



4L30-E

BIND ON TAKE-OFF OR BIND ON 2-3 SHIFT

COMPLAINT: Before or after overhaul, vehicles equipped with the 4L30-E transmission may exhibit a binding sensation on take-off when Drive is selected or a binding condition on the 2-3 upshift. NOTE: This may cause continual band or 3rd clutch failure.

CAUSE: The cause may be,
Bind on Take-off
The 2-3 shift solenoid, which is Normally Open, may be partially closed from debris, causing the 2-3 shift valve to be partially stroked to the right. This connects a Line Pressure passage from the Manual Valve to the release side of the servo and 3rd clutch apply. This can create a binding condition because the servo is partially released and the 3rd clutch is partially applied when the servo is supposed to be fully applied. See Figure 3 for partial hydraulic schematics.
Bind on the 2-3 upshift
The 2-3 shift solenoid, which is Normally Open, may not close quickly causing the 2-3 shift valve to be in a position that limits servo release and 3rd clutch pressure creating a bind because the servo is not fully released, when the 3rd clutch is being applied.

CORRECTION: Refer to Figure 1 for the location of the 2-3 solenoid, and verify the 2-3 solenoid's mechanical operation as shown in Figure 2. Ensure that the 2-3 shift valve, which is behind the 2-3 solenoid is not binding in it's bore. Replace the 2-3 solenoid as necessary.

SERVICE INFORMATION:

2-3 SOLENOID (ISUZU part no.).....	8960143240
2-3 SOLENOID (G.M. part no.).....	96014224

2-3 SOLENOID LOCATION

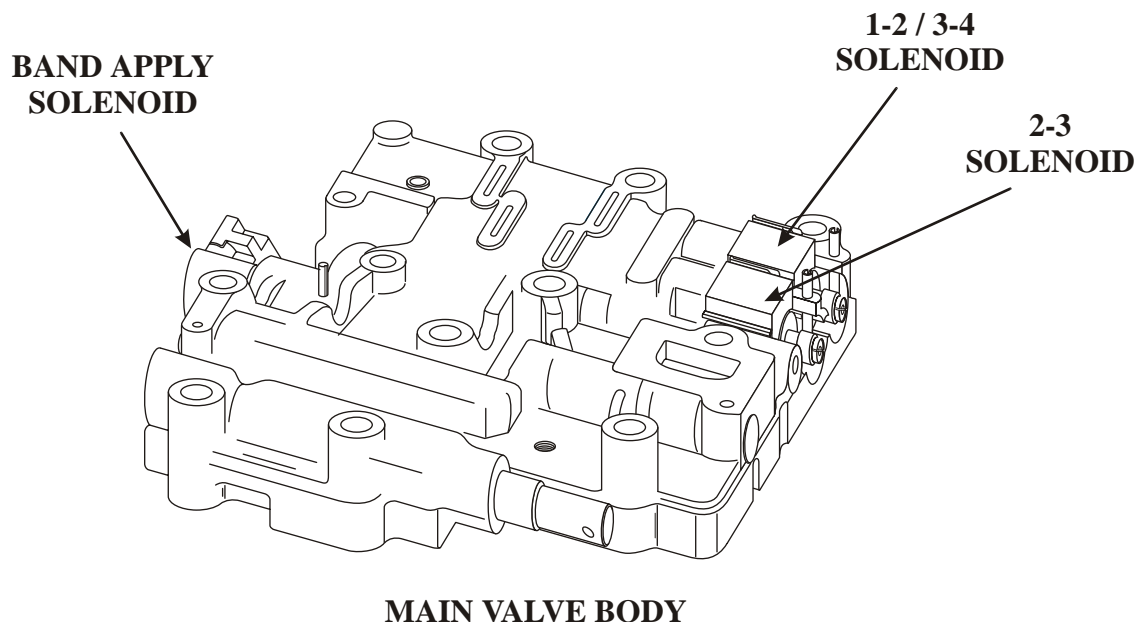
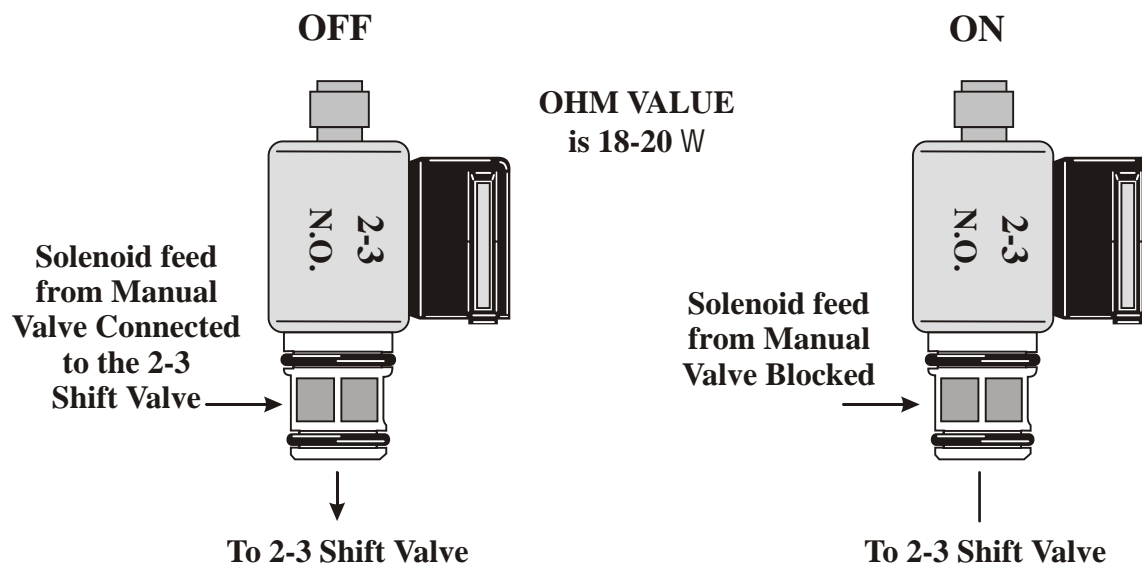


