

CX-30 RGBW, CX-30 RGB WW Bk

LED PAR

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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 <u>www.thomann.de</u>.

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.
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 signs	Type of danger Warning – high-voltage.
Warning signs	

Warning signs	Type of danger
	Warning – suspended load.
<u>^</u>	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!

Risk of death from electrical current!

A short circuit can cause fires and loss of life. Always use properly insulated, tripe-core mains cable. Do not modify the mains cable. If the insulation is damaged, immediately switch off the power supply and have it repaired. If in doubt, contact 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.

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). Ensure that the power cord plug is easily accessible at all times if it is the only device to safely disconnect the device from the mains supply. 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!

Damage to the external power supply due to high voltages!

The device is powered by an external power supply. The external power supply 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 external power supply matches the local power grid before plugging in the power supply. Only operate the external power supply from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). Ensure that the power cord plug is easily accessible at all times if it is the only device to safely disconnect the device from the mains supply. As a precaution, disconnect the power supply from the power grid when storms are approaching or it the device will not be used for a longer period.

NOTICE!

Damage to the device due to use of unsuitable external power supplies!

If the device is operated with an unsuitable external power supply, the device can be damaged by overvoltage or incorrect polarity. If things go badly, using an unsuitable power supply can also cause a risk of injury and fire. Only use the external power supply designated for the device or an equivalent external power supply with identical parameters. If in doubt, compare the voltage specifications on the external power supply and the polarity (+/-) with the specifications in this manual and printed on the device. Voltage and polarity must always match.

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.

3 Features

Special features of the device:

- Multi-chip LEDs
- CX-30 RGBW (art. no. 467321): 18 × 4-in-1 quad colour LEDs High Power RGBW type
- CX-30 RGB WW Bk (item no. 467325): 18 × 4-in-1 quad colour LEDs High Power RGB WW
- Control via DMX (3 different modes) and via the buttons and display on the device
- Automatic mode and sound control
- Master/slave operation
- Robust black metal housing

For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

4 Installation

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.



WARNING!

Risk of injury from falling devices that were inadequately secured!

If devices are not properly secured during assembly, they can cause severe injury and considerable damage by falling.

When installing and operating, make sure to follow the standards and regulations 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 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!

Potential property damage due to unsuitable stands!

If the product is mounted on an unsuitable stand, there is a risk that the stand will fall over and cause damage.

Only use stands whose maximum load-bearing capacity is at least as high as the weight of the product. Always ensure that the stand is stable.



Comply with regulations

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



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

Mounting options

You can install the device in hanging or standing positions. When in use, the device must always be attached to a solid surface or an approved mount. Use the openings provided on the two-piece bracket for attaching.

Always work from a stable platform whenever installing, moving or servicing the device. While you do this, the area underneath the device must be cordoned off.

Secure the device additionally with a safety cable to prevent it from falling.

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



NOTICE!

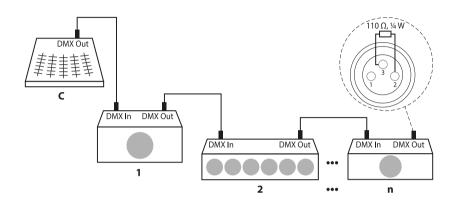
Data transfer errors due to improper wiring!

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.

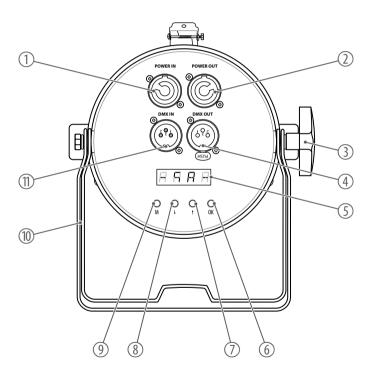
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one and so on, to form a series connection. Make sure that the output of the last DMX device in the chain is terminated by a resistor (110 Ω , $\frac{1}{4}$ 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



