

# MEGA LITE

# ARC90



## USER MANUAL

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Check that the unit has not been damaged during transport



Read all cautions and warnings  
prior to operation of this  
equipment

#### Protection Against Fire



Fire

1. Maintain a minimum of 1 foot distance from any type of flame.
3. Replace fuse only with the specified type and rating.
4. Do Not install the unit too close to a heat source.
5. Make sure cables are properly secured away from unit movement.
6. Maximum surface operating temperature 80°.

#### Protection Against Fire



Electrical

1. Disconnect power before servicing.
2. For connection to main power supply proceed to page 5.
3. This unit must be earthed. (electronically grounded)
4. Do not submerge unit in water.

#### Protection Against Mechanical Hazards



Mechanical

1. Use safety chain when hanging unit.
2. Use quality clamps or bolts when positioning unit
3. Do not open unit while it is on, risk of electrical shock.

# Specifications

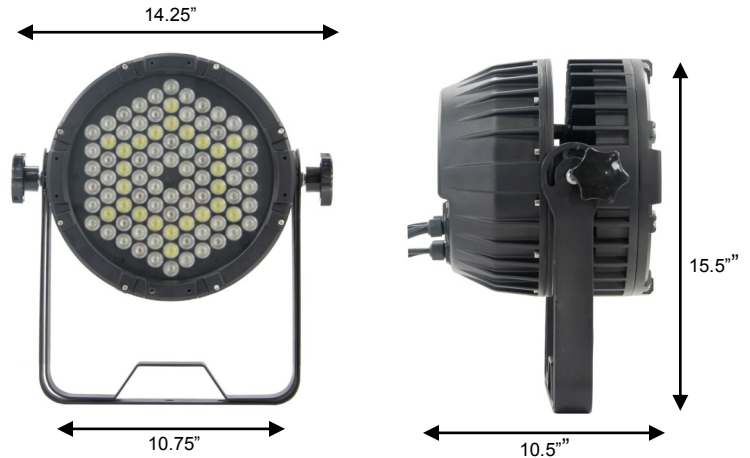
## Part Numbers

### Fixture

4044- ARC 90

## Mechanical Specifications

- DMX Connection:** 3-pin XLR connectors W/weather seal
- Power Connection:** cable mounted Nema 5 15
- IP Rating:** IP 65
- Cooling:** Temperature controlled  
IP Rated 65 Fan Cooling system
- Display:** Digital Display
- Fastening System:** Dual Mounting Yoke
- Material:** Die Cast Aluminum



Fixture	Packaged for Shipping
Size: 14.25" x 10.5" x 15.5"	Size: 15" x 15" x 16.5"
Weight: 26 lb	Weight: 28 lbs

## Electrical Specifications

- LED Quantity:** 90
- Red:** 18
- Green:** 24
- Blue:** 24
- White:** 24
- LED Watts:** 3
- LED Lifetime:** 60 to 100 thousand hours
- LED Angle:** Optional 15°, 30° and 60° ( ± 5° )
- Power Consumption:** 110V—240V 50/60 Hz manually selectable
- Ballast:** Electronic
- Watts:** 246
- Amps:** 3.08

## Control & Programming

- Protocol:** DMX 512
- DMX Channels:**
  - 3 Channels** Red, Green, Blue
  - 4 Channels** Red, Green, Blue, White
  - 6 Channels** Dimmer, Red, Green, Blue, White, Strobe
  - 7 Channels** Red, Green, Blue, White, Strobe, Macro, Dimmer
- Control Options:**
  - Master Slave function
  - Programmable color selection up to 255 steps each color

# Main Power Connection

## Caution!

1. Do not connect fixture to a dimmer system.
2. This unit has a manually switchable power supply that you can select from 110V or 220V operation
3. This unit must be earthed. (electronically grounded)

The occupation of the connection-cable is as follows:

This fixture is equipped with a switchable power supply that will let the unit operate from 110V or 220V from 50Hz to 60Hz. Power supply must be manually changed to appropriate selection.

