STAIRVILLE

DJ Lase Pro 1200 RGB
showlaser

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1   General notes

This user manual contains important information on safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device, include the manual for the next owner.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words This section provides an overview of the symbols and signal words used in this user manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
⚠	Warning – high-voltage.

Warning signs	Type of danger
	Warning – laser radiation.
	Warning – suspended load.
	Warning – danger zone.

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2   Safety instructions

Intended use

This device is intended to be used for the projection of laser light effects. It has been designed exclusively for show applications. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Laser safety basics

Laser safety requirements are based on DIN EN 60825-1. The corresponding accident prevention regulation of the Accident Prevention and Insurance Association in Germany is BGV-B2.

This device contains a class-4 laser. It is equipped with a safety key. Always remove the key when the device is not attended by a trained operator.

As an operator you are responsible for the safety of all persons present. Familiarize yourself with the laser safety regulations that apply in your country. To ensure safe operation, it is important to pay attention to the following instructions.

Prior to commissioning, the company/operator must appoint a qualified person as laser protection officer in writing and notify the operation of the laser equipment to the Accident Prevention and Insurance Association and to the authority responsible for occupational safety. In the event of public use, the complete laser equipment must be approved by an expert (e. g. the Technical Control Board TÜV) prior to commissioning.

Safety

> ⚠️ **DANGER!**
> **Danger for children**
>
> Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!
>
> Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!
>
> Never let children unattended use electrical devices.

> ⚡ **DANGER!**
> **Electric shock caused by high voltages inside**
>
> Within the device there are areas where high voltages may be present. Never remove any covers.
>
> There are no user-serviceable parts inside.

DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

DANGER!

Laser radiation – avoid exposure to beam

The device contains a class-4 laser, classified according to EN 60825-1. Do not look into the laser beam. The laser beam can injure your eyes when you directly look into it. Do not expose yourself to the laser beam. The laser beam can cause skin burns.

In this context take extreme care when using converging optical instruments.

> ⚠️ **WARNING!**
> **Eye damage caused by high light intensity**
> Never look directly into the light source.

> ⚠️ **WARNING!**
> **Risk of epileptic shock**
> Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.

> ❗ **NOTICE!**
> **Laser radiation – risk of fire**
> Keep the area exposed to laser radiation free from flammable substances.

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!

NOTICE!

Risk of fire

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.

!

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

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> **!** **NOTICE!**
>
> **Power supply**
>
> Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.
>
> Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3   Features

This showlaser is specially suited for discos, clubs, bars, stages, etc. Because of the DMX control and the ILDA interface, it can be easily integrated into the light show. The high scanner frequency allows even the display of moving images.

Special features of this device:

- Control via DMX (13 channels), ILDA interface and via buttons and display on the unit
- Built-in automatic show programmes
- Sound control
- Master / slave mode
- 68 different patterns
- Optical scanner (30 kpps)
- Shows can be stored on commercially available SD memory cards
- Three laser diodes (red, green, blue)

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4 Installation

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

You can install the device on the wall, ceiling or floor. A mounting bracket and the necessary screws are included in the package.

DANGER!

Laser radiation

During installation, you have to follow the instructions given here: ⭗ *Chapter 2 'Safety instructions' on page 8*.

To avoid unintended laser radiation, remove the safety switch before you start the installation of the device.

> **WARNING!**
> **Stray laser radiation**
> Inadequately secured additional components may cause stray laser radiation.
>
> Make sure that all additional components are adequately secured.

> **WARNING!**
> **Laser radiation – safety switch required**
> The laser beam must be defeatable any time during operation, to avoid hazards by faults, unsafe operation conditions, or disturbance within the audience.
>
> Therefore you have to connect a safety switch (emergency shut off) to the unit, by which you can switch off the laser any time even from a remote observation point (e.g. FOH position).

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

NOTICE!

Risk of overheating

The distance between the light output and the illuminated surface must be more than 0.5 m (19.7 in).

Always ensure sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).

Safety switch (emergency shut-down)

Connect the optional remote-control safety switch to the socket (7) of the device. An adapter for switches with phone plug is included. If you press the switch, the laser beam is switched off immediately. To unlock the switch and resume operation, turn the knob clockwise.

