



# DeLorean Motor Company Fuel Pump/Sender Module

## Installation Instructions

Thank you for purchasing a DeLorean Motor Company Fuel Pump/Sender Module. This unit completely replaces all in-tank components of the original fuel system. It is a modern fuel pump design, fully compatible with blended fuels, eliminating the vulnerable rubber parts of the original system. A plug and gasket are also included to cap the hole where the fuel sender was installed.

Read these instructions thoroughly before beginning the installation process. If you have any questions prior to beginning the installation, please contact the DeLorean Motor Company facility from which you purchased this module, or visit our support site at <http://support.delorean.com> for more assistance.

**CAUTION** - if possible the tank should be empty before starting the process. If this is not feasible due to pump failure, you must have a way to safely empty the tank such as a hand siphon and several gasoline cans. The tank can hold as much as 13.5 gallons of fuel so plan accordingly.

**WARNING** - Gasoline is EXTREMELY flammable. This work should be done out of doors if possible, or in a very well-ventilated garage space. No open flame or smoking in the area. Gasoline fumes are heavier than air and can move along the floor to a nearby heating appliance. YOU CAN BE KILLED.

NOTE - If the bottom of the fuel tank is contaminated, you **must** completely drain and clean the tank. If the original pump parts have disintegrated and coated the tank with a black substance, it **must** be cleaned. **Failure to do so will cause failure of the pump and void your warranty.** Acetone may be used as a solvent as it easily dissolves the contaminants and evaporates very cleanly. Follow cautions on the can as it is a very hazardous substance.

### INSTALLATION INSTRUCTIONS

1. Disconnect the battery by removing the positive cable connected to the negative terminal, making sure that the cable will not touch the terminal. Extinguish all flammables when working on or near the fuel system. Failure to do so may result in fire, causing damage or death.
2. Remove the access panel in the luggage compartment, located beneath the spare tire. You will probably see something that looks similar to Figure 1.
3. Around the outside of the pump cover or boot there is a large hose clamp (already removed in Figure 1). Remove that hose clamp.
4. Unplug the 3-wire connector from the fuel sender (the smaller round object to the right in Figure 1) and unplug the 2-wire connector from the fuel pump.



Fig. 1

5. Carefully cut the two large hoses from the pump. Use large wire cutters or a very sharp knife. Have rags at the ready as fuel will spill. Lift the pump assembly out of the tank as shown in Figure 2. Loosen the hose clamp at the base of the pump and disconnect the hose. Remove the spring clip on the smaller hose so that the hose can be disengaged. DO NOT attempt to disconnect the line fittings at the other end of the lines (where they join the body). They are typically frozen in place and you can easily damage the steel lines. Use a sharp razor blade to cut the old hoses from the barbed fittings in at the frame, leaving the metal ends exposed.



Fig. 2

**NOTE:** When cutting the lines from the barbed fittings in at the frame, ensure you do not scrape the barbed fittings. Damage to the fittings could result in a leak.

6. If you were not able to pump the tank dry with the old fuel pump, you now need to empty the tank using your siphon.

7. Remove the old fuel sender by unscrewing the large black plastic ring holding it in place. Units that are all plastic, or orange-brown in color, may be discarded, along with the gasket, but you must keep the large black plastic ring.

**NOTE:** Metal tank sending units, identified by a metal plate of the top that says “delorean.com”, have a “trade-in” value - refer to other documents in this package or contact your selling dealer or visit our support site at <http://support.delorean.com> for more details.

8. At the bottom of the tank you will see a single 10mm nut holding the original baffle system in place. Remove this nut, the washer under it, and the baffle assembly with the hoses. Pop the bottom off the baffle, and you will be able to squeeze the baffle and bottom so that they can fit out through the hole. You should have removed the nut, washer, two hold-down wires, baffle, baffle bottom 2 hoses, and the pickup screen (attached to the pickup hose). In many lower VIN (below 2500) cars there will be no baffle bottom, and in many cases some or all of the parts may have been left out in prior attempts to repair the tank system. The important goal is to remove everything from inside the tank (except the wire at the top, as seen in Figure 3, which is a static-prevention device and must be left in place).

9. Clean the bottom of the tank. This is *VERY* important as the DeLorean fuel system is *VERY* sensitive to foreign matter plugging the fuel injection components. The bottom of your tank may range from having only a few foreign particles (in the case of a running car) to having a layer of deteriorated rubber lining the bottom of the tank. This all must be removed so that the tank looks and feels perfectly clean, all the way to the back. If the bottom feels gritty you are not done! A shop vacuum and inspection camera can help with this. Figure 3 on the next page shows the tank cleaned but with small particles remaining to be vacuumed out. The wire at the top is a static-prevention device and must be left in place.

**NOTE:** Failure to completely clean the tank will foul the new pump and void the warranty. If you have any question about cleaning the tank, please contact your selling dealer or visit our support site at <http://support.delorean.com> for additional information.

10. Unpack the new pump assembly. Included in the package are the pump/sender unit, two hoses, two snap-on fittings, 4 hose clamps, a large retaining clamp, and a wiring harness including an electronic logic

box, a fuel filter with clamping pad, and a blanking plug with a new gasket to replace the fuel sender as shown in Figure 4.

