



# Trumpet

REAL EAR MEASUREMENT SYSTEM - AUDIOMETER

## DESCRIPTION

Trumpet is an advanced and easy-to-use Real Ear Measurement system, capable of performing quick and accurate in-situ measures thanks to its small lightweight probes and its built-in amplified speaker. Trumpet also incorporates a diagnostic audiometer for carrying out air, bone and speech audiometric exams.

## PRODUCT CONFIGURATION

Trumpet is available in five configurations:

- 10866: Trumpet REM – Real Ear Measurement system with wired REM probe
- 10967: Trumpet AUD – Diagnostic audiometer
- 10969: Trumpet REM & AUD – REM system and audiometer with wired REM probe
- 11724: Trumpet REM Wireless – Real Ear Measurement system with wireless REM probe
- 11725: Trumpet REM & AUD Wireless – REM system and audiometer with wireless REM probe

## AVAILABLE SIGNALS

Real ear measurement

Stimuli: white noise, pink noise, ICRA, ISTS, rainbow passage, real speech, mixed environment sounds (e.g. doorbell, phone ring), frequency lowering-s, frequency lowering-sh

Audiometer

Stimulus: pure tone, warble tone  
 USB audio for speech audiometry  
 MIC input for live speech audiometry  
 Masking: NBN, WN, SN

## AVAILABLE OUTPUTS AND TRANSDUCERS

Real ear measurement

In-situ headset (wired or wireless)  
 Built-in loudspeaker  
 Insert earphones for RECD (ER-3C)

Audiometer

AC: Headphones (DD45 / TDH-39)  
 Insert earphones (ER-3C / IP30)  
 BC: B-71 bone vibrator  
 Free field

## AVAILABLE TESTS

Real ear measurement

- REUR / REUG - (single and bilateral)
- REAR / REAG - (single and bilateral\*)
- REIG - (single and bilateral\*)
- REOR / REOG - (single and bilateral)
- MPO - (single and bilateral\*)
- Advanced - (single and bilateral\*)
- Live speech - (single and bilateral)
- RECD - (in combination with Drum)

\*: bilateral available only for in-ear measurements

Audiometer

- Pure Tone audiometry (HL and UCL)
- Auto threshold (modified Hughson-Westlake)
- Speech audiometry (SRT, WRS, MCL, and UCL)
- 2 independent channels Master Hearing Aid
- QuickSIN® test (optional)
- Stenger, with pure tone or speech stimulation
- Oldenburg Matrix Sentence Test® (optional)

## REM: FREQUENCY, MEASUREMENT AND INTENSITY RANGE

Frequency range: 125 Hz – 12 kHz

Reference microphone measurement range: 40 – 110 dB SPL

Probe microphone measurement range: 40 – 130 dB SPL

Intensity range: 50 – 90 dB SPL

## AUDIOMETRIC SIGNALS SPECIFICATION

Attenuator step: 1, 2 and 5 dB

Presentation: Continuous, Pulsed (0.5, 1, 2 Hz and custom)

## PURE TONE: FREQUENCIES AND MAXIMUM LEVELS (dB HL)

| Freq.<br>(Hz) | AC (¹)<br>TDH-39<br>DD45 | AC (¹)<br>ER-3C<br>IP30 | BC | FF (²)<br>(built-in) | FF (²)<br>(external) |
|---------------|--------------------------|-------------------------|----|----------------------|----------------------|
| 125           | 80                       | 90                      | -  | 60                   | 65                   |
| 250           | 100                      | 105                     | 45 | 75                   | 80                   |
| 500           | 110                      | 110                     | 65 | 85                   | 90                   |
| 750           | 115                      | 115                     | 70 | 85                   | 90                   |
| 1.000         | 120                      | 120                     | 75 | 85                   | 90                   |
| 1.500         | 120                      | 120                     | 80 | 85                   | 90                   |
| 2.000         | 120                      | 120                     | 80 | 85                   | 90                   |
| 3.000         | 120                      | 120                     | 75 | 85                   | 90                   |
| 4.000         | 120                      | 110                     | 75 | 85                   | 90                   |
| 6.000         | 105                      | 100                     | 55 | 85                   | 90                   |
| 8.000         | 95                       | 90                      | 50 | 75                   | 80                   |

(¹)The maximum intensities are obtainable only if the audiometer is powered with the mains adapter.

