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SHOWCO SPOT 600



USER MANUAL

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CAUTION ! EYEDAMAGES !

Avoid looking directly into the light source
(meant especially for epileptics) !

850W

2.5 m



$t_a 40^{\circ}\text{C}$



$t_c 80^{\circ}\text{C}$

➤ **Installation**

Make sure all parts for fixing the projector are in a good state of repair. Make sure the point of anchorage is stable before positioning the projector. The safety chain must be properly hooked onto the fitting and secured to the framework, so that, if the primary support system fails, the fitting falls as little as possible. If the safety chain gets used, it needs to be replaced with a genuine spare.

➤ **Minimum distance of illuminated objects**

The projector needs to be positioned so that the objects hit by the beam of light are at least 2.5 metres from the lens of the projector.

➤ **Minimum distance from flammable materials**

The projector must be positioned so that any flammable materials are at least 0.20 metres (8") from every point on the surface of the fitting.

➤ **Mounting surfaces**

It is permissible to mount the fitting on normally flammable surfaces.

➤ **Maximum ambient temperature**

For the fitting to operate well and reliably, the ambient temperature should not exceed 40°C (104°F).

➤ **Protection against electrical shock**

Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

➤ **Hooking up to the supply mains**

Connection to the electricity mains must be carried out by a qualified electrical installer.

Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label.

This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading.

➤ **Temperature of the external surface**

The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 80°C (176°F).



➤Maintenance

Before starting any maintenance work or cleaning the projector, cut off power from the mains supply.

After switching off, do not remove any parts of the fitting for at least 10 minutes.

After this time the likelihood of the lamp exploding is virtually nil. If it is necessary to replace the lamp, wait for another 15 minutes to avoid getting burnt.

The fitting is designed to hold in any splinters produced by a lamp exploding.

The lenses must be mounted and, if visibly damaged, they have to be replaced with genuine spares.

➤Lamp

The fitting mounts a high-pressure lamp that needs an external igniter. This igniter is fitted onto the apparatus.

- Carefully read the "operating instructions" provided by the lamp manufacturer.

- Immediately replace the lamp if damaged or deformed by heat.

➤Battery

This product contains a rechargeable lead-acid battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

3. Operating determinations

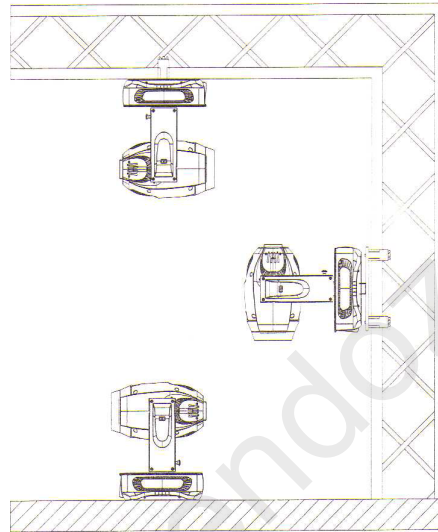
- This device is a moving-head for creating decorative effects and was designed for indoor use only.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- Never run the device without lamp!
- Do not shake the device. Avoid brute force when installing or operating the device.
- Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.
- When choosing the installation-spot, please make sure that the device is not exposed to heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!
- The minimum distance between light output and the illuminated surface must be more than 1.5 meters.
- Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.
- Always fix the fixture with an appropriate safety rope. Fix the safety rope at the correct holes only.
- Operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- The lamp must never be ignited if the objective-lens or any housing-cover is open, as discharge lamps may explode and emit a high ultraviolet radiation, which may cause burns.
- The maximum ambient temperature 40°C must never be exceeded.
- Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!
- Please use the original packaging if the device is to be transported.
- Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
- If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash etc.

The lamp used in this projector is a discharge lamp. After switching off don't attempt to restart the projector until the lamp has cooled, this will require approx 15 minutes. Switching the lamp on and off at short intervals will reduce the life of both the lamp and the projector. But occasional breaks will prolong the lamp and projector

4. Rigging the fixture

4.1 Mounting

– The FIXTURE can be installed in any position.



Pay attention to the regulations of CE

The installation shall be done by qualified staff only

For the various mounting positions of the FIXTURE (standing on the floor, sideways or hanging) different accessories kits are available.

Through this a safe and firm installation is assured.

You'll find special connectors on the bottom side of the system which are put to use here.

In addition the front side of the system is marked with (FRONT) as this is important for a even orientation during installation.

