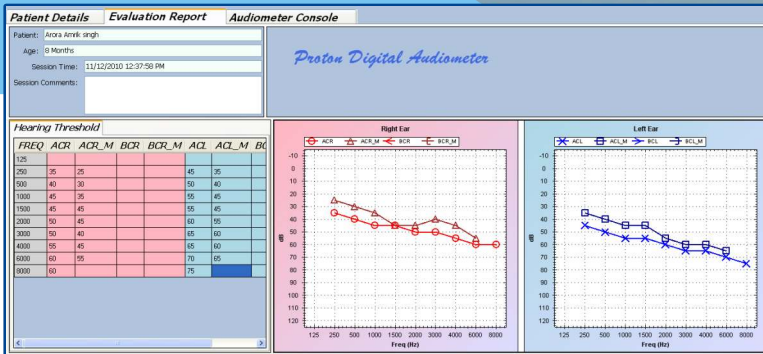


PROTON



Technical Specifications of **PROTON** Digital Portable Audiometer.

The **PROTON** is a new generation 100% Digital Audiometer available in basic version the **DX 3** and the diagnostic version the **DX 5**. This audiometer also features an optional user-friendly PC software, the **PROTON SX 3** and the **PROTON SX 5** with software is designed for unidirectional operation for optimal operating efficiency during daily routine examinations. New features incorporated into the **PROTON** include, amongst other, data interface, ipsilateral masking, and simultaneous presentation of stimulus and masking binaurally.

State-of-the art technology has enabled us to produce a compact lightweight instrument not only capable of performing the standard battery of tests but also featuring many other advanced and innovative facilities.

All these features have been incorporated into a striking simple user friendly and ergonomic design, which makes operation fast, easy and efficient.

A completely new attenuator which permits totally click free operation over the entire attenuator range.

Simple menu-driven dialogue makes the **PROTON** easy to learn and easy to use. Working with menu driven display is uncomplicated, the display itself is easily readable under any lighting conditions and from any viewing angle thanks to state-of the-art LCD technology.

The **PROTON SX** software saves patient audiograms and sessions for recall, review and printing.

CHANNELS

Two separate channels : one for stimulus and one for masking.

OUTPUTS

Phones : Air Conduction.
 Bone : Bone Conduction.
 F.F : Free Field Loudspeaker via external Amplifier.
 Output voltage: max. 1.5 Vrms.

EXTERNAL INPUTS

Microphone : Electret, for speech audiometry and patient communication.
 Tape/CD : Stimulus channel, Sensitivity 0.1-3.0 Vrms, 47 kOhm

DATA STORAGE

Audiometric Test results can be saved, retrieved, edited and printed in values using impact printer. Or saved in the PC for Proton SX 3 & SX 5.

CONNECTIVITY : USB output in Model SX 3 & SX 5.

Communication and Monitoring

Built in, talk-over with individually adjustable monitoring.
 Visible Patent Response (LCD display) LCD bar-graph V.U.Meter provides visual indication of stimulus level as well as displaying level for sensitivity adjustment of Microphone /Tape/CD input signals.

Display

Alphanumeric transreflective LCD, 2 rows of 16 characters.
 Screen dimensions 155 x 16mm.with LED backlighting.

Distortion

Less than 1% (T.H.D)

Accuracy

Frequency : Better than $\pm 2\%$.
 Hearing Level Electrical : Within $\pm 1\text{dB}$ of indication
 Acoustical : Within $\pm 3\text{db}$ of indication



Calibration

AIR IEC645/ANS13.6-1996
 BONE ISO7556-1987/ANSIS.3.26-1981
 MASKING IEC 645/ISO 8798 1987.
 Calibration data are stored in a programmable non-volatile memory.

Power Supply

230 V AC Approximately 50 Hz

Operating Environment

Temperature : Max 50 degree Celsius.
 Relative Humidity : Max 90%.

Construction

Molded ABS, Non-corrosive.

Dimension & Weight

(275x200x80) mm.-1.7 kg approx. Without carrying case.

Standard Accessories.

DR 59 Headset, TDH 39 (Optional)
 Bone Conductor with Headband (Radioear B-71).
 Patient Response Hand switch, Dust Cover, Audiogram Pad, 1 Blue and 1 Red Pen. Operation manual.

The **PROTON** is available with the following features.

FEATURES	<i>PROTON DX 3 / SX 3</i>	<i>PROTON DX 5 / SX 5</i>
Frequencies Air, Free Field	250-500-1000-1500-2000-3000-4000-6000-8000 Hz.	250-500-1000-1500-2000-3000-4000-6000-8000 Hz.
Attenuator Range	-10 to 120 dB steps with Range Extender function. Fully click free operation over entire range.	
Hearing Level Range Air	Max 120 dB HL at 500-6000 Hz. Max 110 Db.at 250 Hz, Max 100 Db.at 8000 Hz.	
Frequencies Bone	250-500-1000-1500-2000-3000-4000 Hz	250-500-1000-1500 2000-3000-4000-6000 Hz
Hearing Level Range	70 dB HL at 500-4000 Hz. 60 Db at 250 Hz.	80 dB HL at 500-4000 Hz. 70 Db at 250 Hz. 65 Db. At 6000 Hz.
Masking	Wide Band	Wide Band, Speech Band, Narrow band.
Tone	Continuous, Pulsed Pulsing Rate 1.5 Hz.	Continuous, Pulsed, Warble Pulsing Rate 1.5 Hz.
Special Tests	Tone Decay Test, Speech Test. (Pulse counter display.)	Tone Decay Test, SISI Test, Speech Test. (SISI score display, test can be aborted midway by using the patient signal switch or Stimulus key.)
Speech Audiometry :	Stimulus via Microphone or Tape/CD.	
P.C Connectivity (USB)	Available in Model PROTON SX 3	Available in Model PROTON SX 5

NOTE : The Proton Digital audiometer is also available in the battery operated option with a built in rechargeable maintenance free battery.

Optional Accessories : Free Field loudspeaker, Amplifier and Speech Microphone.

Marketed by: **Arphi**® **ELECTRONICS PVT. LTD.**

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