished fiber connector into the fixing flange and fasten the screw tightly;
- (4) The installation of the end part of the fiber optic:

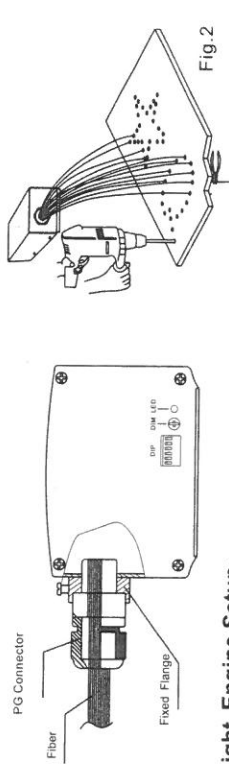


Fig. 2

4. Light Engine Setup :

- (1) DIP switches: SW1-SW3 for programs selection, please see Attached Table (1=ON, 0=OFF). SW4 and SW5 are unused; SW6 for remote controller; (see fig. 3)
- (2) Calculation of DIP address code:
e.g. $003=2(2)+1(1), 005=4(3)+1(1)$
- (3) Using of wireless remote controller:
Set SW6 as "ON", and the remote controller starts to work. Button " " for power on/off, and button " " for power on/off, and button " " used for brightness adjustment. (6 levels) (See Fig. 4)
- (4) Fixing Color Without Wireless Remote controller : Firstly set SW2 and SW3 as "ON" to choose the inbuilt programme at a slow speed, then set all switches (SW1-SW6) into "OFF" when the light engine displays the color that you need.

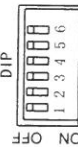


Fig. 3

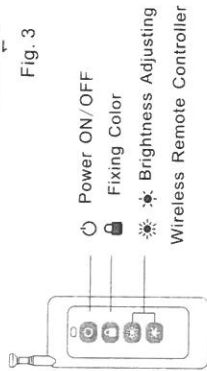


Fig. 4

Notice :

1. You could only control the motor to be on and off through " " button. If you want to have different color-change speed, please use DIP switch.
2. The dimmer on the rear panel is used for brightness adjustment by hand. The factory default is 100% brightness, and there are 6 levels of brightness in total.

Attached Table :

PRO. NO	DIP SWITCH(1=ON, 0=OFF)						FUNCTION
	6	5	4	3	2	1	
00	0	0	0	0	0	0	Motor stopped, LED working
01	1	0	0	0	0	1	W, Sky-B-G, Y, B, PP, fade (6RPM)
02	1	0	0	0	1	0	W, Sky-B-G, Y, B, PP, fade (4RPM)
03	1	0	0	0	1	1	W, Sky-B-G, Y, B, PP, fade (3RPM)
04	1	0	0	1	0	0	W, Sky-B-G, Y, B, PP, fade (2RPM)
05	1	0	0	1	0	1	W, Sky-B-G, Y, B, PP, fade (1.5RPM)
06	1	0	0	1	1	0	W, Sky-B-G, Y, B, PP, fade (1RPM)
07	1	0	0	1	1	1	W, Sky-B-G, Y, B, PP, fade (0.5RPM)

- Notice:**
1. RPM is the speed of the color wheel;
 2. When DIP address exceeds P07, the machine will run P07 all the time.

CHAPTER 2 LLE-004

1. Technical Data

Voltage: 12V DC
Power: 9W
Color: RGB
LED: 1-3X3W
LED Life: 50000H
Standard Aperture: Φ 14mm (Optional: Φ 17.3mm)
Size: L133XW71XH46 mm
Weight: 0.24 Kg

2. Installation

The installation dimension of Light Engine and rear panel (Fig. 1)

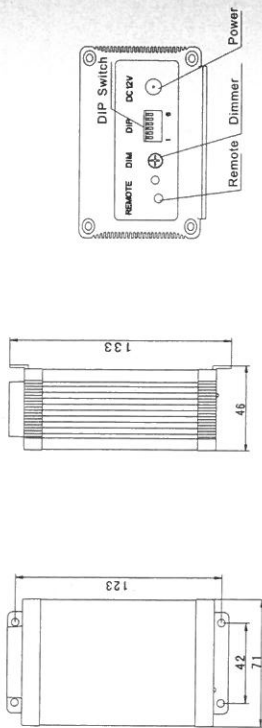


Fig. 1

3. Installation of the fiber optic (Fig.2)

- (1) Cut fibers to the specified length. If it is of multi-string fiber, you need to peel off 5-10cm PVC jacket carefully and avoid hurting the inner fiber;
- (2) Collect all fibers in one bundle and tightly enlase at the 10cm location from one end with tape. Insert the fiber bundle into the PG connector and fiber connector, and fasten the PG connector. Cut the fibers flush with the fiber connector with hot knife;
- (3) Insert the finished fiber connector into the fixing flange and fasten the screw tightly;
- (4) The installation of the end part of the fiber optic:

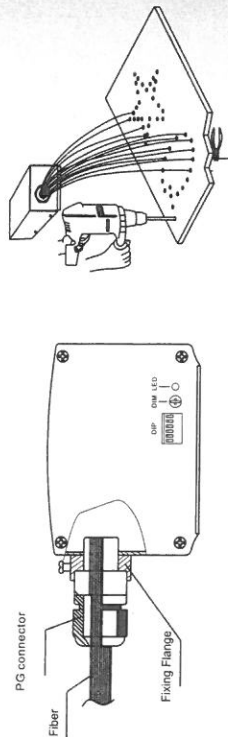


Fig. 2

4. Light Engine Setup :

- (1) DIP switches: SW1~SW5 for programs selection, please see Attached Table (1=ON, 0=OFF). SW6 for remote controller; (see fig. 3)
- (2) Calculation of DIP address code:
e.g. 003=2(2)+1(1), 005=4(3)+1(1)
- (3) Using of Wireless Remote Controller:
Set SW6 as "ON", and the remote controller starts to work. Button "ON" is for color selection, button "OFF" for power on/off, and button "Brightness Adjusting" used for brightness adjustment. (6 levels) (See Fig. 4)

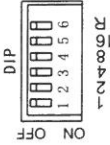


Fig. 3

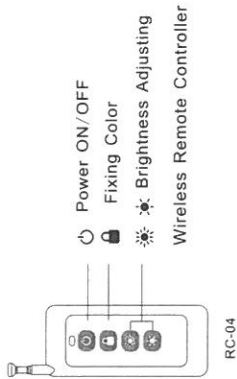


Fig. 4

Notice :

1. You could only control the motor to be on and off through "ON" button. If you want to have different color-change speed, please use DIP switch.
2. The dimmer on the rear panel is used for brightness adjustment by hand. The factory default is 100% brightness, and there are 6 levels of brightness in total.

Attached Table :

PRO. NO.	DIP SWITCH(1=ON, 0=OFF)						FUNCTION
	6	5	4	3	2	1	
00	0	0	0	0	0	0	NO Light
01	1	0	0	0	0	1	White
02	1	0	0	0	1	0	Red
03	1	0	0	0	1	1	Green
04	1	0	0	1	0	0	Blue
05	1	0	0	1	0	1	Purple
06	1	0	0	1	1	0	Yellow
07	1	0	0	1	1	1	Sky-Blue
08	1	0	1	0	0	0	W, B, PP, R, Y, G, Sky-B, skip(2s)
09	1	0	1	0	0	1	W, B, PP, R, Y, G, Sky-B, skip(5s)
10	1	0	1	0	1	0	W, B, PP, R, Y, G, Sky-B, fade(5s)
11	1	0	1	0	1	1	W, B, PP, R, Y, G, Sky-B, fade(10s)
12	1	0	1	1	0	0	B, PP, R, Y, G, Sky-B, skip(2s)
13	1	0	1	1	0	1	B, PP, R, Y, G, Sky-B, skip(5s)
14	1	0	1	1	1	0	B, PP, R, Y, G, Sky-B, fade(5s)
15	1	0	1	1	1	1	B, PP, R, Y, G, Sky-B, fade(10s)

CHAPTER 3 LLE-005

1. Technical Data

- Voltage: 12V DC
- Power: 10W
- Color: RGB
- LED: 1-3X3W
- LED Life: 50000H
- Standard Aperture: Φ14mm (Optional: Φ17.3mm)
- Size: L136XW84XH69 mm
- Weight: 0.4 Kg

2. Installation

The installation dimension of Light Engine and rear panel (Fig. 1)

