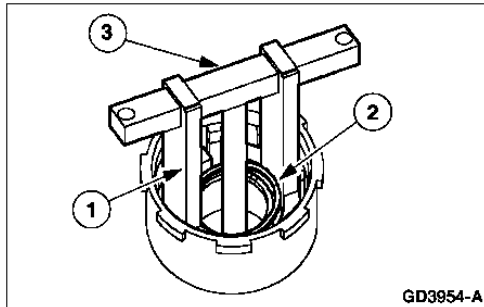


8. **⚠ CAUTION: Do not fully compress the Clutch Spring Compressor or damage to the direct clutch spring retainer may occur.**

Use the Clutch Spring Compressor to install the direct clutch piston retaining ring.

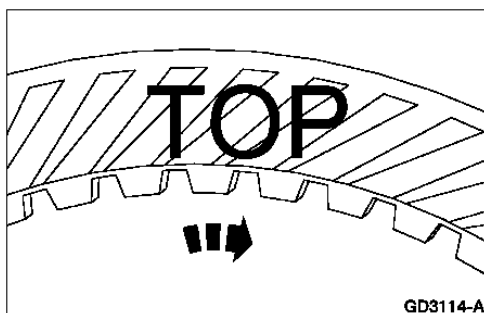
1. Install the Clutch Spring Compressor and compress the direct clutch piston springs.
2. Install the direct clutch piston retaining ring.
3. Relieve the direct clutch spring tension and remove the Clutch Spring Compressor.



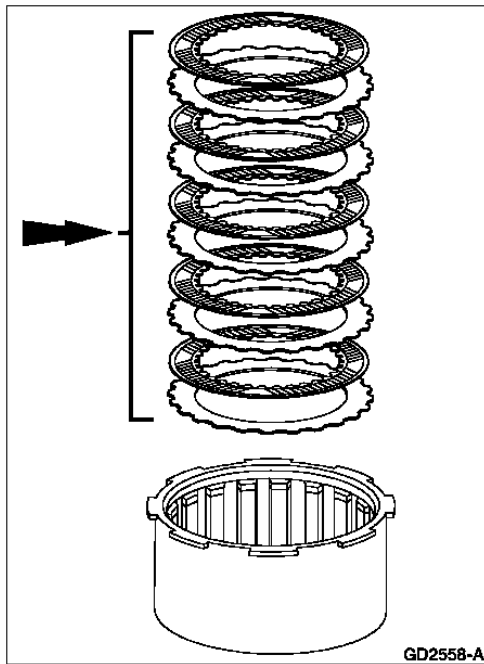
9. **⚠ CAUTION: The direct clutch friction plates are directional and must be installed with grooves pointing clockwise (I.D. to O.D.) and the word (TOP) facing up.**

**⚠ CAUTION: If new plates are used, they should be soaked in clean transmission fluid for at least 30 minutes before assembly.**

When installing friction plates, the word (TOP) should face up. If reusing plates, grooves must be installed clockwise. Install the direct clutch disc pack.



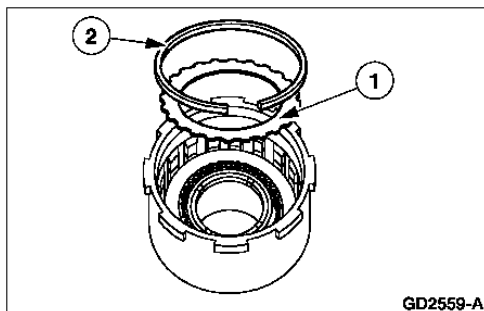
10. Install the five steel clutch plates and five friction clutch plates in alternating order starting with a steel clutch plate.



11. **⚠ CAUTION: The retaining ring is a select fit.**

Install the direct clutch pressure plate.

1. Install the direct clutch pressure plate.
2. Install the original direct clutch retaining ring on the direct clutch disc pack.

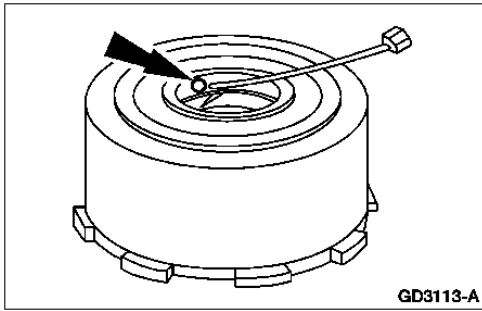


12. **⚠ WARNING: AIR PRESSURE MUST NOT EXCEED 138 KPA (20 PSI) . WEAR SAFETY GLASSES WHEN USING COMPRESSED AIR. MAKE SURE THE DRUM IS FACING DOWN AS SHOWN.**

**NOTE:** The direct clutch piston must apply with air pressure and release when the air is removed.

Check the operation using compressed air.

