

# LPE High Flow C5 Fuel Pump



LPE offers this in-tank fuel pump for high performance applications where the standard pump is not capable of supplying sufficient fuel flow. Designed to fit the 1997 through early\* 2003 C5 Corvette. This pump is rated at 225 liters/hour (60 gph) at 60 psi of fuel pressure at 13.5 volts. This is sufficient to handle up to roughly 600 HP, allowing for hot fuel handling and jet pump operation. Boost referenced fuel systems will have slightly less flow capability due to the higher fuel pressure. For higher horsepower applications, LPE suggests the addition of a Boost-A-Pump fuel pump voltage booster. This pump has been durability tested at up to 17 volts continuous operation. This is the same pump as used in the LPE twin turbocharged C5 Corvettes. Includes pump, pump inlet filter, housing and housing "sock" type filter.

\* Later model 2003 Corvettes run a different fuel pump and tank assembly – call or email our sales department with your VIN to see if this pump will fit your 2003 Corvette.

## FEATURES:

- High flow capability
- Factory drop in replacement – no vehicle modifications needed
- High voltage durability tested

Part Description	Part #
C5 PRI Filter O-Ring	31762
C5 Inlet Grommet	31-56
Fuel Plastic Retainer	34869
Fuel Reservoir	36469
Fuel Filter	125-156
Fuel Pump	GRJ 420
Clamp	52545 K45
Grommet	34872
Fuel Sender Seal	12459863
Fuel Sender Retainer Bolts	

#### Recommended Tools

Vehicle Lifting Equipment (automotive lift or jack stands)

Wheel Lug Wrench or Socket

Ratchet Wrench

7 mm, 10 mm and 13 mm sockets

Disconnect tool (for older models)

