APPION

Star Performance

AV760

Full Range Vacuum Gauge

633000 micron

UNITS — HOLD FOR — SYNC

AV760
Full Range Vacuum Gauge

OPERATION MANUAL

Introduction

AC/R system operating efficiency depends on proper evacuation - and proper evacuation depends on a reliable vacuum gauge capable of monitoring the entire evacuation process.

The AV760 accurately displays measurements from atmosphere (760,000 microns) all the way to deep vacuum (10 microns), so you can be sure your system is clean, dry and tight.
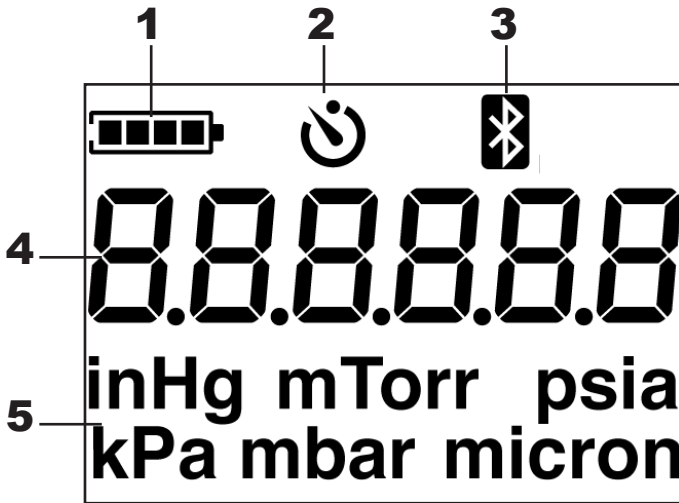
Table of Contents

Safety

- Do not connect to systems under pressure.
- Do not use leaky or damaged batteries.
- Use only specified batteries and cleaning agents.
- Battery operating temperatures may vary by manufacturer. The batteries supplied with this unit are for storage and operating between 32ºF-104ºF (0ºC-40ºC).
- Dispose of batteries in accordance with any applicable local laws and regulations.
- Do not dispose of the product or battery in a fire or heat above 100ºC.
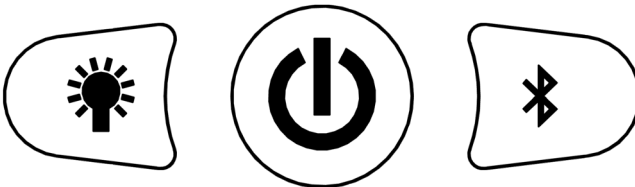
Package Contents

(1) Full Range Measurement Wireless Vacuum Gauge
(1) 1/4" Female Flare Connector
(1) 1/4" MegaSeal Flare Cap with Strap
(5) Oil Catch Filters
(3) AA Batteries
(1) Owners Manual

AV760 OPERATION MANUAL

Display

1- Battery Indicator
2- Auto Power Off
3- Bluetooth Status
4- Measurement
5- Units

Controls

Press	Backlight	Power ON	
Hold	Units	Power OFF	Connect BT
Both	Toggle APO Timer		

1. Press a button for the "Press" function above.

2. Hold a button for 1 second for the "Hold" function.

3. Press **both** Backlight and Power to toggle Auto Power Off (APO) timer feature.

Using the AV760

CAUTION: Do not connect the AV760 to systems under high pressure. While the AV760 is designed to withstand accidental exposure to positive pressures, continued exposure may cause permanent damage.

1. Using the Appion Swivel Vacuum Connector (included), connect the AV760 to an available service port furthest from the vacuum pump.

2. Hand-tighten the connections to ensure a tight connection. *Never tool-tighten a knurled fitting*.

3. Press the Power button to turn on the AV760. A countdown will display while the AV760 starts up and performs self testing.

4. Press and hold the Units button for 1 second to cycle the displayed Units (optional).

Tip: Connect to the Side Access Port on a Vacuum-Rated Valve Core Removal Tool with the Appion Swivel Vacuum Connector. Make sure the core depressor side is attached to the Valve Core Removal Tool.

Tip: Make sure the AV760 is vertical, with the fitting pointed downward. This will help minimize contamination from any oil that may be pulled out of the system during evacuation.

