

RotorQ System Settings Guide:

Overview:

The RotorQ system is shipped with default settings that are in compliance with Daimler-Chrysler's specifications. Most of the settings in the software should not need to be changed. Changing any of the settings that are not described below will likely make the system and its test results non-compliant. Future releases of the RotorQ software may hide these settings from the user.

There are, however, settings that need to be changed to prevent extremely long test times. Some of these settings are in the program's "File => Preferences => System Settings..." menu item.

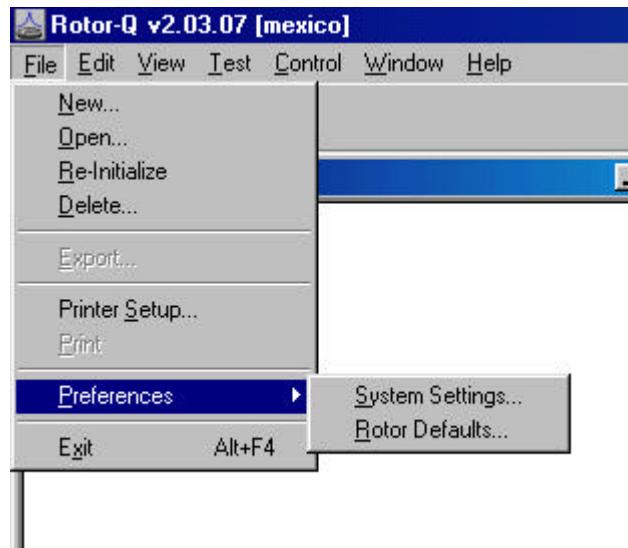


Illustration 1 - File menu.

Other options are changed by double-clicking the rotor model icon in the "Product Database" window (Illustration 2).

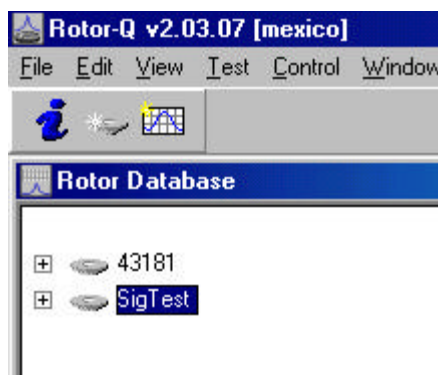


Illustration 2 - Product Database

System Settings:

The "System Settings..." dialog changes settings that apply to all tests for all models in the "Product Database." This dialog is used to calibrate the entire RotorQ system. Most of these settings should only be changed if Daimler-Chrysler requires a change.

The "System Settings..." dialog box contains the following "tabs" that should *not* be changed:

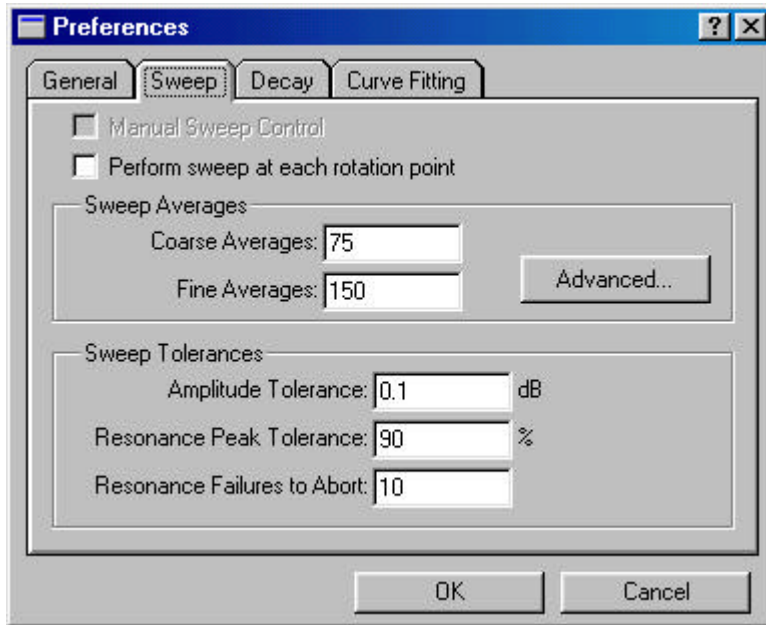


Illustration 3 - Do not change these options.

