



Technical Service Information

MAZDA/FORD G4A-EL

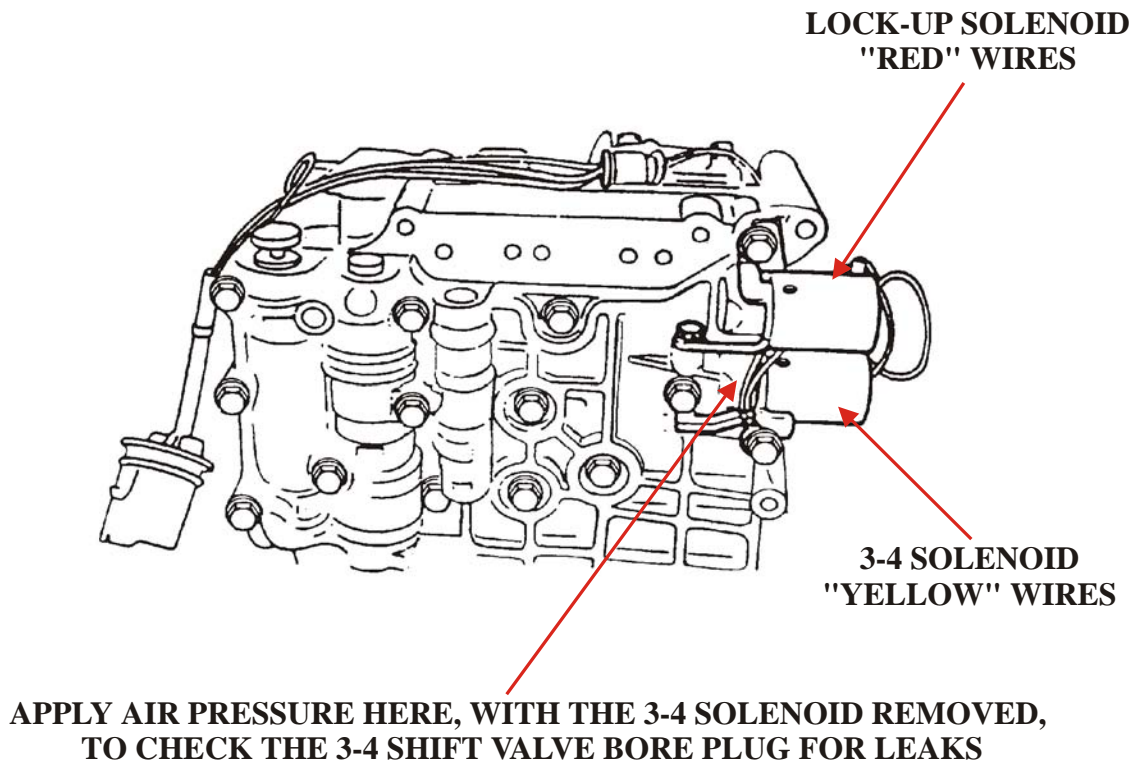
3RD GEAR SHIFT SHUTTLE

COMPLAINT: Vehicles equipped with G4A-EL transmissions may exhibit a hunting sensation or shift shuttle, between the speeds of 25-35 mph. This sensation normally happens, while in 3rd gear, right before the 3-4 shift.

CAUSE: The cause may be, the 3-4 shift solenoid is partially stuck open, the 3-4 shift solenoid "O-ring" is damaged or the 3-4 shift valve bore plug is leaking. This may cause the 3-4 shift valve to **block** Coast Clutch apply oil and to exhaust Servo Release oil. Computer strategy, while in 3rd gear under 25MPH., commands the 1-2 solenoid **off** which in turn **blocks** Servo apply oil. At speeds above 25MPH., while in 3rd gear, computer strategy commands the 1-2 solenoid to be **on** which turns **on** Servo apply pressure in preparation for the upshift to 4th gear. When 1-2 solenoid application occurs, while in 3rd gear above 25 MPH., drum speed or pulse generator output may drop because of the lack of Servo Release oil. When the computer recognizes that Pulse Generator input or drum speed has dropped it may turn the 1-2 solenoid **off**. This on and off cycling of the 1-2 solenoid may continue until the upshift to 4th occurs.

CORRECTION: Refer to Figure 1 to identify the 3-4 shift solenoid placement and to check its mechanical function. Apply air pressure to the end of the solenoid as shown in Figure 1 to ensure that the 3-4 shift solenoid is closed and check the O-ring for damage. With the 3-4 solenoid removed, air check the 3-4 shift valve through the hole where the 3-4 solenoid is placed and ensure that there is no air leakage from the bore plug. Refer to Figure 2 for 3-4 shift valve and bore plug location.

