

# User Manual: SquareLED TriColor 1P65 14x3W

## 1. Summarization

**Summarize:** Thank you for purchasing our SquareLED TriColor. Please read these instructions carefully before begin and operate the fixtures according to these instructions to avoid any possible damages and accidents causes by misusage.

**Products introduction:** The color-changing projecting light SquareLED TriColor is covered by high strength die-casting aluminum which is able to endure high temperature, designed in a fashion of hydrodynamic form. Appearance shows: long can, short can or short can with color filter.It takes uses high power 3W 3-in-1 LED, refers to each LED is composed by 1W R,G,B LED,with good color mixing effect and high brightness. Each color can be independently dimmer, fading changes and so on. It uses power switch, performs low weight and consumption, stable capability and long life. The built-in program includes dimmer, strobe, eotic, gradual change, fading and so on. International standard DMX 512 signal is requested.

**Packing list:** SquareLED TriColor 1 pc (waterproof power input/output extension, waterproof signal input/output extension cable), , Double Handle 1 set, waterproof power input cable 1 pc, with plug, waterproof DMX input cable 1 pc, Connect to DMX512 Controller, The user manua, Warranty Card

## 2. Safety Instruction

## **Safety Notes**

- ! Enquire the skilled people before any repair;
- ! Always make sure disconnect from the power source before setting up, serving and moving;.
- ! Avoid direct eye exposure to the fixture when it is on

## **Safety instruction**

Make sure the power supply voltage are consistent with this lights.

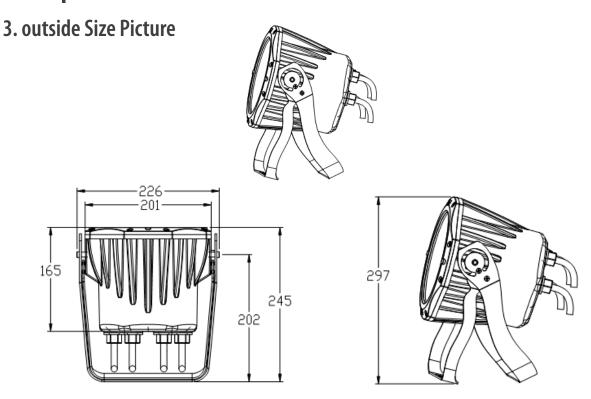
Ensure the use of voltage is in the range of the request technical parameter.

Before the installation, please check the light's fasteners and mechanical structure have been received in good condition and appear no damage.

This light is designed for indoor use; working temperature is lower than 50 degree.

The fixtures maybe mounted in any position provided there is adequate room for ventilation. Make sure there are no inflammable and explosive items (ornaments) in 0.5 meters away.

Yellow / green cabling earthling safety; no flicker when the fixture is working on.



### 4. Main Function

- » high quality LED:low consumption, brighness, stable capability and long life
- » each color of LED with 256 dimming. RGB can make over 16.7 million colors
- » Linear dim 0%-100%, Stobe, gradual change, jumping change
- » DMX512 Controller, 4 button set DMX ID address with led display
- » auto run /master slave/interconnected multi-machine control
- » using switching power supply to protect the LED to work well
- » Protection rating: IP65, suited for outdoor or indoor use.
- » unique cooling mode: natural convection, No need fan
- » lens degree: 15°, 25°, 45° optional
- » DMX512 channels:3 channels/7 channels
- » body color: black/white/optional

## **5. DMX Control Function**

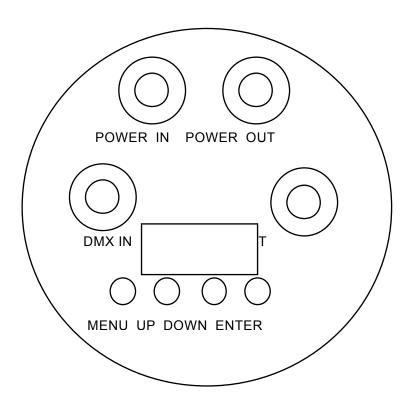
#### 3CH Mode:

Chan- nel	DMX value	Control Function	Remarks	Priority
1CH	0-255	Red Dimming 0——100%		
2CH	0-255	Green Dimming 0———100%		
3CH	0-255	Blue Dimming 0——100%		

#### 7 CH Mode:

channel	DMX value	Control Function	Remarks	Priority	
1CH	0-255	General Dimming 0——100%	Must use this channel, otherwise no function of dimming		
2CH	0-255	Red Dimming 0——100%	Or Amber color	1	
3CH	0-255	Green Dimming 0——100%	Or white color	1	
4CH	0-255	Blue Dimming 0——100%			
	0-14	Dimming	When the 6CH above is 32-223, this channel has the	3	
ГСП	15-255	Strobe Speed	function of speed adjustment is 0-255		
5CH	0-31	Invalid			
	32-63	From Dark to Bright	Must use CH1, 2, 3, 4 otherwise no		
	64-95	From Bright to Dark	light, from the 5CH, start the speed adjustment		
	96-127	From Dark-Bright-Dark			
6CH	128-159	RGB gradual changing	Forms the FCU adjust the sured	2	
ОСП	160-191	3 colors jumping	From the 5CH adjust the speed (CH1, CH2, CH3, CH4, CH7 is invalid)		
	192-223	7 colors jumping	(CITT, CITZ, CIT3, CIT4, CIT7 is invalid)		
	224-255	Standby (stop change)			
	0-9	invalid		2	
	10-29	R 100%			
	30-39	R85%+Y15%			
	40-49	R60%+Y40%			
	50-69	Y 100%			
	70-79	Y85%+G15%			
	80-89	Y60%+G40%			
7CH	90-109	G 100%	CH1 control color grayscale 0-100%,		
	110-119	G85%+B15%			
	120-129	G60%+B40%			
	130-149	B 100%			
	150-159	B85%+C15%			
	160-169	B60+C40%			
	170-189	C 100%			
	190-199	C50%+P50%			
	200-219	P 100%	CIII control color avanceala 0, 1000/	2	
7	220-229	P50%+W50%			
	230-249	W95%+Y5%	CH1 control color grayscale 0-100%,		
	250-255	W 100%			

# 6. Display Operation



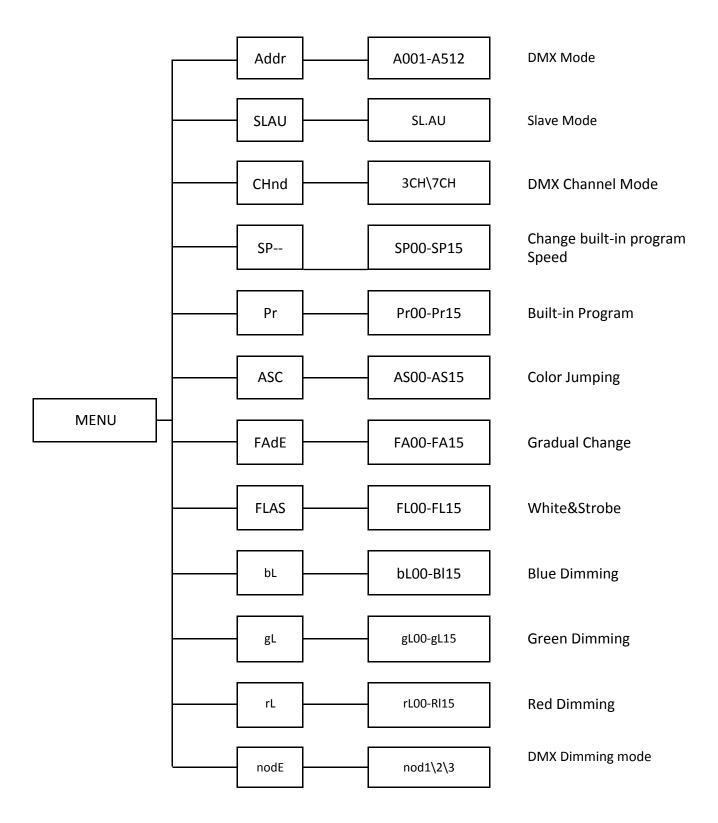
» MENU: access the menu or return to a previous menu option

