



Please read this Guide before using the DVG-1 and save it for future reference.

Installation & Operations Guide - Digital Vacuum Gauge - Model DVG-1

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Contents of Package

- Sentinel Digital Vacuum Gauge DVG-1 unit
- Attached to the vacuum barb on the bottom of the DVG-1 is a small tube and luer fitting
- 6 feet of 1/8 tubing with an acrodisc filter attached
- Wall transformer with 6 feet of cord ending with a water tight connector fitting
- One brass barb fitting
- This Installation & Operations Guide

Installation Instructions

1. Select a location to install the DVG-1. For monitoring the general vacuum setting of the milking system, the optimum location is just above the receiver group or milk trap.
2. Use a 1/8-27 NPT pipe fitting for connection to the vacuum system. Locate a

threaded fitting connection point in which to install the barbed fitting. If no connection fitting is available near the desired monitoring location, then drill and tap the vacuum line at the desired location using a Q-size (0.332 diameter) drill bit and 1/8-27 NPT (National Pipe Thread) tap. If the vacuum line is horizontal, drill on the top side of the line so fluid cannot collect and drain down into the DVG-1 tube assembly. Use care to prevent chips from entering the vacuum system. Thread the barbed 1/8-27 NPT pipe fitting (provided) into the vacuum line and connect the open end of the DVG-1 tube assembly to the fitting. See diagram on page 2.

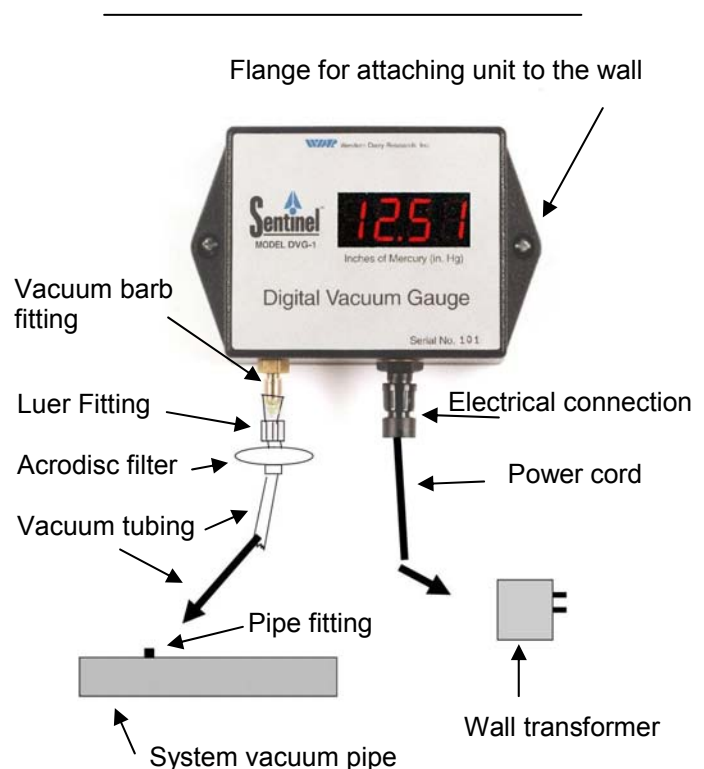
3. Locate the mounting position of the DVG-1 housing within the range of the tube assembly and the power supply cord. Mount the housing utilizing the two mounting holes using No. 10 hardware.

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4. Connect the male luer fitting at the end of the tube connected to the DVG-1 to the Acrodisc filter female luer end. While the filter is not essential to the operation of the DVG-1, it is an important device for protecting the DVG-1 from fluids that may enter the tube assembly.
 5. Plug the connector-end of the power cable assembly into the black electrical connector on the bottom side of the DVG-1. Push the black retaining collar up and rotate to lock the connector together. Plug the wall transformer end of the power cable assembly into a 120V AC outlet and you're ready to go.
3. If the gauge does not read 0.00 ± 0.05 in. Hg when the vacuum system is off, the filter may be plugged and need to be replaced. To test for this, disconnect the male luer fitting from the filter. If the gauge now reads 0.00 ± 0.05 in. Hg, then the filter needs to be replaced. If the gauge does not read 0.00 ± 0.05 in. Hg, you should return the unit to the factory for recalibration.
 4. Disassembling the DVG-1 housing is not allowed under the warranty. If repairs are necessary on the main unit, please contact your dealer for assistance in returning the unit to the factory for calibration/repair. A description of the symptoms of the defect should accompany the product being returned.