ILDA interface

You can connect laser control units, that generate signals as standardized by the International Laser Display Association to the ILDA input. The ILDA output of the unit can be connected to other laser devices.

The ILDA interfaces are designed as 25-pin D-sub connectors. The drawing and table below show the pin assignment.
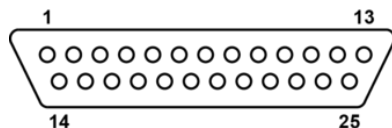
1	X+
2	Y+
3	Intensity+
4	Locking (Interlock) A

5	R+
6	G+
7	B+
8	User-defined signal 1+
9	User-defined signal 2+
10	User-defined signal 3+
11	User-defined signal 4+
12	Return signal from the unit
13	Shutter
14	X–
15	Y–
16	Intensity–
17	Locking (Interlock) B
18	R–

19	G–
20	B–
21	User-defined signal 1–
22	User-defined signal 2–
23	User-defined signal 3–
24	User-defined signal 4–
25	Ground

DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for pin assignment.

1	Ground, shielding
2	DMX data (−)
3	DMX data (+)

5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

> **DANGER!**
> **Laser radiation**
> When starting up the device, you have to follow the instructions given here: ⮧ *Chapter 2 'Safety instructions' on page 8*.

> **NOTICE!**
> **Possible data transmission errors**
> For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.
>
> Never connect the DMX output to audio devices such as mixers or amplifiers.

Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor (110 Ω, ¼ W).
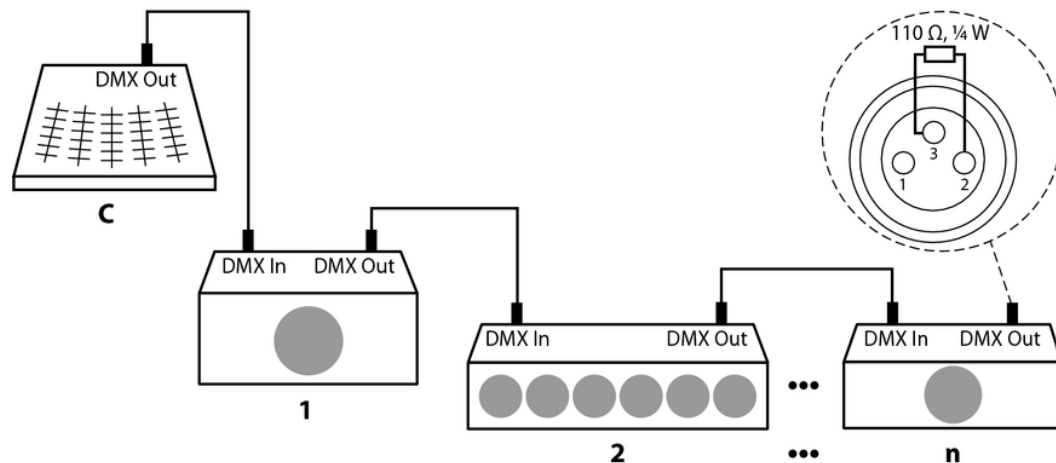
DMX indicator

In DMX operating mode, the word *'signal'* appears in the display. If the word is flashing, no DMX signal is received. Maybe the DMX controller isn't switched on or there's an error in the cabling. If the word *'signal'* lights up constantly, the device receives a valid DMX signal.

Connections in master/slave mode

When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave device. Then connect the DMX output of the first slave device to the DMX input of the second slave device and so on.

