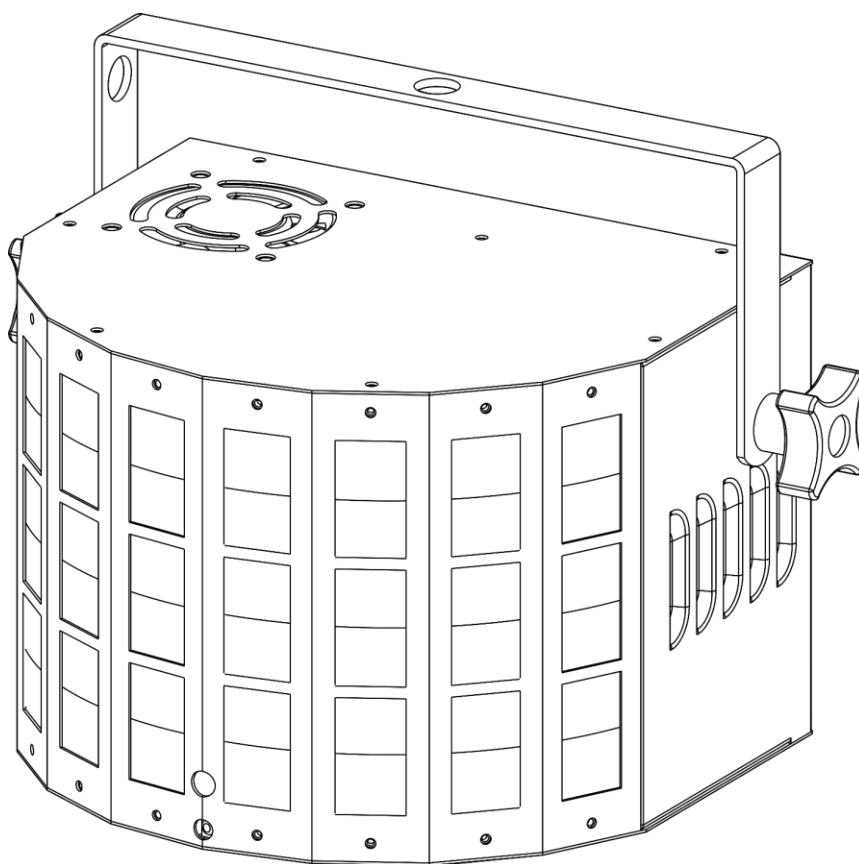




MANUAL



ENGLISH

Energetic

V2

Ordercode: 43165

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Warning



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

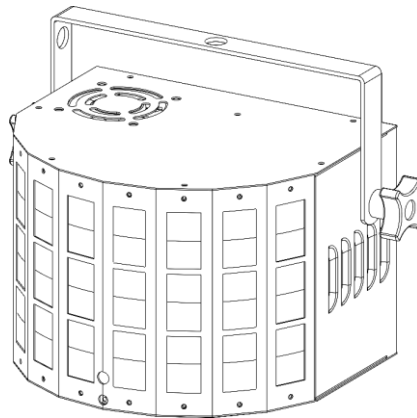


Unpacking Instructions

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:

- Showtec Energetic
- IEC power cable (1,5 m)
- 2 keys for the interlock
- Remote control plug
- IR remote control
- User manual



LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason, when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.



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 the 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 contained 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 modify, bend, mechanically strain, put pressure on, pull or heat up the power cord.
- Never strain the cable insert or the female part in the device. There must always be sufficient cable going to the device. Otherwise, the cable will be damaged, which can cause serious damage.
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never lift the device holding it by the projector-head, as the mechanics may be damaged. Always hold the device by the transport handles.
- Never place any material over the LEDs or lens.
- Never look directly into the light source.
- 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.
- Never aim the laser beam at people or animals!
- Never point a laser at aircraft, this is a federal offense.
- Never point unterminated laser beams into the sky.
- Never open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.
- Do not insert objects into air vents.
- Do not connect this device to a dimmer pack.
- Do not open the device and do not modify the device.
- Do not point lasers at highly reflective surfaces such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.
- Do not expose the output optic (aperture) to cleaning chemicals.
- Do not use the laser if the laser appears to be emitting only one or two beams.
- Do not use the laser if housing is damaged or open, or if optics appear damaged in any way.
- Do not operate laser without first reading and understanding all safety and technical data in this manual. Never look into the laser aperture or laser beams.
- Do not switch the device on and off in short intervals, as this will reduce the device's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes very hot). Allow the device to cool for at least 5 minutes before handling.
- Do not shake the device. Avoid brute force when installing or operating the device.
- After set up and prior to public use, test laser to ensure proper function. Do not use the laser if any defect is detected. Do not use, if the laser emits only one or two laser beams rather than dozens/hundreds, as this could indicate damage to the diffraction grating optic, and could allow emission of higher laser levels.
- Only use the device indoors, avoid contact with water or other liquids.
- Only operate the device after having checked if the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Always check the regulations when using a class 3R laser product.
- Always check and position the laser before anybody enters the room, when the laser is facing an area with people.

- Avoid flames and do not put close to flammable liquids or gases.
- Always keep the case closed while operating.
- Always allow a 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 holding it 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 the core diameter of extension cords and power cords is sufficient for the required power consumption of the device.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the lens or LEDs are obviously damaged, it has to be replaced to prevent its functions from being impaired, due to cracks or deep scratches.
- If device was 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 the 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 beyond the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- The operation of a class 3R laser show laser is only allowed if the show is controlled by a skilled and well-trained operator familiar with the data included in this manual.
- The user is responsible for correct positioning and operating of the device. 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.
- The laser will only work between 10-35°C.
- After 3 hours working, you must shut off the laser and let the laser diode cool off for 30 minutes, otherwise the laser could be damaged and the warranty becomes void.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!

CAUTION! Eyedamages!!!
Never look directly into the lightsource!!!
Never project a single laser point!!!

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 1 meter. (This distance may differ depending on the model. The exact minimum distance will be mentioned in the corresponding manual.)
- To eliminate wear and improve lifespan, during periods of non-use, completely disconnect from power via breaker or by unplugging.
- The maximum ambient temperature $t_a = 35^\circ\text{C}$ 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!

Laser safety for a Class 3R Laser Product

Laser Light is different from any other light source with which you may be familiar with. This laser is less dangerous than a higher class laser such as an 3B or 4. The light from this product is safe for unintentional (<1/4 sec) unaided eye exposure. However this device is potentially hazardous if viewed with certain optical instruments such as binoculars or eye loupe.

Laser light is thousands of times more concentrated than light from any other kind of light source. This concentration of light power can cause instant eye injuries, primarily by burning the retina (the light sensitive portion at the back of the eye). Even if you cannot feel "heat" from a laser beam, it can still potentially injure or blind you or your audience.

Even very small amounts of laser light are potentially hazardous even at long distances. Laser eye injuries can happen quicker than you can blink.

