

## Elitech ILD-100H

# Elitech ILD-100H HVAC Refrigerant Leak Detector User Manual

Model: ILD-100H | Brand: Elitech

## 1. INTRODUCTION AND OVERVIEW

The Elitech ILD-100H is an advanced HVAC refrigerant leak detector designed for precise and efficient detection of various halogenated refrigerants. Utilizing a heated diode sensor, it offers enhanced accuracy and reliability compared to traditional sensors. This manual provides detailed instructions for the proper setup, operation, maintenance, and troubleshooting of your ILD-100H detector, ensuring optimal performance and longevity.

This device is suitable for detecting a wide range of refrigerants, including CFCs, HFCs, HCFCs, HCs, HFOs, and mixed refrigerants such as R11, R22, R404a, R410a, R600a, R1234yf, and various blends like AZ-50, HP62, and MP39. It boasts an immediate response time, making leak detection quick and effective.

## 2. KEY FEATURES

- **Heated Diode Sensor:** Provides superior accuracy for all halogenated refrigerants, ensuring reliable detection results.
- **TFT Screen:** The innovative TFT screen offers clear and easy-to-read information, including sensitivity levels, leakage alerts, and battery status, enhancing operational clarity.
- **High Sensitivity:** Features adjustable sensitivity with High, Medium, and Low levels. The maximum sensitivity reaches up to 0.1 oz/yr, allowing for the detection of even minute leaks.
- **Quick Operation:** Equipped with two intuitive buttons on the front panel for rapid adjustment of sensitivity and direct muting of the buzzer, simplifying user interaction.
- **Broad Refrigerant Compatibility:** Capable of detecting all types of halogenated refrigerants, including HFCs (R134a, R410A, R407C, R417A, R404A, R507, R23, R508A, R508B, R152A, R32), HCFCs (R22, R123, R124, R141b, R142b, R402A, R402B, R408A, R409A), CFCs (R11, R12, R13, R502, R503), PFCs (PFC-14, PFC-116, PFC-218), and HFOs (R-1234yf), as well as HCs (R50, R170, R290, R600, R600A, R1150, R1270).

# Halogen Leak Detector

## Refrigerant Leak Detector ILD-100H



Sensitivity Adjustable



Audible & Light Alarm



Immediate Response



Two Different Mode



Figure 2.1: Overview of Elitech ILD-100H key features.

### 3. PRODUCT COMPONENTS AND DIMENSIONS



Figure 3.1: Labeled components of the Elitech ILD-100H.



### Probe length



14 in

### Weight



0.93 g

- Max Sensitivity: 0.1oz/yr
- Response Time immediate
- Battery: 3.7V 3000mAh
- Meet EN14624, 5AE-162, SAE-2791 and SAE-2913 standards
- CE Certificate

Figure 3.2: Physical dimensions and key performance specifications.

## 4. SETUP

1. **Unpacking:** Carefully remove the Elitech ILD-100H and all accessories from the packaging. Inspect for any signs of damage.
2. **Battery Charging:** The device includes a Lithium Metal battery. Before first use, ensure the battery is fully charged. Connect the appropriate charging cable (not specified in data, assume standard USB-C based on reviews) to the device and a power source. The TFT screen will indicate charging status.
3. **Sensor Preparation:** Ensure the flexible probe and filter components are securely attached. The heated diode sensor requires a brief warm-up period after powering on.







Figure 4.1: Elitech ILD-100H ready for setup.

## 5. OPERATING INSTRUCTIONS

1. **Power On:** Press the 'ON/OFF' button to power on the device. The TFT screen will illuminate and display a warm-up countdown.
2. **Warm-up:** Allow the device to complete its warm-up cycle (typically 20 seconds as seen in image). This ensures the heated diode sensor reaches optimal operating temperature for accurate detection.
3. **Select Sensitivity:** Use the 'SENS' button to cycle through the sensitivity levels: High (H), Medium (M), and Low (L). Higher sensitivity is recommended for detecting smaller leaks or for initial scanning.
4. **Leak Detection:** Slowly move the flexible probe around suspected leak areas. The device will provide visual alerts on the TFT screen (e.g., bar graph, curve display) and an audible alarm when a leak is detected. The intensity of the alarm and display will increase with higher leak concentrations.
5. **Pinpoint vs. Curve Display:** The TFT screen offers two display modes. The 'Pinpoint Display' helps in finding the exact leak location, while the 'Curve Display' assists in quickly identifying the general leak area.
6. **Mute Buzzer:** Press the 'MUTE' button to silence the audible alarm if needed.
7. **Power Off:** Press and hold the 'ON/OFF' button to power off the device after use.



# Large Display Pinpoint & Curve Display



**Pinpoint Display**  
Find the exact leak location



**Curve Display**  
Quickly find the general leak area



Figure 5.1: Understanding the Pinpoint and Curve Display modes for leak identification.



## Detect All Halogenated Refrigerants

**HFC:** R134a, R410A, R407C, R417A, R404A, R507, R23, R508A, R508B, R152a, R32 etc.

**HCFC:** R22, R123, R124, R141b, R142b, R402A, R402B, R408A, R409A etc.

**CFC:** R11, R12, R13, R502, R503 etc.

**PFC:** PFC-14, PFC-116, PFC-218 etc.

**HFO:** R-1234YF

**HC:** R50, R170, R290, R600, R600A, R1150, R1270

Figure 5.2: The ILD-100H's capability to detect a wide range of halogenated refrigerants.

