

2004 CLUTCHES

TSX

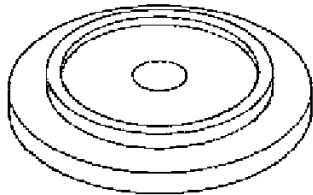
CLUTCH

SPECIAL TOOLS

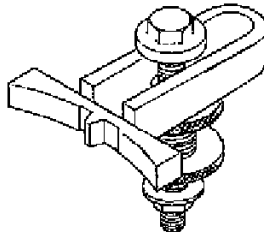
Ref. No.	Tool Number	Description	Qty
①	07JAF-PM7011A	Clutch Alignment Disc	1
②	07LAB-PV00100 or 07924-PD20003	Ring Gear Holder	1
③	07ZAF-PR8A100	Clutch Alignment Shaft	1
④	07936-3710100	Remover Handle	1

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Fig. 1: Special Tools (1 Of 2)



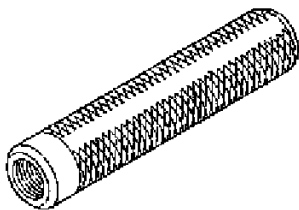
①



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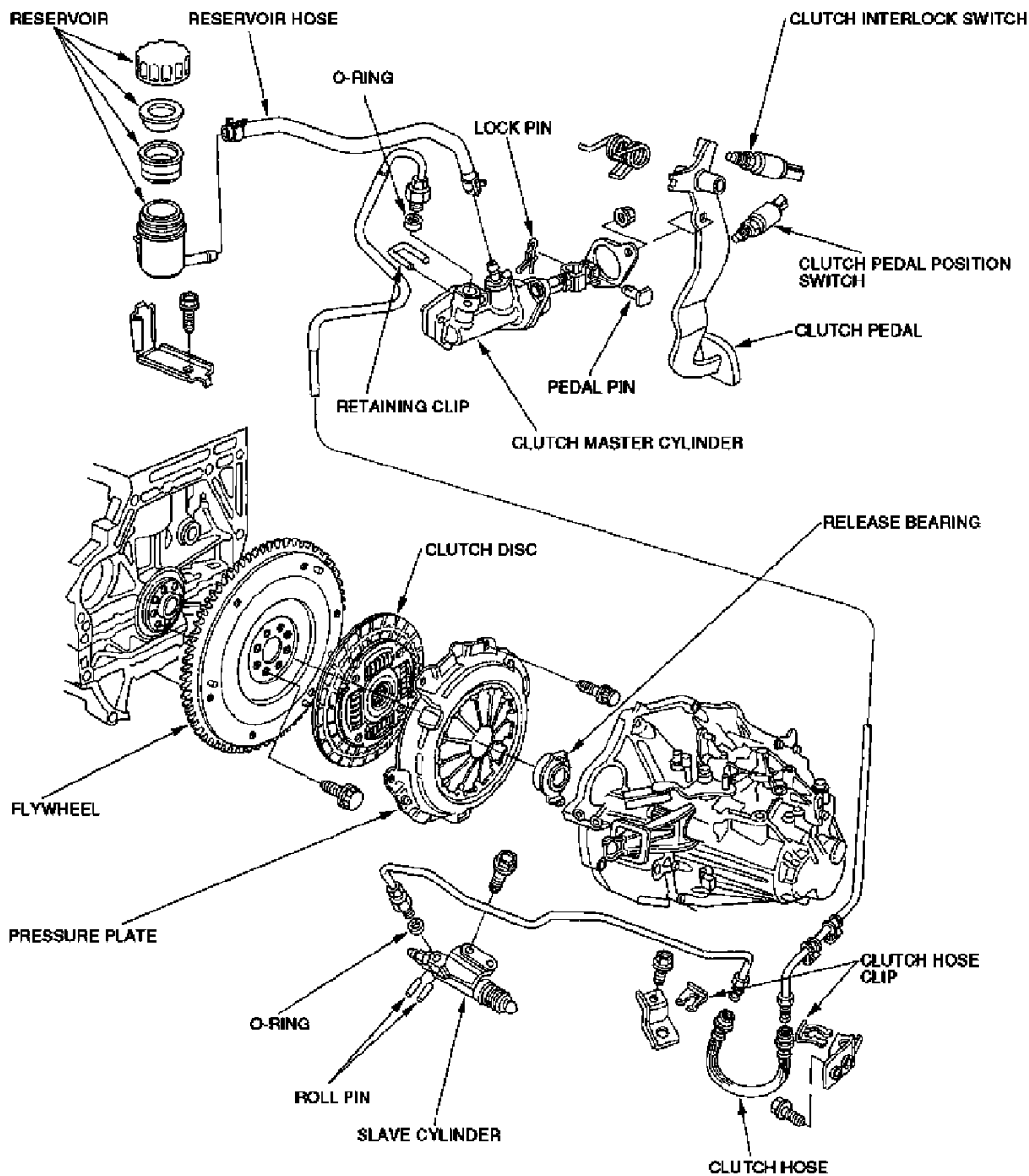


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Fig. 2: Special Tools (2 Of 2)

COMPONENT LOCATION INDEX



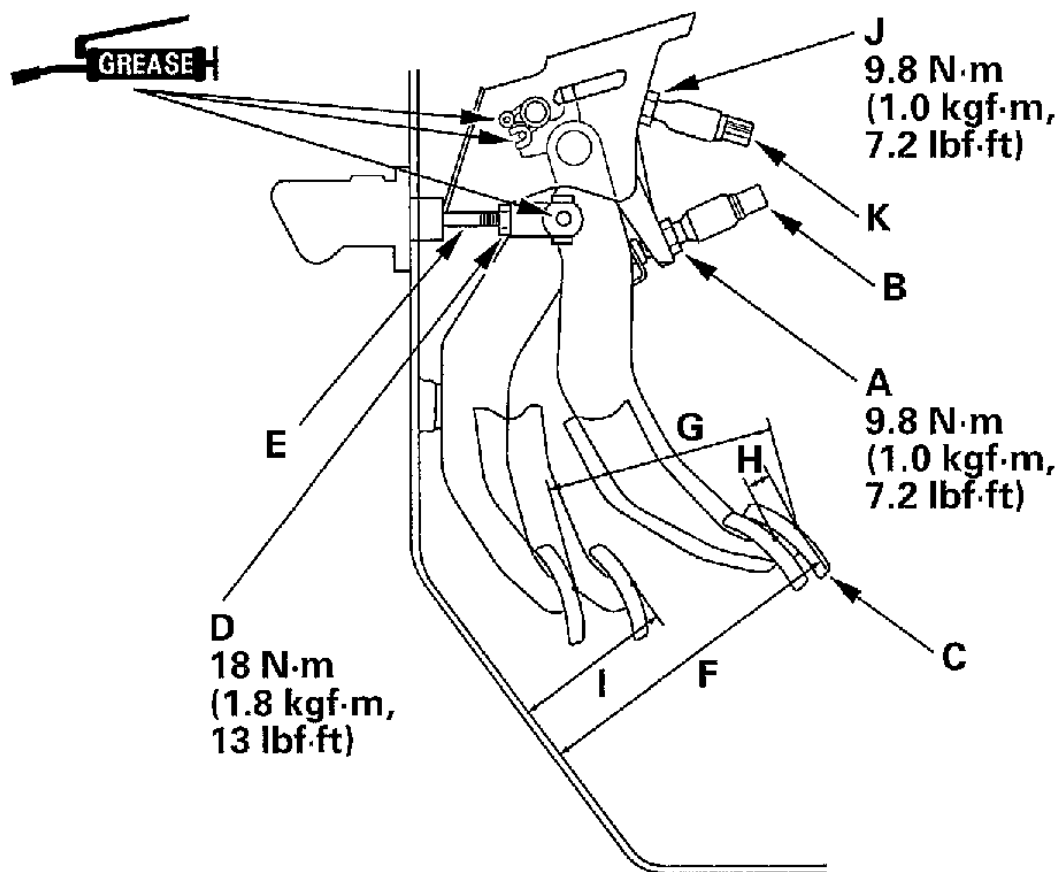
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Fig. 3: Locating Clutch Components**CLUTCH PEDAL, CLUTCH PEDAL POSITION SWITCH & CLUTCH INTERLOCK SWITCH ADJUSTMENT****NOTE:**

- Check the clutch pedal position switch (see CLUTCH PEDAL POSITION SWITCH TEST).
- Check the clutch interlock switch (see CLUTCH INTERLOCK SWITCH TEST).

- Remove the driver's side floor mat before adjusting the clutch pedal.
- The clutch is self-adjusting to compensate for wear.
- If there is no clearance between the master cylinder piston and push rod, the release bearing will be held against the diaphragm spring, which can result in clutch slippage or other clutch problems.

1. Loosen the clutch pedal position switch locknut (A), and back off the clutch pedal position switch (B) until it no longer touches the clutch pedal (C).



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Fig. 4: Adjusting The Clutch Pedal

2. Loosen the clutch push-rod locknut (D), and turn the push rod (E) in or out to get the specified height (F), stroke (G), free play (H) and disengagement height (I) at the clutch pedal.

Clutch Pedal Stroke: 130-140 mm (5.12-5.51 in.)**Clutch Pedal Free Play:** 10-18 mm (0.39-0.71 in.)

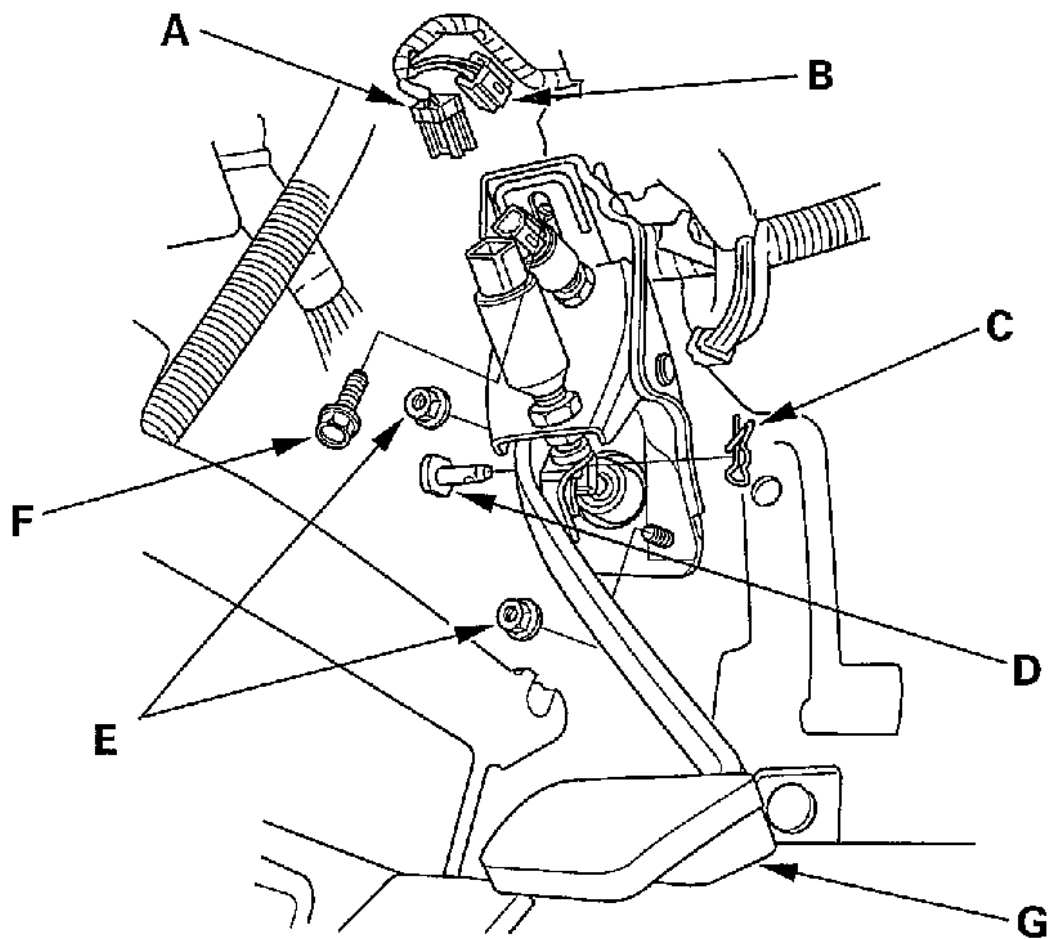
Clutch Pedal Height: 191 mm (7.52 in.)

Clutch Pedal Disengagement Height: 95 mm (3.74 in.)

3. Tighten the clutch push-rod locknut (D).
4. With the clutch pedal released, turn the clutch pedal position switch (B) in until it contacts the clutch pedal (C).
5. Turn the clutch pedal position switch (B) in an additional 3/4 to 1 turn.
6. Tighten the clutch pedal position switch locknut (A).
7. Press the clutch pedal to the floor.
8. Release the clutch pedal 9-12 mm (0.35-0.47 in.) from the fully depressed position, and hold it there. Adjust the position of the clutch interlock switch (K) so that the engine will start with the clutch pedal in this position.
9. Tighten the clutch interlock switch locknut (J).

