

ERO•SCAN™

OAE Test System



The most popular OAE testing device in the nation.

Otoacoustic emissions have emerged as an integral part of complete hearing assessment programs.

- Diagnostic OAE test system
- Objective inner ear measurement
- Adults, children and newborns
- Complete diagnostic results in less than a minute
- Color printing options

For a free product demo CD and "Guide to OAEs" containing common diagnosis and ICD-9 codes, please contact Maico Diagnostics or visit our website at www.maico-diagnostics.com



EXCELLENCE IN HEARING SCREENING

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ERO•SCAN™

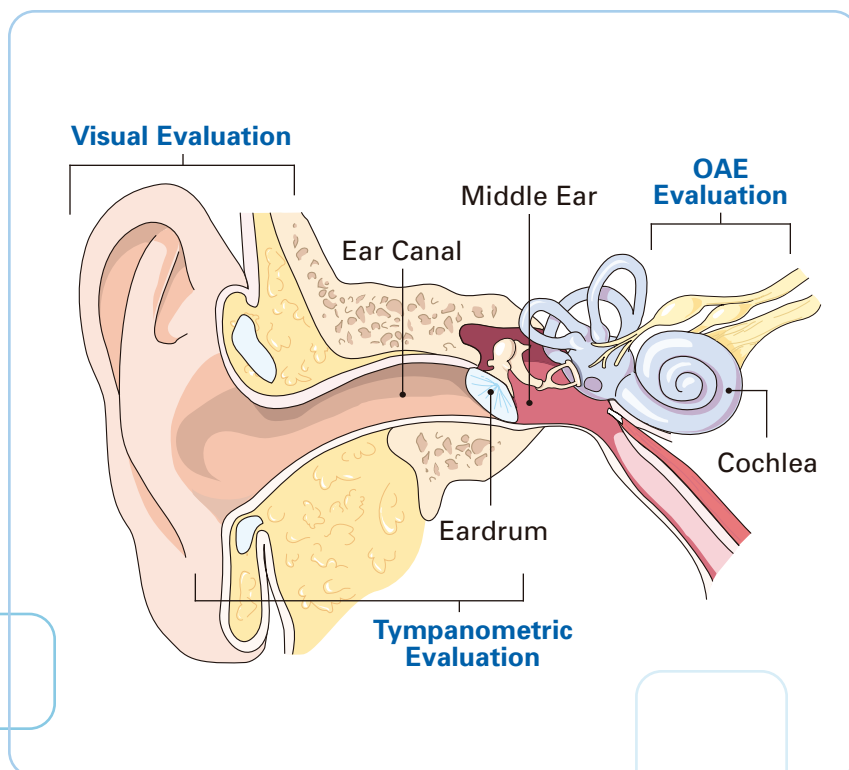
OAE Test System

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: otoacoustic emissions.

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.



The Maico ERO•SCAN

The Maico EroScan is a tool that can fit any practice whether you perform hearing screening (protocol of 4 frequencies) or diagnostic testing (protocol of 6 frequencies or more) using DPOAE, TEOAE or both.



Test both ears in less than a minute

Both screening and diagnostic testing generally takes 10 to 30 seconds per ear.

Results are displayed as PASS or REFER

No need for interpretation. The equipment is automated and will provide easy-to-read and easy-to-interpret results. Trained staff can perform the test.

Test is completely objective

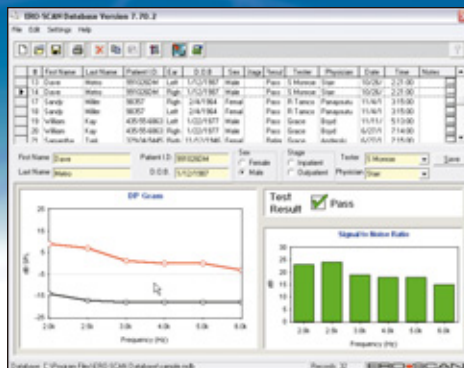
No response from the patient is necessary. Easily test non-cooperative or non-English-speaking patients.

