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› Qnbes Universal 12V Fuel Metering Pump 22451901 Instruction Manual

Qnbes 22451901

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1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Qnbes Universal 12V Fuel Metering Pump, model 22451901. This pump is designed for use with Eberspacher Airtronic D2 and D4 diesel air heaters, supporting power outputs from 1KW to 4KW. Please read this manual thoroughly before using the product to ensure safe and efficient operation.



Figure 1: Overview of the Qnbes Universal 12V Fuel Metering Pump 22451901.

2. SPECIFICATIONS

The Qnbes Fuel Metering Pump is engineered for reliable performance in compatible heating systems. Key specifications are detailed below:

- **Item Type:** Fuel Metering Pump
- **Material:** Iron, Plastic, Metal
- **Replace OEM Number:** 22451901
- **Working Voltage:** 12V
- **Power Compatibility:** 1KW-4KW heaters
- **Flow Rate:** 22ml / 1000 times
- **Fitment:** Eberspacher Airtronic D2 12V, Eberspacher Airtronic D4 12V
- **Gas Type:** Diesel/Gasoline universal
- **Item Weight:** Approximately 0.18 Kilograms (6.3 ounces)

Low Noise Low Power Consumption and Strong Sealing

High level of accuracy and sensitivity enhance safety of your vehicle

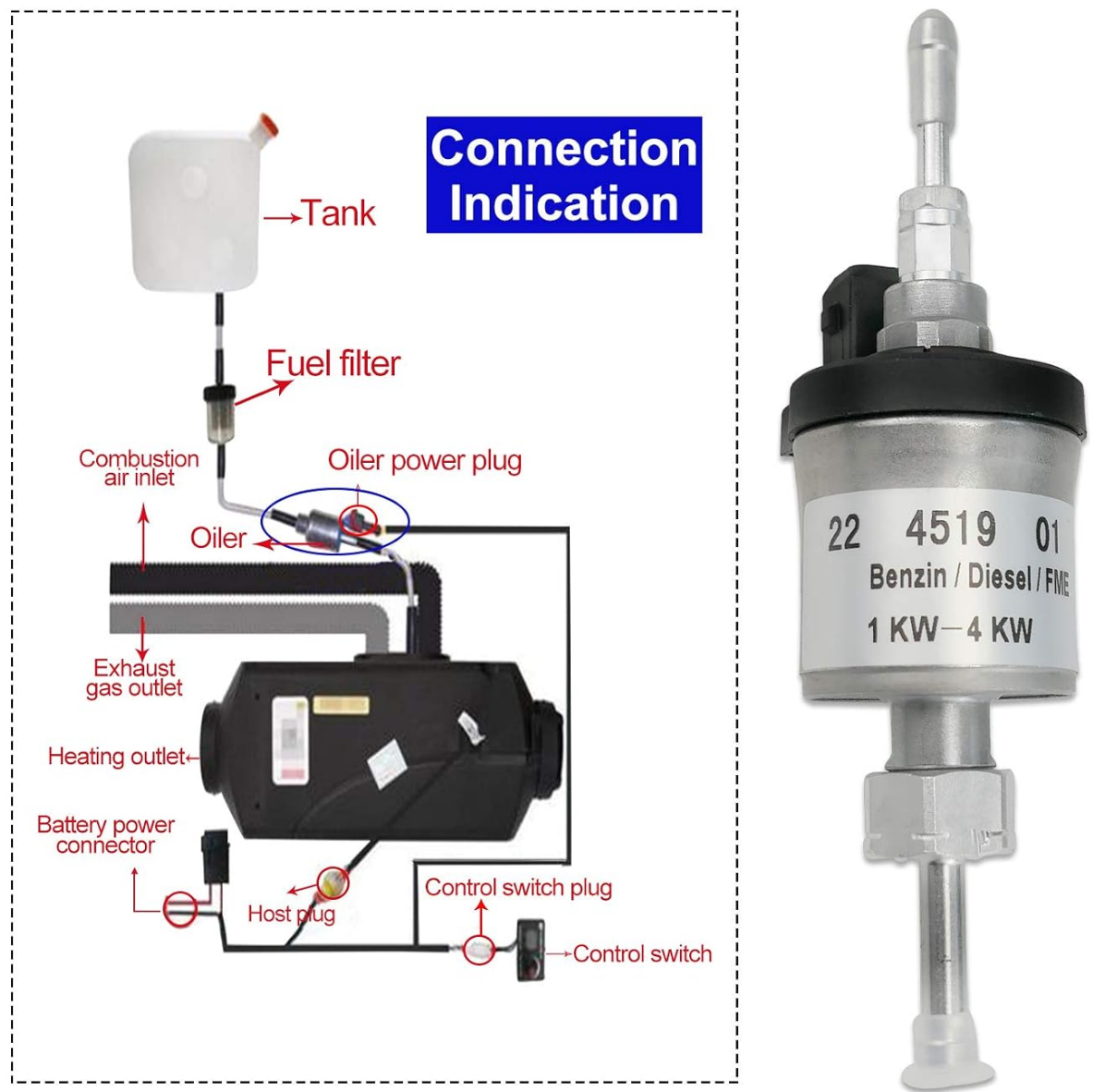


Figure 2: Visual representation of the pump with key specifications highlighted.

3. SETUP AND INSTALLATION

Installation of the Qnb Fuel Metering Pump is designed to be straightforward. No complicated tools are typically required. Always ensure the vehicle's power is disconnected before beginning installation.

1. **Preparation:** Ensure the area is clean and free from debris. Gather necessary tools and safety equipment.
2. **Mounting:** Securely mount the fuel metering pump in a suitable location, typically near the fuel tank or heater, following the heater manufacturer's guidelines. Ensure it is protected from excessive vibration and heat.
3. **Fuel Line Connection:** Connect the fuel lines to the inlet and outlet ports of the pump. Ensure all connections are tight and leak-free to prevent fuel leakage.
4. **Electrical Connection:** Connect the 12V power supply to the pump's electrical connector. Verify correct polarity.

5. **System Check:** After installation, perform a thorough check for any leaks and ensure all connections are secure before restoring power and operating the heater.



Figure 3: Diagram illustrating typical connection points for the fuel metering pump within a diesel air heater system.

Fuel Metering Pump Diesel Heater

Fit for Eberspacher 12V Airtronic D2 D4 22451901



Figure 4: Example of the fuel metering pump installed on a vehicle, demonstrating its compact size and typical mounting.

4. OPERATION

