MANUAL

ENGLISH

Lightbrick V2

Ordercode: 50370

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Warning

For your own safety, please read this user manual carefully before your initial start-up!

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Lightbrick with Schuko power cable (1,3 m)
- User manual

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

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 use anything to cover the ground contact.
- Never leave any cables lying around.
- Never use the device during thunderstorms, unplug the device immediately.
- Never leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within children's reach, as they are potential sources of danger.
- Do not insert objects into air vents.
- Do not open the device and do not modify the device.
- 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.
- Do not touch the device's housing bare-handed during its operation (housing becomes hot).
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the device after having familiarized with its functions.
- Only install the device with the hanging-bracket.
- 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.
- Make sure that no side forces can impact on the truss system.
- 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 deadly electrical shocks.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the lens is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- 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.
- 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.
- The user is responsible for correct positioning and operating of the Lightbrick. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be bigger than 0.5 meter.
- The maximum ambient temperature ta = 35°C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 35° C.
- 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, crash, etc.

You endanger your own safety and the safety of others!

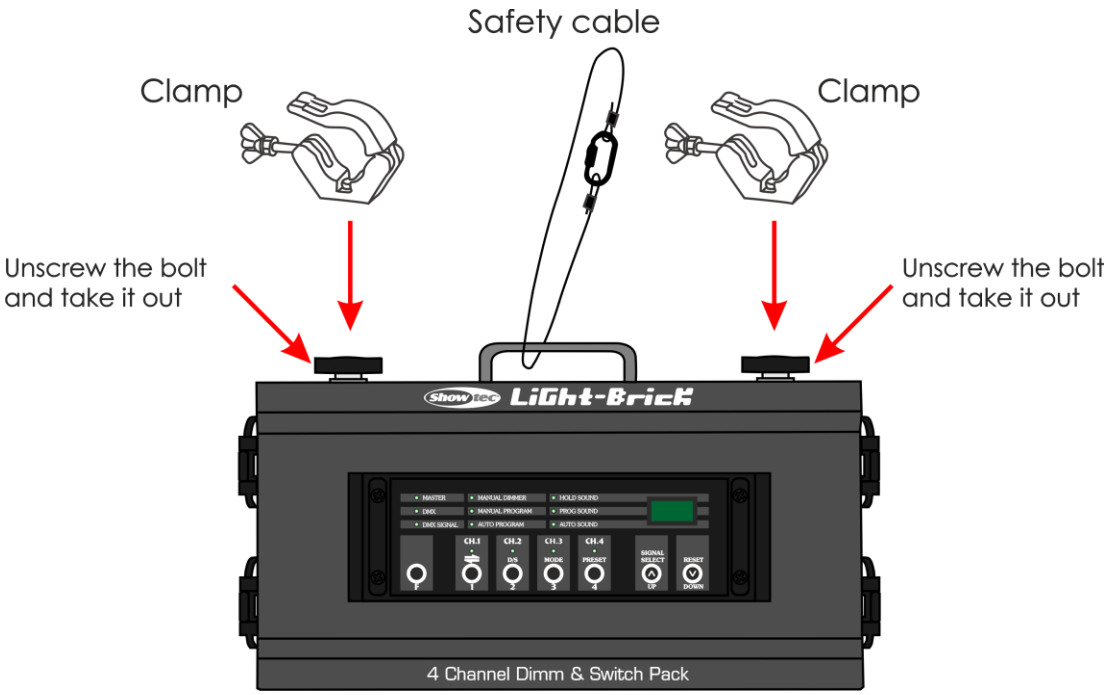
Rigging

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 !

Procedure:

- If the Lightbrick is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Lightbrick, with the mounting bracket, to the trussing system.
- The Lightbrick must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety cable.
- When rigging, derigging or servicing the Lightbrick, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.



Improper installation can cause serious damage to people and property !

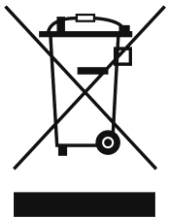
Connection with the mains

Connect the device to the mains with the power-plug.
Always check if the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
⏚	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

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

Improper installation can cause serious injuries and/or damage of property!



⚠ Return Procedure ⚠

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

01) Your name
02) Your address
03) Your phone number
04) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.
It is the customer's responsibility to report and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.
Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.
Complaints against us must be prepared in writing or sent by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.
Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement from which the obligation is resulting.

Description of the device

Features

The Lightbrick is a compact dimming- and switchpack. It has 4 channels which each can be loaded up to 5A per channel. It is easy to use in a fixed installation or on the road.

- 4 channel dimmingpack with 512 available DMX addresses on each Schuko connector
- DMX control or stand-alone mode
- Built-in pre-programmed chaser with 16 different patterns
- Pre-heat 0-25%
- DMX signal LED
- Input voltage: 230V AC, 50Hz
- Internal Fuse: F0.315A/250V
- Fuse channel: F6.3L/250V
- Channel output: 5A, total 16A
- Control: DMX-512, Stand alone, Music control
- Connections: 4 Schuko chassis outputs, 3-pin DMX IN, 3-pin DMX OUT
- Dimensions: 325 x 105 x 150 mm (LxWxH)
- Weight: 3,0 kg

Note: Knowledge of DMX is required to fully utilize this unit.

