HEAD acoustics

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B2U (3323)

USB adapter for BHS II with recording and playback equalization

Overview

B2U offers a simple entry into the world of binaural recording. With minimal effort, you can now use a headset BHS II comfortably with a mobile device (iOS/iPadOS) and the HEAD B2U app in order to make, save, and playback recordings. Furthermore, recording, playback and analyzing with ArtemiS SUITE is possible on a Windows system.

On smartphones or tablets you simply install the HEAD B2U app from the App Store respectively and are able to start binaural recording and playback on this device immediately.

Furthermore, B2U is the ideal partner for the ArtemiS SUITE Compact Analysis Module (Code 5010), which allows you to analyze a measurement with just a few clicks.

B2U is especially suited for acquisition and analysis of noise complaints, for environmental measuring applications, within sound walks and soundscapes, and for academic education.

Features

- LEMO connector for the headset BHS II
- Recording equalization *Independent of direction* (ID)
- Playback equalization *Independent of Direction* (ID), Free Field (FF), Diffuse Field (DF), controlled by the playback software
- USB connection to a smartphone/tablet (iOS®/iPadOS®) running the HEAD B2U app or to ArtemiS SUITE on a Windows system (recording and playback)
- Power supply via USB connection or an external supply (external supply for devices with lightning connector mandatory)
- ICP® supply for the connected headset
- HEAD B2U app for binaural recording and playback with smartphones and tablets (iOS/iPadOS).

Interfaces

- LEMO 14-pin for BHS II
- USB type C connector for connection to a smartphone, a tablet, or a computer
- Micro USB port for external voltage supply (5 V), e.g. a power bank.

Scope of supply

- USB adapter B2U
- Adapter USB type C to Micro USB (Code 9868)
- CUSB IV adapter USB type C to USB type A (Code 9869)
- HSCV.4 bag for B2U and accessories

Optional accessories

- Binaural headset BHS II
- CLB I.3 cable adapter (Code 9848) Connecting ICP sensors (Microphone/acceleration sensor) to the BHS II connector for recordings with ArtemiS SUITE
- Lightning to USB type C adapter (Code H0162) original Apple accessory, available from HEAD acoustics

Binaural recordings made handy

For many years, products made by HEAD acoustics have enabled binaural recording with mobile devices. With B2U and BHS II, HEAD acoustics brings mobile and binaural recording to your smartphone or tablet for the first time. Simply connect your mobile device and your BHS II to B2U and you are immediately ready for a binaural recording. The HEAD B2U app is installed on your mobile device to control and save recordings. Saved recordings can be transferred to a Windows computer to be analyzed and further processed with ArtemiS SUITE.

Thus, on-the-fly measurements can be done very efficiently to, for example, quickly and precisely document a noticeable noise. Furthermore, you are completely independent during a soundwalk or a soundscape recording and you can move freely without having to carry a recording front end. B2U fits inside your pocket, just as easy as your smartphone.

If you connect B2U to a Windows system running ArtemiS SUITE, you can use B2U to record, play back, and perform analyses , e.g. with the ArtemiS SUITE Compact Analysis Module.

Configuration example with BHS II and a smartphone

The HEAD B2U app – binaural with ease

The HEAD B2U app in combination with a smartphone or tablet offers maximum flexibility. The app is available for iOS/ iPadOS free of charge through the App Store.

Simply install the HEAD B2U app on your device, connect your BHS II with B2U, plug B2U into your device, put on the BHS II headset, and start the recording. Very easy. Saved recordings can be played back just as easily. Aurally accurate via BHS II, of course.

The HEAD B2U app offers exactly the controls and functions to quickly and efficiently work on typical measurement tasks: big level meters, familiar buttons for control, recording time display and even permanent time signal and FFT diagrams in real-time; even when no recording is active.

Technical Data

General

Number of channels	2
Interfaces	LEMO 14-pin, USB type C connector, Micro USB port (external voltage supply)
Resolution	Up to 24 Bit $\Delta\Sigma$ audio A/D and D/A converter
Input voltage	5 V DC ($\pm$5 %)
Power consumption USB	500 mA (max.); operation as bus-powered device or as self-powered device with external 5 V power supply
Sampling frequencies (digital)	44.1; 48 kHz
Dimensions	49 x 86 x 29 mm / 1.9 x 3.4 x 1.1 " (B x H x T)
Weight (incl. USB cable)	127 g
Operating temperature	-20 °C – +60 °C / -4 – +140 °F (0 – 90 % relative humidity, non-condensing)
Storage temperature	-20 °C – +70 °C / -4 – +158 °F

BHS II input

Interface	1 x LEMO 14-pin
ICP® supply	18 V, 3 mA ($\pm$20 %)
Measurement range	114 dB_{SPL} (+6 dB head room)
S/N_{FS}, electrical	96 dB(A)
Noise, SPL, electrical	24 dB_{SPL}(A)
THD+N (1 kHz, -6 dB_{FS})	-83 dB (0.007 %)
Crosstalk attenuation	>100 dB
Analog high-pass filter	22 Hz
Frequency range	-3 dB at 22 Hz; -2 dB at 20 kHz
Recording equalization	ID

BHS II output

Interface	1 x LEMO 14-pin
Nominal level (frequency-dependent)	110 dB_{SPL} with BHS II (no head room)
THD+N, electrical (104 dB_{SPL}, 1 kHz an R_L = 110 Ω)	-57 dB (0,14 %)
Frequency range	-1.5 dB at 20 Hz; -1.5 dB at 20 kHz
Equalization	ID, FF, DF, LIN (controlled via playback software)

Line input via CLB I.3

Max. input voltage	$\pm$1 V_{PEAK}

Authorised distributor

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