

Lingenfelter SSR & Trailblazer High Flow Fuel Pump Upgrade Kit



PN: L710111005

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Parts List

#	Part number	Description
1	TI-F0000267	416 liter/hr E85 fuel pump
1	TI-000107694/AA	Fuel pump wiring harness
2	12129494	Metri-Pak terminals
1	TI-TF0001275	Convoluted fuel line
2	52545K51	Oetiker clamp
1	22682111	Fuel sender O-ring seal
1	L920010000	LPE decal
1	N/A	Installation instructions

Optional Items

- Kenne Bell Boost-A-Pump 40 amp module
 - PN KB-89068 for naturally aspirated applications (vacuum trigger switch)
 - PN KB-89069 for boosted applications (pressure trigger switch)
- Fuel pressure regulator plug (blue - PN: L750010103) for blocking off the internal fuel pressure regulator when converting to an external fuel pressure regulator.
- TI-TU454: 2005-2007 Trailblazer Fuel Pump Module
- TI-TU453-1: 2008-2009 Trailblazer Fuel Pump Module

Required Tools

- Small pocket screwdriver
- Sharp knife or razor blade
- Wire cutters
- Hook tool (or small screwdriver)
- Pin tool (or small screwdriver)
- Die grinder, dremel tool, cut-off wheel, or equivalent
- Wire stripping tool
- Wire crimping tool
- Oetiker clamp crimping tool or diagonal cutter
- Terminal pin tool
- Needle nose pliers
- Heat gun
- GM service manual or service information

Fits The Following Vehicles

- 2005-2006 Chevrolet SSR (6.0L LS2 engine)
- 2006-2009 Chevrolet Trailblazer SS (6.0L LS2 engine)
- 2006-2009 Buick Rainier, Chevrolet Trailblazer, GMC Envoy, Isuzu Ascender, Saab 9-7X with 4.2L L6 and 5.3L V8 engines
- May also fit some other 2005-2009 ST155, ST157 and ST158 GM trucks
- Fits GM part # 19153374 fuel pump module & AC Delco fuel pump module M10087
- **DOES NOT FIT** 2003-2004 Chevrolet SSR (5.3L engine) or other 2003-2004 ST trucks

Installation note for high mileage vehicles:

If you have a high mileage vehicle, LPE recommends changing the fuel filters inside the module. The primary fuel filter and the inlet filter sock are not currently available as service parts from GM so changing these filters requires purchasing an all new fuel pump module. Complete fuel pump modules are available from LPE.

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Thank you for purchasing the Lingenfelter Performance Engineering (LPE) SSR and Trailblazer High Flow Fuel Pump Upgrade Kit. This kit includes an E85-compatible fuel pump, along with other necessary components for installation of the high flow fuel pump into the stock module. The E85-compatible fuel pump is capable of being pulse-width modulated (PWM). If you would prefer to purchase a complete fuel pump module assembly instead of modifying the stock assembly, those are also available through LPE using the following part numbers:

High flow fuel pump w/ module, 2005-2007 model years: L710091005

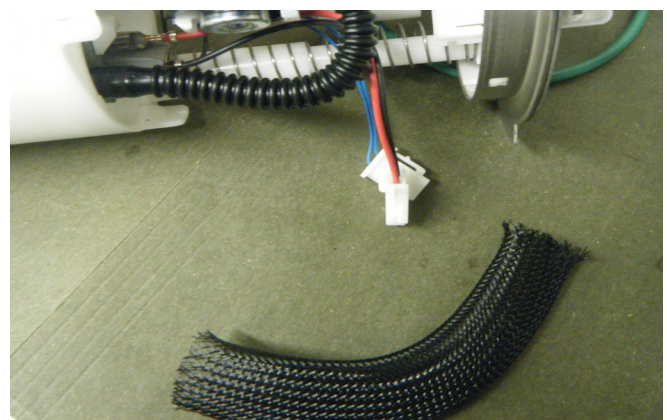
High flow fuel pump w/ module, 2008-2009 model years: L710101108

Notes / Warnings:

- **Read the entire instruction manual before beginning installation.** Some stock parts will be used in reassembly.
- **Be careful not to bend or break the float or the sender arm.**
- **Because of the additional electrical load that a high flow fuel pump can apply, make sure that you are using a 25 amp fuse for the fuel pump. If you are going to voltage boost this fuel pump, use a 30 amp fuse instead.**
- **Warning:** Gasoline vapors are highly flammable. A fire could occur if an ignition source is present. Never drain or store gasoline in an open container due to the possibility of fire or explosion. Have a dry chemical (Class B) fire extinguisher nearby and always wear appropriate safety equipment.