Connections and controls

1	[POWER IN] Lockable input socket (Power Twist)
2	[POWER OUT] Lockable output socket (Power Twist) for powering further devices
3	Locking screw for the bracket
4	[DMX OUT] DMX output, designed as XLR panel socket, 3-pin
5	Display
6	[OK] Confirms a selected value.
7	† Increases the displayed value by one.
8	♦ Decreases the displayed value by one.
9	[M] Activates the main menu or a submenu
10	Bracket for suspension or set-up
11	[DMX IN] DMX input, designed as XLR panel plug, 3-pin

7 Operating

7.1 Starting the device

- Connect the device to the power grid.
 - ⇒ After a few seconds, the display indicates that a reset is in progress.
 - \Rightarrow The device is operational.

7.2 Main menu

- **1.** Press [M] to activate the main menu.
- **2.** ▶ Press † or † to select an operating mode.
- **3.** When the display shows the required value, press [OK].
- **4.** ▶ Press † or ↓ to select the required value.
- **5.** When the display shows the required value, press [OK].
- **6.** If you don't press any button for about 1 minute, the device returns to the previously selected mode. The set values are retained even when the device is disconnected from the mains power supply.

Setting the DMX mode

The setting is only relevant when the device is controlled via DMX.

- **1.** Press [M].
- **2.** ▶ Press † or † repeatedly until the display shows 'SET'.
- **3.** ▶ Press [OK].
- **4.** ▶ Press † or † until the display shows 'MODE'.
- **5.** Press [OK].
- **6.** ▶ Press † or ↓ to select one of the following DMX modes:

DMX mode	Number of channels
'4CH'	4 channels
'6CH'	6 channels
'8CH'	8 channels

7. When the display shows the required value, press [OK] and then [M].

To enter the parent menu without making any changes, press [M].

Setting the DMX address

- **1.** Press [M].
- **2.** Press \dagger or \dagger repeatedly until the display shows 'DMX'.
- **3.** Press [OK].
- To set a number between 'A001' and 'A512' for the first DMX channel to be used by the device (DMX address), press \uparrow or \downarrow .
- **5.** When the display shows the required value, press *[OK]* and then *[M]*. To enter the parent menu without making any changes, press *[M]*.
- Make sure the number matches the configuration of your DMX controller. The following table shows the highest possible DMX address for the various DMX modes:

DMX mode	Highest possible DMX address
'4CH'	509
'6CH'	507
'8CH'	505

Setting the programme speed

This setting is only relevant if the device is not controlled via DMX.

- **1.** Press [M].
- **2.** ▶ Press † or † repeatedly until the display shows 'SET'.
- **3.** Press [OK].
- **4.** ▶ Press † or † repeatedly until the display shows 'SPEE'.
- **5.** Press [OK].
- To select a program speed between 'T001' and 'T255' for the pre-programmed automatic shows, press ↑ or ↓.
- When the display shows the required value, press [OK] and then [M]. To enter the parent menu without making any changes, press [M].

Setting the microphone sensitivity

This setting is only relevant if the device is not controlled via DMX.

- **1.** ▶ Press [M].
- **2.** Press \uparrow or \downarrow repeatedly until the display shows 'SET'.
- **3.** Press [OK].
- **4.** ▶ Press † or † repeatedly until the display shows 'MIC'.
- **5.** Press [OK].
- To set the sensitivity of the built-in microphone for sound control between to 'OFF' (microphone off) or a value between 'M-01' and 'M-30', press \dagger or \dagger .

7. When the display shows the required value, press [OK] and then [M].

To enter the parent menu without making any changes, press [M].

Setting the "Show/Master" mode

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 device that is configured as master.

- **1.** Press [M].
- **2.** Press ↑ or ↓ repeatedly until the display shows *'LINE'*.
- **3.** Press [OK].
- **4.** Press \uparrow or \downarrow repeatedly until the display shows 'MA'.
- **5.** ▶ Press [OK].
- To set one of the pre-programmed automatic shows between 'P-01' and 'P-42', press \uparrow or \downarrow .
- **7.** When the display shows the required value, press [OK] and then [M].

