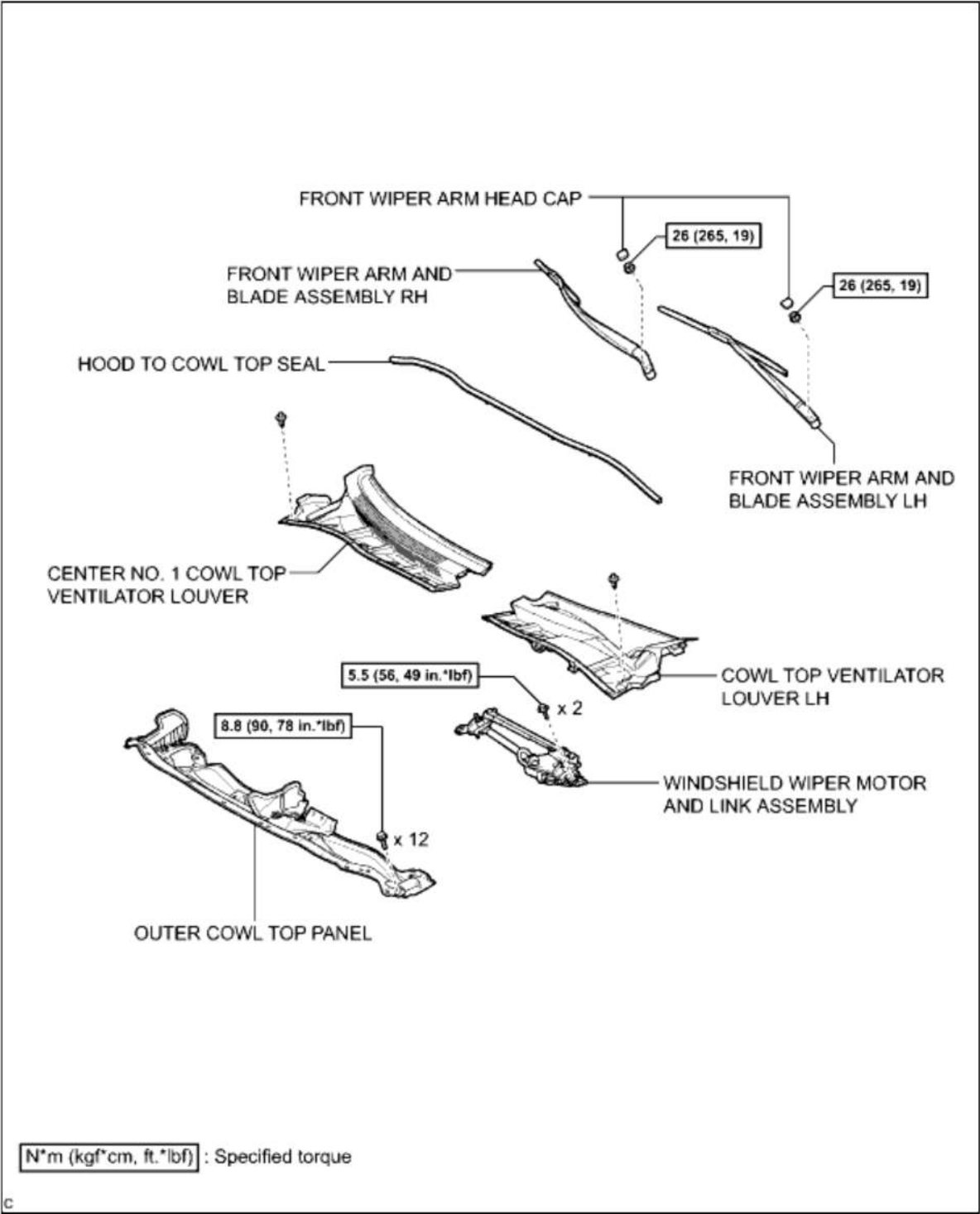


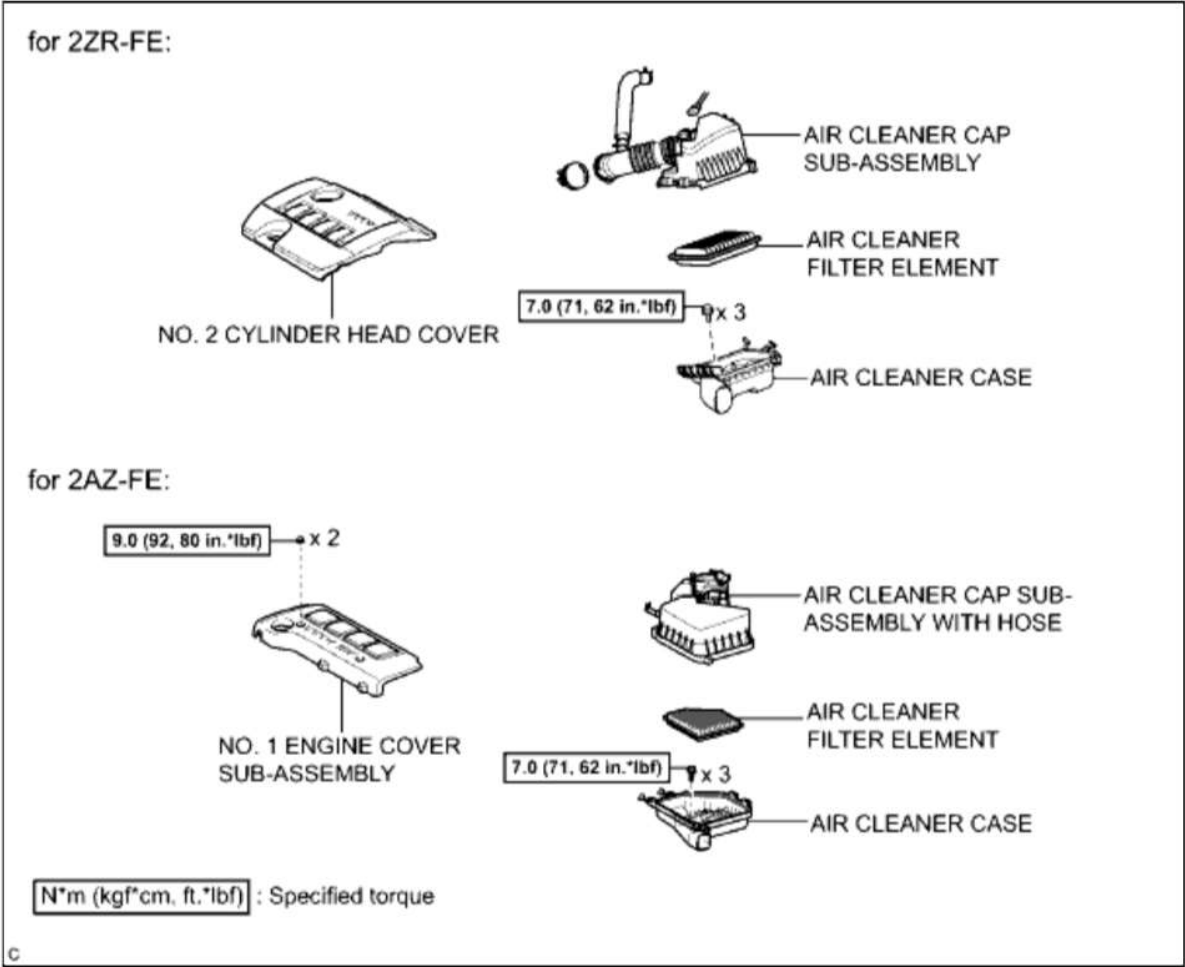
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WLR00LX
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: COMPONENTS (2010 Corolla)		

