



Hero Spot 230

User manual

moving head

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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. Note 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!

Risk of fire by exceeding the maximum current

The device can power further devices via a lockable Power Twist output socket. The current consumption of all further devices connected in series must not exceed the value stated in the technical specifications, otherwise injuries and irreparable damage to the device can occur.

Only connect as many devices to the output socket that the maximum current consumption is not exceeded.

Pay attention to the correct dimensioning (core cross-section) of the power cables used for all devices connected in series.



NOTICE!

Possible staining

The plasticiser contained in the rubber feet of this product may possibly react with the coating of your parquet, linoleum, laminate or PVC floor and after some time cause permanent dark stains.

In case of doubt, do not put the rubber feet directly on the floor, but use felt-pad floor protectors or a carpet.



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!

Risk of fire and overheating

The distance between light source and the illuminated surface must be more than 6 m (19.7 ft).

Provide sufficient ventilation.

The ambient temperature must always be below 40 °C.



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.

3 Features

Special features of the device:

- 1 × 230 W LED
- Beam angle 11°...25°
- Motorised zoom and focus
- Two moving axes
 - Tilt (260°)
 - Pan (540°)
- Control via DMX (6 or 18 channels) or buttons and display on the unit
- Built-in automatic show programmes
- Sound control
- Master / Slave mode
- Strobe effect
- Electronic dimmer
- Selectable dimmer curves
- Circular and linear prism
- Gobo wheel with 7 rotatable gobos
- Gobo wheel with 7 static gobos
- Colour wheel with 7 colours
- Robust metal and plastic housing

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. Note that the movement of the head places additional loads on the load-bearing parts.



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).



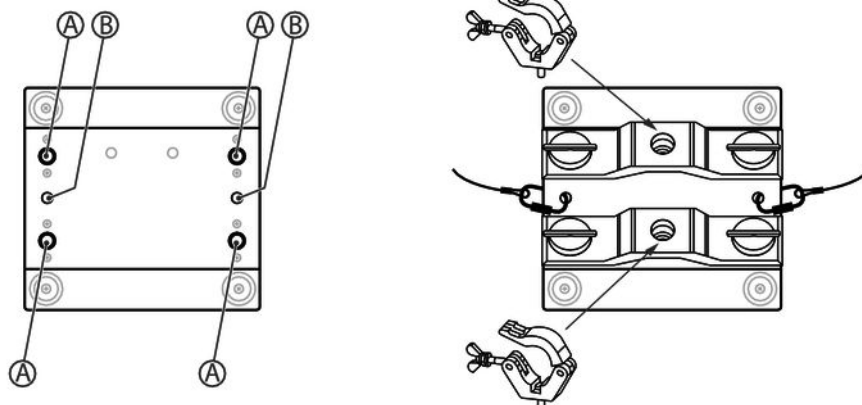
NOTICE!

Possible 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.

Mounting options



The Quick Lock mounts on the bottom side of the housing (A) allow the secure attachment of the included mounting brackets. There, you can fasten adapters such as half couplers, trigger clamps, c-hooks etc. Safety cables are being threaded through the safety eyelets (B) on the bottom side of the housing.



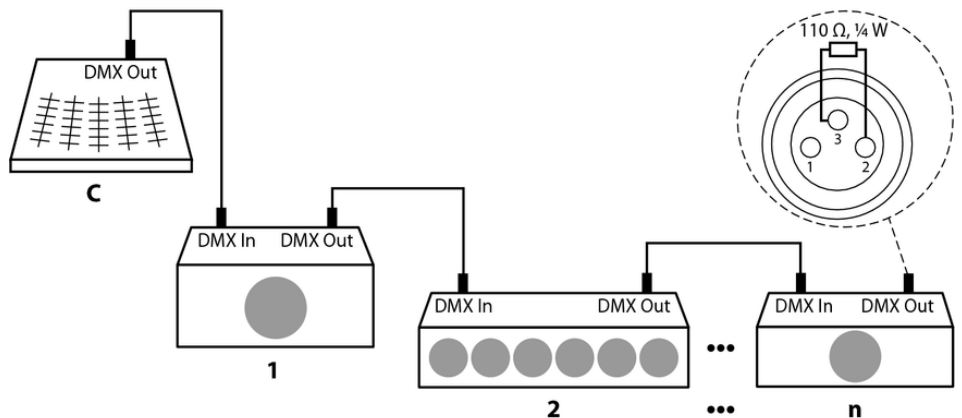
Please note that this device must not be connected to a dimmer.