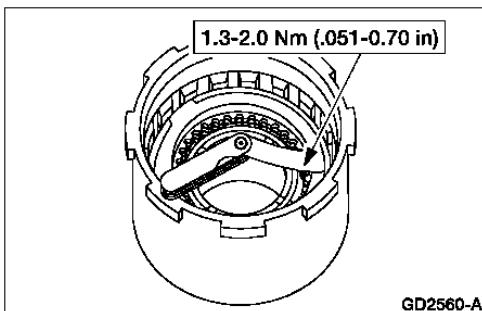
- Apply air pressure to the hole in the drum while blocking the other hole with a finger.



13. Push down on direct clutch disc pack and check gap between the direct clutch retaining ring and the direct clutch pressure plate with a feeler gauge.
- If specifications do not match use a select fit direct clutch retaining ring to match specifications and verify with a feeler gauge.

Direct Clutch

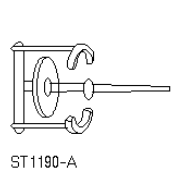
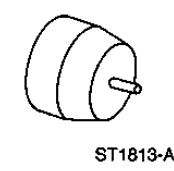
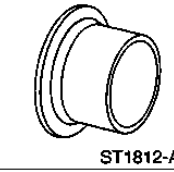
Part Number	Thickness		Diameter	
	mm	In	mm	In
E860126-S	1.37	0.0539	130.1	5.122
E860127-S	1.73	0.0681	130.1	5.122
E860128-S	2.08	0.0819	130.1	5.122
E860129-S	2.44	0.0961	130.1	5.122



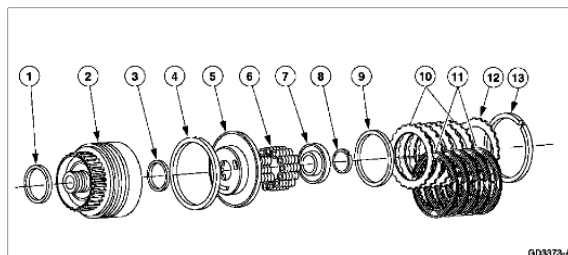


**Forward Clutch**

Special Service Tool(s)

 <p>ST1190-A</p>	<p>Clutch Spring Compressor T65L-77515-A</p>
 <p>ST1813-A</p>	<p>Lip Seal Protector T74P-77548-A</p>
 <p>ST1812-A</p>	<p>Lip Seal Protector T74P-77548-B</p>

**Forward Clutch Assembly**



Item	Part Number	Description
1	7M153	Forward Clutch Cylinder Thrust Bearing (No. 5)
2	7A360	Forward Clutch Cylinder Assembly
3	7A548	Forward Clutch Piston Inner Seal Ring
4	7A548	Forward Clutch Piston Outer Seal Ring
5	7A262	Forward Clutch Piston
6	7A480	Forward Clutch Piston Spring (15 Req'd)
7	7A527	Forward Clutch Piston Spring Retainer
8	E860109-S	Forward Clutch Retaining Ring
9	7B070	Forward Clutch Cushion Spring
10	7B442	Forward Clutch External Plate-Steel (2 Req'd)
11	7B164	Forward Clutch Internal Plate- Friction (2 Req'd)

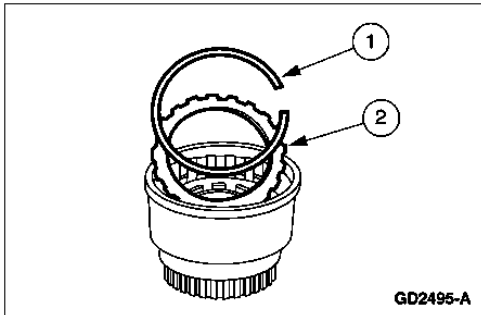
12	7B066	Forward Clutch Pressure Plate
13	E860115S/118S	Forward Clutch Retaining Ring (Select Fit)

**Disassembly**

1. **⚠ CAUTION: The retaining ring is a select fit. See assembly procedure if the ring or clutch plate pack is replaced.**

Remove the forward clutch pressure plate.

