LED Light Engine

USER MANUAL

MODEL

LER-4121DMX
LER-3001DMX
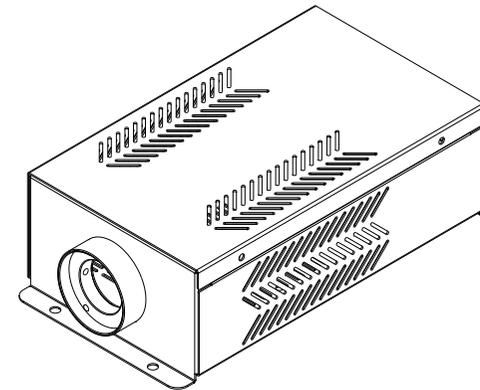
The carton contains:

Light Engine 1set
Fiber Connector. 1pc
Remote controller. . . . . 1pc（Optional）
User Manual.. 1pc
DMX Signal Cable 1pc

CE

ISO9001:2000
CERTIFIED

LED LIGHT ENGINE
USER MANUAL

Welcome to use LER series of professional light engine. Please read the manual carefully before you power on the light engine. If you have any questions concerning the operation or maintenance, please contact your wholesaler.
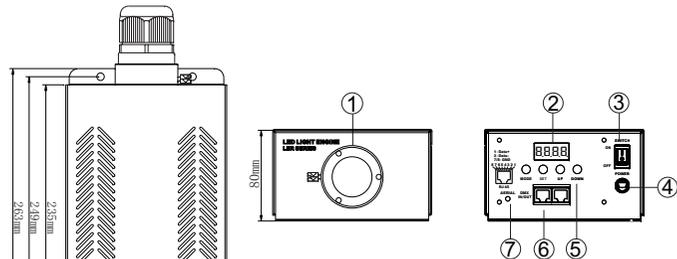
Safety Instruction

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 use at high ambient temperature (>40℃);

CHAPTER 1　　LER-4121DMX

I. Technical Parameters:

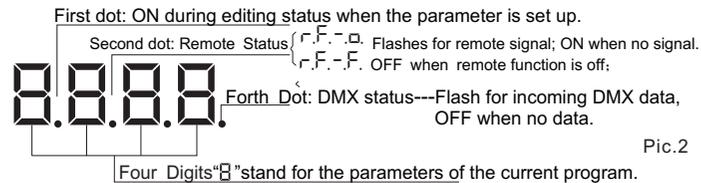|	
Input Voltage:	100~240V AC
Power Consumption:	40W
LED Color:	RGBW
LED:	4X12W
LED Life Span:	50000H
Aperture:	Φ28mm/Φ24mm/Φ20mm（Optional Φ30mm）

II. Installation Dimension of Light Engine (Pic. 1):

Pic. 1

① Fixing Flange ② Digital Display ③ Power Switch ④ Power Cord
⑤ Buttons ⑥ DMX input/output ⑦ Remote Antennna

III. About Digital Display（Pic. 2）

First dot: ON during editing status when the parameter is set up.

Second dot: Remote Status ┌ r.F.-o. Flashes for remote signal; ON when no signal.
　　　　　　　　　　　　　　└ r.F.-F. OFF when remote function is off;

Forth Dot: DMX status---Flash for incoming DMX data, OFF when no data.

Pic.2

Four Digits "8" stand for the parameters of the current program.

Remarks：

The Digital Display will show "ErXX"when the power is on（XX: Version number）.

IV. Light Engine Setup:

There are two control modes for LER-4121DMX Light Engine:

＊ DMX512 Signal Receipt Mode: DMX512 Signal is received from a DMX512 console.

＊ Auto Mode, also known as Master-Slave Mode: One Light Engine is set as Master, while the rest light engines are set as Slave. Master delivers control signal to slave so that all the machines run the program synchronously on in sequence.

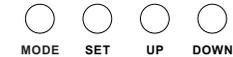#### 1. DMX512 Signal Receipt Mode:

a. DMX address setup（Pic. 3 is the operation interface）:

Pic. 3

Step 1: Press and hold "SET"+"DOWN" for 3 seconds, it will show "Edin", and the machine starts Edit Mode.

