

# Manual



# **LED Arc Wave white**



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# 1. Safety instructions



- This device is suitable for indoor use (not outdoors) only.
- All modifications to the device will void the warranty.
- Repairs are to carry out by skilled personnel only.
- Use only fuses of the same type and original parts as spare parts.
- Protect the unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing.

# 1.1. For safe and efficient operation

## Be careful with heat and extreme temperature!

Avoid exposing it to direct rays of the sun or near a heating appliance. Not put it in a temperature bellow 32°F /0°C, or exceeding 104°F /40°C.

### Keep away from humidity, water and dust!

Do not place the set in a location with high humidity or lots of dust. Containers with water should not be placed on the set.

### To avoid placing on un-stable location!

Select a level and stable location to avoid vibration.

## Do not use chemicals or volatile liquids for cleaning!

Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

#### If out of work, contact sales agency immediately!

Any troubles arose, remove the power plug soon, and contact with an engineer for repairing, do not open the cabinet by yourself, it might result a danger of electric shock.

#### Take care with the power cable!

Never pull the power cable to remove the plug from the receptacle, be sure to hold the plug. When not using the device for an extended period of time, be sure to disconnect the plug from the receptacle.

#### 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. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.



# 2. Designated use

This device was developed for professional use on stages, in discos, theatres etc. The device is only approved for a connection up to 230V 50/60 Hz AC voltage and only for indoor use.

Regular breaks during operation increase the lifetime of your device.

Avoid convulsions or any form of forceful impact during the installation or the start-up of the device.

Make sure that the device is not exposed excessive heat, humidity or dust at the place of installation. Take care that no cables are lying around. You would endanger your own safety and also the safety of a third party.

It is not allowed to operate or store the device in an environment in which spray water, rain, humidity or fog is expected. Humidity or very high atmospheric humidity could reduce the isolation of the device and could cause deathly electric shocks. If you use fog devices the device has not be exposed to a direct smoke jet. There has to be a safety distance of at least 0,5m between this device and the fog machine. Make sure that the saturation of the fog has to enable a visibility of at least 10m.

Operate the device not during thunderstorms. Surge voltages could destroy the device. Unplug the power supply during thunderstorms.

Surrounding objects or surfaces should not be in contact with the device.

Make sure that during the installation and removal of the device the area below the place of installation is basically cordoned off. This also applies to implementation of service.

The device has basically been protected by a suitable safety.

Make familiar yourself with the functions of the device before start-up. People without the experience should not handle with the device. The most cause of functional disorder is inappropriate handling.

Do not use chemicals or volatile liquids for cleaning. Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

For transport use the original packing or designated accessory to avoid damages during the transport.

## For reasons of safety unauthorized changes are forbidden.

A usage of the device which differs from usages which are described in this manual can cause damages of the device. In that case the warranty expires. Additional you should notice that every differed usage is related with dangers and can cause e.g. an electrical short, fire, electric shock or crash.



#### 2.1. Overhead installation



#### Danger of life!

You have to observe the regulations of BGV C1 (formerly VBG 70) and EN60598-2-17 Installations are to carry out by skilled personnel only.

The suspension devices have to be build and measured so they can withstand for an hour the tenfold of the payload without suffering a permanent detrimental deformation.

Basically installation has to be made by using a second separate suspension. This can be e.g. a suitable net. The second suspension must be designed and attached so no part of the installation can fall down in case of failure.

During construction, reconstruction and deconstruction unnecessary stay in the range of moving areas, on lightning bridges, under elevated work stations or any other danger zones is forbidden.

The operator is obliged to following safety-related and mechanical facilities:

- Before the first start-up or after critical changes before restarting it has to be checked by an expert.
- Review in the frame of the inspection test at least all four years by an expert. .
- Review by a qualified person at least once a year.

