AUTOANALYSIS SYSTEM

PGA-710B

Getting Started Operations Guide

PROSTAT®

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PROSTAT® PGA-710B AUTOANALYSIS SYSTEM

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A. System Requirements

The following hardware and software is required to run the Autoanalysis Application Software.

- Microsoft® Windows® XP, Vista, Win7 32-bit, Win7 64-bit, Win8 32-bit, Win8 64-bit, Server 2003, Server 2008 or Server 2012.
- 90 MHz Intel Pentium-class processor, or an AMD Opteron, AMD Athlon64 or AMD Athlon XP Processor
- 32 MB of RAM, 96 MB Recommended
- 110 MB of hard disk space required, 40 MB additional hard disk space required for installation (150 MB total)
- 800 x 600 or higher-resolution display with 256 colors
- Microsoft® Data Access Components 2.6
- Microsoft® DirectX 9b
- Instrument input limits to ± 2 volts.

Note: Providing greater than ± 2 volts to the PGA-710B Autoanalyzer will void the warranty. For appropriate adapters or cables, please contact Prostat Corporation or your Prostat Authorized Reseller.

B. Installing the Autoanalysis Application Software

Follow these steps to install on a Windows computer.

NOTE

.NET Framework 4 is required to run the Autoanalysis Application Software. You can install the .NET Framework 4 through the Microsoft® Windows® Automatic Updates available with Windows or though the Microsoft website at www.microsoft.com

If .NET Framework 4 is not currently installed, the Autoanalysis Application Software Installation wizard will prompt you to install from the disk.

Step 1

Installing the Software

1. Insert the Autoanalysis Application CD into the computer's CD/DVD-ROM drive.
2. The installer should start automatically.
3. Follow the on-screen instructions.
4. If prompted to install the .NET Framework 4 Package, click **Yes**.

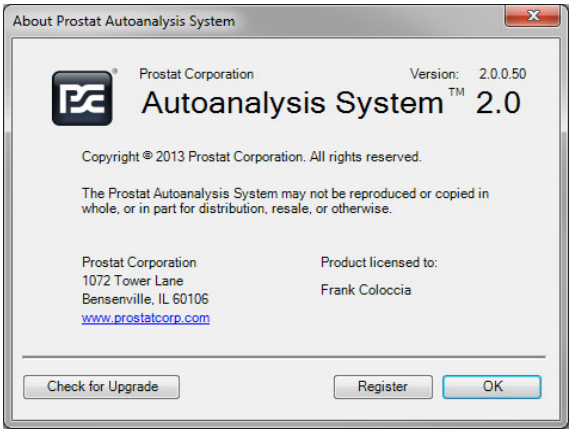
Step 2

Registering the Autoanalysis Software

To get additional support, register your copy of the Autoanalysis Application Software.

If you haven't registered your copy during the installation, do the following:

Choose **Help** > **About Prostat Autoanalysis System**... and click on the **Register** button to be taken to the electronic registration form.



C. Connecting the PGA-710B Autoanalysis System to your computer

Before you start using or connect the PGA-710B, make sure to charge its battery for at least 8 to 14 hours using the supplied AC/DC converter. Estimated operating battery life is approximately 8 to 10 hours of continuous operation without connection to USB port, or supplied battery charger. The unit charges when connected to the computer via USB.

The PGA-710B Autoanalyzer connects to an Electrostatic Field meter via its analog output lead and to a computer using a USB cable.

Step 3

Connecting the USB Cable

Before connecting the PGA-710B to your computer, you will need to install the Virtual COM Port Driver:

1. On the Autoanalysis Application CD, browse to the following directory: Drivers > x64 or x86 (depending on if your Operating System is 32 or 64-bit).
2. Run the VCP_V1.3.1_Setup.exe file.
3. Once completed, connect one end of the supplied USB cable to the PGA-710B USB port.
4. Connect the opposite end of the USB cable to your computer's USB port.