6   Components and functions

Front panel
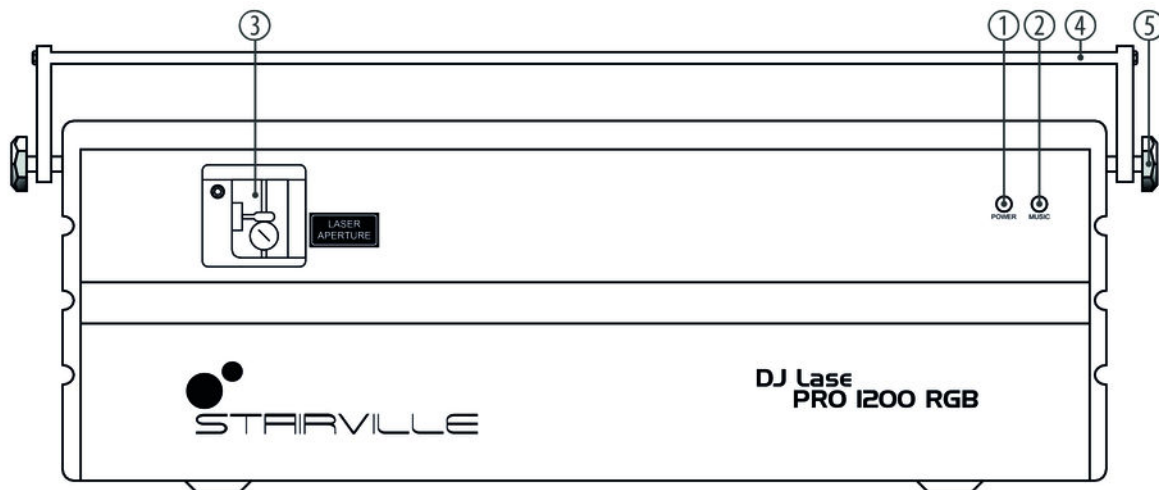
1	**POWER** LED
	Indicates that the unit is switched on.
2	**MUSIC** LED
	Indicates that a sound signal is received.
3	Laser aperture.
4	Hanging bracket.
5	Locking screw for the bracket.

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Rear panel
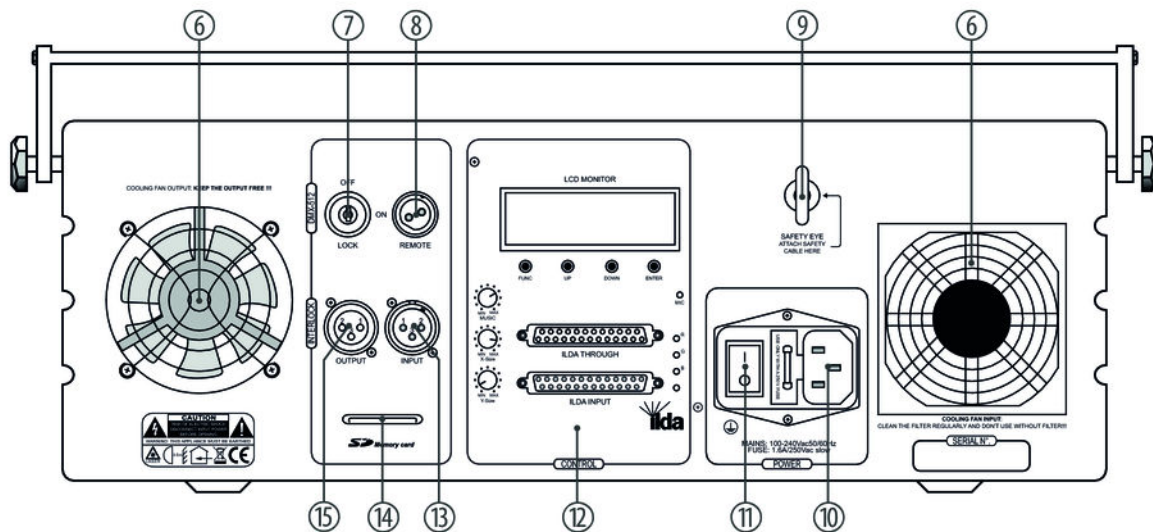
6	Fans.
7	**LOCK** Safety key switch to turn the laser output on or off.
8	**REMOTE** Connection for an optional emergency shutdown switch. An adapter for switches with phone plug is included.
9	Safety eye.
10	IEC chassis connector for the mains cable. Beneath, the proper operating voltage is indicated.
11	Main switch.
12	Operating panel.
13	**INPUT** DMX input.

