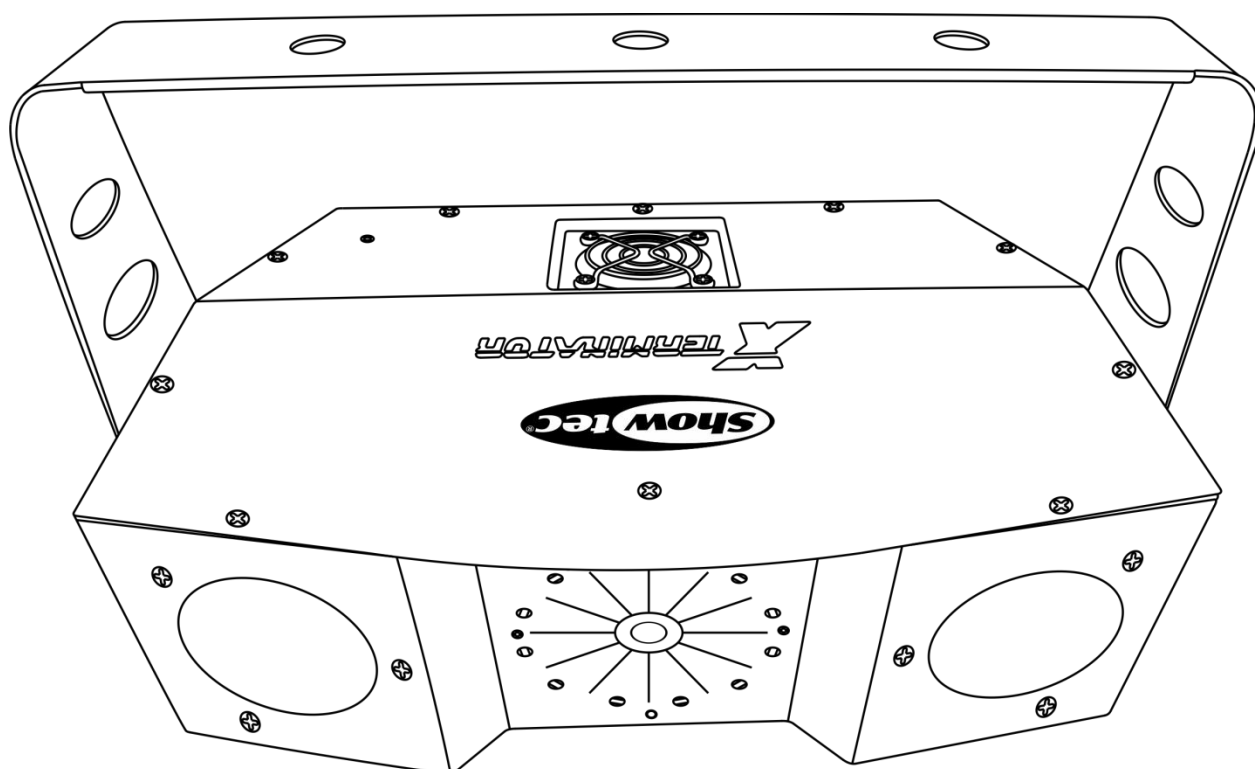




# MANUAL



ENGLISH

## X-Terminator

## V1

Ordercode: 43157

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## Warning



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

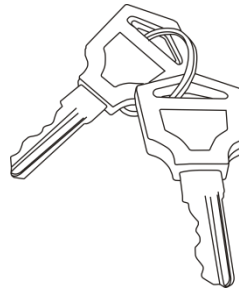
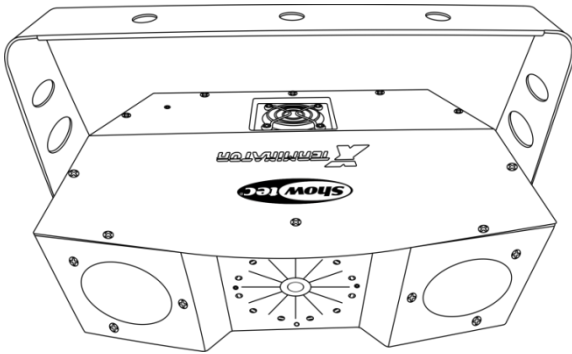


### Unpacking Instructions

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:

- X-Terminator
- IEC power cable – 1,75 m
- 2 keys for the Interlock
- Mounting bracket + 2 mounting screws
- Remote control plug
- User manual



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



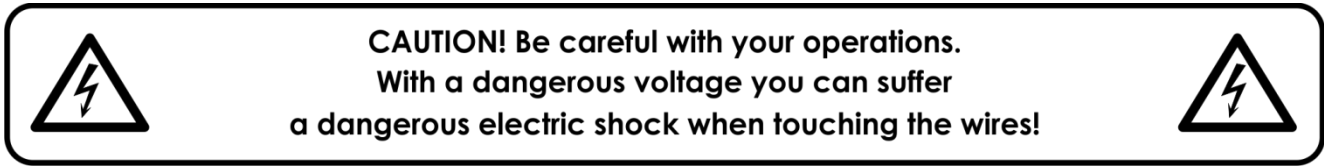
**CAUTION!  
Keep this device away from rain and moisture!  
Unplug mains lead before opening the housing!**



## Safety Instructions

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

- be qualified
- follow the instructions of this manual



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 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 place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never aim the laser beam at people or animals!
- Never use the device during thunderstorms, unplug the device immediately.
- 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 dimmerpack.
- 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 laser if the laser appears to be emitting only one or two beams
- Do not use 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 would reduce the device's life.
- 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 device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always check the regulations when using a class 3B laser product.

- Always check and position the laser before anybody enters the room, when the laser is facing an area with people
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If 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. Device must be installed out of 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 3B 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 X-Terminator. 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 10-40°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.

### 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 more than 1 meter.
- 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  $30^{\circ}\text{C}$ .
- 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 3B Laser Product

Laser Light is different from any other light source with which you may be familiar with. The light from this product can potentially cause instant eye injury if not set up and used properly. 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 3B 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 3B 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 3B 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 X-Terminator laser has been designed to comply with FDA and IEC Standards for its classification. The X-Terminator is a Class 3B laser product.

### Laser Safety and Compliance Information

The X-Terminator 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 3B
Cooling	Cooling fan and TE Cooling
Laser medium (Output)	wavelength 650 nm / Red (Laser Diode), >140 mW wavelength 532 nm / Green (DPSS), >60 mW
Laser Output	200 mW
Beam Diameter	<5mm at aperture
Pulse Data All pulses	< 4Hz (>0.25sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<160 degrees

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.laserinstitute.org](http://www.laserinstitute.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.laserist.org](http://www.laserist.org).

