

ULTRASONIC VOCALIZATION DETECTOR TEST PACKAGE

USER'S MANUAL

ANL-939 User's Manual
DOC-161
Rev. 1.3

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MED Associates, Inc.
P.O. Box 319
St. Albans, Vermont 05478
www.med-associates.com

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CHAPTER 1

Getting Started

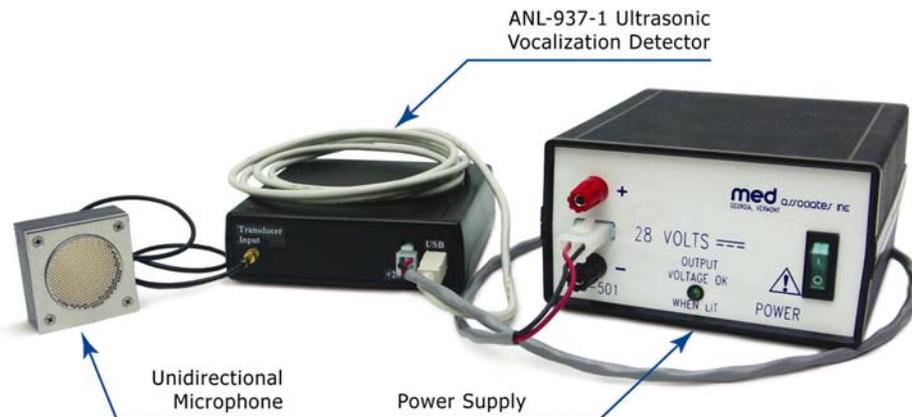
Introduction

The Ultrasonic Vocalization (USV) Test Package includes the ANL-939 hardware and the USV Test Program software. This package is intended to be used to calibrate the MED Associates ANL-937-1 USV Detector.

Wiring Instructions

Be sure that the ANL-937-1 USV Detector hardware (supplied separately) is properly connected and the necessary drivers have been installed prior to installing the ANL-939 USV Tester Software. Refer to the ANL-937-1 USV Detector User's Manual for further information regarding hardware setup and driver installation. Figure 1 depicts a properly connected ANL-937-1.

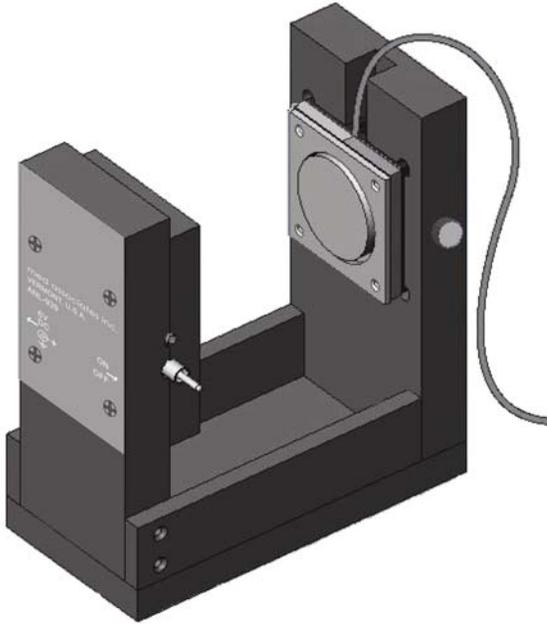
Figure 1 - Properly Connected ANL-937-1 USV Detector



1. Be sure that the +28 VDC Power Supply is plugged in and turned **OFF**.
2. Connect the **USB** connector on the ANL-937-1 to the same USB port on the computer that was used during driver installation. If the same USB port is not used, it may be necessary to install the ANL-937-1 drivers again.

3. Insert the Unidirectional Microphone from the ANL-937-1 USV detector into mounting bracket on the ANL-939 and secure in place using the thumbscrew, as shown in Figure 2.

