AMP METER

ENV-420

USER'S MANUAL

DOC-090
Rev. 1.6

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notes

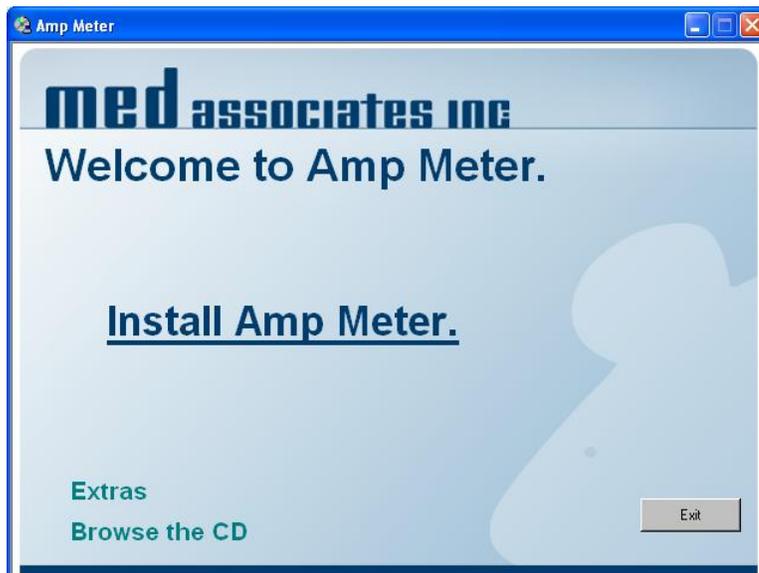## Table of Contents

CHAPTER 1 | INTRODUCTION

The ENV-420 Amp Meter is designed to be used with any MED Associates aversive stimulator. The stimulation current test module connects to any available USB port on the computer and the two clip leads connect to the grid rods. The software supplied with this unit displays the actual current waveform, as well as the RMS current corresponding to the aversive stimulator setting. Two current ranges are provided to accommodate different MED Associates' aversive stimulators.

CHAPTER 2 | DRIVER AND SOFTWARE INSTALLATION

NOTE: Do not plug in the ENV-420 or connect to the computer USB before driver installation is completed.

Insert the Amp Meter CD into the CD-ROM drive and the screen shown in Figure 2.1 will appear. Click **Install Amp Meter** and the screen shown in Figure 2.2 will appear.
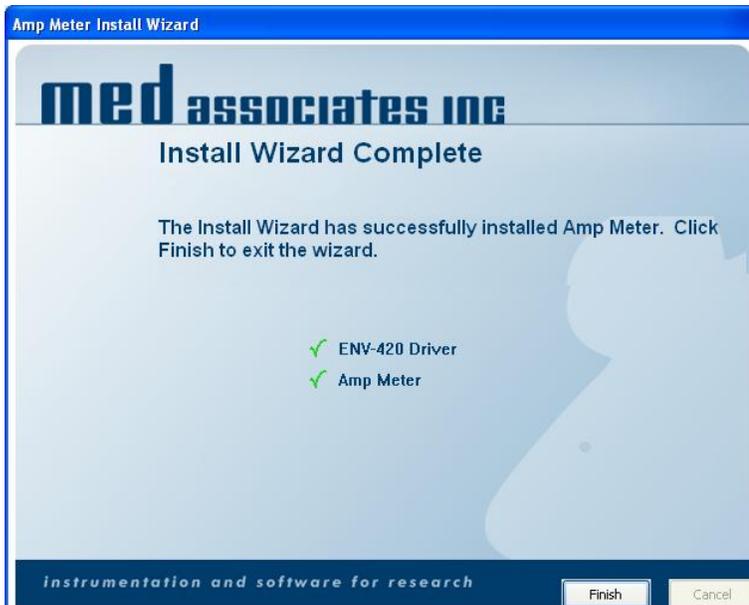
Figure 2.1 – Amp Meter Screen

Click **Install** to begin installation. A green check mark will appear next to each item on the list once it has been successfully installed. Complete the steps on each screen and once all of the drivers and software are installed the screen shown in Figure 2.3 will appear. Click **Finish** to close this screen.

Figure 2.2 – Installation Checklist

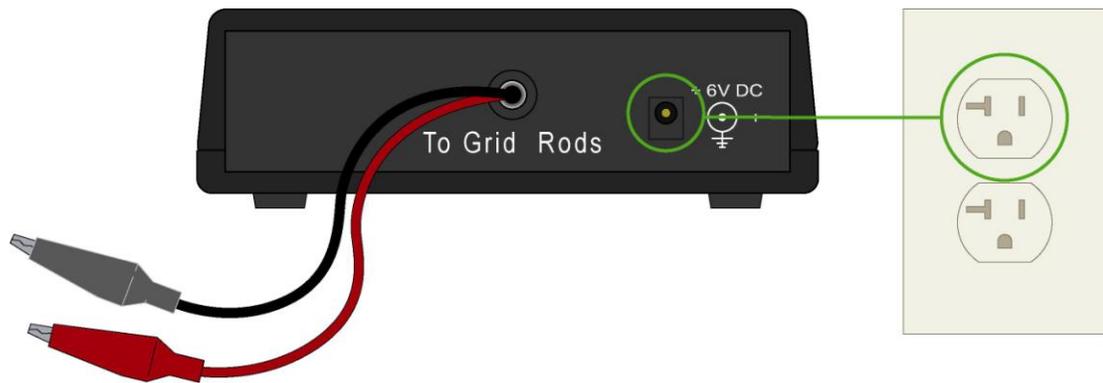*Figure 2.3 – Completed Installation Checklist*

