STAIRVILLE

BSW-100 LED BeamSpotWash

moving head

th•mann
MUSIC IS OUR PASSION

user manual

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Table of contents

1 General information

This user manual contains important information on the 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 to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under *www.thomann.de*.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

Instructions

The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

1. Switch on the device.
2. Press *[Auto]*.
   ⇨ Automatic operation is started.
3. Switch off the device.

Cross-references

References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See *'Cross-references' on page 5*.

1.3 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 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.
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 – dangerous optical radiation.
	Warning – suspended load.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for use as a freely moving multifunctional spotlight. The device is designed for professional use 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!

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. Do not use the device if covers, protectors or optical components are missing or damaged.

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.

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.

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. The load capacity of trusses or other fixtures must be sufficient for the intended number of devices. Not that the movement of the head places additional loads on the load-bearing parts.

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened. Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install 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. Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures). Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction. The device must not be moved during use.

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.

NOTICE!

Fire hazard due to exceedance of the maximum current

The device can power other devices of identical construction. The current consumption of all other devices connected in series must not exceed the values indicated in the technical specifications. Otherwise you risk injuries and irreparable damages to the device. Only connect so many identical devices that the maximum current consumption is not exceeded. Ensure the sufficient dimensioning (wire cross section) of the power cables used for all devices connected in series.

NOTICE!

Possible damage due to installation of a wrong fuse

The use of different types of fuses can cause serious damage to the unit. Fire hazard! Only fuses of the same type may be used.

NOTICE!

Possible staining

The plasticiser contained in the rubber feet of this product may possibly react with the coating of your surface and after some time cause permanent dark stains. In case of doubt, do not put the rubber feet directly on the surface and use a suitable underlay if necessary, i.e. felt-pad floor protectors or similar.

NOTICE!

Risk of overheating

The distance between light output and the illuminated surface must be more than 1.5 m (19.7in). Provide sufficient ventilation. The ambient temperature must always be below 40 °C (104 °F).

3 Features

The moving head is particularly suitable for professional lighting tasks, for example at events, on rock stages, in theatres and musicals or in night clubs.

Special features of the device:

- Two moving axes
  - Inclination (tilt, 270 °)
  - Rotation (pan, 540 °)
- Control via DMX (17 or 20 channels) as well as buttons and display on the unit
- 4 preprogrammed automatic shows
- Sound control
- Master / slave mode
- Colour wheel with white, 8 full-colours, and rainbow effect
- Two Gobo wheels with 6 rotatable and 7 static gobos
- Gobo shake function
- Frost effect
- Effect wheel with triple prism rotating in both directions
- Electronic dimmer
- Mechanical focus
- Shutter function
- Automatic position correction

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.

Lift the device only at the base. When lifted at the rotatable mounting, the device may be damaged.

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 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.

The load capacity of trusses or other fixtures must be sufficient for the intended number of devices. Not that the movement of the head places additional loads on the load-bearing parts.

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

NOTICE!

Risk of overheating

The distance between light output and the illuminated surface must be more than 1.5 m (19.7in).

Provide sufficient ventilation.

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

NOTICE!

Possible damage caused by movements of the device

Always ensure that enough space is free around the device for the movements of the head (pan, tilt).

NOTICE!

Possible data transmission errors

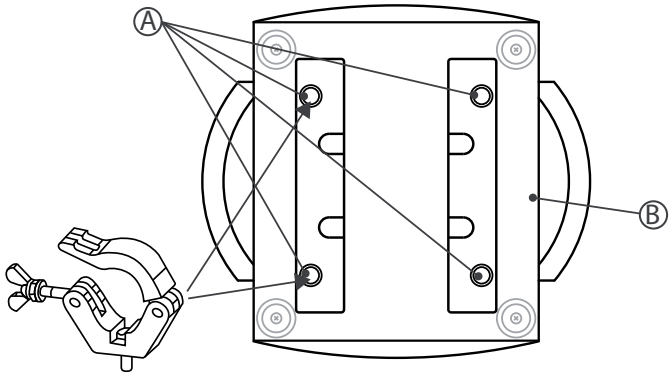
For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Please note that this device must not be connected to a dimmer.

Mounting options

The quick lock openings on the housing bottom are used for secure attachment of Omega brackets. To these, the flight adapters (half coupler, trigger clamps, C-hooks, etc.) are attached. The safety cable must be threaded through the cut-outs on the bottom or the carrying handles.



