Ultra**LED** ^SERIES

Information specifically for:

DL-BAR1CWA45

This manual contains important information.
Please read before operating fixture.

$C \epsilon$

Table of Contents

⚠ IMPORTANT INFORMATION ⚠

Save original packing and documentation for warranty, service and return issues.

Limited Warranty: This warranty covers defects or malfunctions in this equipment.   This warranty lasts for a period of one year from date of purchase. It is the owner's responsibility to provide invoices for proof of purchase, purchase date and dealer or distributor. If purchase date can not be provided, warranty period will start at manufacture date. It is the sole discretion of Techni-Lux to repair or replace parts or equipment.   All shipping will be paid by purchaser.   This warranty does not cover lamps, fuses, belts, power semiconductors, relays, cleaning, standard maintenance adjustments or normal wear items or any problem resulting from the following: improper wiring, incorrect voltage (including low or over voltage conditions and lightning), abuse, misuse, improper maintenance or an act of God or damage resulting from shipping. Warranty will be null and void if the product is altered, modified, misused, damaged, or subjected to unauthorized repairs. Lamps are covered by relevant manufacturer warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Any liability for consequential and incidental damages is expressly disclaimed. No other warranty, expressed or implied is made. Techni-Lux liability in all events is limited to, and shall not exceed, the purchase price paid.

Returning equipment and Repairs: All returns must be accompanied by a Return Merchandise Authorization (RMA) number and sent pre-paid. Contact the dealer or Techni-Lux directly to obtain an RMA. The RMA number must be clearly listed on the shipping label. Due care must be exercised in packing all merchandise to be returned. All repairs must be accompanied by a written explanation of the claimed problem or error encountered.   Techni-Lux is solely responsible for determining a product's eligibility for coverage under warranty.   If returning for consideration of credit, all accessories and documentation, original protective material and cartons must be included and the equipment, packing and carton must be in new resalable condition. Credit for returned merchandise will be issued at the lowest current price and is subject to a restocking fee**.** No returns accepted on discontinued items. Techni-Lux is not responsible for merchandise damaged in transit and reserves the right to refuse any return that is damaged by the carrier, not accompanied by a Return Authorization Number (RMA#) or sent by freight collect.

Claims: All claims must be made within seven (7) days of receipt of merchandise. Any physical damage must be reported to carrier upon receipt of merchandise.

> **Please record the following information for future reference:**
> **Model Number: DL-BAR1CWA45**
>
> Serial Number: _____
>
> Dealer: _____
>
> Date of Purchase: _____

www.Techni-Lux.com

UNPACKING

Immediately upon receipt, carefully unpack and inspect the fixture to verify that all parts are present and have been received in good condition. If any parts appear damaged from shipping or the shipping carton shows signs of mishandling, retain all packing material for inspection and notify the shipper immediately. Save all original packing and carton. In the event that the merchandise is to be returned, the original carton and packing must be used. The customer will be billed for a new carton and packing if merchandise is received without the original carton and packing. The plastic bag shipped with the fixture can be used to keep the fixture clean if stored or installed in a temporarily dusty environment. Do not operate fixture with plastic bag in place.

Save shipping materials

The packing and carton are designed to provide the fixture with protection during shipping. Save original packing and documentation for warranty, service and return issues. Additional charges will be applied to return items not received in original or incomplete packing.

Claims

Physical damage must be reported to the Freight Carrier or Shipping Company upon receipt of merchandise. Damage incurred in shipping is the responsibility of the Freight Carrier or Shipping Company. It is the customer's obligation in the event that merchandise is received damaged caused by shipping to notify the Freight Carrier or Shipping Company immediately. All other claims not related to damage incurred during shipping must be made to the Dealer or Distributor within 7 (seven) days of receiving merchandise.

