

MicroLab[®] Microprocessor Audiometer Test Storage Data Recall

QUICK OPERATING GUIDE

SET UP

- A. Insert earphone plug into "PHONE" and patient response button into "BUTTON" jacks located on side of unit.
- B. Plug unit into a grounded outlet.
- C. Turn unit on via power switch on back.
- D. Enter "operator ID" by pressing <0> <2> (Special Menu, OP ID). Press <?> to clear current value. ENTER will appear on screen. Enter any two digit number and press <ENTER>.
- C. Press <DISP>, if desired, to toggle between low and high frequency threshold screen displays.
- D. Press <END> to exit display of data. The 'recalled test' remains in current test memory.

SETTING AUDIOMETER PARAMETERS (see manual)

MANUAL AUDIOMETRY

- A. Press <3>. Press <?> to "blank" the ID, enter an ID (up to 9 digits), and press <ENTER>.
- B. Press <1> to select Manual Audiometry.
- C. Select stimulus frequency and level. <8> decreases stimulus level and <2> increases stimulus level. <4> decreases stimulus frequency and <6> increases stimulus frequency.
- D. Select ear to test. Press <Y_R> for right ear or <N_L> for left ear.
- E. Press <5> to present tone.
- F. If patient response button is used, watch for asterisk (*) to be displayed whenever the response button is depressed, otherwise watch for signal from patient that tone was heard.
- G. To examine test results, press <DISP> to enter display mode and repeat to toggle between display of low frequency and high frequency thresholds.
- H. Press any key other than <DISP> to return to manual audiometry.
- I. Press <END> to return to the Main Menu when test is complete.
- A. If printer is not attached to MicroLab, make sure printer switch is off and plug printer into a grounded outlet. Attach the printer cable to the 5-pin DIN connector on back of MicroLab. (It is not necessary to turn off power to MicroLab.) Install paper in printer, install ribbon (for dot matrix printer), and turn on MicroLab and printer. To print record in current test memory, press <7> from Main Menu.
- C. To print a test from buffer memory, follow the 'RECALL TEST' procedure, return to Main Menu, then press <7>.
- D. To print the entire test buffer, from the Main Menu press <0> <7> <Y> to select Special Menu, PRNB, and "Y."

PRINT TEST

SEND TEST

- A. If external computer is not attached to MicroLab, turn off power to MicroLab and computer. Attach serial cable to computer serial port and to 5-pin DIN connector on back of MicroLab. Turn on MicroLab and computer power switches.
- B. To transmit the record in current test memory, make sure the MicroLab is in the Main Menu, then Press <8>.
- C. To transmit a test from buffer memory, follow the 'RECALL TEST' procedure, return to Main Menu, then press <8>.
- D. To transmit the entire test buffer from the Main Menu press <0> <8> <Y> to select Special Menu, SEND, B, and "Y." The Send Test feature allows test data to be transmitted to an external computer for data base management via optional software. Contact Micro Audiometrics for further information concerning availability and price of this software (available only for IBM-PC compatible computers).

AUTOMATIC AUDIOMETRY

- A. Instruct patient to push "Patient Response Button" each time the tone is heard. Watch for asterisk (*) to appear on the display whenever the button is depressed.
- B. Press <3>. Press <ENTER> to "blank" the ID, or press <?>, enter an ID (up to 9 digits), and press <ENTER>.
- C. Press <2> for Automatic Audiometry.
- D. MicroLab will determine and store thresholds for both ears, beginning with the right ear. Standard test sequence is 1 kHz retest, then .5, 1, 2, 3, 4, 6, 8 kHz (250 Hz may optionally be included). Contact the factory or an authorized service representative for information concerning custom sequences.
- E. There will be an audible alert and a screen message when the test is completed or when a patient error occurs. The audible alert will recycle every 10 seconds until a key is pressed.
- F. At the end of the test, the operator may press <DISP> to toggle between low and high frequency thresholds. Any other key returns to the "AUTO AUD" menu. To exit from "AUTO AUD", press <END>.
- A. NEW TEST (Main Menu, <4> <Y>) clears current test and ID from current test memory. Enter new Patient ID.
- B. SET OPTIONS (Main Menu, <9>) allows setting of audiometer options and printer options. Press <2> <1> to toggle between manual and automatic audiometry default testing. Press <2> <2> to toggle the audiometer stimulus between continuous and pulsed (effective for manual testing). Press <2> <3> to toggle inclusion of Validity Error Test. Press <7> <1> to toggle between graph and data printout. Press <7> <2> to toggle between manual and automatic printer formfeed. Press <END> to exit AUD OPTS or PRINT OPTS.
- C. To enter talk-over from Manual Audiometry mode, press <0> for 'Talk-over Mode.' Press <4> or <8> to decrease volume. Press <2> or <6> to increase volume. Press <0> or <END> to exit talk-over mode and resume testing. Press <END> to exit manual audiometry.
- D. To enter talk-over from Automatic Audiometry mode, press <END> to halt testing. Press <0> for 'Talk-over Mode.' Press <4> or <8> to decrease volume. Press <2> or <6> to increase volume. Press <0> or <END> to exit 'Talk-over Mode.' Press <ENTER> to resume testing. Press <END> to exit automatic audiometry.
- E. From the "AUTO AUD" menu (<END> key pressed while in automatic audiometry), the operator can view thresholds by pressing the <DISP> key. After displaying thresholds, any other key returns to the "AUTO AUD" menu.
- F. Rerun any test if results are in question.
- G. DO NOT exchange headsets among units. Each headset is calibrated to match one particular MicroLab. The last digits of the MicroLab serial number are engraved on each headset label.

