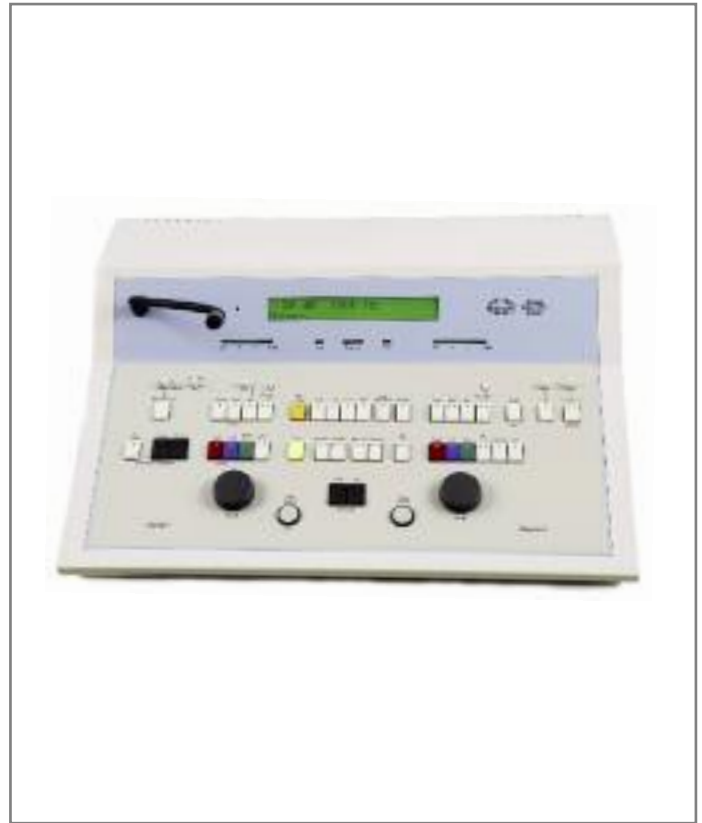


## Interacoustics AC33 Kamplex KC35

Clinical Audiometer - Efficient Hearing Examinations



# AC33

The AC33 is a two channel clinical audiometer designed for use in clinics, hospitals and by hearing aid dispensers who require two channel testing capability. Carefully designed operation procedures ensure fast and reliable performance of all standard clinical audiometric tests. The easy to read display, together with the functional layout of the front panel, makes normal manual testing easy and comfortable. In addition pre-programmed tests, some with

automatic scoring, are incorporated for threshold testing, speech testing and SISI tests. In a modern clinical environment it is important to provide interconnection with computers. The AC33 is therefore equipped with computer interface to accommodate this and a range of support software is available. The AC33 is also fully compatible with NOAH.

## Interacoustics AC33 Kamplex KC35

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### General Technical Specifications

#### Standards:

Audiometer: EN 60645 -1, EN60645-2, ANSI S3.6, Type 2

Speech: EN60645-2/ANSI S3.6 type A or A-E.

Safety: EN 60601-1, Class I, Type B.

**Calibration:** AC: ISO 389-1 (TDH39), ISO 389-2 (EAR-Tone5A), BC: ISO 389-3, ISO 389-4, NB: ISO 389-4.

#### Medical CE-mark:

Interacoustics A/S meets the requirements of the Annex II of the Medical Device Directive 93/42/EEC. Approval of the quality system is made by TÜV – identification no. 0123.

**Channels:** Two independent channels.

#### Frequencies and Maximum Hearing Levels:

	AC dBHL	AC	BC	NB	FF int.	FF ext.	BB/ SN
Hz	TDH 39	EAR- Tone 5A	B71				
125	90	95		70	65	70	100
250	110	100	45	90	75	90	100
500	120	110	60	100	90	100	100
750	120	120	70	100	90	100	100
1000	120	120	70	100	90	100	100
1500	120	120	70	100	90	100	100
2000	120	120	70	100	90	100	100
3000	120	120	80	100	90	100	100
4000	120	120	80	100	90	100	100
6000	120	105	50	100	90	100	100
8000	100	100	50	80	80	80	100

**Extended Range Function:** If not selected, the AC output will be limited to 20dB below maximum output.

**Channel 1:** Input: Tone, Microphone, Tape/CD 1+2. Output: Left, Right, Bone L+R, Free Field 1+2, Insert phones.

**Channel 2:** Input: Tone, Microphone, Tape/CD, 1+2, NB, SN, BB. Output: Left, Right, Bone, Free Field 1+2, Insert phones, Insert masking, Off.