Figure 2 - Unidirectional Microphone in Mounting Bracket



4. Connect the + 6VDC power adapter to the **6VDC** connector on the ANL-939, shown in Figure 4, and plug the power adapter into a wall outlet.

Figure 3 - ANL-939 End Panel with Labels

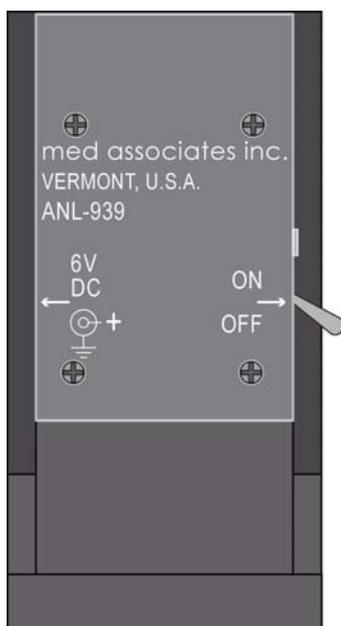
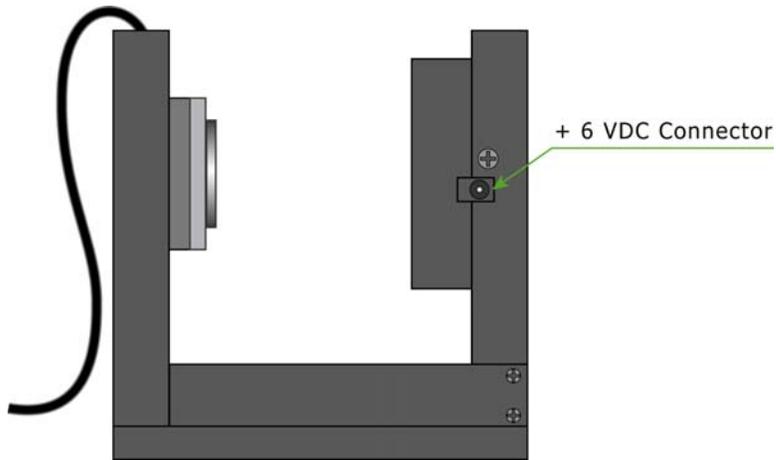
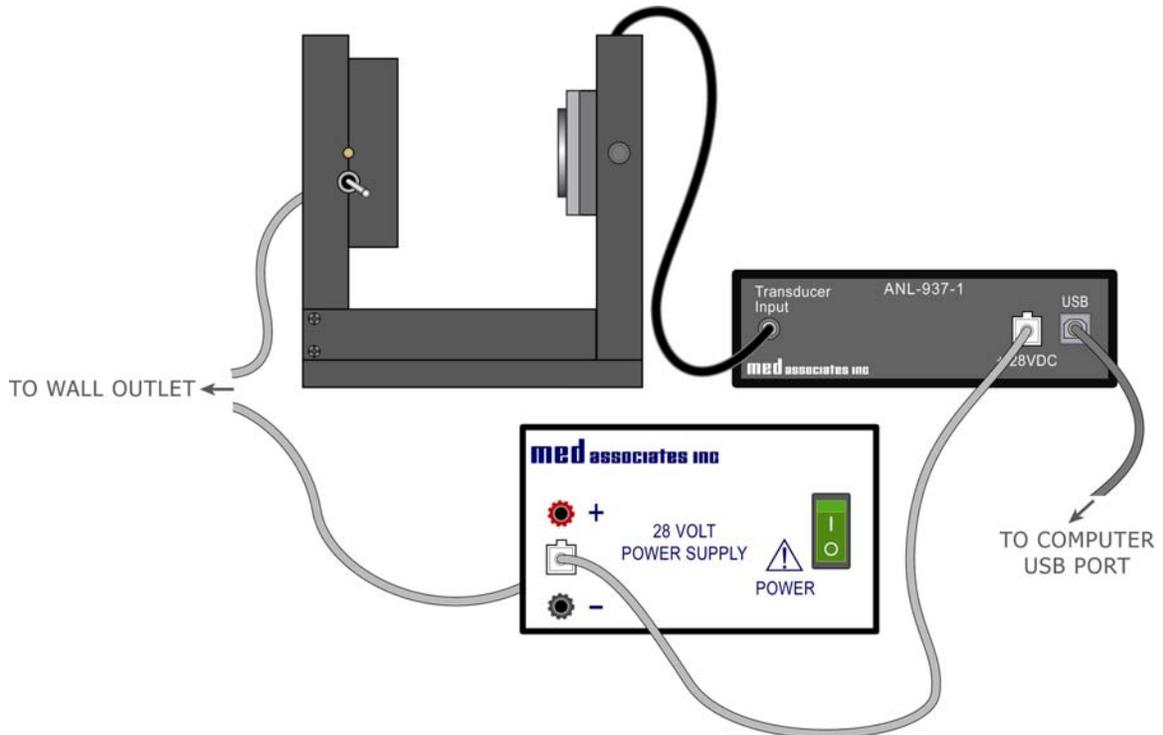


