Congratulations on choosing a ADB product! We thank you for your custom.
Please note that this product, as all the others in the rich ADB range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.
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1. SAFETY INFORMATION

EN How to get your SAFETY INSTRUCTIONS in multilingual version. You may always download the multilingual Safety Instruction manual for this ADB product from:

www.adbstagelight.com
Rif: FIS01D - Safety Information LEXPERT FRESNEL M

IT Come ottenere le INFORMAZIONI DI SICUREZZA nella versione multilingue. Puoi sempre scaricare la versione multilingue delle Informazioni di Sicurezza per questo prodotto ADB al seguente link:

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DE So erhalten Sie Ihr INFORMATIONEN ZUR SICHERHEIT in der mehrsprachigen Version. Sie können die mehrsprachige Version des Handbuchs mit Sicherheitshinweisen für dieses ADB Produkt unter folgendem Link herunterladen:

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ES Cómo obtener tu INFORMACIONES DE SEGURIDAD en la versión multilingüe. Siempre puedes descargar la versión multilingüe del Manual de Instrucciones de Seguridad para este producto ADB en el siguiente enlace:

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FR Comment obtenir votre CONSIGNES DE SÉCURITÉ dans la version multilingue. Vous pouvez toujours télécharger la version multilingue du Manuel d’Instructions de Sécurité pour ce produit ADB au lien suivant :

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RU Где достать ИНСТРУКЦИЮ ПО ТЕХНИКЕ БЕЗОПАСНОСТИ на нескольких языках. Вы всегда можете скачать многоязычную инструкцию по технике безопасности для данного изделия ADB по ссылке:

www.adbstagelight.com
Rif: FIS01D - Safety Information LEXPERT FRESNEL M
Warning:
Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

- Unpack and check carefully there is no transportation damage before using the unit.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- DO NOT touch any wire during operation as high voltage might be causing electric shock.
- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- DO NOT open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:
There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

Installation:
The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture. The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.
2. TECHNICAL SPECIFICATIONS

OPTICAL
Light Source: 150W White LED
Lenses: Fresnel lens 200mm
Lifetime expectation in Standard mode: > 36 000 hrs
Color Temperature WW: 3150±150K
Color Temperature CW: 5600±200K
CRI: WW ≥95, CW ≥94
Beam angle (50%): 8°-80°
Field angle (10%): 15°-90°
WW Light level narrow beam @ 5 m in standard mode: 2765 Lux
WW Light level wide beam @ 5 m in standard mode: 171 Lux
CW Light level narrow beam @ 5 m in standard mode: 3478 Lux
CW Light level wide beam @ 5 m in standard mode: 227 Lux
Motorised Zoom: YES, manual control via rotating button & DMX control (8/16 bit)

DIMMING
Dimming 8/16 bits
Selectable Dimming curves
4 Power modes
• Regulated
• Silent
• Boost
• Ultra silent
Selectable PWM Frequency:
• 600Hz
• 1200Hz
• 1800Hz
• 2400Hz
• 3000Hz
• 3600Hz
• 4200Hz
• 4800Hz

PHYSICAL
Dimensions: 504 x 299 x 255 mm
Weight: 10.5KG
Color: Black
IP rating: IP20
Noise (dBA @ 1 m): 30 db in standard mode
Included Accessories: Gel Frame
Available Accessories: 8 leaves Barndoors

CONNECTIONS
Power I/O: Neutrik Powercon IN/OUT
DMX 512 I/O: Neutrik 5pins IN/OUT
Ethernet: Neutrik etherCON RJ45
Cable length: 1.5m (no plug, open wires with tin on the extremity over 7-10 mm)

CONTROL & SETTINGS
DMX 512
DMX Channels modes: 2/3/4/5/6 channels
ARTNET3
RDM
WEBPAGE
Firmware Upgrade: through Internet Webpage

ELECTRICAL
Input voltage: AC 100-240V, 50/60Hz
Units daisy chain (Max): 15 (in boost mode)
Power and Current: AC230V, 190 W, 0.83 A

CERTIFICATION
CE & ETL certification
2.1  Lamp Hook Installation

Attach the clamp using the screw to the lamp hanger of the fixture as shown above, and fasten the screw.
3. HOW TO SET THE UNIT

