r37a HF
2 CHANNEL TONE AND SPEECH TESTING
CLINICAL HIGH FREQUENCY AUDIOMETER

PRODUCT SPECIFICATIONS

GENERAL SPECIFICATIONS

DIMENSIONS AND WEIGHT
- L x W x H: 370 x 290 x 180 mm
- Net weight: 3.5 kg

TEST TYPES
Pure Tone test, Autothreshold, ABLB, Speech Test, Stenger, DLI, SSIL, Bekesy, Tone Decay, MLB, Multifrequency, GAP, DLF (Difference Limen for Frequency), High frequency up to 20 KHz

DISPLAY
- 7" TFT Color display

USER INTERFACE
- Multilingual

PRINTER
- Built-in fast thermal printer with paper width: 112 mm supplied as standard part

REPORTS
- Printed on thermal printer
- pdf report created directly from the device and stored on USB Pen drive with possibility to add patient data and tests comments via the USB Keyboard (optional)
- Data transfer to PC using Resonance Management Data Suite

DATA TRANSFER TO PC
- Via cable through USB port

COMMUNICATION PORT
- Nr.1 USB host type A
- Nr.1 USB slave type B

WINDOWS® COMPATIBLE SOFTWARE
- Resonance MDS Management Data Suite

AUDIOLOGY OPERATING SPECIFICATIONS

RANGE
- Frequency range: 125 - 8000 Hz (with DD45)
- 8000 - 20000 Hz (with HDA300)
- 250 - 8000 Hz (with B71W)
- Range stimuli level -10 up to 120 dB HL

ACCURACY
- Frequency: ± 0.5%
- Distortion: < 1%
- Attenuator linearity 1dB per 5 dB step, max 3 dB whole range

TYPE OF SIGNALS
- Pure tone: sine wave 125 to 8 KHz signal (to 20 KHz for HDA300)
- Warble: ± 5% frequency sine wave modulated, modulation: sine wave 5 Hz
- Narrow band noise: 24 dB/oct filtered noise
- Speech noise: 1 kHz 12 dB/oct filtered noise
- White noise
- External signal
- External mikes
- Speech material recorded on SD card
- Master Hearing Aid: 1 KHz 6, 12, 18, 24 dB High pass filters
- On/Off rise – fall time: 40msec

OUTPUT TRANSDUCERS
- ACR, ACL up to 8 KHz: 10 ohm DD45 matched pair earphone, IP30 Insert earphones (optional)
- ACR, ACL up to 20 KHz: HDA300 Sennheiser
- BC: B71W Radioear; B81 (optional)
- INSERT: Insert transducer
- Free field output: 600 ohm impedance

STIMULUS PRESENTATION MODALITY
- Presentation: Normal, Reverse, Extended (present tone for 1 second from 20 dB below the maximum level)
- Modality: Continuous, Pulsed (rate 0.5, 1 and 2 Hz), Alternated (ABL1B and MLB 0.5, 1 and 2 Hz)
- DLI increment levels:
  - 0.1 in steps of 0.1dB up to 1.0 dB, 1.5, 2, 3, 4, 5 dB
  - DLI increment recurrence rates: 0.5 Hz, 1 Hz, 2 Hz
- ISI increment recurrence rates:
  - 0.2 Hz, 0.5 Hz, random. Time on 300ms
  - ISI increment level: 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 5 dB
- Bekesy: mode sweep and fixed, Continuous, Pulsed and LOT; exam duration 30 sec and 60 sec.

QUALITY SYSTEM
Manufactured, designed, developed and marketed under an ISO 13485, ISO 9001 certified quality system. Medical CE marks and FDA approval.

POWER

POWER SUPPLY
- 110 - 240 V AC 50/60 Hz 40 VA
- Fuses: 2 x T 1 A L 250 V

CONSUMPTION
- Max current: 0.15 A
- Power consumption: 40 VA

ENVIROMENTAL

OPERATING ENVIRONMENT
- Storage: -20°C up to +50°C
- Operating: +15°C up to +35°C
- Humidity: up to 90%, (non-condensing)
- Ambient pressure: from 700 hPa up to 1060 hPa

COMPLIANCE/REGULATORY STANDARDS

Designed, tested and manufactured to meet the European and International Standards:
- MDD 93/42/EEC and its revised versions: Class IIA (as referred to in Annex IX, rule 10 of said MDD 93/42 EEC)
- Safety: IEC 60601-1, 3rd edition, Class 1 Type B
- EMC: IEC 60601-1-2
- Audiometer: to IEC 60645-1; IEC 60645-2 and ANSI S3.6 Type 1A

STANDARD ACCESSORIES
- DD45 headset for audiometry testing
- HDA300 headset for high frequency test
- B71W bone conductor
- Insert-Transducer (for bone conductor masking)
- Operator headset with microphone and speaker (talk over and monitor)
- Patient microphone (talk back)
- Internal speaker as monitor use
- Patient response pushbutton
- Built-in fast thermal printer
- 1 roll of thermal paper
- Power supply cable (110 – 220 V)
- Device dust cover
- Multilingual Quick User’s Handbook
- Pen-drive
- SD-card with Multilanguage speech material

OPTIONALS
- Resonance® MDS software with NoAH® module included (demo version)
- Spare fuse
- Carrying bag
- Goose-neck microphone
- USB external keyboard
- Quick-SIN test license
- HF type Silent cabin cables
- Free field loudspeaker
- Additional patient response pushbutton

Resonance makes no warranty, nor assumes any legal liability or responsibility for the accuracy, typing errors or mistakes, correctness or completeness of any information in this datasheet. The information in this datasheet was correct to the best of our knowledge at the time of printing.

Please contact Resonance should you have any questions: support@resonance-audiology.com

Datasheet: REV OCTOBER 2017