**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 3B laser and has an interlocked housing.

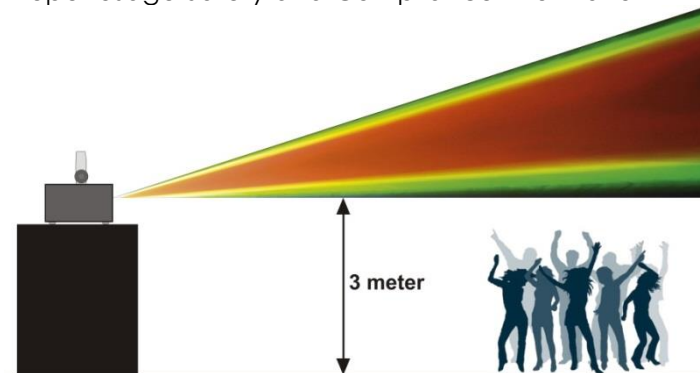


There are no user serviceable parts inside. Tampering or removing warranty seals will void your products limited warranty.



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.

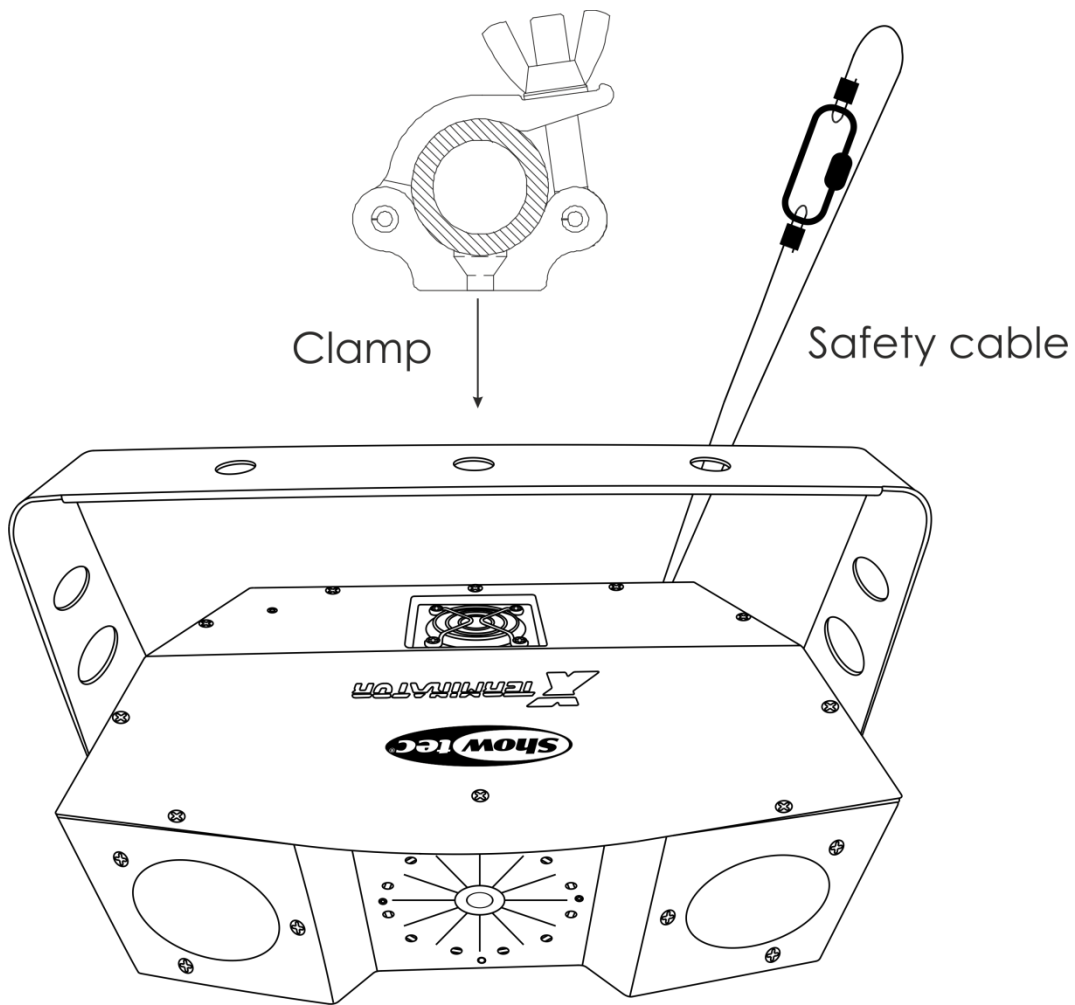
Do not attempt the installation yourself !

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

## Procedure:

- If the projector is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the projector, with the mounting-bracket, to the trussing system.
- The projector 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 a safety cable.
- When rigging, derigging or servicing the projector, always make sure that the area below the installation is unavailable for any unauthorized persons.

Improper installation can cause serious injuries and damage of property !



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

Improper installation can cause serious damage to people and property!

**Connection with the mains**

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

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

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

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





### 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](mailto: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 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 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 otherwise agreed 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 then 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 X-Terminator is a laser effect with high output and great effects.

- When using multiple units together, you can make a dazzling and cost effective beam show
- Power Input: AC 100-240V, 60/50Hz
- Power Consumption: 50 Watt
- Beam Diameter <5mm at aperture
- Laser Class: 3B
- Strobe: 0-30Hz
- Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03
- LED Color: Red, Green, Blue + White and Amber
- Laser Color: Red, Green
- Light source: 12 x 0,5W LED
- Laser Power: 200mW (140mW 650nm Red, 60mW 532nm Green)
- Control Modes: DMX-512, Built-in Programs, Master/Slave, Sound-controlled
- Divergence (each beam) <2 mrad; Divergence (total light) <160 degrees
- 3-pin DMX In and 3-pin DMX Out
- Clear red LED display for all settings
- Compact strong metal housing
- Sound-controlled via built-in microphone
- 2 and 11 DMX channel modes
- Safety Features: Key switch, Interlock
- Fuse: 1,6AL/250V
- Dimensions: 335 x 215 x 197 mm (LxWxH)
- Weight: 2,5 kg

