VARYTEC

# Hero Pixel Wash 760FX

User Manual

Moving Head

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10.06.2024, ID: 557587

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HERO

# 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 – dangerous optical radiation. |
|  | Warning – suspended load. |
|  | 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!**

**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.

**WARNING!**

**Risk of injury caused by falling due to unsuitable trusses and other fixtures!**

If trusses or other fixtures are not designed for the weight of the intended number of moving heads, falling can cause severe injury and considerable damage. Before mounting, ensure that the load capacity of trusses and other fixtures is sufficient for the intended number of devices. Take into account any additional load that affects the load bearing parts due to the movement of the head. When installing and operating, make sure to follow the standards and regulations that apply in your country. Always secure devices with a secondary safety attachment, such as a safety cable or a safety chain.

**CAUTION!**

**Risk of injury due to unexpected movements of the device!**

The device head may perform fast movements and generate very bright light. This is the case immediately after the device is switched on, in automatic or remote operation, and when a connected DMX controller is switched off. Persons who are in the immediate vicinity of the device may be injured or frightened by this. Make sure that there are no obstacles within the movement range of the mirror, and that no persons are in the immediate vicinity of the head before switching it on and during its operation. Switch off the device before any work is performed in the movement range or immediate vicinity of the device, or if unauthorised persons are in that area.

**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 maximum permitted power consumption can be exceeded, 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 output current specified on the device and in the “Technical specifications” chapter of the user manual is not exceeded. Only use power cords with a cable cross-section designed for the required current intensity when connecting the devices in series.

**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.

**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!**

**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.

# 3 Features

The moving head is particularly suitable for professional lighting work at medium-sized events and clubs. With a large zoom range from narrow 6 ° beam to broad 50 ° wash, it is the perfect compact combination of wash and beam effects.

Special features of the device:

- Wash moving head pixel control
- Blade effect through rotating lens unit
- Pre-programmed pixel effects
- 7 × 60 W RGBW 4-in-1-LED from Osram
- LEDs can be controlled separately
- Beam angle: motorised zoom 6 °…50 °
- Electronic dimmer: 0…100 %, electronic shutter: 0…20 Hz, continuous FX rotation
- 16-bit pan/tilt: 540 °/220 °, with automatic pan and tilt correction
- Control: DMX (9/34/23/51 channels), master/slave
- Integrated automatic programmes
- LD display with four buttons
- Black metal and plastic housing
- Connections
  - DMX in and output: XLR 3pin + 5pin
  - Current in and output: Power Twist

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 due to unsuitable trusses and other fixtures!**

If trusses or other fixtures are not designed for the weight of the intended number of moving heads, falling can cause severe injury and considerable damage.

Before mounting, ensure that the load capacity of trusses and other fixtures is sufficient for the intended number of devices. Take into account any additional load that affects the load bearing parts due to the movement of the head.

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

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

**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!**

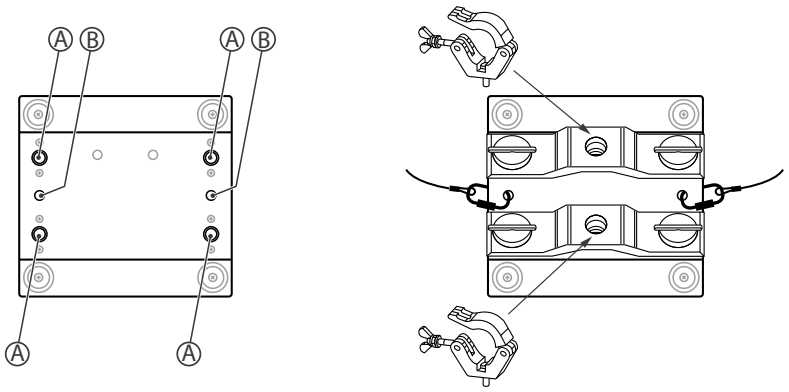
**Data transfer errors due to improper wiring!**

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.

