



MORE THAN  
80 YEARS  
OF EXPERIENCE IN MAKING  
HEARING SCREENING EASIER

# General Catalogue

Hearing Screening & Diagnostics

## Welcome to the World of MAICO



### International Sales Team



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## About MAICO Diagnostics

For eight decades MAICO has been an innovator in audiological instruments, developing, producing and distributing reliable products ranging from hearing screening to diagnostic solutions.

MAICO has grown over the years to fulfill the specialized needs of the growing field of audiology. From screening audiometers for school nurses and general practitioners to complex diagnostic instruments for in-depth examination, MAICO provides novel and efficient tools for hearing professionals.

The future of MAICO is to continue our commitment to providing state-of-the-art technology; fast, reliable service; usability and customer support.

- 1 Screening Audiometers
- 2 Diagnostic Audiometers
- 3 Middle Ear Analyzers
- 4 OAE Test Systems
- 5 AABR Test Systems
- 6 Comparison Charts

## We look forward to hearing from you.



Gabriel Treindl

### Audiology



Danish Naeem



Jochen Buck

### Technical Customer Service

## Screening Audiometers



### MA 1

**Super-lightweight handheld hearing screener – small enough to fit in the palm of your hand:**

- Portable air conduction hearing screener (only 450 g)
- Pure tone signal from 15 to 50 dB
- Frequencies: 500, 1000, 2000 and 4000 Hz
- Headset DD45



### MA 25

**Easy and mobile basic screening audiometry:**

- Air conduction
- Continuous, pulse, warble tones
- Battery operated, optional AC adapter
- Automatic audiometry according to Hughson-Westlake (optional)



### MA 27

**Portable audiometer with built-in case and storage**

- Air conduction
- Continuous, pulse, warble tones
- Automatic audiometry according to Hughson-Westlake (optional)
- DD45 Headset with HB-7 headband
- AC adapter



### NEW MA 28

**Portable audiometer with AC & BC**

- Compact and portable with built-in handle
- AC test frequencies from 125 to 8000 Hz
- BC test frequencies from 250 to 8000 Hz
- Sinus and warble tone (pulsed and continuous)
- Narrow band and white band masking noise
- Automated Hughson-Westlake included
- Optional Audiometry Module connectable with MAICO patient database or NOAH for easy data management



## ST 20

### Screening audiometry for all purposes:

- Air conduction with 8 frequencies from 250 Hz to 8 kHz
- Bone conduction with automatic masking (optional)
- SISI-Test (optional)
- AC headset DD65



## 1 Screening Audiometers

### First class performance

MAICO Screening Audiometers are designed to provide fast and reliable hearing tests by general practitioners, pediatricians, occupational health and other trained staff in health services for screening purposes.

We offer a fast and fun hearing test especially for children with picture select audiometry and a colourful design.

Refer to the product comparison charts on page 16 to select the most suitable instrument for your individual needs.

## Diagnostic Audiometers



### MA 41

**The stand-alone and portable audiometer with perfect ergonomic design for comfortable handling:**

- Air conduction, bone conduction and speech audiometric testing
- Free field testing (optional)
- Speech tests from SD-memory card, CD or via microphone
- Direct printout of the results via external printer
- Store reports as PDF on USB memory stick or SD card
- NOAH compatible stand-alone software, USB PC-Interface
- Patient database for more than 1000 test results
- High tone up to 16.000 Hz (optional)





## 2 Diagnostic Audiometers

### Improved Hearing Testing

MAICO audiometers for ENT doctors and audiologists offer diagnostic tests such as SISI, DLI, ABLB, Carhart Decay and Stenger. All diagnostic audiometers support automatic data transfer to a PC.



### MA 42

**The reference for diagnostic audiometry – two-channel audiometer with high flexibility:**

All features as MA 41 and in addition

- Diagnostic Tests such as SISI, Decay, ABLB, MLB
- Mixing – signals and channels can be mixed independently



Refer to the product comparison charts on page 17 to select the most suitable instrument for your individual needs.

