

The following make/model transmissions are approved and warranted for towing when equipped with - **HARDWARE PACK # LP-HP008**

CHEVROLET
Nova 1985-1987 (A131L)
Sprint 1985 -1988 (MX17 [A210])
Metro 1989 - 1997 (MX17 [A210])
Prizim 1989 - Newer (A131L)
SUZUKI
Swift 1988 - 1997 (MX17 [A210])
TOYOTA
Corolla (Diesel) (A130L)
Camry / Avalon (A140L)
Corolla (A240L)
Tercel (A242L)
Camry (A541E-C)
Corolla (A131L)
Avalon (A140E)
Corolla (A240E)
Celica GT (A243L)
Sienna (A540E)
Tercel (A132L)
MR2 (A141E)
Celica ST (A241L)
Paseo (A244G)
RAV4 (A540)
RAV4 (A247E)
RAV4 (A241E)

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



LP-HP008

INSTALLER: GIVE THESE INSTRUCTIONS TO THE END USER 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.

NOTE: The **LP-HP008 LUBE PUMP** Kit **MUST** be installed with selector valve P/N 11010008.

REMCO LUBE PUMP PACK

LP-HP008

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-HP008 HARDWARE PACK TO COMPLETE THE INSTALLATION.

USE FOLLOWING PARTS FROM BASE KIT (LP-BK01)		
Part #	Description	Quantity
11010046	PUMP ASSEMBLY	1
11010047	LP, PUMP MOUNT BRACKET ASSEMBLY	1
40010019	3/8" HOSE	16'
USE FOLLOWING PARTS FROM HARDWARE PACK (LP-HP008)		
Part #	Description	Quantity
11010008	LP-2 SELECTOR VALVE ASSY	1
11010013	PAN CONNECTOR	1
40010027-S	SILCONE SEALANT, 3 OZ. (BLACK)	1

**AFTER INSTALLING THIS LUBE PUMP AND PLUMBING,
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 radiator (cooler) to the transmission**. A second line (hose) normally runs alongside this line to carry the fluid from the transmission to the radiator (cooler).

NOTE 1: Refer to **DIAGRAM 1, page 4**.

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

1. The selector valve can be mounted near the hose line between the transmission and the radiator. If the existing lines will permit, it is better to locate the valve higher in the engine compartment along the inner fender wall.
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 or the bracket strap assembly both included in the kit.
3. 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 RADIATOR (COOLER) TO THE TRANSMISSION WHEN THE VEHICLE'S ENGINE IS RUNNING AND THE TRANSMISSION IN NEUTRAL (N).**

TO DETERMINE WHICH HOSE MUST BE USED, FOLLOW THESE STEPS:

- Step 1. Disconnect one of the rubber radiator hoses from the steel transmission line at the transmission. Expect a small amount of fluid to drain from the line.
- Step 2. Attach the 3/8" hose provided in the kit to the steel transmission line and arrange the hoses in a container.
- Step 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 hoses.

Step 4. If the fluid flows from the radiator (cooler) hose, you have disconnected the proper line. If the fluid flows from the transmission hose you have disconnected the wrong hose, reconnect the hose, repeat Step 1.

Step 5. Connect the proper hoses to the selector valve.

- a. Determine the appropriate length of hose for selector valve mounting.
- b. Using one of the hose clamps supplied with the kit, connect the rubber transmission hose from the transmission to the “**Trans**” connection of the selector valve.
- c. Using one of the hose clamps, connect the rubber hose coming from the radiator (cooler) to the “**Cooler**” connection of the selector valve.