### Frontside

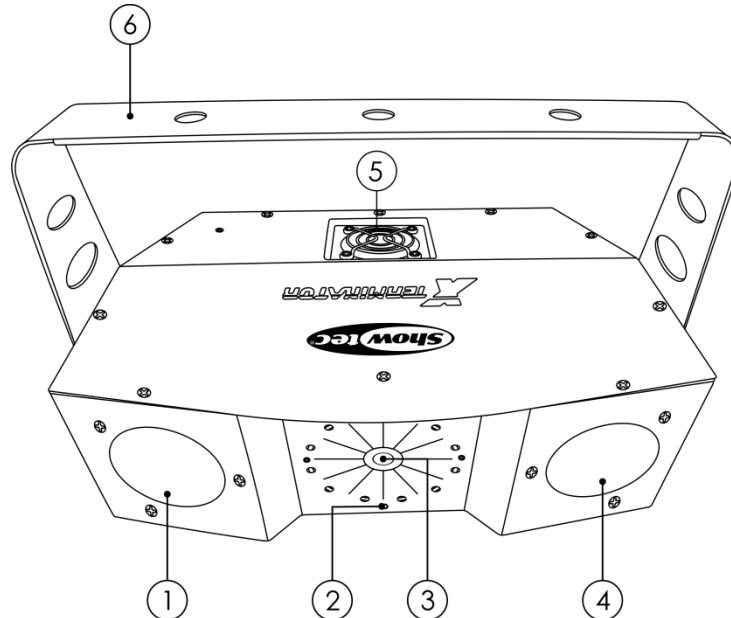


Fig. 01

- 01) LED lens A
- 02) Remote control LED indicator
- 03) Laser lens
- 04) LED lens B
- 05) Cooling fan
- 06) Mounting bracket with inclined screw

## Backside

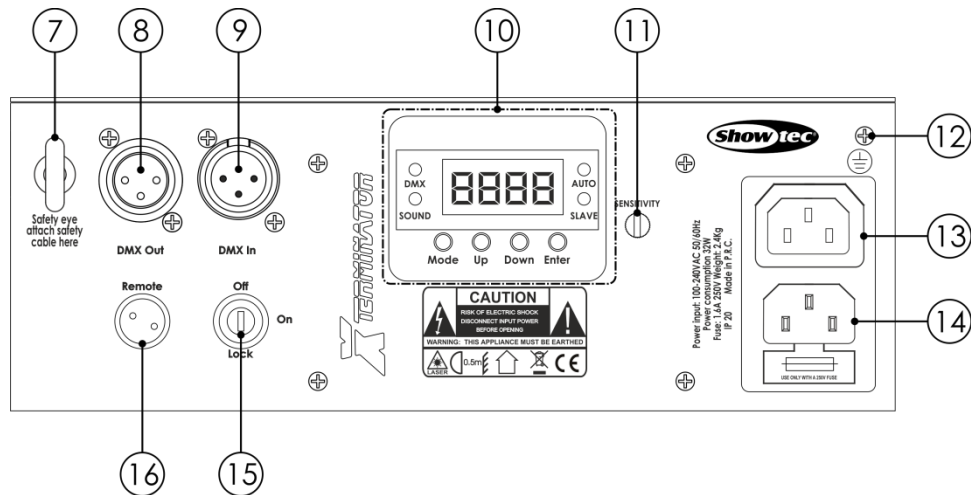
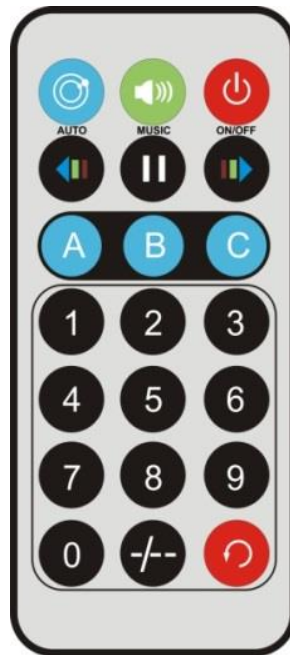


Fig. 02

- 07) Safety eye
- 08) 3-pin DMX signal connector OUT
- 09) 3-pin DMX signal connector IN
- 10) LED Display + LED indicators + control buttons
- 11) Sound sensitivity control
- 12) Ground/earth connection
- 13) IEC Power connector AC 100-240V OUT
- 14) IEC Power connector AC 100-240V IN + Fuse 1,6AL/250V
- 15) Interlock
- 16) Remote control plug

## Remote Control



Button	Function	Description
	On / Off	Power on / off
	Auto Mode	Set the auto mode
	Sound-controlled Mode	Set the sound-controlled mode
	LED Mode	Set the LED mode
	Laser Mode	Set the laser mode
	Flash Mode	Set the flash mode
	Auto / Sound switch	Switch between auto / sound modes
	Pause	Play/pause the show
	Color changing	Select the LED color
	Numeric keys	Program speed adjustment (1-9)

### Attention:

Any settings saved with the remote control will be stored until the system has been rebooted.

## Installation

Remove all packing materials from the X-Terminator. 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.

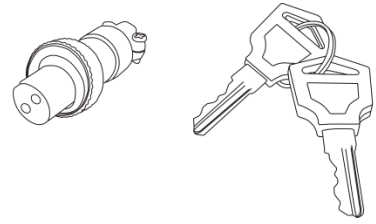
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Connect the device to the main power supply. The device can be music-controlled by its built-in microphone.

## X-Terminator

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)

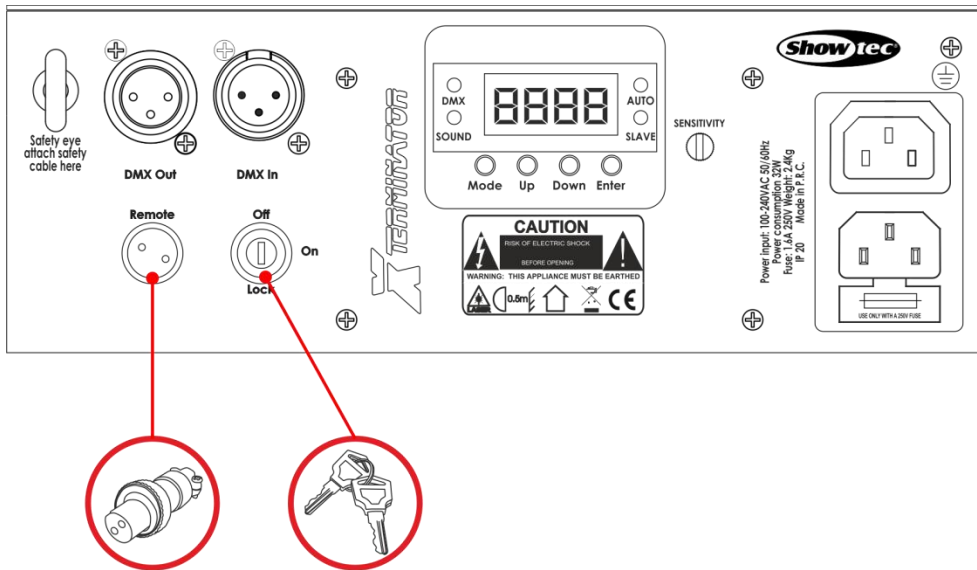
**⚠ They should be kept with the X-Terminator laser !!! ⚠**



