STAIRVILLE

All FX Bar

LED Effect

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1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under *www.thomann.de*.

1.1 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document.

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.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor 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 – hot surface.
	Warning – laser radiation.
	Warning – dangerous optical radiation.
	Warning – suspended load.
	Warning – danger zone.

2   Safety instructions

Intended use

This device is intended for use as an electronic lighting effect by means of LED technology and for the projection of laser light effects. The device is designed for professional use only and is not suitable for use in households. 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.

> *Extend the operating life of the device by regular breaks and by avoiding frequent switching on and off. The device is not suitable for continuous operation.*

Safety

DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.

DANGER!

Danger to life due to electric current!

Within the device there are areas where high voltages may be present. Never remove any covers. There are no user-serviceable parts inside. Do not use the device when covers, safety equipment or optical components are missing or damaged.

DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

WARNING!

Risk of eye damage caused by high light intensity!

The device generates highly intense light radiation. Looking directly into the light source can damage the eyes. Never look directly into the light source.

WARNING!

Risk of epileptic fit due to flashing lights!

The device emits flashing lights (strobe effects). Flashing lights can trigger epileptic fits in specific people. If you are at risk of epilepsy, avoid spending longer periods of time subjected to flashing lights and looking into strobing light.

WARNING!

Danger of burns on the device surface!

The surface of the device becomes very hot during operation. Skin contact can result in burns. Never touch the device with your bare hands during operation. After switching off the device, wait for at least 15 minutes before touching it.

CAUTION!

Risk of injury from laser!

This device contains a class 2M laser, classified according to EN 60825-1:2014+A11:2021. The accessible laser radiation is in a wavelength range of 400 nm to 700 nm, the output is 1 mW or less. If the beam cross-section is bundled by optical collecting instruments, looking into the laser beam can cause injuries to the eyes and affect the person's vision temporarily. As the operator, observe the applicable legal duties regarding safe operation before putting the device into service. Install the laser system in such a way that persons are not at risk while it is in operation. Do not look into the laser beam for any longer period of time. Do not use optical collecting instruments (such as magnifying glasses or lenses) to look into the laser beam, and ensure that laser beams are not directed to areas where optical collecting instruments are used. Have all work and repairs on class 2M lasers performed by trained experts. Never open a class 2M laser and do not make any technical changes. If you are unsure how to handle the laser safely, include a laser protection representative in your planning.

CAUTION!

Risk of injury due to stray laser radiation!

Additional components inadequately secured to the device as well as reflective objects and surfaces at the operating location can cause stray laser radiation, which can cause injuries. Make sure that additional components are always secured adequately. Make sure there are no reflective objects or surfaces in the range of the laser beams.

NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can overheat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.

NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

NOTICE!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.

NOTICE!

Risk of fire by exceeding the maximum current

The device can supply power to other devices of identical design and connected in series. If too many devices are connected, the power consumption can exceed the maximum permitted power consumption, which can cause the device to overheat and burst into flames. Only connect devices of identical design to the device. When deciding how many devices you can connect in series, make sure that the maximum permitted power consumption as stated on the device is not exceeded. Also refer to the specifications in the technical specifications for the device. Only use power cords with a cable cross-section designed for the required current intensity when connecting the devices in series.

NOTICE!

Risk of fire due to installation of a wrong fuse!

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

NOTICE!

Risk of fire due to incorrect polarity!

Incorrectly inserted batteries may cause fires and destroy the device and the batteries. Observe the markings on the batteries and on the device. Ensure that proper polarity is observed when inserting batteries.

NOTICE!

Possible damage due to leaking batteries!

Batteries can leak and cause permanent damage to the device. Take the batteries out of the device if it is not going to be used for an extended period of time.

! **NOTICE!**
Possible staining due to plasticiser in rubber feet!
The plasticiser contained in the rubber feet of this product may react with the coating of the floor and cause permanent dark stains after some time. If necessary, use a suitable mat or felt slide to prevent direct contact between the device's rubber feet and the floor.

Duties of the operator

As the operator of the laser system, you must comply with legal occupational safety obligations as per the OStrV (in Germany). The following applies in particular:

- Before putting into service, draw up an assessment of the risk posed by the direct and indirect effects of laser beams in line with the regulations applicable at the operating location.
- Apply appropriate technical safety measures (e.g. shielding, protective walls, barriers) on the basis of the exposure limits determined in the risk assessment.
- Restrict the range of the laser beams to a limited area in order to reduce the risk to persons as much as possible.
- Use technical and organisational safety measures to restrict access to the running laser system for unauthorised persons.
- Instruct staff on the basis of the risk assessment and familiarise them with the necessary safety measures.

