

The following make/model transmissions are approved and warranted for towing when equipped with -  
**HARDWARE PACK #**  
**LP-HP015**

<b>MITSUBISHI/KIA/HYUNDAI</b>
Hyundai Elantra (A4BF1/F4A32)
Hyundai Azera (A5HF1)
Hyundai Sonata (F4A33-1)
Hyundai Excel (KM171-1)
Kia Optima (F4A42)
Kia Sedona (F4A51)
Kia Amanti(F5A51)
Mitsubishi Mirage (F3A21 / KM171-5)
Mitsubishi Mirage (F4A21 / KM176-5)
Mitsubishi Eclipse (F4A22 / KM175-5)
Mitsubishi Galant (F4A23-1 / KM177-8)
Mitsubishi Eclipse (F4A23)
Mitsubishi Mirage (F4A41)
Mitsubishi Eclipse (F5M22)
Mitsubishi Mirage (KM171-2)
Mitsubishi Galant (KM175-1)
Mitsubishi Expo LRV (KM177-0)

## **Towed Vehicle** **Lube Pump and Plumbing** **Installation Instructions**



# **LP-HP015**

**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 SUBMITTED TO REMCO

**See Warranty Card in the General Information Manual Page 5**

**REMCO LUBE PUMP**

**LP-HP015**

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

<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-HP015)</b>		
<b>Part #</b>	<b>Description</b>	<b>Quantity</b>
11010007-38	LP, SELECTOR VALVE ASSEMBLY	1
11010019	LP, PAN PLUG HDWR PACK (SUMP CONNECTOR)	1
40010027-S	SILICONE SEALANT (BLACK) 3 OZ.	1
41010035-S	AUX COOLER	1
40010021	CLAMP HOSE 5/16" X 7/8"	2

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FIND THE WIRING INSTRUCTIONS IN THE  
GENERAL INFORMATION & MOTORCOACH WIRING  
(LP-BK01) INSTRUCTION MANUAL**

## SELECTOR VALVE INSTALLATION

The selector valve is installed into the existing transmission/cooler lubrication line, which carries the fluid **from the transmission to the radiator (cooler)**. A second line (hose) normally runs alongside this line to carry the fluid from the cooler back to the transmission.

**NOTE 1:** Refer to the **DIAGRAM** on page 4.

**NOTE 2:** Some orderly planning should be given to the location of the selector valve. Consider the following:

1. Using the supplied 3/8" hose and fittings, extend the transmission lines so that the selector valve will mount within the engine compartment.
2. The valve and hoses should be located where they will not be damaged by road hazards, other moving parts, sharp edges, or hot exhaust parts. The valve can be secured by using plastic ties included in the kit.
3. Hoses should not bend too sharply causing a restriction in the fluid flow.

**NOTE 3:** **Make sure the hoses will not be damaged by road hazards, other moving parts, sharp edges, or hot exhaust parts. The valve can be secured by using plastic ties included in the kit. Also, hoses should not be bent too sharply causing a restriction in the fluid flow.**

**WARNING:** **THE SELECTOR VALVE MUST BE CONNECTED INTO THE HOSE, WHICH CARRIES THE TRANSMISSION FLUID FROM THE TRANSMISSION TO THE COOLER WHEN THE VEHICLE'S ENGINE IS RUNNING AND THE TRANSMISSION IN NEUTRAL (N).**