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 ($110\ \Omega$, $\frac{1}{4}\ \text{W}$).



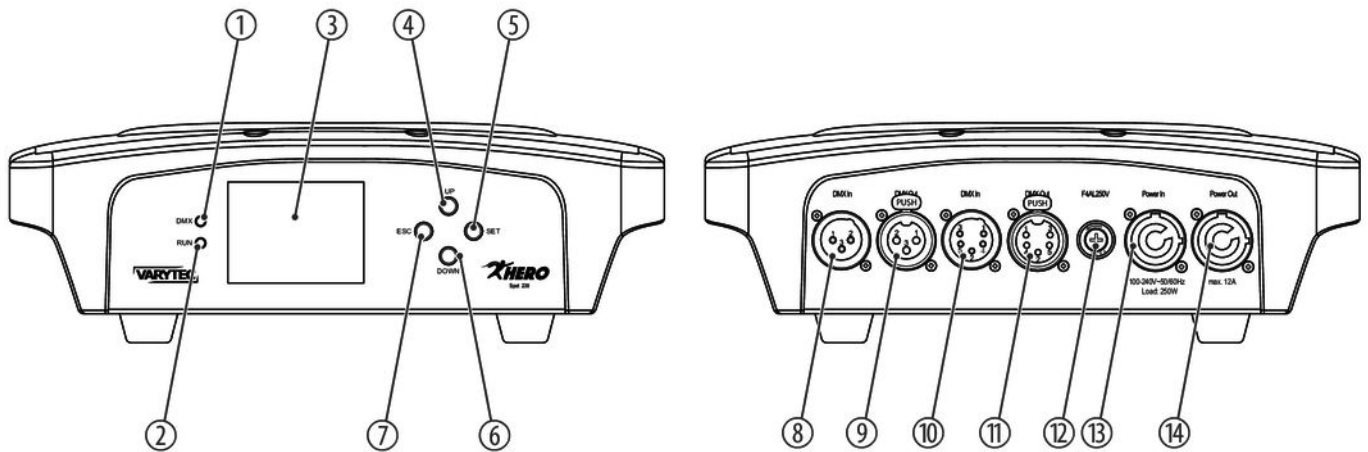
DMX indicator

When the device and the DMX controller are in operation and a DMX signal is received at the input, the status LED [DMX] lights up.

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



- | | |
|----|--|
| 1 | [DMX]
Status LED. The LED lights up as soon as a DMX signal is present. |
| 2 | [RUN]
Status LED. This LED lights up once the device is operational. |
| 3 | Display |
| 4 | [UP]
Increases the displayed value by one. |
| 5 | [SET]
Activates the main and settings menu. Selects an option of the respective operating mode, confirms the set value. |
| 6 | [DOWN]
Decreases the displayed value by one. |
| 7 | [ESC]
Closes an open submenu without saving any changes. |
| 8 | [DMX In]
DMX input, designed as XLR panel plug, 3-pin |
| 9 | [DMX Out]
DMX output, designed as XLR panel socket, 3-pin |
| 10 | [DMX In]
DMX input, designed as XLR panel plug, 5-pin |

Connections and controls

11	<i>[DMX Out]</i> DMX output, designed as XLR panel socket, 5-pin
12	Fuse holder
13	<i>[Power In]</i> Lockable input socket (Power Twist) for mains power supply
14	<i>[Power Out]</i> Lockable output socket (Power Twist) for powering a connected device Output current 12 A max.

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). The device is now operational.

7.2 Main menu

Press *[SET]* to activate the main menu.

Use *[UP]* and *[DOWN]* to change the respectively displayed value. When the display shows the desired value, press *[SET]*.

To exit the menu item without making changes, press *[ESC]*.

If you don't press any button for 30 seconds the display turns off. A short press on *[ESC]*, *[SET]*, *[UP]* or *[DOWN]* will then turn it back on.

All previous settings are retained even when you switch the device off and disconnect it from the mains.