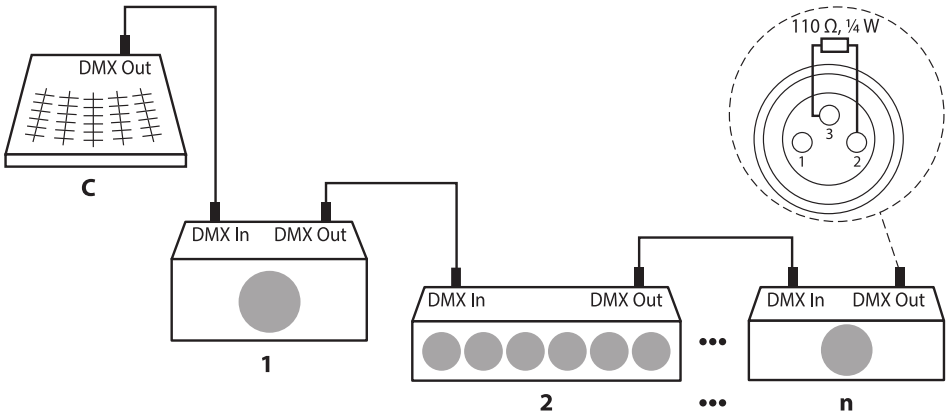
A	Quick locks for Omega brackets
B	Openings for safety cable

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

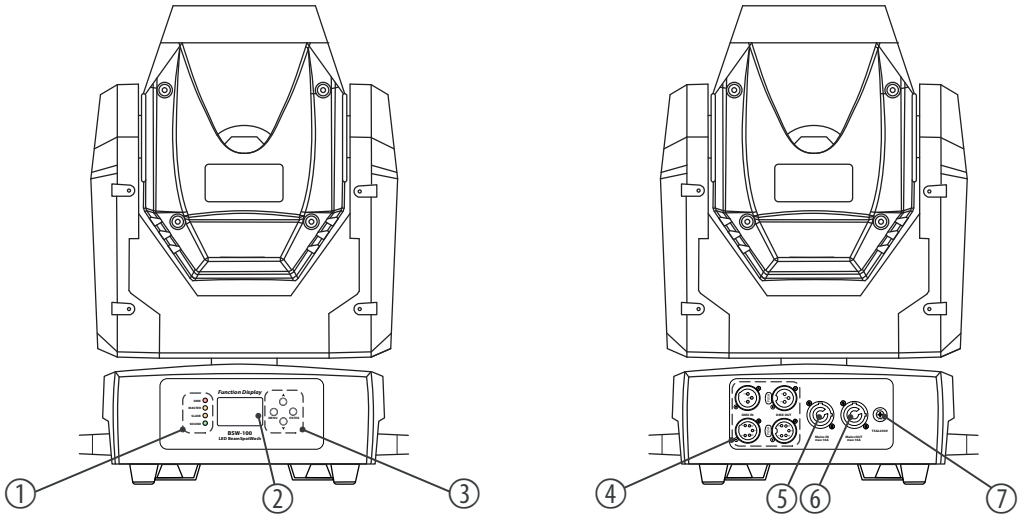
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor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

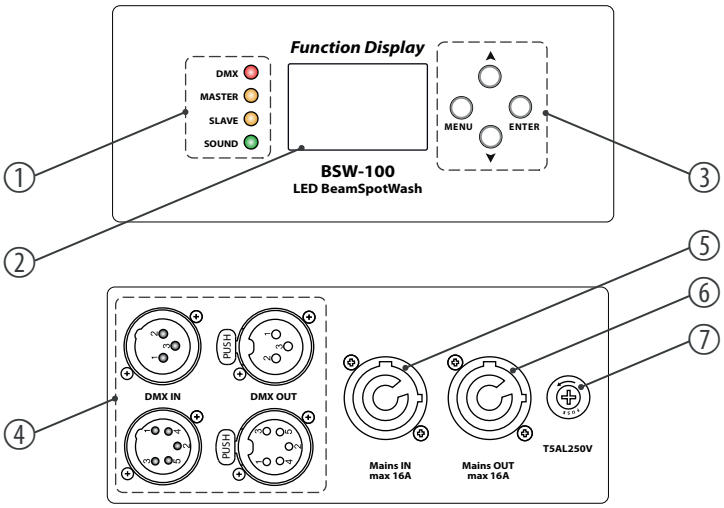


Connections in master/slave mode

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 operating elements





1	Status LEDs ■ DMX: Lights when the unit is connected to a DMX controller. ■ Master: Lights when the device is operated in master mode. ■ Slave: Lights when the device is operated in slave mode. ■ Sound: Lights when the sound control is activated.
2	Display

