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|----------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E clutch harsh apply | Incorrect transmission strategy programmed into PCM/ TCM. | CARRY OUT the Transmission Strategy Download and the Adaptive Learning Drive Cycle.<br>REFER to: Transmission Strategy Download (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80) .<br>REFER to: Adaptive Learning Drive Cycle (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, General Procedures). |
|                      | High line pressure                                        | CARRY OUT the line pressure test. If line pressure is high, REFER to the Line Pressure Diagnosis Chart.<br>REFER to: Special Testing Procedures (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Diagnosis and Testing).                                                                                                                                              |
|                      | SSE mechanically sticking                                 | INSTALL a new solenoid.<br>REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Removal and Installation).                                                                                                                                                                                                                                 |
|                      | E clutch control valve sticking                           | DISASSEMBLE, CLEAN and INSPECT the E clutch control valve. If the bore or valve is damaged or worn, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                           |
|                      | Gain control valve stuck in applied position              | DISASSEMBLE, CLEAN and INSPECT the clutch gain control valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                |
|                      | E clutch hydraulic circuit blocked/leaking                | DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris, blockage and leaks. CLEAN as necessary.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                 |
|                      | E clutch piston return spring                             | DISASSEMBLE and INSPECT the E clutch piston return spring for damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                      |
|                      | E clutch friction plates                                  | DISASSEMBLE and INSPECT the E clutch friction and steel plates for wear and damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                        |

## F Clutch

### Principles of Operation

### Symptom Chart

#### F Clutch

For F clutch operation,  
REFER to: F Clutch (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Description and Operation).

#### F Clutch

| Condition               | Possible Sources                                                   | Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| F clutch does not apply | SSF mechanically stuck OFF                                         | INSTALL a new solenoid.<br>REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                    |
|                         | F clutch control valve stuck OFF                                   | DISASSEMBLE, CLEAN and INSPECT the F clutch control valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                      |
|                         | F clutch latch valve stuck OFF                                     | DISASSEMBLE, CLEAN and INSPECT the F clutch latch valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                        |
|                         | F clutch hydraulic circuit blocked/leaking                         | DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris, blockage and leaks. CLEAN as necessary.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                    |
|                         |                                                                    | CARRY OUT the air pressure test on the F clutch.<br>REFER to: Special Testing Procedures (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Diagnosis and Testing).<br>If a leak is detected, INSPECT the front support assembly, input shaft Teflon seals and F clutch piston seals for leaks. INSTALL new components as necessary. REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul). |
|                         | CDF clutch cylinder, clutch and planetary carrier, ring gear no. 4 | DISASSEMBLE and INSPECT the CDF clutch cylinder, the clutch and planetary carrier and ring gear no. 4 for wear and damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                                                                                    |
|                         | F clutch piston seals                                              | DISASSEMBLE and INSPECT the F clutch piston seals for wear and damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                                                                                                                                        |
|                         | F clutch friction plates                                           | DISASSEMBLE and INSPECT the F clutch friction and steel plates for wear and damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                                                                                                                           |

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| F clutch always applied              | SSF mechanically stuck ON                                          | INSTALL a new solenoid.<br>REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                      | F clutch control valve stuck ON                                    | DISASSEMBLE, CLEAN and INSPECT the F clutch control valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                      | F clutch latch valve stuck OFF                                     | DISASSEMBLE, CLEAN and INSPECT the F clutch latch valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                      | F clutch hydraulic circuit cross leaks                             | DISASSEMBLE and INSPECT the main control valve body and separator plate passages for cracks, warping and damage. If damage is found, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                      | CDF clutch cylinder, clutch and planetary carrier, ring gear no. 4 | DISASSEMBLE and INSPECT the CDF clutch cylinder, the clutch and planetary carrier and ring gear no. 4 for wear and damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                      | F clutch piston return spring                                      | DISASSEMBLE and INSPECT the F clutch piston return spring for damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                      | F clutch friction plates                                           | DISASSEMBLE and INSPECT the F clutch friction and steel plates for wear and damage. INSTALL new components as necessary.<br>REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| F clutch delayed/soft/slipping apply | Incorrect transmission strategy programmed into PCM/ TCM.          | CARRY OUT the Transmission Strategy Download and the Adaptive Learning Drive Cycle.<br>REFER to: Transmission Strategy Download (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80) .<br>REFER to: Adaptive Learning Drive Cycle (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, General Procedures).                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                      | Low line pressure                                                  | CARRY OUT the line pressure test. If line pressure is low, REFER to the Line Pressure Diagnosis Chart.<br>REFER to: Special Testing Procedures (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Diagnosis and Testing).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                      | SSF mechanically sticking                                          | INSTALL a new solenoid.<br>REFER to: Shift Solenoids (SS) (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                      | F clutch control valve sticking                                    | DISASSEMBLE, CLEAN and INSPECT the F clutch control valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                      | F clutch latch valve sticking                                      | DISASSEMBLE, CLEAN and INSPECT the F clutch latch valve. If the bore or valve is damaged, INSTALL a new main control valve body.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                      | F clutch hydraulic circuits blocked/leaking                        | DISASSEMBLE and INSPECT the main control valve body and separator plate passages for debris, blockage and leaks. CLEAN as necessary.<br>REFER to: Main Control Valve Body (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).<br><br>CARRY OUT the air pressure test on the F clutch.<br>REFER to: Special Testing Procedures (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R60, Diagnosis and Testing).<br>If a leak is detected, INSPECT the front support assembly, input shaft Teflon seals and F clutch piston seals for leaks. INSTALL new components as necessary. REFER to: Transmission (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80, Overhaul). |