



## **USER MANUAL**

# **LED PHANTOM**

Keep this manual for future reference.

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## 1. INTRODUCTION AND UNPACKING

Thank you for purchasing the MICROH LED PHANTOM moving head wash. For your own safety and knowledge, please read this manual before installing or operating the device. This manual covers the important information on installation and applications. Please install and operate the fixture according to instructions. Meanwhile, please keep this manual for future reference.

The MICROH LED PHANTOM moving head wash is made of a new type of high temperature strength of engineering plastics and cast aluminum. The fixture is designed and manufactured strictly following CE standards, complying with international standard DMX512 protocol. This fixture is applicable but not limited to large-scale live performances, theater, studio, nightclubs and discos.

The MICROH LED PHANTOM utilizes a powerful LED lamp, which features high brightness and stability. Please carefully unpack it when you receive the fixture and check if it was damaged during the transportation. And please check whether the following items are included inside the box:

Moving Head - One  
Chain – One

Signal Cable - One  
User Manual - One

Omega Clamp – One

Power Cable - One Safety

## 2. SAFETY INSTRUCTIONS



This device has left the factory in perfect condition. In order to maintain this condition and to ensure safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.



**Important:**

*Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.*

If the device has been exposed to temperature changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature, and is dry.




This device falls under protection-class I, therefore it is essential that the device be grounded. The electrical connection must be carried out by a qualified technician.

The device should only be used with rate voltage and frequency. Make sure that the available voltage is not higher than 120V as stated at the end of this manual.

Make sure the power cord is never crimped or damaged in any way, as this could cause shock and damage. If your power chord is damaged in any way, please purchase a new cable from your local MICROH dealer. Always disconnect power, when the device is not in use or before cleaning it. Never pull out the plug by tugging the power cord.

During initial start-up, some smoke or smell may arise. This is a normal process, and does not necessarily mean that the device is defective. It should decrease gradually. Please do not project the beam onto combustible substances.

Fixtures cannot be installed on or near combustible substances. Keep more than 50cm distance from wall for proper ventilation and air flow. If your fixture is or has become damaged in any way, it shall be exclusively replaced or repaired by the manufacturer to avoid any hazard.

	<b>CAUTION!</b> Never touch the device during operation! The housing may heat up
	<b>CAUTION!</b> Never look directly into the light source, as sensitive persons may suffer an epileptic shock.
	<b>CAUTION!</b> The electric connection must only be carried out by a qualified electrician.

**3. OPERATION INSTRUCTIONS**

- Please lift the unit by the carry handles and not the head or arms, as it may cause damages to the mechanical parts.
- Do not turn on the fixture if it has been through severe temperature differences. Damage may occur to the fixture. Wait until unit is at room temperature to operate.
- The unit should be protected from any tremor or agitation during transport.
- Do not expose the fixture in any excessive heat, moisture or any environment with too much dust when installing. Do not lay any power cables on the floor. It may cause electronic shock or damage to persons or equipment.
- Make sure to attach the safety chain and ensure the screws are properly screwed in when installing the fixture.
- Make sure the lens is in good condition. It is recommended to replace the unit if there are any damages or severe scratches.
- Make sure the fixture is operated and installed by qualified personnel.
- Keep the original packaging in case of defective product.

- Any non-manufacturer additions, modifications or changes in any way will void all warranty.
- Please do not attempt to open unit. It is only to be serviced by an authorized technician. If this occurs, or is apparent, the warranty will be voided.
- The fixture's warranty will be voided if there are any malfunctions from not following the user manual or any illegal operation (shock short circuit, electronic shock, lamp broke, etc.)
- This fixture is equipped with 4 operating modes; **DMX, Master/Slave, Auto and Sound Active.**

### **DMX**

- Select "DMX addr" from menu and press ENTER. Using the UP and DOWN buttons, you can now set the fixture to any DMX channel. Press MENU to return to the main menu. Select "MODE", and press ENTER. Select "DMX512" and press ENTER to confirm. The unit should now respond to the corresponding DMX channel.

### **AUTO MODE**

- Select "MODE" in the main menu and press ENTER. Using the UP and DOWN buttons select "AUTO" and press ENTER. The unit will now run randomly through the internal programs.

