

# Testing Digital Hearing Aids

with the **FONIX FP35/FP35 Touch**  
**Portable Hearing Aid Analyzer**



## Testing Digital Hearing Aids with the FONIX FP35/FP35 Touch

The Digital Speech signal is used to test digital hearing aids with the FONIX FP35 analyzer. However, as digital hearing aid technology has advanced, so has the Digital Speech signal on the FP35. We have made several key improvements to the signal and the measurement methods used with it.

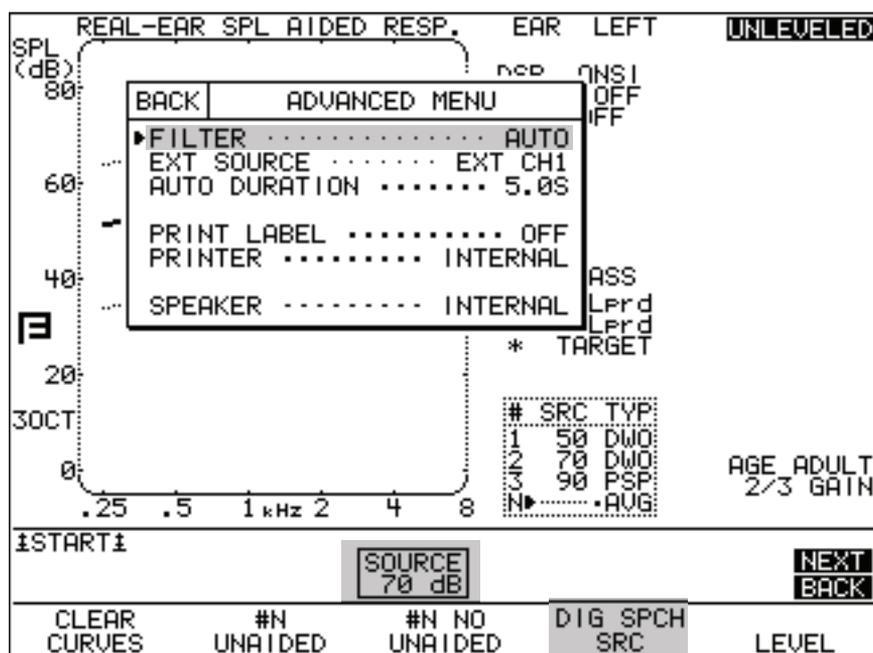
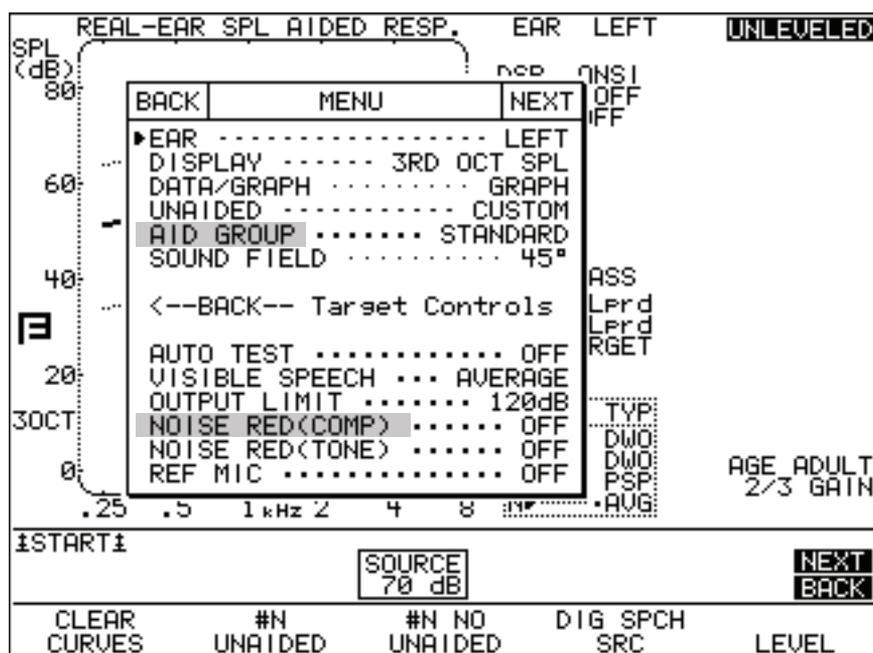
*NOTE:* These instructions are for real-ear and coupler multicurve testing. In order to test advanced hearing aids in an ANSI or IEC coupler test sequence, you will need to turn off all the advanced features of the hearing aid and make sure the hearing aid type (AID GROUP) is set to the ADAPTIVE . There is, unfortunately, not much else that we can do to improve ANSI/IEC measurements since they are defined by a fixed standard that is out of our direct control.