## Middle Ear Analyzers



easyTymp  
Basic

### easyTymp Basic

**Handheld Middle Ear Analyzer for fast tympanometry and acoustic reflex tests:**

- Very fast and reliable impedance measurement
- Probe tone 226 Hz, optional high frequency probe tone 1 kHz
- Ipsilateral reflex test with 4 frequencies plus optional broadband noise
- Automatic tests – simple to use
- Extensive storage

### easyTymp Plus

**Additional Features and Accessories:**

- Contralateral acoustic reflex tests
- Extra long Contra Probe cable

### easyTymp Pro

**Additional Features and Accessories:**

- Contralateral acoustic reflex tests
- Extra long Contra Probe cable
- Reflex decay testing
- Eustachian tube function (ETF) testing (intact and perforated)





Test Protocols Available	easyTym Basic		easyTym Plus		easyTym Pro	
	Included	Optional	Included	Optional	Included	Optional
226 Hz	√		√		√	
226 Hz + Ipsi Reflex Auto	√		√		√	
226 Hz + Ipsi Reflex 90 dB	√		√		√	
226 Hz + Ipsi-Contra Auto			√		√	
226 Hz + Ipsi-Contra 90 dB BB			√		√	
Reflex Decay Ipsi					√	
Reflex Decay Contra					√	
ETF Non Perforated					√	
ETF Perforated					√	

1 kHz		√		√		√
1 kHz + Ipsi Reflex Auto		√		√		√
1 kHz + Ipsi Reflex 80 dB BB		√		√		√
1 kHz + Ipsi-Contra Auto				√		√
1 kHz + Ipsi-Contra 80 dB BB				√		√

### 3 Middle Ear Analyzers

#### From Screening to Diagnostic Solutions

All MAICO Middle Ear Analyzers perform fast tympanometry and ipsi-lateral reflex tests – tympanometry only takes three seconds.



Refer to the product comparison charts on page 18 to select the most suitable instrument for your individual needs.

## Middle Ear Analyzer



### touchTymper MI 24

#### The first in our ALL-Touch impedance Line

- Provides test results within seconds
- Allows testing from infants to adults
- Customizable to suit individual needs
- Full 10.4" touch-based interface for an intuitive operation
- Innovative probe lights allow a patient-focused handling
- Probe tone 226 Hz, optional high frequency probe tone 1 kHz
- Acoustic reflex frequencies 500 Hz, 1 kHz, 2 kHz, 4 kHz (ipsi- and optional contralateral)
- High resolution and quick screen transitions
- Built-in printer

### touchTymper MI 34

#### Additional evaluation possibilities for diagnostic testing:

- Optional high-frequency probe tone 1 kHz
- Acoustic reflex stimuli 500 Hz, 1 kHz, 2 kHz, 4 kHz, BB, HP, LP (ipsilateral and contralateral)
- Reflex Decay test (ipsilateral and contralateral)
- ETF test for intact and perforated eardrums



Test Protocols Available	touchTymp MI 24		touchTymp MI 34	
	Included	Optional	Included	Optional
226 Hz	√		√	
678 Hz			√	
800 Hz			√	
1000 Hz		√		√
Acoustic Reflex Fixed (Screening)	√		√	
Acoustic Reflex Automatic (Treshold)	√		√	
Acoustic Reflex Ipsilateral	√		√	
Acoustic Reflex Contralateral		√	√	
Acoustic Reflex Puretone	√		√	
Acoustic Reflex Noise			√	
Reflex Decay Ipsi	√		√	
Reflex Decay Contra			√	
ETF Non Perforated			√	
ETF Perforated			√	

### 3 Middle Ear Analyzers

#### From Screening to Diagnostic Solutions

All MAICO Middle Ear Analyzers perform fast tympanometry and ipsi-lateral reflex tests – tympanometry only takes three seconds.



Contra Phone DD 45 C



Refer to the product comparison charts on page 18 to select the most suitable instrument for your individual needs.