Returns

Returned merchandise must be sent prepaid, in the original packing with a Return Merchandise Authorization number (RMA) clearly listed on the shipping label. Items sent by Freight Collect or without a RMA number will be refused. Call your sales person and request a RMA prior to shipping. Be prepared to provide the model number, serial number and a brief description of the nature of the return. Shipping damage resulting from inadequate packaging is the customer's responsibility. Customer will be charged additional shipping charges to return products received in non original packing and or cartons.

SAFETY INSTRUCTIONS

> **⚠ WARNING!!!** To reduce the risk of fire, electric shock, or injury to persons, follow these important safety instructions:

- This product is intended for indoor use only!
- Always turn off, unplug power and allow fixture to cool before servicing.
- Ensure that fixture is properly grounded.
- Please keep this User Guide for future consultation.
- Always make sure that you are connecting to the proper voltage and that the line voltage you are connecting to is not higher than that stated on decal or rear panel of the fixture.
- To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure no ventilation slots are blocked.
- Always disconnect from power before servicing or replacing fuse.
- Make sure power cord is never crimped or damaged.
- Do not look into the beam from a distance of less than 40 cm (16 inches).
- Do not stare into the beam for extended periods at a short distance.

INTRODUCTION

This high power RGBWA color mixing bar features 45 LEDS for medium to long throw applications. Each LED is independently controllable by DMX, giving the designer enormous creative freedom. Using the USB port and a standard PC computer, one can update the software & customize the internal color/effect library. Please read this user guide thoroughly before operation. Proper use and care of this product will prolong the life of this device.

FEATURES

► KEY FEATURES
- 4 Operating modes
    PROGRAM / AUTOMATIC / SOUND ACTIVATION / DMX
- 5 DMX modes with ID addressing: 3,7, 21, 46, 47chs.
- 50 updatable preset colors
- 12 editable and updatable programs
- 6 built-in and fixed programs
- Onboard programming Functionality enables programming without external DMX controller
- Sequential running and time setup of programs in Stand Alone
- Built-in automated programs via master/slave or DMX
- Program and recall custom programs via master/slave or DMX
- USB connector for color/effect programs updating through USB device
- Thermal management system ensures long life of LEDs
- Automatic fan speed responding to internal temperature
- 5-pin XLR In/Out
- Blue LCD display of 16 x 2 digits
- Factory default reset
- Power failure memory

► ADDITIONAL FEATURES
- Fast 400Hz refresh frequency for video friendly flicker-free operation
- Dimmer 0-100%
- Strobe 1-30 fps
- Power In/Out for daisy-chain
- Adjustable floorstand/mounting bracket
- Interchangeable optical lens system

SPECIFICATIONS

- Light source: 45 x 1.2w / 400mA LEDS
    9 LEDS of each - Red, Green, Blue, White, Amber
- Beam angle: 10°, 15°(pre-installed), 25°,30°, 45°
- Power consumption: 90W
- Power Input: 100-240vAC 50/60Hz
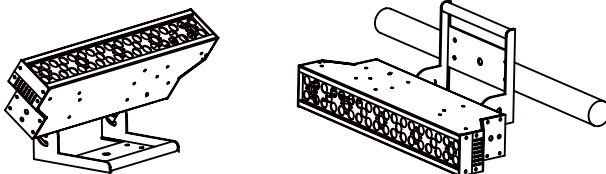- Size: 20.1" x 5.82" x 9.25"
- Weight: 8.5kgs/18.7Lbs

PRODUCT VIEW
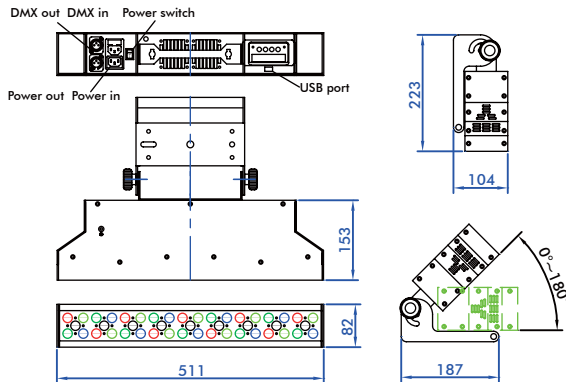
SETUP

Mounting
This fixture is designed for floorstand up for lighting and truss mounting.

