

INSTALLATION INSTRUCTIONS

**Honda Talon
High Output Fuel Pump
Race Return Style**

**2019-2023
Honda Talon
2 Seat Models**

May 2023

Version

1.1



TOOLS REQUIRED

- Fuel Pump Lock Ring Wrench (OTC Part # 6599)
- Metric Wrenches/Socket
- Wire Stripping and Crimping Tool

PARTS LIST

Qty	Component
1	Fuel Pump Module Assembly
1	Fuel Sender Bracket
1	Fuel Pump Harness
2	-6 ORB to AN 90° Adapter
1	Gasket, Fuel Tank

Installation is best performed when fuel level is ½ tank or lower.

MAINTENANCE

Proper vehicle maintenance is essential to any high-performance vehicle. Do not neglect your vehicle. Follow your OEM maintenance schedule for air filter checks.

The Jackson Racing Fuel Pump Module is designed to be installed by a professional mechanic. If you have decided to complete the installation on your own, please be sure that you have the tools to handle the installation and the ability to follow all instructions completely.

Please review the complete instruction manual before starting your installation. Please follow the instruction manual step by step and do not skip ahead.

Refer to the Honda Service Manual for all safety procedures. The Honda Talon Service Manual is highly recommended and can be ordered online from helminc.com

Always wear safety glasses while working on your Talon.

You will be working around gasoline vapors. Keep all cigarettes, sparks, and flames away while working around gasoline and fuel-related parts. Always work in a well-ventilated area.

Many stock parts are reused/reinstalled during installation. Do not damage or discard any pieces during disassembly or installation. We recommend marking any hose or wire before disconnecting to avoid confusion during reassembly.

Disassembly of Stock Components

1. Remove the passenger seat assembly.
2. Remove the plastic fuel tank cover clips and bolts and remove the plastic cover.
3. Unplug the grey 4 pin fuel pump connector from the fuel pump and start the engine and let it idle until it stalls. Turn the ignition switch OFF.
4. Disconnect the negative cable from the battery.
5. Clean the entire area of the top of the fuel tank and around all hoses and fittings of the fuel pump. You want to avoid having any type of dirt or debris get into your fuel tank.
6. Pull the rubber damper from the fuel hose connector at the fuel pump
7. Place a shop towel over the quick disconnect fitting. Push on both ears of the brown fuel hose retainer and pull the fuel hose off the fuel pump fitting. Pull the fuel pump hose aside from the pump area but do not kink the fuel hose.
8. Remove the retaining clip from the Roll Over Valve/Evaporative Hose connection/Vent connection. Be very careful not to break this fitting.

Apply lubricant to the hose/fitting junction while gently turning the hose on the fitting to let the lubricant work its way into the connection. Pull this hose aside from the pump area.



9. Apply a mark on the fuel tank and on the fuel tank locking ring at the point where the arrow is molded into the top of the gas tank. This will help when reassembling the fuel tank ring later on.

Using the SPX OTC #6599 fuel pump locking ring tool and a long ½” drive ratchet or breaker bar (the locking ring is VERY tight), turn the ring counter clockwise until the ring breaks free from its locating notches.

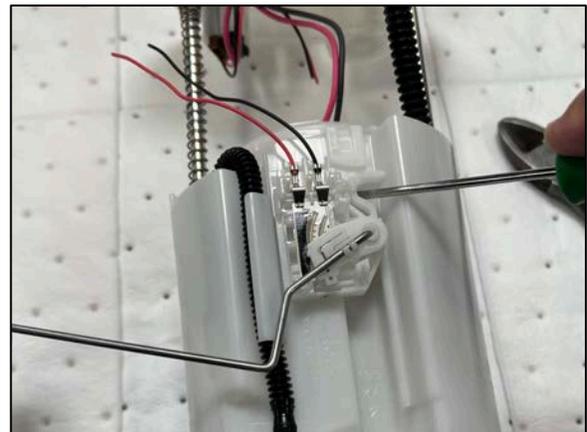


10. Drain as much fuel from the fuel pump bucket into the fuel tank before pulling the pump completely out of the tank. Cover the open fuel tank with a shop towel.



