

Clutch System



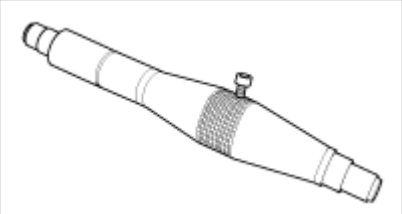
Lubricants

Items	Specified lubricants	Quantity
Inner surface of clutch disc spline	CASMOLY L9508	As required
Inner surface of clutch master cylinder and outer circumference of piston assembly	Brake fluid DOT 3 or DOT 4	As required
Clutch master cylinder push rod, clevis pin and washer	Wheel bearing grease SAE J310, NLGI No.2V	As required
Clutch pedal shaft and bushings	Chassis grease SAE J310a, NLGI No.1	As required

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Special Service Tools

Tool (Number and name)	Illustration	Use
09411-1P000 Clutch disc guide		Installation of the clutch disc.

Clutch System



Troubleshooting

Trouble symptom	Suspect area	Remedy
Clutch slipping • Car will not respond to engine speed during acceleration • Insufficient vehicle speed • Lack of power during uphill driving	Insufficient pedal free play	Adjust
	Clogged hydraulic system	Correct or replace parts
	Excessive wear of clutch disc facing	Replace
	Hardened clutch disc facing, or oil on surface	Replace
	Damaged pressure plate or flywheel	Replace
	Weak or broken pressure spring	Replace
Difficult gear shifting (gear noise during shifting)	Excessive pedal free play	Adjust
	Hydraulic system fluid leaks, air trapping or clogging	Repair or replace parts
	Unusual wear or corrosion of the clutch disc spline	Replace
	Excessive vibration (distortion) of the clutch disc	Replace
Clutch noisy When the clutch is not used	Insufficient play of the clutch pedal	Adjust
	Excessive wear of the clutch disc facing	Replace

	A noise is heard when the clutch is disengaged	Insufficient grease on the sliding surface of the bearing sleeve	Repair
		Improperly installed clutch assembly	Repair
	A noise is heard when the car suddenly rolled up with the clutch partially engaged	Damaged pilot bushing	Replace
Hard pedal effort		Insufficient lubrication of the clutch pedal	Repair
		Insufficient lubrication of the spline part of clutch disc	Repair
Hard to shift or will not shift		Excessive clutch pedal free play	Adjust the pedal free play
		Clutch disc out of place, runout is excessive or lining broken	Inspect the clutch disc
		Spline on the input shaft or clutch disc dirty or burned	Repair as necessary
		Faulty of the clutch pressure plate	Replace the clutch cover
Clutch slips		Insufficient clutch pedal free play	Adjust the pedal free play
		Clogged of the hydraulic system	Repair or replace parts
		Clutch disc lining oily or worn out	Inspect the clutch disc
		Faulty pressure plate	Replace the clutch cover
Clutch grabs/chatters		Clutch disc lining oily or worn out	Inspect the clutch disc
		Faulty the pressure plate	Replace the clutch cover
		Bent clutch diaphragm spring	Replace the clutch cover
		Worn or broken torsion spring	Replace the clutch disc
		Engine mounts loose	Repair as necessary
Clutch noisy		Damaged the clutch pedal bushing	Replace the clutch pedal bushing
		Loose part inside housing	Repair as necessary

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Service Adjustment Procedure

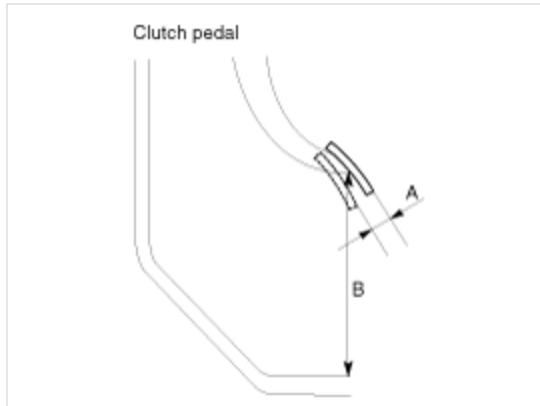
Clutch Pedal Inspection And Adjustment

1. Measure the clutch pedal height (from the face of the pedal pad to the floorboard) and the clutch pedal clevis pin play (measured at the face of the pedal pad.)

