Please read over this manual before operating the light.

Battery Powered LED Mini Par
(battery powered)

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

INSTALLATION

Procedure:
The device should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The device has to be installed out of the reach of people.

If the device shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The device must never be fixed swinging freely in the room.

Caution: Devices in hanging installations may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the device!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the device’s weight.

Mount the device to your trussing system using an appropriate clamp.

For overhead use, always install a safety-rope that can hold at least 12 times the fixture. You must only use safety-ropes with quick links with screw cap. Insert the safety-rope through the mounting-bracket of the device and over the trussing system, making sure it is held in a safe fixation spot. Insert the end in the quick link and tighten the safety screw.

The maximum drop distance must never exceed 20 cm.

A safety rope which already hold the strain of a crash or which is defective must not be used again.

Adjust the desired inclination-angle via the mounting-bracket and tighten the fixation screws.

DANGER TO LIFE!

Before taking into operation for the first time, the installation has to be approved by an expert!

Master/Slave-operation

The master/slave-operation enables several devices to be synchronized and controlled by one master device.

On the rear panel of the 84-5 PAR you can find an XLR-jack (DMX Out) and an XLR-plug (DMX In), which can be used for connecting several devices.

Choose the device which is to control the effects. This device then works as master and controls all other slave-devices, which are to be connected to the master-device balanced microphone lead. Connect the DMX OUT-jack with the DMX IN-plug of device.

Set DIP-switch No. 7, 8 & 9 to On and DIP-switch No. 1-6 & 10 to Off for the master device.

Set DIP-switch No. 1 & 10 to On and DIP-switch No. 2-9 to Off for all slave-devices.
DMX-512 connection / connection between fixtures

The wires must not come into contact with each other, otherwise the fixtures will not work at all, or will not work properly.

Only use a stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR-connection:

- **DMX-output**
  - XLR mounting-socket:
    - 1: Ground
    - 2: Signal -
    - 3: Signal +

- **DMX-input**
  - XLR mounting-plug:
    - 1: Ground
    - 2: Signal –
    - 3: Signal +

If you are using controllers with this occupation, you can connect the DMX-output of the controller directly with the DMX-input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

Building a serial DMX-chain:
Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ohm resistor between Signal (–) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

Addressing
Each projector occupies 4 channels. To ensure that the control signals are properly directed to each projector, the projector requires addressing. This is to be done for every single projector by changing the DIP switches as set out in this table.

The starting address is defined as the first channel from which the 84-5 PAR will respond to the controller.

Please make sure that you don’t have any overlapping channels in order to control each 84-5 PAR correctly and independently from any other fixture on the DMX data link. If two, three or more 84-5 PAR are addressed similarly, they will work similarly.

Occupation of the DIP-switches:

<table>
<thead>
<tr>
<th>Device 1 – channels 1-4</th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device 2 – channels 5-8</th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device 3 – channels 9-12</th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device 4 – channels 13-16</th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device 5 – channels 17-20</th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Connection with the mains
Connect the device to the mains with the enclosed power supply cable.

The occupation of the connection-cables is as follows:

<table>
<thead>
<tr>
<th>Cable</th>
<th>Pin</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>Live</td>
<td>L</td>
</tr>
<tr>
<td>Blue</td>
<td>Neutral</td>
<td>N</td>
</tr>
<tr>
<td>Yellow/Green</td>
<td>Earth</td>
<td></td>
</tr>
</tbody>
</table>

The earth has to be connected!
If the device will be directly connected with the local power supply network, a discc switch with a minimum opening of 3 mm at every pole has to be included in the pe electrical installation.
Lighting effects must not be connected to dimming-packs.

OPERATION
After you connected the effect to the mains, the 84-5 PAR starts running.

Stand Alone operation
In the Stand Alone mode, the 84-5 PAR can be used without controller. You can d a controller as the 84-5 PAR features a built-in programs, which provides automa
control.
Disconnect the 84-5 PAR from the controller and set all DIP-switches to Off.

**Brightness of LEDs**
Set DIP-switch No. 9 & 10 to Off. DIP-switches No.1-3 are for adjusting the brightness of the blue LEDs; DIP-switches No.4-6 are for adjusting the brightness of the green LEDs; and DIP-switches No.7 & 8 are for adjusting the brightness of the red LEDs.

**Call up the internal program**
In order to call up the internal program, set DIP-switch No.9 to On and 10 to Off, DIP-switches 1-8 to either On or Off for different internal programs.

**Master/Slave-operation**
Connect the master and slave-devices as described above and set the DIP-switches accordingly.

**Sound movement**
The pattern changing of 84-5 PAR and the Pan/Tilt movement 84-5 PAR are subject to sound control. Adjust the sound sensitivity knob at the rear panel of the fixture to set the responding sensitivity.

**DMX-controlled operation**
You can control the projectors individually via your DMX-controller. Every DMX-channel has a different occupation with different features.

**DMX-protocol**

- **Control-channel 1 – Master dimmer, Strobe, Full on**
  0-152: Master dimmer; 153-242: Strobe, from slow to fast; 243-255: Full on.
- **Control-channel 2 – Blue**
  0-255: 0-100% Blue LEDs dimmer;
- **Control-channel 3 – Green**
  0-255: 0-100% Green LEDs dimmer;
- **Control-channel 4 – Red**
  0-255: 0-100% Red LEDs dimmer.

**E. Battery Powered Mode**

The unit has the function of battery powered. The button for battery and charge is set on the rear panel. It is showed as the following picture, and the function is described as below.

- **Charge** - When the button is set on bat on, the light can be charged (the light will cut off automatically), pls do not attempt to use the light when charging.
- **Bat on** – When the button is set on bat on, the light can be battery powered.
- **Bat off** – When the button is set on bat on, the battery powered function is shut off.

**CLEANING AND MAINTENANCE**
The operator has to make sure that safety-relating and machine-technical installa inspected by an expert after every four years in the course of an acceptance test. The operator has to make sure that safety-relating and machine-technical installa inspected by a skilled person once a year.
The following points have to be considered during the inspection:
1) All screws used for installing the devices or parts of the device have to be connected and must not be corroded.
2) There must not be any deformations on housings, fixations and installati (ceiling, suspension, trussing).
3) The electric power supply cables must not show any damages, material fatigue (e.g. porous cables) or sediments. Further instructions depending on the installa and usage have to be adhered by a skilled installer and any safety problems have to be removed.

**TECHNICAL SPECIFICATIONS**
Battery powered: last for 4 hours once
Power supply: AC 90-240V / 50~60 Hz
Power consumption: 20 W
DMX-control-channels: 4
DMX-512-connection: 3-pin XLR
Sound-control: via built-in microphone
Flash-rate: 1-20 Hz
Dimensions (L×W×H): 16×15.5×13.5cm
Net Weight: 1.5 kg (84-5 PAR)
Gross Weight: 2kg
Maximum ambient temperature ta: 45°C
Light source: 84 pcs of 5mm high brightness LEDs (R30, G27, B27)

Please note: All information is subject to change without prior notice.