VARYTEC

BAT.BALL 6in1 RGBWAP

User manual

LED effect

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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'*.

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 – 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 an electronic lighting effect by means of LED technology. 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 life of the device by regular breaks in operation and avoid switching it on and off frequently. This device is not suitable for continuous use.

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.

> ⚠️ **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.

NOTICE!

External power supply

The device is powered by an external power supply. Before connecting the external power supply, 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 the user.

Unplug the external power supply before electrical storms occur and when the device is unused for long periods of time to reduce the risk of electric shock or fire.

! **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.

3 Features

The LED-effect is suitable for almost all applications, for example in clubs, bars, small stages and theatres. It is characterized by small size, solid construction also for use 'on tour' and enormous power.

Special features of the device:

- 6 × 3 W RGBWAP LEDs
- Operation via supplied rechargeable battery or via supplied power adapter
- Produces countless dots in red, green, blue, white, amber and purple
- Control via DMX, via buttons and display on the unit and also via infrared remote control
- Automatic mode and sound control
- Master / Slave operation
- Display of charge status in battery operation
- Battery charging time in the device approx. 3 h
- Operating time with full light output approx. 3.5 hours in battery operation

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 and starting up

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.

Ceiling or wall mounting   The device is designed for ceiling or wall mounting and has for this purpose two mounting tabs on the bottom.

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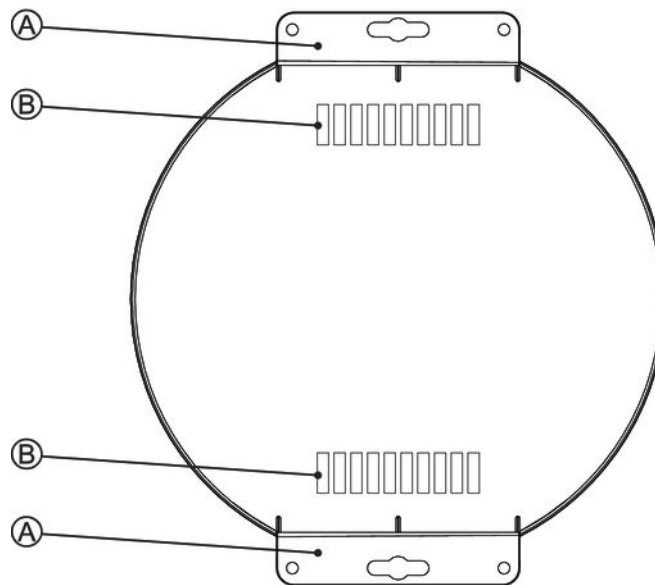
A	Mounting tabs for ceiling or wall mounting of the unit.
B	Air vents

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.

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.

Use appropriate mounting hardware to attach the unit to the ceiling or a wall. The designated fastening area must be sufficiently stable for the load, level and vibration-free.

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.

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

Connections in 'DMX' mode

Connect the DMX input of the device to the DMX output of a DMX controller or other DMX device. Connect the output of the first DMX device to the input of the second one and so on, to form a series connection.

Such a chain may consist of up to 30 DMX devices. Make sure that the output of the last device in the chain is terminated by a resistor (110 Ω, ¼ W).
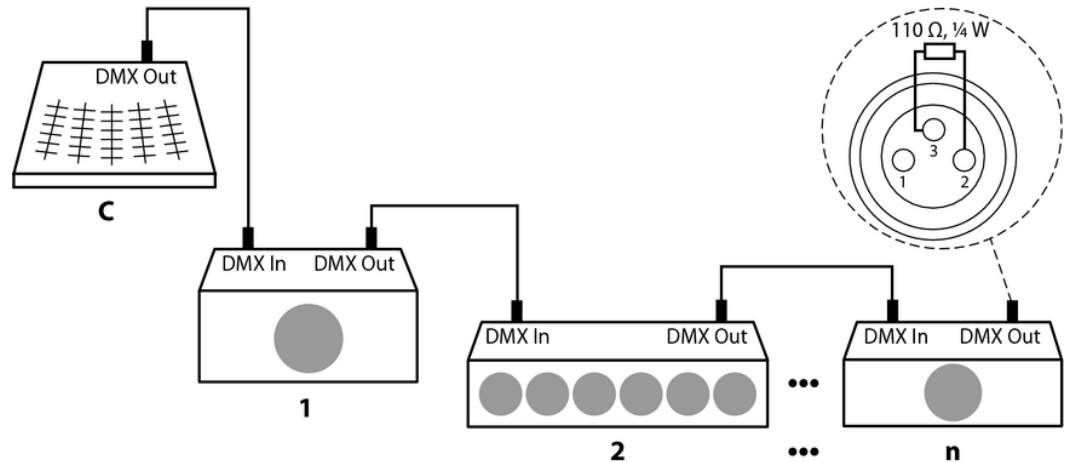
Connections in 'Master / Slave' mode

When you configure a group of devices in 'Master / Slave' mode, the first device controls the others and allows an automatic, music-controlled and synchronized show. This feature is especially useful to start a show without much programming. Connect the DMX output of the master unit to the DMX input of the first slave unit. Then connect the DMX output of the first slave unit to the DMX input of the second slave unit and so on (maximum 30 slaves).