Standard value

(A) : 6 ~ 13mm (0.24 ~ 0.51in)

(B) : 196.9mm (7.75in)



2. If the clutch pedal freeplay and height is not within the standard value range, adjust as follows:

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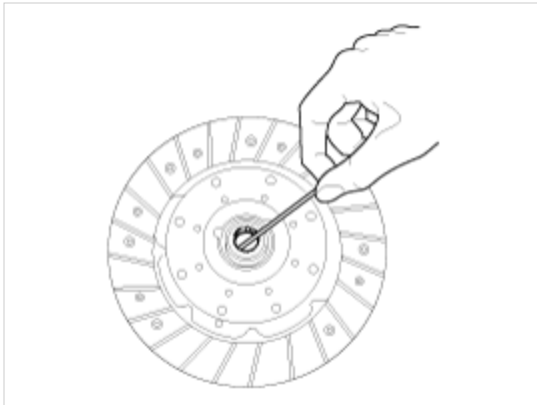
Installation

1. Apply multipurpose grease to the spline of the disc.

Grease :CASMOly L 9508

CAUTION

When installing the clutch, apply grease to each part, but be careful not to apply excessive grease. It can cause clutch slippage and vibration (judder).

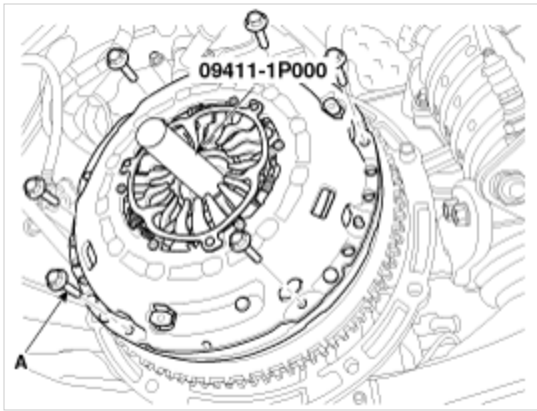


2. Install the clutch disc assembly to the flywheel using the special tool (09411-1P000).
 3. Install the clutch cover assembly to the flywheel and temporarily tighten the bolts one or two steps at a time in a star pattern.

Tightening torque :

Clutch disc cover bolt :

25 ~ 36Nm (2.5 ~ 3.6kgf.m, 18.1 ~ 26.0lb-ft)