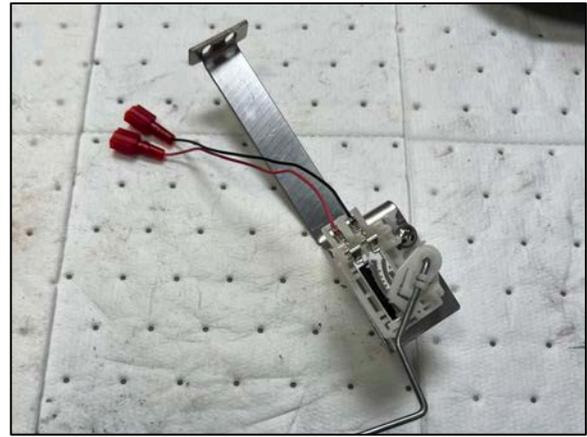
11. Cut the fuel level sending unit's red and black wire approximately 5” from the sending unit.

12. Push in on the point-shaped retainer clip and push up on the fuel level sender to remove it from the OEM fuel pump bucket.

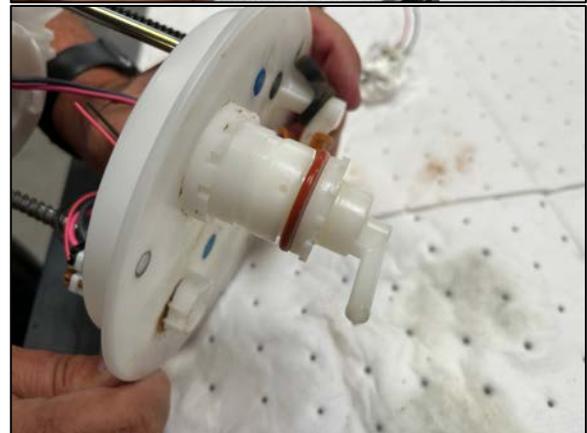


13. Crimp a male spade connector supplied with your kit to each of the fuel level sending unit wires. The fuel sender wires are very small gauge. Make sure you crimp FIRMLY on the wire.

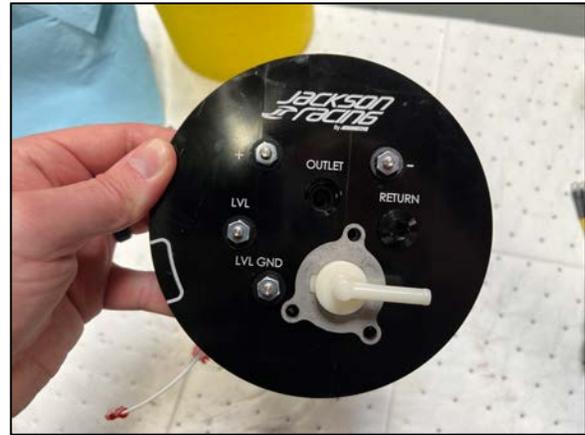
14. Locate the loose stainless-steel bracket in your fuel pump box. This bracket is for mounting the OEM fuel level sender. Install fuel level sender to the outside of the bracket where you will see a hole with three equally spaced arms cut in the bracket with a smaller single hole above it. On the back of the fuel level sender, you will see a “star” with three arms coming from the center. Mount it so that the wires from the fuel level sender are pointed up towards the two upper mounting holes in the long part of the bracket. Install the Phillips-headed screw/washer through the front of the fuel level sender’s original retaining clip groove. Install a lock washer/8mm hex nut on the back side and tighten the 8mm nut completely.



15. On the underside of the OEM plastic fuel assembly top plate you will need to lift up the small retaining clips to allow the “roll-over valve/vent assembly” to be pushed up and out of the top of the OEM plastic housing.



