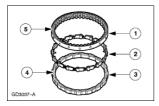
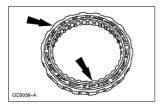
## Low One-Way Clutch Assembly

#### Disassembly

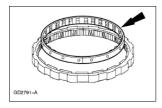
- 1. Inspect the low one-way clutch components:
  - 1. Low one-way clutch inner race.
  - 2. Roller assembly.
  - 3. Low one-way clutch outer race.
  - 4. Outer race groove.
  - 5. Inner race groove.



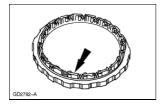
2. Position the low one-way clutch so the inner and outer race grooves are facing upward.



3. Remove the inner race.



4. Remove the roller assembly.



5. AWARNING: Air pressure must not exceed 138 kPa (20 psi). Wear safety glasses when using compressed air. Failure to follow these instructions can result in personal injury.

Clean all parts thoroughly in clean solvent and blow dry with moisture-free regulated compressed air.

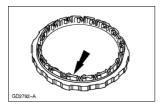
- 6. Inspect the low one-way clutch parts for damage and wear.
  - Outer race
  - Sprag assembly
  - Inner race

• Lubrication holes

## **Assembly**

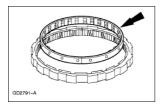
1. **NOTE:** Outer tabs of the roller assembly must face up.

Install the roller assembly into the outer race with the groove facing up.

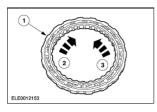


2. **NOTE:** To aid in inner race installation, rotate the inner race clockwise during installation.

Install the inner race with the grooves facing up.



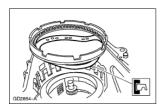
- 3. Check the operation of the one-way clutch as follows:
  - 1. Hold the outer race.
  - 2. Rotate the inner race clockwise. It should rotate with a slight drag without attempting to rotate the outer race.
  - 3. Rotate the inner race counterclockwise. The inner race should rotate the outer race.



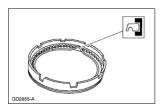
#### Low/Reverse Piston

#### Disassembly

1. Remove and discard the low/reverse clutch piston outer seal on the low/reverse clutch piston.

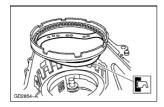


2. Remove and discard the low/reverse clutch piston inner seal on the low/reverse clutch piston.

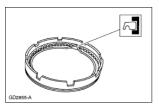


## Assembly

1. Install the low/reverse clutch piston outer seal on the low/reverse clutch piston.



2. Install the low/reverse clutch piston inner seal on the low/reverse clutch piston.

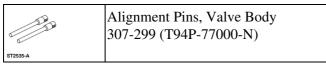


Low/Reverse Piston 1838

Low/Reverse Piston 1839

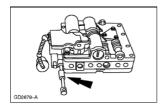
## **Main Control Valve Body**

## Special Tool(s)



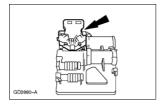
#### Disassembly

1. Remove the manual valve.



2. **A** CAUTION: Do not attempt to remove the solenoid valve body wiring cover.

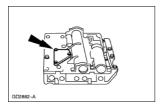
Remove the two solenoid valve body bolts and the solenoid valve body.



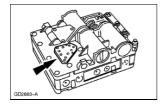
3. Remove and discard the solenoid valve body gasket.



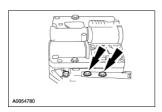
4. Remove the three pressure tap plate bolts and the pressure tap plate.



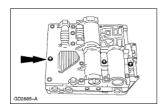
5. Remove and discard the pressure plate tap gasket.



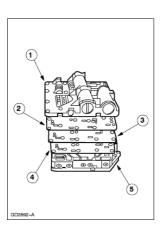
6. Remove the control valve body to transfer plate bolts, and remove the manual valve detent spring assembly.



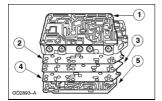
7. Remove the accumulator body-to-transfer plate bolts.



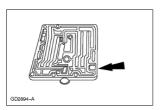
- 8. Separate the accumulator body from the main control valve body.
  - 1. Remove the accumulator body assembly.
  - 2. Remove and discard the accumulator body separator gasket.
  - 3. Remove the accumulator body separator plate.
  - 4. Remove and discard the accumulator body separator gasket.
  - 5. Remove the main control valve body.