Several Shop Towels

Scribe or Small Screwdriver

Three small screwdrivers

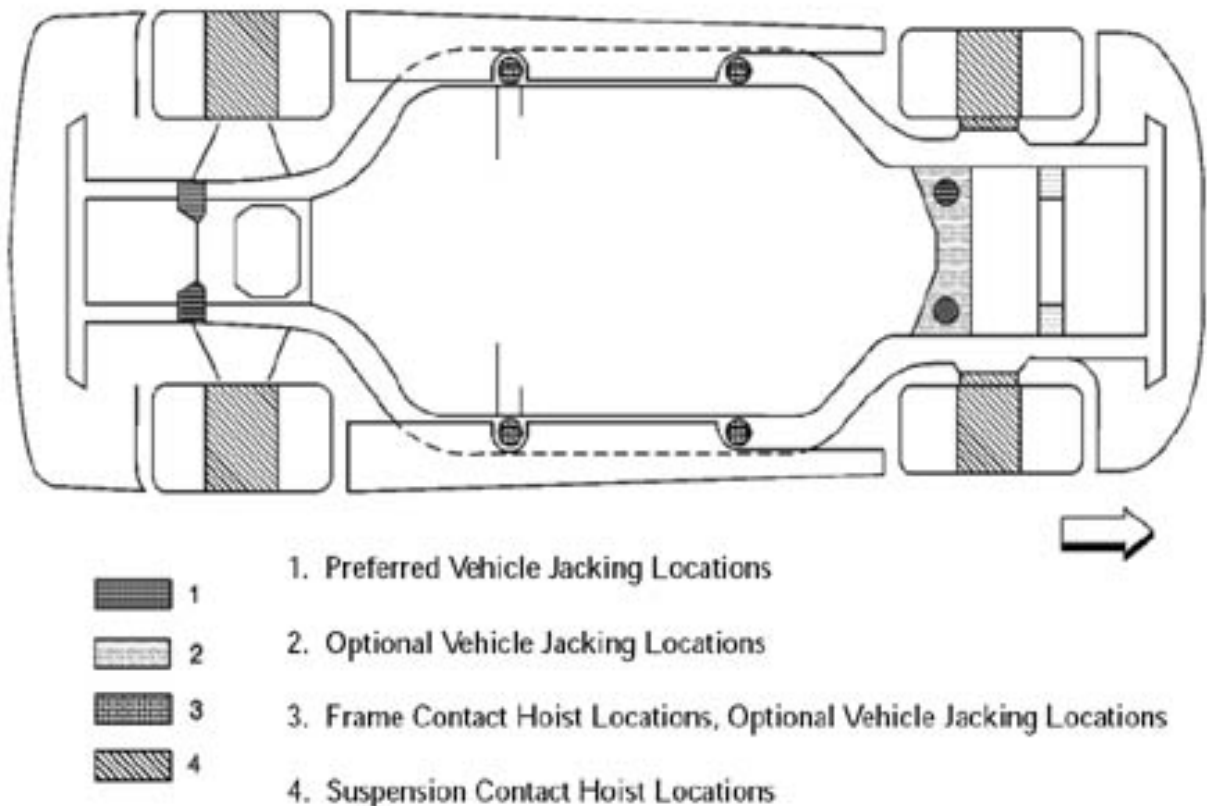
Oetiker Pliers or Side Cutting Pliers

**WARNING:** Before attempting installation of the new upgraded fuel pump, ensure that the fuel tank is less than 1/8th full by checking the fuel level gauge. Even though the gauge may read empty, some residual fuel will be present in the tank. Exercise extreme caution and common sense when working around gasoline. Extinguish all open flame or other sources of ignition and be sure to perform the following steps in an area with adequate ventilation. Personal protection in the form of safety glasses and fuel resistant gloves is strongly recommended.

**CAUTION:** Before servicing any electrical component, the ignition key must be in the OFF or LOCK position and all electrical loads must be OFF, unless instructed otherwise in these procedures. If a tool or equipment could easily come in contact with a live exposed electrical terminal, also disconnect the negative battery cable. Failure to follow these precautions may cause personal injury and/or damage to the vehicle or its components.

Turn off ignition key and disconnect the negative battery terminal.

Vehicle will need to be raised to gain access to fuel tank. Raise the vehicle on an automotive lift or with jack stands at the points recommended by the manufacturer. Refer to the owners manual or a shop manual for further specifications. To avoid any vehicle damage, serious personal injury, or death, when major components are being removed from the vehicle and the vehicle is supported by a hoist, make sure to support vehicle with jack stands at the opposite end from which the components are being removed.



Here is the new upgraded fuel pump assembly. Note the new crimp type hose clamp that is taped to the body; remove it now for later installation.



Remove the driver's side rear wheel to gain better access to the fuel pump assembly. Using a ratchet, 10 and 13 mm sockets, remove the two fasteners that retain the end cap on the fuel tank panels.

Pull down, but do not remove the large bottom panel by removing the next two bolts and only loosening two forward most fasteners with a ratchet and a 13 mm socket.

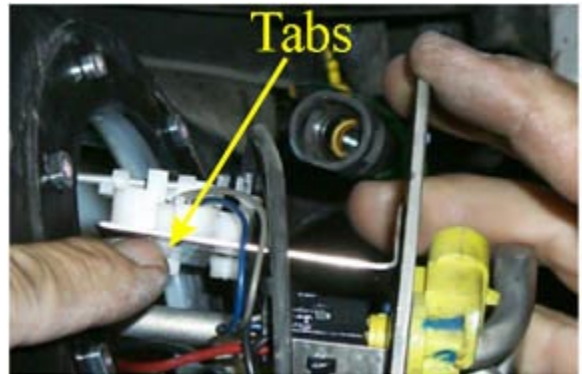


Remove the three fuel lines by pushing their plastic connectors firmly towards the steel tubes, then squeezing the blue or green release triggers. Note that just behind the connectors on the fuel lines are colored flags. These flags (black, blue and green) match a colored dot on each of the steel tubes, if the dots are not visible: the names of the colors are staped into the access cover near the base of the pipes. Some older models will need a special tool to disconnect the fuel lines. This tool should be available at your local auto parts store.



Remove the six bolts that secure the access panel with a ratchet and a 7 mm or 10 mm socket. Pull the access cover and pump assembly out of the tank four to six inches and stop. Note the white plastic fuel level transmitter mounted near the top of the access panel and its thin, metal float arm going back into the tank. Carefully move the float arm through its full range of motion and make note of how far it moves.

