

3 CLIO INSTALLATION

3.1 MINIMUM PC CONFIGURATION

The CLIO FW-01 firewire audio interface running the CLIO software can be installed in any personal computer with the following minimum system requirements:

- Pentium IV processor (suggested minimum 1GHz)
- One free IEEE-1394 port
- 256 MB RAM
- 1024x786 video adapter
- Microsoft Windows XP or Vista
- Adobe Acrobat Reader

DO NOT CONNECT THE FW-01 UNIT TO THE PC UNTIL REQUESTED!

If you are installing under:

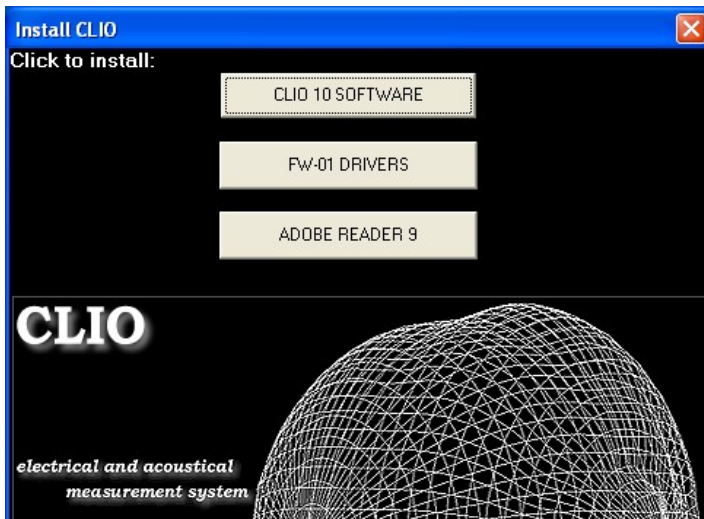
- Windows XP go to section 3.2
- Windows Vista and 7 go to section 3.3

3.2 FW-01 DRIVERS INSTALLATION UNDER WINDOWS XP

The procedures described refer specifically (and are described with examples and figures) to the Windows XP Professional operating system, English version, they can be applied with only minor modifications and appropriate translations to all languages and to Windows XP Home.

To install the FW-01 drivers in your computer you should follow the instructions presented below:

- 1) Insert the CLIO 10 CD ROM in the computer.
- 2) Wait for autorun application or run "Clioinstall.exe".



- 3) Choose "FW-01 DRIVERS" to start installation.

WHEN PROMPTED CONNECT THE FW-01 UNIT!



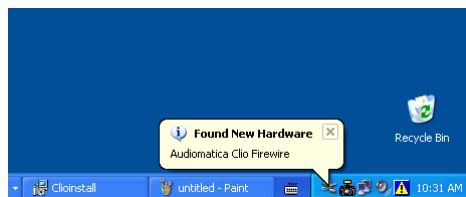
To connect the FW-01 unit to your PC you need to do the following:

- 1) Locate an IEEE-1394 port on your PC. You may either use a standard 6-pin port (with or without power supply) or a standard 4-pin (small connector, without power supply) port.
- 2) If you use a 6-pin port use the supplied 6-pin-to-6-pin cable. If you use a 4-pin port please provide an IEEE 1394 6-pin-to-4-pin cable (often referred as i-Link).
- 3) If you use a 6-pin port verify that it is capable of power supply.
- 4) If you use a 6-pin port without power supply or a 4-pin port you must also provide a 12V external power supply.