CLUTCH PEDAL REPLACEMENT

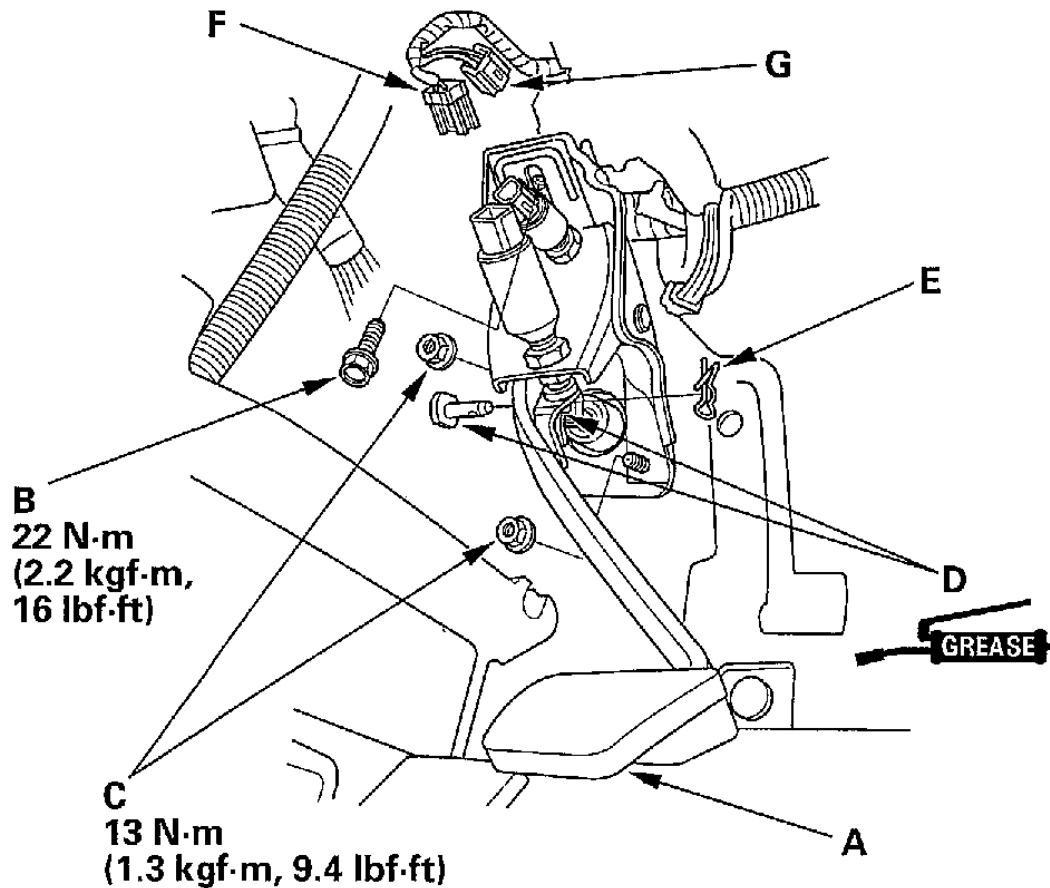
1. Disconnect the clutch pedal position switch connector (A) and clutch interlock switch connector (B).



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Fig. 5: Disconnecting The Connectors

2. Pry out the lock pin (C), and pull the pedal pin (D) out of the yoke.
3. Remove the master cylinder mounting nuts (E) and clutch pedal mounting bolt (F).
4. Remove the clutch pedal (A).
5. Install the clutch pedal (A).



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Fig. 6: Removing The Clutch Pedal

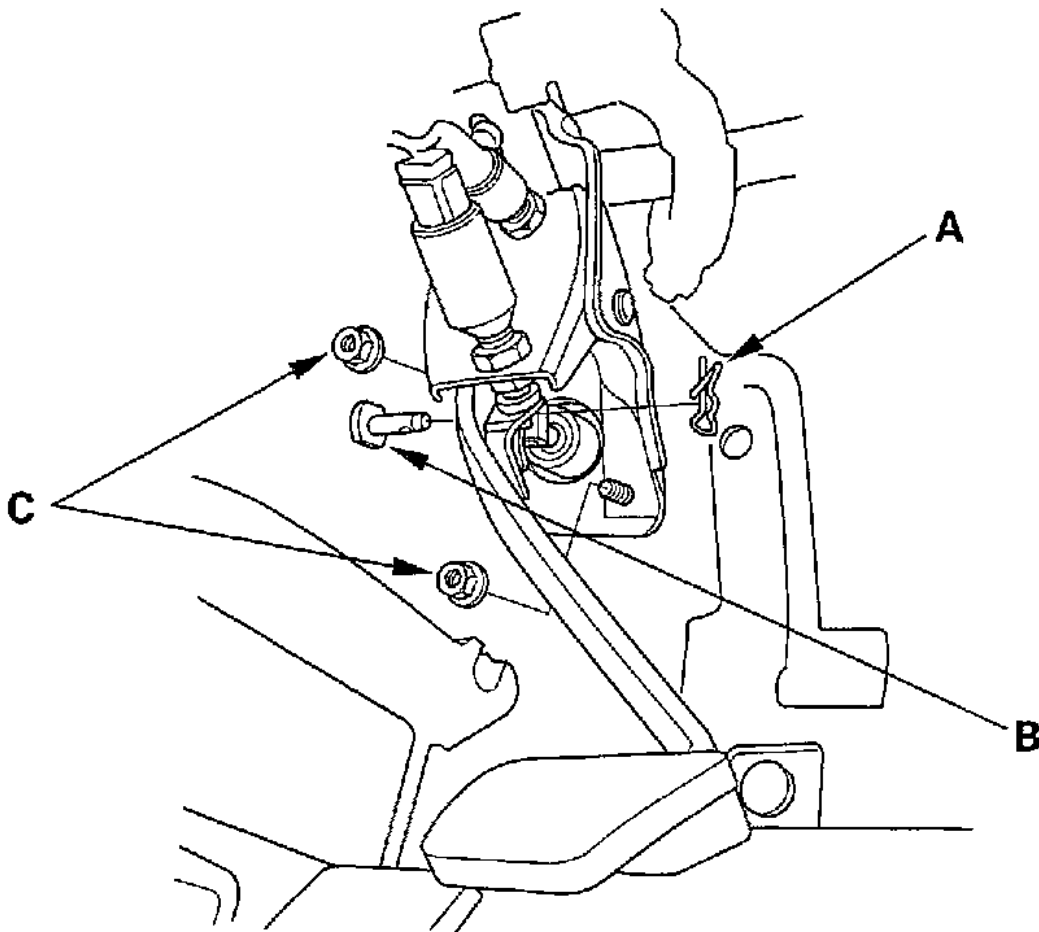
6. Install the clutch pedal mounting bolt (B) and master cylinder mounting nuts (C).
7. Apply grease to the pedal pin (D), and slide it into the yoke, then install a new lock pin (E).
8. Connect the clutch pedal position switch connector (F) and clutch interlock switch connector (G).
9. Adjust the clutch pedal, clutch pedal position switch, and clutch interlock switch (see **CLUTCH PEDAL, CLUTCH PEDAL POSITION SWITCH & CLUTCH INTERLOCK SWITCH ADJUSTMENT**).

CLUTCH MASTER CYLINDER REPLACEMENT

NOTE: Do not spill brake fluid on the vehicle; it may damage the paint; if brake fluid does contact the paint, wash it off immediately with water.

1. Remove the brake fluid from the clutch master cylinder reservoir with a syringe.

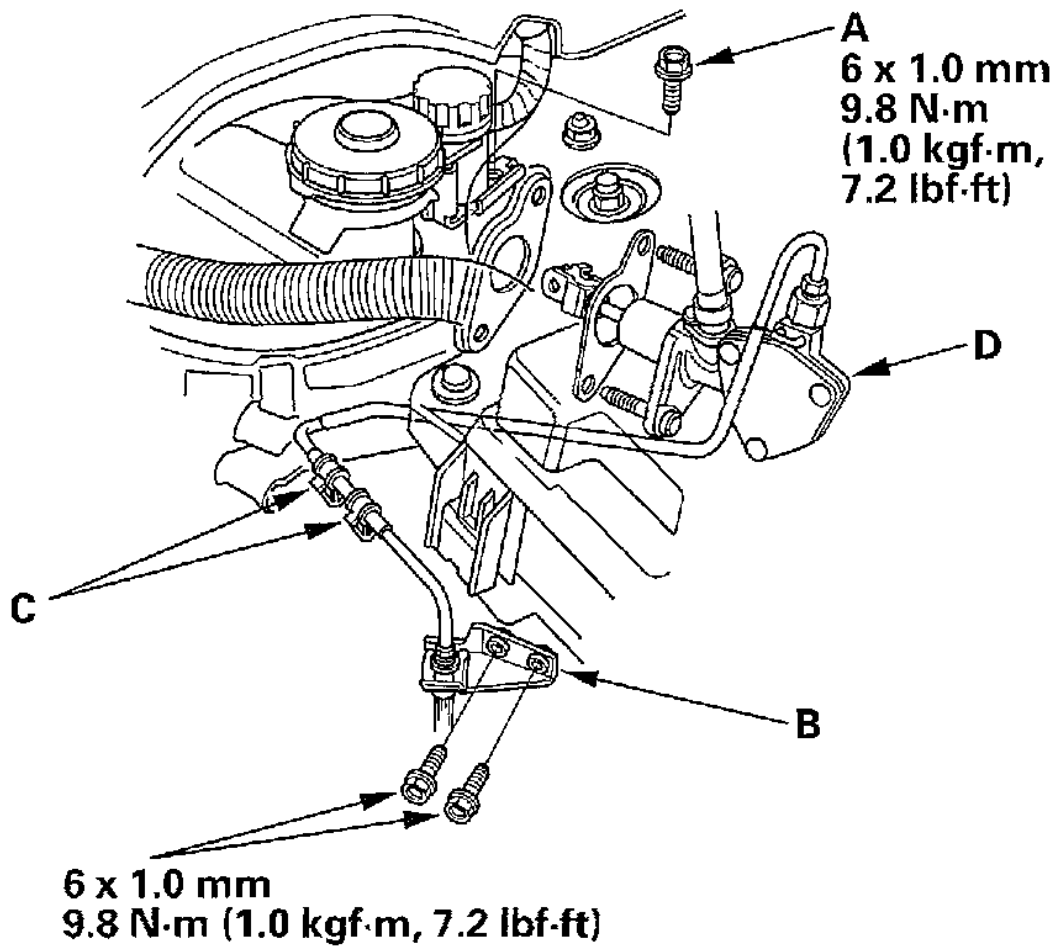
2. Make sure you have the anti-theft codes for the radio and the navigation system, then write down the frequencies for the radio's preset buttons. Disconnect the negative (-) cable first, then the positive (+) cable from the battery. Remove the battery.
3. Remove the air cleaner housing (see **AIR CLEANER REMOVAL/INSTALLATION**).
4. Remove the battery base (see step 6 of **ENGINE REMOVAL**).
5. Pry out the lock pin (A), and pull the pedal pin (B) out of the yoke. Remove the master cylinder mounting nuts (C).



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Fig. 7: Removing The Master Cylinder Mounting Nuts

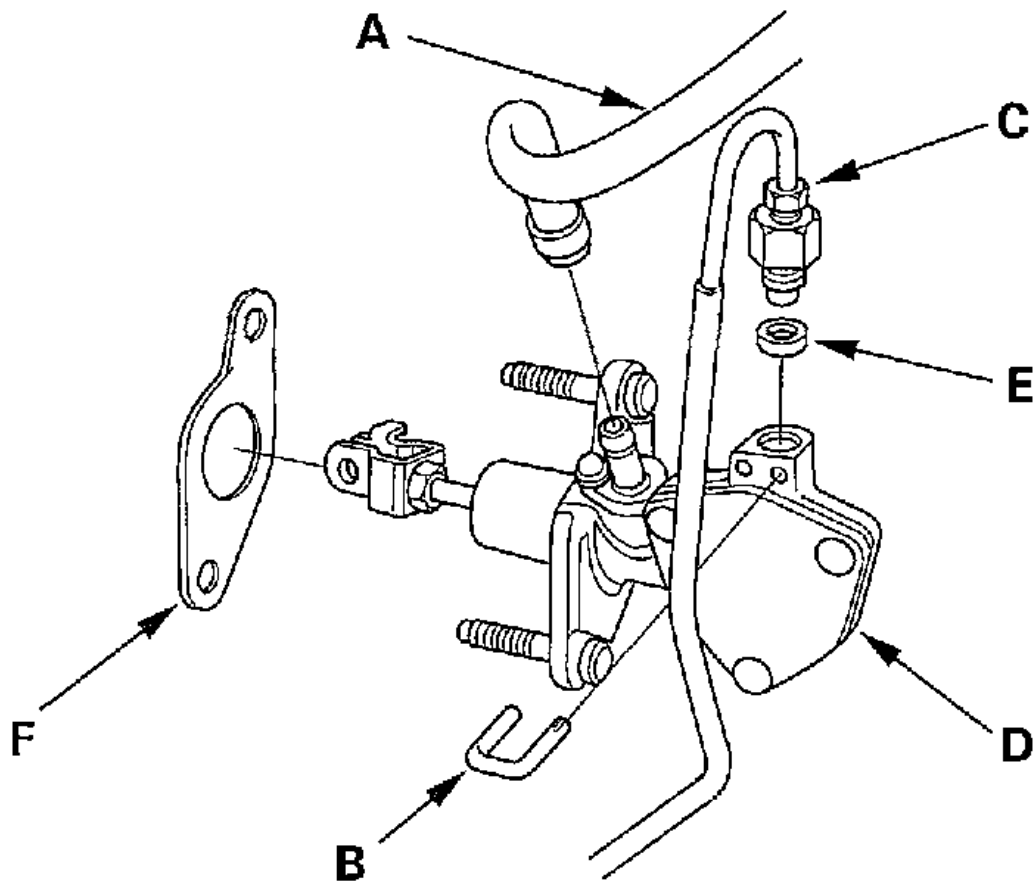
6. Remove the reservoir mounting bolt (A).



