the box pro

DSX 110, DSX 112, DSX 115

active speaker

th•mann
MUSIC IS OUR PASSION

user manual

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Table of contents

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.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

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.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor 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 device is designed for sound reinforcement. 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.

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) with a protective contact plug. 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.

CAUTION!

Possible hearing damage

The device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage.

Decrease the volume level immediately if you experience ringing in your ears or hearing impairment. If this is not possible, keep a greater distance or use sufficient ear protectors.

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!

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

The 2-way active speaker is characterized by the following features:

- 2-way active speaker box for PA and DJ application
- maximum output power 1400 W (DSX 110) or 2000 W (DSX 112, DSX 115)
- 10-inch woofer (DSX 110), 12-inch woofer (DSX 112) or 15-inch woofer (DSX 115)
- 1" compression driver
- backlit display for DSP functions
- 4 DSP sound programmes: Music, Live, Voice, DJ
- Low-Cut filter
- 2 × adjustable MIC / Line input, XLR / 1/4" combo socket
- 1 × Line out, XLR
- high-quality wooden housing with 35 mm tripod flange and carrying handles
- Standby function (DSX 110)

4 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.

NOTICE!

Possible property damage by magnetic fields

Loudspeakers produce a static magnetic field. Therefore, maintain an appropriate distance to devices that can be adversely affected or damaged by an external magnetic field.

The unit can be mounted on a tripod or set up on the floor or a sufficiently sized and stable surface.

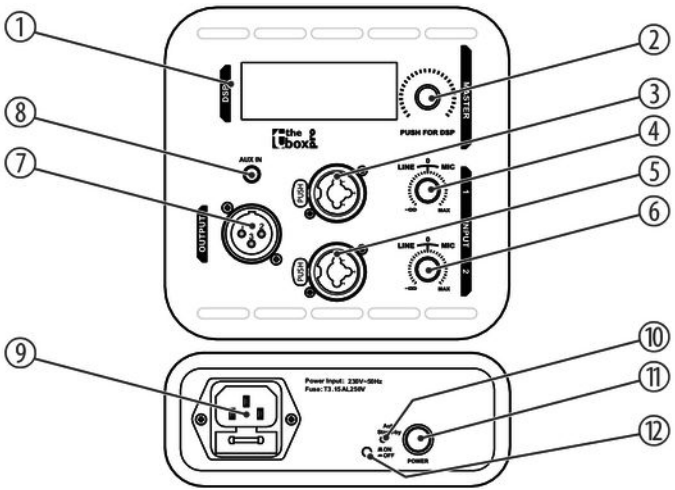
NOTICE!

Use of stands

When mounting the device onto a stand, ensure that the stand is in a safe and stable position and that the weight of the device does not exceed the maximum permissible load capacity of the stand.

5 Connections and controls

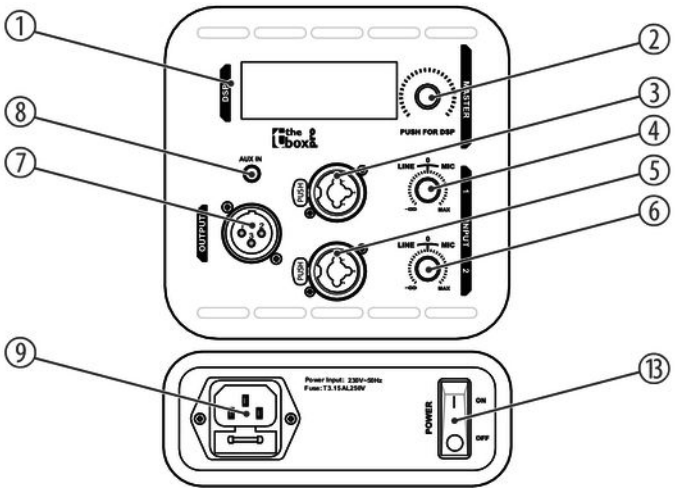
Model DSX 110



1	*[DSP]* backlit display for DSP functions
2	*[MASTER | PUSH FOR DSP]* Rotary control for the overall volume, push button for activating the DSP functions
3	*[INPUT 1]* Mic / Line input 1, designed as XLR / 1/4" combo socket, balanced
4	MAX INPUT 1 Rotary gain control for input 1. Turning clockwise increases the input gain for connecting microphones. Turning counterclockwise decreases the input gain for connecting instruments or devices with line level outputs.
5	*[INPUT 2]* Mic / Line input 2, designed as XLR / 1/4" combo socket, balanced
6	MAX INPUT 2 Rotary gain control for input 2. Turning clockwise increases the input gain for connecting microphones. Turning counterclockwise decreases the input gain for connecting instruments or devices with line level outputs.

