



REM AutoFit with VeriFit® *LINK*

Quick Guide

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REM AutoFit with Verifit® LINK Quick Guide

Quick, accurate and automatic verification with your Verifit.

What is REM AutoFit?

REM AutoFit is a tool in Genie 2 that allows the HCP to match real ear targets automatically. This makes the real ear measurement (REM) process more efficient whilst ensuring the HCP maintains quality and control over the fitting. REM AutoFit is compatible with any REM systems that are compliant with IMC 2 (Inter Module Communication protocol 2) which includes Interacoustics, MedRx, Otometrics, Sivantos and Auditdata systems. Oticon offers automatic target matching with Verifit1* or Verifit2 using Audioscan's VerifitLINK. Using REM AutoFit with VerifitLINK, it is possible to automatically match targets at 3 input levels within 2 minutes 30 seconds. Furthermore, from Genie 2 |2021.2, it is possible to launch Audioscan's ProbeGUIDE™ directly from REM AutoFit, to ensure the right probe tube placement, before measurement. This guide provides step-by-step support through the REM AutoFit process when used with your Verifit system.

Why do audiologists perform real ear measurements?

The main reason is to verify that speech sounds are audible and comfortable for the client. Ensuring that targets for a chosen rationale are being met is a good starting point for a new fitting.

* S/N 2070 and higher

Before using REM AutoFit with VerifitLINK



Real ear measurements must therefore be consistent, reliable, repeatable, and correct.

The first time you use REM AutoFit with VerifitLINK (you need to do this only once):

- Ensure you have software version 3.22 or later for Verifit1, or 4.14 or later for Verifit2 (4.18 or later is required for simultaneous binaural measurements)
- You must have a network connection between the Verifit and your computer. If you are already using the Verifit NOAH module, you have the necessary network connection. If you do not have a network connection, refer to your Verifit user guide or contact your Verifit distributor or local IT support to set it up. See also Audioscan's Quick Guide to Verifit Network Setup—for network/IT professionals.
- On the Verifit, open the Setup network screen (or in the main test menu screen on the Verifit 2) and note your Verifit's network address (IP address normally in a format such as XXX.XX.X.XXX).
- Open Genie 2 and in the Preferences top menu, click Edit Preferences. In the navigation bar on the left, click Customize software and then click



the Measurement module tab. Go to REM AutoFit settings and select VerifitLINK.

- In the VerifitLINK box below, enter your Verifit's IP address.

Every time you use the tool you must ensure that:

- you have chosen the correct acoustics and fitting levels according to your client's audiogram. Also make sure you have entered these choices in the Acoustics tool and Selection screen respectively in Genie 2.
- the Verifit has a valid microphone calibration. Check your local protocol to learn how often to carry out microphone calibration.
- the maximum eardrum SPL in the Verifit is set to a safe level according to your client's audiogram and predicted or measured UCLs.
- program linking is set up as desired in Genie 2. REM AutoFit with VerifitLINK adjusts the hearing aids to match targets in P1

We strongly recommend that you run a feedback analysis before starting. We also recommend that you use the same fitting rationale in REM AutoFit with VerifitLINK and Genie 2.

Settings in other tools

The following controls are set automatically when REM AutoFit with Verifit^{LINK} is open and restored to their original states afterwards:

Adaptation Manager	Step 3
Noise reduction	Current setting in OpenSound Navigator™
Feedback Analyzer	On
Directionality setting	Pinna Omni. For styles with a single microphone, directionality is not applicable.
Speech Rescue	Off

Step-by-step Guide

On the **Fitting step** in Genie 2, enter the **REM** tool from the **More Tools** menu in the left taskpane. Launch REM AutoFit with Verifit^{LINK} by clicking the **Verifit^{LINK}** button at the bottom of the **REM** tool.