Figure 4 - ANL-939 Back Panel



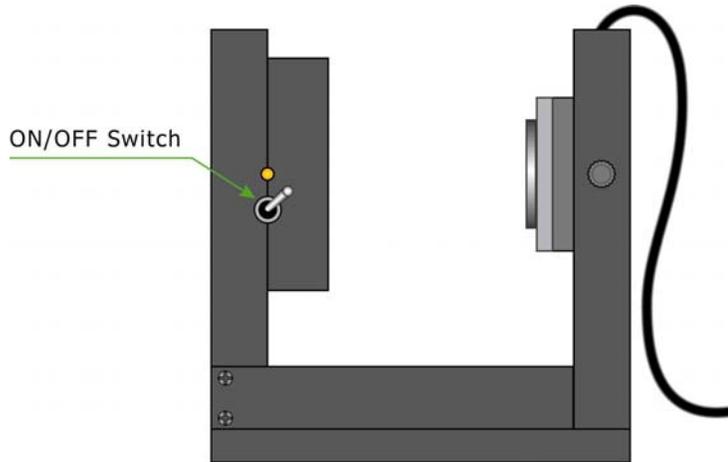
- 5. The system should now be connected as shown in Figure 5.

Figure 5 - System Diagram



6. Switch on the MED Associates 28 VCD Power Supply.
7. Switch on the ANL-939 using the **ON/OFF** toggle switch, shown in Figure 6. The ON LED will light up.

Figure 6 - ANL-939 Front Panel



CHAPTER 2

Using the Software

With the hardware properly connected as described in Chapter 1, open the USV Test Program by double clicking the desktop shortcut that was created during software installation. The screen shown in Figure 7 will appear. If the hardware is not properly connected a warning message like the one shown in Figure 8 will appear.

Figure 7 - USV Test Program

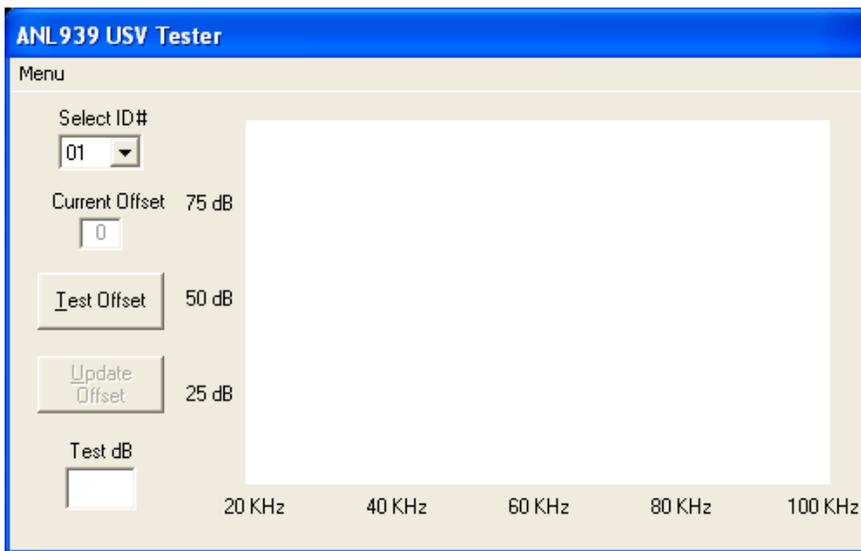
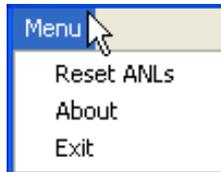