The Qnbes Fuel Metering Pump operates by using precise electrical pulses to deliver fuel to the combustion chamber of your diesel air heater. This pulsed delivery ensures accurate fuel volume, contributing to efficient and consistent heater performance.

- The pump is activated by the heater's control unit.
- Each pulse delivers a measured amount of fuel, ensuring optimal combustion.
- The pump's design minimizes noise and power consumption during operation.

5. MAINTENANCE

To ensure the longevity and optimal performance of your fuel metering pump, consider the following maintenance guidelines:

- **Regular Inspection:** Periodically inspect the pump and its connections for any signs of wear, damage, or fuel leaks.
- **Cleanliness:** Keep the pump and surrounding area clean from dirt and debris.

- **Fuel Quality:** Ensure that clean, appropriate fuel is used, as contaminants can affect pump performance.
- **Filter Check:** Regularly check and replace the fuel filter in your heating system as recommended by the heater manufacturer.

For detailed maintenance procedures specific to your heating system, always refer to the Eberspacher heater's official instruction manual.

6. TROUBLESHOOTING

If you encounter issues with your fuel metering pump, consider the following basic troubleshooting steps:

- **No Fuel Delivery:**
 - Check for adequate fuel in the tank.
 - Verify all fuel line connections are secure and not blocked.
 - Ensure the pump is receiving 12V power. Check electrical connections and fuses.
 - Inspect the fuel filter for clogging.
- **Irregular Operation:**
 - Check for air in the fuel lines; bleeding may be necessary.
 - Ensure stable 12V power supply to the pump.
- **Unusual Noise:**
 - Verify the pump is securely mounted and not vibrating against other components.
 - Check for air in the fuel system.

If problems persist after performing these checks, it is recommended to consult a qualified technician or contact customer support.

7. SAFETY INFORMATION

Always adhere to safety precautions when working with fuel systems:

- Disconnect vehicle power before installation or maintenance.
- Work in a well-ventilated area.
- Avoid open flames or sparks near fuel.
- Wear appropriate personal protective equipment (PPE), such as gloves and eye protection.
- Ensure all fuel connections are properly sealed to prevent leaks.

8. WARRANTY AND SUPPORT

The Qnbès Universal 12V Fuel Metering Pump comes with a **2-year friendly customer service** guarantee. If you have any questions or require assistance with your product, please contact our customer support team. Provide your product model number (22451901) and purchase details for efficient service.

Contact Information: Please refer to your purchase documentation or the seller's website for specific contact details.

