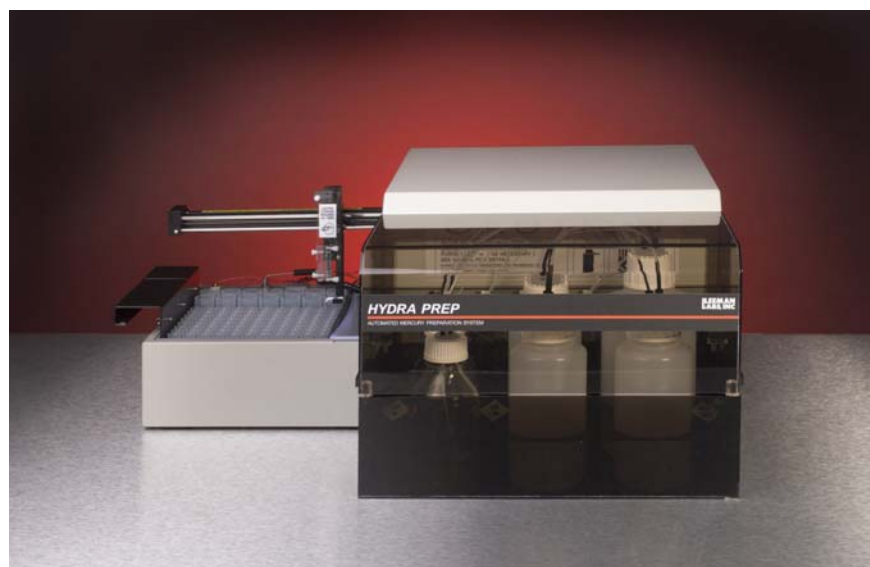

HYDRA PREP Automated Mercury Preparation System

PRE-INSTALLATION GUIDE



Part Number 150-00222
Revision D

Teledyne Leeman Labs
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Introduction

The purpose of this guide is to assist new users in the preparation of their laboratory prior to the installation of the HYDRA PREP Automated Mercury Preparation System. If anything is unclear with the information that is provided, please contact our Customer Support Department at 1-800-LEEMANS (1-800-533-6267).

Please retain a copy of the pre-installation guide for your records.

Receipt of the Instrument

Teledyne Leeman Labs HYDRA PREP Automated Mercury Preparation Systems have successfully passed stringent Quality Control and Performance Specifications prior to shipment. The HYDRA PREP is carefully packed to ensure safe travel to your lab, but occasionally damage may occur during shipping.

A visual inspection of the shipping container and boxes should be done before signing of the shipper's document. If any box is visibly damaged, make a note of this on the shipper's document then notify the shipping company **immediately**. Be assured Teledyne Leeman Labs will work with you to correct any problems. However, if damage has occurred, correction of that damage will be at the expense of the responsible party as defined by the purchase order.

Please do not unpack any boxes without consulting the Teledyne Leeman Labs Customer Support Department. The Leeman Labs Field Service Engineer is responsible for the checkout of the shipment against the packing list. He or she cannot be responsible for this task, nor can Leeman Labs be responsible for any missing items, if boxes have been opened or removed before the arrival of the Field Service Engineer.

Pre-installation Requirements

Introduction

The HYDRA PREP Pre-installation Guide details the site parameters required for proper installation of the HYDRA PREP Automated Mercury Preparation System. Ensure that your installation site meets these requirements before attempting to install the HYDRA PREP instrument.

Site Requirements

Check your site for the following requirements:

Electrical Requirements

Two duplex outlets @ 110V, 15A, 60 Hz or two duplex outlets @ 220V, 10A, 50 Hz. The computer and HYDRA PREP should be plugged into the same outlet. Use of a surge protection power strip is strongly recommended.

Gas Supply

A source of 99.999% pure Argon, Helium, or Nitrogen @ 40-90 PSI (2.7-6.1 Atm). The gas connection must be located within 10 feet (3 m) of the HYDRA PREP and must accept 1/4" (6.35 mm)OD, 1/8" (3.18 mm) ID urethane tubing.

Caution: Nitrogen may be reactive with some reagents used with your particular methodologies. Ensure that nitrogen is compatible before using.

Air Supply

The unit draws air into the chassis from the side opposite the autosampler. The air drawn in must be free of acid fumes. A minimum safe distance of the right side of the instrument to an acid vapor source is 60in./1.5m.