Installation Instructions:

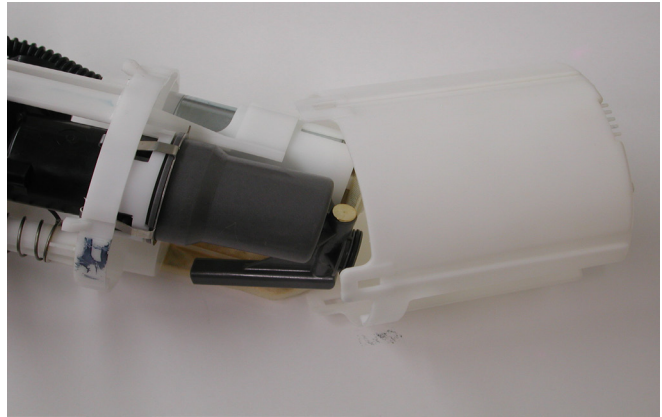
1. Remove the fuel pump module per OEM instructions.
2. Unplug all wires from the top of the module.
3. If present, remove braided nylon sleeve from the wires



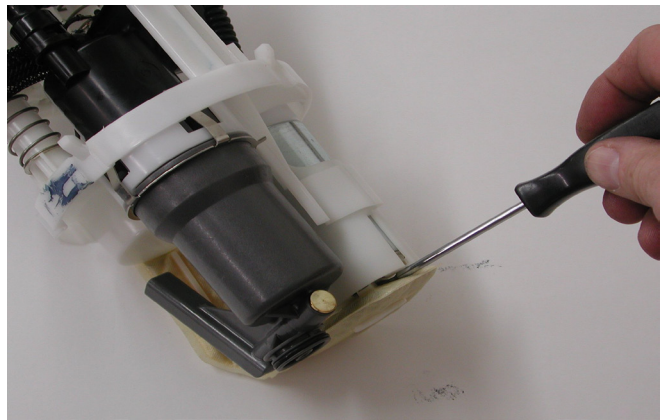
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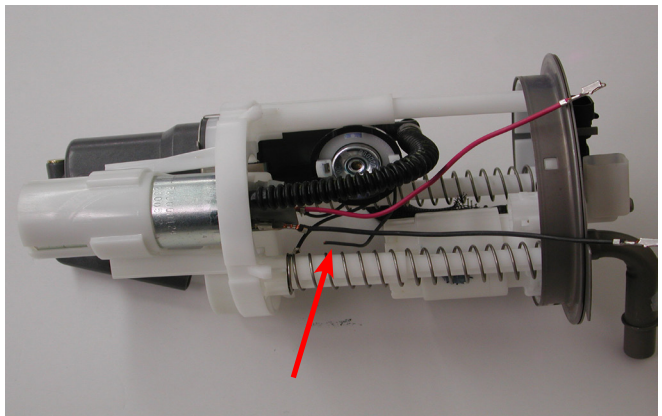
4. Carefully remove the fuel reservoir “bucket” from the fuel pump module assembly.



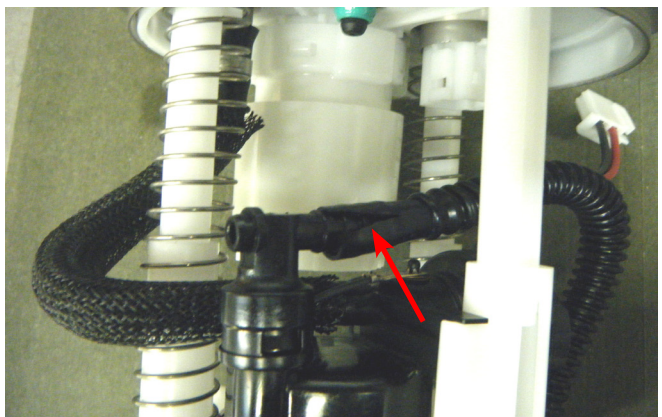
5. Using a small pocket screwdriver, carefully pry the fuel pump inlet sock & metal retaining clip from the bottom of the fuel pump. You will be reusing them when you reassemble the module.