It is incorrect to think that because these laser products split the laser into hundreds of beams or the laser beam is scanned out in high speed, that an individual laser beam is safe for eye exposure. This laser product uses dozens of milliwatts of laser power (Class 3R levels internally). Many of the individual beams are potentially hazardous to the eyes.

It is also incorrect to assume that because the laser light is moving, it is safe. This is not true. Nor, do the laser beams always move. Since eye injuries can occur instantly, it is critical to prevent the possibility of any direct eye exposure. According to the laser safety regulation, it is not legal to aim Class 3R lasers in areas which people can get exposed. This is true even if it is aimed below people's faces, such as on a dance floor.

CAUTION! Only Laser Safety Officers who are officially certified by a regulatory body or authorized training organization are allowed to use class 3R lasers in public. The Laser Safety Officer is responsible for all aspects when using this laser, including following all locally applicable safety laws and regulations. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this laser.



CAUTION: AVOID EXPOSURE TO BEAM: Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser radiation.

Compliance Statement

Your Energetic laser has been designed to comply with FDA and IEC Standards for its classification. The Energetic is a Class 3R laser product.

Laser Safety and Compliance Information

The Energetic is manufactured to comply with the IEC 60825-1 and in accordance with U.S. Food and Drug Administration (FDA) Standards Listed under FDA Document 21 CFR 1040 and subsequent laser notices.

Product Classification and Manufacturing Label Identification

Laser Classification	Class 3R
Cooling	Cooling fans and TE Cooling
Laser medium	Wavelength 650 nm / Red (Laser Diode) ; Output >100mW Wavelength 532 nm / Green (Laser Diode); Output >30mW
Output	130mW

The legal requirements for using laser entertainment products vary from country to country. The user is responsible for the legal requirements at the location/country of use.

Further guidelines and safety programs for safe use of lasers can be found in the ANSI Z136.1 Standard "For Safe Use of Lasers", available from www.lia.org/. Many local governments, corporations, agencies, military and others, require all lasers to be used under the guidelines of ANSI Z136.1. Laser Display guidance can be obtained via the International Laser Display Association, www.ilda.com/index.htm.

CAUTION: The use of corrective eye wear or optics for viewing at distances such as telescopes or binoculars within a distance of 100mm may pose an eye hazard.



This laser product is a Class 3R laser and has an interlocked housing.

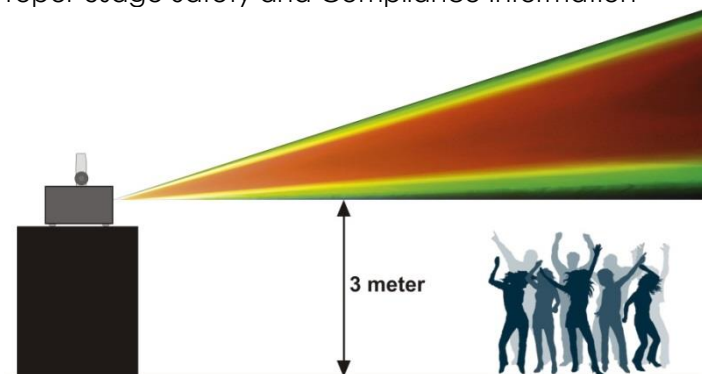


There are no user serviceable parts inside. Tampering or removing warranty seals will void your products limited warranty.



Combo label with the Product Model Number, Serial Number, Date of Manufacturing, Laser Light Warning Label, Warranty Void Label and Interlocked Housing Label

Proper Usage Safety and Compliance Information



According to FDA Regulations you should operate this product as stated on the left.

Rigging

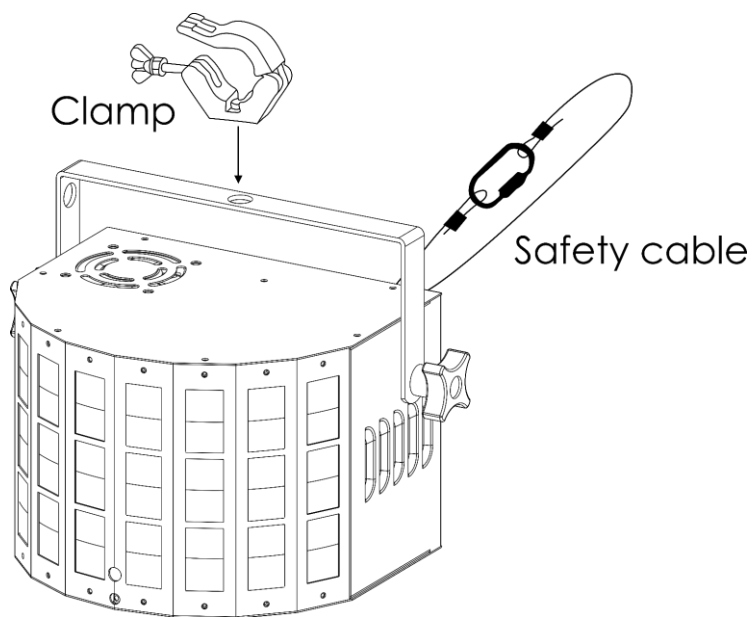
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !

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

Procedure:

- If the Energetic is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Energetic, with the mounting bracket, to the trussing system.
- The Energetic 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 Energetic, always make sure, that the area below the installation site is secured and that there are not any unauthorized people around.




The Energetic can be placed on a flat stage floor or mounted to any kind of truss with a clamp.

Improper installation can cause serious injuries and/or damage of 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 offersales@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 of the return. Be sure to properly pack fixture as 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 shortcomings 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 notify and submit claims with the shipper in the event that the 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 made known in writing or by fax within 10 working days after receipt of the invoice. After this period, complaints will not be handled anymore.

Complaints will only be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The Energetic is a light effect with high output and great effects. It is equipped with laser, strobe and LED effects.

- Input voltage: 100-240V AC, 50/60Hz
- Power consumption: 30W
- DMX channels: 2 or 9 channels
- 4-digit LED display for easy setup
- Control modes: Built-in programs, Static Color, Manual, Sound-controlled, Master/Slave, DMX
- Control protocol: DMX-512
- Protection rate: IP20
- Housing: Die-cast black aluminum
- Cooling: Cooling fan
- Remote Control; Use max. 5m from device
- Connections: IEC connectors IN/OUT, 3-pin XLR IN/OUT
- Fuse: T1L/250V
- Dimensions: 260 x 190 x 188 mm (LxWxH)
- Weight: 1,8 kg

LED effect

- Light source: 1 x 3W Red LED, 1 x 3W Green LED, 1 x 3W Blue LED, 1 x 3W White LED

Laser effect

- Laser Color: Red, Green
- Laser Power: 130mW (100mW 650nm Red, 30mW 532nm Green)
- Laser Class: 3R
- Safety Features: Key switch, Interlock, Safety eye
- Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03