COMPONENTS

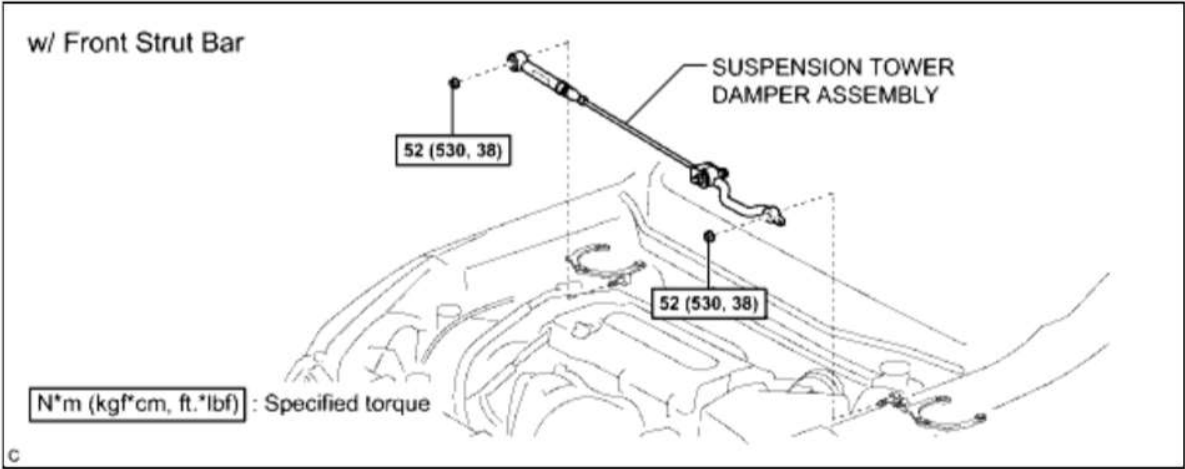
ILLUSTRATION



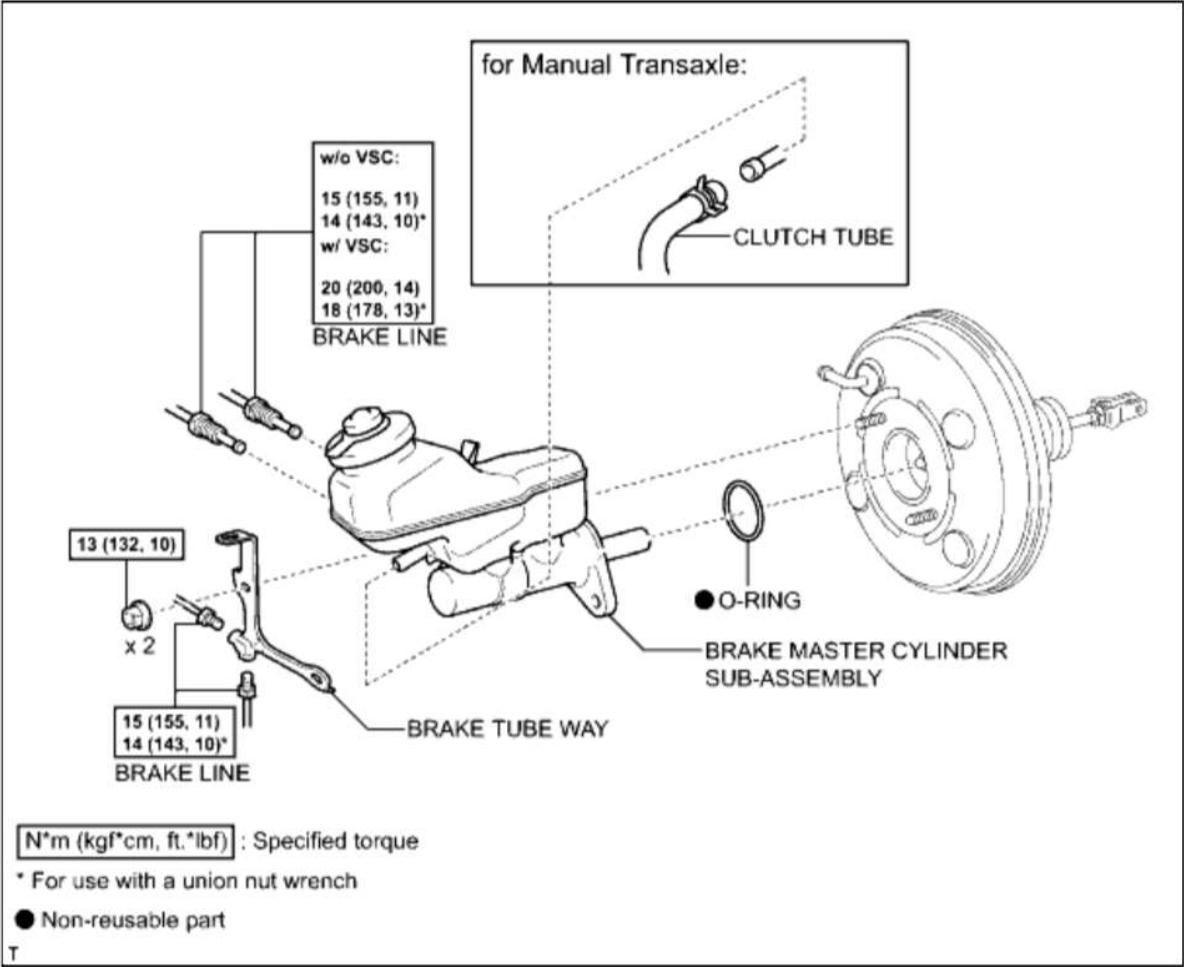
ILLUSTRATION



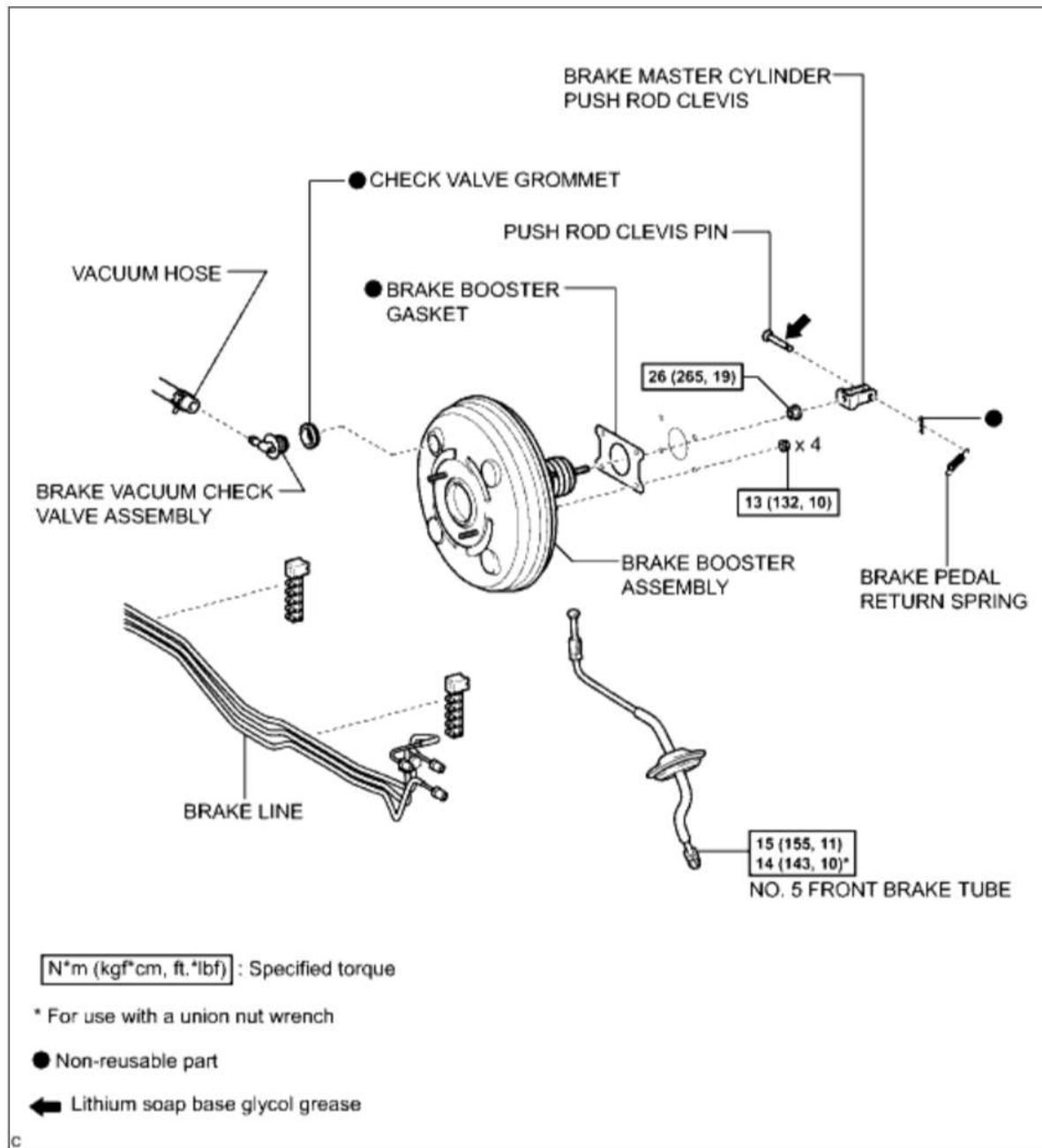
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION

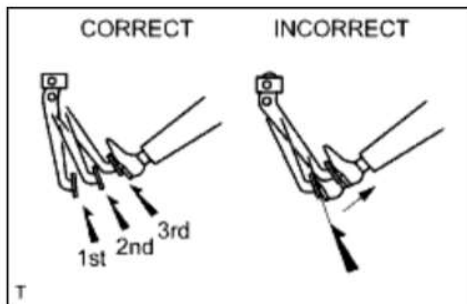


Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WLT013X
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT BRAKE BOOSTER ASSEMBLY

(a) Airtightness check



- (1) Start the engine and stop it after 1 or 2 minutes. Slowly depress the brake pedal several times.

HINT:

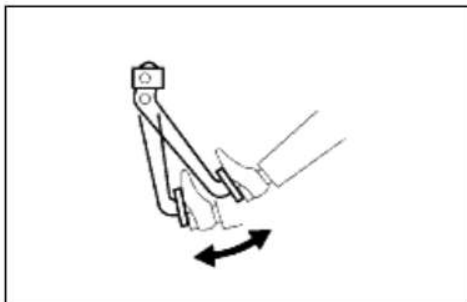
If the pedal can be depressed to the floor the first time, but on the 2nd and 3rd times cannot be depressed as far, the booster is airtight.

- (2) Depress the brake pedal while the engine is running, and stop the engine with the brake pedal depressed.