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Fig. 8: Removing The Clutch Master Cylinder

7. Remove the clutch pipe bracket (B).
8. Remove the clutch pipe clips (C).
9. Remove the clutch master cylinder (D).
10. Disconnect the reservoir hose (A), then remove the retaining clip (B) and remove clutch pipe (C) from the clutch master cylinder (D). Plug the end of the reservoir hose and clutch pipe to prevent brake fluid from coming out.

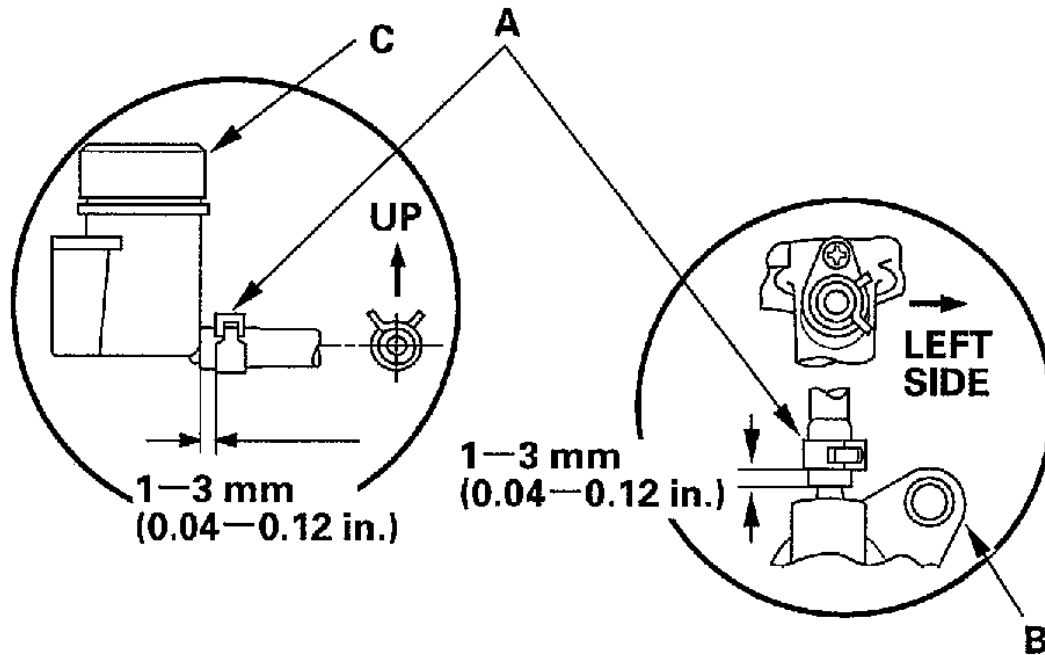


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Fig. 9: Removing The Reservoir Hose & The Clutch Pipe

11. Remove the O-ring (E) and clutch master cylinder seal (F) from the clutch master cylinder.
12. Install the clutch master cylinder in the reverse order of removal, and note these items.
 - Apply brake assembly lube to the clutch pipe, and install a new O-ring.
 - Tighten the master cylinder mounting nuts to 13 N.m (1.3 kgf.m, 9.4 lbf.ft).
 - Install the battery base (see step 43 of **ENGINE INSTALLATION**).
 - Install the air cleaner housing (see **AIR CLEANER REMOVAL/INSTALLATION**).
 - Install the battery. Connect the battery cables; positive (+) cable first, then the negative (-) cable.
 - Enter the anti-theft codes for the radio and the navigation system, then enter the customer's radio station presets.
 - Perform the power window control unit reset procedure (see **RESETTING THE POWER WINDOW**).

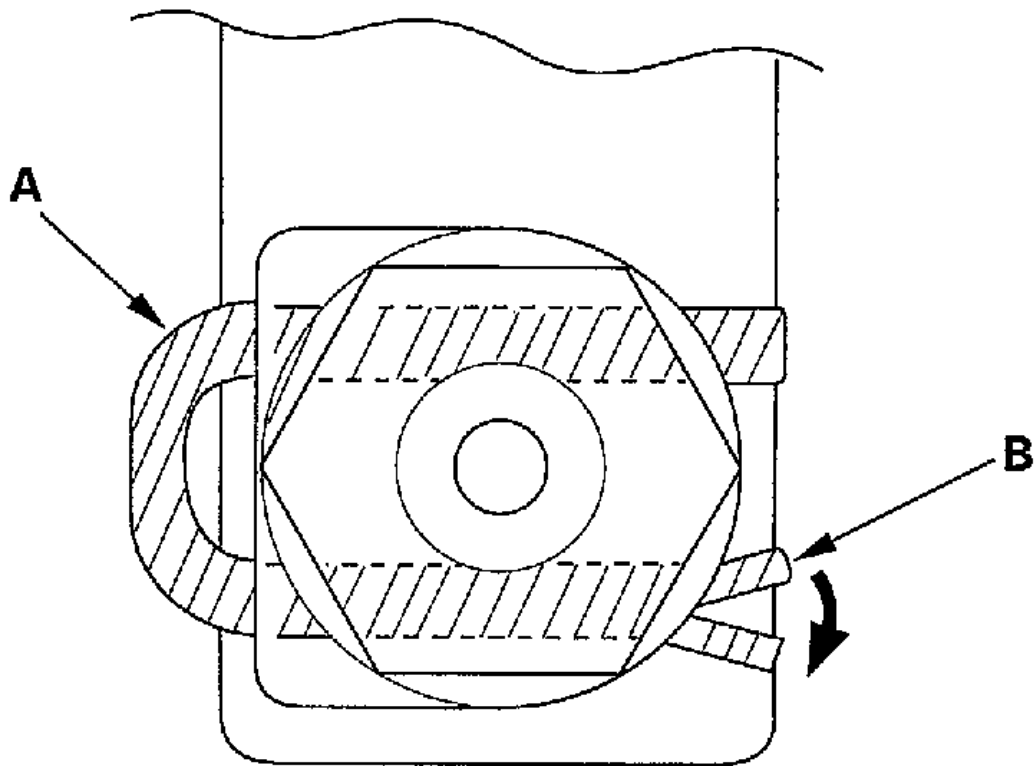
13. Make sure the hose clamps (A) are positioned on the master cylinder (B) and reservoir (C) as shown.



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Fig. 10: Aligning Master Cylinder & Reservoir Hose Clamps

14. To prevent the retaining clip (A) from coming off, pry apart the tip of the retaining clip (B) with a screwdriver.



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Fig. 11: Prying Apart The Tip Of The Retaining Clip

15. Bleed the clutch hydraulic system (see step 11 of **SLAVE CYLINDER REPLACEMENT**).

NOTE: Reservoir filling is covered in the bleeding procedure.

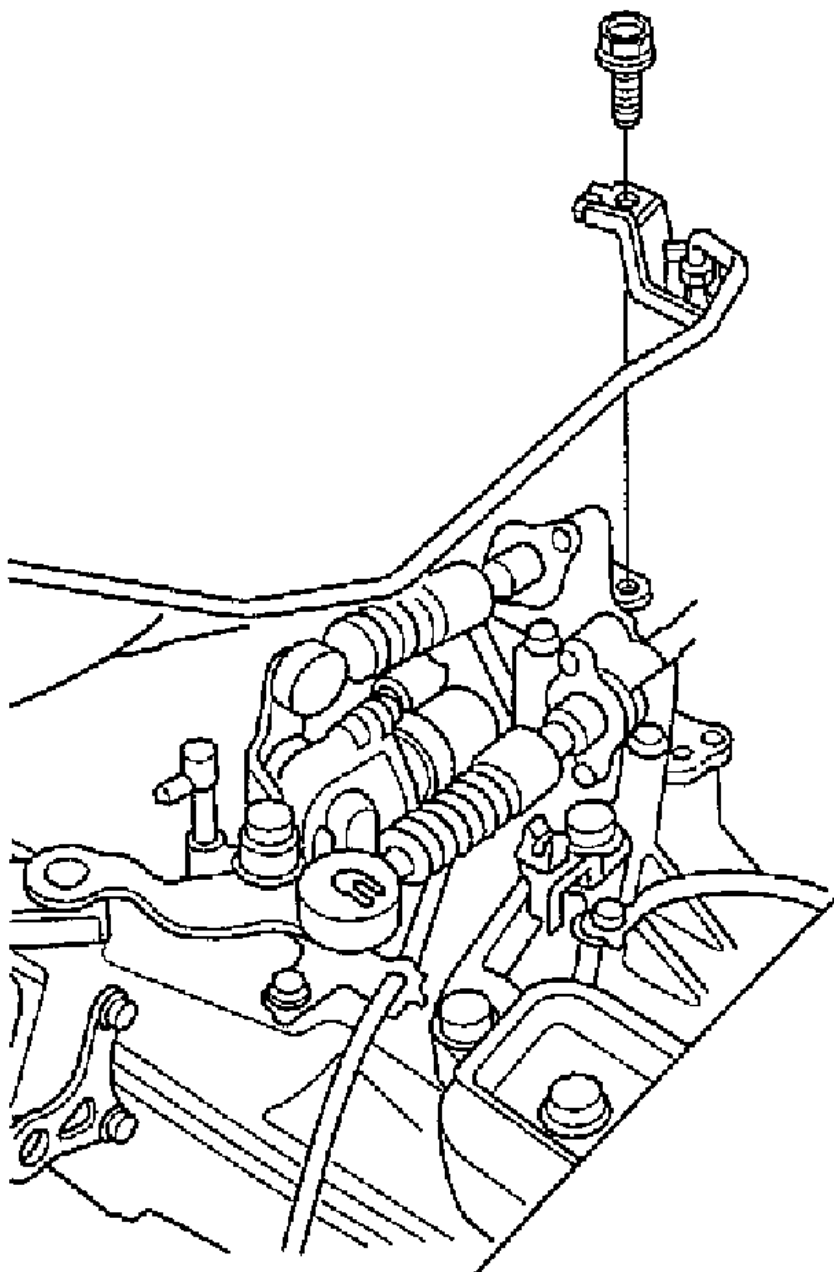
SLAVE CYLINDER REPLACEMENT

NOTE:

- Use fender covers to avoid damaging painted surfaces.
- Do not spill brake fluid on the vehicle; it may damage the paint; if brake fluid does contact the paint, wash it off immediately with water.

1. Make sure you have the anti-theft codes for the radio and the navigation system, then write down the customer's radio station presets.
2. Disconnect the negative (-) cable first, then the positive (+) cable from the battery. Remove the battery.
3. Remove the air cleaner housing (see **AIR CLEANER REMOVAL/INSTALLATION**).

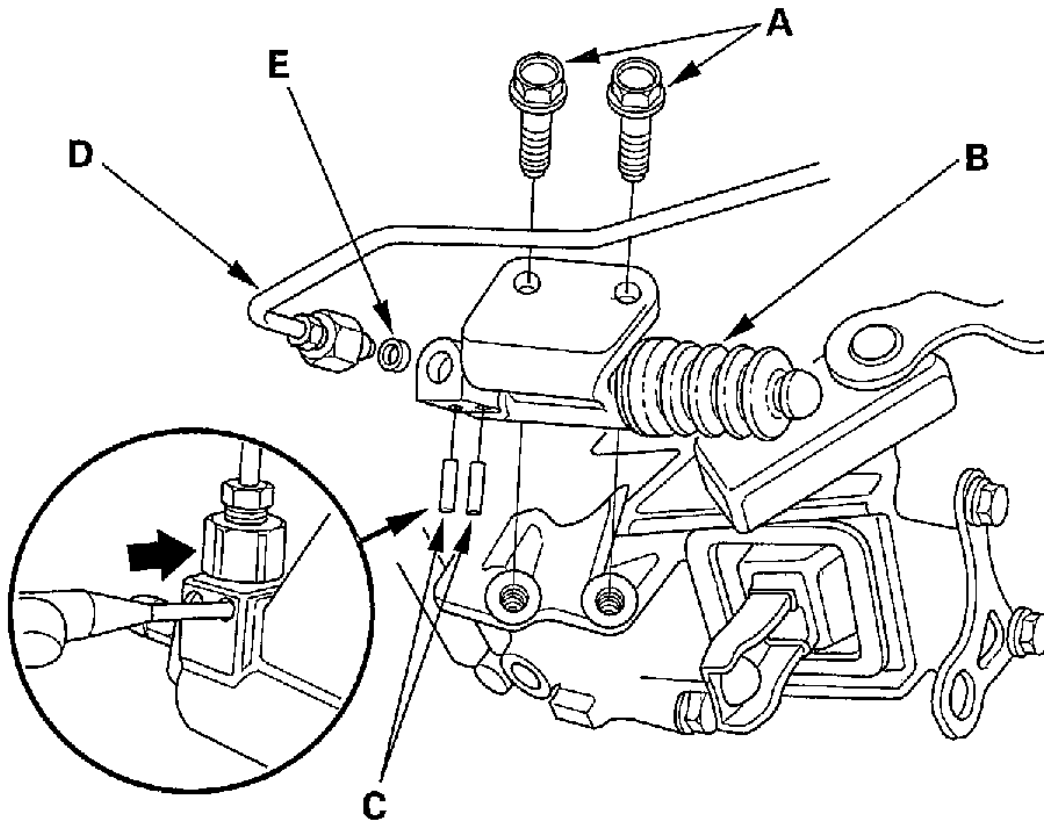
4. Remove the battery base (see step 6 of **ENGINE REMOVAL**).
5. Remove the clutch line bracket.