Step 2: Press "MODE" button and choose "dΠF" indicating DMX512 operation mode.

Step 3: Press "SET" to choose DMX address in parameter menu showing AXXX.

Step 4: Press button "UP" or "DOWN" to set up the DMX address of slave machine (eg: A001, A002...).

Step 5: Press and hold "SET"+ "DOWN" for 3 seconds, it will show "Edou", the light engine saves the data and exit the Edit Mode.

b. DMX Channel and its function:

Total DMX Channels：8

Ch1: Red（256 level）	Ch2: Green（256 level）
Ch3: Blue（256 level）	Ch4: White
Ch5: Speed（256 level）	Ch6: Overall Dimming（256 level）
Ch7: Strobe/Built in program speed	Ch8: built in program

Remarks：
① When the value of Ch8 is not zero, CH1~CH4 does not work, CH7 is the speed for built in programs;
② When the value of Ch8 is zero, CH1~CH6 works, and Ch7 is strobe.

2. Auto Operation Mode

a. Master and slave setup：

Working Status	No.	Menu	Description	Remarks
Master Status	1	P-00-Pr21	22 built in programs（see Annex Table, the menu shows "PrXX". Press "SET" to get into the menu.）.	1. Press "SET" button to switch between the parameter menu. 2. The digital display will shut off and buttons are locked up when there is no button movement for a long time. The digital display will show last operation when any button is pressed. 3. The forth dot of the Digital Display will flash when there is DMX signal coming in and the Digital Display is on.
	2	SP00-SP07	SP00-SP07 is the built in programs speed (The menu shows "SPXX". Press "SET" to get into the menu.).	
	3	FL00-FL07	Strobe speed, 8 levels.FL00: No strobe; FL01-FL07 stands for strobe speed,（The menu shows "FLXX". Press "SET" to get into the menu.）.	
	4	d888	Dimming: 8 levels. d-05, d-10, d-20, d-35, d-50, d-70, d-85, d100.（d100 is full bright）.	
	5	rF-o/rF-F	rF-O Remote on；rF-F remote off.	
Slave Machine Mode: DMX Receiving	7	A001-A505	DMX address, from 001~505（See DMX address setup for detailed prodedure）.	

Remarks：

① Master and slave change synchronously: all machine have the same address: "001"；
② Master and slave chase in sequence: the first slave have "009", second slave have "017", and so on.

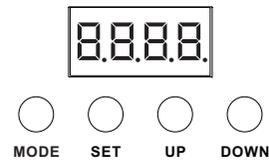### b. Parameters setup of Master Light Engine (Pic. 4 is the operation interface）:

Step 1：Press and hold "SET" + "DOWN" over 3 seconds, it shows "Edin" and enters Edit Mode.

Step 2：Press the button of "MODE" and choose "AUTO", the auto operation mode.

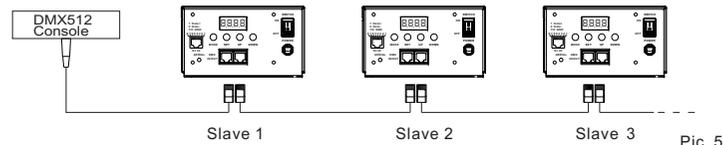Step 3：Press the button of "SET" to get into parameters menu, and choose the data (Prxx, SPxx...).

Step 4：Press "UP" or "DOWN" to modify the exiting data.

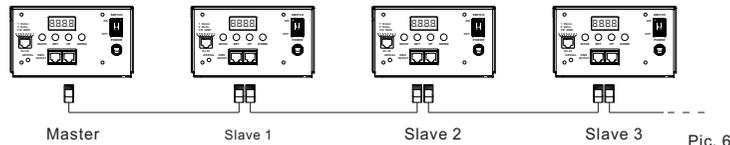Step 5：Press and hold "SET" + "DOWN", it will show "Edou". The light engine will save the data and exit the Edit Mode.