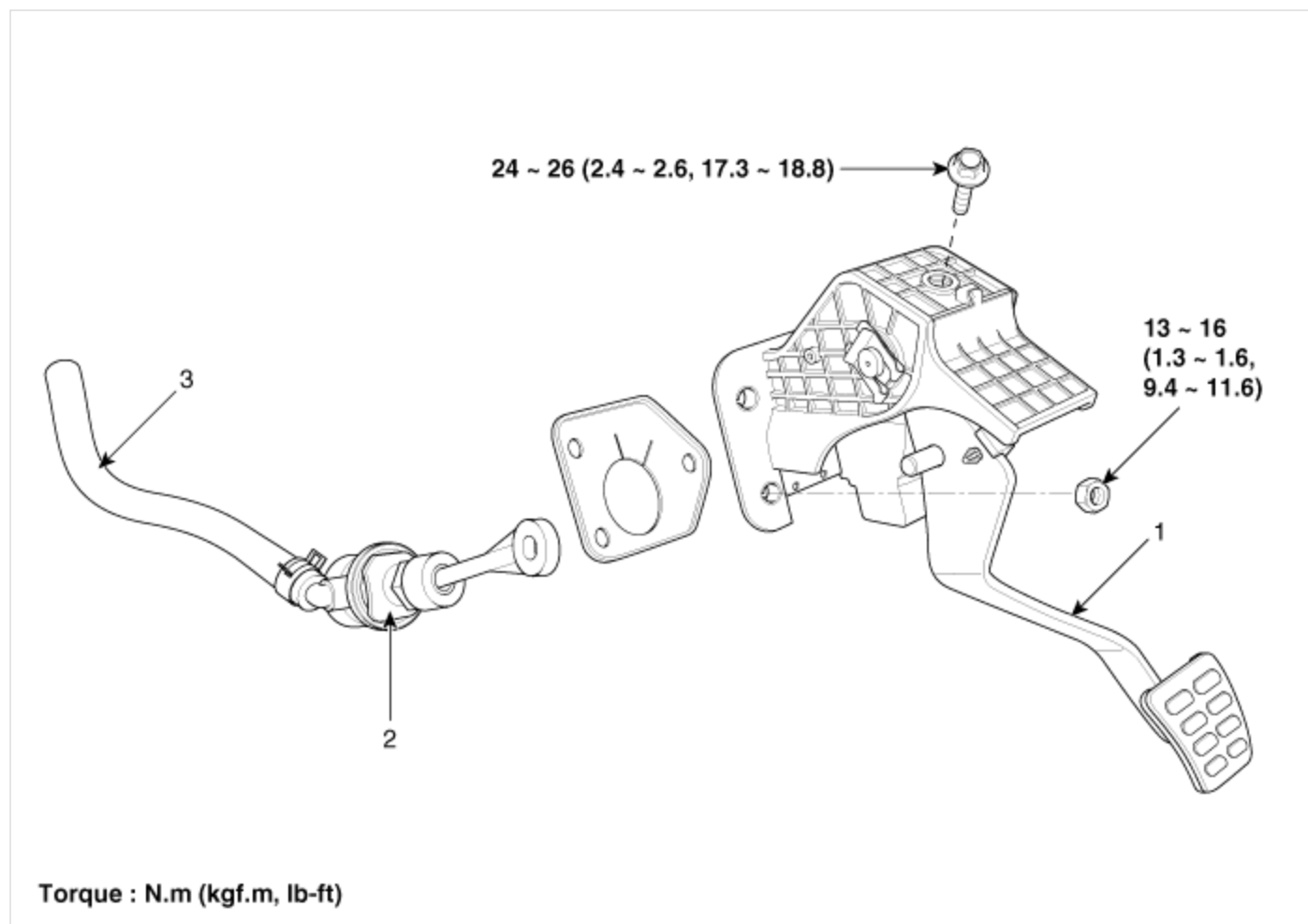


4. Remove the clutch disc guide (09411-1P000).
5. Install the transmission assembly to the engine. (Refer to Manual transmission installation in MT group)

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Components



1. Clutch pedal assembly
2. Clutch master cylinder assembly

3. Clutch fluid hose

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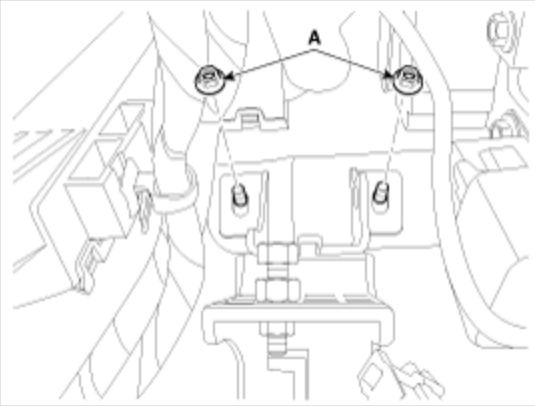


Installation

1. Install the clutch master cylinder to the clutch pedal assembly by rotating the clutch master cylinder 45 degree clockwise.
2. Install the clutch pedal bracket mounting nut (A-2ea).

Tightening torque :

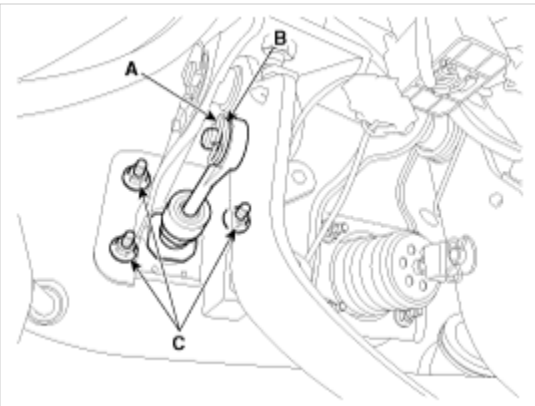
13 ~ 16 N.m (1.3 ~ 1.6 kgf.m, 9.4 ~ 11.6 lb-ft)



3. Install the clutch pedal mounting nut (C-3ea).
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Tightening torque :

