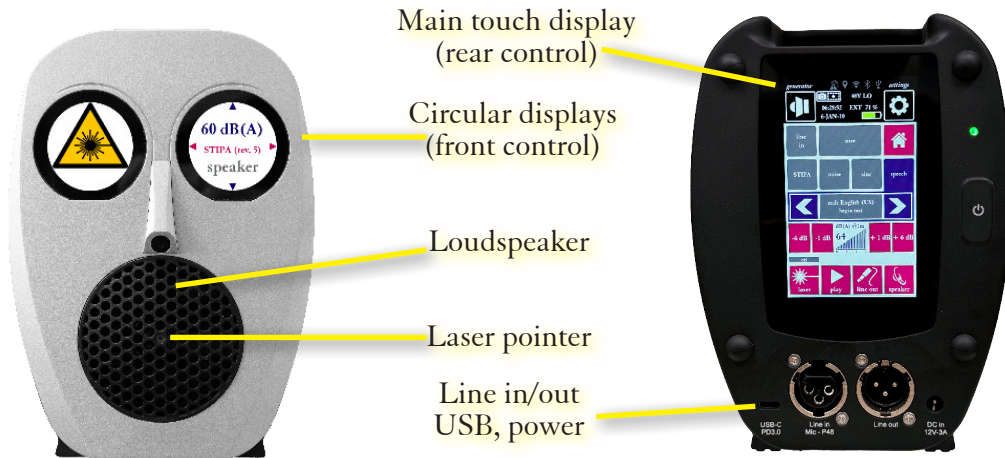


Bedrock BTB115

Bedrock BTB115 Advanced TalkBox
Calibrated wireless acoustic reference signal source for STIPA and other test signals



Quick start guide



Instructions for first use

The Bedrock BTB115 ships in a protective sleeve which contains the following:

- The BTB115 Advanced TalkBox itself
- 110 - 250 VAC to 12 VDC power supply
- Power supply international adapters (US, EU, UK, AU)
- Calibration certificate

Please check that all components are present and undamaged before using the BTB115 Advanced 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 BTB115 Advanced 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, and the latest version of all Bedrock documentation, please visit our website:

www.bedrock-audio.com

General use and safety precautions

The BTB115 is a sophisticated and sensitive piece of test gear that should be used, maintained and stored with care:

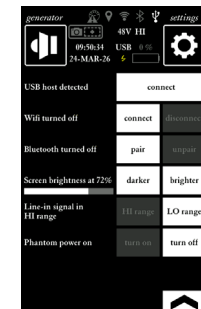
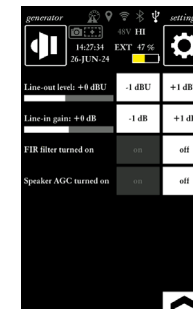
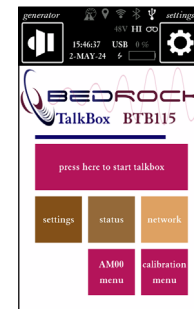
- Do not expose the BTB115 or any of its components to liquids or moisture
- Do not use in any environment or atmosphere that may contain flammable or explosive materials
- Protect against heat, high temperatures and flames
- Do not leave the device unattended for long periods of time while operating
- Never look directly into the laser, and make sure that others cannot accidentally look directly into the laser either.
- Do not put your ear directly to the loudspeaker, especially when connecting or disconnecting the power cord.
- The BTB115 contains NiMH batteries. It is strictly prohibited to use any other batteries than the Bedrock certified batteries.



The supplied power supply is designed for worldwide operation on any AC source (100V-250V). 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 BTB115 Advanced TalkBox boots up showing the start menu (see bottom left image). To bypass this screen and launch straight into the main menu, touch the red bar in the middle of the screen. You can press the “settings” button to adjust the date, time and screen brightness. The “status” button displays your device’s unique IDs and software version. WiFi connections are managed in the “network” module, and “calibration menu” is used for (re)calibrating your BTB115. Note that the BTB115 has a navigation bar on top of the screen, similar to the AM100, from which the internal generator (bottom middle image) and many settings can conveniently be accessed (see bottom right image).

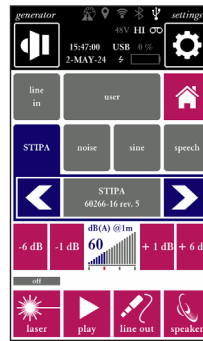


Selecting a signal

The user interface of the BTB115 Advanced 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.

Additionally, you can play your own test signal through the “user” tab. 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). 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. 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 BTB115 is as a calibrated signal source for STIPA 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 BTB115 Advanced 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 BTB115 Advanced 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/SM90/AM100) to obtain STI readings at all relevant listener locations. You can choose to have the STIPA signal play continuously, or pause/mute inbetween 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 bottom left 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 and measure the distance of the microphone to your TalkBox (distance displayed in front left LCD). 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 XLR line input overrides the internal generators, essentially turning the TalkBox into a calibrated active loudspeaker (e.g. for use with an external signal generator or music player).

Factory calibration and warranty

Your BTB115 was thoroughly inspected and calibrated before leaving our factory. A calibration certificate is included with your instrument. As any acoustic measuring instrument, the BTB115 needs to be factory-recalibrated periodically. Our recommended maximum calibration interval is 2 year. The expected lifespan of the battery is 5 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 BTB115 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 signs of normal wear and tear, scratches on the LCD screen, cracks from falling or dropping, damage resulting from improper electrical connections and water damage.

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

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