- You can set the number of steps under "Edit Program". You can edit the individual scenes under "Edit Scenes". With this function, you can run the individual scenes automatically, i.e. with the adjusted Step-Time.

### **SOUND ACTIVE MODE**

- Select "MODE" in the main menu and press ENTER. Using the UP and DOWN buttons select "SOUND" and press ENTER. The unit will now run in sound mode using the internal microphone.

### **MASTER/SLAVE MODE**

- By connecting either the 3 or 5 pin DMX, you can daisy chain up to 30 units on master/ slave mode. Daisy chain the fixtures together by plugging from the DMX output of the first fixture into the DMX input of the second fixture, and so on...

- On your Master fixture set the unit to either "AUTO" or "SOUND" control and select one of the internal programs.

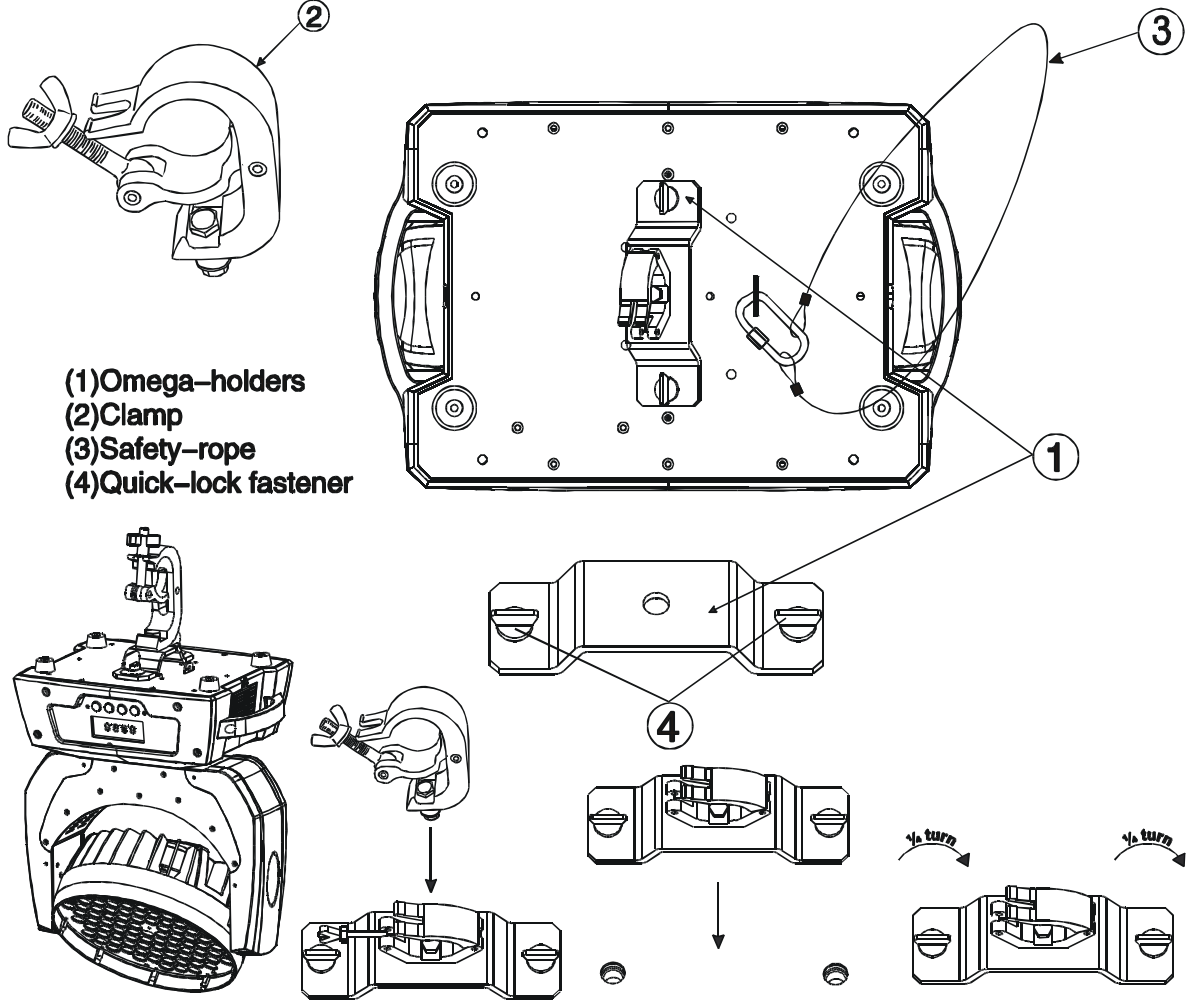
- All fixtures connected after the master must be set to "SLAVE" mode. From the main menu select "SLAVE" and press ENTER to confirm. Please refer to menu navigation.