DMX address

Use the 'DMX Address' menu to set the DMX address.

1. ➤ Press *[SET]* to activate the main menu.
2. ➤ Use *[UP]* or *[DOWN]* until the display shows 'DMX Address' and confirm with *[SET]*.
3. ➤ Use *[UP]* or *[DOWN]* to select a value between '001' and '512' to set the desired DMX address and confirm with *[SET]*.

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
6-channel mode	507
18-channel mode	495

7.3 Operating modes

Set the DMX mode in the 'Running Mode' menu.

DMX mode

1. ▶ Press [SET] to activate the main menu.
2. ▶ Use [UP] or [DOWN] until the display shows 'Running Mode' and confirm with [SET].
3. ▶ Use [UP] or [DOWN] to select one of the two DMX modes (6-channel mode or 18-channel mode, display shows 'DMX 6CH Mode' or 'DMX 18CH Mode') and confirm with [SET].
⇒ The device is now controlled by a DMX controller.

Auto programmes

In this operating mode you select one of the automatic programmes and adjust the speed as well as the overall brightness of the automatic programme.

1. ▶ Press [SET] to activate the main menu.
2. ▶ Press [UP] or [DOWN] until the display shows 'Running Mode' and confirm with [SET].
3. ▶ Press [UP] or [DOWN] until the display shows 'Auto' and confirm with [SET].
4. ▶ Press [UP] or [DOWN] to select the desired submenu or the desired value and confirm with [SET].

The following sub menus are available:

Menu level 3	Menu level 4	Description
'Program'	'Program 1... Program 8'	Automatic programme 1...8
'Speed'	'0' ... '100'	Running speed from slow to fast
'Master Brightness'	'0' ... '100 %'	Overall brightness

⇒ The device plays the selected show in an endless loop.

Sound control

In this mode, the unit follows the rhythm of the background music or sounds detected by the built-in microphone.

1. ▶ Press *[SET]* to activate the main menu.
2. ▶ Press *[UP]* or *[DOWN]* until the display shows 'Running Mode' and confirm with *[SET]*.
3. ▶ Press *[UP]* or *[DOWN]* until the display shows 'Sound' and confirm with *[SET]*.
4. ▶ Press *[UP]* or *[DOWN]* to select the desired submenu or the desired value and confirm with *[SET]*.

The following sub menus are available:

Menu level 3	Menu level 4	Description
'Program'	'Program 1... Program 8'	Sound controlled programme 1...8
'Sensitivity'	'0' ... '100'	Microphone sensitivity from low to high
'Master Brightness'	'0' ... '100 %'	Overall brightness

⇒ The device plays the selected show in an endless loop.

Master / slave mode

To use a device as the master device, select one of the automatic programmes, activate the sound control or the manual control. Connect the slave devices to the DMX output of the master device and select the DMX mode.

Manual operating on the unit

In the 'Running Mode' menu, you can make manual settings for the device parameters.

1. ➤ Press [SET] to activate the main menu.
2. ➤ Use [UP] or [DOWN] until the display shows 'Running Mode' and confirm with [SET].
3. ➤ Use [UP] or [DOWN] to select the menu item 'Manual Control' and confirm with [SET].
4. ➤ Use [UP] or [DOWN] to select the desired parameter and confirm with [SET].

The following sub menus are available:

Menu level 3	Menu level 4/5	Description
'Pan'	'0' ... '540'	Setting the angle of rotation
'Tilt'	'0' ... '260'	Setting the angle of inclination
'Pan/Tilt Speed'	'0' ... '255'	Setting the speed of pan and tilt, increasing speed
'Dimmer'	'0' ... '255'	Setting the dimmer intensity
'Strobe'	'0' ... '30'	Setting the frequency of the stroboscope, increasing speed
'Color'	Colour setting	Setting one of the seven colours of the colour wheel or white (value ranges such as 18-channel DMX mode, see Chapter 7.9 'Functions in 18-channel DMX mode' on page 28)
	'color flow forward' '0' ... '255'	Speed for colour change clockwise, increasing speed
	'color flow backward' '0' ... '255'	Speed for colour change counterclockwise, increasing speed
'Fixed Gobo'	Static Gobo wheel	Setting one of the seven static Gobos
	'gobo flow forward' '0' ... '255'	Speed for gobo pass clockwise, increasing speed
	'gobo flow backward' '0' ... '255'	Speed for gobo pass counterclockwise, increasing speed
'Rotatable Gobo'	Rotatable gobo wheel	Setting one of the seven rotatable gobos
	'gobo flow forward' '0' ... '255'	Speed for gobo pass clockwise, increasing speed

