

## Signal Ground (SGND) vs. Analog Ground (AGND)

Both SGND and AGND are tied directly to PC common. Unless you have a high current return connected to one of the grounds on the board, it does not matter which ground your signals are connected to; they can be connected to either SGND or AGND.

If you have a high current line, it should be connected to AGND, and SGND should be kept as a low-current line and used solely for ground of analog input signals. For example, if you are using the +15V power on the DaqBoard to power an amplifier, you should tie the power return from this to AGND and all analog input signals should be grounded to SGND, not AGND.

The reason for this distinction is to prevent high current on the ground for your analog input signals from introducing error into the voltage measurements. Since SGND and AGND have different paths to PC common, current on the AGND line will have little or no effect on the SGND line, and the accuracy of measurements of the analog inputs signals grounded to SGND will not be affected.

Measurement Computing Data Acquisition Knowledgebase  
<https://kb.mccdaq.com/KnowledgebaseArticle50009.aspx>