7	*[OUTPUT]* Line output, designed as XLR chassis plug. The combined signal of both inputs is present here, unaffected by DSP.
8	*[AUX IN]* 3.5 mm phone socket for connecting line level devices such as MP3 or CD players. Stereo signals are combined.
9	*[POWER INPUT]* IEC chassis plug with fuse holder for the power supply
10	*[AUTO Stand-by]* Behind this opening, you find the switch that turns the automatic shutdown function on and off. When pressed, the function is deactivated; when released, it is activated and switches off the device after 60 minutes without input signal. The device automatically turns back on again on returning input signal.
11	*[POWER]* Mains switch. Turns the device on and off.
12	LED *[AUTO Stand-by]* This LED lights up when the automatic shutdown function is active.

Model DSX 112, DSX 115



1	*[DSP]* backlit display for DSP functions
2	*[MASTER | PUSH FOR DSP]* Rotary control for the overall volume, push button for activating the DSP functions
3	*[INPUT 1]* Mic / Line input 1, designed as XLR / 1/4" combo socket, balanced
4	MAX INPUT 1 Rotary gain control for input 1. Turning clockwise increases the input gain for connecting microphones. Turning counterclockwise decreases the input gain for connecting instruments or devices with line level outputs.
5	*[INPUT 2]* Mic / Line input 2, designed as XLR / 1/4" combo socket, balanced
6	MAX INPUT 2 Rotary gain control for input 2. Turning clockwise increases the input gain for connecting microphones. Turning counterclockwise decreases the input gain for connecting instruments or devices with line level outputs.

7	*[OUTPUT]* Line output, designed as XLR chassis plug. The combined signal of both inputs is present here, unaffected by DSP.
8	*[AUX IN]* 3.5 mm phone socket for connecting line level devices such as MP3 or CD players. Stereo signals are combined.
9	*[POWER INPUT]* IEC chassis plug with fuse holder for the power supply
13	*[POWER]* Mains switch. Turns the device on and off.

6 DSP functions

Sound programmes

Press the button once during operation *[MASTER | PUSH FOR DSP]* to call up the unit's DSP function *'Sound Programme'*. *'MUSIC'* appears in the display. Press again the button *[MASTER | PUSH FOR DSP]* to enable this function. Or turn the knob to select another sound programme *'LIVE'*, *'VOICE'* or *'DJ'* and press the *[MASTER | PUSH FOR DSP]* button.

3-band EQ

Press the button *[MASTER | PUSH FOR DSP]* twice during operation to call up the unit's DSP function *'3-Band EQ'*. *'HIGH EQ'* (treble control) appears in the display. Press again the button *[MASTER | PUSH FOR DSP]* to enable this function. Or turn the knob to select another sound programme *'MID EQ'* (mid control) or *'LOW EQ'* (bass control) and press the *[MASTER | PUSH FOR DSP]* button. Then turn the knob clockwise to raise the level of the selected frequency band by up to 12 dB. Or turn the knob counterclockwise to lower the level of the selected frequency band by up to 12 dB.

2 level meters

Press the button *[MASTER | PUSH FOR DSP]* three times during operation to call up the unit's DSP function *'2 Level Meters'*. *'INPUT 1'* appears in the display along with a graphical representation of input level 1. Turn the knob until *'INPUT 2'* appears in the display along with a graphical representation of input level 2.

Low-Cut filter

Press the button *[MASTER | PUSH FOR DSP]* four times during operation to call up the unit's DSP function *'High Pass Filter'*. *'80 Hz'* (frequency attenuation below 80 Hz) appears in the display. Press again the button *[MASTER | PUSH FOR DSP]* to enable this function. Or turn the knob to select another cut-off frequency *'100 Hz'*, *'120 Hz'* or *'150 Hz'* and press the *[MASTER | PUSH FOR DSP]* button.