**Presentations Ch 1:** Manual or reverse.

Single or multiple pulses. Single/multiple pulse speed: 150, 200, 250, 500, 750, 1000, 1500, 2000, 4000, 5000 ms.

Presentations Ch 2: Manual or reverse.

Simultaneous or alternate to Ch 1.

**Modulation:** Warble: + 5% 5Hz. True sine wave. Synchronous Masking: Locks Ch 2 attenuator to Ch 1 attenuator.

**Attenuators:** Totally click free, -10 to 120 dB HL in1 or 5 dB Steps.

**Tone Switches:** Silent touch switches.

**VU Meter:** Two independent VU Meters monitor speech for Ch 1 and Ch 2.

#### Transducers:

TDH39 Audiometric Headset.

EAR-Tone 5A Insert Phones (optional).

B71 Bone Conductor.

CIR22 Insert Earphone for masking.

#### Calibration Possibilities:

	Tone*	SP	NB	SN
Phone L / R	x	x	x	x
Insert L / R	x	x	x	x
Bone	x	x	x	x
Insert masking	x	x	x	x
FF1	x	x	x	x
FF2	x	x	x	x

\*Warble tone can be selected freely.

#### Communication:

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

**Talk Back:** Microphone input. Level adjusted on front panel.

**Monitor:** Built in speaker headphone or active loudspeaker. Monitor output level adjusted on front panel.

**Colour Printouts:** Via computer.

**Interface:** Built-in two way computer interface which allows the computer to both monitor and control the AC33. Control actions will be indicated on operation panel and display. Using a PC as an on-line monitor is possible.

#### Examples of Compatible Windows®

##### Software:

Interacoustics database and diagnostic modules PrintView for on-line PC monitoring and printing. NOAH hearing aid fitting software.

##### Test Types:

Tone: Manual, continuous, single pulse, pulsing (variable). Speech: Live voice or two tape (or CD). Built-in goose neck microphone. Boom microphone of monitor headset (optional). Score counter which calculates in % the number of correct responses.

**Auto Threshold:** Patient controlled Hughson-Westlake Test after ISO 8253-1. 3 out of 5 or 2 out of 3 selectable response criteria. Reduced frequency range option for rapid testing.

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

**SISI:** 0, 1, 5 dB, 20 increments. Automatic score counter which calculates in % the number

of responses to 1 dB increments.

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

#### Free Field:

**System FFAC33:** Built in 2x12W amplifier APDAC33 and two ALS7 speakers. 95dB SPL. (Optional)

**System FF ext:** External 2x70W amplifier, AP70, and two ALS7 speakers. 105dB SPL. (Optional)

**Power:** AC 50-60 Hz. 200-240 V.

**Consumption:** Max. 140 VA.

**Construction:** Painted metal cabinet.

**Dimensions (LxWxH):** 48x40x15 cm / 19x16x6 inches.

**Weight:** 9 kg / 20lbs.

**Air Freight Packing (LxWxH):** 75x55x25 cm / 30x22x10 inches.

**Gross Weight:** 12.8 kg / 28 lbs.

#### Included Parts:

TDH39 Audiometric headset  
B71 Bone conductor  
Goose-neck electret microphone  
Patient response button  
Power cable 220 V  
Dust cover  
MI111 Audiogram charts  
Pen set  
Operation manual CD  
Multilingual CE instructions for use

#### Options:

APD-AC33 Built-in 2x12 watt power amplifier for FF

#### Optional Parts:

AP70 2x70 watt external power amplifier  
ALS7 FF loudspeaker ( AP70 )  
ALS15 FF loudspeaker ( AP70 )  
EM400 Electret microphone for talk back  
Audiocups  
CIR22 Insert earphone for masking and monitoring  
EAR-Tone 5A Insert phones  
MTH400 Monitor headset  
MTH400M Monitor headset with boom mic.  
IFC5/IFC39 RS232C Computer connection cables  
OtoAccess™ Database and diagnostic modules software  
PrintView software  
IA-NOAH-Aud software  
IA-NOAH Driver software

SPECIFICATION CAN BE SUBJECT TO CHANGE WITHOUT NOTICE

THE UK'S LEADING SOURCE OF AUDIOLOGICAL INSTRUMENTS