Switch is located on the side of the power supply on the inside of the base of the fixture

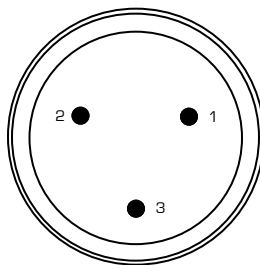


Cable (USA)	Cable (EU)	Pin	110V	220V
Black	Brown	Live	L	L
White	Light Blue	Neutral	N	L
Green	Yellow/Green	Ground		N

# DMX-512 Connection

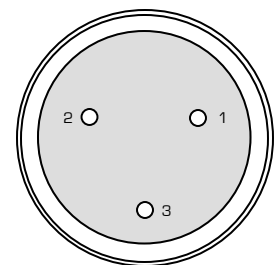
The fixture is equipped with 3 pin XLR Sockets for DMX input and output. The sockets are wired in parallel. Only use a shielded twisted pair cable designed for RS-485 and 3 pin XLR plugs and connectors in order to connect the controller with the fixture or the fixture with another.

## DMX—input



## DMX—output

- |               |
|---------------|
| 1. Shield     |
| 2. Signal (-) |
| 3. Signal (+) |



## Caution!

At the last fixture the DMX signal needs to be terminated with a terminator. Solder a 120 Ohm resistor between the (-) and the (+) signal into a 3 pin XLR plug and plug it in to the last fixture on the signal run. Pre-manufactured terminator plugs are available for purchase from your Mega-Lite dealer (HOS-DMXT).

## DMX Profile

### Arc 90 3 Channel Mode

DMX Chanel	Function	Description	Value
1	LED Color	Red LED intensity	0-255
2	LED Color	Green LED Intensity	0-255
3	LED Color	Blue LED Intensity	0-255

### Arc 90 4 Channel Mode

DMX Chanel	Function	Description	Value
1	LED Color	Red LED intensity	0-255
2	LED Color	Green LED Intensity	0-255
3	LED Color	Blue LED Intensity	0-255
4	LED Color	White LED Intensity	0-255

### Arc 90 6 Channel Mode

DMX Chanel	Function	Description	Value
1	Dimmer	Dimmer Off to Full	0-255
2	LED Color	Red LED intensity	0-255
3	LED Color	Green LED Intensity	0-255
4	LED Color	Blue LED Intensity	0-255
5	LED Color	White LED Intensity	0-255
6	Strobe	Strobe (slow to fast)	0-255

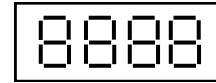
# Arc 90 7 Channel Mode

DMX Chanel	Function	Description	Value
1	LED Color	Red LED intensity	0-255
2	LED Color	Green LED Intensity	0-255
3	LED Color	Blue LED Intensity	0-255
4	LED Color	White LED Intensity	0-255
5	Strobe	Strobe (slow to fast)	0-255
6	Macro	No Function	0-1
		Color fade (slow to fast)	2-19
		Color Snap (slow to fast)	20-39
		Random (slow to fast)	40-59
		Color Fade RGB (slow to fast)	60-79
		Color Snap RGB (slow to fast)	80-99
		Red Pulse	100-119
		Green Pulse	120-139
		Blue Pulse	140-159
		White Pulse	160-179
		Purple Pulse	180-199
		Yellow Pulse	200-219
		Aqua Pulse	220-229
		All on Pulse	230-249
White LED Full	250-255		
7	Dimmer	Dimmer Off to Full	0-255

# Main Control Menu

The control board on the fixture base is your interface to access and control all the functions on the unit. Its digital display gives you a code view of the options and functions. The following will explain each function and its options.

## CONTROL BOARD



Menu Up Down Enter

DMX Address	Slave	DMX Mode	Snap Color	Pre-Programs	Color Scroll	Fade Scroll	Fade Scroll	Red Dimmer	Green Dimmer	Blue Dimmer	Blue Dimmer
Addr	SLAU	CHnd	SP--	Pr--	CE--	FADE	FLAS	rL--	gL--	bL--	UL--
1-512	N/A	3-Ch 4-Ch 6-Ch 7-Ch	00-15	00-28	00-15	00-15	00-15	0-255	0-255	0-255	0-255

### Addr DMX Address

Press **Enter** to select the DMX start channel use the **up/down** keys, display will be flashing once you have selected the desired start channel Press **Enter** to confirm display will stop flashing.