HINT:

If there is no change in the pedal reserve distance while holding the pedal for 30 seconds, the booster is airtight.

(b) Operation check

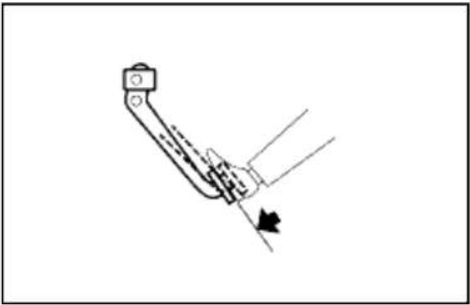


- (1) Depress the brake pedal several times with the ignition switch off and check that there is no change in the pedal reserve distance when the pedal is depressed.

- (2) Depress and hold down the pedal, and start the engine.

HINT:

If the pedal goes down slightly, operation is normal.



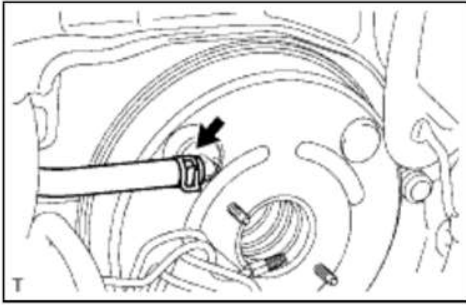
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WLS012X
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: REMOVAL (2010 Corolla)		

REMOVAL

NOTICE:

Make sure to release the vacuum from the brake booster before removing the master cylinder from the brake booster.

1. REMOVE NO. 2 CYLINDER HEAD COVER (for 2ZR-FE) [INFO](#)
2. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (for 2ZR-FE) [INFO](#)
3. REMOVE AIR CLEANER CASE (for 2ZR-FE) [INFO](#)
4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY (for 2AZ-FE) [INFO](#)
5. REMOVE AIR CLEANER CAP SUB-ASSEMBLY WITH HOSE (for 2AZ-FE) [INFO](#)
6. REMOVE AIR CLEANER CASE (for 2AZ-FE) [INFO](#)
7. REMOVE FRONT WIPER ARM HEAD CAP [INFO](#)
8. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH [INFO](#)
9. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH [INFO](#)
10. REMOVE HOOD TO COWL TOP SEAL [INFO](#)
11. REMOVE CENTER NO. 1 COWL TOP VENTILATOR LOUVER [INFO](#)
12. REMOVE COWL TOP VENTILATOR LOUVER LH [INFO](#)
13. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY [INFO](#)
14. REMOVE OUTER COWL TOP PANEL (for TMC Made) [INFO](#)
15. REMOVE OUTER COWL TOP PANEL (except TMC Made) [INFO](#)
16. REMOVE SUSPENSION TOWER DAMPER ASSEMBLY (w/ Front Strut Bar) [INFO](#)
17. DRAIN BRAKE FLUID
18. DISCONNECT CLUTCH TUBE (for Manual Transaxle) [INFO](#)
19. REMOVE BRAKE MASTER CYLINDER SUB-ASSEMBLY [INFO](#)
20. REMOVE BRAKE PEDAL RETURN SPRING [INFO](#)
21. SEPARATE BRAKE MASTER CYLINDER PUSH ROD CLEVIS [INFO](#)
22. DISCONNECT VACUUM HOSE



(a) Slide the clip and disconnect the vacuum hose.

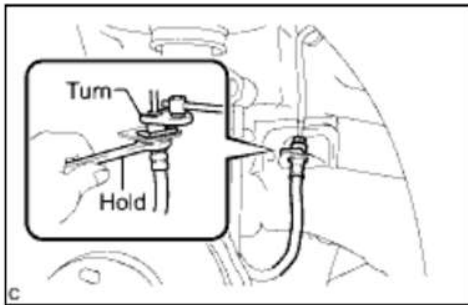
23. REMOVE BRAKE VACUUM CHECK VALVE ASSEMBLY

(a) Remove the vacuum check valve assembly from the brake booster assembly.

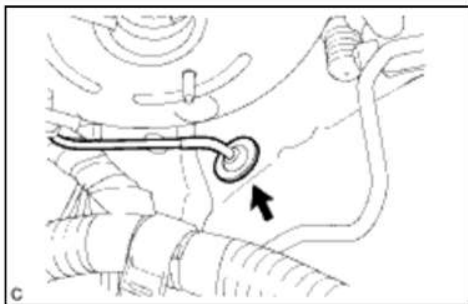
24. REMOVE CHECK VALVE GROMMET

(a) Remove the check valve grommet from the brake booster assembly.