### **MANUAL MODE**

- Manual mode will allow you to set the fixture on a static scene without the use of a DMX controller. From the main menu select "Manual". From here by using the UP and DOWN buttons select the DMX channel that you want to modify and press ENTER. Using the UP and DOWN you can adjust that corresponding DMX channel from 0-255 value.

#### 4. MOUNTING AND INSTALLATION

Please refer to the picture below:

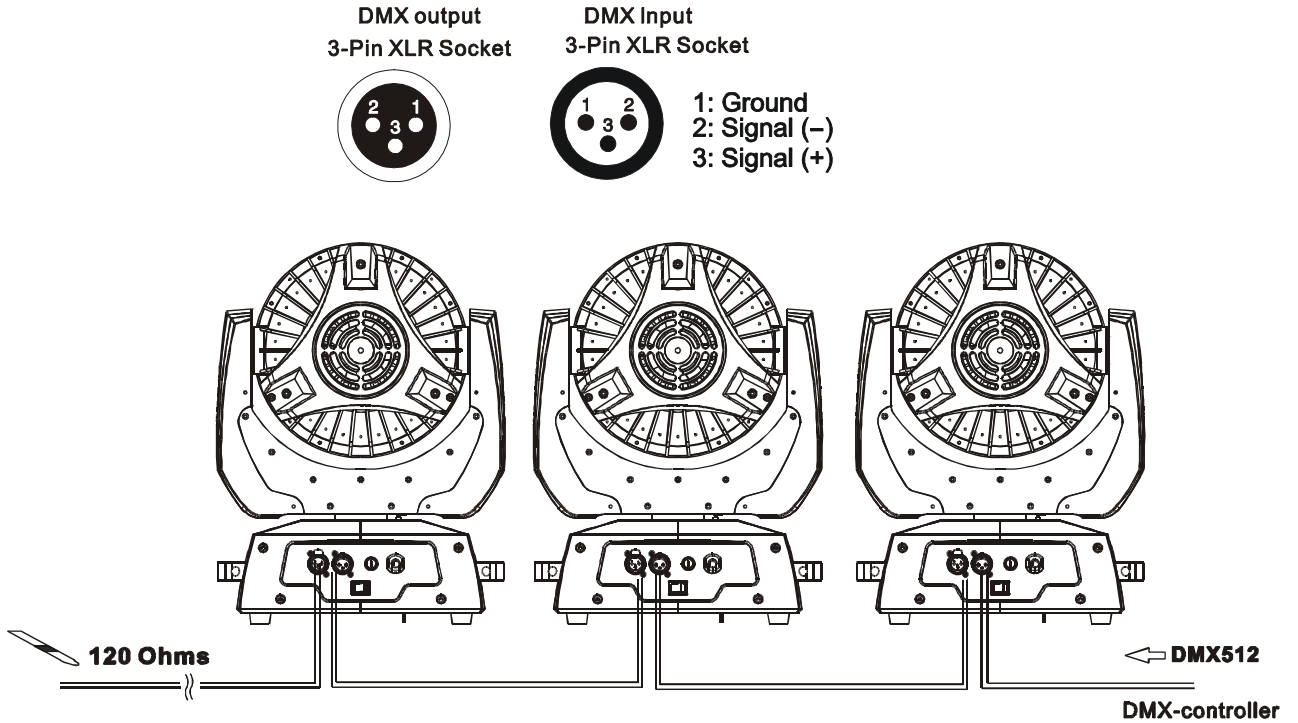


- (1) Omega-holders
- (2) Clamp
- (3) Safety-rope
- (4) Quick-lock fastener

- Screw one clamp via a M12 screw and nut into the Omega holders.
- Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
- Install the second Omega holder.
- Pull the safety-rope through the holes on the bottom of the base and over the trussing system or a safe fixation spot. Insert the end in the carabiner and tighten the safety screw.