(²)When the device is powered via USB only the FF outputs are disabled

## SPEECH AUDIOMETRY: MAXIMUM LEVELS (dB HL)

| AC (¹)<br>TDH-39<br>DD45 | AC (¹)<br>ER-3C<br>IP30 | BC | FF (²)<br>(built-in) | FF (²)<br>(external) |
|--------------------------|-------------------------|----|----------------------|----------------------|
| 100                      | 100                     | 60 | 70                   | 80                   |

## CALIBRATION

Validity: 12 months



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## COMPUTER INTERFACE

Connection: USB (driverless)

Compatible software: - Inventis Maestro (Noah compatible)

## MINIMUM SYSTEM REQUIREMENTS

Refer to Maestro software technical specifications for indications about the minimum system requirements.

## POWER SUPPLY

Power supply: 15V, 2A cont., through an external medical grade 100-240 Vac 50/60 Hz power supply

## MECHANICS

Size (WxDxH): 15.5 x 10 x 24.5 cm / 6.1 x 3.9 x 9.7 in

Weight: 1.5 kg / 3.5 lbs

## APPLICABLE STANDARDS

Real ear measurement: IEC 61669 / ANSI S3.46

Pure tone and speech audiometry: IEC 60645-1 / ANSI S3.6, (Type 2 – Class A)

Calibration: ISO 389-1 (TDH 39, DD45), ISO 389-2 (ER-3C), ISO 389-3 (B71), ISO 389-7 (FF)

Electrical safety: EN 60601-1

EMC: EN 60601-1-2

Radio: FCC CFR 47 Part 15 Subpart B and C and Part 1 Subpart I (§1.1310), ETSI standards for the compliance to the RED Directive (2014/53/EU)

## CE CERTIFICATE

MDR 2017/745/EU classification: Class IIa

Classification rule (Annex VIII, 2017/745/EU): 10

Notified body: TÜV SÜD Product Service GmbH (0123)

## INCLUDED PARTS

Real ear measurement (Trumpet REM)

- Main unit
- REM probe (wired or wireless)
- Probe kit (tubes, O-rings, probe tube guides)
- Monitor headset with boom microphone
- Inventis Software Suite
- Electronic IFU
- Medical grade power supply
- USB connection cable

Audiometer (Trumpet AUD)

- Main unit
- Supra-aural headphones (RadioEar DD45 / Telephonics TDH-39)
- Bone vibrator (RadioEar B71)
- Set of connectors for external speakers
- Patient response switch
- Monitor headset with boom microphone
- Clip-on microphone for patient-operator communication
- Inventis Software Suite
- Electronic IFU
- Medical grade power supply
- USB connection cable

## ACCESSORIES (with order code)

Only for Trumpet AUD:

- 10968: REM license for Trumpet AUD – Includes the REM probe

- 11821: Wireless REM license for Trumpet AUD – Includes the wireless REM probe

Only for Trumpet REM:

- 10934: AUD license for Trumpet REM – Includes the transducer set

## OPTIONAL PARTS (with order code)

- 11061: Trumpet soft carrying case
- 11347: Wall hanger for Trumpet
- 11412: Trumpet stand

Only for Trumpet AUD:

- 10833: Etymotic ER-3C insert earphones
- 11748: RadioEar IP30 insert earphones
- 11858: Pair of SIARE Delta 60 passive loudspeakers
- 11142: LSX additional loudspeaker
- 10179: Amplivox Audiocups noise excluding enclosures for TDH-39 / DD45 headphones
- 10533: QuickSIN™ test license
- 12365: ACT™ test license (for Trumpet AUD units purchased before 2025)
- 11348: Wall hanger for Trumpet and AUD transducers
- 11571: Trumpet AUD silent room kit

Only for Trumpet REM:

- 11822: Wireless probe upgrade package

Trumpet is developed by:

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