STAIRVILLE

WLS-DMX Pro G5

transceiver

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MUSIC IS OUR PASSION

user manual

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1 General information

This user manual contains important information on the 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 to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under *www.thomann.de*.

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.

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 signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for the wireless transmission of DMX signals in lighting systems. 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.

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

Always use proper ready-made insulated mains cabling (power cord). Do not modify the mains cable. 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.

Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures).

Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction.

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.

NOTICE!

Possible damage due to installation of a wrong fuse

The use of different types of fuses can cause serious damage to the unit. Fire hazard!

Only fuses of the same type may be used.

3 Features

Special features of the device:

- Wireless Solution G5 radio unit
- Switchable operating mode: Transmitter or receiver
- Wireless signal transmission in frequency range 2.4 GHz free of interference
- Latency-free wireless transmission of DMX signals
- Toll-free operation in the EU and NAFTA countries, no permit required
- Supports RDM
- Operation via buttons on the unit
- Key lock to protect against accidental change of operating mode
- Four LEDs for monitoring the operating status
- Lockable input socket (Power Twist TR1) for mains power supply
- Power cable included
- Fast mounting with omega brackets with quick-lock fasteners

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.

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.

NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

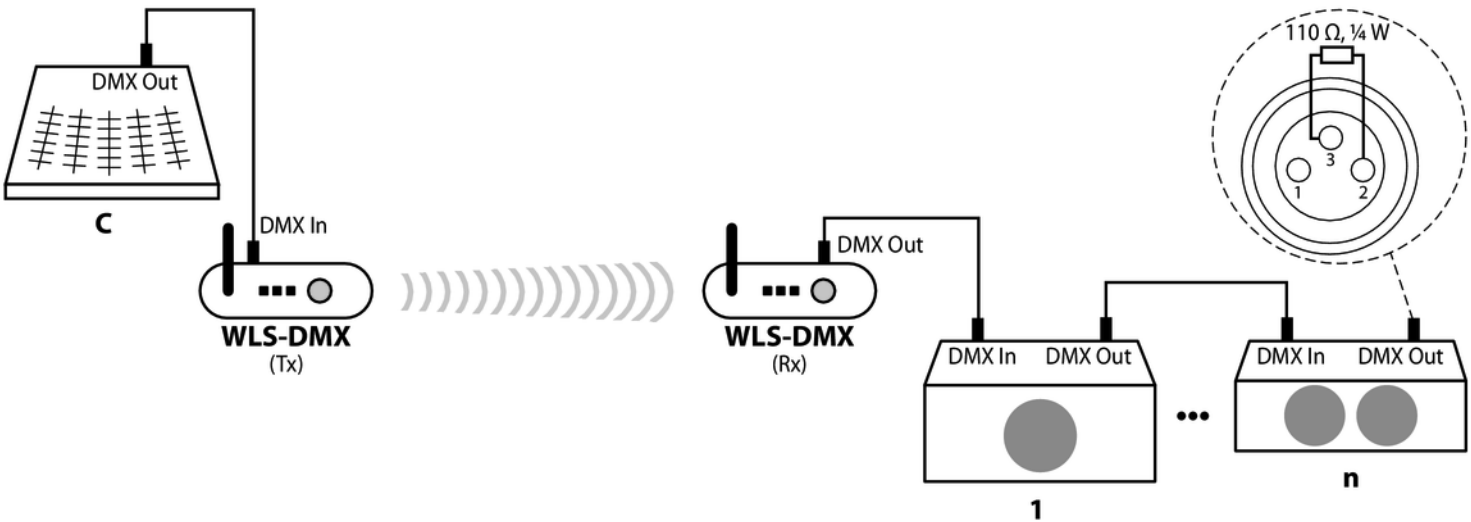
Never connect the DMX input or output to audio devices such as mixers or amplifiers.

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.

