STAIRVILLE

DJ-X 16

DMX-controller

th•mann
MUSIC IS OUR PASSION

user manual

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1 General notes

This user manual contains important information on 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, include the manual for the next owner.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words

This section provides an overview of the symbols and signal words used in this user 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 – danger zone.

2 Safety instructions

Intended use

This device is intended to be used to control spot lights, dimmers, light effects, moving heads 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!

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.

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 cover the device nor any ventilation slots. Do not place 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

This DMX controller offers a compact and easy to use light control for simple DMX configurations. It is characterised by the following features:

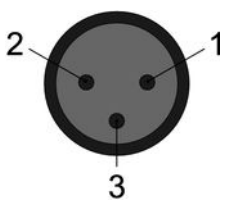
- 16 channel DMX control (DMX-512), thereof:
  - eight channels, each providing a fader and a flash switch
  - eight channels with each two switches (flash and latch function)
- Overall brightness fader
- Rotary control for overall brightness, processing speed and sensitivity for music control
- 16 freely programmable scenes (patterns), each can be assigned to a button
- 60 chases, 30 of them preprogrammed and 30 freely programmable, each with a maximum of 90 steps
- Operating modes: Manual, Assign, Patch, MIDI Channel, Standby, Program und Chase
- Data backup (even when the unit is switched off) on internal EPROM
- MIDI interface
- LINE input for sound control
- Power adapter supplied

4 Installation

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.

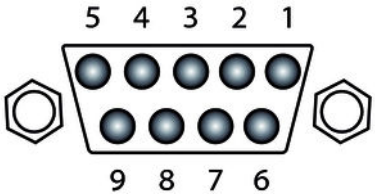
DMX connection

A 3-pin XLR socket is used as DMX output. The following diagram and table show the pin assignment of the XLR socket.



1	Ground
2	DMX data (–)
3	DMX data (+)

Foot switch connection

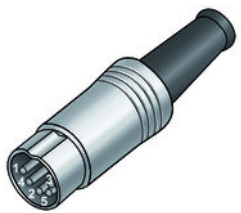


You can connect an optional footswitch to the nine-pin D-sub connector. Drawing and table below show the pin assignment.

1	Step up
2	Pattern up
3	Standby
4	Full on
5	Ground
6…9	Unused

MIDI interface

A five-pin DIN socket (180 °) is used as MIDI port. Drawing and table below show the pin assignment.



1	Unused
2	Ground, shielding
3	Unused
4	Current source
5	Current sink

RCA connectors for LINE input

An RCA socket is used as LINE input for the sound-controlled mode. Drawing and table below show the pin assignment.

1	Signal
2	Ground

5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

Connecting the power adapter

Connect the supplied power adapter to the 12 V input of the device. Then insert the power plug into a wall outlet.

Switching the device on

Press the main switch on the rear panel of the device to turn it on. Then, the display shows the operating mode.

6 Basics

This chapter provides basic information about the data transmission using the DMX protocol.

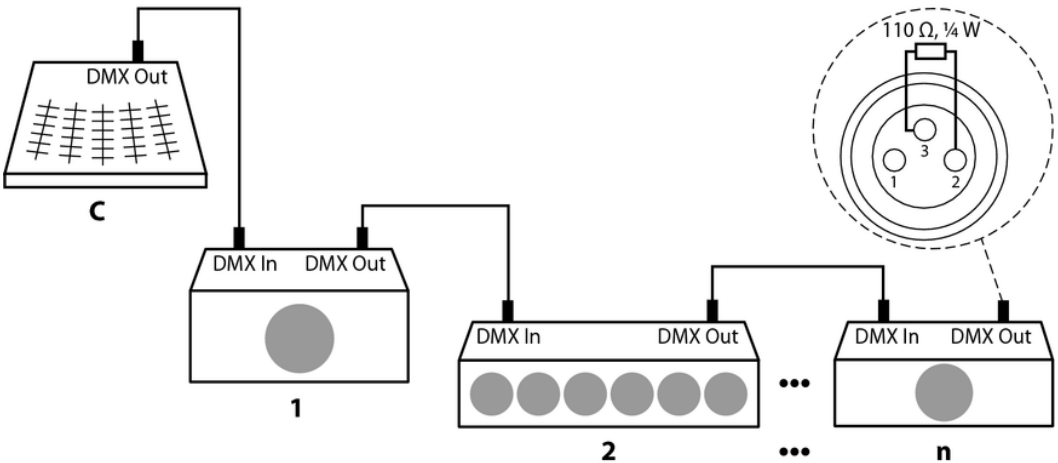
Signal transmission

DMX signals are generated by a DMX controller. The signals are transferred over a DMX cable to the connected devices. Each connection can transmit up to 512 channels. For each channel, a value between 0 and 255 is being transmitted. The 512 channels form a so-called 'DMX universe'.