Step 4

Communicating with the computer

1. Slide the PGA-710B Main Power Switch **ON**.
2. Press and hold the System **On/Sleep** button briefly.
3. The green "**Unit On**" LED flashes slowly.
4. The "**Connect and Record**" LED will flash indicating the PGA-710B and the computer are communicating with each other.
5. The first time you connect the device, Windows will install the necessary drivers automatically.

At this point, the "**Save and Erase**" LED will be **ON** indicating the PGA-710B Autoanalyzer's battery is receiving a charging voltage from the computer's USB.

> **NOTE:** This charge is not sufficient to completely charge the battery during normal operations. See the Operations Manual for more details.

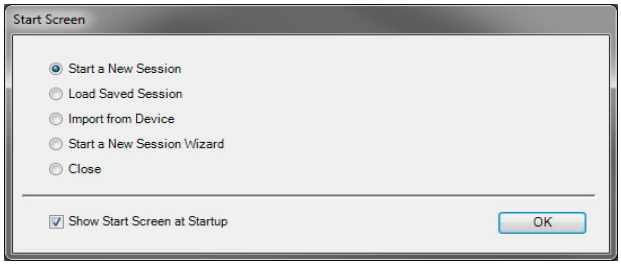
D. Adjust or Confirm the "zero" reference for the PGA-710B System

Step 5

Connecting the Analog Input

1. Insert the supplied reference shunt into the analog input of the PGA-710B.

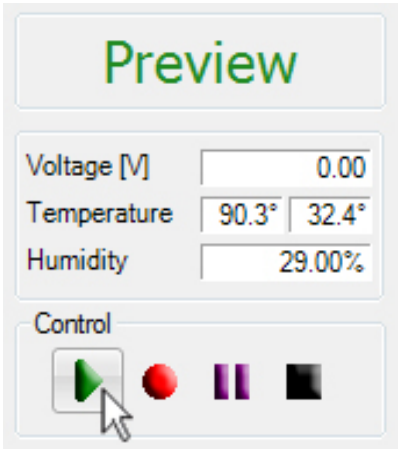
2. Launch the software. On the Start Screen, select "**Start a New Session**" and click **OK**.



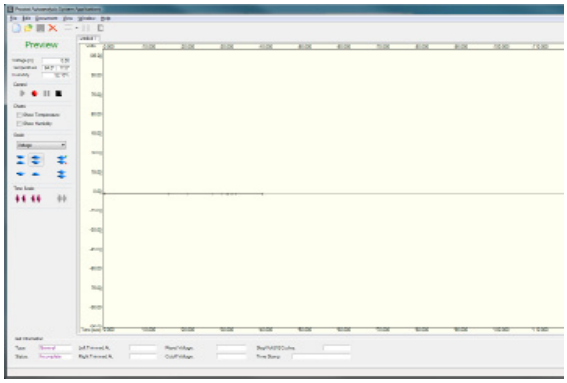
Step 6

Communicating with the computer

1. Click **Start** from the Data Recording Control (green arrow) or press **F5** on your keyboard.



The preview cursor will begin to move across the chart screen.



E. Assembling your Autoanalysis System to the Field Meter and Charge Plate Monitor

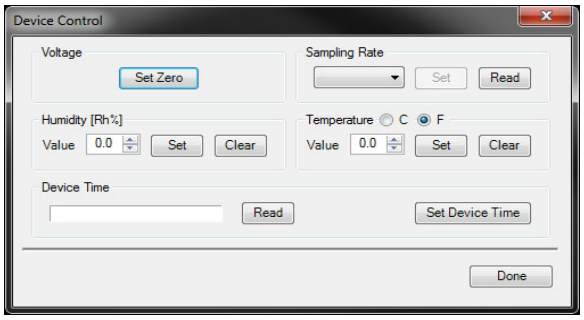
Step 7

Confirm "Zero" & "Time/Date"

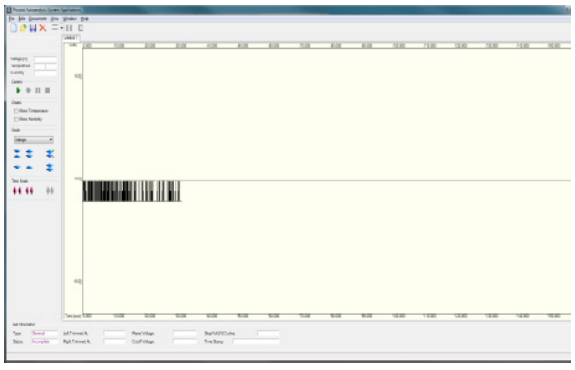
1. Insert shorting shunt into input receptacle.