The following safety precautions should be followed:

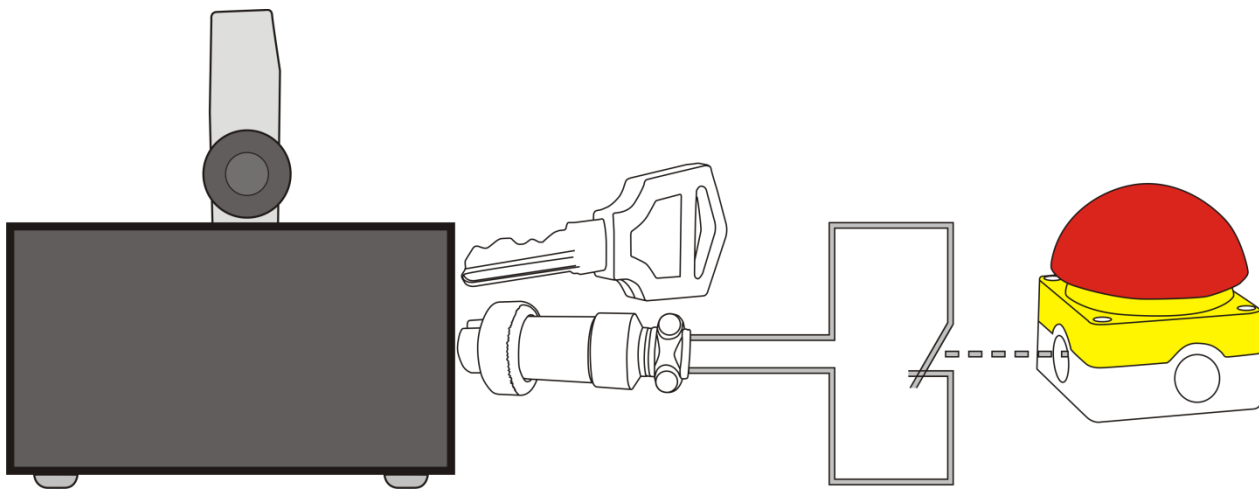
- The interlock plug should be placed on the backside **(16)** of your X-Terminator laser.
- The keys should be put into the lock **(15)** of your X-Terminator laser.

**⚠ Warning ⚠**



### 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.



## Control Modes

There are 4 modes:

- Stand-alone (built-in programs)
- Sound-controlled
- Master/Slave
- DMX-512 (11CH)

### One X-Terminator (Stand-alone)

- 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) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) When the X-Terminator is not connected by a DMX-cable, it functions as a stand-alone device.
- 05) Please see page 18 for more information about the Built-in auto programs.

### One X-Terminator (Sound-controlled)

- 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) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) When the X-Terminator is not connected with a DMX-cable, it functions as a stand-alone device.
- 05) Please see page 18 for more information about the Sound-controlled mode.

### Multiple X-Terminators (Master/Slave Mode)

- 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) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) Use a 3-pin XLR cable to connect the X-Terminators.

The pins:



- 01) Earth
- 02) Signal (-)
- 03) Signal (+)

- 05) Link the units as shown in Fig. 03, 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, third, and fourth units. You can use the same functions on the master device as described on page 18 (Built-in or Sound-controlled). This means that you can set your desired operation mode on the master device and all slave devices will react the same as the master device.

### Multiple X-Terminators Master/Slave Set Up

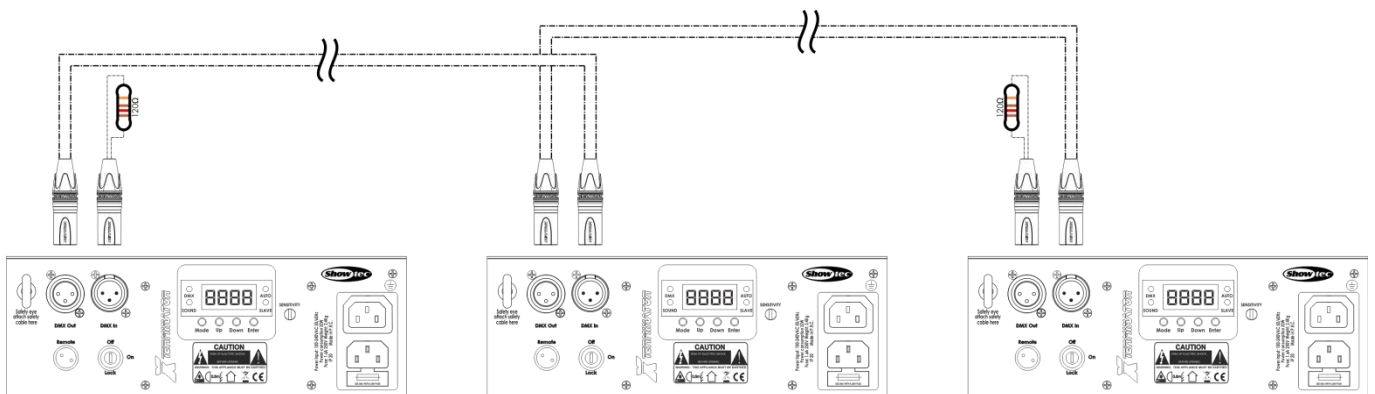
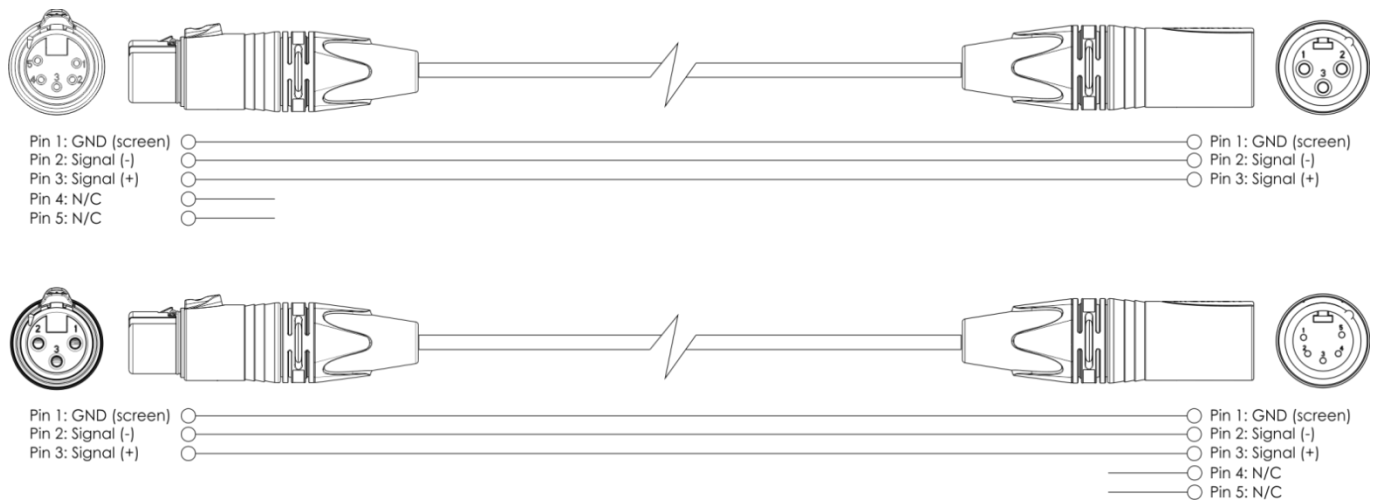


