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DODGE AUXILIARY LIFT PUMP KIT

For 1998½-2007 Dodge 5.9L Cummins Trucks

-- Installation Instructions --

Part# 1050226










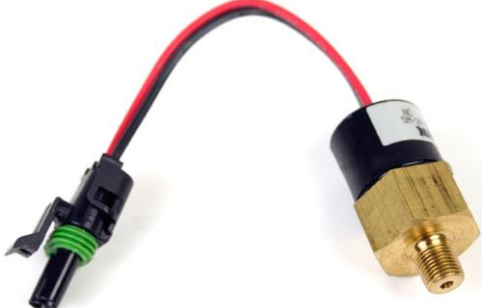

PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION.

BD Engine Brake Inc.

Plant Address: 33541 MacLure Rd. Abbotsford, BC, Canada V2S 7W2

U.S. Shipping Address: 88-446 Harrison St, Sumas, WA 98295 U.S. Mailing Address: P.O. Box 231, Sumas, WA 98295

Phone: 604-853-6096 | Fax: 604-853-8749 | Internet: www.bd-power.com

Kit Contents			
P4601HP	1100111	1230116	1300131
			
Auxiliary Lift Pump Assy.	Flat Washer	Lock Nut	Tie Wrap (Medium)
Qty: 1	Qty: 6	Qty: 6	Qty: 5
1300220	1505001	1400120	
			
Anti-Vibration Mount	Hose Clamp	3/8\"NPT x 3/8\"PO Fitting	
Qty: 3	Qty: 4	Qty: 2	
1502020 / 1502023	1502022	1502025	
			
Boss to NPT Adapter / O-Ring	Lift Pump Wiring Harness	Pressure Switch	
Qty: 1	Qty: 1	Qty: 1	
1604053			
			
Fuel Line			
Qty: 25\"			

NOTE: Some parts will be contained inside of the sealed plastic bag found inside of the pump kit. You will not use all of these parts.

Additional Parts Included with Kit

- Electrical contact Nut (2)
- Isolator nuts (3)
- Isolator washers (3)
- Isolators (3)
- Gear Clamp (3)



Discard bag and contents once unit is installed.



Optional Accessories

- **1081130** - Low Fuel Pressure LED Alarm kit
- **10852xx** – X-Monitor Digital Gauge Package (Call for application)
- **1080156** – Fuel Pressure Kit (X-Monitor Accessory)

Before you Begin

The BD auxiliary lift pump kit will provide the safety and performance of enhanced fuel flow to your Cummins engine. ***For this kit to be effective you must have an engine-mounted factory lift pump that is in good condition and working well. This kit will not work with factory or retrofitted in-tank lift pumps as this often leads to a hard-start issue.*** If you are unsure if your truck has an in-tank lift pump simply check to see that the lift pump is on the engine next to the fuel filter housing, if it is not there then your truck has the in-tank pump.

