

## MINI CVT

### STUCK IN LOW GEAR AFTER REPAIRS OR REBUILD

**COMPLAINT:** After repairs or a rebuild of a Mini CVT, the transmission no longer ratios out of a low gear ratio.

**CAUSE:**

1. One possible cause is the valve body assembly was not installed onto the transmission correctly. This can jam the pulley follower lever onto the pulley follower bolt head.
2. Another reason could be that the Primary Pulley Pitot tube mounted inside the transmission was damaged during disassembly or reassembly. Figure 1 shows a broken Pitot on the left and a good Pitot tube on the right.

**CORRECTION:**

1. For proper installation of the valve body and pulley follower lever, refer to page 21.
2. Install a new Pitot tube. Use the following procedures to remove the pulley assembly properly so as to not damage the primary pulley Pitot tube.
  - a. With the valve body already removed, pop the pump cover as seen in figure 2.
  - b. Rotate the Pitot tube chamber mounted on the pump drive shaft so that one of the slots reveals the engine speed sensing Pitot tube attaching bolt (figure 3).
  - c. Remove the bolt and use a pick to rotate the Pitot tube bolt bracket flange as seen in figure 4.
  - d. Rotate the chamber so that you can verify the Pitot tube tip is out of the slinger pocket as seen in figure 5.
  - e. Now remove the 4 bolts that retains the chamber to the pump drive shaft (figure 6).
  - f. Remove the pump (figure 7). It should pop forward due to a beveled cushion plate sitting at the bottom of the pump pocket (figures 8).
  - h. This beveled cushion plate sits into the bottom of the pump pocket like a bowl not like a dome (figure 9).
  - i. Separate the park rod from the manual detent lever (figure 10).
  - j. Remove the case attaching bolts and carefully separate the two case halves (figure 11).
  - k. Remove the primary and secondary pulley nuts (figure 12).
  - l. Rotate the primary pulley Pitot tube counterclockwise as seen in figure 13.
  - m. Place wire ties on the push belt and then carefully drive the primary and secondary pulleys out of the case while keeping the Pitot tube in proper position (figure 14).
  - n. Looking into the case, check the Pitot to be sure it has not been damaged (figure 15). If it has, carefully pull the roll pin out of the Pitot tube shaft and change the Pitot tube (figure 16).

