



Replay Show

DMX Manager

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Table of contents

1	General information.....	5
	1.1 Symbols and signal words.....	5
2	Safety instructions.....	7
3	Features.....	10
4	Installation and starting up.....	11
5	Connections and controls.....	14
6	Operating.....	17
	6.1 Starting the device.....	17
	6.2 BRIDGE mode.....	17
	6.3 RECORD mode.....	24
	6.4 REPLAY mode.....	25
	6.5 System settings.....	27
	6.6 Menu overview.....	31
7	Technical specifications.....	33
8	Plug and connection assignments.....	35
9	Protecting the environment.....	36



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 for real-time recording, playback and distribution of DMX signals via LAN or WLAN. 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.



DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.



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 over-heat 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!

Radio interference due to electromagnetic fields!

The unit emits electromagnetic radio signals. Overlapping radio waves may cause interference with the device and other devices. Do not use the device in locations where the use of wireless devices is prohibited.



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!

Risk of fire due to installation of a wrong fuse!

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

3 Features

DMX manager with the following features:

- DMX recorder and Art-Net-Node with wireless function
- 2 DMX universes (1024 DMX channels)
- Real-time recording and playback of DMX and Art-Net signals
- Built-in WiFi access point
- Art-Net in/out via RJ45 socket or WLAN
- 8 directly recallable memory locations, each with up to 20 hours of recording capacity
- Operation via buttons and display on the unit
- 2 playback modes: Single playback or endless loop
- Dimmer and speed control
- 2in1 DMX merge (HTP / LTP / Override / Backup)
- 1in2 DMX splitter (adjustable via buttons and display)
- Power supply via Power Twist or USB port
- Includes SD card (16 GB) for storing the shows
- Robust metal housing

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.

Notes on radio transmission

- This equipment uses a frequency range that is free of charge and registration within the European Union.
For more information, please visit: <http://www.thomann.de>.
- Make sure that no metal objects are located between transmitter and receiver.
- Avoid interference by other radio and in-ear systems.



NOTICE!

Data transfer errors due to improper wiring!

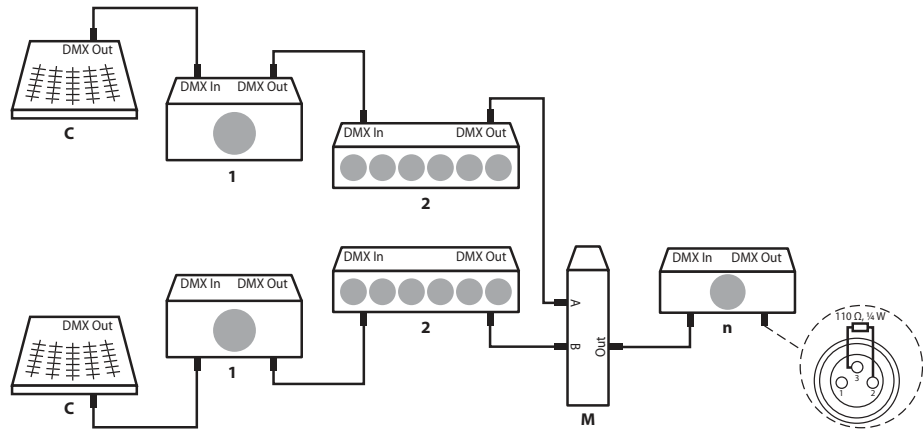
If the DMX connections are wired incorrectly, this can cause errors during the data transfer.

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 output of the first DMX device to the input of the second one and so on, to form a series connection. Connect the output of this DMX chain to input A on the front or back of the DMX Manager. Connect the output of a second DMX chain to input B on the front or back of the DMX Manager. Connect the output on the front or rear of the DMX Manager to the DMX input of a DMX controller or other DMX device. Make sure that the output of the last DMX device in the chain is terminated by a resistor (110 Ω , 1/4 W). Note that the ports on the front and back can not be used in parallel.