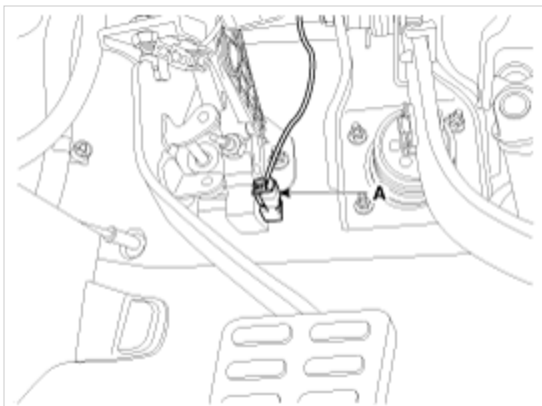
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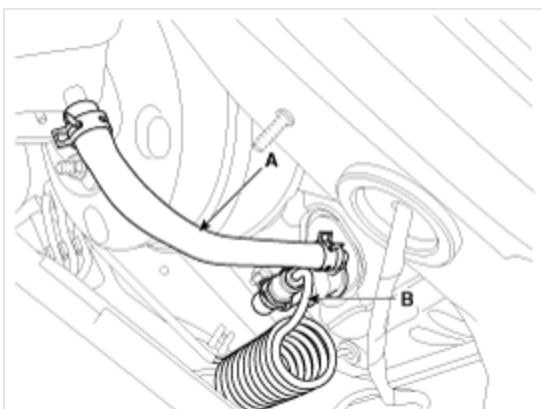
4. Install the push rod to the clutch pedal by installing the snap pin (A) and washer (B).
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Wheel bearing grease: SAE J310, NLGI No.2

5. Connect the ignition lock switch connector (A).
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6. Install the flexible hose (A) to the brake reserve tank.