11. Loosen but do not remove the nut on the large retaining clamp provided. Set the clamp over the opening in the tank with the securing screw and nut on the passenger side of the car facing toward the front of the car. Orient the new pump as shown in Figure 5 and place it into the hole in the tank, spreading the clamp as you press the pump in place compressing the internal springs. The pump *MUST* be oriented as shown for clearance of the trunk floor and connection of the hoses. Be sure that the pump is completely seated into the hole in the tank. Tighten the clamp enough to hold it in place but do not tighten all the way yet.

12. Attach the snap-ends to the hoses now using the hose clamps provided.

13. Connect the snap-ends to the pump. They are two different sizes, so take care that you don't try to force the smaller one onto the larger fitting. The smaller fitting connects to the port on the pump labeled "R" and the larger connects to the fitting labeled "F". When the fittings are all the way in place, you will feel a noticeable snap and the fitting will not pull back off.



Fig. 3



Fig. 4

14. Route the hoses as shown in Figure 5 on the next page, and connect to the line fittings at the frame using the remaining two hose clamps provided.

**IMPORTANT:** The line from the port labeled "F" must be connected to fuel line that is toward the center of the car. This is the "feed" side and goes to the fuel filter. The line from the port labeled "R" must be connected to the fuel line that is toward the outside of the car. This is the "return" side and comes from the fuel distributor.

15. With the large clamp still relatively loose, rotate the pump counterclockwise so that it is as far as it can go – the hose ends

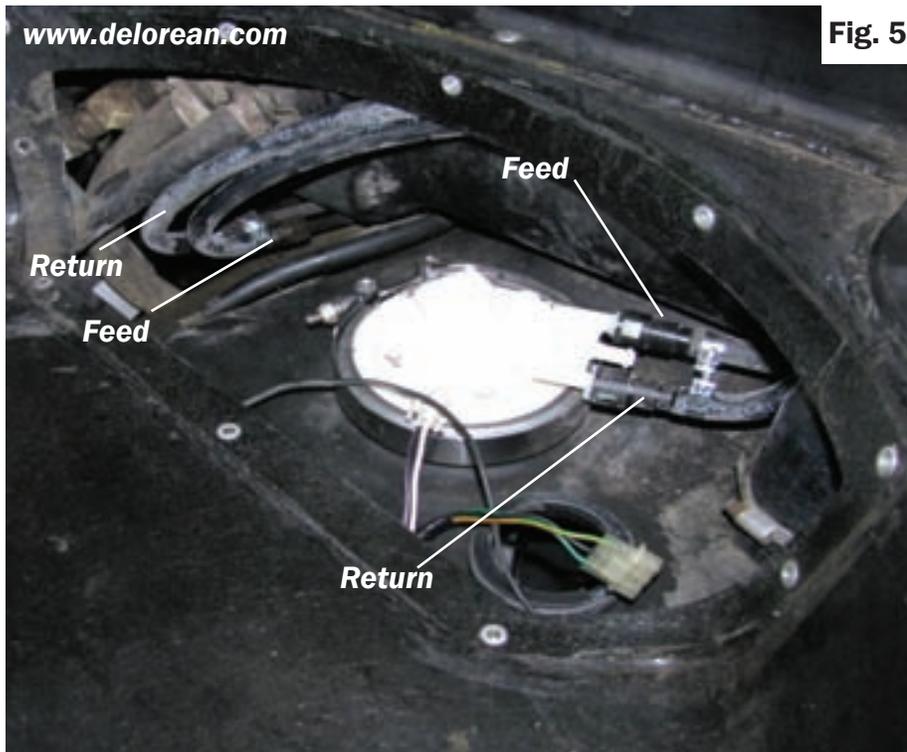


Fig. 5

will be stopped by the car body. Tighten the large clamp firmly, but not so tight you break the pump housing! It needs only to be tight enough to keep the pump from rotating.

16. Connect the large connector from the logic box to the connector on top of the fuel pump. Connect the other two connectors to the harness connectors on the vehicle. Place the logic box up out of the way near the main filler hose as shown in Figure 6. A Zip Tie is provided to tie the box to the filler hose as shown.

17. Install the metal cap and gasket (as shown in Figures 6, 7 and 8) in place of the existing fuel sender. Orient the notch in the gasket provided so that it is *OPPOSITE* the notch in the tank. **Do not line up the notches.**



Fig. 6

18. Reconnect the battery. Take note, if you turn on the ignition key at this point, you'll notice that the gauge does not seem to work. The new fuel sender is now powered by the power to the fuel pump. With the engine not running, the fuel pump power is disconnected by the RPM relay for safety reasons. To test the gauge and see its operation the engine must be running.

19. Pour 3 gallons or so of fuel into the tank. Start the engine to test the installation and check for leaks. Due to air introduced into the system the engine may stumble when first started.

20. When you are satisfied that everything works, reinstall the cover plate to the trunk floor. You may find that this is a tight fit against the new pump. It is easier to install the access cover if you put the three screws across the front side in place first, and then press the access cover into position to install the remaining screws.

21. Before filling the tank, read the operating notes below to make sure you

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**Fig. 7**

are familiar with the manner in which the new sender functions.

### **Operation Notes**

Do not fill the tank with the engine running or the gauge may take several minutes to read the level correctly.

The low fuel light is set to come on with 2.5 gallons of fuel remaining in the tank.

If you have previously driven a DeLorean low on fuel, and have notice it “sputter” as the fuel gets low, with this unit installed this behavior is eliminated. When low on fuel, get gas - there is no “warning” other than the low fuel light.

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**Fig. 8**