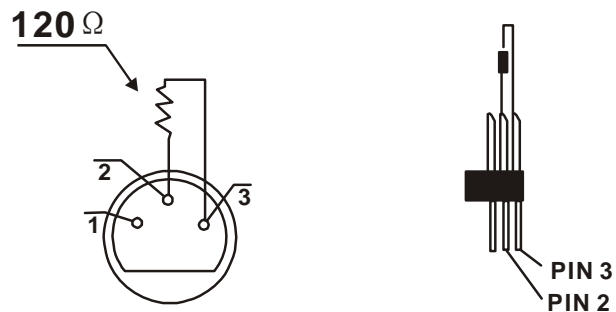
## 5. DMX-512 CONTROL CONNECTIONS

Connect the provided XLR cable to the female 3-pin or 5-pin XLR output of your controller and the other side to the male 3-pin or 5-pin XLR input of the MICROH LED PHANTOM. You can chain multiple units together through serial linking. The cable needed should be a two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

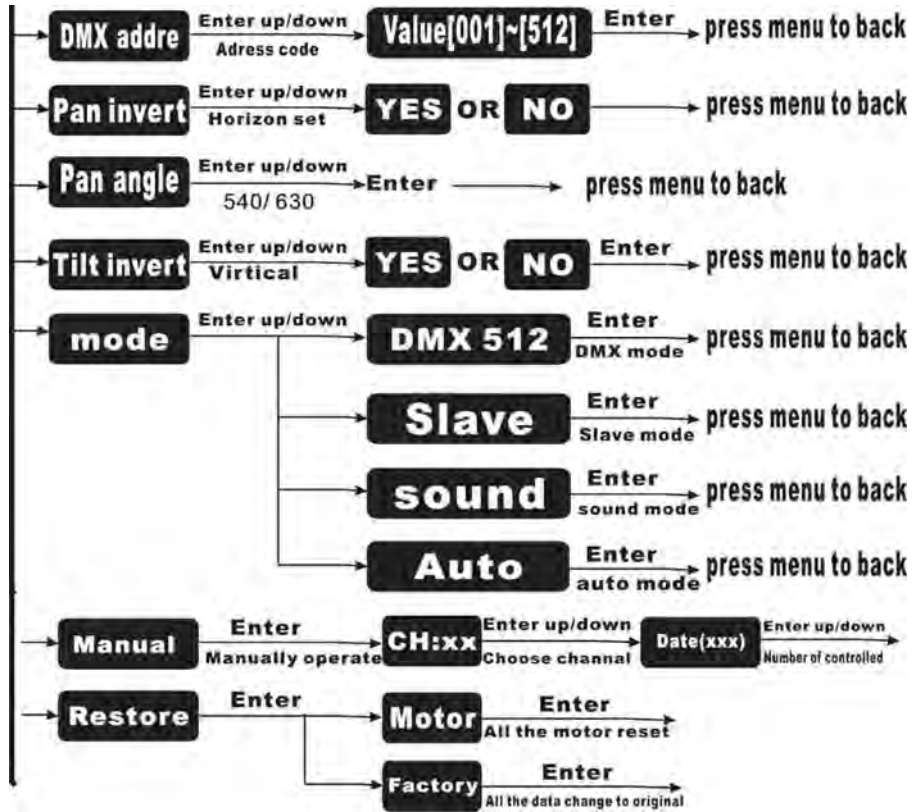


### DMX-512 Connection With DMX Terminator

For installations where the DMX cable has to run a long distance, or is in an electrically noisy environment, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120  $\Omega$  resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



