MADSEN Orbiter

- Full two-channel audiometer
- Digital signal processing (DSP) technology
- NOAH™ compatible
- Build-in or external printer options
- Complete patient communications facilities
- Direct control of CD player
- Automatic speech test scoring

The complete 2-channel clinical audiometer

Our top-of-the-line audiometer, MADSEN Orbiter 922-2 incorporates many of the key characteristics found in today's personal computers: peripherals such as keyboard, display, printer; "intelligent" menu-driven software, non-volatile memory for permanent storage of setupand other parameters, interfaces for communication with PC's and other devices - allintegrated into one dedicated instrument to make daily routines faster and more reliable.

Complete patient communication facilities

Orbiter 922 Version 2 not only provides every audiometric facility required in the daily clinical setting, but also additional test capabilities which are useful in a variety of clinical and research applications:

- Direct control of optional CD player
- Built-in free-field amplifier and monitoring loudspeaker
- Individual calibration of earphones, bone conductor, free field, masking insert phone, and E-A-RTONE® 3A insert phones; calibration data stored in non-volatile memory.

MADSEN **Orbiter**

High frequency testing up to 20 kHz

In addition, the advanced DSP system architecture and two separate oscillators feature:

- High-frequency testing up to 20,000 Hz
- Complete Békésy audiometry as well as MLB and DLF special tests
- Frequency accuracy of ± 0.03%
- High-resolution multiple frequencies (with increments down to 1 Hz)

Hearing Assessment | Fitting Systems | Balance Assessment

Technical specifications:

Channels:	
2 separate and identical channels (2 oscillators)	
Outputs:	
Phones, bone, insert, free-field loudspeaker via external or internal amplifier	
Tone Stimuli:	
Pure, pulsed or warble tones	
Frequency Range:	
Air, FF: 125 to 20,000 Hz	
Bone: 250 to 8,000 Hz	
Frequency Resolution:	
Standard frequencies, 6/12/24/48 points per octave, or 1 Hz	
Masking Signals:	
White Noise, Speech Noise, Narrow Band Noise or External (CD/Tape)	
Attenuator:	
1 dB step resolution	
Hearing Level Range:	
Maximum output limited by transducer capability	
Air:	-10 to 120 - 125 dB HL at 500 - 6,000 Hz
Bone:	-10 to 70 - 80 dB HL at 500 - 4,000 Hz
Speech Input:	
Microphone or CD/Tape 1-2	
Special Tests:	
S.I.S.I., ABLB, Stenger, Rainville, DLI, Auto Threshold, Tone decay,	
MCL/UCL, DLF, MLB, Békésy, HFA; 10 user-programmable tests	
Data Communication:	
RS232C Serial Data Interface	
Printer:	
Optional built-in thermal printer or external	
Display:	
640 x 200 monochrome LCD display, viewing area 224 x 98 mm	
Power Supply:	
AC 50 - 60 Hz, 100 - 127 V or 200 - 240 V	
Patient Safety:	
Complies with EN 60601-1, Class I, Type B	
Dimensions:	
522 x 418 x 155 mm, 20.5 x 16.5 x 6.1 in. (W x D x H)	
Net Weight:	
9 kg, 20 lbs	

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