English

USER MANUAL

LED PAR-56 RGB Spot, Short

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

For your own safety, please read this user manual carefully before you initially start-up.

Every person involved with the installation, operation and maintenance of this device has to
- be qualilfied
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

INTRODUCTION

Thank you for having chosen a EUROLITE LED PAR-56 RGB Spot Short. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time.

Unpack your LED PAR-56 RGB Spot Short.

Before you initially 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.

SAFETY INSTRUCTIONS

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

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.

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.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.



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!

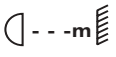
This device must never be operated or stockpiled in sourroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks. When using smoke machines, make sure that the device is never exposed to the 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° 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!

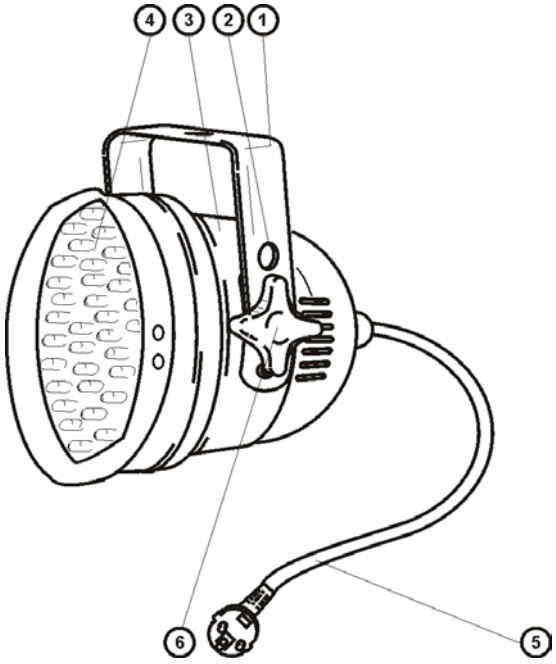
Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Please use the original packaging if the device is to be transported.

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, lamp explosion, crash etc.

OVERVIEW



(1) Mounting-bracket

(2) Hole for safety rope

(3) Tube

(4) LEDs

(5) Power cable with safety plug

(6) Mounting bracket screws

INSTALLATION

Overhead rigging

Optional accessories:	
EUROLITE TH-90 theatre-hook for 50mm pipe	No. 58000720
Safety-rope 40cm x 3mm up to 10kg	No. 58010120
Safety-rope 90cm x 3mm up to 10kg	No. 58010130
Safety-rope 140cm x 3mm up to 10kg	No. 58010135

DANGER TO LIFE!
Please consider the EN 60598-2-17and 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 down 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.

Procedure:
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.



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 projector with the mounting-bracket 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 links with screw cap. Pull the safety-rope through the hole in the mounting-bracket 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 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.

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

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!

Lighting effects must not be connected to dimming-packs.



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

DMX-512 connection / connection between fixtures

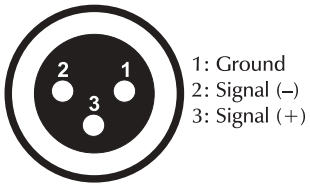
The wires must not come into contact with each other, otherwise the fixtures will not work at all, or will not work properly.

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:

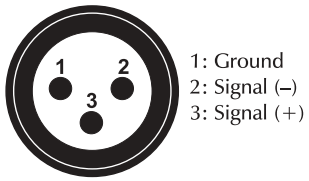
DMX-output

XLR mounting-socket:



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.

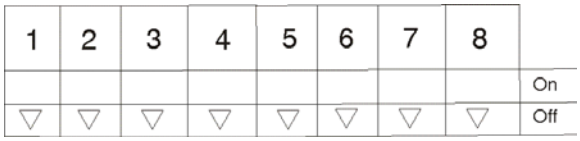
Building a serial DMX-chain:
Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

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.

OPERATION

After you connected the spot to the mains, the EUROLITE LED PAR-56 RGB Spot short starts running.