> IMPORTANT!!! Safety cables must always be used. The safety cable must be capable of holding 10 times the weight of the fixture.

Fixture Linking

To run your light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows on two or more fixtures in master/slave operating mode, you need DMX cables to link the units from DMX IN to DMX OUT.
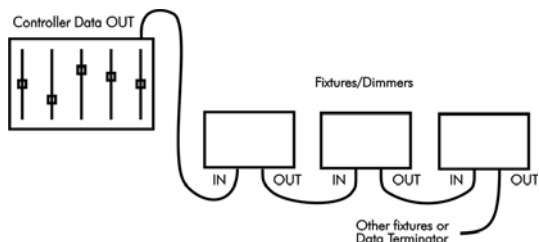
AC Power

The fixture is designed to work on 100V-240V 50Hz/60Hz.

Warning: All fixtures must be connected to circuit with a suitable Earth Ground.

Power Cable Configuration

CABLE	Pin	International	Screw Color
BROWN	Live	L	Yellow or Brass
BLUE	Neutral	N	Silver
YELLOW/GREEN	Earth	EG (Ground)	Green

OPERATING INSTRUCTIONS

This fixture offers 4 working modes: Program, Auto, Sound, DMX. In Program, Auto and Sound mode, multiple units can be linkable via master/slave to run a synchronal system.

1. Connect the fixtures to main power supply.
2. Turn on power switch and LED indication on Control Panel on back of the unit lights up.
3. Wait for some seconds till LCD display reads:
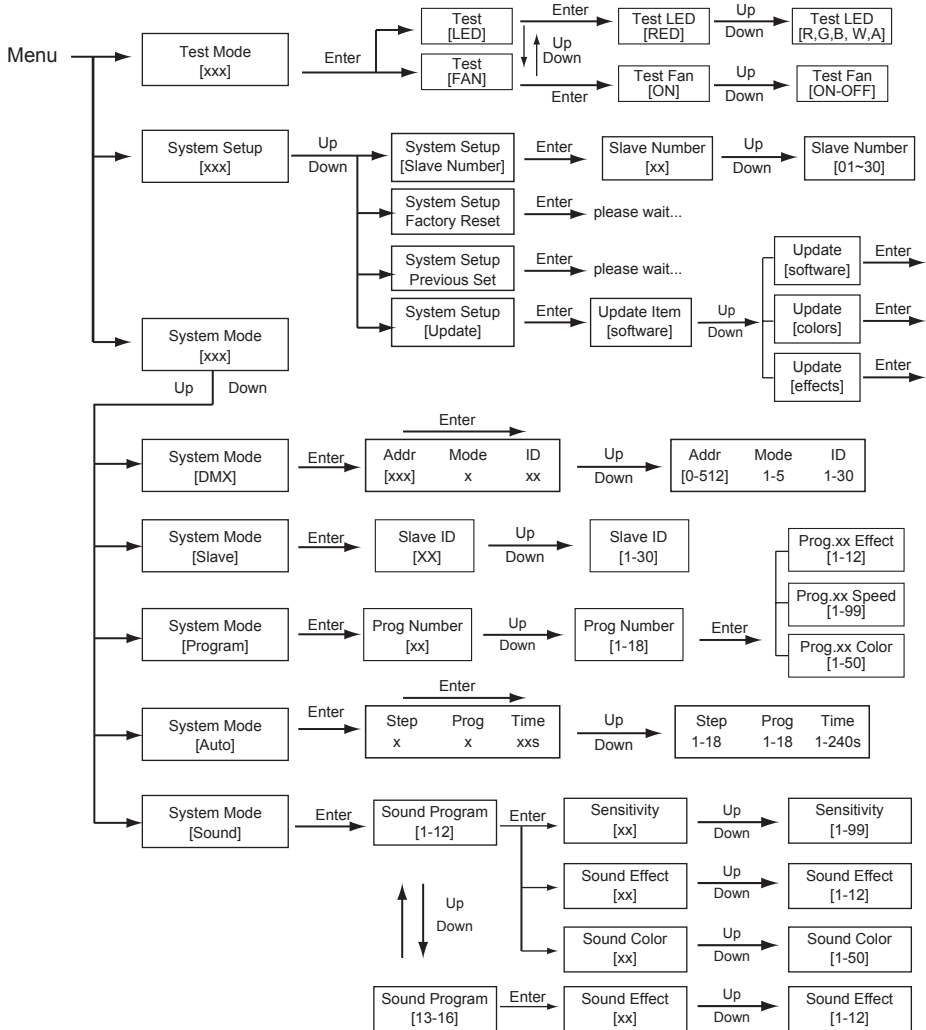
```
UltraLED
System Ready
```