7 Technical specifications

DSX 110

Speaker	Active full-range speaker Two-way system with 1" compression driver and 10-inch woofer with 2-inch voice coil	
Amp class	Class-D & Class-AB power stage	
Input connections	Mic / Line	2 × XLR / jack combo socket, balanced
	Line level player	1 × 3.5 mm jack socket
	Voltage supply	IEC chassis plug C14
Output connections	Line level mix from both inputs	1 × XLR, 3-pin
Output power	RMS: 350 W Peak: 1400 W	
Frequency range	65 Hz … 19 kHz	
Signal-to-noise ratio (1m/W)	96 dB	

Dispersion characteristics	90 × 60°	
Sound pressure level (SPL), max.	121 dB	
Power consumption	310 W	
Operating supply voltage	230 V ~ 50 Hz	
Fuse	5 mm × 20 mm, 3.15 A, 250 V, slow-blow	
Dimensions (W × H × D)	335 mm × 545 mm × 320 mm	
Weight	15.5 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non-condensing

DSX 112

Speaker	Active full-range speaker Two-way system with 1-inch compression driver and 12-inch woofer with 2.36-inch voice coil	
Amp class	Class-D & Class-AB power stage	
Input connections	Mic / Line	2 × XLR / jack combo socket, balanced
	Line level player	1 × 3.5 mm jack socket
	Voltage supply	IEC chassis plug C14
Output connections	Line level mix from both inputs	1 × XLR, 3-pin
Output power	RMS: 500 W Peak: 2000 W	
Frequency range	50 Hz … 19 kHz	
Signal-to-noise ratio (1m/W)	97 dB	
Dispersion characteristics	90 × 60°	

Sound pressure level (SPL), max.	128 dB	
Power consumption	380 W	
Operating supply voltage	230 V ~ 50 Hz	
Fuse	5 mm × 20 mm, 3.15 A, 250 V, slow-blow	
Dimensions (W × H × D)	395 mm × 640 mm × 390 mm	
Weight	19.1 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non-condensing

DSX 115

Speaker	Active full-range speaker Two-way system with 1-inch compression driver and 15-inch woofer with 3-inch voice coil	
Amp class	Class-D & Class-AB power stage	
Input connections	Mic / Line	2 × XLR / jack combo socket, balanced
	Line level player	1 × 3.5 mm jack socket
	Voltage supply	IEC chassis plug C14
Output connections	Line level mix from both inputs	1 × XLR, 3-pin
Output power	RMS: 500 W Peak: 2000 W	
Frequency range	43 Hz … 19 kHz	
Signal-to-noise ratio (1m/W)	98 dB	
Dispersion characteristics	90 × 60°	

Sound pressure level (SPL), max.	136 dB	
Power consumption	430 W	
Operating supply voltage	230 V ~ 50 Hz	
Fuse	5 mm × 20 mm, 3.15 A, 250 V, slow-blow	
Dimensions (W × H × D)	455 mm × 740 mm × 425 mm	
Weight	23.6 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non-condensing

Further information

	DSX 110	DSX 112	DSX 115
Multifunctional housing	Yes	Yes	Yes
Tripod flange	Yes	Yes	Yes
Truss-capable	No	No	No
Woofers	1 × 10 inch	1 × 12 inch	1 × 15 inch
Tweeter 1" and above	Yes	Yes	Yes

8 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

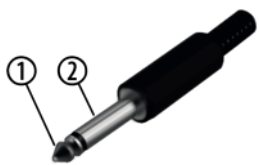
Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

1/4" TS phone plug (mono, unbalanced)

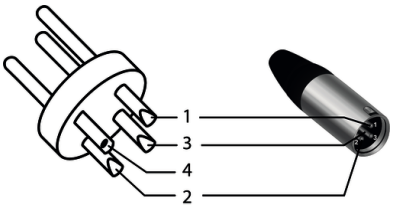


1	Signal
2	Ground, shielding

1/4" TRS phone plug (mono, balanced)

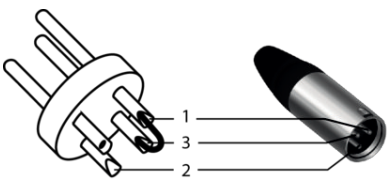
1	Signal (in phase, +)
2	Signal (out of phase, –)
3	Ground

XLR plug (balanced)



1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, –)
4	Shielding on plug housing (option)

XLR plug (unbalanced)



1	Ground, shielding
2	Signal
3	Bridged to pin 1

9 Cleaning

Device components

Clean the device components that are accessible from the outside regularly. The cleaning frequency depends on the operating environment: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the device components.

- Clean with a dry soft cloth.
- Stubborn dirt can be removed with a slightly dampened cloth.
- Never use solvents or alcohol for cleaning.

10 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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