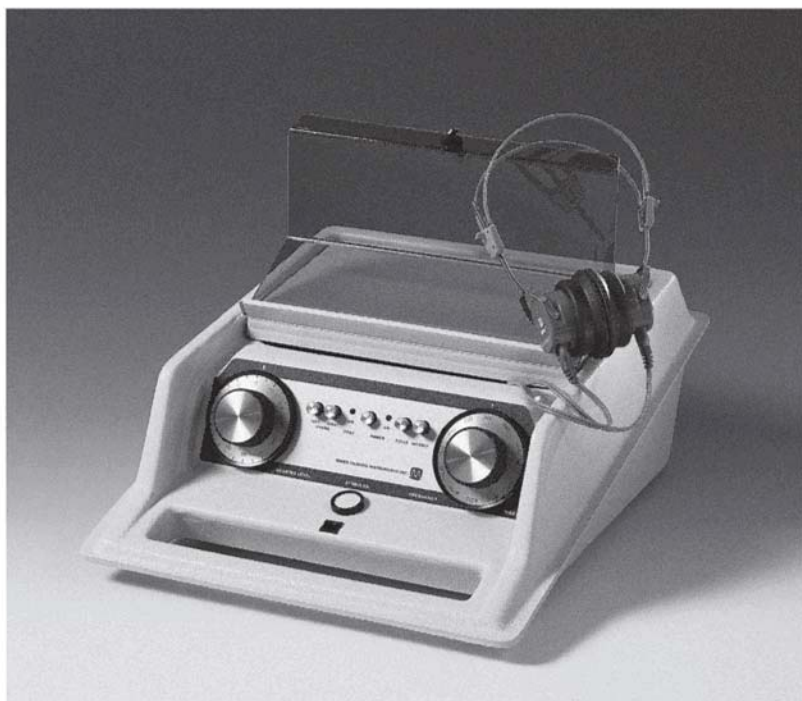




# Operating Instructions

## MA 27 Audiometer

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## **WARRANTY**

This warranty is extended to the original purchaser of the audiometer by MAICO through the authorized distributor from whom it was purchased, and covers defects in material and workmanship, for a period of one year from the date of delivery of the audiometer to the original purchaser.

If the audiometer contains a defect in material or workmanship, MAICO, at its option, will repair or replace the instrument at no charge except for transportation to and from the point of service. It is the purchaser's responsibility to return the audiometer to the MAICO Diagnostics Distributor from whom it was purchased, or directly to the MAICO factory after receiving authorization to return.

This warranty does not cover breakage or failure occasioned by tampering, misuse, carelessness, accidents, or modification. The warranty is void if the audiometer is repaired by other than an authorized MAICO Diagnostics Service Center.

## **NOTE**

Specifications in this manual were in effect at the time of printing. Maico Diagnostics, whose policy is one of continuing progress, reserves the right to discontinue or change specifications or design at any time without notice or incurring obligation.

# INTRODUCTION

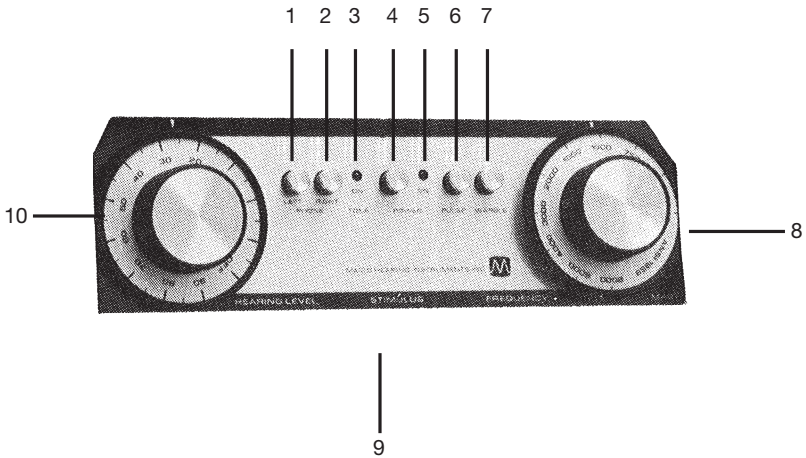
Your new Maico MA27 Ultra-portable audiometer has been specifically designed for on-the-go hearing testing programs. In addition to its extremely lightweight package (less than 6 pounds), you will find features such as pulse tone and warble tone to help you in your testing. The MA27 meets all appropriate sections of ANSI S3.6-1969, Rev. 1973.

Maico audiometers have been designed to meet the most rigorous of electrical safety standards and to provide years of reliable operation with a rugged durability that has become the trademark of Maico portable audiometers.