**Mounting options**




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

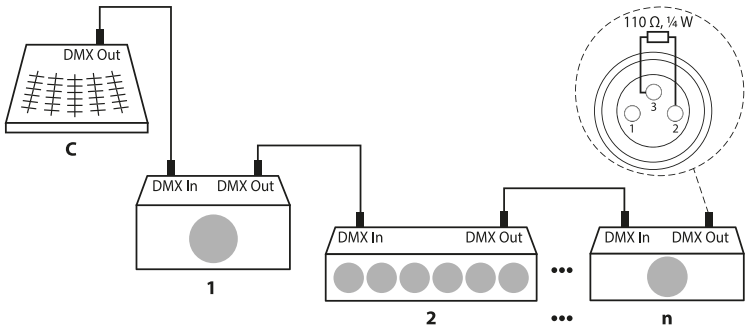
*Please note that this device must not be connected to a dimmer.*

# 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**

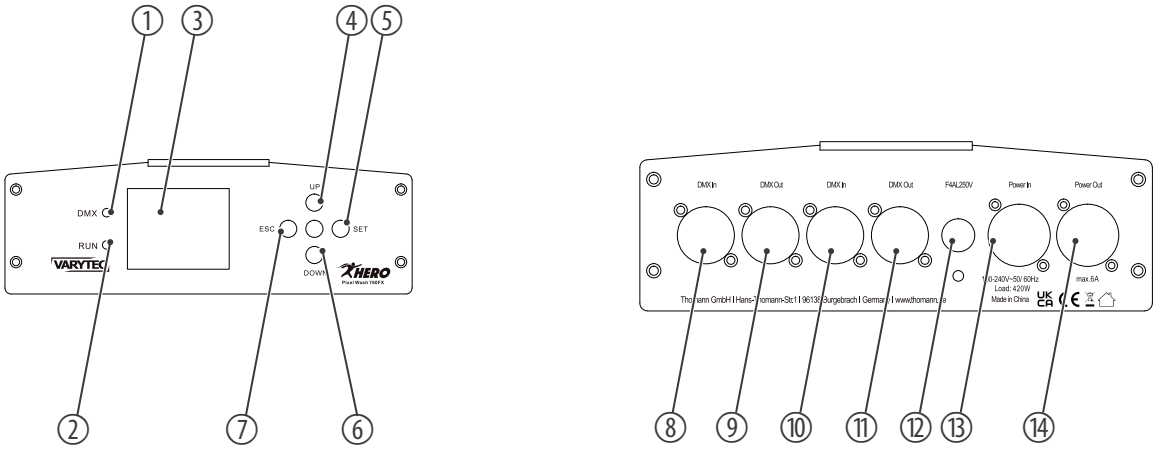
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor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




| | |
|---|---|
| 1 | *[DMX]* \| LED lights up when the unit is controlled via a DMX controller. |
| 2 | *[RUN]* \| LED lights up when the device is in operation. |
| 3 | Display |
| 4 | *[UP]* \| Increases the displayed value by one. |
| 5 | *[SET]* \| Activates the main and settings menu or 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 the 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 |
| 11 | *[DMX Out]* \| DMX output, designed as XLR panel socket, 5-pin |
| 12 | Fuse holder |
| 13 | *[Power In]* \| Lockable input socket (Power Twist) for mains power supply |
| 14 | *[Power Out]* \| Lockable output socket (Power Twist) for powering a connected device |

# 7 Operating

## 7.1 Starting the device

**CAUTION!**

**Risk of injury due to unexpected movements of the device!**

The device head may perform fast movements and generate very bright light. This is the case immediately after the device is switched on, in automatic or remote operation, and when a connected DMX controller is switched off. Persons who are in the immediate vicinity of the device may be injured or frightened by this.

Make sure that there are no obstacles within the movement range of the mirror, and that no persons are in the immediate vicinity of the head before switching it on and during its operation.

Switch off the device before any work is performed in the movement range or immediate vicinity of the device, or if unauthorised persons are in that area.

Connect the device to the power supply to start operation. After a few seconds, the fans start to work, and the head moves to the home positions for rotation (pan) and inclination (tilt). After a few more seconds, the display shows *'001'*. The device is now operational.

## 7.2 Main menu

**How to use the main menu**

1. Press *[SET]* to enter the main menu.
2. To scroll between the individual menu items, press *[UP]* and *[DOWN]*.
3. To open the selected menu item or confirm a value in a menu, press *[SET]*.
   ⇨ All previous settings are retained even when you switch the device off and disconnect it from the mains.
4. To exit a 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.*

## 7.3 Device settings

**Operating mode**

The device can be operated with a DMX controller or as an independent host.

1. Open the main menu.
2. Navigate to *'Fixture ➔ Run Mode'*.

3. Press *[UP]* or *[DOWN]* to select the required value and confirm the selection with *[SET]*.

   The following values are available:

| Menu level 3 | Description |
|---|---|
| *'DMX'* | The device is controlled by a DMX controller. |
| *'Host'* | The device can be controlled manually. |

**Setting the DMX address**

For operation with a DMX controller, it is necessary to set a DMX address.

