

LED PROJECTOR 12X9W

LTL.PL129IP25 / LTL.PL129IP45

Operation manual



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1. PRODUCT

a. Product introduction

This product is designed for outdoor use. Suitable applications include wash or effect lighting for architectural, stage or nightclub applications. Direct input of DMX512 signal allows the units to be controlled from any DMX512 controller. This product can be operate as a single unit or in multiple units for large applications.

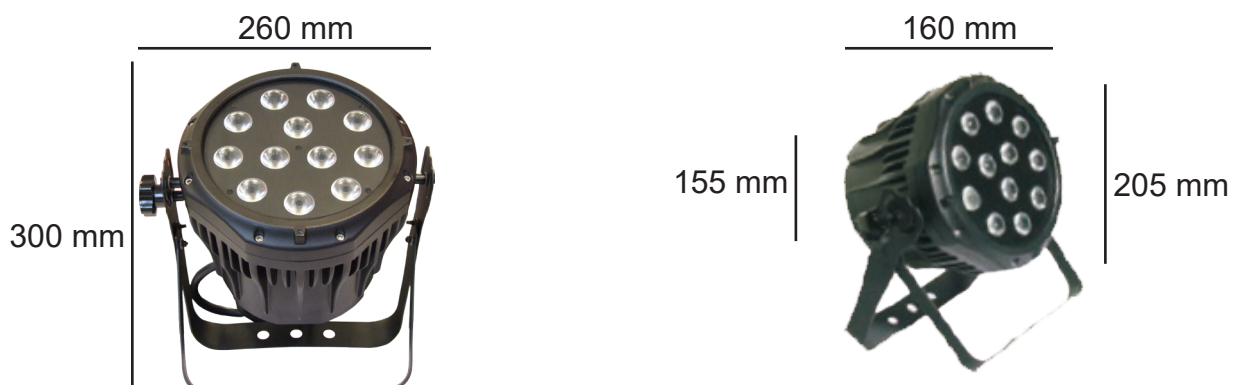
b. Product features

- Optical system : 1 - 256 grades electric adjustable, mini within 100 ms.
- Strobe : Adjustable speed, 0 - 32 Hz.
- Working mode : Auto mode, master / slave, standard DMX512 signal (3, 4, 5, 9 channels - 5 modes), intelligent ID addressing separately, intelligent ID group addressing.
- Display panel : 4 LED digital display DMX address code, test or play auto programs.
- Advanced new function : Set white balance via software to guarantee same bright color. Self check inside temperature of lighting fixture. Overheat auto protection.
- Auto mode : 8 editable preset color change programs.

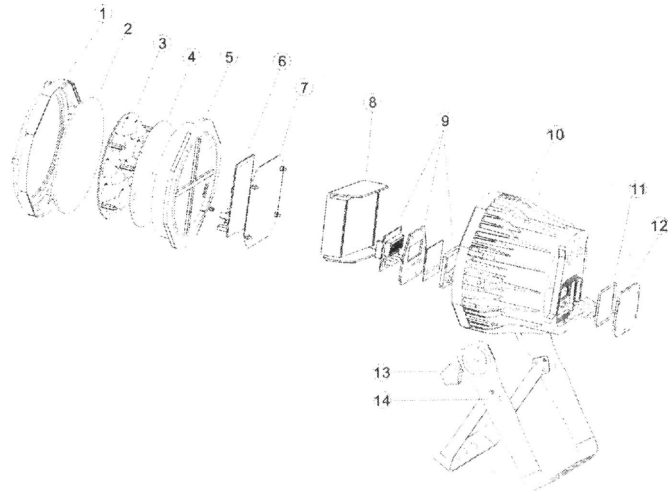
c. Technical specifications

- Voltage : AC 100 - 250V, 50 / 60 Hz. AC 230V -- 0.2A, AC 115V -- 0.4A
- IP rating : IP66
- Power : 40W
- Light source : 12 pcs x 3W, tricolor LED lamp
- LED lifespan : Around 30.000 ~ 50.000 hours (rated by LED lamp factory)
- Beam angle : LTL.PL129P25 : 25° / LTL.PL129P45 : 45°
- Case : Die-casting aluminum
- Weight : 4.46 kg
- Size : 260 x 180 x 300 mm

d. Dimension drawing



e. Exploded view



Item	Description	Item	Description
1	Front cover	8	Power supply
2	Glass cover	9	Display SET
5	Lens panel	10	Rear cover
4	LED lamp PCB	11	Waterproof latex circle
5	Heat sink	12	Display waterproof cover
6	Driving PCB	13	Fix screw knob
7	PCB fix plate	14	Bracket

f. Photometric data

25° beam opening angle (m)

Red	960	472	240	116	50
Green	1450	720	345	160	76
Blue	260	132	64	32	15
RGB	2135	985	480	170	120

45° beam opening angle (m)

Red	750	375	180	95	40
Green	950	515	230	135	60
Blue	230	115	55	27	12
RGB	1650	375	380	145	96

g. Important

Always read the user manual before operation. Please confirm that the power supply stated on the product is the same as the main power supply in your area.

