the box

MBA75W MKII

mobile PA system

th•mann
MUSIC IS OUR PASSION

user manual

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

01.12.2016, ID: 234801

Table of contents

1 General notes 5
1.1 Further information 6
1.2 Notational conventions 7
1.3 Symbols and signal words 8
2 Safety instructions 10
3 Features 16
4 Installation and starting up 17
4.1 Battery operation 18
4.2 Microphone 18
4.3 Remote control 19
5 Connections and controls 21
6 Technical specifications 43
7 Plug and connection assignment 46
8 Cleaning 50

9 Protecting the environment 51

1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

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'*.

Cross-references

References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See *'Cross-references' on page 7*.

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 intended to be used in a sound reinforcement system. 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!

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 damage due to incorrect storage

Deep discharge can cause batteries to become permanently damaged or lose some of their capacity.

Before prolonged rest periods, charge the batteries to around 50 % of their capacity and then switch the equipment off. Store the equipment at a temperature between 10 °C and 32 °C in as dry an environment as possible. During extended storage periods, charge the batteries to 50 % approximately every three months.

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*.
- When operating, make sure that transmitter and receiver are set to the same channel.
- Never set more than one transmitter to the same channel.
- Make sure that no metal objects are located between transmitter and receiver.
- Avoid interference by other radio and in-ear systems.

3 Features

The mobile PA system is characterized by the following features:

- Compact all-in-one system
- Mains and battery operation for maximum flexibility
- 8" wide range speaker with integrated tweeter
- Output power: 75 W RMS
- Frequency response 50 Hz … 18 kHz ± 3 dB
- Integrated UHF receiver for the supplied UHF wireless microphone, 16 channels selectable
- Built-in cassette recorder, CD player (MP3 playback), USB port and SD card slot
- Infrared remote control
- 2 MIC inputs (XLR and 1/4" jack), 2 line inputs (RCA and 1/4" jack)
- 1 line out, 1 speaker out
- Plastic housing with tripod flange, carrying handle and casters

4 Installation and starting up

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.

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.

4.1 Battery operation

You can also operate the device independently of the mains power supply with the two installed rechargeable lead gel batteries (12 V, 5 Ah).

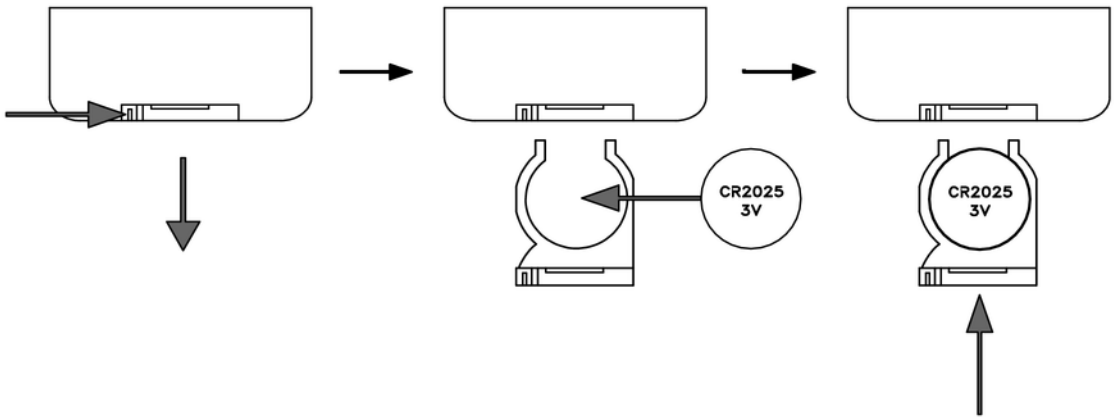
4.2 Microphone

Use only LR6 AA (1.5 V) batteries or rechargeable Ni-MH batteries (nickel metal hydride). Note the correct polarity when inserting the batteries.

