

USB Driver:

In order for Windows to recognize the Quad Cell Viewer the USB driver must first be installed, after which the Quad Cell Viewer appears as an additional COM port on the computer. Currently Windows XP, Vista, and 7, 8, and 10 are supported.

1. Copy the file “cdc_NTXPV764.inf” from the supplied CD to the hard drive.
2. Plug the unit into a free USB port. When the hardware installation wizard asks for the driver location, browse to the “cdc_NTXPVista.inf” file on the hard drive.
3. After the driver has been installed right click “my computer” and select “properties”. In the properties window select the “hardware” tab. Click on “device manager” and expand the “Ports (COM & LPT)” item. Locate the “Spectronix, Inc.” entry and note the assigned COM number, (ie “COM4”). This is the COM port that the software will use to communicate with the Quad Cell Viewer.

Note, on some operating systems such as Window 7, manual USB driver installation may be necessary. If the hardware installation wizard fails, go to “My Computer” > “Properties” > “Hardware” > “Device Manager”, and find the “Spectronix” or “SERIAL DEMO” entry under “Other Devices” and select “Update Driver”. At this point you will be able to browse to the location of the driver.

USB Commands:

The Quad Cell Viewer uses ASCII data to communicate with a host computer; the tables below list the individual commands, parameters, and responses from the Quad Cell Viewer.

Notes:

1. All communication is initiated by the host.
2. Commands are not case sensitive.
3. A space or equal sign should be inserted between the command and any parameters.
4. All commands should be terminated with a <CR> <LF>.
5. Text inside brackets (<>) are binary and those not in brackets are ASCII.

| Get Unit Information and driver status | |
|----------------------------------------|-----------------------|
| Command: | Example / Parameters: |
| “?” | (none) |
| Response: | Example / Parameters: |
| Start of message | <0x00> |
| Command echo | ?, |
| Unit name | 100502A, |
| Firmware Rev | 000.000, |
| Termination | CR / LF <0xFF> |
| Notes: | |

| Set Gain | |
|------------------|-------------------------------|
| Command: | Example / Parameters: |
| "SetGain" | (1) (0=1x, 1=2x, 2=4x) |
| Response: | Example / Parameters: |
| (none) | |
| Notes: | |

| Read the current measurements | |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command: | Example / Parameters: |
| "Read" | (none) |
| Response: | Example / Parameters: |
| Start of message | <0x00> |
| Command echo | Meas, |
| Gain Setting | 1, (0,1,2) |
| Q1positon | 0512, (0 to 1023) |
| Q2positon | 0215, (0 to 1023) |
| Q3positon | 0512, (0 to 1023) |
| Q4positon | 0512, (0 to 1023) |
| Q1angle | 1023, (0 to 1023) |
| Q2angle | 1023, (0 to 1023) |
| Q3angle | 0051, (0 to 1023) |
| Q4angle | 0009, (0 to 1023) |
| Termination | CR / LF <0xFF> |
| Notes: | <p><i>In terms of x,y coordinates, quadrants are: Q1(+,+), Q2(-,+), Q3(-,-), Q4(+,-).</i></p> <p><i>Quadrant values greater than 1023 are used to indicate to the software that the channel is not supported by the hardware.</i></p> |