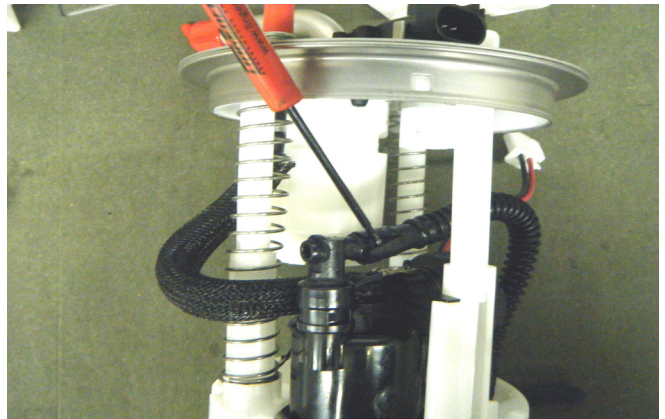
6. Using wire cutters, cut the small static drain wire from the ground terminal of the fuel pump as close to the terminal as possible, as shown by the red arrow in the adjacent picture.



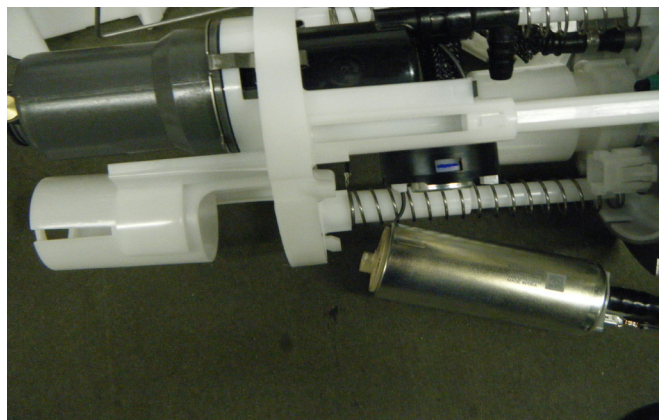
7. Using a sharp knife or razor blade, split the fuel line from the elbow fitting on top of the fuel filter, as shown by the red arrow in the adjacent illustration.



8. Using a small screwdriver, remove the fuel line from the elbow fitting. Be careful not to damage the fitting.



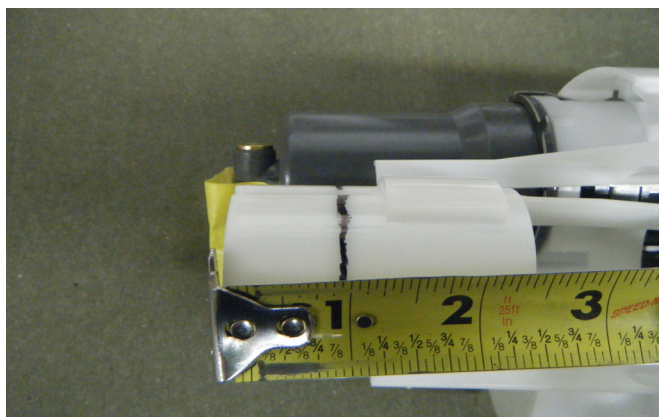
9. Remove the old pump from the module by pushing the retaining latch out of the way and pushing the pump up towards the top of the module.



10. Tape off the jet pump and any other open fittings.



11. Mark 1 inch up from the bottom of the pump mounting sleeve on the module.



12. Using a die grinder or Dremel tool with a cut-off wheel, cut the bottom inch off of the pump mounting sleeve.



13. Remove any burrs or loose plastic. For best results use compressed air to blow off the module.

14. Using a heat gun and pair of needle nose pliers, expand one end of the new fuel line. Warm and expand the end of the fuel line just enough to fit over the fuel pump.

WARNING: Make sure not to overheat or otherwise damage the fuel line, as doing so could cause the fuel line to leak.



