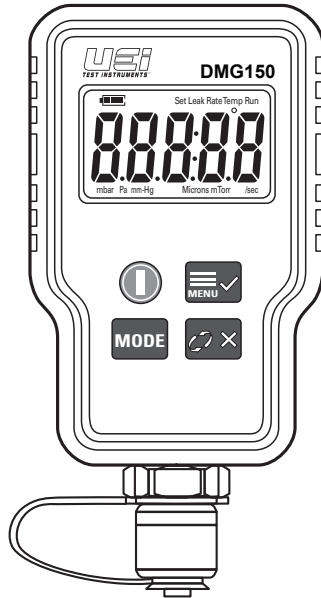


Digital Micron Gauge

INSTRUCTION MANUAL

ENGLISH



IMPORTANT SAFETY WARNINGS

⚠ WARNING

Read entire Safety Notes section regarding potential hazard and proper instructions before using this meter. In this manual the word **"WARNING"** is used to indicate conditions or actions that may pose physical hazards to the user. The word **"CAUTION"** is used to indicate conditions or actions that may damage this instrument.

⚠ WARNING

To ensure safe operation and service of the tester, follow these instructions. Failure to observe these warnings can result in severe injury or death.

⚠ WARNING

This gauge is designed for trade professionals who are familiar with the hazards of their trade. Observe all recommended safety procedures that include proper use of personal protective equipment that includes safety glasses and gloves.

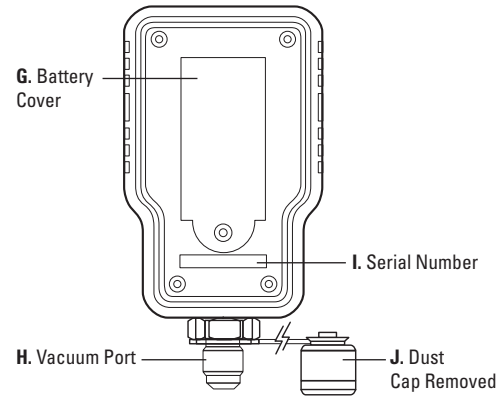
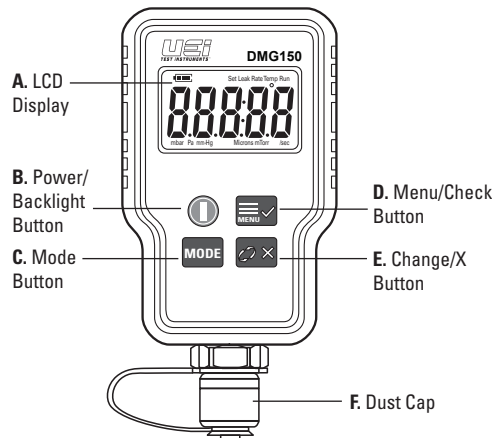
FEATURES

- Measures in microns, pascals, Millibar, mmHg, mTorr
- Range 0 to 15,000 microns
- Maximum over pressure 700 psi
- Instant warm-up time
- Instant response time
- Backlit display
- Compact and light weight
- Oil contamination detection
- Sleep mode
- Ambient temperature measurement
- 5 units of measurement
- Real time leak measurement
- Time period leak measurement
- Sensor fail detection

GENERAL SPECIFICATIONS

- **Operating Temperature:** 10° to 122°F (-12° to 50°C)
- **Backlight:** Yes
- **Over-range:** "OL" is displayed
- **Dimensions:** 4.3' X 1.3' X 1'
- **Item Weight:** 2.7 oz
- **Calibration:** Recommended annually
- **Accuracy:** 0 to 9,999 ±5%rdg ±5 microns
10,000 to 15,000 ±10% rdg

OVERVIEW



OPERATING INSTRUCTIONS

Basic Operation Mode

1. Press Power button to power on the gauge.
2. Press **Mode Button** to change the operation to Vacuum Reading, Temperature Reading, Leak Rate Test, Leak Test or Run mode.

Vacuum Reading Mode

1. The Vacuum reading is shown on the display with Vacuum unit.
CAUTION: "OL" will be shown if maximum Micron or psi limit is exceeded (**15,000 Micron/700 psi** or unit reading of equal value).
2. User may press **Mode Button** to skip Vacuum Reading mode or enter Temperature Reading mode.
3. In Vacuum Reading mode, press Menu Button or Change Button to select the unit to mBar, Pa, mmHg, mTorr or Micron. The Vacuum indicator will be shown to indicate the Vacuum unit selected.

Temperature Reading Mode

1. The Vacuum reading is shown on the display with Temperature measurement unit.
2. User may press **Mode Button** to skip Temperature Reading mode or enter Leak Rate Test mode.
3. In Temperature Reading mode, press **Menu/Check Button** or **Change/X Button** to select temperature measurement unit to °F or °C

Leak Rate Test Mode

1. In Leak Rate Test mode, the leak rate test time base is 1 second.
2. The indicator "Leak Rate" and "/sec" will be shown. The real time leak rate is updated on the display once per second.
3. User may press **Mode Button** to skip Leak Rate Test mode and enter Leak Test mode.
4. In Leak Rate Test mode, press **Menu/Check Button** or **Change/X Button** to select vacuum.