1. Remove the forward clutch retaining ring.
2. Remove the forward clutch pressure plate.

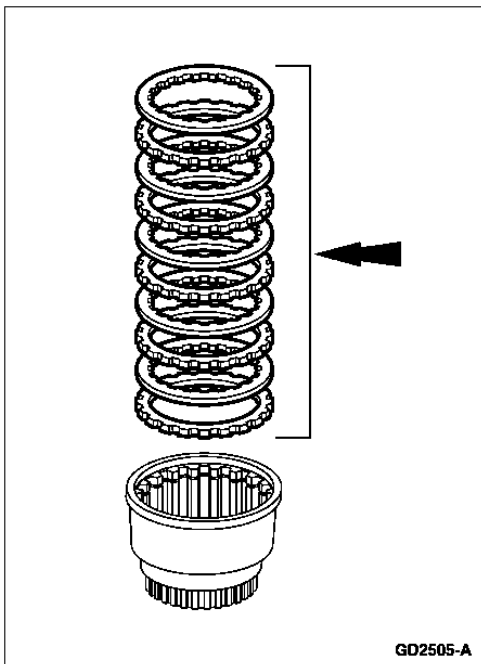


2. **⚠ CAUTION: If new plates are being used, they should be soaked in clean transmission fluid for at least 30 minutes before assembly.**

**⚠ CAUTION: Clutch discs are directional. Note direction of grooves for installation.**

Remove the forward clutch disc pack.

- Inspect the forward clutch plates for wear, damage or overheating.



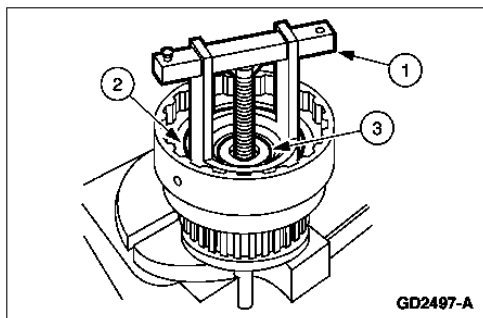
3. **⚠ WARNING: USE CAUTION WHEN RELEASING TOOL PRESSURE ON THE CLUTCH PISTON SPRINGS.**

**⚠ CAUTION: Clutch plates are directional. Note direction of grooves for installation.**

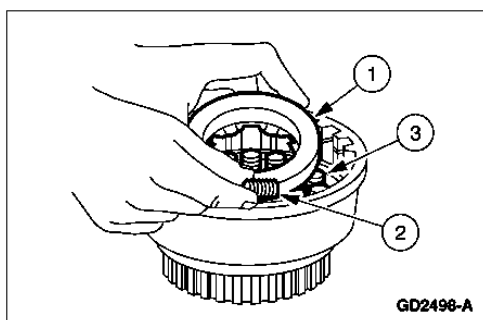
**⚠ CAUTION: Do not fully depress the clutch spring compressor or damage to the spring retainer may occur.**

Use Clutch Spring Compressor to remove the forward clutch piston retaining ring.

1. Install the Clutch Spring Compressor.
2. Compress the forward clutch piston springs.
3. Remove the forward clutch piston spring retaining ring.



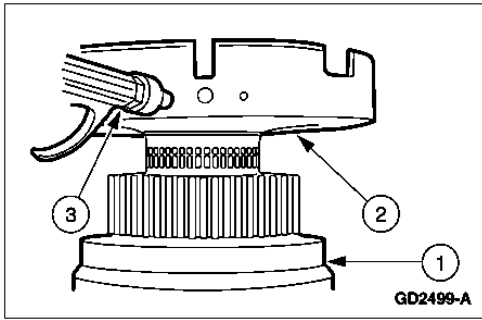
4. Relieve the forward clutch spring tension and remove the Clutch Spring Compressor.
5. Remove the forward clutch piston spring retainer and 15 forward clutch piston springs.
  1. Remove the forward clutch piston spring retainer.
  2. Remove the 15 forward clutch piston springs.
  3. Remove the forward clutch cushion spring.
    - Inspect the forward clutch piston springs for distortion.



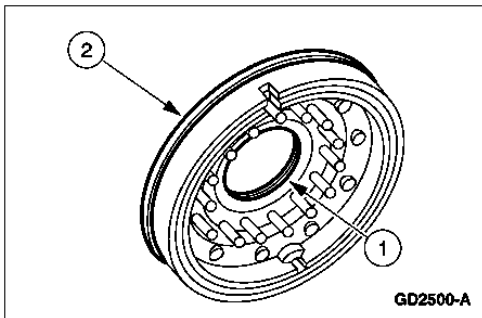
6. **⚠ WARNING: AIR PRESSURE MUST NOT EXCEED 138 KPA (20 PSI). WEAR SAFETY GLASSES WHEN USING COMPRESSED AIR. MAKE SURE THE CYLINDER IS FACING DOWN AS SHOWN.**

Remove the forward clutch piston.

