



### HSU III (Code 1323)

Head-shoulder unit for aurally accurate recordings (with condenser microphones)

#### Overview

The head-shoulder unit HSU III is an artificial head with high-end condenser microphones for binaural recordings. The HSU III is used in the same way as conventional measurement microphones, so it can be connected directly to a recommended front end.

The artificial head is an accurate reproduction of all acoustically relevant parts of the human outer ear, allowing aurally accurate binaural recordings of sound events including all characteristics of human hearing perception, in particular spatial hearing.

#### Features

- Reproduction of all acoustically relevant parts of the human head and upper body for aurally accurate measurements
- Can be used just like any conventional measurement microphone
- High-end condenser microphones
- Extremely low-noise
- Equalization options: ID, FF, DF, USER, LIN (no equalization). During the recording the signals can be equalized either with BEQ II.1 or the ArtemiS SUITE Data Acquisition Module. Furthermore, the equalization can be carried out afterwards by using the analysis software ArtemiS SUITE.
- Calibratable with pistonphon
- Threaded mounting platform on the top side of the HSU III head for attaching e.g. the laser pointer TLP



The HSM V seat mount adapter is a stable platform for performing measurements in a vehicle. Thanks to a quick-lock coupling, the HSU III can be attached quickly and easily to the lockable carriage on the back rail, resulting on a position resembling a person sitting in the vehicle.

## Scope of supply

- HSU III (Code 1323)  
Head-shoulder unit with condenser measurement microphones for aurally accurate recordings
- CLL IV.2 (Code 1236B)  
Cable LEMO 7-pin male ↔ LEMO 7-pin male, 2 m (78.74")
- SBH I (Code 1315)  
Stand base
- Manual
- CD: Equalization & Documentation, individual HSU III equalization included

## Accessories

- HSC IV-V1 (Code 1524-V1)  
Carrying case for HSU III
- HMT II Code 1962)  
Height-adjustable tripod
- HSM V (Code 1520)  
Seat Mount Adapter
- HTB VI (Code 1574)  
HEAD Torso Box
- HWS (Code 1960)  
Wind screen for outdoor recordings
- TLP (Code 1967)  
Triaxial laser pointer

## Recommended front ends

- *labM6* (Code 3724)  
6-channel HEAD/lab input module for connecting condenser microphones
- BEQ II.1 (Code 1347)  
Binaural, digital equalizer with 24 bit technology and USB port
- MIC6 (Code 3618)  
6-channel microphone module of the DATARec4 series

## Technical Data

### General

Interface:	2 x LEMO, 7 pin, male
Thread mounting platform:	M6
Tripod socket:	UNC 3/8", Camlock (series 911F)
Dimensions:	450 mm x 400 mm x 180 mm (WxHxD) (17.72" x 15.75" x 7.09")
Weight:	4.3 kg (9.48 lb)
Operating temperature:	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature:	-20°C to 70°C (-4 °F to 158 °F)

### Microphones

Type of microphones:	2 x 1/2" condenser microphone
Polarization voltage:	200 V
Supply voltage:	120 V
Frequency response:	3.5 Hz to 20 kHz (±2 dB)
Sound pressure level (max.):	146 dB <sub>SPL</sub> (<3 % distortion at 1 kHz)
Unweighted noise voltage:	<3 μV
Noise voltage:	<2 μV(A)
Dynamic range:	129.5 dB
Inherent noise, incl. impedance converter (acoust.):	15.5 dB(A) <sub>SPL</sub> (typ.) (without equalization)
Sensitivity (typ.):	50 mV/Pa, nominal
Impedance converter Distortion factor with sinus 1 kHz:	<0.01 %, 1 kHz, electr. at 0 dB(V)

### Miscellaneous

Radiated emission according to: EN 61326-1 (equipment class B); radiated immunity according to: EN 61326-1; safety according to: EN 61010-1.

Physical dimensions of the head designed according to ITU P.58, table 1 and comparable to ANSI 3.36, table 1.

Please note: Without HEAD Torso Box, some dimensions in P.58, table 1 are not applicable.

The monaural frequency responses comply with ITU P.58, table 4 and to those that can be derived from ANSI 3.36, table 3.