1. Open the main menu.
2. Navigate to *'Dmx Address'*.
3. Press *[UP]* or *[DOWN]* to select a value between 1 and 512 for the desired DMX address (display shows *'000'* … *'512'*) and confirm the selection 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 |
|---|---|
| 9-channel mode | 504 |
| 34-channel mode | 479 |
| 23-channel mode | 490 |
| 51-channel mode | 462 |

**Setting the DMX mode**

For operation with a DMX controller, it is necessary to set a DMX mode.

1. Open the main menu.
2. Navigate to *'Fixture ➔ Dmx Mode'*.
3. Press *[UP]* or *[DOWN]* to select the desired DMX mode and confirm the selection with *[SET]*.

   The following DMX modes are available:

| Name | Description |
|---|---|
| *'9CH'* | 9-channel mode |
| *'34CH'* | 34-channel mode |
| *'23CH'* | 23-channel mode |
| *'51CH'* | 51-channel mode |

**Setting DMX signal mode**

You can specify how the device should behave in case of DMX signal loss.

1. Open the main menu.
2. Navigate to *'Fixture ➔ Dmx Signal'*.

3. Press *[UP]* or *[DOWN]* to select the required value and confirm the selection with *[SET]*.

   The following values are available:

| Menu level 3 | Description |
|---|---|
| *'Clear'* | If the DMX control fails, the device is blacked out. |
| *'Hold'* | If the DMX control fails, the last setting is retained. |

**Specifying pan and tilt invert**

You can specify how the device should behave for pan and tilt inversion.

1. Open the main menu.
2. Navigate to *'Fixture'*.
3. Press *[UP]* or *[DOWN]* to select the desired submenu or the desired value and confirm the selection with *[SET]*.

   The following submenus and values are available:

| Menu level 2 | Menu level 3 | Description |
|---|---|---|
| *'Pan Invert'* | *'Close'* | Pan reversal in opposite direction of rotation is activated. |
| | *'Open'* | Pan reversal in normal direction of rotation is activated. |
| *'Tilt Invert'* | *'Close'* | Tilt reversal in opposite direction of rotation is activated. |
| | *'Open'* | Tilt reversal in normal direction of rotation is activated. |

**Manual control**

Manual control is only possible and relevant if the device is not controlled via a DMX controller and not working as a slave in a master/slave configuration. Manual control can be used to adjust pan and tilt.

1. Open the main menu.
2. Navigate to *'Manual'*.
3. Press *[UP]* or *[DOWN]* to select the desired submenu or the desired value and confirm the selection with *[SET]*.

   The following submenus and values are available:

| Menu level 2 | Menu level 3 | Description |
|---|---|---|
| *'Pan'* | *'000…255'* | Adjusts the rotation angle. |
| *'Pan Fine'* | *'000…255'* | Adjusts the fine range of the rotation angle. |
| *'Tilt'* | *'000…255'* | Adjusts the tilt angle. |
| *'Tilt Fine'* | *'000…255'* | Adjusts the fine range of the tilt angle. |

## 7.4 Default settings

**Setting the start parameters**

You can adapt the default settings to your own requirements. To enable the submenus, you first have to enter a password.

1. Open the main menu.
2. Navigate to *'Factory ➔ Password'*.
3. Use *[UP]* and *[DOWN]* to enter the password *'018'* and confirm the selection with *[SET]*

   ⇨ The submenus are enabled.
4. Navigate to *'Factory'*.
5. Press *[UP]* or *[DOWN]* to select the desired submenu or the desired value and confirm the selection with *[SET]*.

   The following submenus and values are available:

| Menu level 2 | Menu level 3 | Description |
|---|---|---|
| *'Password'* | *'000…255'* | Password input ( *'018'*) to enable changes to the following default settings |
| *'Pan'* | *'000…255'* | Sets the home position of the rotation. |
| *'Tilt'* | *'000…255'* | Sets the home position of the tilt movement. |
| *'Zoom'* | *'000…255'* | Sets the home position of the zoom. |
| *'ZoomRo'* | *'000…255'* | Sets the home position for zoom rotation. |
| *'Red'* | *'000…255'* | Sets the initial intensity for red. |
| *'Green'* | *'000…255'* | Sets the initial intensity for green. |
| *'Blue'* | *'000…255'* | Sets the initial intensity for blue. |
| *'White'* | *'000…255'* | Sets the initial intensity for white. |

## 7.5 System information

Information about the running time, sensor function, temperature and software version of the device can be displayed.

