

## What Is an Audiogram Test?

An audiogram test is internationally recognized as a standard method for assessing hearing ability. It is used by audiologists, otolaryngologists (ENT, or Ear Nose & Throat specialists), and occupational health professionals worldwide.

During the test, an audiologist presents a series of tones of different frequencies and intensities through headphones or earphones. The patient indicates when they hear each tone, and the audiologist records the results on a graph called an audiogram. The audiogram report shows the softest sound a person can hear at each frequency.

## Is It Recognized Internationally?

The test follows established guidelines set by organizations such as:

- World Health Organization (WHO) Defines hearing impairment classifications based on audiogram results.
- International Organization for Standardization (ISO) Sets global standards like ISO 8253 for conducting audiometric tests.
- American National Standards Institute (ANSI) Provides standards for audiometric testing in the U.S.
- Occupational Safety and Health Administration (OSHA) Uses audiograms for workplace hearing conservation programs in the U.S.

Because these standards are widely followed, an audiogram from one country is generally valid in another, provided it meets the recognized protocols. However, specific regulations may vary by country for medical, occupational, or legal purposes.

An audiogram test typically measures hearing sensitivity across a range of frequencies. Standard audiometric testing includes the following audio frequencies (measured in Hertz, Hz):

## **Standard Frequencies Tested:**

250 Hz	2000 Hz (2 kHz)
500 Hz	3000 Hz (3 kHz)
750 Hz	4000 Hz (4 kHz)
1000 Hz (1 kHz)	6000 Hz (6 kHz)
1500 Hz	8000 Hz (8 kHz)



The Audiogram EQ user interface uses two simple, intuitive controls to adjust the amount of correction applied.

## Audiogram EQ Setup on the A640

The A640' Personal Mixer's Audiogram EQ works by creating custom DSP filters based upon the data provided in your standard hearing test results.



The **Mixer Setup** page on the A640 contains the tools you need to enable the Audiogram EQ and enter data from a hearing test. Follow these steps:

- Press the Mixer Setup button and scroll to select **Audiogram EQ Setup**.
- Choose **Enter Audiogram Data** from the Audiogram EQ Setup menu.
- The Audiogram EQ Data table consists of two columns that hold the information about each ear's hearing loss at specific frequencies. The left column represents the left ear (shown in blue) and the right column represents the right ear (shown in pink).
- Scroll with the left encoder to select a frequency in Hz to edit.
- Enter the results from your hearing test for that frequency into the table by scrolling with the right encoder. Values range from No Data to 100 in 5dB increments.
- Use the arrow key (>) to switch between the two data columns.
- When finished entering data, press the **Save** button.
- Enter a name for your settings and again press the **Save** button to store your custom EQ settings and make them active.

Some hearing tests do not include all ten frequencies listed above. If a frequency is missing from the user's test data, simply select "No Data" when entering it into the A640 mixer's Audiogram EQ data table.

The Audiogram EQ data table can be reset by using the **Reset Audiogram EQ and Data** command found in the Audiogram EQ Setup window.

Save your Audiogram EQ settings by using the commands found in the USB File Transfer window.