

USER MANUAL

LED 60W Scanner Light





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.

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.

Please make sure that there are no obvious transport damages. Should you notice any damages on the A/C connection cable or on the casing, do not take the device into operation and immediately consult your local dealer.

This device falls under protection-class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Always plug in the power plug last. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.

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 touch them with wet hands, as this could lead to mortal electrical shock.

Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.

The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage. Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.

If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.

HEALTH HAZARD!



Never look directly into the light source, as sensitive persons may suffer an epileptic shock (especially meant for epileptics)!

Keep away children and amateurs!

Never leave this device running unattended.

OPERATING DETERMINATIONS

This device is a lighting effect for creating decorative effects. This product is only allowed to be operated with an alternating voltage of 230 V, 50 Hz and was designed for indoor use only.

This device is designed for professional use, e.g. on stages, in discotheques, theatres etc.

Lighting effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks. When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.

The ambient temperature must always be between -5° C and +45° C. Keep away from direct insulation (particularly in cars) and heaters.

The relative humidity must not exceed 50 % with an ambient temperature of 45° C.

This device must only be operated in an altitude between -20 and 2000 m over NN.

Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.

The symbol  determines the minimum distance from lighted objects. The minimum distance

between light-output and the illuminated surface must be more than 0.1 meters. This device is only allowed for an installation via the mounting bracket. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.

The housing must never touch surrounding surfaces or objects.

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. The maximum ambient temperature $T_a = 45^\circ C$ must never be exceeded.

Operate the device only after having become familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth. Please use the original packaging if the device is to be transported. Make sure that you pack the device in the original state.

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, crash etc.

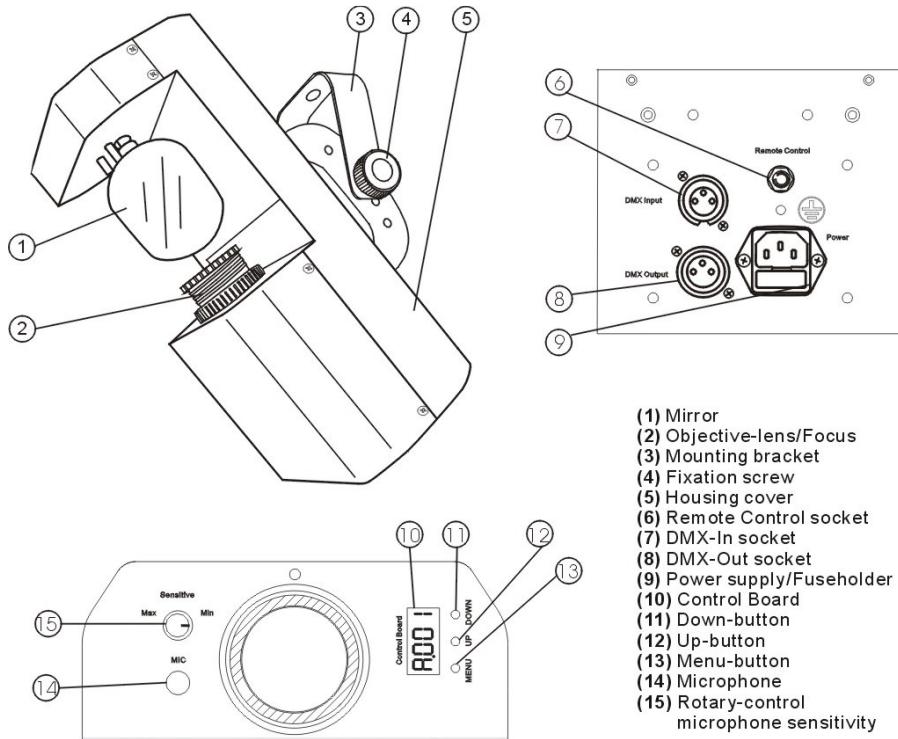
DESCRIPTION OF THE DEVICE

Features

LED version of the scanner

- High performance mobile DMX scanner with 1 x 60W LED source • 7 Colors + White • Gobo-wheel with 7 rotating gobos and open
- 9 DMX Channels • 3-Button menu system LED Display making it easy to navigate
- 3 Operational modes: DMX controller, Master/Slave & Sound Active • Built-in lighting programs
- Sound Active • Compact & portable design • Manual focusing lens • Gobo Shake effect • Strobe effect in every color • 13-degree beam angle • DMX-512 protocol • Fan cooled • Hanging Bracket Included
- Optional controller: easy-to-use JC-6 controller (sold separately)
- Advantages of LED-technology: extremely long life, low power consumption, minimal heat emission, defacto maintenance free with brilliant light radiation

Overview



INSTALLATION

Overhead rigging



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 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.