Menu level 3	Menu level 4/5	Description
	'gobo flow backward' '0' ... '255'	Speed for gobo pass counterclockwise, increasing speed
'Gobo Rotation'	'0' ... '255'	Setting the gobo rotation speed, increasing speed
'Focus'	'0' ... '255'	Setting the initial focus setting
'Prism'	'off'	Deactivating the prism
	'Circular'	Adjusting the circular prism
	'Linear'	Adjusting the linear prism
'Prism Rotation'	'stop'	Deactivating rotation
	'Forward' '0' ... '255'	Setting the rotation speed of the prism clockwise, increasing speed
	'Backward' '0' ... '255'	Setting the rotation speed of the prism counterclockwise, increasing speed
'Zoom'	'0' ... '255'	Setting zoom


7.4 Settings

Use the 'Setting' menu to adjust the basic device parameters.

1. ➤ Press [SET] to activate the main menu.
2. ➤ Use [UP] or [DOWN] until the display shows 'Setting' and confirm with [SET].

3. Use [UP] or [DOWN] to select the desired parameter.

The following sub menus are available:

Menu level 2	Menu level 3/4	Description
'Pan Reverse'	Pan inversion	
	'YES'	reversed direction of rotation
	'NO'	normal direction of rotation
'Tilt Reverse'	Tilt inversion	
	'YES'	reversed direction of inclination
	'NO'	normal direction of inclination
'Pan Limit'	'Starting point' '0' ... '539'	Starting point of the rotation angle
	'Ending point' '1' ... '540'	Ending point of the rotation angle
'Tilt Limit'	'Starting point' '0' ... '259'	Starting point of the inclination angle
	'Ending point' '1' ... '260'	Ending point of the inclination angle
'Home Position'	Setting the start parameters Detailed information about this menu item can be found under  'Setting the start parameters' on page 24.	
'DMX Fail'	Behaviour on DMX control failure	
	'Hold'	last DMX signal is being held
	'Blackout'	Blackout on DMX failure
	'Auto Mode'	Automatic programmes mode on DMX failure
	'Manual Control'	Manual mode on DMX failure
	'Sound Mode'	Sound control on DMX failure
'Dimmer Curve'	Dimmer curves	
	'Linear'	linear proportional course
	'Exponential'	square curve with a flat course at the beginning and steep course at the end
	'Logarithmic'	Inverted square curve with a steep course at the beginning and a flat course at the end
	'S Curve'	Non-linear curve with a distinctive flat course at the beginning and end

Menu level 2	Menu level 3/4	Description
'Fan Mode'	Fan setting	
	'Max'	maximum speed
	'Automatic'	temperature-dependent speed
	'Silent'	quiet mode with possible reduction of light output
'Blackout'	Blackout of the device	
	'No'	Blackout off
	'If XY run'	Blackout if Pan or Tilt active
	'If colour wheel run'	Blackout if colour wheel active
	'If gobo wheel run'	Blackout if Gobo wheel active
'PWM'	Pulse-width modulation Options: '650Hz', '1530Hz', '3600Hz', '12KHz' or '25KHz'.	
'Auto Correction'	Auto-correction Pan and Tilt	
	'ON'	Auto-correction activated. The device returns to its starting position if the moving head is unintentionally adjusted
	'OFF'	Auto-correction disabled (not recommended)
'Display Backlight'	Display illumination	
	'ON'	Illumination permanently on
	'OFF'	Illumination is switched off after 60 seconds
'Display Reverse'	Display reversal	
	'ON'	Text in the display appears upside down
	'OFF'	Text in the display appears normal
'Autolock'	Key lock	
	'ON'	automatic lock switched on If the key lock is activated, all keys have no function after 60 seconds. To cancel the key lock, press [SET] for 5 seconds.
	'OFF'	automatic lock switched off
'Test'	Function test	

Menu level 2	Menu level 3/4	Description
	'Start'	Press [SET] to start the function test. Caution! The device is moving. Press [ESC] to stop the test.
'Reset Motor'	Resetting the motor	
	'YES'	Motor reset
	'NO'	no motor reset
'Factory Reset'	Reset to factory defaults	
	'YES'	Reset to factory defaults
	'NO'	no reset to factory defaults

Setting the start parameters

Use the 'Home Position' menu to adjust the start parameters of the device.