NOTES

SAVE TEST

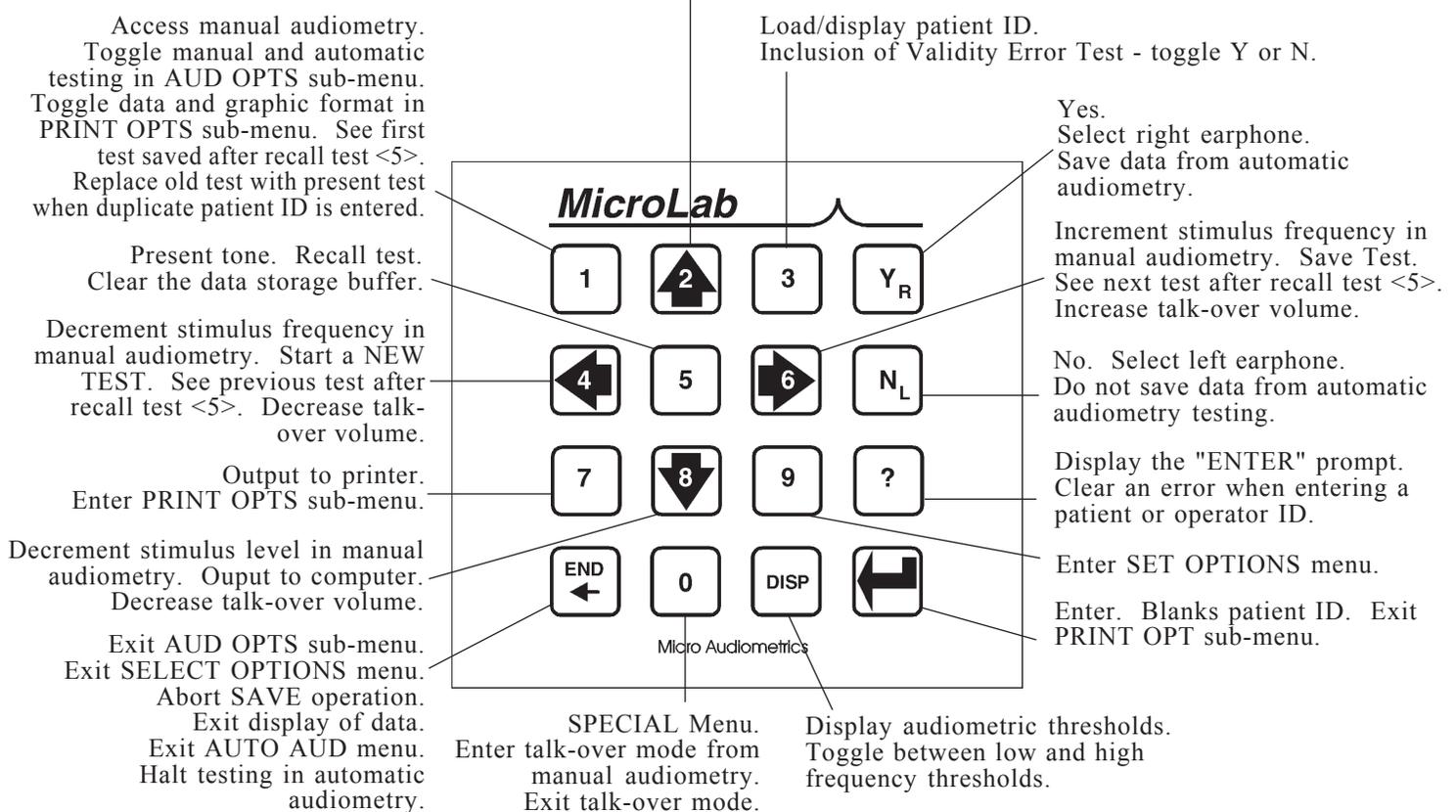
- A. After testing patient, press <END> to return to the Main Menu.
- B. Press <6> to SAVE test. Enter a patient ID number if prompted. Total number of tests saved is displayed.
- C. NOTE: If a duplicate Patient ID is entered, the operator may press <1> to replace old test with present test, <2> to store test with duplicate Patient ID, or <END> to abort the SAVE operation.

RECALL TEST

- A. Press <5> to RECALL test.
- B. Select from the following options: Press <1> to see the first test saved, press <2> to see the last test saved, press <3> to enter a Patient ID to be recalled, or press <4> or <6> to recall the previous or next test, respectively.

MICROLAB KEYPAD SUMMARY

Access automatic audiometry. Increment stimulus level in manual audiometry. Enter AUD OPTS sub-menu. Toggle continuous and pulsed tone in AUD OPTS sub-menu. Toggle manual and automatic printer formfeed in PRINT OPTS sub-menu. Load/display operator ID. Store new test when duplicate patient ID is entered. See last test saved after recall test <5>. Increase talk-over volume.



SCALE OF HEARING LOSS

Reporting the degree of hearing loss is somewhat subjective in that not all hearing tests are conducted in the same manner. Test results may vary from person to person depending on ambient noise levels present at the same time of testing. If testing conditions are optimal, the following scale may be helpful in understanding or reporting results.

0dB - 20dB	Hearing within normal limits
25dB - 40dB	Slight to mild hearing loss
45dB - 55dB	Moderate hearing loss
60dB - 70dB	Moderately severe hearing loss
75dB - 90dB	Severe hearing loss
90dB+	Profound hearing loss



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