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Fig. 12: Removing The Clutch Line Bracket

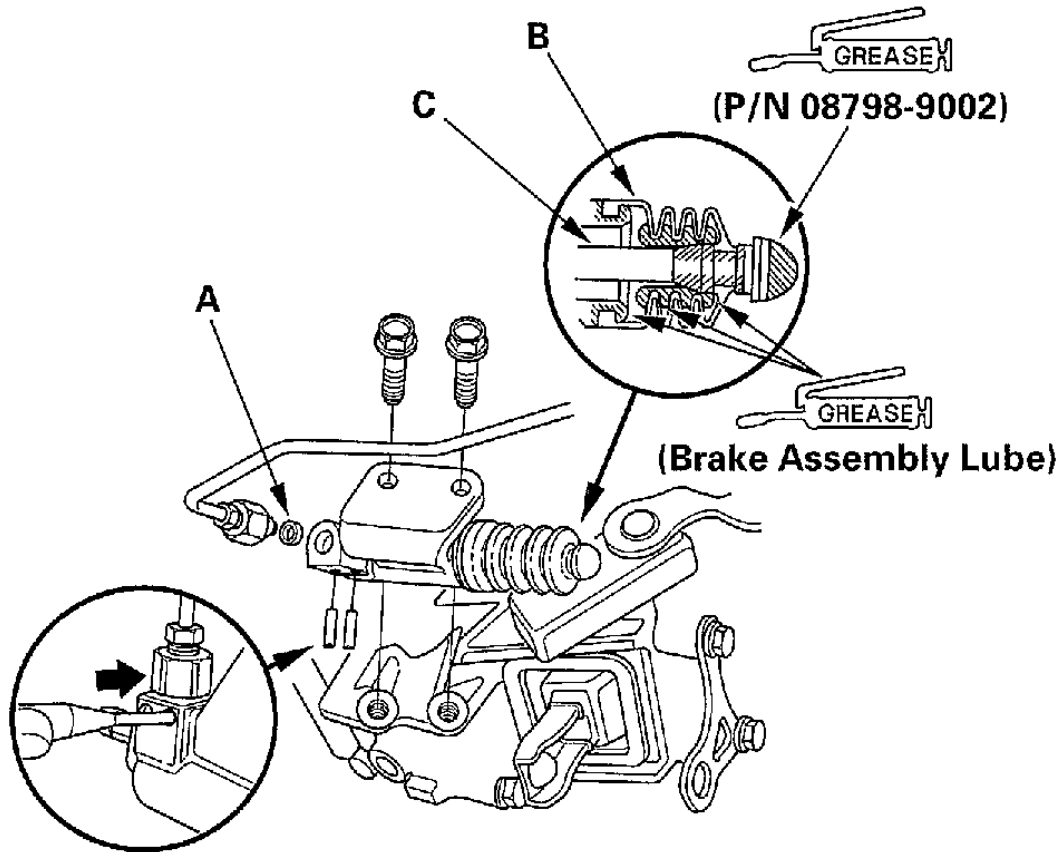
6. Remove the mounting bolts (A) and the slave cylinder (B).



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Fig. 13: Removing The Slave Cylinder

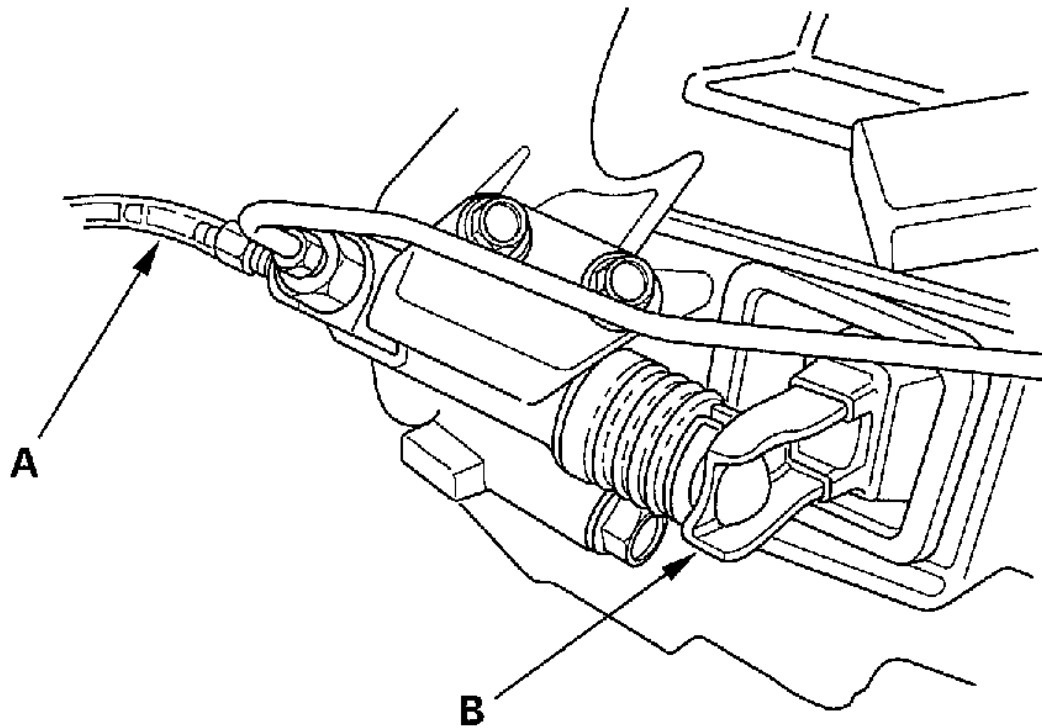
7. Remove the roll pins (C). Disconnect the clutch line (D), and remove the O-ring (E). Plug the end of the clutch line with a shop towel to prevent brake fluid from coming out.
8. Install the slave cylinder in the reverse order of removal. Install a new O-ring (A).



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Fig. 14: Installing The Slave Cylinder

9. Pull the boot (B) back, and apply brake assembly lube to the boot and slave cylinder rod (C). Reinstall the boot.
10. Apply super high temp urea grease (P/N 08798-9002) to the push rod of the slave cylinder. Tighten the slave cylinder mounting bolts to 22 N.m (2.2 kgf.m, 16 lbf.ft)
11. Bleed the clutch hydraulic system.
 - Attach a hose to the bleeder screw (A), and suspend the hose in a container of brake fluid.
 - Make sure there is an adequate supply of fluid in the clutch master cylinder, then slowly pump the clutch pedal until no more bubbles appear at the bleeder hose.
 - It may be necessary to limit the movement of the release fork (B) with a block of wood to remove all the air from the system.
 - Tighten the bleeder screw to 8 N.m (0.8 kgf.m, 5.8 lbf.ft); do not overtighten it.
 - Refill the clutch master cylinder with fluid when done.
 - Always use only Honda DOT 3 brake fluid.



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Fig. 15: Bleeding The Clutch Hydraulic System

12. Install the air cleaner housing (see **AIR CLEANER REMOVAL/INSTALLATION**).
13. Install the battery base (see step 43 of **ENGINE INSTALLATION**).
14. Install the battery. Connect the battery cables; positive (+) cable first, then the negative (-) cable.
15. Enter the anti-theft codes for the radio and navigation system, then enter the customer's radio station presets.

CLUTCH REPLACEMENT

Special Tools Required:

- Clutch alignment disc 07JAF-PM7011A
- Ring gear holder 07LAB-PV00100 or 07924-PD20003
- Clutch alignment shaft 07ZAF-PR8A100
- Remover handle 07936-3710100

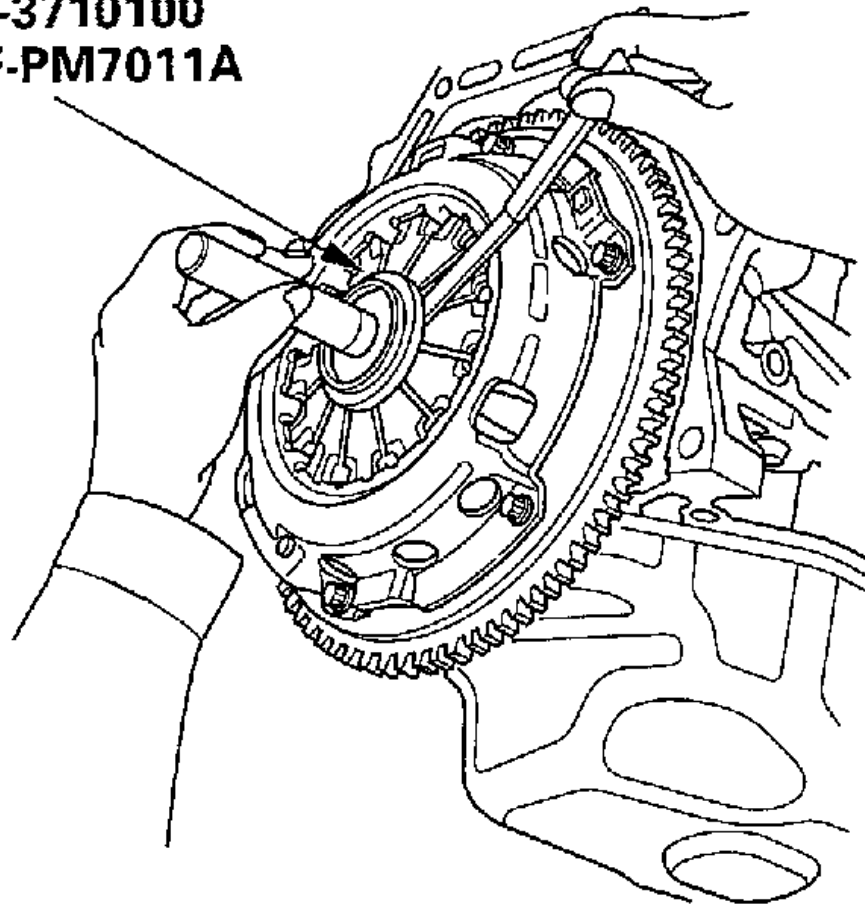
Pressure Plate & Clutch Disc Removal

1. Check the diaphragm spring fingers height using the special tool and feeler gauge. If the height is more than the service limit, replace the pressure plate.

Standard (New): 0.6 mm (0.02 in.) Max.

Service Limit: 0.8 mm (0.03 in.)