To enter the parent menu without making any changes, press [M].

Setting the "Slave" operating mode

This setting is only relevant if the device is slaved to a master but not controlled via DMX.

- **1.** ▶ Press [*M*].
- **2.** ▶ Press † or † repeatedly until the display shows 'LINE'.
- **3.** ▶ Press [OK].
- **4.** ▶ Press † or † repeatedly until the display shows 'SL'.
- **5.** ▶ Press [OK].
- **6.** To set the number that the master uses to address the device as a slave to a value between 'A001' and 'A512', press ↑ or ↓.
- **7.** When the display shows the required value, press [OK] and then [M].

To enter the parent menu without making any changes, press [M].

Setting the manual test

This mode is also suitable for generating constant or flashing light of a colour mixed from the four LED colours without DMX control.

- **1.** Press [*M*].
- **2.** ▶ Press † or † repeatedly until the display shows 'TEST'.
- **3.** Press [OK].
- **4.** To select 'RED', 'GREE', 'BLUE', 'WHIT' or 'STRO', press ↑ or ↓.
- **5.** Press [OK].
- To adjust the brightness of the red, green, blue or white LEDs between '000' and '255' or the flashing speed between 'S-00' and 'S-24', press ↑ or ↓.
- When the display shows the required value, press [OK] and then [M].

 To enter the parent menu without making any changes, press [M].

Setting fade programmes

This setting is only relevant if the device is not controlled via DMX.

- **1.** Press [*M*].
- **2.** ▶ Press † or † repeatedly until the display shows 'FADE'.
- **3.** Press [OK].
- **4.** To adjust the fade programs of the pre-programmed automatic shows between 'F-01' and 'F-07', press ↑ or ↓.
- **5.** When the display shows the required value, press [OK] and then [M]. To enter the parent menu without making any changes, press [M].

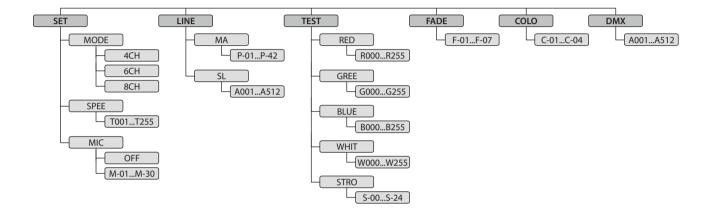
Adjusting the colour selection

This setting is only relevant if the device is not controlled via DMX.

- **1.** Press [M].
- **2.** ▶ Press † or † repeatedly until the display shows 'COLO'.
- **3.** ▶ Press [OK].
- **4.** To set a base colour between 'C-01' and 'C-04' for the pre-programmed automatic shows, press ↑ or ↓.
- **5.** When the display shows the required value, press [OK] and then [M].

To enter the parent menu without making any changes, press [M].

7.3 Menu overview



7.4 Functions in 4-channel DMX mode

Channel	Value	Function
1	0255	Red intensity (0% to 100%)
2	0255	Green intensity (0% to 100%)
3	0255	Blue intensity (0% to 100%)
4	0255	White intensity (0% to 100%)

7.5 Functions in 6-channel DMX mode

Channel	Value	Function
1	Selecting the opera	ating mode
	063	Constant colour, the hue is set by channels 2 to 5.
	64127	Automatic colour change with 7 colours, channels 2 to 5 without function
	128191	Automatic colour change with 12 colours, channels 2 to 5 without function
	192255	Automatic colour change with 4 colours, channels 2 to 5 without function
2	0255	Red intensity (0% to 100%) if channel $1 = 063$

