



the
box

DSP 110 BP
Active speaker

Musikhaus Thomann
Thomann GmbH
Hans-Thomann-Straße 1
96138 Burgebrach
Germany
Telephone: +49 (0) 9546 9223-0
E-mail: info@thomann.de
Internet: www.thomann.de

17.03.2021, ID: 476686 (V2)

Table of contents

1	General information	4
	1.1 Further information.....	5
	1.2 Notational conventions.....	6
	1.3 Symbols and signal words.....	6
2	Safety instructions	9
3	Features	13
4	Installation and starting up	14
	4.1 Dealing with lithium batteries.....	16
5	Connections and controls	18
6	DSP functions	21
7	Technical specifications	25
8	Plug and connection assignment	30
9	Cleaning	33
10	Protecting the environment	34

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.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can 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 signs	Type of danger
	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.

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.



WARNING!

Incorrect handling of lithium batteries can result in injury

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries. Follow the advice on the correct handling of lithium batteries in the present section.



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!

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!

Risk of fire due to incorrect polarity



Incorrectly inserted batteries may destroy the device or the batteries. Ensure that proper polarity is observed when inserting batteries.



NOTICE!

Possible damage by leaking batteries



Leaking batteries can cause permanent damage to the device. Take batteries out of the device if it is not going to be used for a longer period.



NOTICE!

Possible staining



The plasticiser contained in the rubber feet of this product may possibly react with the coating of your parquet, linoleum, laminate or PVC floor and after some time cause permanent dark stains. In case of doubt, do not put the rubber feet directly on the floor, but use felt-pad floor protectors or a carpet.



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.



NOTICE!

Possible damage to lithium-ion batteries through incorrect storage



By deep discharge, lithium-ion batteries can be permanently damaged or lose some of their capacity. Before long breaks, charge the batteries to around 50 % of their capacity and then switch off the device. Store the device at room temperature or cooler in an environment as dry as possible. If the batteries are stored for a longer period, recharge them to 50 % every three months. Fully charge the batteries only shortly before use at room temperature.

3 Features

The device is characterized by the following features:

- Active full-range battery speaker
- Maximum output power (RMS / peak):
 - on mains operation: 120 W / 360 W
 - on battery operation: 90 W / 270 W
- 10" woofer
- 1" compression driver
- 2 class-D power stages
- 4 DSP sound programmes: Music, Live, Voice, DJ
- 3-band DSP EQ
- Low-Cut filter
- 2 × XLR / 1/4" phone jack combo socket for adjustable MIC / Line input
- 1 × RCA socket pair / 1 × 3.5 mm phone socket for stereo input
- 1 × XLR output socket
- Bluetooth
- Optional cover (Item no. 410588)

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.



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, e.g. a wall bracket.



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.



Comply with regulations

When installing and operating, make sure to follow the standards and regulations that apply in your country.

The speaker box has a 35 mm flanges for tripod mounting.

4.1 Dealing with lithium batteries



WARNING!

Incorrect handling of lithium batteries can result in injury

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.

When handled correctly and appropriately lithium batteries pose no risk.

Store lithium batteries in a cool, dry place, ideally in the original packaging.

Store lithium batteries away from heat sources (e.g. radiators or sunlight). Lithium batteries are hermetically sealed. Never attempt to open a lithium battery.