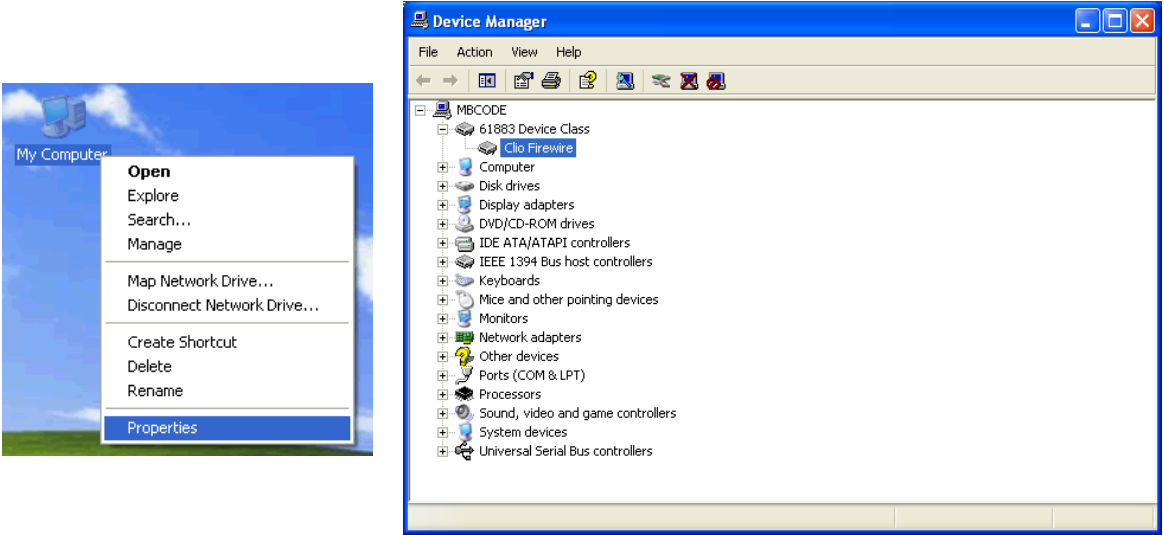
Ignore Microsoft's warning message about Digital Signature, answer 'Yes' to the prompt and reach the end of the wizard.



You will then reach the end of the wizard.



Let's now verify the correct installation of the FW-01 driver. Click with the **right** mouse button on the 'My Computer' icon on the Windows desktop. Then click 'Properties', select the 'Hardware' tab and press the 'Device Manager' button as in the following figure.



Verify the presence of the 'Clio Firewire' driver under the 61883 device class.

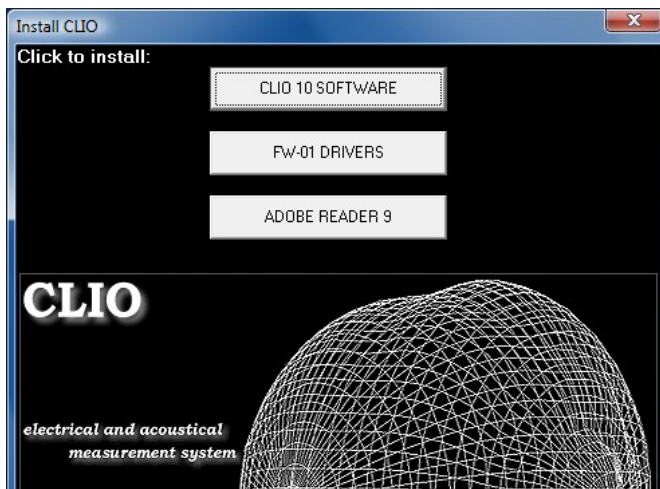
Your driver installation was successful!

3.3 FW-01 DRIVERS INSTALLATION UNDER WINDOWS VISTA AND 7

The procedures described refer specifically (and are described with examples and figures) to the Windows 7 operating system, English version, they can be applied with only minor modifications and appropriate translations to all languages.

To install the FW-01 drivers in your computer you should follow the instructions presented below:

- 1) Insert the CLIO 10 CD ROM in the computer.
- 2) Wait for autorun application or run "Clioinstall.exe".



- 3) Choose "FW-01 DRIVERS" to start installation.

