

The following  
make/model  
transmissions are  
approved and warranted  
for towing when equipped with  
- HARDWARE PACK #

**LP-HP023**

Toyota A750E/F
Toyota Tacoma (RWD/4WD) 2005-2013
Toyota Tundra (RWD) 2005-2014
Toyota Tundra (4WD) 2005- 2009
Toyota FJ Cruiser (RWD/4WD) 2007-2014
Toyota 4Runner (RWD/4WD) 2003-2017

**Lube Pump and Plumbing  
Installation Instructions**



**LP-HP023**

**INSTALLER: GIVE THESE  
INSTRUCTIONS TO THE  
OWNER AFTER INSTALLATION  
FOR THEIR FUTURE  
REFERENCE**

NO WARRANTY IS EXPRESSED OR IMPLIED FOR  
LUBE PUMP COMPONENTS OR VEHICLE'S  
TRANSMISSION UNLESS WARRANTY CARD IS  
FILLED OUT, DATED, AND MAILED TO REMCO  
**See Warranty Card in the General Information  
Manual (Page 5)**

**TO COMPLETE THE PLUMBING OF YOUR TRANSMISSION WITH THE LUBE PUMP KIT YOU WILL NEED TO LOCATE THE FOLLOWING ITEMS FROM YOUR BASE KIT (LP-BK01) AND USE THEM IN CONJUNCTION WITH THE LP-HP023 HARDWARE PACK TO COMPLETE THE INSTALLATION.**

<b>USE FOLLOWING PARTS FROM BASE KIT (LP-BK01)</b>		
<b>Part #</b>	<b>Description</b>	<b>Quantity</b>
11010046	PUMP ASSEMBLY	1
11010047	LP, PUMP MOUNT BRACKET ASSEMBLY	1
40010019	3/8" HOSE	16'
<b>USE FOLLOWING PARTS FROM HARDWARE PACK (LP-HP023)</b>		
<b>Part #</b>	<b>Description</b>	<b>Quantity</b>
11010033	PRESSURE SWITCH ASSEMBLY, with CHECK VALVE	1
11010051	FITTING ASSY, TRANS PLUG, 5/32" HOLE (W/ O-Ring)	1
40010014	ELBOW FITTING ATTACHES TO 11010051	1
11010013	PAN CONNECTOR	1
40010019	HOSE 3/8"	8'
41010035-S	AUX COOLER	1
40010027-S	SILICONE SEALANT (BLACK) 3 OZ.	1
40010021	HOSE CLAMPS, 5/16" X 7/8"	2
11010041	WHITE SEALANT ASSEMBLY	1

**AFTER INSTALLING THIS LUBE PUMP AND PLUMBING, FIND THE WIRING INSTRUCTIONS IN THE GENERAL INFORMATION & MOTORCOACH WIRING INSTRUCTION MANUAL**

## • **INSTALLATION OF THE PAN CONNECTOR:**

It is necessary to remove the transmission pan to install the regular pan fitting (see picture on page 5). You will need a large container to catch the fluid when the pan is removed.

**NOTE 1:** Transmission fluid becomes contaminated during usage, and therefore should not be re-used after it is drained from the pan. Similarly, the transmission's oil filter should be changed every 25,000 to 40,000 driven miles. Use manufacturer's recommendation.

**NOTE 2:** Dispose of used transmission fluid properly.

Step 1. Remove the pan and discard the gasket if one is present. If RTV sealant was used, it must be removed from both the transmission and transmission pan. (Some auto manufacturers use an RTV sealant instead of a gasket.)

Step 2. Carefully examine the underside of the exposed transmission and the manner in which the pan fits around valve body and filter before deciding on a suitable location for the pan connector.