Figure 8 - Warning Message



Menu Selections

Figure 9 - Menu Options



Reset ANLs Checks for any additional ANL-937-1s that may have been connected to the computer after the software application was opened.

About Displays software version and copyright information. Also allows the user to select whether or not the Out-of-Range warning is enabled. See Figure 10. Refer to Step 5 of the ANL-937-1 Test Procedure section of this manual for more information about the Out-of-Range warning.

Figure 10 - About Display

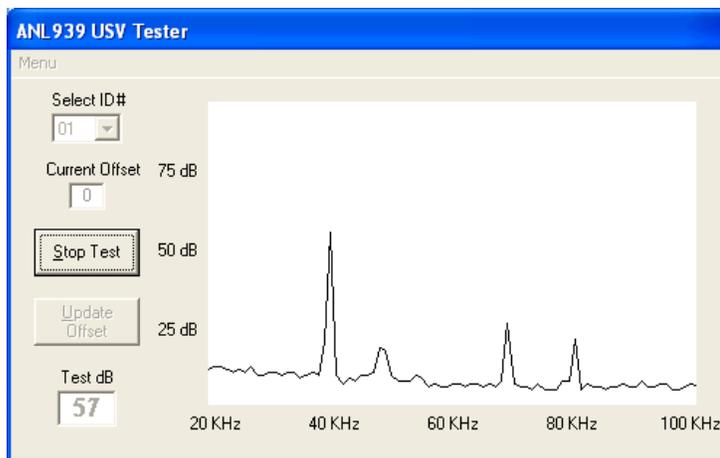


Exit Closes the USV Test Program application.

ANL-937-1 Test Procedure

1. Select the ID number of the ANL-937-1 to be tested from the **ID #** pulldown menu. Refer to the ANL-937-1 User's Manual for detailed information regarding the Device ID.
2. The **Current Offset** window displays the value of the microphone offset that was entered during the ANL-937-1 Setup. Refer to the ANL-937-1 User's Manual for more detailed information.
3. Click **Test Offset** and the ANL-939 speaker will generate a 60 dB 40 kHz tone. The signal that is received by the Unidirectional Microphone will appear on the screen, as shown in Figure 11.

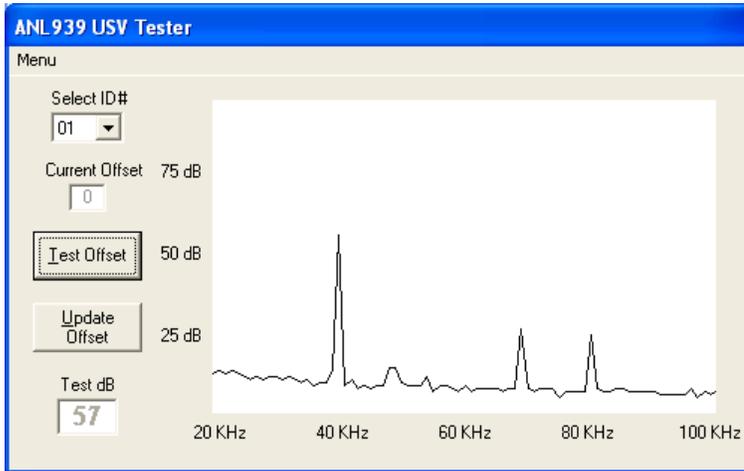
Figure 11 - Testing the Offset



- Once the signal stabilizes, click **Stop Test**. If the **Test dB** is within ± 6 dB of the **Current Offset** value plus 60 dB, the Update Offset button will be enabled, as shown in Figure 12. For example, if the Current Offset is 3 dB, the Test dB must be within ± 6 dB of 63 dB.

