



# Drop-In Fuel Tank Hanger Mopar Truck 1991-2004

P/Ns 12-320, 12-321, 12-322, 12-323, 12-324, & 12-325

**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	Fuel Pump Hanger Assembly
1	Flange Gasket
1	Fuel Level Sensor Arm
1	Hydramat
1	Return tube and clamp **If return unit**

Tools Needed:
5/32 Hex Wrench
Tape Measure

Tools Possibly Needed:
Vise
Pliers
3/8 Hex Wrench
3/16 Hex Wrench

## **Parts Required for Installation:**

- **Post Pump Filter:** Holley HP billet filter or equivalent. EFI systems should have a 10 micron or finer filter while carburetors should have a 40 micron or finer filter.
- **Relay Kit (30amp min) – Holley P/N 12-753** or equivalent
  - Additional wire and connectors may be necessary
- **Fuel Hose and Fittings**
  - **NOTE:** These pump assemblies are not designed to use a standard conical seat style union for the fuel out of fuel return. Using this type of fitting will restrict flow and will lead to poor performance and potential pump failure. The only correct fitting to use is a contoured port fitting with an O-ring seal such as **EARL'S #AT985008ERL OR #AT949008ERL for the fuel out and return.**



- **Filler Neck Vent** – Some cars will have a 3/4" filler neck vent line that goes to the flange. If this is the case for your vehicle, you will need to purchase the following Earl's fittings: **AT949013ERL and AT700113ERL.**
- **Evap Line** – Some cars will have a small EVAP hose that goes to the flange. If you wish to retain this, the following parts will need to be purchased: **AT984204ERL and 12-874.** Thread sealant with PTFE will also be needed, Earl's sell's this under **P/N D024ERL.**

## Year Ranges for Level Sensor Values:

102-5 OHM	91-97' D100/RAM & 91-96' Dakota
220-20 OHM	98-02' RAM & 97-04' Dakota

### Fill Neck Vent Install:

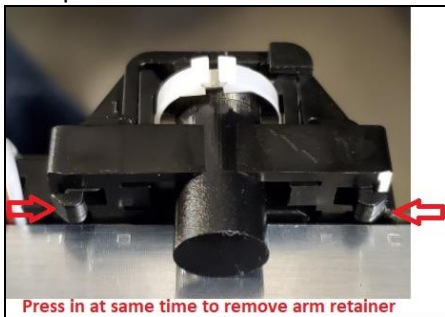
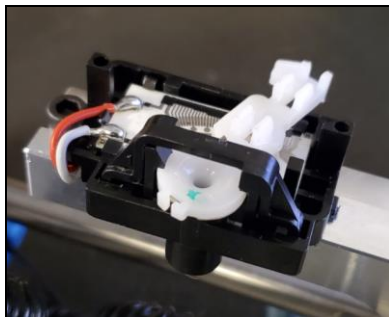
1. Remove the -10 O-ring port plug from the flange using a 3/8 hex key.
2. Lubricate the O-ring on the **AT949013ERL** fitting with a silicone based lubricant then install it into the flange
3. Insert the **AT700113ERL** fitting into the filler neck vent hose and retain with hose clamp.
4. Tighten the female end of the fitting inserted in the hose to the male end of the adapter installed into the flange
  - a. **NOTE: It may be necessary to cut the vent hose shorter in order for the fittings to connect properly.**
  - b. **NOTE: This step will be completed upon reinstalling the tank.**

### Evap Barb and Rollover Valve Install:

1. Remove the installed 1/8 NPT plug from evap port the flange using a 3/16" hex key.
2. Apply PTFE thread sealant to the threads of the **AT984204ERL** fitting and install it into the top side of the flange.
3. Apply PTFE thread sealant to the threads of the **12-874** and install it directly under the evap port.
4. Press the evap hose onto the barb in the top of the flange.
  - a. **NOTE: this step will be completed upon reinstalling the tank.**

### Installing the Pump Hanger:

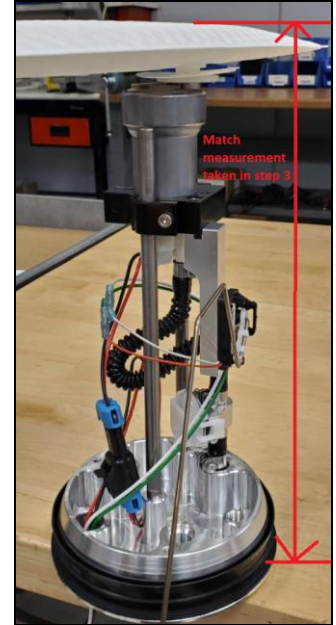
1. Install the level sensor arm onto the sensor.
  - a. Remove the black plastic arm retainer from the sensor by pressing in on the two clips on the back side.
  - b. Press the arm onto the white plastic clip.
  - c. Retain the arm with the black plastic arm retainer.



