

Vapor Pro[®] XL Autosampler Quick Start Guide

Instrument Operation Instructions and Product Registration



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Unboxing & Instrument Setup



1. Unpack and Assemble the Instrument

- Remove the Vapor Pro XL (VPXL and Autosampler) from the packaging.
- Place the VPXL onto the Autosampler by aligning the two pins on the Autosampler with the holes on the flange at the rear of the VPXL (fig. 3).
- Connect the power cords to both the rear of the VPXL and Autosampler and plug directly into wall outlet. *Use of extension cords is not recommended.*
- Connect the supplied USB cable between the two at the rear of the units (Type A connector to the VPXL and Type B to the Autosampler).
- Place the carousel on the Autosampler, ensuring that the dots on the carousel and spindle are aligned and the in in the spindle lined up with the alignment hole under the carousel (fig. 4).
- Retain **all packaging materials** for future shipment.

Returned instruments must be shipped in original packaging.



2. Instrument Placement

- Place the VPXL and Autosampler:
 - In a well-ventilated area or fume hood
 - On a firm, level, vibration-free surface

Carrier Gas Connection



1. Install Desiccator

- Install the **inline desiccator (P/N Y990-0116)**:
 - Gas source → bottom of desiccator
 - Top of desiccator → VPXL bottom inlet

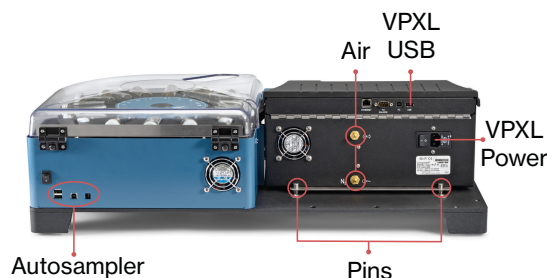


Figure 3

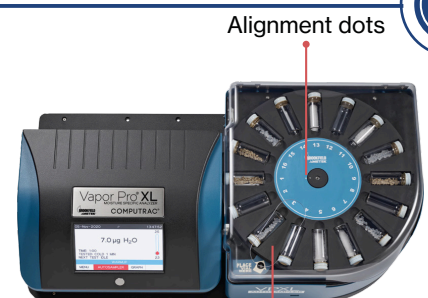


Figure 4

2. Connect Gas Supply

- Using **1/8" ID clear tubing (P/N 345-0050)**, connect the gas source to the **Flow Inlet Port** on the back of the instrument (fig 3).
- Acceptable gas sources:
 - Nitrogen cylinder
 - Facility nitrogen or dry air
 - AMETEK Brookfield Dry Air Generator (P/N Y990-0143)



3. Set Gas Pressure

- For all sources:
 - Set pressure between **17-22 psi (118-152 kPa)**
 - The pressure from a compressed gas cylinder is very high and is normally reduced by a two-stage regulator.
 - The pressure from the "house" nitrogen system in most facilities will be moderate and usually requires only a single-stage regulator.
 - The dry air generator (PN Y990-0143) produces the pressure required by the instrument and therefore, no additional regulator is needed.

Power-Up & System Checks



1. Power On

- Turn on the carrier gas supply.
- Switch the VPXL and Autosampler power to **ON**.
- Allow the instrument to warm up **20 minutes** with gas connected.
 - This allows the internal flow regulator to stabilize.

2. Verify Flow Settings

From the **Main Screen**:

1. Navigate: **MENU** → **SERVICE MENU** → **SENSOR READINGS**
2. Confirm:
 - a. **N2/ Air FLOW: ON**
 - b. **HIGH FLOW: OFF**
3. Verify flow reading:
 - a. **95.0 ± 5.0 mL/min**
 - b. If outside range, refer to the User Manual

SERVICE MENU	SENSOR READINGS	
MANIFOLD TEMP:	67.99°C	
OVEN TEMP:	175.07°C	N2 FLOW: <input checked="" type="checkbox"/> On
RH TEMP:	67.96°C	HIGH FLOW: <input type="checkbox"/> Off
	RH: -2.772 %	
	FLOW: 93.33 cc/min	
PRESSURE:	8.11 psi	<input type="checkbox"/> IN <input type="checkbox"/> OUT
RTC BATTERY:	2.94 V	
	TRANSPORT POS:	- 150

Capillary Verification Test



Daily verification ensures accurate moisture measurement.

1. Start Calibration Test

- Navigate: **CALIBRATION MENU** → **CALIBRATE**

2. Fill Capillary

- Fill a small container with **DI water**.
- Using tweezers, remove **1.0 µL microcap pipette**. (PN 990-0150)
- Insert the pipette tip just below the water meniscus.
- Hold in place **~30 seconds** until filled.
- Remove straight out of the water.
- Lightly wipe excess water from the outside of the pipette.