WHEN PROMPTED CONNECT THE FW-01 UNIT!
3 CLIO INSTALLATION

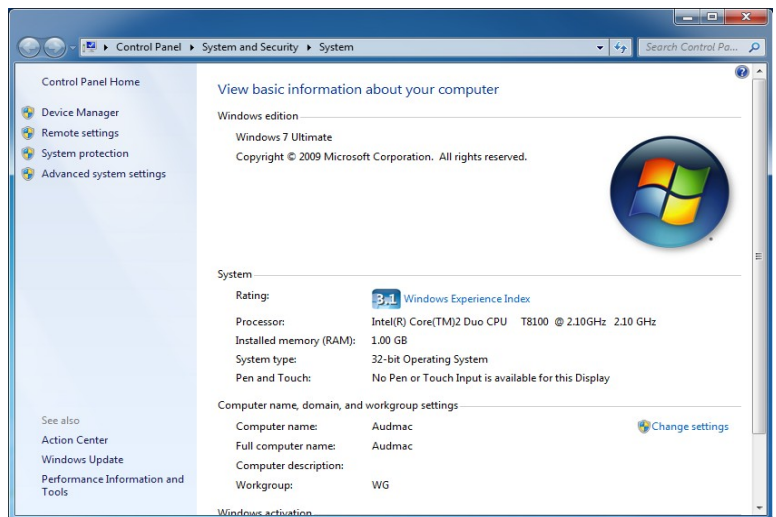
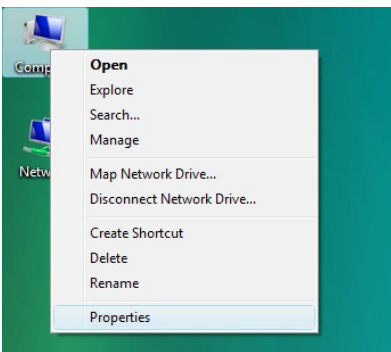


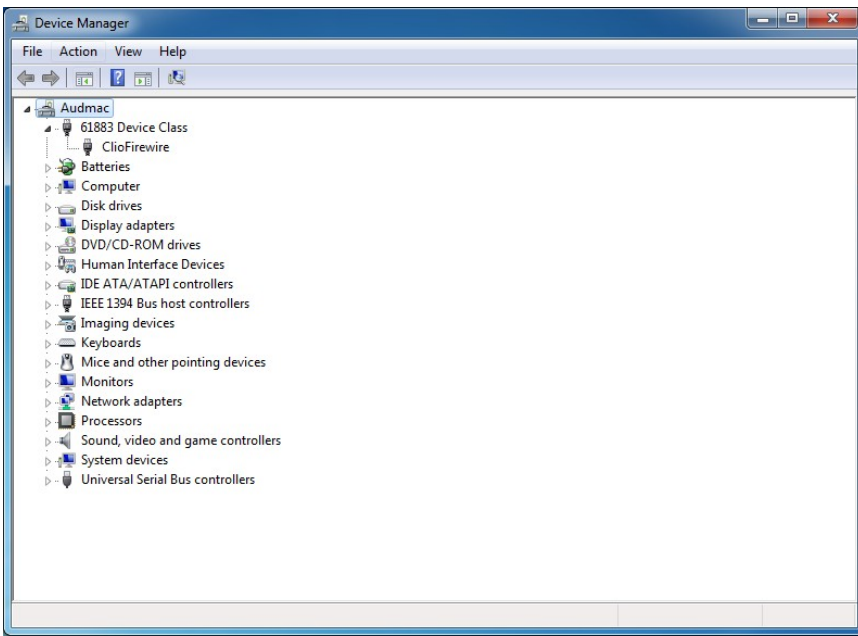
To connect the FW-01 unit to your PC you need to do the following:

- 1) Locate an IEEE-1394 port on your PC. You may either use a standard 6-pin port (with or without power supply) or a standard 4-pin (small connector, without power supply) port.
- 2) If you use a 6-pin port use the supplied 6-pin-to-6-pin cable. If you use a 4-pin port please provide an IEEE 1394 6-pin-to-4-pin cable (often referred as i-Link).
- 3) If you use a 6-pin port verify that it is capable of power supply.
- 4) If you use a 6-pin port without power supply or a 4-pin port you must also provide a 12V external power supply.

You will then reach the end of the wizard.

Let's now verify the correct installation of the FW-01 driver. Click with the **right** mouse button on the 'My Computer' icon on the Windows desktop or on the Start Menu. Then click 'Properties', press the 'Device Manager' link as in the following figure.





Verify the presence of the 'Clio Firewire' driver under the 61883 device class.

Your driver installation was successful!

3.4 SOFTWARE INSTALLATION

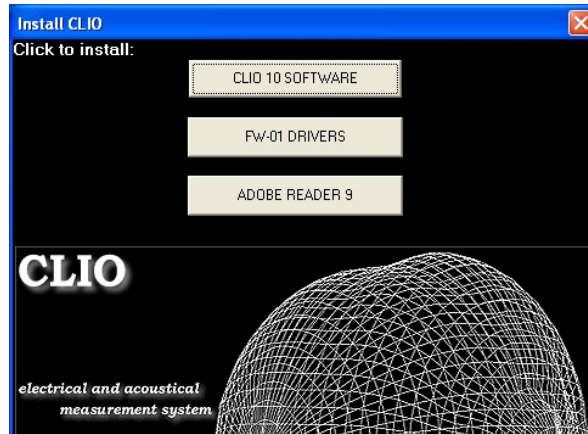
This paragraph deals with **software installation**.