Strobe effect

- Light source: 16 x 0,5W White 5730 LEDs

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

Optional accessories

[51316](#) - Remote Interlock

Overview

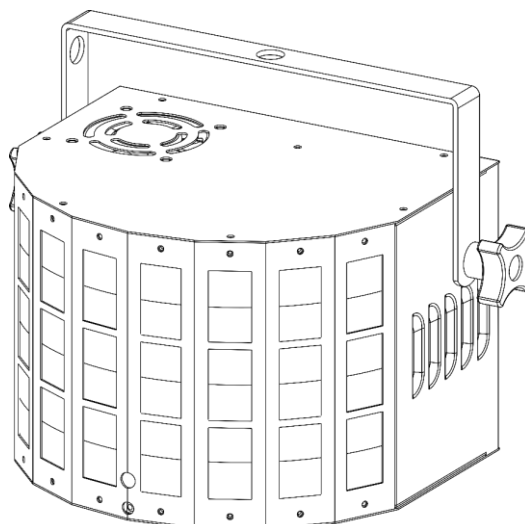


Fig. 01

Frontside

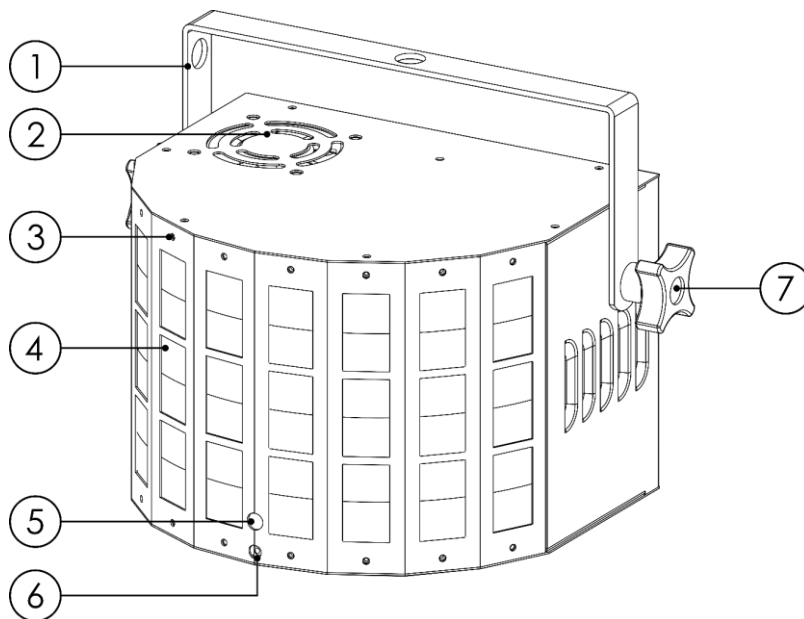


Fig. 02

- 01) Mounting bracket
- 02) Cooling fan
- 03) Strobe
- 04) LEDs
- 05) Laser
- 06) IR eye
- 07) Adjustment screw

Backside

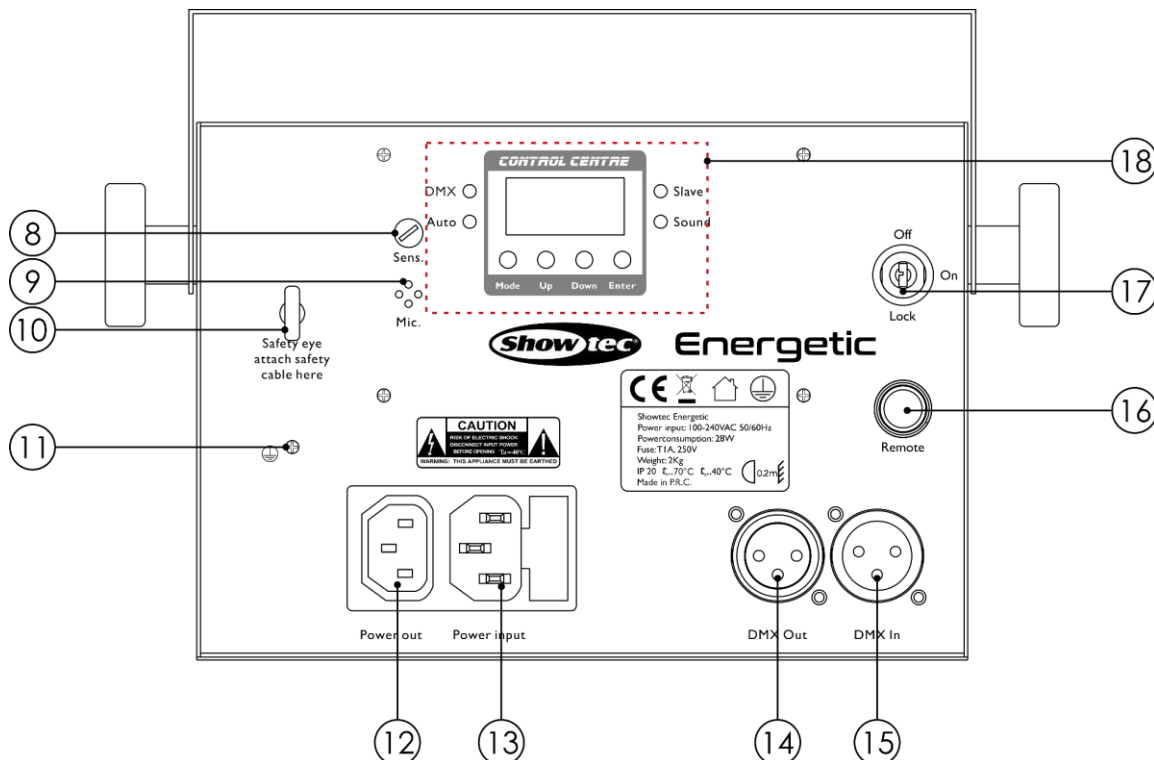


Fig. 03

- 08) Sound sensitivity control
- 09) Built-in Microphone
- 10) Safety eye
- 11) Ground/earth connection
- 12) IEC power connector OUT
- 13) IEC power connector IN + Fuse T1L/250V
- 14) 3-pin DMX signal connector OUT
- 15) 3-pin DMX signal connector IN
- 16) Remote control plug
- 17) Interlock
- 18) LED display + control buttons + LED indicators

Installation

Remove all packing materials from the Energetic. 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. The device can be sound-controlled as it is equipped with a built-in microphone.

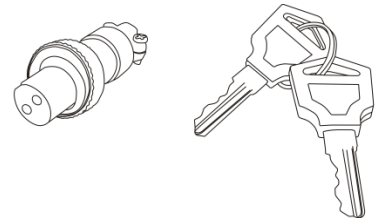
The Interlock plug/remote plug and safety keys are included in the box.

The interlock is the "included-in-the-box" successor for the optional remote interlock ([51316](#)).

⚠ They should be kept with the Energetic !!! ⚠

The following safety precautions should be followed:

- The remote control plug should be placed on the backside (14) of your Energetic.
- The keys should be put into the lock (15) of your Energetic.



⚠ Warning ⚠

If the plug is not connected, your laser will not function.

If the key is not set to ON, your laser will not function.

