



2011 – 2017 Mustang Fuel Drop In

12-153 & 12-175

NOTE: Please read all instructions before proceeding with the installation of your new drop in fuel cell pump hanger. Failure to follow these instructions may result in poor performance, vehicle damage, personal injury, or death. If these instructions are not fully understood, an installation should not be attempted. In this case please contact Holley's tech service department or a qualified mechanic.

PARTS INCLUDED:

Qty.	Description
1	Driver's Side Pump Unit
1	Passenger's Side Pump Unit
2	Vehicle Harnesses
1	Crossover Hose
2	3 x 15 Hydramat
1	Barb and Plug Kit
1	Small Parts Kit
2	Return Tubes
5	Return Tube Zip Ties

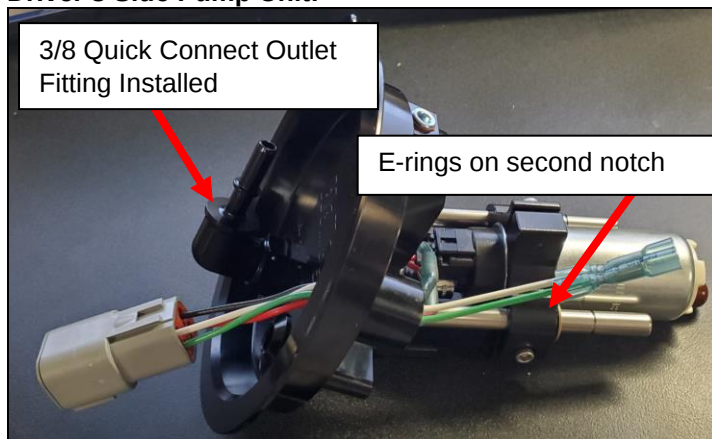
Congratulations on the purchase of your Holley twin pump module set! Lots of thought and engineering went into the creation of these modules not only to deliver the flow you need to support your power goals but also to minimize pump cavitation and give you the most options when it comes to your install.

We provide the performance by utilizing either twin 255 LPH (12-153) or twin 525 LPH (12-175) pumps, which have the ability to flow 2 GPM or 3 GPM respectively at 58 PSI. Our patented HydraMat technology is also utilized to greatly reduce low fuel starvation issues and to provide the 15 Micron filtration needed for your EFI system.

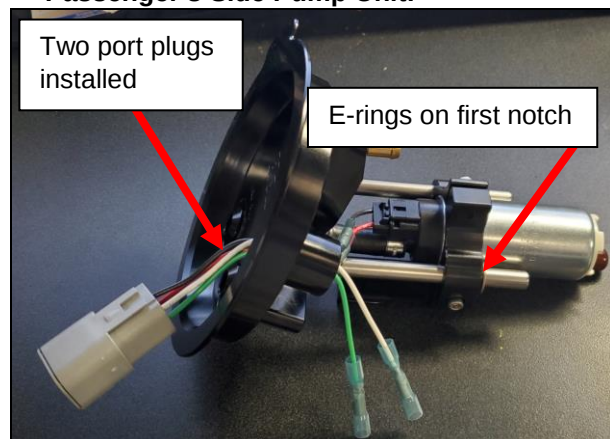
Not only do the units provide performance but they also give you many options for your install. The modules come with 58 PSI (4 BAR) regulators pre-installed so they can be dropped in to the tank and be used with the factory return-less style fuel system. The regulators can also be removed and all the parts are included to configure the modules for a more traditional return style system. Both 3/8 and 5/16 quick connect fittings are also included to allow easy connection to the factory fuel feed line or, if you choose AN plumbing, the inlets and outlets of each flange are machined with -8 O-ring ports to mate with AN fittings adapters and hose.