Leak Test Mode

1. In the Leak Test mode, the leak test time may be programmed for a set duration. Only the icon "LEAK" will be shown.
2. In Leak Test mode, press the Menu Button to change the parameter to set in order. Vacuum unit, Minute, Second of time duration can be set. 3 parameters are shown on the display. The parameter flashes when it is selected to be set. If there are no changes to the 3 parameters, user may skip to step 6.
3. While the vacuum unit be set, press the **Change/X Button** to select the vacuum unit.
4. While the Minute of time duration can set, press the **Change/X Button**, to select the minute value.
5. While the Second of time duration can be set, press the **Change/X Button** to select the second value.
6. When all 3 parameters are confirmed, Press and hold the **Menu/Check Button** to start Leak Test. "Start" will be shown on the display for 2 seconds and then the Leak Test starts. During the Leak Test, the vacuum reading and time left on test are shown on the display in order.
7. User may press **Mode Button** to interrupt Leak Test mode before test time expires and go back to Vacuum Reading Mode. "Quit?" will be shown on display to confirm interrupting test. Press **Menu/Check Button** to end test or **Change/X button** to continue test.
8. When the test time ends, "End", the start vacuum reading, end vacuum reading and vacuum drop value will be shown on the display in order. User may press **Menu/Check Button** or **Change/X Button** to scroll between 4 readings.
9. Press **Mode button** to go back to Vacuum Reading mode.
10. User may press **Mode Button** to skip Leak Test mode and enter Programming mode before doing leak test.

Programming Set Mode

1. In Programming mode, user sets the target vacuum value and time duration. The vacuum value and time duration are shown on the display in order.
2. User may press **Mode Button** to enter Run mode without setting in programming mode if the parameters are confirmed before setting.
3. In Programming mode, press **Menu/Check Button** to select the parameter to be set in order. Vacuum value, unit, Minute, Second of time duration can be set. The parameter flashes when it is selected to be set. If the 4 parameters are all set, user may press **Mode Button** at anytime to leave Programming mode and enter Run mode. "Save?" will be shown on display. Press **Menu/Check Button** to save or press **Change/X Button** to quit without saving.
4. User may press and hold **Menu/Check Button** to hold and save and enter Run mode without "Save?"
5. While the target vacuum value can be set, press the **Change/X Button** to select the vacuum value.
6. While the target vacuum unit can be set, press the **Change/X Button** to select the vacuum unit.
7. While the minute of time can be set, press the **Change/X Button** to select the minute value.
8. While the second of time can be set, press the **Change/X Button** to select the second value.

Run Mode

1. In Run mode, the elapsed time is accumulated when vacuum reading is less than target vacuum value.
2. User may press **Mode Button** to enter Vacuum Reading mode without changes in Run mode.
3. In Run mode the icon “**Run**” is shown on the display. “**Ready**” is shown on the display after entering Run mode.
4. User powers on the vacuum source and then presses the **Menu/Check Button** to start monitoring the vacuum. “Run” is shown on the display for 2 seconds when monitoring begins. When the vacuum value is less than target value, the vacuum gauge counts elapsed time and accumulated. During the monitoring, the vacuum value and the time count are shown on the display in order.
5. Press the **Mode Button** to skip monitoring before the elapsed time expires and go back to Vacuum Reading mode. “Quit?” is shown on the display for confirming the interrupt. Press **Menu/Check Button** to confirm quit or press **Change/X Button** to cancel quit. When the accumulated elapsed time is greater than the set time duration, “End” flashes on the display. Press the **Mode Button** to end monitoring and go back to Vacuum Reading mode.
6. The Sleep mode is disabled in Run mode. User should check battery life in before and during long monitoring times.

Sleep Mode

1. The gauge will enter Sleep mode if the reading is over limit and continues for **5 minutes**. “**Sleep**” will be shown on the display when the gauge is in Sleep mode. After **5 minutes** of Sleep mode, Auto power off powers off the gauge. The down-count timer is shown on the display to alert user of sleep mode and Auto power off time.

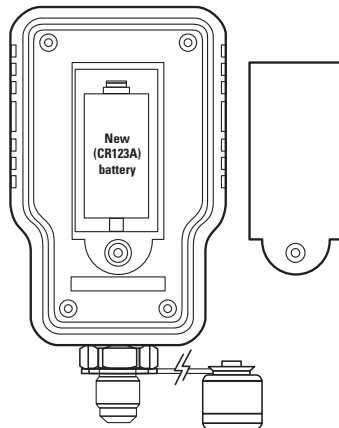
Oil Detection

1. When the vacuum sensor has contamination like oil or other material, “Oil” is shown on the display.
2. The gauge will Auto power off after **5 minutes**.

Sensor Fail

1. If the sensor wire is broken or fails, “**Fail**” will be shown on the display.
2. The gauge will Auto power off after **5 minutes**.

BATTERY REPLACEMENT



When the batteries are too low for safe operation, the Low Battery indicator will display.

- Remove screw. Remove battery cover.
- Replace the old batteries with 1 new (CR123A) battery.
- Place the battery cover.

DISPOSAL



CAUTION: This symbol indicates that equipment and its accessories shall be subject to separate collection and correct disposal.

CLEANING

Periodically clean your meter's case using a damp cloth. DO NOT use abrasive, flammable liquids, cleaning solvents, or strong detergents as they may damage the finish, impair safety, or affect the reliability of the structural components.

STORAGE

Remove the batteries when instrument is not in use for a prolonged period of time. Do not expose to high temperatures or humidity. After a period of storage in extreme conditions exceeding the limits mentioned in the General Specifications section, allow the instrument to return to normal operating conditions before using it.