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!

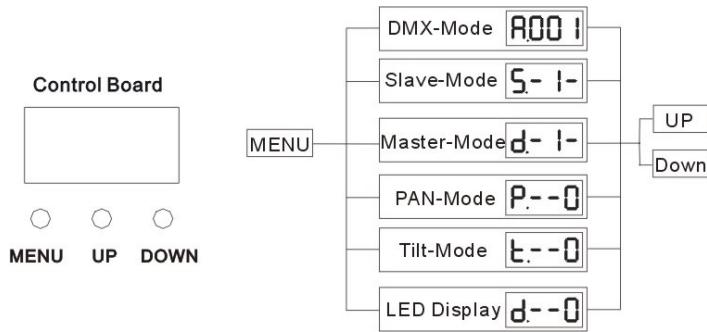


Before taking into operation for the first time, the installation has to be approved by an expert!

Master/Slave-operation

The master/slave-operation enables that several devices can be synchronized and controlled by one master-device. On the rear panel of the LED 60W Scan 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-device and controls all other slave-devices, which are to be connected to the master-device via a balanced microphone lead. Connect the DMX OUT-jack with the DMX IN-plug of the next device.



Set the desired Master-mode for the master-device. Set the respective Slave-mode for all slave-devices.

Please note: The function G-3- is only meant for service-purposes. Please do only use this function if you want to set the unit shortly into standby mode.

Pan Reverse

P 1

P 0 With this function you can reverse the Pan-movement.

Tilt Reverse

t 1

t 0 With this function you can reverse the Tilt-movement.

Display close time

d 1 With this function you can shut off the LED display.

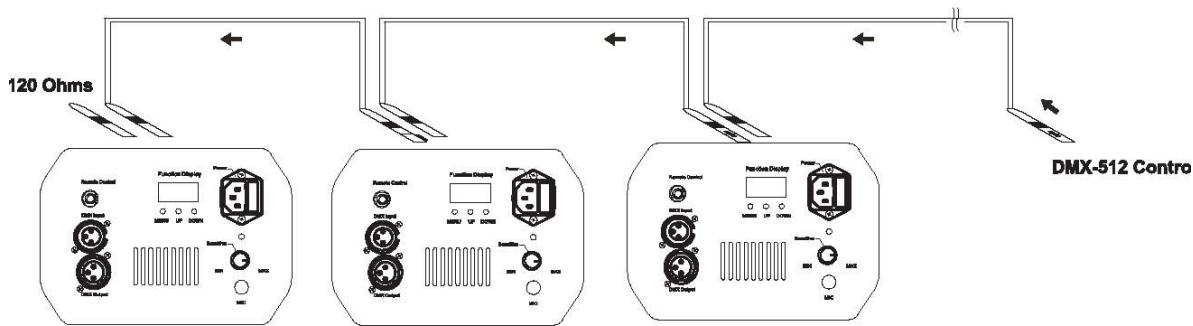
Remote Control socket

If you wish to lock the light output -via an optional JC-6 remote control, connect your JC-6 remote control to the remote control socket.

The optional JC-6 Controller (not included) may be used to control different functions including blackout.

MODE	Red LED	Green LED	Button 1	Button 2
Blackout	Off	Off	x	x
Sound Mode	On	Off	x	x
Manu Mode	Off	On	Select Gobo	Select Color

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.

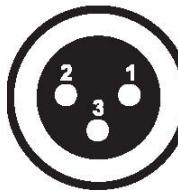


Only use a stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR-connection:

DMX-output

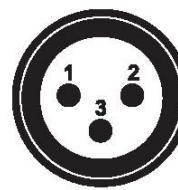
XLR mounting-socket:



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

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:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected!

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 not be connected to dimming-packs.

OPERATION

After you connected the effect to the mains, the LED 60W Scan starts running. During the Reset, the motors are trimmed and the device is ready for use afterwards.

Stand Alone operation

In the Stand Alone mode, the LED 60W Scan can be used without controller. You can do without a controller as the LED 60W Scan features a built-in microphone, which provides automatic sound control.

Disconnect the LED 60W 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 60W Scan will respond to the controller.

Please, be sure that you don't have any overlapping channels in order to control each LED 60W Scan correctly and independently from any other fixture on the DMX data link.

