


Forward/Coast/Direct Clutch Cylinder and Reverse Clutch Drum Assembly  [Printable View \(168 KB\)](#)

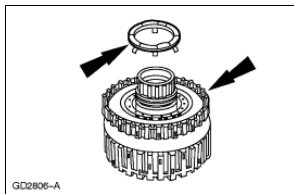
Special Tool(s)

 <p>ST1952-A</p>	<p>Sizer, Hub Seal 307-283 (T94P-77000-D4)</p>
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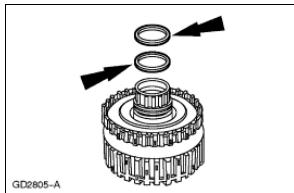
Assembly

1. **⚠ CAUTION:** The tabs on the No. 2 direct clutch thrust washer must be seated in the direct clutch support and spring.

Install the No. 2 direct clutch thrust washer on the forward/coast/direct clutch cylinder with the tabs facing downward.



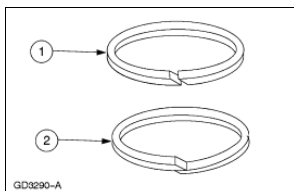
2. Install the two reverse clutch cylinder seals.



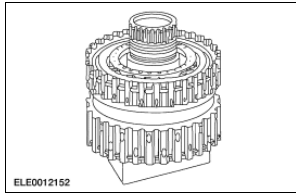
3. **NOTE:** Make sure that the reverse clutch cylinder seals are overlapped correctly.

Position the reverse clutch cylinder seals.

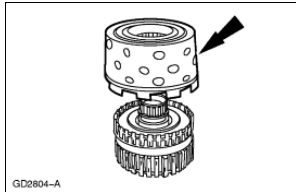
1. Correct installation.
2. Incorrect installation.



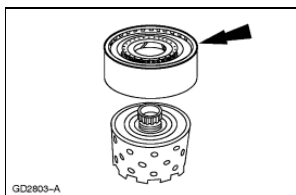
4. Support the forward/coast/direct clutch cylinder assembly on a block of wood so that the direct clutch faces upward.



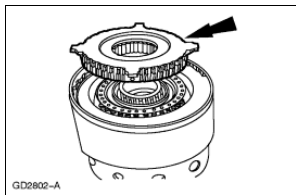
5. Install the direct clutch hub and shell on the forward/coast/direct clutch cylinder.



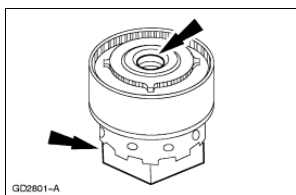
6. Install the reverse clutch drum assembly.



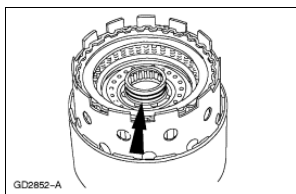
7. Install the reverse clutch hub.



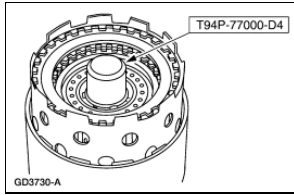
8. Support the reverse clutch drum on a block of wood while installing the reverse clutch hub retaining ring.



9. Install the forward/coast/direct clutch cylinder hub seal.



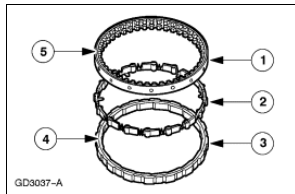
10. Leave special tool attached until the forward/coast/direct clutch cylinder is installed into the transaxle housing.



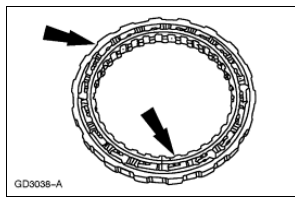
Low One-Way Clutch Assembly  [Printable View \(104 KB\)](#)**Disassembly**

1. Inspect the low one-way clutch components:

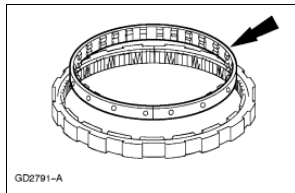
1. Low one-way clutch inner race.
2. Roller assembly.
3. Low one-way clutch outer race.
4. Outer race groove.
5. Inner race groove.



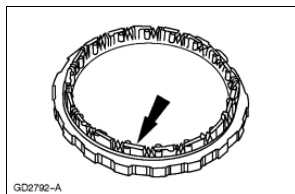
2. Position the low one-way clutch so the inner and outer race grooves are facing upward.



3. Remove the inner race.



4. Remove the roller assembly.



5. **⚠ 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.**

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.

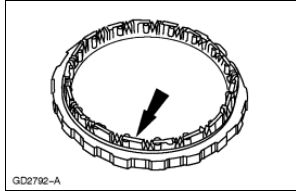
- Outer race
- Sprag assembly

- Inner race
- Lubrication holes

Assembly

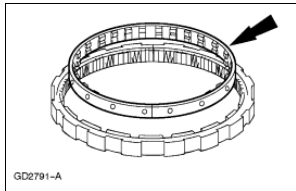
1. **NOTE:** Outer tabs of the roller assembly must face up.

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



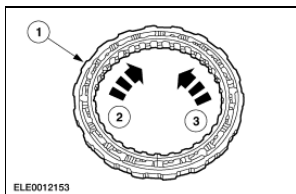
2. **NOTE:** To aid in inner race installation, rotate the inner race clockwise during installation.

Install the inner race with the grooves facing up.



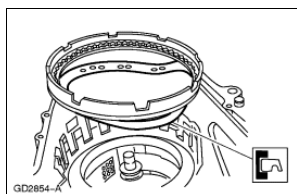
3. Check the operation of the one-way clutch as follows:

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.