- This product must be installed by a qualified professional.
- Always operate the equipment as described in the user manual.
- A minimum distance of 0.5m must be maintained between the equipment and combustible surface.
- The product must always be placed in a well ventilated area.
- Always make sure that the equipment is installed securely.
- Do not stand close to the equipment and stare directly into the LED light source.
- Always disconnect the power supply before attempting and maintenance.
- Always make sure that the supporting structure is solid and can support the combined weight of the products.
- The earth wire must always be connected to the ground.
- Do not touch the power cables if your hands are wet.

Attention

- This product left the place of manufacture in perfect condition. In order to maintain this conditions and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.
- Avoid shaking or strong impacts to any part of the equipment.
- Make sure that all parts of the equipment are kept clean and free of dust.
- Always make sure that the power connections are connected correct and secure.
- If there is any malfunction of the equipment, contact LINEARLED immediately.
- When transferring the product, it is advisable to use the original packaging in which the product left the factory.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED shall be changed if it has become damaged or thermally deformed)

2. INSTALLATION

a. Mounting

Hanging

The fixture can be mounted in a hanging position using the supporting bracket. The bracket should be secured to the mounting truss or structure using a standard mounting clamp. Please note that when hanging the unit a safety cable should also be used.

Upright

The fixture can be mounted in an upright or sitting position using the supporting brackets.

Note : The fixture can be mounted at any angle and in any position. It is possible to further adjust the angle of the fixture using the two adjustment knobs located on the side.

b. Setting up with a DMX512 controller

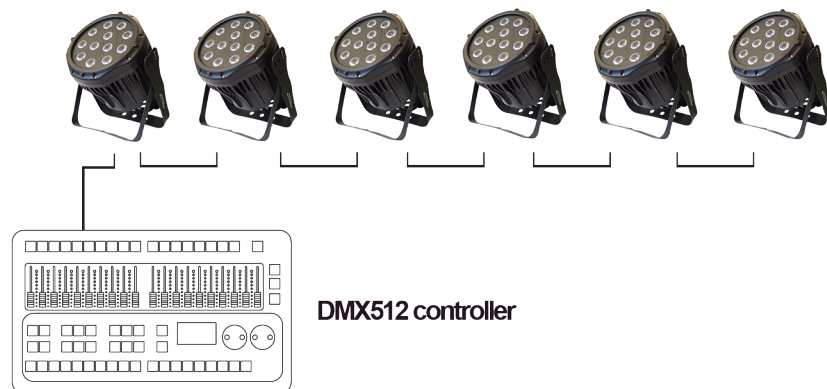
DMX512 addressing without ID addressing

- Connect the DMX512 controller to the units in series.
- When set 9 DMX channel mode, each unit will have 9 DMX channels so the DMX addresses should increase by increments of 9 (e.g. 1, 10, 19, 27, ...)
- The ID address has not been set so therefore when using the controller CH9 must be inactive (CH9 = 0 ~ 4)
- Each DMX address may be used as many times as required.
- Any DMX address in the range from 001 to 512 may be used.

DMX512 addressing with ID address

- Connect the DMX512 controller to the units in series.
- When set 9 DMX channel mode, each unit will have 9 DMX channels so the DMX addresses should increase by increments of 9 (e.g. 1, 10, 19, 27, ...)
- Each DMX address may be used as many times as required.
- Any DMX address in the range from 001 to 511 may be used.
- Each DMX address may carry up to 50 separate ID addresses. ID should be set in the menu on each unit in ascending values (i.e. 1, 2, 3, ...)
- ID addresses are accessible from CH9 on the DMX512 controller at 9 channel DMX mode.

Example



The figure above shows a simple DMX layout which has used three units at each DMX address. The three units have different ID addresses which allows the user to collectively control the whole group of units at that DMX address by setting CH9 to 0 ~ 4 or to control each unit independently by first selecting the DMX address and then by using CH9 to select the target ID address.

