

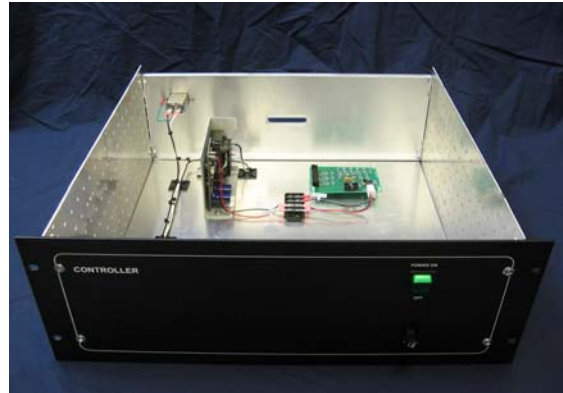
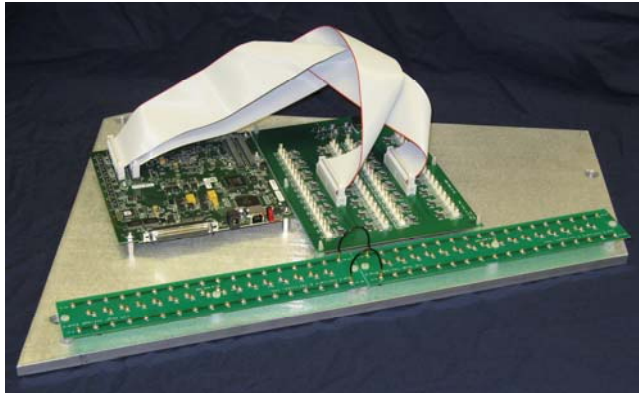
Phoenix AES Electronics Upgrade

If you can answer yes to any of the following:

- Are you worried about obsolete parts in your electronics system?
- Is your software operating system still supported?
- Can you afford serious down time on the spectrometer?
- Is your computer system obsolete?
- Is the original OES instrument manufacturer still in business?
- Is a replacement OES instrument too expensive?
- Have repair frequencies and costs been rising?

Then you should consider upgrading you old OES electronics to the new Phoenix OES Electronics. Phoenix is a complete solid state, ultra low noise, optically isolated, state of the art electronics, specifically designed for OES systems. Completely replaces all J-A electronics.

In addition to electronics upgrades, we also offer the SS4 series of solid state sources that directly replace the obsolete vacuum tube powered sources such as the Jarrell Ash ECWS, ECS and VTEC.



When coupled with the Ward Instrument Control Software (WICS), the world's leading OES software designed by users for users, Phoenix offers a complete upgrade to your old spectrometer adding features not found even in brand new instruments. Phoenix and WICS can interface into any PC with a USB2 port operating under most Microsoft Windows™ software including *Vista*, *XP*, *NT* and *2000*.

WICS is a user friendly menu driven, fully interactive software system that also contains easy to remember shortcuts for the common normal instrument functions. The software also configures itself based upon the requirements or expertise level of the user. The software can readily be reconfigured by the user for most applications and keeps historical records for ISO compliance.

Specifications

Phoenix OES Electronics

Number of analytical channels:	56 including reference and internal standards
Number of diagnostics channels:	8 including high voltage (if available in OES)
A/D Conversion:	64 channels of 16 bit
A/D Calibration:	Automatic
Input Ranges:	10V, 5V, 2V, 1V – software selectable per channel
Signal to Noise Distortion:	72 dB typical, 1 kHz fundamental
Crosstalk:	-75 dB typical
Input Impedance:	10M, matches photomultiplier output
Sample Throughput:	Up to 1 MHz
Non Linearity:	±2 LSB maximum
Accuracy:	<0.04% of reading (1 year)
OES Source Control:	Through fiber optic cables
Wavelength Scanner:	16 bit control (if available in OES)

WICS Software

Analytical Programs:	> 1000
Calibration Standards:	> 1000
Type Standardization:	> 100 per analytical program
Curve Fit:	Automated or manual from 6 equations
Interference correction:	Automatic up to 16 per channel
Sample Names:	Up to 16 of 31 characters each
Context Sensitive Help:	Manual integrated into software
Reports:	Tabular, Certificate of Analysis, Graphical
Exports:	CSV file to Excel, Access, Quattro, Paradox, etc.
Customized Software:	Available upon request
Logs:	Printer log keep on disk in case of lost reports.
Diagnostics:	Electronics stability, time distillation, profile