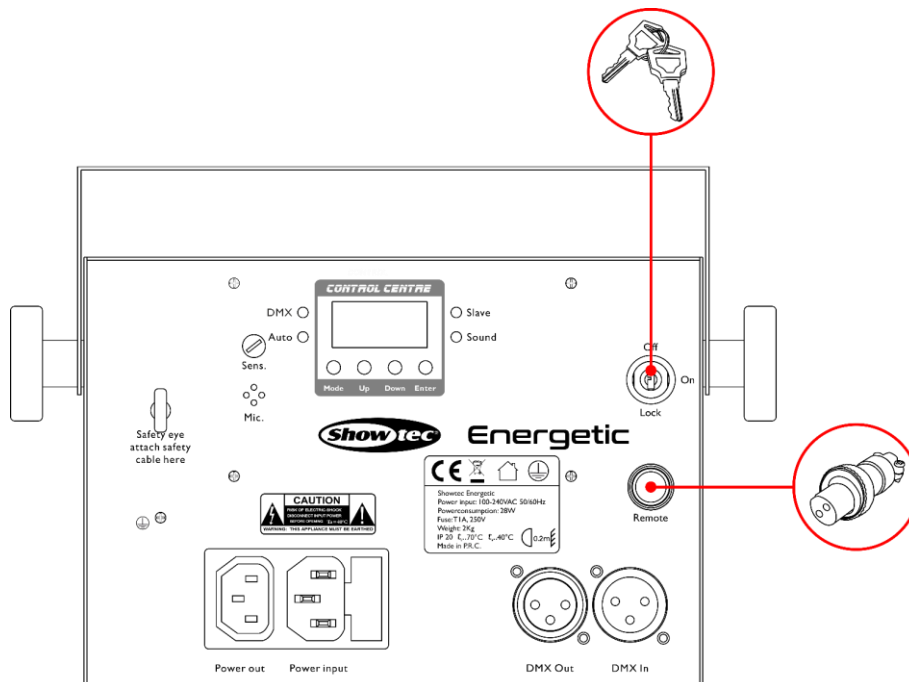


Fig. 04

Exclusion of liability

Be aware that in some countries, there are additional regulations, regarding the use of laser devices. Therefore, we strongly advise you to verify your national laws with your authorities: We do not take any responsibility for eventual discrepancies, changes or adaptations regarding lawful use of laser devices.

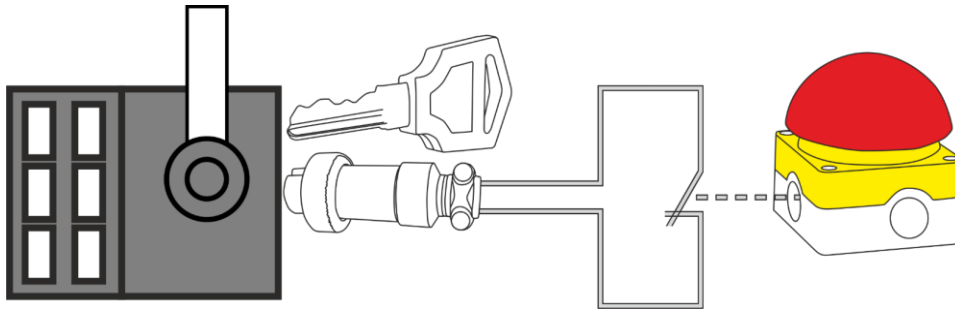


Fig. 05

Control Modes

There are 6 modes:

- Built-in programs
- Static Color
- Manual
- Sound-controlled
- Master/slave
- DMX-512 (2CH, 9CH)

One Energetic (Built-in programs, Static Color, Manual)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) When the Energetic is not connected with a DMX cable, it functions as a stand-alone device. Please see pages 18 and 19 for more information about Built-in programs, Static Color and Manual modes.

One Energetic (Sound-controlled)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) Turn on the music. If the device is set to sound-control, then the Energetic will react to the beat of the music. Please see page 18 for more information about the sound-control options.

Multiple Energetics (Master/Slave control)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a 3-p XLR cable to connect the Energetics and other devices.

The pins:



- 1. Earth
- 2. Signal (-)
- 3. Signal (+)

- 04) Link the units as shown in Fig. 06, connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second and third units. You can use the same functions on the master device as described on pages 18 and 19 (Built-in programs, Static Color, Manual). This means you can set your desired operation mode on the master device and all slave devices will react the same as the master device.

Multiple Energetics (Master/Slave control)

