

3M Occupational Health and Environmental Safety

# 3M™ E-A-Rfit™ Validation System



# Fit Testing for Hearing Protectors

E-A-Rfit™ Version 4.4

Fit-Test Procedure for Non-Custom Earplugs

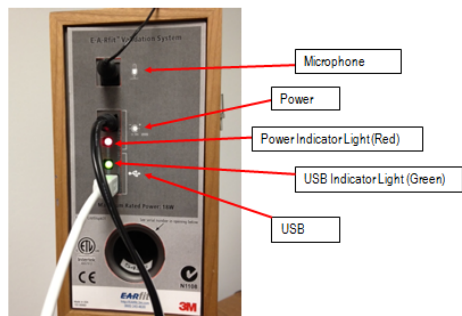
Quick Guide

**Purpose:** The purpose of this document is to serve as a quick procedure guide to fit-testing non-custom earplugs with the E-A-Rfit™ Validation system and is not a substitute for the online training or full operations manual. For more detailed instructions, please refer to the E-A-Rfit™ 4.4 Operations Manual and the training on the E-A-Rfit User Support website ([EARfit.3m.com](http://EARfit.3m.com)). Test results, PAR values and hearing protector sufficiency determinations are based upon data entered by the Technician and the employee's test results from a given E-A-Rfit testing session.

## 1. Connecting Cables

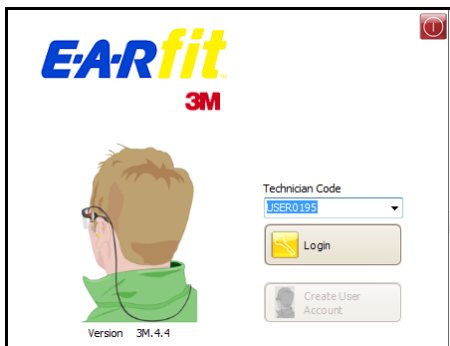
Connect the power to the speaker first, and then connect the microphone and USB cable before launching the software.

Connect cables as shown below:



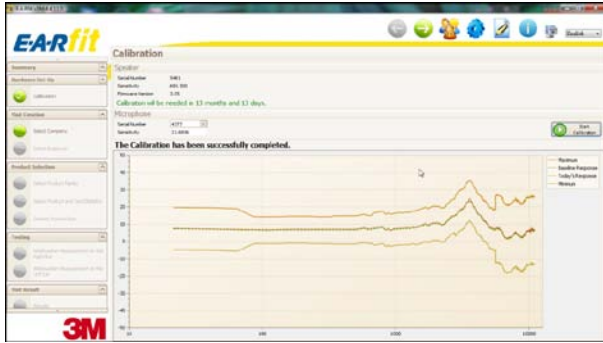
## 2. Launch E-A-Rfit™ and Login

Double-click on the E-A-Rfit 4 program shortcut to launch the software and begin at the "Login" screen. Once your account is created, your Technician Code is listed in the Technician Code drop-down. Choose the technician code from the drop-down and the "Login" button will illuminate. Click the button to load the software. The first screen is the "Welcome" screen. Click the forward arrow button to proceed.



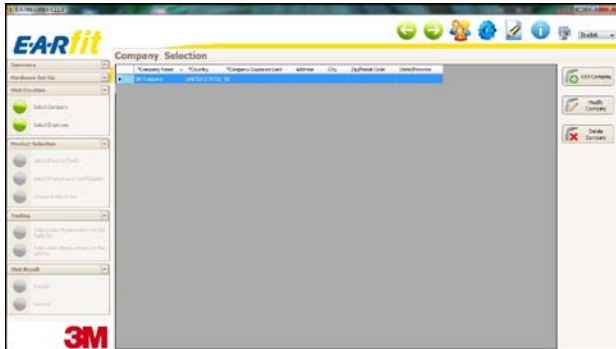
### 3. Calibration

Ensure the microphone is placed on the speaker clip in the proper position. Click on the microphone serial number drop-down to choose the correct microphone. If the microphone is not listed, type the serial number and sensitivity number into the associated fields. Click “Start Calibration.” If calibration is successful, click on the forward arrow button.



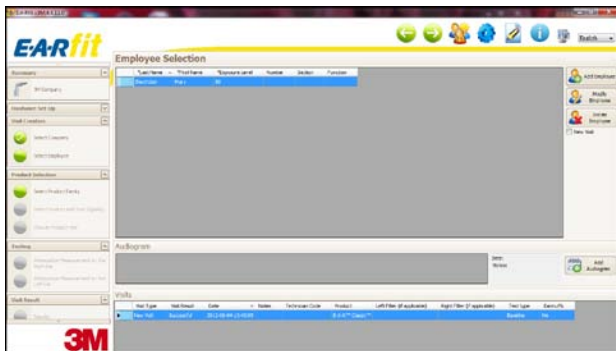
### 4. Company Selection

Highlight the company, click on forward arrow button.