DMX channel instruction

Mode / channel	Function & effect	DMX value
DMX mode 1 - STAG mode		
CH1	Dimmer 0 ~ 100%	0 - 255
CH2	Red 0 ~ 100%	0 - 255
CH3	Green 0 ~ 100%	0 - 255
CH4	Blue 0 ~ 100%	0 - 255
CH5	Color macro (7 preset color effect)	0 - 5 no function 6 - 40 red 41 - 76 green 77 - 112 blue 113 - 148 yellow 149 - 184 cyan 185 - 220 purple 221 - 225 white
CH6	Strobe speed from slow to fast	0 - 255
CH7	Auto program - 8 programs	0 - 5 no function 5 - 36 program 1 37 - 68 program 2 69 - 100 program 3 101 - 132 program 4 133 - 164 program 5 165 - 196 program 6 197 - 228 program 7 229 - 255 program 8
CH8	Program fade in / out time Program run speed	0 - 128 129 - 255
CH9	ID ADDR 0 - 50 group	0 - 255
DMX mode 2 - ARC mode		
CH1	Red 0 ~ 100%	0 - 255
CH2	Green 0 ~ 100%	0 - 255
CH3	Blue 0 ~ 100%	0 - 255
DMX mode 3 - ARCD mode		
CH1	Dimmer 0 ~ 100%	0 - 255
CH2	Red 0 ~ 100%	0 - 255
CH3	Green 0 ~ 100%	0 - 255
CH4	Blue 0 ~ 100%	0 - 255
DMX mode 4 - ARCS mode		
CH1	Dimmer 0 ~ 100%	0 - 255
CH2	Red 0 ~ 100%	0 - 255
CH3	Green 0 ~ 100%	0 - 255
CH4	Blue 0 ~ 100%	0 - 255
CH5	Strobe 0 ~ 100%	0 - 255

Mode / channel	Function & effect	DMX value
DMX mode 5 - HSV mode		
CH1	Hue - 256 colors	0 - 255
CH2	Saturation 0 ~ 100%	0 - 255
CH3	Value 0 ~ 100%	0 - 255

Special construction for DMX connection

- At last fixture, the DMX cable has to be terminated with a terminator to reduce signal, errors. Solder a 120 ohm 1/4W resistor between pin 2 (DMX -) and pin 3 (DMX +) into a 3 pin XLR plug and plug it in the DMX output of the last fixture.
- If the controller is 5 pin output, it is necessary to use an adapter to transfer signal from 5 pin output to 3 pin XLR plug or you can connect cables as following :

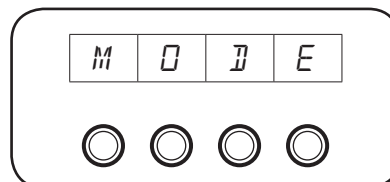
3 pin XLR : Pin 1	5 pin XLR pin 1	GND
3 pin XLR : Pin 2	5 pin XLR pin 2	Negative signal (-)
3 pin XLR : Pin 3	5 pin XLR pin 3	Positive signal (+)
5 pin XLR : Pin 4 & pin 5	not used	

c. Master / slave operation

The fixture can be linked 26 pcs together to work in master / slave mode without any console. The 1st machine will be set as master and others will work as slave unit at same effect.

3. LED DISPLAY PANEL OPERATION

a. Basic instruction



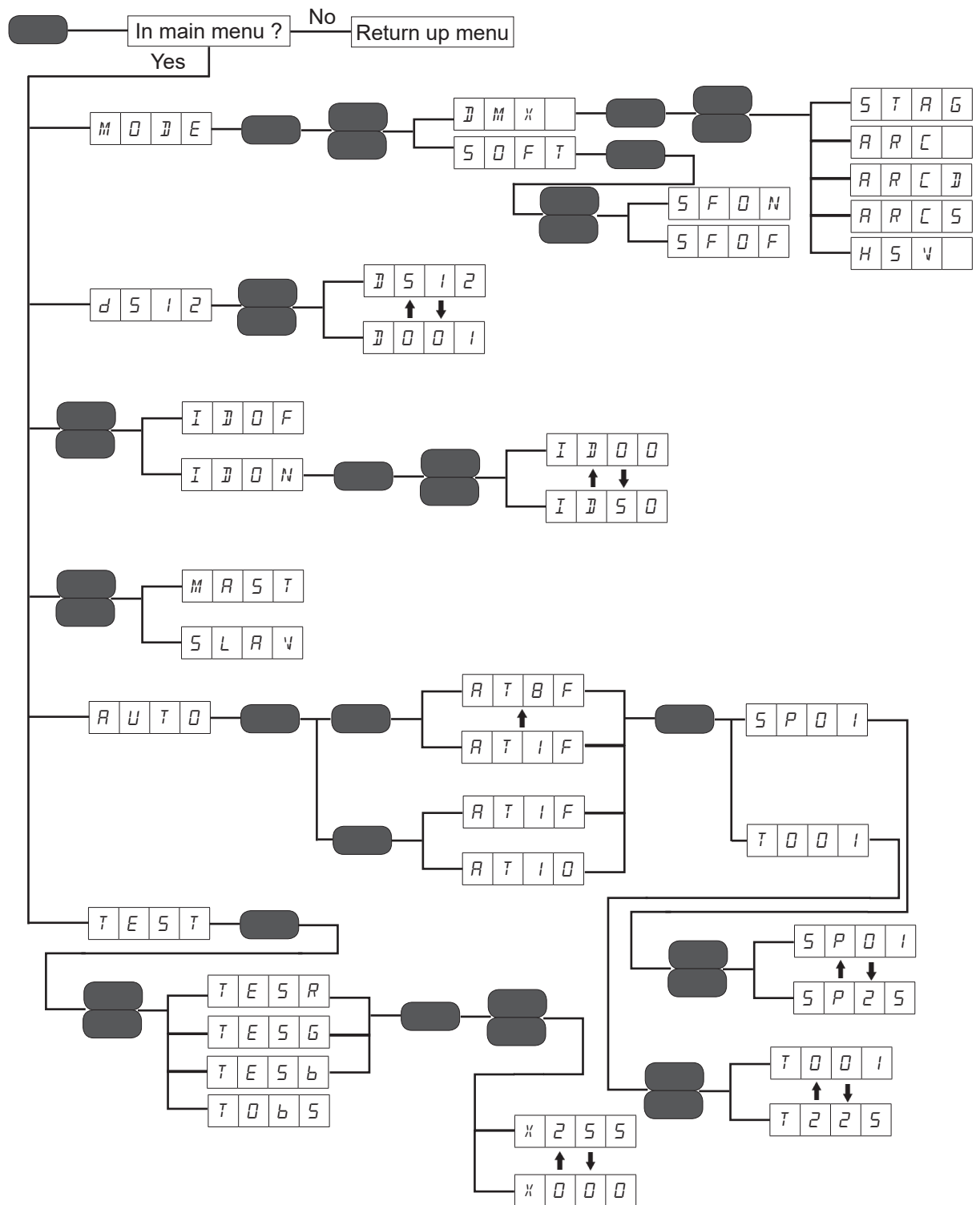
Menu : Menu selection or return to previous menu.