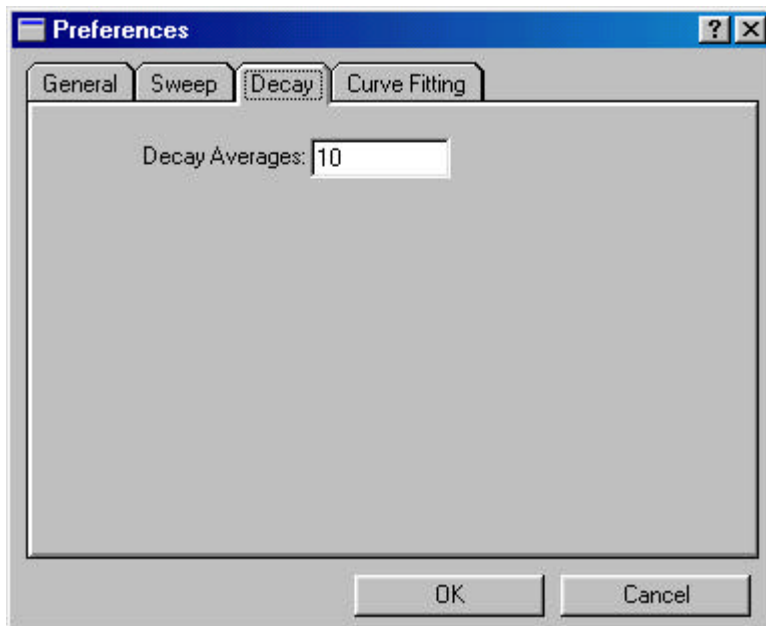


Illustration 4 - Do not change these options.

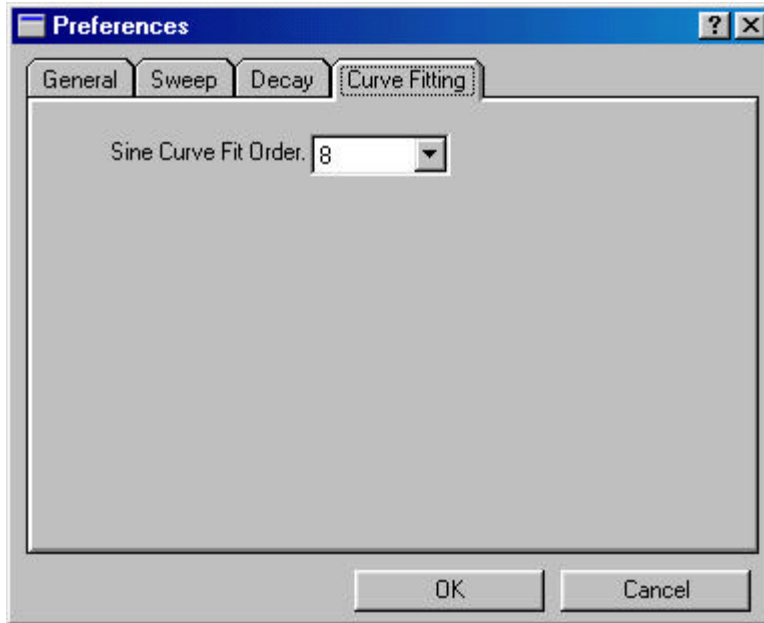


Illustration 5 - Do not change these options.

The only settings that should be changed are in the "General" tab (Illustration 6). However, *only* the "Calibrate..." option should be changed during normal operation. The "COM Port:" option should only be used during the system's initial setup at a new location.