1. Open the main menu.
2. Navigate to *'Information'*.
3. Press *[UP]* or *[DOWN]* to select the desired submenu and confirm the selection with *[SET]*.

   The following submenus are available:

| Menu level 2 | Menu level 3 | Description |
|---|---|---|
| *'Time'* | *'Current Time'* | Displays the current running time of the device. |
| | *'Total Time'* | Displays the total running time of the device. |
| | *'Power Count'* | Displays the total energy consumption of the device. |
| *'Sensor'* | | Displays the function of all sensors. |
| *'Temperature'* | *'Head Temp'* | Displays the current temperature of the spotlight head. |
| | *'Fan Speed'* | Displays the current fan speed. |
| *'Software Version'* | *'Panel'* | Displays the current software version of the panel. |
| | *'Motor'* | Displays the current software version of the motor. |
| | *'Dimmer'* | Displays the current software version of the dimmer. |

## 7.6 Device reset

If necessary, it is possible to fully reset the device, or to reset the motor drive on its own.

1. Open the main menu.
2. Navigate to *'Fixture Reset'*.

3. Press *[UP]* or *[DOWN]* to select the desired submenu or the desired value and confirm the selection with *[SET]*.

   The following submenus and values are available:

| Menu level 2 | Menu level 3 | Description |
|---|---|---|
| *'Motor Reset'* | *'Run'* | Motor settings are reset. |
| | *'Cancel'* | Motor settings are not reset. |
| *'Factory'* | *'Run'* | Device is reset to factory settings. |
| | *'Cancel'* | Device is not reset to factory settings. |