AV760 OPERATION MANUAL

Bluetooth Operation

NOTE: Bluetooth communication requires a compatible device running the ION App. Development of the ION App is ongoing, and any information presented in this manual about the ION App may not be up to date. Visit www.AppionTools.com or your device's App Store for the latest ION App and additional information.

1. With the AV760 powered on, press and hold the "SYNC" button for a few seconds, until the Bluetooth symbol begins flashing on the AV760 screen.

2. In the ION App, "Scan" for devices, and connect as shown in the ION App. When using multiple Appion gauges, it may be easiest to connect all of the gauges first, then disconnect if needed.

3. If the connection is lost due to exceeding the Bluetooth range, or due to loss of power, repeat Step 1, then "Reconnect" the AV760 through the ION App interface.

NOTE: *Bluetooth range may vary due to obstructions or interference. The ION App will indicate when communication is lost.*

NOTE: *The AV760 will continue to operate normally even if Bluetooth communication is lost.*

Tip: *Disable Bluetooth connection on gauge and disconnect gauges from ION App to save battery life.*

ION App

The ION App™ enables remote viewing for appION™ Wireless Digital Gauges.

Reaching a Desired Measurement: In the ALARM subview, set the Low Alarm to the desired micron level. Select OK-Save.

Blank Off Leak Test: Isolate the system from the vacuum pump and the evacuation connections. In the ALARM subview, set the High Alarm to the maximum desired micron level (eg. 500 microns). Select OK-Save.

Monitor Evacuation Speed: To monitor how quickly an evacuation is proceeding select the Rate of Change subview. If the RoC displays as STABLE, the evacuation has stalled and the oil may need to be changed.

Adjust for Elevation: In the Navigation Menu, select Settings, and then select Location Preferences. Turn ON Account for Elevation and adjust settings accordingly.

AV760 OPERATION MANUAL

Maintenance

The AV760 is a precision instrument and must be maintained to ensure proper functions. If the AV760 sensors get dirty and no longer read correctly, the Sensor Housing can be removed to enable easy cleaning of the sensors.

1. Remove the fitting, o-ring, and the oil catch filter from the sensor housing.

WARNING: *Do NOT remove the protective screen covering the sensor.*

2. Apply Isopropyl Alcohol (70% or higher) to the sensor ports and flush the sensor ports for 5 minutes (page 9).

WARNING: *Do NOT touch the sensors or insert any objects into the sensor ports. Doing so may permanently damage the sensors.*
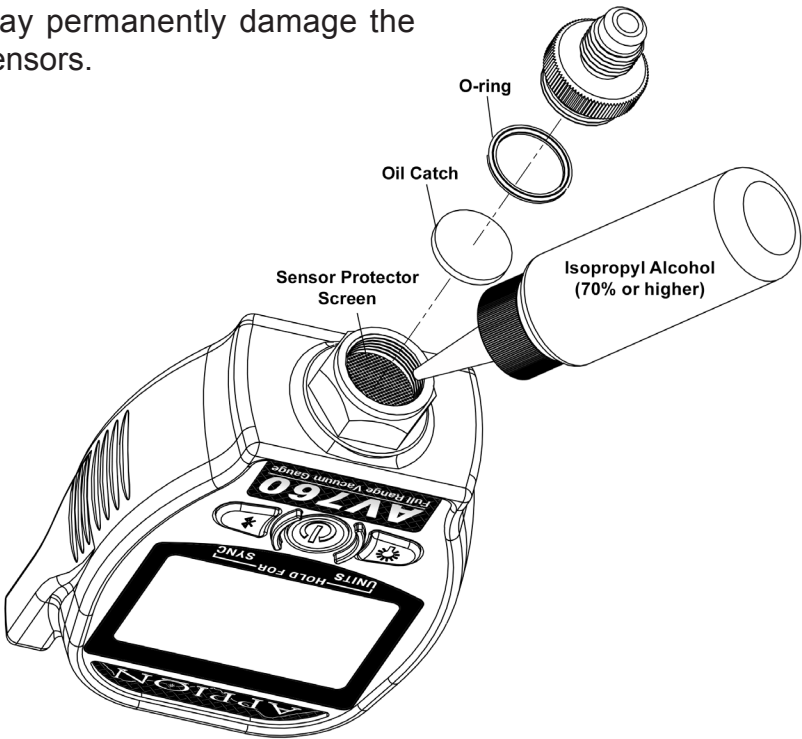
3. Drain the fluid out of the sensor and apply a short low pressure puff of air, no higher than 50psi, directed at the sensor housing. Let dry for at least 1 hour.