1. ➤ Press [SET] to activate the main menu.
2. ➤ Use [UP] or [DOWN] until the display shows 'Settings' and confirm the setting with [SET].
3. ➤ Use [UP] or [DOWN] to select the submenu 'Home Position' and confirm with [SET].
 - ⇒ The device prompts you to enter a password.
Press [UP] or [DOWN] repeatedly until the display shows '018' and confirm the selection with [SET].

4. Use [UP] or [DOWN] to select the parameter you want to set and confirm with [SET].

The following sub menus are available:

Menu level 3	Menu level 4	Description
'Pan'	'-128' ... '127'	Setting the home position of the rotary movement
'Tilt'	'-128' ... '127'	Setting the home position of the inclination movement
'Dimmer'	'0' ... '255'	Setting the initial dimmer intensity
'Color'	'-128' ... '127'	Specifying the initial colour wheel setting
'Fixed Gobo'	'-128' ... '127'	Specifying the initial setting for the static gobo wheel
'Rotatable Gobo'	'-128' ... '127'	Specifying the initial setting for the rotatable gobo wheel
'Focus'	'-128' ... '127'	Specifying the initial focus setting
'Zoom'	'-128' ... '127'	Specifying the initial zoom setting
'Prism'	'-128' ... '127'	Specifying the initial prism setting
'Gobo Rotation'	'-128' ... '127'	Specifying the initial rotation setting

7.5 System information

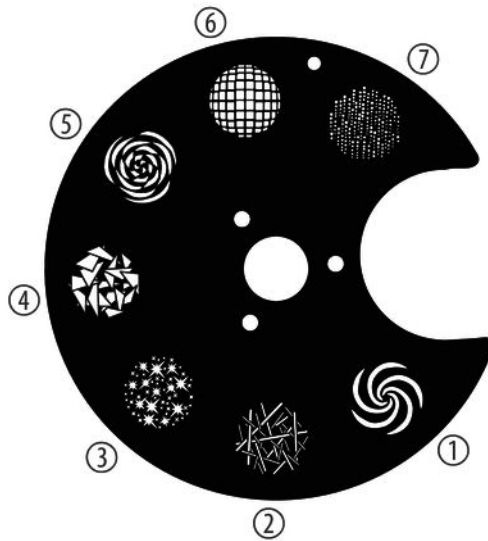
Use the 'System Info' menu to call up information about the system.

- Press [SET] to activate the main menu.
- Use [UP] or [DOWN] until the display shows 'System Info' and confirm the setting with [SET].
- Use [UP] or [DOWN] to select the information you want to display and confirm with [SET].

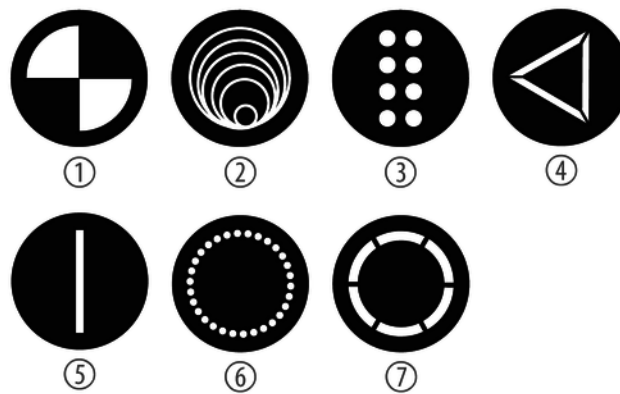
Parameter	Function
'Current Time'	Displays the current running time of the device.
'Total Time'	Displays the total running time of the device.
'LED on Time'	Displays the total running time of the LED.
'Current Mode'	Displays the current operating mode.
'Temperature Head'	Displays the current head temperature.
'Temperature Base'	Displays the current temperature of the device base.
'Software Version'	Displays the current software version.

