PowerScout 3 Plus/PowerScout 24

ViewPoint / Firmware Update Procedure for Serial PowerScout Instruments

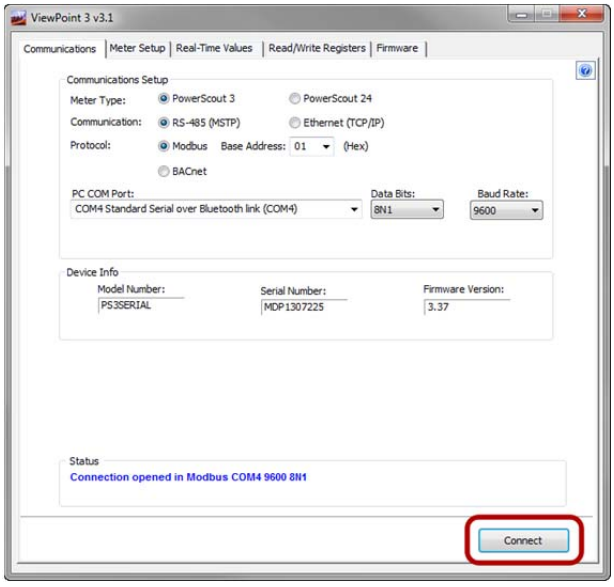
Information in this document is relevant for **PowerScout 3 Plus** and **PowerScout 24** instruments running **ViewPoint 3.0 or later only**. For instructions/information with prior generation instruments, please refer to the DENT website or contact Tech Support at: techhelp@dentinstruments.com or 800.388.0770.

PowerScout firmware updates are available from DENT Instruments and are typically contained in a zip file that can be downloaded, unzipped, and installed using ViewPoint software. **NOTE: *The update procedure requires ViewPoint 3 or later.***

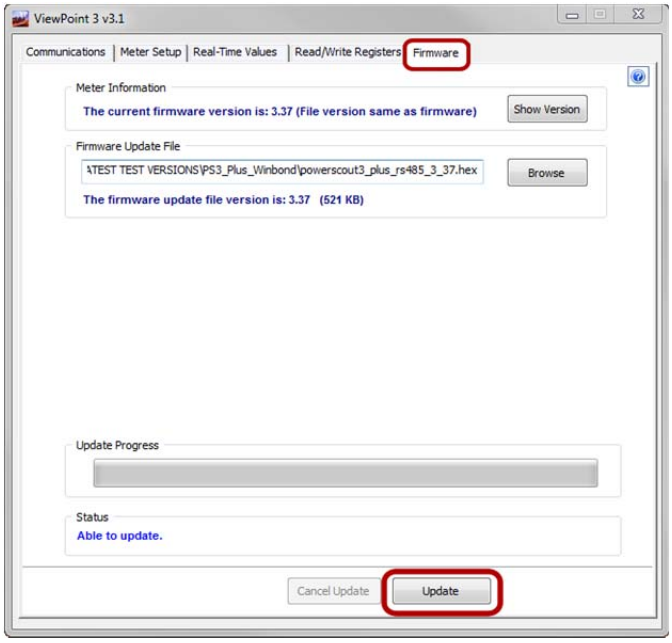
***NOTE**: The PowerScout must be in Modbus mode before firmware can be updated.*

Downloading and Installing Firmware

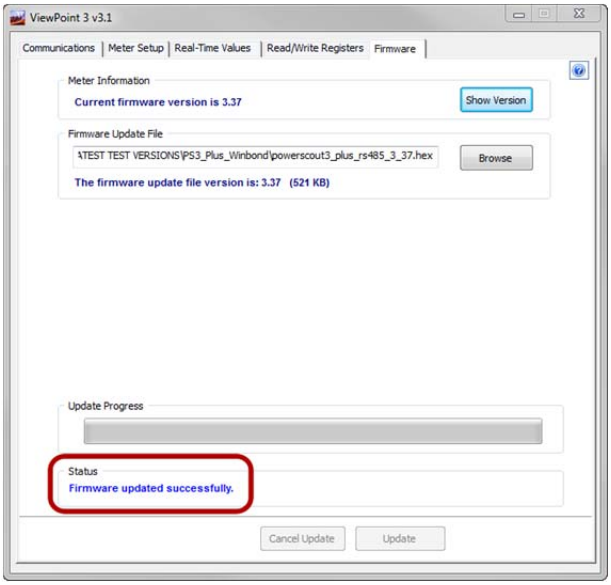
1. Download the zip file containing the firmware. Extract the zip file to a folder on the computer.
2. Connect the computer to the PowerScout instrument. If connectivity fails with the 9600 baud rate, refer to the Troubleshooting section at the end of this appendix.
3. Select the baud rate for loading the firmware to the PowerScout. A baud rate of 9600 downloads the firmware to the PowerScout in approximately 6 minutes. A faster baud rate can be selected to reduce the time by approximately 2.5 minutes. Change the baud rate using the **Communications** tab. Select the desired baud rate from the dropdown box. Selecting a new baud rate synchronizes the PowerScout and ViewPoint when a connection is active.



