

Synchronizers

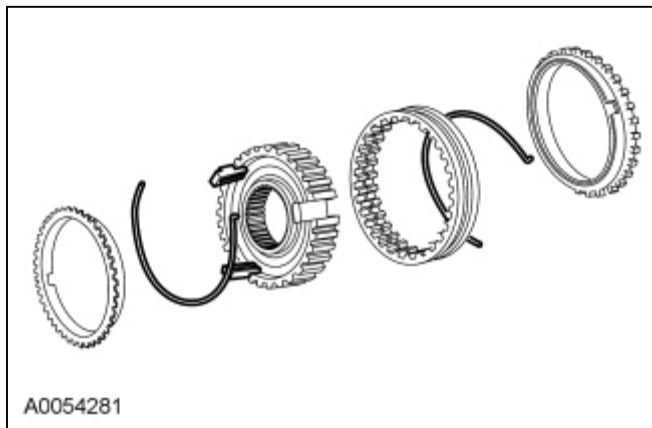
Disassembly

NOTE: This procedure applies to all synchronizer assemblies.

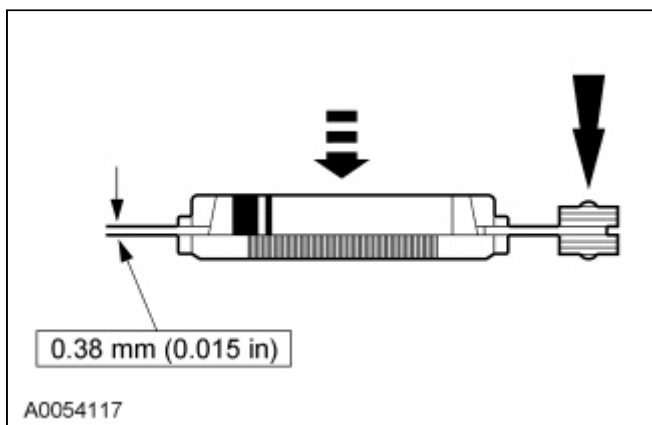
1. **NOTE:** Synchronizer components are not interchangeable. During disassembly, mark each individual synchronizer for assembly. Synchronizer hubs and sleeves are a selected assembly and should be kept together as originally assembled. Blocking rings are not interchangeable, do not mix.

Scribe an alignment mark on the sliding sleeve and the hub for assembly reference.

2. Using a screwdriver, remove the spring. Turn the synchronizer over and remove the 2nd spring. Remove the sliding sleeve and the synchronizer struts from the hub.



3. Inspect the synchronizer components.
 - Check for worn, nicked or broken teeth. Install a new synchronizer as necessary.
 - Check keys for wear or distortion. Install a new synchronizer as necessary.
 - Check springs for distortion. Install a new synchronizer as necessary.
4. Inspect the synchronizer blocking rings.
 - Check for wear or damage. Install new synchronizer blocking rings as necessary.
 - Check the clearance between the synchronizer blocking ring and the gear.
 - Position the blocking ring onto the gear. Make sure the correct blocking ring is measured with the correct gear and that the blocking ring is fully seated on the gear.
 - Insert a feeler gauge and measure the clearance, while applying pressure and rotating the blocking ring. The measurement should be the same around the entire circumference. If the clearance is less than 0.38 mm (0.015 in), install new blocking rings.



Assembly

1. **NOTICE: Match the alignment marks make during disassembly. The sleeve and the hub have an extremely close fit. Hold the sleeve and hub square to prevent jamming. Do not force the sleeve onto the hub.**

Assemble the synchronizer as follows:

- Position the synchronizer sleeve on the hub. Make sure to align key openings in the hub with the synchronizer sleeve.
 - Install the keys with the slots facing the hub.
 - Install the spring. Locate the tang to one of the key slots and position into place. Install the second spring. Locate the spring tank on the same key but position in the opposite direction.
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