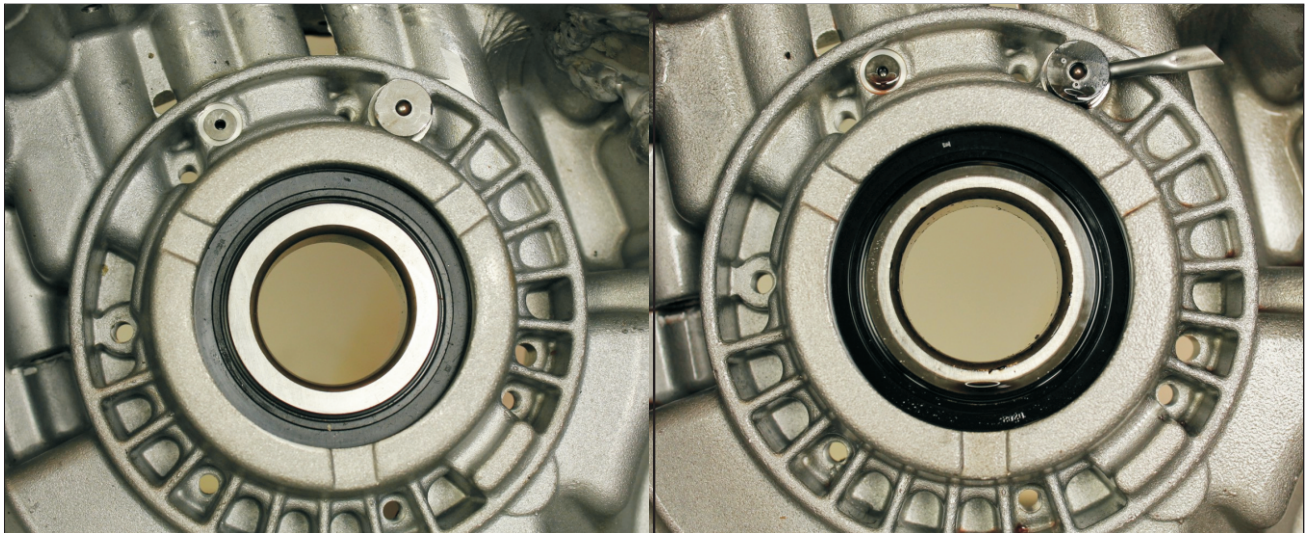


Figure 1



## MINI CVT

### STUCK IN LOW GEAR AFTER REPAIRS OR REBUILD

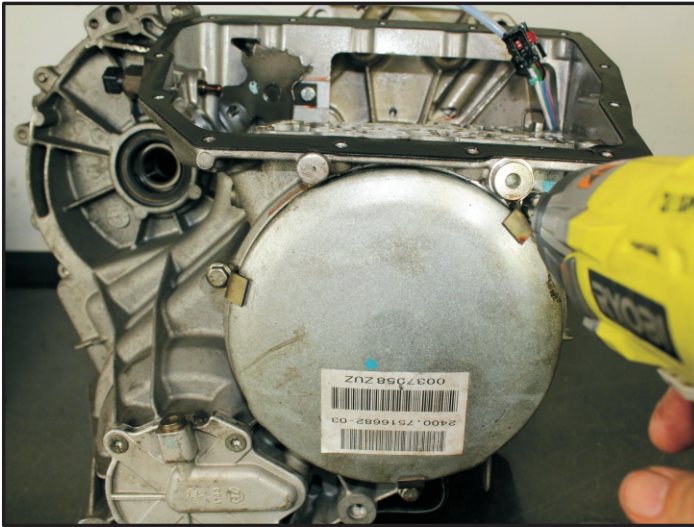


Figure 2



Figure 5

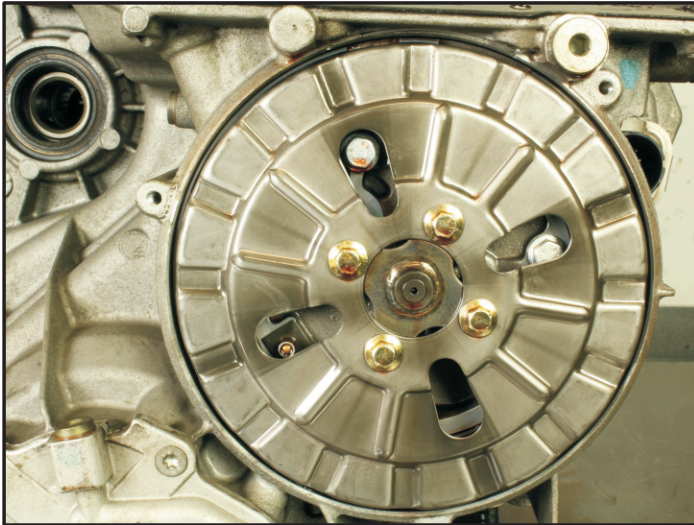


Figure 3



Figure 6

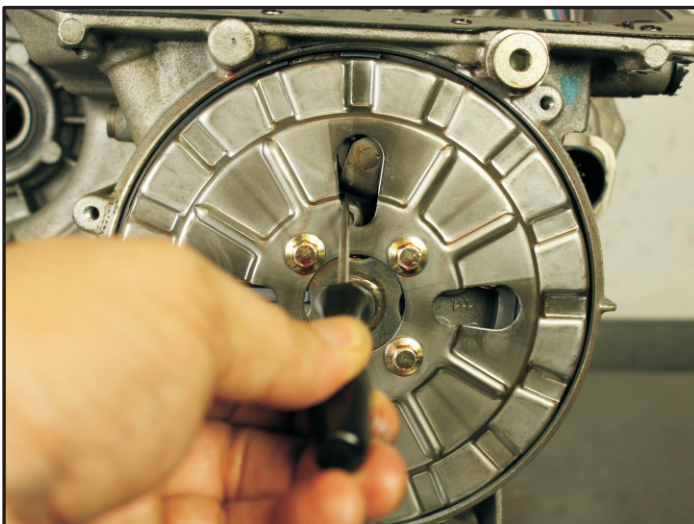