07ZAF-PR8A100
07936-3710100
07JAF-PM7011A



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Fig. 16: Checking The Diaphragm Spring Fingers Height

2. Install the special tools.

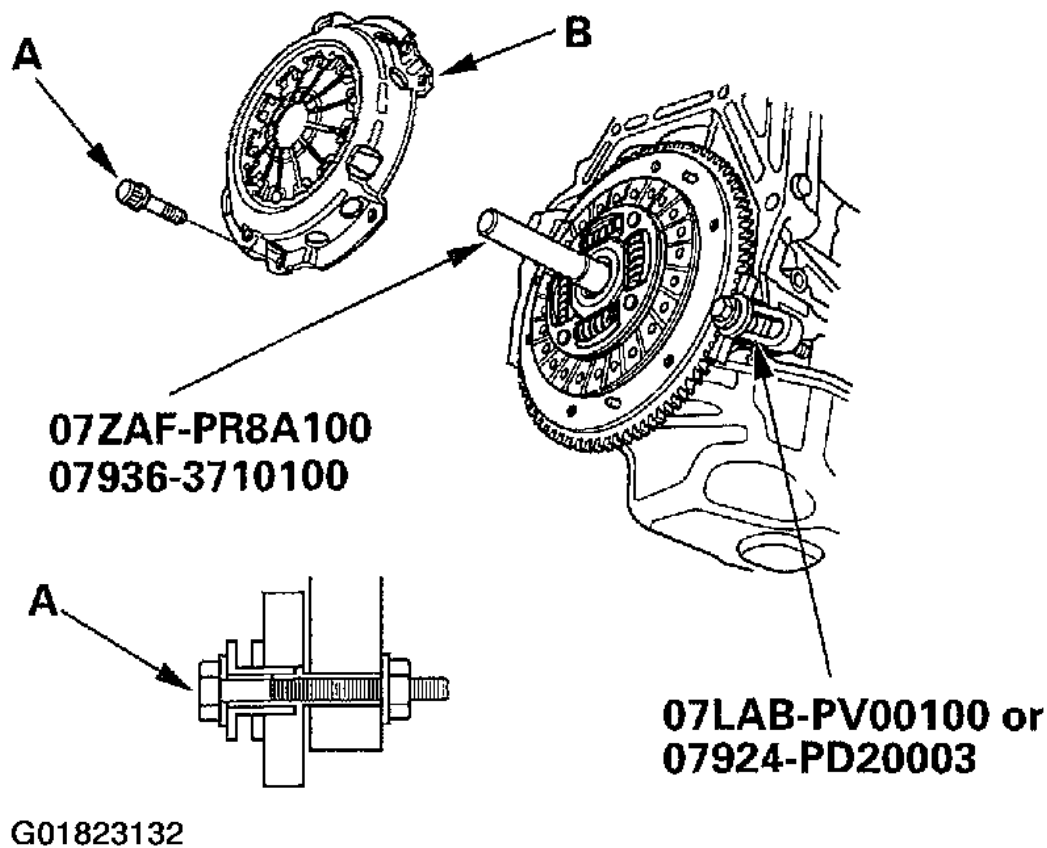
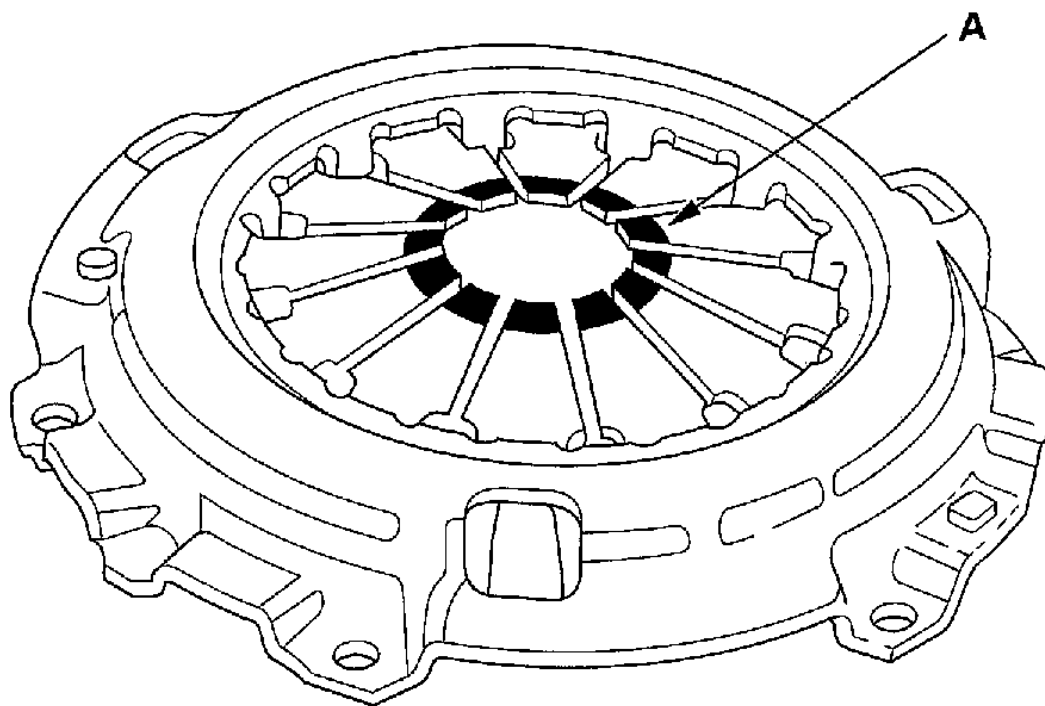


Fig. 17: Installing The Special Tools

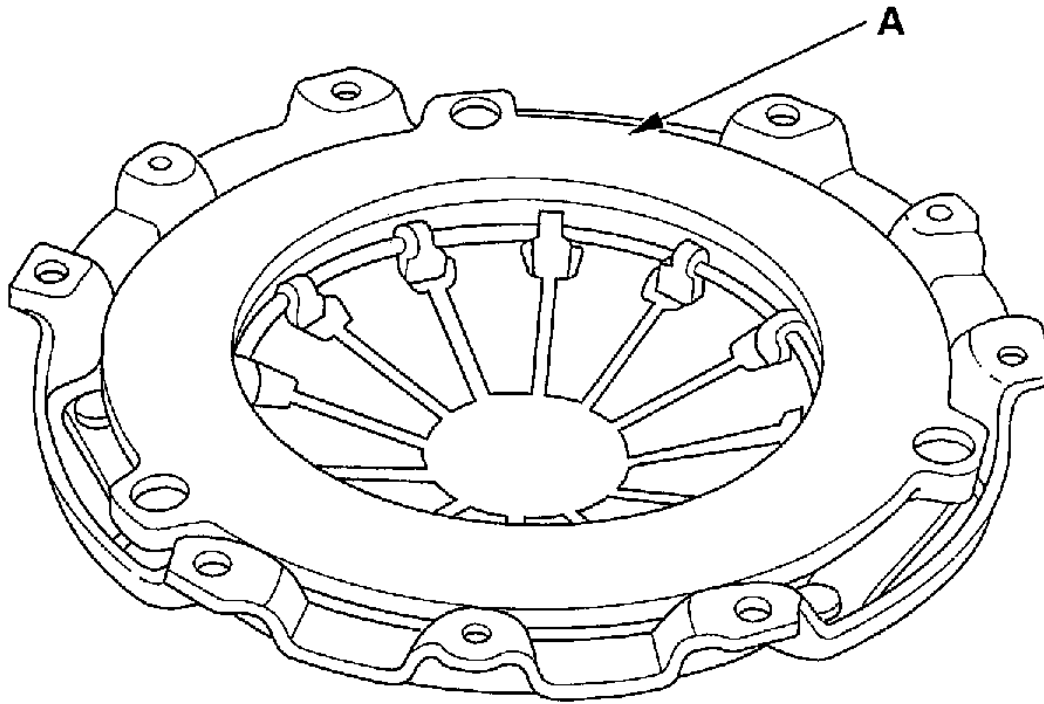
3. To prevent warping, unscrew the pressure plate mounting bolts (A) in a crisscross pattern in several steps, then remove the pressure plate (B).
4. Inspect the fingers of the diaphragm spring (A) for wear at the release bearing contact area.



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Fig. 18: Inspecting The Fingers Of The Diaphragm Spring

5. Inspect the pressure plate (A) surface for wear, cracks, and burning.



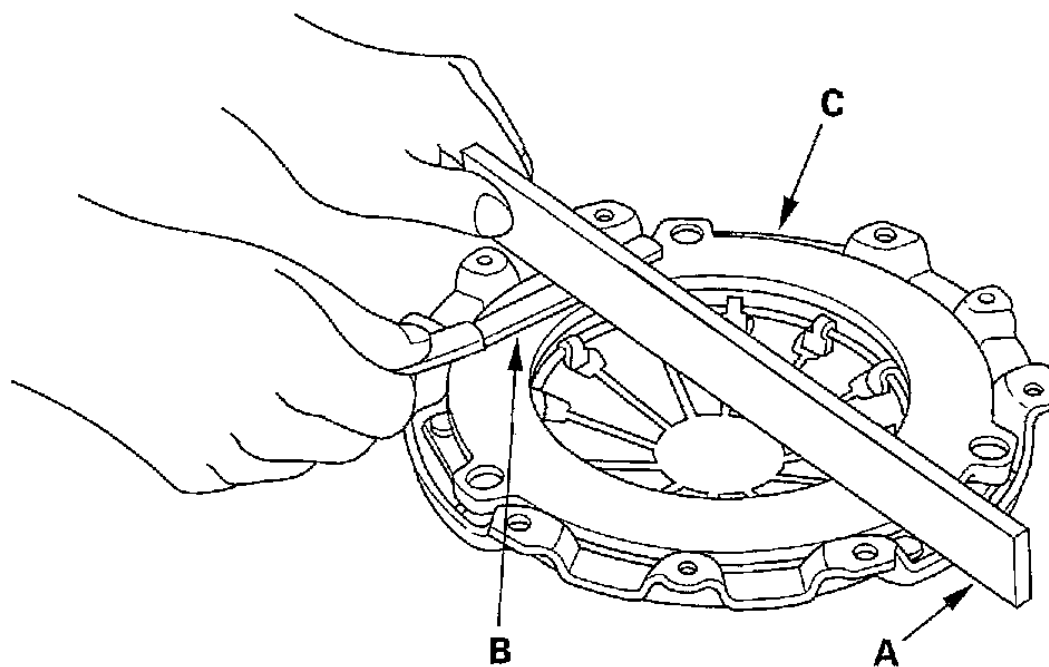
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Fig. 19: Inspecting The Pressure Plate

6. Inspect for warpage using a straight edge (A) and a feeler gauge (B). Measure across the pressure plate (C). If the warpage is more than the service limit, replace the pressure plate.

Standard (New): 0.03 mm (0.001 in.) Max.

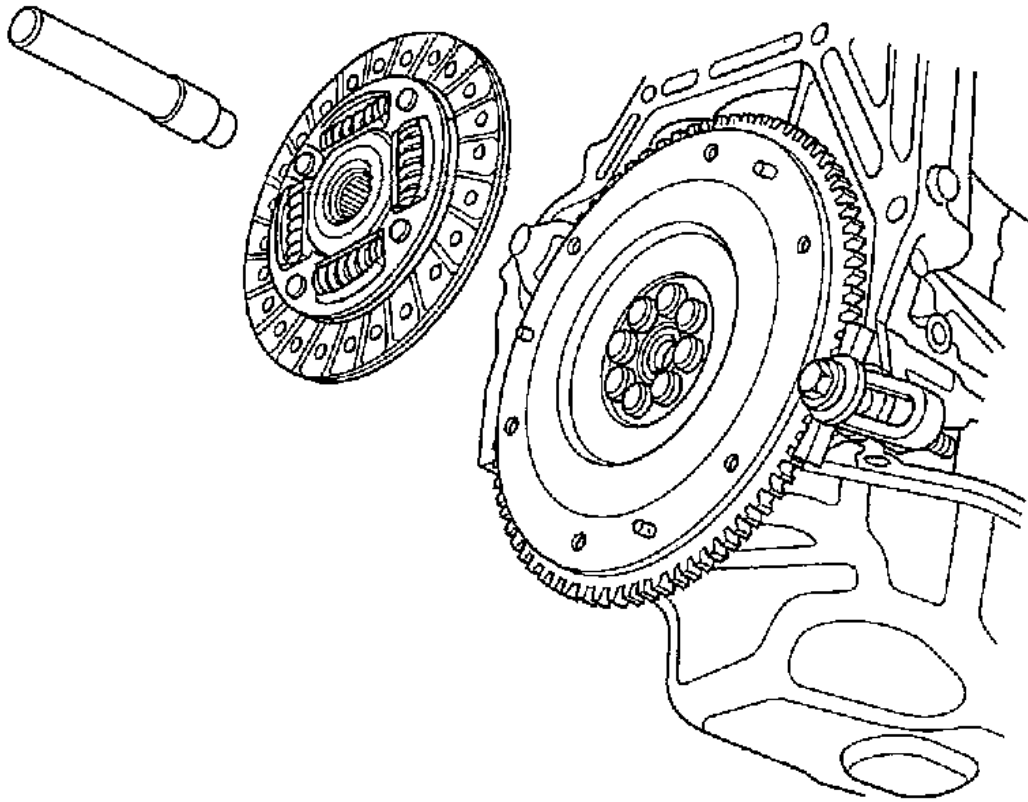
Service Limit: 0.15 mm (0.006 in.)