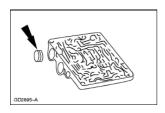
- 9. Separate the transfer plate from the main control valve body.
  - 1. Remove the main control valve body.
  - 2. Remove and discard the valve body separator plate gasket.
  - 3. Remove the valve body separator plate.
  - 4. Remove and discard the valve body separator plate gasket.
  - 5. Remove the transfer plate.



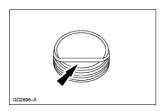
10. Remove the intermediate and overdrive accumulator valve plug retaining plate from the accumulator body assembly.



11. Remove the intermediate and overdrive accumulator valve plug.



12. Remove and discard the intermediate and overdrive accumulator plug seal.



13. A CAUTION: Remove, note location and clean one valve at a time to avoid incorrect installation.

As necessary, disassemble the parts of the accumulator body and main control valve body assemblies.

• Lubricate and reassemble the parts as soon as possible to avoid accidental damage or incorrect installation.

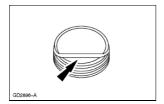
#### **Assembly**

1. A WARNING: Air pressure must not exceed 138 kPa (20 psi). Wear safety glasses when using compressed air. Failure to follow these instructions can result in personal injury.

**CAUTION:** If the valve sticks in its bore and cannot be freed, install a new main control valve body.

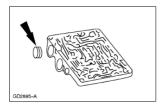
**NOTE:** Clean the main control valve body and accumulator body assembly of the main control in cleaning solvent. Blow dry with moisture-free regulated compressed air. The solenoid valve body should not be cleaned in cleaning solvent. It may be blown clean with compressed air or wiped clean with a lint-free cloth.

Install a new intermediate and overdrive accumulator plug seal and coat with petroleum jelly.

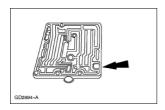


2. △ CAUTION: Do not install the intermediate and overdrive accumulator valve plug and seal too far into the bore and damage the seal. Only push the intermediate and overdrive accumulator valve plug until it is flush with the accumulator body assembly.

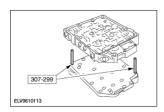
Install the intermediate and overdrive accumulator valve plug.



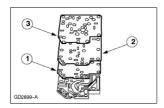
3. Install the intermediate and overdrive accumulator valve plug retaining plate.



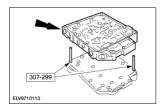
4. Install the special tool.



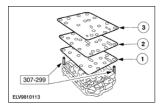
- 5. Using the special tool, install the valve body separator plate gaskets and valve body separator plate.
  - 1. Install a new valve body separator plate gasket.
  - 2. Install the valve body separator plate.
  - 3. Install a new valve body separator plate gasket.



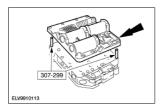
6. Using the special tool, install the main control valve body.



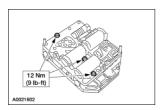
- 7. Using the special tool, install the accumulator body separator plate and gaskets.
  - 1. Install a new accumulator body separator plate gasket.
  - 2. Install the accumulator body separator plate.
  - 3. Install a new accumulator body separator plate gasket.



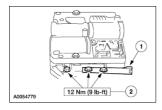
8. Using the special tool, install the accumulator body assembly.



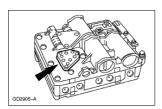
9. Starting with the bolts in the middle and working outward, install the accumulator body transfer plate.



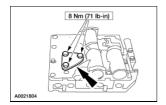
- 10. Starting with the bolts in the middle and working outward, install the main control valve body to transfer plate.
  - 1. Install the manual valve detent spring.
  - 2. Install the control valve body to transfer plate bolts.



11. Install a new pressure tap plate gasket.



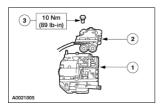
12. Install the pressure tap plate and bolts.



13. **NOTE:** Match the solenoid valve body gasket to passages.

Install the solenoid valve body.

- 1. Install the solenoid valve body gasket.
- 2. Install the solenoid valve body.
- 3. Install the two solenoid valve body bolts.
- Remove the special tool.



14. Install the manual valve.