Frontside

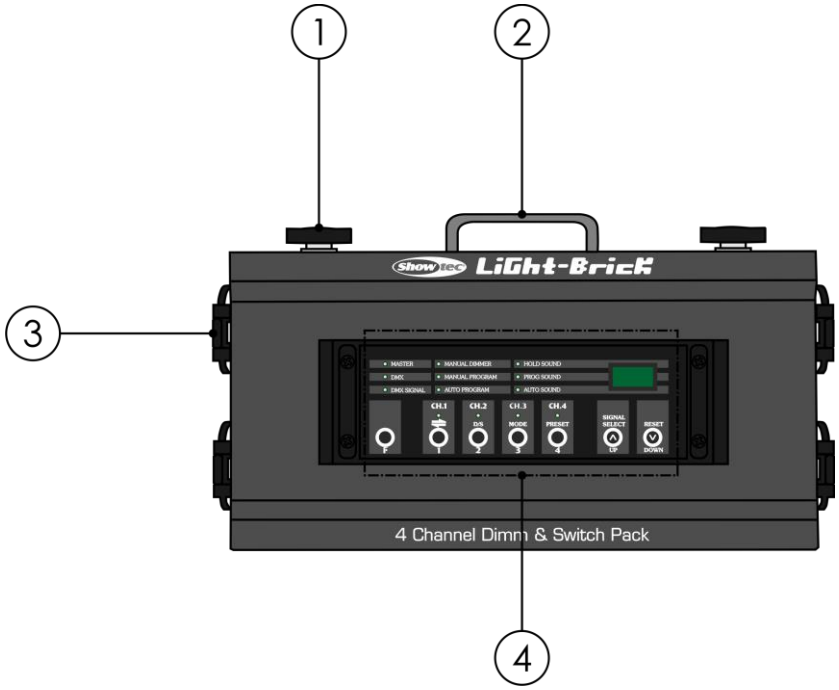


Fig. 01

01) Unscrew bolt to mount a clamp
02) Mounting bracket for safety cable
03) Schuko connector for fixture
04) Control panel

Underside

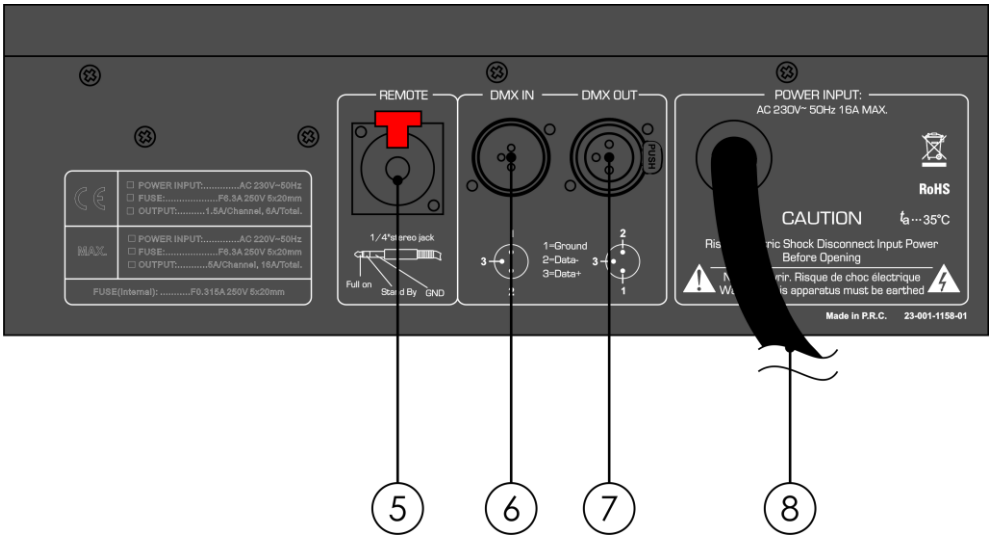


Fig. 02

05) Footswitch connector – 6,3 mm jack
06) DMX signal connector (IN) 3-pin
07) DMX signal connector (OUT) 3-pin
08) Schuko powercable 1,3m

Backside

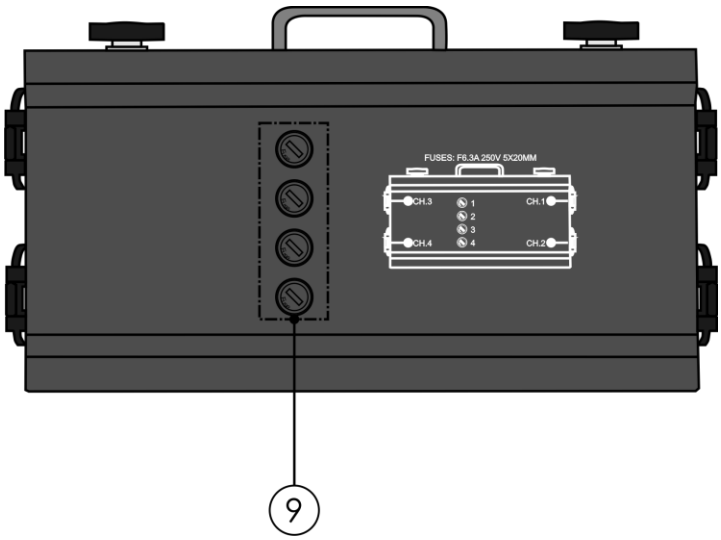


Fig. 03

09) 4x Fuse F6.3L/250V

Installation

Remove all packing materials from the Lightbrick. Check if all foam and plastic padding is removed. Connect all cables.

Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

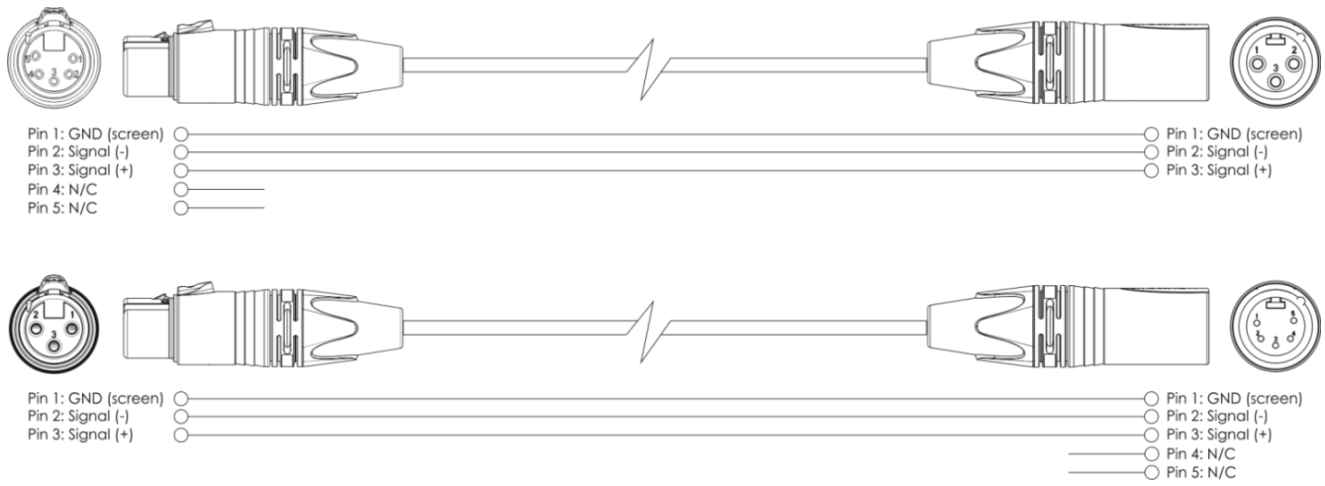
Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
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.
Connect the device to the main power supply.

Setup example

Multiple Lightbricks (DMX control)

01) Use a 3-pin XLR cable to connect the lightcontroller and Lightbricks.



02) Connect the first unit's "in" socket to a light controller.
03) Link the units as shown in fig. 04. Connect the first unit's DMX "out" socket with the second unit's "in" socket, using a DMX signal cable. Repeat this process to link the desired number of units.
04) Connect the light fixtures to the unit's Schuko sockets.
05) Supply electric power: Plug the unit's mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

Multiple Lightbricks (DMX Set Up)

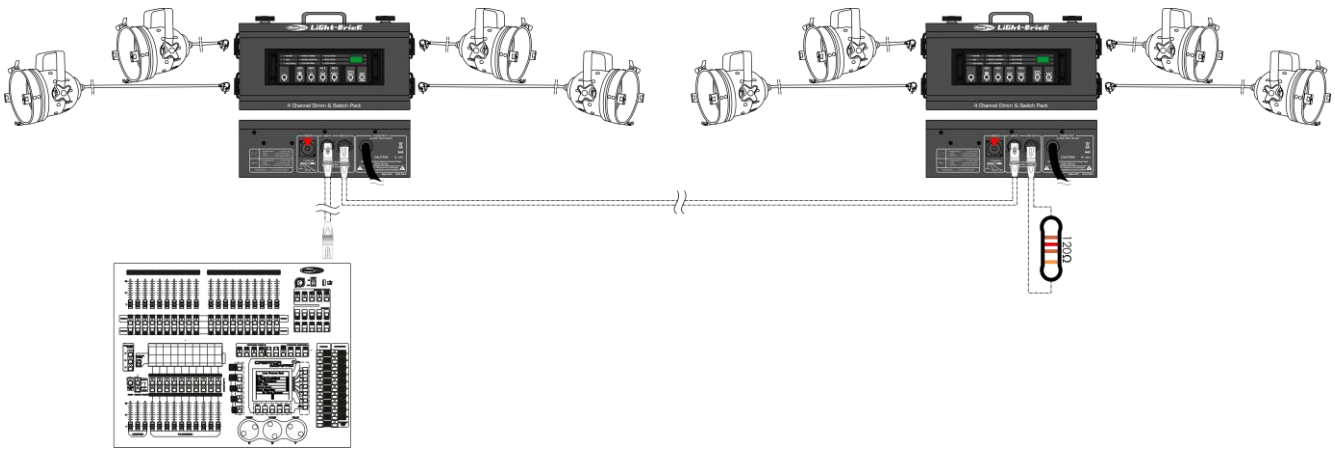


Fig.04

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows of two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important: Fixtures on a serial data link must be daisy-chained in a single line. To comply with the EIA-485 standard, no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX booster may result in deterioration of the digital DMX signal.

