BOTEX
STAGE TECHNOLOGY

DSP-405

multi-switch pack

Table of contents

1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

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'* .

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.
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 – danger zone.

2 Safety instructions

Intended use

This appliance is intended to be used to control the brightness of connected spotlights. 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!**

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.

DANGER!

Electric shock caused by high voltages inside

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 if covers, protectors or optical components are missing or damaged.

DANGER!

Electric shock caused by short-circuit

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

! **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.

!

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.

3 Features

- 4 dimmer channels
- Outputs: 4 protective contact sockets
- Control via DMX 512, buttons and display on the unit
- Individual DMX addressing per channel
- Operating modes:
  - DMX
  - Automatic
- Single channel protection

4   Installation and starting up

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.
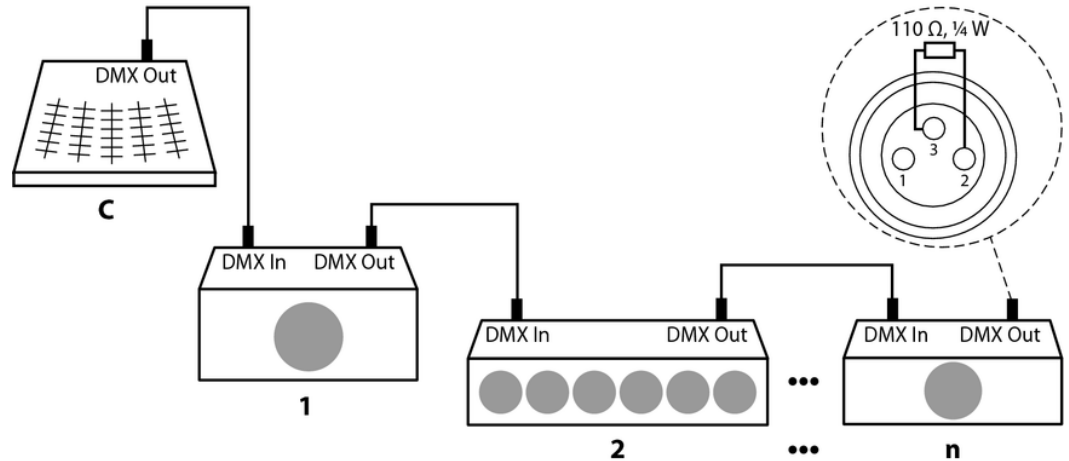
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

The unit is designed for wall or tripod mounting. For this purpose, there is a mounting bracket on top of the unit. Using the two M10 threads, the device can be mounted vertically or horizontally with suitable screws on a tripod. Alternatively, there are two bores available for wall mounting using suitable mounting hooks and anchors (mounting hardware not included).

First, connect the loads to the terminals on the sides of the device. If you want to operate the device in 'DMX' mode, establish the DMX connection to the controller. Finally, connect the power plug of the device to a mains power socket.
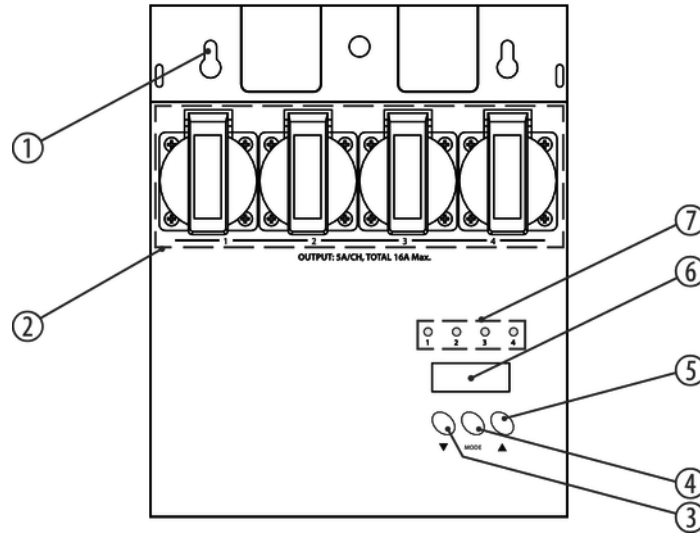
Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor (110 Ω, ¼ W).
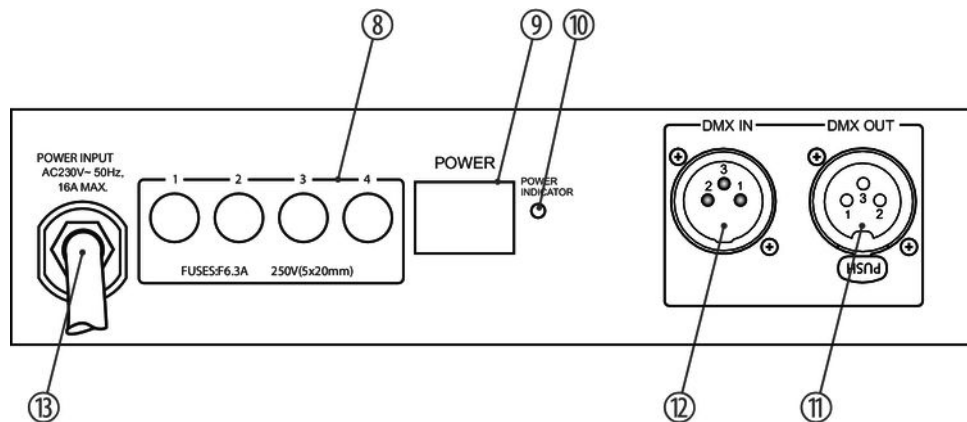
5 Connections and controls

