

# Alpha400/200 Driver Installation ver.3.0

**NOTICE: Do not attach the Alpha400/200 amplifier to your computer until AFTER you have completed the driver installation process.**

*USB 2.0 support is required by the Alpha400/200 interface. Many systems produced prior to 2003 may require an update in their BIOS and/or hardware in order to provide USB 2.0 compatibility.*

The Alpha400/200 amplifier is a precision EEG amplifier “front-end” acquisition system used to acquire EEG signals for neurofeedback applications. The Alpha400/200 is provided with a test application that may be used to verify the proper connection and operation of the amplifier. The following instructions will guide you through the installation onto your computer of the Alpha400/200 Test program, along with the drivers necessary to support the Alpha400/200 interface.

Before proceeding with the installation please close any applications that are currently running under Windows so that you are at the Windows desktop.

From the TDS website download the appropriate driver installation package for either the Alpha400 or Alpha200 amplifier. You will be either downloading a file called Alpha400SetUp.exe or Alpha200SetUp.exe. You can save this file to any location on your computer including to the desktop or to some temporary download folder, as long as you will know where to access this file once it has been downloaded.

After the installation EXE file has been downloaded and saved to your computer, either highlight the file and right-click and select RUN, or double-click on the file to begin the installation. The installation program should then launch automatically and you will see the opening installation “Welcome” dialog. Click the “Next” button to proceed with the installation.

You will then see a series of dialogs, “Attention” message boxes, and RegSvr32 message boxes that will appear during the installation process. Continue to click either the “Next”, or the “OK” button for each of these messages to proceed with the installation.

When the installation has finished, you will see the “Setup Complete” dialog. Click the “Finish” button to complete the setup.

When you are again at the Windows desktop you may then proceed to attach the USB cable from the Alpha400/200 amplifier to an available USB input on your computer.

As soon as this cable is plugged into your computer you should observe the USB indicator light up on the Alpha400/200 amplifier. Windows will then automatically detect the attachment of the Alpha400/200 amplifier and you will see a message from Windows stating “New Hardware Found” and Windows will launch the “Found New Hardware Wizard”.

The first message from the Found New Hardware Wizard will ask if you want to:

**“Connect to Windows update to search for new software?”**

Select the **“No, not this time”** option, and then click **“Next”**.

At the next screen select the:

**“Install from a list or specific location (Advance)”** option, and then click **“Next”**.

At the next screen put a checkmark in the **“Include this location in the search”** box, and then click the **“Browse”** button.

In the **“Browse for folder”** dialog that appears, navigate to the appropriate folder for either the Alpha200 or Alpha400 amplifier:

Either `C:\Program Files\Alpha200` or `C:\Program Files\Alpha400`

With the appropriate folder highlighted, click **“OK”**, and then click **“Next”**.

You will then get a warning message informing that this software has not passed the Windows Logo testing. At this message click **“Continue Anyway”**.

There will be two drivers installed during this process. When installation of the first driver has completed, then simply repeat the process again for installation of the second driver. When the drivers have been installed, you will see the **“Completing the found new hardware wizard”** dialog. Click the **“Finish”** button to complete the installation of the Alpha400/200 drivers.

## Files and Folders

The installation process will create either an Alpha400, or Alpha200 folder under your **“Program Files”** folder on your C: drive. ( `C:\Program Files\Alpha400/200` )

The main program files for the Alpha400/200 Test program will be installed into this folder. In addition, one INF file will be copied to the Windows folder, and two SYS files will be copied to the `\Windows\System32` folder. Copies of these files are also saved in the Alpha400/200 folder in case you need to reinstall the Alpha400/200 driver at sometime in the future.

The installation program will also create an Alpha400/200 Shortcut icon on your Windows desktop. You can start up the Alpha400/200 Test program by double-clicking on this icon.

# Initial Testing

After you have completed the installation of the Alpha400/200 Test program and the Alpha400/200 Drivers, you may double-click the Alpha400/200 icon on the Windows desktop to start the Alpha400/200 Test program.

If you attempt to start the Alpha400/200 Test program, but the Alpha400/200 amplifier is not connected to the computer, you will receive the message: “USB Driver failed to open”. If you receive this message, verify that the USB cable is connected from the Alpha400/200 amplifier to the computer, and that the USB light is lit on the Alpha400/200.

The Alpha400/200 amplifier obtains all of its power for operation directly from the USB cable. The USB interface portion of the amplifier remains powered on constantly as long as the USB cable is attached. This allows the amplifier to receive commands from the computer at any time. The Alpha400/200 amplifier also features a second fully isolated internal power supply to safely operate the amplifier portion of the circuitry. This section of the Alpha400/200 amplifier may be powered ON and OFF through software commands. This design allows the Alpha400/200 amplifier to be left continuously attached to the computer for convenience and powered ON and OFF as required for use. This design reduces the power consumption from the USB when not in use and extends the operating life of the amplifier.

Before doing anything with the Alpha400/200 amplifier you need to first turn the main Power ON. Do this by clicking the POWER button on the Alpha400/200 Test program. You will observe that the button will light up when it has been clicked, and the POWER light will also light up on the Alpha400/200 Amplifier. When you turn the Alpha400/200 POWER ON you will also notice that the CALIBRATE light will light up in addition to the POWER light on the Alpha400/200.

If you now see the POWER and CALIBRATE lights are lit up on the Alpha400/200, you can then click the SCROLL button on the Alpha400/200 Test program. You will then begin to see a calibration signal scrolling across the screen in real time and you will see that the ONLINE light has lit up on the Alpha400/200 amplifier.

**CONGRATULATIONS!** Your Alpha400/200 Amplifier is now installed and operational on your computer.