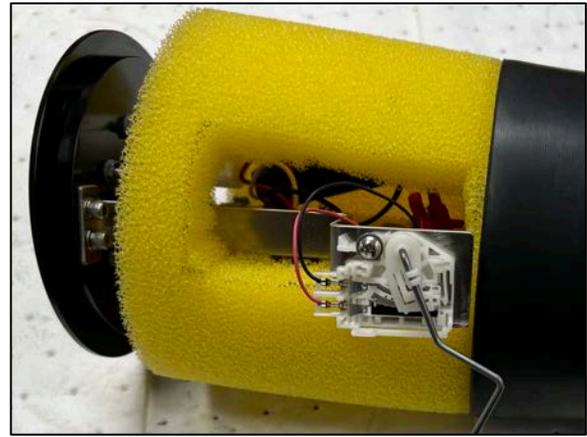
16. The original vent hose fitting orientation of the “roll-over valve/vent assembly” pointed towards the passenger side of the car. In the Jackson Racing fuel pump installation you are going to be pointing the “roll-over valve/vent assembly” towards the driver side of the car to allow room for installing the fuel pump wiring. You will notice that there is a protruding “notch/keyway” in the top of the “roll-over valve/vent assembly” that aligns with a cutout in the cover plate that comes with the Jackson Racing fuel pump assembly. Install the cover plate on the “roll-over valve/vent assembly” so that the bolt holes align with the threads in the top of the Jackson Racing fuel pump. If the bolt holes aren’t close flip the plate over and recheck the alignment. See Photo. Install the “roll-over valve/vent assembly” into the top of the new Jackson Racing billet fuel pump cover and tighten the three mounting bolts. When installed correctly the “notch/keyway” should be pointed towards the laser engraved markings “LVL GND”.



17. On the top of the Jackson Racing fuel pump you will see two holes. One marked OUTLET and one marked RETURN. Install the two -6 ORB to AN Adapters provided in your kit into these threaded holes. Apply a small amount of lubricant to the O-ring prior to installation. Tighten the plug until the O-ring seats.

18. You will find two remaining threaded holes in the underside of the billet top. These holes are for the fuel level sender bracket. Install the pump down into the fuel cell foam. Carefully work the pump down into the foam while lining up the two threaded holes on the underside of the billet top with the cutout in the fuel cell foam that is exposed above the fuel bladder.

19. Install the fuel level sending unit assembly through the open hole in the fuel cell foam and route it up to the billet top plate. Thread in two allen bolts, two lock washers, and two flat washers through the fuel level sender bracket and into the billet top plate. Tighten these two bolts at this time.

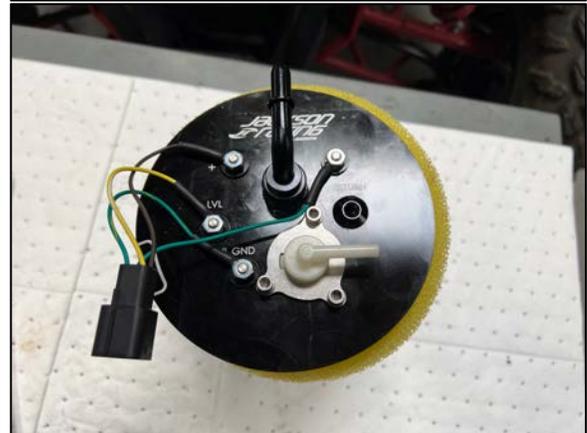


20. Plug the Red wire into the wire that comes from the billet top and is laser etched "LVL" in the billet top plate. Plug the black wire from the fuel level sender to the wire that comes from the billet top plate and is etched "LVL GND"



21. Install the fuel pump adapter plug/wires to the appropriate electrical stud in the billet top plate.

Brown = +
Green = -
Yellow/White = LVL
Green/Yellow = LVL GND



Make sure none of the insulation has gotten on the "eyelet" that fits on the stud. If you find any insulation on the "eyelet" that might restrict a solid connection trim it away with a razor blade.