### SLAU Save Mode

This function allows you to copy the functions the first master unit is sending via DMX connection . Press **Enter** to confirm the settings.

### CHnd DMX Mode

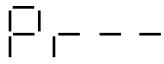
This function allows you to select the mode in witch you want to control the Arc 90. Press **Enter** use the **up/down** keys to select desired DMX mode settings. Press **Enter** to confirm the settings.

3 CH	Red, Green, Blue
4 CH	Red, Green, Blue, White
6 CH	Dimmer, Red, Green, Blue, White, Strobe
7 CH	Red, Green, Blue, White, Strobe, Macro, Dimmer

### SP-- Snap Color

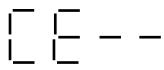
This function allows you to Scroll the LED's from one color to another from slow to fast. Press **Enter** use the **up/down** keys to select desired scroll speed settings from 0 to 15. Press **Enter** to confirm the settings.





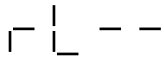
### Pre Programs Mode

This function allows you to activate from the 15 pre programs stored in the Arc 90 via control screen. Press **Enter** to confirm the settings.



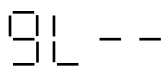
### Chase Mode

This function allows you to activate from the 15 Chase pre programs stored in the Arc 90 via control screen. Press **Enter** to confirm the settings.



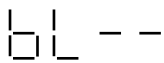
### Red Dimmer

This function allows you to dim up or down the red LED's . Press Enter use the **up/down** keys to select desired dimmer settings. Press **Enter** to confirm the settings.



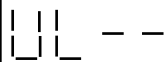
### Green Dimmer

This function allows you to dim up or down the green LED's . Press Enter use the **up/down** keys to select desired dimmer settings. Press **Enter** to confirm the settings.



### Blue Dimmer

This function allows you to dim up or down the blue LED's . Press **Enter** use the **up/down** keys to select desired dimmer settings. Press **Enter** to confirm the settings.



### White Dimmer

This function allows you to dim up or down the White LED's . Press **Enter** use the **up/down** keys to select desired dimmer settings. Press **Enter** to confirm the settings.

## Rigging the fixture

### Caution!

1. The installations must be carried out by an authorized dealer or trained professional.
2. Unit may cause severe injuries if you have doubts concerning the safety do not install.
3. Unit is to be 24 inches away from flammable materials (decoration material)
4. Use high quality installation equipment to hang unit.

When rigging a unit it is very important that you follow common safety procedures. Rigging requires extensive experience including but not limited to calculating working loads, material being used and periodic safety inspections. If you lack these qualifications, do not attempt the installation yourself, instead use a professional structural rigger.

When rigging the unit always be secured with a secondary safety attachment. The installation location of the Arc 90 has got to be built in the way that it can hold 10 times the weight for 1 hour with out any harming. Installation should be checked at least one time a year by a skilled person.

## Cleaning and maintenance

**Installation Maintenance:** The operator has to make sure that the unit is operating safely and has the installations and electronics checked by an expert every 2 years.

The following points have to be considered during the inspection:

- 1) All screws used for installing the device or part of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations on the housing, fixation and installation spots (ceiling, suspension, trussing).
- 3) The electronic power supply cables must not show any damages, material fatigue (e.g. porous cables) or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

**Note:** There is no serviceable parts inside the device except for the LED's. Maintenance and service operations are to be carried out by authorized dealers.

**Replacing the fuse:** Only replace the fuse with the same type and rating. Fuse is located inside the power supply

**Replacing the power cable:** If the power cable of this device becomes damaged, it has to be replaced by authorized dealers or trained professional only.

**Should you have further questions , please contact your dealer.**

## Parts List

4044-gc	Glass cover
4044-pcb	Main PCB card
4044-mwb	Knob
4044-ledm	LED module
4044-ps	Power supply
4044-dis	Display
4044-fan	lp rated fan

4044-bd	Barn door
4044-ep	Edison power cable input
4044-dmxin	XLR signal cable input adapter
4044-dmxout	XLR signal cable output adapter



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