## Replacement Parts

| Item | Part Number |
|---|---|
| Sensor with Filter | PRT3700-01 |
| Filter Kit | PRT3700-02 |
| Test Vial | PRT3700-03 |
| Carrying Case | PRT3699-CASE |
| Instruction Manual | PM-MAN0010 |

## 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 ATD3699 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 including an industry first two year warranty on the sensor. 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.

# Model ATD3699
# Refrigerant Gas Leak Detector

Detects all CFC, HFC, HCFC
Refrigerants including blends

# User Manual


Design Certified to meet
SAE J2791 and EN14624
For R134a

## INTRODUCTION

The ATD3699 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-407c, R-507, and R-404c in addition to all HCFC (R22) and CFC (R12) refrigerants including SNAP approved hydrocarbon blends.

The ATD3699'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 ATD3699 does not require rechargeable batteries.

## FEATURES

- Unique numeric leak size Indicator
- Long life, stable sensor
- R134a sensitivity .05 oz/yr
- R22 sensitivity .025 oz/yr
- Certified to meet new SAE 2791 standard
- 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
- SAE J1627 Certified
- Comfortable Sanoprene grip
- Garage Tough
- CE Certified
- 2- year warranty including 2 years for the sensor
- Made in USA



## Product Specifications

| | |
|---|---|
| **Model #** | **ATD3699** |
| **Name** | **Leak Detector, Refrigerant Gas** |
| **Sensitivity** | **.05 oz/yr R134a<br>.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**

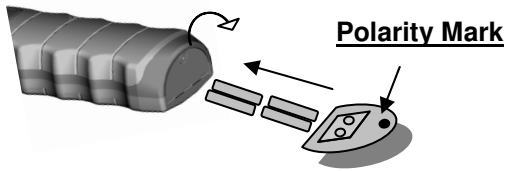
Some automotive solvents and chemicals have similar hydrocarbon properties as R134a and may elicit a positive response (<30 seconds) from the ATD3699. Before leak checking, clean up any chemicals in the list below that elicit a positive response.

| Brand/Chemical Name | Response | Clears <30 seconds |
|---|---|---|
| Dextron Transmission fluid heated to 160 ºF | N | N/A |
| Quaker State Motor Oil heated to 160 ºF | N | N/A |
| Rain-X Windshield Wash Fluid | N | N/A |
| Ford silicone lubricant | N | N/A |
| Ford Rust Inhibitor (when wet) | Y | Yes |
| Ford Gasket Adhesive (when wet) | Y | Yes |
| Loctite Natural Blue degreaser (undiluted) | Y | Yes |
| Ford Brake Parts Cleaner (when wet) | Y | Yes |
| Ford Silicone Rubber (when uncured) | Y | Yes |
| Motorcraft Antifreeze heated to 160 ºF | Y | Yes |
| Gunk liquid wrench (when wet) | Y | Yes |
| Ford Spot Remover (when wet) | Y | Yes |
| Ford Pumice lotion (with mineral solvent) | Y | Yes |
| Ford Motorcraft brake fluid | Y | Yes |
| Ford Carburetor Cleaner (when wet) | Y | Yes |

## 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.

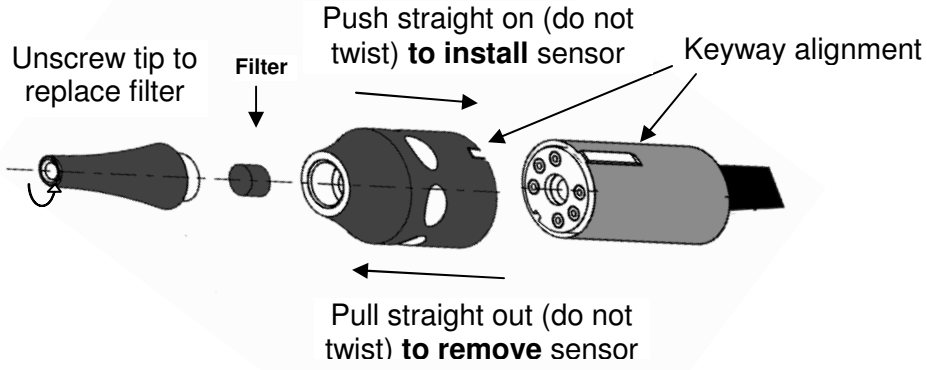



### Sensor:

**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.

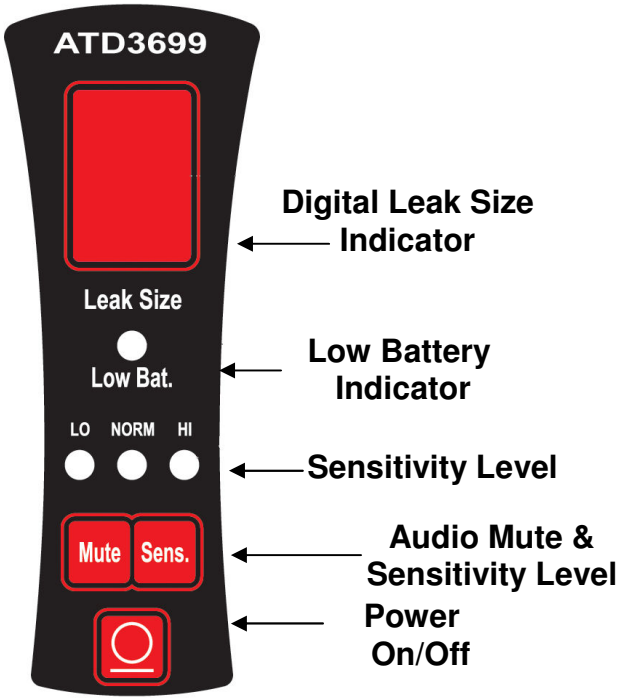
**Replace Sensor**: Remove sensor by pulling out of socket. Install the new sensor by aligning the notch in sensor cover with the raised keyway on sensor socket holder (see figure below).

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






## ATD3699 Control Panel




## Operating Instructions

1. **TURN ON:** Press the ON/OFF button once to turn on and again to turn 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 **0** 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).

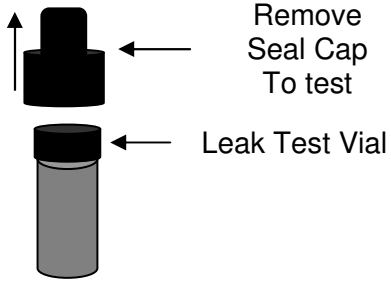
## Leak Test Vial

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.*