DMX indicator

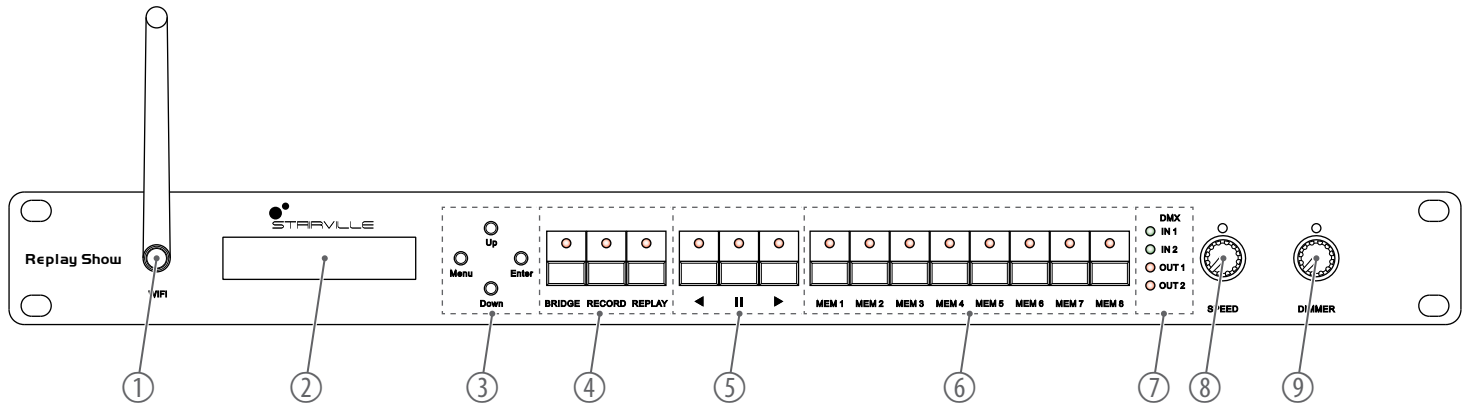
While both the device and the DMX manager are in operation, the DMX indicators [DMX IN 1]/ [DMX IN 2] show that a DMX signal is being received on the input.

Rack mounting

The device is designed for mounting in a standard 19-inch rack; it occupies one rack unit (RU).

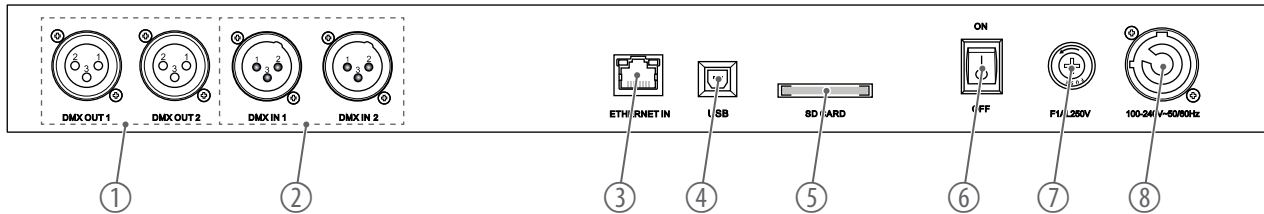
5 Connections and controls

Front panel



1	<i>[WiFi]</i> WLAN antenna, can be unscrewed
2	Display
3	<i>[MENU]</i> Button for activating the main menu and switching between the menu items. Closes an open submenu. <i>[UP]</i> / <i>[DOWN]</i> Button for switching between the menu items of a menu level, and for increasing and decreasing the displayed value by one. <i>[ENTER]</i> Button for confirming the set value
4	<i>[BRIDGE]</i> / <i>[RECORD]</i> / <i>[REPLAY]</i> Buttons for selecting the operating mode
5	◀ / / ▶ Buttons for controlling the recording and playback functions
6	<i>[MEM 1]</i> ... <i>[MEM 8]</i> Buttons for selecting the memory slots
7	<i>[DMX IN 1]</i> / <i>[DMX IN 2]</i> Status display. The indicator LED for the DMX input lights up green as soon as a signal is received. <i>[DMX OUT 1]</i> / <i>[DMX OUT 2]</i> Status display. The indicator LED for the DMX output lights up red as soon as a signal is sent.
8	<i>[SPEED]</i> Rotary control for adjusting the speed
9	<i>[DIMMER]</i> Rotary control for adjusting the brightness

