Digidata 1550 Low-Noise Data Acquisition System Quick Start Guide

The Digidata® 1550 Low-Noise Data Acquisition System is a high-resolution, low-noise digitizer intended for electrophysiology experiments. It is a plug-and-play device that is automatically recognized by the Windows operating system, and supported by the included software, AxoScope 10.4 (or higher), and by the optional pCLAMP Clampex 10.4 software.

Included Components

- Digidata 1550 digitizer
- Power cord
- USB 2.0 cable
- CD-ROM with AxoScope 10.4 Software for Windows
- Printed Quick Start Guide

Recommended Computer System

- PC with a 2 GHz CPU (or faster)
- Windows 7 (32-bit or 64-bit)
- 2 GB RAM (or more)
- 2 GB hard disk (or more)
- 1024 × 768 display system
- 3 High-speed built-in USB2 ports

Getting Help

User guides for the Digidata 1550 digitizer hardware and the AxoScope software can be found on the included CD-ROM and on the Molecular Devices® Support website.

Contacting Support

Check the Support section of the Molecular Devices website at www.moleculardevices.com/Support where there is a link to our on-line Knowledge Base that contains product-specific questions and answers to many common issues.
Contact Molecular Devices Technical Support at support@moldev.com or 1-800-635-5577 (US only); elsewhere, contact your local representative.

Installing AxoScope or pCLAMP Software

The following procedures install the new software and drivers parallel to previously installed hardware and software, allowing you to continue to use the earlier Digidata® 1200, 132x, or 1440A Series digitizers and earlier versions of AxoScope or pCLAMP software. However, if you no longer use older installed digitizers and corresponding software, uninstall them before you begin the following new installation procedure.

> **Note:** Before installing the software from a CD-ROM, verify on the Molecular Devices support web site that it contains the latest version. If you do not have the latest version, you can download it from the support web site at www.moleculardevices.com/support.

Install the AxoScope 10.4 or pCLAMP 10.4 software. The Digidata 1550 digitizer drivers are included in the installation. An AxoScope 10.4 software CD is included. If you have purchased the pCLAMP 10.4 software suite, install it instead of AxoScope 10.4 software.

1. Insert the AxoScope 10.4 or pCLAMP 10.4 software CD into your computer's CD-ROM drive.
2. The setup dialog is displayed automatically; if not, use Windows Explorer to open the CD directory and double-click the **AxoScope_10_4.exe** or **pCLAMP_10_4.exe** file. The installation menu appears.
3. Follow the on-screen instruction to install the software.

(pCLAMP Only) Installing the Security Key

If you install pCLAMP software, insert the provided pCLAMP 10 security key (dongle) into any USB port on your computer. The dongle must be connected to a USB port on your computer for authorized pCLAMP 10.4 software use. Dongles for any previous versions of the pCLAMP software are invalid.

Hardware Overview

The following illustrates the main sections of the digitizer that you will use.
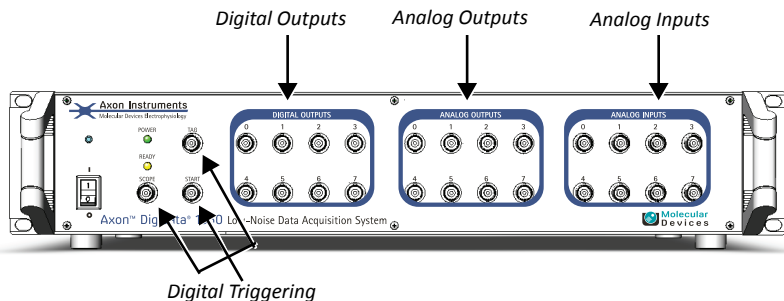

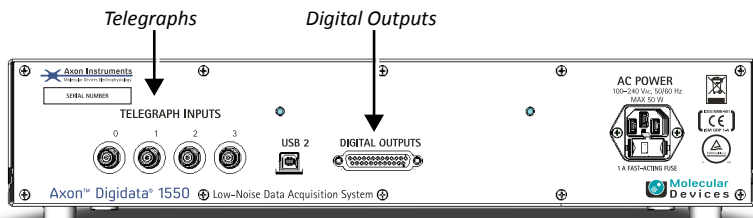**Figure 1-1:** Front panel of the Digidata 1550 digitizer.

Figure 1-2: Rear panel of the Digidata 1550 digitizer.

Installing the Digidata 1550 Digitizer

1. Connect the power cord to the wall, and then to the Digidata 1550 digitizer rear panel **AC POWER** input connector.
2. Attach the USB 2.0 cable to a **USB 2** port on your computer, and to the digitizer.
3. Switch on the power on the Digidata 1550 digitizer.

   The green **POWER** light is continuously on only when the digitizer is powered on and the USB cable is connected to the computer.

   Windows automatically finds the new hardware, and installs the drivers.
4. Let the Digidata 1550 digitizer warm up for one hour before performing experiments.
5. Configure AxoScope 10.4 or pCLAMP 10.4 software for use with the Digidata 1550 digitizer.

Configuring Software for Digidata 1550 Digitizer Use

This configuration procedure applies to AxoScope 10.4 and pCLAMP Clampex 10.4 software.

1. Run AxoScope or Clampex by double-clicking on the icon on the Windows desktop.
2. Click **Configure > Digitizer** to open the **Digitizer** dialog, then click the **Change** button.
3. Select **Digidata 1550 Series** from the **Digitizer Type** list.
4. Click the **Scan** button to detect the digitizer. The **Configuration** field shows the digitizer's serial number and firmware version, and the **OK** button enables.
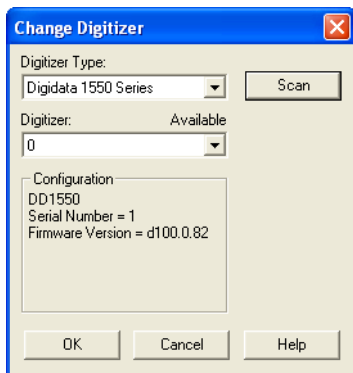

Figure 1-3: Configuration message changes after clicking Scan

5. Click **OK** to exit the dialog, then click **OK** to exit the **Digitizer** dialog.

The front panel yellow **READY** light is continuously on only when the software connects to the digitizer. After warming up, the Digidata 1550 digitizer is ready for experiments.

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