Maximum recommended DMX data link distance: 100 meters
Maximum recommended number of fixtures on a DMX data link: 30 fixtures

Data Cabling

To link fixtures together you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

DAP Audio DMX Data Cables

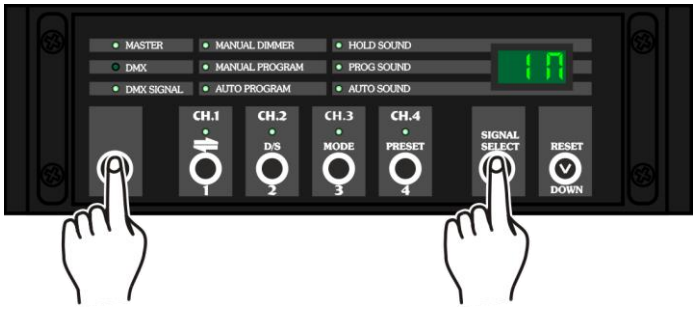
- DAP Audio Basic microphone cable for allround use. bal. XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FL01150 (1,5 m), FL013 (3 m), FL016 (6 m), FL0110 (10 m), FL0115 (15 m), FL0120 (20 m).
- DAP Audio X-type data cable XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FLX0175 (0,75 m), FLX01150 (1,5 m), FLX013 (3 m), FLX016 (6 m), FLX0110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL71150 (1,5 m), FL713 (3 m), FL716 (6 m), FL7110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL7275 (0,75 m), FL72150 (1,5 m), FL723 (3 m), FL726 (6 m), FL7210 (10 m).
- DAP Audio 110 Ohm cable with digital signal transmission. **Ordercode** FL0975 (0,75 m), FL09150 (1,5 m), FL093 (3 m), FL096 (6 m), FL0910 (10 m), FL0915 (15 m), FL0920 (20 m).
- DAP Audio DMX adapter: 3-pin/5-pin. **Ordercode** FLA30.

Operation modes

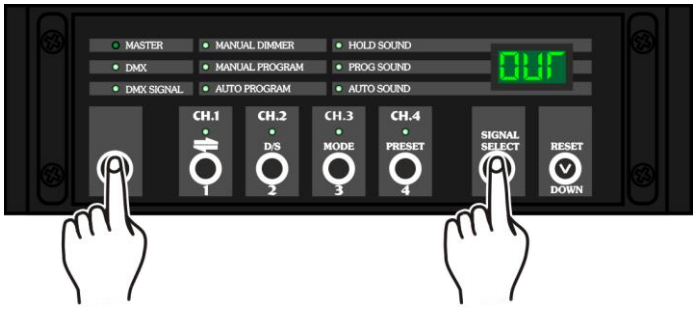
1. Dimmerpack/Chaser mode

The Lightbrick can be used as a 4-channel dimmerpack or a 4-channel DMX chaser.

01) Press and hold down the **F** button.
02) At the same time press the **Signal Select** button, until the display shows:



03) The Lightbrick is now a 4-channel dimmerpack.
04) The DMX LED indicator will light up, DMX mode is active.
05) To switch to chaser mode, press the **Signal Select** button again, while holding down the **F** button. The display will show:

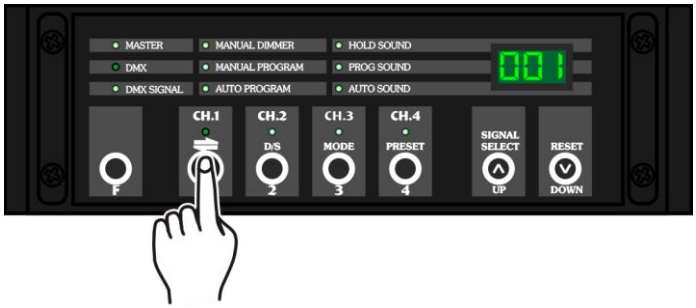


06) The Lightbrick is now a 4-channel DMX chaser.
07) The Master LED indicator will light up, Master mode is active.

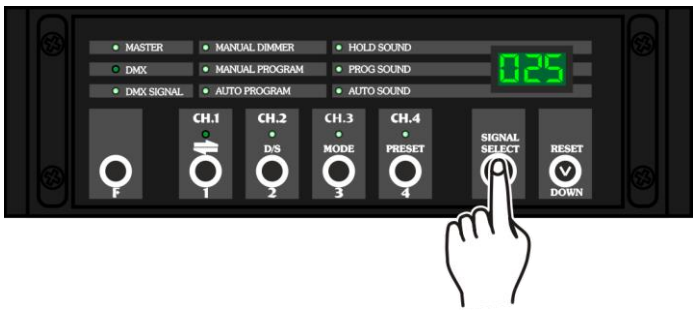
2. DMX address

With this function you can set the DMX address from each channel.