3	Operating elements ■ *'MENU'*: Activates the main menu and toggles between menu items. Closes an opened submenu. ■ *'ENTER'*: Selects an option of the respective operating mode, confirms the set value. ■ ▲: Increases the displayed value by one. ■ ▼: Decreases the displayed value by one.
4	*[DMX OUT]* DMX output, 3 and 5-pin *[DMX IN]* DMX input, 3 and 5-pin
5	*[Mains IN]* Lockable Power Twist input socket for power supply.
6	*[Mains OUT]* Lockable Power Twist output socket to supply further devices.
7	Fuse holder

7 Operating

7.1 Starting the device

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

Connect the device to the power supply to start operation. After a few seconds, the fans start to work, the head moves to the home positions for rotation (pan) and inclination (tilt). After a few more seconds, the unit will perform the last automatic show. The name of the set show appears on the display, e.g., *'Show 1'*. When the unit is operated in master mode, the *'MASTER'* status LED is lit. The device is now operational.

7.2 Main menu

To use the main menu:

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to browse between the various menu items. To leave the menu, press *[MENU]* again.
3. If no button is pressed for about 30 s., the menu will be exited automatically.
   ⇨ All previous settings are retained even when the device is switched off and disconnected from the mains.
4. To restart with default values, use the functions under *'Reset Functions'* in the main menu.

Setting the DMX address

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'DMX Functions'*.
3. To open the *'DMX Functions'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'DMX Address'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to select a DMX address between 1 and 512.

7. Confirm your selection with *[ENTER]*.
   ⇨ The desired address is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

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

Mode	Highest possible DMX address
17 channels	496
20 channels	493

Specify the DMX mode

The unit can be controlled in 17 or 20-channel mode. To specify the desired mode, proceed as follows:

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'DMX Functions'*.
3. To open the *'DMX Functions'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'DMX Channel Mode'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'Mode 1 (17ch)'* and *'Mode 2 (20ch)'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired mode is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Behaviour on DMX signal interrupt

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'DMX Functions'*.
3. To open the *'DMX Functions'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'DMX State'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'Master'* (master operation), *'Blackout'* (lamp is turned off) or *'Hold'* (the device continues to operate in the current mode with the last active DMX values until the signal returns).
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired status is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Activate or deactivate pan inversion

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Setting'*.
3. To open the *'Fixture Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Pan Inverse'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'No'* or *'Yes'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ Pan inversion is activated or deactivated.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Activate or deactivate tilt inversion

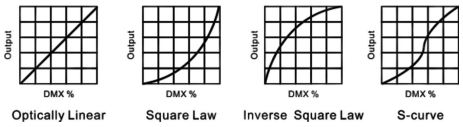
1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Setting'*.
3. To open the *'Fixture Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Tilt Inverse'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'No'* or *'Yes'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ Tilt inversion is activated or deactivated.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Activate or deactivate Tilt / Pan Feedback

This function causes the pan or tilt positions to be automatically adjusted to the correct position when they are twisted. To enable or disable this function, proceed as follows:

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Setting'*.
3. To open the *'Fixture Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the sub menu *'P/T Feedback'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'No'* or *'Yes'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ The Tilt / Pan Feedback function is activated or deactivated.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Specify dimming mode



1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Setting'*.
3. To open the *'Fixture Setting'* menu, press *[ENTER]*
4. Use *[UP]* and *[DOWN]* to select the submenu *'Dimmer Curve'*.
5. Confirm your selection with *[ENTER]*
6. Use *[UP]* and *[DOWN]* to choose between
   - *'Linear'*: The light intensity increases linearly with the DMX value.
   - *'Square Low'*: The light intensity is finer in the lower range, and can be adjusted in the upper range.
   - *'Inv.SQ Law'*: The light intensity is coarser in the lower range, and can be adjusted in the upper range.
   - *'S Curve'*: The light intensity is fine in the upper and lower range, and can be adjusted in the mid range.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Specify Show Focus

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Setting'*.
3. To open the *'Fixture Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Show Focus'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'5m'*, *'10m'* or *'15m'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Enabling operating mode 'Auto Show'.

The unit has four automatic shows. After the first power-up without a DMX controller, the first show is automatically performed. If you want to set another show, do the following:

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Show Setting'*.
3. To open the *'Show Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Show Mode'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to select a show between 1 and 4.