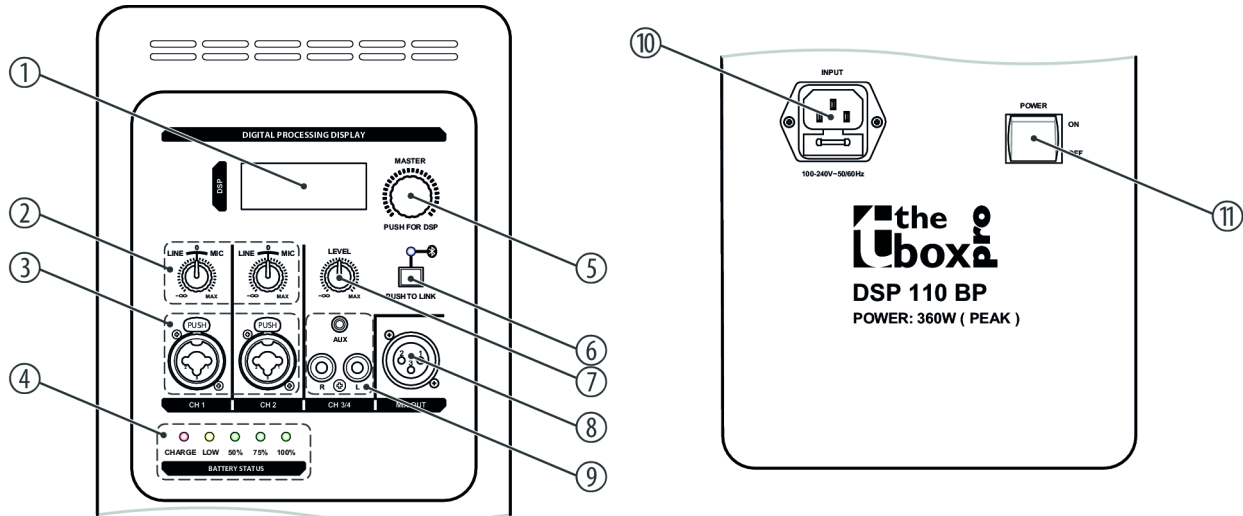
If the battery housing is damaged small amounts of the electrolyte may leak out. If this should happen, seal the lithium battery in airtight packaging and wipe up the traces of electrolyte using absorbent paper towels. You must wear protective rubber gloves when doing so. Clean your hands and the affected surface thoroughly with cold water.

Never attempt to recharge non-rechargeable lithium batteries. When charging lithium batteries you must use a suitable charging device intended for the purpose.

Before disposing of the device remove the lithium batteries. Protect used lithium batteries against potential short circuits, e.g. by covering the poles with adhesive tape.

Only use powder extinguishers or other suitable extinguishing agents to extinguish a burning lithium battery.

5 Connections and controls



1	[DSP]	backlit display for DSP functions
2	[LINE MIC]	Rotary gain control for input 1 or 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.
3	[CH1]	Mic / Line input 1, designed as XLR / 1/4" combo socket, balanced
	[CH2]	Mic / Line input 2, designed as XLR / 1/4" combo socket, balanced
4	[BATTERY STATUS]	Indicator LEDs for the battery charge level
	[100%], [75%], [50%]	LED lights green: Charge level 100%, 75% or 50%
	[LOW]	LED lights yellow: Charge level low
	[CHARGE]	LED flashes red: Charge level below 25% Recharge the battery.
5	[MASTER / PUSH FOR DSP]	Rotary control for overall volume (-60 dB ... +10 dB)
		Button to activate the DSP functions

6	<i>[PUSH TO LINK]</i>	Bluetooth connection button (Bluetooth pairing) Press the button to establish a Bluetooth connection with other Bluetooth-enabled devices.
7	<i>[LEVEL]</i>	Rotary gain control for input 3/4.
8	<i>[MIX OUT]</i>	XLR chassis socket, 3-pin, for line-level signal output. The combined signal of both inputs is present here, unaffected by DSP.
9	<i>[CH3/4]</i> <i>[AUX], [R], [L]</i>	RCA socket pair (L / R) / 3.5 mm phone socket, unbalanced, for connecting stereo input signal sources
10	<i>[INPUT]</i>	IEC connector with fuse holder for the power supply and for charging the battery
11	<i>[POWER ON / OFF]</i>	Main switch. Turns the device on and off.

6 DSP functions

Navigating the menu

The device shows the overall volume in dB.

1. ▶ Press *[MASTER VOL | PUSH FOR DSP]* to call up the main menu.
2. ▶ Turn *[MASTER VOL | PUSH FOR DSP]* to the left or right to highlight a menu item.
3. ▶ Press *[MASTER VOL | PUSH FOR DSP]* to call up the highlighted menu item.
4. ▶ Turn *[MASTER VOL | PUSH FOR DSP]* to the left or right to select a value.
5. ▶ Press *[MASTER VOL | PUSH FOR DSP]* to confirm a value.
6. ▶ To exit the menu and return to the volume control, select the menu item 'EXIT' and press *[MASTER VOL | PUSH FOR DSP]* to confirm.