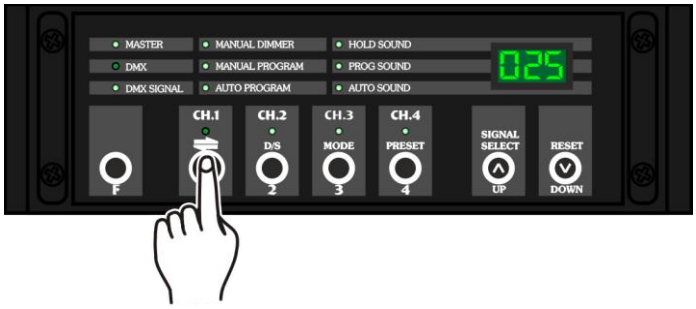
01) First make sure the Lightbrick is in dimmerpack mode, the display shows "**IN**".
02) Press your desired **Channel** button, **CH1**,**CH2**, **CH3** or **CH4**:



03) The channel LED indicator will flash and you can set the desired DMX address.
04) Press the **UP/DOWN** buttons to set the desired DMX address:



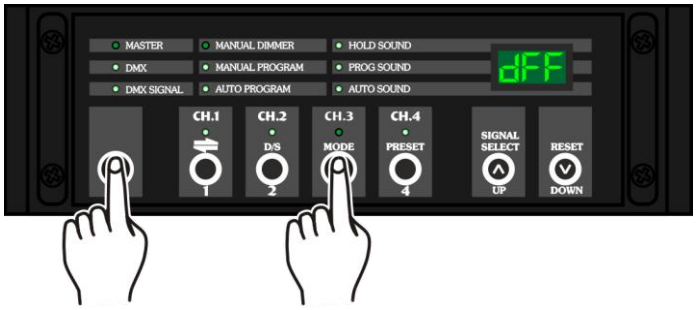
05) The adjustment range is between 001-512.
06) Once you have set the address, press the **Channel** button again:



07) The desired address is now stored into the memory of your Lightbrick.
08) Repeat steps 02-06 to set all channels.

3. Chaser functions

With this functions you can make a chase.
01) First make sure the Lightbrick is in chase mode, the display will show "**OUT**".
02) Press and hold down the **F** button.
03) At the same time press the **CH3** button, until the display shows:

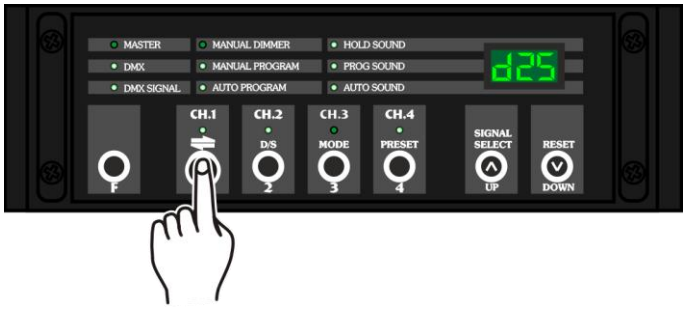


04) You can now choose between Manual Dimmer/ Manual Program/ Auto Program/ Hold Sound/ Program sound and Auto sound mode by repeatedly pressing the **MODE** button.

3.1 Manual Dimmer

With this function you can set the intensity of each channel.

01) While in **Manual Dimmer** mode, press the desired **Channel** button, **CH1**,**CH2**, **CH3** or **CH4**:

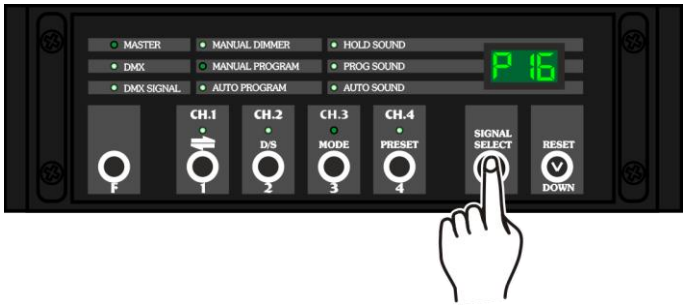


02) The channel LED indicator will flash and you are ready to set the intensity.
03) Press the **UP/DOWN** buttons to set the desired intensity.
04) The adjustment range is between d00-dFF, from 0% intensity to 100% intensity.
05) Repeat steps 01-03 to set all channels.

3.2 Manual Program

With this function you can choose a built-in chase program.

01) While in **Manual Program** mode, press the **UP/DOWN** buttons to choose a built-in program:

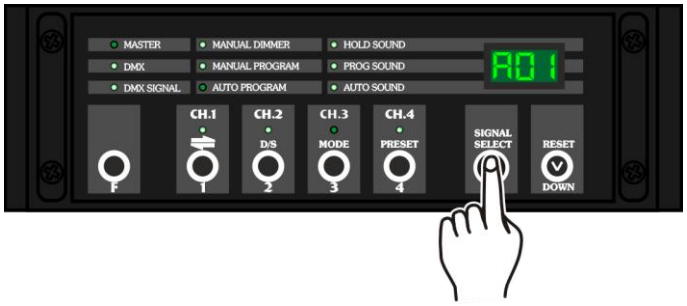


02) The adjustment range is between P01-P16.
03) After choosing the desired built-in program, the chase will automatically start.

3.3 Auto Program

With this function you can set the speed of your built-in chase program.

01) While in **Auto Program** mode, press the **UP/DOWN** buttons to set the speed:

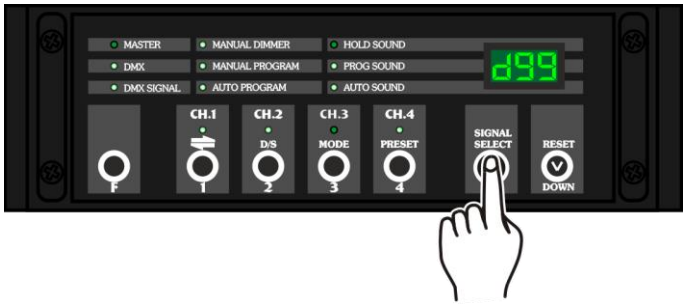


02) The adjustment range is between A01-A99, from slow to fast.