Print the results

The thermal printer prints the test results as soon as you replace the unit in its cradle.

Accurate results

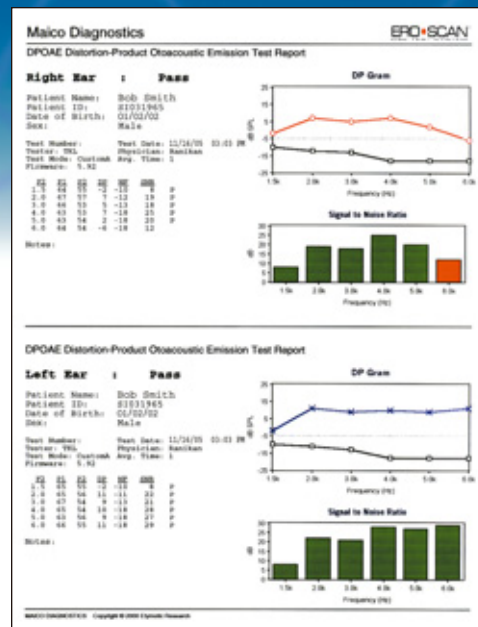
The patented EroScan noise algorithm allows for reliable testing in up to 70 dB of background noise – fewer false REFER results.



Test Results

Managing data

The EroScan's optional database seamlessly integrates test data into common medical tracking software as well as Microsoft® programs. Using the database also gives you a means to create detailed, color reports in a letter-sized format that can be easily filed or faxed. You can also create a "paperless" office by saving the test results as a PDF for electronic filing or email.



Printed Report



Diagnostic testing

The EroScan is an effective diagnostic testing tool for otologists, audiologists and otolaryngologists that provides objective information about hearing and middle ear status with only one test.

Identify outer hair cell function in the cochlea, assess middle ear function and differentiate between organic and non-organic functional hearing loss. OAEs are also beneficial in assessing patients who cannot be tested by conventional means.

Utilizing OAEs

An OAE test can contribute a valuable piece of clinical data towards your accurate diagnosis and has the following uses:

- Differentiate possible cochlear versus retrocochlear pathology
- Identify suspected malingering or non-pathological hearing loss
- Identify autoimmune or sudden hearing loss
- Monitor ototoxicity on the cochlea
- Provide objective cochlear screening in both non-cooperative patients and cooperative patients where behavioral testing cannot be performed
- Detect early signs of noise exposure in those who are exposed to high noise levels
- Detect possible late-onset hearing loss
- Screen for early effects of ischemia on the cochlea



Reimbursement

Otoacoustic emissions are reimbursable using the Current Procedural Terminology (CPT) codes. To date, health care reimbursement has varied in terms of cost per test but no problems have arisen if the appropriate codes are utilized. The most typical CPT code for OAE screening is:

92588: Comprehensive or diagnostic evaluation (comparison of transient and/or distortion product otoacoustic emissions at multiple levels and frequencies). *This is for diagnostic OAE testing.*



ROI Analysis

CPT Code with Description	Average Reimbursement per Test	Revenue per Day (four tests/day)	Revenue per Week (four days/week)	Revenue per Month (4 weeks/month)	Revenue per Year
92588 - Diagnostic OAE	81.00	324.00	1,296.00	5,184.00	62,208.00

The Maico EroScan can be configured for either "screening" or "diagnostic" capabilities. Based on the national average reimbursement level, the equipment would easily pay for itself in 2 to 3 months.

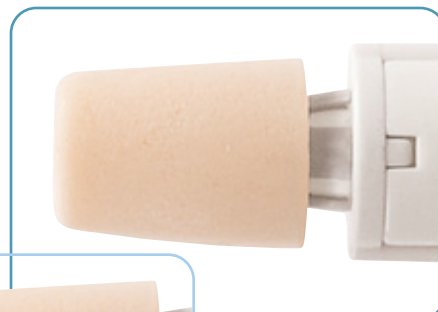
In addition to using the correct CPT code, it is important to use the correct diagnosis code in conjunction with the testing.

