

## SPECTRA**DAQ-200**

### Using the data acquisition module as a standalone sound card from other applications

#### Download and install the latest drivers from

[www.spectraplus.com/Downloads.htm](http://www.spectraplus.com/Downloads.htm)

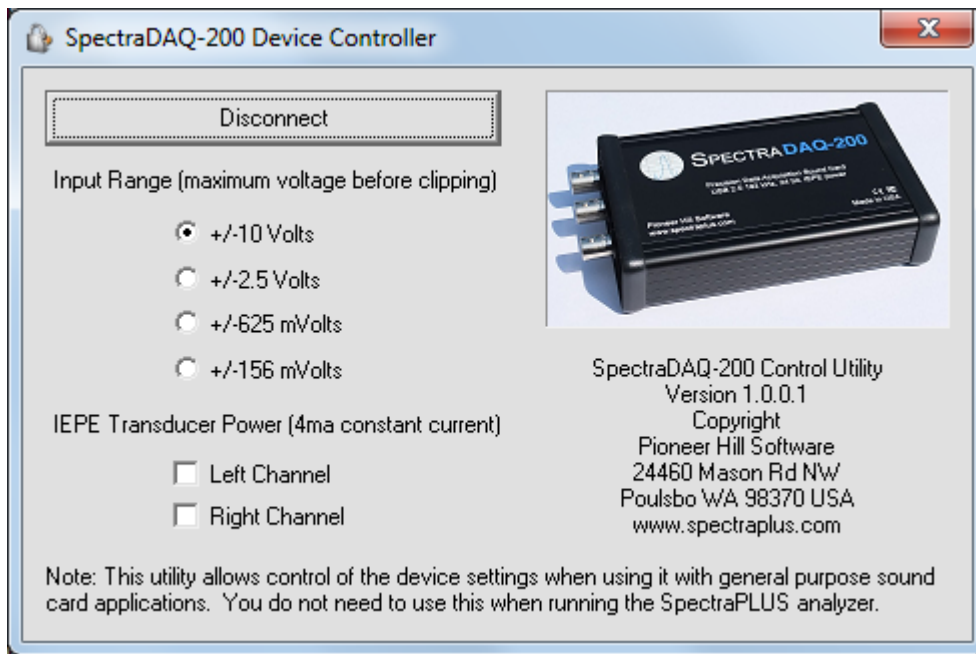
#### Procedure:

- 1) Run the driver setup utility
- 2) Follow the steps as directed by the driver installation utility. The sound card name shown in the windows device manager is “Danville Signal UAC2”. Select this device in your external application software.

#### Download the standalone device controller utility

[www.spectraplus.com/Downloads/SpectraDAQStandaloneDeviceController.zip](http://www.spectraplus.com/Downloads/SpectraDAQStandaloneDeviceController.zip)

- 1) Unzip the files to your hard drive and create a shortcut icon
- 2) Run the controller utility “DAQDeviceControl.exe”



#### Input voltage range

This controls the input gain of the DAQ – the setting applies to both input channels. You have the following choices:

- +/-10 Volts (17 dBVrms)
- +/-2.5 Volts (5 dBVrms)
- +/-625 mVolts (53 dBmVrms)
- +/-156 mVolts (41 dBmVrms)

The input range is the maximum signal level that can be measured without overloading (clipping) the A/D converters. An oscilloscope probe can be used for measurements greater than 10 volts.

When the input range set to 156 mVolts, the minimum signal level that can be measured is approximately 1 microvolt. This means that the overall measurement range of the DAQ is over 130 dB.

The maximum output voltage of the DAQ is 10 Volts (7.07 Vrms). This cannot be changed.

### **IEPE power**

Measurement microphones, accelerometers and other transducers require power to operate. An industry standard has been developed called IEPE\* which provides 24 Volts DC at 4ma constant current on the center pin of the BNC input connector. This simplifies the wiring and eliminates the need for an external power supply and associated cabling.

To enable IEPE power simply check the selection box.

\*IEPE stands for Integrated Electronic Piezoelectric. It is also known as ICP (a trademark owned by PCB Electronics) or CCP (Constant Current Power).

### **Sampling Rates**

The SpectraDAQ-200 supports the following sampling rates:

48000, 96000, 192000

Both 16 and 24 bit sampling are supported – use 24 bit for best performance.

### **Front Panel Connectors**

BNC Input L – Left analog input channel

BNC Input R – Right analog input channel

BNC Output – Left analog output channel

### **Rear Panel Connectors**

3.5mm stereo jack – Left and Right analog output channels

USB – connection to computer (use the USB 3.0 cable supplied with the device)

Digital I/O In – RJ45 jack with input control lines

Digital I/O Out – RJ45 jack with output control lines

RJ45 connector pinouts (colors based on standard internet cable)

- 1 In/Out 0+ Orange/White
- 2 In/Out 0- Orange
- 3 In/Out 1+ Green/White
- 4 In/Out 2+ Blue
- 5 In/Out 2- Blue/White
- 6 In/Out 1- Green
- 7 +5V Brown/White
- 8 GND Brown

The Digital I/O lines are used with the SpectraPLUS-SC COM API automation interface for process control applications.

For technical questions or problems, please contact:

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