4.2 Installing the Clamps

– **DANGER TO LIFE** Please consider the respective national norms during the Installation! The installation must only be carried out by an authorized dealer!

– The installation of the projector has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

– The installation must always be secured with a secondary safety attachment, e.g. An appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall in if the main attachment fails.

– When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

– The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

– The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

– The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

– The projector should be installed outside areas where persons may walk by or be seated.

– Important! Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these 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 projector has to be installed out of the reach of people.

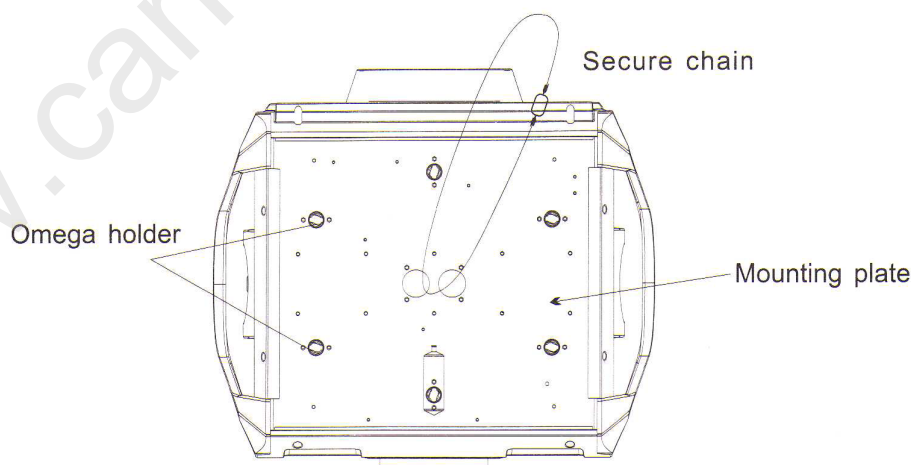
– If the projector shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The projector must never be fixed swinging freely in the room.

– Caution Projectors may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the projector!

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


– The projector can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics.

– For overhead use, always install a safety-rope that can hold at least 10 times the weight of the fixture. You must only use safety-ropes with screw on carabines. Pull the safety-rope through the two apertures on the bottom of the base and over the trussing system etc.



4. 3 Connection

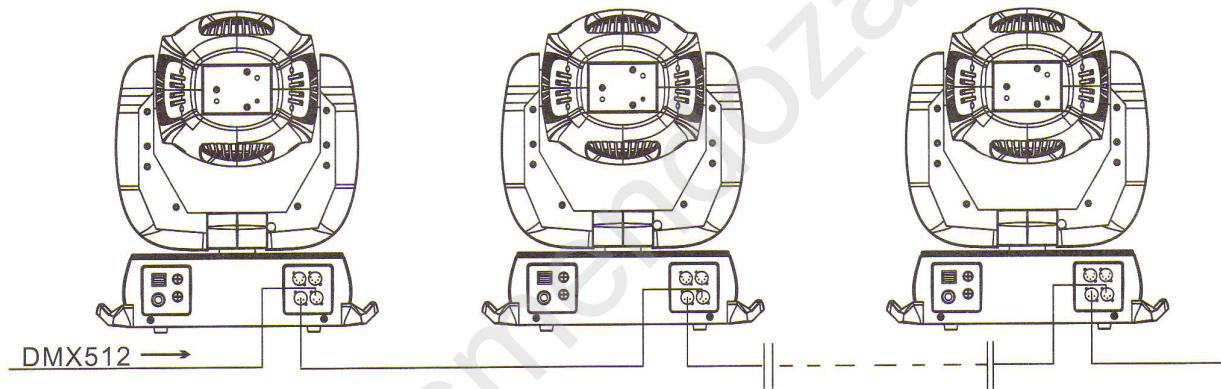
If you wish to change the power supply settings, see the chapter Appendix.
Connect the fixture to the mains with the enclosed power cable and plug.
The earth has to be connected!