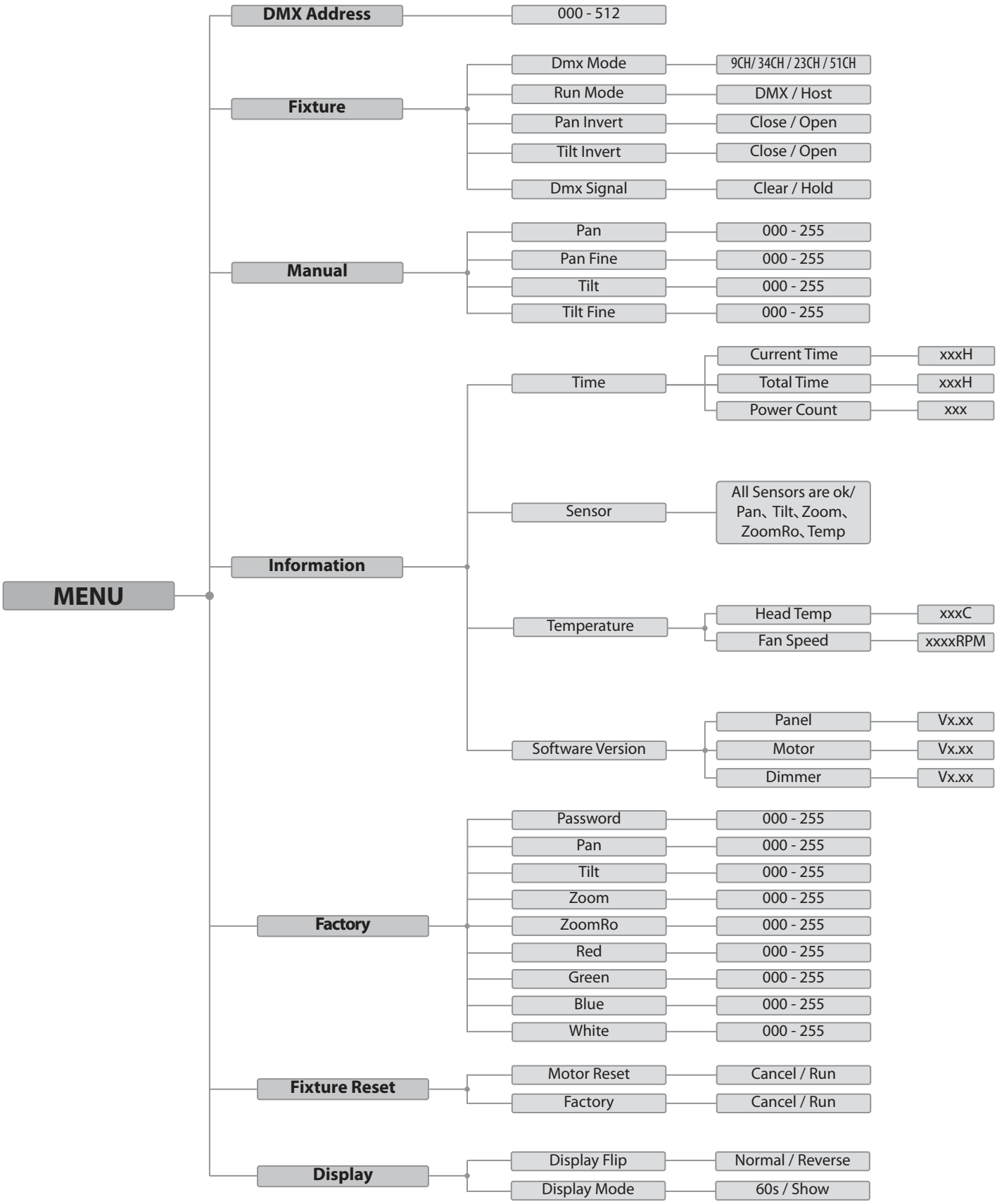
## 7.7 Display settings

You can adapt the display settings to your own requirements.

1. Open the main menu.
2. Navigate to *'Display'*.
3. Press *[UP]* or *[DOWN]* to select the desired submenu or the desired value and confirm the selection with *[SET]*.
4. The following submenus and values are available:

| Menu level 2 | Menu level 3 | Description |
|---|---|---|
| *'Display Flip'* | *'Normal'* | Sets the display orientation to normal. |
| | *'Reverse'* | Sets the display orientation to reverse. |
| *'Display Mode'* | *'60 s'* | Sets the display activity to 60 s. |
| | *'Show'* | Sets the display activity to permanent. |

## 7.8 Menu overview



## 7.9 Functions in 9-channel DMX mode

| Channel | Value | Function |
|---|---|---|
| 1 | 000…255 | Rotation (pan) (0° up to the maximum value of the Pan range) |
| 2 | 000…255 | Inclination (tilt) (0° up to the maximum value of the Tilt area) |
| 3 | 000…255 | Zoom, 0 to 100% |
| 4 | 000…255 | Dimmer intensity from dark (0) to bright (255) |
| 5 | Strobe | |
| | 0…3 | LEDs off |
| | 4…103 | Constantly increasing brightness, increasing speed (dimmed bright, quickly dark) |
| | 104…107 | LEDs on |
| | 108…207 | Impulse effect, increasing speed (dimmed light and dark) |
| | 208…212 | LEDs on |
| | 213…225 | Strobe effect (low speed) |
| | 226…238 | Strobe effect (medium speed) |
| | 239…251 | Strobe effect (high speed) |
| | 252…255 | LEDs on |
| 6 | 000…255 | Red intensity, 0 to 100% |
| 7 | 000…255 | Green intensity, 0 to 100% |
| 8 | 000…255 | Blue intensity, 0 to 100% |
| 9 | 000…255 | White intensity, 0 to 100% |

## 7.10 Functions in 34-channel DMX mode

| Channel | Value | Function |
|---|---|---|
| 1 | 000…255 | Red intensity, 0 to 100% |
| 2 | 000…255 | Fine adjustment of red intensity |
| 3 | 000…255 | Green intensity, 0 to 100% |
| 4 | 000…255 | Fine adjustment of green intensity |
| 5 | 000…255 | Blue intensity, 0 to 100% |
| 6 | 000…255 | Fine adjustment of blue intensity |
| 7 | 000…255 | White intensity, 0 to 100% |
| 8 | 000…255 | Fine adjustment of white intensity |
| 9 | 000…255 | Intensity of colour temperature sequence |
| 10 | 000…255 | Colour macros |
| 11 | Strobe | |
| | 000…003 | LEDs off |

