

**the
t.bone**

Speech 100 D
Speech 100 C
conference system

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1 General information

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'*.

Text input

Text inputs that are carried out on the device are indicated by typewriter font.

Example: 2323

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.
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 for use as a digital conference system. The device is designed for professional use only and is not suitable for use in households. This device is meant for indoor use only.

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.



CAUTION!

Possible hearing damage

The use of headphones or earphones at high volume and for an extended period of time may result in permanent hearing impairment.

Set the volume of your audio device to a medium value and do not use the headphones or earphones for more than about an hour a day.



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.



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.

3 Features

the t.bone Speech 100 is a digital conference system. It consists of the control centre the t.bone Speech 100 M (438815), the presidential station the t.bone Speech 100 C (438819) as well as the delegate station the t.bone Speech 100 D (438820). Optionally, a control software and an Android app is available for the conference system that makes it easy to control the conference from a PC or smartphone / tablet.

The call station is characterized by the following features:

- Condenser microphone with LED light ring
- LCD display
- Voting buttons
- Built-in speaker with volume control
- Headphone connection
- Priority control (for presidential station only)
- 2 × LAN (In / Link)

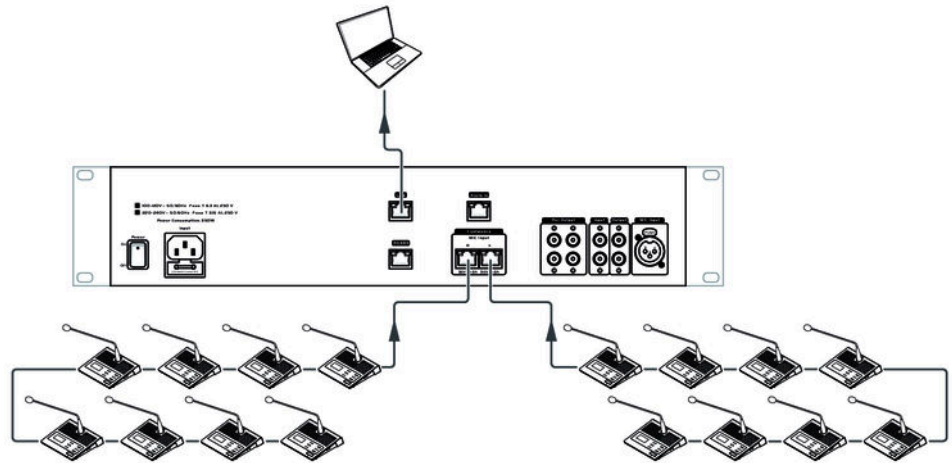
4 Installation

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.

The conference system is a plug-and-play system designed for use in small and medium-sized conferences and events. The call stations are connected to each other as well as to the control centre via system cables. The system cables handle the transmission of the digital voice and status information as well as the power supply of the call stations. The control centre has a built-in power supply that can power up to 32 call stations.

Connection options



Up to 16 call stations can be connected in 2 lines to the control centre.

Call station setup

This is how to connect the call stations to the control centre and to each other:

- 1.** ➤ Connect the *[IN]* interface of the first call station (33) to the *[CONFERENCE INPUT]* interface of the control centre. To do so, use a LAN cable.
- 2.** ➤ Connect the *[LINK]* interface of the first call station (32) to the *[IN]* interface of a further call station. To do so, use a LAN cable.
- 3.** ➤ Repeat step 2 until you have connected the desired number of call stations to a line.

You can connect a maximum of 2 lines, each with 16 call stations, to the control centre.

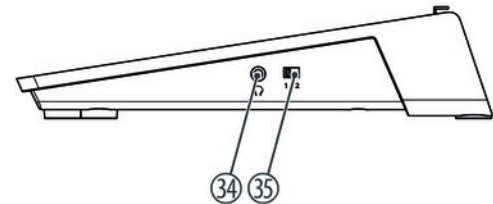
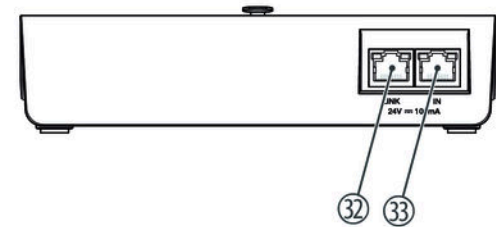
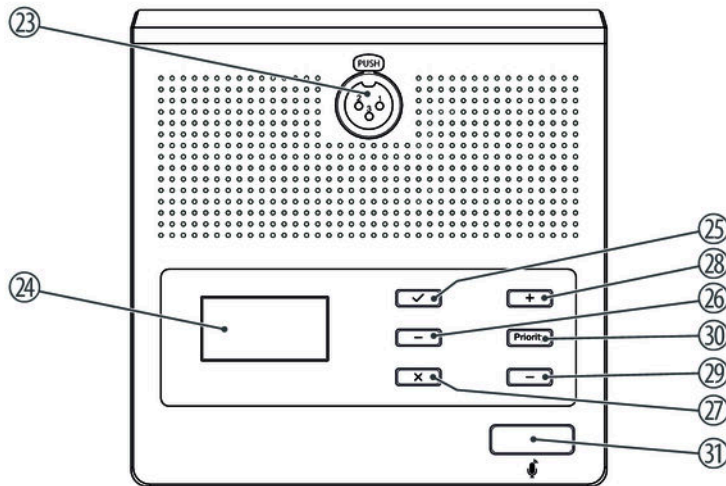
Microphone installation