7. Confirm your selection with *[ENTER]*.
   ⇨ The desired show is saved and performed immediately.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Specify slave mode

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Show Setting'*.
3. To open the *'Show Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Slave Mode'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'Master'*, *'Slaver1'* or *'Slaver2'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Specify microphone sensitivity

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Show Setting'*.
3. To open the *'Show Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Sound Sense'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to select a value between *'0'* and *'100'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Display reversal

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Display Setting'*.
3. To open the *'Display Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Display Inverse'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to choose between *'Yes'* or *'No'*.
   ⇨ Selecting *'Yes'* rotates the display by 180°.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.

8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Setting the contrast

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Display Setting'*.
3. To open the *'Display Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Contrast Ratio'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* to select a value between *'0'* and *'30'*.
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Selecting unit for temperature display

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Display Setting'*.
3. To open the *'Display Setting'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Temperature Unit'*.
5. Confirm your selection with *[ENTER]*.
6. Use *[UP]* and *[DOWN]* between *'°C'* (degree Celsius) and *'°F'* (degree Fahrenheit).
7. Confirm your selection with *[ENTER]*.
   ⇨ The desired setting is saved.
8. To leave the menu, press *[MENU]* or wait for 30 seconds.

Performing automatic selftest

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Test'*.
3. To open the *'Fixture Test'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Auto Test'*.

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

5. Confirm your selection with *[ENTER]*

   ⇨ The device immediately performs an automatic selftest. The following functions are tested: Pan, tilt, shutter, colour, gobos, gobo rotation, prism, prism rotation, frost, zoom, focus and dimmer.

6. To exit the automatic selftest, press *[MENU]*.

Performing manual selftest

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Test'*.
3. To open the *'Fixture Test'* menu, press *[ENTER]*.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Manual Test'*.

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

5. Confirm your selection with *[ENTER]*.

   ⇨ A sub-menu opens up in which the following functions can be tested manually: Pan, tilt, shutter, colour, gobos, gobo rotation, prism, prism rotation, frost, zoom, focus and dimmer.

6. Use *[UP]* and *[DOWN]* to navigate to the desired menu item.
7. Use *[UP]* and *[DOWN]* to change the respective value.

   ⇨ The results of your settings are immediately effective.

8. To exit the *'Manual Test'* submenu, press *[MENU]*.

> *All changes made in the 'Manual Test' submenu are undone after exiting the submenu.*

Device information display

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Fixture Information'*.
3. To open the *'Fixture Information'* menu, press *[ENTER]*.
   ⇨ Next to *'Fixture use time'*, the operating hours of the device are displayed.
4. Use *[UP]* and *[DOWN]* to select the submenu *'Firmware Version'*.
5. Confirm your selection with *[ENTER]*.
   ⇨ The version number of the firmware currently used in the device will appear on the display.
6. To leave the menu, press *[MENU]* or wait for 30 seconds.

Resetting individual functions

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Reset Functions'*.
3. To open the *'Reset Functions'* menu, press *[ENTER]*.
   ⇨ Here you can choose between the options *'Pan/Tilt'* (resets the axis movements), *'Effect'* (resets the effects) or *'All'* (resets all settings).
4. Use *[UP]* and *[DOWN]* to select the desired sub menu.
5. Confirm your selection with *[ENTER]*.
6. If you want to reset the respective settings, select *'Yes'*. If you do not want to reset anything, select *'No'*.
7. To leave the menu, press *[MENU]* or wait for 30 seconds.