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

4. 3. 1 DM X-512 connection

DM X-512 connection/connection between fixtures

Only use a stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect

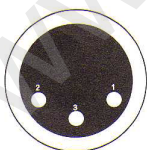


Caution:

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

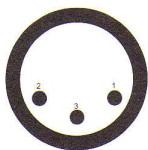
4. 3. 2 DMX Cable Connection Diagram

DMX output
3-Pin XLR Socket

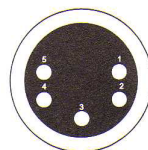


1: Ground
2: Signal (-)
3: Signal (+)

DMX input
3-Pin XLR Socket

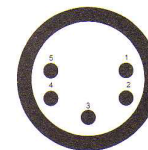


DMX output
5-Pin XLR Socket

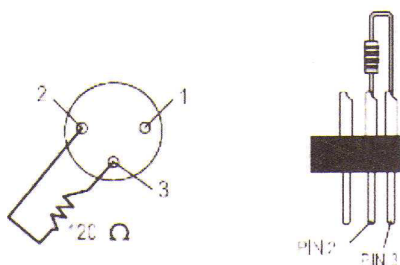


1: Ground
2: Signal (-)
3: Signal (+)
4: N. A.
5: N. A.

DMX input
5-Pin XLR Socket

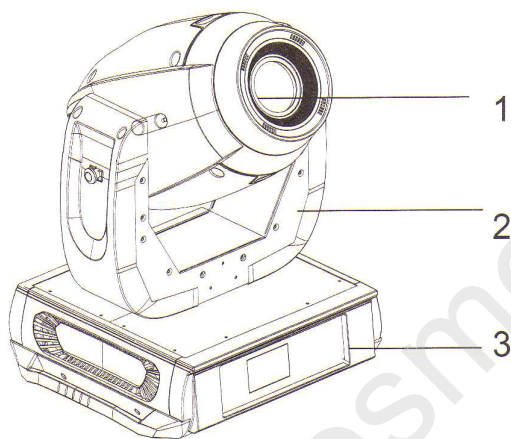


4.3.3 DMX Terminator Diagram



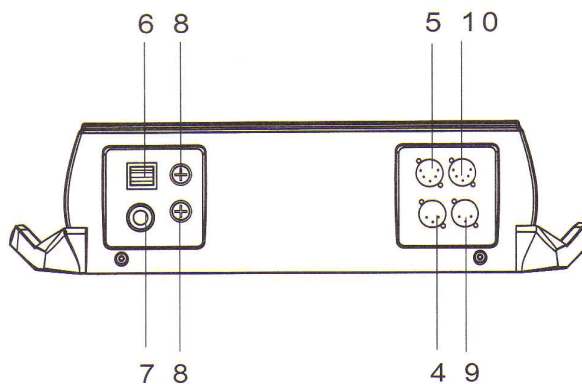
- For installations where the DMX cable has to run a long distance or is in an electrically noisy environment it is recommended to use a DMX terminator. This helps in preventing corruption of the signal by electrical noise. The DMX terminator is simply an XLR plug with a 120Ω resistor connected between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