4. Press buttons on Control Panel to set up and operate.

Menu Map
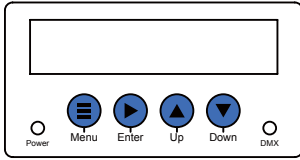
When navigating the menu:
Use "UP" button to move up.
Use "DOWN" button to move down.
Use "Enter" button to move right.
Use "MENU" button to move left.

Control Panel

Menu

Test Mode [xxx] → Enter →
- Test [LED] → Enter → Test LED [RED] → Up/Down → Test LED [R,G,B, W,A]
- Up/Down → Test [FAN] → Enter → Test Fan [ON] → Up/Down → Test Fan [ON-OFF]

System Setup [xxx] → Up/Down →
- System Setup [Slave Number] → Enter → Slave Number [xx] → Up/Down → Slave Number [01~30]
- System Setup Factory Reset → Enter → please wait...
- System Setup Previous Set → Enter → please wait...
- System Setup [Update] → Enter → Update Item [software] → Up/Down →
  - Update [software] → Enter →
  - Update [colors] → Enter →
  - Update [effects] → Enter →

System Mode [xxx] → Up/Down →

System Mode [DMX] → Enter → Addr [xxx] Mode x ID xx → Enter → Up/Down → Addr [0-512] Mode 1-5 ID 1-30

System Mode [Slave] → Enter → Slave ID [XX] → Up/Down → Slave ID [1-30]

System Mode [Program] → Enter → Prog Number [xx] → Up/Down → Prog Number [1-18] → Enter →
- Prog.xx Effect [1-12]
- Prog.xx Speed [1-99]
- Prog.xx Color [1-50]

System Mode [Auto] → Enter → Step x Prog x Time xxs → Enter → Up/Down → Step 1-18 Prog 1-18 Time 1-240s

System Mode [Sound] → Enter → Sound Program [1-12] → Enter →
- Sensitivity [xx] → Up/Down → Sensitivity [1-99]
- Sound Effect [xx] → Up/Down → Sound Effect [1-12]
- Sound Color [xx] → Up/Down → Sound Color [1-50]

Up/Down

Sound Program [13-16] → Enter → Sound Effect [xx] → Up/Down → Sound Effect [1-12]

Test Mode

Test Mode is designed to test LEDs and fans if they are all working properly.

1. Press MENU botton till display reads [Test Mode] , press Enter button to enter Test Mode.
2. Use Up/Down button to select [Test LED] or [Test Fan], then press Enter button to reach Test LED or Test Fan.
3. Press Up/Down to test Red, Green, Blub, White and Amber LEDs or test fan ON/OFF.

> NOTE! During operating Fans will be turned off when internal temperature is below 40°C and will be on automatically over that level.

System Setup

In this mode, you can update software, color and effect library, reset to factory default or previous setup, set up total number of SLAVE units in daisy chain for Master/Slave mode.

►SLAVE NUMBER SETUP
In Master/Slave mode, you need to set up a total number for Slave units on the Master unit in order to run color flow through the daisy chain.