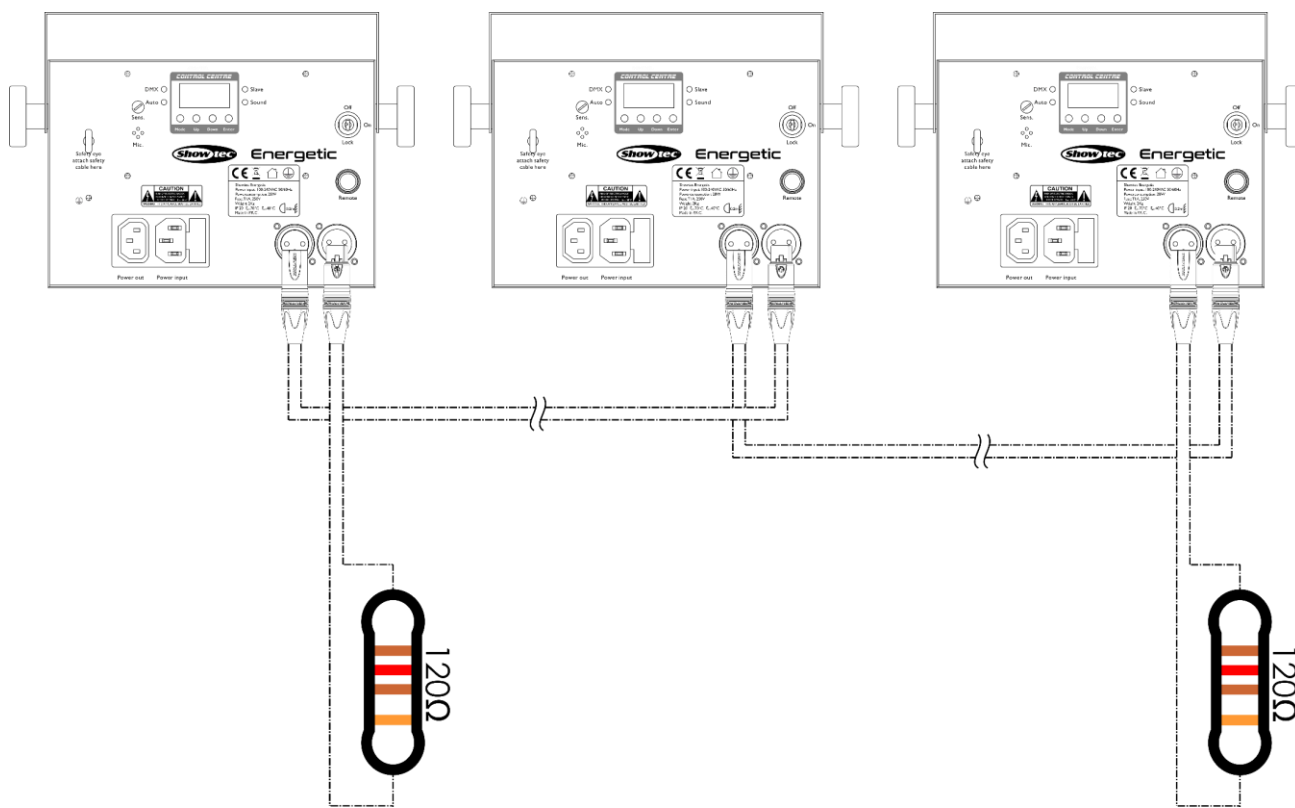
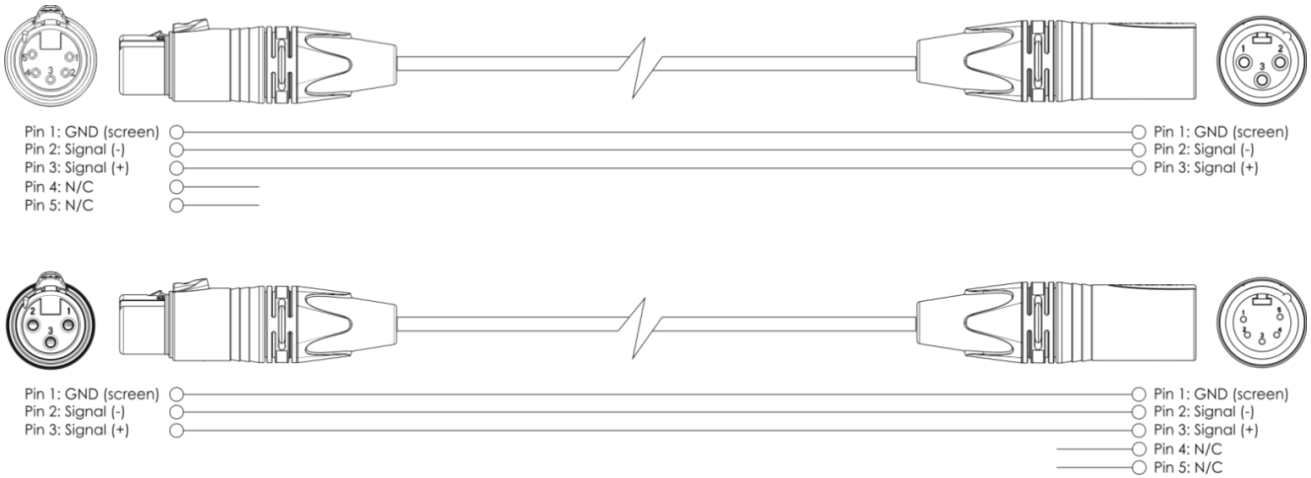


Fig. 06

Note: Link all cables before connecting electric power

Multiple Energetics (DMX Control)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a 3-pin XLR cable to connect the Energetics and other devices.



- 04) Link the units as shown in Fig. 07. 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 second and third units.
- 05) Supply electric power: Plug electric mains power cords into each unit's IEC socket, then plug the other end of the 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 Energetics DMX Set Up

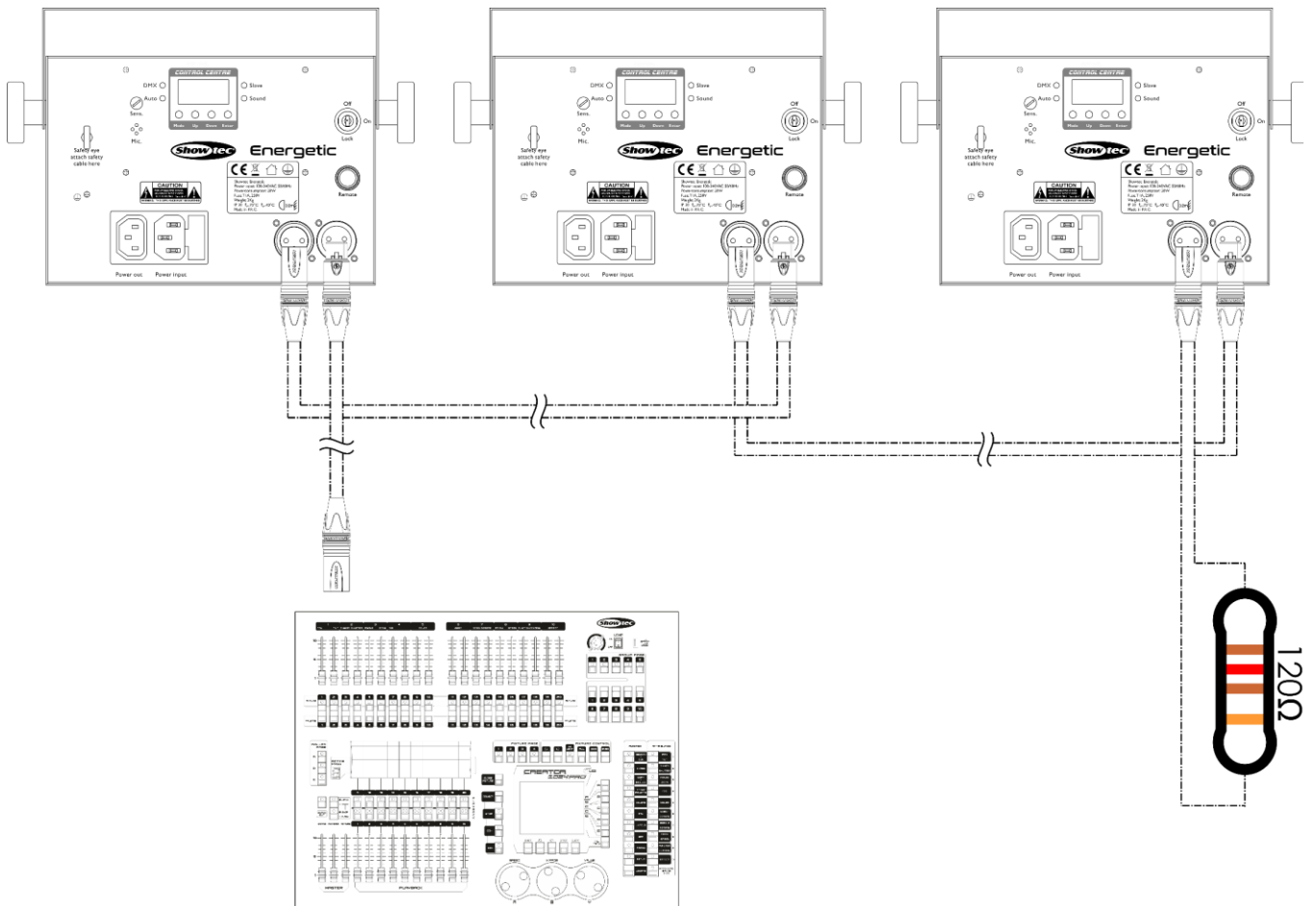



Fig. 07

Note: Link all cables before connecting electric power

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 optically isolated splitter 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
 Maximum recommended number of fixtures on a power link @110V: 30 fixtures
 Maximum recommended number of fixtures on a power link @240V: 61 fixtures