Cabling

DMX devices are connected serially, that means the sending device transmits signals to all connected receivers (daisy chain). The order of the receivers in the daisy chain does not matter since all devices filter and process the relevant data independently from each other.

To create the daisy chain, the DMX input of the first receiver is connected to the DMX output of the controller or another DMX master. The output of the first receiver is connected to the input of the second one, and so on. The output of the last receiver in the DMX chain must be terminated using a resistor (110 Ω, ¼ W).



If the cable length exceeds 300 m (328 yds.) or the number of devices is greater than 32, the signal must be amplified using a DMX booster.

Signal processing

Each DMX devices operates on a specific number of channels to transfer the incoming control signals into movements, changing of light intensity or colour, and so on. Since all receivers that are part of a DMX daisy chain receive all signals, a start address must be assigned to each DMX device. Starting from this address (a value between 0 and 512) the incoming signals are being evaluated and transferred into the functions of the receiver (internal channel assignment).

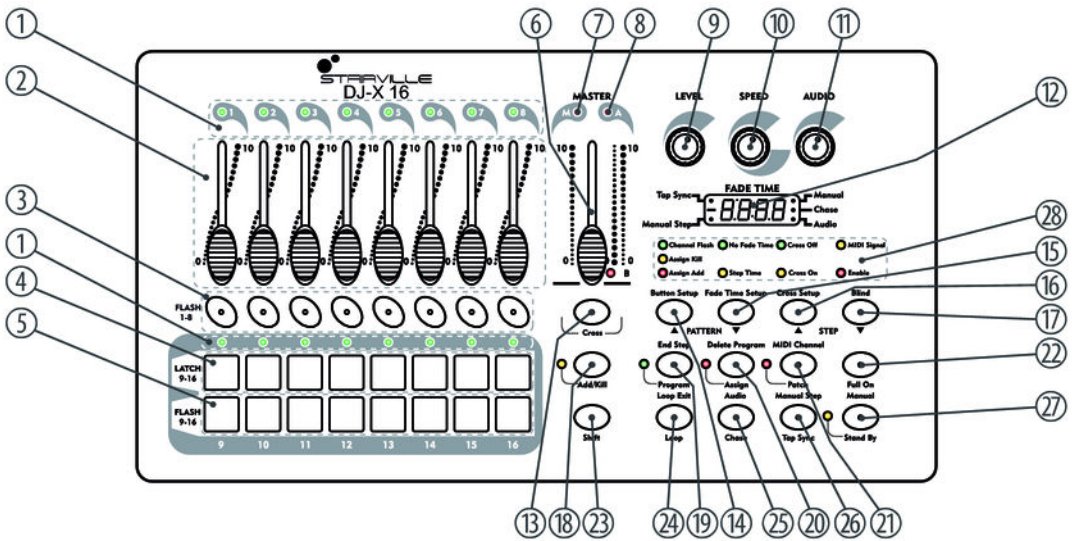
It is no problem to use a start address more than once in a DMX chain. In that case, the relevant receivers operate synchronously (identical movement, light intensity, colour, and so on).

Addressing

When setting the DMX address, the counting method of the device determines the first channel. Depending on the device, the channel numbers may start from 0 or from 1. The address range may therefore reach from 0 to 511 or from 1 to 512.

7 Connections and operating elements

Front panel



1	Channel LEDs 1…8 Indicate the set intensity of the respective channel.
2	Fader 1…8 to adjust the intensity of the respective channel in operating modes ‘Assign’ and ‘Manual’.
3	Button group *[FLASH 1-8]* In ‘Manual’ mode, these buttons switch the respective channel to maximum brightness (100 %, DMX value 255) as long as they are pressed. When you release the button, the channel is set to minimal brightness (0%, DMX value 0).
4	Button group *[LATCH 9-16]* In ‘Manual’ mode, these buttons switch the respective channel to maximum brightness (100 %, DMX value 255) until they are pressed again. Pressing this button again, the channel is set to minimal brightness (0%, DMX value 0).
5	Button group *[FLASH 9-16]* In ‘Manual’ mode, these buttons switch the respective channel to maximum brightness (100 %, DMX value 255) as long as they are pressed. When you release the button, the channel is set to minimal brightness (0%, DMX value 0).
6	**MASTER** fader This is the Master fader for channels 1 to 8, or in ‘Chase‘ mode and ‘Cross’ function it lets you set the steps as part of chaser sequences. The steps are performed when the fader is moved.