MODE   SET   UP   DOWN

Pic. 4

c. The connection diagram in DMX512 Signal Receipt Mode (Pic. 5)

Slave 1   Slave 2   Slave 3

Pic. 5

d. The connection diagram in Auto Mode (Master-Slave) (Pic. 6)

Master   Slave 1   Slave 2   Slave 3

Pic. 6

V. Remote controller setup (See. Pic. 7)

When the light engine is in "AUTO" operation mode, press the button of "SET" repeatedly till it shows "⌐F⁻o" or "⌐F⁻F". Press the button of "UP" or "DOWN" to set the master light engine as "⌐F⁻o", the remote controller starts to work.

a. To choose the programs: Press "PRO" button, and then press the number key 00-21 on the controller to choose the corresponding programs or or you can use " ▲ " or " ▼ " to select.

b. Dimming: Press the key "DIM", then press " 0 "-" 7 " to have the desirable brightness, or you can use "▲","▼" to adjust.

c. Speed Adjustment：Press the key "SP", then press "0"-"7" to adjust the speed, or you can use "▲","▼" to adjust.

d. Strobe Speed Adjustment：Press the number key "9", then press "0"-"7" to adjust the speed, or you can use "▲", "▼" to adjust.

Remarks:

a. The DMX address could not be set up when the remote control works.

b. To choose the program on remote controller, please note that two digits stands for one program, such as "00" for the first program: OFF, "01" for the second program: White, and so on. Single digit does not work.

RC-15
Remote Controller

Pic. 7

Annex Table：

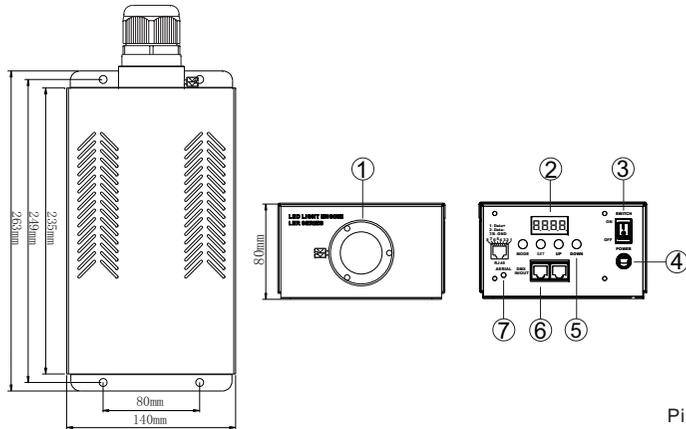| Program Number	Description
0 0	Off
0 1	White (W)
0 2	Blue (B)
0 3	Purple (PP)
0 4	Red (R)
0 5	Yellow (Y)
0 6	Green (G)
0 7	Sky Blue (SB)
0 8	W, B, PP, R, Y, G, SB：Chasing
0 9	B, PP, R, Y, G, SB：Chasing
1 0	W,B：Chasing
1 1	W, B, PP, R, Y, G, SB：Fading
1 2	B, PP, R, Y, G, SB：Fading
1 3	W,B：Fading
1 4	W, B, PP, R, Y, G, SB：Chasing ＋ Fading
1 5	B, PP, R, Y, G, SB：Chasing ＋ Off ＋ Fading
1 6	W, B, PP, R, Y, G, SB：Chasing
1 7	B, PP, R, Y, G, SB：Chasing
1 8	W,B：Chasing
1 9	W, B, PP, R, Y, G, SB：Fading
2 0	B, PP, R, Y, G, SB：Fading
2 1	W,B：Fading

Remarks:

Program 16 to 21 will work when the master and slave light engines chase in sequence in "AUTO" mode.
Since the master and each slave machine have different DMX address, for example, in Program 16, the master light engine will have White color, the first slave machine has Blue, and third slave machine has PP, and so on. In the next change, the master will have Blue, the first slave will have PP, and so on.

