

## AC40 Technical Specifications

**Standards:** Audiometer EN60645-1, EN60645-2, EV645-4, ANSI 3.6

**Safety:** EN 60601-1; Class 1 Type B

**EMC:** EN 60601-1-2

**Medical CE-mark:**

The CE-mark indicates that Interacoustics A/S meets the requirements of Annex II of the Medical Device Directive 93/42/EEC.

Approval of the quality system is made by TÜV – identification no. 0123.

**Power:** AC 50-60Hz. 100-120 V  $\pm 10\%$  . 220-240 V  $\pm 10\%$

**Consumption:** max. 180VA

**Fuses:** 100-120V: T 2A L  
230-240V: T 1A L

**Operation environment:**

Temperature: 15 – 35 °C

Rel. Humidity 30 – 90%

**Storing/handling:**

Temperatures below 0°C and above 50°C may cause permanent damage on the instrument and its accessories.

**Warm up time:**

3 minutes at room temperature (20 °C).

**Transport Specifications:**

The device tolerates conditions during air transportation

**Channels:** Two independent channels.

**Channel 1:** Input: Tone, Microphone 1+2, Tape/CD 1+2, NB, N  
N for Noise: Speech Noise in Speech Audiometer and programmable White Noise or Pink Noise in Tone Audiometer  
Microphone 1+2 and Tape/CD 1+2 level adjust on the front panel.  
Output: Right, Left, Bone L+R, Free Field 1+2.  
Right and Left: (125-8000 Hz) programmable to output1 or output2, (8000-20000 Hz) HF output

**Channel 2:** Input: Tone, Microphone 1+2, Tape/CD 1+2, NB, N (see Ch1).  
Output: Right, Left, Insert, Free Field 1+2.

**Presentations Ch1:**

Manual or reverse, continuous or single or multiple pulses.

Multiple Pulse speed: Programmable from 50->5000 mS in 50mS step.

Single Pulse: Programmable from 50->5000mS in 50mS step.

**Presentations Ch2:**

Manual or reverse, continuous. Simultaneous or alternate to Ch1.

**Frequency Range:**

125-16000 Hz separatet in two range 125-8000 Hz and 8000-16000 Hz.

**Frequency Resolution:**

Multi frequency, Programmable in 1, 1/2, 1/3, 1/6, 1/12, 1/24 step per octave.

**Modulation:** Warble: Programmable Frequency: 5, 10, 25, 50 Hz, and

Programmable Intensity:  $\pm 0$ , 0.2, 0.4, 0.6, 0.8, 1, 2, 3, 4, 5, 10, 15, 20, 25 %

**Synchronous Masking:**

Locks Ch2 attenuators to follow Ch1 attenuators.

**Attenuators:**

Totally clickfree, -10 to 120 dB HL in 1 or 5 dB step.

**Tone Switches:**

Silent touch switches on front panel and remote control connection on the rear panel.

**Calibration:**

Calibration performed via operation panel and internal microprocessor, stored on EE prom.

**Communication:**

**Talk forward:** 0-110 dB SPL: Continuously adjustable on operation panel, built-in goose neck microphone.

**Talk Back:** Microphone input level adjusted on front panel. Talk Back input on the Rear panel.

**Monitor:** Monitor output level for Ch1 and Ch2 adjusted separate on front panel. Monitor output, to external earphone on rear panel, to the build in or external loudspeaker.

**Assistent monitor:** Output to external earphone on the rear panel.

**Computer Communication:**

Built-in RS232C input/output computer interface which allows the computer to both monitor and control the AC40. Control actions will be indicated on the operation panel and display.

**Vu-Meter:**

Two independent Vu-meter, one for Ch1 and one for Ch2.

**Patient Response:**

Two independent Patient response, one for Right and one for Left.

**Display:**

Graphic 640x200 monochrome LCD display with (CFL) backlighting. Electronic viewing angel adjustment.

**Test Types:**

**Tone:** Manual, continuos single pulse, pulsing (Variable).

**Speech:** Live voice, Tape or CD inputs. Built-in goose neck microphones.

**Score counter:** Calculates % of correct score for speech.

**ABLB:** Individually adjustable pulse speed and pulse length

**TT decay:** Calculation according to Rosenberg (1958).

**Bekesy Test:** 125Hz to 16KHz.

**Difference Limen Intensity:** 0.0dB - 5.0dB in 9 different steps.

**Difference Limen Frequency:** 0.0% - 5.0% in 9 different steps.

**Masking Limen Difference:** Noise out of phase and signal out of phase. Automatic calculation.

**Monaural Loudness Balancing:** Programmable test set-up.

**SISI:** 0, 0.2, 0.4, 0.6, 0.8, 1, 2, 3, 5 dB, 20 increments. Automatic score counter which calculates in % the number of response to 1 dB increments.

**Stenger:** Pure tone or Speech can be used for Stenger tests.

**Auto Threshold:** Patient controlled Hughson-Westlake Test after ISO 8253. 3 out of 5 or 2 out of 3 selectable response criteria. Reduced frequency range option for rapid test.

**Build-in Free Field Amplifier:** 2x12Watt 4-8 Ohms. (Optional)

**Printer:** Output to external HP2GL Laser printer, via 25 pin D connector on rear panel.  
Printer is not longer optional from January 2007.

**Keyboard:** Alphanumeric keyboard connect on the rear panel (Optional)

## General about Specifications

Interacoustics continuously strive to improve the products and their performance. Therefore the specifications can be subject to change without notice.

The performance and specifications of the instrument can only be guaranteed if it is subject to a technical maintenance at least once a year. This should be made by a workshop, authorised by Interacoustics.

Questions about representatives and products may be sent to:

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