

Power Pole

Version 2.0

Operation Manual

Each Power Pole contains a non-replaceable lithium-ion battery and care should be taken to prevent excessive heat to prevent damage from battery.

Take care when inserting the Micro USB cable into Power Pole connector to prevent breaking the connector or Power Pole device.

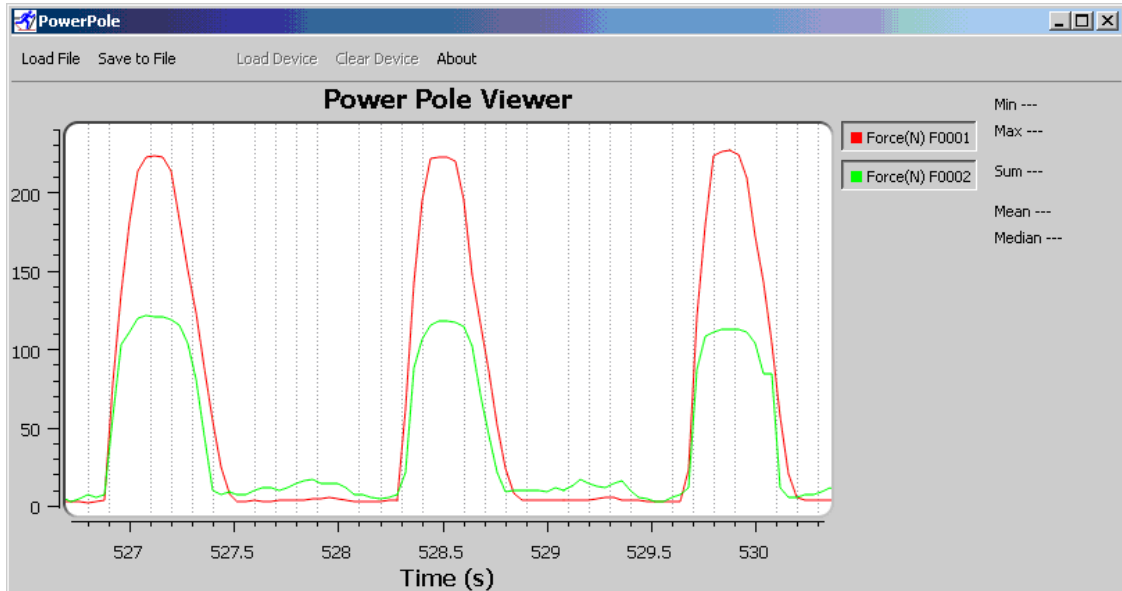
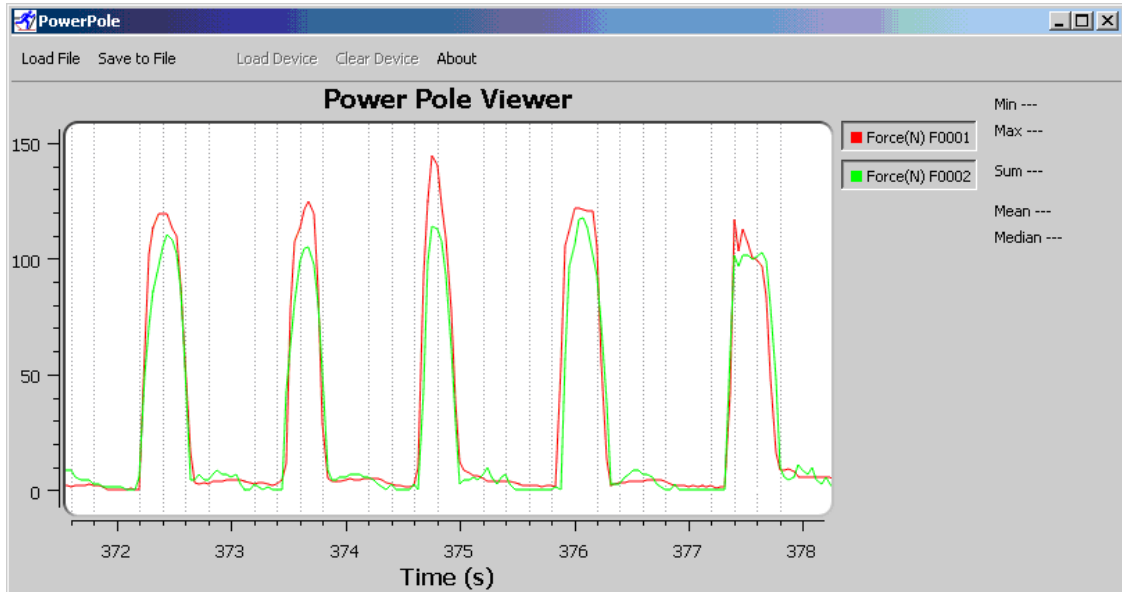
Company cannot be held responsible for damage, negligence, injuries or liability for using such product. Use at your own risk.

