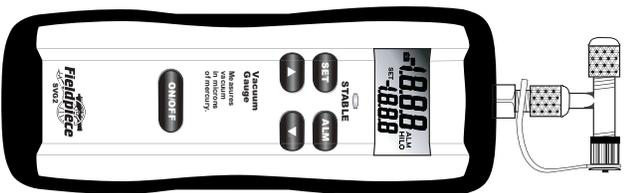


## Standalone

## Vacuum Gauge

## Model: SVG2



## Description

The SVG2 will allow the measurement of a deep vacuum. The reason for evacuating a HVACR system to such deep levels is to remove all contaminants (mainly moisture).

The SVG2 is a portable stand-alone vacuum gauge. The SVG2 is capable of measuring a deep vacuum from 50 to 2000. The SVG2 comes in a rugged rubber boot. The SVG2 also has an alarm that can alert you when a given vacuum is reached.

The alarm can be set for either a high or low target and has both audio and visual indicators. The alarm target is displayed in the lower screen when you press the SET button. The ALM button toggles between Hi alarm, Lo alarm, and no alarm. The LCD also displays whether the target is a high or a low. The SVG2 also has a low battery indicator. The SVG2 also displays "OL" when reading is above 2000 microns.

## Applications

Measure the vacuum on a refrigeration system when evacuating refrigerant. The digital readout shows even small drops in pressure. While target vacuum pressures vary, the technician typically wants a vacuum between 300 and 400 microns for small systems and 700 for large systems.

## Operation

### LCD display:

This meter is equipped with a dual-data display, main (upper) display displays the measurement of vacuum (in microns of mercury).

The secondary (lower) display indicates the rate of change of the reading by using the following designations:

— : When the pressure is increasing, the LCD will flash at a frequency relative to the rate of pressure increase.

≡ : When the pressure is decreasing, the LCD will blink at a frequency relative to the rate of pressure decrease.

SEB : When the rate of change in pressure is zero or near zero, the SEB will appear without flashing.

### Alarm function:

1. Press the ALM (alarm) key to toggle between the three different alarm settings, ALM Hi, ALM Lo and ALM Off.

2. In the ALM Off mode, press the SET key to display the target Hi or Lo alarm. Pressing the  $\blacktriangle$  and  $\blacktriangleright$  arrows will change the target. Press the SET key again to exit to main display.

3. If the ALM Hi is activated, the meter will have an audible and visual alarm when the vacuum goes above the ALM Hi target. If the ALM Lo is activated, the meter will have an audible and visual alarm when the vacuum goes below the ALM Lo

target. The frequency (tone) of the ALM Hi is higher than the ALM Lo.

4. Default ALM Hi and ALM Lo are 300 and 50 respectively.

### The high vacuum pump procedure:

1. Follow all manufacturer's evacuation procedures over those in this manual in regards to specifications on how to evacuate systems.

2. Note: larger systems may take much longer to reach the levels below and a different evacuation method might be preferred.

3. Pull vacuum with a low-vacuum pump (50 to 80 torr or 26 to 27 inches of mercury vacuum) and recover refrigerant as necessary.

4. Switch to a High vacuum pump

5. Connect the SVG2 with the included "T" fitting between the vacuum pump and the system.

6. Set your target Lo alarm (typically in the 50 micron range).

7. Draw a vacuum on the system

8. Once you have reached the low alarm, set your target Hi alarm (typically 300 microns).

9. Power off the vacuum pump and close valves. If it takes more than three minutes for the vacuum to reach 300 microns it is likely that the system is dry and evacuated.

## General

**Temperature coefficient:** 0.1 x (specified accuracy) per °C from 0°C to 18°C and 28°C to 50°C (32°F to 64°F and 82°F to 122°F)

**Battery:** Single standard 9-volt battery, NEDA 1604, JIS 006P, IEC 6F22.

**Battery life:** 6 hours continuity typical.

**Operating environment:** 32°F (0°C) to 122°F (50°C) at <75%RH

**Storage environment:** -4°F (-20°C) to 140°F (60°C) at <80%RH with battery removed from meter.

**Overrange:** "OL" or "OL" is displayed.

**Auto-off power:** 5 minutes only when reading is above 70,000 microns.

**Low battery:**  $\pm$  symbol is displayed.

**Response time:** 0.5 seconds

## Vacuum pressure

**Units of measure:** microns (of mercury)

**Connector type:** Standard 1/4" male flared fitting. "T" fitting included.

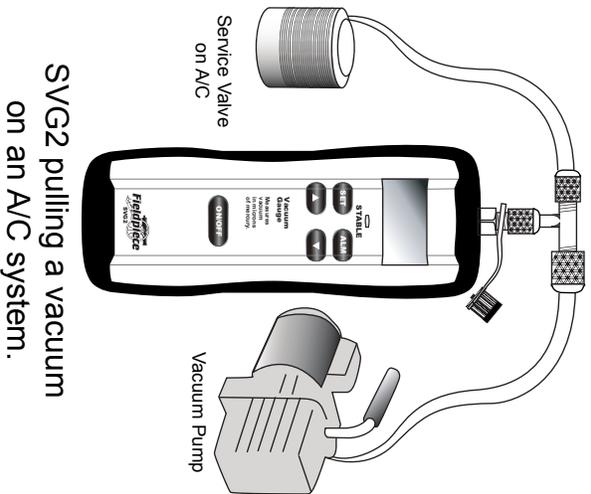
**Resolution:** 1.0 micron (of mercury)

**Accuracy:**  $\pm$ 10% or  $\pm$ 10 microns/ 50 to 1000

microns) at 73°F(23°C)  $\pm$  10°F(5°C), <90%RH

**Measurement range:** 50 to 2000 microns (of mercury)

**Maximum overpressure:** 500psi



SVG2 pulling a vacuum on an A/C system.

## Warranty

The product is warranted to the original purchaser against defects in material or workmanship for a period of one (1) year from the date of purchase. During the warranty period, Fieldpiece Instruments will, at its option, replace or repair the defective unit.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument. Any implied warranty arising out of the sale of Fieldpiece's products including but not limited to implied warranties of merchantability, and fitness for purpose, are limited to the above. Fieldpiece shall not be liable for incidental or consequential damages.

## Service

Any defective SVG2 should be returned to Fieldpiece Instruments for warranty service along with proof of purchase. Call Fieldpiece for a return material authorization (RMA). For out of warranty service, send the SVG2 along with a check or money order for \$70 to Fieldpiece. Your SVG2 will be repaired or replaced at Fieldpiece's option.

## Cleaning the Sensor

Drop isopropyl (rubbing) alcohol into the opening of the SVG2 sensor and pour it out. Leave the sensor opening uncovered long enough to completely evaporate all of the residual alcohol. Do not use an object such as a cotton swab to clean the sensor, you may cause damage to the sensor.



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