» UP: menu selection or parameter increments

» **DOWN:** menu selection or parameters decrease

» ENTER: select the current menu option

## 7. Menu Instruction



#### 1. Operating instruction:

#### MENU > Enter > UP/DOWN > ENTER

MENU is used to access the menu or return to a previous menu option. It can not be used to select and store the current menu option. Press UP / DOWN to choose a desired menu item. Here are the operation details:

- » "addr": DMX mode (A001-A512)
- » "SLAU": Slave receiving mode
- » "CHnd": DMX Chanel mode(3CH/7CH)
- » SP -: built-in program speed change model (SP00-SP15, SP00 is the fastest)
- » "Pr"; Built-in program (Pr00-Pr15 16 program in all)
- "ASC"; seven colors jumping (AS00-AS15 speed adjustable)
- » "FAdE": gradual change model (FA00-FA15 speed adjustable)
- » "FLAS": white color strobe (FL00-FL15 speed adjustable)
- » "bL": blue color brightness adjustment mode (b00-b15, b15 the brightest)
- » "gL": green color brightness adjustment mode (g00- g15, g15 is the brightest)
- » "rL": red color brightness adjustment mode (r00-r15, r15 is the brightest)
- » "rL": red color brightness adjustment mode (r00-r15, r15 is the brightest)

Press ENTER to access the further menu setting. This process can be saved automatically; that means you will enter the process saved previously when you activate the light next time. For example, please operate as belows if you need to select DMX mode A001:

- » Press MENU, go back to the initial setting
- » Press UP / DOWN until Addr
- » Press ENTER to choose, the display will glinting at this moment
- » Press UP / DOWN to change the address code to select A001
- » Press ENTER to select and store the current menu options. DMX mode will be
- » stored automatically and the screen will stop glinting.

#### Details of program built inside Pr--

» Pr00:red
 » Pr01:green
 Pr02:blue
 » Pr03:amber
 » Pr04:cyan
 Pr05:purple
 » Pr06:white
 Pr07:red+strobe
 Pr08:green-

» Pr06:white
Pr07:red+strobe
Pr08:green+strobe
Pr10:amber+strobe
Pr11:cyan+strobe

» Pr12:purple+strobe Pr13:white+strobe Pr14:RGB jumping change

» Pr15: 7 colors jumping change

**Note:** Pr07---- Pr15 Can change the content Of SP, correct the speed of jumping change, SP00 is the fastest, SP15 is the slowest

## 8. Operating Control Instruction

#### Master/Slave:

Master: The master should always working as a master as long as it is not set in a DMX mode whatever other modes it is. And it send out the signal so that the slave synchronous with it. To avoid the host signal and DMX512 signals interfere with each other, should cut off the DMX512 signals. The signal lines are longer than 60 meters(20 lamps) ,should increase a signal amplifier.

Slave: he Slave must be set in DMX mode and the address code should be A001, to assure receive the master's signals correctly. Only one light can be set as a Master and others are slaves.

Note: This product uses input and output power cord 2.5 qm copper core wire, power line in series, when 220V AC should less than 45 lights, and 110V AC less than 25 lights!!!

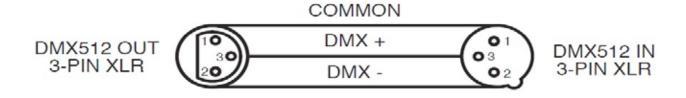
## 9. XLR cable connecting

#### XLR cable:

The standard connection way of the XRL is: one end connect to the male plug, and the other connect to the female.