Figure 1

2-3 SOLENOID CHECK

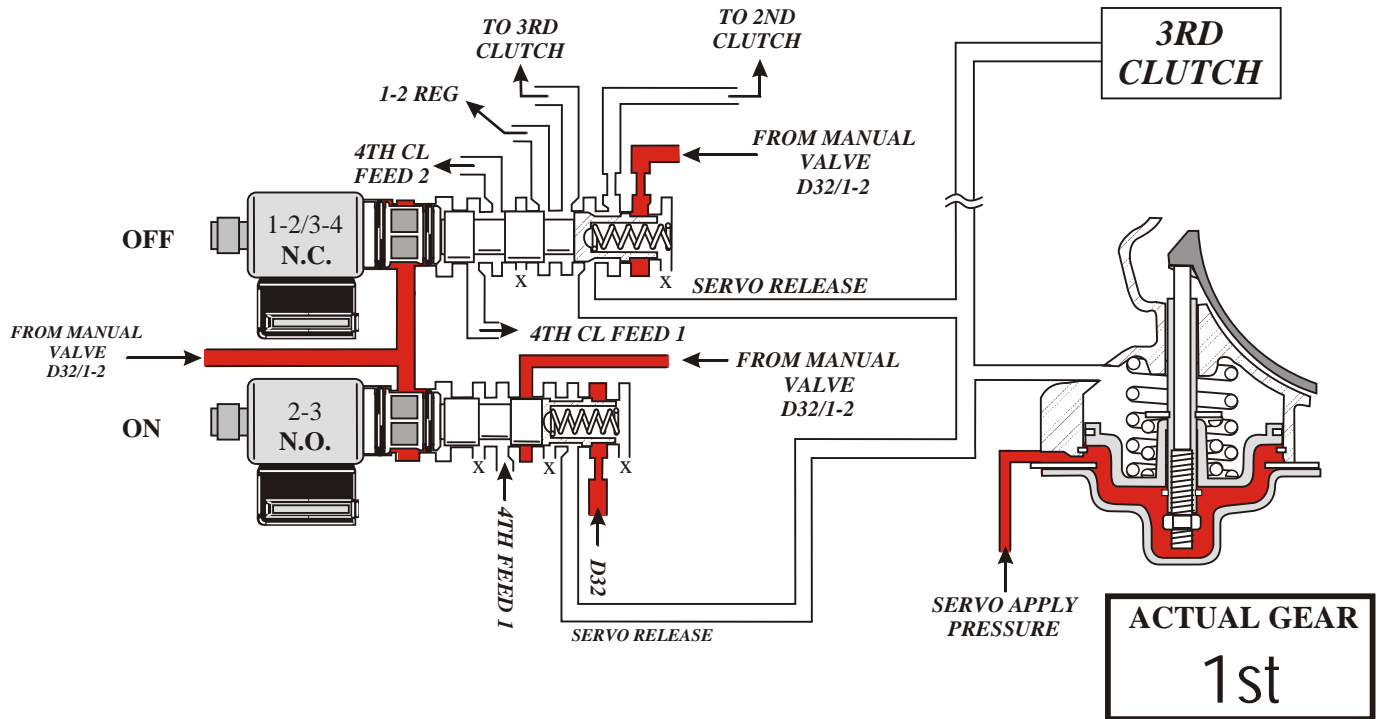


Summary: When the 2-3 Solenoid is OFF, solenoid feed from the Manual Valve, (Drive ranges) passes thru the solenoid and is connected to the 2-3 shift valve stroking it. When the 2-3 Solenoid is ON, solenoid feed from the Manual Valve, (Drive ranges) is blocked to the 2-3 