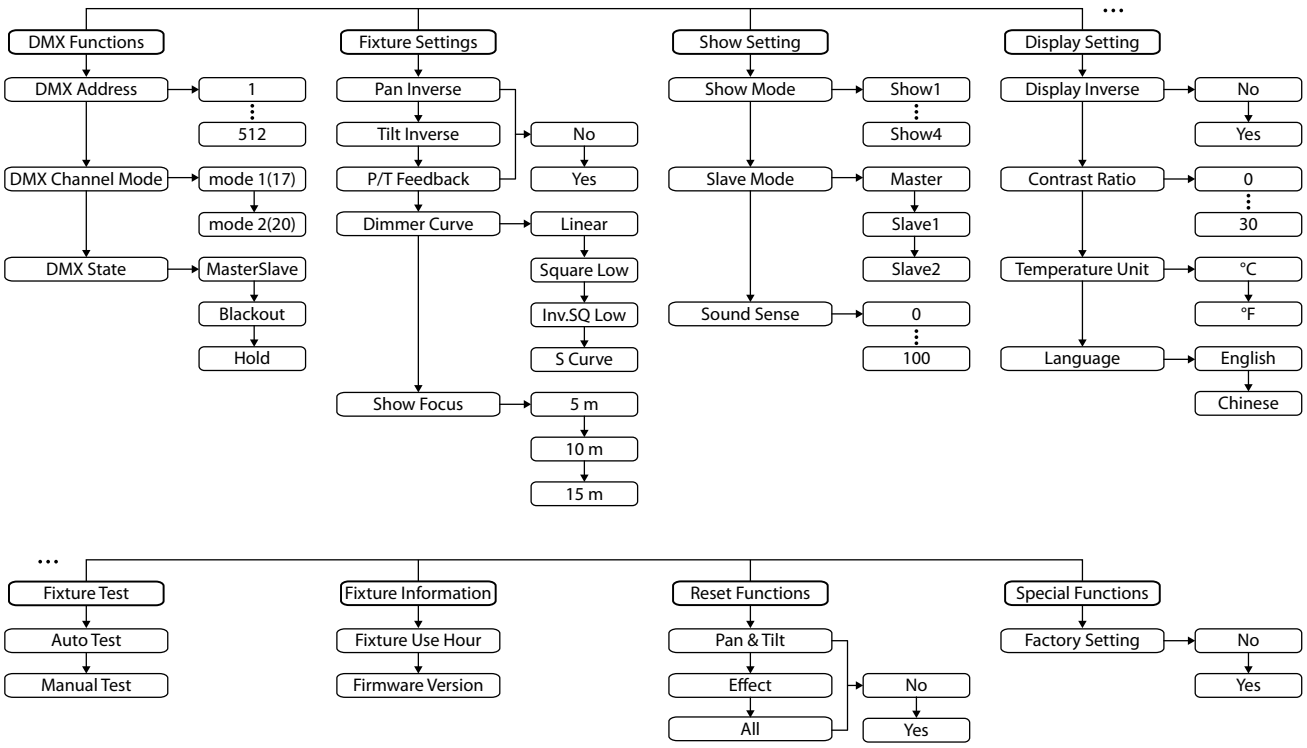
Reset to factory defaults

The menu item *'Special Functions'* gives you the option to restore the factory defaults of the device.

1. To enter the main menu, press *[MENU]*.
2. Use *[UP]* and *[DOWN]* to navigate to menu item *'Special Functions'*.
3. To open the *'Spacial Functions'* menu, press *[ENTER]*.
4. To open the *'Factory Setting'* sub menu, press *[ENTER]*.
5. If you want to reset the device to the factory defaults, select *'Yes'*. If you do not want to reset anything, select *'No'*.

6. To leave the menu, press *[MENU]* or wait for 30 seconds.

7.3 Menu overview



7.4 Settings menu

The following basic settings can be adjusted in the settings menu:

- Pan
- Tilt
- Color
- Gobo 1

- Gobo 2
- R-Gobo
- Prism
- R-Prism
- Angle/Frost
- Focus

To go to the settings menu:

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position pan (pan offset)

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Pan'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position tilt (tilt offset)

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Tilt'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position colour wheel (color Offset)

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.

3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Color'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position Gobo 1

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Gobo 1'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position Gobo 2

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Gobo 2'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position for R gobo

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'R-Gobo'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.

6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position prism

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Prism'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position R prism (R prism adjustment)

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'R-Prism'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Setting zero position for angle / frost (angle/frost adjustment)

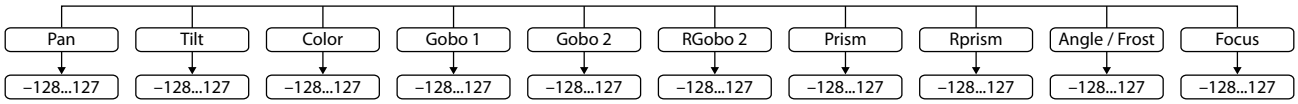
1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Angle/Frost'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.