#### How to carry out the overhead installation:

In tidal fall you should install the device out of the lounge area of people

#### **IMPORTANT!**

Overhead installation requires a high level of experience. This includes knowledge of calculating the payload, used installation material and safety inspections of the used material and the projector whereas the required experience is not limited to this. Do not try to carry out installation yourself under any circumstances if you are not qualified. Contact a professional installer. An inappropriate installation can lead to injuries and/or damaged properties.

It is not allowed to install the device in the grip area of people.

If the device may hang from the ceiling or from high beams, the use of truss systems is mandatory. The device may not be installed so it can swing freely in the room.

Please note: Crashing down items can cause serious injuries! Do not install the projector, if you doubt the safety of a possible installation form!

Before installation make sure that the mounting surface has the ability to carry the tenfold point load of the own weight of the device.

Mount the device with the mounting-bracket to your trussing system using an appropriate clamp.

During overhead installation the device must be always secured by a safety rope which is designed to hold the twelvefold weight of device. Only safety ropes with quick-release safety fastener elements may be used. Hang up the safety rope in the hole of the mounting bracket. Direct the rope over the truss or an appropriate fastening point. Hang up the end in the fastening element and tie up the locking nut. A safety rope once exposed to failing load or damaged may not be used furthermore.



# The maximum drop exceed must not exceed 20cm.

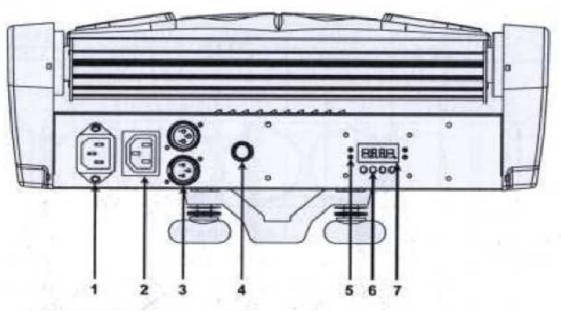
A safety rope once exposed to failing load or damaged may not be used furthermore. Adjust the desired inclination angle via the mounting bracket and tighten the screw.



# 3. Introduction

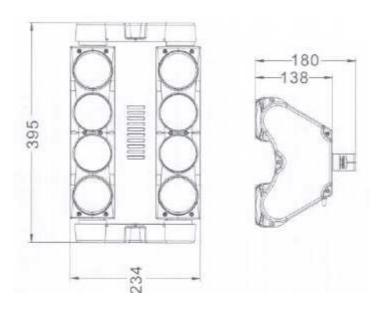
Thank you for buying the **LED Arc Wave white**. It is a powerful device. For a successful installation and operation, please read this manual carefully.

## 3.1. Product overview



- 1. Power in
- 2. Power out
- 3. DMX In/Out
- 4. Microphone
- 5. LED DMX, MASTER, SLAVE, SOUND
- 6. Control elements
- 7. Display

## 3.1.1. Dimensions





## 4. Connections

#### 4.1. Electrical connections

If you wish to change the power supply settings, see the chapter Appendix. Connect the fixture to the mains with the enclosed power cable and plug. The earth has to be connected.

| Cable (EU)   | Cable (US) | Pin     | International |
|--------------|------------|---------|---------------|
| Brown        | Black      | Live    | L             |
| Light blue   | White      | Neutral | N             |
| Yellow/Green | Green      | Earth   | lacktriangle  |

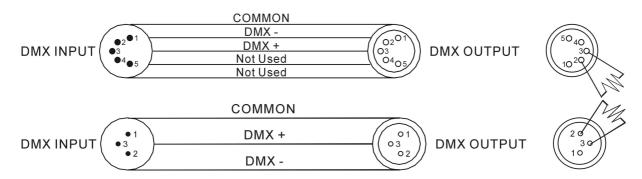
## 4.2. DMX connections

To make a DMX512 connection go ahead like it is described in the picture. Make sure that you use shielded cable. 3pole or 5pole XLR cables are suitable.

