



LED Theater Spot 250 MZ 3200K

LED Spotlight

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23.06.2023, ID: 444937 (V4)

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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](http://www.thomann.de).

## 1.1 Further information

On our website ([www.thomann.de](http://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.

## 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.           |
| 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 signs                                                                     | Type of danger            |
|-----------------------------------------------------------------------------------|---------------------------|
|  | Warning – suspended load. |
|  | Warning – danger zone.    |

## 2 Safety instructions

### Intended use

This device is intended for use as an electronic lighting effect by means of LED technology. The device is designed for professional use only and is not suitable for use in households. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

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



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

## Safety



### **DANGER!**

#### **Risk of injury and choking hazard for children!**

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



### **DANGER!**

#### **Danger to life due to electric current!**

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



### **DANGER!**

#### **Danger to life due to electric current!**

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

**WARNING!****Risk of eye damage caused by high light intensity!**

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

**WARNING!****Risk of epileptic fit due to flashing lights!**

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

**WARNING!****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. Secure the barn door with a safety cable on the spotlight after installation. The safety cable must run outside the barn door and must not interfere with the light emission.

**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!**

#### **Risk of fire and overheating**

The use with closed barn doors can cause fire or overheating in the spotlight. The lifetime of the LEDs will be reduced when using the device with closed barn doors. Otherwise, the integrated thermostat causes a thermally reasonable shutdown. Use the device only with open barn doors.

### **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.

### **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 pads or similar.

### 3 Features

The LED theatre spotlight replaces conventional Fresnel lens spotlights with 1000 W power.

Special features of the device:

- 1 × COB LED, 250 W
- Fresnel lens
- Colour temperature: 3200 K
- Colour rendering index: > 95
- Max. light output: 12730 Lux (2 m, 15° beam angle)
- Beam angle 15° to 52°, variable by motorized zoom via DMX or on the device
- Operation in stand-alone or DMX mode (3 channels)
- Operating via buttons and display on the unit
- Very quiet temperature-controlled fan for quiet operation
- Ideally suitable for use in theatres
- Bracket, mains cable and barn door included

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.



### **DANGER!**

#### **Risk of death and damage to the device due to incorrect mounting of the Power Twist plug!**

The Power Twist plug is operated with lethal voltage. If the separately provided Power Twist plug is mounted incorrectly, this can result in a short circuit or an electric shock. This cause loss of life as well as fires!

The Power Twist plug must be mounted only by a qualified electrician.

Never use an improperly mounted Power Twist plug with the device.



### **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.

Secure the barn door with a safety cable on the spotlight after installation. The safety cable must run outside the barn door and must not interfere with the light emission.



### **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!****Use of stands**

When mounting the device onto a stand, ensure that the stand is in a safe and stable position and that the weight of the device does not exceed the maximum permissible load capacity of the stand.

**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**

You can install the unit in hanging or standing position. When in use, the device must always be attached to a solid surface or an approved truss. Use the openings of the bracket provided for mounting.

Always work from a stable platform whenever installing, moving or servicing the unit. In doing so, the area underneath the unit must be cordoned off.

The safety cable must be routed through the safety eyelet on the bottom side of the device.



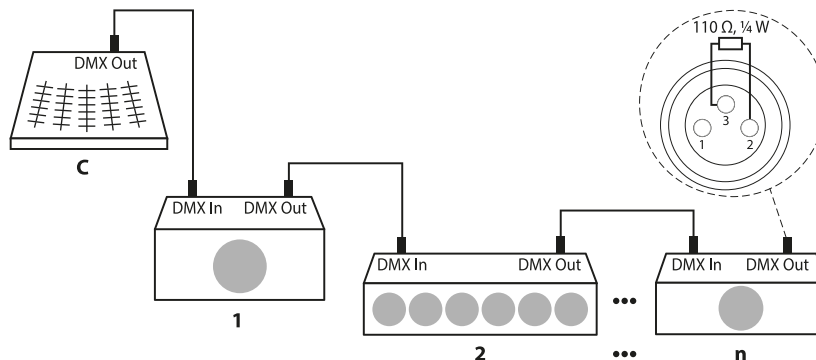
*Please note that this device must not be connected to a dimmer.*

## 5 Starting up

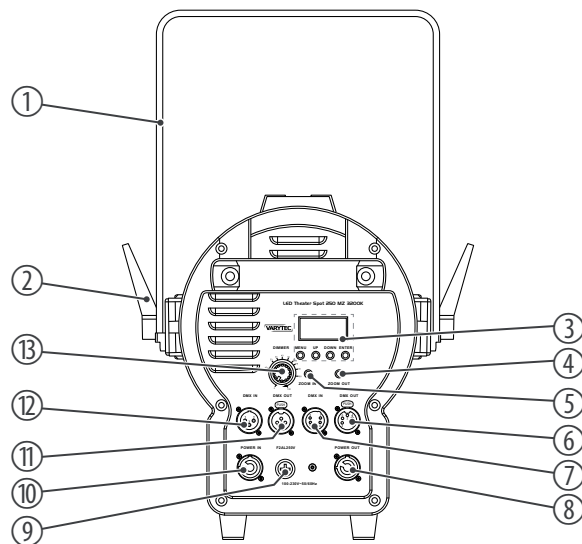
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

