

**PRE-INSTALLATION REQUIREMENTS:**

205, 210VGP, or 211 Atomic Absorption Spectrometer

**FLAME AAS****ENVIRONMENT:**

The instrument will occupy approximately 3' X 5' lab bench area and requires 110V 50/60Hz or 230V 50/60Hz, 15 Amp power source within six feet of AAS. Recommended temperature & humidity are from 50°F to 90°F & 30%RH to 80%RH as thermal instabilities, drift and noise may occur outside this range. Do NOT place 210 system itself in a fume hood, but arrange a vent or duct OVER the Flame head.

**GASES:**

Try to securely position gas tanks within 10 feet of the AAS. All regulators need a 1/8" Swagelok hose nut & ferrule on connector end and 1/8" soft Copper or tubing.

- Acetylene, Purified / 99.6%, 1A size cylinder (about 8,500 liters of acetylene) should last about 30 hours of burning time; Use a two stage regulator with CGA-510 fitting (for USA). A Flash Arrestor is a recommended safety item for the acetylene line. Do not let the tank pressure fall below 80 Pounds of pressure as Acetone could flow through the gas lines and damage the lines and instrument. The maximum line pressure should never be above 15PSI.
- Air, Purified (99.9%) preferred; Non-medical/Industrial grade acceptable, 1A (~225ft<sup>3</sup>) or 1L (~280ft<sup>3</sup>) tank; regulator with CGA-346/590 fitting (standard), **OR** a filtered Oil-less Air Compressor
- Nitrous Oxide, CP grade (99+%) NON MEDICAL GRADE, 1A size cylinder (about 14,800 liters) will last about 12 hours burning time; Use a two stage HEATED regulator with CGA-326 (USA) fitting (for N2O only)

**SUGGESTED CHEMICALS: to be supplied by the customer**

Distilled / Deionized Water, Concentrated high purity Hydrochloric, Acetic, Sulfuric and Nitric Acids. The types of acids will depend on the sample you are analyzing.

Certified Single or Multi-Element Standard Solutions, 1% Li or K Ionization Buffer, 1% La releasing Agent.

Other miscellaneous preparatory reagents for sample preparations and digestion, plus necessary glassware, volumetric flasks, and pipettes.

**INSTRUMENT INTERFACE OPTIONS:**

Output ports are available for external Dot-Matrix Printer as well as PC for use with Buck Analyst software. Requires Pentium Compatible Computer running Windows 2000 or XP, with monitor, Hard Drive space, 64M RAM memory (min), and CD Rom, free 9-pin Serial Comm-port for Interface cable, Mouse (serial or bus), Printer (dot-matrix / laser / inkjet)

**OPERATIONAL SUGGESTIONS:**

Turn system ON approximately 30 minutes before running any samples to allow the system to warm up and stabilize; pre-heat the Hollow Cathode Lamps (HCLs) 10-30 minutes at the recommended operating current prior to analysis for best stability and sensitivity in critical analyses.

*Standard sample preparations may require additional solvents, standards and glassware not offered by our company – it is not the responsibility of Buck Scientific, Inc. to provide these items.*

*\*It is the sole responsibility of the end-user to arrange for the installation of the Hood and Vent kit by a contractor capable of Heating & Ventilation services (H&V). The BUCK AAS Manual provides complete specifications on the placement of the “Canopy” cone over the AAS unit. Please refer to this diagram before performing any installation of the Blower assembly.*

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Graphite Furnace System