## OAE Test Systems



### ERO•SCAN™

Ultra-portable, handheld device with color screen for screening and diagnostic testing with TEOAE and / or DPOAE

- Objective hearing tests for all ages
- Fast automatic test with "Pass" or "Refer" and graphical test result
- Direct evaluation via value and bar diagram
- Sharp, colored organic LED Display
- Upgradable to advanced diagnostic capabilities
- Diagnostic DPOAE testing with up to 12 kHz
- High noise immunity for operation in normal clinical environment
- Lightweight, small probe
- Environmentally friendly rechargeable battery
- Wireless communication to optional printer
- Multiple, easily selected language options
- Patient database included
- Direct print to PDF



## 4 OAE Test Systems

### OAE Test Systems

MAICO OAE Test Systems provide fast and objective inner ear assessment for newborns, children and adults.

ERO•SCAN is available with DPOAE and/or TEOAE.



ERO•SCAN probe

**Sanibel**  
Supply

Sanibel Supply is the exclusive supplier of MAICO ERO•SCAN disposables. Use only Sanibel disposables to achieve optimal test results.



ERO•SCAN with eartip box and wireless printer in the carrying case

Refer to the product comparison charts on page 19 to select the most suitable instrument for your individual needs.

## AABR Screening



### MB 11 BERAphone®

**The only AABR Baby Screener without disposables for state-of-the-art newborn hearing screening:**

- Fastest ABR algorithm on the market, verified by independent scientist
- Unique BERAphone with integrated electrodes saves costs for disposables
- CE-Chirp® Stimulus ensures fast results
- Automatic Impedance Check indicates impedance conditions
- Export function of test data for ensuring quality tracking
- Stimulation level at 35 dBHL
- USB connection for power supply and data transfer
- Easily comprehensive "Pass" or "Refer" result



### MB 11 Classic Screener

**PC-based binaural AABR Screener with flexible electrodes for infants and older children:**

- Fast and automated ABR-screening with CE-Chirp® Stimulus
- Binaural, simultaneous screening
- Fast Steady State Algorithm determining "Pass" or "Refer" result
- Automatic Impedance Check ensuring good testing conditions
- Automatic Data export for easy tracking
- USB connection for power supply and data transfer



#### The Patented CE-Chirp™

Stimulates all regions of the cochlea at the same time and thus generates much higher responses and consequently faster results than a standard click. This leads to very reliable results under normal nursery conditions.



## NEW ABR and OAE Screener



### easyScreen

#### Our new combined ABR + OAE newborn hearing screener:

- Fast and easy ABR + OAE hearing screening
- Powerful ABR detection algorithm for testing within seconds
- Truly intuitive user interface
- On-screen guidance; i.e. probe fitting feedback, noise monitoring
- Small and lightweight
- Large color touchscreen for comfortable navigation
- Very short boot-up time and long battery life
- Cradle for wireless charging
- HearSIM™ patient database and device manager

Upgradable to easyScreen BERAprone in 2018



## 5 AABR Test Systems

### Newborn AABR hearing screener

Hearing screening with automated auditory brainstem response (AABR) detection is a direct test of the entire auditory pathway up to the brainstem. This makes AABR screening the most reliable test method for detecting hearing loss.

Refer to the product comparison charts on page 20 to select the most suitable instrument for your individual needs.