3 Features

Special features of the device:

- 2 strobe arrays each with 18 cold white LEDs, 0.5 W each
- Grading laser with two laser diodes
- 2 beam spots each with 192 RGBWA LEDs, 0.12 W each
- 2 UV LEDs, 3 W each
- Control via DMX (4 different modes), buttons and display on the unit as well as the supplied infrared remote control
- 10 preprogrammed automatic shows
- Sound control
- Master / Slave mode
- Key switch secured

For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

4 Installation

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product 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 standing or hanging. When in use, the device must be mounted at a solid surface or clamped to an approved truss.

Work from a stable platform whenever you install or move the device or when you perform any kind of maintenance. Block access under the work area.

WARNING!

Risk of injury from falling devices that were inadequately secured!

If devices are not properly secured during assembly, they can cause severe injury and considerable damage by falling.

When installing and operating, make sure to follow the standards and regulations that apply in your country.

Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

CAUTION!

Risk of injury due to stray laser radiation!

Additional components inadequately secured to the device as well as reflective objects and surfaces at the operating location can cause stray laser radiation, which can cause injuries.

Make sure that additional components are always secured adequately.

Make sure there are no reflective objects or surfaces in the range of the laser beams.

CAUTION!

Risk of injury due to improper installation!

There is a risk of injury if a laser is set up incorrectly and the installation point is too low or too close to persons.

In order to comply with the maximum legal exposure limits, determine the actual radiation intensities at the operating location as well as the distances for laser attachment, and install the laser in line with the ambient conditions.

Make sure the laser is firmly attached, and prevent the laser beam from leaving the planned laser beam area (e.g. through screens, housings or software-specific direction restrictions).

Shield laser beams from each other if multiple lasers are operated simultaneously.

Install the laser in such a way that the laser beam does not enter any traffic zones.

! **NOTICE!**

Risk of overheating and fire due to inadequate distance and bad ventilation!

If the distance between the light source and the illuminated surface is too short or the device is badly ventilated, the device can overheat and cause fires.

Make sure that illuminated surfaces are more than 2 m away.

Do not operate the device in ambient temperatures above 40 °C.

Always ensure sufficient ventilation at the operating location.

! **NOTICE!**

Potential property damage due to unsuitable stands!

If the device is mounted on an unsuitable stand, there is a risk that the stand will fall over and cause damage.

Only use stands whose maximum bearing capacity is at least as high as the weight of the device. Always ensure that the stand is stable.

! **NOTICE!**

Data transfer errors due to improper wiring!

If the DMX connections are wired incorrectly, this can cause errors during the data transfer.

Do not connect the DMX input and output to audio devices, e.g. mixers or amplifiers.

Use special DMX cables for the wiring instead of normal microphone cables.

Inserting the battery into the remote control
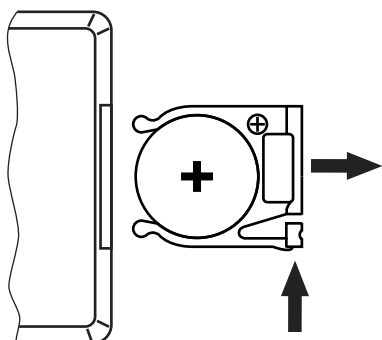
Push the lock of the battery holder towards the centre of the housing and pull out the battery holder like a drawer. Insert the batteries. The battery is correct if the positive pole points to the housing base of the remote control. Slide the battery holder back into the remote until it clicks into place.

When shipping, the battery is already installed in the remote and protected against discharge by a transparent plastic film. Remove the plastic film before initial use.

! **NOTICE!**

Risk of fire due to incorrect polarity!

Incorrectly inserted batteries may cause fires and destroy the device and the batteries.

Observe the markings on the batteries and on the device.

Ensure that proper polarity is observed when inserting batteries.

! **NOTICE!**

Possible damage due to leaking batteries!

Batteries can leak and cause permanent damage to the device.

Take the batteries out of the device if it is not going to be used for an extended period of time.

5   Starting up

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

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).
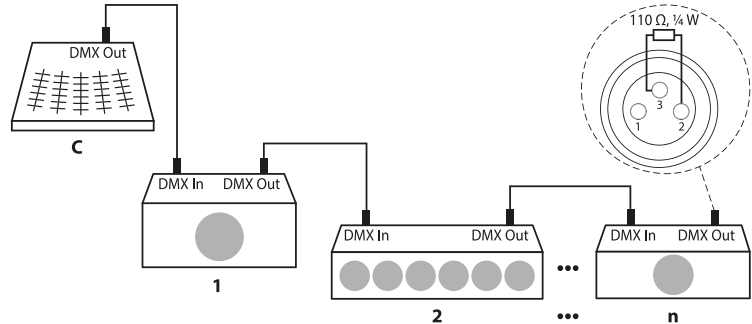
The DMX indicator next to the display lights up as soon as a DMX signal is present.