If the Test dB is within range, proceed to Step 6, if not proceed to Step 5.

Figure 12 - Update Offset Enabled



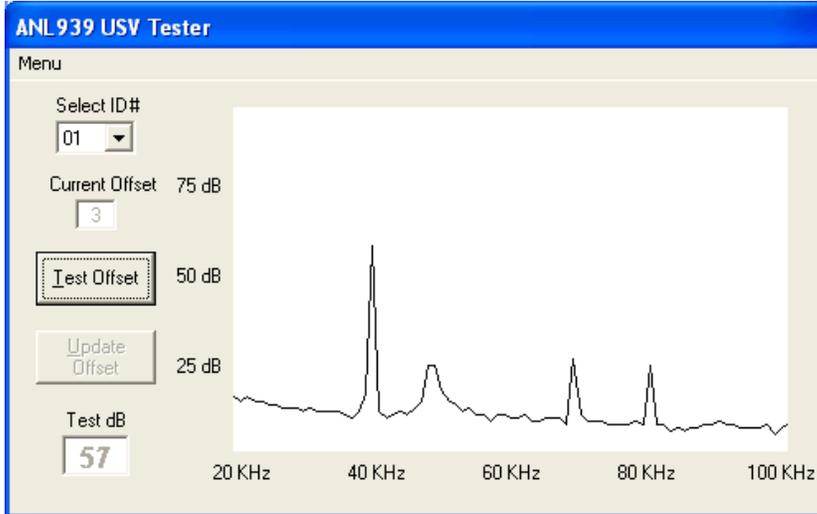
- If the Test dB was not within range and Enable Out-of-Range warning is enabled, the error message shown in Figure 13 will appear. Be sure that the ANL-939 is connected to power and turned on, and that the Unidirectional Microphone is properly seated in the mounting bracket. Repeat Steps 1 – 4 until the Test dB is within the acceptable range.

Figure 13 - Out of Range Warning



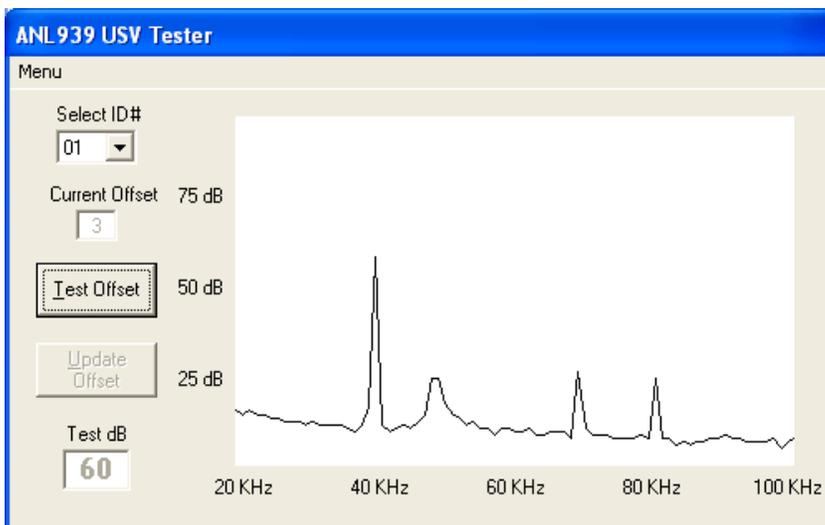
- Click **Update Offset**. The offset should appear in the Current Offset window, as shown in Figure 14.

