



ES3S

Pure Tone Audiometer

Short-Form User's Guide

Rev 1.12



Micro Audiometrics
C O R P O R A T I O N

KEY USAGE

ES3S models have a green keypad/overlay with 5 unlabeled keys. Use {◀} / {▶} to select digit position and {▲} / {▼} to scroll through digits when entering time, date, and ID numbers.

Key presses appear in {}; e.g. {▲} means press the ▲ key. Basic menu navigation is done using {▲} / {▼} and {◀} / {▶}.

The O key is in the center of the navigation key array. {O} is used to **present tones** and to **select menu items**.

Menu sequences appear as ◀MENU1 ◀MENU2 ◀MENU3.

The “◀” means “scroll to Menu Item and {O}” or “press the numeric key corresponding to the Menu Item”.

When ‘actions’ or ‘toggles’ are displayed on the bottom line of the LCD, the row of keys just below the display are used as ‘function’ keys to perform an action, or to toggle between two possible parameter values.

Use {◀} / {▶} to select digit position and {▲} / {▼} to scroll through digits when entering time, date, and ID numbers.

QUICK CHECKS

At power-up, the ES3 logo should scroll onto the LCD, appear quickly if scrolling is disabled, or not appear at all if ES3 was last powered down due to an inactivity timeout. The backlight should be on. The ES3 should display the **manual audiometry** screen and should respond to keypad control.

Keypad operation can be tested by pressing keys to see if the appropriate response occurs. The speaker should produce audible key press ‘ticks’ (menus only).

Set frequency to 1000 Hz and level to 70 dB HTL. Press {O} and a tone (pulsed or continuous) should be heard at a comfortable loudness level at the correct ear. Press {▲} {O} and {▼} {O} to verify that signal loudness increases or decreases, respectively. Press {⁶1} {O} and verify that the signal is presented to the other ear.

Plug in a **response button** and verify that pushing the button causes “*” to appear near the center of the display.

Enter menu sequence ◀SETUP◀DATE◀SET TIME and verify that time is correct and that seconds count is incrementing.

Attach **printer**, verify that printer output is selected via menu sequence ◀SETUP◀COMMUNICATIONS◀DEFAULT OUTPUT, and transmit data to printer via ◀Send Data.

MENU TREE (FROM TOP LEVEL MENU)

1-Audiometry	Enter Manual Audiometry Mode
2-Display Results	Display audiometric test results
3-Demographic Info <ul style="list-style-type: none"> . 1-Patient ID . 2-Operator ID . 3-Prompt for ID numbers 	Enter patient demographic data <ul style="list-style-type: none"> . Up to 21 digits . Up to 21 digits . No / Yes
4-New Test	Begin a new test
5-Send Data	Transmit test data via serial port
6-Setup <ul style="list-style-type: none"> . 1-Audiometry Setup <ul style="list-style-type: none"> . 1-Frequencies . 2-Manual Audiometry <ul style="list-style-type: none"> . 1-Ear . 2-Starting Level . 3-Startnig Frequency . 4-Tone Mode . 5-Increment Amount . 6-Decrement Amount . 7-Binaural Stimulus . 3-Auto Screening <ul style="list-style-type: none"> . 1-Ear . 2-Frequencies . 3-Levels . 4-Direction . 2-Communications <ul style="list-style-type: none"> . 1-Default Output . 2-Baud Rate . 3-Insert Linefeed . 3-Date <ul style="list-style-type: none"> . 1-Set Date Format . 2-Set Date . 3-Set Time Format . 4-Set Time . 4-Power <ul style="list-style-type: none"> . 1-A/C <ul style="list-style-type: none"> . 1-Backlight . 2-Power Down . 2-Battery <ul style="list-style-type: none"> . 1-Backlight . 2-Power Down . 5-Display <ul style="list-style-type: none"> . 1-Contrast . 2-Brightness . 3-Scroll Logo . 6-Beep Volumes <ul style="list-style-type: none"> . 1-Key Volume 	Setup user options <ul style="list-style-type: none"> . Audiometry options <ul style="list-style-type: none"> . Select from list . Manual audiometry options <ul style="list-style-type: none"> . Left / Right . 10 / 15 / 20 / 25 / 30 / 35 / 40 . Select from list (1000) . Pulsed / Continuous . 5 / 10 / 20 . 5 / 10 / 20 . No / Yes . Automatic screening options <ul style="list-style-type: none"> . Left / Right . Select from list . Select from list . Up / Down . Serial communications options <ul style="list-style-type: none"> . Printer / Computer . 9600 / 28.8 / 57.6 / 115.2 . No / Yes . Date options <ul style="list-style-type: none"> . MM/DD/YYYY or DD/MM/YYYY . Enter date (use current date format) . 24 Hour / 12 Hour . Enter time (use current time format) . Power handling options <ul style="list-style-type: none"> . When operating on A/C or USB power <ul style="list-style-type: none"> . Never / 30 sec / 1, 2, 5 min . Never / 1, 5, 15, 30 min / 1 hour . When operating on battery power <ul style="list-style-type: none"> . 5, 10, 20, 30 sec / 1 min . 15, 30 sec / 1, 2, 5 min . Display setting options <ul style="list-style-type: none"> . Adjust as desired . Adjust as desired . No / Yes . Volumes for key 'tick' and audible alerts <ul style="list-style-type: none"> . Low / Medium / High

<ul style="list-style-type: none"> . . . 2-Alert Volume . 7-General . . . 1-Calibration Dates . . . 2-Perform Calibration 1-Calibrate Primary 1-Headset Type 2-70 dB HTL 3-85 dB SPL 4-Calibration Date 5-Audiometer Test 6-Send Data 2-Calibrate Secondary 1-Headset Type 2-70 dB HTL 3-85 dB SPL 4-Calibration Date 5-Audiometer Test 6-Send Data . . . 3-Headset for Testing . . . 4-Language . . . 5-Earscan 3 Info. . . . 6-Lock Settings . . . 8-Reset Settings 	<ul style="list-style-type: none"> . . . Low / Medium / High . . . Other options and information . . . Display last calibrated and due dates . . . Password protected . . . Primary headset calibration options TDH-39 / EAR-5A Set target level to 70 dB HTL Set target level to 85 dB SPL Set cal date to current? Yes / No Tone "On" calibration test mode Transmit cal data via Serial Port Secondary headset calibration options TDH-39 / EAR-5A Set target level to 70 dB HTL Set target level to 85 dB SPL Set cal date to current? Yes / No Tone "On" calibration test mode Transmit cal data via Serial Port Primary / Secondary . . . English / TBD . . . Displays information screen . . . Password protected . . . Yes / No
7-Turn Off	Turn instrument off

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