Installation

1. Disconnect both batteries.
2. Raise the vehicle and support it safely.

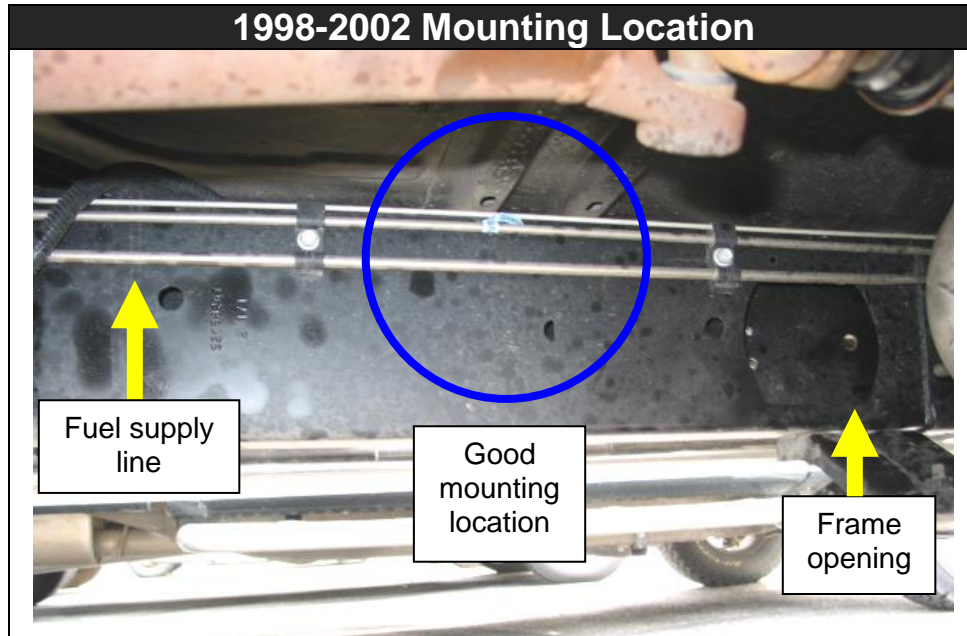
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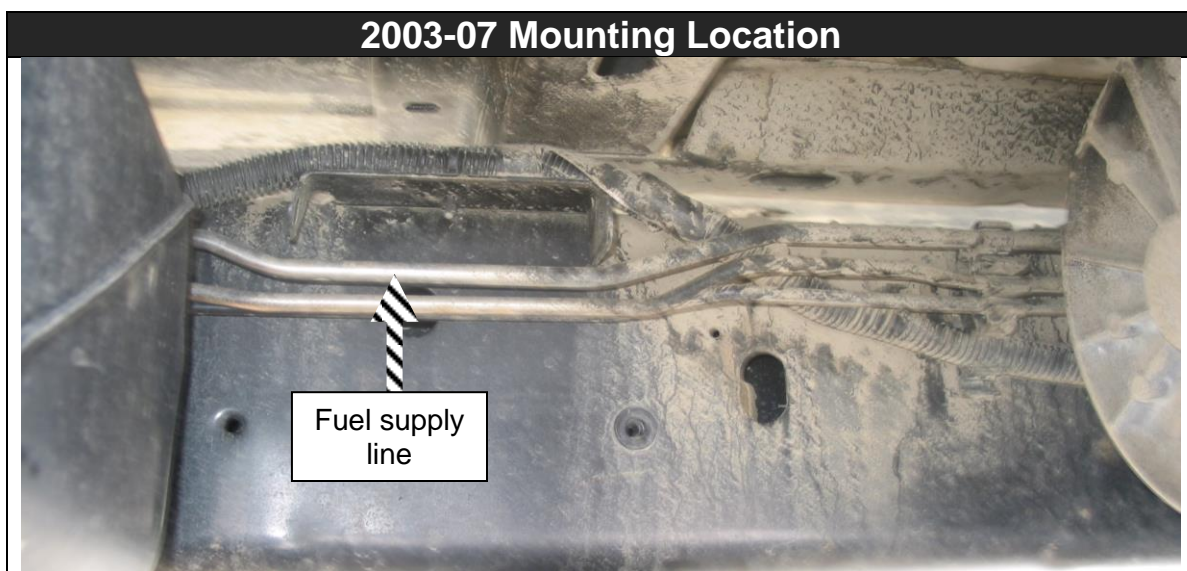
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3. Locate a spot on the driver's side frame rail near the frame opening so you can get the nuts and lock washers onto the back of the rubber isolators. Alternately if you cannot get to the backside frame to install the lock washers and nuts, you can drill and tap the holes to ¼ NC (drill bit #7 or 13/64") for mounting the rubber isolators. If you choose this method be sure to use Loc-tite on the threads.



For 2003 and newer trucks you will need to locate the largest fuel line. This line is the upper most line on the frame rail. As well you will need to drill and tap the frame rail to ¼ NC (drill bit #7 or 13/64"); as there is no frame opening. Be sure to use Loc-Tite to secure the isolators.



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- Cut the steel fuel supply line and remove a 14" section, centered on the location you chose to mount the mounting at. A pipe cutter is strongly recommended to cut the line, be sure not to squish or compress the fuel line, and remove any burrs that are left over from the process.