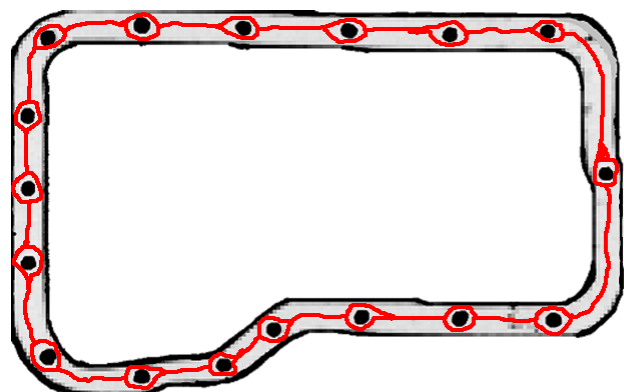
**NOTE 3:** **Precautions to consider when determining the best location for the pan connector.**

- a. **It is NOT advisable to locate the connector on the bottom or the front surfaces of the pan because of the strong possibility of damage from road hazards.**
- b. The connector should be located away from any exposed gears, which tend to cause fluid to foam when in motion.
- c. It is desirable to have the connector located as far as possible below the transmission fluid level, taking into consideration the changes in fluid level, which will occur.
- d. Generally, the connector can best be located in the right or left sidewalls or the rear portion of the pan, keeping in mind the above situations.
- e. Make certain the location of the connector will not interfere with reinstalling the pan bolts and that it allows for an easy bend of the 3/8" hose, which will extend from this connector up to the lube pump.

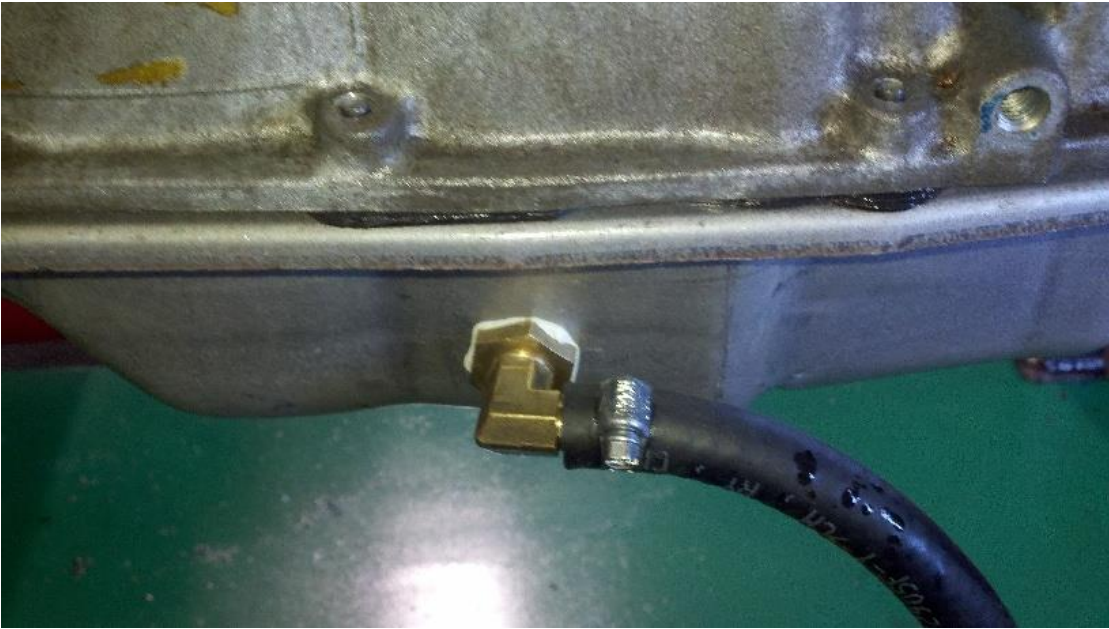
- f. Finally, be sure the connector location provides sufficient flat surface area to permit tightening the hex nut on the inside of the pan.

