



NEWBORN HEARING SCREENING

Medical Instruments

Pursuant of
**Philippine Republic Act
(R.A.) 9709**
and
**Department of Health
A.O. 2010-0020**

| Name | Item No. |
|------------------------|----------------|
| MB 11 BERAPhone | 701 174 |



Specifications

| | |
|--------------------------|--|
| Number of channels | 1 |
| Screening | |
| Stimulus type | CE-Chirp stimulus™ |
| Stimulus rate | 93/s |
| Stimulus levels | 35 dBHL |
| Display | Normal mode test result (PASS/REFER/ABORT), test diagram, signal quality display, traffic light for impedance test. |
| Signal quality check | By signal quality bar (EEG) AABR-Algorithm patented FSS-test (fast steady state) |
| Sensitivity | > 99,9 % |
| Specificity | > 96,7 % |
| Standards | IEC 601-1, BF according to medical directive 93/42/EEC, CE 0124 |
| Power supply | USB-Port 5V DC max. 400 mA |
| Environmental Conditions | +15 ... +35 C / +59 ... +95° F (operation) +5 ... +50 C / +41 ... +122° F (storage) Maximum humidity 75% (operation) Maximum humidity 90% (storage) |
| Speaker | Integrated, dynamic wideband speaker (8) |
| Electrodes | Reusable, stainless-steel electrodes with gel protectors |
| Preamplifier | Integrated, 87 dB Amplification (23.000x) |
| Weight | 300g |
| Instrument (MB 11 Box): | |
| Power Supply | via USB port of computer |
| Power Consumption | max. 400 mA |
| Weight | 165 g |
| Dimensions | W x D x H: 12 x 9 x 3 cm |

| Standard Accessories | Optional Accessories | Item No. |
|----------------------|---|----------|
| MB 11 Box | Label Printer | 801 793 |
| Measuring Probe | Consumables | |
| Cradle | Stainless Steel Electrodes (1 pc.) | 894 132 |
| Carrying Case | Stainless Steel Electrodes for Pre-Matures (1pc.) | 894 153 |
| Software | Gel Protection for Electrodes (1 set of 3 pcs.) | 894 170 |
| Electrode Gel | Electrode Gel, Bottle 250 ml | 801 086 |

| Name | Item No. |
|----------------------------|----------|
| ERO • SCAN™ Classic | |
| DPOAE - Screener | 701 142 |
| TEOAE - Screener | 701 143 |
| DPOAE + TEOAE Combo | 701 146 |



Specifications

| | |
|--------------------------|---|
| Probe | |
| Measurement type | TEOAE or DPOAE |
| Frequency range | 2 to 5 kHz (DPOAE), 1.5 to 4 kHz (TEOAE) |
| Stimulus intensity range | 40 to 65 dB SPL |
| Maximum output | 90 dB SPL |
| Microphone system noise | -15 dB SPL @ 1 kHz (1 Hz BW) |
| Stimulus sampling rate | 31.25 Hz |
| Power supply | 6 V- batteries - four AA cells |
| Battery life | typical 300 tests |
| Probe weight | 300 g (including batteries) |
| Display | LCD-display 4 lines x 10 characters |
| Printer (optional) | |
| Printer type | Thermal dot matrix |
| Speed | > 10 lines / second |
| Operating noise | < 50 dB SPL |
| Power supply | Mains 100 ... 240 V 50/60 Hz |
| Printer weight | 630 g (with power supply or battery pack) |
| General | |
| Standards | IEC 601-1, according to medical Directive 93/42/EEC, FDA 510 (k) #980533 23.3.1998, CE 0124 |
| PC-interface | serial RS 232 |

| Standard Accessories | Optional Accessories | Item No. |
|---|---|----------|
| Device with 4 AA Batteries | | |
| Cradle | External Mini-Probe for Tests on Babies - in TEOAE Mode | 801 127 |
| Ear Tip Set (80 pcs) | Printer with Power Supply | 801 641 |
| Replacement Probe Tips | Carrying Case | 705 084 |
| External Mini Probe | Consumables | |
| Replacement Probe Tips for External Probe | Probe Tips | 705 081 |
| Operating Manual | Ear Tips Size 9 | 705 089 |
| | Ear Tips Size 3 | 705 063 |
| | Ear Tips Size 4 | 705 064 |
| | Ear Tips Size 5 | 705 065 |
| | Ear Tips Size 6 | 705 066 |
| | Ear Tips Size 7 | 705 067 |
| | Ear Tips Size 8 | 705 068 |
| | Ear Tips Size 10 | 705 090 |
| | Ear Tips Size 11 | 705 091 |
| | Ear Tips Size 12 | 705 092 |
| | Ear Tips Size 13 | 705 093 |
| | Ear Tips Size 14 | 705 094 |
| | Ear Tips Size 15 | 705 095 |
| MAICO Database | | 706 019 |
| OAE Module | | 705 190 |

| Name | Item No. |
|-------------------------------|---------------|
| ERO • SCAN® Monochrome | 701145 |