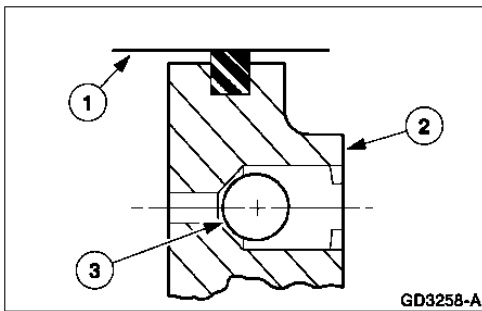
1. Place the forward clutch cylinder with forward clutch piston facing down.
2. Install the center support on the forward clutch cylinder.
3. Apply air pressure to the left port of the center support.



7. Remove and discard the forward clutch piston seals.
1. Remove the forward clutch piston inner seal.
  2. Remove the forward clutch piston outer seal.
    - Inspect the forward clutch piston for cracks.



8. Inspect the following forward clutch drum assembly:
1. Inspect the forward clutch cylinder surfaces for scores or burrs. Minor scores or burrs may be removed with a crocus cloth. Replace the forward clutch cylinder if it is badly scored or damaged.
  2. Inspect forward clutch piston for scores or burrs. Minor scores or burrs may be removed with a crocus cloth. Replace forward clutch cylinder if it is badly scored or damaged.
  3. Inspect the check ball.



9. **NOTE:** The check ball is located in the piston.

Make sure the check ball is free and clear of debris, has freedom of movement, and is properly seated.

- Inspect clutch plate serration for scores or burrs.
- Inspect fluid passages for obstructions. Clean out all passages.
- Inspect forward clutch piston bore for scores and replace if necessary.
- Inspect the friction clutch plates, steel clutch plates and clutch pressure plate for worn or scored bearing surface. Replace all parts that are deeply scored.
- Check clutch plates for flatness and fit on the clutch hub serrations. Discard any plate that does not slide freely on the serrations or that is not flat.



## 1997 Explorer/Mountaineer

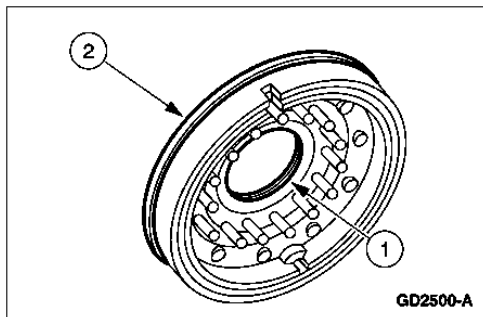
- Check clutch hub thrust surfaces for scores and clutch hub splines for wear.
- Inspect for damage or wear to the clutch disc grooves and retaining ring grooves.
- Inspect for damage to the needle bearing and seal rings.

### Assembly

1. Thoroughly clean all parts in solvent and blow dry with moisture free compressed air.
2. **⚠ CAUTION: If there is evidence of clutch plate burning, replace the forward clutch cushion.**

Install new forward clutch piston seals.

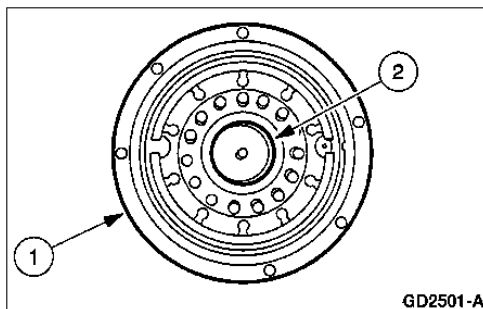
1. Install the forward clutch piston inner seal.
2. Install the forward clutch piston outer seal.



3. **NOTE:** Lubricate the forward clutch piston inner and outer seal with clean MERCON V® XT-5-QM.

Install lip seal protector tools on the forward clutch piston.

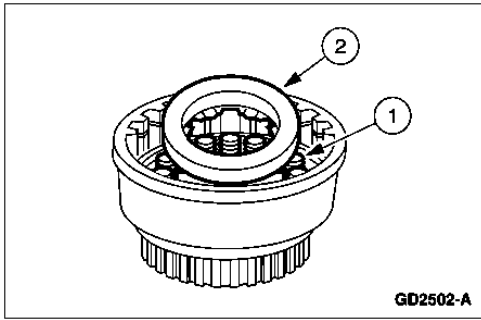
1. Install Lip Seal Protector to the forward clutch piston outer seal.
2. Install Lip Seal Protector to the forward clutch piston inner seal.