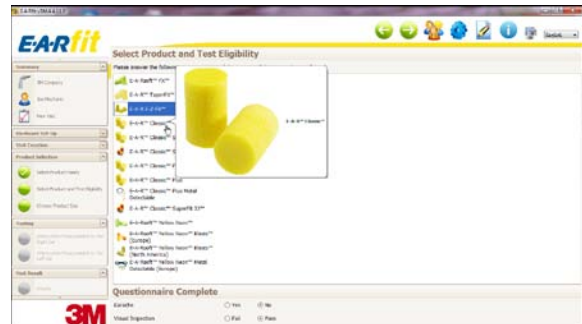
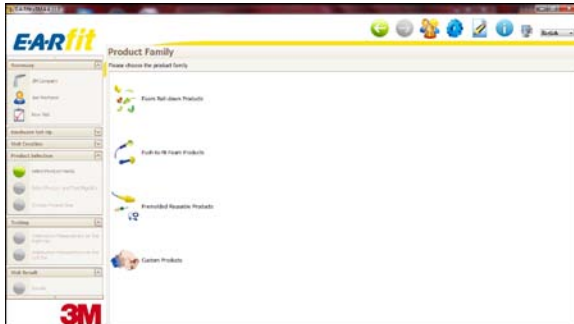
### 5. Employee Selection

Highlight the employee, click the forward arrow button




## 6. Product Selection

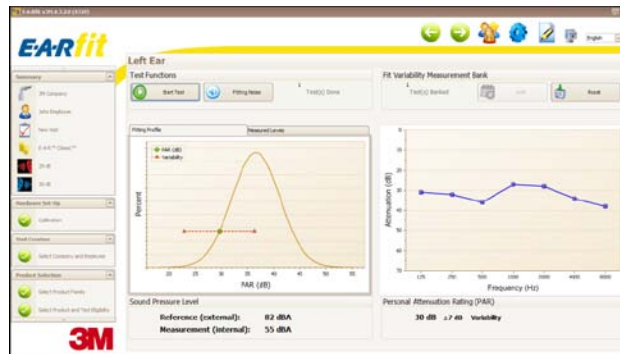
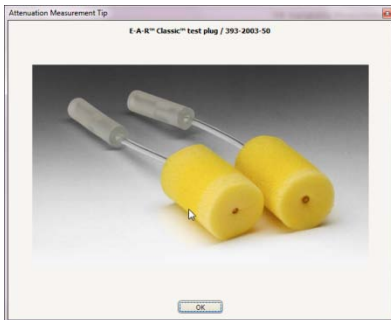
Double-click on the “Product Family,” highlight the earplug employee prefers to wear, confirm that the answers to the Questionnaire are correct and click on the forward arrow button.



Questionnaire Complete	
Earache	<input type="radio"/> Yes <input checked="" type="radio"/> No
Visual Inspection	<input type="radio"/> Fail <input checked="" type="radio"/> Pass

## 7. Attenuation Measurements – Left and Right Ears

Optional: Click  to view the test plug you should be testing or the custom ear plug microphone setup. Click “OK” to close the window



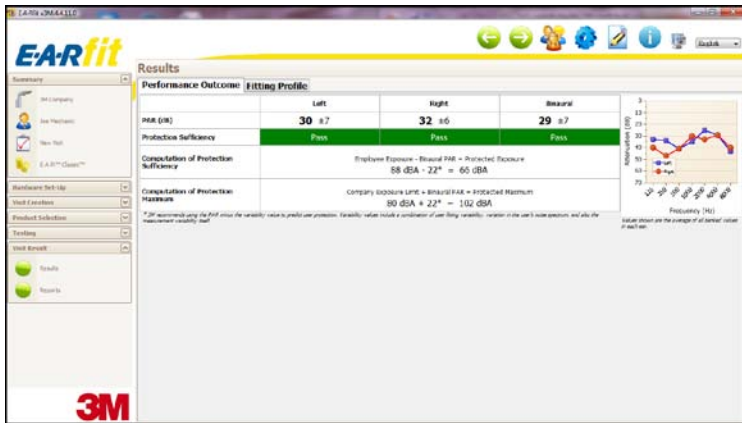
Sample non-custom test plug pop-up

- Have employee fit the test plugs in both ears. Allow roll-down plugs to expand completely before testing. Place the magnetic clips as close as possible to the ear, hanging on the temple of the employee’s eyeglasses or safety glasses included with your kit.
- Push the microphone tip into the plastic connector until it is fully inserted, being careful not to disturb the earplug. Place the microphone body on the magnet so that the plastic connector tube is pointing down.
- Employee should be sitting 16” from earplug to speaker clip. Use tape indicators on the microphone wire.
- Explain the test procedure and ask the employee not to talk or move their jaw during the test.

- e. Click the “Start Test” button to instigate the test signal.
- f. Review the test results. Click on “Add” to add the test to the bank. Click the forward arrow button and repeat on Left ear (b – f). With at least one test banked per ear, click the forward arrow button.

## 8. Results

Review the test results and give guidance to the employee accordingly. If finished with testing, click on the forward arrow button to advance to the “Report Screen.”



## 9. Report

Review the contents of the report. Enter pertinent notes in the “notes” field. Tick boxes for Baseline or Earmuff if applicable. If ready to save, click “Validate The Visit.” Click forward button to return to the “Employee Selection” screen to repeat steps 5 – 9.