3.1 Control panel

1. Display: Show the various menus and the selected functions.
2. LED:
   - MASTER: On, Master Mode
   - SLAVE: On, Slave Mode
   - DMX: On, DMX input present
3. Button:
   - MENU: To select the programming functions
   - DOWN: To go backward in the selected functions
   - UP: To go forward in the selected functions
   - ENTER: To confirm the selected functions
4. INTENSITY: Adjust the dimmer value manually.
5. Zoom: Adjust the zoom value manually.
6. DMX input: For DMX512 link, use 5-pin XLR cable to link the unit together.
7. DMX output: For DMX512 link, use 5-pin XLR cable to link the unit together.
8. ETHERNET: Allows Artnet control as well as web page access from a computer with any web browser.
9. MAINS OUT: Connect to the next unit.
10. MAINS IN: Connect to mains supply power.
11. Fuse (T6.3A): Used to protect the unit from damage of the over current.
3.2 Main Functions

To select any functions, press the MENU button until the required one is shown on the display. Select the function by ENTER button and the display will blink. Use the DOWN and UP button to change the mode. Once the required mode has been selected, press the ENTER button to setup or it will automatically return to the main functions without any change after idling one minute. Back to the functions without any change press the MENU button.

The main functions are shown below:
**DMX Address**

To select the **DMX Address**, press the **ENTER** button to show **DMX ADDRESS** on the display. Use the **DOWN/UP** button to adjust the address from 1 to 512. Once the address has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Setup**

To select **Setup** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Modes, Dimmer Settings, Output Modes, Data Input, Ethernet Interface, Display Setting**, **Frequency** or **Zoom Speed**.

**DMX Modes**

To select the **DMX Modes**, press the **ENTER** button to show **DMX Modes** on the display. Use the **DOWN/UP** button to select the **Mode1, Mode2, Mode3, Mode4** or **Mode5**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Dimmer Settings**

To select the **Dimmer Settings**, press the **ENTER** button to show **Dimmer Settings** on the display. Use the **DOWN/UP** button to select the **Dimmer Curve** or **Dimmer Speed**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Dimmer Curve**

To select the **Dimmer Curve**, press the **ENTER** button to show **Dimmer Curve** on the display. Use the **DOWN/UP** button to select the **Quadratic, Linear, Inv.square** or **S Curve**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**DIMMER MODES**

![Optically Linear](image1)
![Square Law](image2)
![Inverse Square Law](image3)
![S-curve](image4)

- **Mode 1 (Optically):**
  The increase in light intensity appears to be linear as DMX value is increased.

- **Mode 2 (Linear):**
  Light intensity control is finer at low levels and coarser at high levels.

- **Mode 3 (Inverse Square Law):**
  Light intensity control is coarser at low levels and finer at high levels.

- **Mode 4 (S-curve):**
  Light intensity control is finer at low levels and high levels and coarser at medium levels.

**Dimmer Speed**

To select the **Dimmer Speed**, press the **ENTER** button to show **Dimmer Speed** on the display. Use the **DOWN/UP** button to select the **Fast** or **Smooth**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one

**Output Modes**

To select the **Output Modes**, press the **ENTER** button to show **Output Modes** on the display. Use the **DOWN/UP** button to select the **Boost, Regulated, Silent** or **Ultra Silent**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Data Input**

To select the **Data Input**, press the **ENTER** button to show **Data Input** on the display. Use the **DOWN/UP** button to select the **Auto, DMX** or **Art-Net**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.
**Ethernet Interface**

To select the *Ethernet Interface*, press the ENTER button to show *Ethernet Interface* on the display. Use the DOWN/UP button to select the *Network, Art-net* or *Repeat on DMX*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Network**

To select the *Network*, press the ENTER button to show *Network* on the display. Use the DOWN/UP button to select the *IP* or *Mask*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Art-net**

To select the *Art-net*, press the ENTER button to show *Art-net* on the display. Use the DOWN/UP button to select the *Net, Sub Net* or *Universe*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Repeat on DMX**

To select the *Repeat on DMX*, press the ENTER button to show *Repeat on DMX* on the display. Use the DOWN/UP button to select the *Yes* or *No*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Display Settings**

To select *Display Settings* press the ENTER button to confirm, use the UP/DOWN button to select *Display Inverse, Black Light Auto, Off Luminosity, Contrast or Temperature Unit*.