MA 1



ST 20



MA 25



MA 27



MA 28

## Screening Audiometers

Functionality	MA 1	ST 20	MA 25	MA 27	MA 28
Class		4	4	4	3
Frequency Range [Hz] AC Frequency Range [Hz] BC	500 - 4.000	250 - 8.000 250 - 6.000	125 - 8.000	125 - 8.000	125 - 8.000 250 - 8.000
Air Conduction [dB <sub>HL</sub> ]	15 to 50	-10 to 100	-10 to 100	-10 to 100	-10 to 110
Bone Conduction [dB <sub>HL</sub> ]		-10 to 70			-10 to 80
Level Steps [dB]	5	5	5/1	5/1	5/1
Masking Signal		Narrow Band			Narrow band and white noise
Test Signal	Sinus (continuous)	Sinus (pulsed and continuous)	Sinus, warble (pulsed and continuous)	Sinus, warble (pulsed and continuous)	Sinus, warble (pulsed and continuous)
Speech					
Special Tests		SISI	Hughson- Westlake optional	Hughson- Westlake optional	Hughson- Westlake
NOAH Compatible		√	optional	optional	√
PC-Interface		√	optional	optional	√
Dimensions WxDxH [cm]	6.35x22.2x 15.24	29x22x6	22.5x18x5.5	25.5x37x15	25.5x37x15
Soft Carrying Case		hard case optional	optional	integrated hard case	integrated hard case
Weight [kg]	0.45	1.9	1	2.4	1.9
Power Supply	2 x AA batteries	only 230 V	3 x AA batteries	external AC-Adapter, 100-240 V	external VAC-Adapter, 100-240 V
Special Features	DD45 Headphone	DD65 Headphones with sound-excluding ear muffs	optional AC-Adapter, 100-240 V		Power Supply via USB



MA 41



MA 42

## Diagnostic Audiometers

## 6 Comparison Charts

Functionality	MA 41	MA 42
Class	2	2
Outputs	AC, insert phones, BC, Free-field, monitor	AC, insert phones, BC, Free-field, monitor
Inputs	External CD player, speech microphone, talk back microphone	External CD player, speech microphone, talk back microphone
Frequency Range [Hz] AC Frequency Range [Hz] BC	125 to 8.000 / 16.000 * 250 to 8.000	125 to 8.000 / 20.000 * 250 to 8.000
Air Conduction [dBHL]	-10 to 120	-10 to 120
Bone Conduction [dBHL]	-10 to 80	-10 to 80
Free-field [dBHL]	-10 to 95	-10 to 95
Level Steps [dB]	5 / 2 / 1	5 / 2 / 1
Masking Signals	NBN, SN	NBN, WN, SN
Test Signals	Sinus, pulsed, warble, wave from SD-card, external	Sinus, pulsed, warble, NBN, wave from SD-card, external
Speech Source	CD, microphone, SD card	CD, microphone, SD card
Special Tests	Tone: HL, UCL, MCL, aided, Free-field, Speech: SRT, WRS, UCL, MHA *	Tone: HL, UCL, MCL, aided, Free-field, SISI, ABLB, Decay, MLB, Speech: SRT, WRS, MCL, UCL, MHA
NOAH Compatible	√	√
PC-Interface	√	√
Dimensions WxDxH	36x18.5x7.5 cm	36x18.5x7.5 cm
Weight	1.5 kg	1.5 kg
Special Features	Save PDF on USB drive or SD, direct print-out via USB or Ethernet. More than 1000 patients and 100 sessions	Save PDF on USB drive or SD, direct print-out via USB or Ethernet. More than 1000 patients and 100 sessions

\*optional





easyTymper



touchTymper MI 24



touchTymper MI 34

## Middle Ear Analysers

Functionality	easyTymper Basic	easyTymper Plus	easyTymper Pro	touchTymper MI 24	touchTymper MI 34
Test Sequence	automatic	automatic	automatic	automatic or manual	automatic or manual
Tympanometry Frequencies [Hz]	226, 1000*	226, 1000*	226, 1000*	226, 1000*	226, 678, 800, 1000*
Tympanometry Intensity [dB SPL]	85	85	85	85	85
Pressure Range [daPa]	-400 to +200	-400 to +200	-400 to +200	-400 to +200	-600 to +400
Pump Speed [daPa/sec]	automatic	automatic	automatic	automatic, minimum, medium, maximum	automatic, minimum, medium, maximum
Compliance Range [ml] 226 Hz Compliance Range [mmho] 1 kHz	0.1 to 8.0 0.1 to 15.0*	0.1 to 8.0 0.1 to 15.0*	0.1 to 8.0 0.1 to 15.0*	0.1 to 8.0 0.1 to 15.0*	0.1 to 8.0 0.1 to 15.0*
Seal Sensitivity	fix	fix	fix	fix	fix
Reflex Protocols	ipsi	ipsi and contra	ipsi and contra	ipsi and contra*	ipsi and contra
Reflex Frequencies [Hz]	500, 1000, 2000, 4000	500, 1000, 2000, 4000	500, 1000, 2000, 4000	500, 1000, 2000, 4000	500, 1000, 2000, 4000
Reflex with Noise Stimulus	broad band noise*	broad band noise*	broad band noise*		BB, LP, HP
Reflex Intensity [dB HL] (with automatic gain control)	70 to 100	70 to 100	70 to 100	Ipsi: 70 to 105 Contra: 70 to 120*	Ipsi: 70 to 105 Contra: 70 to 120
Reflex Decay			ipsi and contra		ipsi and contra
ETF Test (intact and perforated ear drum)			√		√
PC Connection	√	√	√	√	√
PC Software	√	√	√	√	√
NOAH Impedance Module	√	√	√	√	√
Printer	optional	optional	optional	built-in printer*	built-in printer*

