

Replacement Parts

Item	Part Number
Sensor with Filter	AC-SEN0009A
Sensor filters (5 pack)	AC-FIL0001A
Leak Test Vial	AC-LSA0001A
Parts Kit (includes sensor, test vial, & filter kit)	AC-KIT0004A
Carrying Case	AC-CAS0001A

RETURN FOR REPAIR POLICY

Every effort has been made to provide reliable, superior quality products. However, in the event your instrument requires repair, forward unit to Service Center freight prepaid to the address below with return address, phone number and/or email address.

SERVICE CENTER
2651 W 81st Street
Hialeah, FL 33016

WARRANTY POLICY

The D-440A Refrigerant Gas Leak Detector is warranted to be free of defects in materials and workmanship for a period of two years from the date of purchase. This warranty applies to all repairable instruments that have not been tampered with or damaged through improper use including unauthorized opening of the unit. Please ship warranty units that require repair freight prepaid to Service Center along with proof of purchase, return address, phone number and/or email address.

Call Toll Free: 800-222-0956
Fax: 786-235-1202

TECHNO  TOOLS

Model D-440A Refrigerant Gas Leak Detector

Detects all CFC, HFC, HCFC
Refrigerants including blends

User Manual



Certified
SAE J2791
EN14624



INTRODUCTION

The D-440A features a long life heated sensor technology that is designed to detect the more current and difficult HFC refrigerants such as R-134a, R-410a, R-404a, R-407c, and R507 in addition to all HCFC (R22) and CFC (R12) refrigerants including SNAP approved hydrocarbon blends.

The D-440A's unique digital leak size indicator takes the guesswork out of whether or not to repair a small leak. The digital display is independent from the audio alarm and sensitivity level, allowing the precise pinpointing of the leak source.

The D-440A does not require rechargeable batteries. An optional detachable UV light will soon be available that clips on to the probe to allow both electronic or UV detection with one tool.

FEATURES

- Unique numeric leak size Indicator
- R134a sensitivity .05 oz/yr
- Designed Certified to meet SAE J2791 and EN14624
- Visual LED leak alarm near sensor
- Low battery indicator
- Audio mute function
- CE Certified
- 2- year warranty includes sensor
- Long life, stable sensor
- R22 sensitivity .025 oz/yr
- Automatic calibration and reset to ambient
- 3 adjustable sensitivity levels
- True mechanical pump
- Uses 4 AA alkaline batteries
- Comfortable Sanoprene grip
- Made in USA

Product Specifications

Model #	D-440A
Name	Leak Detector, Refrigerant Gas
Sensitivity	.05 oz/yr R134a, .025 oz/yr R22
Sensor Life	> 300 hours
Response Time	Instantaneous
Power Supply	4 AA Alkaline batteries
Battery Life	8 hours continuous
Warm up time	< 20 seconds
Probe length	17 inches
Numerical Display	7 segment digital display (1 to 9)
Weight, lbs	1.5 lbs
Warranty	2 years (includes sensor)

EN14624/2005 Test Specifications

Minimum/Maximum Sensitivity Threshold (fixed)	1 gm/yr minimum, >50 gm/yr maximum
Minimum/Maximum Sensitivity Threshold (moving)	3 gm/yr minimum, > 50 gm/yr maximum
Minimum Detection Time (1gm/yr)	Approx 1 sec
Clearing Time	Approx 9 seconds after exposure to >50 gm/yr
Minimum Threshold after Maximum Exposure	1 gm/yr
Sensitivity Threshold in Polluted Atmosphere	1 gm/yr
Calibration Frequency	1/yr check with calibrated leak Standard

Cross Sensitivity to Automotive Chemicals

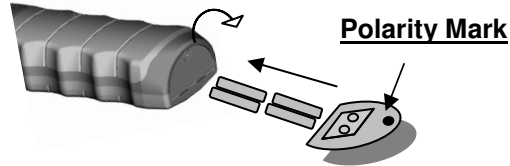
Some automotive solvents and chemicals have similar hydrocarbon properties as R134a and may elicit a positive response (<30 seconds) from the D440A. Before leak checking, clean up any chemicals in the list below that elicit a positive response.

Chemical Name/Brand	Response
Rain-X Windshield Wash Fluid	Y
Ford Spot Remover (Wet)	Y
Ford Rust Inhibitor	Y
Ford Gasket Adhesive (Wet)	Y
Loctite Natural Blue degreaser (diluted)	Y
Ford Brake Parts Cleaner	Y
Ford Silicone Rubber (uncured)	Y
Motorcraft Antifreeze heated to 160 deg F	Y (partial)
Gunk liquid wrench	Y
Ford silicone lubricant	N
Ford Pumice lotion (with solvent)	Y
Ford Motorcraft brake fluid	Y
Ford Carburetor Cleaner	Y
Dextron Transmission fluid heated to 160 deg F	N
Quaker State Motor Oil heated to 160 deg F	N

Maintenance

Batteries:

Install Batteries: Remove screw located at rear end of unit and pull down hinged battery door to open as shown. Always insert all four batteries into the battery compartment in the same direction. Note polarity mark on the inside of the battery door for proper battery orientation.

