



## *Hydra II<sub>AF</sub> and Hydra II<sub>AF</sub> Gold*

# **AUTOMATED MERCURY ANALYZER**

## **PRE-INSTALLATION GUIDE**



**PART NUMBER: 150-00341**

**REVISION: A**

**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 installation of the **Hydra II<sub>AF</sub>** Or **Hydra II<sub>AFGold</sub>** mercury analyzer. If anything is unclear with the information that is provided, please contact your local Service Representative or 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**

Each **Hydra II<sub>AF</sub>** and **Hydra II<sub>AFGold</sub>** mercury analyzer has successfully passed stringent Quality Control and Performance Specifications prior to shipment. The **Hydra II<sub>AF</sub>** and **Hydra II<sub>AF Gold</sub>** are 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 series** 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

This Pre-installation Guide details the site parameters required for proper installation of the **Hydra II<sub>AF</sub>** and/or **Hydra II<sub>AF</sub>Gold** mercury analyzer. Please ensure that your installation site meets these requirements before attempting to install the instrument.

## SITE REQUIREMENTS

Check your site for the following requirements:

### Electrical Requirements:



NEMA 5-15P

For the **Hydra II<sub>AF</sub>** four electrical outlets @110V, 15A, 60 Hz or four electrical outlets @220V, 10A, 50 Hz are required.

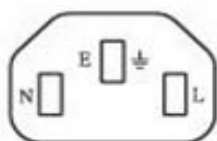
For the **Hydra II<sub>AF</sub>Gold** five electrical outlets @110V, 15A, 60 Hz or five electrical outlets @220V, 10A, 50 Hz are required .



IEC320 C13

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

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 99.998% pure Argon at 15 PSI is required. The gas connection must be located within 10 feet (3 m) of the **Hydra II<sub>AF</sub>** Or **Hydra II<sub>AF</sub>Gold** and must accept 1/4" (6.35mm) OD, 1/8" (3.18mm) ID polypropylene tubing. A two-stage gas regulator (p/n 115-00390) with a stainless steel diaphragm is required to provide a stable input pressure.

### Venting

Access to exhaust ventilation of at least 25 CFM (11.8 L/sec) is required. Ventilation should allow for connection of the 1/4" (6.35mm) OD urethane tubing. The exhaust line may be clipped into existing hood.

Drain

A suitable drain container capable of holding 2 liters or more of acidic waste needs to be available.

Bench Space

23" width (with rinse pump), 19.5" depth, 23.5" height (584 mm W x 495 mm D x 597 mm H) , for the **Hydra II<sub>AF</sub>** Or **Hydra II<sub>AF Gold</sub>** alone, does not include computer, monitor and printer.

**ENVIRONMENTAL CONDITIONS**

Temperature

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

Temperature Variation

The rate of temperature change in the laboratory should be limited to 2°C (3.6°F) per hour. The maximum daily change should not exceed 10°C (18°F). This temperature variation allows for the most stable operation of the instrument. Greater temperature variations will have a negative effect instrument stability. Protection (such as blinds) from direct sunlight via windows is necessary.

Other causes of temperature shifts include: significant differences in the temperature setpoint of the laboratory from morning to night and increase in room temperature due to direct sunlight. The proximity of the instrument to heat / AC ducts and should be taken into consideration when selecting the location for your instrumentation.

Relative Humidity

Humidity and heat both play a 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 # \_\_\_\_\_

The installation of the **Hydra II<sub>AF</sub>** and/or **Hydra II<sub>AF</sub> Gold** mercury analyzer will be scheduled upon receipt of the Pre-installation Completion Form.

## READER'S COMMENT FORM

Guide Title: **Hydra II<sub>AF</sub>** and **Hydra II<sub>AF Gold</sub>** Mercury Analyzer Pre-installation Guide

Part Number: 150-00341

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: \_\_\_\_\_

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