14	SD memory card slot.
15	**OUTPUT** DMX output.

Operating panel
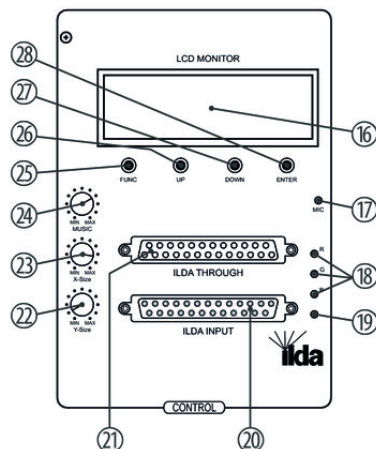
16	Display.
17	**MIC** LED Microphone for operating mode 'Sound controlled'.
18	**R, G, B** LEDs Function indicator for red, green and blue laser.
19	**ILDA** Indicates the condition of the ILDA connection. Green: connected; red: not connected.
20	**ILDA INPUT** 25-pin D-sub connector to connect a controller with ILDA interface.
21	**ILDA THROUGH** 25-pin D-sub connector to connect further devices.
22	Rotary control **Y-Size** Controls the vertical extent of the laser show.

23	Rotary control **X-Size**
	Controls the horizontal extent of the laser show.
24	Rotary control **MUSIC**
	Controls the response characteristic of the built-in microphone.
25	*[FUNC]* button
	Opens the main menu.
26	*[UP]* button
	Increases the indicated value by one.
27	*[DOWN]* button
	Decreases the indicated value by one.
28	*[ENTER]* button
	Selects an option of the respective operating mode.

7 Operation

7.1 Starting and stopping the device

Starting

Carry out the following steps to take the unit into operation:

1. ▶ Check to see whether all laser safety precautions have been taken. Make sure that nobody is in range of the laser beam.

2. ▶ Insert the safety key into the lock (7).

3. ▶ If not already done, connect the device to a mains power outlet (10).

4. ▶ Turn the unit on using the main switch (11). After a few seconds, the fan and the motors start to work. The display shows the current operating mode. The unit is now operational.

5. ▶ Turn the safety key (7) into the 'ON' position to turn the laser beam on.

Stopping

Carry out the following steps to stop the unit:

1. ▶ Turn the safety key (7) into the 'OFF' position to turn the laser beam off and pull the key off. Keep the safety key in a safe place.

2. ▶ Turn the unit off using the main switch (11).

3. ▶ Additionally, you can disconnect the device from the power supply (10).

7.2 Main menu

Press *[FUNC]* to activate the main menu and select one of the operation modes.

When the display is flashing, use the *[UP]* and *[DOWN]* buttons to change the respectively shown value. When the display shows the desired value, press *[ENTER]*. To discard all changes and exit back to the main menu press *[FUNC]* or wait a minute.

All previous settings are saved even if you disconnect the device from the mains power supply

Operating mode 'Auto show'

Press *[FUNC]* repeatedly until the display shows *'MODE: AUTO SHOW 1'*. The device operates in stand alone mode and displays a preprogrammed show, that can be controlled by the built-in microphone, if desired. Use *[UP]* and *[DOWN]* buttons to select one of the preprogrammed shows listed in the table below. Press *[ENTER]* to save the value and to start operation in 'Auto Show' mode.

Display	Show
AUTO SHOW 1	Automatic show type 1: 'Hot and fast'
AUTO SHOW 2	Automatic show type 2: 'Slow and gentle'
MUSIC SHOW 1	No function
MUSIC SHOW 2	No function

The laser is switched off, if a sound-controlled show is selected, but the microphone doesn't receive any sound.

Operating mode 'SD show'

Press *[FUNC]* repeatedly until the display shows *'MODE: SD SHOW dir'*. If there's a SD memory card with stored show programmes in the card slot (14), you can select a directory on the memory card using the *[UP]* and *[DOWN]* buttons. If the name of the desired directory appears in the display, press *[ENTER]* to confirm.

Now you can determine, whether the device should run a single ILDA show (based on a *.ild file) or a preprogrammed show (based on a *.prg file). Use the *[UP]* and *[DOWN]* buttons to toggle between *'MODE: SD: PRG SHOW'* and *'MODE: SD: ILD SHOW'*. Then press *[ENTER]* to confirm.