Data Cabling

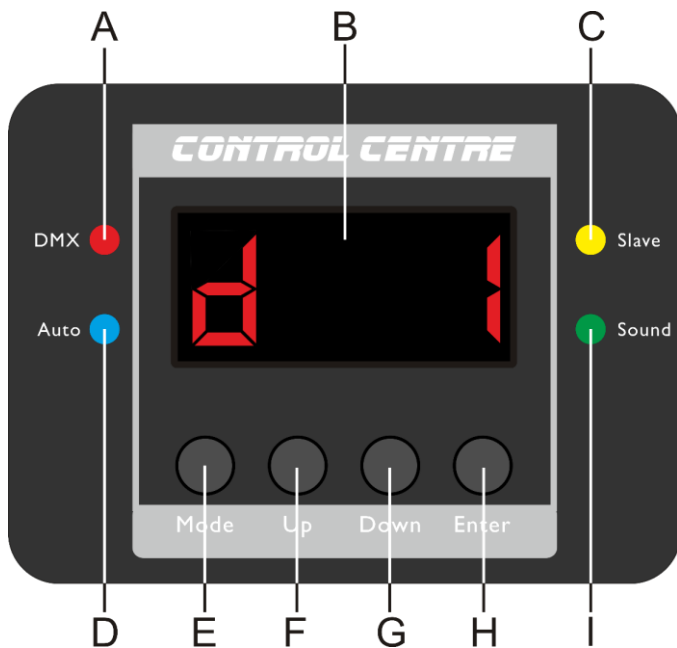
To link fixtures together, you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable, please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic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

The Energetic can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel



- A) DMX LED indicator
- B) LED display
- C) Slave LED indicator
- D) Auto LED indicator
- E) MODE button
- F) UP button
- G) DOWN button
- H) ENTER button
- I) Sound LED indicator

Fig. 08

Control Mode

The fixtures are individually addressed on a data-link and connected to the controller. The fixtures respond to the DMX signal from the controller. (When you select the DMX address and save it, the controller will display the saved DMX address, next time.)

DMX Addressing

The control panel on the backside of the device allows you to assign DMX fixture addresses, which is the first channel with which the Energetic will respond to the controller.

Please note, when you use the controller, the unit has **9** channels.

When using multiple Energetics, make sure you set the DMX addresses right.

Therefore, the DMX address of the first Energetic should be **1 (001)**; the DMX address of the second Energetic should be **1+9=10 (010)**; the DMX address of the third Energetic should be **10+9=19 (019)**, etc. Please, be sure that you do not have any overlapping channels in order to control each Energetic correctly. If two or more Energetics are addressed similarly, they will work similarly.

Controlling:

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

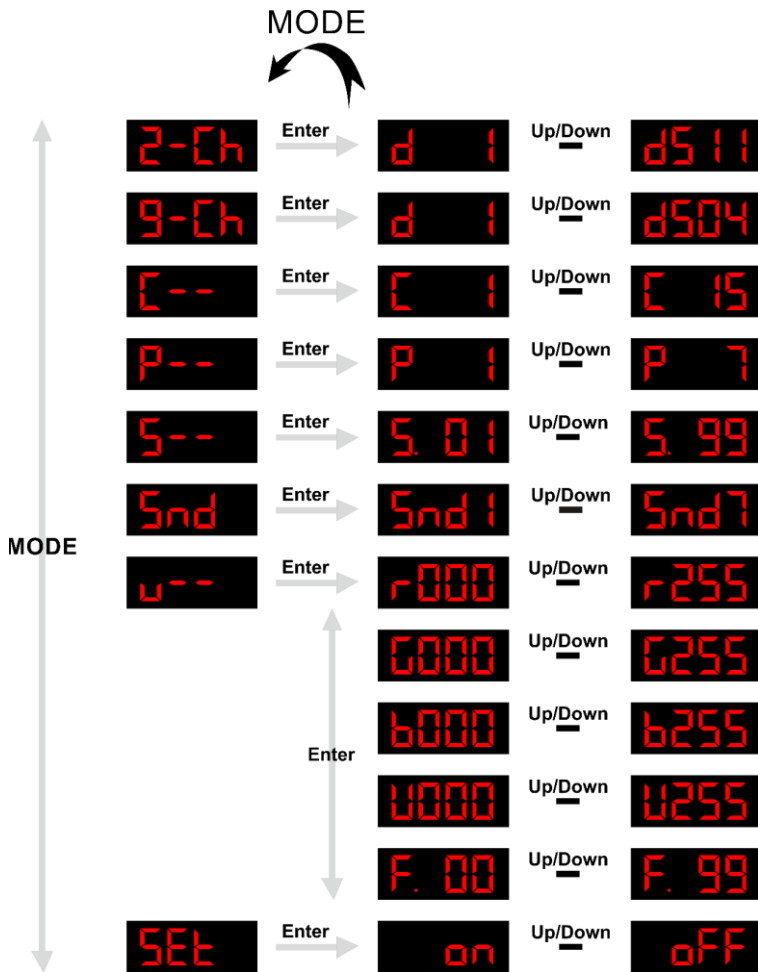
Note: After switching on, the Energetic will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the "LED" on the control panel will not flash.

If not, the problem may be:

- The XLR cable from the controller is not connected with the input of the Energetic.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

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

Menu Overview



The Energetic will only show its version number at start-up !

u001

Main Menu Options

- 2-Ch** 2-channel mode
- 9-Ch** 9-channel mode
- C--** Static colors
- P--** Built-in programs
- S--** Program speed
- Snd** Sound-controlled
- u--** Manual
- SEt** IR remote control settings

1. 2-channel mode

With this menu you can choose a DMX personality and set the DMX address.

- 01) Press the **MODE** button until the display shows **2-Ch**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to set the desired DMX address. The adjustment range is between **d 1** ^{Up/Down} **d511**.
- 04) Press the **ENTER** button to save changes.

2. 9-channel mode

With this menu you can choose a DMX personality and set the DMX address.

- 01) Press the **MODE** button until the display shows **9-Ch**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to set the desired DMX address. The adjustment range is between **d 1** ^{Up/Down} **d504**.
- 04) Press the **ENTER** button to save changes.

3. Static Colors

With this menu you can set the desired static color.

- 01) Press the **MODE** button until the display shows **C--**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 15 static colors: **C 1** ^{Up/Down} **C 15**.
- 04) Press the **ENTER** button to confirm your choice.

4. Built-in Programs

With this menu you can set the built-in programs.

- 01) Press the **MODE** button until the display shows **P--**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 7 built-in programs: **P 1** ^{Up/Down} **P 7**.
- 04) Press the **ENTER** button to confirm your choice.
- 05) The device will now run the desired built-in program.

5. Built-in Program Speed

With this menu you can set the built-in program speed.