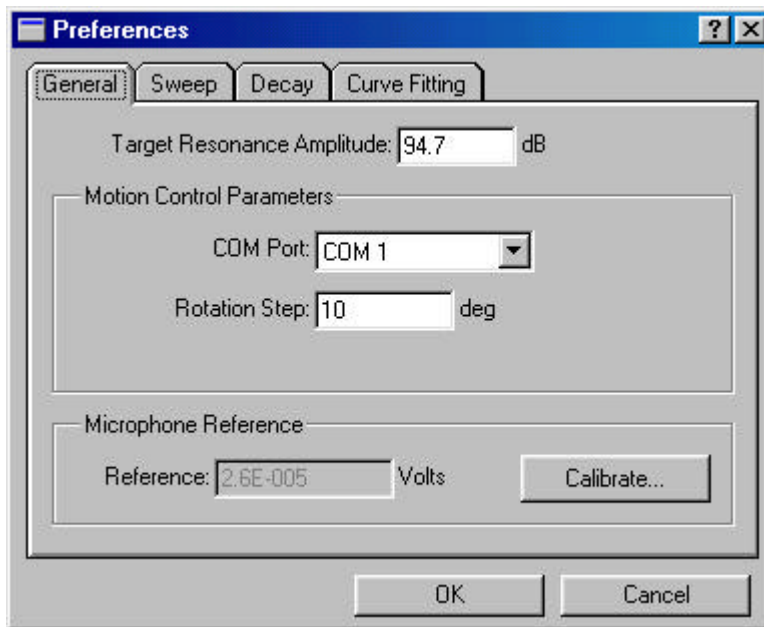


Illustration 6 - Only use the "Calibrate" button.*

*(See the "Calibration" section for more information.)

Rotor Setup:

The options that may need adjusting can be changed in the specific rotor's settings. These settings can be changed by double-clicking on the rotor's icon in the "Rotor Database" window (Illustration 7).

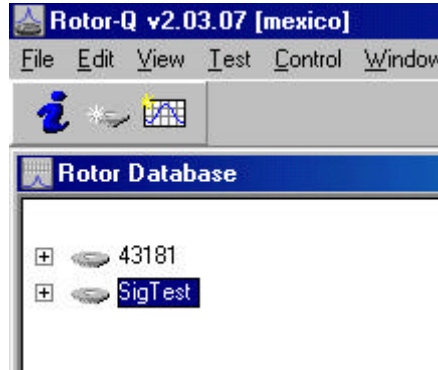


Illustration 7 - Rotor Database

This will display the rotor's test properties. Edit the "General" tab (Illustration 8) to include all relevant information.

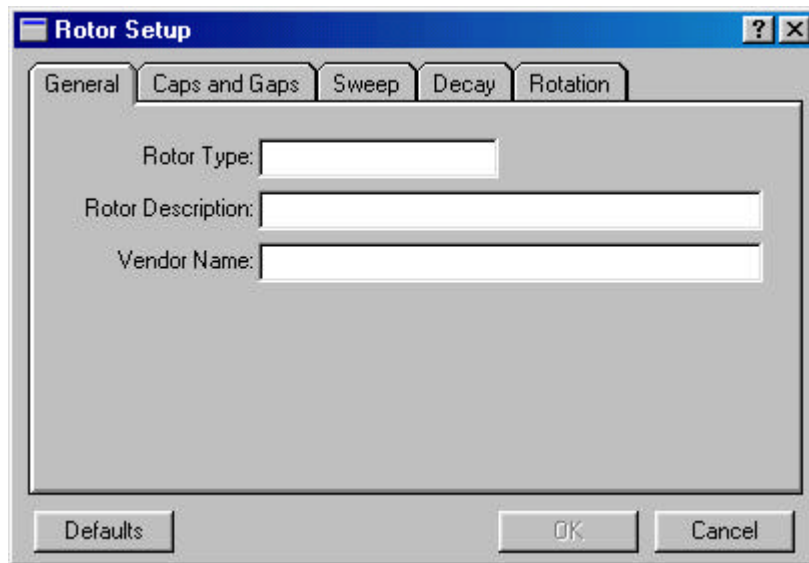


Illustration 8 - Edit to include all relevant information.

Do not change the settings in the "Caps and Gaps" window. These settings may drastically compromise the test results!

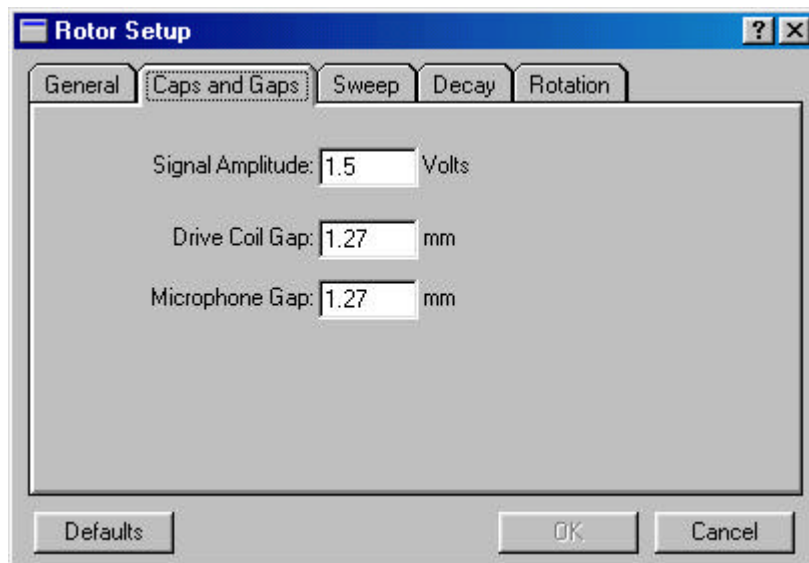


Illustration 9 - Do not change these options.