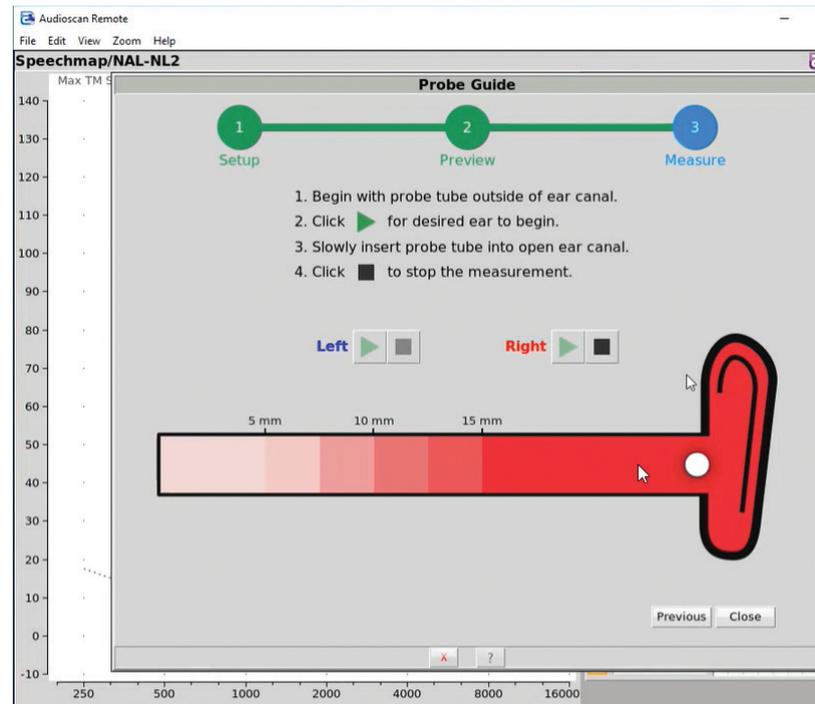
Step 1: Setup

The screenshot shows the 'REM AutoFit with Verifit^{LINK}' software window. At the top, there are three numbered steps: 1. SETUP (highlighted in pink), 2. MEASURE, and 3. FINISH. Below the steps, there are two main panels. The left panel, titled 'Make your selection', contains a 'Measurement method' dropdown menu set to 'On Ear', a 'Fitting rationale' section with 'No connection' selected, a 'Signal type' section with 'No connection' selected, and a 'RECD source' dropdown menu set to 'Verifit average'. The right panel, titled 'Prepare client', contains an 8-step numbered list of instructions for preparing the client and inserting the probe tube. To the right of the text is a diagram of a human ear with a probe tube inserted into the ear canal, connected to a hearing instrument.

1. Select a **Measurement method** from the drop-down list:
On ear or Test box
2. Select a **Fitting rationale**. You can use all available fitting rationales on the Verifit, except Camfit.

3. Select a **Signal type**. You can use all the speech signals designed for target matching in the Verifit
4. Select a **RECD source**:
 - To use **Verifit measured**, be sure to make the RECD measurement on the Verifit before opening REM AutoFit with VerifitLINK. To use a previously measured RECD, enter data in the Genie 2 RECD tool and select Genie 2.
 - To use **Genie 2**, be sure to select the desired measurement in the RECD tool before opening REM AutoFit with VerifitLINK. You can import a measured RECD into the RECD tool from NOAH.
5. Prepare for the measurements by following the instructions to the right of the screen. These instructions are specific to the measurement method you have selected.
 - One of the instruction points contains a link to open ProbeGUIDE on the Verifit2.
 - When this link is opened a small popup appears in Genie 2 where it is possible to start the ProbeGUIDE measurement for each ear. A graphic is shown on the Verifit2 screen showing an ear and ear canal. As you insert the probe tube, on the ear canal graphic an indicator ball will show the position of the end of the probe tube. The marker and chime will show that the placement is correct.

It is now possible to proceed with the measurement.



