



LED Club Scan

ORDERCODE 43020



SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from Showtec.

The Showtec LED Club Scan brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.

We design and manufacture professional light equipment for the entertainment industry.

New products are being launched regularly. We work hard to keep you, our customer, satisfied.

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You can get some of the best quality, best priced products on the market from Showtec.

So next time, turn to Showtec for more great lighting equipment.

Always get the best -- with Showtec !

Thank you!



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WARNING



CAUTION!
Keep this device away from rain and moisture!



**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect 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 manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.

- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- 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.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- The user is responsible for correct positioning and operating of the LED Club Scan. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- For adult use only. The device must be installed out of the reach of children. Never leave the unit running unattended.
- For replacement use fuses of same type and rating only.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc. You endanger your own safety and the safety of others!

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !

Always let the installation be carried out by an authorized dealer !



DANGER TO LIFE!
Please consider the EN 60598-2-17 and the respective national norms during the installation! The installation must only be carried out by an authorized dealer!

- The installation of the device 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 down if the main attachment fails.
- When rigging, derigging or servicing the device 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.

Procedure:

The device 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 device. 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 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.



DANGER OF FIRE!

When installing the device, make sure there is no highly-inflammable material (decoration articles, etc.) within a distance of min. 0.5 m.

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 weight of the fixture. You must only use safety-ropes with quick link with screw cap. Pull the safety-rope through the attachment eyelet and over the trussing system or 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 held 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!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
	YELLOW/GREEN	GREEN	GREEN	EARTH

If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation.

The device must only be connected with an electric installation carried out in compliance with the IEC standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.

Lighting effects must never be connected to dimming-packs.

Make sure that the device is always connected properly to the earth!

Description of the device

Features

- Gobo rotation via LED matrix
- Strobe-effect with adjustable speed
- Equipped with 40 LEDs: 16 x red, 12 x blue, 12 x green
- 100 000 hours LED life
- 1/4" jack-socket for remote control
- Fuzzy-Sound-Control: program continues automatically during periods without music or bass-beat
- DMX-controlled operation or stand alone operation with Master/Slave-function (up to 4 slaves)
- Sound-controlled via built-in microphone
- Control-Board with 4-digit display
- Advantages of LED-technology: extremely long life, low power consumption, minimal heat emission, defacto maintenance free with brilliant light radiation
- DMX-control via every standard DMX-controller

