

PART # TEN3630010

Fuel Pump Upgrade for 95-99 E36



In our years campaigning the E36 chassis in World Challenge, and working on various other street and club racing cars we found the later built E36 cars are much more prone to fuel starvation than the cars manufactured before January, 1995. This is caused by a less efficient siphon pick up tube in the driver's side sending unit. During hard cornering this will cause the car to temporarily run out of fuel which can cause engine damage or cause the car to become unsettled at an inopportune time. With the later fuel pump sending units you can start having fuel starvation as early as 3/8 of a tank of gas' where with the earlier sending units this condition does not start to occur until below 1/4 tank. This kit is a great inexpensive way to get more fuel out of your tank. For endurance racing there are other more expensive ways to get all the fuel out of your tank, but for driver schools or sprint races this is the way to go. In the four years that Turner Motorsport ran the E36 in SCCA Touring car this is the fuel pump setup that was used and there was never any fuel starvation problem after this conversion.

Note: If your car has a production date close to 01/95 you should check to see if your car already has these sending units. Follow steps 2 and 3 in the directions to see if the sending unit on the passenger side of the car is blue or white. If the sending unit is blue, proceed with the installation.



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Application Chart: 01/95 –99 E36

Parts list for kit:

- Fuel Pipe
- Fuel Level Sending Unit
- Fuel Pump Assembly
- 4 Size 10-16 Hose Clamps

Install time: 2 hours

When is the best time to perform this upgrade on my car?

- When your fuel tank is low on gas. You do not need it to be empty, but the less fuel, the less messy it is.

Safety First

Remember that working with fuel is dangerous and a qualified technician should perform all work!!!

Directions: Start on Page 3



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Properly lift and support the car to access the under side of car

1. Disconnect battery from the positive post and shield the terminals so that they do not touch.
2. Remove the lower rear seat by pulling up on the seat about 8 inches in from the ends and remove from car.
3. Peel back the sound deadening that is over the fuel pump covers and remove the four Phillips head screws that secure each of the fuel pump covers.
4. Lift the cover and unplug the wiring from the sending units. Place wiring and cover to the side. It is not necessary to mark where the wiring goes as it will only fit one way.
5. From underneath the car you can get to the gas tank. There are three straps that hold the gas tank to the chassis. At one end of each strap there is an 8mm bolt. Loosen each bolt so that they are just in by 3 full turns. That will allow the gas tank to drop just enough to install the new fuel pipe. Have a jack with a big piece of wood to spread the load under the gas tank for security, in case the bolts are backed out too far.
6. Through the access holes inside of the car cut the band clamps and remove the fuel hoses from the fuel sending units.
7. Remove the sending units from the gas tank. Start by using a chisel and hammer to remove the sending unit securing rings. Gently tap the ribs on the securing ring in a counter clockwise direction. Not much force is required and as little force as possible is better as they are prone to damage. Once the rings have been broken loose, remove by hand.
8. Carefully remove the sending units from the tank. It takes a bit of moving around to get them out and the unit on the driver's side has a long hose on it that can be difficult to remove. Also, be careful of the rubber gaskets, as they will be reused.





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Installing the new sending units.

9. Slide the rubber gaskets on the sending units.
10. Install the sending units in the tank and line up the alignment marks that are on the fuel tank and sending units. Make sure that the gaskets are in the correct place.
11. Install the securing rings using the reverse procedure of how they were removed.
12. Install the new cross over pipe with the longer rubber end facing the driver's side. Slide it through one of the access holes to the other side. There is a set of clips on top of the gas tank to hold the pipe in place. Attach the hose end to the sending units with the new hose clamps.
13. Install the rest of the hoses using the reverse procedure that they were removed, using the new hose clamps in place of the band clamps.
14. Tighten the three 8mm bolts for the tank straps underneath the car.
15. Plug in wiring, but do not install the covers.
16. Clean any fuel up that may have spilled and move all old parts away from car.
17. Connect positive battery cable.
18. Start car and check for fuel leaks.
19. Install access covers, sound deadening, and rear seat.
20. Lower car and test drive car. Check that there are no leaks.
21. Drive and enjoy!