25. REMOVE NO. 5 FRONT BRAKE TUBE



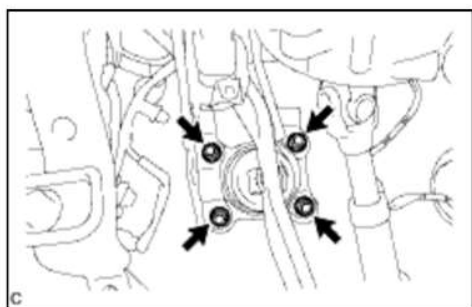
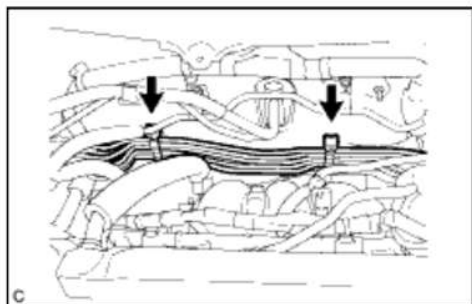
(a) Using a union nut wrench (10 mm), disconnect the No. 5 front brake tube from the front brake flexible hose LH.



(b) Remove the grommet and No. 5 front brake tube from the body.

26. REMOVE BRAKE BOOSTER ASSEMBLY

(a) Disengage the 2 clamps and separate the brake lines from the body.



(b) Remove the 4 nuts and brake booster assembly from the body.

NOTICE:

Do not damage the brake lines or fuel lines.

27. REMOVE BRAKE BOOSTER GASKET

(a) Remove the brake booster gasket from the brake booster assembly.

28. REMOVE BRAKE MASTER CYLINDER PUSH ROD CLEVIS

(a) Loosen the lock nut and remove the brake master cylinder push rod clevis and lock nut from the brake booster assembly.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WLP012X
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: INSTALLATION (2010 Corolla)		

INSTALLATION

1. TEMPORARILY TIGHTEN BRAKE MASTER CYLINDER PUSH ROD CLEVIS

- (a) Install the lock nut and brake master cylinder push rod clevis to the brake booster assembly.

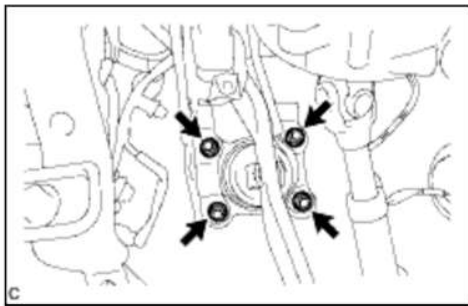
HINT:

Fully tighten the lock nut after adjusting the brake pedal height.

2. INSTALL BRAKE BOOSTER GASKET

- (a) Install a new brake booster gasket to the brake booster assembly.

3. INSTALL BRAKE BOOSTER ASSEMBLY

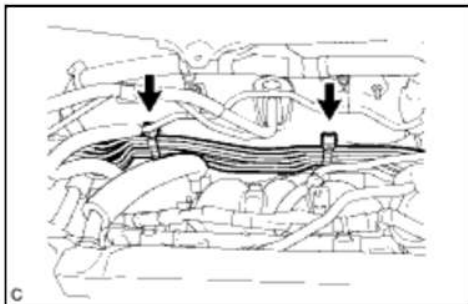


- (a) Install the brake booster assembly to the body with the 4 nuts.

Torque: 13 N·m (132 kgf·cm, 10ft·lbf)

NOTICE:

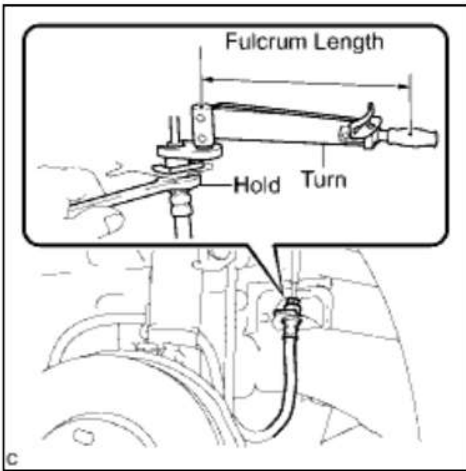
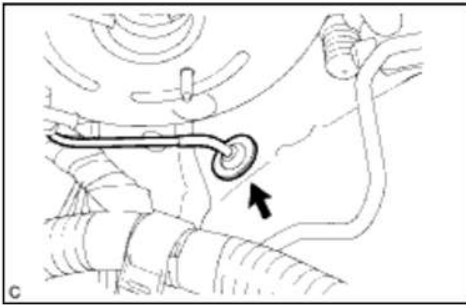
Do not damage the brake lines or fuel lines.



- (b) Engage the 2 clamps to install the brake lines to the body.