7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

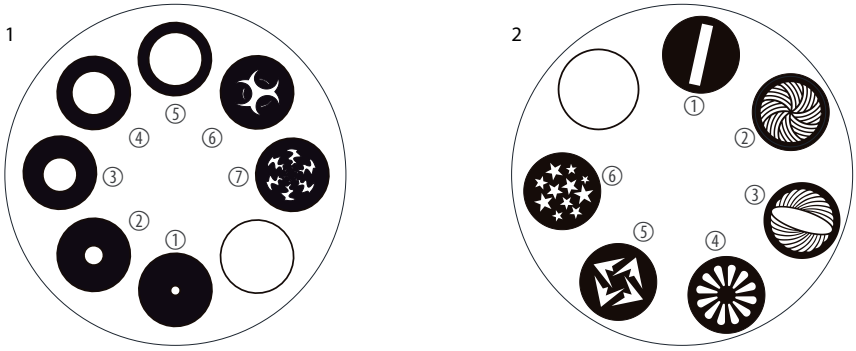
Setting zero position focus

1. Press *[MENU]*.
2. Press and hold *[ENTER]* for about 3 seconds.
   ⇨ The settings menu opens up.
3. Use *[UP]* and *[DOWN]* to navigate to menu item *'Focus'*.
4. Confirm your selection with *[ENTER]*.
5. Use *[UP]* and *[DOWN]* to select a value between –128 and 127.
6. Confirm your selection with *[ENTER]*.
   ⇨ The settings are saved and immediately effective.
7. To exit the settings menu, press *[MENU]* or wait for 30 seconds.

Overview (settings menu)



7.5 Gobos



7.6 Functions in 17-channel DMX mode

Channel	Value	Function
1	0…255	Rotation (0° up to the maximum value of the Pan area: 540°)
2	0…255	Inclination (0° up to the maximum value of the Tilt area: 270°)
3	0…255	Decreasing pan / tilt speed
4	Automatic shows	
	0…15	Zero
	16…063	Show 1
	064…127	Show 2
	128…191	Show 3
	192…255	Show 4
5	Pan / tilt macro	
	0…07	Off
	08…15	Macro 1
	16…23	Macro 2
	24…31	Macro 3
	32…39	Macro 4
	40…47	Macro 5
	48…55	Macro 6
	56…63	Macro 7
	64…71	Macro 8
	72…79	Macro 9

Channel	Value	Function
	80…87	Macro 10
	88…95	Macro 11
	96…103	Macro 12
	104…111	Macro 13
	112…119	Macro 14
	120…127	Macro 15
	128…135	Macro 16
	136…143	Macro 17
	144…151	Macro 18
	152…159	Macro 19
	160…167	Macro 20
	168…175	Macro 21
	176…183	Macro 22
	184…191	Macro 23
	192…199	Macro 24
	200…207	Macro 25
	208…215	Macro 26
	216…223	Macro 27
	224…231	Macro 28
	232…239	Macro 29
	240…247	Macro 30
	248…255	Macro 31
6	Macro speed	
	0…255	Decreasing macro speed
7	Colour wheel	
	0…15	White
	16…18	White + red
	19…21	Red
	22…24	Red + orange
	25…27	Orange
	28…30	Orange + yellow
	31…33	Yellow

Channel	Value	Function
	34…36	Yellow + green
	37…39	Green
	40…42	Green + blue
	43…45	Blue
	46…48	Blue + magenta
	49…51	Magenta
	52…54	Magenta + bright blue
	55…57	Light blue
	58…60	Bright blue + pink
	61…63	Pink
	64…127	Fixed position of colour wheel
	128…189	Run-through counter-clockwise (decreasing)
	190…193	Stop
	194…255	Run-through clockwise (increasing)
8	Gobo wheel 1	
	0…07	Open
	08…16	Gobo 1-1
	17…25	Gobo 1-2
	26…34	Gobo 1-3
	35…43	Gobo 1-4
	44…52	Gobo 1-5
	53…61	Gobo 1-6
	62…67	Gobo 1-7
	68…127	Gobo 1 1-7 with gobo shake effect
	128…189	Run-through counter-clockwise (decreasing)
	190…193	Stop
	194…255	Run-through clockwise (increasing)
9	Gobo wheel 2	
	0…07	Open
	08…16	Gobo 2-1
	17…25	Gobo 2-2
	26…34	Gobo 2-3

