Model ATD-36750
Refrigerant Gas Leak Detector

Detects all CFC, HFC, HCFC, HFO
Refrigerants including blends

User Manual

Design certified by
ASCI and Intertek to
meet SAE J2791,
J2913 & EN14624

Made In U.S.A.

INTRODUCTION

The ATD-36750 features a patented 3 LED UV that emits the optimum wavelength for A/C dye fluorescence. The UV light can be used simultaneously with the heated sensor or independently. The D440A-UV does not require rechargeable batteries.

The ATD-36750 features a long life solid electrolyte semiconductor sensor technology that is designed to detect the more current and difficult HFC refrigerants such as R-134a, R-410a, R-407c, R-507, and R-404c, in addition to the new HFO-1234yf and all HCFC (R-22) and CFC (R-12) refrigerants including SNAP approved hydrocarbon blends.

The ATD-36750'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.

FEATURES

- Patented 3 LED UV lights
- Unique numeric leak size Indicator
- Long life, stable sensor
- R-134a sensitivity .05 oz/yr
- R-22 sensitivity .025 oz/yr
- Designed Certified to meet SAE J2791, J2913 and EN14624
- Automatic calibration and reset to ambient
- Visual LED leak alarm near sensor
- 3 adjustable sensitivity levels
- Low battery indicator
- True mechanical pump
- Audio mute function
- Uses 4 AA alkaline batteries
- CE Certified
- Comfortable Sanoprene grip
- 2- year warranty includes sensor
- Made in USA

NOTES:

NOTES:

ATD-36750 Control Panel

Digital Leak Size Indicator

Low Battery Indicator

UV Light Power On/Off

Sensitivity Level

Audio Mute & Sensitivity Level

Power On/Off

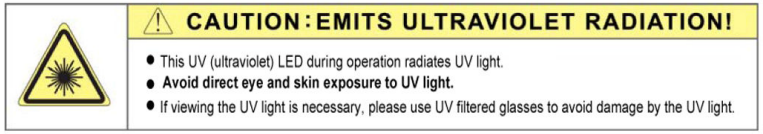
Operating Instructions

1. **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.

2. **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.

3. **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.

UV Light Operation



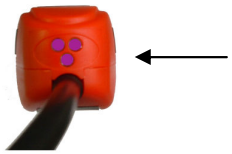
Before leak checking with the UV light:

(a.) Make sure the A/C system is properly charged with sufficient dye. (See manufacturer's specifications for proper dye charge.)
(b.) Run the A/C system long enough to thoroughly mix and circulate the dye with the refrigerant and lubricating oil.

1. Turn on UV light by pressing the UV light ON/OFF button. (See control panel on page 2)

2. Holding the leak detector approximately 10" to 14" away, shine the UV light beam slowly over the components, hoses, and metal lines that make up the A/C system.

3. When the UV light shines on the fluorescent dye that has escaped from the system, the dye will glow a bright yellow green.



3 UV LED's

Replacement Parts

Item	Part Number
Sensor with Filter	PRT3700-01
Sensor filters (5 pack)	PRT3700-02
Leak Test Vial	PRT3700-03
Carrying Case	PRT3699-CASE

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 ATD-36750 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.

Product Specifications

Model #	**ATD-36750**
Name	**Leak Detector, Refrigerant Gas**
Sensitivity	**.05 oz/yr R134a, .025 oz/yr R22**
Sensor Life	**> 10 years**
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. 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

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).

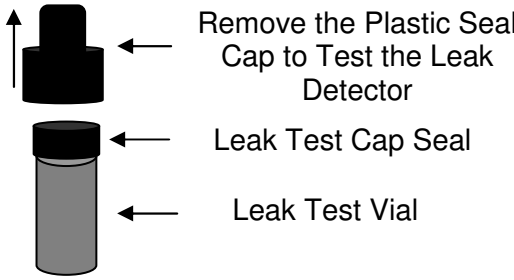
Leak Test Vial

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 the top of the Leak Test Vial by pulling it off (see fig. below). Also, remove and discard the circular Leak Test Cap Seal.

2. Turn on the leak 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.

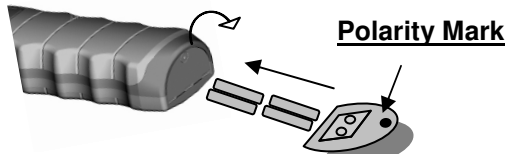


NOTE: Remember to replace the Plastic Seal Cap after the leak test is completed. Replace the Leak Test Vial when the green media color is no longer visible and the leak media has evaporated. Remove the threaded cap on the Vile to confirm the status of the leak test media. After the leak test media has evaporated, it is normal for there to be a green film on the wall of the Leak Test Vial.

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.

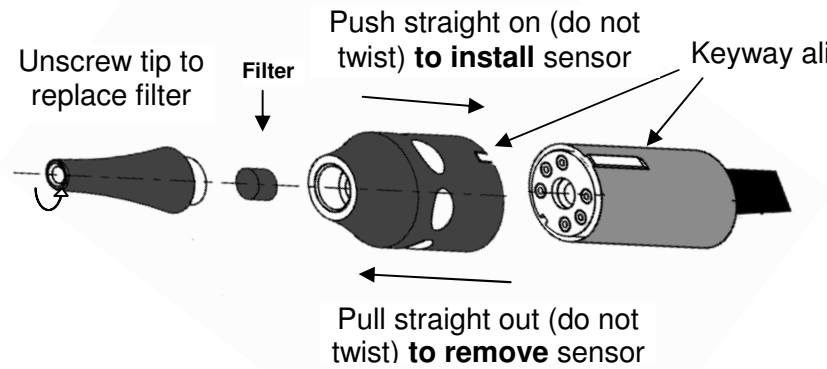


Sensor:

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 Keyway 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: The instrument's software is designed to alert the user if the sensor is dislodged or defective. If the sensor is not fully inserted into the six-pin socket, or if it is defective, the instrument will not come out of the "Warm Up" mode for proper operation when the power button is turned on. Additionally, if the instrument becomes unstable during its operation, it is an indication that the sensor may be defective.