

HOW TO MEASURE THE IN-SITU RECD WITH WIDEX BABY440 AND COMPASS V5.1.

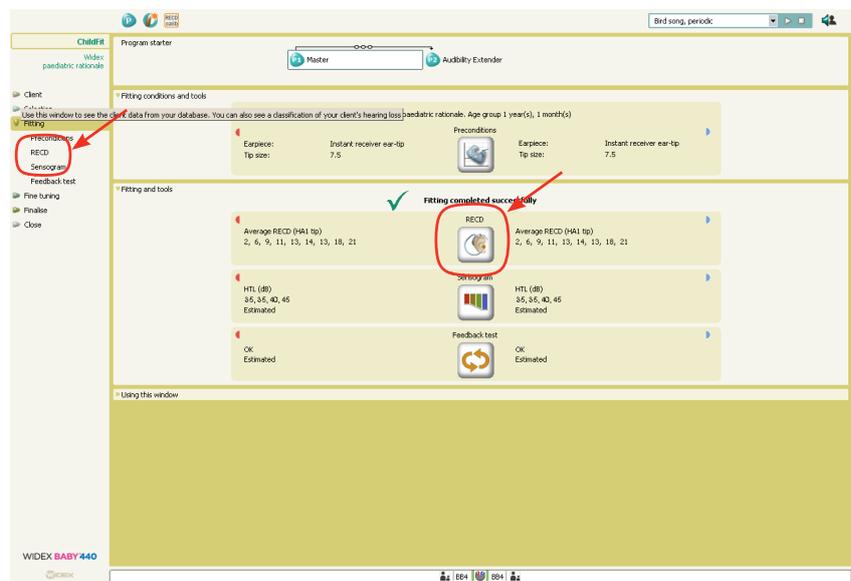
This bulletin describes how to measure the Widex in-situ RECD for WIDEX BABY440 using Compass V5.1. The description refers to the RECD calibration window and the RECD measurement windows in Compass. Please refer to Compass in order to see details of the screen. Remember that Compass offers several help functions to explain the different options in the program: Tooltips, Solution guide, Using this window panels and the Help Manual.

WIDEX BABY440 includes the possibility of measuring the RECD with the hearing aid itself. The procedure is called Widex in-situ RECD and is part of the WIDEX BABY440 fitting procedure. The measurement is made using a special RECD probe that is mounted on the hearing aid.

While the WIDEX BABY440 fitting procedure takes into account all the acoustic aspects of the hearing aid and its coupling to the ear, the precision of the fitting may be further improved by performing an individual RECD measurement on the child. This ensures that the

hearing aid delivers the exact amount of sound pressure at the eardrum prescribed for the given hearing loss – taking into account the shape of the individual child’s ear canal.

There are several ways to start the RECD measurement. It is possible to select RECD found in the Fitting and tools window to perform the Widex in-situ RECD measurement, or you can select RECD in the left menu bar.



Selecting RECD in the Fitting and tools window

Independent of how you select the RECD measurement, Compass now opens a window where you can select the type of RECD measurement you want to use in your fitting. Choose the Widex in-situ RECD measurement and select next.



Selecting Widex in-situ RECD measurement in the RECD conditions panel

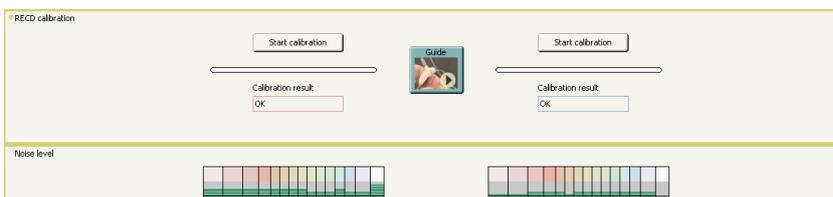
Compass now starts the Widex in-situ RECD fitting wizard. The measurement is divided into two parts: (1) RECD calibration and (2) RECD measurement.

RECD calibration

1. Remove the microphone grid and place the RECD-grip over the rear microphone of the hearing aid. Make sure to have the orange calibration seal mounted at the end of the probe tube. Insert the tube in the ear-tip as shown on the picture. Please note that the hearing aid should never be placed on the ear of the client while the calibration is performed.
2. Make sure that the surrounding noise level is low (in the green area), before you start the calibration.
3. Start the calibration by clicking the button *Start calibration*. When the measurement is done, the calibration result is displayed as either OK or “---”. If the calibration failed (---), a dialog box is shown asking you to check the set-up once more and repeat the measurement. If the calibration is OK, select *Next* to move on to the RECD measurement window.