## SPECIFICATIONS

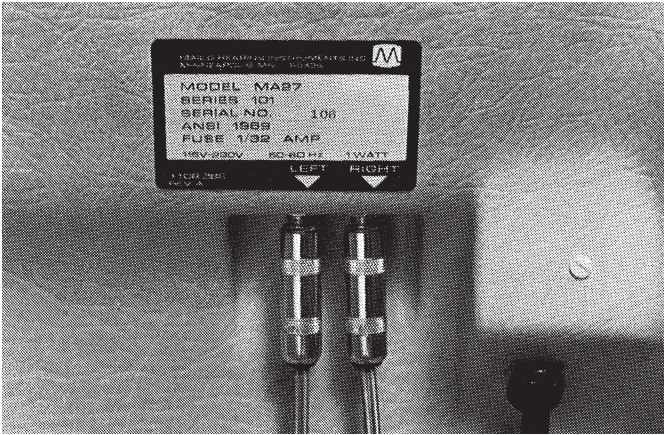
Test Frequencies:	250,500,750,1000,1500,2000,3000,4000, 6000,8000 Hz
Attenuator Range:	-15 to 90 dB HL, ANSI
Warble Characteristics:	$\pm 5\%$ ; 5Hz rate
Pulse Mode:	2.5 pulses/second
Power Input:	115 volts; 50-60 Hz, 230 volts optional
Test Headset:	TDH 39 receivers, 10 ohm
Dimensions:	14" wide; 17" deep; 7" high
Weight:	5.9 lbs. with standard accessories

# FRONT PANEL - FUNCTION GUIDE



Ref. #	Function
1.	Press for Left Earphone
2.	Press for Right Earphone
3.	Tone on light illuminates when stimulus is presented
4.	Press to turn power on or off
5.	Lights to indicate that power is on
6.	Press to select Pulse tone
7.	Press to select Warble tone
8.	Select desired frequency
9.	Press to present stimulus
10.	Select desired hearing level

## REAR PANEL



1. Right phone jack (red)
2. Left phone jack (blue)
3. Power cord

NOTE: Insert jacks fully and rotate to insure good connections. Leave permanently connected if possible to avoid straining.

## SET-UP INSTRUCTIONS

The entire cover may be removed by snapping up and back.

Cords may exit through the slot in the rear of the audiometer or at the cover hinge. Note slot for cord exit. Hold cords in this slot while replacing cover for a neat appearance in permanent installations.

The transparent cover may be used for temporary storage of audiogram and pencils.

The storage area is large enough to hold "Audiocups" earphone enclosures without disassembly.

To replace cover, place it slightly forward of the position shown and push straight back.

## **AUDIOMETRIC TESTING GUIDELINES**

Place the person to be tested at ease concerning the test by explaining the purpose of the test and what kind of sound or sounds will be heard.

Check for proper placement of the earphones on the person to be tested. Eliminate any obstructions such as earrings, eyeglasses, hearing aids, or hair. Adjust the headband so that the earphone cushions are centered over the ears.

Excessive noise can affect test results. The test site should be away from conversations, typewriters, hallway traffic, and other noise producing environments.

Avoid giving the subject visual clues when performing a test.

## **PREVENTIVE MAINTENANCE**

To maximize the service life of your audiometer we suggest the following:

Turn the instrument off when it is not in use.

Dust the audiometer occasionally with a soft, dry cloth.

Wipe the headset cords and ear cushions occasionally with a warm, slightly damp cloth. Ear cushions should be removed from receivers when cleaning. Dry with a soft cloth.

Leave the headset connected to the audiometer permanently to minimize straining the connections. Should it be necessary to unplug the headset, always grasp the barrel of the connecting plugs - never pull on the cords.

Avoid dropping the earphones or snapping them together. This could affect the calibration accuracy.

# CALIBRATION

The length of time that an audiometer should be operated before calibration varies depending upon the treatment given the instrument and its headset. Generally speaking, however, it is recommended that the instrument have a laboratory calibration at least once a year. Since rough handling can easily cause calibration errors, it is advisable to establish a biological calibration check as soon as you receive the instrument. This can be done as follows:

1. Make several careful tests of your own hearing, recording the results properly on the audiogram charts provided with the instrument.
2. Make similar tests on several young adults on whom you will be able to make subsequent retests, recording these on audiogram cards also.
3. File these audiogram charts where they will be readily available for comparison with subsequent retests.

Should you feel at any later date that the audiometer's calibration may be in error, proceed to make retests on yourself and the same young adults on whom you made audiograms previously. If all retests show changes of 10 dB or more in the same direction at the same frequencies, calibration is probably in error. If repair and calibration is needed, be sure the work is done by a Maico Diagnostics Service Center. This assures the use of quality materials by trained and experienced technicians using accurate and reliable equipment.

Maico Diagnostics Service Centers are located in major cities throughout the world. To minimize shipping charges and delay, contact the factory for the location of the center servicing your geographic location. Send your inquiry to: Maico Diagnostics, 9675 West 76th Street, Eden Prairie, Minnesota 55344, or call (952) 941-4200 or 1-888-941-4201.

## SHIPPING INSTRUCTIONS

Should it be necessary for you to return the audiometer for repair or calibration, be sure to return the headset as well. This is essential - the audiometer cannot be calibrated without it.

If more than one audiometer is in use at your facility, verify that the serial number on the back panel of the audiometer and the serial number on the headset are identical.

Enclose an explanatory letter with the instrument. Describe the service you require and carefully detail any operational problems. Be sure to state the serial number and your complete return address.

Place the audiometer in the original shipping carton using the foam supports supplied. Insure properly and return by United Parcel Service, Air Freight or Truck, prepaid, to your nearest Maico Diagnostics Service Center. NOTE: Warranty service will be provided by the Authorized Distributor from whom you purchased the audiometer.



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