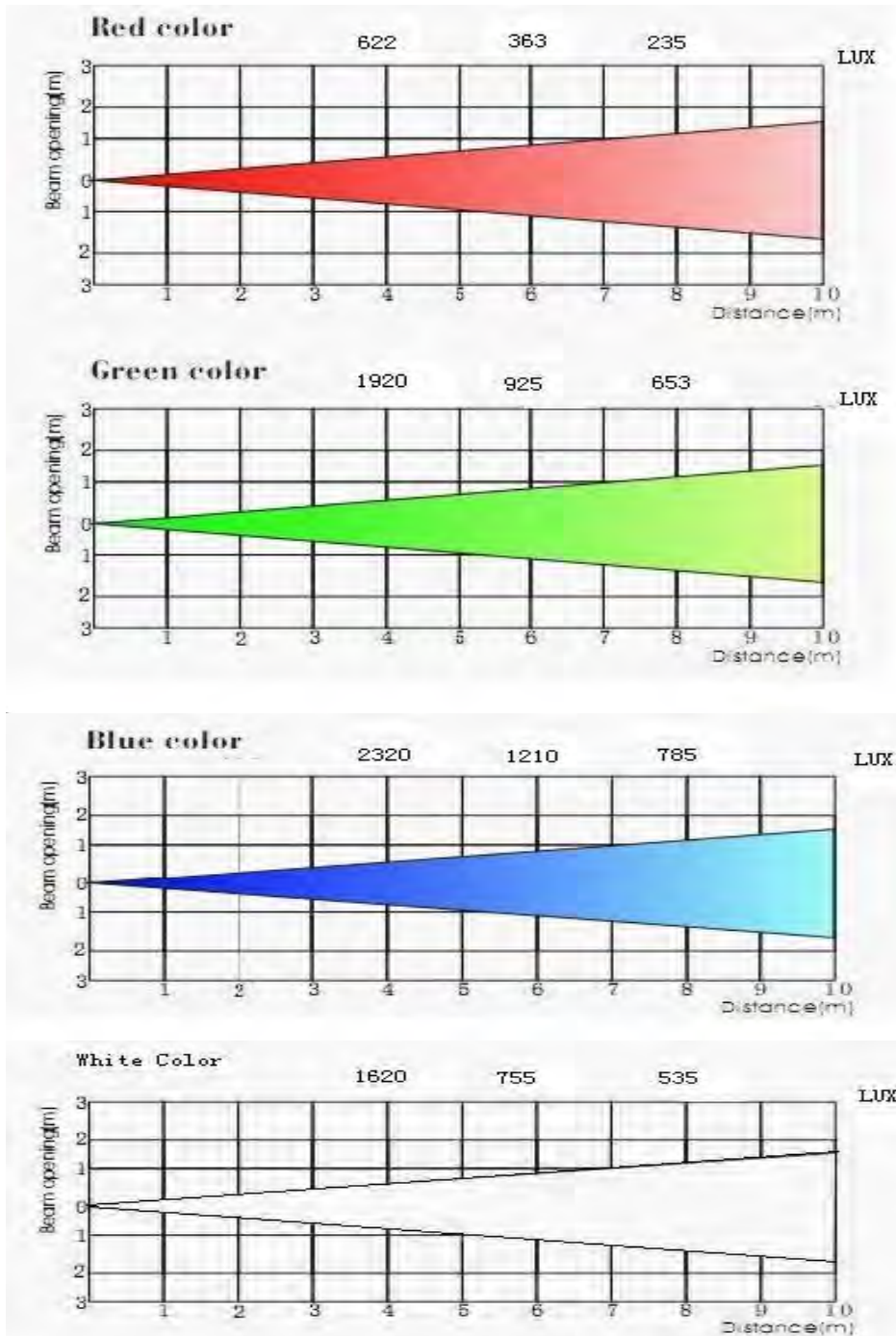
## 6. MENU NAVIGATION



\* Please note that the backlit menu display will blackout after approx. 30 seconds of inactivity. To reactivate, push the MENU button. The backlit display will now turn on



## 7. PHOTOMETRIC DATA





## 8. DMX CHANNELS

### DMX MODE #1 (8 BIT MODE)

Channel	Function	Value	Description
1	Pan	0-540	Pan Movement 8 Bit
2	Tilt	0-280	Tilt Movement 8 Bit
3	Dimmer	0-100	Gamma Adjustment
4	Red	0-100%	Red ( 0-Black , 255-100% Red )
5	Green	0-100%	Green ( 0-Black , 255-100% Green )
6	Blue	0-100%	Blue ( 0-Black , 255-100% Blue )
7	White	0-100%	White ( 0-Black , 255-100% White )
8	Strobe	000-006	No Function
		007-065	Slow to Fast Strobe
		066-069	No Function
		070-128	Pulse Strobe From Slow to Fast
		129-132	No Function
		133-191	Strobe Fading in From Slow to Fast
		192-195	No Function
		196-255	Strobe Fading Out From Slow to Fast
9	Scan Speed	0-255	From Fast to Slow
10		000-004	No Function
		005-044	Eight Fixed Colours
		045-049	No Function
		050-094	Eight Jumping Colours (9 Levels)
		095-099	No Function
		100-149	Eight Fading Colours (5 levels)
		150-154	No Function
		155-166	Red+Green From Dark to Bright
167-178	Green+Red From Bright to Dark		