Step 2: Measure

Note that for simultaneous binaural measurements, Audioscan recommends that the client is a distance of 45–60 cm (18–24 in.) from the loudspeaker. All measurements use the signal type selected in step 1: **Setup**. Each sequence of measurements is preceded by a sound field equalization burst.

In on-ear mode, the instruments will mute automatically prior to the sound field equalization burst. This ensures that, when the instruments are automatically unmuted, the subsequent measurements are accurately calibrated because the soundfield calibration was not affected by acoustic leakage. This method is suitable for both open and closed fittings, but it is important that your client remains still during each measurement sequence.

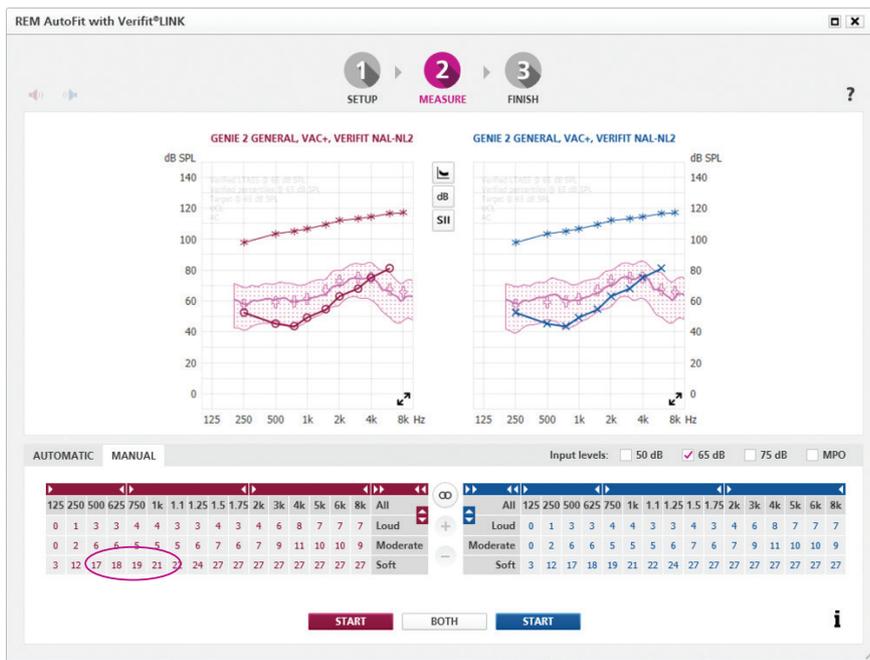
For test box mode, the instruments are not muted during the sound field equalization burst as the venting is occluded upon attachment to the coupler. Open fittings cannot be verified in test box mode.



In the **Measure** step, there are two ways of performing verification measurements: Automatic and Manual.

Automatic: measures the current instrument output, automatically adjusts it to match the prescribed target, and then performs another measurement to confirm the target match.

- The automatic measurement process is carried out at 65 dB by default and you can select additional levels (50 dB and 75 dB). Gain adjustments are based on the 65 dB measurement.
- If performing on-ear measurements, instruct your client to face the loudspeaker and to remain still during each sequence of measurements.
- Click **Start** on the relevant side to measure one side. Click **Both** to measure both sides (binaurally). Binaural measurements take place simultaneously if using Genie 2 | 2019.2 and Verifit2 with software version 4.18 or later. Otherwise they take place sequentially.
- When doing simultaneous binaural measurements, if the signal reaching left and right reference microphones is not equal, e.g. due to the client not facing the speaker, the measurement will be paused and Verifit2's Binaural Sound Field Assist tool will show instructions on the Verifit2 screen to help balance the signal reaching left and right.
- The test signal will turn off automatically when the measurements are complete. If you need to stop the measurement prior to completion, click **Stop**.
- If you are satisfied with the measurements, proceed to step 3: **Finish**. If you want to perform further fine-tuning, repeat the automatic measurement, or click the Manual tab to perform a manual measurement. Note that if you repeat the automatic process immediately, an initial measurement will not be done.