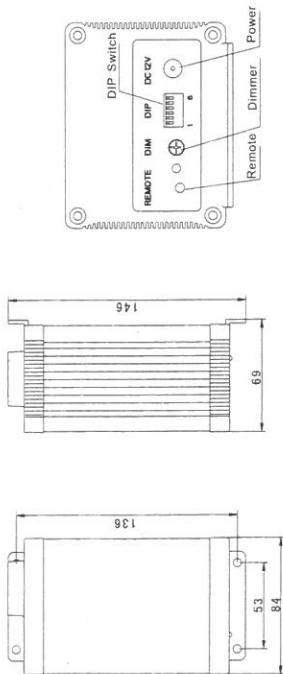


Fig. 1

3. Installation of the fiber optic (Fig.2)

- (1) Cut fibers to the specified length. If it is of multi-string fiber, you need to peel off 5-10cm PVC jacket carefully and avoid hurting the inner fiber;
- (2) Collect all fibers in one bundle and tightly enlance at the 10cm location from one end with tape. Insert the fiber bundle into the PG connector and fiber connector, and fasten the PG connector. Cut the fibers flush with the fiber connector with hot knife;
- (3) Insert the finished fiber connector into the fixing flange and fasten the screw tightly;
- (4) The installation of the end part of the fiber optic:

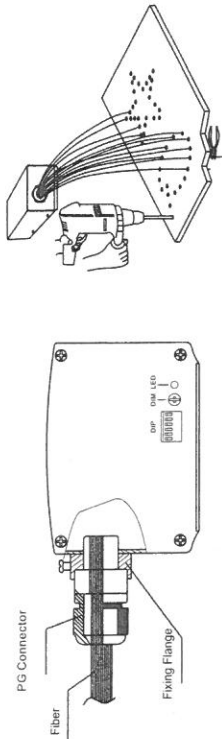


Fig.2

4. Light Engine Setup :

- (1) DIP switches: SW1~SW5 for programs selection, please see Attached Table (1=ON, 0=OFF). SW6 for remote controller; (see fig. 3)
- (2) Calculation of DIP address code:
e.g. 003=2(2)+1(1). 005=4(3)+1(1)
- (3) Using of Wireless Remote Controller:
Set SW6 as "ON", and the remote controller starts to work. Button "⏻" is for color selection, button "⏻" for power on/off, and button "⏻" "⏻" used for brightness adjustment. (6 levels) (See Fig. 4)

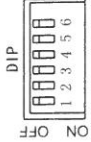


Fig. 3

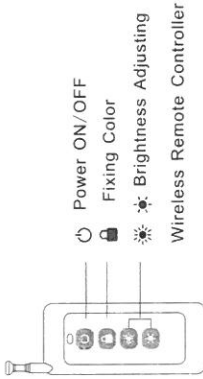


Fig. 4

Notice :

1. You could only control the motor to be on and off through "⏻" button. If you want to have different color-change speed, please use DIP switch.
2. The dimmer on the rear panel is used for brightness adjustment by hand. The factory default is 100% brightness, and there are 6 levels of brightness in total.

Attached Table :

PRO. NO	DIP SWITCH (1=ON, 0=OFF)						FUNCTION
	6	5	4	3	2	1	
00	0	0	0	0	0	0	Motor stopped, No Light
01	0	0	0	0	0	1	White 2RPM
02	0	0	0	0	1	0	Red 2RPM
03	0	0	0	0	1	1	Green 2RPM
04	0	0	0	0	1	0	Blue 2RPM
05	0	0	0	0	1	1	Purple 2RPM
06	0	0	0	1	0	0	Yellow 2RPM
07	0	0	0	1	1	1	Sky-Blue 2RPM
08	0	0	1	0	0	0	W, B, PP, R, Y, G, Sky-B, 7 colors skip(2s) 1RPM
09	0	0	1	0	0	1	W, B, PP, R, Y, G, Sky-B, 7 colors skip(2s) 2RPM
10	0	0	1	0	1	0	W, B, PP, R, Y, G, Sky-B, 7 colors skip(5s) 1RPM
11	0	0	1	0	1	1	W, B, PP, R, Y, G, Sky-B, 7 colors skip(5s) 2RPM
12	0	0	1	1	0	0	W, B, PP, R, Y, G, Sky-B, 7 colors fade(5s) 1RPM
13	0	0	1	1	0	1	W, B, PP, R, Y, G, Sky-B, 7 colors fade(5s) 2RPM
14	0	0	1	1	1	0	W, B, PP, R, Y, G, Sky-B, 7 colors fade(10s) 1RPM
15	0	0	1	1	1	1	W, B, PP, R, Y, G, Sky-B, 7 colors fade(10s) 2RPM

Notice: RPM is the speed of the twinkle wheel