NOTE: Knowledge of MIDI and DMX is required to fully utilize this unit

Overview

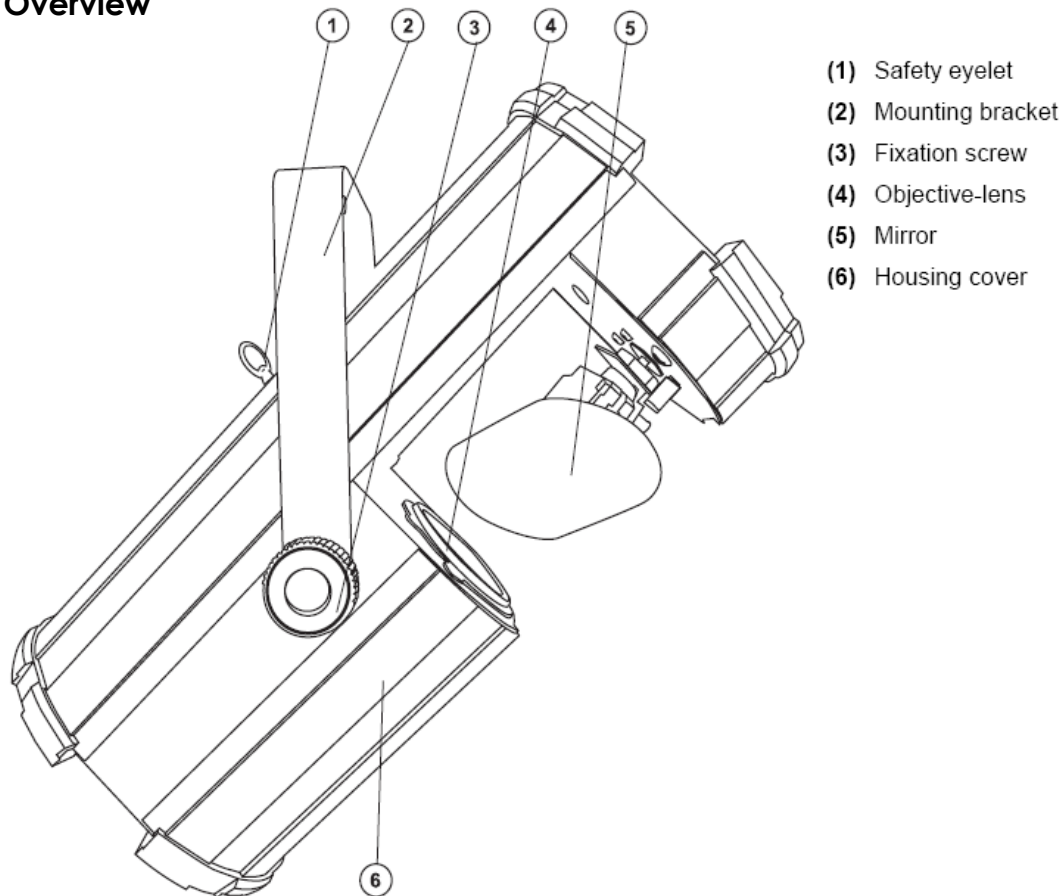
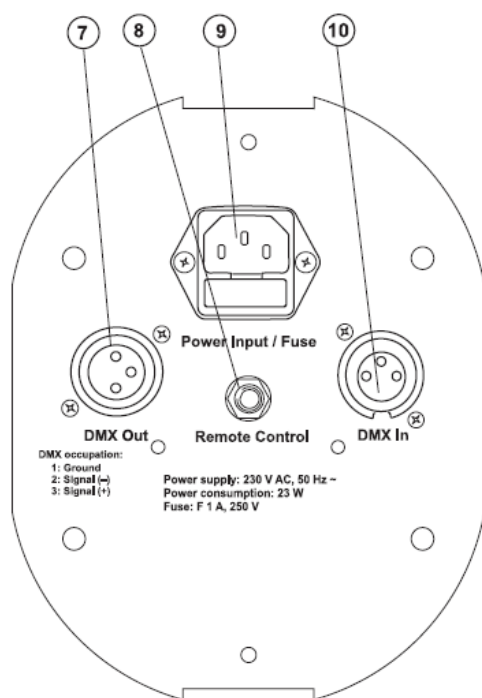
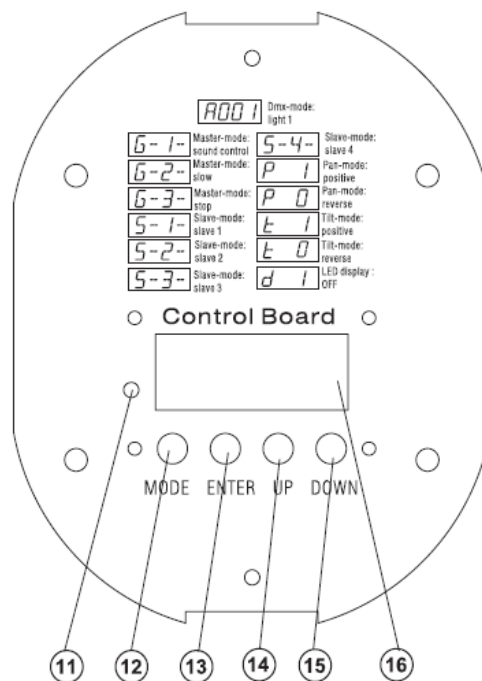


Fig. 1



- (7) DMX-Out socket
- (8) Remote Control socket
- (9) Power supply/Fuseholder
- (10) DMX-In socket

Fig. 2



- (11) Microphone
- (12) Mode-button
- (13) Enter-button
- (14) Up-button
- (15) Down-button
- (16) Control Board