The CLIO software is provided either on its own CD-ROM or, in electronic format, as a single, self-extracting, executable file.

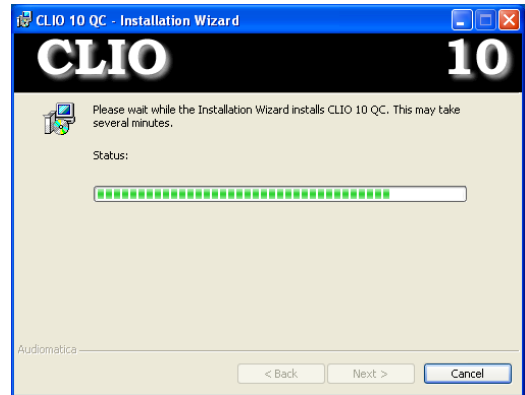
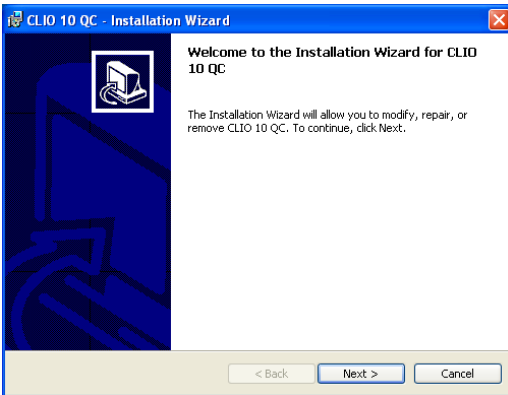
Be sure to have administrative rights when installing CLIO.

To install the CLIO 10 software in your computer you should follow the instructions presented below:

- 1) Insert the CLIO 10 CD ROM in the computer.
- 2) Wait for autorun application or run "Clioinstall.exe".



- 3) Choose "CLIO 10 SOFTWARE" to start installation.



The procedure is completely automatic and will only request you to accept the Software End User's License Agreement and input some information in order to correctly install CLIO 10; the software installer will also check your operating system version.

After successfully completing this procedure take note of the installation directory of CLIO (usually C:\Program Files\Audiomatica\CLIO 10).

3.5 THE 'CLIO BOX'

A few words about the FW-01 firewire audio interface.



Figure 3.26

This unit is needed to correctly interface analog signals to your PC; it is also important as it has an internal reference used to calibrate the system and also stores the system's serial number inside its internal EEPROM; Fig.3.27 shows where is located your CLIO system serial number.

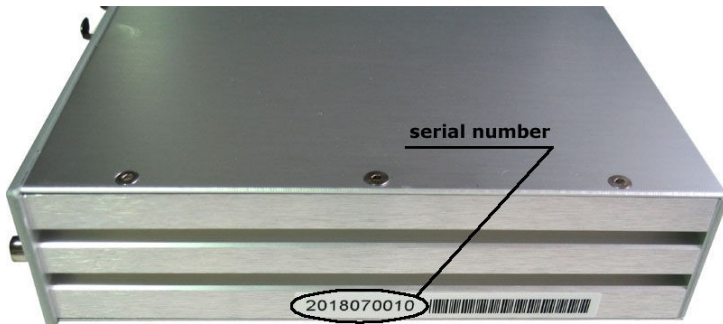


Figure 3.27

The serial number is very important and should be mentioned each time you get in contact with Audiomatica, either for technical support or for software upgrade.

When using your CLIO system you will normally use the FW-01 front connectors. As you'll become extremely familiar with this hardware unit we are going to give it a nickname: from now on we will call it '**the CLIO Box**'. Also the CLIO software refers to it with this nickname.