**Display Inverse**

To select the *Display Inverse*, press the ENTER button to show *Display Inverse* on the display. Use the DOWN/UP button to select the *Yes* or *No*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Black Light Auto**

To select the *Black Light Auto*, press the ENTER button to show *Black Light Auto* on the display. Use the DOWN/UP button to select the *Yes* or *No*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Off Luminosity**

To select the *Off Luminosity*, press the ENTER button to show *Off Luminosity* on the display. Use the DOWN/UP button to adjust Luminosity from 1 to 10. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

**Contrast**

To select the *Contrast*, press the ENTER button to show *Inverted* on the display. Use the DOWN/UP button to adjust Contrast from 1 to 30. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button about one second or wait for one minute to exit the menu mode.

**Temperature Unit**

To select the *Temperature Unit*, press the ENTER button to show the *Temperature Unit* on the display. Use the DOWN/UP button to select the °C or °F. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button again. Press and hold the MENU button about one second or wait for one minute to exit the menu mode.

**Frequency**

To select *Frequency*, press the ENTER button to show the *Frequency* on the display. Use the DOWN/UP button to select the 600Hz, 1200Hz, 1800Hz, 2400Hz, 3000Hz, 3600Hz, 4200Hz, 4800Hz. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button again. Press and hold the MENU button about one second or wait for one minute to exit the menu mode.

**Zoom Speed**

To select *Frequency*, press the ENTER button to show the *Frequency* on the display. Use the DOWN/UP button to select the *Smooth Speed* or *Fast Speed*. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button again. Press and hold the MENU button about one second or wait for one minute to exit the menu mode.
Informations
To select Informations press the ENTER button to confirm, use the UP/DOWN button to select Firmware, Network, Art-net, DMX Value, Fan Speed, DMX in Rate, Frequency, I out, Hours or Device ID.

Firmware
To select the Firmware, press the ENTER button to show Firmware on the display and the display will show the version of software of the unit. To go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Network
To select the Network, press the ENTER button to show Network on the display. Use the DOWN/UP button to select the IP, Mask or DHCP on/off. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Art-net
To select the Art-net, press the ENTER button to show Art-net on the display. Use the DOWN/UP button to select the Net, Sub Net or Universe. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

DMX Value
To select the DMX Value, press the ENTER button to show DMX Value on the display. Use the DOWN/UP button to select the Dimmer, Dimmer Fine, Strobe or Control. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Fan Speed
To select the Fan Speed, press the ENTER button to show Fan Speed on the display. Use the DOWN/UP button to select the Led Fan or PCB Fan. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

DMX in Rate
To select the DMX in Rate, press the ENTER button to show DMX in Rate on the display. Use the DOWN/UP button to select In ms. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Frequency
To select the Frequency, press the ENTER button to show Frequency on the display. Use the DOWN/UP button to select Freq Selec. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Zoom Speed
To select the Frequency, press the ENTER button to show Frequency on the display. Use the DOWN/UP button to select Freq Selec. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

I out
To select I out, press the ENTER button to show I out on the display. Use the DOWN/UP button to select the Unit or Led. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Hours
To select Hours, press the ENTER button to show I out on the display. Use the DOWN/UP button to select the Unit or Leds. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.

Device ID
To select the Device ID, press the ENTER button to show Device ID on the display and the display will show the Device ID of the unit. To go back to the functions without any changes press the MENU button again. Hold and press the MENU button for one second or wait for one minute to exit the menu mode.
**Manual CTRL**

To select **Manual CTRL** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Dimmer, Dimmer Fine, Zoom, Zoom Fine** or **Strobe**.

**Dimmer**

To select the **Dimmer**, press the **ENTER** button to show **Dimmer** on the display. Use the **DOWN/UP** button to adjust Dimmer from 0 to 255. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Dimmer Fine**

To select the **Dimmer Fine**, press the **ENTER** button to show **Dimmer Fine** on the display. Use the **DOWN/UP** button to adjust Dimmer from 0 to 255. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Strobe**

To select the **Strobe**, press the **ENTER** button to show **Strobe** on the display. Use the **DOWN/UP** button to adjust Dimmer from 0 to 255. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Zoom**

To select the **Zoom**, press the **ENTER** button to show **Zoom** on the display. Use the **DOWN/UP** button to adjust Dimmer from 0 to 255. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Advanced**

To select **Advanced** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **RDM, Data Loss Settings, Slave Mode or Factory Settings**

**RDM**

To select the **RDM**, press the **ENTER** button to show **RDM** on the display. Use the **DOWN/UP** button to select the On or Off. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Data Loss Settings**

To select the **Data Loss Settings**, press the **ENTER** button to show **Data Loss Settings** on the display. Use the **DOWN/UP** button to select the Black Out, Last State or Master/Slave. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Slave Mode**

To select the **Slave Mode**, press the **ENTER** button to show **Slave Mode** on the display. Use the **DOWN/UP** button to select the Master or Slave. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.