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 Connections and controls

Front
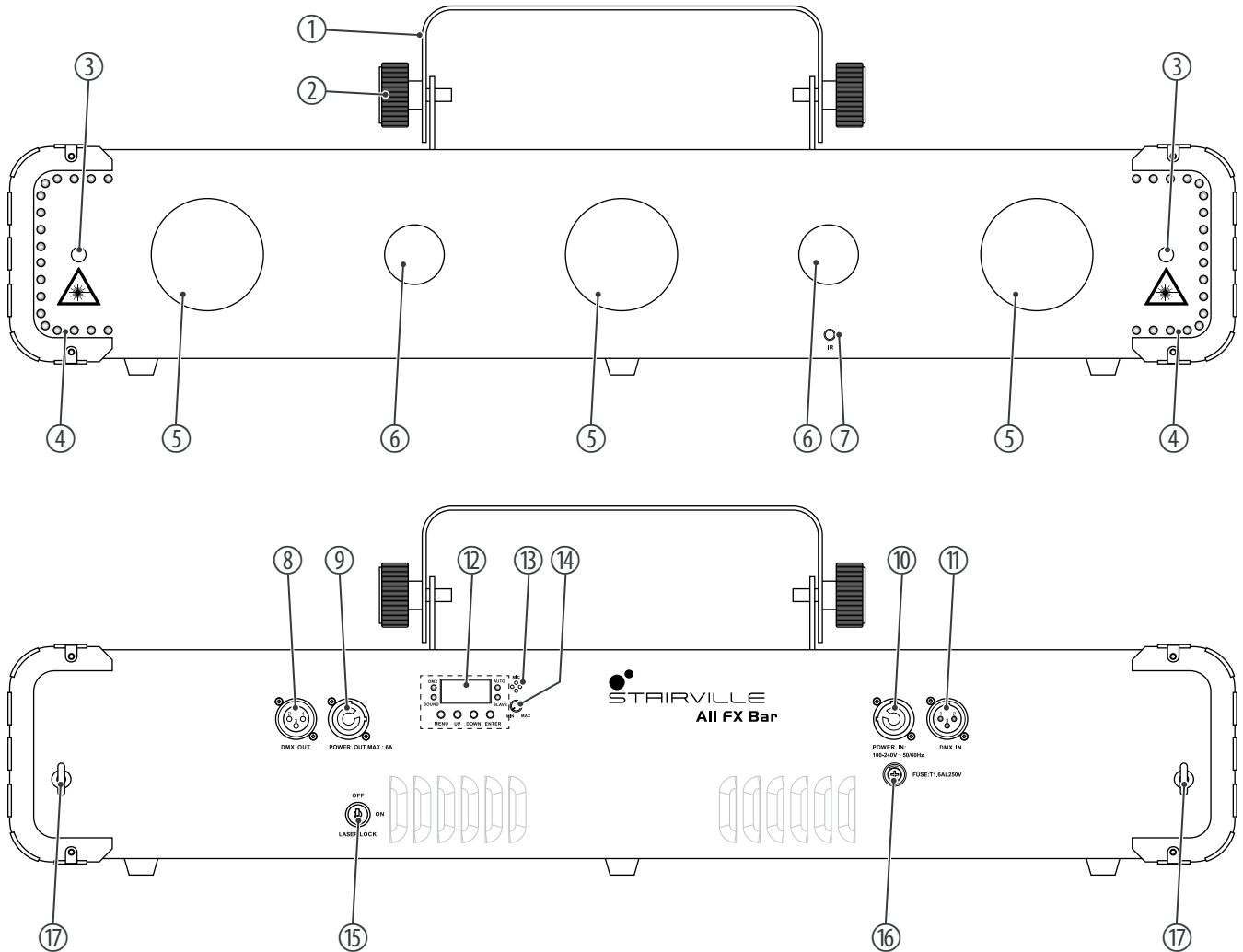
1	Swivelling mounting bracket
2	Locking screw for the mounting bracket
3	Laser aperture
4	Strobe LEDs
5	Beam spots
6	UV spots
7	*[IR]* | Infrared sensor for the remote control signals
8	*[DMX OUT]* | DMX output, designed as XLR chassis socket, 3-pin
9	*[POWER OUT]* | Lockable output socket (Power Twist) for powering a connected device. Output current 6 A max.
10	*[POWER IN]* | Lockable input socket (Power Twist) for mains power supply
11	*[DMX IN]* | DMX input, designed as XLR chassis plug, 3-pin
12	Display, function buttons and status LEDs