7	LED **M** LED indicator for the overall brightness of channels 1 to 8.
8	LEDs **A**, **B** LED status indicators for two adjacent steps in ‘Cross’ mode.
9	Rotary control **LEVEL** This knob adjusts the overall brightness when playing chaser sequences in ‘Chase’ mode.
10	Rotary control **SPEED** In ‘Chase’ mode, this is the chaser speed control in a range of 10 steps per second up to one step in five minutes (corresponding to a cycle time of 0.1 s to 300 s).
11	Rotary control **AUDIO** In ‘Chase’ mode, this is the sensitivity control for sound-controlled operation.
12	Display with status LEDs Displays the set values, the current operating mode and program options.
13	*[Cross]* button Press this button to end the ‘Cross’ function in ‘Chase’ mode.

14	*[PATTERN]* ▲ / *[Button Setup]* button Press this button to increase the left two digits in the display by one. If you hold down this button for more than one second, the display digits run quickly up starting from the current value to the maximum, to then restart from the minimum. Press the buttons *[Shift]* and *[PATTERN]* ▲ / *[Button Setup]* simultaneously to set the assignment to the faders, the Latch buttons and the Flash buttons.
15	*[PATTERN]* ▼ / *[Fade Time Setup]* button Press this button to decrease the left two digits in the display by one. If you hold down this button for more than one second, the display digits run quickly down starting from the current value to the minimum, to then restart from the maximum. Press the buttons *[Shift]* and *[PATTERN]* ▼ / *[Fade Time Setup]* simultaneously, to set the Fade time. When the **No Fade Time** LED lights up, Fade time is deactivated. When the **Step Time** indicator lights up, the Fade time is controlled via the **SPEED** control and is equal to the Step time.

16	*[STEP]* ▲ / *[Cross Setup]* button Press this button to increase the right two digits in the display by one. If you hold down this button for more than one second, the display digits run quickly up starting from the current value to the maximum, to then restart from the minimum. In 'Chase' mode, press this button to perform the chaser sequence step by step ahead. If you hold down this button for more than one second, the chaser sequence is performed with 10 steps per second. If you press *[Shift]* and *[STEP]* ▲ / *[Cross Setup]* simultaneously, you activate or deactivate the 'Cross' function in 'Chase' mode. When the **Cross Off** LED lights up, press *[Cross]* to call up or exit the 'Cross' function.
17	*[STEP]* ▼ / *[Blind]* button Press this button to decrease the right two digits in the display by one. If you hold down this button for more than one second, the display digits run quickly down starting from the current value to the minimum, to then restart from the maximum. In 'Chase' mode, press this button to perform the chaser sequence step by step backwards. If you hold down this button for more than one second, the chaser sequence is performed with 10 steps per second. If you press *[Shift]* and *[STEP]* ▼ / *[Blind]* simultaneously, you activate or deactivate the 'Blind' function in 'Chase' mode. The **Enable** LED lights up when the 'Blind' function is activated.