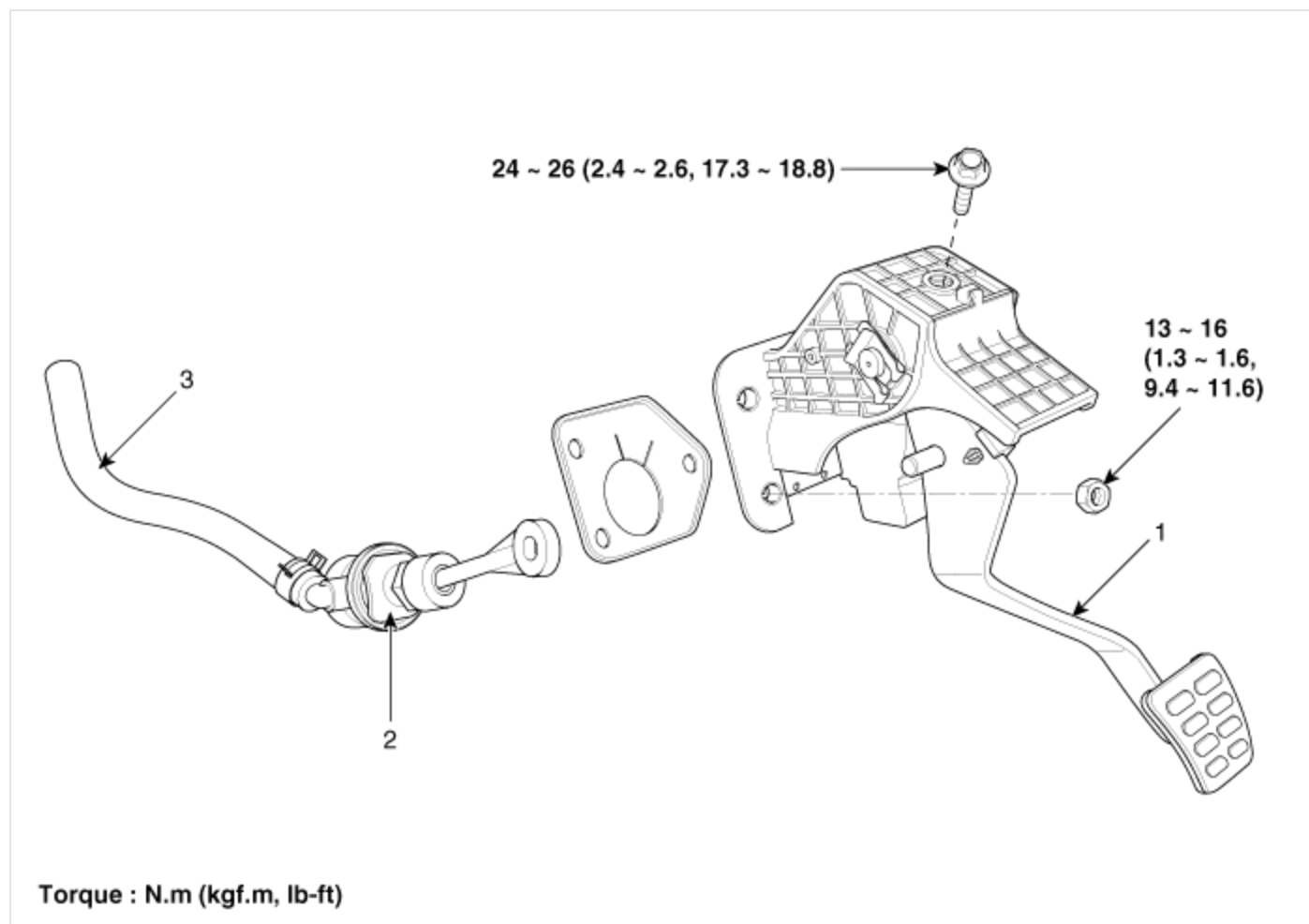


7. Connect the clutch tube (B) to the master cylinder and insert a clip.
8. Refill the brake fluid.
9. Bleed the air in the clutch system.
(Refer to bleeding in service adjustment procedure)

Clutch System



Components



1. Clutch pedal assembly
2. Clutch master cylinder assembly

3. Clutch fluid hose

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Installation

1. Install the clutch master cylinder to the clutch pedal assembly by rotating the clutch master cylinder 45 degree clockwise.
2. Install the clutch pedal bracket mounting nut (A-2ea).

Tightening torque :

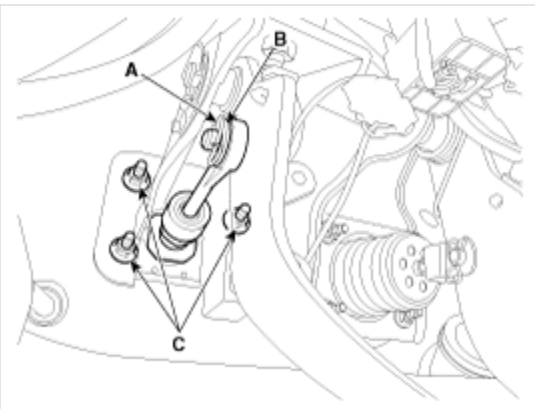
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Tightening torque :

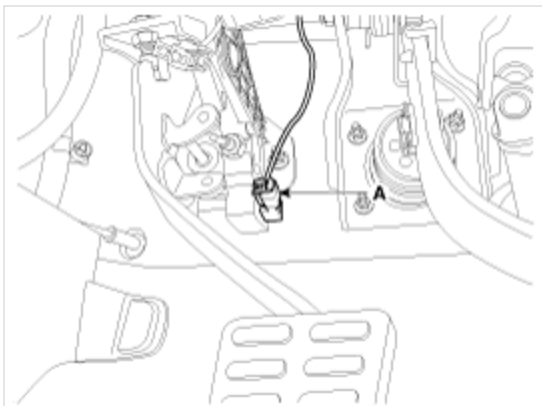
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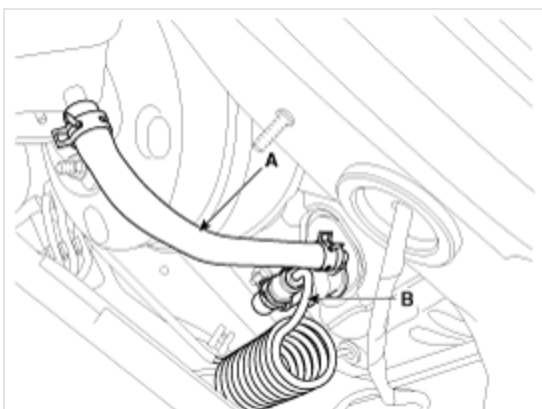
4. Install the push rod to the clutch pedal by installing the snap pin (A) and washer (B).
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Wheel bearing grease: SAE J310, NLGI No.2

5. Connect the ignition lock switch connector (A).
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6. Install the flexible hose (A) to the brake reserve tank.

