Aeromotive 11540

Aeromotive 11540 340 Series Stealth In-Tank Fuel Pump Instruction Manual

Model: 11540

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Aeromotive 11540 340 Series Stealth In-Tank Fuel Pump. Designed for high-performance applications, this pump delivers exceptional fuel flow for both EFI and carbureted engines, compatible with gasoline and E85 fuels. Please read this manual thoroughly before installation and operation to ensure proper function and safety.

Important Safety Information

WARNING: Improper installation or use of this product can lead to serious injury, fire, or explosion. Always follow these safety guidelines:

- Installation should only be performed by a qualified professional or experienced individual with knowledge of automotive fuel systems.
- Ensure the vehicle's battery is disconnected before beginning any work on the fuel system.
- Work in a well-ventilated area, away from open flames, sparks, or other ignition sources.
- Wear appropriate personal protective equipment, including eye protection and gloves.
- Relieve fuel system pressure before disconnecting any fuel lines.
- Handle fuel with extreme care. Clean up any spills immediately.
- Verify all connections are secure and leak-free before operating the vehicle.
- This pump is designed for in-tank use only. Do not operate outside of a fuel tank.

Package Contents

Verify that all components are present before beginning installation:

- Aeromotive 340 Stealth Fuel Pump (P/N 11540)

- Universal Drop Parts Kit, including:
  - Fuel Filter Sock
  - Wiring Pigtail
  - Rubber Hose
  - (2) Hose Clamps
  - Rubber Grommet



Image: The Aeromotive 11540 fuel pump along with its universal drop parts kit, which includes a filter sock, wiring pigtail, rubber hose, two clamps, and a rubber grommet.

Product Specifications

Feature	Detail
Model Number	11540

Flow Rate	340 Liters Per Hour (LPH) at 40 PSI
Operating Voltage	12V Electric
Fuel Compatibility	Gasoline, E85
Application Type	EFI and Carbureted Engines
Mounting Type	In-tank mount
Inlet Connection	Center, Threaded
Outlet Connection	Barb, 0.31 Inches
Body Diameter	39mm (OEM standard)
Item Weight	1.16 Pounds
Material	Plastic



Image: Visual representation of the Aeromotive 11540 fuel pump highlighting key product specifications such as center inlet, in-tank use, fuel type compatibility, OEM body size, universal fit, internal design, fuel delivery type, voltage, and maximum flow rating.

Horsepower Support Chart

The following table illustrates the approximate horsepower support capabilities of the Aeromotive 11540 fuel pump under various conditions. These figures are estimates and actual performance may vary based on vehicle setup, fuel pressure, and other factors.

Engine Type	Power Adder	Fuel Type	Min HP	Max HP
Fuel Injected	Yes - Forced Induction	Gas	280	700
Fuel Injected	Yes - Forced Induction	E85	100	490
Carbureted	Yes - Forced Induction	Gas	340	850

Carbureted	No - Naturally Aspirated	E85	200	595
Carbureted	Yes - Forced Induction	E85	200	595
Carbureted	No - Naturally Aspirated	Gas	400	1000
Fuel Injected	No - Naturally Aspirated	Gas	340	850