1. Press MENU button till LCD display reads
```
System Setup
[  xxx  ]
```
, then use Up/Down button to select [Slave Number] and press Enter button to enter.
2. Use Up/Down button to set up a number of total Slave units.

►FACTORY RESET
Factory default settings as below:
Starting DMX channel: 001
DMX mode: 1

►PREVIOUS SETTING
This allows you to go to the previous setting after Factory default Reset.

1. Press MENU button till LCD display reads
```
System Setup
[ xxx ]
```
, then use Up/Down button to select [Previous Set].
2. Press Enter button and wait for some seconds.

►UPDATE SOFTWARE/COLORS/EFFECTS

> Important! Make sure your USB device is formatted in FAT mode before recording updating software/colors/effects under ROOT directory in USB device.

1. Download the latest software, LUX45C and LUX45E from: http://www.techni-lux.com.
2. Edit your colors by changing value of Red, Green, Blue, White and Amber. A maximum of 50 colors can be defined.

3. Edit your effects by changing value of 1 or 0. 1 stands for ON and 0 for OFF. The Lux Pixel45 is devided into 9 pixels and you can set each pixel to 1 (ON) or 0 (OFF) for desireable effect. Each effect program can contain up to 18 steps and total 12 effect programs can be editable.

4. Record your color and effect files under ROOT DIRECTORY in USB device.

5. Insert USB device in the USB connector on back of Lux Pixel45.

6. Press MENU button till [System Setup] shows up, then use Up/Down button to select System Setup [Update] and press Enter button to enter.

7. Use Up/Down button to select Update Item: software, colors, effects. Then press Enter button to proceed. Wait for some seconds till messange shows " succeed".

DMX Mode

In DMX mode, there are 5 modes for selection: 3ch, 7ch, 21ch, 46ch and 47ch mode.

1. Press MENU button till display reads "System Mode [xxx]", then use Up/Down button to select [DMX] and press Enter button to enter and LCD displays:

```
Addr      Mode      ID
[xxx]       x        xx
```
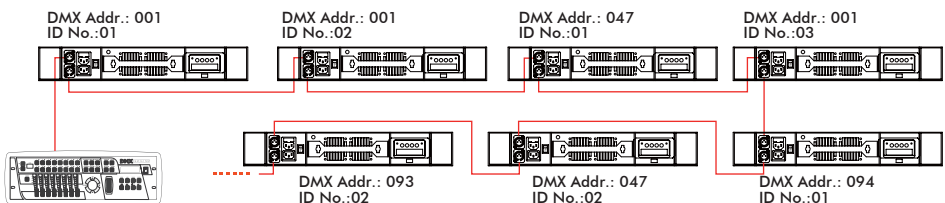
2. Use Enter button to move cursor among [Addr , Mode, ID] and Up/Down button to set up starting DMX address, Mode and ID number.

```
Addr      Mode      ID
[001]       1        1
```

NOTE: ID number is activated only when Mode 5 is selected. Under Mode 1~4, ID number is invalid.

►DMX control with ID number

ID number is created for DMX fixture with large number of DMX channels and allows one to control multiple units independently or simultaneously on a small DMX console. The figure below shows a simple DMX layout. On the same starting channel, say 001, there are three units with 3 different ID numbers. You can use the 1st channel to target different units and backward channels to program.


DMX Addr.: 001 ID No.:01
DMX Addr.: 001 ID No.:02
DMX Addr.: 047 ID No.:01
DMX Addr.: 001 ID No.:03
DMX Addr.: 093 ID No.:02
DMX Addr.: 047 ID No.:02
DMX Addr.: 094 ID No.:01

