



Russell Electric Fuel Pump Service Kit
Catalog #178050 & 178060
SERVICE INSTRUCTIONS

PLEASE study these instructions carefully before beginning this service. This process can be accomplished with common tools and procedures. However, a familiarity with working on automotive fuel systems is highly recommended. If you do not feel comfortable performing this service or have never worked with automotive fuel systems before, it is highly recommended to have the service completed by a Professional Mechanic. Proper installation and assembly is the responsibility of the installer. Improper installation or assembly will void the manufacturer's warranty and may result in poor performance and engine or vehicle damage. If you have any questions, please call our **Technical Hotline at: 1-800-416-8628**, Monday - Friday, 7:00 am - 5:00 pm, Pacific Standard Time.

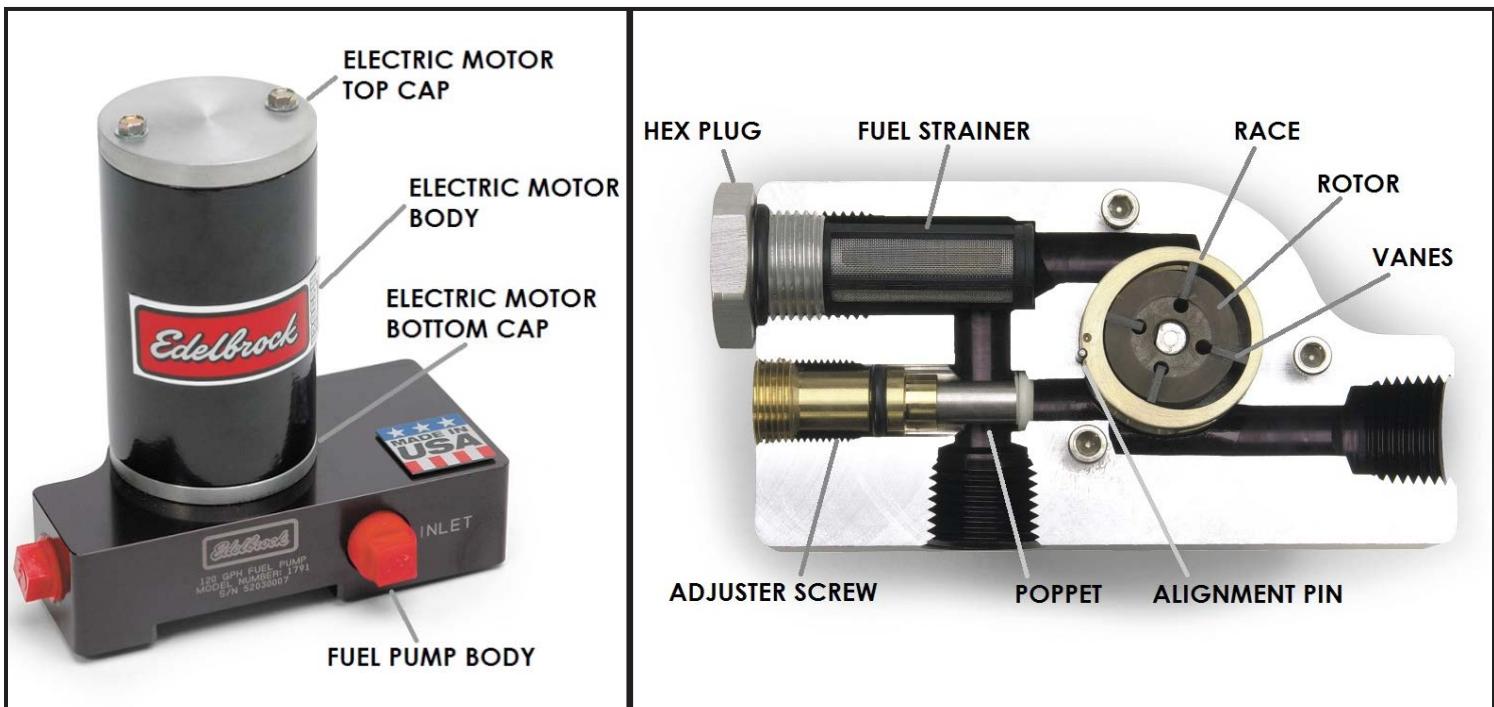
WARNING!

Make sure to perform this service and installation in a well ventilated area away from any potential fire hazards. Gasoline fumes are toxic and highly flammable. Prior to starting this procedure, make sure to eliminate all potential fire hazards as fuel leakage can occur when loosening the fuel system connections.

DESCRIPTION

This is a guide for performing disassembly and reassembly in order to replace the wearable parts in an Edelbrock Electric Fuel Pump using Russell service kit #178050 or 178060.