Do not touch the tip.

3. Load Sample Vial

- Gently slide the pipette into the vial - do **not** drop or shake the pipette.
- Install a septum (PN 990-0207) into the cap:
 - **Shiny (Teflon®) side facing into the vial**
- Secure the cap.



4. Run Test

- Select the Autosampler button from the VPXL Main Menu. Select available position and hit any button.
- Select (Factory) SYSTEM CAL. Press the AUTOSAMPLER back button once your samples are loaded. Ensure remaining positions are "inactive".
- The carousel will rotate to the loading position. Load vial into position with the cap facing the outer diameter of the carousel.
- To initiate the System Calibration, press TEST button.
- Press the red **TEST** button.

5. Verify Results

- Acceptable result:
 - **950-1,050 µg water**
- If within range, the sensor is calibrated and ready for testing.
- If not, 3 more pipettes will need to be ran to calibrate the sensor.
- After tests complete select results → CALC

Getting Started



1. Load Samples & Open Autosampler

- **Load Samples**
 - Tare the vial and add/weigh the sample as done during manual VPXL operation.
 - Refer to the Operations Instructions - Section 9: TEST PROGRAMS for more information.
- **Open Autosampler**
 - From the VPXL main menu, select the AUTOSAMPLER button (fig. 5).

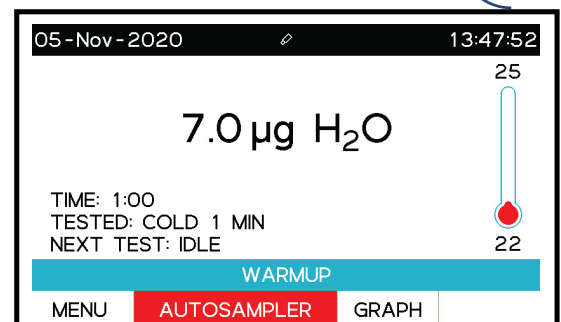


Figure 5

2. Select Vial Position

- The Autosampler Test Menu displays 16 vial locations that correspond to the carousel positions.
- Use the touch screen to select the position to be loaded (fig. 6).

3. Position the Carousel

- Press **EDIT**.
- The carousel rotates and stops with the selected vial location in the **vial loading position**.

4. Load the Vial

- Insert the vial with the **cap facing the outer diameter** of the carousel.
- Confirm that the VPXL detects the vial and marks the location as **active**.

5. Assign Test Program

- Select the test program for the sample.
- Enter the **sample weight** if required by testing parameters (fig. 7).
- Repeat this process for all vial positions being used (up to 16 total samples).

6. Start the Test

- Press the **AUTOSAMPLER** button to return to the prior screen.
- Begin the test by pressing **TEST** on the Autosampler Test Screen (fig. 8).

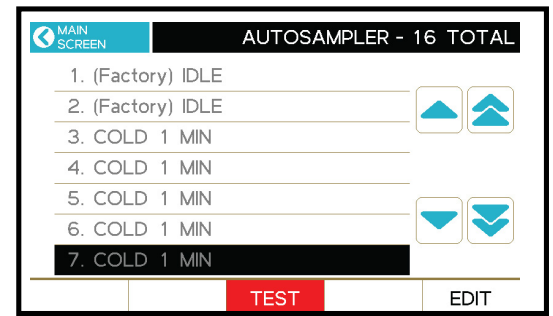


Figure 6

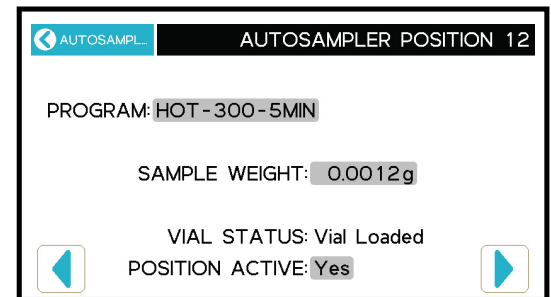


Figure 7

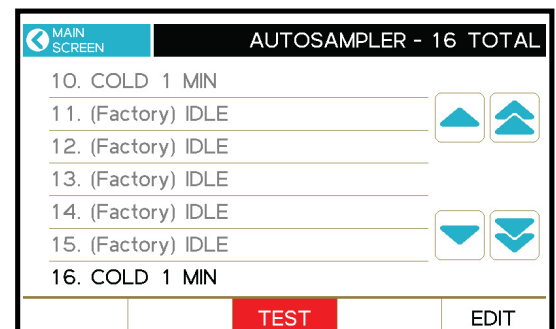


Figure 8