5. Description of the device

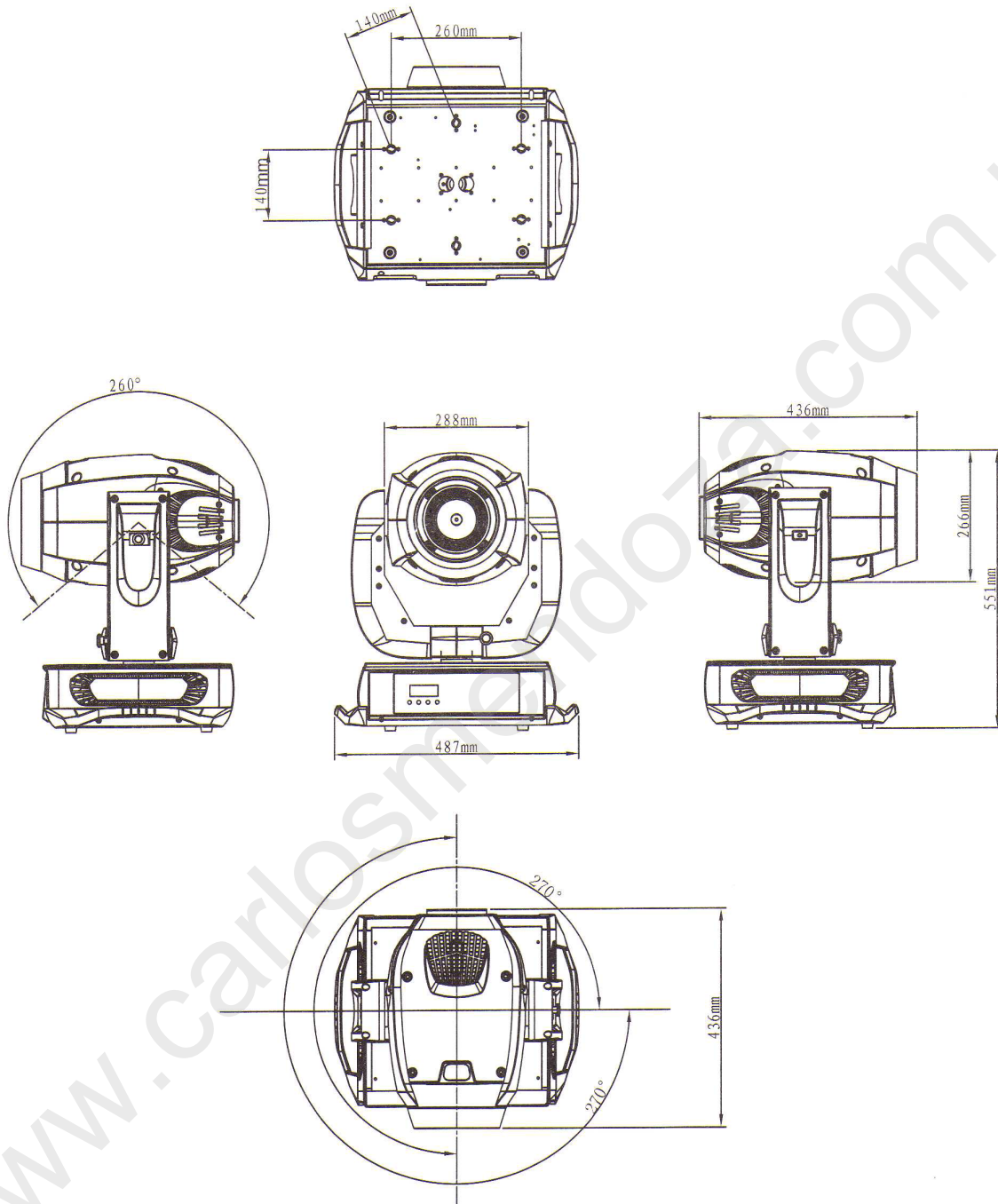


- 1. HEAD
- 2. ARM
- 3. BASE

- 4. 3-pin XLR female
- 5. 5-pin XLR female
- 6. power switch
- 7. power-in
- 8. Insurance seat
- 9. 3-pin XLR male
- 10. 5-pin XLR male



6.Dimension



7. Display Control

7.1 Navigation in the Menu

The Control Board offers several features: you can simply set the starting address, switch on and the lamp, run the preprogrammed program or make a reset. The main menu is accessed by pressing the Mode-button until the display starts flashing. Browse through the menu by Up and Down button. Press the Enter-button in order to select the desired menu.

You can change the selection by pressing the Enter-button. Confirm every selection by pressing the Enter-button. You can leave every mode by pressing the Mode-button.

The functions provided are described in the sections 7.3

7.2 Display Operation

turn on the light, reset, LED display show the website, model, software version , after reset display show the below information

| display | status |
|---------|---|
| Axxx | light is normal, but no DMX , "XXX" show the value between 1-512 |
| A.xxx | light and DMX is normal , "XXX" show the value between 1-512 |
| Dxxx | Light is normal ,no DMX , "XXX" show the value between 1-512 |
| D.xxx | Light is normal, under control of DMX controller , "XXX" show the value between 1-512. To check whether the connection between light and controller is OK |
| A.U-M | Light is normal, autorun , can't controlled by controller |
| A.U-A | light is normal, autorun |
| S.O-M | Light is normal, music control |
| S.O-A | light is normal, single light music control |
| "Erxx" | Channel mistake, "XX" show the failed channel, PAN, TILT, RGobo, GoboR, RGobo2, Color, Iris, Focus, Zoom, Prism reset twice to confirm the light is normal, but the fail channel is still out of controlled |

7.3 Menu Map

| | | | |
|----|------|-------------|--------------------------|
| 0 | ADDR | A001---Axxx | |
| 1 | TEST | CH-01~CH-XX | U000-U255 |
| 2 | SET | RUN | MSTR/ALON |
| | | AUDI | MSTR/ALON |
| | | STAT | Clos/Hold//Auto/Audi |
| 3 | LAMP | OFF/ ON | |
| 4 | REST | ALL | |
| | | SCAN | |
| | | COLR | |
| | | GOBO | |
| | | SHTR | |
| | | OHTR | |
| 5 | TIME | FIXT | 0000~9999 |
| | | LAMT | 0000~9999(hours) |
| | | CLET | |
| 6 | RPAN | ON/OFF | |
| 7 | RTLT | ON/OFF | |
| 8 | MIC | M-XX | |
| 9 | DISP | VALU | DXX D-00 (DXXX) |
| | | D ON | ON/OFF |
| | | REVE | ON/OFF |
| 10 | CONT | LAAU | ON/OFF |
| | | RDMX | ON/OFF(10.10/11.XXX) |
| | | DLOF | ON/OFF |
| | | DLAY | DXX D-05 |
| | | FOCU | ON/OFF |
| | | INIT | ON/OFF |
| | | FEED | ON/OFF |
| | | VER | V1.0~V9.9 |
| | | ADJU | CODE CXXX (088) |
| | | | CH01~CH30 XXXX(-128~127) |