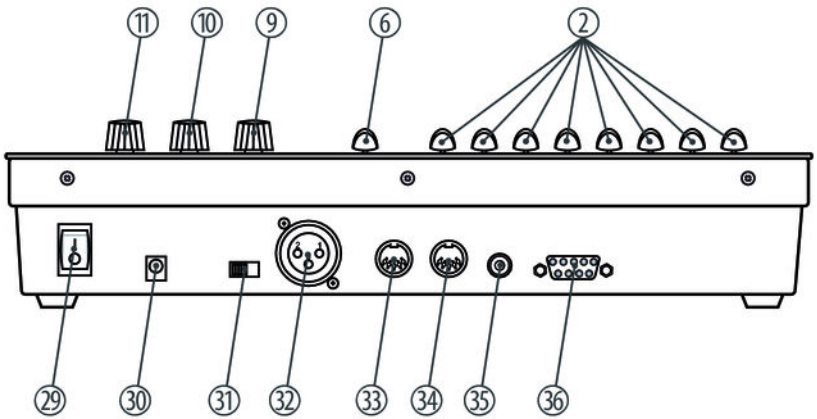
18	*[Add/Kill]* button Use this button to specify how the Flash buttons 1…16 should affect the chaser sequence playback. In 'Add' setting, the yellow LED lights up next to the button. If you now press one of the flash buttons during the course of a chaser sequence, the chaser sequence will no longer play, but only that channel is set to maximum brightness (100 %, DMX value 255), which is assigned to this button; the other channels are blackout (0 %, DMX value 0). So the flash function temporarily replaces the performance of the chaser sequence. But the chaser sequence itself continues invisibly. In 'Kill' setting, the LED is off. If you now press one of the flash buttons during the course of a chaser sequence, the chaser performance will continue and, additionally, that channel is switched to maximum brightness (100 %, DMX value 255) which is associated with the button. So the flash function is superimposing the chaser sequence.
19	*[Program]* / *[End Step]* button Press and hold this button for more than one second to call up the 'Program' mode. The adjacent LED lights up then. Now you can programme 30 variable chaser sequences (with numbers 1…30), each to include up to 99 steps. Press this button to save your settings as a single step. The display shows the next step to be programmed. Pressing *[Shift]* and *[Program]* / *[End Step]* simultaneously in 'Program' mode determines the current step as the final step of the chaser sequence.

20	*[Assign]* / *[Delete Program]* button Press and hold this button for more than one second to call up the 'Assign' mode. The adjacent LED lights up then. In 'Assign' mode, press *[Assign]* first, then press one of the FLASH buttons to assign the current level to this button. Press *[Shift]* and *[Assign]* / *[Delete Program]* simultaneously in 'Program' mode to delete the selected chaser sequence.
21	*[Patch]* / *[MIDI Channel]* button Activates the function for swapping the channel assignment. Keep the buttons *[Shift]* and *[Patch]* / *[MIDI Channel]* simultaneously pressed for more than one second to call up the function for MIDI channel setting.
22	*[Full On]* button To switch channels 1…16 to full brightness (100 %, DMX value 255).
23	*[Shift]* button Activates the second assignment of the keys.
24	*[Loop]* / *[Loop Exit]* button Activates the 'Loop' function in chaser sequence performance. Press *[Shift]* and *[Loop]* / *[Loop Exit]* simultaneously to exit the 'Loop' function.

25	*[Chase]* / *[Audio]* button Activates the 'Chase' mode for chaser sequence performance. The status LED **Chase** in the display lights up. In this mode, the processing speed is controlled via the **SPEED** control. Press *[Shift]* and *[Chase]* / *[Audio]* simultaneously to call up the 'Audio Chase' function for sound control during chaser performance. The status LED **Audio** lights up in the display.
26	*[Tap Sync]* / *[Manual Step]* button Activates the 'Tap Sync Chase' function to manually input the step duration (beat) during chaser sequence performance. The status LED **Tap Sync** lights up in the display. The playback speed is the result from how quickly you press *[Tap Sync / Manual Step]* twice in a row. Press *[Shift]* and *[Tap Sync]* / *[Manual Step]* simultaneously to call up individual stored scenes in 'Manual Step' function. The status LED **Manual Step** lights up in the display.

27	*[Stand By]* / *[Manual]* button Press *[Stand By / Manual]* to call up the 'Standby' mode or exit it again. In 'Standby' mode, the yellow LED next to the button is flashing. The faders, the Latch buttons and the master level generated by the current pattern are turned off. The Flash buttons and the *[Full On]* button remain functioning. Press *[Shift]* and *[Stand By]* / *[Manual]* simultaneously to call up the 'Manual' mode. The status LED **Manual** lights up in the display. The display shows the Master fader setting in a range between *'000'* and *'100'*.
28	Control LEDs **Channel Flash**: Unit is operational. **Assign Kill**: (not supported by current software version) **Assign Add**: (not supported by current software version) **No Fade Time**: In 'Chase' mode, the chaser steps follow each other directly in a row (hard break). **Step Time**: In 'Chase' mode, the chaser steps are faded (smooth transition). **Cross Off**: 'Cross' function is deactivated. **Cross On**: 'Cross' function is activated. **MIDI Signal**: The unit receives a MIDI signal. **Enable**: 'Blind' function is activated.

