



11202 INSTALLATION INSTRUCTIONS

WARNING!

The fuel system may be under pressure. Do not open <u>the fuel system</u> until any pressure has been relieved.

The enclosed Aeromotive fuel pump utilizes an o-ring sealed AN-08 style by-pass port and o-ring sealed AN-10 style inlet and outlet ports; these ports are **NOT PIPE THREAD** and utilize **NO THREAD SEALANT**.

This fuel pump is intended for **LIMITED STREET USE** or **RACE** applications, to use this pump in your vehicle's fuel system, <u>we strongly recommend the following</u>:

To use this pump in your vehicle's fuel system, you must do the following:

- Utilize AN-10 size high pressure fuel lines, fittings and o-rings for all connections from the fuel tank pickup to the fuel pump.
- Mount pump level or lower and as close to the bottom of the tank as possible.
- Install a 100 micron pre-filter and 10 micron post filter.
- If you are using a stock fuel tank, install a reservoir sump in the bottom-rear of your fuel tank. Exercise extreme caution and follow all manufacturers' recommendations when installing a reservoir sump. (Sump part # 18650)
- Tank/Fuel cell must have at least a ¹/₂" tank vent.
- For long term driving applications where continuous run times exceed 30 minutes and fuel capacity is less then 10 gallons, Aeromotive recommends the installation of a pump voltage control module, Aeromotive p/n 16306.

Failure to follow the above recommendations may result in fuel leakage, bursting of the fuel lines, poor vehicle performance and/or decreased fuel pump life! Improper installation will void all warranties for this product!

Aeromotive system components are not legal for sale or use on emission controlled motor vehicles.

Pump Specifications:

Outlet pressure/flow By-Pass Pressure Current Draw 0 psi / 350 GPH 18 psi 10.5 amps @ 12 psi

CAUTION:

Installation of this product requires detailed knowledge of automotive systems and repair procedures. We recommend that this installation be carried out by a qualified automotive technician. Installation of this product requires handling of gasoline. Ensure you are working in a well ventilated

area with an approved fire extinguisher nearby. Extinguish all open flames, prohibit smoking and eliminate all sources of ignition in the area of the vehicle before proceeding with the installation.

Aeromotive Commonly Used Fittings 15607 AN-08 ORB to AN-08 Flare (bypass fitting) 15608 AN-10 ORB to AN-10 Flare (Inlet/outlet fitting) 15610 AN-10 ORB to AN-08 Flare (outlet fitting only) 15642 AN-10 ORB to AN-12 Flare (inlet fitting)

A high capacity, fuel filter must be installed between the pump inlet and outlet. We recommend an Aeromotive AN-10 size, replaceable element filter on the outlet and a AN-12 on the inlet. Call us for info.

Aeromotive AN-10 Fuel Filter P/N's 12301 Red 10 micron Fuel Filter 12321 Black 10 micron Fuel Filter 12351 Chrome 10 micron Fuel Filter 12335 Red 40 micron Fuel Filter

12304 Red 100 micron Fuel Filter 12324 Black 100 Micron Fuel Filter 12354 Chrome 100 micron Fuel Filter 12331 Black 100 micron Fuel Filter w/ Shutoff Valve

Aeromotive AN-12 Fuel Filter P/N's 12302 Nickel 100 micron Fuel Filter 12309 Hard Coat Black 100 Micron Fuel Filter 12310 Nickel 10 micron Fuel Filter 12311 Hard Coat Black 10 Micron Fuel Filter

12332 Black 100 micron Fuel Filter w/ Shutoff Valve 12352 Chrome 100 micron Fuel Filter 12360 Chrome 10 micron Fuel Filter

The following steps are typical of most installations:

- 1. Once the engine has been allowed to cool, disconnect the negative battery cable and relieve the fuel system pressure.
- 2. Disconnect the existing pump fuel lines. Plug the open fuel line ends to prevent foreign matter from entering the fuel system. Remove pump mounting screws and remove the existing pump. If you are replacing a similar competitor's fuel pump, the Aeromotive fuel pump comes with additional mounting bracket holes underneath the Aeromotive mounting bracket which may be compatible.