**Factory Setting**

To select the **Factory Setting**, press the **ENTER** button to show **FACTORY SETTING** on the display, use the **DOWN/UP** button to select No (keep the present setting) or Yes (the fixture will reset to factory settings and exit menu mode). To go back to the functions without any changes press the **MENU** button again. Hold and press the **MENU** button for one second or wait for one minute to exit the menu mode.
4. HOW TO CONTROL THE UNIT

You can operate the unit in five ways:
1. Universal DMX controller.
2. RDM.
3. Master/Slave.

4.1 DMX Controller

Use universal DMX controller to control the units, you have to set DMX address from 1 to 512 channels so that the units can receive DMX signal. Press the MENU button, and the display will blink. Use DOWN and UP button to change the DMX512 address. Once the address has been selected, press and keep ENTER button pressed up to when the display stops blinking or storing automatically one minute later. To go back to the functions without any change press the MENU button again. If you use please refer to the following diagram to address your DMX512 channel for the first 4 units.

<table>
<thead>
<tr>
<th>Channel Mode</th>
<th>Unit 1 Address</th>
<th>Unit 2 Address</th>
<th>Unit 3 Address</th>
<th>Unit 4 Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Channel</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2 Channel</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>3 Channel</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>4 Channel</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>5 Channel</td>
<td>1</td>
<td>6</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

4.2 DMX 512 Configurations

<table>
<thead>
<tr>
<th>Nº</th>
<th>MODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>Dimmer 8bit</td>
</tr>
<tr>
<td>2</td>
<td>Zoom</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
</tr>
</tbody>
</table>
### MODE 1 – 8 bit Dimming & Zoom

<table>
<thead>
<tr>
<th>Channel</th>
<th>DMX</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DIMMER – 8 bit</td>
<td>8 bit dimming to control led intensity</td>
</tr>
<tr>
<td>2</td>
<td>ZOOM</td>
<td>8 bit parameter to control motorized zoom</td>
</tr>
</tbody>
</table>