Venting

Access to exhaust ventilation of 100 CFM or 47.2 L/sec.

It is recommended that the entire HYDRA PREP be mounted inside a laboratory hood. Alternatively, a vent canopy hood with a minimum of 3.5 square foot or greater (3252 cm²) of draw surface and should be installed 20 inches above the counter over the water bath. The entire water bath area must be enclosed to capture digestion fumes. Hood materials must be compatible with fumes generated by the following reagents:

- Bromine monochloride
- Nitric Acid
- Aqua-Regia
- Sulfuric Acid
- Potassium Persulfate
- Potassium Permanganate
- Hydroxylamine Sulfate

Water Supply

Tap water may be used if the water pressure is less than 50 PSI. An in-line water regulator may be used if source pressure is greater than 50 PSI. Alternatively, a 15 liter container with dispensing tap can be used. It can supply the water bath, but it must be positioned at least 30 cm higher than the bench on which the unit is installed. This will provide the necessary gravity feed. **Use of distilled water is suggested to reduce maintenance on the water bath.**

Drain

One 10 foot piece of flexible tubing is supplied to connect the water bath drain to either a drain or a large collecting vessel. If a collection vessel is used, it must be placed on the floor below the instrument. Tape the drain tube to the top of the vessel so that the ends remain out of the collected water. Under normal circumstances, the drain water will contain no hazardous materials.

Bench Space

50" width, 27" depth, 18" height (1270 mm W, 686 mm D, 457 mm H), including computer, with printer stored on top of the HYDRA PREP. If the printer is not stored on top of the HYDRA PREP then allow extra space based on printer selected.

30" width, 27" depth, **18"** height (762 mm W, 686 mm D, **457** mm H), HYDRA PREP alone.

6"-8" (152mm-203mm) of clearance to the rear of the instrument is recommended to account for cables and water hoses in preparation for placement of the prep.

Scale/Balance

An electronic scale or balance must be available for calibration and validation of the HYDRA PREP dispenser. The weight capacity should be >20 grams with a precision of ± 0.001 grams.

Environmental Conditions

Temperature

The recommended nominal or average laboratory temperature is 15-30°C (60-86°F).

Temperature Variation

The temperature rate of change in the laboratory should be limited to 2°C (3.6°F) per hour, maximum daily change 10°C (18°F). This temperature variation allows for the most stable operation of the instrument. Greater temperature variations will affect instrument stability. Protection (such as blinds) from direct sunlight via windows is recommended.

Other causes of temperature shifts include: Heat adjustments to the laboratory from morning to night, increase in room temperature due to direct sunlight, and automatic air conditioner adjustments.

Relative Humidity

Humidity plus heat plays a major role in operating stability. Humidity may vary between 20 and 80%, but must be a non-condensing environment. The laboratory humidity range should be monitored to determine if additional climate controls are needed.

If you have purchased installation from Teledyne Leeman Labs, please insure the site requirements from the previous page have been met. Complete the information on this page and either mail or fax it back to Teledyne Leeman Labs at (603) 886-4322 so installation can be scheduled.

PRE-INSTALLATION COMPLETION FORM

Operator's Name: _____
(PLEASE PRINT)

Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone No: _____ Extension: _____

Fax No: _____

Email: _____

Your signature below indicates that all site requirements listed on the previous pages have been met.

Operator's Signature

Date

Install # _____

Please remove this page and return to Customer Support Department, Teledyne Leeman Labs, 6 Wentworth Drive, Hudson, N.H. 03051, or FAX to (603)886-4322.

The installation of the Hydra Prep Automated Mercury Preparation System will be scheduled upon receipt of the Pre-installation Completion Report.

READER'S COMMENT FORM

Guide Title: HYDRA PREP Automated Mercury Preparation System Preinstallation Guide

Part Number: 150-00222

Please use this form to communicate your views about this pre-installation guide.

Please rate this installation guide:

	Excellent	Good	Fair	Poor
Clarity	_____	_____	_____	_____
Completeness	_____	_____	_____	_____
Ease of Use	_____	_____	_____	_____
Organization	_____	_____	_____	_____

If you have found errors in this installation guide, please list them with their appropriate page numbers:

Please provide us with the following information:

Your Name: _____

Company Name: _____

Address: _____

Please FAX your comments to us at 603-886-4322. Thank you for your assistance.