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› Racor Water Sensor Probe Kit RK21069 Instruction Manual

Racor RK 21069

Racor Water Sensor Probe Kit RK21069 Instruction Manual

Model: RK 21069

1. PRODUCT OVERVIEW

The Racor RK21069 Water Sensor Probe Kit is a crucial component designed to detect the presence of water in fuel systems, primarily for use with the Racor Model 1000FG fuel filter/water separator. This kit ensures the integrity of your fuel system by providing an early warning of water contamination, which can prevent significant damage to engine components.

The kit includes the water probe and a replacement O-ring, essential for a secure and leak-free installation. It is also identified as Volvo part number 3133747 and serves as a direct replacement for Volvo 17090-0008.



Image of the Racor RK21069 Water Sensor Probe Kit, showing the black threaded body, grey O-ring, and two metal prongs at the tip, with electrical wires extending from the base.

2. SETUP AND INSTALLATION

Proper installation of the RK21069 Water Sensor Probe is critical for accurate water detection and system integrity. This kit is designed as a replacement for existing water sensor probes in compatible Racor fuel filter/water separator units, such as the Model 1000FG.

Safety Precautions:

- Ensure the engine is turned off and cooled down before beginning installation.
- Disconnect the battery to prevent accidental starting or electrical shorts.
- Have appropriate spill containment ready as fuel may be present.
- Wear appropriate personal protective equipment (PPE), including gloves and eye protection.

Installation Steps:

1. **Drain Fuel:** If necessary, drain the fuel from the filter housing or ensure the fuel supply is shut off to prevent spillage.
2. **Disconnect Wiring:** Carefully disconnect the electrical wiring from the existing water sensor probe. Note the orientation of the wires if they are not color-coded.
3. **Remove Old Probe:** Unscrew and remove the old water sensor probe from the bottom of the filter housing. Be prepared for any residual fuel.
4. **Inspect Housing:** Clean the threaded opening on the filter housing, ensuring no debris or old O-ring material

remains.

5. **Install New O-ring:** Place the new O-ring (included in the kit) onto the threads of the RK21069 probe. Ensure it is seated correctly in the groove.
6. **Insert New Probe:** Carefully thread the new RK21069 probe into the opening on the filter housing. Hand-tighten first to avoid cross-threading.
7. **Tighten Probe:** Using an appropriate wrench, tighten the probe securely. Do not overtighten, as this can damage the probe or housing. Refer to your Racor filter manual for specific torque specifications if available.
8. **Reconnect Wiring:** Reconnect the electrical wiring to the new probe. Ensure connections are secure and properly insulated.
9. **Check for Leaks:** After installation, restore fuel supply and check for any leaks around the probe. Start the engine and monitor for leaks during operation.

3. OPERATING PRINCIPLES

The Racor RK21069 Water Sensor Probe operates on the principle of electrical conductivity. Water, being more conductive than fuel, completes an electrical circuit between the probe's contacts when it accumulates at the bottom of the fuel filter/water separator bowl.

When water reaches a predetermined level and makes contact with the probe, it triggers an electrical signal. This signal is typically sent to a warning light or alarm on the vehicle's dashboard or control panel, alerting the operator to the presence of water in the fuel. This early detection allows for timely draining of the water, preventing it from reaching the engine and causing potential damage or performance issues.

The probe is designed for continuous monitoring during engine operation, providing real-time feedback on fuel quality regarding water contamination.

4. MAINTENANCE

Regular maintenance of the Racor RK21069 Water Sensor Probe ensures its continued reliability and accurate performance. While the probe itself requires minimal maintenance, periodic checks are recommended.

- **Visual Inspection:** During routine fuel filter maintenance, visually inspect the water sensor probe for any signs of physical damage, corrosion, or wear on the O-ring.
- **O-ring Condition:** The O-ring is crucial for preventing leaks. If the O-ring appears cracked, flattened, or brittle, it should be replaced immediately. The RK21069 kit includes a new O-ring for this purpose.
- **Electrical Connections:** Ensure that the electrical connections to the probe are clean, secure, and free from corrosion. Loose or corroded connections can lead to intermittent or false readings.
- **Probe Cleaning:** If the probe contacts appear fouled with debris or sludge, carefully clean them using a soft cloth. Avoid using harsh chemicals or abrasive materials that could damage the probe.
- **Functionality Check:** Periodically test the water sensor system by intentionally introducing a small amount of water into the filter bowl (if safe and feasible according to your filter system's design) to confirm the warning light/alarm activates. Always drain the water immediately after testing.

Adhering to the maintenance schedule recommended for your specific Racor fuel filter/water separator unit will help prolong the life and effectiveness of the water sensor probe.

5. TROUBLESHOOTING

If you experience issues with your Racor RK21069 Water Sensor Probe, consult the following troubleshooting guide:

Symptom	Possible Cause	Solution
Water-in-fuel alarm does not activate when water is present.	- Faulty probe. - Loose or corroded electrical connections. - Damaged wiring. - Faulty alarm/indicator circuit.	- Inspect probe for damage; replace if necessary. - Check and secure all electrical connections. Clean any corrosion. - Inspect wiring for cuts or breaks; repair or replace. - Test the alarm/indicator circuit independently if possible.
False alarm (alarm activates with no water present).	- Contaminated probe contacts. - Loose or shorted wiring. - Incorrect installation (e.g., not fully seated).	- Clean probe contacts thoroughly. - Check wiring for shorts or damage. - Ensure probe is fully and correctly threaded into the housing.
Fuel leak around the probe.	- Damaged or improperly seated O-ring. - Probe not tightened sufficiently. - Damaged threads on probe or housing.	- Replace O-ring (new one included in kit). Ensure it is properly seated. - Tighten probe to recommended torque. Do not overtighten. - Inspect threads for damage. If damaged, professional repair or replacement of components may be required.

If troubleshooting steps do not resolve the issue, it may indicate a faulty probe requiring replacement, or a more complex issue within the fuel system or electrical circuit. Consult a qualified marine or automotive technician if you are unsure.

6. SPECIFICATIONS

Key specifications for the Racor RK21069 Water Sensor Probe Kit:

Attribute	Value
Brand	Racor

Attribute	Value
Model Number	RK 21069
Item Weight	2.02 ounces
Package Weight	16 Ounces
Style	Modern
Measurement Accuracy	±1%
Measuring Range	0% - 100% water content
Mounting Type	Plug Mount
Output Type	Push-Pull
Upper Temperature Rating	100 Degrees Celsius
UPC	706672007551
Number of Items	1
Replaces Volvo Part Number	17090-0008
Volvo Part Number	3133747

7. WARRANTY AND SUPPORT

For information regarding the warranty of your Racor RK21069 Water Sensor Probe Kit, please refer to the official Racor website or contact Racor customer support directly. Warranty terms and conditions can vary based on region and purchase date.

For technical support, replacement parts, or further inquiries, please visit the official Racor website or contact their authorized distributors. Always provide your product model number (RK21069) when seeking support to ensure accurate assistance.

Racor Official Website: <https://www.parker.com/racor>

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question