Fig. 03

## Multiple X-Terminators (DMX Control)

- 01) Fasten the effect light onto firm trussing. Leave at least 1 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) Use a 3-p XLR cable to connect the X-Terminators and other devices.



- 05) Link the units as shown in Fig. 04, 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, third, and fourth units.
- 06) 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 X-Terminators DMX Set Up

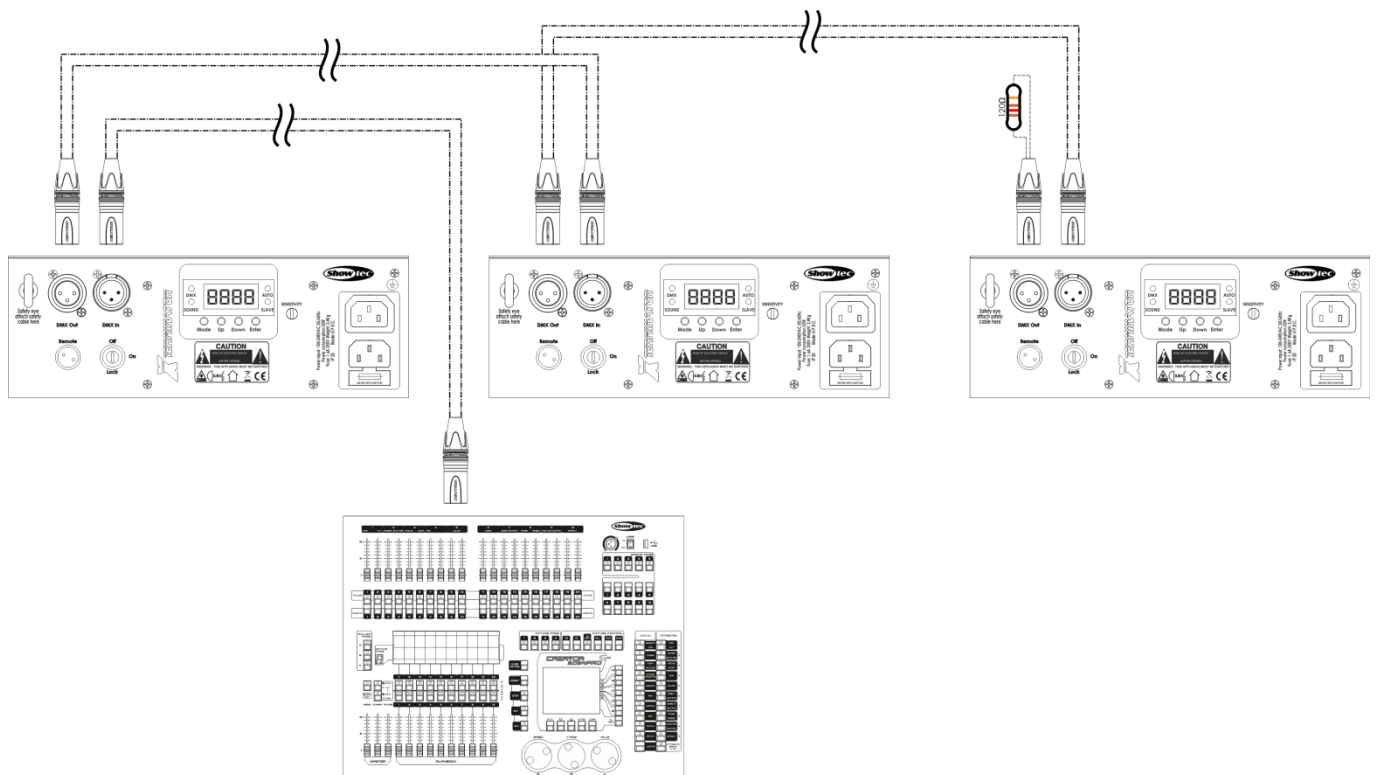


Fig. 04

**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 on 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 one 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

### 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 Certified DMX Data Cables

- DAP Audio cable for all-round use. bal. XLR/M 3 p. > XLR/F 3 p.  
Ordercode FL01150 (1,5m.), FL013 (3m.), FL016 (6m.), FL0110 (10m.), FL0115 (15m.), FL0120 (20m.).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. Ordercode FL71150 (1,5m.), FL713 (3m.), FL716 (6m.), FL7110 (10m.).

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

## Control Panel



- A) LED display
- B) MODE button
- C) UP button
- D) DOWN button
- E) ENTER button

Fig. 05

## 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 the next time.)

## DMX Addressing

The control panel on the front side of the base allows you to assign the DMX fixture address, which is the first channel from which the X-Terminator will respond to the controller.

Please note when you use the controller, the unit has **11** channels.

When using multiple X-Terminators, make sure you set the DMX addresses right.

Therefore, the DMX address of the first X-Terminator should be **1(001)**; the DMX address of the second X-Terminator should be **1+11=12 (012)**; the DMX address of the third X-Terminator should be **12+11=23 (023)**, etc. Please, make sure that you do not have any overlapping channels in order to control each X-Terminator correctly.

If two or more X-Terminators are addressed similarly, they will work similarly.

## Controlling:

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

**Note:** After switching on, the X-Terminator 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.

The problem may be:

- The XLR cable from the controller is not connected with the input of the X-Terminator.
- 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.