Figure 14 - Update Offset



- Click **Test Offset** again. This time the screen will display the signal being received by the Unidirectional Microphone with the **Current Offset** added to it, which means the **Test dB** should be equal to 60 dB, as shown in Figure 15.

Figure 15 - Offset Adjustment Made



- The offset for each device will be stored internally on the ANL-937-1, even when the device is turned off. The only way to update or change the offset is to perform Steps 1 – 7 again.

APPENDIX

Software Installation

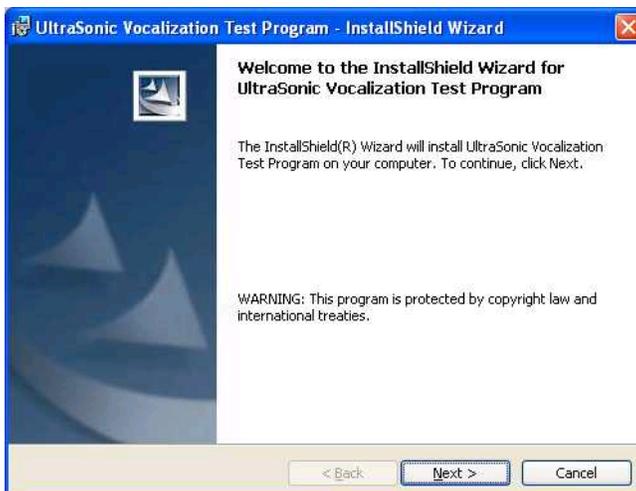
1. Insert the USV Test Program CD into the CD-ROM drive. The screen shown in Figure 16 should appear. If it does not select Start | My Computer and browse to the drive that contains the USV Test Package CD. Double click on the drive and the screen shown in Figure 16 will appear. To begin software installation click **To install UltraSonic Vocalization Test Program click here.** The screen shown in Figure 17 will appear.

Figure 16 - USV Test Program Main Screen



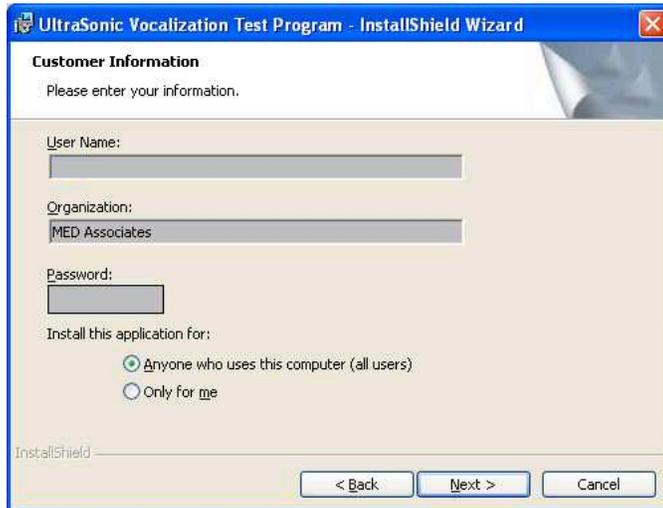
2. To proceed with software installation, click **Next**. The screen shown in Figure 18 will appear.