15. Install the barbed outlet fitting of the high flow fuel pump.

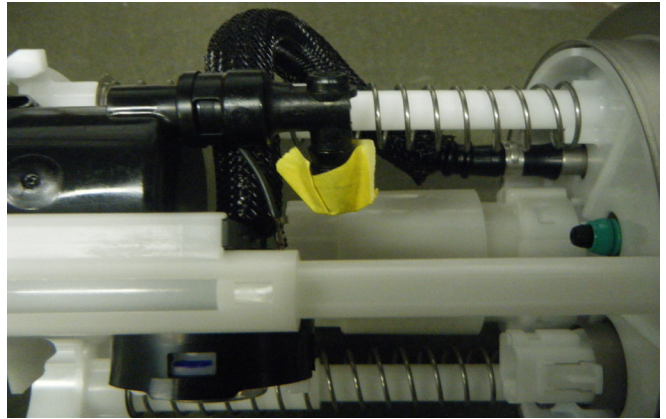
16. Slide an Oetiker clamp over the fuel line and clamp the fuel line to the fuel pump.



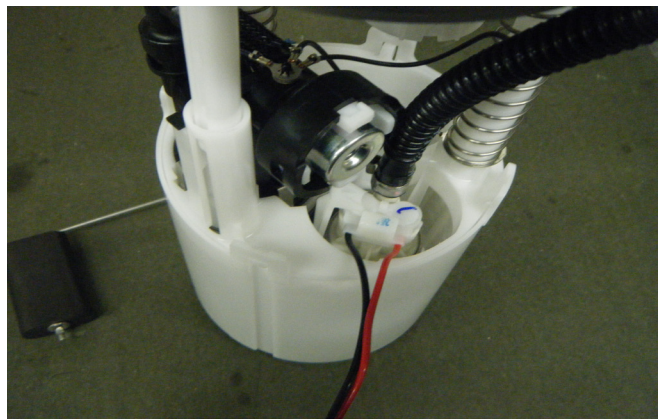
17. Install the fuel inlet sock to the bottom of the high flow fuel pump. You will need to trim the plastic on top of the sock in order to clear the ridges on bottom of the fuel pump.



18. Feed the fuel line and the fuel pump wires up through the mounting sleeve on the module.
19. Slide the fuel pump up into position. You may need to turn the pump to index the sock so that it will fit into the bucket.
20. Remove the tape from the Jet pump and fittings.



21. Install the bucket onto the module making sure that it is fully seated and that all of the retaining tabs are latched.



22. Slide the remaining Oetiker clamp over the fuel line and slide it down out of the way.
23. Using a heat gun and pair of needle nose pliers expand the end of the fuel line and install onto the barbed fitting on top of the fuel filter.

WARNING: Make sure not to overheat or otherwise damage the fuel line, as doing so could cause the fuel line to leak.