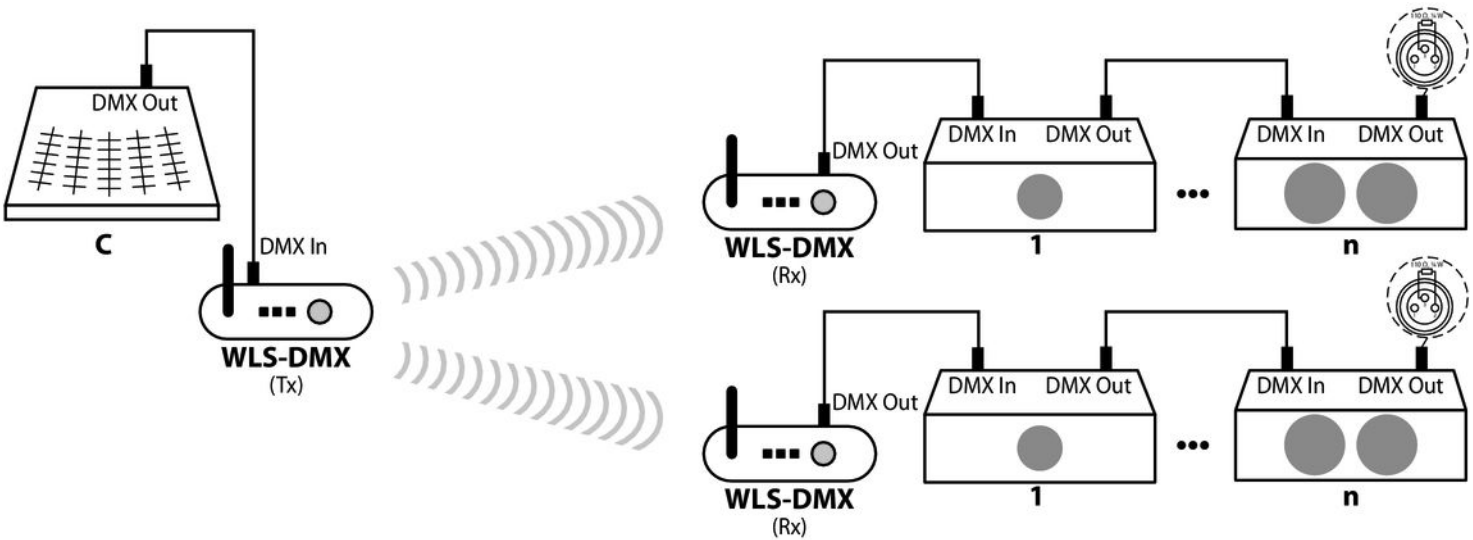
Point-to-point connection

Connect a device configured as transmitter to the DMX output of your DMX controller and a device configured as receiver to the DMX input of the first DMX device in the DMX chain that is to be controlled. In this point-to-point configuration the DMX signal from one transmitter is sent to one receiver.



Point-to-multipoint connection

Connect a device configured as transmitter to the DMX output of your DMX controller and a device configured as receiver to the DMX input of the first respective DMX device in the DMX chains that are to be controlled. In this point-to-multipoint configuration the DMX signal from one transmitter is sent to several receivers.

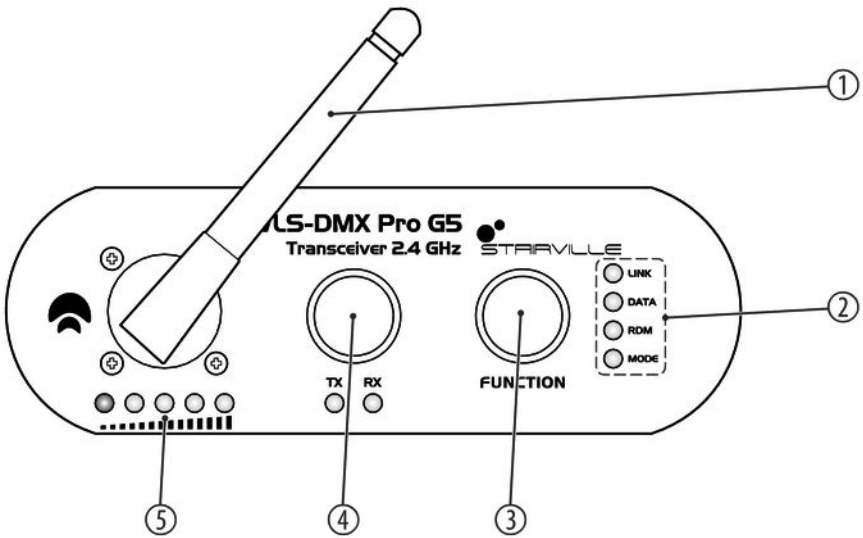


DMX chain

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, ¼ W).

6 Connections and controls

Front panel

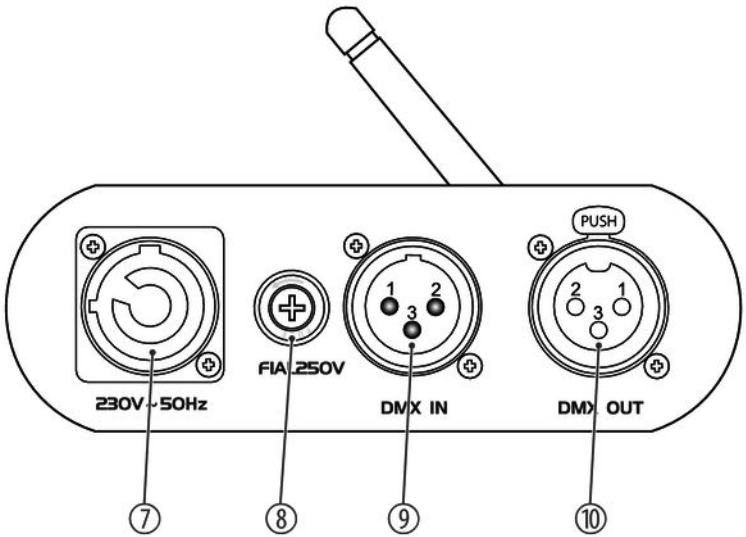


1	Antenna
2	Control LEDs
	[LINK] Meaning while device operates as **Transmitter**: ■ Flashing: The device tries to set up a transmission path to a receiver. ■ Constant light: Transmission path active to a receiver. ■ Off: Transmission path inactive to a receiver. Meaning while device operates as **Receiver**: ■ Flashing: The device tries to set up a transmission path to a transmitter. ■ Constant light: Transmission path active to a transmitter. ■ Off: Transmission path inactive to a transmitter.