DMX Channels

Mode 1: 3 DMX channels

ch.1: effects		ch.2: colors				ch.3: speed
000	All Off	000-005	color_1	131-135	color_26	
		006-010	color_2	136-140	color_27	
001-022	effect_1	011-015	color_3	141-145	color_28	
		016-020	color_4	146-150	color_29	
023-046	effect_2	021-026	color_5	151-156	color_30	1-255
		027-031	color_6	157-161	color_31	
047-069	effect_3	032-036	color_7	162-166	color_32	slow to fast
		037-041	color_8	167-171	color_33	
070-092	effect_4	042-046	color_9	172-176	color_34	
		047-052	color_10	177-182	color_35	
093-115	effect_5	053-057	color_11	183-187	color_36	
		058-062	color_12	188-192	color_37	
116-139	effect_6	063-067	color_13	193-197	color_38	
		068-072	color_14	198-202	color_39	
140-162	effect_7	073-078	color_15	203-208	color_40	
		079-083	color_16	209-213	color_41	
163-185	effect_8	084-088	color_17	214-218	color_42	
		089-093	color_18	219-223	color_43	
186-208	effect_9	094-098	color_19	224-228	color_44	
		099-104	color_20	229-234	color_45	
209-231	effect_10	105-109	color_21	235-239	color_46	
		110-114	color_22	240-244	color_47	
232-254	effect_11	115-119	color_23	245-249	color_48	
		120-124	color_24	250-254	color_49	
255	effect_12	125-130	color_25	255-255	color_50	

Note: All the effects and colors above are either from factory default settings or customized library.

Mode 2: 7 DMX channels

Channel	Function
1 Red	0-255 Intensity 0 -100%
2 Green	0-255 Intensity 0 -100%
3 BLue	0-255 Intensity 0 -100%
4 White	0-255 Intensity 0 -100%
5 Amber	0-255 Intensity 0 -100%
6 Master Dimmer	255-0 Intensity 100% - 0
7 Strobe	000-004 No Function 005-255 Strobe from slow to fast

Mode 3: 7 DMX channels x 3 sections
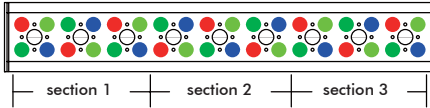
Channel	Function
1 Red	0-255 section 1: Intensity 0 -100%
2 Green	0-255 section 1: Intensity 0 -100%
3 BLue	0-255 section 1: Intensity 0 -100%
4 White	0-255 section 1: Intensity 0 -100%
5 Amber	0-255 section 1: Intensity 0 -100%
6 Master Dimmer	255-0 section 1: Intensity 100% - 0
7 Strobe	000-004 No Function 005-255 section 1: strobe slow to fast
8 Red	0-255 section 2: Intensity 0 -100%
9 Green	0-255 section 2: Intensity 0 -100%
10 BLue	0-255 section 2: Intensity 0 -100%
11 White	0-255 section 2: Intensity 0 -100%
12 Amber	0-255 section 2: Intensity 0 -100%
13 Master Dimmer	255-0 section 2: Intensity 100% - 0
14 Strobe	000-004 No Function 005-255 section 1: strobe slow to fast
15 Red	0-255 section 3: Intensity 0 -100%
16 Green	0-255 section 3: Intensity 0 -100%
17 BLue	0-255 section 3: Intensity 0 -100%
18 White	0-255 section 3: Intensity 0 -100%
19 Amber	0-255 section 3: Intensity 0 -100%
20 Master Dimmer	255-0 section 3: Intensity 100% - 0
21 Strobe	000-004 No Function 005-255 section 1: strobe from slow to fast

Mode 4: 47 DMX channels

Channel	Function
1	0-255 Pixel 1 Red: 0 -100%
2	0-255 Pixel 1 Green: 0 -100%
3	0-255 Pixel 1 Blue: 0 -100%
4	0-255 Pixel 1 White: 0 -100%
5	0-255 Pixel 1 Amber: 0 -100%
6	0-255 Pixel 2 Red: 0 -100%
7	0-255 Pixel 2 Green: 0 -100%
8	0-255 Pixel 2 Blue: 0 -100%
9	0-255 Pixel 2 White: 0 -100%
10	0-255 Pixel 2 Amber: 0 -100%
⋮	⋮
38	0-255 Pixel 8 Blue: 0 -100%
39	0-255 Pixel 8 White: 0 -100%
40	0-255 Pixel 8 Amber: 0 -100%
41	0-255 Pixel 9 Red: 0 -100%
42	0-255 Pixel 9 Green: 0 -100%
43	0-255 Pixel 9 Blue: 0 -100%
44	0-255 Pixel 9 White: 0 -100%
45	0-255 Pixel 9 Amber: 0 -100%
46	255-0 ALL Intensity 100% - 0
47	000-004 NoFunction 005-255 ALL strobe from slow to fast