- Using the pump bracket as a template, mark the three hole locations as shown and drill to 1/4". If you cannot access the rear of the frame rail you will need to drill and tap the three holes. Use drill bit #7 or 13/64, then tap to 1/4" NC.
- Install the three rubber isolators with the long threaded end through the frame. Be sure to use Loc-tite if you are threading the isolators into the frame.
- Install the pump bracket on to the three rubber isolators with the supplied nuts and lock washers (These parts are found inside the sealed bag inside the pump box). Mount the pump to the "L" bracket with the supplied isolators and bolts. The pump is marked inlet and outlet so be sure that the outlet is pointed of the front the front of the vehicle.
- Install the two brass fittings in the pump - Do not use any thread sealant as this may void the warranty of the pump.

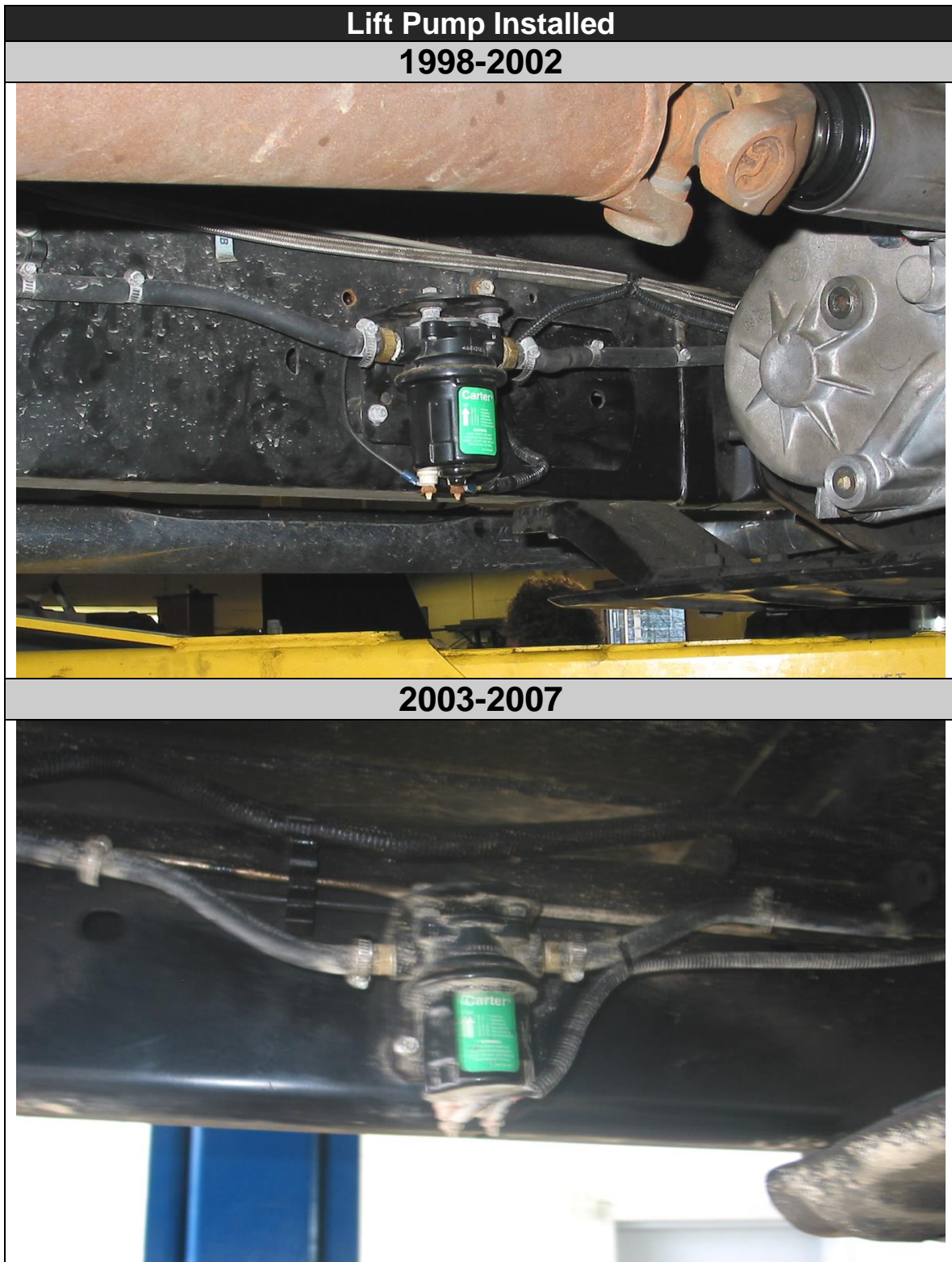
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9. Install the two pieces of rubber fuel lines with one clamp on each barb fitting and two on the steel line. Tighten the hose clamps on the factory fuel line and the brass-barbed fittings.