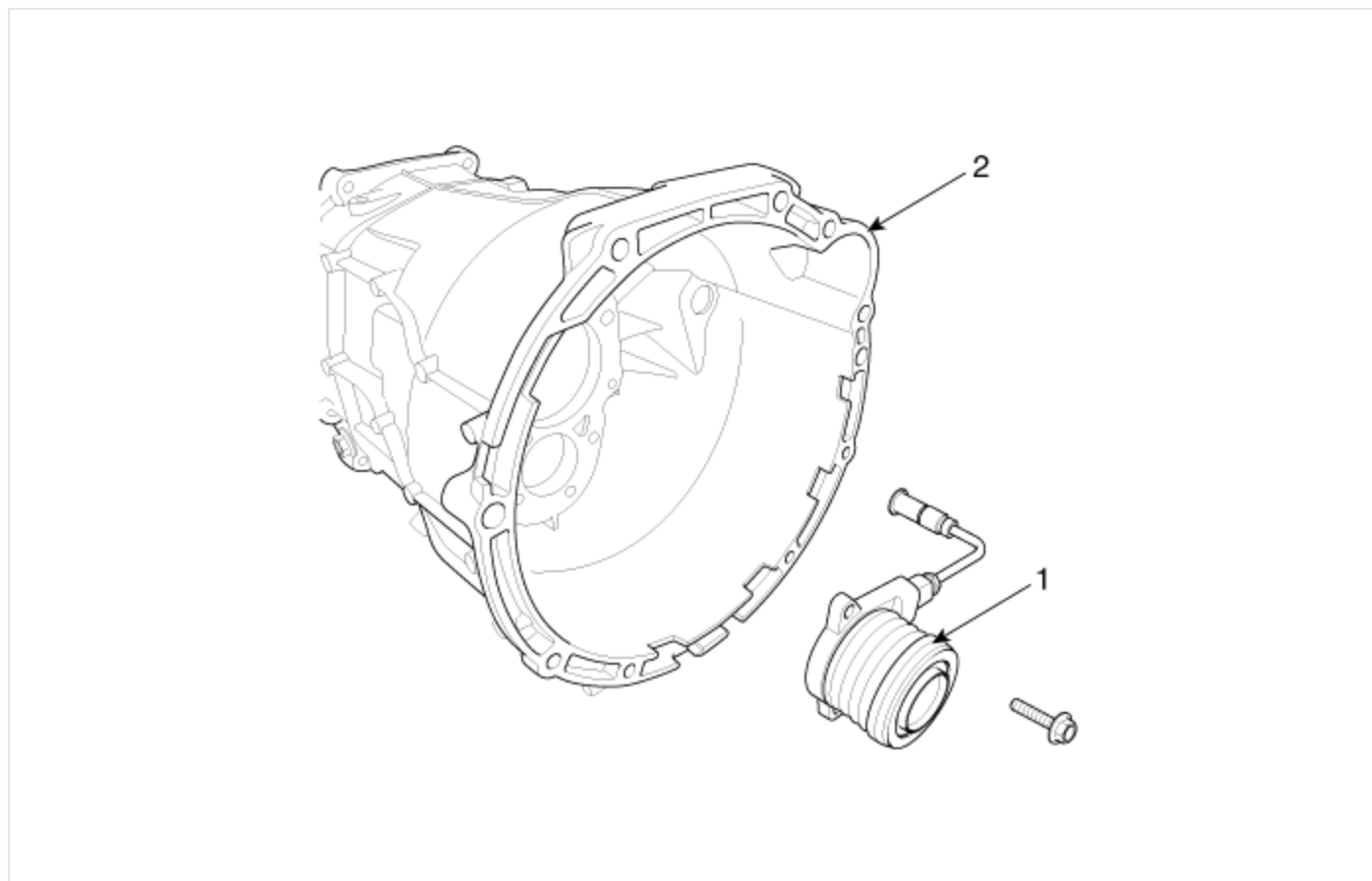


7. Connect the clutch tube (B) to the master cylinder and insert a clip.
8. Refill the brake fluid.
9. Bleed the air in the clutch system.
(Refer to bleeding in service adjustment procedure)

Clutch System



Components



1. C.S.C (Concentric Slave Cylinder) assembly

2. Manual transaxle case

Clutch System



C.S.C Adjustment Procedure

C.S.C(Concentric Slave Cylinder) Air Bleeding

1. After disconnecting a cap from the concentric slave cylinder air bleeder, insert a vinyl hose in the plug.
2. Loosening the plug screw, press and release the clutch pedal about 10 times.

CAUTION

Hold the air bleeder body not to rotate with a spanner.
The holding is needed when the plug loosened or tightened.

3. Tighten the plug during the clutch pedal pressed.
Afterwards, raise the pedal with a hand.

Tightening torque :

8 ~ 10 Nm (0.8 ~ 1.0 kgf.m, 2.8 ~ 7.2 lb-ft)

4. After pressing the clutch pedal 3 times more, loosen the plug and retighten it with the pedal pressed. Raise it again, then.
5. Repeat the step 4 two or three times. (until there is no bubble in the fluid)

