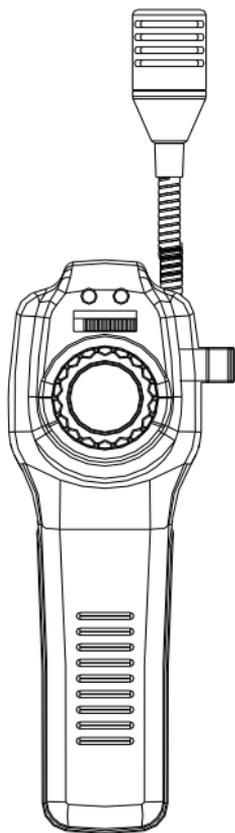


REFRIGERANT LEAK DETECTOR OPERATIONS MANUAL LD-170



Introduction

The LD-170 Refrigerant Leak Detector detects all CFC refrigerants such as R-22, R-124, R-11 and R-12, as well as the more current and difficult-to-detect HFC refrigerants such as R-134a, R-404A, and new R-22 replacements like R-410A and R-407C. The LD-170's long, slim gooseneck probe design is easy to use in close areas and for extending into hard-to-reach spaces. The adjustable alarm, easy one-hand operation and impact resistance storage case add up to value and convenience

Applications and Features

Easily operate the Refrigerant Leak Detector with one hand to detect the presence of refrigerants. Audible and visual indicators help pinpoint leak sources. Adjustable sensitivity (alarm rate) helps eliminate background gas concentration in contaminated environments.

- Highly sensitive, can detect down to 100 ppm of R-134a or R-22.
- Adjustable sensitivity (alarm rate) to locate leaks quickly and easily.
- Visual leak detection by LED indicator.

- Precision sensor detects even the smallest leaks.
- Includes earphone jack.
- 16" flex-neck probe.

International Symbols



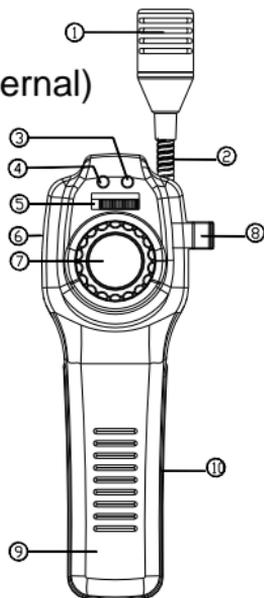
Important Information; see manual



Conforms to European Union directives

Controls and Indicators

1. Sensor Tip Guard & Sensor (internal)
2. Gooseneck Probe
3. Alarm Light
4. Ready Light (Power-On)
5. Power ON/OFF Slide Switch
6. Earphone Jack
7. Sensitivity Adjustment Wheel
8. Gooseneck Clip
9. Hand Handle
10. Battery Compartment & Cover



Instructions

Switch on the Refrigerant Leak detector by sliding the ON/OFF slide switch to the right. The READY

light should glow green. The Refrigerant Leak Detector runs through a one-minute warm-up and self-zeroing sequence when it is first turned on in fresh air. The alarm may initially sound without contact with any gas. This is caused by the high sensitivity presets of the Sensitivity Adjustment Wheel. Adjust sensitivity to lowest setting. If the alarm does not stop within 30 seconds, your unit may need service.

Sensitivity Adjustment

Each time the instrument is put into service, you should conduct a quick functional test. Adjust the sensitivity to a non-alarm level. Then expose the sensor to a known refrigerant source, like a refrigerant cylinder. After the initial test and warm-up, the instrument can be used to detect refrigerant. When the sensor in the probe tip detects refrigerant, the alarm rate will increase and the instrument sounds a warbling tone while the ALARM light glows. As the concentration of gas increases so does the alarm rate.

If the situation calls for quiet operation, or if background noise makes it difficult to hear the built-in speaker, you can use an earphone. The earphone jack is on the side of the instrument. **Note: Listening to the alarm through earphones is very loud.**

If the **READY** light does not glow green, the batteries might be low. They should be replaced immediately. Low batteries will adversely affect the instrument's reliability. For more information, see the Battery Replacement procedures.

