

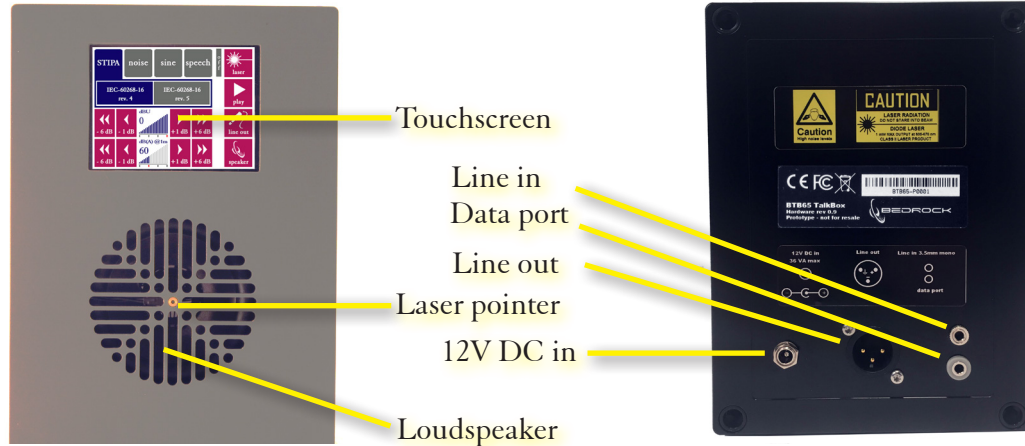
Bedrock BTB65

Bedrock BTB65 TalkBox

Calibrated acoustic reference signal source for STIPA, full STI and other test signals



Quick start guide



Instructions for first use

The Bedrock BTB65 ships in a ruggedized protective case which contains the following:

- The BTB65 TalkBox itself
- 110 - 240 V AC to 12 V DC power supply
- Power supply international adapters (US, EU, UK, AU)
- USB data cable
- Calibration certificate

Please check that all components are present and undamaged before using the BTB65 TalkBox for the first time. Before powering up, be sure to take note of all instructions and warnings in this Quick Start Guide. Choose the international adapter suitable for your region. Note that the BTB65 TalkBox comes precalibrated. This means that the device is immediately ready to be used. We do recommend to periodically check that the sound level calibrations are still accurate and adjust calibration settings if needed.

For more information, please consult the full BTB65 TalkBox manual, which can be found on our website:

www.bedrock-audio.com/support

General use and safety precautions

The BTB65 is a sophisticated and sensitive piece of test gear that should be used, maintained and stored with care:

- Do not expose the BTB65 or any of its components to liquids or moisture
- Do not use in any environment or atmosphere that may contain flammable or explosive materials
- Protect against heat, high temperatures and flames
- Do not leave the device unattended for long periods of time while operating



- When using the laser pointer, take precautions to prevent yourself and others from looking directly into the beam
- Sound levels at short range may exceed levels known to be harmful to the human hearing organ. Do not put your ear directly to the loudspeaker, especially when connecting or disconnecting the power cord.

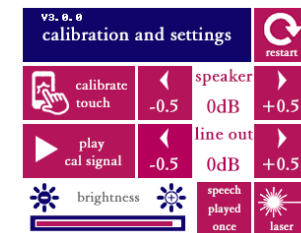


The supplied power supply is designed for worldwide operation on any AC source (100V-240V). Use with the appropriate adapter for your region. Do not use if wet, cracked or broken. Use of alternative 12V DC power sources is at your own risk.

Setting up and calibrating

The BTB65 TalkBox boots up showing a splash screen (see bottom left image). To bypass this screen and launch straight into the main menu, touch the blue bar at the bottom. To access the setup and calibration menu, press the red button on the right. This menu (bottom right image), which you would need to use only rarely, allows you to:

- Calibrate the touch screen if touch appears inaccurate, by touching marks with a stylus
- Play a calibration tone. This button is primarily for factory calibration use.
- Adjust the level calibration settings for line out and loudspeaker. This will affect the overall level of all signals, and is to be used to compensate for drift in level calibration.
- Adjust the brightness of the LCD display
- Toggle between looped (continuous) or one-time playback of speech signals

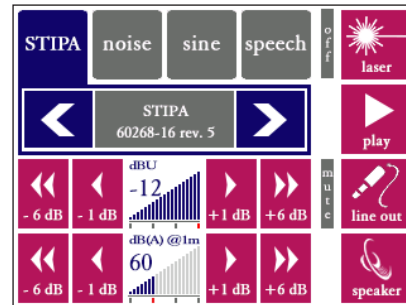


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Selecting a signal

The user interface of the BTB65 TalkBox shows virtually all buttons and controls on a single screen, allowing you to monitor the status of the device at a glance (see image below). The first step is always to choose which test signal you need, by selecting one of the tabs on the top of the screen: STI, noise, sine or speech. Once you select one of these tabs, the available signals for the chosen category will be displayed.