These instructions also assume that you have basic knowledge on how to operate the analyzer. Please see the FP35 Quick Reference Manual for more information on how to perform basic measurements in the real-ear or coupler multicurve test screens.

In order to make sure you are getting accurate hearing aid measurements with your FONIX FP35 analyzer:

1. Make sure that you have up-to-date software. The last improvements to the Digital Speech signal were added in v6.22 in December, 2010. Your software version should be 6.22 or above. These instructions assume that you have this updated software.
2. Set the **AID GROUP** to **ADAPTIVE** in the local menu of the test screen (real-ear or coupler multicurve).
3. Make sure the Digital Speech signal (DIG SPCH) is selected with **F4** as the test signal.
4. Set the **NOISE RED (COMP)** signal to 4X or 8X in the local menu of the test screen.
5. Make sure the **FILTER** is set to **ANSI** (or **AUTO**). Open the local menu from your test screen with the **MENU** key and press **NEXT**. This will open the Advanced Menu where the **FILTER** selection is available. Press **EXIT** to close the menu.
6. Set the input level of the test signal to 65 or 70 dB SPL using the up-down arrow keys in the test screen.
7. If you are performing real-ear testing of an Open Fit hearing aid, set the **REF MIC** to **OFF** in the local menu. This does not apply to coupler measurements normally.

8. Test the hearing aid normally. These settings should help you get better results.



These instructions should work for most hearing aids. If you are still having trouble, you can also try the following:

1. Exit the test screen and return to the Opening Screen of the analyzer.
2. Press **MENU** to open the Default Settings Menu.
3. Press **NEXT** to open the Advanced Default Settings Menu.
4. Use the arrow keys to set the **USER LEVEL** to **ADVANCED**. This will add additional settings to the screen.

**DEFAULT SETTINGS MENU (ADVANCED)**

<pre> ===== GENERAL ===== F1 KEY .... USER SETTING F2 KEY .... RE AUDIOGRAM F3 KEY ... CP MULTICURVE  TOUCH SCREEN ..... ON ▶USER LEVEL .... ADVANCED  ===== RESETS ===== AUTO-SCALE ..... OFF REFERENCE STATUS ... RMS AVG FREQS ..... HFA 2500 EAR ..... LEFT FREQ ..... 4000Hz EQ INPUT NOISE .. NORMAL  SPCH BURST TIME -- 150ms                 </pre>	<pre> ===== COUPLER ===== DISPLAY ---- 3RD OCT SPL RESET SRC ... DIG SPEECH LEVELING SOURCE ... 90dB LEVEL AUTO CLEAR ... OFF OUTPUT LIMIT ..... OFF SPEAKER ..... INTERNAL OUTPUT JACK ---- SPEAKER  ===== REAL-EAR ===== RESPL DISP. 3RD OCT SPL RESET SRC ... DIG SPEECH RESET SMOOTHING .... LOG LEVELING SOURCE ... 70dB LEVEL AUTO CLEAR ... OFF SPEAKER ..... INTERNAL OUTPUT JACK ---- SPEAKER AUTO DURATION ..... 5.0S AUTO TEST ..... OFF                 </pre>
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9:50AM **NEXT**  
**BACK**

RESET MENU	#1 SETTING	CALIBRATE	RESTORE MENU	STORE MENU
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5. Adjust the **SPCH BURST TIME**. By default, this is set to 150 ms, which should work for most hearing aids. Try adjusting this setting to be either faster (lower number) or slower (larger number) and see if it improves your hearing aid measurements.



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