Rear panel



29	Main switch to turn the unit on or off. Your settings and the stored scenes and chaser sequences are retained, even when the unit is switched off.
30	Connection socket for the power supply adapter.
31	DMX polarity switch.
32	Lockable DMX outlet socket.
33	**MIDI THRU** MIDI outlet; transmits the MIDI data received on the **MIDI IN** port.
34	**MIDI IN** MIDI input.
35	Audio input (line level, 100 mV to 1 V_{SS})
36	Connection for a foot switch as remote control.

8 Operating

After switching the device on, it performs a short self-test. Subsequently, the unit switches automatically to ‘Standby' mode and is operational.

Operating modes

The device supports the following operating modes:

Operating mode	Application	
Manual	Channels 1 to 8 are controlled directly via faders 1…8 and Flash buttons 1…8. Channels 9 to 16 can be controlled as pure switching channels via the Flash and Latch buttons (9…16).	
Assign	Saving scenes.	
Patch	Assigning DMX channels.	
MIDI Channel	Device control via MIDI interface.	
Standby	Blackout of DMX channels 1…16 (0 %, DMX value 0); the Flash buttons and the *[Full On]* button remain functioning.	
Program	Saving chaser sequences, which consist of steps (patterns).	
Chase	Chaser sequence performance. This operating mode offers the following functions:	
	Manual Step	Stepwise playback.
	Loop Chase	Endless loop playback.

Operating mode	Application	
	Audio Chase	Sound-controlled playback.
	Tap Sync Chase	Playback with manually adjusted speed.
	Blind	Fading out a DMX channel.
	Cross	Assigning the 'Cross fader' function to the **MASTER** fader for a smooth transition between steps.

Manual operation

1. Press *[Shift]* and *[Stand By]* / *[Manual]* to change to 'Manual' mode.
2. If the yellow LED is flashing next to the button *[Stand By]* / *[Manual]*, press *[Stand By]* / *[Manual]*.

Saving scenes

1. To change to the 'Assign' mode, press *[Assign]* / *[Delete Program]* until the red LED next to the button lights up.
   ⇨ The display shows *'AS:--'*.
2. If the yellow LED is flashing next to the *[Stand By]* / *[Manual]* button, press *[Stand By]* / *[Manual]*.
3. Use the faders (channels 1…8) and the Latch buttons (channels 9…16) to configure the desired lighting effect for the scene.
4. Simultaneously press *[Assign]* / *[Delete Program]* and that Flash button 1…16, where you want the scene to be saved.
   ⇨ All LEDs of the device briefly light up. The number of the assigned flash button is indicated in the right half of the display.

Calling up saved scenes

1. Simultaneously press *[Shift]* and *[Tap Sync]* / *[Manual Step]*.

   ⇨ The **Manual Step** LED lights up in the display.

2. Select the saved scene via one of the Flash buttons 1…16 or the faders.

   When you press one of the Flash buttons, its programmed scene will be performed with full brightness as long as you press the button. If you use the associated fader, the scene will be shown permanently. The brightness then depends on the fader setting.

Saving a chaser sequence

1. Press *[Program]* / *[End Step]* until the green LED lights up next to the button.
   ⇨ The display shows *'01:01'*.
2. If the yellow LED is flashing next to the *[Stand By]* / *[Manual]* button, press *[Stand By]* / *[Manual]*.
3. Use the *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* button to set the number where you want to save the chaser sequence. The numbers 1…30 are designated for freely programmable chaser sequences.
   ⇨ All LEDs of the device briefly light up. The set number of the chaser sequence is indicated in the left half of the display.
4. Slide the **MASTER** fader all the way up.
5. Use the faders (channels 1…8) and the Latch buttons (channels 9…16) to configure the desired settings for this step of the chaser sequence.
6. Press *[Program]* / *[End Step]* to save the step.
   ⇨ The number of the next step is indicated in the right half of the display.
7. Repeat steps 5 and 6 for each chaser step. You can save up to 99 steps.

8. Press *[Shift]* and *[Program]* / *[End Step]* after the final step. That saves the chaser sequence and ends the 'Program' mode.

   ⇨ All LEDs of the device briefly light up.

Calling up and playing chaser sequences

The programmed chaser sequences can be played in different ways.

1. Press *[Chase]* / *[Audio]*.

   ⇨ The control LED **Chase** lights up in the display.