22. Lube and install the large diameter O-ring on the fuel tank prior to installing the fuel pump assembly. Carefully lower your fuel level sender through the fuel tank opening and then rotate the assembly until the fuel bladder is in the tank.

Rotate the fuel pump assembly in the fuel tank so that the laser etched JR "alignment mark" is aligned with the fuel ring notch just below the original OEM "arrow" molded into the top of the fuel tank. The fuel level sender



should be on the back side of the fuel tank with the float facing towards the center console.

The cutaway opening is on the passenger side, looking towards the driver side. Also note the cutaway shot shows the pump installed in a Trail Tank.



23. Reinstall the fuel pump locking ring and using the special tool turn the locking ring until the marks that you put on the locking ring align with the mark you put on the fuel tank. This is just as hard installing as it was getting off. Be prepared to push hard.

24. Locate the AN fuel line that is 47.5" long not including the fittings. It will have a -6AN x 90° female fitting on one end and a -6AN straight female fitting on the other end. It is always a good idea to wrap the end of your fuel line in tape/plastic prior to routing it through the chassis/engine compartment if your car has been used/dirty.

Route the 90° end of the fuel line from the fuel pump area to the area under the center console and over to the driver side of the engine compartment following the route where the OEM hose was routed. Route this hose in a large arc up to the back of the fuel rail and thread it onto the -6AN male fitting on the end of the fuel rail. Tighten the fitting at this time.

25. After you check to make sure your fuel hose isn't rubbing anywhere, install it on the fitting on the top of the fuel pump that says "OUTLET". Tighten this fitting at this time.

26. Locate your fuel line that is 51" long not including the fittings. It will have an -6AN x 45° female fitting on one end and an -6AN straight female fitting on the other end. Route the 45° hose end next to the fuel "OUTLET" hose you installed in the previous instruction. Attach the 45° end of the hose to the Injector Dynamics (ID) fuel pressure regulator so that the hose stays near the engine and away from anything that might chafe it. Tighten the ORB fitting on the fuel rail that locates the ID fuel pressure regulator location and tighten the -6AN fitting of the fuel hose to the ID fuel pressure regulator. Make sure the fuel line doesn't rub on any components in the engine compartment. Readjust the ID fuel pressure regulator alignment and fuel return line if necessary.

27. After you check to make sure your return fuel line is not rubbing on anything, install it on the fitting on the top of the fuel pump that has "RETURN" etched in it. Tighten this fitting at this time.

Using a plastic tie, connect the two hoses together as they are routed over the top of the fuel tank and down into the engine compartment. Secure the fuel hoses to all the OEM locations where possible and make sure no hoses can get chaffed or cut during the operation of the vehicle.

28. Install the OEM fuel vent hose/Evaporative emissions hose to the "roll-over valve/vent assembly".



29. Plug the wiring adapter into the OEM wiring plug at this time.

30. Start your car and check for leaks. Repair any issue you might have.

31. You will need to trim the lower plastic fuel tank cover to clear the new pump install. Loosely install the fuel tank cover plastic so you can mark your hole drilling location.

Using a marker, put a line across the plastic 10.5" from the bottom of the firewall. Now put a line at 9.5" from the center console. The cross point will be the farthest you will want your hole saw to cut into the plastic. Lay your hole saw upside down so that it touches both lines. Mark the center of the hole saw with your marker.

32. Remove your plastic fuel tank cover and drill your 1.5" hole. Reinstall your plastic fuel tank cover. Note the location of the fuel pump outlet fitting at this point. You will need to drill one more 1.5" hole in the direction that the fuel pump outlet fitting it pointed. Turn your hole saw upside down and again using a marker put a mark at the center of the hole saw so you know where to drill your next hole. You will want to have to the two holes overlap a little. Remove the plastic fuel tank cover and drill your second hole. Clean up the edges so you have a clean oval hole that the fuel hose can travel through.



33. Fully reinstall your interior in reverse order of disassembly.

34. Enjoy your Jackson Racing/Aeromotive fuel pump!