3.6 RUNNING CLIO FOR THE FIRST TIME

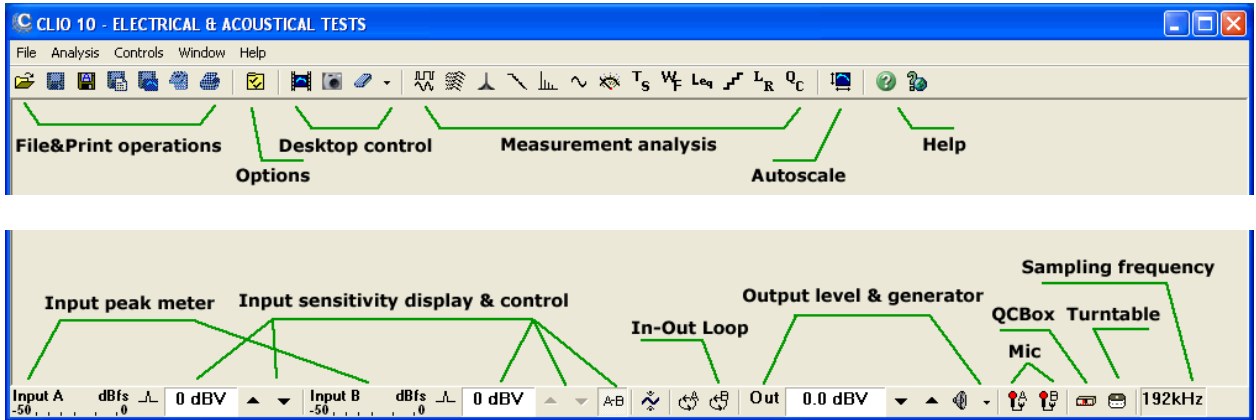
If you have completed the preceding installation procedure, you are ready to run CLIO!

The following steps will guide you through a complete verification of the system performance and operation.

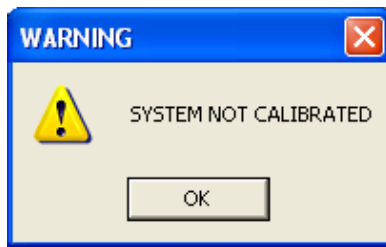
From the **Start Menu** choose **Programs**, then **CLIO 10** and click on the CLIO icon.



The program should start smoothly and present the main desktop.





If the the system is not calibrated, as the first time you run it, you will receive the following message.



Should CLIO display an error message take note of it and go to the troubleshooting section (3.9).

3.6.1 INITIAL TEST

Let's now execute our first test measurement - play and capture a 1kHz sinusoid. First of all click on the In-Out Loop  button for channel A; in this way the CLIO Box connects output A with input A with an internal relay. This connection is very important as it lets you capture and analyze a signal generated by CLIO without the need for an external connecting cable.

Then click on the generator icon  to play the 1kHz sinusoid (1031.25Hz to be exact; more on this later, it's the default signal). Then press the **F4** keystroke to invoke the Multi-Meter as in Fig.3.28.

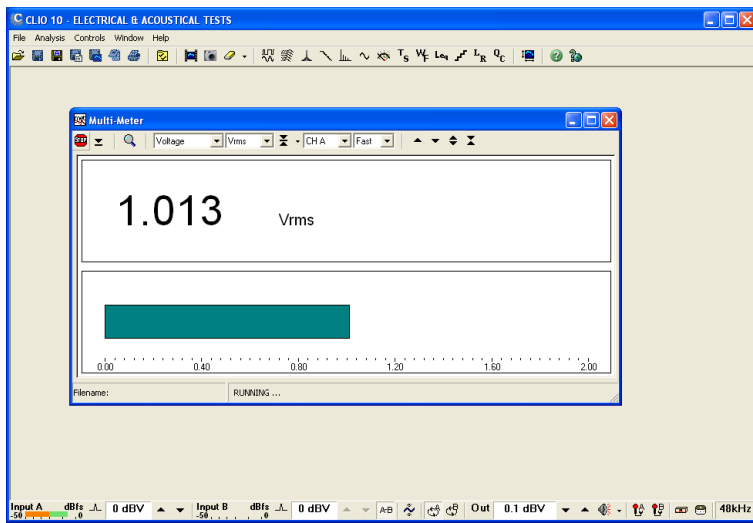
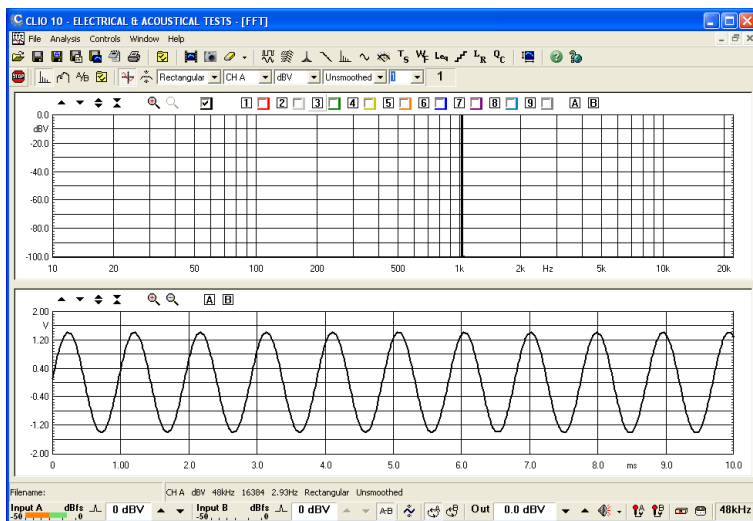