	RGB Macro Function	179-190	Green+Blue From Dark to Bright
		191-202	Blue+Green From Bright to Dark
		203-214	Blue+Red From Dark to Bright
		215-226	Red+Blue From Bright to Dark
		227-238	RGB From Dark to Bright
		239-250	Blue+Red From Dark to Bright at the Same Time Green From Bright to Dark
		251-255	Output 100% at the Same Time
11	Auto	000-127 128-255	No Fuction Auto

**DMX MODE #2 (EXTENDED MODE, 8 AND 16 BIT)**

Channel	Function	Value	Description
1	Pan	0-540	Pan movement 8 Bit
2	Pan Fine		Pan Fine Movement 16 Bit
3	Tilt	0-280	Tilt movement 8 Bit
4	Tilt Fine		Tilt Fine Movement 16 Bit
5	Red	0-100%	Red ( 0-Black , 255-100% Red )
6	Green	0-100%	Green ( 0-Black , 255-100% Green )
7	Blue	0-100%	Blue ( 0-Black , 255-100% Blue )
8	White	0-100%	White ( 0-Black , 255-100% White )
9	Dimmer	0-100	Gamma Adjustment
10	Strobe	000-006	No Function
		007-065	Slow to Fast Strobe
		066-069	No Function
		070-128	Pulse Strobe From Slow to Fast

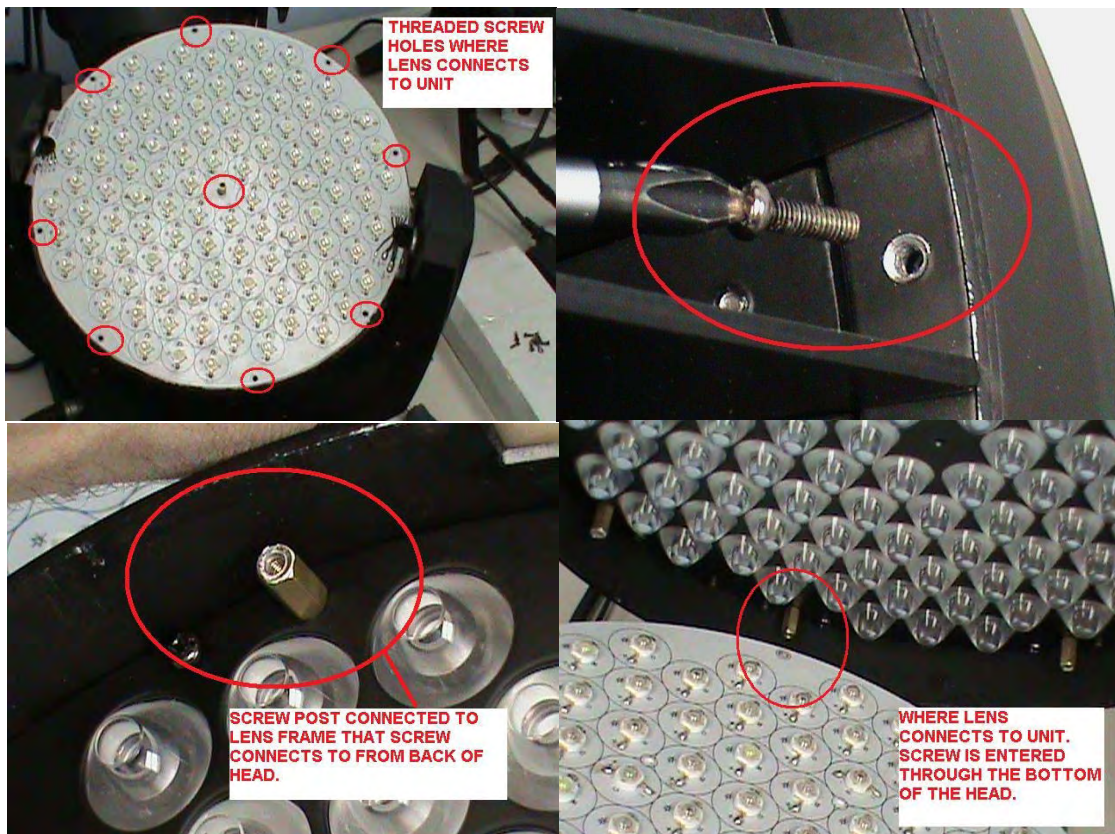
		129-132	No Function
		133-191	Strobe Fading in From Slow to Fast
		192-195	No Function
		196-255	Strobe Fading Out From Slow to Fast
11	Scan Speed	0-255	From Fast to Slow
12	RGB Macro Function	000-004	No Function
		005-044	Eight Fixed Colours
		045-049	No Function
		050-094	Eight Jumping Colours (9 levels)
		095-099	No Function
		100-149	Eight Fading Colours (5 levels)
		150-154	No Function
		155-166	Red+Green From Dark to Bright
		167-178	Green+Red From Bright to Dark
		179-190	Green+Blue From Dark to Bright
		191-202	Blue+Green From Bright to Dark
		203-214	Blue+Red From Dark to Bright
		215-226	Red+Blue From Bright to Dark
227-238	RGB From Dark to Bright		
239-250	Blue+Red From Dark to Bright at the Same Time Green From Bright to Dark		
251-255	Output 100% at the Same Time		
13	Auto	000-127 128-255	No Function Auto