Specifications

| | |
|--------------------------|---|
| Probe | |
| Measurement type | TEOAE or DPOAE |
| Frequency range | 2 to 5 kHz (DPOAE), 1.5 to 4 kHz (TEOAE) |
| Stimulus intensity range | 40 to 70 dB SPL |
| Microphone system noise | -20 dB SPL @ 2 kHz (1 Hz BW) |
| Power supply | Lithium-Ion rechargeable |
| Battery life | minimum 1000 test per charge |
| Probe weight | 28 g |
| Display | OLED display, 4-button keypad |
| Dimensions | 1.0 m |
| Printer (optional) | |
| Printer type | Thermal dot matrix |
| Speed | 50 to 80 mm/second |
| Operating noise | < 50 dB SPL |
| Power supply | 7.4 V lithium battery |
| Printer weight | 197 g |
| General | |
| Standards | IEC 60601-1 according to medical device directive 93/42/EEC FDA 510 (k) #980533 |
| PC-interface | USB micro |

| Standard Accessories | Optional Accessories | Item No. |
|----------------------------------|----------------------|----------|
| Device with rechargeable battery | | |
| Ear Tip Set (110 pcs) | | |
| Replacement Probe Tubes | | |
| Carrying Bag | | |
| PC Software including database | | |
| Power Supply | | |

**Innovation,
Continuity,
Reliability.**



Item No. 701145
**MAICO ERO•SCAN®
Monochrome**
OAE Test System
Otoacoustic Emission Technology

Item No. 701142 / 701143 / 701146
**MAICO ERO•SCAN™
Classic**
OAE Test System
Otoacoustic Emission Technology

Item No. 701174
**MAICO MB 11
BERAPhone® Screener**
AABR Test System
*Automated Auditory
Brainstem Response Technology*



MAICO MB11 BERAphone® AABR Test System

ERO•SCAN™ Classic OAE Test System

**New Life, New Symphony,
ASSURED EARLY
for Every Filipino
Child.**

MAICO ERO•SCAN® Monochrome OAE Test System

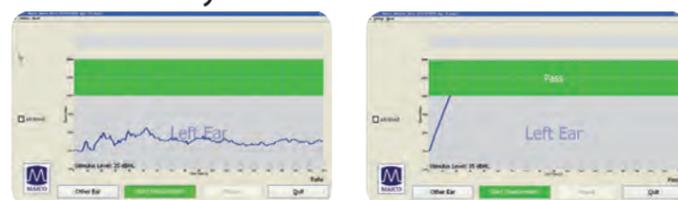


Item No. 701174



- Automatic, Reliable ABR-screening Results
- Innovative BERAphone design given cost saving integrated electrodes
- CE-Chirp-Stimulus / Impedance Check for fast results
- Automatic Impedance Check indicates impedance conditions
- PC Connectivity for Power / Data Transfer

User-friendly software



The special evaluation software performs the test automatically and the Pass or Refer Result will show within a few seconds.

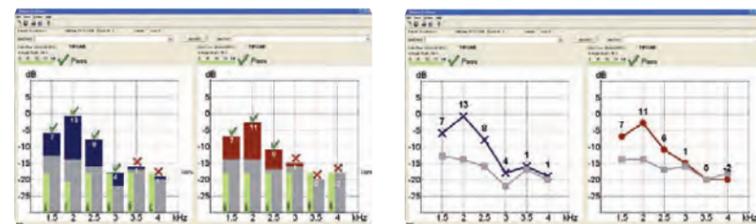


Item No. 701142
701143 / 701146



- Test both ears in less than a minute
- Results are displayed as PASS or REFER
- Test is completely objective
- With integrated thermal printer; prints results in 2-3 seconds
- Accurate results
- Can come in DPOAE, TEOAE or combo versions

OAE-Software



PC connectivity for optional software for report storage

"AABR testing is the GOLD standard.."

For specifications, accessories and optional softwares see back page.

Why screen via AABR method?

Screening with auditory brainstem response is a direct test of the entire auditory pathway up to the brainstem. It also detects auditory neuropathy and other neural defects which cannot be found with OAE measurements.

With the MB 11BERAphone® you get automatic ABR at the speed and cost of OAE measurement and with very high sensitivity and specificity.

Why Use Otoacoustic Emissions (OAEs)?

Otoacoustic emissions are sounds that are produced by the cochlea (outer hair cells) and can be measured in the ear canal. When sound passing through the ear canal reaches the cochlea, the vibration stimulates thousands of tiny hair cells. This creates a byproduct that can be detected and measured:

OAEs only occur in a normal cochlea with normal hearing sensitivity. If there is damage to the outer hair cells, which produces hearing loss, then OAEs will not be present. In general, OAEs will be present if hearing is at 30 dB or better.

PASS test results mean OAEs were detected. If there is damage to the outer hair cells producing a mild hearing loss OAEs may not be present. The test result is REFER and the patient may be at risk for possible communication handicaps and can benefit from further diagnostic assessment.

"...it's so easy...!"

For specifications, accessories and optional softwares see back page.



Item No. 701145



- Performing screening and diagnostic testing with TE and / or DPOAE
- Fast automatic test with Pass / Refer and graphical test result
- Sharp, colored organic LED Display
- Direct evaluation via value and bar diagram
- Up to 12 frequencies displayed within the device, DPOAE up to 12 kHz
- High noise immunity for operation in normal clinical environment
- Lightweight, small earprobe
- Environmentally friendly due to long life, rechargeable battery
- Bluetooth® communication to optional printer and PC
- Evaluation of results in PC
- Multiple, easily selected language options