Channel	Value	Function
	35…43	Gobo 2-4
	44…52	Gobo 2-5
	53…61	Gobo 2-6
	62…127	Gobo 2 1-6
	128…189	Run-through counter-clockwise (decreasing)
	190…193	Stop
	194…255	Run-through clockwise (increasing)
10	Gobo rotation	
	0…127	Fixed position of gobo wheel
	128…189	Rotation clockwise (decreasing)
	190…193	Stop
	194…255	Rotation counter-clockwise (increasing)
11	Angle/Frost	
	0…07	Off
	08…128	Angle
	129…255	Frost
12	Prism	
	0…07	No effect
	08…255	Prism effect
13	Prism rotation	
	0…127	Index
	128…189	Rotation counter-clockwise (decreasing)
	190…193	Stop
	194…255	Rotation clockwise (increasing)
14	Focus	
	0…255	0 % … 100 %
15	Shutter	
	0…07	Off
	08…15	On
	16…131	Increasing stroboscope effect
	132…139	Open
	140…181	Pulse open effect (slow to fast)

Channel	Value	Function
	182…189	Open
	190…231	Pulse close effect (slow to fast)
	232…239	Open
	240…247	Random stroboscope effect
	248…255	Open
16	Dimmer	
	0…255	0 % … 100 %
17	Special functions	
	0…69	No function
	70…79	Blackout during pan / tilt movement
	80…89	No function
	90…99	Blackout during colour wheel movement
	100…109	No function
	110…119	Blackout during gobo wheel movement
	120…139	No function
	140…149	Pan / tilt reset
	150…159	Effect reset
	160…199	No function
	200…209	All reset
	210…219	Blackout during pan / tilt movement and gobo or colour wheel movement
	220…255	No function

7.7 Functions in 20-channel DMX mode

Channel	Value	Function
1	Pan movement	
	0…255	Rotation (0° up to the maximum value of the Pan area: 540°)
2	Pan movement (fine)	
	0…255	Pan fine
3	Tilt movement	
	0…255	Inclination (0° up to the maximum value of the Tilt area: 270°)
4	Tilt movement (fine)	

Channel	Value	Function
	0…255	Tilt fine
5	Pan / tilt speed	
	0…255	Decreasing
6	Automatic shows	
	0…15	Zero
	16…063	Show 1
	064…127	Show 2
	128…191	Show 3
	192…255	Show 4
7	Pan / tilt macro	
	0…07	Off
	08…15	Macro 1
	16…23	Macro 2
	24…31	Macro 3
	32…39	Macro 4
	40…47	Macro 5
	48…55	Macro 6
	56…63	Macro 7
	64…71	Macro 8
	72…79	Macro 9
	80…87	Macro 10
	88…95	Macro 11
	96…103	Macro 12
	104…111	Macro 13
	112…119	Macro 14
	120…127	Macro 15
	128…135	Macro 16
	136…143	Macro 17
	144…151	Macro 18
	152…159	Macro 19
	160…167	Macro 20
	168…175	Macro 21

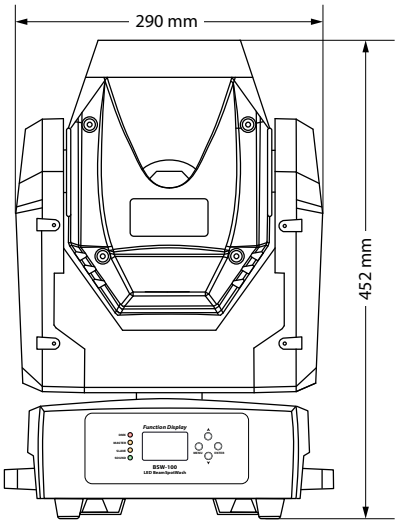
Channel	Value	Function
	176…183	Macro 22
	184…191	Macro 23
	192…199	Macro 24
	200…207	Macro 25
	208…215	Macro 26
	216…223	Macro 27
	224…231	Macro 28
	232…239	Macro 29
	240…247	Macro 30
	248…255	Macro 31
8	Macro speed	
	0…255	Decreasing speed
9	**Colour wheel**	
	0…15	White
	16…18	White + red
	19…21	Red
	22…24	Red + orange
	25…27	Orange
	28…30	Orange + yellow
	31…33	Yellow
	34…36	Yellow + green
	37…39	Green
	40…42	Green + blue
	43…45	Blue
	46…48	Blue + magenta
	49…51	Magenta
	52…54	Magenta + bright blue
	55…57	Light blue
	58…60	Bright blue + pink
	61…63	Pink
	64…127	Fixed position of colour wheel
	128…189	Run-through counter-clockwise (decreasing)