Adjusting the Alarm Rate (Sensitivity)

The alarm rate tells you when the sensor (in the tip of the instrument) is getting close to a refrigerant source. You can control the alarm rate using the sensitivity adjustment wheel in the center of the instrument.

- Turn the wheel clockwise to increase the sensitivity.
- Turn the wheel counter-clockwise to decrease the sensitivity.

The rate of alarm increases as the sensor comes closer to a refrigerant source. To isolate the source of a leak, you may need to move the sensitivity adjustment wheel counter clockwise, decreasing the sensitivity, as the sensor moves closer to the leak source.

Battery Replacement

Replace your 1.5 volt /size "C" alkaline batteries when:

- The green **READY** does not illuminate.

- No light or other activity occurs when powering on the instrument.

To replace the batteries:

1. Lay the instrument face-down on a flat surface.
2. Remove the battery cover. Gently press in on battery cover while sliding down.
3. Remove the batteries. Use a coin or screwdriver, if necessary, to pry them out.
4. Replace all three batteries with new batteries.
5. Replace battery cover and test unit.

Replacing the Sensor

Although the sensor is designed to offer many years of reliable service, it may become inoperable if it is submerged in liquid or otherwise physically damaged.

To replace the sensor:

1. Turn the instrument off.
2. Remove the upper tip guard by pressing straight up from the alignment notch that separates the two halves of the tip guard.
3. This is a sturdy component, but use caution to not bend the sensor's leads.
4. Pull the sensor straight up from its tip housing.
5. Replace the sensor, pressing it straight in.
6. Reassemble in reverse order.

Specifications

Sensitivity	100 ppm of R-134a/R- 22
Sensor Type	Low power semiconductor
Warm Up Time	Less than 1 minute
Response Time	Less than 2 seconds
Alarm	Visible & Audible for all chlorofluorocarbons (CFC).
Power Supply	3 x "C" Alkaline Batteries
Battery Life	8 Hours, Continuous Use
Duty Cycle	Continuous
Probe Length	16" gooseneck
Dimensions	221mm x 72mm x 46mm
Weight	498g
Warranty	2 years

Operating Conditions

To ensure accurate readings use it only when ambient air is within this range:

Temperature: 32 to 120°F

Humidity: 10 to 90% RH (non-condensing)

Partial list of refrigerants

R-12 ALTERNATIVES	R-22 ALTERNATIVES
R-134a, R-401a(MP-39), R-401B(MP-66), R-401C(MP-52), R-406A(GHG)	R-407C,R-401A,R-410B,R-507
R-414A(GHG-X4), R-414B(hot Shot). R-416A(Frig C, FR-12)	R-113, R-13B& R-503 ALTERNATIVES
R-409A(FX-56), Freeze 12, Free Zone, GHG-X5, GHG-HP, IKON 12	R-403B, R-508A, R-508B
R-502,R-500 ALTERNATIVES	HC REFRIGERANTS (not SNAP* approved)
R-402A, R-402B, R-404A, R-407A, R-408A, R-411A, R-411B, R-507	R-290,R-600A, R-170/R-290, R-600A/R-290

*SNAP is the EPA's Significant New Alternatives Program for ozone depleting refrigerants for mobile and stationary A/C systems.

Warranty

This PDI product is warranted to be free from defects in materials and workmanship for a period of two (2) years from the verified date of purchase. During this warranty period, PDI will either repair or replace the defective unit, at PDI's discretion. A purchase receipt or other acceptable form of proof of original purchase date will be required before any warranty processes begin. PDI warrants all authorized repairs with a six (6) month limited warranty. View full warranty details and register your PDI product at www.PDIimeters.com

NOTE: Online product registration is required for all warranty claims. All warranty claims must have a Return Goods Authorization assigned from PDI, in order to begin processing. Contact PDI for more details.





Precision Diagnostic Instruments

7581 W. 103rd Ave.

Westminster, CO 80021

Tel: 1-800-453-7892

Fax: 303-650-1238