- 01) Press the **MODE** button until the display shows **S--**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to set the program speed.
The adjustment range is between **S 01** ^{Up/Down} **S 99**, from slow to fast.
- 04) Press the **ENTER** button to save changes.

6. Sound-controlled Mode

With this menu you can set Sound-controlled programs.

- 01) Press the **MODE** button until the display shows **Snd**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 7 sound-controlled programs: **Snd 1** ^{Up/Down} **Snd 7**.
- 04) Press the **Enter** button to confirm your choice.
- 05) Turn the sound sensitivity control (**07**) to the left, to decrease, or to the right, to increase the sound sensitivity.
- 06) The device will now react to the beat of the background music.

7. Manual

With this menu you can manually set the desired colors.


- 01) Press the **MODE** button until the display shows **U--**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **ENTER** button to toggle through the available options:

r.000  **r.255** Gradual adjustment red intensity(0-255)

G000  **G255** Gradual adjustment green intensity (0-255)

b000  **b255** Gradual adjustment blue intensity (0-255)


W000  **W255** Gradual adjustment white intensity (0-255)

F. 00  **F. 99** Strobe speed from slow to fast

- 04) Press the **UP/DOWN** buttons to change the values.
- 05) Press the **ENTER** button to save changes/proceed.

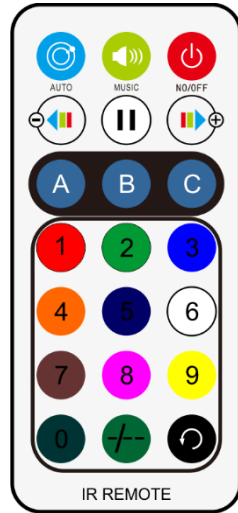
8. IR Remote Control Settings

With this menu you can activate the IR sensor.










- 01) Press the **MODE** button until the display shows **SEt**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose between **oN**  **oFF**.
- 04) Choose ON, to activate, or OFF to deactivate the IR sensor.
- 05) Press the **ENTER** button to confirm your choice.

Remote Control

Use remote control max. 5m from device.



Note: buttons  and  have no function

Button	Function	Description
	On / Off	Press the ON/OFF button for 2 seconds to activate the different modes except the Slave mode.
	Auto program mode	Press the button to activate the Auto program.
	Sound-controlled mode	Press the button to activate the Music program. If the device receives a sound signal, the Music LED indicator on the backside will blink (Green LED).
	LED auto mode	Press the button to activate/deactivate the LED program
	Strobe auto mode	Repeatedly press the button to activate/deactivate the strobe programs
	Strobe ON/OFF	Press the button to activate/deactivate the strobe
	Pause	Press the button to pause the built-in programs or color change
	Speed	Press one of the buttons to adjust the built-in program speed. 0 = slowest, 9 = fastest
	Color settings	Press the buttons to choose the desired built-in LED color

DMX Channels

2 channels

Channel 1 – Built-in Programs

0-9	Not functional
10-44	LEDs/laser/strobe
45-79	LEDs/strobe
80-114	LEDs/laser
115-149	Laser/strobe
150-184	LEDs
185-219	Strobe
220-255	Laser

Channel 2 – Built-in Program Speed Programs  CH1 must be set between 10-255 

0-250	Gradual speed adjustment, from slow to fast
251-255	Sound-controlled

9 channels

Channel 1 – Built-in Programs

0-9	Not functional
10-44	LEDs/laser/strobe
45-79	LEDs/strobe
80-114	LEDs/laser
115-149	Laser/strobe
150-184	LEDs
185-219	Strobe
220-255	Laser

Channel 2 – Built-in Program Speed Programs  CH1 must be set between 10-255 

0-250	Gradual speed adjustment, from slow to fast
251-255	Sound-controlled

Channel 3 – Static Colors  CH1 must be set between 0-9 

0-5	Not functional
6-20	Red
21-35	Green
36-50	Blue
51-65	White
66-80	Red+Green
81-95	Red+Blue
96-110	Red+White
111-125	Green+Blue
126-140	Green+White
141-155	Blue+White
156-170	Red+Green+Blue
171-185	Red+Green+White
186-200	Green+Blue+White
201-215	Red+Green+Blue+White
216-230	4-color chase
231-255	7-color chase

Channel 4 – Strobe ⚠ **CH3 must be set between 6-255** ⚠

0-5	Not functional
6-255	Strobe flash frequency, from low to high frequency

Channel 5 – Motor Rotation

0	Not functional
1-127	Motor indexing
128-255	Rotation speed, from slow to fast

Channel 6 – Strobe Patterns

0-9	Not functional
10-19	Pattern 1, from slow to fast
20-29	Pattern 2, from slow to fast
30-39	Pattern 3, from slow to fast
40-49	Pattern 4, from slow to fast
50-59	Pattern 5, from slow to fast
60-69	Pattern 6, from slow to fast
70-79	Pattern 7, from slow to fast
80-89	Pattern 8, from slow to fast
90-99	Pattern 9, from slow to fast
100-109	Pattern 10, from slow to fast
110-119	Pattern 11, from slow to fast
120-129	Pattern 12, from slow to fast
130-139	Pattern 13, from slow to fast
140-149	Pattern 14, from slow to fast
150-159	Pattern 15, from slow to fast
160-169	Pattern 16, from slow to fast
170-179	Pattern 17, from slow to fast
180-255	Strobe FULL ON

Channel 7 – Laser Colors ⚠ **If CH7 is set between 130-255, then CH8 must be set between 10-255** ⚠

0-9	Not functional
10-49	Red laser on
50-89	Green laser on
90-129	Red + Green laser on
130-169	Red laser on + Green laser flashes
170-209	Red laser flashes + Green laser on
210-255	Red + Green laser flash

Channel 8 – Strobe Laser

0-9	Not functional
10-254	Strobe flash frequency, from low to high frequency
255	Sound-activated strobe

Channel 9 – Laser Rotation ⚠ **CH7 must be set between 10-255** ⚠

0-4	Not functional
5-127	Clockwise rotation, from slow to fast
128-133	Stop
134-255	Counterclockwise rotation, from slow to fast

Maintenance

The Energetic requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's 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 lens will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light output very quickly.

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.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.

The operator has to make sure that safety-related 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:

- 01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
- 02) There may not be any deformations on housings, fixations and installation spots.
- 03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
- 04) The electric power supply cables must not show any damages or material fatigue.

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-headed screwdriver into a slot in the fuse cover. Gently pry up the fuse cover. 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. 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.

No Light

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

Suspect four potential problem areas as: the power supply, the laser, LEDs, the fuse.

- 01) Power supply. Check that the unit is plugged into an appropriate power supply.
- 02) The laser. Return the Energetic to your Showtec dealer.
- 03) The LEDs and strobe LEDs. Return the Energetic to your Showtec dealer.
- 04) The fuse. Replace the fuse. See page 23 for replacing the fuse.
- 05) If all of the above appears to be O.K., plug the unit in again.
- 06) If you are unable to determine the cause of the problem, do not open the Energetic, as this may damage the unit and the warranty will become void.
- 07) Return the device to your Showtec dealer.