This is how to attach the microphone to the call station:

- 1.** ➤ Plug the microphone on the microphone jack *[23]*.
 - ⇒ The microphone snaps into place with a click.
- 2.** ➤ You can release the microphone from the call station with a light push on the *[PUSH]* lever.

5 Connections and controls

Front panel



23	Microphone connection socket for connecting the condenser microphone with LED light ring 3-pin (pin 1 = ground, pin 2 = LED power supply, pin 3 = signal) 48 V phantom power required	
24	Display	Displays the discussion or vote status.
25	[Agree]	On a vote: Indicating approval.
26	[Drop]	On a vote: Indicating abstention.
27	[Disagree]	On a vote: Indicating disapproval.
28	[+]	Increasing headphones volume.
29	[—]	Decreasing headphones volume.
30	[Priority]	For presidential station only: Muting all delegate stations and assigning the right to speak to the presidential station.
31	Microphone button	Activates and deactivates the microphone.
32	[LINK]	Interface for connecting the call stations via LAN cable.
33	[IN]	Interface for connecting the call station via LAN cable.

34	Headphones socket	
35	Audio source selector switch	Position 1: Mixed audio (microphone, MP3 player, RCA input). Position 2: If a simultaneous interpreter is included in the system, it will be selected as the audio source.

6 Operating

Participating in a discussion

Use the microphone button to activate or deactivate the microphone or to claim right to speak.

In the discussion modes for 3, 6 or 9 microphones, the number of simultaneously enabled microphones is limited.

As long as the maximum number of approved speakers has not yet been reached:

➔ Press the microphone button.

⇒ The display shows *'MIC ON'*. The LED light ring on the microphone lights up red. You can speak right away.

If the maximum number of approved speakers has already been reached:

1. ➔ Press the microphone button.

⇒ The display shows *'BUSY!'*. The LED light ring on the microphone stays off. Your right to speak is registered. You can only speak after another active participant has switched off his microphone and thus returned his right to speak.

2. ➔ If another active participant returns his or her right to speak, the display changes to *'MIC OFF'*.

- ▶ Now press the microphone button again.
 - ⇒ Now you can speak.

For presidential station only: Priority mode

With *[PRIORITY]* (only available to presidential station) you mute all delegate stations simultaneously and assign the right to speak to the presidential station.

- ▶ Press *[PRIORITY]*.
 - ⇒ The display shows 'P!'. The LED light ring on the microphone lights up red. You can speak right away.
- ▶ Press *[PRIORITY]* again.
 - ⇒ The presidential station is muted again. The pre-priority mode enabled microphones are reactivated.

Participating in a voting

You can take part in a voting if the voting mode is enabled in the control centre.

- ▶ The display shows 'VOTING ready' ✓ — X 'Please Select!'. Press *[Agree]* for approval, *[Drop]* for abstention or *[Disagree]* for disapproval.
 - ⇒ The voting mode is called up.

2. ▶ The display shows 'VOTING Are you sure to...?' Confirm your decision again with [Agree], [Drop] or [Disagree].
 - ⇒ The display confirms your decision.

As soon as the vote is closed in the control centre, you will see the voting result for about 20 seconds.

7 Technical specifications

Microphone input	balanced
Frequency response	200 Hz ~ 6 kHz at 0 dBu ±1,5 dB optimized for speech Frequency range extension possible by software update
Total harmonic distortion (THD)	< 0.01 % at 0 dBu 1 kHz
Signal-to-noise ratio	97 dB
Maximum input level	-22 dBu
Phantom power	+12 V
Speaker output	
Max. output level	+13 dBu AMP
Headphones output	
Max. output level	+0 dBu

Internal processor	32 bit, floating point
Bit depth, AD / DA converter	32 bit
Operating temperature range	0 ~ 40°C
Storage temperature range	-20 °C ~ 60°C
Dimensions (W × H × D)	53.7 × 32.6 × 45.8 cm
Weight	0.7 kg

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)



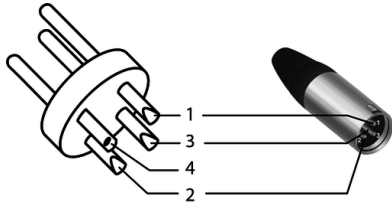
1	Signal
2	Ground, shielding

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)

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 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.