Insert the battery into the remote control

Push the lock of the battery holder towards the centre of the housing and pull out the battery holder like a drawer. Insert the battery. The battery is correct, if the positive pole points to the housing bottom of the remote control. Slide the battery holder back into the remote until it clicks into place.
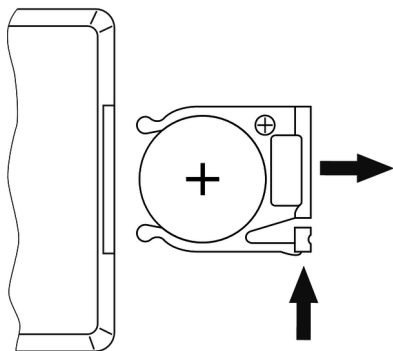
5   Connections and controls
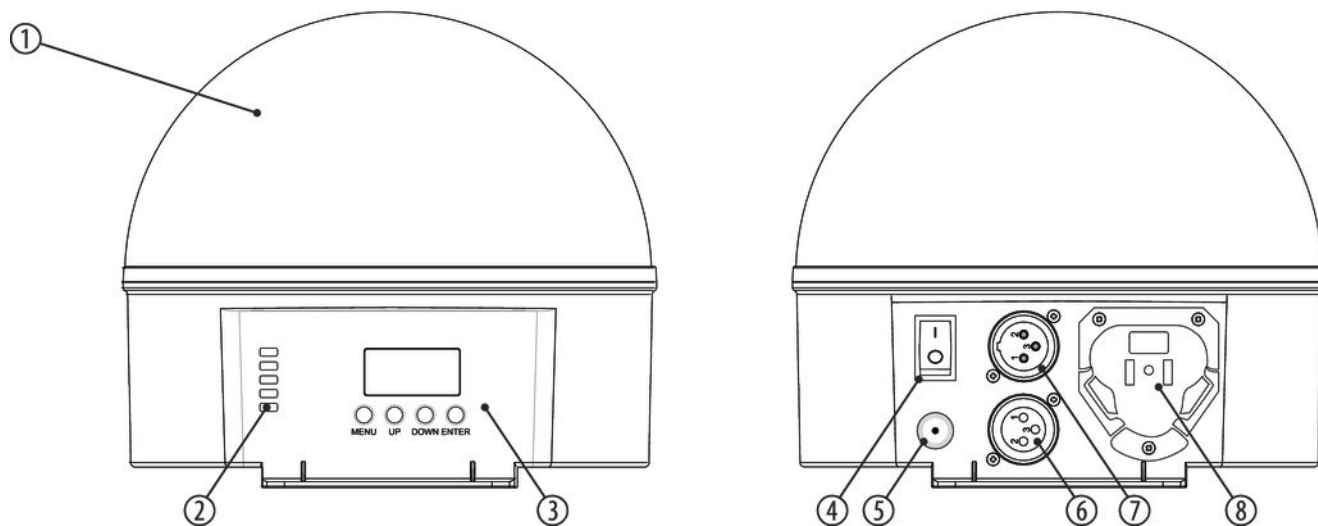
1	Transparent hemisphere
2	*[BATTERY INDICATOR]* Charge status indicator for rechargeable battery
3	Display and control buttons: *[MENU]*: Calls up the main menu or a submenu. *[UP]*: Button to increase the displayed value by one. *[DOWN]*: Button to decrease the displayed value by one. *[ENTER]*: Confirms a selected value.
4	*[SWITCH]* On / off switch
5	*[POWER]* Connector for the power adapter
6	*[DMX OUT]* DMX output

