

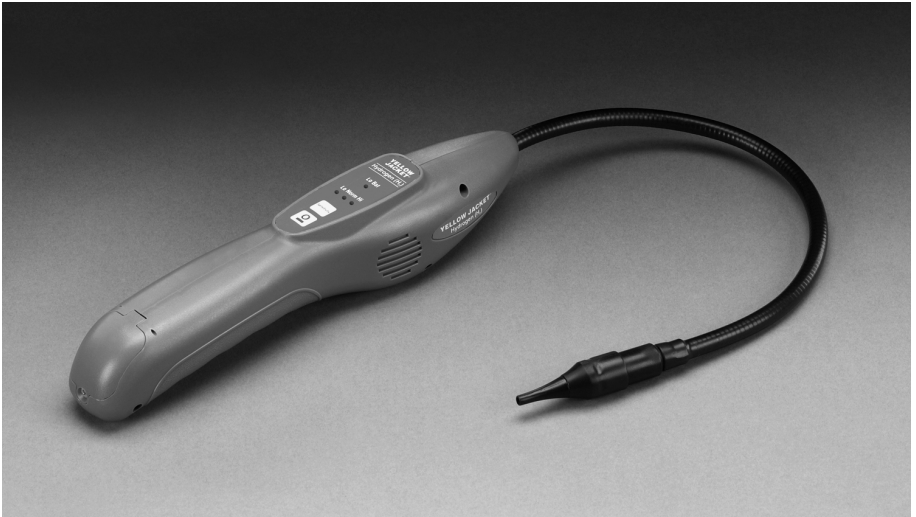
**H<sub>2</sub> Tracer Gas  
Leak Detector**



**YELLOW  
JACKET®**

**Model 69341**

Detects 5% H<sub>2</sub> in 95% Nitrogen Tracer Gas



**Operations Manual**



## INTRODUCTION

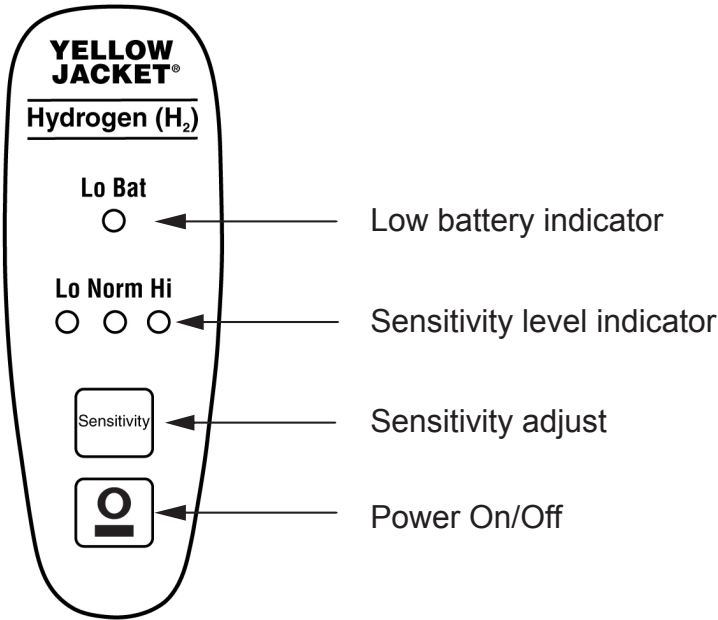
The YELLOW JACKET H<sub>2</sub> Hand-held Leak Detector features a long life, solid-state heated sensor technology that is designed to detect H<sub>2</sub>/Nitrogen Tracer Gas mixture

The H<sub>2</sub> Leak Detector does not require rechargeable batteries. When used with the H<sub>2</sub>/Nitrogen Tracer Gas mixture, the H<sub>2</sub> Leak Detector will detect leak rates less than 5 ppm. This complies with standards EN35422 and EN14624. The Tracer Gas mixture complies with Article 6, Paragraph 3 of EU Directive 2006/40/EC.