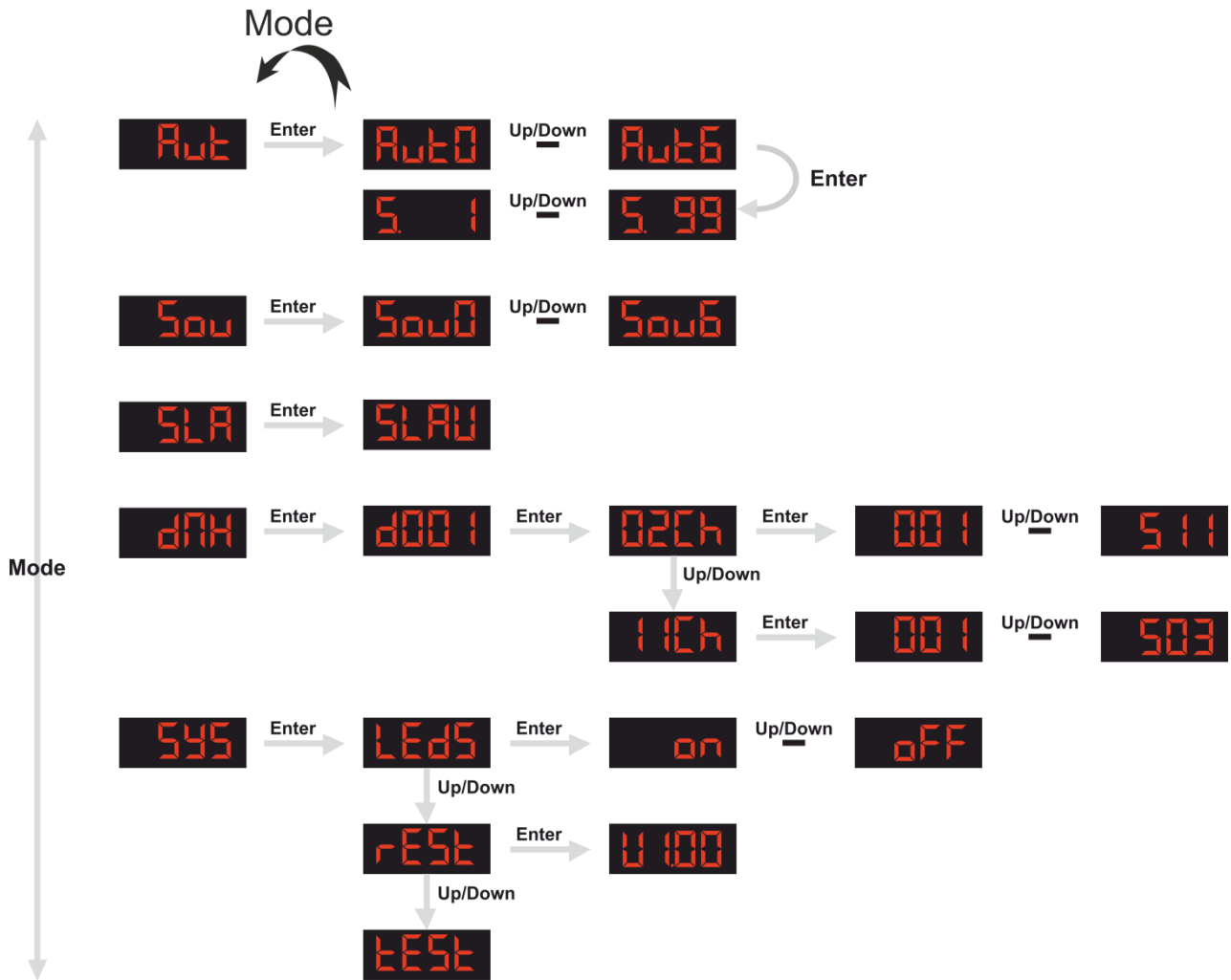
## Display Off after 30 seconds

When no button is pressed for 30 seconds, the display will turn off.

To light up the display, you have to press the MODE, UP, DOWN or ENTER button.

Once you have pressed one of the buttons, the display will light up.

Menu Overview



## Main Menu Options

<b>Aut</b>	Built-in programs
<b>Sou</b>	Sound-controlled
<b>SLA</b>	Master/Slave
<b>DMX</b>	DMX-512
<b>SYS</b>	System Settings

### 1. Built-in Shows

- 01) Press the **MODE** button until the display shows **Aut**.
- 02) Press the **ENTER** button to enter the menu.
- 03) Press the UP and DOWN buttons to run one of the built-in shows: **Aut0** <sup>Up/Down</sup> **Aut6**.
- 04) Once your preferred show has been chosen, press the **ENTER** button to proceed to speed settings.
- 05) Press the UP and DOWN buttons to adjust the speed of your preferred built-in show: **5 1** <sup>Up/Down</sup> **5 99**. The higher the value the faster the speed.

### 2. Sound-controlled Effect

This effect makes the unit respond to the beats of background music, being intercepted by the built-in microphone.

- 01) Press the **MODE** button until the display shows **Sou**.
- 02) Press the **ENTER** button to enter the menu.
- 03) Press the UP and DOWN buttons to run one of the sound-controlled shows: **Sou0** <sup>Up/Down</sup> **Sou6**.
- 04) Turn the control **(11)** on the rear panel to the left or right to, respectively, decrease or increase sensitivity of the device to background music.

### 3. Master/Slave Mode

- 01) Press the **MODE** button until the display shows **SLA**.
- 02) Press the **ENTER** button. **SLAV** will appear on the display.
- 03) The laser is now operating in Slave mode and it will react the same as the master device.

### 4. DMX Mode

With this menu you can set the desired DMX address.

- 01) Press the **MODE** button until the display shows **DMX**.
- 02) Press the **ENTER** button again, the display will show **000 1**.
- 03) Press the **ENTER** button to enter the DMX Mode menu.
- 04) Press UP and DOWN buttons to choose one of the two available DMX modes:  
**02Ch**      2 channels  
**11Ch**      11 channels
- 05) If the display shows **02Ch**, press the **ENTER** button to enter the menu.
- 06) Press the UP and DOWN buttons to select the DMX address between **001** <sup>Up/Down</sup> **511**.
- 07) If the display shows **11Ch**, press the **ENTER** button to enter the menu.
- 08) Press the UP and DOWN buttons to select the DMX address between **001** <sup>Up/Down</sup> **503**.

## 5. System Settings

- 01) Press the **MODE** button until the display shows **595**.
- 02) Press the **ENTER** button to enter the menu.
- 03) There are 3 options available. Press the UP and DOWN buttons to toggle between them:

**LEd5** Power saving mode

**rESEt** System Reset

**tESEt** Test Mode

If the display shows **LEd5**, press the **ENTER** button to enter the menu.