7	*[DMX IN]*
	DMX input
8	Rechargeable battery slot

Remote control
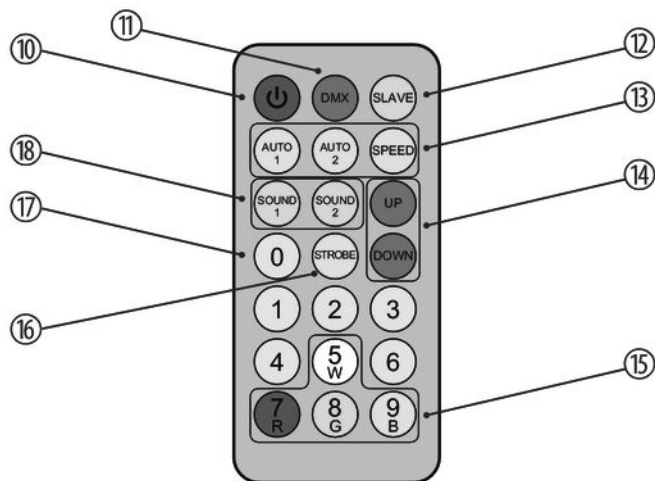
10	Button to turn the device on and off
11	*[DMX]* Button to switch between DMX and stand-alone mode
12	*[SLAVE]* Button to switch between master and slave mode
13	*[AUTO 1]*, *[AUTO 2]*, *[SPEED]* Buttons to activate automatic mode 1 or 2 and to adjust the programme speed.
14	*[UP]*, *[DOWN]* Buttons to switch between programmes and to increase / decrease numeric values.
15	Buttons for colour selection Use ■ *[W]* for white light. ■ *[R]*, *[G]*, or *[B]* for primary colours red, green and blue.
16	*[STROBE]* Button to turn the strobe effect on or off

17	Numeric buttons 0 … 9 for direct value input
18	*[SOUND 1], [SOUND 2]* Buttons to activate sound-control mode 1 or 2

6 Operating

6.1 Starting the device

Connect the cable of the power adapter supplied to the *[POWER]* socket on the device. Plug the power adapter into an outlet. If a rechargeable battery is used, the battery gets charged. If no segment of the charge status indicator is lit, the battery is exhausted and must be charged. If all 5 segments are lit, charging is complete. The device can be used during charging. Before disconnecting the device from the power supply, the battery should be fully charged. Press the on / off switch to start operation.

6.2 Main menu

Press *[MENU]* to activate the main menu. Use *[UP]* or *[DOWN]* to change the respectively displayed value. Wenn das Display den gewünschten Wert anzeigt, drücken Sie *[ENTER]*.

Wait for approx. 15 seconds after confirming the last modification of the setting until the display turns off. Now the settings are saved.

DMX address

Press *[MENU]* repeatedly until the display shows *'Addr'*. Press *[ENTER]*. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use *[UP]* and *[DOWN]* to select a value between 1 and 512 (display shows *'A001'* … *'A512'*).

When the display shows the desired value, press *[ENTER]* to confirm the selection and then *[MENU]* to return to the parent menu. To return to the parent menu without making changes, press *[MENU]*.

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

Sound control

Press *[MENU]* repeatedly until the display shows *'SoU1'*. Use *[UP]* or *[DOWN]* to select a sound control programme (display shows *'SoU1'* … *'SoU3'*). Press *[ENTER]*.

Use *[UP]* or *[DOWN]* to select a value for the einen Wert microphone sensitivity between 1 and 9 (display shows *'S 0'* … *'S 9'*). When the display shows the desired value, press *[ENTER]* to confirm the selection and then *[MENU]* to return to the parent menu. To return to the parent menu without making changes, press *[MENU]*.

This setting is only relevant if the device is not controlled via DMX. The device can operate in stand-alone mode or control connected devices of the same type, that must be configured as slaves. The auto show can only be activated on the master device.

Operating mode 'Auto'

Press *[MENU]* repeatedly until the display shows *'Auto'*. Use *[UP]* or *[DOWN]* to select an automatic programme (display shows *'Aut1'* … *'Aut3'*. When the display shows the desired value, press *[ENTER]* to confirm the selection and then *[MENU]* to return to the parent menu. To return to the parent menu without making changes, press *[MENU]*.

This setting is only relevant if the device is not controlled via DMX. The device can operate in stand-alone mode or control connected devices of the same type, that must be configured as slaves. The auto show can only be activated on the master device.

Colour selection

Press *[MENU]* repeatedly until the display shows *'Colo'*. Use *[UP]* or *[DOWN]* to select one of nine predefined colours (display shows *'Col1'* … *'Col9'*) or select *'AtF'* to define an individual colour. When the display shows the desired value, press *[ENTER]* to confirm the selection and then *[MENU]* to return to the parent menu. To return to the parent menu without making changes, press *[MENU]*.

Firmware version

Press *[MENU]* repeatedly until the display shows *'ver'*. Press *[ENTER]*. The current firmware version will appear on the display.

To return to the parent menu, press *[MENU]*.

