



DMX Controller SDC-16

DMX Controller

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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 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. |
| 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 |
|---|-------------------------|
|  A yellow triangular warning sign with a black border and a black lightning bolt symbol in the center. | Warning – high-voltage. |
|  A yellow triangular warning sign with a black border and a black exclamation mark in the center. | Warning – danger zone. |

2 Safety instructions

Intended use

This device is used to control spotlights, dimmers, lighting effects equipment or other DMX-controlled devices. 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.

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.



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 if 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 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!

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 product’s rubber feet and the floor.

3 Features

Special features of this DMX controller:

- 16 channel faders
- 1 master fader
- Compact design
- Simple operation
- Power supply via the supplied 9 V external power adapter

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.

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.

Rack mounting

The unit has been designed for rack mounting in a standard 19-inch rack; it occupies three rack units.

Connecting the power supply

Connect the included power adapter to the power supply socket on the device and then put the power plug into the wall outlet.

DMX connections



NOTICE!

Data transfer errors due to improper wiring!

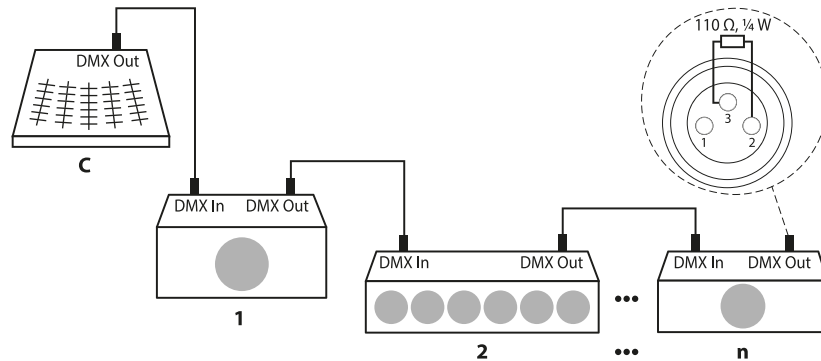
If the DMX connections are wired incorrectly, this can cause errors during the data transfer.

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.

Connections in DMX mode

Connect the DMX output of the device (C) to the DMX input of the first DMX device (1). 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 ($110\ \Omega$, $\frac{1}{4}\ \text{W}$).

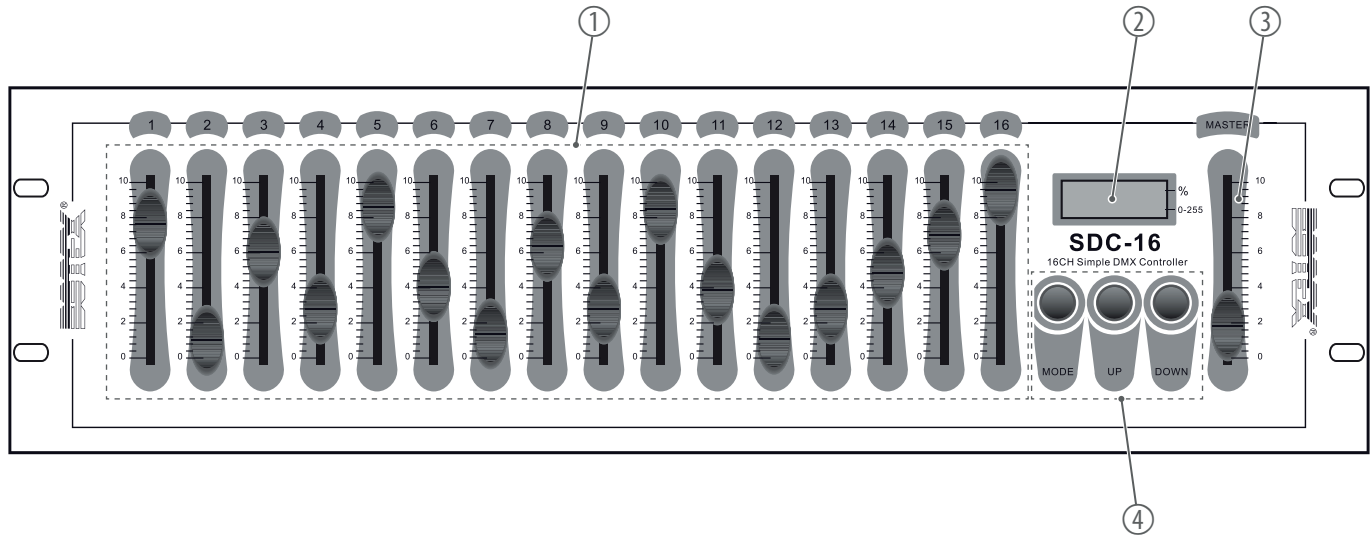


Switching on the device

Once all cable connections have been established, turn on the device with the main switch on the back. The device is immediately ready for operation, the display shows the current DMX start address, for example 'A001'.