8.DMX protocol

| Mode1 | Name | Function | DMX Value |
|-------|--|---|-----------|
| 1 | PAN 8BIT | | 0-255 |
| 2 | Pan 16BIT | | 0-255 |
| 3 | TILT 8BIT | | 0-255 |
| 4 | TILT 16BIT | | 0-255 |
| 5 | Speed pan/tilt movement | max to min speed | 0-225 |
| | | blackout by movement | 226-235 |
| | | blackout by all wheel changing | 236-245 |
| | | no function | 246-255 |
| 6 | Color Wheel1 | Open / white | 0-12 |
| | | Color 1 | 13-25 |
| | | Color 2 | 26-38 |
| | | Color 3 | 39-51 |
| | | Color 4 | 52-64 |
| | | Color 5 | 65-77 |
| | | Color 6 | 78-90 |
| | | Color 7 | 91-103 |
| | | Color 8 | 104-116 |
| | | Color 9 | 117-127 |
| | | Forwards rainbow effect from fast to slow | 128-187 |
| | | No rotation | 188-193 |
| | | Backwards rainbow effect from slow to fast | 194-255 |
| 7 | Rotating gobos index, cont.rotation | Open | 0-9 |
| | | Rot. gobo 1 | 10-19 |
| | | Rot. gobo 2 | 20-29 |
| | | Rot. gobo 3 | 30-39 |
| | | Rot. gobo 4 | 40-49 |
| | | Rot. gobo 5 | 50-59 |
| | | Rot. gobo 6 | 60-69 |
| | | Rot. gobo 7 | 70-79 |
| | | Gobo 1 shake slow to fast | 80-99 |
| | | Gobo 2 shake slow to fast | 100-119 |
| | | Gobo 3 shake slow to fast | 120-139 |
| | | Gobo 4 shake slow to fast | 140-159 |
| | | Gobo 5 shake slow to fast | 160-179 |
| | | Gobo 6 shake slow to fast | 180-199 |
| | | Gobo 7 shake slow to fast | 200-219 |
| | | Rot. gobo wheel cont. rotation slow to fast | 220-255 |
| 8 | Gobo rotating rotating | Gobo indexing | 0-127 |
| | | Forwards gobo rotation from fast to slow | 128-187 |
| | | No rotation | 188-193 |
| | | Backwards gobo rotation from slow to fast | 194-255 |

| | | | |
|----|--|--|---------|
| 9 | Gobos index, cont.rotation | Open | 0-9 |
| | | gobo 1 | 10-19 |
| | | gobo 2 | 20-29 |
| | | gobo 3 | 30-39 |
| | | gobo 4 | 40-49 |
| | | gobo 5 | 50-59 |
| | | gobo 6 | 60-69 |
| | | gobo 7 | 70-79 |
| | | gobo 8 | 80-89 |
| | | gobo 9 | 90-99 |
| | | Gobo 1 shake slow to fast | 100-109 |
| | | Gobo 2 shake slow to fast | 110-119 |
| | | Gobo 3 shake slow to fast | 120-129 |
| | | Gobo 4 shake slow to fast | 130-139 |
| | | Gobo 5 shake slow to fast | 140-149 |
| | | Gobo 6 shake slow to fast | 150-159 |
| | | Gobo 7 shake slow to fast | 160-169 |
| | | Gobo 8 shake slow to fast | 170-179 |
| | | Gobo 9 shake slow to fast | 180-189 |
| | | Forwards gobo wheel rotation from slow to fast | 190-255 |
| 10 | 3 facet rotating prism, Prism / Gobo macros | Open | 0-3 |
| | | Forwards rotation with decreasing speed | 4-63 |
| | | No rotation | 64-67 |
| | | Backwards rotation with increasing speed | 68-127 |
| | | Macro 1 | 128-135 |
| | | Macro 2 | 136-143 |
| | | Macro 3 | 144-151 |
| | | Macro 4 | 152-159 |
| | | Macro 5 | 160-167 |
| | | Macro 6 | 168-175 |
| | | Macro 7 | 176-183 |
| | | Macro 8 | 184-191 |
| | | Macro 9 | 192-199 |
| | | Macro 10 | 200-207 |
| | | Macro 11 | 208-215 |
| | | Macro 12 | 216-223 |
| | | Macro 13 | 224-231 |
| | | Macro 14 | 232-239 |
| | | Macro 15 | 240-247 |
| | | Macro 16 | 248-255 |
| 11 | Forst | Frost 0~100% | 0-191 |
| | | Pulse opening fast to slow | 192-223 |
| | | Pulse closing slow to fast | 224-254 |
| | | Max. Frost | 255 |