Detach the fuel level transmitter from its mount by pushing in on the two tabs on the backside of its mount.



With the fuel level transmitter loose, reach into the opening and pull out the loop of orange plastic fuel line, this will ease removal of the pump assembly.

Pull the pump and transmitter assembly up at about a 45 degree angle and towards the outside of the car. Note that there is a large fuel strainer attached to the end of the white plastic can, and even with the tank empty, it will be dripping with gasoline. Use a shop towel or drain pan to catch this excess fuel.





Prepare a clean work space and lay the complete pump assembly on clean, dry shop towels to catch any residual fuel as you disassemble it.

Disassemble the pump assembly by separating the "can" or body from its lid. Do this by gently prying up at the three retaining points.



When removing the lid from the can, it can be helpful to use three small screwdrivers as wedges to hold the edge of the can as you pull the lid free.

Here is the pump assembly with the lid removed. Unclip the black and red wires from the side of the lid and slide the lid up along the orange fuel line.



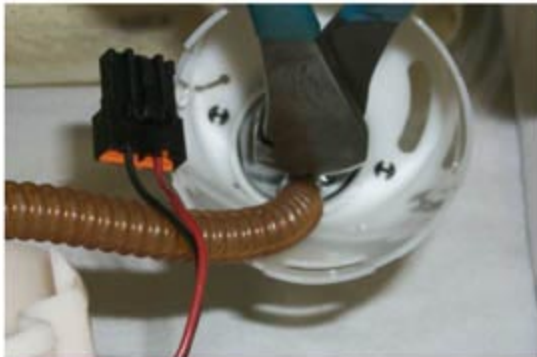
Sliding the lid up the fuel line reveals the fuel pump connections. Remove the electrical connector by squeezing and pulling it out.





Remove the fuel line connection by carefully spreading the "loop" in the clamp. Do this by using a small tool such as a scribe or small screwdriver and some patience. Take care not to damage the fuel line itself, as it must be reused on the new pump. The clamp will be replaced.

This is an end view of the new pump and can assembly. It is identical to the one that has just been removed.



Install the fuel line on the new pump by sliding the new clamp (taped to the can previously) over the end of the fuel line. Slide the fuel line on the nipple of the pump and crimp the loop tightly.

Use a pair of oetiker pliers (a pair of side cutting pliers will work as well) to crimp the loop of the new clamp around the fuel line. Take care not to cut the loop but only tighten it. Finally install the electrical connector.



After installing the fuel line and electrical connector, clip the connector with the red and black wires back into their slot on the side of the lid. Slide the lid down the fuel line until it snaps into place on the new can. Insert the fuel strainer of the pump can into the opening of the fuel tank first, followed by the float arm of the transmitter. Slide the arm and can in the opening together in the same position as they were when you pulled them out. Before pushing the can all the way in, snap the transmitter back into its original position and move the float arm through its full range of motion to insure that it is not restricted in the tank. A new gasket and new bolts will need to be purchased for this next step. Push the pump in until the access cover is up against the new gasket in its stock position. Install the six new retaining bolts and torque them to 62 in-lbs.

Reattach the three fuel lines by lining up the release triggers with the slots on the connectors. Match the colored flags on the lines to the colored dots on the pipes. Disregard the color of the release triggers. Make sure that you replace the fuel lines in the correct position. Reattach the electrical connection on the access cover. Push the lower fuel tank panel back into place and reinstall the two fasteners you have removed. Reinstall the tank end panel with its fasteners and torque all of the panel fasteners to 12 ft-lbs. Refill the fuel tank with 91 or greater octane unleaded fuel. Remember to start vehicle and check for leaks in fuel line and fuel tank.

Before lowering vehicle, install right wheel and torque the amount specified in the owners manual. Lower the vehicle and reconnect negative battery terminal. Before driving, turn on the ignition and let vehicle idle for a couple of minutes to let the PCM reprogram its idle settings.

Congratulations, you have completed installing the LPE C5 High Flow Fuel Pump.