4.3 Remote control

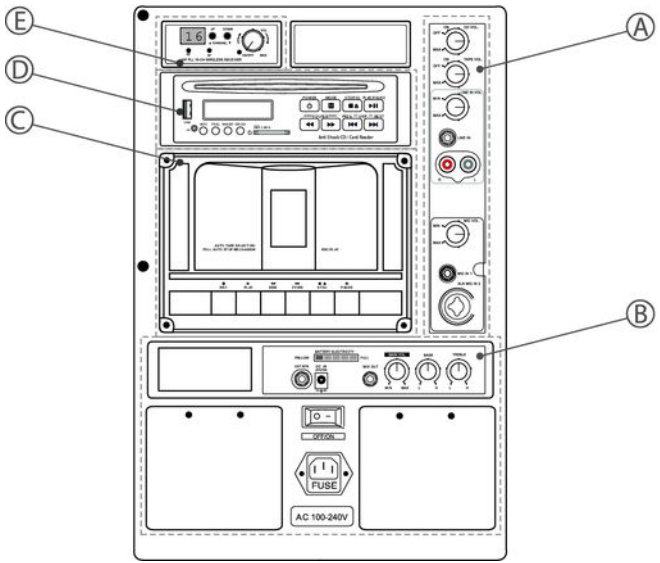
Insert the battery

Only use batteries of type CR2025 (3.5 V). To open the battery compartment, press the lock on the side downwards and then pull the battery holder out. When inserting the battery in the battery holder, the positive terminal must point upwards. Slide the battery holder with the battery inserted back into the battery compartment until it engages.

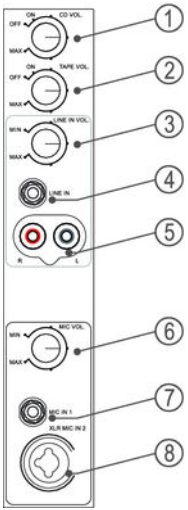

CR2025
3V
CR2025
3V

5 Connections and controls

Rear view - overview



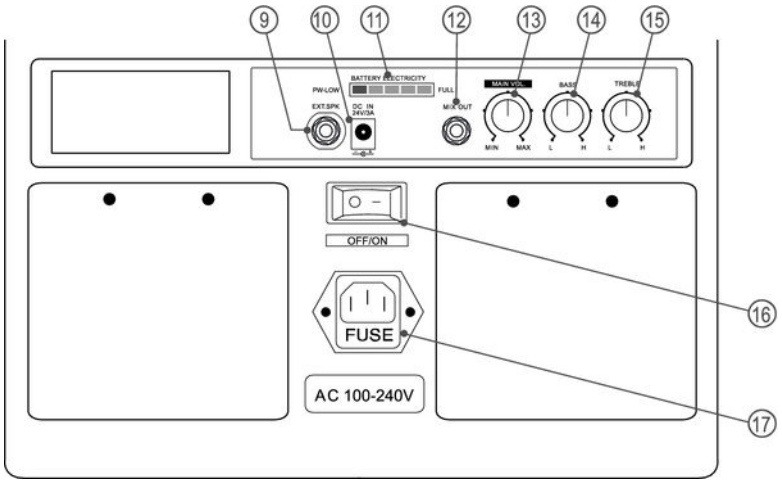
Partial view A



1	*[CD VOL.]* Volume control for CD playback with on/off switch.
2	*[TAPE VOL.]* Volume control for cassette playback with on/off switch.
3	*[LINE IN VOL.]* Volume control for the external line input.
4	*[LINE IN]* 6.35 mm jack audio input for amplifying external audio signals with line level.
5	*[LINE IN R / L]* Cinch audio input for amplifying external audio signals with line level.
6	*[MIC VOL.]* Volume control for cabled microphone input.

7	*[MIC IN 1]* Microphone input 6.35 mm jack.
8	*[XLR MIC IN 2]* XLR microphone input (symmetrical).