All Maico EroScan systems are demonstrated, sold, installed and serviced by Maico's trained and approved network of Special Instrument dealers.

New Alternative to Rubber Tips

No more trying to guess if an 8 mm or a 10 mm tip would be a better fit - these tips are virtually one-size-fits-all. These comfortable, foam-based tips adjust to the size of the ear – even in newborns.

The new Maico **Gumby Tips** for the EroScan fit both the hand-held probe and the remote probe. Made of “soft-comply” foam, not rubber, the tip molds itself to the shape of the ear canal as it is pushed into the ear. As body heat warms it, the tip expands to fill the entire cavity creating a better, more complete seal.

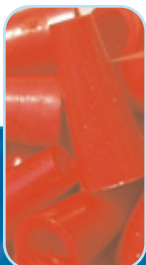


Adult Gumby™ Tip



Youth Gumby™ Tip

Rubber Tips



Red treetop tip

Newborn

Green mushroom tip

Newborn/youth – up to 9 months old

Blue mushroom tip

Pediatric (various sizes)

Yellow mushroom tip

Adult (various sizes)



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ERO•SCAN Parts & Accessories



The ERO•SCAN OAE System is available in 3 configurations:
Screeener, Standard and Combo System

Product Feature	ERO•SCAN Screener	ERO•SCAN Diagnostic	ERO•SCAN Combo System
DPOAE/TEOAE	DP or TE	DP or TE	DP and TE
Diagnostic (CPT) ¹ 92588	N	Y	Y
Portable	Y	Y	Y
Internal Probe	Y	Y	Y
External Probe	Y	Y	Y
Maximum # of Test Frequencies or Bands Reported	4 DP 6 TE	6 DP 6 TE	6 DP 6 TE
Frequency Range	2-5 DP 1.5-4 TE	1.5-12 DP .7-4 TE	1.5-12 DP .7-4 TE
High Frequency DPs to 12 kHz	N	Y	Y
Default Pass/Refer	Y	Y	Y
# of Test Protocols	1	2	4
Memory (# tests)/Maximum	50	50	50
Tests All Ages	Y	Y	Y
Tests Patients with PE Tubes	Y	Y	Y
Customizable Test Protocols	N	Y	Y
Customizable Pass Criteria	N	Y	Y
Database Software (Cost Option)	Opt	Opt	Opt
Printer Included	Y	Y	Y
Prints Numeric Data	Y	Y	Y
Prints Graphic Data	Y	Y	Y
Customizable Averaging Time	Y	Y	Y
Date/Time on Print-Out	Y	Y	Y
Monitoring Headset	Y	Y	Y
OZ Compatible	Y	Y	Y
HI*TRACK Compatible	Y	Y	Y
Completely Isolated Printer "optional" (does not require external line source)	Y	Y	Y
Customizable Parameters (test characteristics)	N	Y	Y
Freq. Range (DPs and TEs)	N	Y	Y
Average Time (DPs and TEs)	N	Y	Y
# Freq. Tested (DPs)	N	Y	Y
All test protocol changes can be made through OAE unit alone (Additional software and computer NOT required to change protocols)	Not Customizable	Y	Y
Cost of Disposable Rubber Eartips	\$0.15	\$0.15	\$0.15
Cost of Disposable Foam Eartips	\$1.00	\$1.00	\$1.00
Opt – Optional Y – Yes N – No ¹ can bill for diagnostic DPOAE testing with this unit			

Conforms to IEC 601-1.

ERO•SCAN is a trademark of ETYMO TIC RESEARCH, INC. Printed in the USA

U.S. Patent #5,954,669; 6,056,698; 6,299,584; 6,331,164 Other Patents Pending

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