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

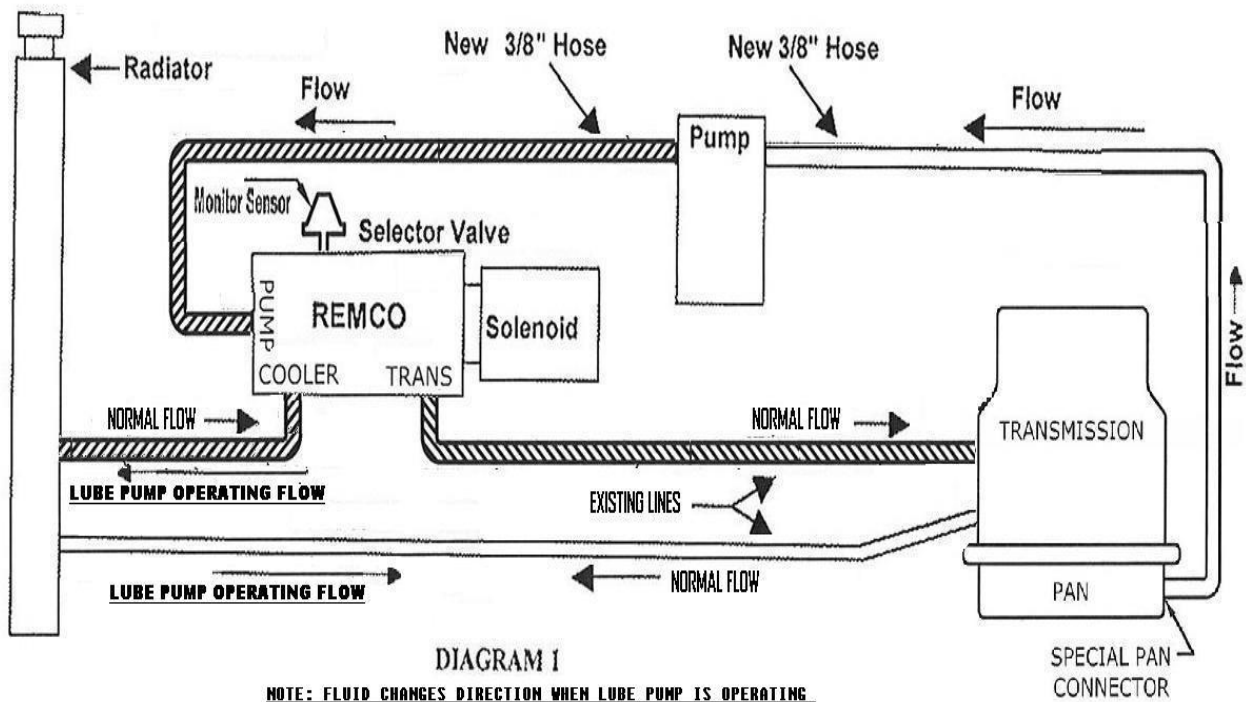


DIAGRAM 1

NOTE: FLUID CHANGES DIRECTION WHEN LUBE PUMP IS OPERATING.

LP-2 KIT

▪ **INSTALLATION OF THE PAN CONNECTOR:**

Notice: This kit comes with the Regular Pan Connector Fitting (p/n 11010013). It should be noted that when installing the Lube Pump Kit on a vehicle equipped with a Model # MX17 (A-210) Transmission, that a Self-Tapping Pan Fitting and Pan Punch will be required. This fitting and punch does not come with this kit. If needed, please contact Remco. Part number for Self-Tap Pan Fitting with Pan Punch is: 10010032.

It is necessary to remove the transmission pan to install the regular pan connector. 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: 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 also 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 7. 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 top perimeter of the transmission pan using plastic nozzle provided. Make sure to encircle each bolt hole as shown (Refer to **DIAGRAM 2, page 7**). 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 the 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