CHAPTER 2   LER-3001DMX

I. Technical Parameters:

Input Voltage: 100~240V AC
Power Consumption: 30W
LED Color: White
LED：   24W
LED Life Span：   50000H
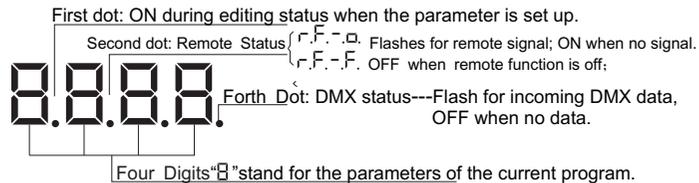Aperture：   Φ28mm／Φ24mm／Φ20mm（Optional Φ30mm）

II. Installation Dimension of Light Engine (Pic. 1):

Pic. 1

① Fixing Flange ② Digital Display ③ Power Switch ④ Power Cord
⑤ Buttons   ⑥ DMX input／output ⑦ Remote Antennna

III. About Digital Display（Pic. 2）

First dot: ON during editing status when the parameter is set up.

Second dot: Remote Status ᴦ.F.-.ᴏ. Flashes for remote signal; ON when no signal.
                            ᴦ.F.-.F. OFF when remote function is off；

Forth Dot: DMX status---Flash for incoming DMX data,
                        OFF when no data.

Four Digits "8" stand for the parameters of the current program.

Pic.2

Remarks：
   The Digital Display will show "ErXX" when the power is on（XX: Version number）.
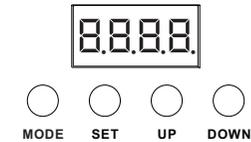
IV. Light Engine Setup:

There are two control modes for LER-4121DMX Light Engine:
   ＊ DMX512 Signal Receipt Mode: DMX512 Signal is received from a DMX512 console.
   ＊ Auto Mode, also known as Master-Slave Mode: One Light Engine is set as Master,
     while the rest light engines are set as Slave. Master delivers control signal to slave
     so that all the machines run the program synchronously on in sequence.

1. DMX512 Signal Receipt Mode:
   a. DMX address setup（Pic. 3 is the operation interface）:
   Step 1: Press and hold "SET"+"DOWN" for 3 seconds, it will show "Edin", and the
           machine starts Edit Mode.
   Step 2: Press "MODE" button and choose "dnᚺ" indicating DMX512 operation mode.
   Step 3: Press "SET" to choose DMX address in parameter menu showing AXXX.
   Step 4: Press button "UP" or "DOWN" to set up the DMX address of slave machine
           (eg: A001, A002...).
   Step 5: Press and hold "SET"+ "DOWN" for 3 seconds, it will show "Edou", the light
           engine saves the data and exit the Edit Mode.

MODE   SET   UP   DOWN   Pic. 3

   b. DMX Channel and its function：
      Total DMX Channels：3
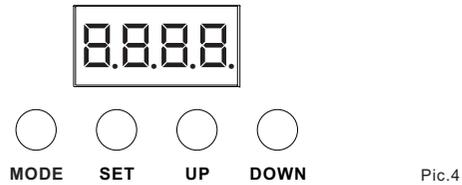   Ch1: Brightness Value   Ch2: Lights Up Speed
      Ch3: Strobe Speed

2. Auto Operation Mo
   a. Master and slave setup：

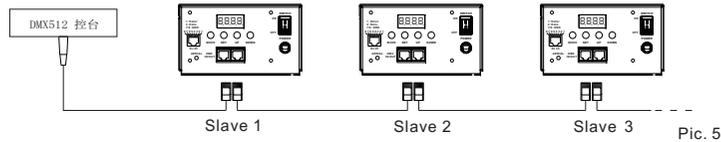| Working Status	No.	Menu	Description	Remarks
Master Status	1	FL00 -FL07	Strobe speed, 8 levels.FL00: No strobe; Fl01-Fl07 stands for strobe speed, (The menu shows "FLXX". Press "SET" to get into the menu.).	1. Press "SET" button to switch between the parameter menu.
	2	d888	Dimming：7 levels. d-00, d-10, d-20, d-35, d-50, d-85, d100. (d100 is full bright) .	2. The digital display will shut off and buttons are locked up when there is no button movement for a long time. The digital display will show last operation when any button is pressed.
	3	ᴦF-ᴏ/ᴦF-F	rF-O Remote on；rF-F remote off.	
Slave Machine Mode：DMX Receiving	4	A001-A505	DMX address, from 001-505（See DMX address setup for detailed prodedure).	3. The forth dot of the Digital Display will flash when there is DMX signal coming in and the Digital Display is on.