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Fig. 20: Inspecting For Warpage Using A Straight Edge

7. Remove the clutch disc and special tools.



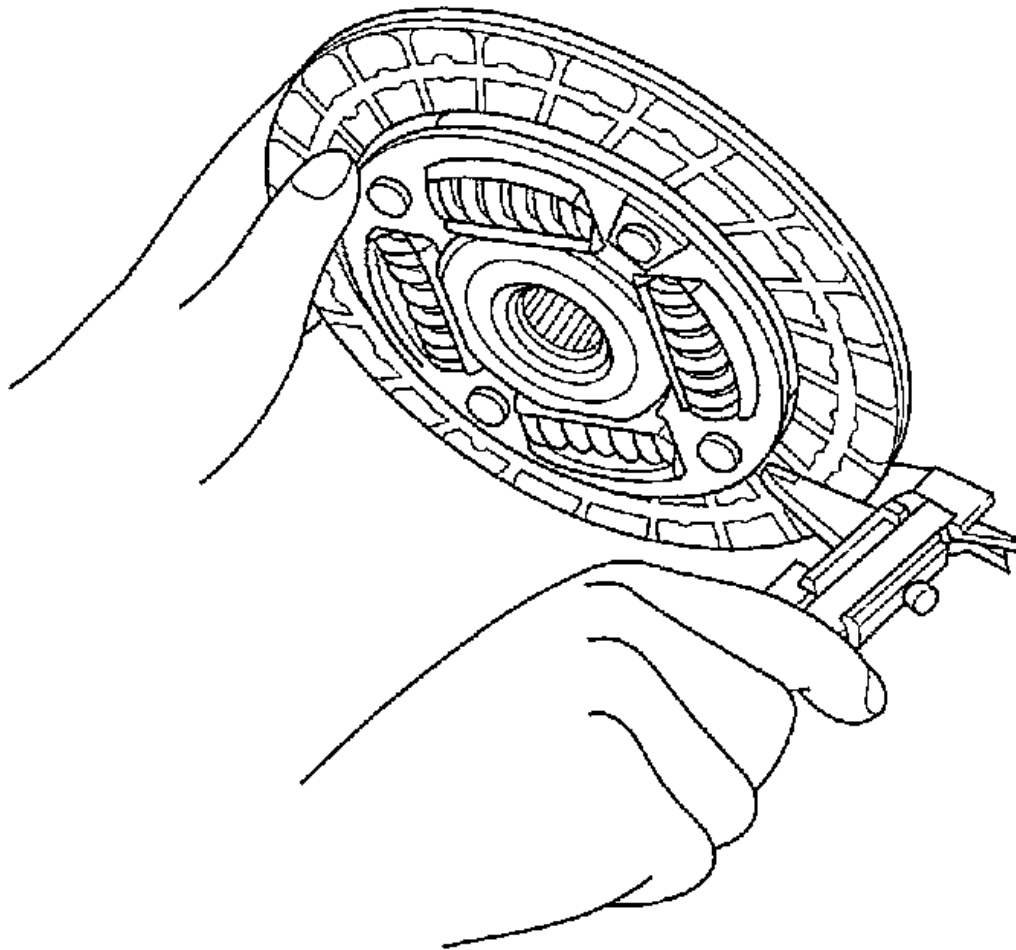
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Fig. 21: Removing The Clutch Disc

8. Inspect the lining of the clutch disc for signs of slippage or oil. If the clutch disc is burned black or oil soaked, replace it, and find the source of the oil leak if oil soaked.
9. Measure the clutch disc thickness. If the thickness is less than the service limit, replace the clutch disc.

Standard (New): 8.2-8.9 mm (0.32-0.35 in.)

Service Limit: 6.0 mm (0.24 in.)



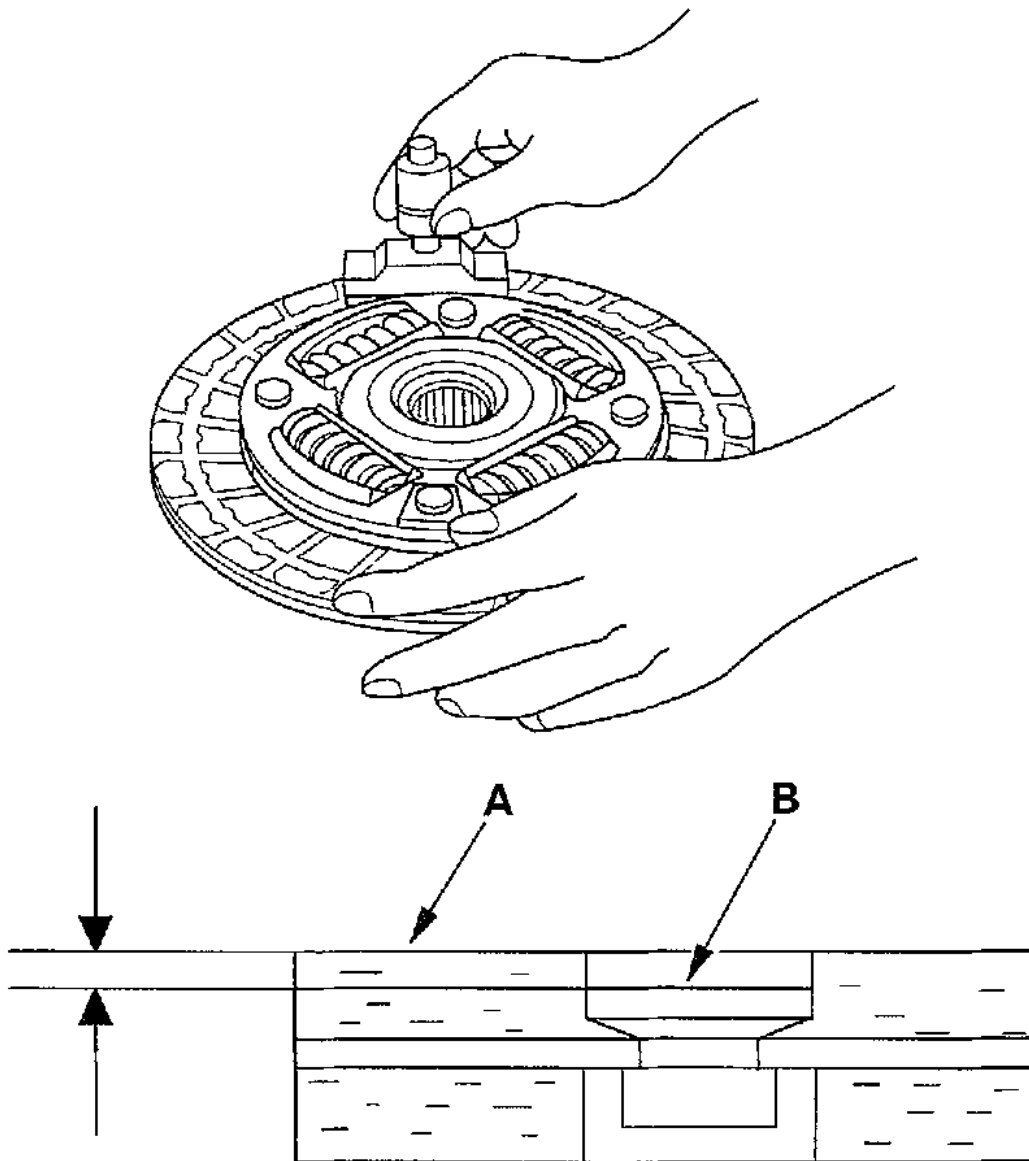
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Fig. 22: Inspecting The Lining Of The Clutch Disc

10. Measure the rivet depth from the clutch disc lining surface (A) to the rivets (B) on both sides. If the rivet depth is less than the service limit, replace the clutch disc.

Standard (New): 1.2-1.7 mm (0.047-0.067 in.)

Service Limit: 0.2 mm (0.008 in.)



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Fig. 23: Measuring The Rivet Depth From The Clutch Disc Lining Surface To The Rivets

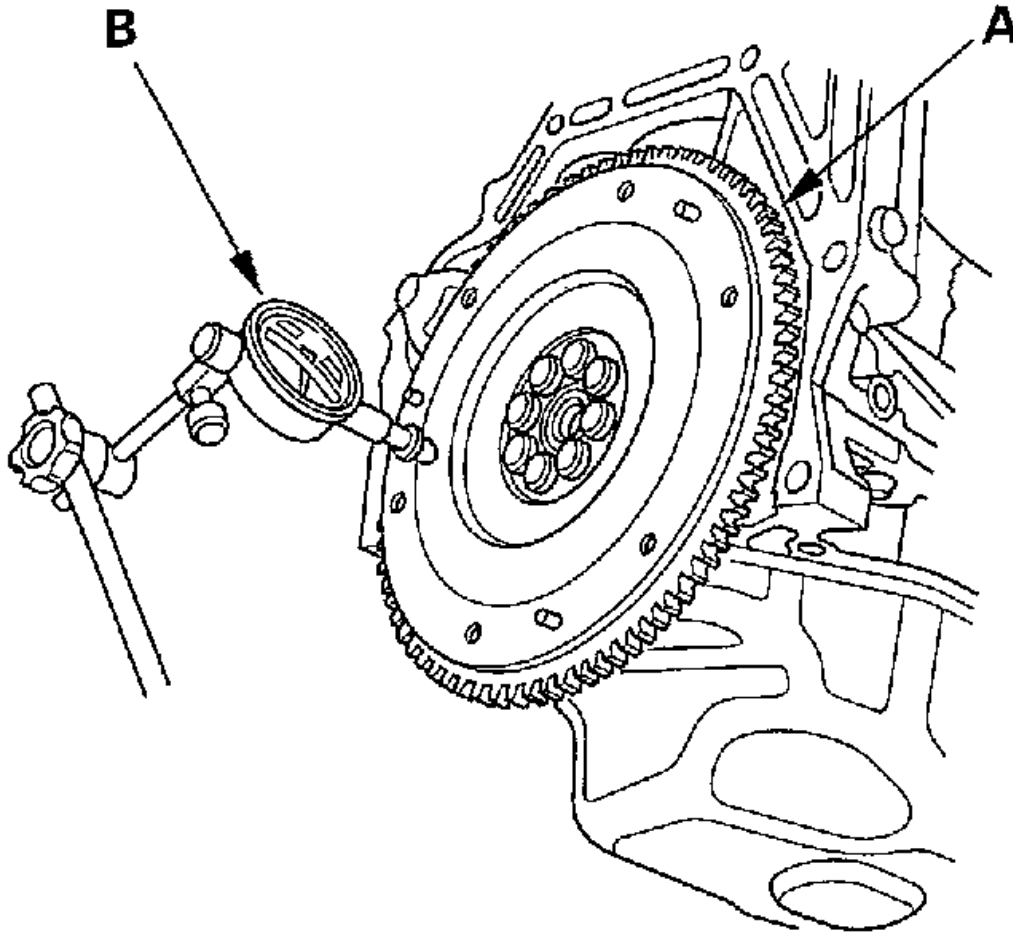
Flywheel Inspection

1. Inspect the ring gear teeth for wear and damage.
2. Inspect the clutch disc mating surface on the flywheel for wear, cracks, and burning.
3. Measure the flywheel (A) runout using a dial indicator (B) through at least two full turns with the engine installed. Push against the flywheel each time you turn it to take up the crankshaft thrust washer

clearance. If the runout is more than the service limit, replace the flywheel and recheck the runout. Resurfacing the flywheel is not recommended.

Standard (New): 0.05 mm (0.002 in.) Max.

Service Limit: 0.15 mm (0.006 in.)

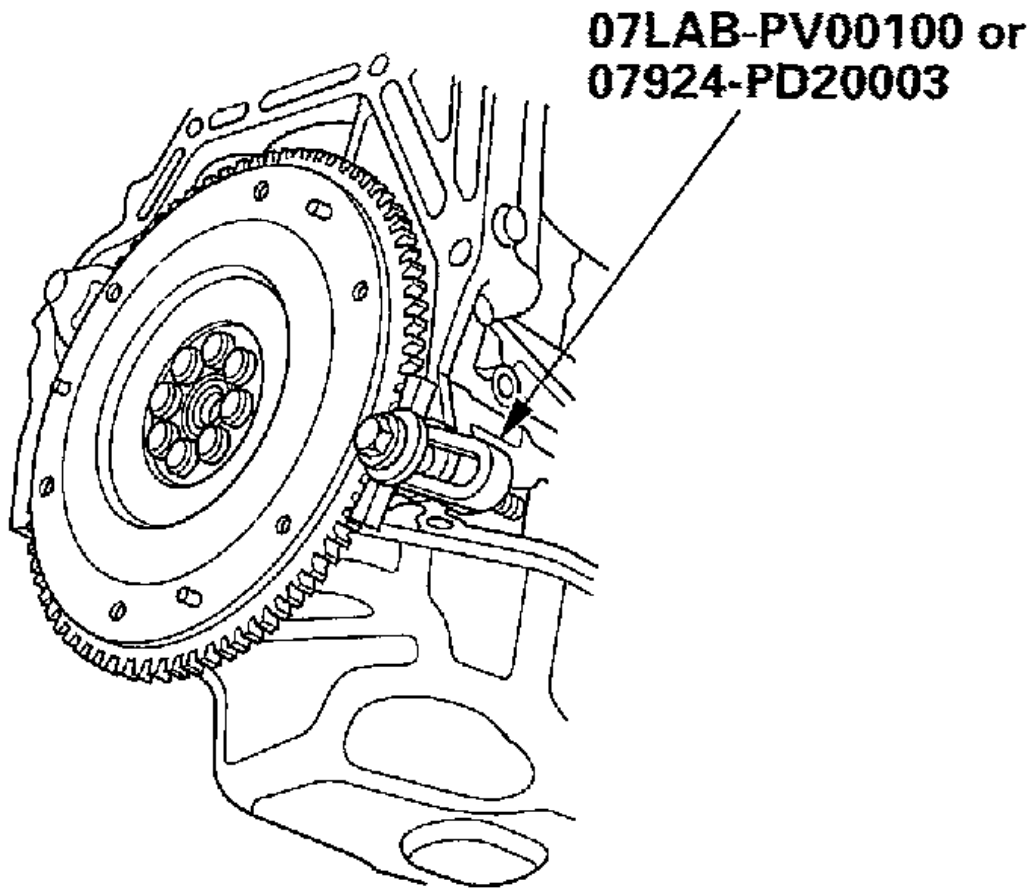


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Fig. 24: Measuring The Flywheel Runout