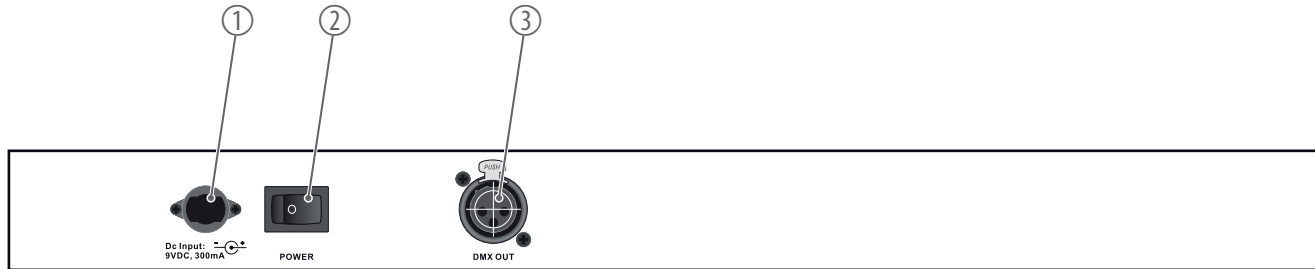
5 Connections and controls

Front panel



| | |
|---|--|
| 1 | <i>[1] ... [16]</i> Channel faders 1 to 16. The channel faders are used to control DMX channels 1 ... 16 individually. |
| 2 | Display for DMX address and set values with indicator LEDs: <ul style="list-style-type: none">■ <i>[%]</i> Indicates that the display has been switched to percentage display■ <i>[0-255]</i> Indicates that the display has been switched to DMX value display |
| 3 | <i>[MASTER]</i> Master fader. The master fader serves as a controller for all 512 channels of the DMX universe. |
| 4 | Control buttons: <i>[MODE]</i> Toggles the display mode. <i>[UP], [DOWN]</i> Increases or decreases the displayed value. |

Rear panel



- 1 [DC INPUT] | Connection socket for the power supply.
- 2 [POWER] | Main switch. Turns the device on and off.
- 3 [DMX OUT] | DMX output

6 Operating

Setting the DMX start address

On delivery, the DMX start address, i.e. the DMX channel controlled by channel fader [1], is set to 1. Proceed as follows to change the DMX start address:

1. ➤ Press *[UP]* or *[DOWN]* once to increase or decrease the DMX start address by one. The value has to be within a range of 1 to 512.
2. ➤ If you press and hold *[UP]* or *[DOWN]*, the set value changes more quickly.
⇒ The new DMX start address is shown in the display.

Using channel faders

1. ➤ Move the channel faders to the desired value. The corresponding DMX value in the range 0 to 255 appears in the display for approximately 10 seconds.
2. ➤ To switch the display to percentage (0 to 100), press *[MODE]*.
⇒ The LED *[%]* lights.
3. ➤ To switch the display to DMX values (0 to 255), press again *[MODE]*.
⇒ The *[0-255]* LED lights.

Using the master fader

- 1.** ▶ Move the master fader to the desired value. It is output on all 512 channels of the DMX universe. The corresponding DMX value in the range 0 to 255 appears in the display for approximately 10 seconds.
- 2.** ▶ To switch the display to percentage (0 to 100), press *[MODE]*.
⇒ The LED *[%]* lights.
- 3.** ▶ To switch the display to DMX values (0 to 255), press again *[MODE]*.
⇒ The *[0-255]* LED lights.

7 Technical specifications

| | | |
|-------------------------|--|--|
| Control protocols | DMX-512 | |
| Number of DMX channels | 16 | |
| Input connections | Power supply | Hollow plug socket for the power adapter |
| Output connections | DMX control | XLR panel socket, 3-pin |
| Power supply | External power adapter, 100 - 240 V ~ 50/60 Hz | |
| Operating voltage | 9 V...12 V $\overline{\text{---}}$, 300 mA, centre positive | |
| Installation properties | 19", 3 RU | |
| Dimensions (W × H × D) | 482 mm × 132 mm × 80 mm | |
| Weight | 2.3 kg | |
| Ambient conditions | Temperature range | 0 °C...40 °C |
| | Relative humidity | 20%...80% (non-condensing) |

Further information

| | |
|-------------------------|----|
| Preset function | No |
| External storage option | No |
| DMX universes | 1 |
| Max. control channels | 16 |
| Ethernet | No |

8 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 connection

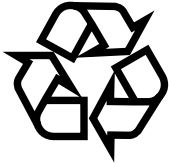
A female 3-pin XLR socket serves as the DMX output. The figure and the table show the pin assignment of the XLR socket.



| Pin | Assignment |
|-----|--------------------------------|
| 1 | Ground (shielding) |
| 2 | Signal inverted (DMX-, "Cold") |
| 3 | Signal (DMX+, "Hot") |

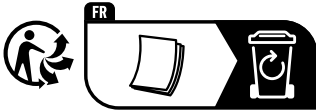
9 Protecting the environment

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.

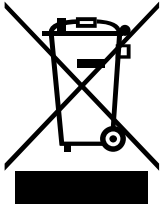
Disposal of batteries and rechargeable batteries



Do not dispose of batteries and rechargeable batteries with normal household waste, but in accordance with the local regulations for the disposal of hazardous waste. Use the available collection sites or contact your local waste disposal facility.

Before disposing of your old device, remove the batteries if this is possible without destroying it.

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.