### MODE 2 – 8 bit Dimming, Zoom and Strobe

<table>
<thead>
<tr>
<th>Channel</th>
<th>DMX</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DIMMER – 8 bit</td>
<td>8 bit dimming to control led intensity</td>
</tr>
<tr>
<td>2</td>
<td>STROBE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>000 – 009</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>010 – 057</td>
<td>Strobe at variable speed</td>
</tr>
<tr>
<td></td>
<td>058 – 059</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>060 – 108</td>
<td>Pulse Slow closing / Fast opening at variable speed</td>
</tr>
<tr>
<td></td>
<td>109 – 110</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>111 – 159</td>
<td>Pulse Fast closing / Slow opening at variable speed</td>
</tr>
<tr>
<td></td>
<td>160 – 161</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>162 – 207</td>
<td>Random Strobe from slow to fast</td>
</tr>
<tr>
<td></td>
<td>208 – 209</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>210 – 253</td>
<td>Random Pulse from slow to fast</td>
</tr>
<tr>
<td></td>
<td>254 – 255</td>
<td>Open</td>
</tr>
<tr>
<td>3</td>
<td>ZOOM</td>
<td>8 bit parameter to control motorized zoom</td>
</tr>
<tr>
<td>Channel</td>
<td>DMX</td>
<td>Function</td>
</tr>
<tr>
<td>---------</td>
<td>-----</td>
<td>----------</td>
</tr>
<tr>
<td><strong>MODE 3 – 16 bit Dimming &amp; Zoom</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0 – 255</td>
<td>DIMMER – 16 bit High byte&lt;br&gt;16 bit dimming to control led intensity</td>
</tr>
<tr>
<td>2</td>
<td>0 – 255</td>
<td>DIMMER – 16 bit Low byte&lt;br&gt;16 bit dimming to control led intensity</td>
</tr>
<tr>
<td>3</td>
<td>0 – 255</td>
<td>ZOOM&lt;br&gt;16 bit parameter to control motorized zoom</td>
</tr>
<tr>
<td><strong>MODE 4 – 16 bit Dimming &amp; Zoom + Strobe</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0 – 255</td>
<td>DIMMER – 16 bit High byte&lt;br&gt;16 bit dimming to control led intensity</td>
</tr>
<tr>
<td>2</td>
<td>0 – 255</td>
<td>DIMMER – 16 bit Low byte&lt;br&gt;16 bit dimming to control led intensity</td>
</tr>
<tr>
<td>3</td>
<td>000 – 009</td>
<td>STROBE&lt;br&gt;Open</td>
</tr>
<tr>
<td></td>
<td>010 – 057</td>
<td>Strobe at variable speed</td>
</tr>
<tr>
<td></td>
<td>058 – 059</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>060 – 108</td>
<td>Pulse Slow closing / Fast opening at variable speed</td>
</tr>
<tr>
<td></td>
<td>109 – 110</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>111 – 159</td>
<td>Pulse Fast closing / Slow opening at variable speed</td>
</tr>
<tr>
<td></td>
<td>160 – 161</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>162 – 207</td>
<td>Random Strobe from slow to fast</td>
</tr>
<tr>
<td></td>
<td>208 – 209</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td>210 – 253</td>
<td>Random Pulse from slow to fast</td>
</tr>
<tr>
<td></td>
<td>254 – 255</td>
<td>Open</td>
</tr>
<tr>
<td>4</td>
<td>0 – 255</td>
<td>ZOOM&lt;br&gt;16 bit parameter to control motorized zoom</td>
</tr>
<tr>
<td>5</td>
<td>0 – 255</td>
<td>ZOOM FINE&lt;br&gt;16 bit parameter to control motorized zoom</td>
</tr>
<tr>
<td>Channel</td>
<td>DMX</td>
<td>Function</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
<td>----------</td>
</tr>
<tr>
<td>1</td>
<td>0 – 255 DIMMER – 16 bit High byte 16 bit dimming to control led intensity</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0 – 255 DIMMER – 16 bit Low byte 16 bit dimming to control led intensity</td>
<td></td>
</tr>
</tbody>
</table>
| 3       | STROBE  
000 – 009 Open  
010 – 057 Strobe at variable speed  
058 – 059 Open  
060 – 108 Pulse Slow closing / Fast opening at variable speed  
109 – 110 Open  
111 – 159 Pulse Fast closing / Slow opening at variable speed  
160 – 161 Open  
162 – 207 Random Strobe from slow to fast  
208 – 209 Open  
210 – 253 Random Pulse from slow to fast  
254 – 255 Open |
| 4       | CONTROL  
000 – 009 Unused range  
010 – 045 RDM On  
046 – 080 RDM Off  
081 – 115 Dimmer speed smooth  
116 – 150 Dimmer speed auto  
151 – 214 Frequency 600  
215 – 217 Frequency 1200  
218 – 220 Frequency 1800  
221 – 223 Frequency 2400  
224 – 226 Frequency 3000  
227 – 229 Frequency 3600  
230 – 232 Frequency 4200  
233 – 235 Frequency 4800  
236 – 240 Curve Quadratic  
241 – 245 Curve Linear  
246 – 250 Curve Inv Square Law  
251 - 255 Curve S  
The functions are activated/selected passing through the unused levels range and staying in the necessary range for 3 seconds |
| 5       | ZOOM  
0 – 255 16 bit parameter to control motorized zoom |
| 6       | ZOOM FINE  
0 – 255 16 bit parameter to control motorized zoom |

**IMPORTANT**  
To preserve the LED engine, it is suggested to set the Dimmer @ 0bit a few minutes before turning off the fixture.
1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 5-pin XLR-plug and plug it in the DMX output of the last unit.
2. Connect the fixture together in a “daisy chain” by XLR plug cable from the output of the fixture to the input of the next fixture. The cable cannot be branched or split to a “Y” cable. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
3. The DMX output and input connectors are pass-through to maintain the DMX circuit when one of the units’ power is disconnected.
4. 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.
5. Each lighting fixture needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
6. 5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin 4, Pin 5 not used

5. DMX 512 CONNECTIONS

The DMX512 is widely used in intelligent lighting control, with a maximum of 512 channels.
6. TROUBLESHOOTING

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work
   1. Check the connection of power and main fuse.
   2. Measure the mains voltage on the main connector.
   3. Check the power on Lamp.

B. Not responding to DMX controller
   1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
   2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
   3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
   4. Try to use another DMX controller.
   5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well
   1. The stepper motor might be damaged or the cable connected to the PCB is broken.
   2. The motor’s drive IC on the PCB might be out of condition

7. FIXTURE CLEANING

The cleaning of internal and external optical lenses and/or mirrors 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 unit’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.