Now you can choose the file to be played from the current directory. Press *[UP]* or *[DOWN]* until the desired name appears in the display, then press *[ENTER]* to confirm.

The unit now starts running the show from the selected file in an endless loop.

Operating mode 'DMX'

Press *[FUNC]* repeatedly until the display shows *'MODE: DMX'*, then press *[ENTER]*. Now you can adjust the number of the first DMX channel (DMX address) used by the unit. Select a value between 1 and 512 using the *[UP]* and *[DOWN]* buttons. Press *[ENTER]* to store the value and to start operation in DMX mode.

Make sure that this number corresponds with the configuration of your DMX controller. As the unit utilizes 13 DMX channels, the highest usable DMX start address is 500.

Operating mode 'Master/Slave' Press *[FUNC]* repeatedly until the display shows *'MODE: SLAVE'*. In this operation mode the unit follows exactly the master device that it is connected to. Press *[ENTER]* to confirm and to start operation in 'Master/Slave' mode.

Settings menu

Press *[FUNC]* repeatedly until the display shows *'MODE: SETTING'*. In this menu you can adjust some features of the device. Use the *[UP]* and *[DOWN]* buttons to select the submenus available.

Press *[DOWN]* repeatedly until the display shows *'MODE: SETTING MIRROR'*. Press *'ENTER'*. Use the *[UP]* and *[DOWN]* buttons to choose whether and how the laser beam should be mirrored:

- Mirroring on X- and Y-axis (*'SY: Y, SX: Y'*)
- Mirroring on Y-axis only (*'SY: Y, SX: N'*)
- Mirroring on X-axis only (*'SY: N, SX: Y'*)
- No mirroring (*'SY: N, SX: N'*)

Press *[ENTER]* to confirm and save the setting. Press *[FUNC]* to return to the submenu level.

Press *[DOWN]* repeatedly until the display shows *'MODE: SETTING MUSIC'*, then press *[ENTER]*. This menu is used to set the response characteristic of the built-in microphone. Use the *[UP]* and *[DOWN]* buttons to select a value between low and high sensitivity. The bargraph in the display indicates the sensitivity. Press *[ENTER]* to confirm and save the setting. Press *[FUNC]* to return to the submenu level.

Press *[DOWN]* repeatedly until the display shows *'MODE: SETTING COLOR'*. In this menu you can select the colours to be displayed. Use the *[UP]* and *[DOWN]* buttons to select, whether the unit should only display white colour (*'SINGLE COLOR'*), two colours (*'DOUBLE COLOR'*) or all colours (*'MULTICOLOR'*). Press *[ENTER]* to confirm and save the setting. Press *[FUNC]* to return to the submenu level.

7.3 Menu overview

MODE: AUTO SHOW 1	MODE:SD SHOW dir:	MODE: DMX	MODE: signal SLAVE	MODE: SETTING MUSIC	MODE: SETTING MIRROR	MODE: SETTING COLOR
MODE: AUTO SHOW 2	MODE: SD: ILD SHOW	MODE: signal DMX ADD:001		MODE: SETTING MUSIC ▉	MODE: SETTING MIRROR SY:Y SX:Y	MODE: SETTING SINGLE COLOR
MODE: MUSIC SHOW 1	MODE: ILD	MODE: signal DMX ADD:512		MODE: SETTING MUSIC ▉▉▉▉▉▉▉▉▉	MODE: SETTING MIRROR SY:Y SX:N	MODE: SETTING DOUBLE COLOR
MODE: MUSIC SHOW 2	MODE: SD: PRG SHOW				MODE: SETTING MIRROR SY:N SX:Y	MODE: SETTING MULTICOLOR
	MODE: PRG				MODE: SETTING MIRROR SY:N SX:N	

7.4 Functions in operating mode 'DMX'

Channel	Value	Function
1	Operation mode selection	
	0…73	Laser off
	74…110	PRG mode: playback of a preprogrammed show from a PRG file on the SD card
	111…147	ILD mode: playback of a preprogrammed show from a ILD file on the SD card
	148…165	Automatic show type 1
	166…184	Automatic show type 2
	185…202	Music-controlled automatic show type 1, microphone sensitivity must be set to a value higher than zero.
	203…221	Music-controlled automatic show type 2, microphone sensitivity must be set to a value higher than zero.
	222…255	Operating mode 'DMX': This setting enables the function of the other DMX channels.