Figure 4



Figure 7



## MINI CVT

### STUCK IN LOW GEAR AFTER REPAIRS OR REBUILD

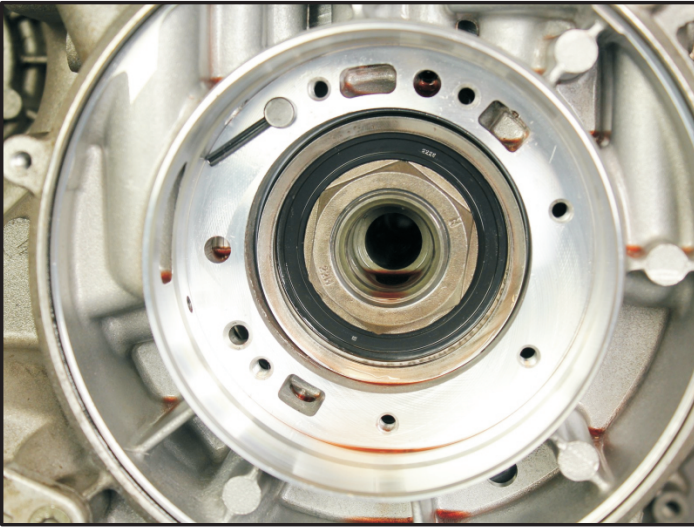


Figure 8

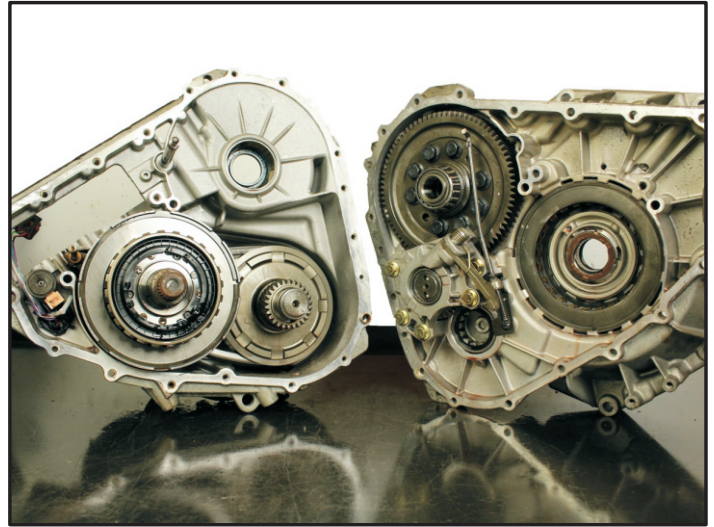


Figure 11



Figure 9

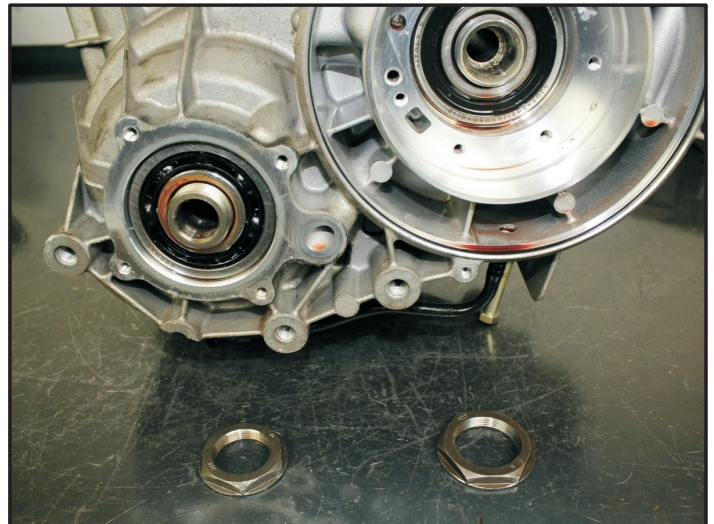


Figure 12