Front panel

1	Mounting rail for mounting on a wall or on a truss beam. Maximum tube diameter: 45 mm.
2	Dimmer outputs, 4 protective contact sockets.
3	▼ Arrow button to decrease the displayed value.
4	*[MODE]* Switches between the operating modes.
5	▲ Arrow button to increase the displayed value.
6	Display with additional indicator LED *[DMX signal]*: lights up when the unit is turned on and receives a DMX signal.
7	Channel indicators *[1]…[4]*. In all operating modes, the channel indicators show which channels are currently being used by the running programme (LEDs light up).

Bottom

8	*[1]…[4]* Fuses for dimmer channels 1…4.
9	*[POWER]* On / off switch.
10	*[POWER INDICATOR]* Lights up when the unit is powered.
11	*[DMX OUT]* DMX output.
12	*[DMX IN]* DMX input.
13	Mains cable.

6   Operating

Turning on and off

To start operation, connect the device to the mains and turn it on with the *[POWER]* switch. To stop operation, turn the device off with the *[POWER]* button.

Operating mode selection

Use *[MODE]* to select the desired operating mode. Here you have the choice between the modes:

- Chase
- Receive

Chase

Chase mode is used when the device is used without a DMX controller.

To control the device without an external DMX controller:

1. ▸ Press *[MODE]* repeatedly until the display shows *'PA:xx'* .

2. ▸ Use ▲/▼ to select the desired chase programme. 16 programmes and the sequential run of the 16 programmes are available.

3. ▸ Press *[MODE]* to then select with ▲/▼ the desired chase speed. The display shows *'SP:xx'* .

Receive

Receive mode is used when the device is used without a DMX controller.

To set the DMX address:

1. ▶ Press *[MODE]* repeatedly until the display shows *'A:xxx'*.

2. ▶ Use ▲/▼ to set the desired start address for channel 1 in the range of *'A:001'* to *'A:512'*.

   ⇨ Channels 2, 3 and 4 are automatically given addresses that follow the address selected for channel 1.

Number of DMX channels

The unit can be controlled via 1, 2 or 4 DMX channels.

To select the number of DMX channels:

1. ▶ Keep *[MODE]* pressed for 5 seconds.

2. ▶ Use ▲/▼ to set the desired channel number (1, 2 or 4).

   ⇨ If *'1ch'* is displayed, all four channels of the device are controlled via one DMX channel.

   If *'2ch'* is displayed, two sets with each two channels of the device are controlled via one DMX channel each.

   If *'4ch'* is displayed, each channels of the device is controlled via its own DMX channel.

7   Technical specifications

Voltage supply	AC 230 V $\sim$ 50 Hz
Electrical connection	Safety plug, single-phase
Channel fuse	5 mm $\times$ 20 mm, 6.3 A, 250 V, fast-acting (per channel)
Signal input	DMX 512 via 3-pin XLR socket
Outputs	4 outlets, 5 A per channel, 16 A max. total
Temperature range	5 °C … +35 °C
Dimensions (W $\times$ H $\times$ D)	210 mm $\times$ 260 mm $\times$ 88 mm
Weight	3.5 kg

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   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.

Notes