

# PROWLER

## LD 5000 REFERIGERANT LEAK DETECTOR



**JB INDUSTRIES INC.**



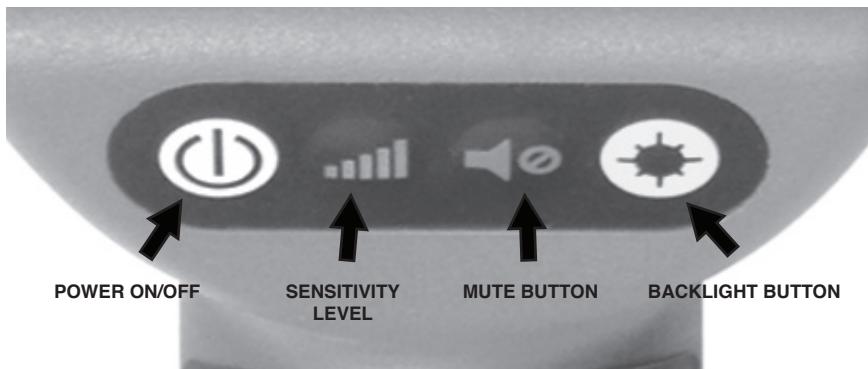
## PRODUCT OVERVIEW

JB Industries is proud to unveil the new, revolutionary LD 5000 PROWLER refrigerant gas leak detector. Using our new proprietary JBI Electrochemical sensor technology for unparalleled accuracy coupled with the unique user features, there simply is no better hand held probe type service leak detector system on the market. The LD 5000 uses a long life sensor that is designed to detect the more current and more difficult HFC refrigerants such as R-134a, R-410A, R-404A, R-407C, and R-507 in addition to all HCFC (R-22) and refrigerants including SNAP approved hydrocarbon blends. The sensitivity is extremely accurate for all HFC, HCFC and blended refrigerants as well as the new HFO refrigerants. The sensor is durable and will not be damaged by overexposure to refrigerant gas or contaminated by condensate water. Its slim-line design makes it easy to probe difficult to search areas. The technology provides for low battery consumption, excellent circuit stability, extremely long sensor life, and the electrochemical function of the sensor does not diminish over time with use. The sensor life has been tested to be greater than ten years, which is unique in the industry and it is safe to use in a combustible atmosphere. The PROWLER features a large LCD screen that flips upward so the user can adjust the screen position for better visibility. The bar graph shows the intensity of a leak to help pinpoint the source of the leak. The sensitivity can be programmed from high to medium to low. If a leak is detected, there is an audible alarm that will sound, vibration in handle, and bar graph on the screen. The LCD display also indicates the amount of remaining battery life. The LD 5000's unique digital leak size indicator takes the guesswork out of whether or not to repair a small leak. The adjustable LCD display is independent from the audio and/or vibrating handle alarms and sensitivity level, allowing for the precise pinpointing of the leak source. The PROWLER does not require rechargeable batteries and operates on 4 AA batteries (included).

Certified to meet the standards  
of CE, EN14624, SAE J2791

24 Month Warranty

Detects R-1234yf a replacement for all HFC (R-134a) and HCFC (R-22) refrigerants currently being phased out



## HOW TO OPERATE

**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 energizes the sensor conditioning it for use. During the sensor conditioning cycle, the digital graph leak size indicator will gradually increase and the detector will sound a slow “beep”. Warm up mode is usually less than 20 seconds and is complete when the digital graph displays all 10 bars. **NOTE:** When the detector has not been used for long periods, conditioning may take slightly longer than usual.

**3) READY:** The detector is ready to begin searching for leaks when the sensitivity setting (Hi, Med, or Low) and the battery indicator are displayed on the LCD. The audio “beep” increases in frequency.

### LOW BATTERY INDICATOR

The battery indicator consists of the battery outline with 3 bars within the outline and located in the upper center portion of the LCD display. Battery level indication is the following:

Three Bars:	Full Voltage
Two Bars:	1/2 Life
One Bar:	1/4 Life
No Bars:	Low Voltage (Change Batteries)
No Bars/ Blinking:	Unit will be disabled and not function properly in this state

Replace the 4 AA Alkaline batteries when the battery indicator shows no bars. Follow battery installation instructions under MAINTENANCE.

## LEAK SIZE INDICATOR



The digital leak size indicating LCD graph display remains off normally but once a leak is detected, a number of indicating bars (up to 10 bars with increasing height) will be displayed for all HFC and HCFC refrigerants regardless of the sensitivity setting. **NOTE:** The LCD display angle can be adjusted for ease of viewing when referring to the display for leak size. The display may be adjusted from normal viewing (closed position) to a 30 degree angle if required. The backlight may be turned on for low light conditions.

