

## Airdog A7SABD527

# PureFlow AirDog II-5G DF-220-5G Fuel Pump Instruction Manual

Brand: Airdog | Model: A7SABD527

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the AirDog II-5G DF-220-5G Fuel System, specifically designed for 1994-1998 Dodge Ram P-Pump 12V Cummins engines. This system is a 220 GPH (Gallons Per Hour) lift pump, intended for heavily modified trucks. Please read this manual thoroughly before beginning installation or operation to ensure proper function and longevity of your fuel system.

## 2. COMPONENTS INCLUDED

The AirDog II-5G DF-220-5G Fuel System kit typically includes the following main components:

- AirDog II-5G DF-220-5G Lift Pump Unit
- Fuel Air Separator (integrated)
- Sandwich Plate Mounting System
- Draw Straw for Fuel Tank
- Fuel Lines and Fittings
- Wiring Harness
- Filler Neck Return Tee
- Installation Hardware



**Figure 1:** PureFlow AirDog II-5G DF-220-5G Fuel Pump system. This image displays the PureFlow AirDog II-5G DF-220-5G Fuel Pump system. It features a black pump unit mounted above two white cylindrical fuel filters. Wiring with a connector is visible at the top of the pump unit. The system is designed for diesel applications, as indicated by 'DIESEL R' on one filter and 'AirDog FF100-2 FUEL FILTER' on the other.

### 3. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your AirDog fuel system. It is recommended that installation be performed by a qualified technician.

#### 3.1 Mounting the Pump

1. Locate a suitable position on the vehicle's frame rail for mounting the AirDog pump unit.

2. Utilize the supplied sandwich plate mounting system to securely attach the pump to the frame rail. Ensure adequate clearance from moving parts and heat sources.

### 3.2 Fuel Tank Modifications

1. Install the provided draw straw into the fuel tank. This component is responsible for supplying fuel to the AirDog pump. Follow specific instructions for your vehicle's fuel tank removal and modification.

### 3.3 Fuel Line Connections

1. Connect the pressure side of the AirDog pump directly into the side of the P-Pump. This bypasses the factory fuel filter housing and the block-mounted pump.
2. Route the injection pump return line to tie into the engine return. This step eliminates the need for the factory filter head.
3. Connect the AirDog Air/Vapor return line back to the fuel tank through the filler neck return tee.
4. Ensure all fuel line connections are secure and free of leaks. Use appropriate thread sealant where necessary.

### 3.4 Electrical Connections

Connect the supplied wiring harness to the AirDog pump and the vehicle's electrical system according to the detailed wiring diagram provided in the full installation guide (not included in this summary). Ensure proper grounding and fuse protection.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Initial Start-up and Priming

1. After installation, turn the ignition key to the "ON" position (without starting the engine) for 15-30 seconds to allow the AirDog pump to prime the fuel system. Repeat this step 2-3 times.
2. Start the engine. Monitor for any unusual noises or fuel leaks.
3. Allow the engine to idle for several minutes to ensure proper fuel flow and pressure.

### 4.2 Normal Operation

The AirDog II-5G system operates automatically once the engine is running, maintaining optimal fuel pressure and filtering fuel. No user intervention is typically required during normal driving conditions.

### 4.3 System Monitoring

It is recommended to periodically check fuel pressure, especially if you have an aftermarket fuel pressure gauge. Consistent fuel pressure is vital for engine performance and longevity.

## 5. MAINTENANCE

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Regular maintenance ensures the continued efficiency and reliability of your AirDog fuel system.

### 5.1 Fuel Filter Replacement

- The AirDog II-5G system utilizes two filters: a fuel filter and a water separator.
- Replace both filters at recommended intervals, typically every 15,000 to 20,000 miles, or as indicated by a drop in fuel pressure or engine performance.
- Always use genuine AirDog replacement filters to ensure proper filtration and fitment.
- To replace, unscrew the old filters, apply a thin film of diesel fuel or clean oil to the new filter gaskets, and screw them on until hand-tight, then an additional 1/4 to 1/2 turn.

## 5.2 Water Separator Draining

Periodically drain any accumulated water from the water separator. This is typically done by opening a drain valve at the bottom of the separator until only fuel flows out. Refer to the full installation manual for specific instructions on your model.

## 5.3 System Inspection

Regularly inspect all fuel lines, fittings, and electrical connections for signs of wear, damage, or leaks. Address any issues promptly to prevent system failure.