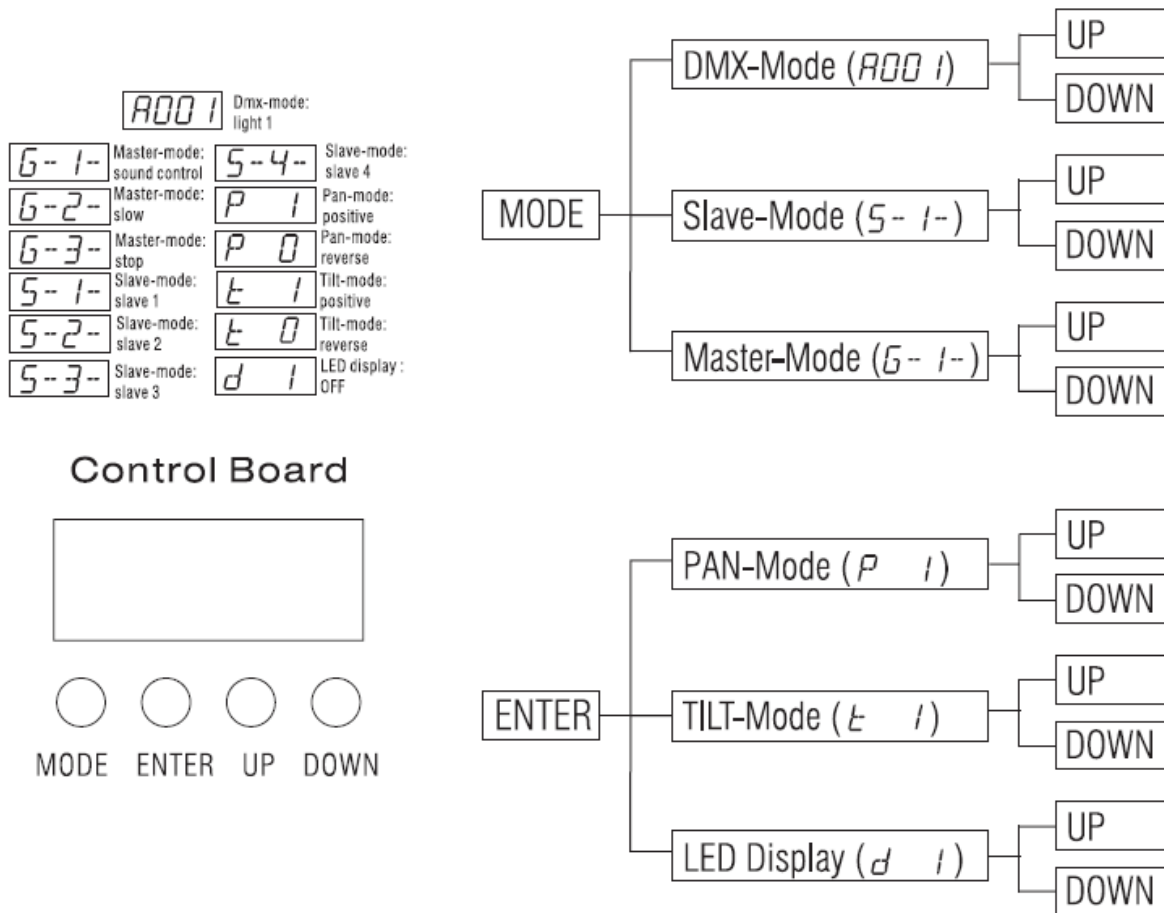
Fig. 3

Follow the directions below, as

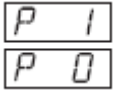
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

The master/slave-operation

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

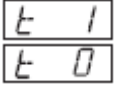


Pan Reverse



With this function you can reverse the Pan-movement.

Tilt Reverse



With this function you can reverse the Tilt-movement.

Display close time



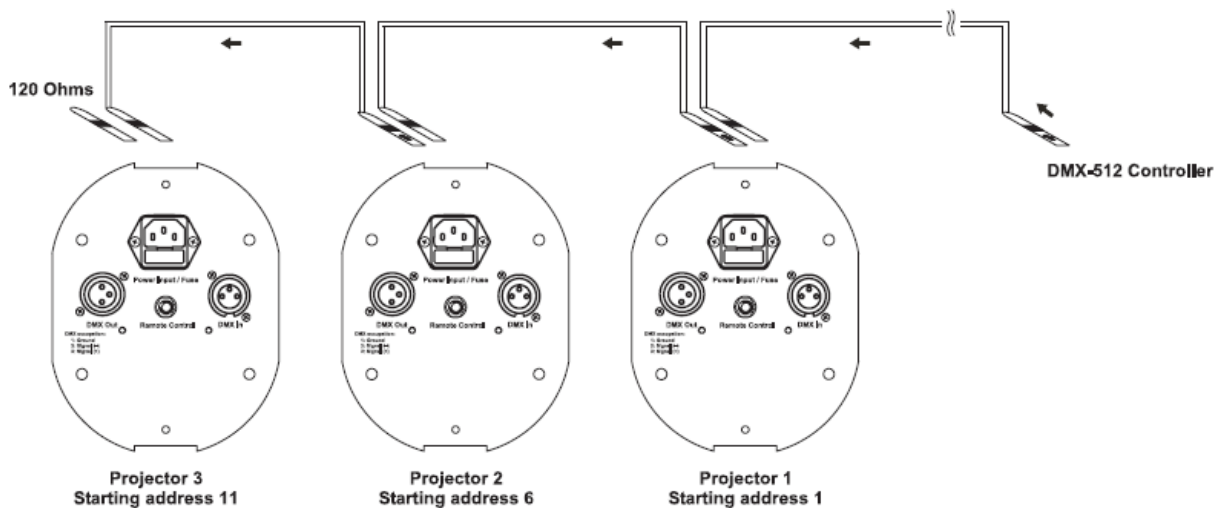
With this function you can shut off the LED display.

Remote Control socket

If you wish to lock the light output - via an optional remote control, connect your remote control to the remote control socket.

The remote control can be used for switching the gobos and the Auto/Manual mode. In Auto Mode, the gobos are switched sound-controlled. In Manual Mode, the gobos are switched via remote control.

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.



Please note, the starting address depends upon which controller is being used.