Sound Control or Auto-Change



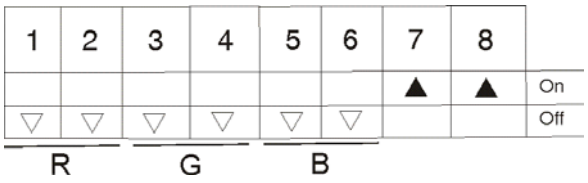
In order to select **Sound Control or Auto-Change**, first set all dipswitches to OFF.

Select the desired mode via the slide-switch.

Sound Control: Slide-switch on SOUND, color changes are sound-controlled.

Auto-Change: Slide-switch on AUTO, automatic color change. The rotary speed control can be used in the Auto-Change Mode.

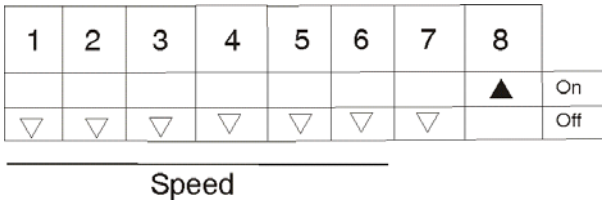
Manual Mode



To select **Manual Mode** set dipswitches 7 and 8 to ON.
Dipswitch 1 and 2 control the brightness of the „R“ LEDs.
Dipswitch 3 and 4 control the brightness of the „G“ LEDs.
Dipswitch 5 and 6 control the brightness of the „B“ LEDs.

Brightness Settings
off/off 00 ≙ 0%
on/off 10 ≙ 25%
off/on 01 ≙ 50%
on/on 11 ≙ 100%

Auto-Mix Color Mode



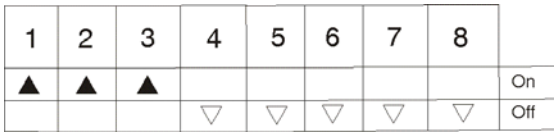
In order to select **Auto-Mix Color Mode,** set dipswitch 8 to ON and dipswitch 7 to OFF.

Speed (increasing) can be controlled by setting the dipswitches 1 - 6 to ON.

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 Projector



Set the dipswitch 8 to OFF. At least 1 dipswitch (from 1 – 7) must be set on ON.

Dipswitches 1 – 7 set the DMX addresses.

Set the slide-switch on SOUND.

Controlling:
After having addressed all LED PAR-56 RGB Spots, you may now start operating these via your lighting controller.

DMX-protocol

Channel 1 - Modi

Mode 1	Characteristic
0 - 63	RGB control
Mode 2	**Characteristic**
64 – 127	7 color fade
Mode 3	**Characteristic**
128 – 191	7 color change
Mode 4	**Characteristic**
192 – 255	3 color change

Channel 2 – „R“ and Speed

Channel 3 – „G“

Channel 4 – „B“

Channel 5 – Sound Control

DMX Value	Characteristic:
0 – 10	No function
11 – 100	Automatic
101 – 150	No function
151 - 255	Sound control with sensitivity control

Note: If the „No funtion“ DMX value under channel 5 is chosen, then the rest of the channels function properly; if Automatic or Sound control is selected, then the other channel settings will not run.

CLEANING AND MAINTENANCE



DANGER TO LIFE!

Disconnect from mains before starting maintenance operation!

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

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

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

Should you have further questions, please contact your dealer.

TECHNICAL SPECIFICATIONS

Power supply:	230 V AC, 50-60 Hz ~
Power consumption:	20 W
Dimensions (LxWxH):	220 x 210 x 220 mm
Weight:	1.6 kg
Maximum ambient temperature t_a:	45° C
Maximum housing temperature t_B:	60° C
Minimum distance:	0,10 m
Optional accessories:	**No.**
EUROLITE TH-90 theatre-hook for 50mm pipe	58000720
Safety-rope 40cm x 3mm up to 10kg	58010120
Safety-rope 90cm x 3mm up to 10kg	58010130
Safety-rope 140cm x 3mm up to 10kg	58010135

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