2. If the yellow LED is flashing next to the *[Stand By]* / *[Manual]* button, press *[Stand By]* / *[Manual]*.

3. Use the *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* button to select a chaser sequence. Chaser sequences number 1…30 can be programmed by yourself, chaser sequences number 31…60 are preprogrammed.

   ⇨ The set number of the chaser sequence is indicated in the left half of the display. The selected chaser sequence is being played.

4. Use the rotary control **LEVEL** to adjust the overall brightness during chaser performance. Use the rotary control **SPEED** to adjust the playback speed.

5. **'Audio Chase' function**

If the chaser sequence should run sound-controlled, press *[Shift]* and *[Chase]* / *[Audio]*. The status LED **Audio** lights up in the display. Adjust the sensitivity for sound-controlled operation with the rotary control **AUDIO**.

6. **'Tap Sync Chase' function**

Turn the rotary control **SPEED** to minimum position if you want to specify the speed for the chaser sequence to be performed. Press *[Tap Sync / Manual Step]*, the status LED **Tap Sync** lights up in the display. Now, the playback speed results from how quickly you press *[Tap Sync / Manual Step]* twice in a row. This interval sets the step duration (beat). The chaser sequence starts after the second keystroke.

7. **'Manual Step' function**

Press *[Shift]* and *[Tap Sync]* / *[Manual Step]* simultaneously, if you want the chaser sequence to be performed step by step. The status LED **Manual Step** lights up in the display. You can now call up the individual steps with the *[STEP]* ▲ or *[STEP]* ▼ buttons.

8. Press *[Shift]* and *[PATTERN]* ▼ / *[Fade Time Setup]* to change the transition between steps. In 'No Fade Time' setting (hard break), the steps follow each other directly with the programmed settings. In 'Step Time' setting, there's a fading transition from one step to the next. One of both control LEDs **No Fade Time** and **Step Time** lights up according to your selection.

9. The chaser sequence runs in an endless loop until you press *[Shift]* and *[Stand By]* / *[Manual]* simultaneously. The number of the chaser sequence is indicated in the left half of the display, the right half shows the numbers of the respectively indicated step in succession.

'Cross' function

The 'Cross fader' function lets you use the **MASTER** fader for the playback of chaser sequences and thereby cross-fading steplessly between the steps.

1. Press *[Chase]* / *[Audio]*.

⇨ The status LED **Chase** lights up in the display.

2. If the yellow LED is flashing next to the *[Stand By]* / *[Manual]* button, press *[Stand By]* / *[Manual]*.

3. Use the *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* button to select a chaser sequence.

⇨ The set number of the chaser sequence is indicated in the left half of the display. The selected chaser sequence is being played.

4. Press *[Shift]* and *[STEP]* ▲ / *[Cross Setup]*.

⇨ The control LED **Cross On** lights up.

5. Turn the **LEVEL** control to maximum position and slide the **MASTER** fader to 10. The LED **M** lights up with full intensity.

6. Press *[Cross]*.

⇨ The LED **A** lights up with full intensity.

7.

Now you can play the individual steps of the chaser sequence in succession. Move the **MASTER** fader slowly down from position **10** to **0** and then back again. The number of the chaser sequence is indicated in the left half of the display, the right half shows the numbers of the respectively indicated step in succession. The brightness of the LEDs **A** and **B** corresponds to the fader position.

Blinding out a DMX channel temporarily ('Blind' function)

The 'Blind' function lets you completely turn off a DMX channel during playback of a chaser sequence via keystroke. This allows you to spontaneously react to what is happening, without having to stop the chaser sequence.

1. During playback of a chaser sequence, press *[Shift]* and *[STEP]* ▼ / *[Blind]*.

   ⇨ The control LED **Enable** lights up.

2. Press *[Shift]* and the Flash button of the desired DMX channel (1…8).

   ⇨ The selected channel is being set to zero.

3. Press *[Shift]* and the Flash button of the selected DMX channel (1…8) again to release the channel again.

4. If you want to completely switch off the 'Blind' function, press *[Shift]* and *[STEP]* ▼ / *[Blind]*.

   ⇨ The **Enable** LED turns off.

Loop playback of chaser sequences ('Loop Chase' function)

Using this function, you can connect multiple self-programmed or preprogrammed chaser sequences to each other and run them in a contiguous loop through.