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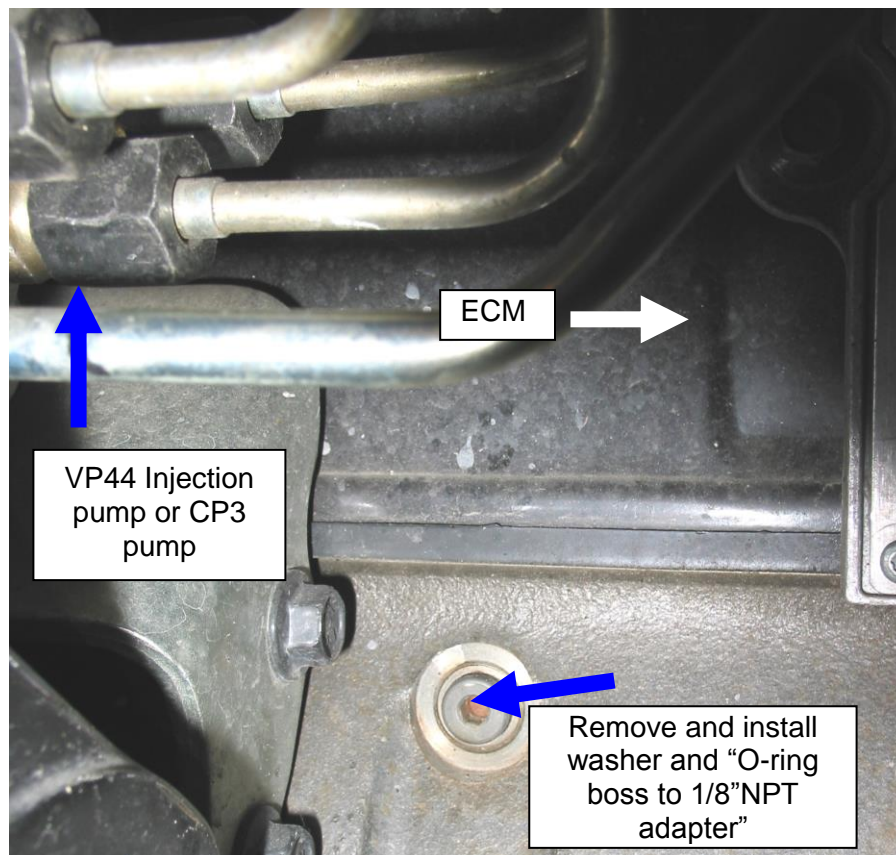
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10. Connect the wiring harness to the pump (red [+], black [-]) and run it to the engine compartment along the left frame rail. Attach the harness to the battery (red [+], black [-]) and secure it with the zap straps provided. Coat the lift pump connections with Anti-Seize, silicone, or battery terminal paint to protect them against corrosion.
11. Remove the o-ring boss plug (5mm Allen head) from the driver side of the engine, behind the power steering pump, and install the pressure switch with the "O-ring to NPT" adapter. Make sure to use liquid pipe sealant or Teflon tape on the switch to the adapter and use the metal rubber composite seal on the adapter to the engine. Plug the sealed locking harness into pressure switch.