The graph 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. This table can be used to approximate the size of leak:

# OF BARS	SIZE OF LEAK (OZ/ YR)
1-3 bars	< 0.1
4-6 bars	0.1 to 0.5
7-10 bars	> 0.5

## AUTO MUTE FUNCTION AND VIBRATING HANDLE

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.)

Vibrating handle mode is always on. In noisy environments or if the audio alarm is muted the vibrating alarm provides leak detection without having to view the display.

## ADJUSTING SENSITIVITY LEVELS



The Leak Detector will default to the MED sensitivity level automatically once the unit comes out of the warm up mode and the battery indicator and sensitivity level are displayed.

To change sensitivity levels, press the Sensitivity button once for HI sensitivity and again for LO sensitivity.

## **BACKLIGHT**



To turn on the LCD display backlight, press the Backlight button once. Press again to turn off.

## **LEAK TEST VIAL**

The PROWLER 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 label 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 mode (Sensitivity level set at MED).
- 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 Graph should display a minimum of 3 bars indicating that the sensor and electronics are working properly.



**NOTE:** Always remember to replace the leak test vial back into the plastic bag after test is complete. Seal the bag to prevent the media from drying out. Replace Test Vial when the green color is no longer visible.

## **MAINTENANCE**

### **Batteries:**

Install Batteries: Remove screw located at the center area of the bottom housing and remove battery door as shown. Always insert all four batteries into the battery compartment in the same direction. Note polarity mark on the inside of the battery compartment for proper battery orientation.

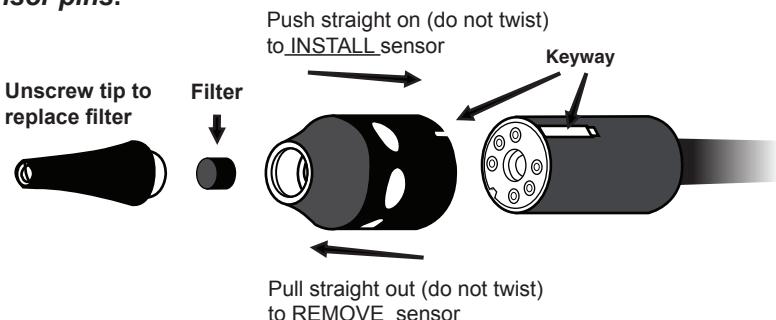


## **Sensor:**

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 the 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 if the sensor becomes loose or is not fully inserted.**

## **CROSS SENSITIVITY TO AUTOMOTIVE CHEMICALS**

Some automotive solvents and chemicals have similar hydrocarbon properties as R-134a and may elicit a positive response (<30 seconds) from the PROWLER. Before leak checking, clean up any of the following chemicals that elicit a positive response:

- \* Rain-X windshield Wash Fluid
- \* Ford Spot Remover (wet)
- \* Ford Rust Inhibitor
- \* Ford Gasket Adhesive (wet)
- \* Loctite Natural Blue degreaser (diluted)
- \* Ford Brake Parts Cleaner
- \* Ford Silicone Rubber (uncured)
- \* Motorcraft Antifreeze heated to 160 degrees F (PARTIAL RESPONSE)
- \* Gunk liquid wrench
- \* Ford Pumice lotion (with solvent)
- \* Ford Motorcraft brake fluid
- \* Ford Carburetor Cleaner

## **PROWLER SPECIFICATIONS**

Model #:	LD 5000
Name:	PROWLER Leak Detector, Refrigerant Gas
Sensitivity:	0.025 oz/yr R-22, 0.05 oz/yr R-134a, 0.0125 oz/yr R-1234yf, 0.05 oz/yr R-410A, 0.05 oz/yr R-404A, 0.05 oz/yr R-407A, 0.05 oz/yr R-427A
Sensor Life:	> 10 years (normal use)
Response Time:	Instantaneous
Power Supply:	4 AA Alkaline batteries
Battery Life:	4.5 hours continuous
Warm Up Time:	< 20 seconds
Probe Length:	17"
LCD Display:	Sensitivity, Battery Light, Leak Level Indication
Weight, lbs.:	1lb. 3.4 oz.
Warranty:	2 years includes sensor

## **EN 14624 TEST SPECIFICATIONS**

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

## **REPLACEMENT PARTS**

<b>Description</b>	<b>Part Number</b>
Replacement Sensor with filter	LD-S101
Replacement Filters (5 pack)	LD-RF5
Leak Test Vial	LD-TV
Parts Kit (sensor, filter kit, test vial)	LD-PK
Carrying case	LD-CS

## **WARRANTY**

The PROWLER LD 5000 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.

## **RETURN PRODUCT FOR REPAIR POLICY**

Every effort has been made to provide reliable, superior quality products. However, in the event that the instrument needs repair, for units still under warranty return to the wholesaler from whom the device was purchased. The wholesaler should contact customer service 800-323-0811 to request an RGA # and include all necessary documentation. For units out of warranty, the user is asked to call customer service directly at 800-323-0811 to determine estimates for repair.



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