the t.bone
audio experience

Speech 100 D, Speech 100 C

User Manual

Conference System

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1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under *www.thomann.de*.

1.1 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 document.

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.
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!
Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.

DANGER!
Danger to life due to electric current!

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 when covers, safety equipment or optical components are missing or damaged.

DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

WARNING!

Possible hearing damage due to high volumes on headphones or earphones!

The use of headphones or earphones at high volumes or for an extended period of time may result in permanent hearing impairment. Set the volume of your audio device to a medium value. Do not use the headphones or earphones for more than about an hour a day.

NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can overheat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.

NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

!

NOTICE!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). Ensure that the power cord plug is easily accessible at all times if it is the only device to safely disconnect the device from the mains supply. As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.

!

NOTICE!

Possible staining due to plasticiser in rubber feet!

The plasticiser contained in the rubber feet of this product may react with the coating of the floor and cause permanent dark stains after some time. If necessary, use a suitable mat or felt slide to prevent direct contact between the product's rubber feet and the floor.

3   Features

the t.bone Speech 100 is a digital conference system. It consists of the control centre the t.bone Speech 100 M (item no. 438815), the chairman's unit the t.bone Speech 100 C (item no. 438819), and the delegate station the t.bone Speech 100 D (item no. 438820). For free download at *www.thomann.de* you will receive a software for the conference system, with which the conference can be comfortably controlled from the PC.

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 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.

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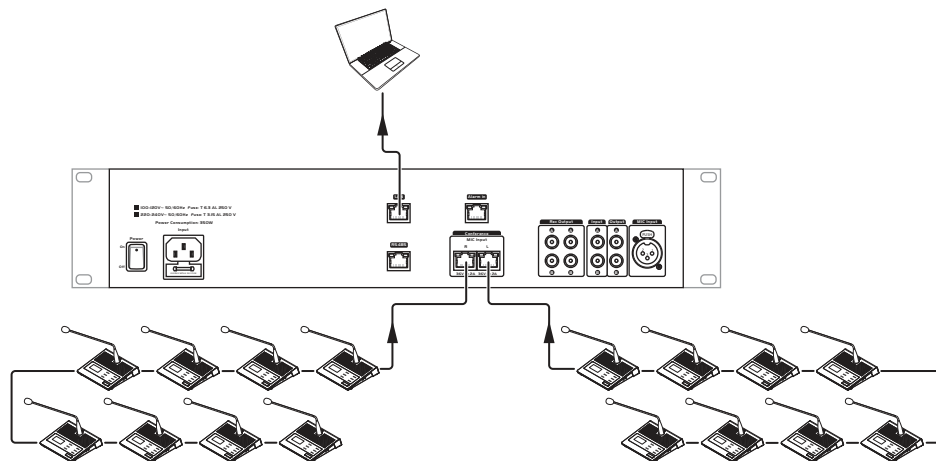
Up to 16 call stations can be connected in 2 lines to the control centre.

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/MIC 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.
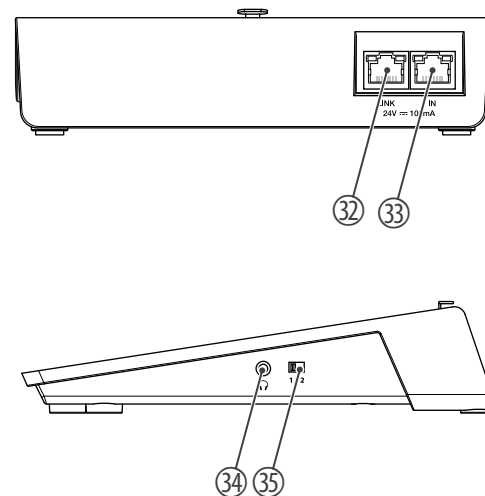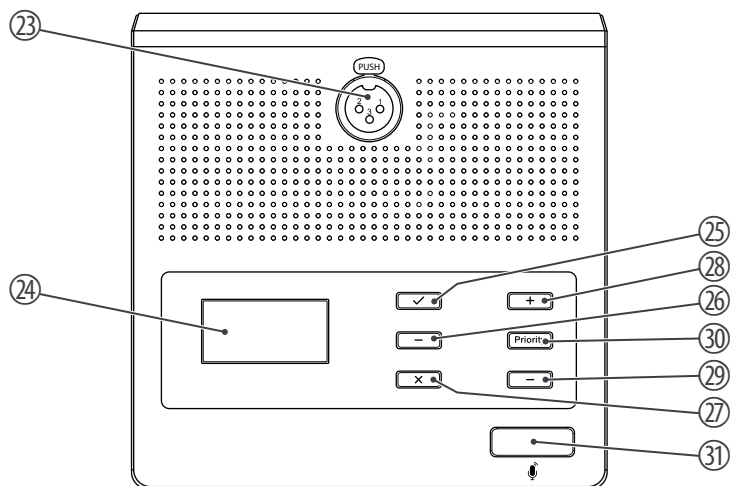
Microphone installation