- 04) Press UP and DOWN buttons to choose between **on** <sup>Up/Down</sup> **off**.
- 05) If the device is set to ON, it is operating in the power saving mode. If the device is set to OFF, the power saving mode is inactive.

If the display shows **rESEt**, press the **ENTER** button to enter the menu.

- 06) **U 100** will appear shortly on the display.
- 07) When it disappears, the device will return to the previously active mode and the settings will be reset to the factory values.

If the display shows **tESEt**, press the **ENTER** button to enter the menu.

- 08) It is now possible to test if all the features available on the device work properly.
- 09) It is possible to use the included remote control (page 11, Remote Control).

## DMX Channels

### 2 channels

#### Channel 1 – Built-in programs

0-9	Off
10-26	AUT0
27-43	AUT1
44-60	AUT2
61-77	AUT3
78-94	AUT4
95-111	AUT5
112-127	AUT6
128-145	SOU0
146-163	SOU1
164-181	SOU2
182-199	SOU3
200-217	SOU4
218-235	SOU5
236-255	SOU6

#### Channel 2 – Speed (Ch 1 must be set between 10-127 )

0-255	Speed control, from slow to fast
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**11 channels****Channel 1 – Color, Lens A**

0-24	Laser off
25-49	Red
50-74	Green
75-99	Blue
100-124	Red + Green
125-149	Red + Blue
150-174	Green + Blue
175-199	Red + Green + Blue
200-224	Color switch
225-255	Color flow

**Channel 2 –Strobe Effect, Lens A**

0-9	Off
10-254	Strobe speed, from slow to fast <b>(Ch1 must be set between 25-199 ⚠)</b> Color change speed, from slow to fast <b>(Ch1 must be set between 200-255 ⚠)</b>
255	Sound control

**Channel 3 – Rotation effect, Lens A**

0-4	Off
5-127	Clockwise rotation, from slow to fast
128-133	Stop
134-255	Counterclockwise rotation, from slow to fast

**Channel 4 – Color, Lens B**

0-24	Off
25-49	Blue
50-74	Amber
75-99	White
100-124	Blue + Amber
125-149	Blue + White
150-174	Amber + White
175-199	Blue + White + Amber
200-224	Color switch
225-255	Color flow

**Channel 5 –Strobe Effect, Lens B**

0-9	Off
10-254	Strobe speed, from slow to fast <b>(Ch1 must be set between 25-199 ⚠)</b> Color change speed, from slow to fast <b>(Ch1 must be set between 200-255 ⚠)</b>
255	Sound control

**Channel 6 – Rotation effect, Lens B**

0-4	Off
5-127	Clockwise rotation, from slow to fast
128-133	Stop
134-255	Counterclockwise rotation, from slow to fast

**Channel 7 – Color, Laser**

0-9	Off
-----	-----

10-49	Red on
50-89	Green on
90-129	Red + Green on
130-169	Red + Green strobe
170-209	Green on + Red strobe
210-255	Red/Green (alternating strobe)

### Channel 8 –Strobe Effect, Laser

0-9	Off
10-254	Strobe speed, from slow to fast
255	Sound control

### Channel 9 – Rotation effect, Laser

0-4	Off
5-127	Clockwise rotation, from slow to fast
128-133	Stop
134-255	Counterclockwise rotation, from slow to fast

### Channel 10 – Strobe

0-9	Off
10-19	Program 1, from slow to fast
20-29	Program 2, from slow to fast
30-39	Program 3, from slow to fast
40-49	Program 4, from slow to fast
50-59	Program 5, from slow to fast
60-69	Program 6, from slow to fast
70-79	Program 7, from slow to fast
80-89	Program 8, from slow to fast
90-99	Program 9, from slow to fast
100-109	Program 10, from slow to fast
110-119	Program 11, from slow to fast
120-129	Program 12, from slow to fast
130-139	Program 13, from slow to fast
140-149	Program 14, from slow to fast
150-159	Program 15, from slow to fast
160-169	Program 16, from slow to fast
170-179	Program 17, from slow to fast
180-189	Program 18, from slow to fast
190-199	Program 19, from slow to fast
200-255	Manual Mode

### Channel 11 –Strobe/Sound control (Ch 10 must be set between 200-255 )

0-9	Off
10-254	Strobe speed, from slow to fast
255	Sound control

## Maintenance

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The X-Terminator 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. Wipe the front glass panel clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. The front glass panel will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly. Do not immerse in liquid.

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-relating 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-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 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 screwdriver into the 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 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

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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.

Response: Suspect three potential problem areas as: the power supply, the laser, the fuse.

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

### No Response to DMX

Response: 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.

Problem	Probable cause(s)	Remedy
One or more fixtures do not function at all.	No power to the fixture.	<ul style="list-style-type: none"> <li>• Check that power is switched on and cables are plugged in.</li> </ul>
	Primary fuse blown..	<ul style="list-style-type: none"> <li>• Replace fuse.</li> </ul>
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"> <li>• Connect controller.</li> </ul>
	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"> <li>• Install a phase reversing cable between the controller and the first fixture on the link.</li> </ul>
Fixtures reset correctly, but some respond erratically or not at all to the controller.	Poor data quality	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
	Bad data link connection	<ul style="list-style-type: none"> <li>• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.</li> </ul>
	Data link not terminated with 120 Ohm termination plug.	<ul style="list-style-type: none"> <li>• Insert termination plug in output jack of the last fixture on the link.</li> </ul>
	Incorrect addressing of the fixtures.	<ul style="list-style-type: none"> <li>• Check address setting.</li> </ul>
	One of the fixtures is defective and disturbs data transmission on the link.	<ul style="list-style-type: none"> <li>• Bypass one fixture at a time until normal operation is regained: unplug both connectors and connect them directly together.</li> <li>• Have the defective fixture serviced by a qualified technician.</li> </ul>
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed).	<ul style="list-style-type: none"> <li>• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture, that behaves erratically.</li> </ul>
Shutter closes suddenly	The laser diode has lost its index position and the fixture is resetting the effect.	<ul style="list-style-type: none"> <li>• Contact a technician for servicing, if the problem persists.</li> </ul>
No light or laser cuts out intermittently	Fixture is too hot.	<ul style="list-style-type: none"> <li>• Allow fixture to cool.</li> <li>• Make sure air vents at control panel and front lens are not blocked.</li> <li>• Turn up the air conditioning .</li> </ul>
	LEDs or laser damaged	<ul style="list-style-type: none"> <li>• Disconnect fixture and return to your dealer.</li> </ul>
	The power supply settings do not match local AC voltage and frequency.	<ul style="list-style-type: none"> <li>• Disconnect fixture. Check settings and correct if necessary.</li> </ul>