## 9. KEY FEATURES

- 108 x 3W High Power LEDs (24 Red, 28 Green, 28 Blue, 28 White Edison LEDs)
- Extremely Long Life: 50,000 Hr and Low Power Consumption
- 2 DMX Channel Modes: 12 Channels Standard and 13 Channel Extended Mode
- Pan/Tilt Movement: 8 Bit and 16 Bit Resolution for Smooth and Precise Resolution
- Pan: 540°, Tilt: 265° Movement
- High Speed Pan/Tilt Movement with Speed Adjustment.
- Pan and Tilt Correction, Auto Reposition After Unexpected Movement or Error.
- Strobe Effect with 18 Flashes per Second and Pulse Effect

- Smooth Dimming Curve
- Excellent Colour Mixing and Rainbow Effects
- Bright Blue Digital LCD Display
- DMX 512, Master/Slave, Sound Activate, Auto Run Modes
- Preset Program: 7 Built in Programs via DMX Controller or Manually Through the on Board Display

LENS REPLACEMENT - To replace the lens, you must remove 9 screws on the back of the head as shown in the diagrams below. Once the screws have been removed the lens will become free and you may now replace it with one of the optional beam angles available. Re-fix the screws to secure.



## 10. TECHNICAL SPECIFICATIONS

**MODEL:** LED PHANTOM

**LAMP:** 108 x 3W High Power LEDs (24 Red, 28 Green, 28 Blue, 28 White Edison LEDs)

**VOLTAGE:** 120VAC 60Hz

**FUSE:** 120VAC 3.2A

**MAX:** 350W

**DIMENSIONS:** 16.93" x 11.81" x 15.75" / 430x300x400mm

**NET WEIGHT:** 19.84 lbs / 9kgs

**GROSS WEIGHT:** 24.25 lbs / 11kgs

**WARRANTY:** 2 Year Limited Warranty

## 11. MAINTENANCE AND CLEANING

The following points have to be considered during the inspection:

- 1) All screws for installing the device, or parts of the device must be tightly connected, and must not be corroded.
  - 2) There must not be any deformations on the housing, colour lenses, fixations or installation spots (ceiling, suspension, trussing).
  - 3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
  - 4) The electric power supply cables must not show any damage, material fatigue or sediments.
- Further instructions depending on the installation spot and usage must be handled by a skilled installer or technician. Any safety issues must be resolved.



In order to keep the fixture in good condition and extend the life, we suggest regular cleaning to the fixture.

- 1) Clean the inside and outside lens each week to avoid the light output from darkening due to accumulation of dust, dirt, etc.
- 2) Clean the fan each week.
- 3) A detailed electrical check by approved technician every three months is advised. Ensure the circuit contacts are in good condition, and prevent from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents. There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions". Should you need any spare parts, please order genuine MICROH parts from your local dealer.