**(See picture on page 5. Use this picture as a reference only. Determine the best location for your car)**

- Step 3. When you have determined the best location for the pan connector, locate the hole vertically by holding the hex connector nut on a vertical surface of the pan and marking its location. Drill a 17/32" diameter hole in the side of the pan.
- Step 4. Clean off the drilled area with a lacquer thinner or other suitable cleaner/degreaser. Apply a small amount of the silicone sealant (provided in the kit) to the back (grooved) side of the hex nut (which is already mounted on the connector) and to the threads on the connector, and also to the back (grooved) side of the separate hex nut. Then insert the connector into the 17/32" hole and secure on the inside of the pan with the separate hex nut.
- Step 5. Before re-installing the transmission fluid pan, make sure the mating surfaces on both the pan and transmission housing are absolutely clean of all gasket material, oil or dirt. If the transmission was originally equipped with a gasket, replace with a new gasket. If silicone was originally used then carefully apply a 1/8" bead of silicone sealant (provided) around the bottom perimeter of the transmission housing using plastic nozzle provided. Make sure to encircle each bolt hole as shown (Refer to **DIAGRAM 2, below**). Allow the sealant to set up for about 1 hour. Assemble the pan to the transmission, installing the bolts finger tight only. Allow to set 45 more minutes. This allows the sealant to conform to two surfaces without squeezing it out. Tighten the bolts to the required torque specification. **Do not over tighten.** Refer to the vehicle service manual for torque specifications.



**Diagram 2**  
**PAN WITH SEALANT APPLIED**



**Use this picture as a reference only**

## **LUBE PUMP INSTALLATION:**

(Refer to **DIAGRAM 1**, page 7)

**WARNING:** **Failure to follow the procedures listed below will void the warranty on your pump.**

**LOCATION:** It is important to determine a desirable place on the vehicle to locate the lube pump. The best location may vary from vehicle to vehicle.

**NOTE:** **Locate the pump in the upper part of the engine compartment, under the hood. Mount the pump vertical or horizontal. It is important to keep the pump from being exposed to the weather and other harsh elements.**  
**Failure to do the above mentioned will void the warranty**

**NOTE:** When routing the 3/8" hoses to the pump, check valve and pan connector, be sure to route them where road hazards, moving parts, sharp edges, or hot exhaust parts will not damage them.

Step 1. The pump is to be mounted in the engine compartment to any suitable flat metal surface. The pump mounting bracket may be used. Use the four 1/4" x 1 1/4" self-tapping metal screws (provided) to mount the pump.

Step 2. Using one of the hose clamps (provided), connect one end of the 8-ft. length of the 3/8" hose to the **input side** of the lube pump. Carefully route 3/8" hose to the pan connector on the transmission pan. Cut the hose to a suitable length.

Step 3. Using one of the hose clamps connect the 3/8" hose to the pan connector. Make sure hose clamps are securely tightened on all connections.

### **AUX COOLER INSTALLATION**

**Note:** **Place the Aux Cooler in a location that allows for plenty of air to pass through. Somewhere in front of the radiator would be preferred.**

Step 4. Using a suitable length of 3/8" hose and one of the hose clamps, connect one end of the hose to the **output port** of the pump. Route the other end of the 3/8" hose from the **Pump** to either port of the Aux Cooler. (Refer to **diagram, page 7**). Using 1 hose clamp, connect the hose to the Aux Cooler.

Step 5. Using a suitable length of 3/8" hose and one of the hose clamps, connect one end of the hose to the other side of the Aux Cooler. Route the other end of the 3/8" hose from the **Aux Cooler** to the **Pressure Switch & Check Valve assembly**. (refer to **diagram, page 7**). Using 1 hose clamp, connect the hose to the **Pressure Switch & Check Valve assembly**.