Figure 3.28

If everything is OK you should obtain a reading of circa 1V, variable between a minimum of 0.95V and a maximum of 1.05V, which is the mean output level of a sinusoidal signal when the system is not calibrated.

Now press the FFT button (or **CTRL-F**), then press the Oscilloscope button and finally the **GoButton**.



The result you should obtain is an FFT analysis of the 1kHz sinusoid (one spectral line @ 1kHz at 0dBV) and its time representation given by its oscillogram.

IMPORTANT NOTE: Only if these two initial tests gave correct results, as described, go to the following paragraph and execute the system calibration; if you are not able to obtain these results and they seem in any way corrupted **do not execute calibration** and contact technical support.

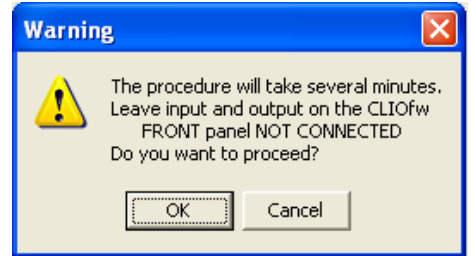
3.7 SYSTEM CALIBRATION

This section describes how to perform the system calibration.

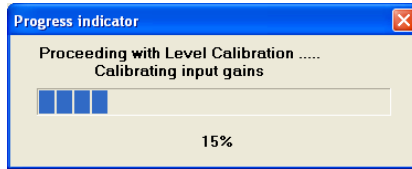
Be sure that, any time you perform a calibration, the system has warmed up for, at least 15-20 minutes.

Select **Calibration** from the **File** menu (5.6);

Leave the CLIO Box front plugs unconnected.



Answer **OK** to the initial prompt; this will run an automatic procedure that will last several minutes. The calibration procedure is completely automatic and several progress indicators will accompany all the executed measurements. At the end of it your CLIO system should be calibrated and ready to carry out measurements.



At the end of the calibration process it is always mandatory to verify the calibration itself; this is done by two simple measurements as described in the following section.