Note that there are a number of identical ports towards the rear of the engine.



12. Reconnect the batteries and reset the radio station presets.

13. Start your engine, and verify that your auxiliary pump starts when your oil pressure builds up. Check for fuel and oil leaks at the various connections made during the installation. It is also recommended that you monitor the fuel pressure initial to ensure proper operation. Typically fuel pressure at idle should be ~20-28psi.

If you experience any problems or difficulties with this kit, please contact the BD Technical Department at 1-604-853-6096 or fax at 1-604-853-8749, between 8:00am and 4:30pm Pacific Time.

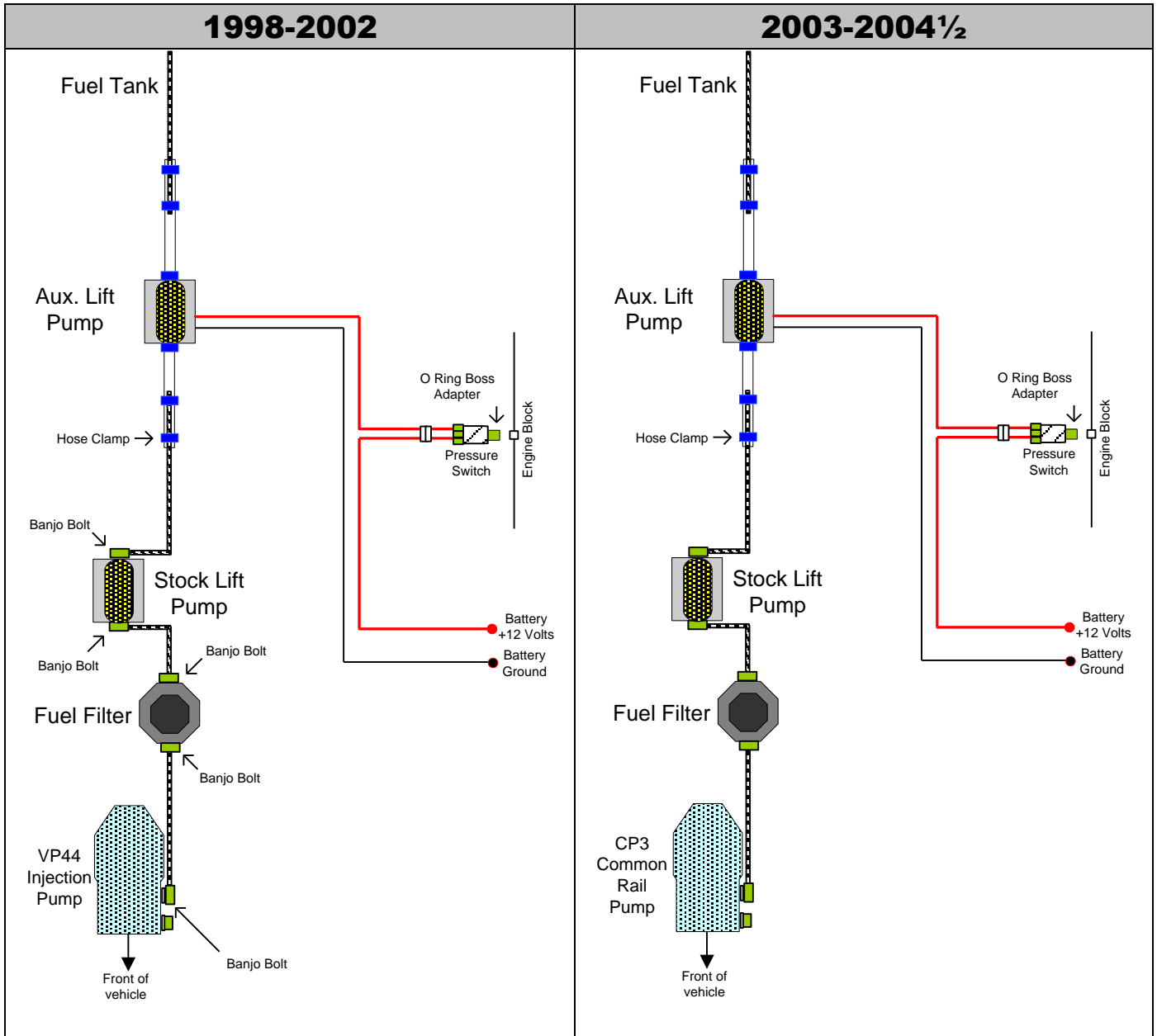
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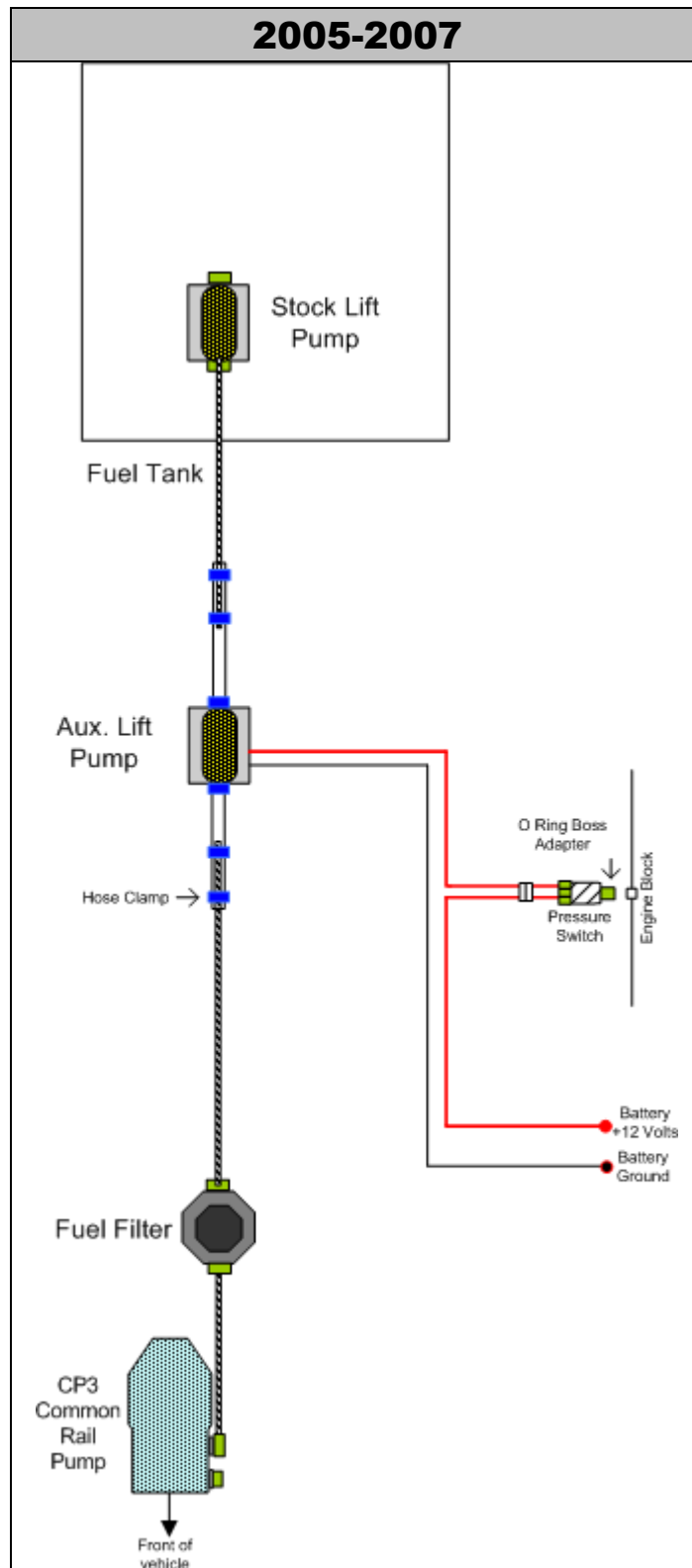
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Wiring Diagram





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