3.4 Hold Sound

With this function you can activate the fixtures in sound mode.

01) While in **Hold Sound** mode, press the **UP/DOWN** buttons to set the sensitivity:



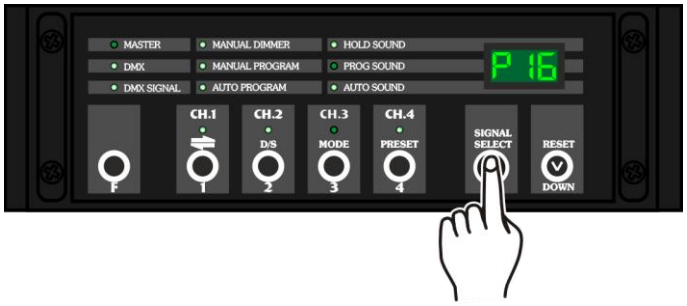
02) The adjustment range is between d00-d99 and dFF, from minimum sensitivity to maximum sensitivity, dFF is full on.

03) After choosing the desired sensitivity, the fixtures will immediately react when there is sound activity.

3.5 Program Sound

With this function you can choose a built-in program which reacts to sound activity.

01) While in **Program Sound** mode, press the **UP/DOWN** buttons to choose a built-in chase program:



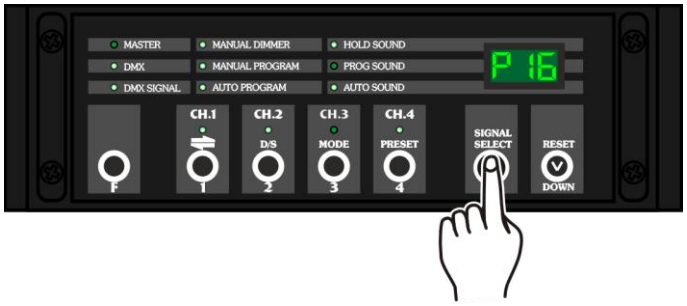
02) The adjustment range is between P01-P16.

03) After choosing the desired built-in program, the chase will automatically start when there is sound activity.

3.6 Auto Sound

With this function you can set the sensitivity of the sound built-in programs.

01) While in **Auto Sound** mode, press the **UP/DOWN** buttons to set the sensitivity:



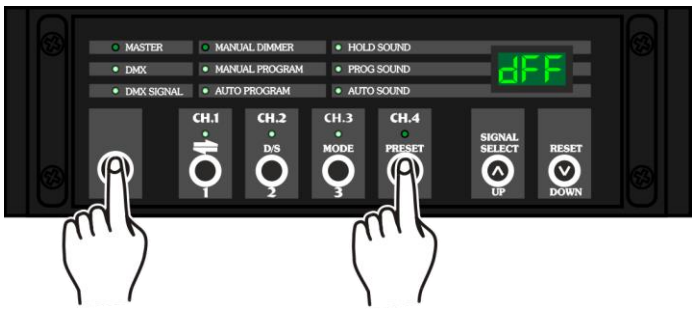
02) The adjustment range is between d00-d99 and dFF, from minimum sensitivity to maximum sensitivity, dFF is full on.

03) After choosing the desired sensitivity, the fixtures will immediately react when there is sound activity.

4. Preset functions

With this function you can set the Fade Time, Preheat intensity and Master Dimmer.

01) You can use these functions in **Dimmer Mode** or **Chaser Mode**.
02) Press and hold down the **F** button.
03) At the same time press the **CH4** button, until the display shows:

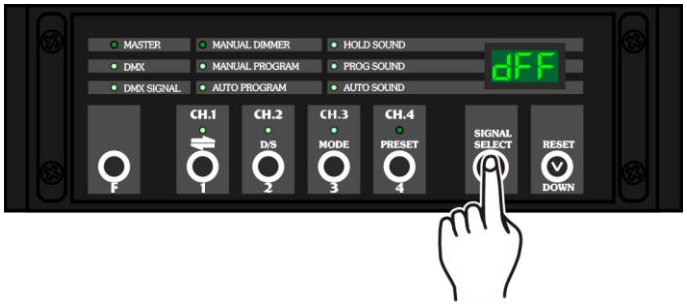


04) You can now choose between Master Dimmer/ Fade Time and Preheat by repeatedly pressing the **CH4** button.

4.1 Master Dimmer

With this function you can set the intensity of all channels.

01) While in **Master Dimmer** mode, press the **UP/DOWN** buttons to set the intensity:

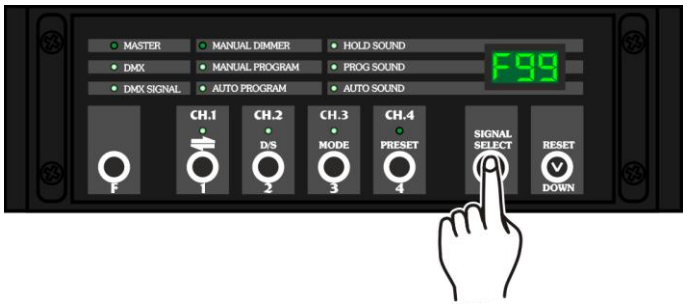


02) The adjustment range is between d00-dFF, from 0% intensity to 100% intensity.