2. Install Hydramat onto pump inlet.
  - a. Press Hydramat onto pump inlet in the desired orientation. Be sure that mat outlet fully seats onto pump inlet and is retained on pump post. See below for photos for what mat should look like when fully seated.
    - i. If required to achieve desired mat orientation, pump clamp can be loosened with 5/32" hex key and pump rotated slightly. Be sure to not raise or lower pump in clamp when rotating.
  - b. Be sure that mat will not interfere with the float arm travel.



3. Remove old fuel unit from tank and take measurement from the bottom of the tank to the top of the fuel pump mounting flange. Record this measurement.
  - a. Take note of the orientation of the factory float arm when removing the unit. You will need to match this orientation when installing the Holley unit
4. Install the gasket onto pump hanger flange. Raise or lower the pump clamp, so that the measurement from the gasket to the bottom of the Hydramat matches the one taken in step three. This will set the bottom of the mat at the bottom of the tank.
  - a. To raise or lower the pump use a 5/32" hex wrench to loosen the two screws used to clamp the pump mount onto the two stainless steel guide rods.
  - b. If the filter sock or pump comes in contact with the guide rods, but you still need the pump to go lower in order to have your two measurements match, then the guide rods must be removed and broken at the break point that is milled into them.
    - i. Remove the guide rods from the pump flange.
      1. Loosen the two screws that retain the pump mount to the guide rods with a 5/32" hex key and slide the pump mount and pump assembly off of the rods.
      2. Using a 1/4" wrench or an adjustable wrench loosen the guide rods from the pump flange via the two flats at the base of the rods
      3. Place the short end of the rods in a vice and then grab the long end and push/pull. The rods should break at the milled break point.
        - a. If it is difficult to break the rods, then it may be necessary to get some extra leverage on the rods.
      - ii. Rebuild the pump assembly in the reverse order that it was taken apart and then continue matching the two measurements.
        1. **NOTE:** In certain cases, it may be necessary to cut down the guide rods further.
5. If your unit is a return style, install the included return tube onto the return barb and retain with clamp.
  - a. When installed, the return tube should be roughly the same height as the pump inlet. It may be necessary to trim the return tube.
    - i. If the tube is not long enough to be matched to the pump inlet ,then just use the full length tube.
6. Remove the gasket from the flange and install it into the top of the tank.
7. Install the unit into the tank such that the orientation and travel of the float arm matches the factory unit that was removed.
8. Lock the Holley unit into place with the factory lock ring.
  - a. If this is damaged during removal, it can be purchased under MOPAR P/N 52005389.



**Match this measurement to the one taken in step 3**

### **Wiring your Fuel Pumps:**

**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 cables from the battery.
2. Mount relay/relays in convenient location away from exhaust heat.
3. Plug the fuel pump relay harness into the relay, until it locks into place.
4. Connect the black wire of the harness to ground.

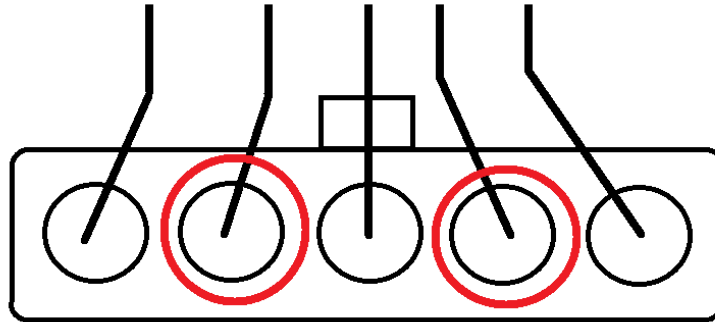
**NOTE: Be sure to route all electrical wires clear of any moving suspension or drivetrain components and any exhaust components! Protect wires from abrasion and road obstructions or debris.**

**Flange Wire Colors:**

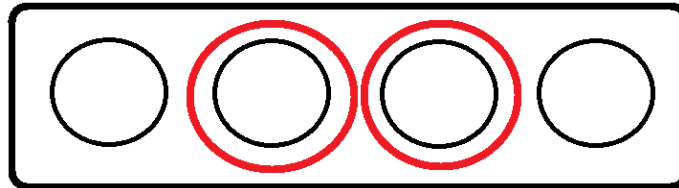
RED	FUEL PUMP +12V	CONNECT TO RELAY
BLACK	FUEL PUMP GROUND	CONNECT TO CHASSIS GROUND
GREEN	FUEL LEVEL SENSOR 1	SEE BELOW
WHITE	FUEL LEVEL SENSOR 2	SEE BELOW

**Level Sensor Wiring:**

**5 wire connector** – If you have a 5 wire connector, you will want to wire the white and green wires from the Holley unit to the wires that correspond to the following pins on the factory pump connector.



**4 Wire Connector** – If you have a 4 wire connector, you will want to wire the white and green wires from the Holley unit to the wires that correspond to the following pins on the factory pump connector.



**6 Wire Connector** – If you have a 6 wire connector, you will want to wire the white and green wires from the Holley unit to the wires that correspond to the following pins on the factory pump connector.