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:



DMX-input XLR mounting-plug:



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 Ω resistor between Signal (-) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

Stand Alone operation

In Stand Alone mode, the LED SCAN can be used without a controller. You can do without a controller as the LED SCAN features a built-in microphone, which provides automatic sound control. Disconnect the LED SCAN from the controller and select the desired "Master Mode".

Master/Slave-operation

Connect the master and slave-devices and adjust the settings as described above.

DMX-controlled operation

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

Addressing

The Control Board allows you to assign the DMX fixture address, which is defined as the first channel from which the LED SCAN will respond to the controller.

Please, be sure that you don't have any overlapping channels in order to control each LED SCAN correctly and independently from any other fixture on the DMX data link.

If two, three or more LED SCAN are addressed similarly, they will work similarly.

For address setting, press the Mode-button until the display shows „A.001“ and set the desired address via the Up/Down-buttons.

Controlling:

After having addressed all LED SCAN, you may now start operating these via your lighting controller.

Note: After switching on, the LED SCAN will automatically detect whether DMX 512 data is received or not. If the data is received, the display will show "A.001" with the actually set address. If there is no data received at the DMX-input, the display will show "A001".

This situation can occur if:

- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the LED SCAN.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

Note: It's necessary to insert the XLR termination plug (with 120 Ohm) in the last lighting in the link in order to ensure proper transmission on the DMX data link.

DMX-protocol

Channel 1 – Strobe

0-7	Closed
8-247	Strobe-effect with increasing speed
248-255	Open / White

Channel 2 – Gobos

0-7	Gobo 1
8-15	Gobo 2
16-23	Gobo 3
24-31	Gobo 4
32-39	Gobo 5
40-47	Gobo 6
48-55	Gobo 7
56-63	Gobo 8
64-71	Gobo 9
72-79	Gobo 10
80-87	Gobo 11
88-95	Gobo 12
96-103	Gobo 13
104-111	Gobo 14
112-119	Gobo 15
120-127	Gobo 16
128-143	Rot. Gobo 1
144-159	Rot. Gobo 2
160-175	Rot. Gobo 3
176-191	Rot. Gobo 4
192-207	Rot. Gobo 5
208-223	Rot. Gobo 6
224-239	Rot. Gobo 7
240-255	Rot. Gobo 8

Channel 3 – Gobo rotation

0-127	Forwards gobo rotation with decreasing speed
128-255	Backwards gobo rotation with increasing speed

Control-channel 4 - Horizontal movement (Pan)

Push slider up in order to move the mirror horizontally (PAN).

Gradual mirror adjustment from one end of the slider to the other (0-255, 128-center).

The mirror can be stopped at any position you wish.

Control-channel 5 - Vertical movement (Tilt)

Push slider up in order to move the mirror vertically (TILT).

Gradual mirror adjustment from one end of the slider to the other (0-255, 128-center).

The mirror can be stopped at any position you wish.

Maintenance

The operator has to make sure that safety-relating and machine-technical installations are to be 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 installations are to be 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 device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.



DANGER TO LIFE!

Disconnect from mains before starting maintenance operation!



CAUTION!

The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

The Showtec led Club Scan requires almost no maintenance. However, you should keep the unit clean. Otherwise, the light-output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.

The front glass will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly.

To ensure a proper function of the rotating parts, we recommend lubrication in six-month intervals. The quantity of oil must not be excessive in order to avoid that oil runs out during the rotation.

There are no serviceable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers.

Please clean internal components once a year with a light brush and vacuum cleaner.

Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from electric power source.
2. Insert a flat-head screwdriver into a slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

If the light effect does not operate properly, refer servicing to a technician.

1. If the device does not operate properly, unplug the device.
2. Check the fuse, power from the wall, all cables etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If you are unable to determine the cause of the problem, do not open the LED Club Scan, as this may damage the unit and the warranty will become void.
5. Return the device to your Showtec dealer.

Product Specification

Model: Showtec LED Club Scan

Voltage: AC 230V-50Hz (CE)

Fuse: F 1 A, 250 V

Power consumption: 23 W

DMX-control-channels: 5

Sound-control: via built-in microphone

Flash-rate: 18 Hz

Number of LEDs: 40

Cooling: Ventilator

Dimensions: 380 x 190 x 255 mm (LxWxH)

Weight: 3,4 kg

Operation and Programming

DMX-control via standard DMX-controller

Signal pin OUT : pin 1 earth, pin 2 (-), pin 3 (+)

DMX Channels: 3

Signal input 3-pin XLR male

Signal output 3-pin XLR female

Maximum ambient temperature Ta: 45° C

Maximum housing temperature TB (steady state): 55° C

Min.distance from flammable surfaces: 0.5 m

Min.distance to lighted object: 0.1 m

Design and product specifications are subject to change without prior notice.



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