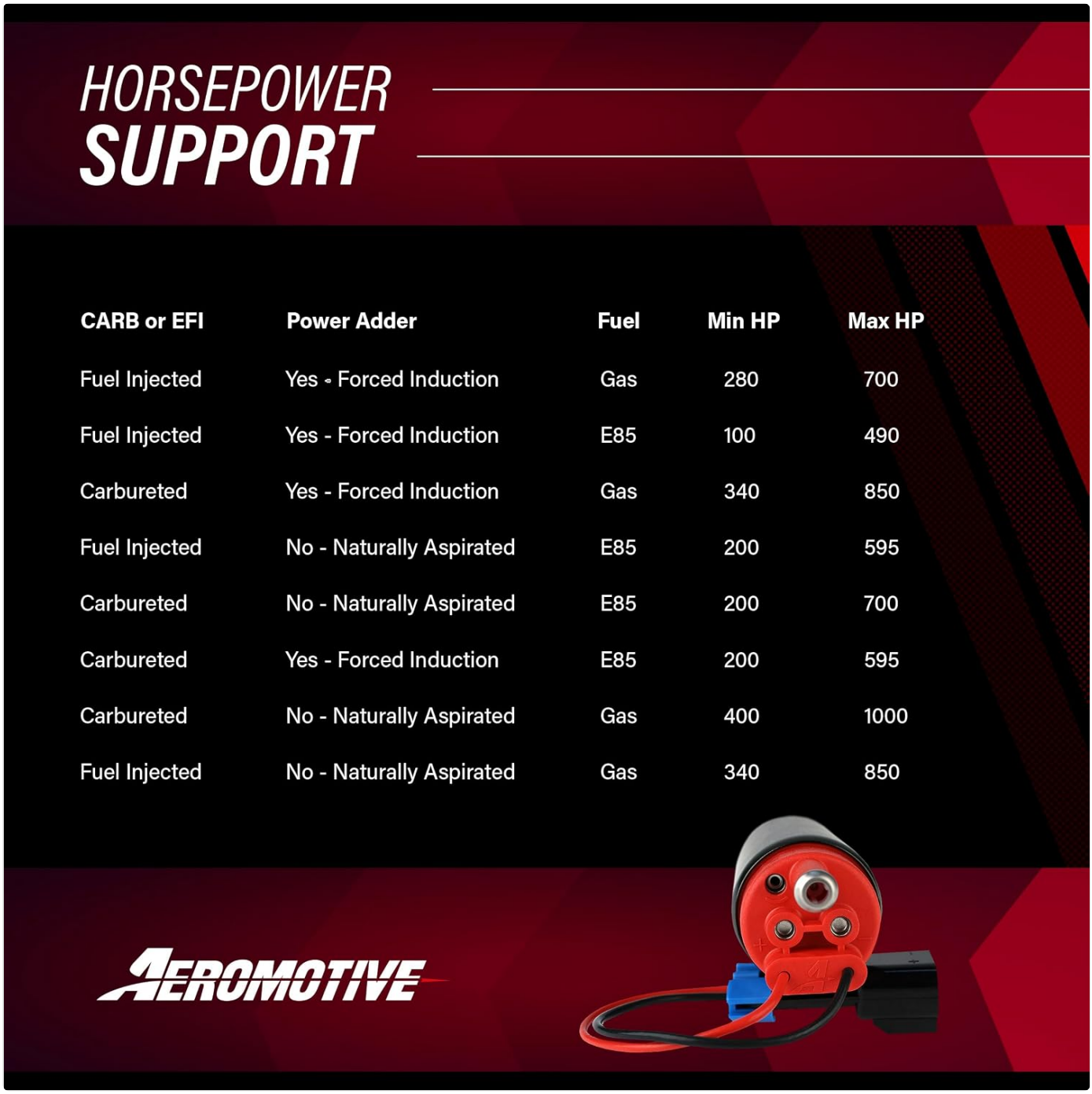


Image: A chart detailing the horsepower support capabilities of the Aeromotive 11540 fuel pump for various engine types (carbureted or EFI), power adder configurations (forced induction or naturally aspirated), and fuel types (Gas or E85), showing minimum and maximum horsepower ratings.

Setup and Installation

This section outlines the general steps for installing the Aeromotive 11540 fuel pump. Due to the universal fit design, specific vehicle modifications may be required. Refer to your vehicle's service manual for detailed fuel tank access and removal procedures.

Tools and Materials Required:

- Basic hand tools (wrenches, screwdrivers)
- Fuel line disconnect tools (if applicable)
- Hose cutters
- Wire strippers and crimpers
- Multimeter for electrical testing
- Fuel-resistant sealant (optional, for certain applications)
- Fire extinguisher (safety precaution)

Installation Steps:

1. **Prepare Vehicle:** Disconnect the vehicle's battery. Relieve fuel system pressure. Safely drain or lower the fuel level in the tank to a minimum.
2. **Access Fuel Tank:** Follow your vehicle's service manual to safely access and remove the fuel tank or fuel pump access panel.
3. **Remove Old Pump:** Carefully disconnect electrical connectors and fuel lines from the existing fuel pump assembly. Remove the old pump from the hanger assembly.
4. **Install New Pump:**
    - Install the provided rubber grommet onto the Aeromotive 11540 pump.
    - Attach the universal filter sock to the inlet of the new pump. Ensure it is securely fastened.
    - Mount the Aeromotive 11540 pump into the existing hanger assembly. The compact design allows for integration into many factory hanger assemblies. Ensure the pump is seated correctly and securely.
5. **Connect Fuel Lines:** Use the provided rubber hose and clamps to connect the pump's outlet to the fuel line within the hanger assembly. Ensure all connections are tight and leak-free.
6. **Wire Electrical Connections:** Use the provided wiring pigtail to connect the new pump to the vehicle's electrical system. Ensure correct polarity (positive to positive, negative to negative). Secure all electrical connections with appropriate crimps or solder and insulate them properly.
7. **Reassemble:** Reinstall the fuel pump assembly into the fuel tank. Secure the tank or access panel. Reconnect all fuel lines and electrical connectors.
8. **Initial Test:** Reconnect the vehicle's battery. Turn the ignition to the "ON" position (without starting the engine) to allow the pump to prime the system. Check for any fuel leaks around the pump and connections. Repeat priming several times if necessary.
9. **Start Engine:** Start the engine and allow it to run, checking for proper fuel pressure and any leaks.

Operating Instructions

The Aeromotive 11540 fuel pump operates automatically once properly installed and wired into your vehicle's electrical system. It is designed to deliver consistent fuel flow to meet the demands of your engine.

- Ensure your vehicle's fuel tank always contains an adequate amount of fuel to prevent the pump from running dry, which can cause damage.
- The pump is compatible with both gasoline and E85 fuels. No special adjustments are needed when switching between these fuel types, though your engine's tuning may require adjustment for E85.
- Listen for the pump to prime when the ignition is first turned on. While designed to be quiet, a faint hum indicates operation.

Maintenance

The Aeromotive 11540 fuel pump is designed for durability and minimal maintenance. However, periodic checks are recommended to ensure optimal performance and longevity:

- **Fuel Filter:** The included filter sock helps protect the pump from contaminants. Consider inspecting or replacing external fuel filters in your system according to your vehicle manufacturer's recommendations or if fuel flow issues arise.
- **Electrical Connections:** Periodically inspect all electrical connections for corrosion or looseness. Ensure they remain clean and secure.
- **Fuel Lines:** Check fuel lines for any signs of wear, cracks, or leaks. Replace damaged lines immediately.
- **Fuel Quality:** Using clean, high-quality fuel helps extend the life of your fuel pump and entire fuel system.

Troubleshooting

If you experience issues with your Aeromotive 11540 fuel pump, consult the following table before seeking professional assistance:

Problem	Possible Cause	Solution
Pump does not prime or operate.	No power to pump, faulty wiring, blown fuse, relay issue, pump failure.	Check electrical connections, fuses, and relays. Test for 12V at the pump connector. If power is present and pump does not operate, pump may be faulty.
Low fuel pressure.	Clogged fuel filter, restricted fuel line, faulty fuel pressure regulator, low voltage to pump, pump wear.	Inspect/replace fuel filter. Check fuel lines for kinks. Verify fuel pressure regulator function. Ensure adequate voltage to pump.
Engine stumbles or loses power under load.	Insufficient fuel delivery, low fuel pressure, clogged filter.	Check fuel pressure. Inspect/replace fuel filter. Ensure pump is receiving full voltage.
Fuel leaks.	Loose connections, damaged hose, faulty seal.	Immediately address any leaks. Tighten clamps, replace damaged hoses or seals.

Warranty and Support

Aeromotive products are manufactured to high standards and are backed by a limited warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Aeromotive website. Keep your proof of purchase for warranty claims.
For technical support, installation assistance, or warranty inquiries, please contact Aeromotive customer service:

- **Website:** www.aeromotiveinc.com
- **Contact Information:** Refer to the website for current phone numbers and email addresses.

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