4. Replace the o-ring and lubricate with vacuum oil.

5. Check the oil catch filter for oil by blotting it on a clean tissue or paper towel. If any oil remnants appear, discard the oil catch filter and replace with a new one.

AV760 OPERATION MANUAL

Tip: Use every precaution to check the oil catch filter periodically to ensure there is no oil buildup and to prevent gross leaks.

6. Replace the fitting onto the sensor housing port and hand-tighten. *Never tool-tighten a knurled fitting*.

7. Connect the AV760 to a vacuum pump, and run the pump until display reads 100 microns or less.

⚠ NOTICE

Do not insert any objects into the sensor ports. Doing so may permanently damage the sensors.

O-ring

Oil Catch

Sensor Protector Screen

Isopropyl Alcohol (70% or higher)

Technical Information

Measuring Range	760,000 to 1 micron
Accuracy	± 5% ± 10 microns (1 to 5,000) ± 5% (5,000 to Atmosphere)
Resolution	1 micron (1-499), 5 (500-2,000), 50 (2,000 - 5,000), 250 (5,000-15,000), 1,000 (15,000 and up)
Refresh Rate	<0.5 seconds
Units	Microns, mTorr, kPa, mBar, in/Hg, psia
Power	3x AA Batteries
Battery Life	120 hours *(continuous usage with radio turned off)*
Weight	5.9 oz (168.4 grams)
Dimensions	4.86" x 2.86" x 1.39" (123mm x 73mm x 35mm)
Auto Power Off (APO)	After 15 minutes with no change, user input, or Bluetooth activity
Warm-up	10 seconds (with self-test)
Fitting	1/4" Male Flare
Maximum Overpressure	400 psi *(momentary exposure, do not leave connected under pressure)*
Operating Temperature	0º to 140º F (-17.8º to 60º C)
Wireless	Bluetooth, up to 100ft (30m) "line of sight"

Regulatory Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Regulatory Information

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Caution

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada Radio Equipment

This device complies with Industry Canada licence-exempt RSS-210 standard. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Équipement radio d'Industrie Canada

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio
exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne
doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

AV760 OPERATION MANUAL

Warranty Information

Appion Inc. (hereinafter Appion) warrants that this equipment will, under normal and anticipated use, be free from defects in materials and workmanship for a period of one (1) year from the date of purchase by Purchaser from an Appion-authorized distributor.

The complete Manufacturer's Limited Warranty is available online at www.AppionTools.com

All warranty services must receive Appion Factory Authorization and an RGA number prior to any action. Contact your local Appion authorized distributor to obtain the RGA number and shipping instructions. To help us provide the best service, be sure to have the following information available:

- Serial number of the equipment
- Purchase date of the defective unit
- A detailed description of the problem

Appion offers technical and troubleshooting customer support for the lifetime of every product. Regardless of your warranty status, you can always contact us for assistance. Our website includes additional technical information that can help you experience the fullest potential of our products, making your job quicker and easier.

Appion AV760 Warranty Registration Card

Please complete this card and return it within 10 days of purchase **with a copy of your sales receipt.**

Your Name		Your Company	
Street Address		Phone Number	
City		State	Zip
Email Address		Serial Number	
Place of Purchase		Date of Purchase	

How did you learn about our products?
(Please only check one)
- ☐ Wholesaler _____
- ☐ Recommended By: _____
- ☐ Magazine
- ☐ Mailing
- ☐ Newspaper Ad
- ☐ Internet

Please select your primary line of business.
(Check all that apply)
- ☐ Automotive
- ☐ Commercial
- ☐ Residential
- ☐ Service
- ☐ Installation

Register by <u>Mail</u>:
Appion Inc.
2800 South Tejon Street
Englewood, CO 80110 USA

What features most interested you?
(Check all that apply)
- ☐ High Production
- ☐ Low Cost
- ☐ Low Maintenance
- ☐ Portability
- ☐ Ease of Use
- ☐ Other: _____

Register by <u>Email</u> or <u>Fax</u>:
1. Scan this page AND a copy of your sales receipt.
2. Email to: Sales@AppionTools.com
<u>or</u> Fax this page and your sales receipt to: 1-303-937-1599

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