Important! After the last device the line has to be terminated. In order to do this you have to solder a  $120\Omega$  resistor between the pins Data + and Data -. You can solder this end resistor on a 3pin or 5pin XLR: Plug this adapter into the DMX output of the device.

#### 4.3. DMX connection with terminator

Where the DMX cable has to run a long distance or the equipment is operated in an electrically noisy environment like a disco for installations, we recommend using a DMX terminator. This prevents corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR connector with a 120  $\Omega$  resistor between pins 2 and 3, which is then plugged into the XLR output socket of the last device in the series. Please look to the bottom drawings.





# 5. Control

To get to the main menu, press MENU. You are now in the main menu. You can select the menu items by using the UP / DOWN keys. When the function appears that you want to change, press the ENTER button. For the following values you can use the UP /DOWN keys to change and press the ENTER key. To come up one menu level, press the MENU button again. For details on the functions you will learn in the next points of this manual.

## 5.1. Structure of the menu

| Addr  | 1-512   | Setting the DMX address.   |  |  |
|-------|---------|--|--|--|
|       | 1ch     |  |  |  |
| chnd  | 6ch     | Choosing one DMX mode.   |  |  |
|       | 12ch    |  |  |  |
|       | SL1     | Choosing one slave mode.   |  |  |
| sLnd  | SL2     | Choosing one slave mode.   |  |  |
|       | MAST    | The device is set as master.   |  |  |
| shnd  | Sh0-Sh8 | Choosing one automatic program.  |  |  |
| SoUn  | On/Off  | (De-)Activate the sound-to-light mode.                                       |  |  |
| SenS  | 0-100   | Setting the sensitivity of the microphone.                                   |  |  |
| bLnd  | Yes/No  | (De-)Activate the blackout if the DMX signal gets lost.                      |  |  |
| Led   | On/Off  | If this function is activated the display shuts down if there is no control. |  |  |
| dISP  | dISP    | The display is reversed.   |  |  |
| uior  | dSIP    |  |  |  |
| 1tIL  | Yes/No  | (De-)Activate the reversed Tilt of head 1.                                   |  |  |
| 2tIL  | Yes/No  | (De-)Activate the reversed Tilt of head 2.                                   |  |  |
| re-   | Yes/No  | If this function is activated the order of the LEDs is reversed.             |  |  |
| test  |         | A test program starts.   |  |  |
| Fhr5  | XXX     | The current fixture time is shown.   |  |  |
| uer   | u xxx   | The current software version is shown.                                       |  |  |
| reset |         | Reset.   |  |  |



# 6. DMX chart

# **6.1. Mode 1 (1 Channel)**

| Channel | Value from | Value to | Function                  |
|---------|------------|----------|---------------------------|
|         | 0          | 7        | No function               |
|         | 8          | 37       | Automatic program 1       |
|         | 38         | 67       | Automatic program 2       |
|         | 68         | 97       | Automatic program 3       |
| 1       | 98         | 127      | Automatic program 4       |
| '       | 128        | 157      | Automatic program 5       |
|         | 158        | 187      | Automatic program 6       |
|         | 188        | 217      | Automatic program 7       |
|         | 218        | 247      | Automatic program 8       |
|         | 248        | 255      | Random automatic programs |
|         |            |          |                           |