4. **⚠ CAUTION: Care must be taken to prevent damage to the seals.**

Install the forward clutch piston into the forward clutch cylinder. Remove the Lip Seal Protectors.

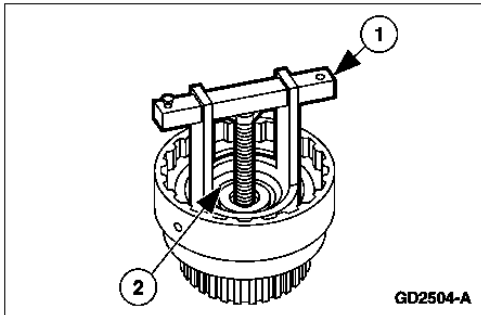
5. Install the 15 forward clutch piston springs and the forward clutch piston spring retainer.
  1. Install the 15 forward clutch piston springs.
  2. Install the forward clutch piston spring retainer.



6. **⚠ CAUTION: Do not fully depress the clutch spring compressor or damage to the spring retainer may occur.**

Use the Clutch Spring Compressor to install the forward clutch piston spring retaining ring.

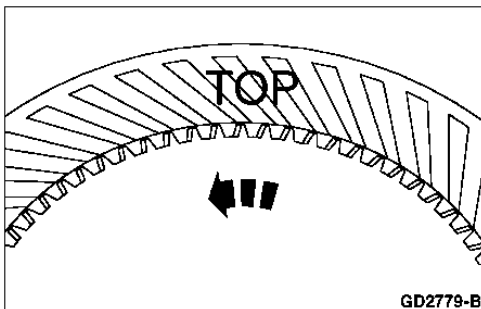
1. Install the Clutch Spring Compressor and compress the forward clutch springs.
2. Install the forward clutch piston spring retaining ring.



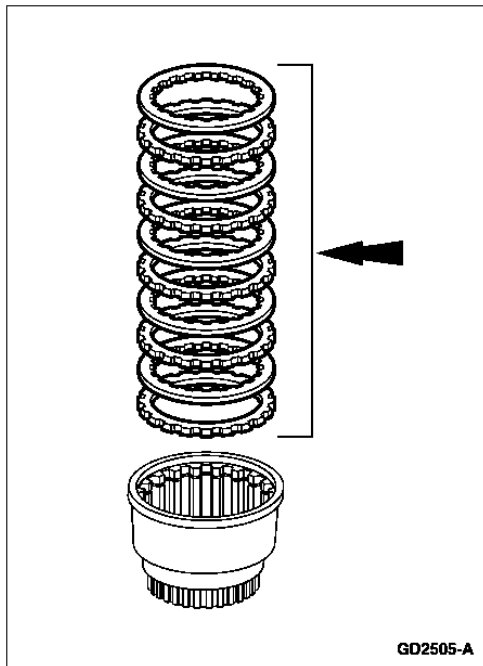
7. **⚠ CAUTION: The forward clutch friction plates are directional and must be installed with grooves pointing counterclockwise (I.D. to O.D.) and the word "TOP" facing up.**

**⚠ CAUTION: If new plates are used, they should be soaked in clean transmission fluid for at least 30 minutes before assembly.**

When installing friction plates, the word "TOP" should face up. If reusing plates, grooves must be installed counterclockwise. Install the direct clutch disc pack.



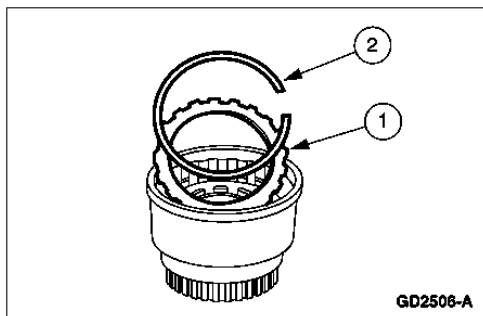
8. Install the five steel clutch plates and five friction clutch plates in alternating order starting with a steel clutch plate.



9. **⚠ CAUTION: The retaining ring is a select fit.**

Install the forward clutch pressure plate and the original selective retaining ring.

1. Install the forward clutch pressure plate.
2. Install the forward clutch retaining ring.



10. **⚠ WARNING: AIR PRESSURE MUST NOT EXCEED 138 KPA (20 PSI). WEAR SAFETY GLASSES WHEN USING COMPRESSED AIR. MAKE SURE THE DRUM IS FACING DOWN AS SHOWN.**

Air Check the forward clutch piston.

1. Place the forward clutch cylinder with forward clutch piston facing down.
2. Install the transmission center support on the forward clutch cylinder.
3. Apply air pressure to the left port of the center support.