SERVICE DIAGRAMS



DISASSEMBLY

1. Remove the fuel pump from the vehicle only when vehicle has cooled. Properly cap off the fuel connections on the vehicle while the pump is removed. ***Exercise extreme caution when working with fuel as it poses an extreme fire hazard. Capture any residual fuel that might spill during the removal process in to an approved container and ensure proper disposal.***
2. Clean out the remaining fuel from the internal cavity of the fuel pump. Clean any dirt/debris on the fuel pump assembly.
3. Secure the fuel pump body in a vice with soft jaws and remove the bracket and the fuel inlet/outlet fittings from the fuel pump. **Never clamp the electric motor in the vice.**
4. Remove the large aluminum hex plug on the fuel pump body. Remove the cylindrical fuel strainer located below this plug.
5. Note and record the depth of the pressure adjuster screw. Remove the adjuster screw from the fuel pump body and pull apart the poppet and spring from the adjuster screw.
6. Secure the fuel pump body in a vice in an upright position. Secure the electric motor top cap (grey) and bottom motor cap (grey) to the electric motor body (black) using a strong tape. This will help keep the caps and the motor body together while removing from the fuel pump body. **Do not let the motor assembly come apart at any time.**
7. Note and mark the orientation of the electric motor assembly in relation to the fuel pump body.
8. Loosen the two motor screws located on the top of the electric motor assembly until they are completely disengaged, but do not remove them. Keep the screws within the electric motor assembly.
9. Gently lift up and remove the motor assembly while only grasping the lower motor cap.
10. After removing the electric motor, fully insert the motor screws so the screws are in their installed position. Clean any remaining thread locking compound from the exposed portion of the screws.
11. Secure the fuel pump body upside down in the vice. Remove the three socket cap screws that are securing the rotor cover
12. Remove the rotor cover, bottom internal wear plate and the sealing O-ring.
13. Note the orientation of the brass color fuel pump race and the pin marking on the face of the race. This information will be needed during reassembly.
14. Remove the fuel pump rotor, vanes, and the race.
15. Remove the alignment pin and the upper wear plate.
16. Note the orientation of the shaft seal for reinstallation purpose. Remove the shaft seal from the fuel pump body by using a press and properly sized puck. Do not damage the shaft seal sealing surface on the fuel pump body.
17. Clean the fuel pump body, poppet assembly, aluminum hex bolt, and the pump lid.

ASSEMBLY

18. Lubricate the outer surface of the new shaft seal with light oil. Using a small press and a properly sized puck, install the shaft seal from the top side of the pump body in the proper orientation. The seal must sit flush and square with the countersunk surface on the top of the fuel pump body.
19. Secure the pump body in the vice in an upright position. Apply thread locking compound to the exposed portion of the electric motor screws. Install the electric motor assembly on to the pump body in the proper orientation noted and marked during disassembly. Thread the motor screws in by hand so the threads are correctly engaged. Tighten the motor screws to 15 in*lbf. Remove the tape securing the electric motor body to the motor caps.
20. Secure the fuel pump body upside down in a vice.
21. Install the new alignment pin in the alignment pin hole.
22. Install the new upper wear plate in the pump body in alignment with the alignment pin.
23. Install the race in the proper orientation as it was noted in disassembly and in alignment with the alignment pin.
24. Install the new rotor in alignment with the key way of the motor shaft.
25. Install the four, new vanes in the vane slots of the rotor.
26. Install the new O-ring seal for the bottom wear plate on the fuel pump body.
27. Clean and lightly coat one side of the new lower wear plate with copper-based anti-seize. Align the rotor cover with the lower wear plate so that the anti-seize coated side of the wear plate is in contact with the rotor cover.
28. Ensure that the pump lid O-ring hasn't shifted out of place and the vanes are still properly installed in the rotor. Place the pump lid/wear plate on to the fuel pump body, with wear plate side facing to the internal side of the pump.
29. Apply thread locking compound to the new three cap screws and affix the pump lid to the fuel pump body. Torque to 15 in*lbf.
30. Replace old O-rings on the aluminum hex plug and brass fuel pressure adjuster, making sure to not damage the O-rings and the O-ring surfaces on the parts. Coat the O-rings with light oil.
31. Install the new fuel strainer in to the fuel pump body, and install the aluminum hex plug to seal in the strainer. Ensure proper alignment of the strainer and aluminum hex bolt during this process. Tighten to 10 ft*lbf.
32. Reassemble the poppet and the new spring in to the pressure adjuster screw and install in to the fuel pump body. Install to depth noted in the disassembly procedure.
33. Reinstall the fuel pump fittings using proper thread sealant, and reinstall the pump into the vehicle.
34. After all the fuel line connections are properly reinstalled, power up the fuel pump system and verify that there are no leaks in the fuel pump assembly and the fuel line connections.
35. Start the vehicle and reset the fuel pressure to the original fuel system operating pressure noted before disassembly. Double check to make sure there are no fuel leaks.