7.6 Gobos

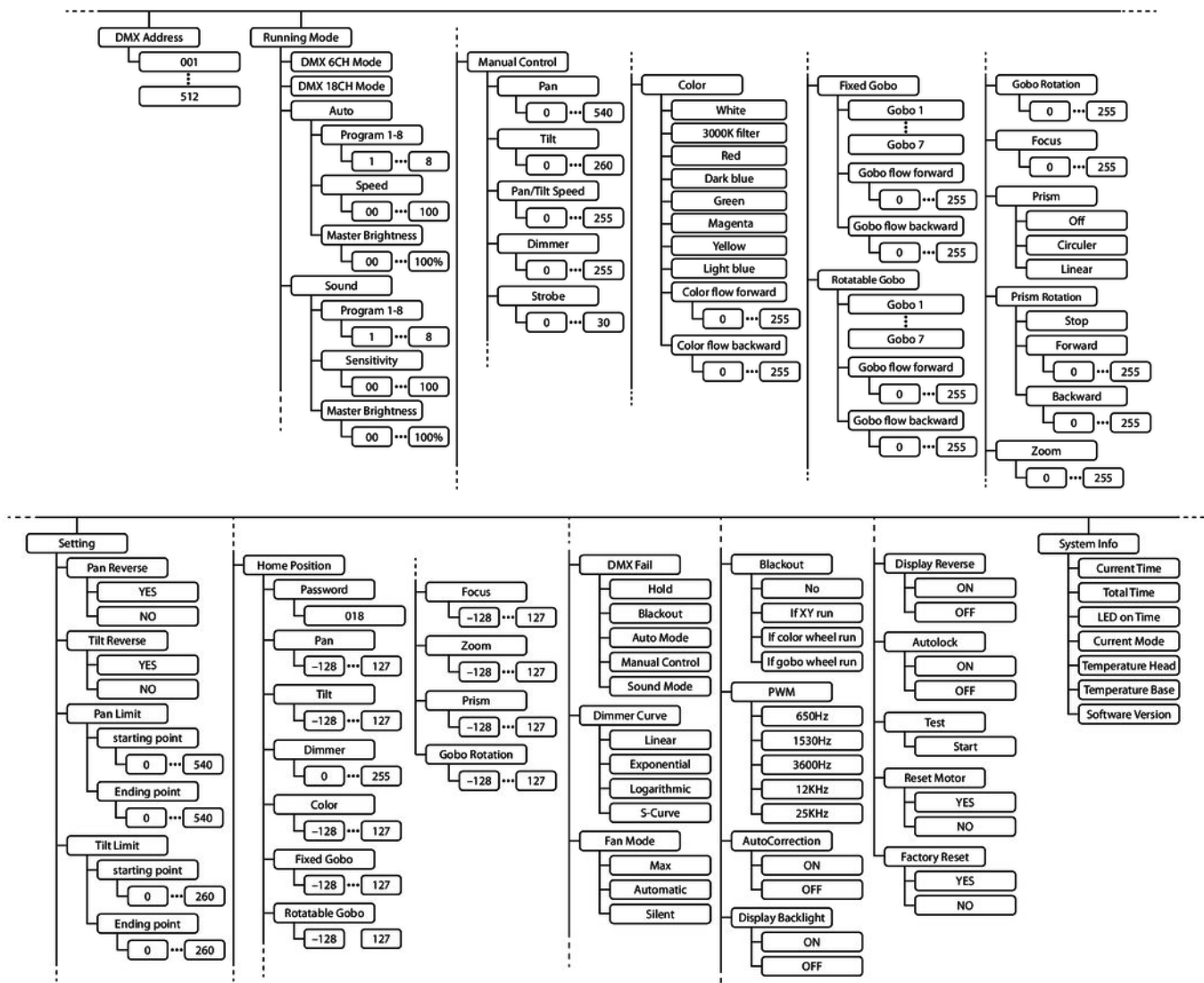
Static Gobo wheel



Rotatable gobo wheel



7.7 Menu overview



7.8 Functions in 6-channel DMX mode

Channel	Value	Function
1	0...255	Rotation (pan) (0° up to the maximum value of the Pan range)
2	0...255	Inclination (tilt) (0° up to the maximum value of the Tilt area)
3	0...255	Dimmer intensity from dark (0) to bright (255)
4	Stroboscope	
	0...10	LEDs off