24. Using an Oetiker clamp installation tool, or a diagonal cutter, clamp the fuel line onto the barbed fitting.



25. Strip roughly 1/4" off of the end of the small static drain wire and both wires of the fuel pump wire harness.

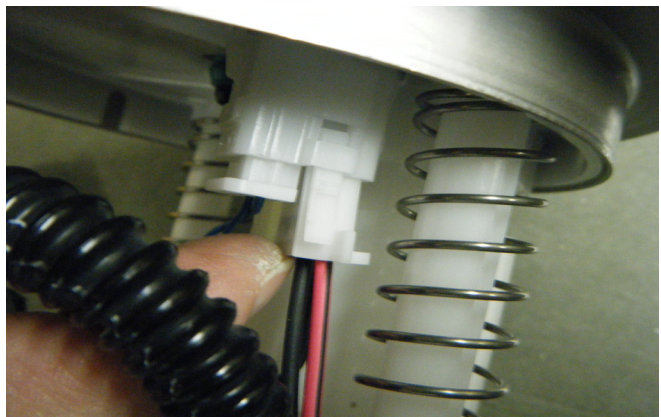
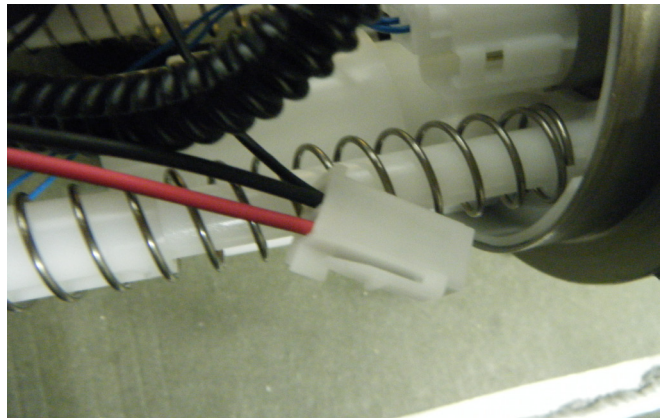
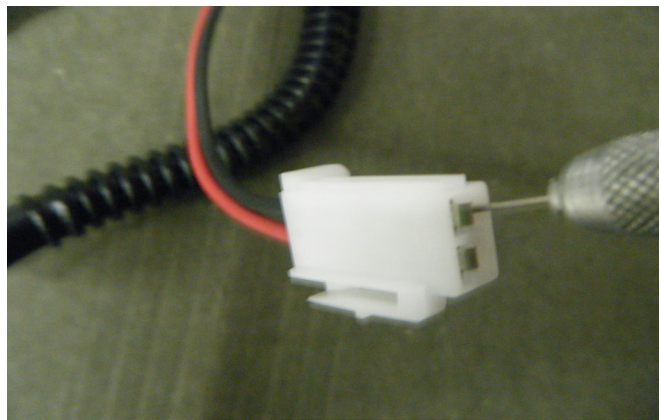
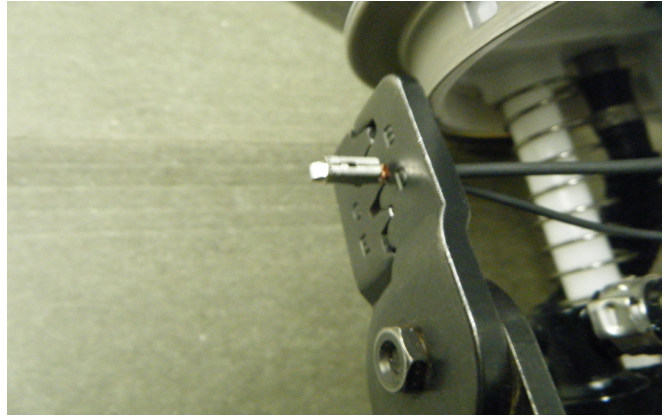
26. Using good quality terminal crimping tool, crimp one of the supplied terminals onto the small static drain wire along with the black wire of the fuel pump wiring harness.

27. Crimp the remaining terminal to the red wire of the fuel pump wiring harness.

28. Using a pin tool remove the white connector from the original fuel pump wires. Note which wire is in which cavity (Red should be closest to the latch)

29. Install the white connector onto the fuel pump wiring harness making sure the terminals are fully seated into the connector

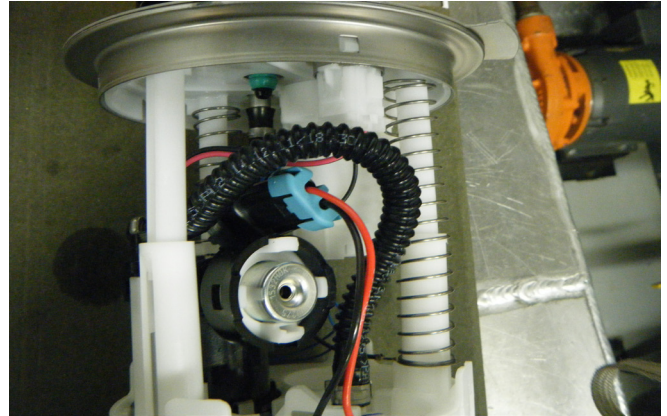
30. Connect the fuel level sender wires and the white connector on the fuel pump harness to the connector on the top of the module.



31. Connect the other end of the fuel pump harness to the connector attached to the fuel pump.

NOTE: Make sure the wires are routed so that they can move freely and won't interfere with the float operation.