Figure 17 - Begin Software Installation



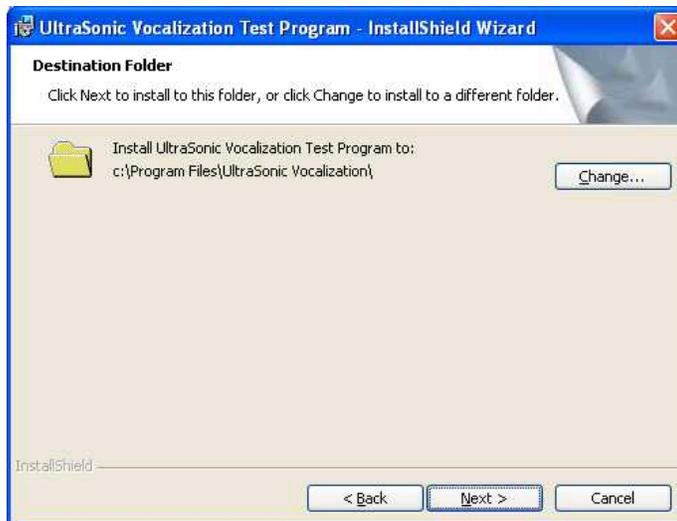
3. Enter a User Name, Organization and Password on the Customer Information screen. The password is issued when the software is registered with MED Associates. Also select whether the application is for use by all users, or a specific user. Click **Next** and the screen shown in Figure 19 will appear.

Figure 18 - Customer Information



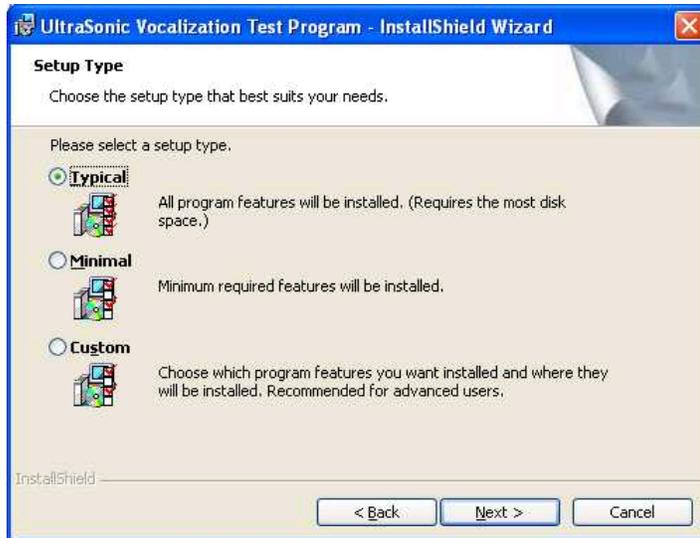
4. If the Destination Folder shown is acceptable, click **Next** to proceed. If not, click **Change...** and browse to the desired folder.

Figure 19 - Destination Folder



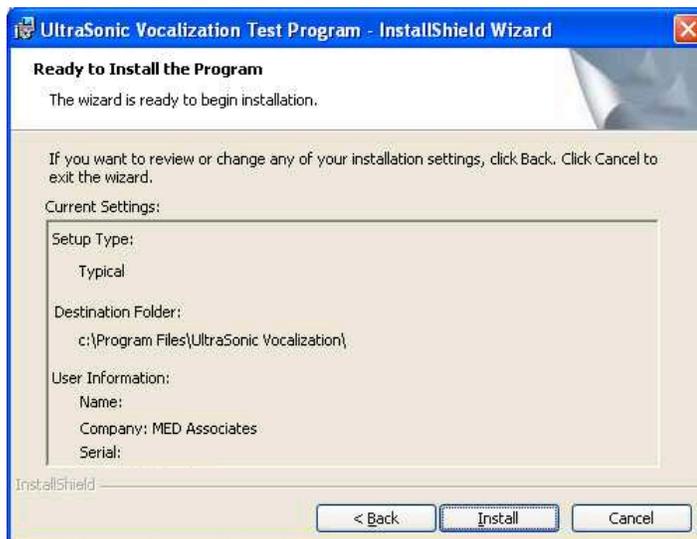
5. Select a Setup Type and click **Next**.

Figure 20 - Setup Type



6. Verify the installation settings. If all of the settings are correct, click **Install**. If changes need to be made to these settings, click **Back** and make the necessary changes.

Figure 21 - Verify Current Settings



7. Software installation is now complete. Click **Finish** to exit the wizard.

Figure 22 - Software Installation Complete