Rear panel



- | | |
|---|--|
| 1 | [DMX OUT 1] / [DMX OUT 2] 2 × DMX output, designed as an XLR socket |
| 2 | [DMX IN 1] / [DMX IN 2] 2 × DMX input, designed as an XLR plug |
| 3 | [ETHERNET IN] Network connection, designed as RJ45 socket, for data input and output |
| 4 | [USB] USB 2.0, type B for alternative power supply |
| 5 | [SD CARD] SD card slot for the supplied memory card |
| 6 | [ON] / [OFF] Main switch. Turns the device on and off. |
| 7 | Fuse holder |
| 8 | Lockable input socket (Power Twist) for the power supply of the device |

6 Operating

6.1 Starting the device

Connect the device to the power grid and turn it on with the main switch to start operation. The display shows the current firmware version. Press *[MENU]* to enter the main menu and make further settings.

6.2 BRIDGE mode

In BRIDGE mode, the device operates as a signal converter. You can switch the device to SPLITTER mode or MERGE mode.

Menu level 1	Function
<i>'Bridge Mode01 [DMXin>DMXout]'</i>	SPLITTER mode with 3 options for splitting incoming signals
<i>'Bridge Mode02 [DMXin>LAN]'</i>	Signal input: DMX Signal output: LAN

Menu level 1	Function
'Bridge Mode03 [LAN>DMXout]'	Signal input: LAN Signal output: DMX
'Bridge Mode04 [WiFi>DMXout]'	Signal input: WLAN Signal output: DMX
'Bridge Mode05 [WiFi>LAN]'	Signal input: WLAN Signal output: LAN
'Bridge Mode06 [DMX MERGE]'	MERGE mode offers 4 options for combining the two DMX inputs

6.2.1 SPLITTER mode

In SPLITTER mode, the device offers 3 options for dividing incoming signals.

1. ➤ Press *[BRIDGE]* to enter BRIDGE mode.
 - ⇒ The *[BRIDGE]* LED lights up.
2. ➤ Press *[UP]* or *[DOWN]* until the display shows 'Bridge Mode01 [DMXin>DMXout]'.
3. ➤ Press *[ENTER]* to confirm the selection.

4. ➤ Press *[UP]* or *[DOWN]* to select the signal splitting method:

Menu level 2	Function
'IN1/2>OUT1/2'	Inputs <i>[DMX IN 1]</i> and <i>[DMX IN 2]</i> distribute the signals to the outputs <i>[DMX OUT 1]</i> and <i>[DMX OUT 2]</i> respectively
'IN1>OUT1&2'	Input <i>[DMX IN 1]</i> distributes the signals to the outputs <i>[DMX OUT 1]</i> and <i>[DMX OUT 2]</i>
'IN2>OUT1&2'	Input <i>[DMX IN 2]</i> distributes the signals to the outputs <i>[DMX OUT 1]</i> and <i>[DMX OUT 2]</i>

5. ➤ Press *[ENTER]* to confirm the selection.

6.2.2 MERGE mode

In MERGE mode, the device offers 4 options for merging DMX signals into a new signal: HTP, LTP, OVERRIDE and BACKUP.

HTP (High Take Precedence Modus)

In HTP mode, the highest DMX value has priority.

- 1.** ➤ Press *[BRIDGE]* to enter BRIDGE mode.
 - ⇒ The *[BRIDGE]* LED lights up.
- 2.** ➤ Press *[UP]* or *[DOWN]* until the display shows *'Bridge Mode06 [DMX MERGE]'*.
- 3.** ➤ Press *[ENTER]* to confirm the selection.
- 4.** ➤ Press *[UP]* or *[DOWN]* until the display shows *'HTP'*.
- 5.** ➤ Press *[ENTER]* to confirm the selection.
 - ⇒ HTP mode is activated.
 - ⇒ If 2 signals are present on the inputs of the device, the signal with the higher value overwrites the other signal.
- 6.** ➤ Press *[UP]* or *[DOWN]* to increase or reduce the DMX value for *'DMX1'*.
- 7.** ➤ Press *[ENTER]* to confirm the selection.
- 8.** ➤ Press *[UP]* or *[DOWN]* to increase or reduce the DMX value for *'DMX2'*.
- 9.** ➤ Press *[ENTER]* to confirm the selection.
- 10.** ➤ Press *[MENU]* to return to the parent menu level.