	[MENU] | Activates the main menu and switches between menu items. Closes an open submenu.
	[UP] | Increases the displayed value by one.
	[DOWN] | Decreases the displayed value by one.
	[Enter] | Selects an option of the respective operating mode, confirms the set value
	[DMX] | The LED indicates that a signal is present on the DMX input.
	[SOUND] | The LED lights up when the built-in microphone for sound control detects a signal.
	[AUTO] | The LED lights up when an automatic show is running.
	[SLAVE] | The LED indicates that the device is in "slave" mode.
13	*[MIC]* | Microphone for sound control
14	*[MIN/MAX]* | Control for the sensitivity of the built-in microphone
15	Safety key switch for the laser
16	Fuse holder
17	Safety cable eyelet

Infrared remote control

IR REMOTE
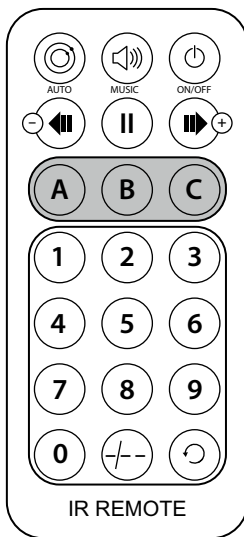
Button labelling:	Function
[AUTO]	Enable/disable automatic mode, select programme *'Au01'* … *'Au14'*.
[MUSIC]	Enable/disable sound-controlled mode, select mode *'So01'* … *'So14'*.
[ON/OFF]	Turns the device on and off
⊚, ⊚	Buttons for increasing / decreasing the programme run speed.
[II]	No function
[A], [B], [C]	No function
[0] … *[9]*	Selection of the programme speed (0 = slow, 9 = fast)
[-/--]	No function
↻	Button to switch between auto and sound-controlled mode.

7   Operating

7.1   Switching the device on and off

Switching on

1. ▶ Verify that all required laser safety precautions have been taken. Make sure that there is no one in the reach of the laser beam.

2. ▶ Insert the safety key into the lock.

3. ▶ If not already done, connect the device to the mains.

4. ▶ After a few seconds, the fan and the motors start to work. The display shows the current version number of the device.

    ⇨   The device is operational.

5. ▶ Turn the safety key to the 'ON' position to turn the laser beam on.

Turning off

1. ▶ Turn the safety key to the "OFF" position to turn the laser beam off and remove the key. Keep the safety key in a secure place.

2. ▶ Disconnect the device from the mains.

7.2   Operating mode Automatic

This setting is only relevant if the device is not controlled via a DMX controller and not working as slave in a master / slave configuration.

1. ▶ Press *[MENU]* repeatedly until the display shows *'Aut'* and confirm with *[ENTER]*.

2. ▶ Press *[UP]* or *[DOWN]* to select one of the automatic programmes *'Au01'* … *'Au14'*.

3. ▶ Confirm the selection with *[ENTER]*.

    ⇨   The selected automatic programme is played back immediately.

4. ▶ Press *[ENTER]* again to open the settings menu for the programme run speed.

5. ▶ Press *[UP]* or *[DOWN]* to set the programme run speed from *'S 1'* (slow) … *'S100'* (fast).

6. ▶ Confirm the selection with *[ENTER]*.

7. ▶ To return to the main menu without making changes, press *[MENU]*.

7.3 Sound control

1. ▸ Press *[MENU]* repeatedly until the display shows *'Sou'* and confirm with *[ENTER]*.

2. ▸ Press *[UP]* or *[DOWN]* to select one of the sound-controlled programmes *'So01'* … *'So14'*.

3. ▸ Confirm the selection with *[ENTER]*.

4. ▸ Use the *[MIN/MAX]* control to set the sensitivity of the built-in microphone.

5. ▸ To return to the main menu without making changes, press *[MENU]*.

7.4 DMX operating mode

This setting is only relevant if the device is controlled via a DMX controller.

Setting the DMX mode

1. ▸ Press *[MENU]* repeatedly until the display shows *'dMX'* and confirm with *[ENTER]*.

   ⇨ The display shows *'d 1'*.

2. ▸ Press *[ENTER]* again to open the settings menu for DMX mode.

3. ▸ Press *[UP]* or *[DOWN]* to select the required DMX mode and confirm with *[ENTER]*.

The following DMX modes are available:

Menu level 2	Description
'02Ch'	2-channel mode
'05Ch'	5-channel mode
'08Ch'	8-channel mode
'10Ch'	10-channel mode

Setting the DMX address

5. ▸ After confirming DMX mode, press *[UP]* or *[DOWN]* to select a value between 1 and 512 for the required DMX address (display shows *'d 1'* … *'d512'*) and confirm your selection with *[ENTER]*.

Make sure that this number matches the configuration of your DMX controller. The following table shows the respective highest possible DMX address for the various DMX modes.

Mode	Highest possible DMX address
2-channel mode	511
5-channel mode	508
8-channel mode	505
10-channel mode	503

6. ▸ To return to the main menu without making changes, press *[MENU]*.