Mode 5: 46 DMX channels with ID number

Channel	Function
1 ID No. select	000-005: All IDs 135-143: ID# 16 006-014: ID# 1 144-151: ID# 17 015-023: ID# 2 152-160: ID# 18 024-031: ID# 3 161-169: ID# 19 032-040: ID# 4 170-177: ID# 20 041-048: ID# 5 178-186: ID# 21 049-057: ID# 6 187-194: ID# 22 058-066: ID# 7 195-203: ID# 23 067-074: ID# 8 204-212: ID# 24 075-083: ID# 9 213-220: ID# 25 084-091: ID# 10 221-229: ID# 26 092-100: ID# 11 230-237: ID# 27 101-109: ID# 12 238-246: ID# 28 110-117: ID# 13 247-254: ID# 29 118-126: ID# 14 255: ID# 30 127-134: ID# 15
2	0-255 Pixel 1 Red: 0 -100%
3	0-255 Pixel 1 Green: 0 -100%
4	0-255 Pixel 1 Blue: 0 -100%
5	0-255 Pixel 1 White: 0 -100%
6	0-255 Pixel 1 Amber: 0 -100%
7	0-255 Pixel 2 Red: 0 -100%
8	0-255 Pixel 2 Green: 0 -100%
9	0-255 Pixel 2 Blue: 0 -100%
10	0-255 Pixel 2 White: 0 -100%
38	0-255 Pixel 2 Amber: 0 -100%
⋮	⋮
39	0-255 Pixel 8 Blue: 0 -100%
40	0-255 Pixel 8 White: 0 -100%
41	0-255 Pixel 8 Amber: 0 -100%
42	0-255 Pixel 9 Red: 0 -100%
44	0-255 Pixel 9 Green: 0 -100%
43	0-255 Pixel 9 Blue: 0 -100%
45	0-255 Pixel 9 White: 0 -100%
46	0-255 Pixel 9 Amber: 0 -100%

Master / Slave Mode

In Master/Slave mode, a maximum of 31pcs units can be linked together to run in sync. One of the unit functions as Master and all other units are to be set as Slave. All the Slave units receive data from the Master unit. In order to run color flow through the daisy chain, you need to set Slave ID for each Slave unit.

1. Use DMX cables to link all the units together.
2. On the Master unit, set its System Mode in [Program], [Auto] or [Sound]. Also, you need to set Slave Number for total number of Slave units. i.e., there are 5 Slave units (not including Master unit) in the daisy chain, then Slave Number is 5.
3. All other units are to be set as " System Mode [Slave] ", press Enter button to reach " Slave ID [XX]", then use UP/DOWN button to set ID number sequentially from 1, 2, 3...
4. Operate the Master unit to run the whole system.

Program Mode

In this mode, you can combine effect, color, speed on Program [1] to [12]. From Program 13] to [18], running speed is selectable.

1. Press MENU button till display reads "System Mode [xxx], then use Up/Down button to select [Program] and press Enter button to enter.

| Prog Number [xx] | → Up / Down → | Prog Number [1-18] |

2. Use Up/Down button to select program number, then press Enter button to access Program Effect [x], Program Speed [x], Program Color [x].
3. Press Up/Down button to select effect, color and speed for that program.

Note: 1. Effects [1-12] and Colors [1-50] are from factory default settings or customized library.
2. Speed 1 ~ 99 goes from fast to slow.