shift valve keeping the valve from stroking against its spring.

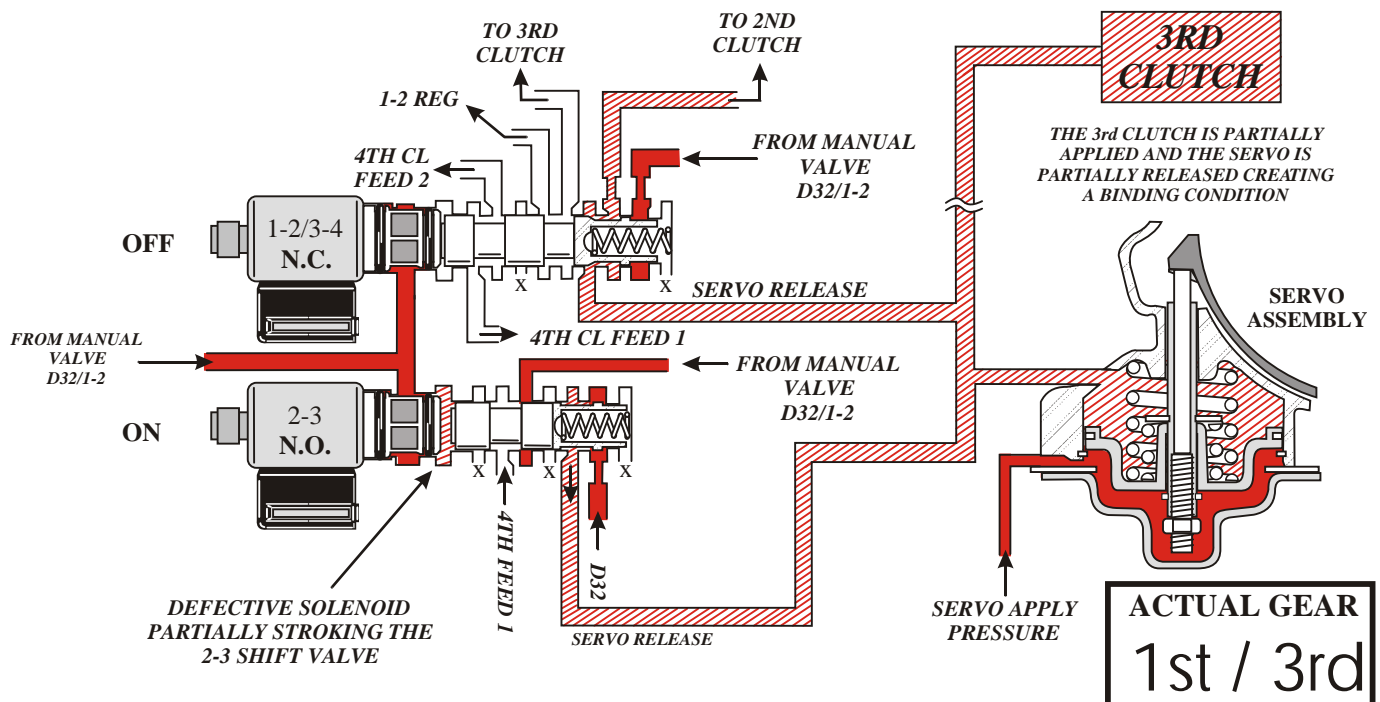
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Figure 2

PARTIAL HYDRAULIC OF A 1st GEAR COMMAND



PARTIAL HYDRAULIC OF A 1st GEAR COMMAND WITH 2-3 SOLENOID MECHANICAL FAULT



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Figure 3