| Channel | Value | Function |
|---|---|---|
| | 004…103 | Constantly increasing brightness, increasing speed (dimmed bright, quickly dark) |
| | 104…107 | LEDs on |
| | 108…207 | Impulse effect, increasing speed (dimmed light and dark) |
| | 208…212 | LEDs on |
| | 213…225 | Strobe effect (low speed) |
| | 226…238 | Strobe effect (medium speed) |
| | 239…251 | Strobe effect (high speed) |
| | 252…255 | LEDs on |
| 12 | 000…255 | Dimmer intensity from dark (0) to bright (255) |
| 13 | 000…255 | Fine adjustment of the dimmer |
| 14 | 000…255 | Rotation (pan) (0° up to the maximum value of the Pan range) |
| 15 | 000…255 | Fine adjustment of rotation (pan) |
| 16 | 000…255 | Inclination (tilt) (0° up to the maximum value of the Tilt area) |
| 17 | 000…255 | Fine adjustment of inclination (tilt) |
| 18 | 000…250 | No function |
| | 250…255 | Reset if the value is transmitted for at least 5 seconds |
| 19 | 000…255 | Zoom, 0 to 100% |
| 20 | Zoom rotation | |
| | 000…127 | Static position of the rotating lens unit (0 to 60 °) |
| | 128…190 | Clockwise rotation, decreasing speed |
| | 191…192 | Stop rotation |
| | 193…255 | Counter-clockwise rotation, increasing speed |
| 21 | 000…255 | Selecting the form effects |
| 22 | 000…255 | Speed of form effect |
| 23 | 000…255 | Intensity of dimming of form effects |
| 24 | 000…255 | Intensity of red form effect |
| 25 | 000…255 | Intensity of green form effect |
| 26 | 000…255 | Intensity of blue form effect |
| 27 | 000…255 | Intensity of white form effect |
| 28 | 000…255 | Intensity of form effect, 0 to 100% |
| 29 | 000…255 | Background intensity, 0 to 100% |
| 30 | 000…255 | Transition of form effect |
| 31 | 000…255 | Dip of form effect |
| 32 | 000…255 | Strobe intensity in the foreground |

| Channel | Value | Function |
|---|---|---|
| 33 | 000…255 | Strobe intensity in the background |
| 34 | 000…255 | Background selection |

## 7.11 Functions in 23-channel DMX mode

| Channel | Value | Function |
|---|---|---|
| 1 | 000…255 | Rotation (pan) (0° up to the maximum value of the Pan range) |
| 2 | 000…255 | Fine adjustment of rotation (pan) |
| 3 | 000…255 | Inclination (tilt) (0° up to the maximum value of the Tilt area) |
| 4 | 000…255 | Fine adjustment of inclination (tilt) |
| 5 | 000…255 | Speed of rotation (pan) and inclination (tilt), fast (0) to slow (255) |
| 6 | 000…255 | Zoom, 0 to 100% |
| 7 | Zoom rotation | |
| | 000…127 | Static position of the rotating lens unit (0 to 60 °) |
| | 128…190 | Clockwise rotation, decreasing speed |
| | 191…192 | Stop rotation |
| | 193…255 | Counter-clockwise rotation, increasing speed |
| 8 | 000…255 | Intensity of dimmer gradient from dark to bright |
| 9 | Strobe | |
| | 000…003 | LEDs off |
| | 004…103 | Impulse effect, increasing speed (dimmed light and dark) |
| | 104…107 | LEDs on |
| | 108…207 | Impulse effect, increasing speed (dimmed light and dark) |
| | 208…212 | LEDs on |
| | 213…225 | Strobe effect (low speed) |
| | 226…238 | Strobe effect (medium speed) |
| | 239…251 | Strobe effect (high speed) |
| | 252…255 | LEDs on |
| 10 | 000…255 | Red intensity, 0 to 100% |
| 11 | 000…255 | Green intensity, 0 to 100% |
| 12 | 000…255 | Blue intensity, 0 to 100% |
| 13 | 000…099 | White intensity, 0 to 100% |
| 14 | 000…255 | Intensity of colour temperature sequence |
| 15 | 000…255 | Colour macros |
| 16 | 000…255 | Static effect |
| 17 | 000…255 | Dynamic effect |

| Channel | Value | Function |
|---|---|---|
| 18 | 000…255 | Effects speed from slow (0) to fast (255) |
| 19 | 000…255 | Red background intensity, 0 to 100% |
| 20 | 000…255 | Green background intensity, 0 to 100% |
| 21 | 000…255 | Blue background intensity, 0 to 100% |
| 22 | 000…255 | White background intensity, 0 to 100% |
| 23 | 000…250 | No function |
| | 251…255 | Reset if the value is transmitted for at least 5 seconds |