LTP (Latest Takes Precedence)

In LTP mode, the most recent DMX value has priority.

- 1.** ▶ Press *[BRIDGE]* to enter BRIDGE mode.
 - ⇒ The *[BRIDGE]* LED lights up.
- 2.** ▶ Press *[UP]* or *[DOWN]* until the display shows '*Bridge Mode06 [DMX MERGE]*'.
- 3.** ▶ Press *[ENTER]* to confirm the selection.
- 4.** ▶ Press *[UP]* or *[DOWN]* until the display shows '*LTP*'.
- 5.** ▶ Press *[ENTER]* to confirm the selection.
 - ⇒ LTP mode is activated.
 - ⇒ If 2 signals are present on the inputs of the device, the two most recently modified values are applied.

OVERRIDE

In OVERRIDE mode, the signals of both inputs are merged to form a new signal with a start address specified.

- 1.** ➤ Press *[BRIDGE]* to enter BRIDGE mode.
 - ⇒ The *[BRIDGE]* LED lights up.
- 2.** ➤ Press *[UP]* or *[DOWN]* until the display shows *'Bridge Mode06 [DMX MERGE]'*.
- 3.** ➤ Press *[ENTER]* to confirm the selection.
- 4.** ➤ Press *[UP]* or *[DOWN]* until the display shows *'OVERRIDE'*.
- 5.** ➤ Press *[ENTER]* to confirm the selection.
- 6.** ➤ Press *[UP]* or *[DOWN]* to increase or reduce the DMX value for *'DMX1'*.
- 7.** ➤ Press *[ENTER]* to confirm the selection.
- 8.** ➤ Press *[UP]* or *[DOWN]* to increase or reduce the DMX value for *'DMX2'*.
- 9.** ➤ Press *[ENTER]* to confirm the selection.
 - ⇒ OVERRIDE mode is activated.
 - ⇒ The signals of both inputs are merged to form a new signal with a start address specified.

BACKUP

In BACKUP mode, the signal of the other input is accepted if no signal is present on one input.

- 1.** ▶ Press *[BRIDGE]* to enter BRIDGE mode.
 - ⇒ The *[BRIDGE]* LED lights up.
- 2.** ▶ Press *[UP]* or *[DOWN]* until the display shows '*Bridge Mode06 [DMX MERGE]*'.
- 3.** ▶ Press *[ENTER]* to confirm the selection.
- 4.** ▶ Press *[UP]* or *[DOWN]* until the display shows '*BACKUP*'.
- 5.** ▶ Press *[ENTER]* to confirm the selection.
 - ⇒ BACKUP mode is activated.
 - ⇒ If a signal is present on input 1, the signal is output on the device output. If no signal is present on input 1, the signal from input 2 is output on the device output.

6.3 RECORD mode

In RECORD mode, the data of a light show can be recorded via Ethernet (LAN), WLAN or the two DMX inputs. There are 8 memory slots, each with up to 20 hours of recording capacity. The data are stored on the SD card included in the delivery.

1. ▶ Press *[RECORD]* to enter RECORD mode.
 - ⇒ The *[RECORD]* LED lights up.
2. ▶ Press *[UP]* or *[DOWN]* to select the required recording mode:

Menu level 1	Function
'Record Mode01 [DMXin>SD&DMXo]'	Signal input: DMX Signal output: SD card, DMX
'Record Mode02 [LAN>SD&DMXo]'	Signal input: Art-Net via LAN Signal output: SD card, DMX
'Record Mode03 [WiFi>SD&DMXo]'	Signal input: Art-Net via WLAN Signal output: SD card, DMX
'Record Mode04 [WiFi>SD&LAN]'	Signal input: Art-Net via WLAN Signal output: SD card, LAN

3. ▶ Press *[ENTER]* to confirm the selection.
4. ▶ Press *[MEM 1]...[MEM 8]* to select the required memory slot.