7.5 Slave mode

In this mode, the device exactly follows the operation of the master that it is connected to.

1. ▶ Press *[MENU]* repeatedly until the display shows *'SLA'* and confirm with *[ENTER]*.

   ⇨ The display shows *'SLAV'*. The Slave mode is activated.

2. ▶ To return to the main menu without making changes, press *[MENU]*.

7.6 System settings

7.6.1 Display illumination

1. ▶ Press *[MENU]* repeatedly until the display shows *'SYS'* and confirm with *[ENTER]*.

2. ▶ Press *[UP]* or *[DOWN]* to select *'LEdS'* and confirm with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* to select *'on'* (display lighting is switched off after 35 seconds) and *'oFF'* (display lighting is permanently switched on).

4. ▶ Confirm the selection with *[ENTER]*.

5. ▶ To return to the main menu without making changes, press *[MENU]*.

7.6.2 Display reversal

1. ▶ Press *[MENU]* repeatedly until the display shows *'SYS'* and confirm with *[ENTER]*.

2. ▶ Press *[UP]* or *[DOWN]* to select *'LEdr'* and confirm with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* to select *'on'* (display is rotated by 180°) or *'oFF'* (display is in standard orientation).

4. ▶ Confirm the selection with *[ENTER]*.

5. ▶ To return to the main menu without making changes, press *[MENU]*.

7.7 Reset to factory default setting

1. ▶ Press *[MENU]* repeatedly until the display shows *'SYS'* and confirm with *[ENTER]*.

2. ▶ Press *[UP]* or *[DOWN]* to select *'rESt'* and confirm with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* to select *'no'* (cancel reset) or *'YES'* (reset to factory settings).

4. ▶ Confirm the selection with *[ENTER]*.

   ⇨ The device is reset to the factory settings without a security query.

5. ▶ After the reset, the device restarts and the display shows *'U100'*.

6. ▶ To return to the main menu without making changes, press *[MENU]*.

7.8 Menu overview
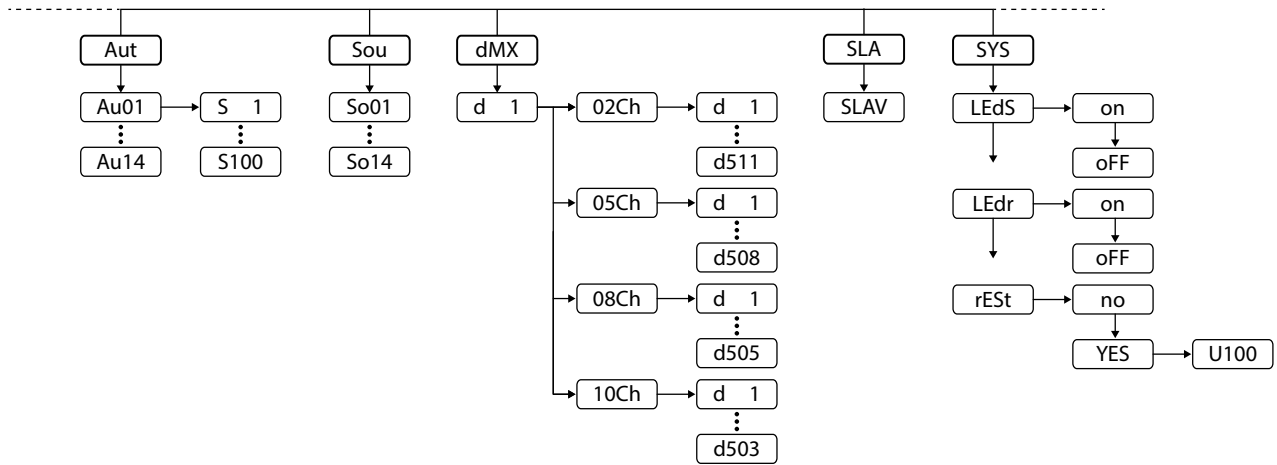
7.9 Functions in 2-channel DMX mode

Channel	Value	Function	
1		Automatic show for all components, if channel 2 = 0…250	Sound-controlled automatic show for all components, if channel 2 = 251…255
	0…5	No function	No function
	6…22	AUT1	SOU1
	23…40	AUT2	SOU2
	41…58	AUT3	SOU3
	59…76	AUT4	SOU4
	77…94	AUT5	SOU5
	95…112	AUT6	SOU6
	113…129	AUT7	SOU7
	130…147	AUT8	SOU8
	148…165	AUT9	SOU9
	166…183	AUT10	SOU10
	184…201	AUT11/	SOU11
	202…219	AUT12	SOU12
	220…237	AUT13/	SOU13
	238…255	AUT14/	SOU14
2	0…250	Run speed of the automatic show, from slow to fast, if channel 1 = 6…255	
	251…255	Sensitivity of the sound control microphone from low to high, if channel 1 = 6…255	