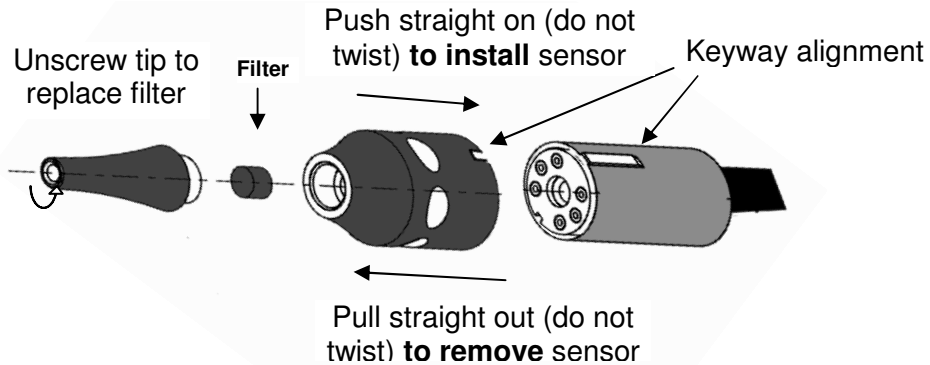


Sensor:

Replace Filter: Unscrew sensor tip as shown to replace filter. Replace filter whenever it becomes visibly dirty or every 2 to 3 months depending on use.

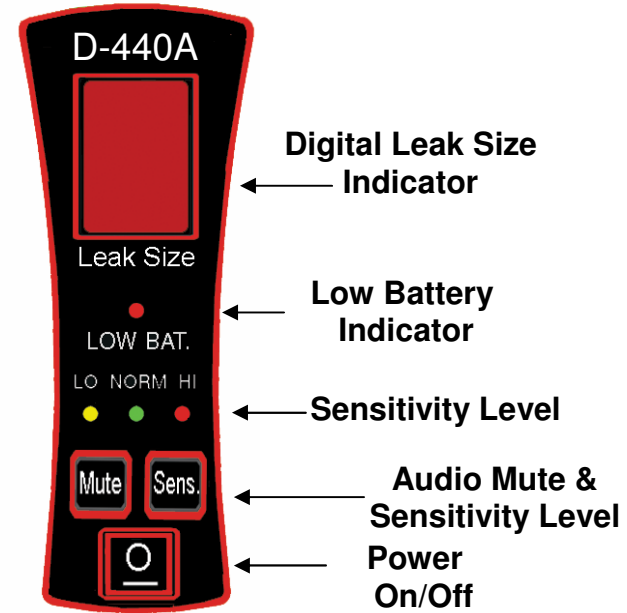
Replace Sensor: Remove sensor by pulling out of socket. Install the new sensor by aligning the notch in sensor cover with the raised keyway on sensor socket holder (see figure below).

Note: Do not force sensor into socket. Misalignment can damage the sensor pins.



IMPORTANT: Make sure sensor is fully inserted for proper operation. The detector will stay in warm-up mode and the on/off switch will become inoperative if the sensor becomes loose or is not fully inserted.

D-440A Control Panel



Operating Instructions

- TURN ON:** Press the ON/OFF button once to turn on and again to turn off. **NOTE:** Hold button down for approximately 1 second to turn unit off.
- WARM UP:** The detector automatically starts heating the sensor. During the heating cycle, the digital leak size indicator will flash 0 and the detector will sound a slow "beep". Warm up is usually less than 20 seconds.
- READY:** The detector is ready to begin searching for leaks when the flashing 8 stops and the green sensitivity LED turns on. The audio "beep" increases in frequency and probe LED begins to blink steadily.

Leak Size Indicator

The digital leak size indicator remains off normally but once a leak is detected, a number from 1-9 will be displayed for all HFC and HCFC refrigerants *regardless of the sensitivity setting.*

The number will continue to increase or decrease depending on the amount of refrigerant sensed. The maximum value will be displayed once the leak source has been located. The table below can be used to approximate the size of leak:

Maximum # displayed	Leak Size (oz/yr)
1 -3	< 0.1
4-6	0.1 to 0.5
7-9	>0.5

Low Battery Indicator

Replace the 4 AA Alkaline batteries when the red LED on the control panel is lit. Follow battery installation instructions under **Maintenance** section.

Audio Mute Function

To silence or mute the audio beep and alarm signal, press the MUTE button. To restore the audio sound, press the MUTE button again. (Note: a few seconds is required to restore sound if the mute button is pressed in rapid succession.)

Adjusting Sensitivity Levels

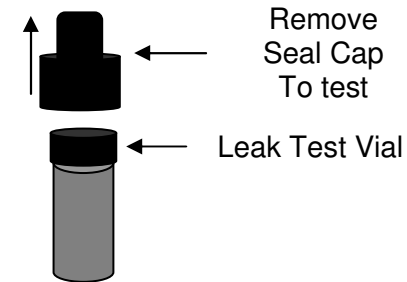
The Leak Detector will default to the NORM sensitivity level automatically once the unit comes out of the warm up cycle and the green LED will turn on.

To change sensitivity levels, press the SENS once for HI sensitivity (red LED will turn on) and again for LO sensitivity (yellow LED will turn on).

Leak Test Vial

The leak detector comes with a Leak Test Vial that allows the user to make sure the detector is performing properly. To test:

1. Remove the plastic seal cap on top of the Leak Test Vial by pulling it off (see fig. below).
2. Turn on the detector and allow the unit to complete the warm up cycle.
3. Place the sensor close to the small hole in the top of the Leak Test Vial. The beep rate should increase and the Digital Leak Size Indicator should display a number from 4-6 indicating that the sensor and electronics are working properly.



NOTE: Always remember to replace plastic seal cap after leak test is completed. Replace Test Vial when the green color is no longer visible.