Menu overview

Menu level 1	Menu level 2	Function
'MODE'	'MUSIC'	The sound programme for music gets activated.
	'LIVE'	The sound programme Live gets activated.
	'SPEECH'	The sound programme for speech gets activated.
	'DJ'	The sound programme for DJ applications gets activated.
'LOCATION'	'NORMAL'	The tone control for normal playback is activated.
	'MONITOR'	The tone control for stage monitors is activated.
'HIGH EQ'	'-12dB...+12dB'	Controls the treble (10 kHz).
'MID EQ'	'-12dB...+12dB'	Controls the mids (250 kHz).
'LOW EQ'	'-12dB...+12dB'	Controls the bass (80 kHz).
'SUB'	'OFF'	Low-Cut filter off.
	'80HZ'	Frequency suppression below 80 Hz

Menu level 1	Menu level 2	Function
	'100HZ'	Frequency suppression below 100 Hz
	'120HZ'	Frequency suppression below 120 Hz
	'150HZ'	Frequency suppression below 150 Hz
'DELAY'	'OFF'	Sound delay switched off.
	'0.1mS...16.0mS'	Sets the sound delay in milliseconds (0,1 ms...16,0 ms).
'LED MODE'	'OFF'	Indicator LED switched off.
	'ON'	Indicator LED lights up permanently.
	'LIMITER'	Indicator LED lights up when overloaded.
'LCD DIM'	'ON'	Backlight of the display is dimmed.
	'OFF'	Backlight of the display is normal.
'BRIGHT'	'0...10'	Controls the brightness of the display.
'CONTRAST'	'0...10'	Controls the contrast of the display.

Menu level 1	Menu level 2	Function
'RESET'	'Confirm Reset: No'	Cancels the factory reset. The existing settings are retained.
	'Confirm Reset: Yes'	The device is reset to factory default settings.
'INFO'	'DSP Firmware Vx.x.x'	The current firmware version is displayed.
'EXIT'		Exits the main menu and returns to the volume display.

7 Technical specifications

Speaker		10" woofer 1" compression driver
Amp class		2 × Class-D power stages
Input connections	MIC/Line	2 × XLR / 1/4" phone combi socket
	Stereo	1 × pair of RCA sockets (L/R)
	AUX	1 × 3.5 mm jack socket
Output connections	MIX output	XLR chassis socket, 3-pin
Output power	Mains operation	RMS: 120 W Peak: 360 W
	Rechargeable battery operation	RMS: 90 W Peak: 270 W
Frequency range		80 Hz ... 10 kHz

Technical specifications

Sound pressure level (SPL), max.		125 dB
Dispersion characteristics		90 × 90°
Power consumption		210 W
Bluetooth®	Frequency of operation	2.400 GHz ... 2.4835 GHz
	Max. transmission power	10 mW
Supply voltage		100 - 240 V ~ 50/60 Hz
Fuse		5 mm × 20 mm, 2 A, 250 V, slow-blow
Battery	Battery type	Lithium-ion
	Voltage	26 V
	Capacity	3600 mAh
	Charging time in the device	approx. 2.5 h
	Runtime at RMS	approx. 4 h
Mounting option		35 mm pole mount flange

Dimensions (W × H × D)		298 mm × 523 mm × 307 mm
Weight		10.5 kg
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20 %...80 % (non-condensing)

Further information

Simultaneous inputs	3
Mic Preamp	2
Tone control / Ch.	Yes
Master tone control	Yes
Effect	No
Wireless mic hand / head	No
opt. wireless	No
Remote control	No
Line Out	Yes
CD player	No
Bluetooth player	Yes
USB play	No
SD card play	No

Tuner	No
Trolley	No
Colour	Black
Cover	Item no. 410588

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)



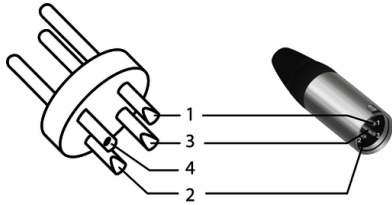
1	Signal
2	Ground, shielding

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



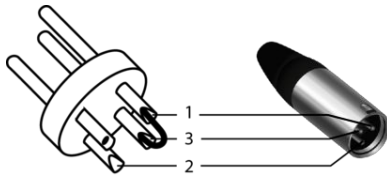
1	Signal (in phase, +)
2	Signal (out of phase, -)
3	Ground

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 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 batteries



Batteries do contain some hazardous chemicals so they should not be thrown away with the normal household waste. They should be returned to the manufacturer for disposal or recycled elsewhere in accordance with your local regulations.

Dispose lithium batteries only in discharged condition. Remove lithium batteries from the device before disposal. Protect used lithium batteries against potential short circuits, e.g. by covering the poles with adhesive tape. Dispose the built-in lithium batteries together with the device. Please check for an appropriate reception facility.

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.

DSP 110 BP



