



# Wavelength Calibration Standards: UV-VIS



The HG-1.



The CAL-2000.

## Wavelength Calibration Sources

The HG-1 and CAL-2000 Mercury Argon Calibration Sources are spectral wavelength calibration sources for spectrometer systems. The HG-1 and the CAL-2000 produce low-pressure mercury and argon atomic emission lines from 253-1700 nm for use in performing fast, reliable spectrometer wavelength calibrations. A list of mercury and argon spectral emission lines is printed on each lamp's housing.

## Drift Occurs in all Spectrometers

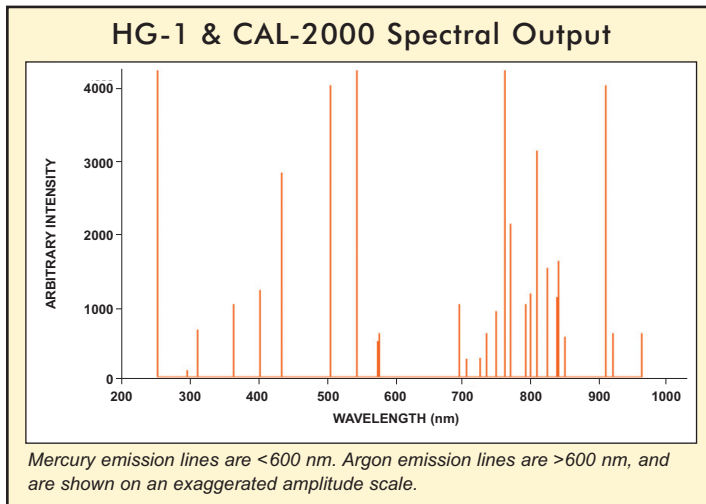
Our spectrometers are carefully calibrated as part of our standard quality assurance process. However, as is the case with all optical benches, slight drifts in wavelength occur due to time and environmental conditions. If wavelength accuracy is an important part of your application, consider including calibration spectra with every experiment.

## Convenient Operation

Wavelength calibration with the HG-1 or the CAL-2000 requires a power supply (included) and an optical fiber to connect from the source to your spectrometer. You will need a spreadsheet program such as Microsoft Excel or a calculator that performs third-order polynomial regressions.

## Convenient Portability

Both calibration sources operate with a 12 VDC power supply (included) or a 9V battery (not included) for field use. Both sources feature an SMA 905 Connector for interfacing to optical fiber assemblies and have bulbs with a 3,500-hour lifetime. You can replace the bulb in the CAL-2000, but not in the HG-1.



For as low as \$250 per spectrometer channel, you can purchase the ASP Annual Service Package, which entitles you to a yearly spectrometer inspection, wavelength calibration, optical alignment, linearity calibration, signal-to-noise analysis and much more.

## Specifications

	HG-1	CAL-2000
Dimensions:	125.7 mm x 70 mm x 25.8 mm	130 mm x 125 mm x 50 mm
Weight:	40 g	410 g
Wavelength range*:	253-1700 nm	253-1700 nm
Power consumption:	250 mA @ 12 VDC	250 mA @ 12 VDC
Power requirements:	12 VDC wall transformer (included) or 9 VDC battery (not included)	12 VDC wall transformer (included) or 9 VDC battery (not included)
Voltage:	600 volts at 30 kHz	600 volts at 30 kHz
Bulb life:	~3,500 hours (at 20 mA)	~3,500 hours (at 20 mA)
Time to stable output:	1 minute	1 minute
Connector:	SMA 905	SMA 905

\* For performing wavelength calibrations for spectrometers in the VIS-NIR, consider using the AR-1 Argon Calibration Source on page 135.