Flywheel Replacement

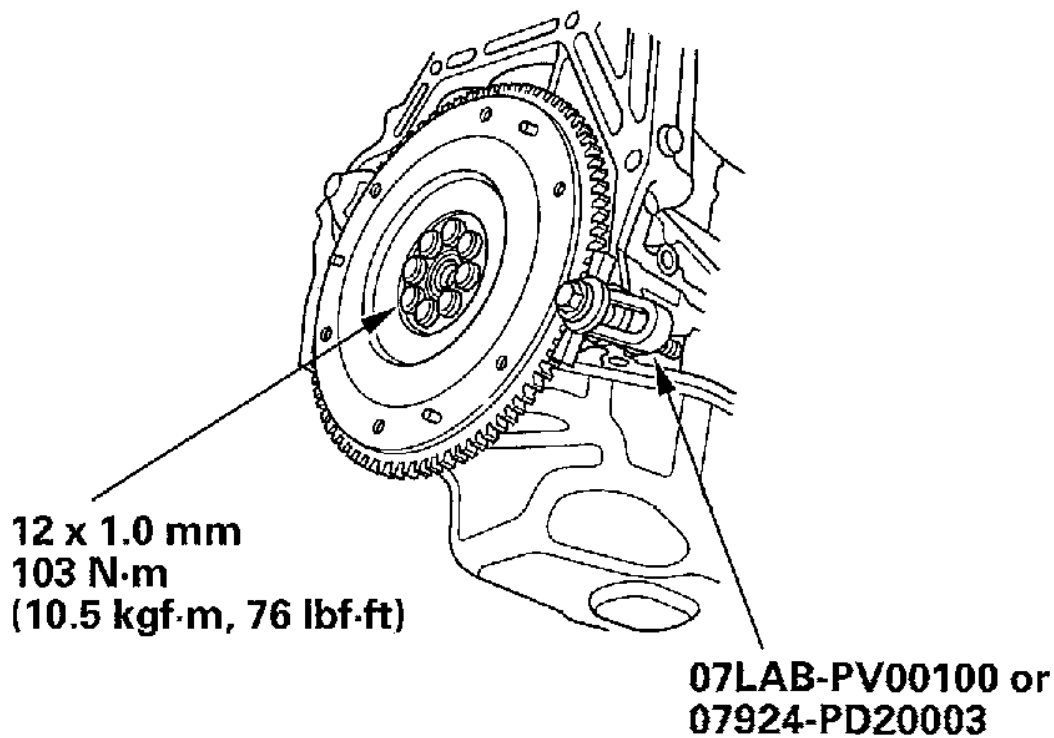
1. Install the special tool.



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Fig. 25: Installing The Special Tool

2. Remove the flywheel mounting bolts in a crisscross pattern in several steps, then remove the flywheel.
3. Install the flywheel on the crankshaft, and install the mounting bolts finger-tight.
4. Install the special tool, then torque the flywheel mounting bolts in a crisscross pattern in several steps.

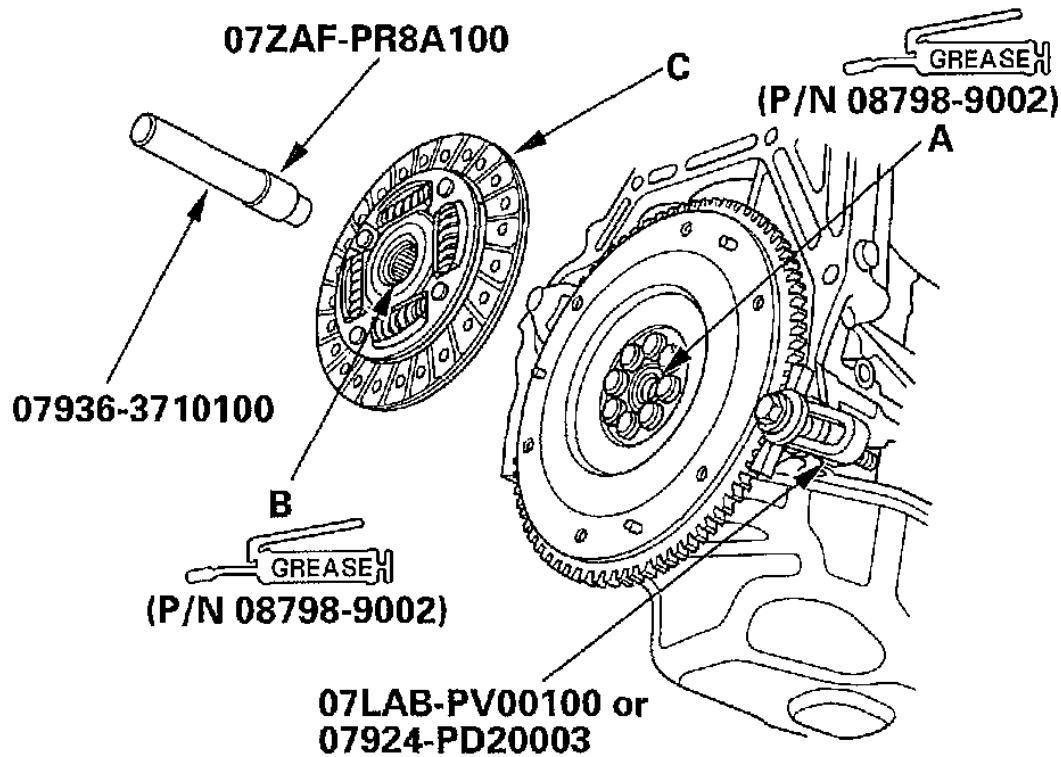


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Fig. 26: Installing The Flywheel On The Crankshaft

Clutch Disc & Pressure Plate Installation

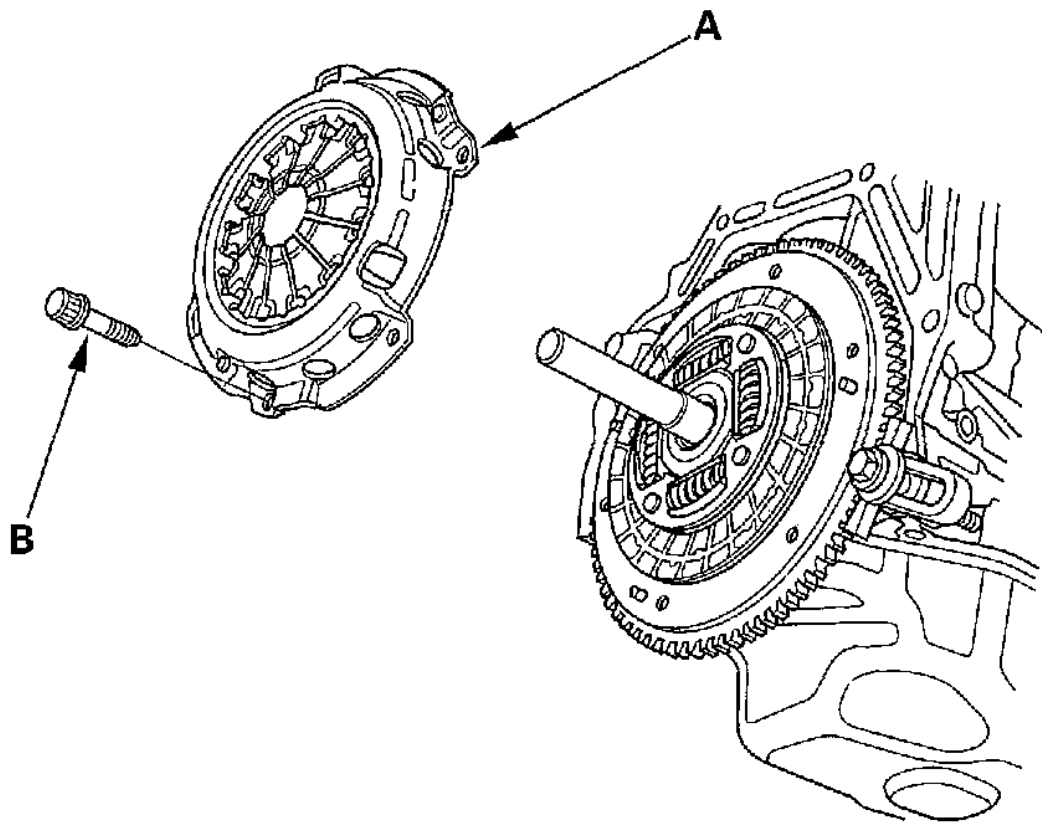
1. Temporarily install the clutch disc onto the splines of the transmission mainshaft. Make sure the clutch disc slides freely on the mainshaft.
2. Install the ring gear holder.



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Fig. 27: Installing The Clutch Disc

3. Apply a light coat of super high temp urea grease (P/N 08798-9002) to the crankshaft pilot bushing (A).
4. Apply super high temp urea grease (P/N 08798-9002) to the splines (B) of the clutch disc (C), then install the clutch disc using the special tools.
5. Install the pressure plate (A) and the mounting bolts (B) finger-tight.

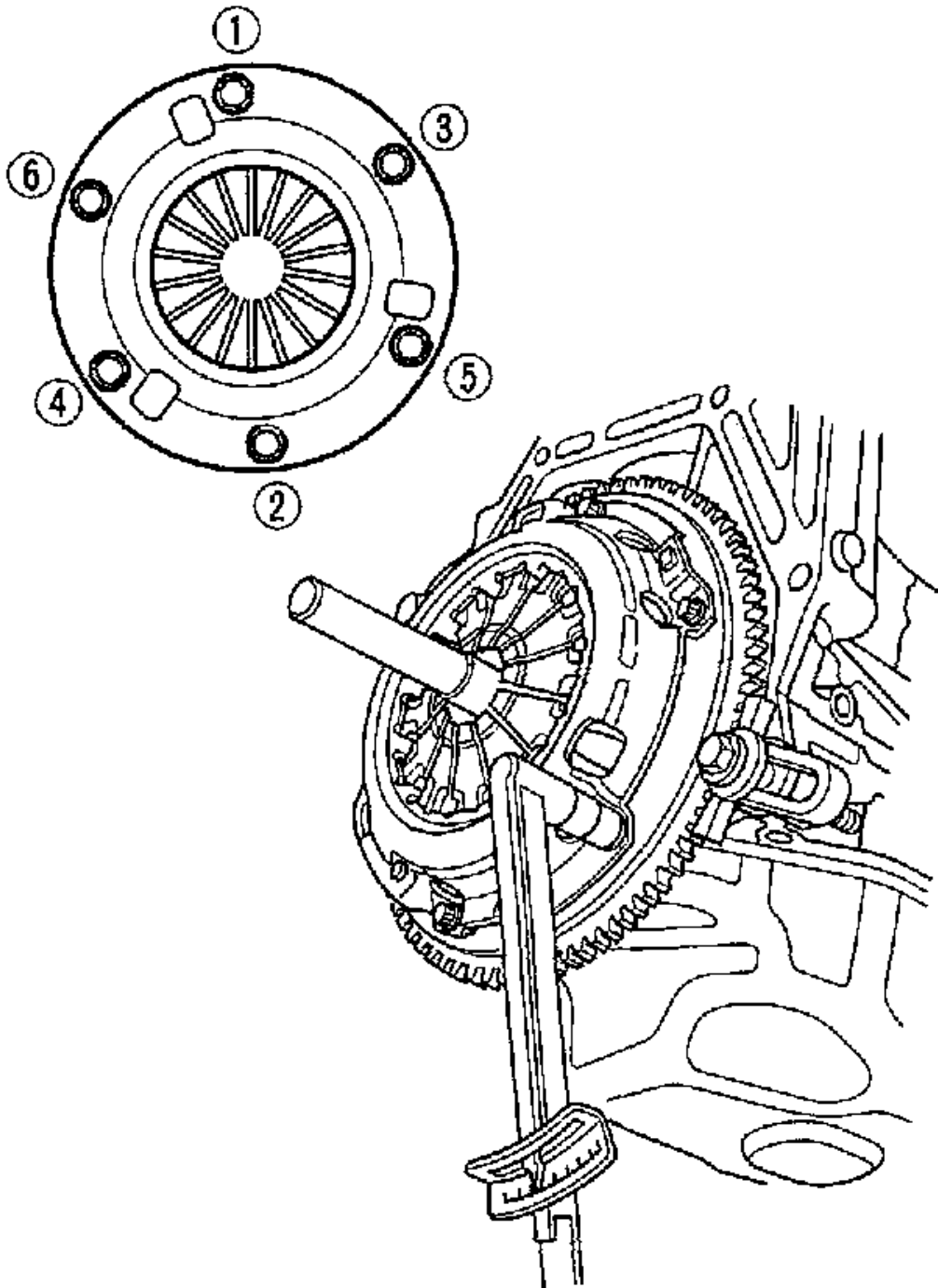


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Fig. 28: Installing The Pressure Plate

6. Torque the mounting bolts in a crisscross pattern. Tighten the bolts in several steps to prevent warping the diaphragm spring.