3.7.1 CALIBRATION VALIDATION

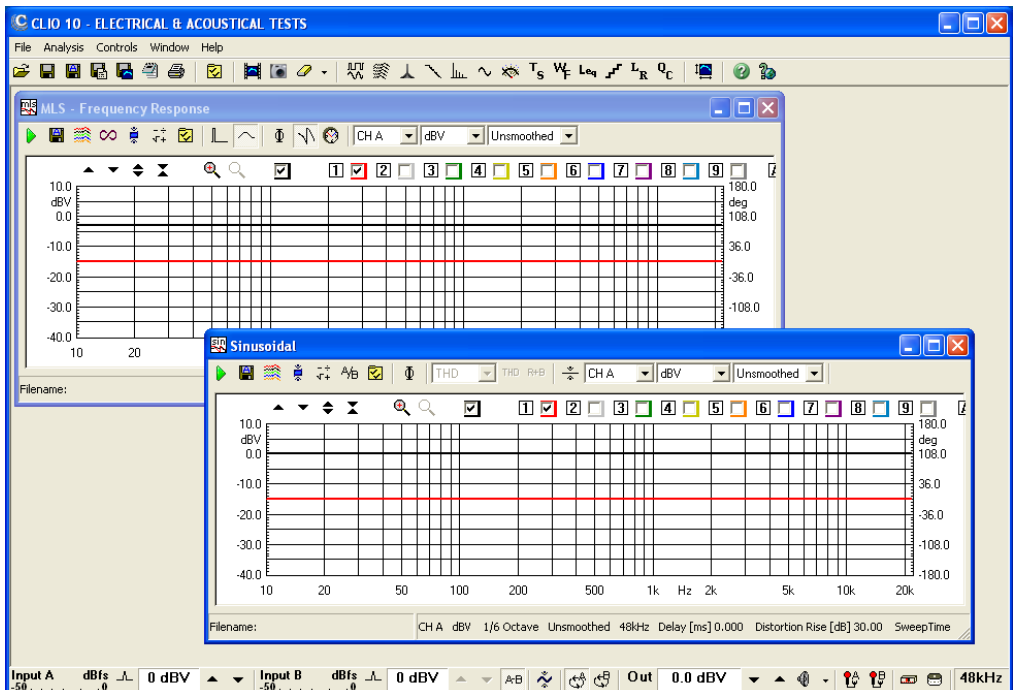








Figure 3.29

To verify the calibration first check that the generator output level is set to 0dBV (refer to 4.5.3 for details).

Press the channel A In-Out Loop button .

Then click on the MLS button  to invoke the MLS control panel. Press the Go  button to execute an MLS frequency response measurement; after about **1 second** you should obtain the desired result, a straight line (black) as in Fig.3.29. You can click on the graph and inspect the amplitude of the measured signal: you should obtain a reading around -3dBV, this is the correct output level of the MLS signal with the generator output set to 0dBV.

Now click on the Sinusoidal button  to invoke the Sinusoidal control panel as in Fig.3.29. Press the Go  button to execute a Sinusoidal frequency response measurement; after about **5 seconds** you should obtain the desired result, again a straight line (black) as in Fig.3.29. You can click on the graph and inspect the amplitude of the measured signal: you should obtain a reading around 0dBV.

To ensure a 100% correct calibration you also need to inspect the phase responses of both measurements. To do this press the phase button  and verify that you obtain a straight line (red curves in Fig.3.29) the readings in this case should be around zero degrees in both cases.

As a final test repeat the 1kHz tone test described in 3.6.1. The expected result is shown in Fig.3.30.

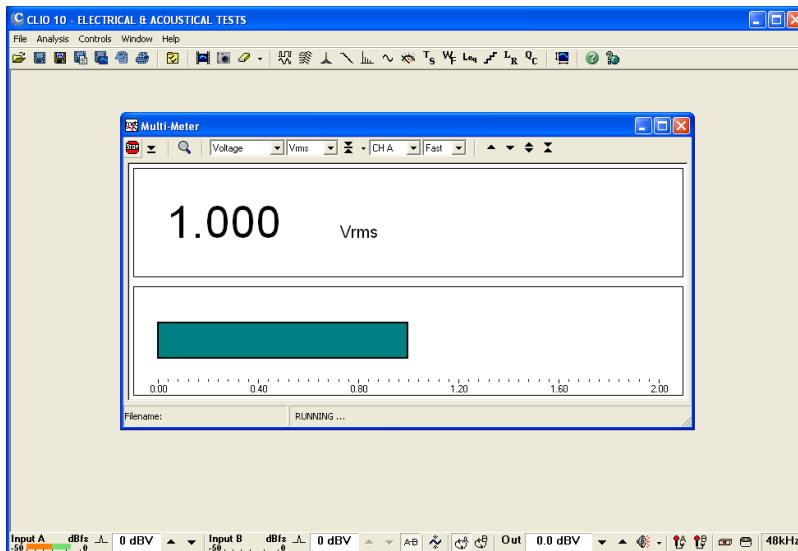


Figure 3.30

3.8 CLIO SERIAL NUMBER AND DEMO MODE

Each CLIO system has its own **serial number** which plays an important role since the CLIO software is hardware protected and relies on a correct serialization in order to run.

Refer to 3.5 to identify your system's serial number.

If the CLIO software doesn't find a CLIO Box with a correct serial number it gives a warning message and enters what is called **DEMO mode**; in this way it is possible to run CLIO in a PC where the CLIO hardware is not installed while still allowing you to perform post-processing and other off line jobs.

3.9 TROUBLESHOOTING CLIO INSTALLATION

To receive assistance please contact Audiomatica at info@audiomatica.com or connect to our website www.audiomatica.com.