3-4 SOLENOID LOCATION



3-4 SHIFT SOLENOID MECHANICAL FUNCTION

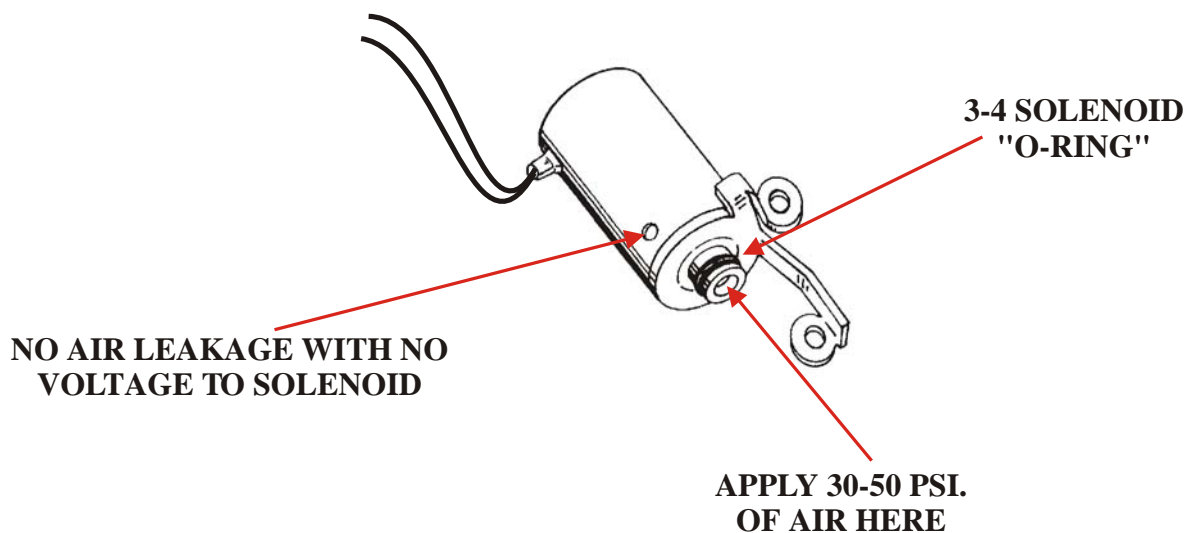


Figure 1

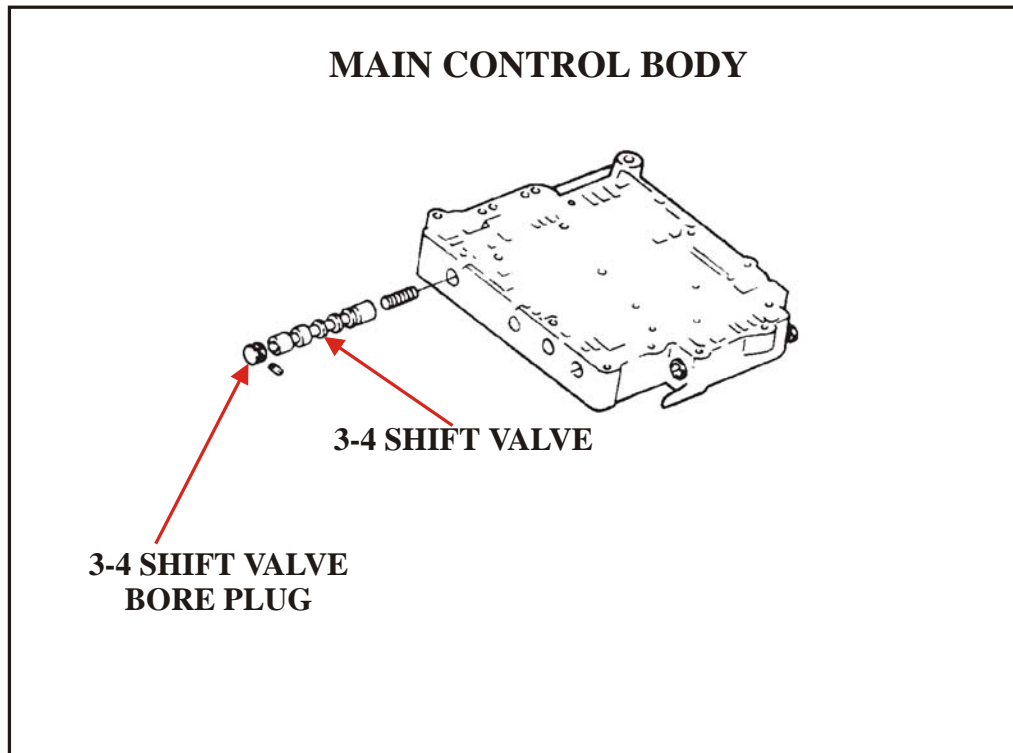


Figure 2