Power Pole

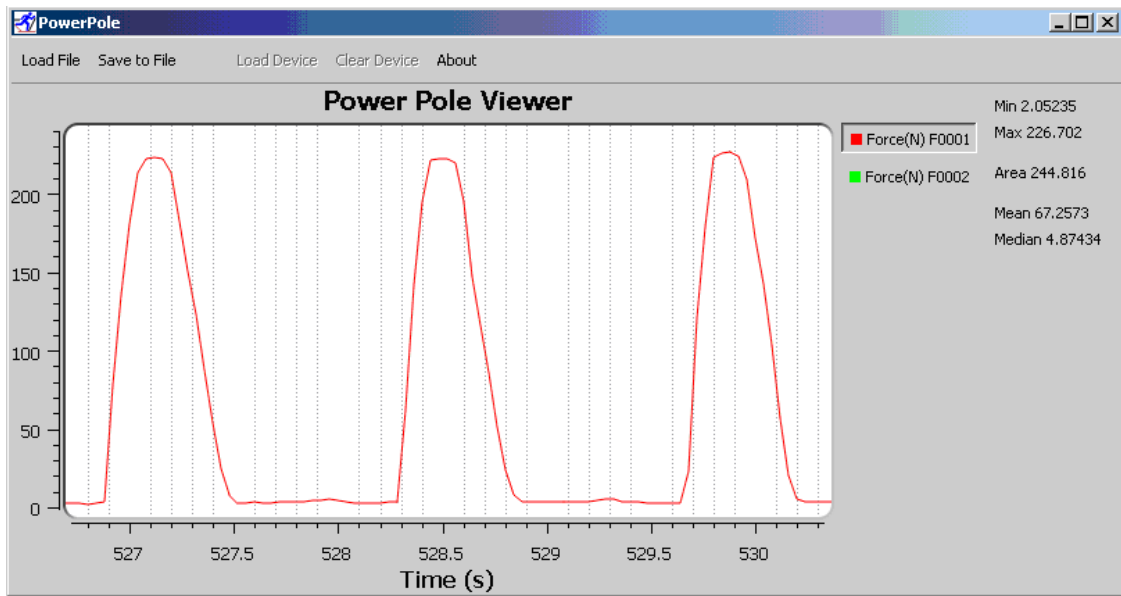
The Power Pole is designed to work with Windows XP or Windows 7.

Power Pole Viewer

The Power Pole Viewer can be run by running the Power Pole application found in the Start Menu.



The waveform field shows all waveforms selected in the Legend. When only one waveform is selected, the metrics field on the far right will display information for the points within the plot time window.



Please check the website for updates to the Power Pole Viewer at www.protoeng.com/powerpole.

Specifications

Description	Approximate Value
PC Connection	micro USB
Charge Time	~2 hours
Data Memory	60 minutes
Standby Battery Time	3 months
Data Points Frequency	25 Hz (25 points per second)
Recommended range between Primary and Secondary Power Pole	0 to 3 meters

The device has three primary modes, ON, OFF and Charging.

INSTALLATION

The Installation Media comes with the Power Pole Viewer and the Power Pole USB driver. Install the Power Pole Viewer by running setup.exe from the Installation Media. Next connect a Power Pole to the PC and when prompted for a driver, point the device installer to the Installation Media.

Next , install the Power Pole driver by performing the following steps:

1. Go into device manager.
2. Find the failed device.
3. Go into its properties.
4. Click Driver tab.
5. Click Update Driver.
6. Browse my computer.
7. Let me pick from a list of device drivers on my computer.
8. Uncheck the Show Compatible hardware.
9. Click have disk button.
10. Find the Power Pole installation folder chosen during installation (Typically:
C:\Program Files\Power Pole)
11. Click on powerpole.inf

After installation, the Power Pole Viewer can be run through the Start menu.

