



# **HYDRA-C**

## **AUTOMATED MERCURY ANALYZER**

### **PRE-INSTALLATION GUIDE**



**PART NUMBER: 150-00275**

**REVISION: E**

**EFFECTIVE: JAN 2011**

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#### **USE AND PUBLICATION OF DATA:**

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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-C** Automated Mercury Analyzer. If anything is unclear with the information that is provided, please contact your local Service Representative or contact our Customer Support Department at 1-800-LEEMANS (1-800-533-6267) or by email at [service@teledyne.com](mailto:service@teledyne.com).

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

## **RECEIPT OF THE INSTRUMENT**

Teledyne Leeman Labs' **HYDRA-C** Automated Mercury Analyzers have successfully passed stringent Quality Control and Performance Specifications prior to shipment. The **HYDRA-C** 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 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.

If your analyzer is to be installed by a Teledyne Leeman Labs Installation Engineer please do not unpack any boxes without consulting the Teledyne Leeman Labs Customer Support Department. The Installation Engineer will be 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 installation engineer.

The Installation Engineer is a skilled professional who will install your equipment, verify that it is operating to specifications, and train your personnel in its basic operation. Your preparation enables you to use his/her visit to the best advantage. Teledyne Leeman Labs reserve the right to decline the installation if the facility's preparation does not meet the physical requirements described in this guide.

**Note:** The connection of the **HYDRA-C** Automated Mercury Analyzer to your company's internal communication network/server is not part of the normal installation process and is best left to a trained IT professional.

# Pre-installation Requirements

## INTRODUCTION

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

## SITE REQUIREMENT

Check your site for the following requirements:

### Electrical Requirements:



NEMA 5-15P

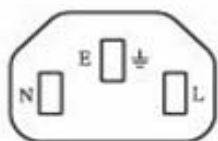
Four electrical outlets @ 110V, 15A, 60 Hz or four electrical outlets @ 220V, 10A, 50 Hz are required. If the optional on-line balance was ordered it will require one additional electrical outlet.

NOTE: The use of a surge protection power strip is recommended.



IEC320 C13

The instrument, computer and monitor are provided with 7.5 foot (2.29 meters) power cords, each with a NEMA 5-15P male connector and an IEC 320 C13 female connector as shown in the photos on the left. The printer is provided with a 2 prong, non polarized connector.



IEC 320 C13

For locations outside of North America where this NEMA 5-15P male connector is not common or desired, the power cord can be replaced locally or the male connector can be replaced with a suitable connector. Please note the wiring connections to the left; where:

N = Neutral, Blue wire  
E = Earth ground, Green wire with yellow strip  
L = Line, Brown wire

### Gas Supply

A source of oxygen @ 10-20 PSI (70-140kpa). The gas connection must be located within 10 feet (3 m) of the **HYDRA-C** and must accept 1/4" (6.35mm) OD, 1/8" (3.18mm) ID urethane tubing. Note: A two-stage regulator (p/n 115-00390) is required to provide a stable input pressure.

### Gas Purity

The minimum oxygen purity is Compressed Gas Association (CGA) Grade A. This is commonly referred to as "medical grade" oxygen containing a minimum of 99.0% oxygen and maximum of 300 parts-per-million of

carbon dioxide and a maximum of 10 parts-per-million of carbon monoxide.

Venting Access to exhaust ventilation of at least 25 CFM (55m<sup>3</sup>/h). Ventilation should allow for connection of 1/4" (6.35mm) OD urethane tubing. Tubing can be clipped into existing hood.

Bench Space 19" width, 18" depth, 19" height (470 mm W, 457 mm D, 470 mm H), excluding the computer system.

## **ENVIRONMENTAL CONDITIONS**

Temperature The recommended nominal or average laboratory temperature is 15-30°C (61-95°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 necessary.

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 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 to prevent conductivity changes on detector assemblies.

To initiate installation by a Teledyne Engineer, please confirm that the site requirements from the previous page have been met. Remove this page and return it to your local Service Representative or the Teledyne Leeman Labs Customer Support Department by US mail: Teledyne Leeman Labs, 6 Wentworth Drive, Hudson, N.H. 03051, Email: [service@teledyne.com](mailto:service@teledyne.com) or FAX to (603) 886-4322.

## ***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 # \_\_\_\_\_ (If known)

**Note:** The installation of the **Hydra-C** Automated Mercury Analyzer System will be scheduled upon receipt of the Pre-installation Completion Form.

## READER'S COMMENT FORM

Guide Title: HYDRA-C Automated Mercury Analyzer Pre-installation Guide

Part Number: 150-00275

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. Your assistance will help us to provide you and our other customers with the best service possible. Thank you.