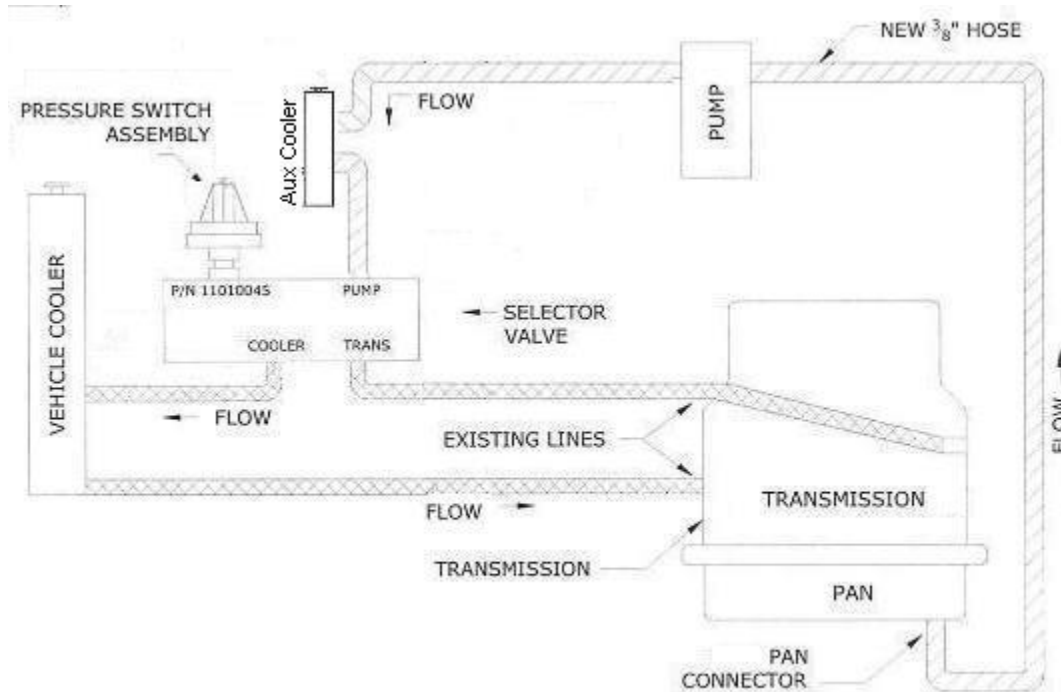
1. To determine which hose must be used, Disconnect one of the hoses from the transmission. (Expect a small amount of fluid to drain from the line.)
2. Attach the 3/8" hose provided in the kit to the transmission line and arrange the hoses in a container.
3. Have an assistant momentarily start the engine or crank the engine with the starter to cause fluid to flow from one or the other open ends of the hose.

4. If the fluid flows from the transmission hose, you have disconnected the proper line. If the fluid flows from the radiator hose, you have disconnected the wrong hose. Repeat Step 1.

## **CONNECTING THE PROPER HOSE TO THE SELECTOR-VALVE**

1. Determine the appropriate length of hose for selector valve.
2. Using one of the hose clamps, connect the rubber transmission hose coming from the transmission port to the “**Trans**” connection of the REMCO-selector valve.
3. Using one of the hose clamps, connect the rubber hose coming from the vehicle cooler to the “**cooler**” connection of the REMCO-selector valve.

The “**PUMP**” connection of the selector valve will later be connected to the pump.



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

#### **Part Number 11010019 – LP, Pan Plug Hardware Pack**

**NOTE 1:** Please drain transmission fluid from pan before installing the **LP, PAN PLUG HARDWARE PACK (SUMP FITTING)**. 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.

**THIS PAN PLUG HARDWARE PACK WILL REPLACE THE DRAIN PLUG (SUMP FITTING) IN THE TRANSMISSION. IF YOU FIND THAT THE SUB FRAME IS IN THE WAY FOR THIS INSTALLATION YOU WILL HAVE TO RAISE THE TRANSMISSION.**

**IN ORDER TO RAISE THE TRANSMISSION, FIRST LOCATE THE FRONT MOTOR MOUNTS. THEN SELECT THE MOTOR MOUNT THAT IS CLOSEST TO THE AREA WHERE THE FITTING WILL BE LOCATED.**

**YOU WILL NEED A FLOOR JACK AND SOME BLOCKS IF YOU DO NOT HAVE A LIFT EQUIPPED WITH AN UNDERCARRIAGE LIFT AVAILABLE TO YOU. REMOVE THAT MOTOR MOUNT BOLT AND RAISE THE TRANSMISSION ½"-1" FOR CLEARANCE.**