No Response to DMX

Suspect the DMX cable or connectors, 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 controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

The fixture does not work, no laser and the fan does not work

- 01) Check the connected power and main fuse.
- 02) Check the mains voltage on the main connector.

The fixture is on, but the laser does not work

- 01) Check the laser aperture cover.
- 02) Check the key switch.
- 03) Check the remote interlock or interlock connector.
- 04) Wait for at least 30 minutes to warm up in low temperature.
- 05) Check whether it is in music mode without sound signal.
- 06) Check whether it is in slave mode.
- 07) Check whether it is in DMX mode, without a DMX signal being present.

The laser effect power is very weak

- 01) Wait for at least 30 minutes to warm up in low temperature.
- 02) Clean the scanner mirror with alcohol.
- 03) Clean the aperture glass with alcohol.
- 04) Check whether it is in DMX mode with a high strobe frequency.

The laser is on, but the pattern is not moving

- 01) Check to see whether it is in sound-controlled mode without detecting sound signal.
- 02) Check to see whether it is in DMX mode.
- 03) Try to change the fixture to another mode.
- 04) Try to control the fixture via DMX to see the laser effect system.

Problem	Probable cause(s)	Solution
One or more fixtures do not function at all	No power to the fixture	<ul style="list-style-type: none"> Check if power is switched on and cables are plugged in
	Primary fuse blown.	<ul style="list-style-type: none"> Replace fuse.
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected.	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	<ul style="list-style-type: none"> Insert termination plug in output jack of the last fixture on the link
	Incorrect addressing of the fixtures	<ul style="list-style-type: none"> Check address setting
	One of the fixtures is defective and disturbs data transmission on the link	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
Shutter closes suddenly	The laser diode has lost its index position and the fixture is resetting the effect.	<ul style="list-style-type: none"> Contact a technician for servicing the problem persists.
No light or LEDs or laser cuts out intermittently	Fixture is too hot	<ul style="list-style-type: none"> Allow the fixture to cool down Clean the fan Make sure air vents and the front lens are not blocked Turn up the air conditioning
	LEDs or laser damaged	<ul style="list-style-type: none"> Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	<ul style="list-style-type: none"> Disconnect fixture. Check settings and correct if necessary

Product Specifications

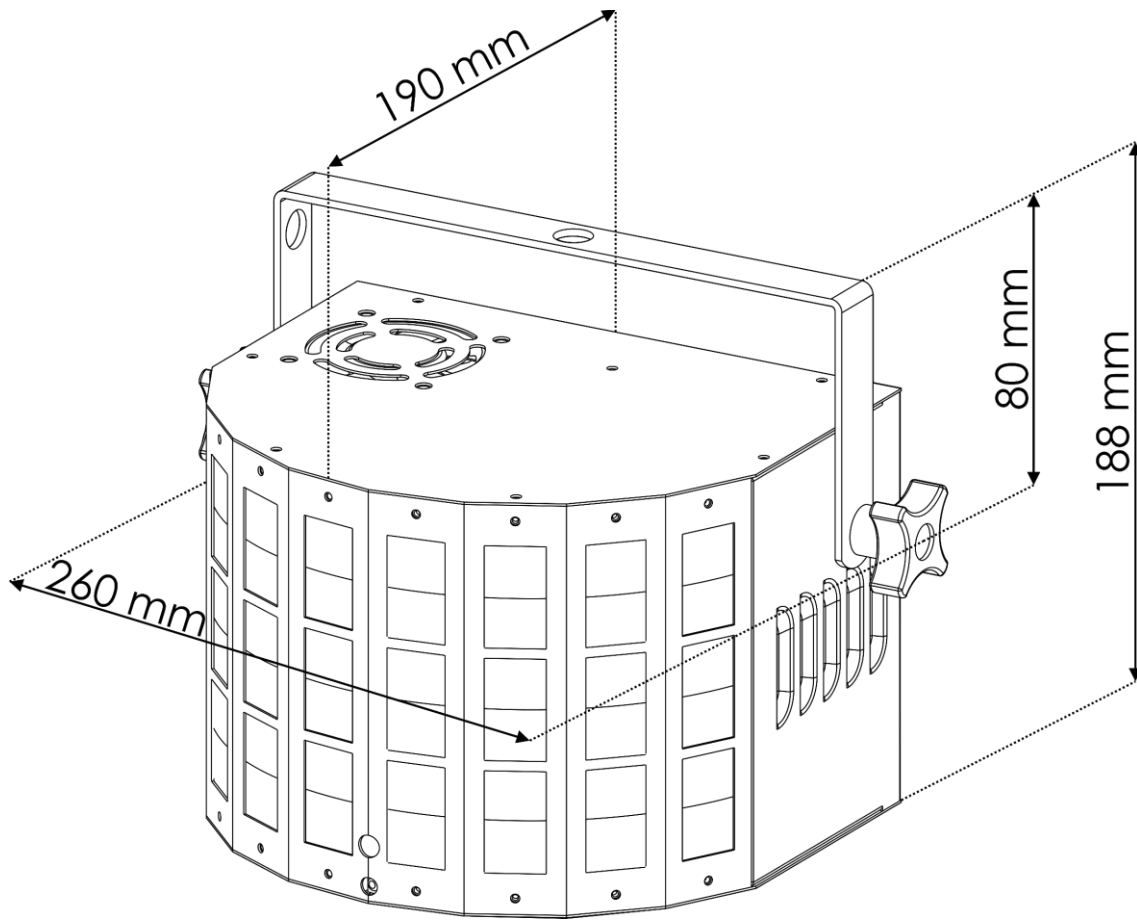
Model:	Showtec Energetic
Input voltage:	100-240V AC, 50/60Hz
Power consumption:	30W (full output)
DMX linking:	30 pcs
Power linking @110V	30 pcs
Power linking @240V	61 pcs
Fuse:	T1L/250V
Dimensions:	260 x 190 x 188 mm (LxWxH)
Weight:	1,8 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX Mode:	2, 9 channels
Signal input:	3-pin DMX IN
Signal output:	3-pin DMX OUT
Electro-mechanical effects:	
LED effect:	1 x 3W Red LED, 1 x 3W Green LED, 1 x 3W Blue LED, 1 x 3W White LED
Laser effect:	Colors: Red, Green Laser Power: 130mW (100mW 650nm Red, 30mW 532nm Green) Laser Class: 3R Safety Features: Key switch, Interlock, Safety eye Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03
Strobe effect:	16 x 0,5W White 5730 LEDs
Housing:	Die-cast black aluminum
DMX-control:	via standard DMX-controller
On Board:	4-digit LED display for easy setup
Control:	Built-in programs, Static Color, Manual, Sound-controlled, Master/Slave, DMX
Connections:	IEC connectors IN/OUT, 3-pin XLR IN/OUT
Cooling:	Cooling fan
IP rating:	IP20
Max. ambient temperature t_a :	35°C
Max. housing temperature t_B :	80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m

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



Website: www.Showtec.info
Email: service@highlite.nl

Dimensions





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