4.2 Fade Time

With this function you can set the fade time.

01) While in **Fade Time** mode, press the **UP/DOWN** buttons to set the fade time:

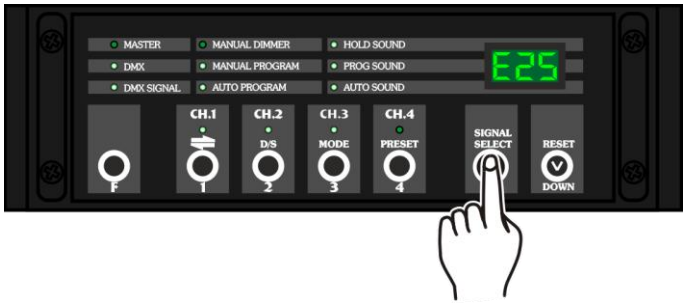


02) The adjustment range is between F00-F99, from 0 seconds to 10 seconds.

4.3 Preheat

With this function you can set the preheat of the fixtures bulb.

01) While in **Preheat** mode, press the **UP/DOWN** buttons to set the intensity:

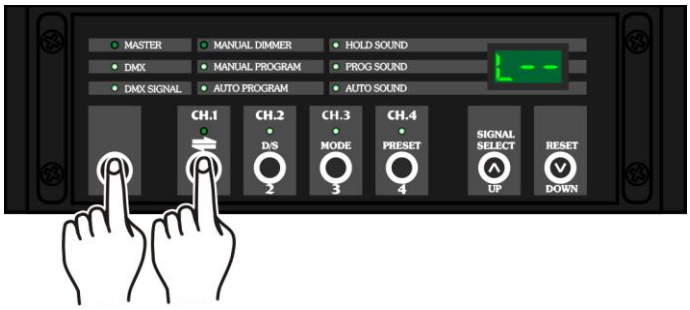


02) The adjustment range is between E00-E25, from 0% intensity to 25% intensity.
03) With this function the bulb will be preheated before the bulb will flash.
04) It is advisable to use this function to extend the bulb's lifespan.

5. Chase Direction

With this function you can set the direction of the chase programs.

01) Press and hold down the **F** button.
02) At the same time press the **CH1** button, until the display shows:

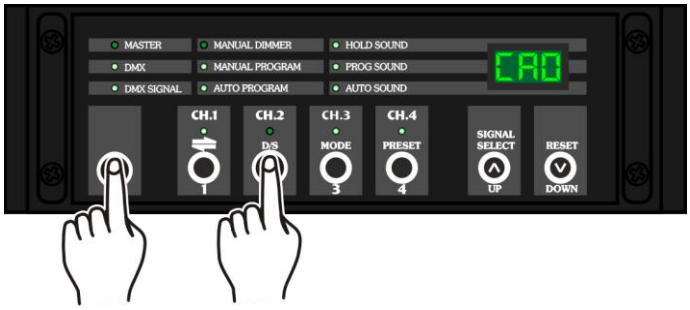


03) You can choose between "**L--**" or "**R--**".
04) If you choose "**L--**", the programs will chase from the left to the right.
05) If you choose "**R--**", the programs will chase from the right to the left.

6. Cross/Normal Dimmer

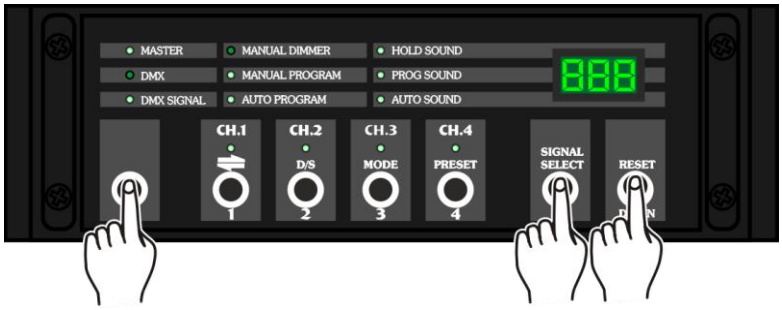
With this function you can select the cross dimmer or normal dimmer.

01) Press and hold down the **F** button.
02) At the same time press the **CH2** button, until the display shows:



03) You can choose between "**NOR**" or "**CRO**".
04) If you choose "**NOR**", the dimmer is now in normal mode and the output is controlled by manual control.
05) If you choose "**CRO**", the dimmer is now in cross mode and if the output is 50% or more, the fixture will operate at FULL ON. If the output is less than 50% the fixture will be OFF.

7. Reset
With this function you can reset the device to its default settings.
01) Press and hold down the **F** button.
02) At the same time press and hold down the **UP** and **DOWN** buttons, until the display shows:



03) The device will be reset to its defaults settings.
04) The device will return in dimmerpack mode and the display wil show "**IN**" .
05) The DMX and Manual Dimmer LED indicators will light up.