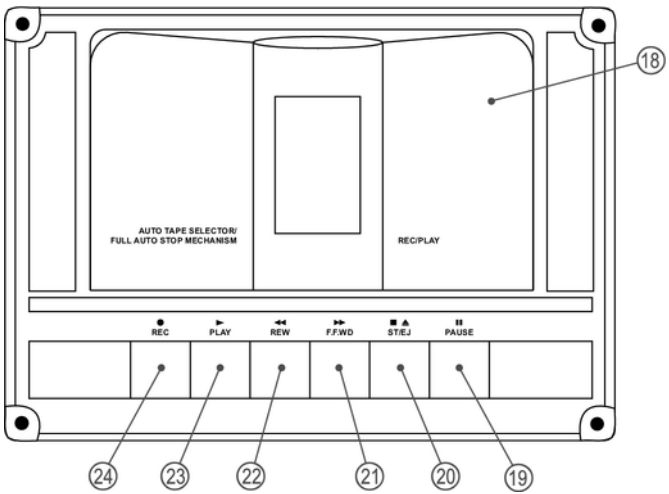
Partial view B



9	*[EXT.SPK]* Connect an external speaker here if necessary. This does not switch the installed speaker off.
10	*[DC IN 24V/3A]* Connection for operating a device via an external DC voltage source that delivers 24 V⎓ with at least 3A.
11	*[BATTERY ELECTRICITY]* Charge status display for the built-in battery. – When all the segments are lit up, the battery is fully charged. If only a few segments are lit up, this shows the respective level of discharge. – If the display for the mains power supply flashes green, the battery is being charged. – If the display lights up red, you should switch on the external power supply. If the red display goes out, the device has switched itself off due to the battery being flat.
12	*[MIX OUT]* Connect another transmission system or recording device here.

13	*[MAIN VOL.]* To adjust the main volume (microphone and CD/cassette).
14	*[BASS]* To adjust the bass level.
15	*[TREBLE]* To adjust the treble level.
16	*[OFF/ON]* Main switch to turn the device on and off.
17	Mains connection socket with fuse holder.

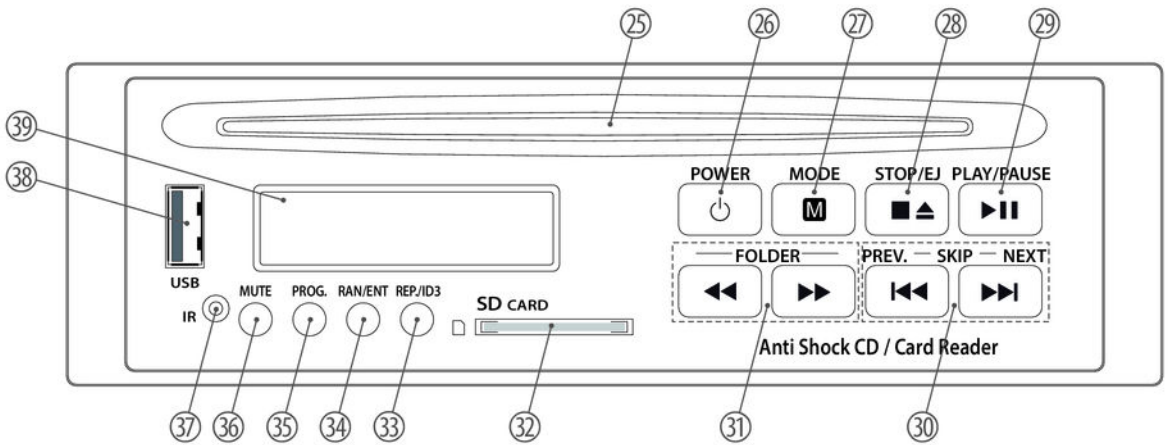
Partial view C



18	Cassette compartment
19	*[PAUSE]* A single press pauses playback or recording. Another press continues playback or recording.
20	*[ST]/[EJ]* A single press stops playback, recording or winding. A second press opens the cassette compartment cover.
21	*[F.FWD]* Winds the tape onto the right-hand reel.
22	*[REW]* Winds the tape onto the left-hand reel.

23	*[PLAY]* Starts playback of the audio track.
24	*[REC]* Activates the recording function. Also press *[PLAY]*to start recording.