## FEATURES

- H<sub>2</sub> sensitivity <5 ppm
- Long life, stable sensor
- Low battery indicator
- Automatic calibration and reset to ambient
- CE Certified
- 3 adjustable sensitivity levels
- 18 month warranty
- True mechanical pump
- Made in USA
- Uses 4 AA alkaline batteries

## H<sub>2</sub> Leak Detector Control Panel

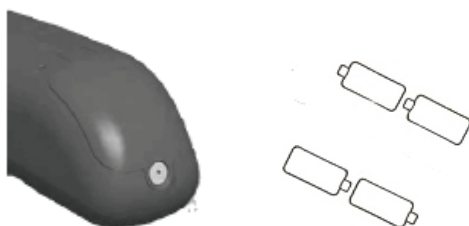


### Operating Instructions

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 starts heating the sensor. During the heating cycle, 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 the green Norm sensitivity LED turns on and the audio "beep" increases in frequency.

## 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.



## Troubleshooting

Troubleshooting Guide		
PROBLEM	CHECK	REPAIR OR REPLACE
No power	<ul style="list-style-type: none"><li>• Check for weak or reversed batteries</li></ul>	<ul style="list-style-type: none"><li>• Replace batteries</li></ul>
Stays in "warm up" mode	<ul style="list-style-type: none"><li>• Sensor not plugged into socket correctly</li><li>• Sensor open/defective</li></ul>	<ul style="list-style-type: none"><li>• Make sure sensor is pushed all the way down into socket</li><li>• Replace sensor</li></ul>
No detection	<ul style="list-style-type: none"><li>• Check sensor with leak standard bottle</li><li>• Check if the filter is dirty or sensor opening is plugged</li></ul>	<ul style="list-style-type: none"><li>• Replace sensor</li><li>• Replace filter or clean out opening</li></ul>
Slow recovery after detection	<ul style="list-style-type: none"><li>• Check if filter is dirty or sensor opening is plugged</li></ul>	<ul style="list-style-type: none"><li>• Replace filter or clean out opening</li></ul>
No beeping	<ul style="list-style-type: none"><li>• Nothing</li></ul>	<ul style="list-style-type: none"><li>• Press mute button (if equipped) to turn speaker back on</li></ul>

## Adjusting Sensitivity Levels

To choose another sensitivity level, press the Sensitivity button. The LED below each level will change indicating the new setting.

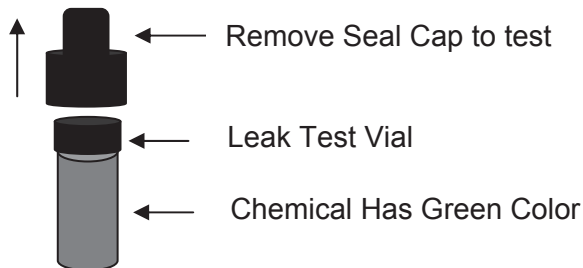
The Leak Detector will default to the Norm sensitivity level automatically once the unit comes out of the warm up cycle and the green LED will turn on.

To change sensitivity levels, press the Sensitivity button once for HI sensitivity (red LED will turn on) and again for LO sensitivity (yellow LED will turn on).

## Leak Standard Bottle

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 indicating that the sensor and electronics are working properly.
4. Replace plastic cap seal after leak test.  
Note: Replace the leak standard when the green color is no longer visible.



## Maintenance

### Batteries:

**Install Batteries:** Remove screw located at rear end of unit and flip up the hinged battery door to open as shown. Always insert all four batteries into the battery compartment in the correct direction. Note polarity mark on the inside of the battery door for proper battery orientation (see illustration on page 4).

### Sensor:

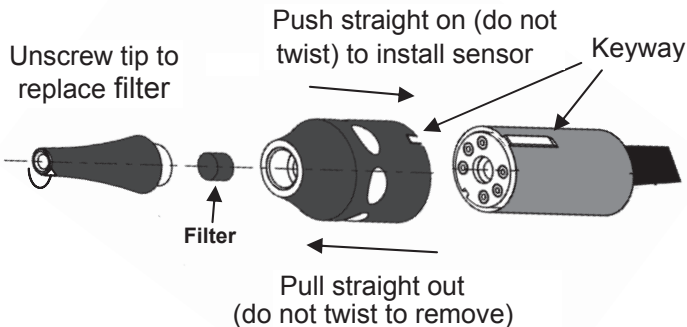
**Filter Replacement** Unscrew sensor tip as shown to replace filter. Replace filter whenever it becomes visibly dirty or every 2 to 3 months depending on use.

