

PRE-INSTALLATION REQUIREMENTS:
225, 230, or 235 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 with proper grounding 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 the instrument 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 1/4" Swagelok hose nut & ferrule

- 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 arrester is provided with a regulator kit if ordered from Buck Scientific. If the regulator is purchased separately, it's the user's responsibility to purchase a flash arrester. 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 (~225ft³) or 1L (~280ft³) tank; regulator with CGA-346/590 fitting (standard), **OR** a filtered Oil-less Air Compressor. *Do not use oxygen.*
- 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 regulator with CGA-326 (USA) fitting.

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 I/O OPTIONS:

USB ports are available for an external printer as well as peripherals. A ethernet port is provided at the back of the instrument. The ethernet port is used to download firmware updates, synchronize the system clock and to utilize network printers to print reports.

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.*