Remarks：

a. Master and slave change synchronously: all machine have the same address: "001";

b. Parameters setup of Master Light Engine (Pic. 4 is the operation interface）:

Step 1: Press and hold "SET" + "DOWN" over 3 seconds, it shows "Edin" and enters Edit Mode.

Step 2：Press the button of "MODE" and choose "AUTO", the auto operation mode.

Step 3: Press the button of "SET" to get into parameters menu, and choose the data (FLxx, dxxx...).

Step 4: Press "UP" or "DOWN" to modify the exiting data.

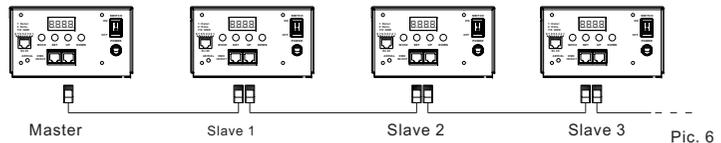Step 5：Press and hold "SET" + "DOWN", it will show "Edou". The light engine will save the data and exit the Edit Mode.

MODE   SET   UP   DOWN   Pic.4

c. The connection diagram in DMX512 Signal Receipt Mode (Pic. 5)

DMX512 控台

Slave 1   Slave 2   Slave 3   Pic. 5

d. The connection diagram in Auto Mode (Master-Slave) (Pic. 6)

Master   Slave 1   Slave 2   Slave 3   Pic. 6
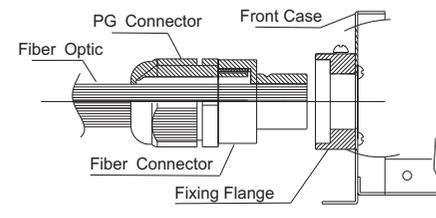
V. Remote controller setup (See. Pic. 7)

When the light engine is in "AUTO" operation mode, press the button of "SET" repeatedly till it shows " rF-o " or " rF-F ". Press the button of "UP" or "DOWN" to set the master light engine as " rF-o ", the remote controller starts to work.

Button on the remote controller " ⏻ " is to turn on and off the light engine, button " ☀ " and " ☀ " for dimming (7 Levels). Button " 🔒 " is invalid.

⏻ Power ON/OFF

🔒 Invalid

☀ ☀ Dimming
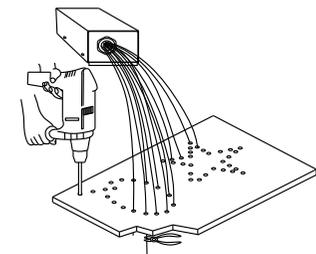
RF Remote Controller
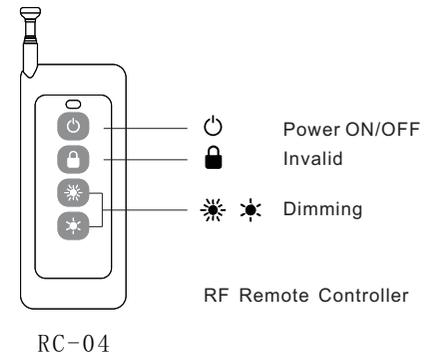
RC-04   Pic. 7

Installation of the Fiber Optic Strands

a. Cut the fiber to the specified length. The cross section should be vertical to the fiber and keep clean and smooth.

b. 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.

c. Unscrew the PG Connector and insert the fiber optic cable into the PG Connector and Fiber Connector. Screw tightly the PG Connector and cut off the fiber end which should be flush with the Fiber Connector by hot knife.

d. Insert the finished Fiber Connector into the Fixing Flange, screw tightly the Screw. (Pic. 8)

e. Installation of the fiber strands on the panel (Pic. 9).

PG Connector   Front Case

Fiber Optic

Fiber Connector

Fixing Flange

Pic. 8   Pic. 9