| | | | |
|----|--|---|---------|
| 12 | Iris | Max. diameter to Min.diameter | 0-191 |
| | | Pulse opening fast to slow | 192-223 |
| | | Pulse closing slow to fast | 224-255 |
| 13 | Zoom | Zoom1 Continuous adjustment from Max to Min | 0-255 |
| 14 | Focus | Continuous adjustment from near to far | 0-255 |
| 15 | Strobe | Shutter closed | 0-31 |
| | | No function (shutter open) | 32-63 |
| | | Strobe effect slow to fast | 64-95 |
| | | No function (shutter open) | 96-127 |
| | | Pulse-effect in sequences | 128-159 |
| | | No function (shutter open) | 160-191 |
| | | Random strobe effect slow to fast | 192-223 |
| | | No function (shutter open) | 224-255 |
| 16 | Dimmer | Intensity 0 to 100% | 0-255 |
| 17 | Func. Reset, Lamp switch, program | colour change normal | 0-19 |
| | | colour change to any position | 20-39 |
| | | Lamp switch off | 40-59 |
| | | No function | 60-79 |
| | | All motor reset | 80-84 |
| | | Scan motor reset | 85-87 |
| | | Colors motor reset | 88-90 |
| | | Gobo motor reset | 91-93 |
| | | Shutter & Dimmer motor reset | 94-96 |
| | | Other motor reset | 97-99 |
| | | Internal program 1 | 100-119 |
| | | Internal program 2 | 120-139 |
| | | Internal program 3 | 140-159 |
| | | Internal program 4 | 160-179 |
| | | Internal program 5 | 180-199 |
| | | Internal program 6 | 200-219 |
| | | Internal program 7 | 220-239 |
| | | Lamp switch on | 240-255 |

9. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not buildup on or within the fixture. Otherwise, the fixtures light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably through out its life. A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

DANGER : Disconnect from the mains before starting any maintenance work

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly

The gobos may be cleaned with a soft brush. The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.

The dichroic colour-filters, the gobo-wheel and the internal lenses should be cleaned monthly.

To ensure a proper function of the gobo-wheel, we recommend lubrication in six month intervals. The quantity of oil must not be excessive in order to avoid that oil runs out when the gobo-wheel rotates.

There are no serviceable parts inside the device except for the lamp and the fuse. Please refer to the instructions under "Fitting/Exchanging the lamp". Maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse

If the lamp burns out, the fine-wire fuse of the device might fuse, too. Only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead.

10. Electric equipment specification

Lamp: Philips MSD GOLD 300/2 Mini FastFit

Power: 490W AC220V/50Hz

Pressure: AC220~240V

Weight: 28KG

10.1 Channel Characteristics

17 DMX CHs

Scan: Pan 540°Tilt260°Scan speed adjustable. Scan following with shutter. Fixture could auto reset.

Color Wheel: one open+9 colors.Speed variable double way rainbow effect. Color location/color random optional.

Gobo wheel: 7 rotation gobos + open, 9 static gobos + open.

Prism system: internally install prism effect.

Iris: Linearity adjust ,pulse variation.

Zoom: Linearity.

Focus: Linearity

Frost: Linearity.

Strobe: two motor strobe, synchronous,non-synchronous,random strobe effect.

Dimmer: use together with strobe, full range dimmering.

10.2 Menu Function

LED display

Each DMX Value displayable

Monitor could ON/OFF automatically.

Show fixture,lamp use time.

Lamp ON/OFF when return on.

Remote ON by DMX.

Protection function , 560 minutes adjustable,Prevent overheating ON lamp

No signal, fixture status keep reset status, maintain status, AutoPlay procedure, sound control status