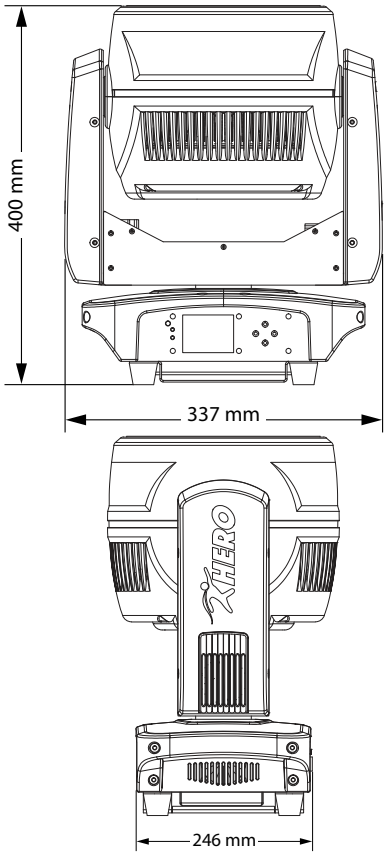
## 7.12 Functions in 51-channel DMX mode

| Channel | Value | Function |
|---|---|---|
| 1 | 000…255 | Rotation (pan) (0° up to the maximum value of the Pan range) |
| 2 | 000…255 | Fine adjustment of rotation (pan) |
| 3 | 000…255 | Inclination (tilt) (0° up to the maximum value of the Tilt area) |
| 4 | 000…255 | Fine adjustment of inclination (tilt) |
| 5 | 000…255 | Speed of rotation (pan) and inclination (tilt), fast (0) to slow (255) |
| 6 | 000…255 | Zoom, 0 to 100% |
| 7 | Zoom rotation | |
| | 000…127 | Static position of the rotating lens unit (0 to 60 °) |
| | 128…190 | Clockwise rotation, decreasing speed |
| | 191…192 | Stop rotation |
| | 193…255 | Counter-clockwise rotation, increasing speed |
| 8 | 000…255 | Intensity of dimmer gradient from dark to bright |
| 9 | Strobe | |
| | 000…003 | LEDs off |
| | 004…103 | Constantly increasing brightness, increasing speed (dimmed bright, quickly dark) |
| | 104…107 | LEDs on |
| | 108…207 | Impulse effect, increasing speed (dimmed light and dark) |
| | 208…212 | LEDs on |
| | 213…225 | Strobe effect (low speed) |
| | 226…238 | Strobe effect (medium speed) |
| | 239…251 | Strobe effect (high speed) |
| | 252…255 | LEDs on |
| 10 | 000…255 | Red intensity, 0 to 100% |
| 11 | 000…255 | Green intensity, 0 to 100% |
| 12 | 000…255 | Blue intensity, 0 to 100% |

| Channel | Value | Function |
|---|---|---|
| 13 | 000…255 | White intensity, 0 to 100% |
| 14 | 000…255 | Intensity of colour temperature sequence |
| 15 | 000…255 | Colour macros |
| 16 | 000…255 | Static effect |
| 17 | 000…255 | Dynamic effect |
| 18 | 000…255 | Effects speed from slow (0) to fast (255) |
| 19 | 000…255 | Red background intensity, 0 to 100% |
| 20 | 000…255 | Green background intensity, 0 to 100% |
| 21 | 000…255 | Blue background intensity, 0 to 100% |
| 22 | 000…255 | White background intensity, 0 to 100% |
| 23 | 000…250 | No function |
| | 251…255 | Reset if the value is transmitted for at least 5 seconds |
| 24 | 000…255 | Red intensity, segment 1, 0 to 100% |
| 25 | 000…256 | Green intensity, segment 1, 0 to 100% |
| 26 | 000…257 | Blue intensity, segment 1, 0 to 100% |
| 27 | 000…258 | White intensity, segment 1, 0 to 100% |
| 28 | 000…255 | Red intensity, segment 2, 0 to 100% |
| 29 | 000…255 | Green intensity, segment 2, 0 to 100% |
| 30 | 000…255 | Blue intensity, segment 2, 0 to 100% |
| 31 | 000…255 | White intensity, segment 2, 0 to 100% |
| 32 | 000…255 | Red intensity, segment 3, 0 to 100% |
| 33 | 000…255 | Green intensity, segment 3, 0 to 100% |
| 34 | 000…255 | Blue intensity, segment 3, 0 to 100% |
| 35 | 000…255 | White intensity, segment 3, 0 to 100% |
| 36 | 000…255 | Red intensity, segment 4, 0 to 100% |
| 37 | 000…255 | Green intensity, segment 4, 0 to 100% |
| 38 | 000…255 | Blue intensity, segment 4, 0 to 100% |
| 39 | 000…255 | White intensity, segment 4, 0 to 100% |
| 40 | 000…255 | Red intensity, segment 5, 0 to 100% |
| 41 | 000…255 | Green intensity, segment 5, 0 to 100% |
| 42 | 000…255 | Blue intensity, segment 5, 0 to 100% |
| 43 | 000…255 | White intensity, segment 5, 0 to 100% |
| 44 | 000…255 | Red intensity, segment 6, 0 to 100% |
| 45 | 000…255 | Green intensity, segment 6, 0 to 100% |
| 46 | 000…255 | Blue intensity, segment 6, 0 to 100% |
| 47 | 000…255 | White intensity, segment 6, 0 to 100% |