### Connections in DMX mode

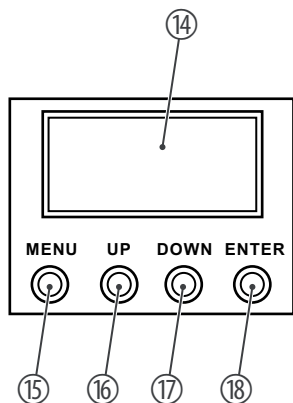
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor ( $110\ \Omega$ ,  $\frac{1}{4}\text{ W}$ ).



## 6 Connections and controls



|    |                                                                                         |
|----|-----------------------------------------------------------------------------------------|
| 1  | Bracket for hanging or installation                                                     |
| 2  | Locking screws for positioning the bracket                                              |
| 3  | Display                                                                                 |
| 4  | [ <i>ZOOM IN</i> ]   Narrows the beam angle                                             |
| 5  | [ <i>ZOOM OUT</i> ]   Broadens the beam angle                                           |
| 6  | [ <i>DMX OUT</i> ]   DMX output 5-pin                                                   |
| 7  | [ <i>DMX IN</i> ]   DMX input 5-pin                                                     |
| 8  | [ <i>POWER OUT</i> ]   Power Twist connector for the voltage supply of a further device |
| 9  | Fuse holder                                                                             |
| 10 | [ <i>POWER IN</i> ]   Power Twist connector for the power supply of the device          |
| 11 | [ <i>DMX OUT</i> ]   DMX output 3-pin                                                   |
| 12 | [ <i>DMX IN</i> ]   DMX input 3-pin                                                     |
| 13 | [ <i>DIMMER</i> ]   Rotary control to set the light intensity                           |



- |    |                                                |
|----|------------------------------------------------|
| 14 | Display                                        |
| 15 | [MENU]   Calls up the main menu or a submenu.  |
| 16 | [UP]   Increases the displayed value by one.   |
| 17 | [DOWN]   Decreases the displayed value by one. |
| 18 | [ENTER]   Confirms a selected value.           |

## 7 Operating

### 7.1 Starting the device

Connect the device to the power supply to start operation. The device is immediately operational and operates in the last mode with the settings last selected.

### 7.2 Main menu

#### Menu control

1. ➤ Use *[MENU]*, to open the main menu or to return to the main menu.
2. ➤ Use *[UP]* or *[DOWN]* to select the desired parameter or value.
3. ➤ Confirm the desired parameter or value with *[ENTER]*.
  - ⇒ The selected submenu opens up or the selected value is being accepted.

To return to the previous menu level without changes, press *[MENU]*.

## DMX address

Use 'Address' to select the start address channel for the DMX address.

- 1.** ➤ Use *[MENU]* and press *[UP]* or *[DOWN]* to select the submenu 'Address'.
- 2.** ➤ Confirm your selection with *[ENTER]*.
- 3.** ➤ Use *[UP]* or *[DOWN]* to select the desired start address from 1 to 512.
- 4.** ➤ Confirm your selection with *[ENTER]*.
  - ⇒ The selected start address is accepted.

Make sure that this number matches the configuration of your DMX controller.

### Dimmer

Use 'Curve' to select one of 3 preset dimmer curves.

1. ➤ Use [MENU] and press [UP] or [DOWN] to select the submenu 'Curve'.
2. ➤ Confirm your selection with [ENTER].
3. ➤ Use [UP] or [DOWN] to select one of three preset dimmer curves ( 'Curve 1, Curve 2, Curve 3' ).
4. ➤ Confirm your selection with [ENTER].  
⇒ The selected dimmer curve is accepted.

| Display   | Meaning                                                                        |
|-----------|--------------------------------------------------------------------------------|
| 'Curve 1' | Dimmer curve with a flat course at the beginning and a steep course at the end |
| 'Curve 2' | Dimmer curve with linear (proportional) course                                 |
| 'Curve 3' | Dimmer curve with a steep course at the beginning and a flat course at the end |

## Display

Use '*BK Light*' to adjust the idle mode of the display.