Operating mode 'Slave'

Press *[MENU]* repeatedly until the display shows *'SLA'*. Press *[ENTER]*. *'SLA'* is flashing in the display. The device is now configured as slave and follows the settings of the master device to which it is connected. Press *[MENU]* to return to the parent menu. This setting is only relevant if the device is not controlled via DMX.
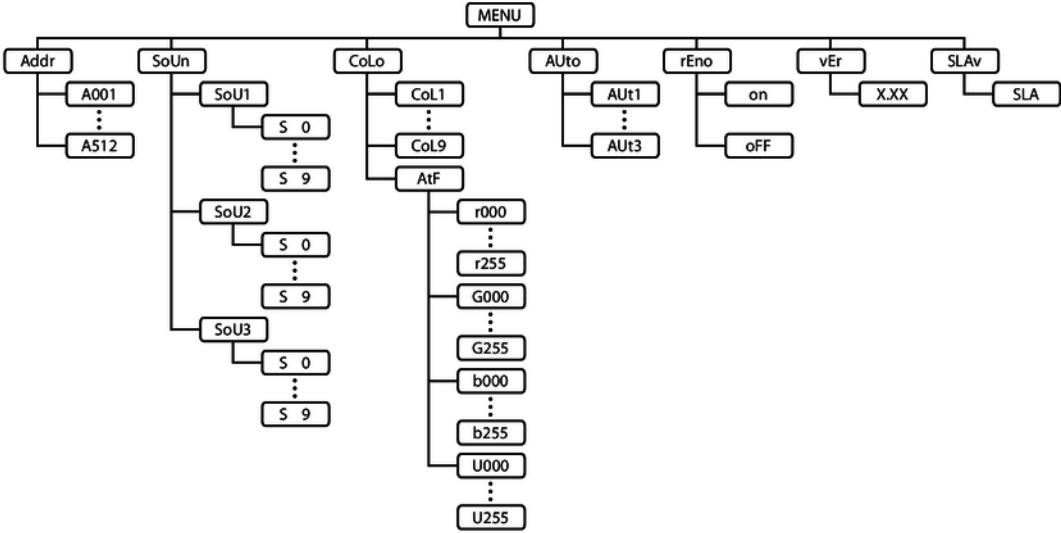
6.3   IR remote control

Press *[MENU]*, *[UP]* or *[DOWN]* repeatedly until the display shows *'reno'*. Confirm with *[ENTER]*.

Use *[UP]* and *[DOWN]* to select the option *'on'* to operate the unit via the IR remote control. Confirm with *[ENTER]*.

6.4   Menu overview

6.5 Functions in DMX mode

Channel	Value	Function
1	0…114	Fixed motor position
	115…255	Motor speed slow to fast
2	0…255	Intensity red and UV (0 % to 100 %)
3	0…255	Intensity green and white (0 % bis 100 %)
4	0…255	Intensity blue and amber (0 % to 100 %)
5	0…7	No function
	8…255	Strobe frequency slow to fast
6	0…15	No function
	16…239	Selecting an automatic programme
	240…255	Selecting a sound-controlled programme

7 Technical specifications

Light source	6 × RGBWAP LEDs, each 3 W	
Control	DMX	
	Remote control	
Control protocol	DMX 512	
Number of DMX channels	6	
Input connections	Power supply	Connection socket
	DMX control	XLR chassis socket, 3-pin
Output connections	DMX control	XLR chassis socket, 3-pin
Power consumption	20 W	
Power supply	Power adapter (15 V ⎓, min. 2 A, centre positive)	

Battery	Battery type	Lithium-ion
		Replaceable rechargeable battery packs, item no. 385488)
	Voltage	10.8 V
	Capacity	1500 mAh mAh
	Charging time in the device	3 h
Battery remote control	Battery type	2 × button cells, LR1130/AG10, 1.5 V
Degree of protection	IP20	
Mounting options	Standing, wall or ceiling mounting	
Dimensions (W × H × D)	182 × 169 × 169 mm	
Weight	0.48 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non condensing

Further information

Similar design	Mirror ball
DMX control	Yes
Master/Slave	No
Remote control	Included
Sound control	Yes
Display	Yes
Housing colour	black

8   Plug and connection assignments

Introduction

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

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

DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

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

9   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.
Apparently no function despite proper power supply	Check if the unit is in DMX mode or in 'slave' mode. If so, check the unit in another mode.
No response to the DMX controller	1. Check whether the DMX controller is switched on. Check the DMX connectors 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*.

10 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.

11 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 these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

Disposal of batteries

Batteries must not be disposed of as domestic waste or thrown into fire. Dispose of the batteries according to national or local regulations regarding hazardous waste. To protect the environment, dispose of empty batteries at your retail store or at appropriate collection sites.

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 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.

Notes

Notes