Device Driver Installation

NOTE: The +6 VDC inverter and USB cable must be connected in that order or the computer will not recognize the ENV-420 device.
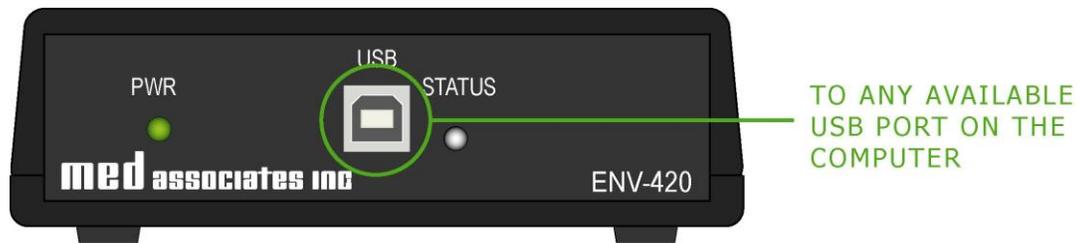
Connect the **+6 VDC** connector on the ENV-420 to a standard wall outlet using the provided +6 VDC inverter.

Figure 2.4 – Connect the ENV-520 to Standard Wall Outlet

Using the provided USB cable, connect **USB** port on the ENV-420 to any available USB port on the computer.

Figure 2.5 – Connect the USB Port on the ENV-420 to a USB Port on the Computer

Once the ENV-420 device is properly connected, the screen shown in Figure 2.6 will appear.

Figure 2.6 – Found New Hardware Wizard

Select **Install the software automatically (Recommended)** and after a few seconds, the screen shown in Figure 2.7 will appear. When the screen shown in Figure 2.7 appears, select Finish. Installation of the Generic USB Driver is now complete. This will prompt the ENV-420 driver installation to begin, as shown in Figure 2.8.

Figure 2.7 – Generic USB Board Driver Installed

Select **Install the software automatically (Recommended)** and the screen shown in Figure 2.9 will appear.

Figure 2.8 – ENV-420 Driver Installation

Select **Finish**. The ENV-420 driver installation is now completed.

Figure 2.9 - MED Resource Manager – Browse
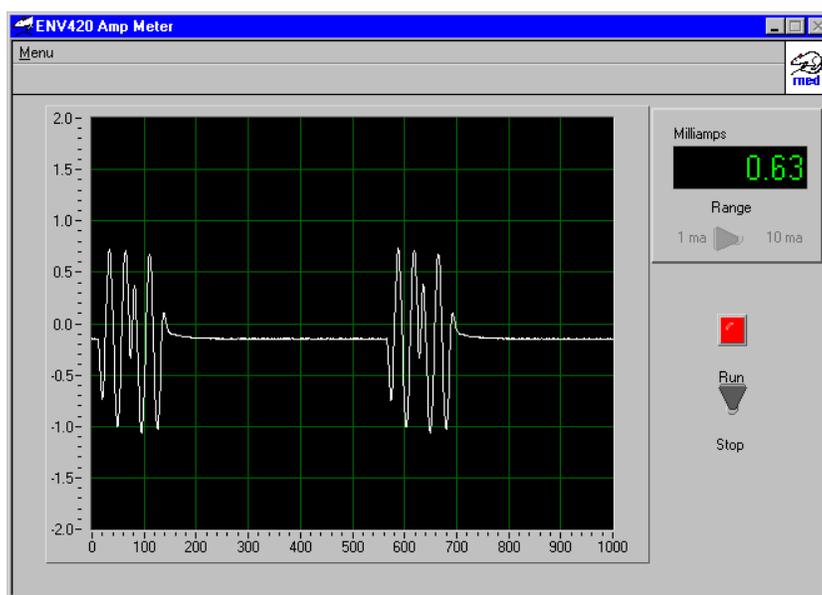
CHAPTER 3 | OPERATING INSTRUCTIONS

Start the ENV-420 Amp Meter software program by selecting **Start | Programs | Med Associates | ENV-420 Amp Meter**, or by using the desktop shortcut that was automatically created during software installation.

If either the +6 VDC inverter or the USB cable are not connected, or weren't connected in the correct order, the software will not recognize the ENV-420 device. Close the application and verify correct connections.

Also note that **the USB cable must be connected to the same USB port** on the computer that was used during driver installation. If it is not, it may be necessary to complete the driver installation again.

Once the software is opened, the screen shown in Figure 3.1 will appear.

Figure 3.1 - ENV-420 Main Window

Connect the red and black clip leads on the ENV-420 device to two separate rods on the grid floor. Select the correct amperage for the hardware (1ma or 10ma) by clicking on the **Range** arrow, which is under the Milliamps display in the upper right corner of the screen. Then change the **Run/Stop** switch to **Run**. The aversive stimulator may now be turned on. The actual current waveform will now be shown on the graph display and the digital Milliamps panel will display the RMS current corresponding to the aversive stimulator setting.

The **Menu** pulldown has two choices, **Quit** and **About**. Selecting Quit closes the Amp Meter software application. About displays the software version.

Appendix A | Contact Information

Please contact MED Associates, Inc. for information regarding any of our products.

Visit our website at www.med-associates.com for contact information.

For technical questions, email support@med-associates.com.