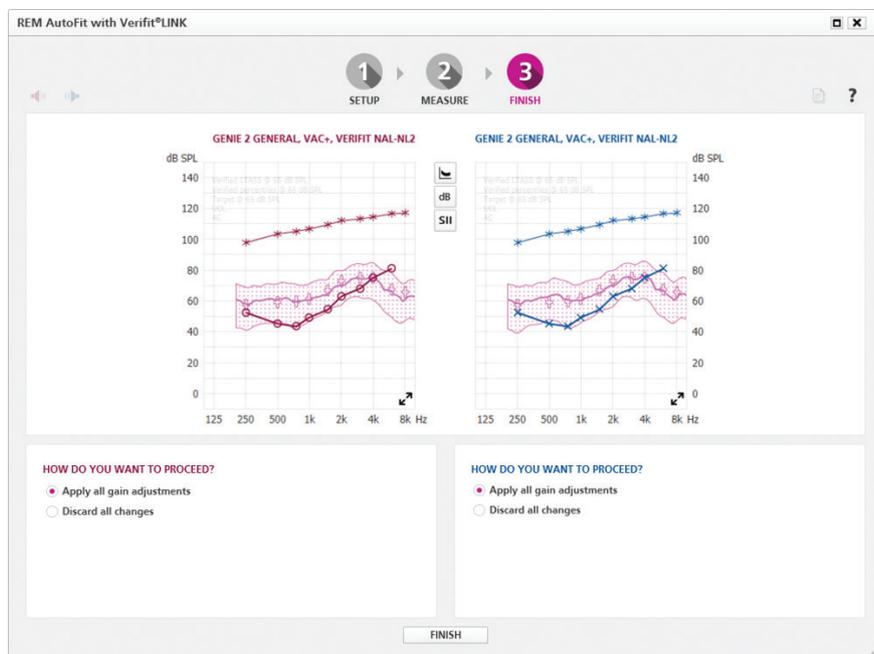


Manual: lets you fine-tune the instrument gain to get even closer to target or to personalize the fitting based on your client's comments. This manual process can be done after or instead of the automatic process. Within the REM AutoFit tool, use the fine-tuning controls to adjust the gain and then manually run a measurement to verify the target match.

- a. Select the desired measurement level(s) and MPO, if necessary. Measurements take place in a sequence for all selected levels starting with the softest. We recommend that you run MPO as a separate measurement so you can prepare the client for louder levels.
- b. If performing on-ear measurements, instruct your client to remain still during each sequence of measurements.
- c. Click **Start** on the relevant side to measure one side. Click **Both** to measure both sides (binaurally). Binaural measurements take place simultaneously if using Genie 2 | 2019.2 and Verifit2 with software version 4.18 or later. Otherwise they take place sequentially.
- d. When doing simultaneous binaural measurements, if the signal reaching left and right reference microphones is not equal, e.g. due to the client not facing the speaker, the measurement will be paused and Verifit2's Binaural Sound Field Assist tool will show instructions on the Verifit2 screen to help balance the signal reaching left and right.
- e. The system automatically turns off the signal when the measurements are complete. If you need to stop the measurement prior to completion, click **Stop**.
- f. If you are satisfied with the measurements, proceed to step 3: **Finish**.

Use the buttons between the graphs to change the graph view to show/hide targets, percentiles, LTASS, different levels and SII.

Step 3: Finish



The graph now displays the instrument output most recently measured in your client's ear or in the test-box, and you can apply the adjustments from the Measure step. The graphs and instruments will update according to what you select:

- Select **Apply all gain adjustments** to apply adjustments.
- Select **Discard all changes** to discard adjustments. The data in use when you entered REM AutoFit with Verifit *LINK* will be restored.

If you no longer want to use the adjustments made in REM AutoFit with Verifit *LINK*, go to the **Hearing Instrument** top menu and click **Rescribe settings**.

Generate report: click  to open the Generate report dialog.



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