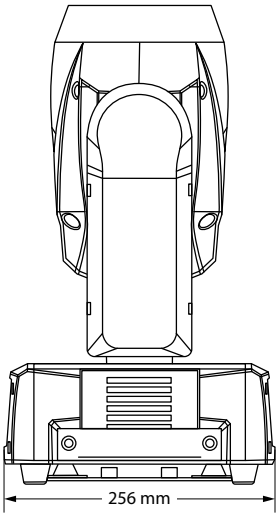
Channel	Value	Function
	190…193	Stop
	194…255	Run-through clockwise (increasing)
10	Gobo wheel 1	
	0…07	Open
	08…16	Gobo 1-1
	17…25	Gobo 1-2
	26…34	Gobo 1-3
	35…43	Gobo 1-4
	44…52	Gobo 1-5
	53…61	Gobo 1-6
	62…67	Gobo 1-7
	68…127	Gobo 1 1-7 with gobo shake effect
	128…189	Run-through counter-clockwise (decreasing)
	190…193	Stop
	194…255	Run-through clockwise (increasing)
11	Gobo wheel 2	
	0…07	Open
	08…16	Gobo 2-1
	17…25	Gobo 2-2
	26…34	Gobo 2-3
	35…43	Gobo 2-4
	44…52	Gobo 2-5
	53…61	Gobo 2-6
	62…127	Gobo 2 1-6
	128…189	Run-through counter-clockwise (decreasing)
	190…193	Stop
	194…255	Run-through clockwise (increasing)
12	Gobo rotation	
	0…127	Fixed position of gobo wheel
	128…189	Rotation clockwise (decreasing)
	190…193	Stop
	194…255	Rotation counter-clockwise (increasing)

Channel	Value	Function
13	Angle/Frost	
	0…07	Off
	08…128	Angle
	129…255	Frost
14	Prism	
	0…07	No effect
	08…255	Prism effect
15	Prism rotation	
	0…127	Index
	128…189	Rotation counter-clockwise, decreasing speed
	190…193	Stop
	194…255	Rotation clockwise, increasing speed
16	Focus	
	0…255	0% → 100%
17	Shutter	
	0…07	Off
	08…15	On
	16…131	Stroboscope effect, (slow to fast)
	132…139	Open
	140…181	Pulse open effect (slow to fast)
	182…189	Open
	190…231	Pulse close effect (slow to fast)
	232…239	Open
	240…247	Random stroboscope effect
	248…255	Open
18	Dimmer	
	0…255	0 % … 100 %
19	Dimmer fine	
	0…255	Dimmer fine
20	Special functions	
	0…69	No function
	70…79	Blackout during pan / tilt movement

Channel	Value	Function
	80…89	No function
	90…99	Blackout during colour wheel movement
	100…109	No function
	110…119	Blackout during gobo wheel movement
	120…139	No function
	140…149	Pan / tilt reset
	150…159	Effect reset
	160…199	No function
	200…209	All reset
	210…219	Blackout during pan / tilt movement and gobo or colour wheel movement
	220…255	No function

8 Technical specifications





Light source	1 × 100 W	
Light source properties	Colour temperature	8500…9200 K
	Colour rendering index	CRI, RA
Optical properties	Beam angle	2°…28°
Rotation angle (pan), max.		540°
Inclination angle (tilt), max.		270°
Control	DMX or via buttons and display on the unit	
Number of DMX channels	17 or 20	
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR chassis plugs, 3- and 5-pin
Output connections	Power supply of further devices	Lockable output socket (Power Twist)
	DMX control	XLR chassis sockets, 3- and 5-pin
Power consumption	189 W	
Supply voltage	AC 100 – 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 5 A, 250 V, slow-blow	
Degree of protection	IP20	
Mounting options	Hanging, standing	
Dimensions (W × H × D), when the light beam points upwards	290 mm × 256 mm × 452 mm	
Weight	12 kg	

Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20 %…80 % (non-condensing)

Further information

Rotating gobos	Yes
Static gobos	Yes
Motorized focus	Yes
Colour mixture	Colour wheel
Prism	Yes
Iris	No
Zoom	No
Number of colour wheels	1

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

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 input or output to audio devices such as mixers or amplifiers.

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	Check the mains power connection and the main fuse.
No response to the DMX controller	1. The DMX indicator should light up. If it doesn't, check DMX connectors and cables for proper connection.
	2. If the DMX indicator lights up but with no response, check the address settings and DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables lie near or adjacent to high voltage cables, which could cause damage or interference with a DMX interface circuit.

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

11 Cleaning

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 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 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 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.

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