7.10   Functions in 5-channel DMX mode

Channel	Value	Function	
UV-LEDs			
1		Automatic show for UV LEDs, if channel 5 = 0…250	Sound-controlled automatic show for UV LEDs, if channel 5 = 251…255
	0…5	No function	No function
	6…55	AP01	SP01
	56…106	AP02	SP02
	107…155	AP03	SP03
	156…205	AP04	SP04
	206…255	APM (mix programme)	SPM (mix programme)
Beam LEDs			
2		Automatic show for beam LEDs, if channel 5 = 0…250	Sound-controlled automatic show for beam LEDs, if channel 5 = 251…255
	0…5	No function	No function
	6…13	AB01	SB01
	14…21	AB02	SB02
	22…29	AB03	SB03
	30…37	AB04	SB04
	38…45	AB05	SB05
	46…53	AB06	SB06
	54…61	AB07	SB07
	62…69	AB08	SB08
	70…77	AB09	SB09
	78…85	AB10	SB10
	86…93	AB11	SB11
	94…101	AB12	SB12
	102…109	AB13	SB13
	110…117	AB14	SB14
	118…125	AB15	SB15
	126…133	AB16	SB16
	134…141	AB17	SB17
	142…149	AB18	SB18
	150…157	AB19	SB19
	158…165	AB20	SB20
	166…173	AB21	SB21
	174…181	AB22	SB22
	182…189	AB23	SB23

Channel	Value	Function	
	190…197	AB24	SB24
	198…205	AB25	SB25
	206…213	AB26	SB26
	214…221	AB27	SB27
	222…229	AB28	SB28
	230…237	AB29	SB29
	238…245	AB30	SB30
	246…255	ABM (mix programme)	SBM (mix programme)
Laser			
3		Automatic show for laser, if channel 5 = 0…250	Sound-controlled automatic show for laser, if channel 5 = 251…255
	0…5	No function	No function
	6…40	AL01	SL01
	41…76	AL02	SL02
	77…112	AL03	SL03
	113…147	AL04	SL04
	148…183	AL05	SL05
	184…219	AL06	SL06
	220…255	ALM (mix programme)	SLM (mix programme)
Strobe LEDs			
4		Automatic show for strobe LEDs, if channel 5 = 0…250	Sound-controlled automatic show for strobe LEDs, if channel 5 = 251…255
	0…5	No function	No function
	6…27	AF01	SF01
	28…50	AF02	SF02
	51…73	AF03	SF03
	74…95	AF04	SF04
	96…118	AF05	SF05
	119…141	AF06	SF06
	142…163	AF07	SF07
	164…186	AF08	SF08
	187…209	AF09	SF09
	210…232	AF10	SF10
	233…255	AFM (mix programme)	SFM (mix programme)
All components			

Channel	Value	Function	
5	0…250	Run speed of the automatic show, from slow to fast, if channel 1, 2, 3 or 4 = 6…255	
	251…255	Sensitivity of the sound control microphone from low to high, if channel 1, 2, 3 or 4 = 6…255	

7.11   Functions in 8-channel DMX mode

Channel	Value	Function	
UV-LEDs 1 and 2			
1	0…128	Dimmer (0% to 100%)	
	129…255	Strobe effect with increasing speed	
Beam LEDs			
2		Automatic show for beam LEDs	Sound-controlled automatic show for beam LEDs, if channel 8 = 36…71, 142…176 or 212…255
	0…5	No function	No function
	6…13	AB01	SB01
	14…21	AB02	SB02
	22…29	AB03	SB03
	30…37	AB04	SB04
	38…45	AB05	SB05
	46…53	AB06	SB06
	54…61	AB07	SB07
	62…69	AB08	SB08
	70…77	AB09	SB09
	78…85	AB10	SB10
	86…93	AB11	SB11
	94…101	AB12	SB12
	102…109	AB13	SB13
	110…117	AB14	SB14
	118…125	AB15	SB15
	126…133	AB16	SB16
	134…141	AB17	SB17
	142…149	AB18	SB18
	150…157	AB19	SB19
	158…165	AB20	SB20
	166…173	AB21	SB21
	174…181	AB22	SB22
	182…189	AB23	SB23