Operations and Troubleshooting

1. The DVG-1 is designed for continuous monitoring with low power consumption. If for some reason you would like to turn it off, just unplug the wall transformer from the 120 V AC wall outlet. The electrical connector at the DVG-1 housing has gold-plated leads designed to provide long life and protect from degradation due to corrosion.
2. **Periodic Filter Check:** The filter should be checked periodically for blockage. To do this, note the gauge reading. Then disconnect the filter from both the male luer fitting and the hose. Connect the hose directly to the inner post of the male luer fitting. Note the gauge reading again and compare it to the first one. If they are approximately the same (within system vacuum variation), the filter is okay and should be put back into the system. If the readings are not that similar then the filter needs to be replaced. Please contact your dealer for replacement filters. Remember, the filter is important for the protection of the DVG-1 from fluids that may enter the system: **It should be installed at all times.**



DVG-1 Installation Drawing

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Features

- Size: 4" x 3" x 1 3/4"
- Accuracy: $\pm .25\%$ Full Scale
- Resolution .01 inches Hg
- 9 Volt DC wall transformer
- Water resistant enclosure
- LED (display) 9/16" digits for easy reading
- Watertight electrical connection
- Electrical connection is gold plated for corrosion resistance
- Unit is filter protected
- American Made
- MERCURY FREE

Specifications

- Accuracy: ± 0.25 Full Scale
- Range: 0-19.99 inches Hg Differential Vacuum
- Resolution: .01 inches Hg
- Environmental:
 - Temperature: 0°F to 150°F
 - Relative Humidity: 95% non-condensing from 0°F to 150°F
- Power Supply:
 - Input: 120 VAC, 60 Hz, 6W
 - Output: 9V DC, 300 mA

Caution: For your Safety

1. The Sentinel DVG-1 is designed to be installed on the wall of a dairy farm breezeway. Location for mounting the unit should be as dry as possible. The DVG-1 is water resistant, but is **NOT WATERPROOF**. A typical location would be where a mercury manometer or a vacuum dial gauge may have been installed in the past.
2. Do not pull on the power cord.
3. Keep wall outlets dry.

Cleaning

UNPLUG THE WALL TRANSFORMER FROM THE 120V AC OUTLET. Clean with a damp cloth using a mild soap and water solution.

Sentinel DVG-1 Parts List

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
329-309	Quick disconnect fitting
472-054	Wall Transformer plus power cord and end connector
472-114	Acrodisc filter
472-121	Brass pipe fitting

1. LIMITED WARRANTY: Seller warrants that the goods delivered shall be free from defects in material and workmanship for a period of one (1) year from the date of Seller's shipment. Seller's sole obligation and Buyer's exclusive remedy for defects in the goods shall be limited, at Seller's option, to either repair or replacement of goods determined to be defective. Transportation and any other delivery costs to return defective goods to Seller for repair or replacement shall be the responsibility of Buyer. Any claim by Buyer must be made by Buyer to Seller in writing within five (5) days of the discovery of the claimed defect but in no event after the expiration of one (1) year from the date of Seller's shipment, whichever is less. Buyer's failure to so notify Seller of such defects within the above time periods shall bar Buyer from any remedy under this Warranty, or for recovery of damages or losses due to defects in the goods. Any return of goods shall be subject to the prior written approval of Seller.

THIS WARRANTY IS THE SOLE WARRANTY COVERING THE GOODS AND SELLER MAKES NO OTHER WARRANTY OF ANY KIND, WHETHER EXPRESS, IMPLIED OR STATUTORY, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED BY SELLER AND EXCLUDED FROM THIS WARRANTY. IN NO EVENT SHALL SELLER BE LIABLE FOR CONSEQUENTIAL, COMPENSATORY, PUNITIVE OR INCIDENTAL DAMAGES HOWSOEVER ARISING FROM SELLER'S PERFORMANCE OF THIS CONTRACT OR THE PERFORMANCE OF THE GOODS.

This Warranty shall not apply to goods which have been repaired or altered by other than authorized representatives of Seller or to damage or defects caused by accident, vandalism, Acts of God, erosion, normal wear and tear, improper selection by Buyer or others, and other causes beyond Seller's control. This Warranty shall not apply to the misapplication, improper installation, or misuse of the goods caused by variations in environment, the inappropriate extrapolation of data provided, the failure of Buyer or others to adhere to pertinent specifications or industry practices, or otherwise.

2. LIMITATION OF SELLER'S LIABILITY: Seller's liability on any claim of any kind, including claims based upon Seller's negligence, breach of contract, or strict liability in tort, for any loss or damage arising out of, connected with, or resulting from the use of the goods furnished hereunder or Seller's performance of this contract, shall in no case exceed the purchase price allocable to the goods or part thereof which give rise to the claim. **IN NO EVENT SHALL SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES HOWSOEVER ARISING OUT OF SELLER'S PERFORMANCE OF THIS CONTRACT AND NOTWITHSTANDING WHETHER SELLER MAY HAVE BEEN ADVISED OR IS ADVISED OF THE POSSIBILITY OF SPECIAL (OR LIQUIDATED) DAMAGES.**



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