2. From the **Edit Menu**, click on **Device Control**. Do the following:

   a. Click **Set Zero**
   b. Click **Set Device Time**
   c. Click **Done**



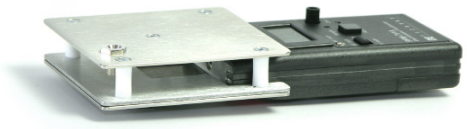
3. Confirm unit at Zero Reference:
   a. Click **Preview**
   b. Click **Voltage Auto Balance** (F11)
   c. Shows PGA-710B Zero Reference



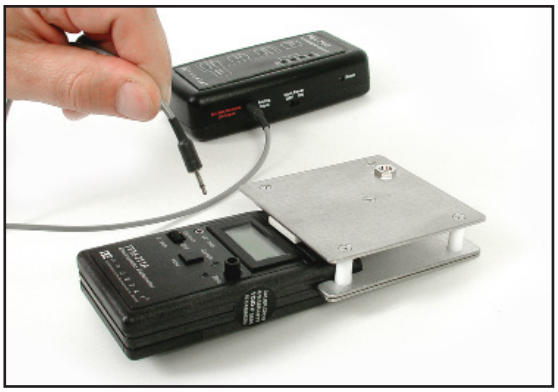
Step 8

Connecting the Field Meter

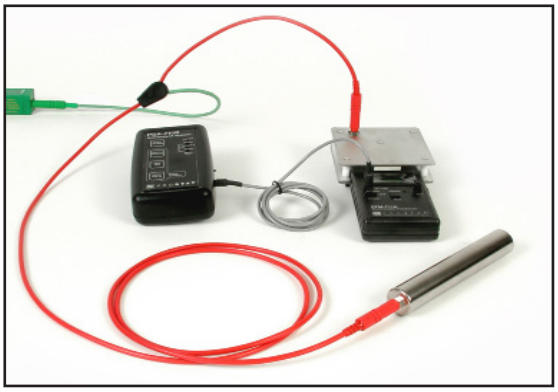
1. Assemble your professional Prostat PFM-711A Field Meter and the CPM-720A Charge Plate Monitor. Attach the Field Meter to a tested earth ground.



2. Connect the PFM-711A to the PGA-710B using the provided analog cable.



3. For body voltage measurement, connect a sensing lead to the Charge Plate and the other end to a Hand Held Metal Wand.



APPLICATION

The PGA-710B records and converts analog input from a field meter instrument to digital data, then transmits that data to your computer via USB, or stores it for future use. Anything your field meter measures will be transmitted via the analog cable to the PGA-710B, then to the computer where the dynamic measurements are displayed on the screen.

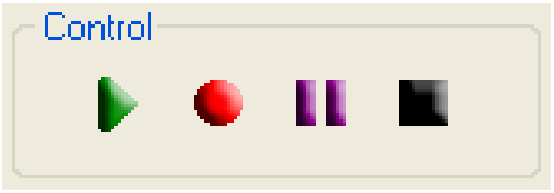
F. Capture and Analyze Data

Step 9

Preview & Record Data

1. With the subject temporarily grounded, turn on and zero your field meter.

2. Remove the subject from ground, press Green arrow **Preview** (F5) to confirm signal being transmitted. Press Red ball **Record** (F6) when ready to record data.

