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Electric Fuel Pump Installation Instructions Part #21-206

Thank you for choosing Renegade Racing Components.

Included with the fuel pump:

1 - High Flow Electric In-Line Fuel Pump

2 - Mounting Brackets

Hardware Kit
30 Amp Fuse and Fuse Holder

Please read these instructions completely before installing your new fuel pump. Installation of this pump requires detailed knowledge of high performance fuel system repair and modification. We recommend that a qualified automotive technician perform the installation.

Note: Do not twist or apply torque to fuel pump end caps. Doing so will damage internals and voids the warranty! The flats are provided simply as a means to hold the pump when securing the AN O-ring port fittings and fuel lines. Do not run this pump without fuel (except for a brief period while priming)

<u>CAUTION!</u> Wear appropriate safety apparel. Work in a well ventilated area. Extinguish any open flames and eliminate any sparks or sources of ignition in the area.

WARNING!

The fuel system operates under pressure. Do not open the fuel system until the pressure has been relieved. Please refer to the appropriate service manual for the correct procedure to relieve fuel system pressure. Fuel leakage will occur when loosening any fuel system connections. Be ready to safely contain any fuel leakage while working on the fuel system.

Performance Specifications:

Outlet Pressure/Flow: 110 GPH free flow with 13.5 volts 85 GPH @ 45 PSI with 13.5 volts 60 GPH @ 65 PSI with 13.5 volts Maximum recommended operating pressure: 65 PSI continuous, 90 PSI intermittent

The 21-206 fuel pump is rated for both gasoline and gasoline/ethanol blends up to E85.

The 21-206 fuel pump utilizes port style O-ring fittings; -08 ORB inlet and -06 ORB outlet. DO NOT use pipe thread tape or thread sealant with these fittings.

A high capacity fuel "pre-filter" (100 Micron) must be installed in the fuel line between the tank and the fuel pump inlet.

General recommendations:

For all fuel systems, a bypass or return style fuel pressure regulator is REQUIRED.

Gravity-feed this pump by mounting it as low as possible and as close possible to the fuel tank. The installation of either a rear mount reservoir style sump or a high flow capacity fuel tank pickup in your stock tank is highly recommended. This will

insure that the fuel pump is able to self prime and avoid pump starvation and cavitation. Failure to follow these recommendations will result in poor fuel system performance and drastically shortened fuel pump life.

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Installation:

- 1. Wait for the engine to cool. Make sure the ignition system is off and/or disconnect the negative battery cable. Relieve the fuel system pressure.
- 2. Raise and secure the vehicle to allow working access under the vehicle. Following the appropriate service manual procedure to...
 - Disconnect the existing fuel pump lines
 - Plug all open fuel lines (to prevent fuel from draining and debris from entering the fuel system)
 - Remove the existing fuel pump
- 3. Install the after-market fuel tank rear mount sump or high flow capacity fuel tank pickup per the manufacture's instructions.
- 4. Attach the mounting brackets to the fuel pump. Determine the new fuel pump mounting location (as low and as close to the fuel tanks as possible).
- 5. Make sure that the fuel pump location will accommodate the mounting brackets. Make sure that the fuel pump, lines, and pre-filter locations will be free from any interference from the exhaust system, suspension system, or drive train. Keep the fuel pump clear of any road obstacles or debris that may be kicked up by the tires. Make sure you have access to the pre-filter so that the element can be periodically cleaned and/or changed.
- 6. Use the mounting brackets as a template, mark and drill the four mounting holes.
- 7. Install the fuel pump. Make sure the fuel pump is facing the correct direction. The outlet side is the same side as the fuel pump's electrical connections.
- 8. Install inlet (-08 ORB) and outlet (-06 ORB) fittings. Connect the fuel tank pickup line to the pre-filter and the fuel pre-filter to the fuel pump inlet. The pre-filter can be mounted directly to the fuel pump inlet, or connected using a short section of fuel line. If angled fittings are used, make sure they are of a sweep design to minimize flow restrictions. Most fuel system problems are due to flow restrictions on the inlet side of the fuel pump. If possible, DO NOT use forged hard-angled fittings.
- 9. Make sure you are using a sufficiently rated high pressure fuel line from the fuel pump forward. Make sure you are using a high flow 10 micron fuel filter (such as Renegade #778010, Aeromotive #12347 or Mallory #29249) between the fuel pump and the fuel pressure regulator. Make sure you are using a return style fuel pressure regulator.
- 10. Fuel pump wiring We recommend you use a 30 amp universal electric fuel pump relay and harness installation kit. Please follow the wiring kit's installation instructions. If you are not using a relay harnesses kit, connect a 12ga BLACK wire from the negative (-) terminal on the fuel pump to a quality ground location (i.e. an engine ground or negative battery terminal). Connect a RED 12ga wire from the positive (+) terminal on the fuel pump to a 12v key-on switched connection (i.e. a 30 amp relay). Use a 30 amp inline fuse. Verify the power to the pump is only on when the ignition key is on.
- 11. Check for leaks Turn the ignition key to the "Run" position without starting the engine. This will power up the fuel pump. Check for fuel leaks at all connections. Fix and repair any leaks immediately before operating the vehicle