## Product Specifications

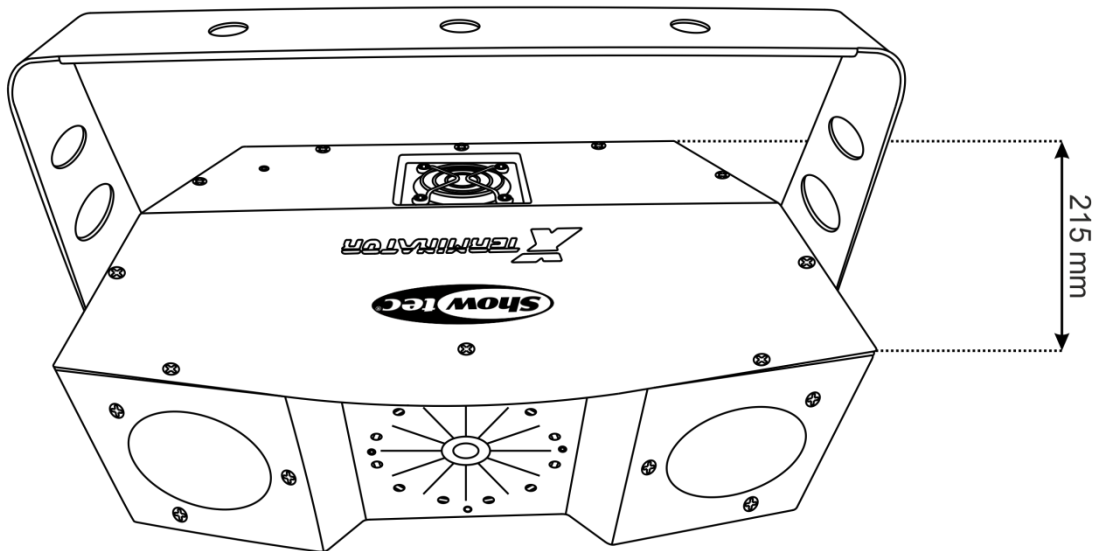
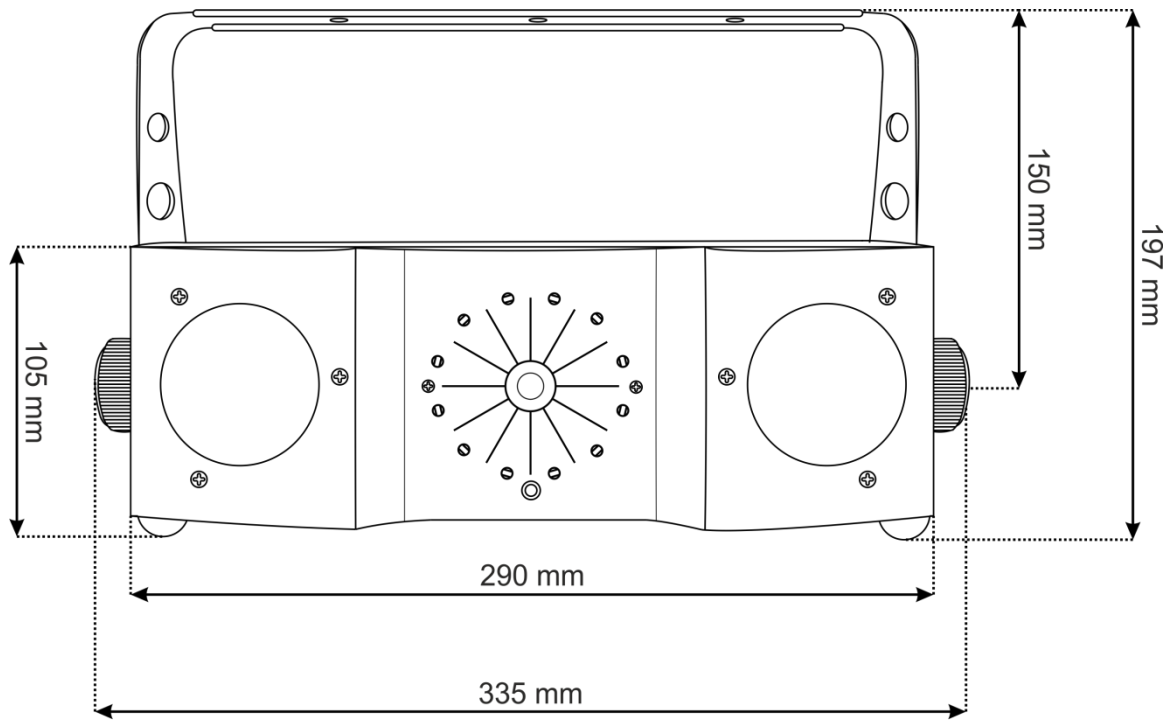
Model:	X-Terminator
Input Voltage:	AC 100-240V, 60/50Hz
Continuous Power:	50 Watt
Fuse:	1,6AL/250V
Dimensions:	335 x 215 x 197 mm (LxWxH)
Weight:	2,5 kg
<b>Operation and Programming</b>	
Signal pin OUT:	pin 1 earth, pin 2 (-), pin 3 (+)
Set Up and Addressing:	Red LED display for all settings
DMX Channels:	2CH, 11CH
Signal input:	3-pin DMX signal connector IN
Signal output:	3-pin DMX signal connector OUT
<b>Electro-mechanical effects</b>	
Laser Class:	3B
Laser Power:	200mW (140mW 650nm Red, 60mW 532nm Green)
Light Source:	12 x 0,5W LED
LED Color:	Red, Green, Blue + White and Amber
Laser Color:	Red and Green
Strobe:	0-30Hz
Cooling:	Cooling fans and TE Cooling
Beam diameter:	<5mm at aperture
Pulse Data, All Pulses:	<4Hz (>0.25 sec)
Divergence (each beam):	<2 mrad;
Divergence (total light):	<160 degrees
Safety Features:	Key switch, Interlock
DMX-control:	Via standard DMX-controller
Control Modes:	DMX-512, Built-in Programs, Master/Slave, Sound-controlled
Housing:	Black Metal & Flame-retardant plastic
Connections:	Dedicated IEC Power & Data connector
Laser Safety:	EN/IEC 60825-1 Ed 2, 2007-03
Max. ambient temperature $t_a$ :	40°C
<b>Minimum distance:</b>	
Minimum distance from flammable surfaces:	0.5m
Minimum distance to lighted object:	1m

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



Website: [www.Showtec.info](http://www.Showtec.info)  
 Email: [service@highlite.nl](mailto:service@highlite.nl)

## Dimensions





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