

#### Kit components:

- Vacuum actuator with silicone diaphragm & metal rod
- Aluminum pivot lever with Delrin bushings
- Stainless-steel pivot bolt
- Internal-tooth star lock washer

### STEP 1

Read instructions prior to performing repair.

### <u>STEP 2</u>

Remove the intake manifold from the engine per the factory repair manual, and inspect for excess internal carbon.

### <u>STEP 3</u>

Remove the original center vacuum actuator by carefully disconnecting the vacuum line, prying off the star washer, and disconnecting the actuating rod from the plastic center pivot lever with a flat-bladed pry tool.

## <u>STEP 4</u>

Use the flat-bladed pry tool to disconnect the metal flap levers from the left and right ends of the center pivot lever.



# <u>STEP 5</u>

Remove the original pivot bolt using a T30 Torx bit. These tend to strip easily upon removal, so the repair kit includes a new stainless-steel pivot bolt.



Installation by a professional technician is recommended. Refer to the factory repair manual for vehicle-specific service procedures for this part. Tighten all hardware to factory torque specifications and observe all repair manual cautions and warnings. Use safety stands whenever beneath a vehicle and always wear protective eyewear.



### **STEP 6**

Install the new aluminum central pivot lever using the new pivot bolt, being sure to orient the lever correctly. Lubricate the pivot bolt with silicone grease on the bearing surfaces, and apply a small amount of medium-strength blue thread locker to the threads. Torque the pivot bolt to 7 to 8 foot pounds.

### <u>STEP 7</u>

Put a small amount of plastic-safe silicone grease onto the ball studs of the right and left metal connecting levers, and snap them into place on the new pivot lever.

### <u>STEP 8</u>

Install the new center vacuum actuator on the locating guides, and secure with new star lock washer. Reconnect the vacuum hose to the vacuum dashpot.

### <u>STEP 9</u>

Grease the ball stud on the pivot lever and the socket at the bottom of the new actuator rod. Using one or two small flat-head screwdrivers, open the spring clip retainer on the bottom of the actuator rod. Press the socket onto the pivot lever ball stud, and release the spring clip to secure the actuator rod on the ball stud. Do not force the socket against the ball stud without opening the spring clip, as the clip may become bent and damaged.

### **STEP 10**

The repaired manifold is now ready for reinstallation on the engine. Clear fault codes and complete installation per factory repair manual.

Note: The intake manifold should be inspected to ensure excessive internal carbon deposits are not present on the runner swirl flaps. Excess carbon can cause binding and inconsistent operation even after the repairs are completed. Removing excess carbon with intake manifold cleaning products is recommended anytime the manifold is serviced.



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