Note: DO NOT RUN THE PUMP DRY!!! Excessive wear will result if the pump runs dry. DO NOT DISASSEMBLE THE PUMP!!! Tight tolerances, material selection and calibration of this unit are key to the performance. DISASSEMBLY WILL THROW THE PUMP OUT OF CALIBRATION AND VOID ANY/ALL WARRANTIES ON THIS PRODUCT.

- 3. Find a suitable place on the vehicle chassis to mount the Aeromotive fuel pump. Make sure the location will accommodate the pump mounting bolts, will position the pump lower than the fuel tank, is clear of the exhaust, is clear of any moving suspension or drivetrain components and will keep the pump clear of road obstructions or debris.
- 4. Using the pump mounting bracket as a template mark and drill two mounting holes to accept ¼" bolts. Mount the fuel pump using two ¼" bolts, nuts and lock washers. Make sure and mount the pump in the vertical, upright position.

Note: Be sure to route all fuel lines clear of any moving suspension or drivetrain components, and any exhaust components! Protect fuel lines from abrasion and road obstructions or debris.

5. Connect the fuel cell pickup to the 100 micron fuel filter inlet. This section of fuel line should be as short as possible to reduce the tendencies for vapor lock, cavitation, and premature wear of your Aeromotive fuel pump.

- Connect the AN-10 fuel pump outlet to the inlet of your Aeromotive 10 micron fuel filter (10 micron for gas and 40 micron for alcohol) and the fuel filter outlet to your fuel line. Next, connect the other end of the fuel line to the pressure regulator in the vehicle's engine compartment (call us for regulator recommendations).
- 7. If using a "dead head" style fuel system connect the AN-8 by-pass port to a return line that goes back into the fuel cell. The return line must go into the top of the fuel cell and direct fuel away from the inlet for your fuel pump. Attach suitable fuel pressure gauges to the fuel system pressure regulator and the pressure gauge port on the Aeromotive pump.
- 8. Insure that any spilled fuel and any fuel soaked shop towels are cleaned up and removed from the vicinity of the vehicle!

Note: Be sure to route all electrical wires clear of any moving suspension or drivetrain components and any exhaust components! Protect wires from abrasion and road obstructions or debris.

 Connect electrical power (12 VDC) to the pump. Make sure you use stranded, insulated copper wire, in the sizes shown, with matching crimp-type connectors for all connections. *CAUTION: The pump must not be connected directly to the battery.* Connect the Aeromotive fuel pump as shown in the following diagram:



CAUTION: While performing the following steps, if any fuel leaks are detected, immediately turn the fuel pump OFF, remove any spilled fuel and repair the leak(s) before proceeding!

- 10. Turn the fuel pump ON **without starting the engine**, allow the pump to run for several seconds and check the fuel pressure. If there is no pressure, turn the fuel pump OFF, wait one minute, then turn the fuel pump ON and recheck the pressure. Repeat this fuel pump OFF and ON procedure until the gauge registers pressure or you detect a fuel leak. It may be necessary to loosen the fuel line fitting at the pressure regulator to bleed off excessive air in the system. Tighten any fuel line fittings which where loosened and insure that any spilled fuel is cleaned up and removed from the vicinity of the vehicle. If no pressure is registered on the gauge after running the pump for several seconds and you have found no leaks, check all fuel and electrical connections to determine the cause.
- 11. Once the fuel pressure gauge registers pressure, start the engine. The gauge on the fuel pressure regulator should register between 3 and 12 psi. If you have installed an adjustable fuel pressure regulator, adjust it to the desired setting.

- 12. The Pump Bypass regulator is pre-set at 18 PSI at the factory. If pump pressures above 18 psi are desired (as for limited duty such as drag racing applications) loosen the jam nut and turn the pump on. You can achieve this with the engine on or off by turning the adjustment screw clockwise to increase pressure, and counterclockwise to lower the pressure. When the desired pressure is obtained simply re-tighten the jam nut.
- 13. Shut the engine off. Using suitable clips and other mounting hardware, secure the newly installed fuel lines and electrical wires by attaching them to the vehicle chassis.

Test drive the vehicle to insure proper operation and re-check the fuel system for leaks. If any leaks are found, immediately discontinue use of the vehicle and repair the leak(s)!