4. Select the **Firmware** tab in ViewPoint. Click **Browse** to locate the extracted firmware files. Click **Update** to start the firmware update. A progress bar will be displayed.



5. Once ViewPoint has copied the firmware file to the PowerScout, the instrument will update, and re-start. ***Do NOT interrupt power to the PowerScout during this time.*** Doing so can cause the PowerScout to lock up.



6. When the update is finished, ViewPoint displays a message confirming a successful update.

7. If the baud rate was changed for the firmware update, restore the baud rate to its original setting.

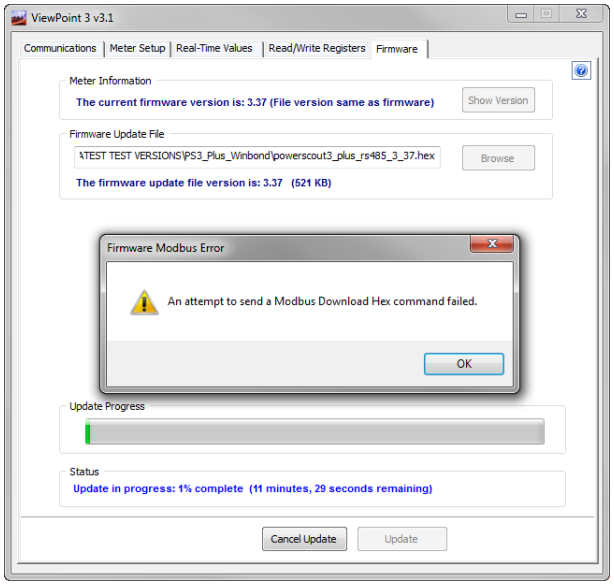
Troubleshooting Communication Issues

Please see the following tips pertaining to communication errors.

Baud Rate Communications Error

When the baud rate on the ViewPoint **Communications** tab and the PowerScout do not match, communication fails. To correct a baud rate communications error, use the following steps:

1. In ViewPoint, set the **Modbus Base Address Switches** field to 00.
2. On the PowerScout, set all Modbus address switches to 0.
3. Press the **Connect** button in ViewPoint. With both settings at 00, ViewPoint and the PowerScout will communicate at 9600 baud rate regardless of a baud rate mismatch. Communications is established.
4. Next, in ViewPoint, select the same baud rate that the PowerScout is set to.
5. Click **Connect** to reconfirm communications.

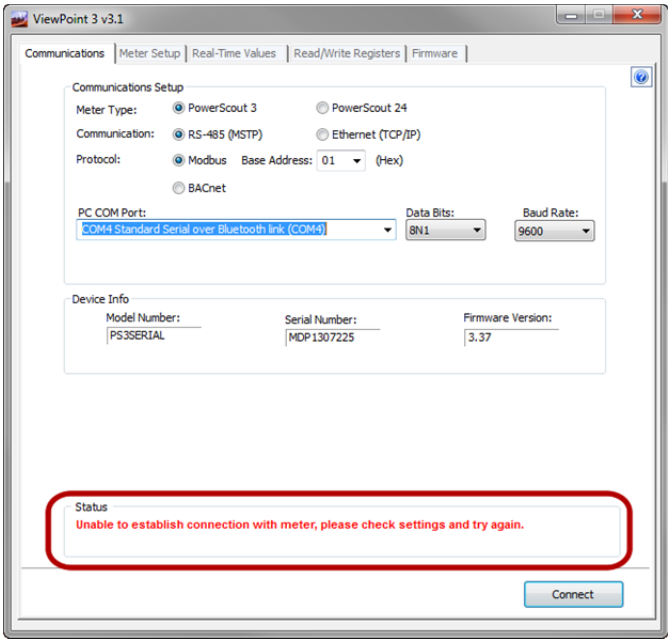


Port Error

If the PC COM Port drop down menu does not contain an RS-485 port, the RS-485 adapter driver is not installed or the device is not connected to the computer's USB port. Check that the adapter is connected to a functioning USB port or move the USB cable to another USB port.

Firmware Update Fails During Transfer

If the firmware update fails, select a slower baud rate and retry the update. If you continue to have issues with the update, please contact Technical Support for assistance.



Other Communication Failures

The following items can also cause a communication failure:

- Check for wiring issues with the RS-485 adapter and the PowerScout. Check for polarity, frayed wires, and/or pinched insulation.
- Verify that the DIP switches on the back of the USB to RS-485 adapter are set to the following (see picture below). Then reboot the computer. Click Connect on the Communications tab in ViewPoint to reestablish communications.