Channel	Value	Function	
	190…197	AB24	SB24
	198…205	AB25	SB25
	206…213	AB26	SB26
	214…221	AB27	SB27
	222…229	AB28	SB28
	230…237	AB29	SB29
	238…245	AB30	SB30
	246…255	ABM (mix programme)	SBM (mix programme)
3	0…255	Run speed of the automatic show, from slow to fast, if channel 2 = 6…255	
	0…255	Strobe effect with increasing speed, if channel 4 = 6…255	
Laser			
4	If channel 4 = 129…255, channel 3 must be = 1…255		
	Sound-controlled automatic show for laser, if channel 8 = 72…106, 142…176 or 212…255		
	0…5	No function	
	6…48	Red laser switched on	
	49…89	Green laser switched on	
	90…131	Red and green lasers switched on	
	132…173	Strobe effect red laser, green laser switched on	
	174…215	Red laser switched on, strobe effect green laser	
	216…255	Strobe effect red and green lasers	
5	0	No function	
	1…127	Clockwise rotation, speed increasing	
	128	Laser paused SF01	
	129…255	Anti-clockwise rotation, speed increasing SF02	
Strobe LEDs			
6		Automatic show for strobe LEDs	Sound-controlled automatic show for strobe LED, if channel 8 = 107…141, 177…211 or 212…255
	0…5	No function	No function
	6…27	AF01	SF01
	28…50	AF02	SF02
	51…73	AF03	SF03
	74…95	AF04	SF04
	96…118	AF05	SF05
	119…141	AF06	SF06
	142…163	AF07	SF07

Channel	Value	Function	
	164…186	AF08	SF08
	187…209	AF09	SF09
	210…232	AF10	SF10
	233…255	AFM (mix programme)	SFM (mix programme)
7	0…250	Run speed of the automatic show, from slow to fast, if channel 6 = 6…255	
Beam LEDs, laser, strobe LEDs			
8	0…35	No function	
	36…71	Sound-controlled automatic show for beam LEDs (laser and strobe LEDs follow the speed settings in channel 5 and channel 7)	
	72…106	Sound-controlled automatic show for laser (beam LEDs and strobe LEDs follow the speed settings in channel 3 and channel 7)	
	107…141	Sound-controlled automatic show for strobe LEDs (beam LEDs and laser follow the speed settings in channel 3 and channel 5)	
	142…176	Sound-controlled automatic show for beam LEDs and laser (strobe LEDs follow the speed settings in channel 7)	
	177…211	Sound-controlled automatic show for strobe LEDs and laser (beam LEDs follow the speed settings in channel 3)	
	212…255	Sound-controlled automatic show for beam LEDs, laser and strobe LEDs	

7.12   Functions in 10-channel DMX mode

Channel	Value	Function	
UV-LED 1			
1	0…255	Dimmer (0% to 100%)	
UV-LED 2			
2	0…255	Dimmer (0% to 100%)	
UV-LEDs 1 and 2			
3		If channel 1 or 2 = 1…255	
	0…250	Strobe effect with increasing speed	
	251…255	Sound-controlled strobe effect	
Beam LEDs			
4		Automatic show for beam LEDs, if channel 5 = 0…250	Sound-controlled automatic show for beam LEDs, if channel 5 = 251…255
	0…5	No function	No function
	6…13	AB01	SB01
	14…21	AB02	SB02
	22…29	AB03	SB03
	30…37	AB04	SB04

Channel	Value	Function	
	38…45	AB05	SB05
	46…53	AB06	SB06
	54…61	AB07	SB07
	62…69	AB08	SB08
	70…77	AB09	SB09
	78…85	AB10	SB10
	86…93	AB11	SB11
	94…101	AB12	SB12
	102…109	AB13	SB13
	110…117	AB14	SB14
	118…125	AB15	SB15
	126…133	AB16	SB16
	134…141	AB17	SB17
	142…149	AB18	SB18
	150…157	AB19	SB19
	158…165	AB20	SB20
	166…173	AB21	SB21
	174…181	AB22	SB22
	182…189	AB23	SB23
	190…197	AB24	SB24
	198…205	AB25	SB25
	206…213	AB26	SB26
	214…221	AB27	SB27
	222…229	AB28	SB28
	230…237	AB29	SB29
	238…245	AB30	SB30
	246…255	ABM (mix programme)	SBM (mix programme)
5	0…255	Run speed of the automatic show, from slow to fast, if channel 4 = 6…255	
	0…255	Sensitivity of the sound control microphone from low to high, if channel 4 = 6…255	
Laser			
6	If channel 6 = 129…255, channel 7 must be = 6…255		
	Sound-controlled automatic show for laser, if channel 8 = 72…106, 142…176 or 212…255		
	0…5	No function	
	6…48	Red laser switched on	
	49…89	Green laser switched on	
	90…131	Red and green lasers switched on	