| Channel | Value | Function |
|---|---|---|
| 48 | 000…255 | Red intensity, segment 7, 0 to 100% |
| 49 | 000…256 | Green intensity, segment 7, 0 to 100% |
| 50 | 000…257 | Blue intensity, segment 7, 0 to 100% |
| 51 | 000…258 | White intensity, segment 7, 0 to 100% |

# 8 Technical specifications




| | | |
|---|---|---|
| Light source | | 7 × RGBW 4-in-1 LED, 60 W |
| Optical properties | Beam angle | 6°…50°, adjustable via motorised zoom |
| | Light output | 95,000 lux @ 3 m (6°) |
| Rotation angle (pan), max. | | 540° |
| Inclination angle (tilt), max. | | 220° |
| Control protocols | DMX512 | |
| Control | DMX, buttons and display | |
| Number of DMX channels | | 9, 34, 23 or 51 |
| Input connections | Power supply | Lockable input socket (Power twist) |
| | DMX control | XLR chassis plug, 3-pin |
| | | XLR chassis plug, 5-pin |
| Output connections | Power supply of further devices | Lockable output socket (Power twist) |
| | | Output current, max.: 6 A |
| | DMX control | XLR chassis socket, 3-pin |
| | | XLR chassis socket, 5-pin |
| Power consumption | | 420 W |
| Supply voltage | | 100 - 240 V ~ 50/60 Hz |
| Fuse | | 5 mm × 20 mm, 4 A, 250 V, fast blow |
| International Protection Rating | | IP20 |
| Dimensions (W × H × D) | | 337 mm × 400 mm × 246 mm |
| Weight | | 11.5 kg |
| Ambient conditions | Temperature range | 0 °C…40 °C |
| | Relative humidity | 20%…80% (non-condensing) |

**Further information**

| | |
|---|---|
| Light source type | LED |
| Light output | 420 W |
| Colour mix | RGBW |
| Motorised focus | No |
| Motorised zoom | Yes |
| Static gobos | No |
| Rotating gobos | No |
| Iris | No |
| Prism | No |

# 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!

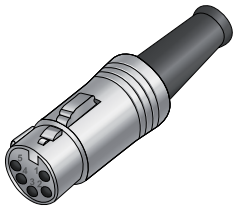
**DMX connections**

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

**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!**

**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.

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.

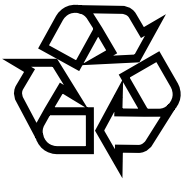
- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

**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.

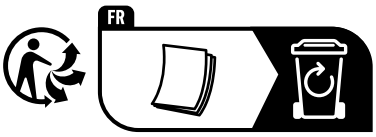
# 12 Protecting the environment

**Disposal of the packing material**



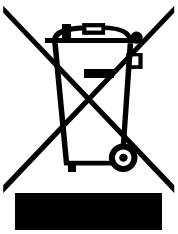
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.




Observe the disposal note regarding documentation in France.

**Disposal of your old device**



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. If in doubt, consult your local waste management facility. You can also return the device to a retailer if they offer to take the device back for free or if they are legally obliged to do so. When disposing of the device, comply with the rules and regulations that apply in your country. You can also return your old device to Thomann GmbH at no charge. Check the current conditions on *www.thomann.de*.

Proper disposal protects the environment as well as the health of your fellow human beings. This is because the proper handling of old devices negates the potential negative effects of hazardous substances, and because it conserves resources by recycling them.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

If your old device contains personal data, delete those data before disposing of it.