

Using
DataView[®]
With Power Meters

PowerPad[®] Model 3945
PowerPad[®] Model 8335
PowerPad[®] Jr. Model 8230
Power Quality Meter Model 8220



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DATAVIEW® SOFTWARE SETUP

1. Introduction

The DataView graphing and analysis program is a full function Windows® based application software package.

It includes two separate modules:

The first module is the instrument control panel.

It provides you the ability to configure and run any test or recording from the computer as you can from the instrument itself.

Additionally, it enhances the information captured for snapshots as it captures all the information to display and report waveforms, trends and harmonic spectrums of the data captured.

The second module is a report and graphic software.

DataView includes several pre-defined templates for reporting and printing reports, as well as the ability for you to totally customize the reports to meet your exact needs.

This chapter will give you the information you need to know to use this program. More extensive information on specific functions available in DataView is available in the online help system included with the software.

DataView software supplied with the PowerPad or Power Meter, provides four main functions:

1. The ability to configure the PowerPad from the computer.
 2. The ability to initiate a recording test from the computer.
 3. The ability to store test results and print out reports of any test.
 4. The ability to view and store real-time data.
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2. Features

DataView software has a simple, easy-to-use interface for configuring and running tests with PowerPad, as well as printing reports of the test results. There are many features that are available through this program. A few of the most popular are listed below.

Key Features:

- Configures and displays all functions of the instrument
- Runs tests from your computer with a simple click and execute process
- Views and captures data in real time
- Retrieves data from the instrument's memory
- Plots graphs of recorded information that has been downloaded
- Presents reports, including your analysis in the comments section
- Stores a library of setups for different applications
- Provides consistency in testing, regardless of who performs the test

NOTE: For help on software instructions, use DataView's "Help" Menu, which is located on the menu bar and right click help.

3. Getting Started

DataView is supplied on CD-ROM. The CD is simple to use and will self-install, prompting you along the way for any information that is needed. Simply insert the CD in your CD-ROM drive and follow the on-screen instructions.

Dataview is also available for download at www.aemc.com

If you already have Dataview installed on your computer, select the update option from the main menu and the updated version will be displayed for download without need of a password.

Note: Do not connect any serial or USB cable before installing the DataView software.

4. Minimum Computer Requirements

- Windows® 98/2000/ME/XP/Vista
- 512MB of RAM (1GB or more recommended)
- 200MB of hard disk space (1GB recommended, 8GB for the Model 8335)
- Internet (for Updates)
- CD-ROM drive:

5. Installation Tips

- If there is a previous version of DataView installed, it is recommended to uninstall it before installing a new version. (This applies to older versions with no internet update options)
- When installing DataView, the user will have the option to select which instrument control panels, drivers and software to install. It is recommended that the user only select the instruments they plan on using as selecting other units will allow the installation of unnecessary software.

6. DataView Folder Arrangement

When DataView is installed it will set up a database of folders in your "My Documents" folder ("Documents" on Vista) where it will store all the information and files pertinent to using DataView, not including program files. When you open your "My Documents" folder you will see a folder named "DataView" where the files are contained. Inside the "DataView" folder are 6 folders that will be discussed below, inside these folders will be folders where the documents pertaining to each PowerPad model are saved, these are labeled "PowerPad", "PowerPad II" and "PowerPad Jr". The 6 directories are as follows:

- **Config:** This folder contains all the saved instrument configuration files with the extension .dvc.
- **DataFiles:** This folder stores all the raw .dvb files used in the creation of DataView Reports. These files can be used to recreate a DataView report if the report is lost. This folder contains all the .bmp images from downloaded photographs. These files can not be altered.
- **Download:** This folder contains the .icp data files from all PowerPad downloads along with saved real-time data. These files can be opened and viewed in the PowerPad control panel which can then transfer the data to DataView reports or spreadsheets.
- **Layouts:** This file contains the .dvl files that determine the layout of the control panel window when a PowerPad is connected.
- **Reports:** This folder contains all the saved DataView reports as .dvw that can be viewed at any time in DataView.
- **Templates:** This folder contains the default and user created templates, stored as .dvt files, which determines how data is inserted and arranged when creating DataView reports.

7. How do I Connect to the PowerPad?

The **Model 8335** is supplied with a USB cable equipped with a type B connector at one end and a type A connector at the other end that is required to connect the instrument to the computer.