The "Sweep" dialog probably needs to be changed for each rotor model. Also, settings may need to be changed if the rotor model tends to vary in resonance frequency. The "Coarse" settings define the frequency range that will be used to find the resonance frequency. The sweep span may be increased to find the resonance frequency, if not already known. Larger sweep spans may require a higher "Coarse Increment" value to prevent excessively long test times. The "Coarse Increment" should typically not be greater than .33Hz to find the approximate resonance frequency. Once this value is known, the sweep span should be generally 5Hz below and above the value. The "Coarse Increment" should then be set to around .05Hz for normal operation. The other values should reflect those in Illustration 10.

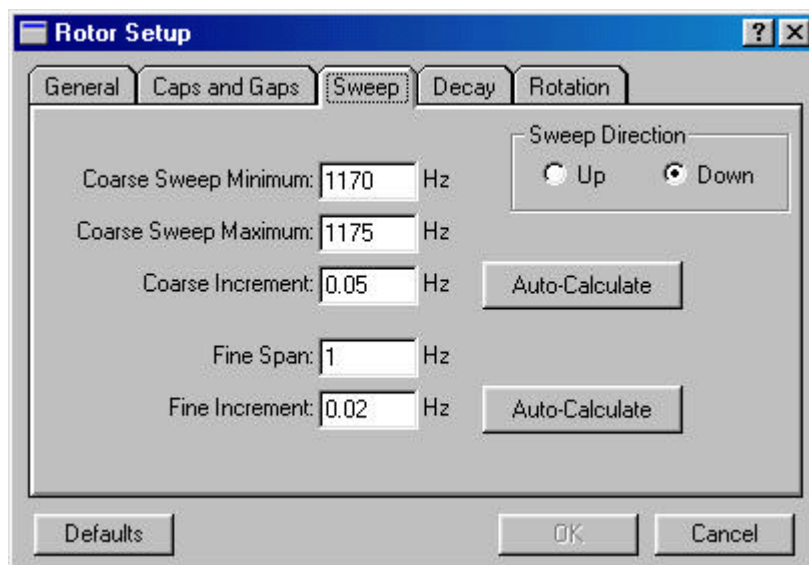


Illustration 10 - Change only the "Coarse" settings.

The "Decay" window contains settings that should not be changed. One exception may be the "Decay Duration" setting. This setting's value indicates the time that RotorQ will wait for the decay to go from 90dB to 70dB. This setting may need to be changed if the decay takes longer than the default time of 1250mSec to reach 70dB. A larger "Decay Duration" value will increase the overall testing time.

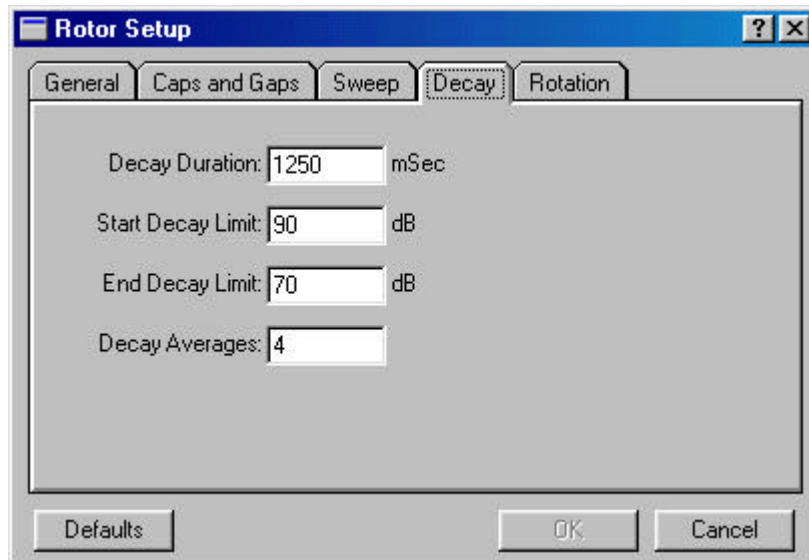


Illustration 11 - Do not change these options.