**WARNING: THE LINE FROM THE PUMP AND COOLER MUST BE CONNECTED TO THE PRESSURE SWITCH & CHECK VALVE ASSEMBLY WITH THE PUMP/COOLER FITTING SIDE GOING TO THE COOLER AND THE TRANS SIDE POINTING TO THE TRANSMISSION.**



Part Number: 11010051  
(Trans Plug Fitting Assembly)

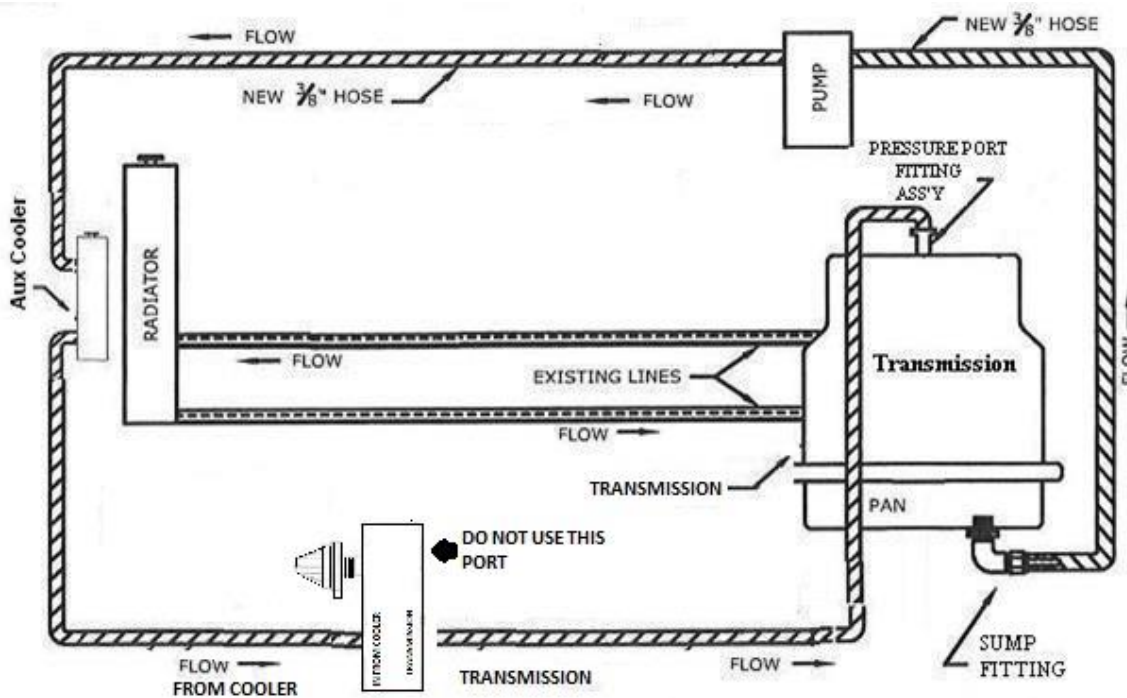


DIAGRAM 1

- Step 7. Using one of the hose clamps connect the 3/8” hose to the input of the **Pressure Switch & Check Valve Assembly**. Make sure hose clamps are securely tightened on all connections.
- Step 8. Using a suitable length of 3/8” hose and one of the hose clamps, connect one end of the hose to the output/Trans side of the **Pressure Switch & Check Valve Assembly**.



**This is the Transmission port that needs to be accessed with the 11010051 fitting.  
(Trans Plug Fitting Assembly)**





Secondary view of Transmission with Part No. # 11010051 & 40010014 installed.

Step 9. Remove the transmission plug from the transmission port needed for this installation. The plug is close to the backside of the transmission on the right hand side. Remove the plug. (see picture on page 9)

Step 10. Add white sealant and install the **Trans. Plug Fitting Assembly (Part Number: 11010051)** into the port were the plug was just removed.

**WARNING: DO NOT OVER-TIGHTEN THE PIECES OR YOU WILL DEFINITELY STRIP THE THREADS IN THE TRANSMISSION CASE. IT IS UNREACHABLE TO REPAIR.**

Step 11. Add white sealant to Elbow Fitting, 40010014 and install into the Trans. Plug Fitting Assembly(Part Number 11010051).

