

Introduction

This guide will show the installation of the Novak fuel system conversion for Jeep TJ Wranglers, 1997-2004 and XJ Cherokees, 1997-2001.

Novak's Gen III+ fuel system integration kit will cleanly upgrade the Jeep fuel module from ~40 PSI regulated output to ~58 PSI. The factory Jeep fuel system plumbing is largely retained.



JEEP. POWERTRAIN SUPERIORITY

Note to the Installer

This document and the use of any Novak products assumes sage and adequate working knowledge of the automotive systems involved. Vehicular repair, upgrade and conversion work can be among the most difficult of automotive mechanical and electrical tasks and it is upon the customer to ascertain whether they are working within their expertise or whether they should acquire assistance. Because Novak has no control over the customer's project procedures, Novak instructions and recommendations do not constitute a warranty of fitness, applicability or compatibility with the customer's particular project. Noak cannot determine the skill level of the customer and/or the installer of Novak products, nor can Novak publish all of the information on fundamentals that the installer should know before attempting these advanced procedures. While every attempt at informational accuracy has been made, these instructions and any recommendations therein are for guidance only. This guide is not intended to replace the service manual specific to your vehicle. It is not possible to document the wiring, routing and specific system details of every vehicle and the installer should obtain and use both their vehicles manual and the engine or transmission donor vehicle's manual in conjunction with these instructions.

Your Legal Requirements

Novak products and procedures are intended and recommended for off-road use only and installation on a vehicle for use on public roads could violate laws within your jurisdiction. Additionally, installation of Novak products may adversely affect the warranty coverage on your vehicle.

This guide is not meant to explain, interpret nor notify the installer any laws concerning vehicle changes, engine conversions and the emissions systems surrounding them. It is the installers responsibility to know and understand their local, state and national legal requirements and regulations and to make their installation conform to emission and vehicle safety demands of the jurisdictions in which the vehicle may operate. Novak does not recommend nor condone the disabling or modification of the vehicle or any system within it that could render it out of conformance with any laws in which the vehicle may be licensed or operate. Neither Novak Conversions nor its directors, principles nor employees are responsible for any changes made to our vehicle.

If you are performing a power train conversion and if your vehicle requires a referee inspection, you may wish to establish a rapport with them and discuss your plans and seek advice and approval from them prior to commencing your modifications.

These instructions and the products and procedure described herein are offered only in accordance with the Novak policies and liability limitations found at: <http://www.novak-adapt.com/about/policies.htm>, which may supersede and prevail over these policies.

Warning

First a word of caution: you are working with a highly explosive and flammable fuel and fuel vapors. Errors here could well mean individuals health and lives. You must work in a well ventilated area that is free of any sparks, flames, heat sources (including all types of garage and shop heaters), Furnaces, water heaters or any other source of open spark or flame. If you're not feeling confident to do this level of work, we urge you to stop now. These Instructions are only procedural suggestions and your acceptance and use of them implies that you accept the risk and liability in its entirety. Note that by electrical sparking that occurs in a fuel tank could cause an explosion. The soundness of your work and your electrical connections are critical! Novak shall bear no liability for any loss, damage or injury to or property, resulting from the direct or indirect use of any of Novak's products this information, or inability by the buyer to determine proper use, loads, or application of Novak products. Novak shall not be liable of any claims, demands, injuries, damages actions or causes of action whatsoever to buyer arising out of or connected with the use of any of our products or information. Novak shall not have any obligation with respect to the product of any part thereof, whether based on contract, tort, strict liability or otherwise. The buyer assumes all risks and liability from use of these products and information.

Installation procedure

Disconnect the battery terminals. Move to the back of the Jeep and disconnect the fuel tank filler hose. Next, disconnect the filler vent hose. Disconnect the factory Jeep fuel supply line from the top of the tank's fuel module. Disconnect the pumps electrical connector.

Once you've verified that all connections to the fuel tank are free and clear, detach the hardware and straps that secure the tank into the Jeep. Using a jack or lift, lower the tank from the Jeep.

Pump versions

Examine the picture (right) and determine what pump version is installed in your Jeep. The right one is the original early style that came in the Jeeps, the left is the new late replacement style from most part stores. Novak's fuel pressure regulator bypass will cover both situations. For simplicity, it will be referred to by its part number 9704.

Early Style installation instructions

Remove the biggest o-ring from the 9704. Unclip the spring retainer and remove the factory regulator. Replace it with the 9704

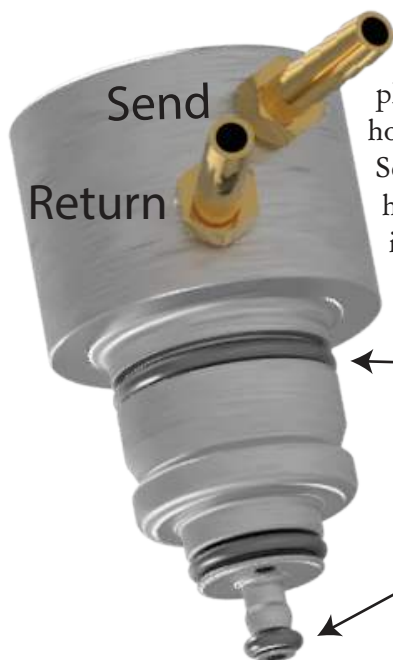


and re-install the spring clip. The top hose barb is the send, the lower barb is the return.

Late style installation instructions

Remove the smallest o-ring from the 9704. Unscrew the "mason jar lid" screw to remove the unit from the tank. Cut the hose clamp attaching the bottom of the regulator to the pumps

hose. Pry the stock regulator from the housing.



Insert the 9704 till it clicks into place. Put a hose clamp on the pumps hose and slide it onto the 9704 tip. Securely tighten the clamp. The top hose barb is the send, the lower barb is the return.

Remove for early style

Remove for late style



Installation Continued...

Run the return line from the new regulator to the 9704 lower return hose barb.

Run the high-pressure supply hose from the filter to the 9704 upper send hose barb.

Connect the “out” hose from the new regulator to the factory jeep fuel line.

Attach the new regulator with 1/4” bolt to the fuel tank metal dish.

Reconnect the outer electrical connections and the filler hoses as per factory.

You are now ready to cycle your fuel pump. The GM computer will control the fuel pump relay. It will cycle immediately for a couple seconds when turning the key to Run.



Conclusion

We suggest that you keep these instructions for future reference. For questions concerning your conversion, contact us. We'll be pleased to answer your questions.

There is no final work to our instruction packages. If you have a question you feel this information should have covered and didn't, please let us know about it. You are also welcome to submit your suggestions, ideas and images that you think we should include here which may help future conversion installers. Note our contact information below.



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