Partial view D

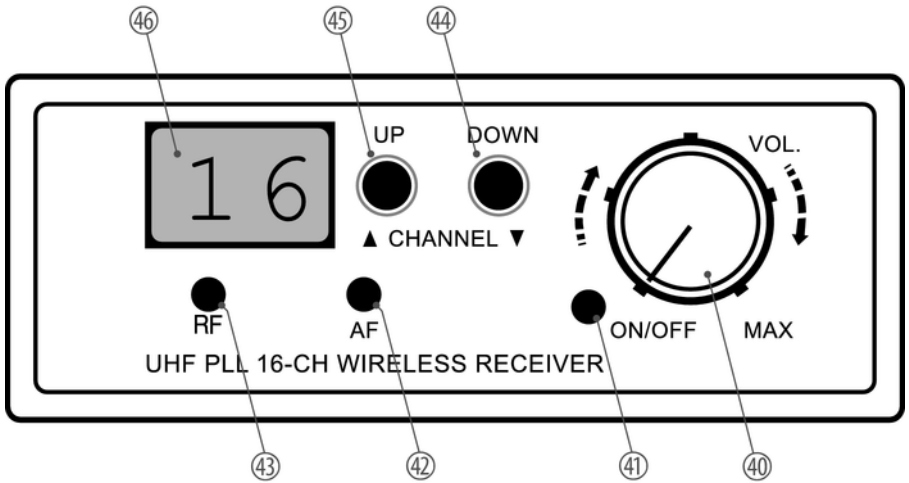


25	CD slot Insert a CD here. From around the middle of the CD, the device will automatically transport the remainder of it.
26	*[POWER]* Press this button to switch the device on (the main *[OFF/ON]* switch must be in the ON position for this). To switch the device off, keep this button pressed for 2 seconds.
27	*[MODE]* Press this button to change the operating mode (CD→USB→Memory card).
28	*[STOP/EJ]* Press this button to stop playback. Press this button again to have the device eject the disc slightly so that you can remove it.
29	*[PLAY/PAUSE]* ▶II Press this button to start or stop playback.
30	*[SKIP PREV.]* ⏮, *[SKIP NEXT]* ⏭ Press this button to skip forward or backward. Then press the *[PLAY/PAUSE]* ▶IIbutton to continue playback.

31	*[FOLDER]* ◀◀, *[FOLDER]* ▶▶ This button allows you to select the next or previous folder for playback.
32	*[SD CARD]* Insert SD or MMC cards into this slot.
33	*[REP./ID3]* Press this button once to repeat the current track. Press it twice to repeat all of the tracks in the current folder and three times to repeat all tracks. The repeat function is interrupted if you press the button four times. Press this button for at least two seconds to display the information saved in the MP3 file about the track currently playing.
34	*[RAN/ENT]* This button allows you to start playing all tracks in a random order. Press the button again to pause playback.
35	*[PROG]* This button allows you to start programming mode, which enables you to define the sequence of tracks yourself. Press *[PROG]*, select a track and press *[RAN/ENT]*. Repeat this step for all tracks that are to be included in the program. To play the tracks you have selected in this manner, press *[PLAY/PAUSE]* ▶II. To interrupt playback, press *[PROG]* twice.

36	*[MUTE]* Mutes the output or un-mutes it again.
37	*[IR]* The infra-red receiver for the remote control signals.
38	*[USB]* Connect USB storage media here.
39	Display Displays the CD playback status with the track number and running time.

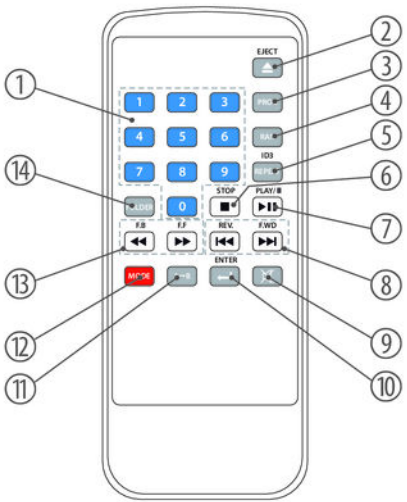
Partial view E



40	*[VOL.]* Turn the volume control clockwise to increase the volume. Turn it counter-clockwise to reduce the volume.
41	*[ON/OFF]* When the device is switched on, this display lights up.
42	*[AF]* AF signal display: The red LED “AF” lights up if the microphone signal is being received.
43	*[RF]* RF signal display: The yellow LED “RF” lights up if the device is receiving a carrier signal.
44	Display Shows the channel selected with UP / DOWN.

45	*[UP]* To select the next channel up.
46	*[DOWN]* To select the next channel down.