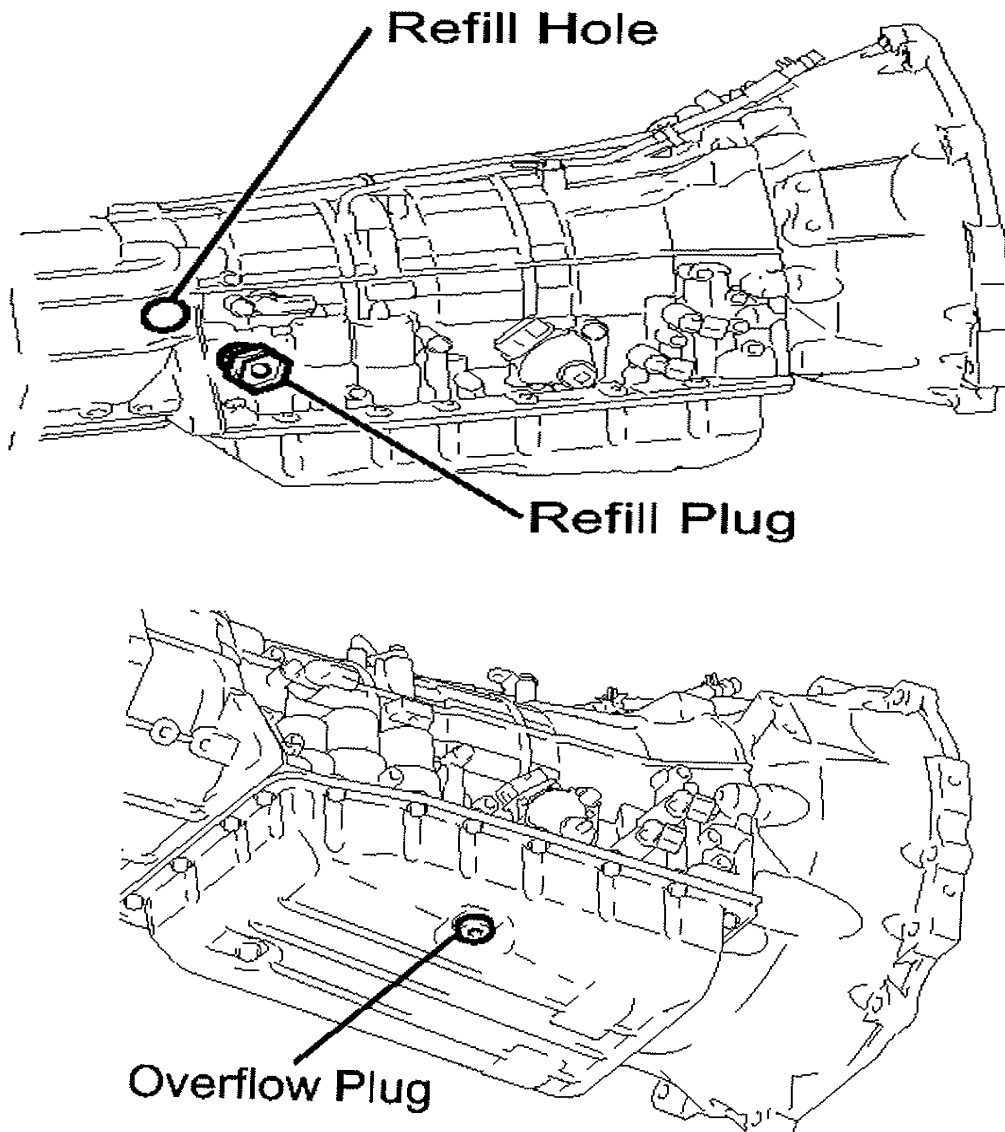
Step 12. Take the other end of the 3/8" hose coming from the pressure switch assembly and one of the hose clamps, and connect it to the Elbow Fitting (11010051) that is attached to the **trans plug fitting assembly.**