Placement of the RECD probe

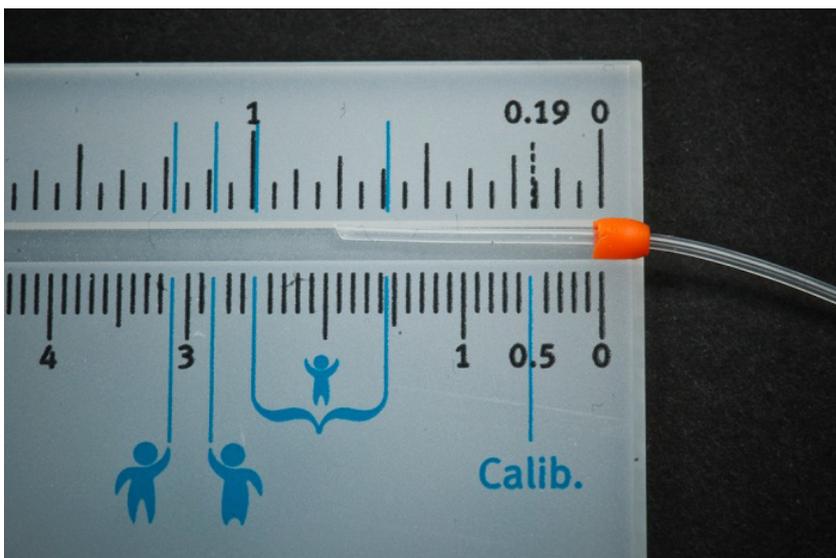


RECD calibration in Compass showing that the calibration is OK.

Please see the short video in Compass on how to do the calibration for more information.

RECD measurement

1. We recommend that you check the child's ear canal status with an otoscope to make sure that conditions are normal and that the canal is not blocked by earwax.
2. Remove the calibration seal from the probe tube, and determine the length of the probe tube by using the RECD ruler. Be sure that the tip of the probe tube will be placed within 5 mm from the eardrum. Use the orange marker to mark the insertion depth.
3. Stabilise the probe tube on the ear-tip using the RECD-ring (Please see the video in Compass for information on how to stabilise the probe tube).
4. Insert the ear-tip with the probe tube attached. The orange marker should be placed at the tragal notch.
5. Keep quiet surroundings and start the RECD measurement; the progress bar indicates how far the measurement has proceeded. If the measurement failed, a dialog box is shown asking you to check the set-up once more and repeat the measurement.
6. The result of the in-situ RECD measurement is shown both as a graph and as values on the screen. The graph shows the in-situ RECD (in dB) as a function of frequency. The RECD values in the array are shown for the audiometric frequencies (250, 500, 750, 1000, 1500, 2000, 3000, 4000 and 6000 Hz). The red (right ear) or blue (left ear) area indicates the range within which the measured in situ RECD is expected to fall according to the age of the child.



Use the RECD ruler to determine the length of the probe tube



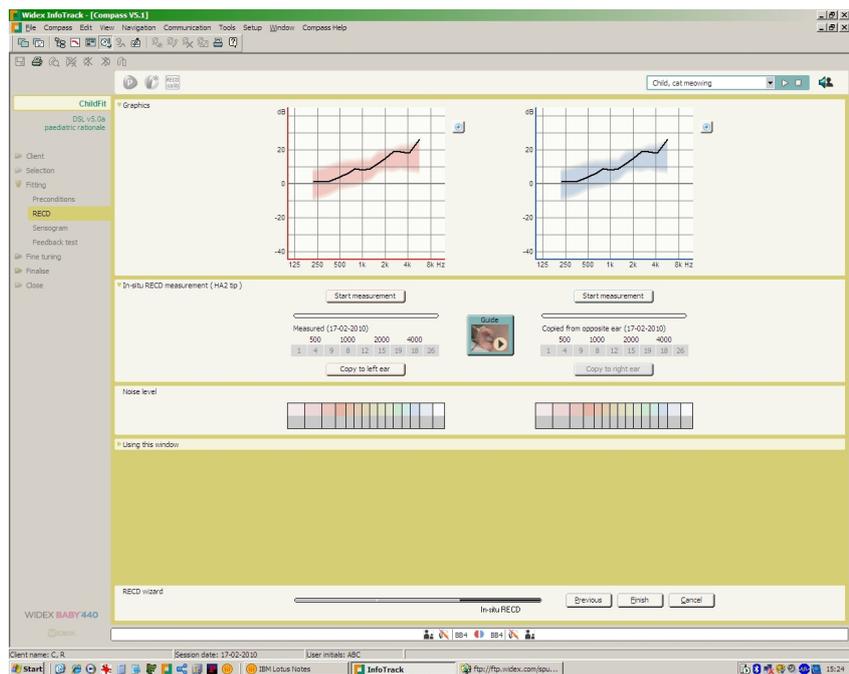
Stabilising the probe tube on the ear-tip using the RECD ring

7. When doing a binaural fitting, perform the measurement on the opposite ear. Alternatively you may choose to copy the RECD measured on one ear to the opposite ear. The best result will be obtained by performing the measurement on both ears, but in cases where this is not possible, the other approach may be used.

Please see the short video in Compass for more information on how to perform the Widex in-situ RECD measurement.



Placement of the hearing aid on the ear with the probe tube and earmould in place



The graphics indicate the range within which the in-situ RECD measurement is expected to fall. The tables show the binaurally measured values in dB at the main audiometric frequencies.

The measurement of the in-situ RECD is now finished and the in-situ RECD will be included in the fitting. Remove the RECD probe and select Finish to go back to the fitting screen.