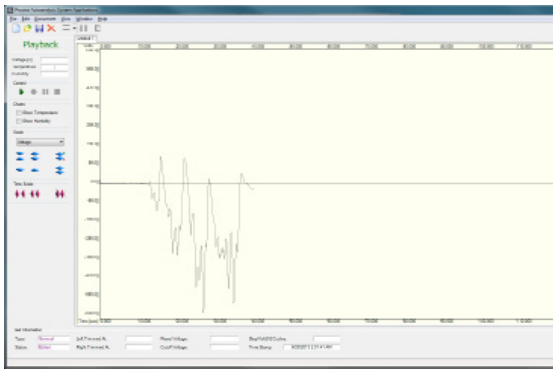


3. Once test is completed, press Black box Stop (F8) to stop recording.

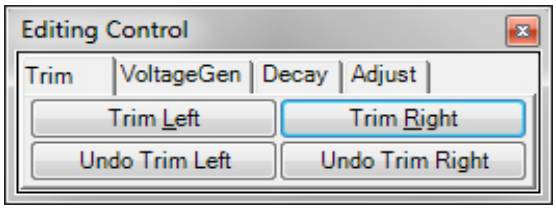
Step 10

Trimming the Data

1. Assume the following data was recorded while sitting on a chair and then standing .



2. To analyze the data, select **Edit > Trimming.** This opens the **Editing Control Panel**. Use **Trim Left** and **Trim Right** to eliminate data not to be included in the analysis.

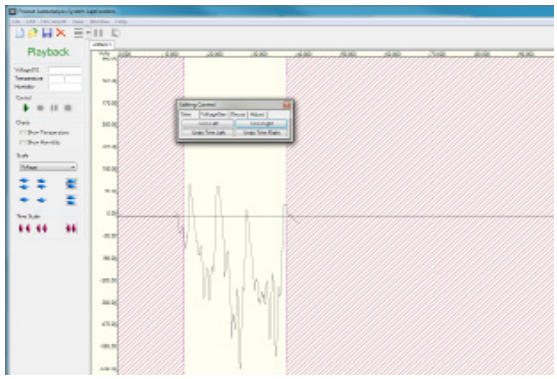


NOTE: For details on how to test and analyze Footwear/Flooring combination, refer to the provided "**How To Test**" manual.