The **Models, 8230 and 8220** are supplied with an optically isolated USB interface cable required for connecting the instrument to the computer. The cable for Models 8220 and 8230 (Cat. #2135.41) is equipped with a USB connector on one end, and an optical connector on the other end.

To connect these three models to your computer:

1. Connect one end of the cable to the port on the side panel of the meter
2. Connect the USB connector end of the cable, to an available USB port on your computer.

The **Model 3945** is supplied with an optically isolated serial interface cable required for connecting the instrument to the computer. This cable (Cat. #2140.18) is equipped with a 9-pin connector on one end, and an optical connector on the other end.

To connect the Model 3945 to your computer:

1. Connect the optical connector end of the cable to the serial port on the side panel of the Model 3945 PowerPad.
2. Connect the 9-pin connector end of the cable, to an available serial port on your computer. If your computer does not have a serial port, you can obtain a serial port to USB converter from many computer stores.

You are now ready to use the DataView[®] software with the PowerPad.

8. Using DataView[®]

Once the cable between the computer and the PowerPad has been connected, turn on the PowerPad first and then start DataView. For the PowerPad to be able to communicate with the computer it must be turned on at all times when using DataView.

There are two ways to open and use DataView:

Using the PowerPad Icon (Panel control)

- Double-click the **PowerPad Icon** that was created during installation, located on the desktop.
- DataView will open the **Power Analyzer Control Panel** and automatically connect the PowerPad if it is turned on and has been previously connected. Otherwise the **Connection** window will appear (Figure 3).
- **Note:** Model 3945 will always have to be manually connected.

Using the DataView Icon

- Double-click the DataView Icon that was created during installation, located on the desktop.
- DataView will open and display the **DataView Quick Start** window (Figure 1).
- Click the **Configure Instrument** button and the **Select Instrument** window will appear. (Figure2)
- From the **Select Instrument** window select the **Power Analyzer** option and click **OK**. (Figure2)
- DataView will open the **Power Analyzer Control Panel** and automatically connect the PowerPad if it is turned on and has been previously connected. Otherwise the **Connection** window will appear (Figure 3).
- **Note:** Model 3945 will always have to be manually connected.

TIP: Right-Clicking on any field in a dialog box will open a help box with detailed descriptions and instructions for that specific function.

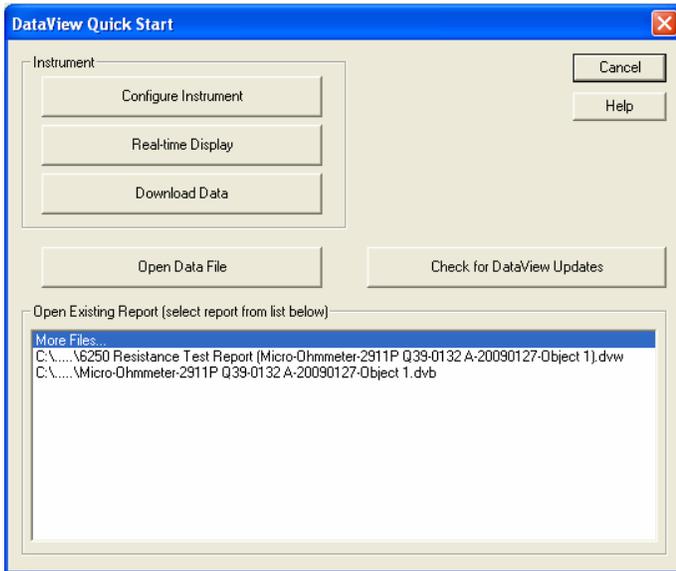


Figure 1

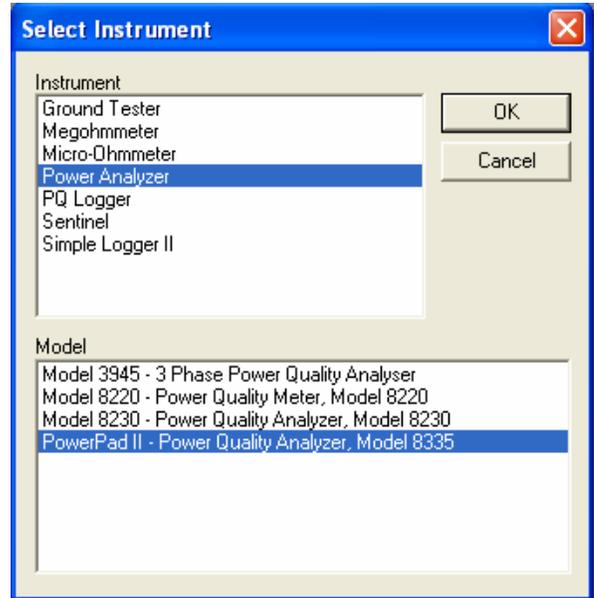


Figure 2

The Quick Start Dialog Box contains the following options:

- **Configure Instrument:** Opens an instrument specific control panel which displays a Configure Instrument dialog box. This dialog box allows you to modify the configuration of the PowerPad.
- **Real-time Display:** Opens an instrument control panel providing real-time display of measurement data.
- **Download Data:** Opens an instrument control panel and begins the download of recorded data.
- **Open Data File:** Displays the Create View from Template dialog box allowing you to open an existing database using a user customized or predefined template.
- **Check for DataView Updates:** Will check the AEMC website to see if there are newer versions of DataView to download.
- If the above menu is not visible, select “**Control Panel**” from the “**Instrument**” menu.

9. Configuring the DataView Connection

Model 8220, 8230 and 8335

1. If the instrument does not connect automatically when the **Power Analyzer Control Panel** opens the **Connection** window will open automatically. If the window does not appear or the instrument becomes disconnected at some point then click the **Connect** button on the toolbar, or click the **Connect** option from the Instrument menu of the Control Panel.

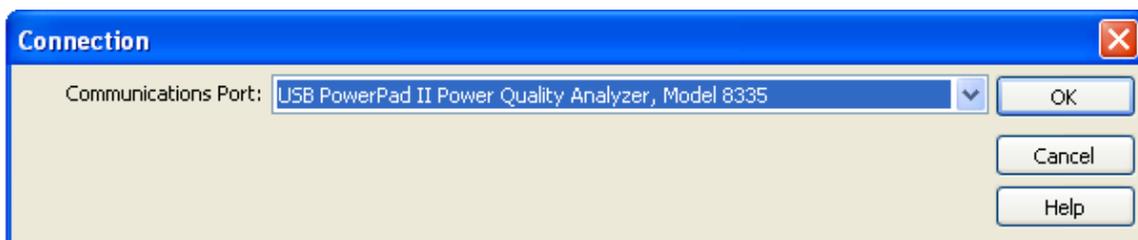


Figure 3

- The **Connection** dialog box will appear allowing you to select the **USB PowerPad II** cable for communicating with the meter. Make sure that the description displayed in the dialog box matches meter you plugged the USB cable into. If the correct port is not selected, click on the drop-down menu to select it.

The cable is labeled **Metrix USB to Optical Serial Cable** for models 8220 and 8330.

- The Baud Rate will be automatically selected to the highest baud rate possible for the instrument.

When a communication link is established, DataView® will automatically identify the instrument that it is connected to.

Model 3945

To configure the instrument, perform the following steps.

- Click the **Configure Instrument** button from within DataView or click the **Configure** option from the Instrument menu of the Control Panel. If no connection was previously established, the Communication dialog box will appear allowing you to select the Communications Rate (baud rate) and Port (serial port) for communicating with the PowerPad.

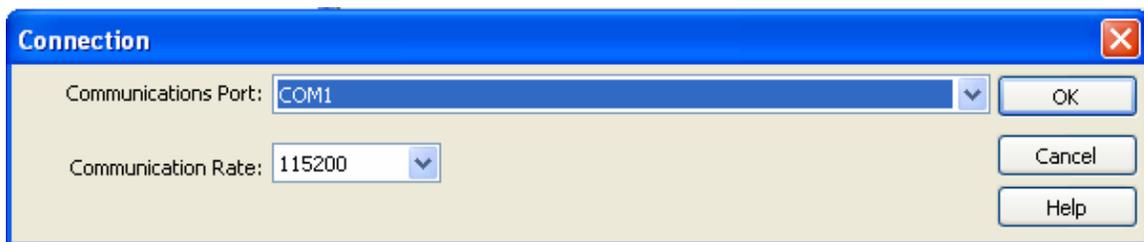


Figure 4

- Make sure that the serial port displayed in the dialog box matches the port you plugged the serial cable into. If the correct serial port is not selected, click on the drop-down menu to select it.
- The Baud Rate needs to be set at the same rate as the Model 3945. You may select the baud rate, if necessary, from the drop-down menu in the Baud Rate window and selecting from the available values.
- To check the baud rate on the instrument:
 - Turn ON the Model 3945 by pressing the green button
 - Press the menu button
 - Scroll down with the down arrow button, until you reach **“BAUD RATE”**
 - Press the enter button and read the baud rate
 - Set to read 115200
- Once the proper communication parameters have been specified, click on OK.