Finally, the "Rotation" window contains information that should not be changed unless advised to do so by Daimler-Chrysler.

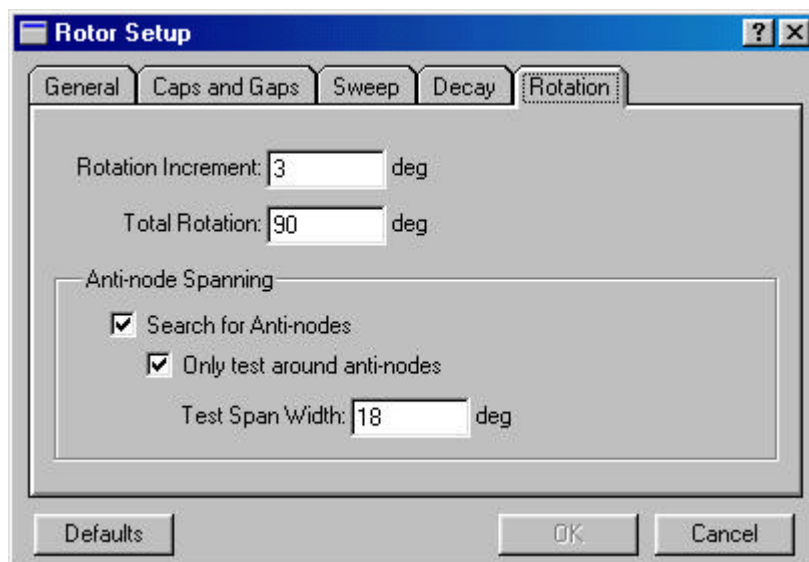


Illustration 12 - Do not change these options.

Calibration:

Calibration must be performed on a regular basis to ensure accurate test results. The calibration procedure is an easy and important operation that requires only a few seconds to perform. Signalysis, Inc. recommends that calibration be performed at least once a month and whenever the system is moved to a new location.

The process is as follows:

1. Boot the RotorQ system and run the RotorQ program.
2. Click on "File => Preferences => System Settings..." option.
3. In the "General" tab, click on the "Calibrate..." button. This will bring up the "Microphone Calibration" window shown in Illustration 13.
4. Attach the calibrator to the microphone and turn "on".
5. Click the "Calibrate" button.
6. The system will calibrate using the calibrator then return a "New Reference" value. This value should be similar to the "Current Reference" value or the system may not be functioning properly. If the result are similar, click the "Accept" button to use the value. If the values are not similar, contact Technical Support.
7. Use the system as detailed in the RotorQ documentation and/or help file.

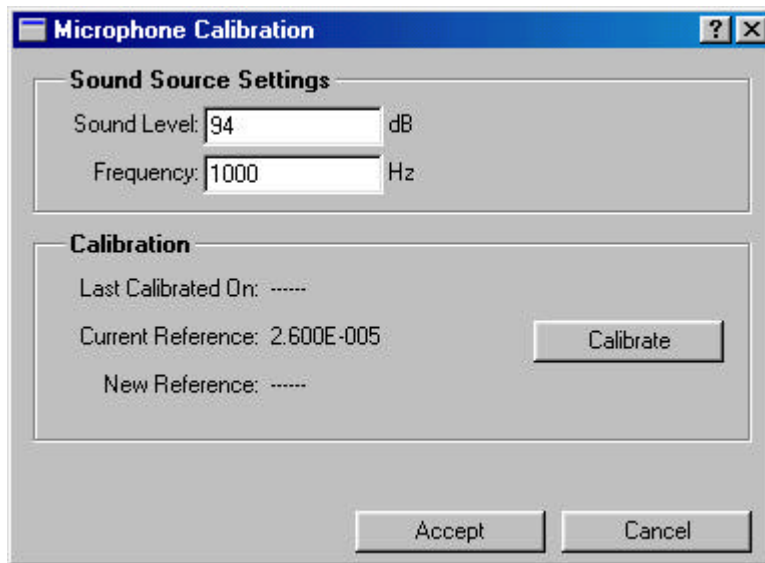


Illustration 13 - Only use the "Calibrate" button.