STORAGE

1. It is strongly recommended to charge the device at least every month in order to help prevent the battery from degrading.

PREPARING FOR USE

1. Ensure the device is OFF, and charge the device by connecting a MicroUSB cable between the Power Pole and a powered USB port or USB Wall Transformer. The green indicator will stay on until the battery is fully charged ~2 hours.
2. With the Primary Power Pole OFF, connect the this device to the computer, wait 10 seconds, then open the Power Pole Viewer. Click the “Clear Device” to empty the memory. (All previous data in the device will be erased)
3. Close the Power Pole Viewer and then disconnect the device from the computer.

USING THE POWER POLE

1. Turn ON the Primary Power Pole by flipping the switch from OFF to ON. After a few seconds the green indicator should flash once per second, and when receiving data from the Secondary Power Pole, it should flash twice per second.
2. Turn on the Secondary Power Pole sensor. After a few seconds the green indicator on the Secondary Power Pole sensor should flash once per second and the Primary Power Pole sensor will update to flashing to twice per second.
3. When the Primary Power Pole stops flashing, either the recording memory is full or the battery has been depleted.
4. Turn OFF the Power Poles when taking breaks.

CONNECTING TO PC

1. Leave the device in OFF mode

2. Connect **ONLY** the Primary Power Pole into the PC USB port.
NOTE: The Power Pole Viewer will not work with the Secondary Power Pole connected to the PC USB port.
3. Wait 10 seconds or more for Windows to configure the device driver.
4. Open the Power Pole Viewer and click the “Load Device” Tool Option.
5. Wait until the download is complete and the waveform will display on the plot.

USING THE POWER POLE VIEWER

1. ZOOM IN: Left Mouse Press and Hold and move mouse to make a box to zoom into the selected box in the plot
2. PAN: Middle Mouse Press and Hold allows panning around the waveform.
3. ZOOM OUT: Right Click zooms out to previous zoom level.
4. Saving the file will save the file in a format that can be opened by Power Pole Viewer at a later time or used in MS Excel or OpenOffice Spreadsheet.
5. In order to view metrics, only one waveform can be visible. Click any Legend Key to choose which waveforms to show and hide.
6. If the “Load Device” and “Clear Device” buttons are disabled, this means the device is not attached or not responding when opening the Power Pole Viewer. Close the Viewer, connect the Primary Power Pole, wait 10 seconds and reopen the Power Pole Viewer.

INSERTING MARKERS

Each time the device is turned OFF and then back ON, the device will insert a marker in the data. The marker will display as an extreme high to extreme low point in the Power Pole Viewer.

TROUBLESHOOTING GUIDE

Problem	Cause	Resolution
When PowerPole is ON, the illumination light does not flash	The battery may be low	Charge the battery using a MicroUSB cable to either a PC or 5V USB Charger.
	The Primary stops flashing when memory is full.	Select “Clear Device” in Power Pole Viewer
The Power Pole Viewer has the Load Device and Clear Device options unselectable	The Primary needs to be connected to the PC prior to opening Power Pole Viewer	Close the Power Pole Viewer, connect the Primary to the PC and reopen Power Pole Viewer

	The Secondary Power Pole is attached. The Secondary does not store data and doesn't work with Power Pole Viewer	Disconnect the Secondary Power Pole and attach the Primary prior to opening the Power Pole Viewer
	Multiple Power Poles are attached to the PC	To use the Power Pole Viewer, only have the Primary Power Pole attached.
	The driver is not installed for the Power Pole Viewer	Install the Logger Power Pole software and device driver from the CD
The Power Pole Viewer stops responding when "Load Device" is pressed	The Power Pole Viewer is busy retrieving data.	Wait until the "Load Device" action is complete prior to making any new actions in the Power Pole Viewer.
	The Power Pole Viewer is having issues communicating to the Power Pole.	Disconnect the Power Pole, close the Power Pole Viewer, and perform the steps in Retrieving the Data section. Attempt to perform a Clear Device to reset the device memory.
The Power Pole Viewer does not show any data after doing a Load Device	The Power Pole Viewer has no data.	Log 10 or more seconds of data and try again.
The Power Pole cycles between flashing a sequence to off for 5 seconds before repeating again.	The Power Pole has an internal error. This is flashing an error code.	The Power Pole has internal damage and will no longer function properly.