- ⇒ The corresponding *[MEM 1]...[MEM 8]* LED lights up.
- ⇒ The display shows the selected memory slot, the recording time and the error code 'err: -' (no error during recording) or 'err: x' (error during recording).

5. ▶ Press ▶ to start, II to pause or ◀ to stop recording and save.

6.4 REPLAY mode

In REPLAY mode, the recordings can be played individually or in an endless loop directly on the device or via an Android or iOS device.

1. ▶ Press *[REPLAY]* to enter REPLAY mode.

- ⇒ The *[REPLAY]* LED lights up.
- ⇒ The device automatically returns to the last selected playback mode.

2. ▶ Press *[MEM 1]...[MEM 8]* to select the required memory slot.

- ⇒ The corresponding *[MEM 1]...[MEM 8]* LED flashes.
- ⇒ The LEDs for memory slots with stored data light up. Free memory slots cannot be selected.

- 3.** ▶ Press **II** to play back a single recording, or press **◀** or **▶** to play the recording on the occupied memory slots in an endless loop.
 - ⇒ The directions of the arrow keys indicate the playback direction for the memory slots.
- 4.** ▶ Use the *[SPEED]* control to set the speed of the stored light show to a value between 25% (slow) and 200% (fast).
- 5.** ▶ Use the *[DIMMER]* control to set the brightness of the stored light show to a value between 0% (dark) and 100% (bright).
- 6.** ▶ Press **II**, **◀** or **▶** to stop playback.

6.5 System settings

In the system settings you can update the device software, restore the device to factory defaults, change the settings for LAN mode and WLAN mode, and specify a mode for each memory slot.

Menu level 1	Menu level 2	Function
'System Setup [New software]'		Performing a software update
'System Setup [Factory Reset]'	'factory reset ? MENU-N ENTER-Y'	Restoring factory defaults
'System Setup [LAN]'	'LAN-ArtNet [Local/Remote]'	Setting the IP address and port address for LAN mode
'System Setup [WiFi]'	'WiFi-ArtNet [Local/Remote]'	Setting the SSID and IP address for WLAN mode
'System Setup [MEMORY SET]'	'MEMORY [1] REC over time'	Adjusting the memory mode

Software update

You can perform software updates using the supplied SD card.

1. ➤ Download the software update from www.thomann.de and save it to the main directory of the SD card.
2. ➤ Insert the SD card into the SD card slot.
3. ➤ Press *[MENU]* until '*System Setup [New software]*' appears on the display.
4. ➤ Press *[ENTER]* to confirm the selection.
 - ⇒ The software update is uploaded to the DMX Manager.

Factory defaults

You can restore the device to its factory defaults.

1. ➤ Press *[MENU]* until '*System Setup [Factory Reset]*' appears on the display.
2. ➤ Press *[ENTER]* to confirm the selection.
 - ⇒ The display shows '*factory reset ? MENU-N | ENTER-Y*'.
3. ➤ Press *[MENU]* to cancel the process and exit the menu. Press *[ENTER]* to reset the device to its factory defaults.

WiFi connection

The device can be controlled via ArtNet.

1. ➤ Press *[BRIDGE]* to enter BRIDGE mode.
 - ⇒ The *[BRIDGE]* LED lights up.
2. ➤ Press *[UP]* or *[DOWN]* until the display shows '*Bridge Mode04 [WiFi>DMXout]*'.

3. ▶ Press *[ENTER]* to confirm the selection.
4. ▶ Press *[MENU]* to open the main menu.
5. ▶ Press *[UP]* or *[DOWN]* until the display shows *'System Setup [WiFi]'*.
6. ▶ Press *[ENTER]* to confirm the selection.
7. ▶ Press *[UP]* or *[DOWN]* until the display shows *'WiFi-ArtNet [Local]'*.
8. ▶ Press *[ENTER]* to confirm the selection.
9. ▶ Press *[UP]* or *[DOWN]* to select the required settings:

Menu level 3	Function
<i>'WiFi Local Set [Set Restore]'</i>	Resetting the network settings Password: '1224'
<i>'WiFi Local Set [SSID]'</i>	Setting the SSID
<i>'WiFi Local Set [IP address]'</i>	Setting the IP address
<i>'WiFi Local Set [Port address]'</i>	Setting the port address
<i>'WiFi Local Set [CWIFI SSID & IP]'</i>	Confirming network settings

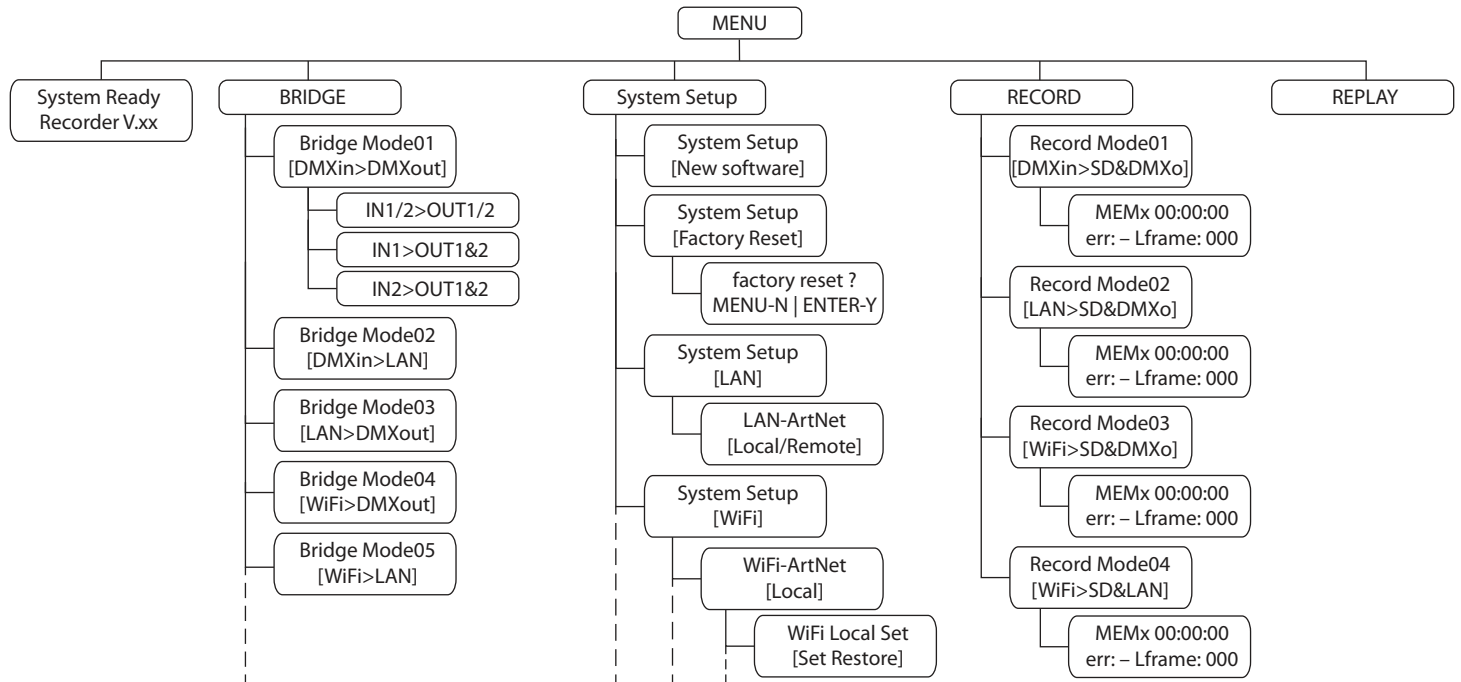
10. ▶ Press *[UP]* or *[DOWN]* until the display shows *'WiFi Local Set [CWIFI SSID & IP]'*.
11. ▶ Press *[ENTER]* to confirm the network settings.
12. ▶ Connect your end device to the device. Use the password *'12345678'*.