Channel	Value	Function
2	0…255	PRG or ILD mode: directory selection
		DMX mode: pattern selection (♨ *Chapter 7.5 'Pattern list' on page 47*)
3	0…255	PRG or ILD mode: file selection
		DMX mode: strobe speed
	0…10	No strobe effect
	11…199	Strobe effect with increasing speed
	200…255	No function
4	Movement on X-axis	
	0…125	Fixed, adjustable position on X-axis
	126…185	Movement effect, increasing speed
	186…225	Movement effect, random speed
	226…245	Random position on X-axis
	246…255	No function

Channel	Value	Function
5	Movement on Y-axis	
	0…125	Fixed, adjustable position on Y-axis
	126…185	Movement effect, increasing speed
	186…225	Movement effect, random speed
	226…245	Random position on Y-axis
	246…255	No function
6	Zoom	
	0…10	No zoom
	11…100	Fixed zoom
	101…150	Zoom-out effect, increasing speed
	151…200	Zoom-in effect, increasing speed
	201…255	Zoom-in and out effect, increasing speed
7	Rotation around the Y-axis (rolling)	

Channel	Value	Function
	0…10	No rotation
	11…110	Fixed position of Y-axis
	111…255	Rotation effect, increasing speed
8	Rotation around the X-axis (rolling)	
	0…10	No rotation
	11…110	Fixed position of X-axis
	111…255	Rotation effect, increasing speed
9	Rotation around the Z-axis (rolling)	
	0…180	Fixed position of Z-axis
	181…217	Rotation effect counterclockwise, increasing speed
	218…255	Rotation effect clockwise, increasing speed
10	Drawing, cutting and deleting of the patterns (clipping)	
	0…10	Original patterns, no Clipping effect

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
Channel	Value	Function
	11…74	Fixed clipping, increasing size of the cut out pattern parts
	75…104	Clipping-out effect, increasing speed, sequence: dark -> drawing pattern clockwise -> dark
	105…144	Clipping-in effect, increasing speed, sequence: complete pattern -> cutting pattern counterclockwise -> complete pattern
	145…184	Clipping-in and clipping-out effect, increasing speed, sequence: dark -> drawing pattern clockwise -> cutting pattern counterclockwise -> dark
	185…224	Clipping-on effect, increasing speed, sequence: complete pattern -> cutting pattern clockwise -> complete pattern
	225…255	Clipping-off effect, increasing speed, sequence: dark -> drawing pattern clockwise -> cutting pattern clockwise -> dark
11	Waves effect	
	0…9	Original patterns, no waves effect
	10…199	Waves effect, increasing speed, constant amplitude
	200…255	Waves effect, constant speed, increasing amplitude

Channel	Value	Function
12	Colour selection	
	0…27	White
	28…55	Violet
	56…83	Green
	84…111	Yellow
	112…139	Bicolour
	140…166	Bicolour, mirrored
	167…195	Bicolour, rotation effect counterclockwise
	196…223	Bicolour, mirrored, rotation effect counterclockwise
	224…251	Tricolour, constant
	252…255	Bicolour, constant
13	Pattern structure	
	0…63	Original patterns

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Channel	Value	Function
	64…127	Pattern composed of lines with bright spots
	128…191	Pattern composed of broken lines
	192…255	Pattern composed of dots

7.5 Pattern list

168 ⋮ 173	174 ⋮ 176	177 ⋮ 179	180 ⋮ 182	183 ⋮ 185	186 ⋮ 188	189 ⋮ 191
192 ⋮ 194	195 ⋮ 197	198 ⋮ 200	201 ⋮ 203	204 ⋮ 206	207 ⋮ 209	210 ⋮ 212
213 ⋮ 215	216 ⋮ 218	219 ⋮ 221	222 ⋮ 224	225 ⋮ 227	228 ⋮ 230	231 ⋮ 233
234 ⋮ 236	237 ⋮ 239	240 ⋮ 242	243 ⋮ 245	246 ⋮ 248	249 ⋮ 251	252 ⋮ 254
255						