Remote control

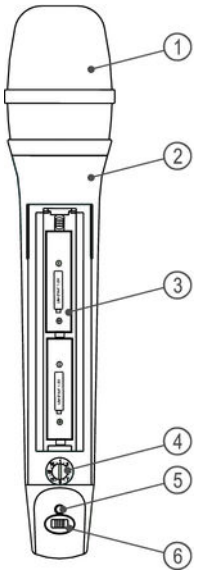


1	Number keypad Press one of these buttons to call up the desired track directly.
2	*[EJECT]* ⏏ Press this button to have the device eject the disc slightly so that you can remove it.
3	*[PROG]* This button allows you to start programming mode, which enables you to define the sequence of tracks yourself. Press *[PROG]*, select a track and press *[ENTER]*. Repeat this step for all tracks that are to be included in the program. To play the tracks you have selected in this manner, press *[PLAY/PAUSE]* ⏯. To interrupt playback, press *[PROG]* twice.
4	*[RAN]* This button allows you to start playing all tracks in a random order. Press the button again to pause playback.
5	*[REPEAT / ID3]* Press this button once to repeat the current track. Press it twice to repeat all of the tracks in the current folder and three times to repeat all tracks. The repeat function is interrupted if you press the button four times. Press this button for at least two seconds to display the information saved in the MP3 file about the track currently playing.

6	*[PLAY/PAUSE]* ▶II Press this button to start or stop playback.
7	*[STOP]* ■ Press this button to stop playback.
8	*[PREV.]* ⏮, *[NEXT]* ⏭ Press this button to skip forward or backward. Then press the *[PLAY/PAUSE]* ▶IIbutton to continue playback.
9	🔇 Mutes the output or un-mutes it again.
10	*[ENTER]* Confirms an input.
11	*[A-B]* Repeat a passage. Press this button during playback. This marks the start of the passage. At the end of the passage to be repeated, press the button again. The passage will be repeated until you press *[A-B]* again.
12	*[MODE]* Press this button to change the operating mode (CD→USB→Memory card).

13	◀◀, ▶▶ Fast forward or rewind.
14	*[FOLDER]* This button allows you to select the next folder for playback.

Wireless microphone



1	Microphone head grill to protect from damage and reduce wind and breathing noise.
2	Aluminium housing
3	Battery compartment Insert 2 × 1.5 V–batteries here.
4	Channel switch Select the required transmission channel.
5	Battery status display This display flashes red if the batteries are almost flat.
6	On / off switch Switches the power supply to the microphone on and off.

6 Technical specifications

Amplifier / speaker	
Inputs	1 × XLR / 1/4" jack combo socket for microphone input
	1 × 1/4" phone socket for microphone input
	1 × 1/4" phone socket for line input
	2 × RCA sockets for additional signal input, e.g. for CD players or similar line level devices.
Outputs	1 × 1/4" phone socket for line output
	1 × 1/4" phone socket for speaker output
Speakers	8" wide range speaker with integrated tweeter
Frequency range	50 Hz … 18 kHz (±3 dB)
Output power	75 W

Radio link	
Carrier frequency	UHF band (863 MHz … 865 MHz)
Modulation type	Frequency modulation (FM)
Signal-to-noise ratio	> 105 dB
Transmission power of the wireless microphone	approx. 10 mW
THD	< 0.5 %

General	
Voltage supply	230 V ~ , 50 Hz
	2 × 12 V lead-gel rechargeable batteries (each 5 Ah), maintenance-free
Fuse	5 mm × 20 mm, 5 A, 250 V, slow-blow
Operating time per battery charge	4 h … 6 h
Charging time	approx. 8 h

Dimensions (W × H × D)	330 mm × 440 mm × 240 mm
Weight	13 kg

7 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

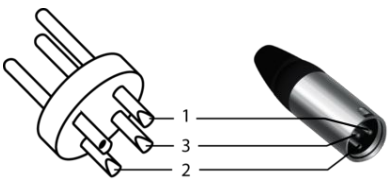
1/4" TRS phone plug (mono, balanced)

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

Three-pole 1/8" mini phone jack (stereo, unbalanced)

1	Signal (left)
2	Signal (right)
3	Ground, shielding

XLR plug (balanced)



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

RCA connection

Drawing and table indicate the pin assignment of an RCA plug.

1	Signal
2	Ground, shielding

8 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.

Fan grids

The fan grids of the device must be cleaned on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. Never use solvents or alcohol for cleaning.

9 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 these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

Disposal of batteries

Batteries must not be disposed of as domestic waste or thrown into fire. Dispose of the batteries according to national or local regulations regarding hazardous waste. To protect the environment, dispose of empty batteries at your retail store or at appropriate collection sites.

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 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.

Musikhaus Thomann · Hans-Thomann-Straße 1 · 96138 Burgebrach · Germany · www.thomann.de