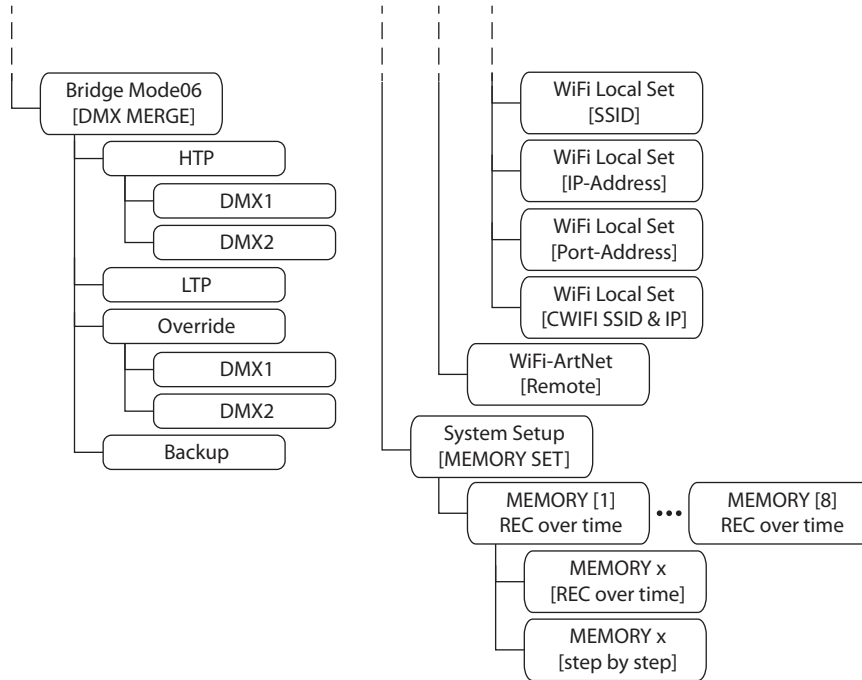
Memory mode

Recordings can be made over time or step by step. In memory mode, the required mode can be specified for each memory slot.

1. ➤ Press *[MENU]* until '*System Setup [MEMORY SET]*' appears on the display.
2. ➤ Press *[ENTER]* to confirm the selection.
3. ➤ Press *[UP]* or *[DOWN]* to select a memory slot from '*MEMORY 1...MEMORY 8*'.
4. ➤ Press *[ENTER]* to confirm the selection.
5. ➤ Press *[UP]* or *[DOWN]* to select the '*REC over time*' mode or '*step by step*' mode for the selected memory slot.
6. ➤ Press *[ENTER]* to confirm the selection.

6.6 Menu overview





7 Technical specifications

Operating modes	BRIDGE (HTP, LTP, OVERRIDE, BACKUP), RECORD, REPLAY	
Control	Buttons and display on the device	
Input connections	Power supply	1 × lockable input socket (Power Twist) USB 2.0, type B
	DMX signal input	2 × XLR chassis plug, 3-pin
	Ethernet / LAN	RJ45 socket
Output connections	DMX signal output	2 × XLR panel socket, 3-pin
Power consumption	5 W	
Preset LAN IP address	002.114.034.200	
Pre-set WLAN IP address	002.000.000.001	
WLAN	Frequency range	2.4 GHz
	Max. transmission power	16 mW
	Range in clear field of vision	30 m - 50 m
Supply voltage	100 - 240V ~ 50/60 Hz via Power Twist	
	5V via USB 2.0, type B	

Technical specifications

Fuse	5 mm × 20 mm, 1 A, 250 V, fast blow	
Installation properties	19 inches, 1 RU	
Dimensions (W × H × D)	482 mm × 44 mm × 135 mm	
Weight	2.1 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

Further information

External storage option	Yes
Type	Ethernet-Interface
Internal memory	1
Type of distribution	1in2
Max. DMX channels	1024
Number of universes (outputs)	2

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

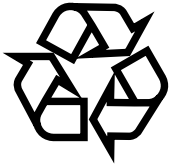
The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.



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

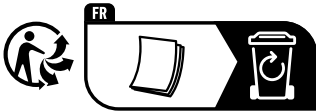
9 Protecting the environment

Disposal of the packing material



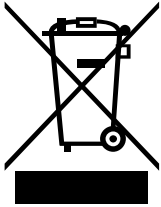
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

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.

