

THERMAL

ENGINEERING COMPANY

14571 or 4501 Vacuum Gauge Operating Instructions

Sensor Connection: Connect the sensor to the system or vacuum manifold with flexible vacuum hose. For best results connect sensor directly to the system through an isolation valve. Great care must be used in connecting the vacuum pump and sensor to the system to be sure no leaks exist. The sensor should be mounted with the base up (flare fitting down) to help prevent contaminants from entering the sensor. Isolate the sensor from the system during charging to prevent oil from entering the sensor.

Battery Operation:

While system is under a vacuum

1. Plug the sensor cable socket to the sensor.
2. Push power switch to ON (Model 4501) or BATT (Model 14571).
3. Set the READ-CALIBRATE switch to the CALIBRATE position.
4. Adjust the CALIBRATION ADJUST KNOB clockwise until the meter reads the same on the calibration scale (lower scale) as the number stamped on the sensor.
5. Set the READ-CALIBRATE switch to the READ position and read microns on the upper scale after it stabilizes.

AC Operation (Model 14571 only): Follow procedure outlined under battery operation except plug power cord into 110V AC power source and set power switch to AC.

Calibration Notes: Check the calibration at frequent intervals as the batteries wear or ambient temperature changes. The sensors are ambient temperature compensated but require the calibration procedure to be performed to insure accuracy. The calibration procedure is to be performed while under vacuum.

Low Temperature Operation: Cold temperatures may prevent the meter from reading past atmospheric. To compensate for cold sensor temperatures change the initial calibration procedure as follows. Set the READ-CALIBRATE switch to the READ position and adjust the CALIBRATION ADJUST KNOB fully clockwise until the meter reading climbs to 500 microns (may take more than a minute). Quickly set the READ-CALIBRATE switch back to the CALIBRATE position and proceed with the normal calibration procedure. Always try to keep the instrument at or near room temperature.

Battery Replacement For battery operation uses (2) D flashlight batteries. Battery power is disconnected from the unit when the sensor is removed from the cable socket

Replacement Sensor: Order Model 4510 Sensor. The sensor should be checked periodically for accuracy by substituting with another sensor.

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