



[Manuals.plus](#) /

> [CPS](#) /

> CPS LDA1000H Electronic Leak Detector User Manual

CPS LDA1000H

CPS LDA1000H Electronic Leak Detector User Manual

Model: LDA1000H

1. INTRODUCTION

The CPS LDA1000H Electronic Leak Detector is a state-of-the-art instrument designed for precise identification of refrigerant leaks. This device is certified for SAEJ2791 for R134a and meets the standards for SAEJ2913 for the new HFO1234YF refrigerant. It is also compatible with all HFC, HCFC, and CFC gases. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your LDA1000H leak detector.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the CPS LDA1000H. Failure to follow these instructions may result in injury or damage to the device.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when working with refrigerants.
- Use the leak detector in a well-ventilated area to avoid inhaling refrigerant vapors.
- Do not expose the device to extreme temperatures, moisture, or corrosive substances.
- Keep the device away from open flames or ignition sources, as some refrigerants may be flammable.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.
- Ensure the battery compartment is securely closed to prevent moisture ingress.

3. PRODUCT OVERVIEW

3.1 Key Features

- **E-MOS Sensor Technology:** Incorporates a modular design to enhance both battery and sensor life.
- **Extended Sensor Life:** Provides a minimum of 500+ hours of operational sensor life.
- **Long Battery Life:** Offers 50+ hours of continuous operation.
- **Automatic Shut-off:** Device powers down automatically after 10 minutes of inactivity to conserve battery.

- **One-Touch Operation:** Single button for powering on and cycling through sensitivity levels.
- **Dual Leak Indication:** Features both visual and audible indicators for leak detection.
- **Sensor Rejuvenation:** Software-managed sensor rejuvenation mode activates at each startup for optimal sensitivity.
- **High Sensitivity:** Capable of detecting leak rates as small as 0.1 oz/year.
- **Low Battery Indicator:** LED indicator illuminates when battery level drops to 10%.

3.2 Components

The CPS LDA1000H consists of a main unit, a flexible probe, and a sensor tip.



Figure 1: CPS LDA1000H Electronic Leak Detector. The main body is black with a red stripe, featuring a power/sensitivity button and indicator lights. A flexible metal probe extends from one end, terminating in a sensor tip.

- **Main Unit:** Houses the electronics, power button, sensitivity controls, and visual indicators.
- **Flexible Probe:** Allows access to hard-to-reach areas for leak detection.
- **Sensor Tip:** The detection element at the end of the flexible probe.
- **Power/Sensitivity Button:** Controls power and adjusts sensitivity levels.
- **Visual Indicators:** LEDs that provide visual feedback on leak presence and sensitivity.
- **Audible Alarm:** Emits a sound to indicate leak detection.

4. SETUP

1. **Unpacking:** Carefully remove the LDA1000H from its packaging. Inspect the device for any signs of damage.
2. **Battery Check:** The device is designed for 50+ hours of battery life. Ensure the device is charged or has sufficient battery power before use. The low battery indicator will alert you when the battery level is at 10%.
3. **Initial Power-On:** Press the one-touch button to power on the device. The sensor rejuvenation mode will activate automatically, preparing the sensor for optimal performance.

5. OPERATING INSTRUCTIONS

1. **Powering On:** Press and hold the one-touch button until the device powers on. The device will perform an automatic sensor rejuvenation cycle.
2. **Adjusting Sensitivity:** After powering on, briefly press the one-touch button to cycle through the available sensitivity levels. Select the appropriate sensitivity for the detection task. Higher sensitivity is for smaller leaks, lower for larger leaks or to avoid false positives in contaminated areas.
3. **Leak Detection Procedure:**
 - Slowly move the flexible probe around suspected leak areas.
 - Maintain a consistent speed of movement, typically 1-2 inches per second.
 - Pay close attention to both the visual indicators (LEDs) and the audible alarm.
 - A sustained visual and/or audible indication signifies a detected leak.
 - To pinpoint the exact leak location, move the probe away from the area and then slowly approach it again, narrowing down the source.
4. **Automatic Shut-off:** The device will automatically power off after 10 minutes of inactivity to preserve battery life.

6. MAINTENANCE

- **Sensor Care:** The E-MOS sensor is designed for longevity (500+ hours). Avoid physical damage to the sensor tip. If the sensor becomes contaminated, gently clean it with a dry, lint-free cloth. Do not use liquids or solvents.
- **Battery Maintenance:** The device features a long-life battery (50+ hours). When the low battery indicator illuminates, recharge or replace the batteries as per manufacturer guidelines (if applicable). Ensure proper battery polarity if replacing.
- **Cleaning:** Wipe the main unit with a soft, damp cloth. Do not use abrasive cleaners or immerse the device in water.
- **Storage:** Store the LDA1000H in a clean, dry environment, away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Check battery level. Recharge or replace batteries.
No leak detection or inconsistent readings.	<ul style="list-style-type: none"> • Incorrect sensitivity setting. • Contaminated sensor tip. • Sensor nearing end of life. • Rapid probe movement. 	<ul style="list-style-type: none"> • Adjust sensitivity to a higher level. • Clean the sensor tip. • Contact CPS support for sensor replacement. • Move the probe slowly and consistently.
False alarms.	<ul style="list-style-type: none"> • High sensitivity in a contaminated environment. • Presence of other gases or vapors. 	<ul style="list-style-type: none"> • Reduce sensitivity. • Ensure proper ventilation.
Low battery indicator is on.	Battery level is at 10% or below.	Recharge or replace batteries immediately to ensure continued operation.

8. SPECIFICATIONS

- **Model:** LDA1000H
- **Brand:** CPS
- **Certifications:** SAEJ2791 (for R134a), SAEJ2913 (for HFO1234YF)
- **Refrigerant Compatibility:** HFC, HCFC, CFC gases
- **Sensor Technology:** E-MOS
- **Sensor Life:** 500+ hours minimum
- **Battery Life:** 50+ hours
- **Automatic Shut-off:** 10 minutes of inactivity
- **Minimum Leak Rate Detection:** 0.1 oz/year
- **Dimensions:** Approximately 11 x 9 x 3 inches (Product dimensions)
- **Weight:** Approximately 1 pound (Item weight)

9. WARRANTY INFORMATION

The CPS LDA1000H Electronic Leak Detector comes with a comprehensive **2-year warranty**. This warranty covers both material and workmanship, and importantly, includes the sensor. To validate your warranty, please retain your Proof of Purchase (POP). For warranty claims or service, please contact CPS customer support.

10. SUPPORT AND CONTACT

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact CPS customer support.

Visit the official CPS website for the most up-to-date contact information and resources: [CPS Store on Amazon](#).