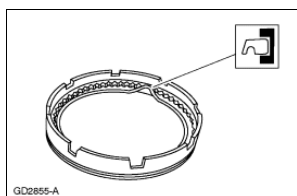


Low/Reverse Piston  [Printable View \(43 KB\)](#)**Disassembly**

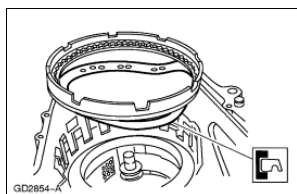
1. Remove and discard the low/reverse clutch piston outer seal on the low/reverse clutch piston.



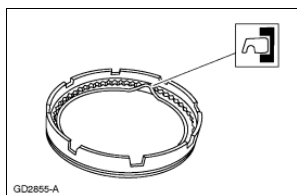
2. Remove and discard the low/reverse clutch piston inner seal on the low/reverse clutch piston.

**Assembly**

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




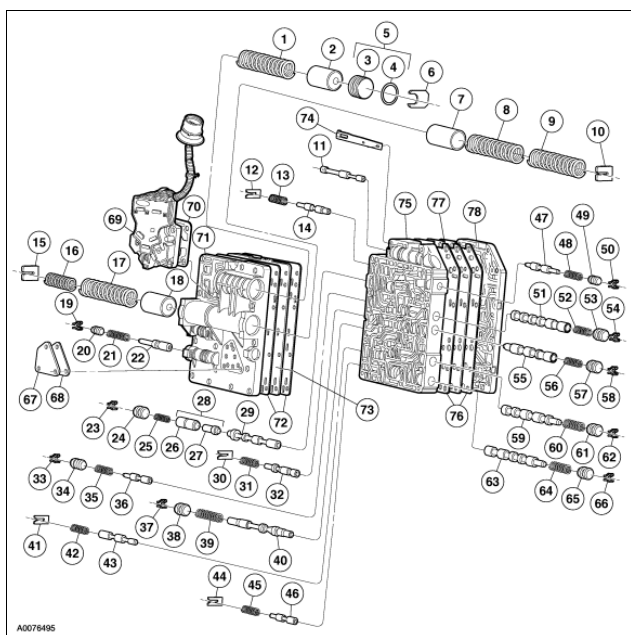
2. Install the low/reverse clutch piston inner seal on the low/reverse clutch piston.



Main Control Valve Body  [Printable View \(597 KB\)](#)

Special Tool(s)

 <small>ST2535-A</small>	Alignment Pins, Valve Body 307-299 (T94P-77000-N)
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Disassembly

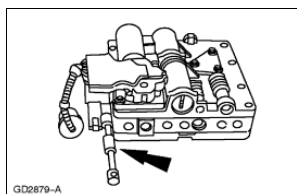
Item	Part Number	Description
1		Spring 2/4 accumulator valve
2		Accumulator main control
3		Plug 2/4 accumulator valve
4	7H223	Seal 2/4 accumulator body
5		Plug assembly 2/4 accumulator valve
6		Plate spring retaining
7		Accumulator main control
8		Spring forward accumulator (outer)
9		Spring forward accumulator (inner)
10		Plate spring retainer
11		Valve manual control
12		Plate spring retaining
13		Spring solenoid regulator valve
14		Valve solenoid regulator
15		Spring retaining
16		Spring low/reverse accumulator (inner)

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17		Spring low/reverse accumulator (outer)
18		Accumulator main control
19		Retainer valve plug
20		Plug valve retainer
21		Spring 3-2 timing valve
22		Valve 3-2 timing
23		Retainer valve plug
24		Plug valve retainer
25		Spring bypass clutch control valve
26		Sleeve bypass clutch control
27		Plunger clutch control valve
28		Valve assembly bypass control valve
29		Valve bypass clutch control
30		Plate spring retaining
31		Spring converter regulator valve
32		Valve converter regulator
33		Retainer valve plug
34		Plug valve retainer
35		Spring coast clutch shift
36		Valve line modulator
37		Retainer valve plug
38		Plug valve retainer
39		Spring fluid pressure regulator valve
40		Valve main regulator
41		Plate spring retaining
42		Spring servo release shuttle valve
43		Valve servo release shuttle
44		Plate spring retaining
45		Spring coast clutch shift valve
46		Valve line modulator
47		Valve low/reverse modulator
48		Spring modulator valve
49		Plug valve retainer
50		Retainer valve plug
51		Valve 1-2 shift
52		Spring valve
53		Plug valve retainer
54		Retainer valve plug
55		Valve 3-2 control
56		Spring valve
57		Plug valve retainer
58		Retainer valve plug
59		Valve 2-3 shift
60		Spring valve

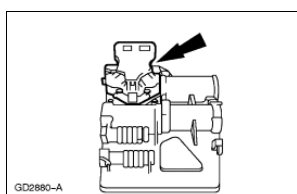
61		Plug valve retainer
62		Retainer valve plug
63		Valve 3-4 shift
64		Spring valve shift
65		Plug valve retainer
66		Retainer valve plug
67		Plate pressure tap
68	7H251	Gasket pressure tap plate
69	7G391	Solenoid valve body transmission control
70	7H200	Gasket electronic control body
71		Body accumulator
72	7H202	Gasket accumulator body separator plate
73		Plate accumulator body separator
74		Spring assembly manual valve detent
75		Body main control lower
76	7D100	Gasket control valve body separator plate
77		Plate control valve separator
78		Plate case-to-main control transfer

1. Remove the manual valve.

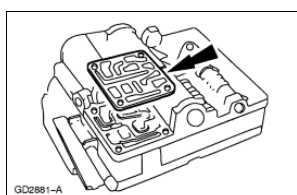


2. **⚠ CAUTION: Do not attempt to remove the solenoid valve body wiring cover.**

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.