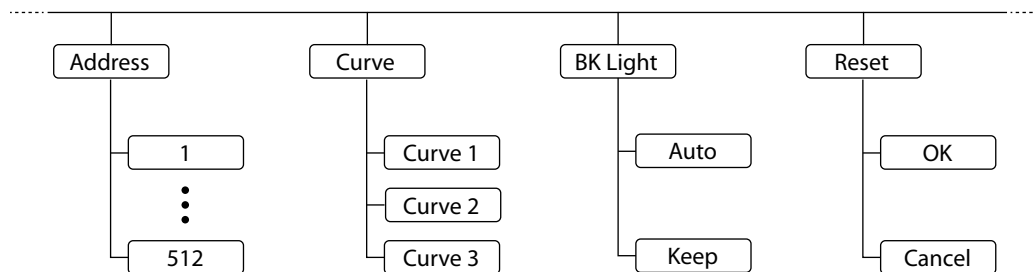
- 1.** ➤ Use *[MENU]* and press *[UP]* or *[DOWN]* to select the submenu '*BK Light*'.
- 2.** ➤ Confirm your selection with *[ENTER]*.
- 3.** ➤ Use *[UP]* or *[DOWN]* to select '*Auto*' to turn off the display automatically. Use *[UP]* or *[DOWN]* to select '*Keep*' to enable the display permanently.
- 4.** ➤ Confirm your selection with *[ENTER]*.  
⇒ The selected setting is accepted.

### Reset

Use 'Reset' to reset the values to factory defaults.

1. ➤ Use [MENU] and press [UP] or [DOWN] to select the submenu 'Reset'.
2. ➤ Confirm your selection with [ENTER].
3. ➤ Use [UP] or [DOWN] to select 'OK' to reset the values to factory defaults. Use [UP] or [DOWN] to select 'Cancel' to leave the set values unchanged.
4. ➤ Confirm your selection with [ENTER].
  - ⇒ The selected setting is accepted.

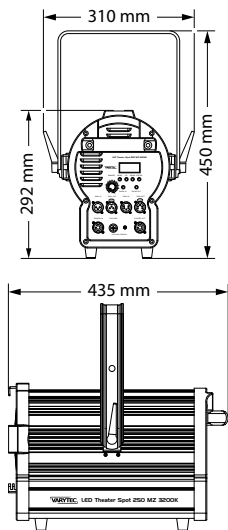
## 7.3 Menu overview



## 7.4 Functions in 3-channel DMX mode

| Channel | Value         | Function                                     |
|---------|---------------|----------------------------------------------|
| 1       | 0 ... 255     | Dimmer (0 % to 100 %)                        |
| 2       | Strobe effect |                                              |
|         | 0             | LED off                                      |
|         | 1 ... 110     | Stroboscope effect, increasing speed         |
|         | 111 ... 245   | Stroboscope effect (Burst), increasing speed |
|         | 146 ... 255   | LED on                                       |
| 3       | 0 ... 255     | Setting the beam angle (15° to 52°)          |

## 8 Technical specifications



|                         |                        |                                 |
|-------------------------|------------------------|---------------------------------|
| Light source            | 1 × COB LED, 250 W     |                                 |
| Light source properties | Colour temperature     | 3200 K                          |
|                         | Colour rendering index | > 95 CRI Ra                     |
|                         | Light output           | 12730 Lux (2 m, 15° beam angle) |
| Optical properties      | Beam angle             | 15 ° ... 52 °                   |
| Control                 | DMX                    |                                 |
| Number of DMX channels  | 3                      |                                 |
| Input connections       | Power supply           | Power Twist socket              |
|                         | DMX control            | XLR chassis socket, 3-pin       |
|                         |                        | XLR chassis socket, 5-pin       |
| Output connections      | DMX control            | Power Twist socket              |
|                         |                        | XLR chassis socket, 3-pin       |

|                        |                                       |                              |
|------------------------|---------------------------------------|------------------------------|
|                        |                                       | XLR chassis socket, 5-pin    |
| Power consumption      | max. 250 W                            |                              |
| Supply voltage         | 100 - 240 V ~ 50/60 Hz                |                              |
| Fuse                   | 5 mm × 20 mm, 2 A, 250 V, fast-acting |                              |
| Degree of protection   | IP20                                  |                              |
| Mounting options       | Hanging, standing                     |                              |
| Dimensions (W × H × D) | 310 mm × 450 mm × 435 mm              |                              |
| Weight                 | 10.2 kg                               |                              |
| Ambient conditions     | Temperature range                     | 0 °C...40 °C                 |
|                        | Relative humidity                     | 20 %...80 % (non-condensing) |

## Further information

|          |         |
|----------|---------|
| Optic    | Fresnel |
| LED type | COB     |
| Fanless  | 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!

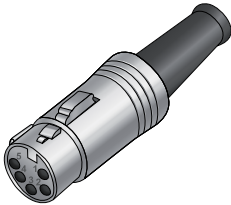
### DMX connections



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!**

#### **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.  | Check the mains connection and the fuse.                                                                                                        |
| No response to the DMX controller. | 1. Check the DMX ports and cables for proper connection.                                                                                        |
|                                    | 2. Check the address settings and the DMX polarity.                                                                                             |
|                                    | 3. Try using another DMX controller.                                                                                                            |
|                                    | 4. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits. |

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at [www.thomann.de](http://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.









