

# INSTRUCTIONS

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### AMBCO MODEL 1000+P (AUTOMATIC AUDIOMETER WITH PRINTER)

#### A) SETTING UP THE AMBCO MODEL 1000+P

- **1.** Connect the printer cable securely to the audiometer and to the printer by completely tightening all four thumbscrews, two thumbscrews on each end of cable. Connect the printer AC adapter to the printer and the audiometer AC adapter to the audiometer recheck to be sure that both adapter plugs are fully inserted into each jack.
- 2. Locate the red & blue plugs on the cord connected to the headset and the black plug on the cord connected to the patient response switch. The three plugs need to be connected to the three jacks located on the rear jack panel. Insert the blue plug into the blue jack, the red plug into the red jack and the black plug into the black jack.
- 3. Turn on the audiometer power switch located on the rear jack panel. The dB and Hz windows should display visible frequency and decibel numbers.
- 4. Turn on the printer, the power switch is located on left side of printer, move the switch towards the rear to turn printer 'ON'. The lit green LED located on the left side of the front panel indicates the printer is on and a second green LED just to the left of the on-line switch indicates the printer is 'on-line' and ready to print when it is lit.

#### B) INSTRUCTING THE PATIENT HOW TO TAKE THE TEST CORRECTLY THIS IS THE SINGLE MOST IMPORTANT STEP !!!

- 1. Instruct the patient using the following phrases, "you are about to take a hearing test, it is not a contest so do not guess, respond only if you are sure you hear a tone (or set of tones if 'PULSED' is being used)" and it's best to respond <u>during</u> the tone (or tones)."
- 2. Show the patient the correct way to respond; by pressing once then releasing the P/R switch to indicate the tone was heard. It is impossible for the instructions to be repeated to many times; "don't guess, please remember to respond <u>ONLY</u> when you're sure you hear a tone (or set of tones if 'SELECT TONE' is set to 'pulse') and that it's always best to respond <u>during</u> the tone (or set tones if 'PULSED' is being used".
- 3. Hand the P/R switch to the patient, ask if the patient understands that they must respond by pressing and releasing the hand switch once. You can have them try the response button now to see if they understand while you watch to see if the green response LED on front panel lights up once for each press of the push button.
- 4. Place the headset on the patient's head with the red earphone over the right ear, the blue over the left ear, allowing the patient to adjust until the headset is comfortable.
- 5. You're now ready to start the test when the patient indicates they are also ready. The test begins when the 'OTO-SCREEN START' ('PRESENT TONE') touch pad is pressed

#### C) AUTOMATED SCREENING TEST

- To give an automated screening test, turn the audiometer on, press the 'OTO-SCREEN START' touch pad. The green 'READY - IN PROGRESS' LED turns on and the two digital display windows change. Use the left (dB HTL) knob and window to select the screening dB level from 10 to 35 dB-HTL. Use the right knob and window to select which frequencies will be screened. {1K 2K 3K 4KHz} or {1K 2K 4KHz}
- 2. Press 'SELECT TONE' to choose between the three types of tones to use; choose either continuous tone pulsed tone or warble tone
- 3. Press 'PRESENT TONE' to start the test, which begins with a 40 dB HTL familiarization tone before continuing at your set dB level.
- 4. No response to the familiarization tone causes the alarm to sound, pressing any key stops the alarm. Then press 'EAR' for a print out of the error message, TEST FAILED AT FAMILIARIZATION TONE.
- 5. If there is a response to the familiarization tone, the test will proceed at the chosen dB level and the selected frequencies, testing the right ear first, then test for the left ear. The screening continues sequentially with each response. If there is NO RESPONSE at any frequency, the patient is presented the same tone again. If there is a response to the second presentation, the test continues to the next frequency. If there is no response to the two tones the print out will show FAILED at that frequency.
- 6. When the screening is completed, the alarm will sound. PRESS ANY KEY to stop the alarm and PRESS EAR to print the results. (If the EAR IS PRESSED to stop the alarm PRESS EAR again to print the results.)

#### D) AUTOMATIC THRESHOLD TEST

Turn on – follow SECTION A. Patient instruction – follow SECTION B

- **1.** Press 'OTO-SCREEN' twice, the green READY LED and the red POWER LED are lit to indicate the audiometer is ready for automatic threshold testing.
- 2. Press 'PRESENT TONE' to start the test.
- 3. If the alarm sounds at any time press ANY KEY to stop the alarm and press 'EAR' for print out (if 'EAR' was pressed to stop alarm, press 'EAR' again for print out). The print out will indicate the problem and instruct you to resume the test.
- 4. The completed test print out shows the frequencies tested and the lowest dB level responded to at each frequency for each ear. NR indicates no response by the patient.
- 5. To conduct the next automatic threshold test, press 'OTO-SCREEN' again until the green READY LED and the red POWER LED are lit.

#### E) <u>ALARM</u>

Whenever the alarm sounds, press any key to turn off the alarm and PRESS EAR to print the message. If 'EAR' is pressed to turn off the alarm, press'EAR' again for the print out of the following:

- a. Test results printed.
- b. Message to the operator why the alarm sounded and how to proceed.

#### F) MANUAL TEST PRINT-OUT

**1.** For printed manual test results, screening, threshold testing press and hold 'EAR' twice (1-2 seconds).