Maintenance

The Showtec Lightbrick requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the DMX connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing the 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:
01) Unplug the unit from electric power source.
02) Insert a flat-head screwdriver into a slot in the fuse cover. Turn the screwdriver to the left, at the same time gently push a bit (Turn and Push). The fuse will come out.
03) Remove the used fuse. If brown or unclear, it is burned out.
04) 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

No Light

If the light effect does not operate properly, refer servicing to a technician.
Suspect two potential problem areas as: the power supply, the fuse.
01) Power supply. Check that the unit is plugged into an appropriate power supply.
02) The fuse. Replace the fuse. See page 16 for replacing the fuse.
03) If all of the above appears to be O.K., plug the unit in again.
04) If you are unable to determine the cause of the problem, do not open the Lightbrick, as this may damage the unit and the warranty will become void.
05) Return the device to your Showtec dealer.

No Response to DMX

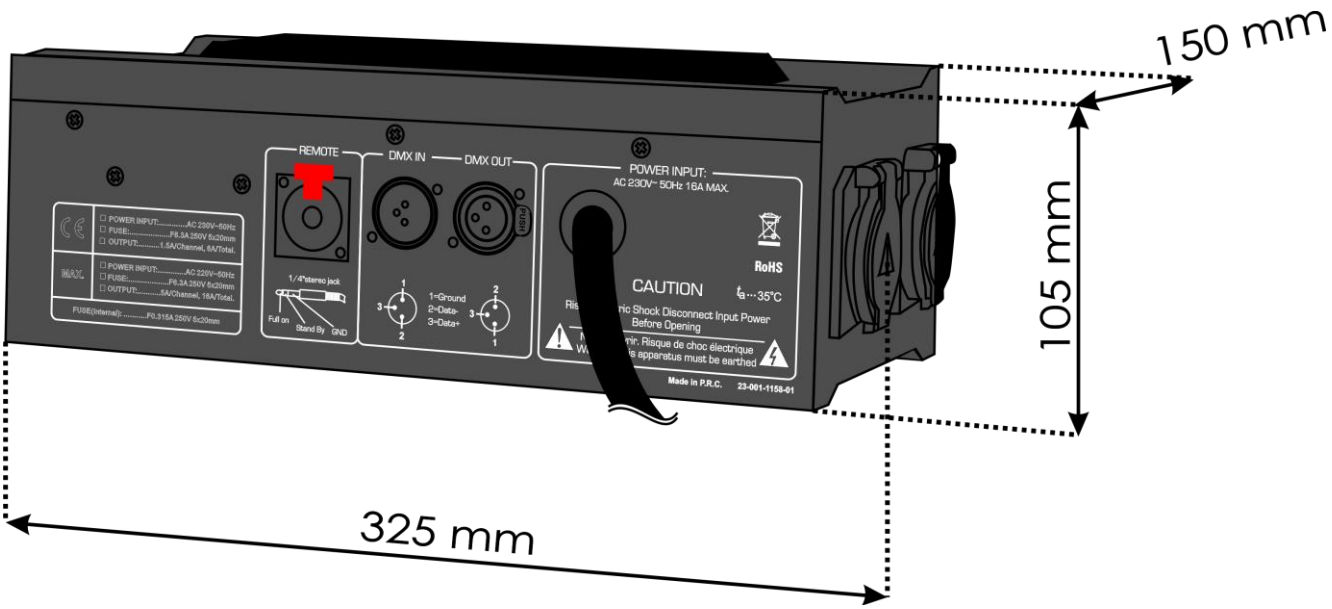
Suspect the DMX cable or connectors, a distributor malfunction, a controller malfunction, a light effect DMX card malfunction.
01) Check the DMX setting. Make sure that DMX addresses are correct.
02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
03) Determine whether the distributor, controller or light effect is at fault. If the distributor or controller does not operate properly, take the distributor or controller in for repair. Otherwise, take the DMX cable and the light effect to a qualified technician.

Problem	Probable cause(s)	Solution
One or more fixtures do not function at all	No power to the fixture	• Check if power is switched on and cables are plugged in
	Primary fuse blown	• Replace fuse
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected.	• Connect controller
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed)	• Install a phase reversing cable between the controller and the first fixture on the link
Fixtures reset correctly, but some respond erratically or not at all to the controller	Poor data quality	• Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link
	Bad data link connection	• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	• Insert termination plug in output jack of the last fixture on the link
	Incorrect addressing of the fixtures	• Check address setting
	One of the fixtures is defective and disturbs data transmission on the link	• Bypass one fixture at a time until normal operation is restored: unplug both connectors and connect them directly together. • Have the defective fixture serviced by a qualified technician
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed)	• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
No light or lamp cuts out intermittently	Fixture is too hot	• Allow the fixture to cool down • Clean the fan • Make sure air vents in control panel and the front lens are not blocked • Turn up the air conditioning
	Lamps damaged	• Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	• Disconnect fixture. Check settings and correct if necessary

Product Specifications

Model:	Showtec Lightbrick
Input voltage:	230V AC, 50Hz
Internal Fuse:	F0.315A/250V
Fuse channel:	F6.3L/250V
Channel output:	5A, total 16A
Connections:	4 Schuko chassis outputs, 3-pin DMX IN, 3-pin DMX OUT
Control:	DMX-512, Stand alone, Music control
DMX channels:	1, 2 or 4
Mode:	Dimmerpack or Chaser
Dimensions:	325 x 105 x 150 mm (LxWxH)
Weight:	3,0 kg

Dimensions



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

CE

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