IDENTIFYING PUMP UNITS:

Driver's Side Pump Unit:

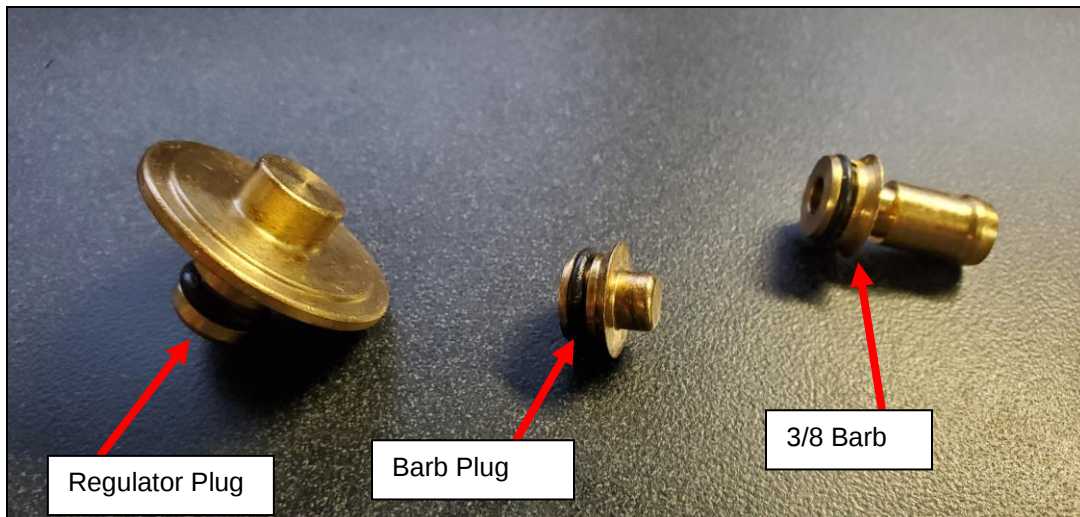
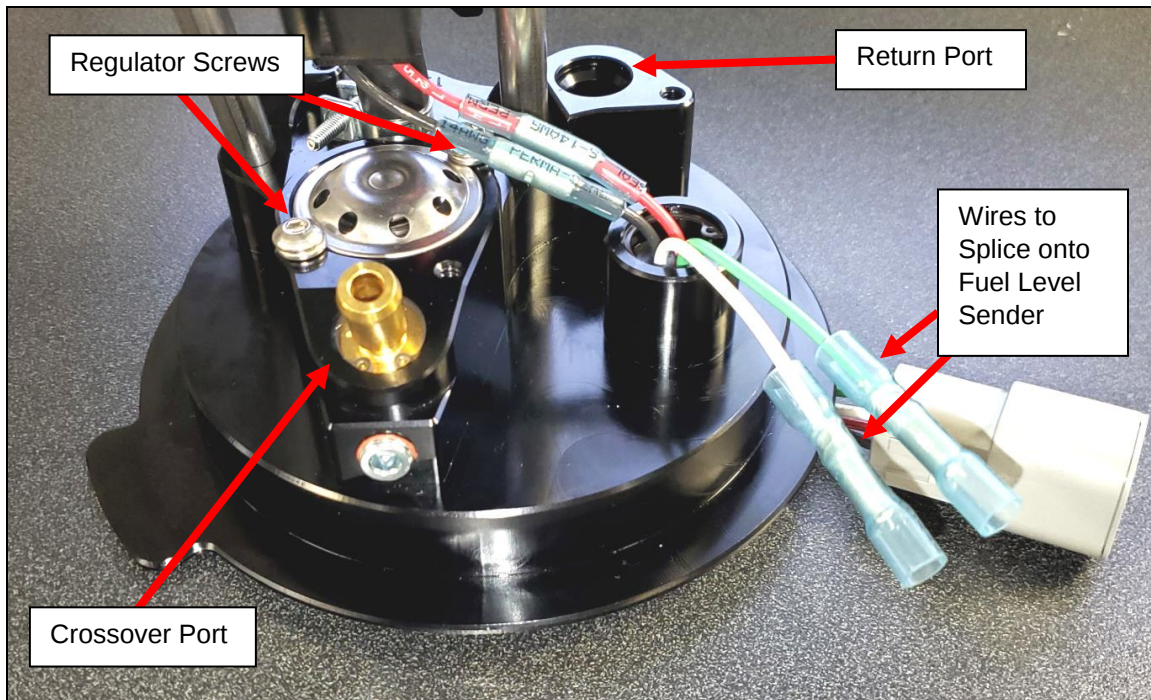


Passenger's Side Pump Unit:



CONFIGURING YOUR PUMP UNIT:

As mentioned earlier, the modules come pre-installed with 58 PSI regulators allowing you to maintain the factory return-less style fuel system. They also come pre-installed with 3/8 barbs in the crossover port so that the included crossover line can be used to allow the passenger side flange to feed the driver's side flange. This should be maintained in most cases. The photos below goes over some useful terminology:



If you do not wish to run the modules as return-less units with a crossover line, they must first be configured in the following way:

1. Return System w/ Internal Crossover Line

- a. Remove the two screws that hold the regulator in place with a 1/8" hex L key.
- b. With a small flat head screwdriver, get under the regulator and carefully remove it.
- c. Replace the regulator with the included regulator plug. (The O-rings on the plugs come pre lubricated so no further lubrication is needed.) **Note: Driver's side unit will require some disassembly to install.**
 - i. Loosen the two screws that retain the pump clamp to the pump guide rods with a 5/32 hex key (**Figure 1**).
 - ii. With a set of pliers, grab guide rod and spin counter clockwise to loosen. Once loosened, they will spin freely and can be removed by hand (**Figure 2**).

- iii. With the guide rods removed, the pump can be moved so that the regulator plug can be easily inserted (**Figure 3**).
- iv. Re-assemble unit in reverse order. Torque hardware to the following values:
 - 1. **Regulator lock down screws: 20-30 in-lbs**
 - 2. **Guide Rods: 80-90 in-lbs**
 - 3. **Pump clamp screws: 20-30 in-lbs**
- d. Once inserted, spin the barb plugs 1 full rotation before re-installing the regulator lock down screws. This ensures that the O-ring seats properly.
 - i. **Torque to: 20-30 in-lbs**
- e. Install the included 3/8 barb into the return port. (The O-rings on the plugs come pre lubricated so no further lubrication is needed.)
- f. Once inserted, spin them 1 full rotation before retaining with the included retaining ring.
- g. Install the corrugated return tubes onto the return barbs and retain with included 12mm clamps.
- h. Retain the return tubes to the pump guide rod with the included zip-ties.

NOTE: Return fuel must be routed to both passenger's and driver's side fuel units.