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7.6 Using the SD memory card

Secure Digital Memory (SD) cards can be used to store and exchange preprogrammed laser shows. The device supports the following file types:

- ■ *.ild: Binary file format for storing vector lists for laser shows. The format has been standardized by the International Laser Display Association (ILDA). Files of this type can be created using specialized computer software.
- ■ *.prg: Text file format that is used to call up several *. Ild files in succession. Files of *. prg type can be created or modified on your computer with a simple text editor such as 'Notepad'.

The unit supports up to 100 folders with up to 255 files in each directory. The SD memory card must be formatted as FAT32 file system. The maximum length of the file and directory names is eight characters.

Example

The following figure shows the contents of the file 'ANIMA.PRG'. This preprogrammed show calls the ILD files 'ANIMA1.ILD', 'ANIMA2.ILD' and 'ANIMA3.ILD' in succession. The first number after the file name indicates the scanner speed, the second number controls the number of repetitions for each ILD file.

```
ANIMA1.ild,12,3

ANIMA2.ild,20,1

ANIMA3.ild,18,4
```

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8 Troubleshooting

> **DANGER!**
> **Laser radiation inside the housing**
>
> During troubleshooting you have to comply with the instructions given here:
> ⏣ *Chapter 2 'Safety instructions' on page 8*.
>
> Any servicing of the unit (with open housing) must only be carried out by qualified technicians.
>
> For working on the device you have to wear suitable laser safety goggles.

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work, no light, the fan does not run	1. Check the mains power connection and the main fuse.
	2. Check the safety key switch.
No response to DMX controller	1. If the word *'signal'* is flashing in the display, no valid DMX signal is received. Make sure that the DMX controller is turned on. Check the DMX connections and cables for proper connection.
	2. If the word *'signal'* lights up is constantly in the display without any response, check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at *www.thomann.de*.

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9 Cleaning

> **DANGER!**
> **Laser radiation**
>
> During cleaning, you have to follow the instructions given here: ♻ *Chapter 2 'Safety instructions' on page 8*.
>
> To avoid unintended laser radiation, remove the safety switch before you begin to clean the device.

Optical lenses

Clean the exterior of accessible optical lenses periodically to optimise light output. The frequency of cleaning depends on the operating environment: wet, smoky or particularly dirty surroundings can cause more accumulation of dirt on the optics of the device.

- Clean with a soft cloth using normal glass cleaning products.
- Always dry the parts carefully.

10 Technical specifications

Laser medium	Red: 650 nm (typical), LD GaAlAs
	Green: 532 nm (typical), DPSS Nd:YVO4
	Blue: 445 nm (typical), LD InGaN
Laser power	Red: 500 mW
	Green: 300 mW
	Blue: 400 mW
Transversal beam mode	TEM_{00}
Laser classification acc. to EN 60825-1 2007	4
Beam diameter at outlet aperture	< 5 mm
Divergence (per beam)	< 12 mrad
Divergence (overall light)	< 90 °
Beam angle X / Y–axis	± 20 °

Scanning	25 kpps
Number of DMX channels	13
Operating voltage supply	AC 100 – 240 V $\sim$, 50/60 Hz
Fuse	5 mm × 20 mm, 1.6 A, 250 V, slow blow
Power consumption	55 W
Dimensions (W × D × H)	515 mm × 358 mm × 204 mm
Weight	12 kg

11 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

Disposal of batteries

Batteries must not be disposed of as domestic waste or thrown into fire. Dispose of the batteries according to national or local regulations regarding hazardous waste. To protect the environment, dispose of empty batteries at your retail store or at appropriate collection sites.

Disposal of your old device

This device is subject to the European directive 2002/96/EC. Do not dispose the device with your normal household waste.

Dispose this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.