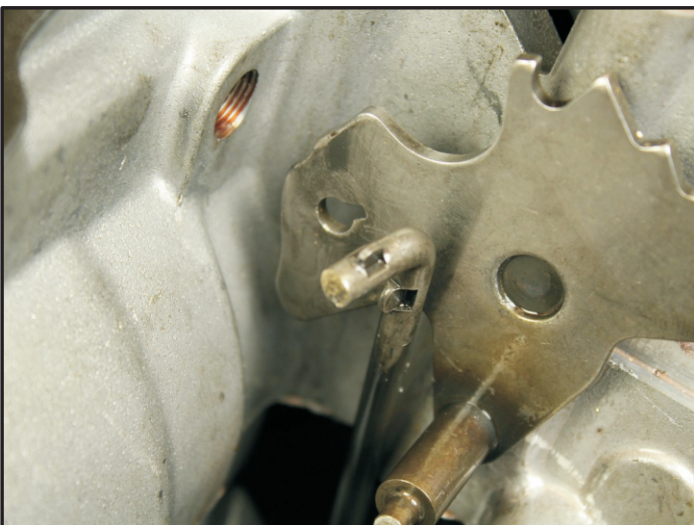


Figure 10



Figure 13





## Technical Service Information

### MINI CVT

#### STUCK IN LOW GEAR AFTER REPAIRS OR REBUILD

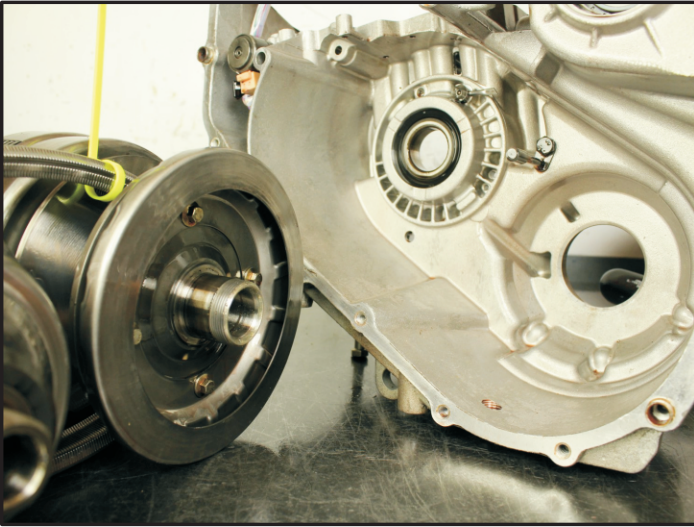


Figure 14



Figure 16

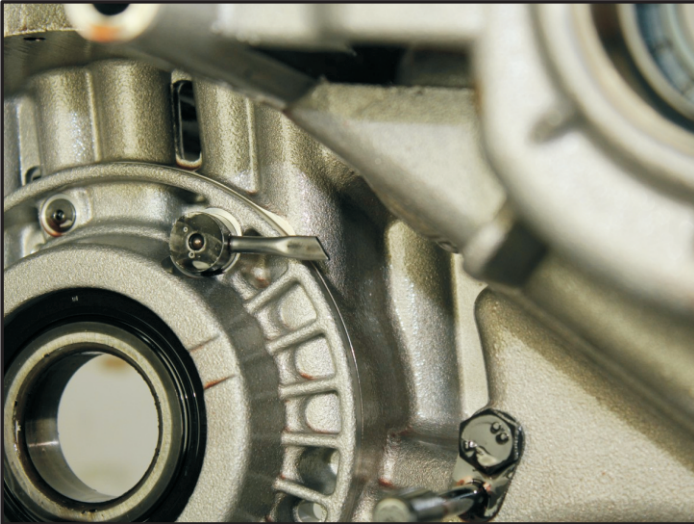


Figure 15