Channel	Value	Function
	11...80	Constantly increasing brightness, increasing speed (dimmed bright, quickly dark)
	81...140	Constantly decreasing brightness, increasing speed (quickly bright, dimmed dark)
	141...200	Impulse effect, increasing speed (dimmed light and dark)
	201...250	Strobe effect, constant (0.5...20 Hz)
	251...255	LEDs on
5	0...7	No function
	8...47	Preprogrammed automatic show 1
	48...87	Preprogrammed automatic show 2
	88...127	Preprogrammed automatic show 3
	128...167	Preprogrammed automatic show 4
	168...207	Preprogrammed automatic show 5
	208...247	Preprogrammed automatic show 6
	248...255	Sound control colour wheel
6	0...7	No function
	8...32	Pan-Tilt auto programme 1
	33...58	Pan-Tilt auto programme 2
	59...84	Pan-Tilt auto programme 3
	85...110	Pan-Tilt auto programme 4
	111...136	Pan-Tilt auto programme 5
	137...162	Pan-Tilt auto programme 6
	163...188	Pan-Tilt auto programme 7
	189...214	Pan-Tilt auto programme 8
	215...255	Sound control Pan and Tilt

7.9 Functions in 18-channel DMX mode

Channel	Value	Function
1	0...255	Rotation (pan) (0° up to the maximum value of the Pan range)
2	0...255	Fine adjustment rotation (pan)
3	0...255	Inclination (tilt) (0° up to the maximum value of the Tilt area)
4	0...255	Fine adjustment inclination (tilt)
5	0...255	Speed of rotation (pan) and inclination (tilt), fast (0) to slow (255)

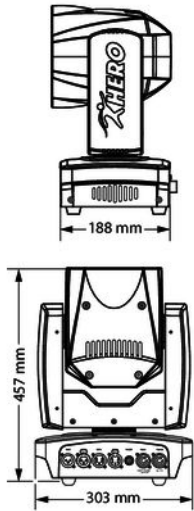
Channel	Value	Function
6	0...255	Dimmer intensity from dark (0) to bright (255)
7	Stroboscope	
	0...10	LEDs off
	11...80	Constantly increasing brightness, increasing speed (dimmed bright, quickly dark)
	81...140	Constantly decreasing brightness, increasing speed (quickly bright, dimmed dark)
	141...200	Impulse effect, increasing speed (dimmed light and dark)
	201...250	Strobe effect, constant (0.5...20 Hz)
	251...255	LEDs on
8	Colour wheel	
	0...4	Open (white)
	5...13	White / 3000 K filter
	14...22	3000 K filter
	23...31	3000 K filter / red
	32...40	Red
	41...49	Red / dark blue
	50...58	Dark blue
	59...67	Dark blue / green
	68...76	Green
	77...85	Green / magenta
	86...94	Magenta
	95...103	Magenta / yellow
	104...112	Yellow
	113...121	Yellow / light blue
	122...130	Bright blue
	131...139	Open (white)
	140...195	Rainbow effect, rotation clockwise, decreasing speed
	196...199	Stop rotation
	200...255	Rainbow effect, rotation counter-clockwise, increasing speed
9	static Gobo wheel	
	0...7	Open (white)
	8...17	Gobo 1
	18...27	Gobo 2