XLR Pin Configuration	
Pin 1 = Ground	
Pin 2 = Data Compliment (negative)	
Pin 3 = Data True (positive)	



Noted: In order to avoid failures and interference signal transmission, we connect a resistance  $120\Omega$  (1/4W) at the end of the DMX connecting as below:



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

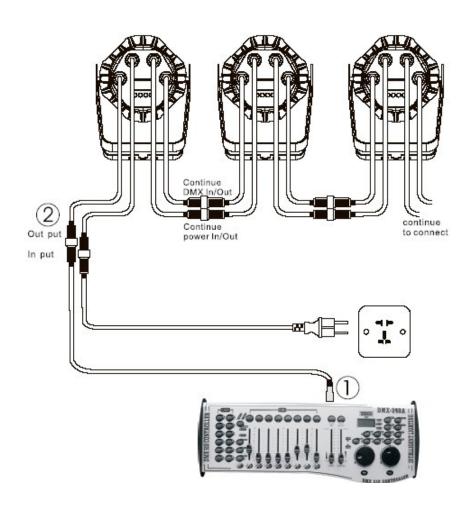
## The Conversion between 3 pin and 5 pin XLR

If the output cable of DMX512 controller is the 5PIN, please use 1pc 5PIN to 3PIN cable

3-Pin XLR to 5-Pin XLR Conversion					
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)			
Ground/Shield	Pin 1	Pin 1			
Data Compliment (- signal)	Pin 2	Pin 2			
Data True (+ signal)	Pin 3	Pin 3			
Not Used		Do Not Use			
Not Used		Do Not Use			

# 10. Connecting picture

**Light connecting picture:** 



# 11. Trouble Shooting

Problem	Checking Way		
Can not turn on the light	<ul> <li>Check the power source plug is in normal or not</li> <li>Check the switch of the lights is off or on</li> <li>Check the fuse if in normal</li> </ul>		
DMX can not control it	<ul> <li>Check the DMX cable is connect to the lights or not</li> <li>Check the DMX512 controller work in normal or not</li> <li>Check the DMX cable is normal or not</li> <li>Check if the lights is in DMX mode (A001)</li> </ul>		
Display not bright	<ul> <li>When connect to the electricity, did the led flash one time? If so, the power source is normal; If not, please check if the switch and the transformer has power out</li> <li>Check if the power input of the IC board is normal</li> <li>Check if the cable connect to the display loose</li> <li>Change the main board to see if it is normal.</li> <li>Chang the display</li> </ul>		
LED not light	<ul> <li>When connect to the electricity, did the led flash one time? If so, the power source is normal; If not, please check if the switch and the transformer has power out</li> <li>Check if the power input of the IC board is normal</li> <li>Check if the cable connect to the display loose</li> <li>Change the main board to see if it is normal.</li> <li>Chang the display</li> </ul>		
Some of the LED not light	<ul> <li>LED is connected by leds in series first, then connect parallel, so please check if the leds is loose</li> <li>Use the multimeter to check if the led is bright or not, of not, please change the led</li> <li>check whether current limiting resistor is normal or not</li> <li>Check constant current IC is normal or not (compared with the normal IC)</li> </ul>		
St	<ul> <li>Check the switch of this color is normal or not</li> <li>Change the IC control board</li> </ul>		
Noted: only professional persons can do as above!			

## 12. Technical Specification

• Input voltage: AC100V-264V/47-63HZ

• Output voltage: DC32V

• Consume: 52W

• Lamp Type: High Power LED(3W)

• Lamp Spec: 3-in-1 LED (14 PCS)

• Control Signal: DMX512, Master-Slave

Control mode: stand alone/ DMX/ master and slaver

• Channel: 3CH, 7CH

• Color effect: R, G, B color mixing

• Function Effect: dimmer, strobe, eotic, gradual change

• Beam Angle: 15°,25°,45°

• Cooling mode: Natural Convection

• Protection rate: IP65

• Anti-electricity intension: 1.5KV

• Insulation Resistance:  $>2M\Omega$ 

• Size: 235\*165\*300mm

• Net Weight: 3.7kg

# Das Lichttechnikhaus Vertriebs GmbH

Rudolf-Diesel-Str. 3, D-89312 Günzburg

Telefon +49 (0) 82 21 207 98-0

Fax +49 (0) 82 21 207 98-69

E-Mail info@lth-gmbh.de Web www.lth-gmbh.de