32. Install the fuel pump module per OEM instructions.

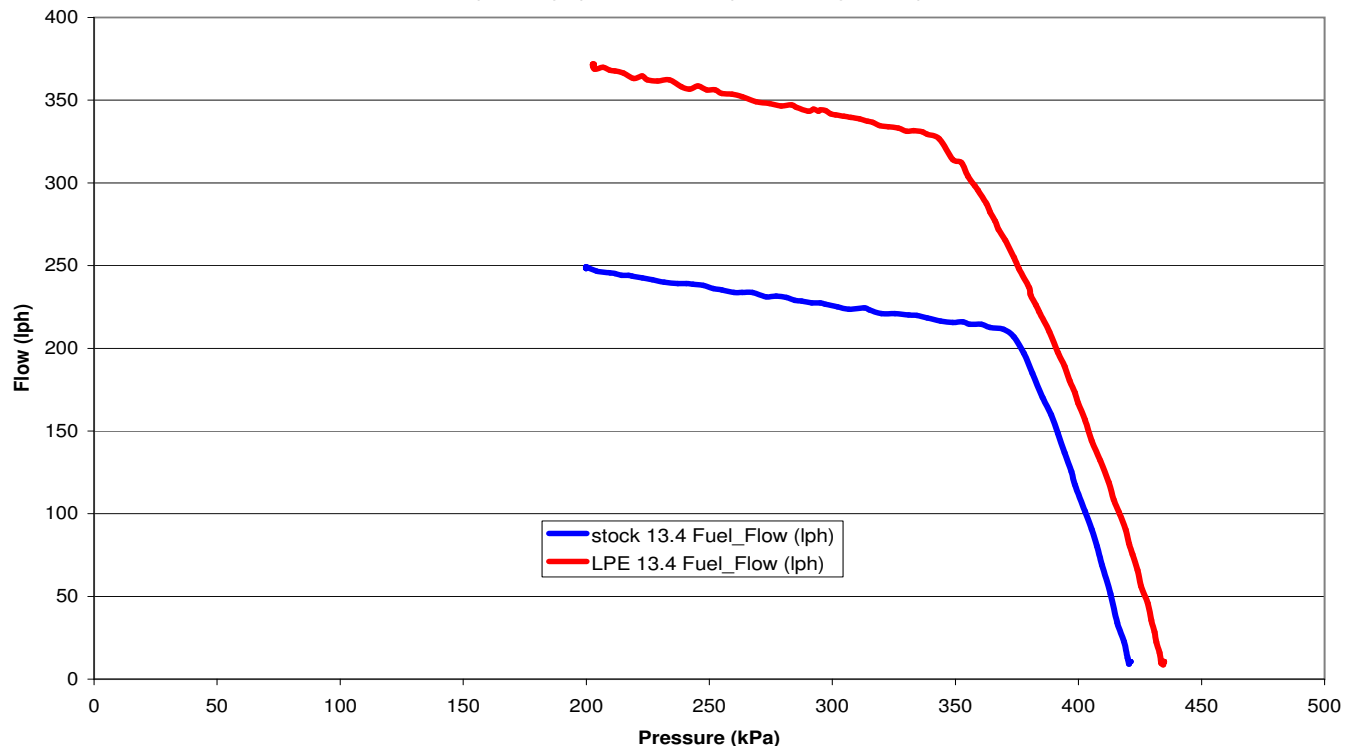


Congratulations, you have completed installation of the Lingenfelter SSR and Trailblazer High Flow Fuel Pump Kit



Stock Trailblazer SS module vs LPE High Flow TBSS module, PN L710101108
test at 13.4 vdc

(knee point in graph is where fuel pressure regulator opens)



NOTE: This graph does not just represent the flow of the fuel pump itself, but rather the flow of the entire module including filter restriction and flow consumed by the internal jet pump.

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P E R F O R M A N C E E N G I N E E R I N G

Many other products are available from LPE for your Trailblazer SS or SSR, including low temperature thermostats, camshafts, supercharger kits, CNC ported cylinder heads, engine packages, ported throttle bodies, and port matched intake manifolds. Contact LPE, visit our web site, or contact your LPE distributor for information about our many other products.

For additional product installation information and technical support, contact LPE or your LPE products distributor. You can also find technical support and usage discussions regarding this product and many other LPE products in our Internet forums:

<http://www.lingenfelter.com/LPEforumfiles>

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