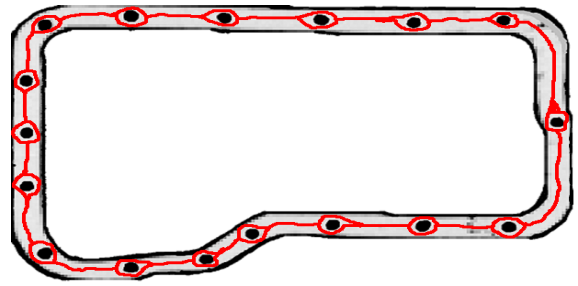
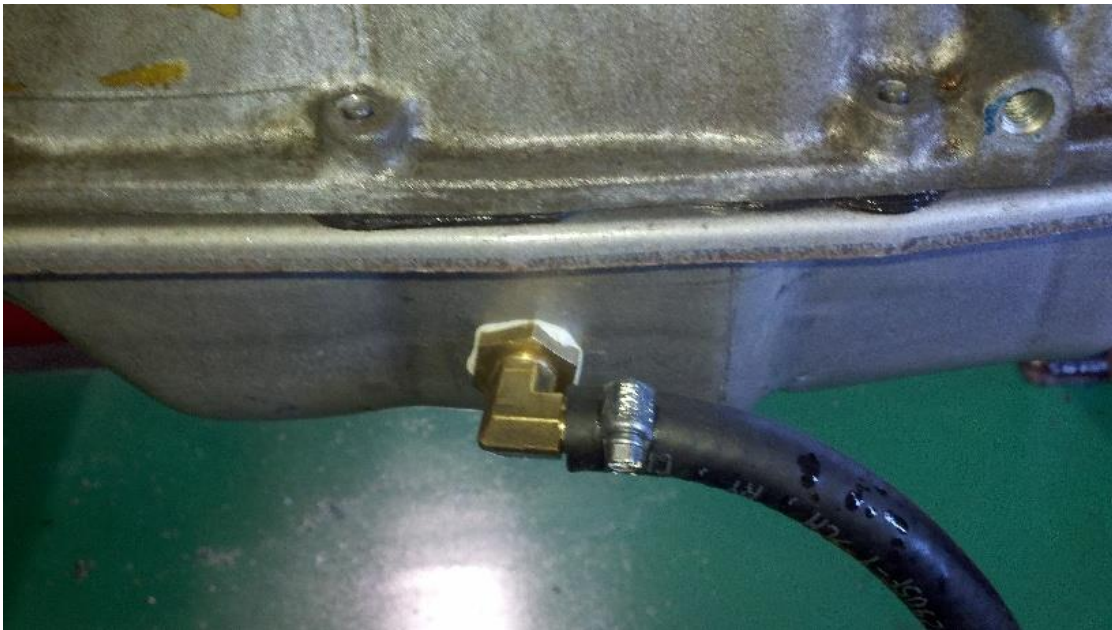


Diagram 2
PAN WITH SEALANT APPLIED



Use this picture as a reference only.

LUBE PUMP INSTALLATION

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: **Mount the pump vertical or horizontal to help insure no water can collect and cause failure. Do not mount 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 1**, page 4)

NOTE 3: When routing the 3/8" hoses 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. 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 a suitable length of 3/8" hose and one of the hose clamps, connect one end of the hose to the **output side** of the pump.

Step 3. Route the other end of the 3/8" hose to the **selector valve assembly** and connect it to the **"PUMP"** connection of the selector valve.

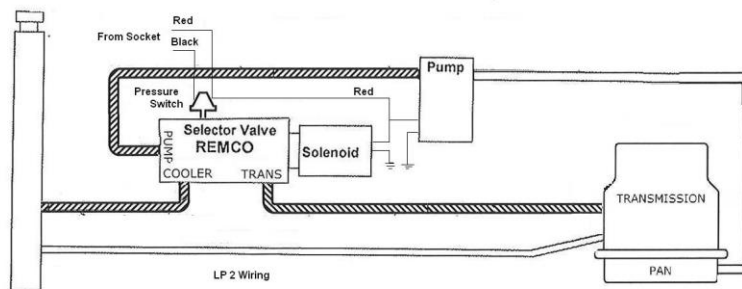
WARNING: **THE LINE FROM THE PUMP MUST BE CONNECTED TO THE "PUMP" CONNECTION ON THE VALVE.**

- 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 a 3/8" hose to the **pan connector** on the transmission pan. Cut the hose to a suitable length.
- Step 5. 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.
- Step 6. When all connections are completed 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. RE-CHECK TRANSMISSION FLUID LEVEL AFTER INSTALLATION, WHEN VEHICLE IS SAFE TO RUN. THIS IS A MUST!

Selector Valve Wiring Note (LP Selector Valve with Solenoid):

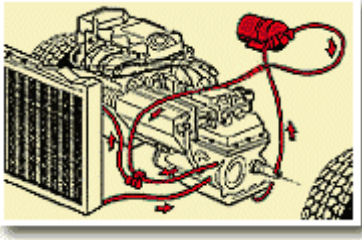
The Selector Valve Solenoid has two (2) yellow wires coming out of it. One wire goes to a suitable chassis ground. The other is connected to the red wire that comes from the 6-pole socket. It makes no difference which solenoid wire goes to ground or which one goes to power.

This red wire, from the socket, also goes to the red wire on the pump and to one side of the pressure switch. The black wire on the pump goes to chassis ground and the other side of the pressure switch connects to the black wire from the socket.



For Installation Testing, Towing Checklist, and Troubleshooting see back section of the LP-BK01 General Information Manual.

REMCO HAS THESE PRODUCTS FOR YOUR TOWING CONVENIENCE



REMCO'S Lube-Pump lubricates and cools the Transmission on 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

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