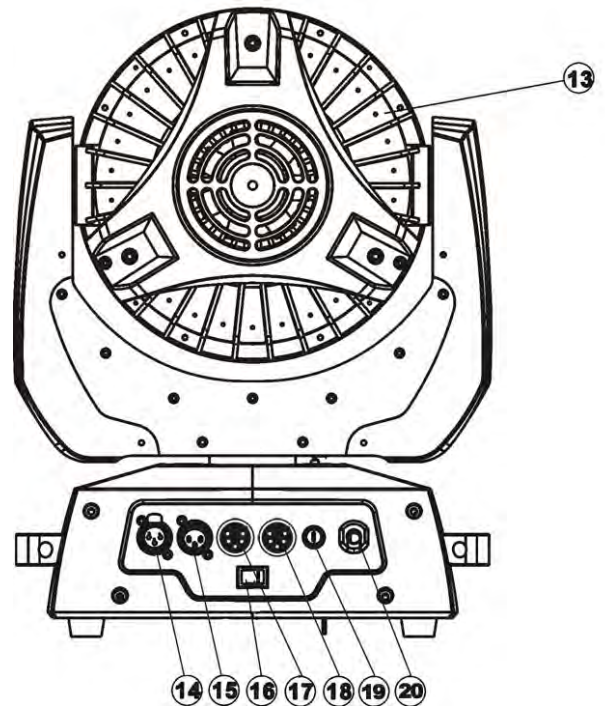
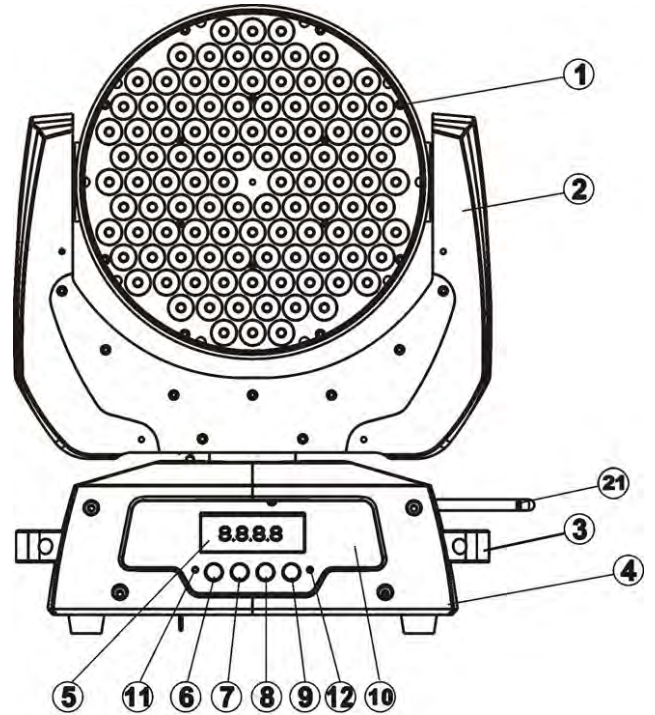
**IF YOU SHOULD EXPERIENCE ANY PROBLEMS OR ISSUES PLEASE CONTACT MICROH PROFESSIONAL PRODUCTS BY EMAIL AT [info@microhpro.com](mailto:info@microhpro.com)**

In the event that your unit is defective in any way, please contact your local dealer to obtain an RA number for service repair.

**DISCLAIMER – MICROH believes that the information contained within this user manual is accurate. However, Microh is not responsible for any error or addendums to this manual. If you have any comments or general suggestions on how this manual can be improved please contact [info@microhpro.com](mailto:info@microhpro.com). Thank you**

## 12. UNIT OVERVIEW

- (1) Lens
- (2) Yoke
- (3) Carrying handle
- (4) Base
- (5) LCD-Display
- (6) MENU-button
- (7) Up-button
- (8) Down-button
- (9) Enter-button
- (10) Control Board
- (11) Internal microphone
- (12) n/a
- (13) Housing
- (14) 3-PIN DMX output socket
- (15) 3-PIN DMX input socket
- (16) Power switch
- (17) 5-PIN DMX output socket
- (18) 5-PIN DMX input socket
- (19) Fuse
- (20) PowerCon input (AC)
- (21) n/a





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