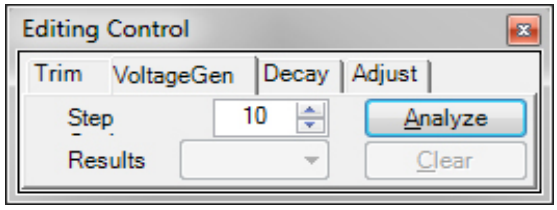
Step 11

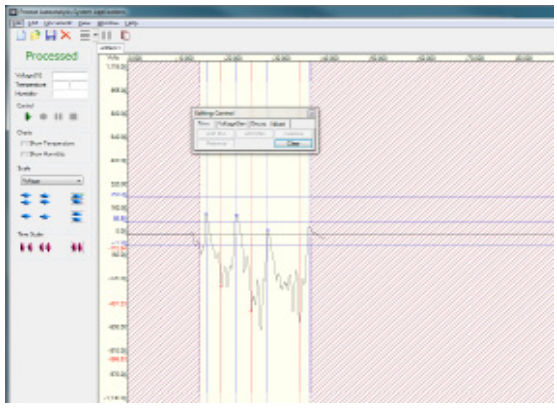
Voltage Generation

1. Trimmed portions of the chart are eliminated from the analysis



2. Estimate the number of peaks in test, enter it in **Step Cycle** window and click **Analyze**.

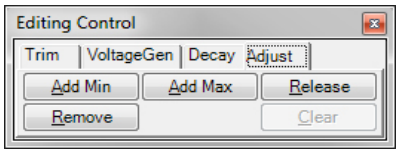




Step 12

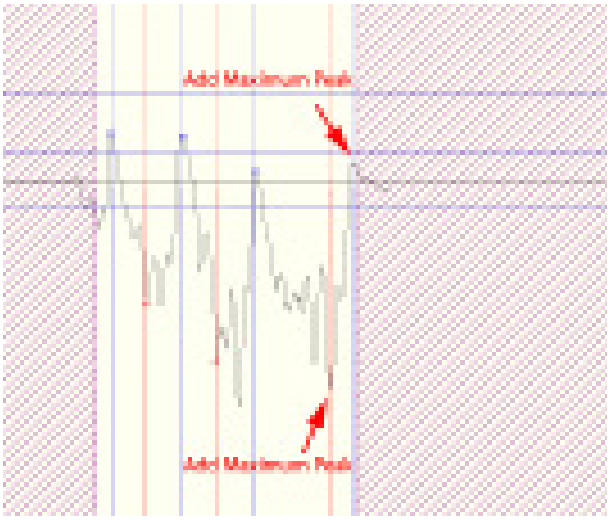
Add Minimum or Maximum Data Peaks

1. Click the **Adjust** button. This allows addition or removal of minimum or maximum peaks from the analysis.



2. To add a Minimum peak, click **Add Min** and drag to a low peak on the chart then left-click your mouse. To add a Maximum, repeat the process after clicking **Add Max**.

3. Click **Release** to automatically calculate the **Standard Deviation** and **Average** for the Minimum and Maximum data sets. Displayed are 3 lines for the Minimum and Maximum data. The center line is the **Average** of the data. The upper line is the **Average + 3x Std Dev.** of the data, and the lower line represents the data's **Average – 3x Std Dev.**



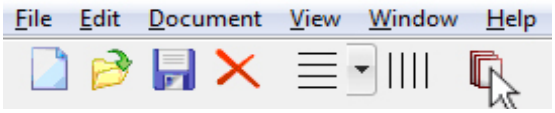
G. Generating a Detailed Report

TIP:
There should be an equal number of alternating minimum and maximum peaks.
±3 Sigma in Step 12 must be completed before generating a report (Step 13).

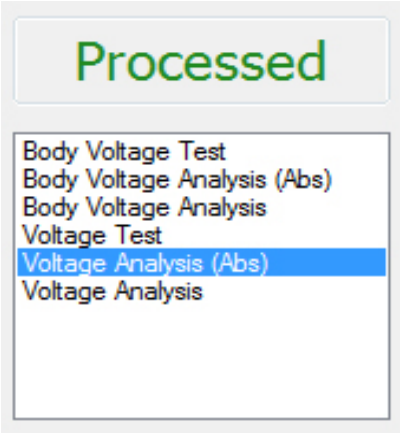
Step 13

Generating a Report

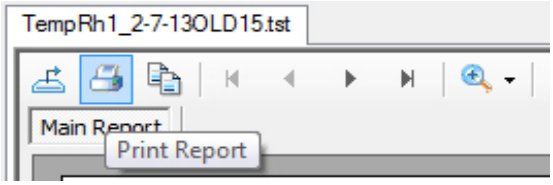
1. To generate a report, you can either click the **Report View** icon or click **Document > Report View**.



2. Select which report you wish to view from the Report Selection window. (e.g. **Voltage Analysis (Abs)**)



3. To print the report, simply click the printer icon. You can also export reports into a .doc, .rtf, .xls or .pdf files.

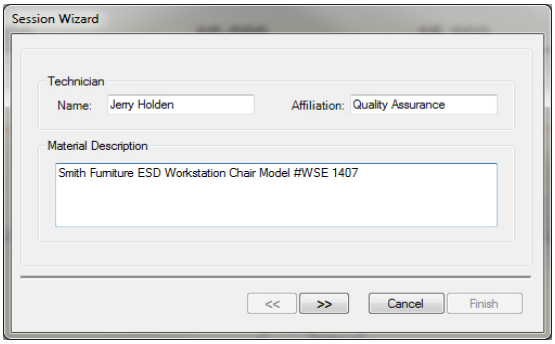


Step 14

Entering Information on Report

1. You can provide detailed information concerning the test and report using the **Session Wizard** and **Remarks features**.

2. Select **File** > **Session Wizard** to enter the information.



3. Session Wizard entries appear in Reports

4. Adding Remarks to report:

   a. Click **Document** drop down menu
   b. Select **Remarks**
   c. Enter Remarks and click **OK**

Remarks are automatically entered and the report is updated.

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