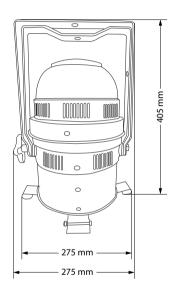
Channel	Value	Function
3	0255	Green intensity (0% to 100%) if channel $1 = 063$
4	0255	Blue intensity (0% to 100%) if channel 1 = 063
5	0255	White intensity (0% to 100%) if channel $1 = 063$
6	Effects speed and s	sound control sensitivity
	010	No automatic colour change
	11255	Automatic colour change as set by channel 1, decreasing speed from fast to slow if channel $1=64127$
		Automatic colour change as set by channel 1, increasing speed from slow to fast if channel $1 = 128191$
		Sound control sensitivity (from low to high sensitivity) if channel $1 = 192255$

7.6 Functions in 8-channel DMX mode

Channel	Value	Function	
1	0255	Red intensity (0% to 100%) if channel $5 = 015$ and channel $7 = 031$	
2	0255	Green intensity (0% to 100%) if channel $5 = 015$ and channel $7 = 031$	
3	0255	Blue intensity (0% to 100%) if channel $5 = 015$ and channel $7 = 031$	
4	0255	White intensity (0% to 100%) if channel $5 = 015$ and channel $7 = 031$	
5	Fixed colour patter	n	
	015	No fixed colour and movement pattern	
	16255	One of 31 preprogrammed colours, channels 6 and 7 without function	
6	Strobe effect		
	015	Full brightness, no strobe effect	
	16255	Strobe effect, increasing speed, if channel $5 = 015$	
7	Selecting the operating mode		
	031	Constant colour, the hue is set by channels 1 to 4	
	3263	Fade-out effect, speed controlled by channel 6	
	6495	Fade-in effect, speed controlled by channel 6	

Channel	Value	Function
	96127	Fade-in-out effect, speed controlled by channel 6
	128159	Auto-mix effect, speed controlled by channel 6, channels 1 to 5 without function
	160191	Chase (4 colours), speed controlled by channel 6, channels 1 to 5 without function
	192223	Chase (12 colours), speed controlled by channel 6, channels 1 to 5 without function
	224255	Sound-controlled colour change, microphone sensitivity increasing
8	0255	Dimmer (0% to 100%)

Technical specifications 8



		CX-30 RGBW CX-30 RGB WW (item no. 467321)			
Light source		18 × 4in1 RGBW LED, 8 W each	18 × 4in1 RGB WW LED, 8 W each		
Optical properties	Optical properties Beam angle		25°		
Control		DMX, buttons and display on the device			
Number of DMX channels		4, 6 or 8			
Input connections	Power supply	Lockable input socket (Power Twist)			
	DMX control	XLR panel socket, 3-pin			
Output connections	Power supply for fur- ther devices	Lockable output socket (Power Twist)			
		Output current, max.: 6 A			
	DMX control	XLR panel socket, 3-pin			
Power consumption		120 W			
Supply voltage		100 - 240 V ∼ 50/60 Hz			
International Protection Rating		IP20			
Mounting options		Hanging, standing, stand-mounted			

		CX-30 RGBW (item no. 467321)	CX-30 RGB WW Bk (item no. 467325)	
Dimensions (W \times H \times D)		275 mm \times 405 mm \times 275 mm		
Weight		3.4 kg		
Ambient conditions	Temperature range	0 °C…40 °C		
	Relative humidity	20%80% (non-condensing)		

Further information

	CX-30 RGBW (item no. 467321)	CX-30 RGB WW Bk (item no. 467325)
Design	PAR 64	
Colour mix	RGBW RGB WW	
LED type	x-in-1	
Floor housing	Yes	
Fanless	No	
Remote control	No	
Wireless DMX	No	
Housing colour	Black	

9 Plug and connection assignments

Introduction

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

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

DMX connections



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

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

10 Troubleshooting

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 device is not working, no light, the fan is not running	Check the mains connection and main fuse.	
No response to the DMX controller	1. 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 whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.	
Unintended light effects	Make sure that the DMX channel assignments of the devices do not overlap, and that the DMX start address of devices with independent control is always higher by the number of channels that have been set for the DMX mode on another device.	

Troubleshooting

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

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. For example, use the classified ads of Thomann GmbH.

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