	[DATA] Meaning while device operates as **Transmitter**: ■ Constant light: DMX signal is or was present. ■ Off: No DMX signal present Meaning while device operates as **Receiver**: ■ Constant light: DMX signal is being received. ■ Off: No DMX signal is being received.
	[RDM] The LED lights up when the transceiver and the connected device receive an RDM signal.
	[MODE] Off: The device is in G3 mode. Lights up blue: The device is in G4S mode. Lights up green: The device is in G5 mode.
3	*[FUNCTION]* Button for controlling functions. The button lights up when the device in switched on.

4	Button to toggle **Transmitter** and **Receiver** / *[TX]*/*[RX]* and to enable or disable the key lock. The LED *[TX]* lights: The device operates as **Transmitter**. The LED *[RX]* lights: The device operates as **Receiver**. The button lights up red when key lock is activated.
5	Control LEDs Radio signal strength indicators.

Rear panel



7	Lockable input socket (Power Twist TR1) for mains power connection.
8	Fuse holder
9	*[DMX IN]* DMX input, designed as XLR panel plug, 3-pin
10	*[DMX OUT]* DMX output, designed as XLR panel socket, 3-pin

7 Operating

Switching operating mode of transmitter / receiver

1. Press the button to toggle transmitter and receiver.
2. If the LED *[TX]* lights up after releasing the button to toggle Transmitter and Receiver, the device is configured as transmitter.
3. If the LED *[RX]* lights up after releasing the button to toggle Transmitter and Receiver, the device is configured as receiver.

Activating or deactivating key lock

1. Press the button for switching transmitter and receiver for six seconds to activate the key lock. The LED ring of the button lights up red.
2. To disable key lock, press the button again for six seconds. The LED ring turns off.

Establishing connection if the device operates as a transmitter

1. Make sure that the receivers to be connected to do not have an active connection to another transmitter.
2. Press the button *[FUNCTION]* on the transmitter briefly. The LEDs *[LINK]* on transmitter and receiver flash fast, the connection is being established.
3. If the LED *[DATA]* lights up, a DMX signal is present on the transmitter.

Cancelling active connection

If the device operates as **Receiver**:

- Press and hold *[FUNCTION]* for about four seconds.
  - ⇨ The connection to the transmitter is being interrupted. The LED *[LINK]* turns off.

If the device operates as **Transmitter**:

- Press and hold *[FUNCTION]* for about four seconds.
  - ⇨ The LED *[LINK]* flashes slowly for about six seconds. The connection to the receiver is being interrupted. The LED *[LINK]* on receiver turns off.

Switching G5/G4S/G3 modes

1. Press and hold *[FUNCTION]* until the LEDs *[LINK]* and *[DATA]* flash alternately.
2. Press *[FUNCTION]* again to select the mode G5, G4S or G3.
   ⇨ If the LED *[MODE]* is not lit, the device is in G3 mode.

   If the LED *[MODE]* lights up blue, he device is in G4S mode.

   If the LED *[MODE]* lights up green, the device is in G5 mode.
3. Press and hold *[FUNCTION]* to confirm until the LEDs *[LINK]* and *[DATA]* do not flash alternately any more.

The receivers must always be in the same mode or higher.

8 Technical specifications

Input connections	Voltage supply	Lockable input socket (Power Twist TR1)
	DMX control	1 × XLR panel plug, 3-pin
Output connections	DMX control	1 × XLR panel socket, 3-pin
Frequency band	2.4 GHz	
Range (outdoors)	500 m	
Operating supply voltage	230 V ~ 50 Hz	
Fuse	5 mm × 20 mm, 1 A, 250 V, fast-acting	
Power consumption	approx. 6 W	
Mounting properties	Omega bracket with Quick-Lock fasteners	
Dimensions (W × H × D)	145 mm × 60 mm × 120 mm	
Weight	1.0 kg	

Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non-condensing

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

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
No response to the DMX controller	1. Check the power supply of transmitter and receiver.
	2. Make sure that transmitter and receiver are operating in the same frequency range.
	3. Check the DMX connectors and cables for proper connection.
	4. Check the address settings and the DMX polarity.
	5. Try using another DMX controller.
	6. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.
Transmission is interrupted.	1. Try to improve the audio transmission by moving the transmitter closer to the receiver.
	2. Make sure that no metal objects near the transmitter or receiver obstruct the transmission.
	3. Modify the orientation of the antennas.

Symptom	Remedy
	4. If you use more than one wireless system at the same time, check the used frequencies and channels.
	5. Interference can also be caused by other radio or in-ear systems.

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

11 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.

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