Figure 1 - Pump clamp retaining screw

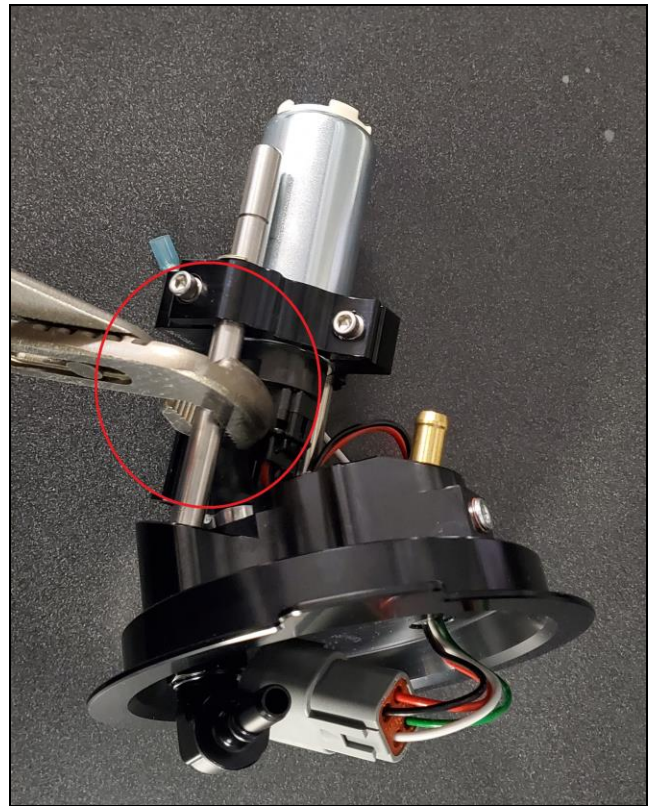


Figure 2 - Pliers on guide rod



Figure 3 – Pump guide rods removed, pump moved, and regulator plug installed



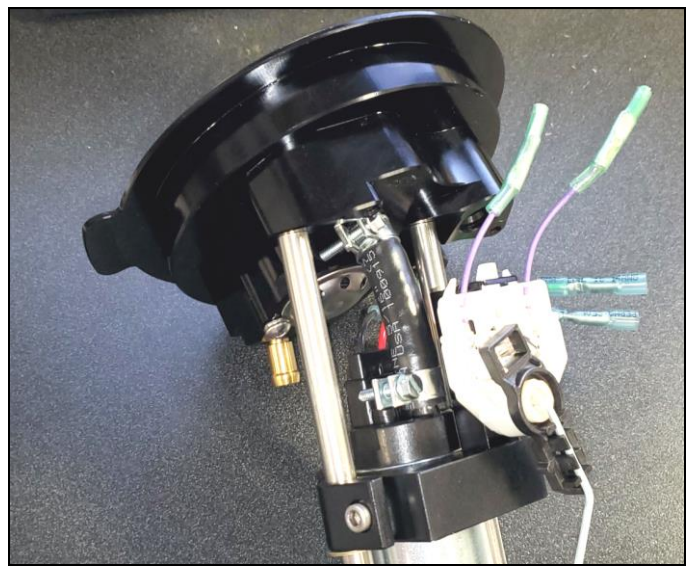
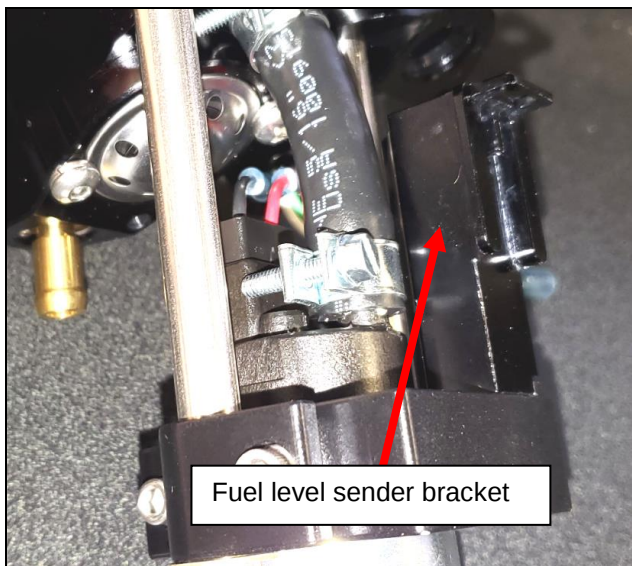
Figure 4 – Final assembly – Return tube zip tied to guide rod.

INSTALLING THE PUMP UNITS:

Installation should only be attempted if vehicle has $\frac{1}{4}$ tank or less of fuel. The lower the amount of fuel, the better.

1. Remove the lower portion of the rear seat by pressing in on the two tabs under the seat to release it and then pulling up.
2. Remove the two large sealing grommets and disconnect the wiring connectors that go to each factory pump unit.
3. Disconnect the fuel supply line from the factory driver's side pump unit.
4. Remove the two fuel tank lock rings holding the factory pump units in place.
 - a. It is recommended to do this using a fuel tank lock ring removal tool for your vehicle.
5. Install included HydraMats onto the pumps in the desired orientation.
6. Install fuel crossover line on Holley passenger's side fuel unit and retain with included clamp.

7. Remove factory passenger's side fuel unit.
 - a. There will be a factory ½" quick connect crossover hose at the base of the unit. Press in on the tab and pull to remove.
 - b. Be careful to not damage the fuel level sender during the removal.
8. Carefully remove the fuel level sender from the factory fuel unit. Cut the wires so that there is around 3" still attached to the fuel level sender.
9. Splice the level sender wires onto the two heat shrink butt slices attached to the green and white wires on the Holley unit.
 - a. Note: As these wires only carry a resistance value, either can be connected to the green or white wires.
10. Clip the fuel level sender onto the bracket on the Holley unit as shown below.
11. Take the loose end of the crossover hose and transfer it to the driver's side of the tank.
12. Carefully insert passenger's side fuel unit into tank and retain with lock ring.
13. Repeat steps 7 – 10 for the driver's side unit.
14. Remove the factory crossover line. There may be internal tank clips that need to be undone.
15. Press the loose end of the crossover line onto the crossover barb on the Holley unit. Retain with included 16mm EFI clamp.
 - a. If your tank does have clips, you may use these to retain crossover hose. However, this is not necessary.
16. Carefully insert the driver's side unit into the tank and retain with lock ring.



WIRING THE PUMP UNITS:

Included with your units are vehicle pigtails that will take the place of the factory connectors and be used to wire the Holley pump units to the vehicle each has 4 wires:

1. Red – Pump +12V
2. Black – Pump Ground
3. Green – Fuel Level Sender 1
4. White – Fuel Level Sender 2

For return-less fuel system with twin 255 LPH pumps ONLY:

If you plan on running the 12-153 (Twin 255 LPH) pumps with the pre-installed 58 PSI regulators the units can be directly wired to the vehicle by splicing together the following:

Note: Disconnect the negative terminal of the battery before performing any electrical work on the vehicle.

