

# PDC-2.6 and PDC-2.6P Quick-Start Guide for Speaker and Room Correction

**Professional Digital Correction for Installers and Users** 

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#### **Disclaimer and Limitation of Liability**

DEQX Pty Ltd assumes no responsibility for loss or damage resulting from the use of the PDC-2.6/PDC-2.6P.

Please refer the license supplied with the DEQX Calibration software.

#### **Safety Instructions**

**Warning** To prevent fire or shock hazard, do not expose the unit to rain or moisture. To avoid electrical shock, do not open the unit. No user-serviceable parts are inside. Please refer any servicing to qualified personnel.

**Caution**: Damage may result to your speaker drivers and other equipment if your audio system is connected incorrectly or if the PDC-2.6/PDC-2.6P is used incorrectly. Read this guide in full before configuring your hardware and refer to your speaker manufacturer's specifications to ensure correct connection. If you are in doubt as to as the connection of your audio equipment please seek assistance from a professional audio installer or contact DEQX at support@deqx.com. See the PDC license disclaimer in the Installer's Manual.

DEQX PDC-2.6 and PDC-2.6P Quick Start Guide Revised 18 October 2005. For the latest software, firmware and documentation check *www.deqx.com* 

## Measuring and Correcting the Speakers and Room Together

Once the speakers are placed in their intended locations, the speakers can be measured with the microphone in the listening position, in order to measure room effects.

Before carrying out the measurement, you should ensure that all forms of extraneous noise have been eliminated or at least reduced as much as possible. For example, close doors to other rooms and turn off fluorescent lights and air conditioners. Note: DEQXs measurement averaging process reduces the effects of extraneous noise; nevertheless less extraneous noise will provide a more accurate measurement.

To launch the Room Measurement Wizard click on the Measure Room button an the tool bar.



The welcome page for the Room Measurement Wizard appears. Click Next to continue.



The second window gives you the option creating a new room measurement or loading an existing one. Select the 'Create a new room measurement' radio button (if it is not already selected) and click **Next**.

Room Measurement Wizard DEQX Calibrated Please enter the following room measurement	nts parameters.
Room Name Studio 1 Measurement Details Source Log sweep (2.7s) Average over 18 Expected SNR Improvement: 16 dB Measure drivers concurrently	Profile selection Please select the profile that you wish to measure. You can use the IO Manager to see the specific profile settings. Bypass Profile 1 Profile 2 Profile 3
	Skip level setting page
< Back	Next > Cancel Help

The page displayed includes some advanced options. You can ignore these at this stage and just click **Next** to continue.

Room Measuremer DEQX Calibrated The following cha before performing	Int Wizard	ž
Left Left Sub Right Sub Right		
	< Back Next > Cancel Help	

Select the speakers you wish to measure (you should tick all the speakers that you have connected in your system). Each speaker will be measured in turn. Click **Next** to continue.

Room Measurement Wizard
DEQX Calibrated
You need to take a number of measurements in different positions within the room. Select "Run" to perform a measurement at a new position. Previous measurements are shown below. Select "Finish" once you are done.
Previous measurement positions and measurements
No measurements of this room have been performed yet.
New measurement position
If you are about to perform another room measurement, enter a descriptive name of the measurement position. eg. "Sweet Spot" or "Lounge Chair"
Room Position: sweet spot
< Back Run > Cancel Help

Each room may be measured in several locations, but at this stage only one location is needed. Click **Run** to continue.

Room Measurement Wizard DEQX Calibrated A test signal is now being uploaded to the set the output volume and select the milester of the select the sel	he PDC. This will be played back so that you can crophone used for this measurement. Please wait
Currently Selected Speaker	PDC Communication  Playing test signal  IO Manager Settings [Microphone 1012CM30-INV] [Phantom power on] [Gain on] [Vol -100.0 dB] [Mute] Show Meters
< Back	Run > Cancel Help

The PDC will be initialized. This will take a few seconds.



The test signal will be played. The IO Manager will be opened automatically, so that you can set the Master Volume to an appropriate level. We suggest that it be set so that input level (as measured by the microphone) peaks at between 80 and 90 dB. Some experimentation may be required for best results. Click **Run** to continue.



Once the measurement is completed satisfactorily click the Next button.



If the measurement was successful click the **Next** button. Otherwise click **Retry**, repeating the measurement with more sweeps, lower ambient noise or adjusted volume level.

Room Measurement Wizard		
DEQX Calibrated		
The room measurement data can be viewed in the IO Manager, undemeath the parametric EQ plot. This can help with some room equalization tasks.		
View room measurement in IO Manager / parametric EQ		
You can view the measurement data later by right-clicking on it in the project explorer, and choosing View. You can also drag and drop it onto the parametric EQ plot.		
If you wish to take more positional measurements, select More. If you wish to end this wizard, select Finish.		
More Finish Cancel Help		

If you have finished taking measurements, click the Finish button.

The Parametric Equalizer will be opened, with the room measurements loaded so the results can be seen.



A room measurement in the Parametric Equalizer

To apply an automated equalization of the room measurement, click the **Autoset EQ** button (above the frequency response chart, on the left).

Autoset EQ Options	×	
Please enter the following parameters		
Min Freq	20	
Max Freq	200	
Number of bands	5	
Maximum Boost	6	
Maximum Cut	6	
EQ style	<ul> <li>Parametric</li> </ul>	
_	O Graphic	
Only EQ common response (Recommended)		
Cancel	OK	

The default settings for the Autoset EQ options

Click OK to set the parametric eq points to attenuate the peaks and troughs of the room measurement.



A room measurement with automated EQ set, using the default settings

Congratulations! Your speakers and room have now been corrected with DEQXs automated EQ.

For more advanced correction of your speakers and room, please refer to the Installer's Manual.