1. Press *[Chase]* / *[Audio]*.
   ⇨ The status LED **Chase** lights up in the display.
2. If the yellow LED is flashing next to the *[Stand By]* / *[Manual]* button, press *[Stand By]* / *[Manual]*.
3. Use the *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* button to select a chaser sequence as being a part of the loop.
   ⇨ The set number of the chaser sequence is indicated in the left half of the display.
4. Press *[Loop]* / *[Loop Exit]*.
   ⇨ All LEDs of the device briefly light up.
5. Repeat steps 3 and 4 for all chaser sequences that you want to add to the loop.
6. To end playback, press *[Shift]* and *[Loop]* / *[Loop Exit]*.
   ⇨ The first selected chaser sequence continues alone.

Deleting a chaser sequence

1. Press *[Program]* / *[End Step]* until the green LED lights up next to the button.
   ⇨ The display shows *'01:01'*.
2. Use the *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* button, to select the number of the chaser sequence you want to delete.
   ⇨ The set number of the chaser sequence is indicated in the left half of the display.
3. Press *[Shift]* and *[Assign]* / *[Delete Program]*.
   ⇨ All LEDs of the device briefly light up. The chaser sequence is deleted, the memory slot is available again. The effect is only visible when you change to another chaser sequence with the *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* button or when you try to play the deleted chaser sequence.

Swapping channel assignment

In 'Patch' mode, you can reassign individual DMX channels, to e.g. assign one of the channels 9…16 to a fader.

1. Press *[Patch]* / *[MIDI Channel]* until the red LED lights up next to the button.
   ⇨ The display shows *'01:01'*.
2. Press *[STEP]* ▲ / *[Cross Setup]* or *[STEP]* ▼ / *[Blind]* repeatedly until the original channel number appears in the left half of the display.
3. Press *[PATTERN]* ▲ / *[Button Setup]* or *[PATTERN]* ▼ / *[Fade Time Setup]* repeatedly until the new channel number appears in the right half of the display.
4. Repeat steps 2 and 3 for all channels you want to exchange.
5. Press *[Patch]* / *[MIDI Channel]* until the red LED next to the button turns off.

Resetting to factory defaults

1. Press *[Shift]* and keep the button pressed.
2. Press the eight Latch buttons in succession in the following order: 9, 13, 10, 14, 11, 15, 12, 16.
3. Release the *[Shift]* button.

   ⇨ The display shows a running reset. After a few seconds, the unit is operational again. All settings and saved data have been reset.

9 MIDI settings

MIDI note assignment The device analyses note-on and note-off signals according to the table below.

Note number	Velocity	Function
22…81	Overall brightness	Chaser selection (1…60).
82…97	Brightness per channel	Corresponds to flash buttons 1…16.
99		'Full On' function: brings channels 1…16 to full brightness (100 %, DMX value 255).
101		Stepwise execution of the selected chaser sequence.
102		'Standby' function: blackouts all channels temporarily (0 %, DMX value 0) or respectively cancels the blackout.

MIDI control

The **MIDI Signal** LED indicates incoming MIDI signals. If no activity was detected on the MIDI interface for ten minutes, the LED turns off.

All chasers triggered via MIDI are processed synchronously and are not affected by the **LEVEL** control.

For a correct evaluation of the MIDI signals, the MIDI channel of the device must match the setting of the MIDI controller.

Changing the MIDI channel

1. Press *[Shift]* and *[Patch]* / *[MIDI Channel]* until the display shows a channel number, e.g. *'CH:06'* .
2. Use the button *[STEP]* ▲ / *[Cross Setup]* or *[STEP]* ▼ / *[Blind]* to adjust the desired channel.
3. Press *[Shift]* and *[Patch]* / *[MIDI Channel]* until the display returns to the previous information.

10 Technical specifications

Operating supply voltage	DC 9…12 V ⎓
Control protocol	DMX 512
Audio input	100 mV … 1 V_{SS}
Dimensions (W × D × H)	482 mm × 178 mm × 73 mm
Weight	2.3 kg

11 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	Check the mains power supply and the main switch.
DMX devices don't respond to the DMX controller	1. Check the DMX ports and cables for proper connection. Many DMX devices indicate whether they receive a DMX signal or not.
	2. Make sure, that the device is not in 'Standby' mode.
	3. Make sure, that the connected devices are properly configured. Are they set to DMX mode and are their start addresses in a range of 1…16? Check that by simply using the *[Full On]* button.
	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*.

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). 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.