Cut off factory connectors on both passenger's side and driver's side and splice the following wires together (colors are for S550 cars).

Factory Wire Color / Side	Holley Wire Color / Side
Yellow/Grey / Driver's Side (Pump +12)	Red / Both Driver's and Passenger's Side
White/Brown / Driver's Side (Pump Ground)	Black / Both Driver's and Passenger's Side
Yellow/Violet / Driver's Side (Fuel level sender 1)	White / Driver's Side
Green/Blue / Driver's Side (Fuel level sender 2)	Green / Driver's Side
Yellow/Violet / Passenger's Side (Fuel level sender 1)	White / Passenger's Side
Green/Blue / Passenger's Side (Fuel level sender 2)	Green / Passenger's Side

For any other setup:

If you plan on running the 12-153 with an external regulator or are wiring the 12-175, follow these instructions:

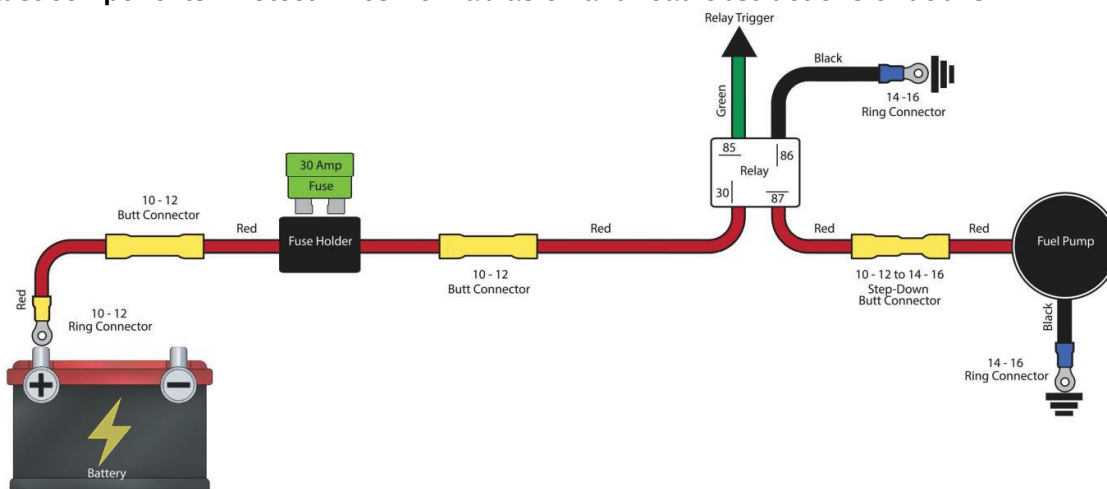
WARNING! USE A MINIMUM OF 12 GAUGE WIRE. BE SURE TO CRIMP OR SOLDER ALL CONNECTORS SECURELY AND CLEAN ANY AREA WHERE GROUND LEADS WILL BE FASTENED. FAILURE TO USE THE MINIMUM WIRE GAUGE COULD RESULT IN PUMP MALFUNCTION AND/OR ELECTRICAL FIRE, RESULTING IN PROPERTY DAMAGE, SERIOUS INJURY, AND/OR DEATH.

1. Disconnect the negative terminal of the battery.
2. Connect the following wires for the level sender

Factory Wire Color / Side	Holley Wire Color / Side
Yellow/Violet / Driver's Side (Fuel level sender 1)	White / Driver's Side
Green/Blue / Driver's Side (Fuel level sender 2)	Green / Driver's Side
Yellow/Violet / Passenger's Side (Fuel level sender 1)	White / Passenger's Side
Green/Blue / Passenger's Side (Fuel level sender 2)	Green / Passenger's Side

3. Connect the Black wires from each flange to a suitable chassis ground or the negative terminal of the battery.
4. Connect the Red wires from each flange to a relay as such:

NOTE: Be sure to route all electrical wires clear of any moving suspension or drivetrain components and any exhaust components! Protect wires from abrasion and road obstructions or debris.



- In the diagram above the relay trigger should be connected to the factory fuel pump +12V Yellow/Grey wire.
- Two relays will be necessary, one for each pump.
- Holley P/N 12-753 is recommended