**Note: Never clean dirty filters with a solvent or soap and water. Always replace with a new filter supplied with the leak detector or they can be re-ordered from your supplier or distributor.**

**Sensor Failure Mode:** If the sensor is not working correctly, the H<sub>2</sub> Leak Detector will not come out of the warm-up mode. If this happens first be sure the sensor is plugged in all the way. If that does not correct the situation, replace the sensor.

**Sensor Replacement** 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.**



**IMPORTANT: Make sure sensor is fully inserted for proper operation. The detector will stay in warm-up mode and the on/off switch will become inoperative if the sensor becomes loose or is not fully inserted.**

## Product Specifications

<b>Model #</b>	69341
<b>Name</b>	<b>Leak Detector, H<sub>2</sub> Tracer Gas</b>
<b>Sensitivity</b>	<b>&lt; 5 ppm</b>
<b>Sensor Life</b>	<b>&gt; 300 hours</b>
<b>Response Time</b>	<b>Instantaneous</b>
<b>Power Supply</b>	<b>4 AA Alkaline batteries</b>
<b>Battery Life</b>	<b>6 hours continuous</b>
<b>Warm up time</b>	<b>&lt; 20 seconds</b>
<b>Probe length</b>	<b>17 inches</b>
<b>Weight, lbs</b>	<b>1.5 lbs</b>
<b>Warranty</b>	<b>18 months</b>
<b>Compliance</b>	<b>RoHS, CE</b>

### Tracer Gas Detection

Tracer Gas consists of a non-toxic, non-flammable, environmentally friendly (non-polluting) mixture of 5% hydrogen and 95% nitrogen. For this reason, the Tracer Gas can be released into the environment after the leak detection procedure is completed. The Tracer Gas mixture complies with Article 6, Paragraph 3 of EU directive 2006/40/EC.

The H<sub>2</sub> Leak Detector detects the hydrogen component of the tracer and because hydrogen molecules are so small, it is an ideal gas for leak detection.

The Tracer Gas is charged into an empty system at a pressure of up to but not exceeding the rated system test pressure. As Hydrogen is lighter than air, always probe slightly above the suspected leak area.

Once the source of the leak is located and repaired, the Tracer Gas can be released and the system can be recharged again with refrigerant.

## Replacement Parts

Item	Part Number
H <sub>2</sub> Sensor with Filter	69342
Sensor filters (5 pack)	69385
Leak standard bottle	69386
Carrying Case	69343

### 18 MONTH LIMITED WARRANTY

Ritchie Engineering guarantees **YELLOW JACKET H<sub>2</sub> Leak Detector** to be free of defective material and workmanship that would affect the life of the product under normal use for the purpose for which it was designed. This warranty does not cover items that have been altered, abused, misused, improperly maintained or returned solely in need of field service maintenance. This warranty excludes the sensor, which is warranted for one year.

If found defective, we will upon compliance with the following instructions, credit, replace or repair at our option, the defective leak detector provided it is returned within 18 months of the date of sale. H<sub>2</sub> Leak Detectors have a date of manufacture serial number located on the label on the bottom of the unit.

Correction in the manner provided above shall constitute a fulfillment of all liabilities with respect to the quality, material and workmanship of the product.

**THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY, WHETHER WRITTEN, ORAL OR IMPLIED.**



Ritchie Engineering Co., Inc.  
YELLOW JACKET Products Division  
10950 Hampshire Avenue South  
Bloomington, MN 55438-2623 USA  
Phone: (800)769-8370 or (952)943-1333  
Website: [www.yellowjacket.com](http://www.yellowjacket.com)  
E-mail: [custserv@yellowjacket.com](mailto:custserv@yellowjacket.com)