For the STI, you can choose between the STIPA signals compliant with rev.4 or rev.5 of the IEC standard (IEC-61268-16) or full STI. Under the “noise” tab, you can select pink or white noise. The “sine” tab lets you browse through pure tones at frequencies between 125 Hz and 8 kHz as well as a log sweep. The “speech” tabs offers voice announcements in six languages (US, UK, FR, SP, GE, DU) to indicate the beginning and end of a test session, also allowing you to obtain a subjective impression of the signal quality of a channel under test.



STIPA measurements in practice

The most common application of the BTB65 is as a calibrated signal source for STI measurements. If you need to measure according to a specific application standard (such as NFPA72), please refer to the applicable standard for exact instructions on placement and distance of the microphone under test relative to the BTB65 TalkBox.

The TalkBox simulates a human talker. Commonly, the reference speech level of a human talker is presumed to be 60 dB(A) at 1 meter distance, but different values may apply. The BTB65 TalkBox can be adjusted to any level between 54 dB(A), corresponding to relaxed speech, up to 72 dB(A), which corresponds to a raised voice. Choose the appropriate level and distance between TalkBox and tested (paging) microphone, and align the microphone with the aid of the laser pointer.

- Now select the test signal you aim to use, and press “Play.” You will hear the test signal playing.
- Activate the system under test, such that the test signal can be heard at the targeted listener locations. Set the parameters of the system under test (such as the system’s volume controls) to a representative setting, or vary these parameters systematically.
- Now use a STIPA measuring instrument (such as the Bedrock SM50) to obtain STI readings at all relevant listener locations. You can choose to have the STIPA signal play continuously, or pause/mute in between measurements.
- The STIPA signal is compatible with all STI measuring instruments that comply with IEC-60268-16 rev.3 or higher.

Controlling signals and playback levels

The top right button toggles the state of the laser pointer. Use the laser pointer to accurately align the microphone under test with the center of the loudspeaker. We recommend turning the laser off once alignment has been completed. The Play/Pause button is used to start and stop the signal generator. Speech signals are played once; test signals which are theoretically of infinite duration play continuously until stopped.

The line out channel and the loudspeaker channel act as independent generators, producing the same signal but controlled independently. Press the button with the line out symbol to mute/unmute line out, and the button with the loudspeaker symbol to mute/unmute the loudspeaker. The volume controls for each channel are shown alongside their respective mute buttons.

The output levels are adjusted in steps of 1 dB or 6 dB (using separate buttons for 1 dB and 6 dB steps). Note that the indicated loudspeaker level is the A-weighted SPL at a distance of 1m off the loudspeaker, under anechoic conditions. In reality, the level measured at 1m distance is likely to be higher due to room reflections. To verify the level calibration, we recommend measuring at a distance of 0.25m, which should result in a level reading 12 dB above the chosen output level.

NOTE: inserting any plug into the 3.5mm line input jack overrides the internal generators, essentially turning the TalkBox into an **(un)calibrated** active loudspeaker (e.g. for use with a smartphone or music player).

Factory calibration and warranty

Your BTB65 was thoroughly inspected and calibrated before leaving our factory. A calibration certificate is included with your instrument. As any acoustic measuring instrument, the BTB65 needs to be factory-recalibrated periodically. Our recommended maximum calibration interval is 2 years.



If the instrument “hangs,” becomes unresponsive or generates error messages, disconnect the power connect and keep disconnected for at least 10 seconds before reconnecting. If the problem persists, contact the manufacturer.

The BTB65 is covered through the manufacturer’s worldwide warranty programme for 24 months from the date of purchase. This warranty programme covers all defects, except for those resulting from accidents, misuse (including improper electrical connections) and improper maintenance. Explicitly excluded from warranty are normal wear and tear, scratches on the LCD screen, cracks from falling or dropping, damage from improper electrical connections, water damage, and incorrectly executed touch calibrations.

Please direct your warranty claims to: warranty@bedrock-audio.com
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