**SAFETY NOTE: FIND BLOCKS THAT WILL FIT UNDER THE MOTOR/TRANSMISSION ONCE RAISED.**

**INSTALL THE FITTING SO THAT IT WILL CLEAR THE FRAME WHEN THE TRANSMISSION IS SECURED BACK INTO PLACE. LOWER AND SECURE BACK INTO PLACE THE MOTOR/TRANSMISSION. BE SURE THE MOTOR MOUNT BOLT IS PROPERLY TORQUED (FOR TORQUE SPECIFICATIONS CONTACT THE NEAREST DEALER). CONTINUE WITH THE LUBE PUMP INSTALLATION.**

**INSTALLATION OF PAN FITTING, PROCEED AS FOLLOWS:**

- Step 1. Screw in plug portion of fitting into the pan.
- Step 2. Tighten the plug portion approximately as tight as it will be when installation is finished.
- Step 3. Mark on the plug portion with a marker the location of the direction you intend for the elbow portion to be facing when installation is complete.
- Step 4. Remove the plug portion out of the pan.
- Step 5. Clean it and the elbow portion.

- Step 6. Apply white thread sealant (**P/N - 11010041**) to the threads of the elbow.
- Step 7. Thread elbow into plug portion.
- Step 8. Tighten the fittings so that your elbow is placed to your mark.
- Step 9. Make sure the fittings are good and tight, do not **OVER TIGHTEN!**
- Step 10. Insert fitting into pan and continue with the installation.



## **LUBE PUMP INSTALLATION**

**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 1:** Locate the pump in the upper part of the engine compartment, under the hood. This is important to keep the pump from being exposed to the weather and other harsh elements.

**NOTE 2:** Do Not mount pump in the fender well or behind the bumper. This will void the warranty.

Included in this kit is a pump mounting bracket assembly (p/n 11010047). This allows the pump to be installed on the strut tower, the firewall or the radiator support as examples.

### **INSTALLATION:** (Refer to **DIAGRAM** page 4)

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

Step 1. Mount the pump in the engine compartment. (see notes above).

### **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 2. 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 4**). Using 1 hose clamp, connect the hose to the Aux Cooler.

Step 3. 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 **Selector Valve**. (Refer to **diagram, page 4**). Using 1 hose clamp, connect the hose to the “**pump**” port on the selector valve.

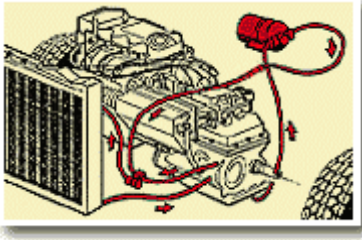
**WARNING:** THE LINE FROM THE AUX COOLER MUST BE CONNECTED TO THE “PUMP” CONNECTION ON THE VALVE.

- Step 4. 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 Plug** fitting on the transmission sump. Cut the hose to a suitable length.
- Step 5. Using one of the hose clamps connect the 3/8" hose to the sump connector. Make sure hose clamps are securely tightened on all connections.
- Step 6. When all connections are complete and all hose clamps securely tightened, refill the transmission with new transmission fluid through the filler tube. Consult the vehicle Owner's Manual for the proper type fluid to use and for the recommended procedures to make sure the proper fluid level is restored. Proper fluid level is essential for trouble-free operation of the transmission as well as the lube pump. **THE TRANSMISSION FLUID LEVEL MUST BE RE-CHECKED, AFTER INSTALLATION. WHEN VEHICLE IS SAFE TO RUN.**



# **NOTES**

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



**REMCO'S Lube-Pump** lubricates and cools select Front Wheel Drive, 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*

4605 County Road 82 SE  
Alexandria, MN 56308  
1-800-228-2481  
763-253-4740  
Fax: 763-253-4741