Step 13. When all connections are completed and all hose clamps securely tightened, refill the transmission with new transmission fluid. **This Toyota Transmission A750 E/F should require the Toytal Genuine ATF WS or equivalent transmission fluid,.consult the vehicle Owner’s Manual for the proper type of fluid to use.**

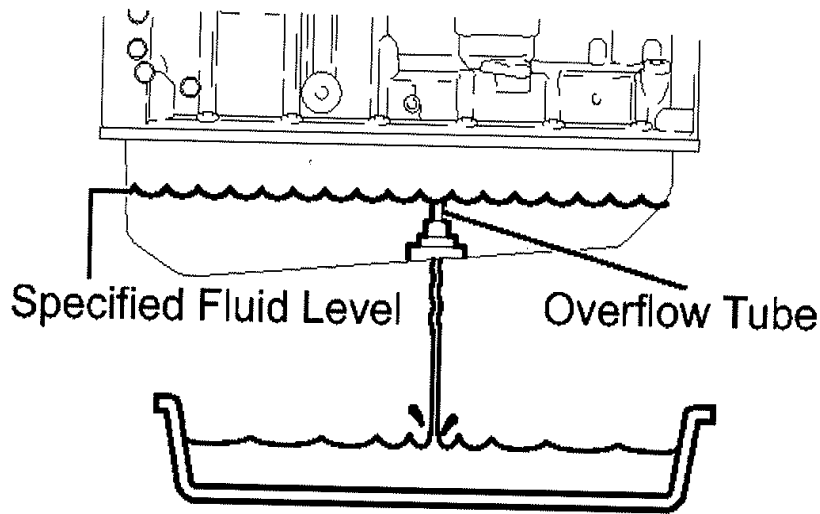
**PROCEDURES FOR FILLING TRANSMISSION. IT IS NECESSARY TO REFILL THE TRANSMSSION WITH THE CORRECT AMOUNT OF FLUID.**

Transmission Pan fill.

A. Remove the refill plug and overflow plug.



- B. Fill transmission through the refill hole until fluid begins to trickle out of the overflow tube.



- C. Reinstall the overflow plug.

**HINT: MAKE SURE THE FLUID IS COMING OUT IN A STEADY STREAM NOT JUST TRICKLING.** This helps insure you have the proper level.

How Much to Fill the Transmission

- a. Fill the transmission with the correct transmission fluid level, Toyota Genuine ATF WS, per the chart below.
- b. Reinstall the refill plug to avoid fluid splash.

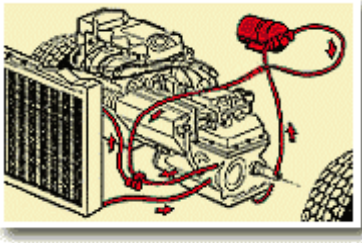
Repair	Fill Amount
Transmission pan and drain plug removal.	1.3L (1.37 US Quarts)
Entire Transmission Assembly	5.3L (5.60 US Quarts)

If you can not add this amount of fluid. Install the refill plug and run the vehicle, with the air conditioning off. Put your foot on the brake and move the transmission shifting lever through the entire gear range to circulate fluid. Wait for 30 seconds with the engine still idling. Turn off the vehicle, then remove the refill plug and add the fluid.

**RETURN TO THE GENERAL INFORMATION MANUAL PAGE 8**  
**TO INSTALL THE WIRING HARNESS ON THIS TOWED**  
**VEHICLE.**

**NOTES:**

**REMCO** HAS THESE PRODUCTS FOR YOUR TOWING CONVENIENCE



**REMCO'S Lube-Pump** lubricates and cools the Front Wheel Drive, Select rear Wheel Drive, Four-Wheel Drive, and All Wheel Drive vehicles while towing.



**REMCO'S Tail Light Wiring Kit** is for easy hook up of your tail lights and turn signals for towing.



**REMCO'S 12-Volt DC RV Water System Pumps**

**REMCO**  
*The Towing Experts*

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