Channel	Value	Function
	28...37	Gobo 3
	38...47	Gobo 4
	48...57	Gobo 5
	58...67	Gobo 6
	68...77	Gobo 7
	78...87	Gobo 1 shake, increasing speed
	88...97	Gobo 2 shake, increasing speed
	98...107	Gobo 3 shake, increasing speed
	108...117	Gobo 4 shake, increasing speed
	118...127	Gobo 5 shake, increasing speed
	128...137	Gobo 6 shake, increasing speed
	138...147	Gobo 7 shake, increasing speed
	148...199	Gobo pass, rotation clockwise, decreasing speed
	200...203	Stop rotation
	204...255	Gobo pass, rotation counter-clockwise, increasing speed
10	Rotatable gobo wheel	
	0...7	Open (white)
	8...17	Gobo 1
	18...27	Gobo 2
	28...37	Gobo 3
	38...47	Gobo 4
	48...57	Gobo 5
	58...67	Gobo 6
	68...77	Gobo 7
	78...87	Gobo 1 shake, increasing speed
	88...97	Gobo 2 shake, increasing speed
	98...107	Gobo 3 shake, increasing speed
	108...117	Gobo 4 shake, increasing speed
	118...127	Gobo 5 shake, increasing speed
	128...137	Gobo 6 shake, increasing speed
138...147	Gobo 7 shake, increasing speed	
148...199	Gobo pass, rotation clockwise, decreasing speed	

Channel	Value	Function
	200...203	Stop rotation
	204...255	Gobo pass, rotation counter-clockwise, increasing speed
11	Rotatable gobo wheel	
	0...7	Stop rotation
	8...47	Gobo index (static position)
	48...127	Gobo wheel 2, rotation clockwise, decreasing speed
	128...137	Stop rotation
	138...255	Gobo wheel 2, rotation counter-clockwise, increasing speed
12	0...255	Focus
13	0...255	Zoom
14	Prism	
	0...7	Open (white)
	8...99	Circular prism
	100...130	Open (white)
	131...255	Linear prism
15	Prism rotation	
	0...7	Stop rotation
	8...129	Prism, rotation clockwise, decreasing speed
	130...133	Stop rotation
	134...255	Prism, rotation counterclockwise, increasing speed
16	0...7	No function
	8...47	Preprogrammed automatic show 1
	48...87	Preprogrammed automatic show 2
	88...127	Preprogrammed automatic show 3
	128...167	Preprogrammed automatic show 4
	168...207	Preprogrammed automatic show 5
	208...247	Preprogrammed automatic show 6
	248...255	Sound-controlled show
17	0...7	No function
	8...32	Pan-Tilt auto programme 1
	33...58	Pan-Tilt auto programme 2
	59...84	Pan-Tilt auto programme 3

Channel	Value	Function
	85...110	Pan-Tilt auto programme 4
	111...136	Pan-Tilt auto programme 5
	137...162	Pan-Tilt auto programme 6
	163...188	Pan-Tilt auto programme 7
	189...214	Pan-Tilt auto programme 8
	215...255	Sound control Pan and Tilt
18	0...189	No function
	190...210	Reset, if the value is transmitted for at least 10 seconds
	211...255	No function

8 Technical specifications



Light source	1 × 230 W LED	
Optical properties	Beam angle	11°...25°, adjustable via motorised zoom
Rotation angle (pan), max.	540°	
Inclination angle (tilt), max.	260°	
Control	DMX, buttons and display on the unit	
Number of DMX channels	6, 18	
Input connections	Voltage supply	lockable input socket (Power Twist)
	DMX control	2 × XLR chassis plug, 3 and 5-pin
Output connections	Power supply for further devices	lockable output socket (Power Twist) Output current 12 A max.
	DMX control	2 × XLR chassis socket, 3 and 5-pin
Power consumption	250 W, max	
Operating supply voltage	100 - 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 4 A, 250 V, fast-acting	
Protection class	IP20	
Mounting options	hanging, standing	
Dimensions (W × H × D)	303 mm × 457 mm × 188 mm	
Weight	12.7 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	50 %, non-condensing

Further information

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

9 Plug and connection assignment

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')
3	Signal (DMX+, 'hot')

DMX connections



A five-pin XLR socket serves as DMX output, a five-pin XLR plug serves as DMX input. The drawing below and the table show the pin assignment of a matching coupling.

Pin	Assignment
1	Ground (shielding)
2	Signal inverted (DMX-, 'cold')
3	Signal (DMX+, 'hot')
4	unused / second connection (DMX-)
5	unused / second connection (DMX+)

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 connection and main fuse.
No response to the DMX controller	1. The status LED [DMX] should light up. If it doesn't, check the DMX connectors and cables for proper connection.
	2. If the status LED [DMX] lights up and there is no reaction, check the address settings and the 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.

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.