\*optional



ERO•SCAN

## 6 Comparison Charts

### OAE Test System

Functionality	ERO•SCAN Screener	ERO•SCAN Diagnostic
DPOAE / TEOAE	DPOAE and / or TEOAE	DPOAE and / or TEOAE
Frequency Range TEOAE [dB SPL] Frequency Range DPOAE [dB SPL]	1,5 to 4 2 to 5	0.7 to 4 1.5 to 12
Test Frequencies	6 TE 4 DP	10 TE 12 DP
Stimulus Intensity TEOAE Stimulus Intensity DPOAE	fix 83 dB SPL fix 55/65 dB SPL	fix 83 dB SPL 40 - 70 dB SPL
Maximum Output	90 dB SPL	90 dB SPL
Test Protocols	2 TE and / or 2 DP	3 TE and / or 5 DP customizable
Adjustable Measurement Parameters		Level, number of frequencies to pass, averaging time, SNR
OAE PASS Criteria	fix	SNR, number of frequencies to pass
Results	PASS/REFER, Value Graph SNR Graph	PASS/REFER, Value Graph SNR Graph
Test Memory	250 tests	250 tests
Probe	included	included
External Printer	optional	optional
PC Connection	√	√
PC Software	√	√
Power supply	3.6 V lithium ion battery	3.6 V lithium ion battery
Carrying Case	√	√



MB 11 BERAprone



MB 11 Classic



easyScreen

## AABR Test Systems

Functionality	MB 11 BERAprone®	MB 11 Classic	easyScreen
Measurement	monaural AABR Screening	monaural or binaural AABR Screening	monaural or binaural AABR Screening + TEOAE
Device Type	PC based	PC based	portable
Operation	via notebook	via notebook	via device touchscreen
Transducer	BERAprone	Ear-3A with EarCups or ear tips	IP30 with EarCups or ear tips
Electrodes	Integrated stainless steel, reusable	Sanibel™ disposable electrodes	Sanibel™ disposable electrodes
Stimulus Type	CE-Chirp®	CE-Chirp®	CE-Chirp®
Stimulus level	35 dB nHL	35 dB nHL	35 dB nHL
Tracking	HiTrack, OZ	HiTrack, OZ	HiTrack
PC Software	√	√	HearSIM™
Integrated Database	√	√	√
Charging Cradle			√
Power Supply	USB	USB	wireless (inductive charging)
Carrying Case	√	√	√
Label Printer	optional	optional	optional



## Notes

## 6 Comparison Charts





# *OAE* *Audiometers* *Tympanometers* *AABR*





## **Excellence in Hearing Screening and Diagnostics**

### **MAICO Product Line:**

- Screening Audiometers
- Diagnostic Audiometers
- Middle Ear Analyzers
- OAE Test Systems
- AABR Test Systems

This catalogue gives you an overview of the full MAICO product range. If you are looking for more detailed information please visit the MAICO Website [www.maico.biz](http://www.maico.biz) or contact the MAICO International Sales Team at:

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