Channel	Value	Function	
	132…173	Strobe effect red laser, green laser switched on	
	174…215	Red laser switched on, strobe effect green laser	
	216…255	Strobe effect red and green lasers	
7	If channel 6 = 6…255		
	0…5	No function	
	6…250	Strobe effect with increasing speed	
	251…255	Sound-controlled strobe effect	
8	0	No function	
	1…127	Clockwise rotation, speed increasing	
	128	Laser paused SF01	
	129…255	Anti-clockwise rotation, speed increasing SF02	
Strobe LEDs			
9		Automatic show for strobe LEDs, if channel 10 = 0…250	Sound-controlled automatic show for strobe LEDs, if channel 10 = 251…255
	0…5	No function	No function
	6…27	AF01	SF01
	28…50	AF02	SF02
	51…73	AF03	SF03
	74…95	AF04	SF04
	96…118	AF05	SF05
	119…141	AF06	SF06
	142…163	AF07	SF07
	164…186	AF08	SF08
	187…209	AF09	SF09
	210…232	AF10	SF10
	233…255	AFM (mix programme)	SFM (mix programme)
10	0…250	Run speed of the automatic show, from slow to fast, if channel 9 = 6…255	
	251…255	Sensitivity of the sound control microphone from low to high, if channel 9 = 6…255	

8   Technical specifications
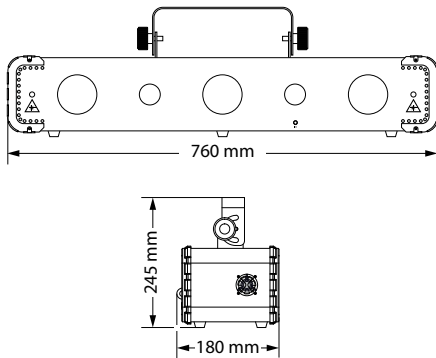
Light source	2 × strobe arrays: 18 × cold white LEDs 0,5 W each	
	3 × beam spots: 192 × RGBWA LEDs 0.12 W each	
	2 × laser: Green 30 mW / 532 nm, red 100 mW / 650 nm	
	2 × strobe arrays, 3 W each	
Control	DMX, infrared remote control, buttons and display on the unit	
Number of DMX channels	2, 5, 8 or 10	
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR chassis plug, 3-pin
Output connections	Power supply of further devices	Lockable output socket (Power Twist)
		Output current 6 A max.
	DMX control	XLR chassis socket, 3-pin
Laser class	2M	
Power consumption	40 W	
Supply voltage	100 - 240 V ∼ 50/60 Hz	
Fuse	5 mm × 20 mm, 1,6 A, 250 V, slow-blow	
Battery remote control	Lithium-ions button cell CR2025, 3 V	
Degree of protection	IP20	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	760 mm × 245 mm × 180 mm	
Weight	8.8 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20 %…80 % (non-condensing)

Further information

Variant group	FX bar
Similar design	Combination device
DMX control	yes
Master/Slave	yes
Remote control	included
Sound control	yes
Display	yes

9 Plug and connection assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

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 the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX−, 'cold signal')
3	Signal (DMX+, 'hot signal')

10 Troubleshooting

CAUTION!

Risk of injury due to improper troubleshooting!

There is a risk of injury if troubleshooting is not performed properly.

Have all work and repairs on class 2M lasers performed by trained experts.

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 device is not working, no light, the fan is not running	1. Check the power supply and the main fuse.
	2. Check the safety key switch.
No response to the DMX controller	1. If the display shows a flashing number, for example "001", no DMX signal is being received. Check the DMX connectors and cables for proper connection.
	2. If the display does not flash and there is no response, check the address settings and DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.
No response to the remote control	1. Check the remote control battery.
	2. Try using the remote control at a different angle to the IR sensor on the front panel of the device.

11 Cleaning

> ⚠️ **CAUTION!**
>
> **Risk of injury due to improper cleaning!**
>
> There is a risk of injury if cleaning is not performed properly.
>
> To avoid unintentional laser radiation, switch off the laser before you start cleaning the device.

Optical lenses

Clean the optical lenses, that are accessible from the outside, regularly in order to optimize the 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 our lamp and lens cleaner (item no. 280122).
■ Always dry the parts carefully.

Fan grids

The fan grids of the device must be cleaned of any contamination, such as dust, etc. on a regular basis. Before cleaning, switch off the device and disconnect mains-operated devices from the mains. Only use pH-neutral, solvent-free and non-abrasive cleaning agents. Clean the unit with a slightly damp lint-free cloth.

12   Protecting the environment

Disposal of the packaging material

For the 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 of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of batteries

Batteries must not be thrown away or incinerated; they must be disposed of in accordance with local regulations for the disposal of hazardous waste. Use the existing collection points for this.

Only dispose of lithium batteries when they are discharged. Remove replaceable lithium batteries from the device before disposal. Protect used lithium batteries against short circuits, for example by covering the poles with adhesive tape. Permanently built-in lithium batteries must be disposed of together with the device. Please inquire about an appropriate collection point.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of 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.