Your browser does not support the video tag.

Video 5.1: An overview of Elitech's AI HVAC/R tools, demonstrating the advanced capabilities and applications of their products, including the ILD-100H leak detector in action.

## 6. MAINTENANCE

- **Cleaning:** Regularly wipe the exterior of the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Sensor and Filter Maintenance:** The device features filter components (as shown in Figure 3.1). Refer to the full user manual (PDF link provided in product data) for specific instructions on cleaning or replacing the sensor and filter to maintain optimal performance.
- **Storage:** Store the detector in a cool, dry place away from direct sunlight and extreme temperatures when not in use.

## 7. TROUBLESHOOTING

If you encounter issues with your Elitech ILD-100H, consider the following common troubleshooting steps:

- **Device Not Powering On:** Ensure the battery is fully charged. If the issue persists, try connecting the charger to confirm power supply.
- **Inaccurate Readings/No Detection:** Check the sensor and filter for any obstructions or damage. Ensure the device has completed its warm-up cycle. Adjust sensitivity settings to a higher level if necessary.
- **Erratic Behavior:** Ensure the device is not exposed to strong electromagnetic interference. Try restarting the device.

For persistent issues or complex problems, please refer to the comprehensive user manual or contact Elitech customer support.

## 8. SPECIFICATIONS

Attribute	Detail
Brand	Elitech
Model Number	ILD-100H
Style	Heated Diode Sensor
Power Source	Battery Powered
Color	Heated Diode Sensor Ild-100h
Product Dimensions (D x W x H)	1.5" x 3.3" x 7.9"
Item Weight	2.46 pounds
Alarm Type	Audible
Operating Humidity	85 percent
Upper Temperature Rating	20 Degrees Celsius
Sensor Type	IR
Material	Plastic
Max Sensitivity	0.1 oz/yr
Response Time	Immediate (within 1s)
Battery Type	Lithium Ion (1 Lithium Metal battery included)
Battery Capacity	3.7V 3000mAh
Usage	HVAC systems, refrigerant leak detection
Compliance Standards	EN14624.5AE-162, SAE-2791, SAE-2913, CE



UPC

704529988930, 704529989043

## 9. WARRANTY AND SUPPORT

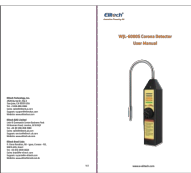

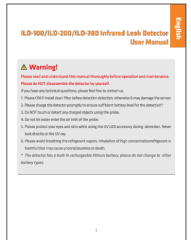
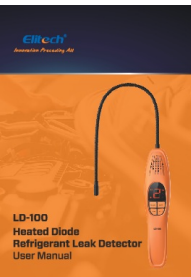
The Elitech ILD-100H Refrigerant Leak Detector comes with a **1-year warranty** from the date of purchase.


For any technical assistance, product inquiries, or warranty claims, Elitech offers **7x24 customer services**. Please refer to the official Elitech website or the full user manual for contact details.

You can also download the complete user manual in PDF format for more detailed information: [Download User Manual \(PDF\)](#)

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### Related Documents - ILD-100H

	<p><a href="#">Elitech WJL-6000S Corona Detector User Manual</a></p> <p>User manual for the Elitech WJL-6000S Corona Detector, providing detailed instructions on operation, detection, troubleshooting, and maintenance for refrigerant leak detection in various systems.</p>
	<p><a href="#">Elitech ILD Series Infrared Refrigerant Leak Detector User Manual</a></p> <p>Comprehensive user manual for the Elitech ILD series infrared refrigerant leak detectors (ILD-100, ILD-200, ILD-300), covering specifications, operation, maintenance, and features. Learn how to effectively detect refrigerant leaks with this advanced device.</p>
	<p><a href="#">Elitech ILD-100/ILD-200/ILD-300 Infrared Leak Detector User Manual</a></p> <p>User manual for the Elitech ILD series infrared refrigerant leak detectors (ILD-100, ILD-200, ILD-300). Provides detailed information on operation, specifications, features, and maintenance for accurate refrigerant leak detection.</p>
	<p><a href="#">Elitech LD-100 Heated Diode Refrigerant Leak Detector User Manual</a></p> <p>User manual for the Elitech LD-100 Heated Diode Refrigerant Leak Detector, detailing its features, operation, and maintenance.</p>

	<p><a href="#">Elitech IR-200 Infrared &amp; Heated Diode Leak Detector User Manual</a></p> <p>Comprehensive user manual for the Elitech IR-200, a dual-sensor leak detector featuring infrared and heated diode technology. Learn about its specifications, operation, maintenance, and features for detecting refrigerant leaks.</p>
	<p><a href="#">Elitech MS-100 Digital Manifold: User Manual and Specifications</a></p> <p>Comprehensive guide to the Elitech MS-100 digital manifold, covering its features, technical specifications, operation, safety instructions, and troubleshooting. Learn how to use the device for pressure and temperature measurements, leak tests, vacuum processes, and data logging with the Elitech Tools app.</p>