Program Number [13]: 50-color step changing
Program Number [14]: Color flowing in Red, Green, Blue, White and Amber
Program Number [15]: 50-color crossfade
Program Number [16]: Falling star effect in white color
Program Number [17]: RRGGWBBAA flashing
Program Number [18]: Pulse close effect

Auto Mode

In this mode, you can combine 12 editable, 6 built-in programs and running time of each program without external DMX controller.

1. Press MENU button till display reads "System Mode [xxx]", then use Up/Down button to select [Auto] and press Enter button to enter. LCD display reads:

```
Step    Prog    Time
  x       x      xxxs
```

2. Press Enter button to move forward and Up/Down button to select step (1-18) and Program number (1-18), time (1-240s) for each step/program.

3. Press MENU button to exit and run in Auto mode.

Sound Mode

1. Press MENU button till display reads "System Mode [xxx]", then use Up/Down button to select [Sound] and press Enter button to enter. LCD reads:

```
Sound Program
    [ xx ]
```

2. Press Up/Down button to select Sound Program.
3. When Sound Program [1-12] is selected, press Enter button to access Effect, Color and Speed, then use UP/DOWN button increase or decrease the values.
4. When Sound Program [13-16] is selected, only sound sensitivity is selectable.

Note: Sound sensitivity [1-99] goes from the highest to lowest level.

Edit Colors

1. Download LUX45C (Color file) from www.techni-lux.com.
2. Open the file and edit your colors by changing the value of Red, Green, Blue, White and Amber. A maximum of 50 colors can be customized.

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Edit Effects

1. Download LUX45C (Color file) from www.techni-lux.com.
2. There are 12 effect programs with 18 steps maximum each can be edited.
3. The unit is devided into 9 pixels and you can decide ON/OFF for each pixel. The numbe "1" stands for ON and "0" for OFF.

> IMPORTANT!!! Do not change file name of color and effect file. Also, when editing your colors and effects don't make notes with words containing letters of "p" and "s". Make sure you record the files under root directory in USB device.

SERVICE

Lens Replacement

The unit comes with 15-degree lens pre-installed at the factory. However, the lens system is interchangeable and this gives you options to change lens of different beam angle. Please follow the below instructions for proper replacement/installation.
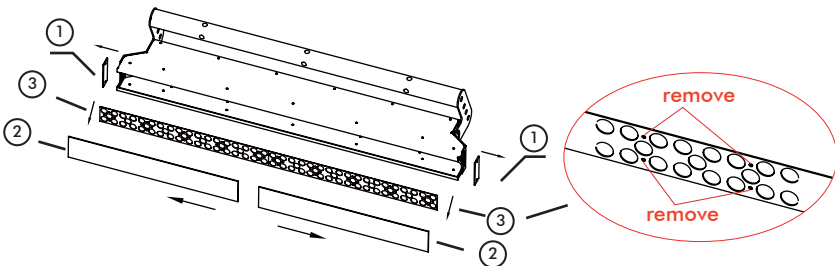
1. Remove side metal covers.
2. Remove plastic front cover.
3. Remove UP & DOWN screws that hold the lens kit and take out the complete lens kit.
4. Replace lens kit and follow reverse steps to close the fixture.

> IMPORTANT!!! When replacing the lens assembly, please make sure that the power is disconnected from the fixture beforehand.
> LEDs on PCBs are sensitive to ESD (electrostatic discharge). Take precautions to avoid ESD damage during service.

General Maintenance

To maintain optimum performance fixtures should be cleaned frequently. Unplug fixture from power. Use a vacuum or air compressor and a soft brush to remove dust collected on external vents and internal components. Clean all glass gently when the fixture is cold with a mild solution of glass cleaner or Isopropyl Alcohol and a soft lint free cotton cloth or lens tissue.

IMPORTANT INFORMATION!

In order to optimise the recovery and recycling of the materials that old appliances contain and reduce the impact on human health and the environment, ensure that this product is recycled at the end of its life.