1 YEAR
WARRANTY

OMEGA™

User's Guide

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DVG-64A
Digital Vacuum Gauge

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DVG-64A LIFETIME SENSOR

The DVG-64A incorporates a revolutionary new sensor design that is highly resistant to contamination. Unlike other vacuum gauges currently on the market, the DVG-64A maintains working accuracy even when the sensor is contaminated with oil or similar contaminants. For many applications, the sensor does not require any cleaning for the life of the sensor.

A contaminated sensor will decrease the accuracy of the instrument by about 5%.

To achieve optimal performance again, clean the sensor as outlined in the instructions.

Other vacuum gauges on the market today will decrease in accuracy by 500% to 1000% when contaminated, or not work at all.

If the DVG-64A sensor is flooded with oil or other liquids, the instrument will detect this condition and display SERR on the display, indicating that sensor cleaning is required. All that needs to be done if this occurs is to shake the liquid out of the sensor.

DVG-64A INSTRUCTIONS

FEATURES / BENEFITS

- Unmatched Resolution (as low as 0.5 micron)
- ½ Second Response Time (update rate)
- Backlit LCD
- Analog Bar Graph
- Auto Shut Off
- Built-in Hanger
- Two Year Warranty
- Battery Life Indicator

OPERATING CONTROLS

To turn the unit ON, press and release the Power Button.

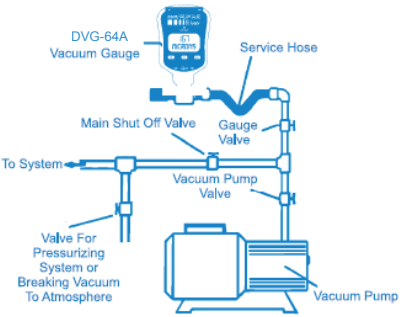
To turn the unit OFF, press and hold the Power button, until the unit turns OFF.

Pressing and releasing the Power button turns on the backlight.

Changing the scale: Press the UNITS button to change the display to the next scale. The scale order is: Micron, mTorr, Torr, Pascal, mBar. The DVG-64A will keep the scale settings even if the power is turned OFF.

CONNECTING THE DVG-64A TO THE VACUUM SYSTEM

The DVG-64A should be connected to the vacuum system at the vacuum port.
The "Auxiliary Port" is primarily for cleaning and should normally be closed with the supplied cap. It is possible to connect the DVG-64A in-line, however it may restrict flow and increase the evacuation time.



CLEANING THE DVG-64A LIFETIME SENSOR

It is recommended that the DVG-64A sensor be cleaned periodically to maintain unit accuracy. Oil and other contaminants slightly reduce the accuracy of the DVG-64A unit. Follow the instructions below for cleaning.

- Use an eyedropper to pour a few drops of ordinary rubbing alcohol into either port. Keep the other port closed.
- Close the port with the supplied cap.
- Shake the DVG-64A unit for approximately 10 seconds. A slight movement of the vacuum sensor in the case is normal and does not affect the internal connection in any way.
- Open the vacuum port. Empty the alcohol and air dry the sensor.

Close the vacuum port with the supplied cap when the DVG-64A is not used. This prevents contamination of the sensor.

Many of the vacuum gauge warranty returns are due to contaminated sensors. For vacuum gauges that are heavily contaminated, leave the alcohol in the gauge overnight to clean the sensor more effectively.

CHECKING HVAC SYSTEMS FOR LEAKS

When checking a system for leaks use only copper tubing and a vacuum proof valve. Generally, standard hoses will not hold a vacuum. If using the blank-off valve on the vacuum pump check it for leaks periodically.

At the beginning of the test the DVG-64A reading may increase due to system equalization. The vacuum reading should hold after a minimum of 5 minutes. If the reading continues to increase it may indicate a leak in the system.

DISPLAY RESOLUTION

The display resolution depends on the vacuum displayed and is as follows:

Vacuum Range (Microns)	Resolution (Microns)
0 to 140	0.5
140 to 400	1
400 to 800	2
800 to 2000	5
2000 to 6000	20
6000 to 9000	100
9000 to 16000	200
16000 to 19000	1000
Above 19000	--- is displayed

Vacuum Range (Pascal)	Resolution (Pascal)
0 to 18	0.05
18 to 50	0.1
50 to 100	0.2
100 to 260	0.5
260 to 800	2
800 to 1200	10
1200 to 2100	20
2100 to 2600	100
Above 2600	--- is displayed

LOW POWER MODE AND AUTO SHUTOFF

If no buttons are pushed, the unit will automatically turn OFF to conserve power, as follows:

- No Vacuum is Showing: 10 Minutes
- Vacuum is Showing: 1 Hour

When vacuum is showing, after 10 minutes of operation, if no button is pressed, the unit will enter a low power mode. In this mode the unit updates the display every 7 seconds, instead of every 0.5 seconds. The display will show "POWER SAVE MODE" while in this state. This extends the battery life about 3 times. To exit the low power mode at any time, press any button on the unit.

DVG-64A SPECIFICATIONS

Sensor Type	Thermistor	
Connector Type	Standard ¼ inch male flare fitting	
Vacuum Range	0 – 19,000 Micron (0 – 2,600 Pascal)	
Resolution	**Measurement Range**	**Resolution**
	0 - 140	0.5 Mircon
	140 - 400	1 Micron
	400 - 800	2 Micron
	800 - 2000	5 Micron
	2000 - 6000	20 Micron
	6000 - 9000	100 Micron
	9000 - 16000	200 Micron
	16000 - 19000	1000 Micron
Units	Micron, milliBar, Pascal, Torr, milliTorr	
Accuracy	+/-10% or +/-10 Micron, whichever is larger (50 to 2000 Microns) at 75°F	
Update Rate	0.5 sec.	
Operating Temp. Range	0°F to 150°F (-17°C to 65°C)	
Overpressure	800 PSI max (55Bar)	
Power Source	3 AA Batteries	
Battery Life	600 Hours continuous usage, with battery indicator	
Auto Shutoff	10 minutes when vacuum reading is above 19,000 Microns 1 hour when vacuum reading is below 19,000 Microns	
Weight	6 oz.	
Dimensions	5.5" H X 2.75" W X 1.5" D	

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY / DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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