# 6.2. Mode 2 (6 channels)

| 1 0 255 Tilt head 1 2 0 255 Tilt head 2 3 0 255 Dimmer 0-100%  Strobe 0 7 Open 8 131 Strobe slow-fast 132 139 Open 140 181 Slow opening, fast closing |  |
|---|--|
| 3 0 255 Dimmer 0-100%  Strobe  0 7 Open  8 131 Strobe slow-fast  132 139 Open  140 181 Slow opening, fast closing                                     |  |
| Strobe  0 7 Open  8 131 Strobe slow-fast  132 139 Open  140 181 Slow opening, fast closing  |  |
| 0 7 Open 8 131 Strobe slow-fast 132 139 Open 140 181 Slow opening, fast closing   |  |
| 8 131 Strobe slow-fast 132 139 Open 140 181 Slow opening, fast closing  |  |
| 132 139 Open 140 181 Slow opening, fast closing   |  |
| 140 181 Slow opening, fast closing  |  |
| 4   |  |
| 4   |  |
| . 182 189 Open  |  |
| 190 231 Fast opening, slow closing  |  |
| 232 239 Open  |  |
| 240 Sound-to-light  |  |
| 248 255 Open  |  |
| Chase   |  |
| 0 7 No function   |  |
| 8 Chase 1   |  |
| 23 Chase 2  |  |
| 38 Chase 3  |  |
| 53 Chase 4  |  |
| 68 82 Chase 5   |  |
| 83 97 Chase 6   |  |
| 98 112 Chase 7  |  |
| 113 127 Chase 8   |  |
| 128 Chase 9   |  |
| 143 157 Chase 10  |  |
| 158 Chase 11  |  |
| 173 Chase 12  |  |



|   | 188 | 202 | Chase 13                      |
|---|-----|-----|-------------------------------|
|   | 203 | 217 | Chase 14                      |
|   | 218 | 232 | Chase 15                      |
|   | 233 | 247 | Chase 16                      |
|   | 248 | 255 | Full on                       |
| 6 | 0   | 255 | Speed for channel 5 slow-fast |

# **6.3. Mode 3 (12 channels)**

| Channel | Value from | Value to | Function                   |
|---------|------------|----------|----------------------------|
| 1       | 0          | 255      | Tilt head 1                |
| 2       | 0          | 255      | Tilt head 2                |
| 3       | 0          | 255      | Dimmer 0-100%              |
|         |            |          | Strobe                     |
|         | 0          | 7        | Open                       |
|         | 8          | 131      | Strobe slow-fast           |
|         | 132        | 139      | Open                       |
| 4       | 140        | 181      | Slow opening, fast closing |
| 4       | 182        | 189      | Open                       |
|         | 190        | 231      | Fast opening, slow closing |
|         | 232        | 239      | Open                       |
|         | 240        | 247      | Sound-to-light             |
|         | 248        | 255      | Open                       |
| 5       | 0          | 255      | Dimmer LED 1 0-100%        |
| 6       | 0          | 255      | Dimmer LED 2 0-100%        |
| 7       | 0          | 255      | Dimmer LED 3 0-100%        |
| 8       | 0          | 255      | Dimmer LED 4 0-100%        |
| 9       | 0          | 255      | Dimmer LED 5 0-100%        |
| 10      | 0          | 255      | Dimmer LED 6 0-100%        |
| 11      | 0          | 255      | Dimmer LED 7 0-100%        |
| 12      | 0          | 255      | Dimmer LED 8 0-100%        |



# 7. Technical data

| Power supply           |                      |  |  |
|------------------------|----------------------|--|--|
| Voltage                | 100-250 V / 50/60 Hz |  |  |
| Power consumption max. | 100 W                |  |  |
| Light source           |                      |  |  |
| LM type                | LED CREE             |  |  |
| Color spectrum         | Weiß                 |  |  |
| Power                  | 80 W                 |  |  |
| Number / Power         | 8 x 10 W             |  |  |
| Connections            |                      |  |  |
| Strom in               | IEC                  |  |  |
| Strom out              | IEC                  |  |  |
| XLR in/out             | XLR 3pol             |  |  |
| Controlling            |                      |  |  |
| Automatic              | Yes                  |  |  |
| Sound-to-light         | Yes                  |  |  |
| Master-Slave           | Yes                  |  |  |
| DMX512                 | Yes                  |  |  |
| Number of DMX channels | 1/6/12               |  |  |
| Hardware               |                      |  |  |
| Dimensions (L/B/H)     | 395 x 234 x 180 mm   |  |  |
| Weight                 | 4,6 kg               |  |  |









# Importer:

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