## 6. TROUBLESHOOTING

Problem	Possible Cause	Solution
No fuel pressure / Pump not running	<ul style="list-style-type: none"><li>• Blown fuse</li><li>• Loose electrical connection</li><li>• Faulty pump motor</li></ul>	<ul style="list-style-type: none"><li>• Check and replace fuse</li><li>• Inspect and secure all wiring</li><li>• Contact Airdog support for diagnosis</li></ul>
Low fuel pressure	<ul style="list-style-type: none"><li>• Clogged fuel filters</li><li>• Air leak in suction line</li><li>• Restricted draw straw</li><li>• Pump malfunction</li></ul>	<ul style="list-style-type: none"><li>• Replace fuel filters</li><li>• Inspect and tighten all suction side fittings</li><li>• Check draw straw for obstructions</li><li>• Contact Airdog support</li></ul>
Fuel leaks	<ul style="list-style-type: none"><li>• Loose fittings</li><li>• Damaged fuel lines</li><li>• Improperly seated filter gaskets</li></ul>	<ul style="list-style-type: none"><li>• Tighten all fittings</li><li>• Replace damaged lines</li><li>• Re-seat or replace filter gaskets</li></ul>

For further troubleshooting or issues not listed here, please refer to the comprehensive AirDog installation manual or contact Airdog technical support.

## 7. SPECIFICATIONS

**Brand:**

Airdog

**Model Number:**

A7SABD527

**Product Dimensions (L x W x H):**

13 x 19 x 7 inches

**Item Weight:**

29.5 Pounds

**Fit Type:**

Vehicle Specific Fit (1994-1998 Dodge Ram P-Pump 12V Cummins)

**Vehicle Service Type:**

Truck

**Gas Type:**

Diesel

**Operation Mode:**

Mechanical (Lift Pump)

**Flow Rate:**

220 GPH (Gallons Per Hour)

**UPC:**

813094011278

**ASIN:**

B09WGRRQXM

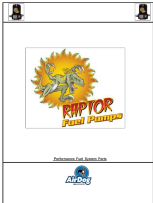



**8. WARRANTY AND SUPPORT**



For specific warranty information regarding your AirDog II-5G DF-220-5G Fuel Pump, please refer to the warranty card included with your product or visit the official Airdog website. Warranty terms typically cover manufacturing defects for a specified period.

For technical support, installation assistance, or to inquire about replacement parts, please contact Airdog customer service directly. Contact information can usually be found on their official website or in the product packaging.

*Note: Unauthorized modifications or improper installation may void your product warranty.*

**Related Documents - A7SABD527**

	<p><a href="#">PureFlow AirDog Raptor Fuel Pump Installation Manual for 1994-1998 Dodge Cummins</a></p> <p>This manual provides detailed instructions for installing the PureFlow AirDog Raptor RP-100 and RP-150 fuel pumps on 1994-1998 Dodge 5.9L Cummins diesel trucks. It covers component overview, safety precautions, parts list, fuel line connections, electrical wiring, and initial startup procedures.</p>
	<p><a href="#">Airdog X3 User Manual: Features, Installation, Operation, and Maintenance</a></p> <p>Comprehensive user manual for the Airdog X3 air purifier, covering purification theory, installation, operation instructions, cleaning procedures, troubleshooting, safety notices, and technical specifications. Learn how to optimize your Airdog X3 for cleaner air.</p>
	<p><a href="#">Airdog X8S Air Purifier User Manual: Setup, Operation, Cleaning, and Troubleshooting</a></p> <p>Detailed user manual for the Airdog X8S air purifier. Covers purification theory, components, installation, operation instructions, app connectivity, maintenance, cleaning procedures for collecting plates and filters, and a comprehensive Q&amp;A section.</p>
	<p><a href="#">Airdog X5 User Manual: Advanced Air Purification Guide</a></p> <p>Comprehensive user manual for the Airdog X5 air purifier. Learn about its features, installation, operation, cleaning, and troubleshooting for optimal indoor air quality. Features washable filters and energy-efficient design.</p>

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 The image shows the cover of the Airdog X8 Air Purifier User Guide. It features the Airdog logo at the top left and the title 'Airdog X8 USER GUIDE' in the center. The background is white with a subtle pattern.	<p><a href="#">Airdog X8 Air Purifier User Guide</a></p> <p>Comprehensive user guide for the Airdog X8 air purifier, covering purification theory, installation, operation, maintenance, cleaning, app setup, and technical specifications. Learn how to use and care for your Airdog X8 for optimal air quality.</p>