If two, three or more LED 60W 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 60W Scan, you may now start operating these via your lighting controller.

Note:

After switching on, the LED 60W 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 60W Scan.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swapped 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

Control-channel 1 - 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 2 - 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.

Control-channel 3 - COLORS

value		Feature
0	15	WHITE
16	31	Dark blue
32	47	Orange
48	63	YELLOW
64	79	PINK
80	95	LIGHT BLUE
96	111	GREEN
112	127	Magenta
128	255	RAINBOW EFFECT SLOW - FAST

Control-channel 4- Gobo rotation-wheel

value		Feature
0	7	OPEN
8	15	Spin Gobo 1
16	23	Spin Gobo 2
24	31	Spin Gobo 3
32	39	Spin Gobo 4
40	47	Spin Gobo 5
48	55	Spin Gobo 6
56	63	Spin Gobo 7
64	71	OPEN SHAKE
72	79	GOBO 1 SHAKE
80	87	GOBO 2 SHAKE
88	95	GOBO 3 SHAKE
96	103	GOBO 4 SHAKE
104	111	GOBO 5 SHAKE
112	119	GOBO 6 SHAKE
120	127	GOBO 7 SHAKE
128	255	GOBO WHEEL ROTATION SLOW - FAST

Control-channel 5 - Gobo rotation

value		Feature
0	15	No rotation
16	135	Forwards gobo rotation with decreasing speed
136	255	Backwards gobo rotation with increasing speed

Control-channel 6 - SHUTTER/STROBE

value		Feature
0	7	BLACKOUT
8	15	SHUTTER OPEN
16	131	STROBING SLOW - FAST
132	139	SHUTTER OPEN
140	180	SHUTTER SLOW OPEN - FAST CLOSE
181	189	SHUTTER OPEN
190	231	SHUTTER FAST OPEN - SLOW CLOSE
232	239	Reset -after 3-5 seconds
240	247	RANDOM STROBE
248	255	SHUTTER OPEN

Control-channel 7- DIMMER

0	255	DIMMER 0%-100%
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Control-channel 8- MOVING HEAD MOVEMENT

value	Feature
0	NO FUNCTION
8	MOVEMENT 1
26	MOVEMENT 2
44	MOVEMENT 3
62	MOVEMENT 4
80	MOVEMENT 5
98	MOVEMENT 6
116	MOVEMENT 7
134	MOVEMENT 8
152	MOVEMENT 9
170	MOVEMENT 10
188	MOVEMENT 11
206	MOVEMENT 12
224	MOVEMENT 13
242	MOVEMENT 14

Control-channel 9- MOVEMENT SPEED

0	255	MOVEMENT SPEED SLOW-FAST
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CLEANING AND MAINTENANCE

The operator has to make sure that safety-relating and machine-technical installations are 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 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 tightly connected and must not be corroded.
- 2) There must not be any deformations on housings, fixations and installation spots (ceiling, suspension, trussing).
- 3) Mechanically moved parts like axles, eyes and others must not show any traces of wearing (e.g. material abrading or damages) and must not rotate with unbalances.
- 4) The electric power supply cables must not show any damages, material fatigue (e.g. porous cables) or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

DANGER TO LIFE!



Disconnect from mains before starting maintenance operation!

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents!

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 objective lens will require weekly cleaning as smoke-fluid tends to building 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.

Replacing the fuse

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating.

Before replacing the fuse, unplug mains lead.

Procedure:

Step 1: Open the fuseholder on the rearpanel with a fitting screwdriver.

Step 2: Remove the old fuse from the fuseholder.

Step 3: Install the new fuse in the fuseholder.

Step 4: Replace the fuseholder in the housing.

Should you need any spare parts, please use genuine parts.

If the power supply cable of this device becomes damaged, it has to be replaced by a special power supply cable available at your dealer. Should you have further questions, please contact your dealer.

TECHNICAL SPECIFICATIONS

Power supply:	230 V AC, 50 Hz ~
Power consumption:	90 W
DMX-control-channels:	9
DMX-512-connection:	3-pin XLR
Sound-control:	via built-in microphone
Flash-rate:	18 Hz
Number of LEDs:	1 x 60W LED
Dimensions (LxWxH):	400 x 200 x 150 mm
Weight:	6.7 kg
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
Fuse:	F 2 A, 250 V

Please note: Every information is subject to change without prior notice. 12.8.2009 ©