PRESSURE PLATE MOUNTING BOLT TORQUE: 25 N.m (2.6 kgf.m, 19 lbf.ft)



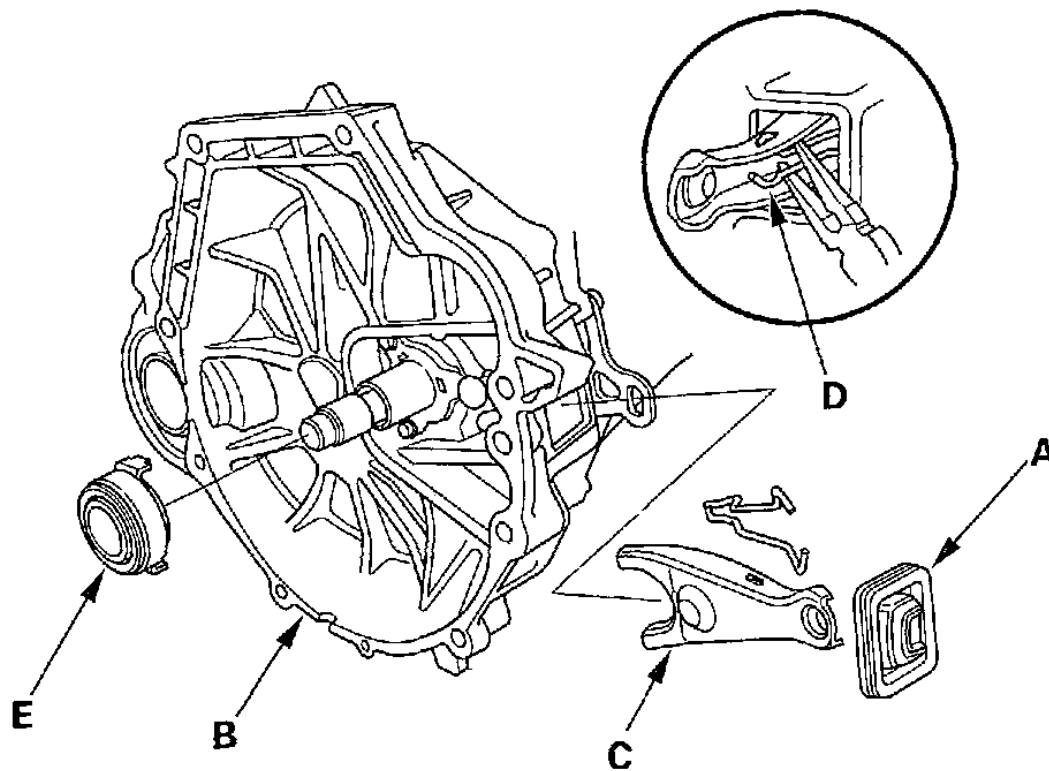
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Fig. 29: Torquing The Mounting Bolts In A Crisscross Pattern

7. Remove the special tools.
8. Make sure the diaphragm spring fingers are all the same height.

Release Bearing Replacement

1. Remove the release fork boot (A) from the clutch housing (B).

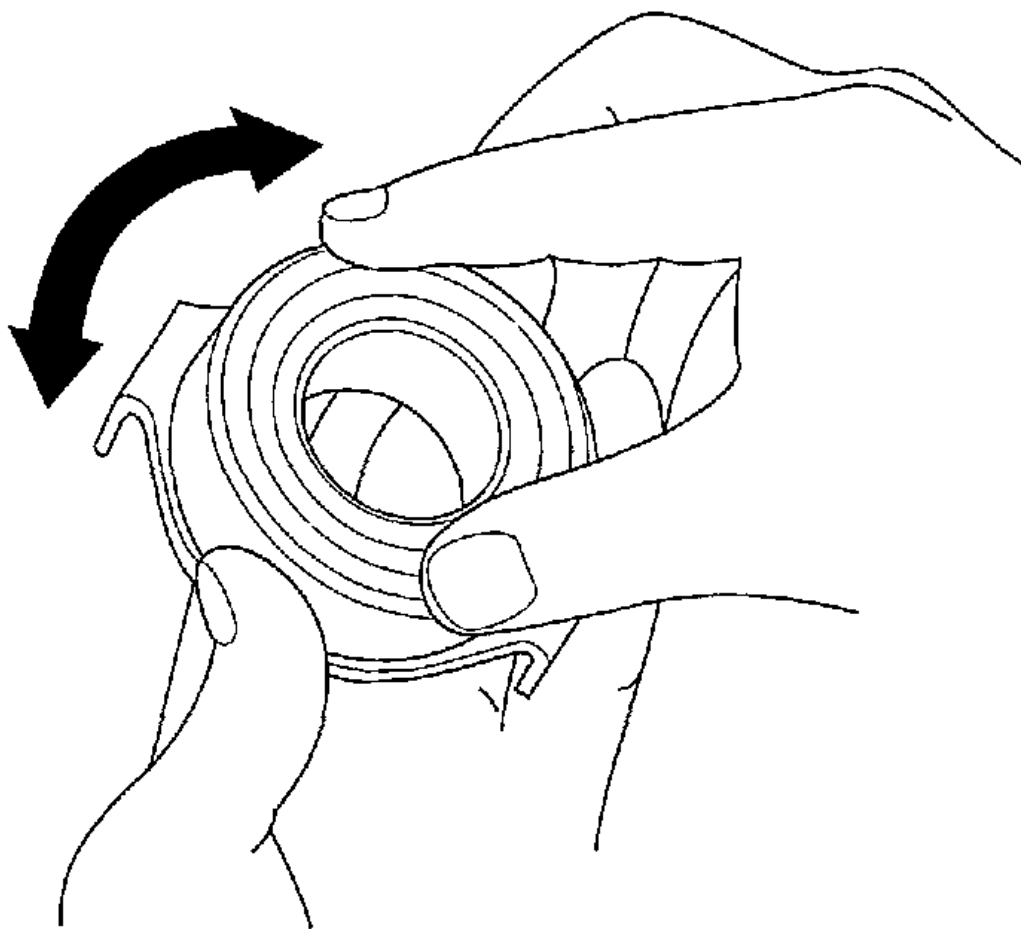


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Fig. 30: Removing The Release Fork Boot From The Clutch Housing

2. Remove the release fork (C) from the clutch housing by squeezing the release fork set spring (D) with pliers. Remove the release bearing (E).
3. Check the play of the release bearing by spinning it with your hand. If there is excessive play, replace the release bearing.

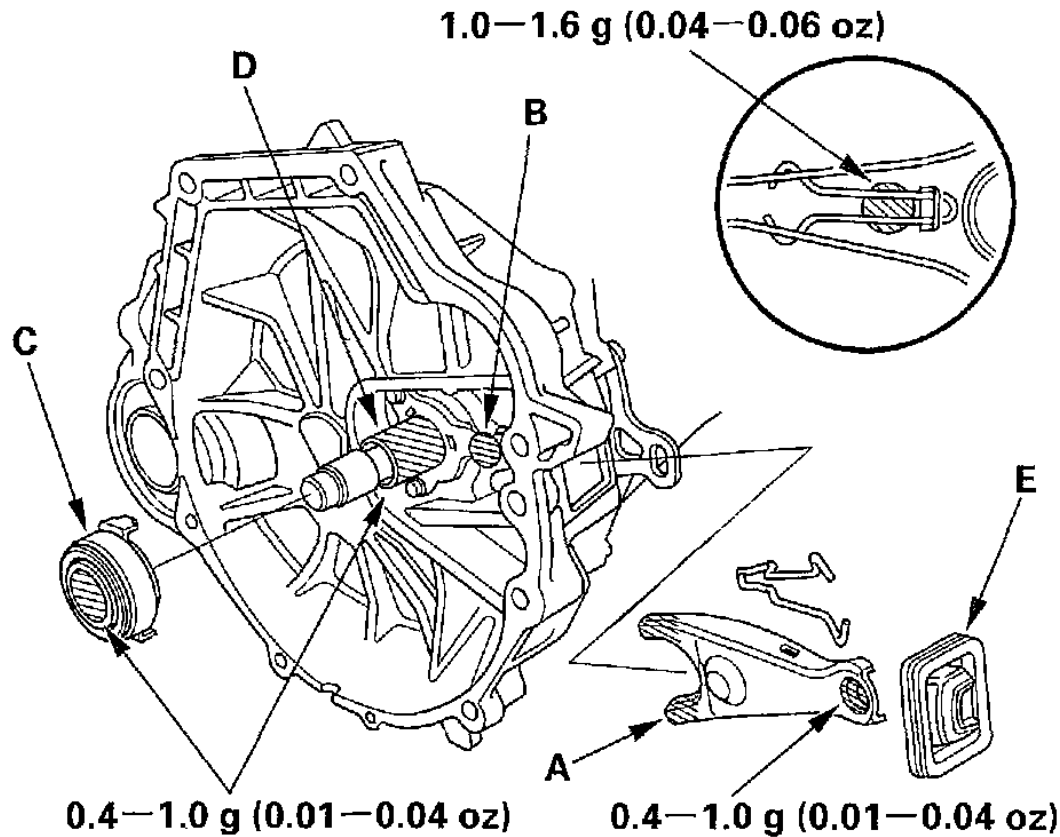
NOTE: The release bearing is packed with grease. Do not wash it in solvent.



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Fig. 31: Checking The Release Bearing

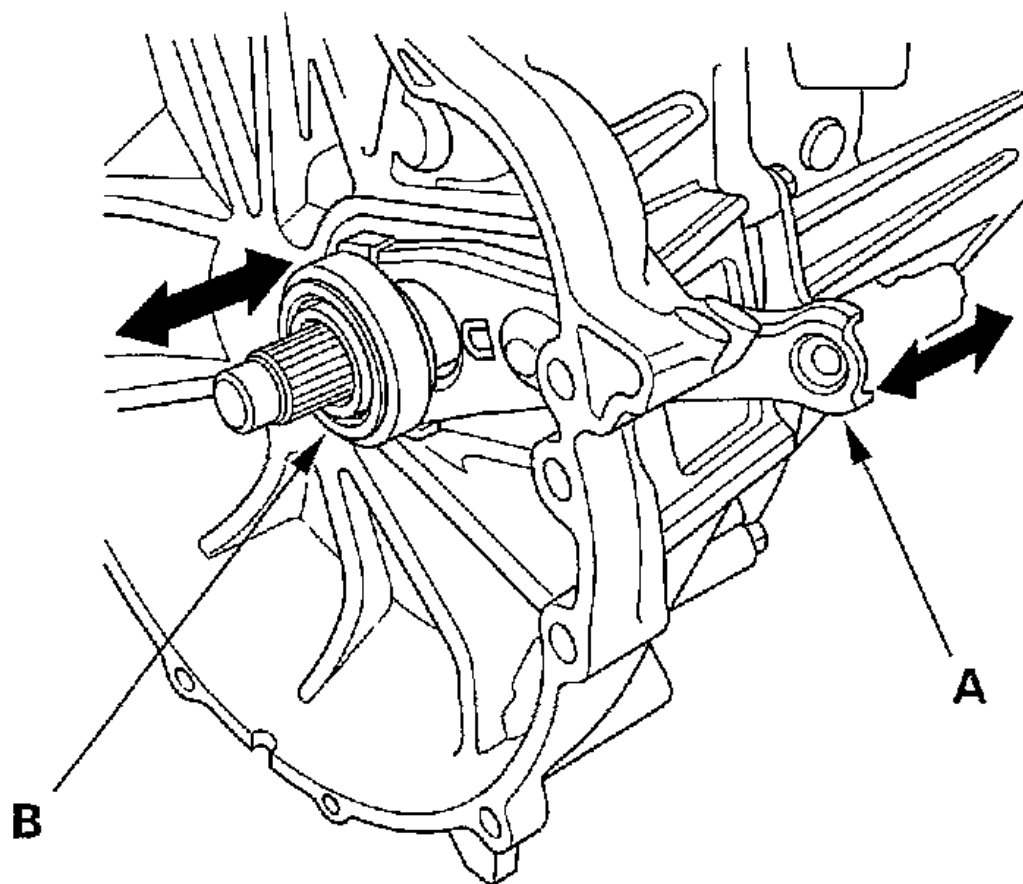
4. Apply super high temp urea grease (P/N 08798-9002) to the release fork (A), the release fork bolt (B), the release bearing (C), and the release bearing guide (D) in the shaded areas.



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Fig. 32: Applying Super High Temp Urea Grease

5. With the release fork slid between the release bearing pawls, install the release bearing on the mainshaft while inserting the release fork through the hole in the clutch housing.
6. Align the detent of the release fork with the release fork bolt, then press the release fork over the release fork bolt squarely.
7. Install the release fork boot (E). Make sure the boot seals around the release fork and clutch housing.
8. Move the release fork (A) right and left to make sure that it fits properly against the release bearing (B) and that the release bearing slides smoothly.



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Fig. 33: Installing The Release Bearing & The Release Fork