NOTE: The instrument must be configured for the same communications rate specified in Figure 2. If it is not, then you must either select the corresponding rate or change the instrument's rate.

10. Power Analyzer Control Panel

After DataView connects to the PowerPad, the main control panel screen will appear showing the status and current readings of the PowerPad.

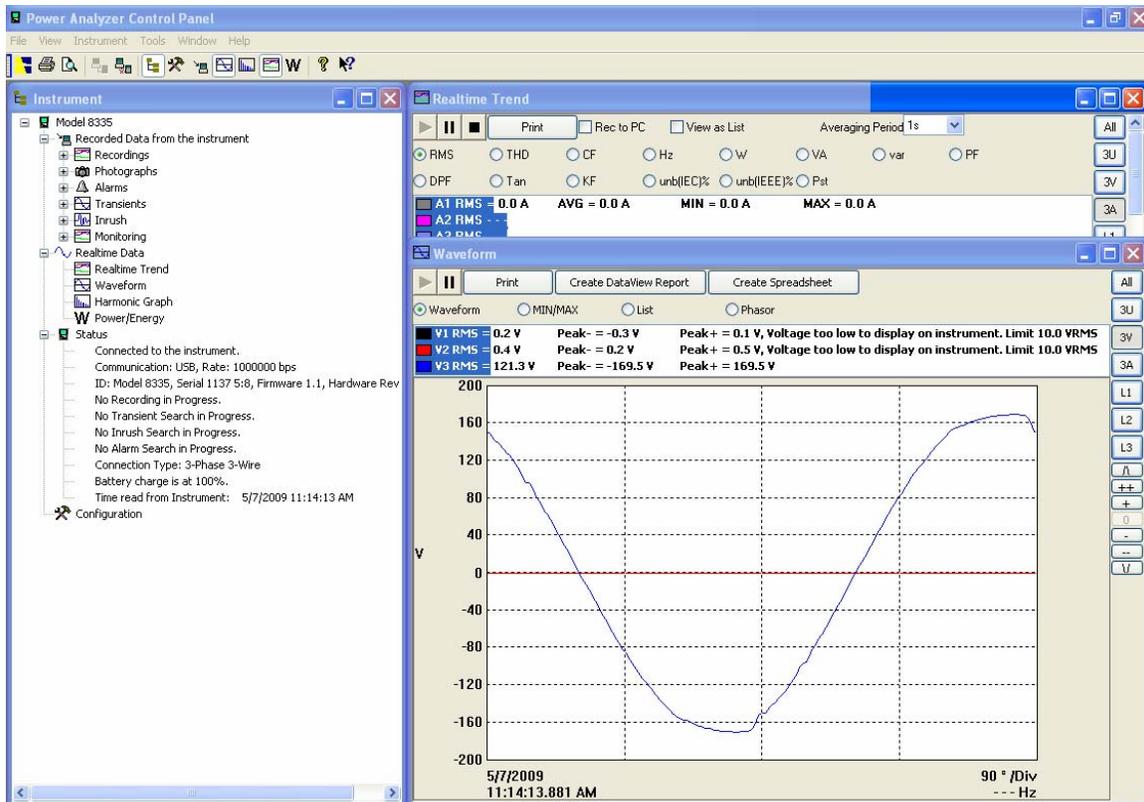


Figure 5

This screen shows:

- The status of PowerPad
- If DataView is connected to the PowerPad
- The communications form and speed of the connection
- The model number, serial number, firmware version, and hardware version
- The battery charge level, whether the battery is charging or discharging, and the time on the clock
- If a recording or search is in progress and when it is scheduled to end
- If a recording or search is in progress or is scheduled and when it is scheduled to begin
- The testing connection type
- Real-time waveforms and trend information from the PowerPad
- The time and date of the PowerPad internal clock
- Available Recorded Data types
- Available Realtime Data types

If the indicated items are not shown on the screen, select **Restore Default Layout** from the Window menu. If you create a screen layout you like it is possible to save the layout so the next time you start the PowerPad program you'll see the same arrangement of windows. To save and load layouts use the, “**Load Layout**” and “**Save Layout**” options from the Window menu.

NOTE: If the battery charge is shown to be unknown, plug the PowerPad into AC Power, when it reaches 100% charge, the display should show the battery charge. See the battery section in the PowerPad user manual.