Enter : Confirm and quit out current function setting.

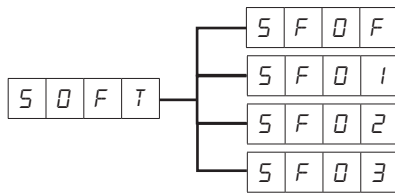
Up : Press “Up” through the menu list to increase / change the value of the current function.

Down : Press “Down” through the menu list to decrease / change the value of the current function.

b. Display operation menu tree



c. Soft mode setting



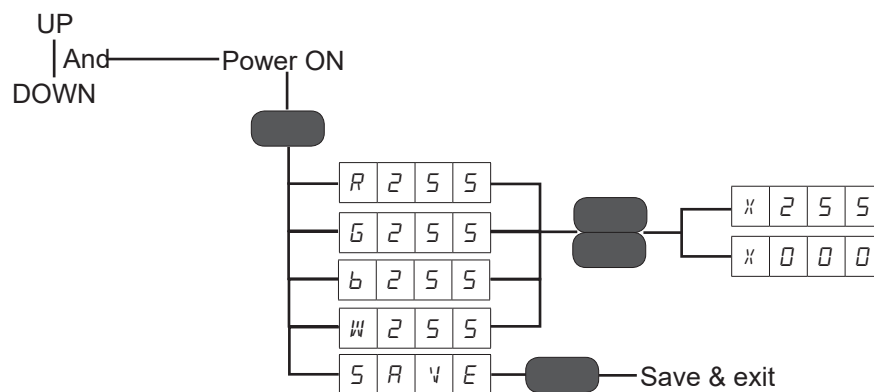
SF.OF : Close soft mode

SF.01 : Slow mode, fade in within 1.2s

SF.02 : Fast mode, fade in within 0.6s

SF.03 : Fade in at 0.6s, fade out at 1.2s

d. White balance fine adjustment instruction



4. TROUBLESHOOTING LIST

Phenomenon	Solution
The fixture does not work No light out No display	Check main power fuse & power cable connection Measure main voltage on the main connector Check connection of display PCB Replace a new display
No responding to DMX controller	Check a working mode setting on display is DMX mode or not Check whether the unit be set as slave Check DMX address settings Check DMX cable and it's connection Try to use another DMX console
Signal error while use DMX	Check whether DMX cables be connected well or not Check whether the DMX cable has terminated with a terminator to reduce signal errors. If not, please solder a 120 ohm 1/4W resistor between pin 2 (DMX -) and pin 3 (DMX +) into a DMX output of the last fixture

5. MAINTENANCE

The cleaning of internal must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates : Damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the fixture's optics.

Clean with soft cloth using normal glass cleaning fluid.

Always dry the parts carefully.

Clean the external optics at least every 20 days.

Clean the internal optics at least every 30 / 60 days. Up to vary products. Please ask professional technical to clean waterproof products and make sure the fixture will be reassembled well for waterproof.

LINEARLEDS



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