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

23	Microphone connection socket for connecting the condenser microphone with LED light ring
	3-pin (pin 1 = ground, pin 2 = signal, pin 3 = LED power supply)
	12 V phantom power
24	Display
	Displays the status of the discussion or vote.
25	*[Agree]* | During a vote: Indicating approval.
26	*[Drop]* | During a vote: Indicating abstention.
27	*[Disagree]* | During a vote: Indicating disapproval.
28	*[+]* | Increasing the headphone volume.
29	*[—]* | Decreasing the headphone volume.
30	*[Priority]* | **For the 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 stations via LAN cable.
33	*[IN]* | Interface for connecting the station via LAN cable.

34	Headphone socket
35	Audio source selector switch
	Position 1: Mixed audio (microphone, MP3 player, cinch 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'*.

3. ▶ 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.

1. ▶ Press *[PRIORITY]*.

   ⇨ The display shows *'P!'* . The LED light ring on the microphone lights up red. You can speak right away.

2. ▶ 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.

1. ▶ 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

Input connections	Power supply / network	RJ45
	Microphone	XLR socket (balanced)
Output connections	Headphones	3.5 mm jack socket
		Max. output level: +0 dBu
Microphone input		
Frequency response	200 Hz ∼ 6 kHz at 0 dBu ±1.5 dB Speech-optimised	
Total harmonic distortion (THD)	< 0.01% at 0 dBu 1 kHz	
Signal-to-noise ratio	97 dB	
Max. input level	−22 dBu	
Phantom power	+12 V	
Speakers		
Max. output level	+13 dBu AMP	
Internal processor	32 bit, floating point	

Bit depth, AD / DA converter	32 bit	
Dimensions (W × H × D)	537 mm × 326 mm × 458 mm	
Weight	0.7 kg	
Ambient conditions	Operating temperature range	0 °C…40 °C
	Storage temperature range	20 °C…60 °C
	Relative humidity	20%…80% (non-condensing)

8 Plug and pin assignments

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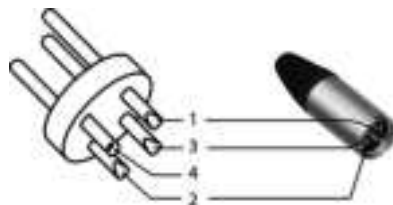
Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

**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, −)
4	Shielding on plug housing (option)

9 Protecting the environment

Disposal of the packing material
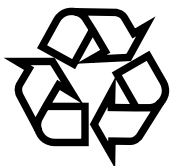
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.

Observe the disposal note regarding documentation in France.

Disposal of your old device
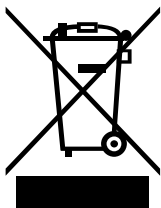
This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. If in doubt, consult your local waste management facility. You can also return the device to a retailer if they offer to take the device back for free or if they are legally obliged to do so. When disposing of the device, comply with the rules and regulations that apply in your country. You can also return your old device to Thomann GmbH at no charge. Check the current conditions on *www.thomann.de*.

Proper disposal protects the environment as well as the health of your fellow human beings. This is because the proper handling of old devices negates the potential negative effects of hazardous substances, and because it conserves resources by recycling them.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal. For example, use the classified ads of Thomann GmbH.

If your old device contains personal data, delete those data before disposing of it.

Notes