4. INSTALL NO. 5 FRONT BRAKE TUBE

- (a) Install the No. 5 front brake tube to the body and engage the grommet.



(b) Using a union nut wrench (10 mm), connect the No. 5 front brake tube to the front brake flexible hose LH.

without a union nut wrench - Torque: 15 N·m (155 kgf·cm, 11ft·lbf)

with a union nut wrench - Torque: 14 N·m (143 kgf·cm, 10ft·lbf)

NOTICE:

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective when the union nut wrench is parallel to the torque wrench.

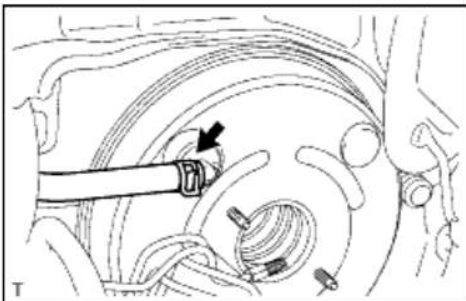
5. INSTALL CHECK VALVE GROMMET

(a) Install a new check valve grommet to the brake booster assembly.

6. INSTALL BRAKE VACUUM CHECK VALVE ASSEMBLY

(a) Install the vacuum check valve assembly to the brake booster assembly.

7. CONNECT VACUUM HOSE



(a) Connect the vacuum hose and slide the clip.

8. CONNECT BRAKE MASTER CYLINDER PUSH ROD CLEVIS



9. INSTALL BRAKE PEDAL RETURN SPRING



10. INSTALL FRONT WHEEL LH

Torque: 103 N·m (1050 kgf·cm, 76ft·lbf)

11. INSTALL BRAKE MASTER CYLINDER SUB-ASSEMBLY **12. CONNECT CLUTCH TUBE (for Manual Transaxle)** **13. FILL RESERVOIR WITH BRAKE FLUID** **14. BLEED CLUTCH LINE****15. BLEED BRAKE MASTER CYLINDER** **16. BLEED BRAKE LINE** **17. BLEED BRAKE ACTUATOR (w/ VSC)** **18. INSPECT FOR BRAKE FLUID LEAK****19. INSPECT FLUID LEVEL** **20. INSPECT AND ADJUST BRAKE PEDAL HEIGHT** **21. INSPECT BRAKE PEDAL FREE PLAY** **22. INSPECT BRAKE PEDAL RESERVE DISTANCE** **23. INSTALL SUSPENSION TOWER DAMPER ASSEMBLY (w/ Front Strut Bar)** **24. INSTALL OUTER COWL TOP PANEL (for TMC Made)** **25. INSTALL OUTER COWL TOP PANEL (except TMC Made)** **26. INSTALL WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY** **27. INSTALL COWL TOP VENTILATOR LOUVER LH** **28. INSTALL CENTER NO. 1 COWL TOP VENTILATOR LOUVER** **29. INSTALL HOOD TO COWL TOP SEAL** **30. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH** **31. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH** **32. INSTALL FRONT WIPER ARM HEAD CAP** **33. INSTALL AIR CLEANER CASE (for 2ZR-FE)** **34. INSTALL AIR CLEANER CAP SUB-ASSEMBLY (for 2ZR-FE)** **35. INSTALL NO. 2 CYLINDER HEAD COVER (for 2ZR-FE)** **36. INSTALL AIR CLEANER CASE (for 2AZ-FE)**

37. INSTALL AIR CLEANER CAP SUB-ASSEMBLY WITH HOSE (for 2AZ-FE)

INFO

38. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY (for 2AZ-FE)

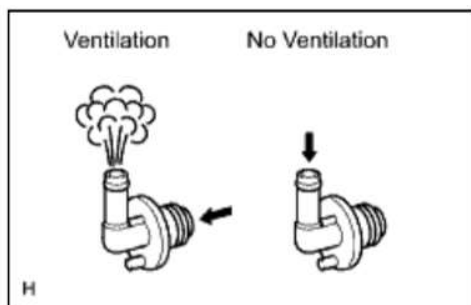
INFO



Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WLQ01IX
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: INSPECTION (2010 Corolla)		

INSPECTION

1. INSPECT BRAKE VACUUM CHECK VALVE ASSEMBLY



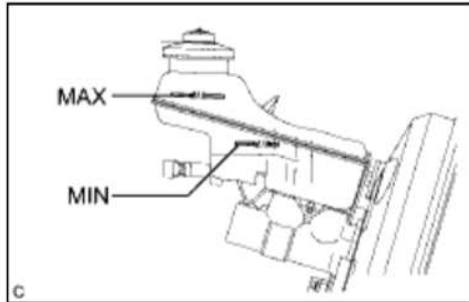
- (a) Check that there is ventilation from the booster to the engine, and no ventilation from the engine to the booster. If the results are not as specified, replace the brake vacuum check valve assembly.



Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000000SRG010X
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT FLUID LEVEL



(a) Check the fluid level.

If brake fluid level is lower than the MIN line, check for leaks and inspect the disc brake pads. If necessary, refill the reservoir with brake fluid to the MAX line after repair or replacement.

Brake Fluid:

SAE J1703 or FMVSS No. 116 DOT 3



TOYOTA

Last Modified: 3-10-2010	6.4 N	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000000SRF01EX
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: BLEEDING (2010 Corolla)		

BLEEDING

HINT:

If any work is performed on the brake system or if air in the brake lines is suspected, bleed air from the brake system.

NOTICE:

- Move the shift lever to P and apply the parking brake before bleeding the brakes.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.
- If brake fluid leaks onto any painted surface, immediately wash it off.

1. REMOVE CENTER COWL TOP VENTILATOR LOUVER



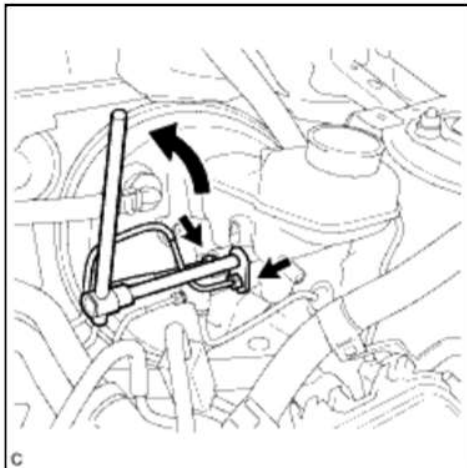
2. FILL RESERVOIR WITH BRAKE FLUID



3. BLEED BRAKE MASTER CYLINDER

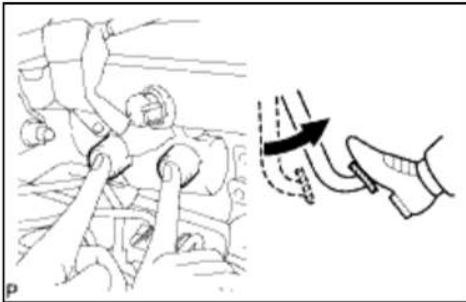
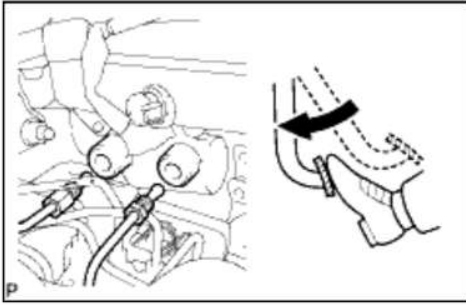
NOTICE:

- If the master cylinder is reinstalled or if the reservoir becomes empty, bleed the master cylinder.
- To prevent brake fluid from damaging painted surface, cover any surrounding parts with a piece of cloth.



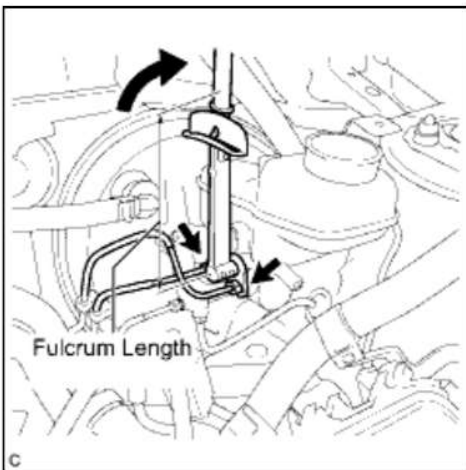
(a) Using a union nut wrench (10 mm or 12 mm), disconnect the 2 brake lines from the master cylinder.

(b) Slowly depress the brake pedal and hold it* 1.



(c) Cover the 2 outer holes with fingers, and release the brake pedal*2.

(d) Repeat *1 and *2 3 or 4 times.



(e) Using a union nut wrench (10 mm or 12 mm), connect the 2 brake lines to the master cylinder.

w/o VSC without a union nut wrench - Torque: 15 N·m (155 kgf·cm, 11ft·lbf)

w/o VSC with a union nut wrench - Torque: 14 N·m (143 kgf·cm, 10ft·lbf)

w/ VSC without a union nut wrench - Torque: 20 N·m (200 kgf·cm, 14ft·lbf)

w/ VSC with a union nut wrench - Torque: 18 N·m (178 kgf·cm, 13ft·lbf)

NOTICE:

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective when the union nut wrench is parallel to the torque wrench.

4. BLEED BRAKE LINE INFO

5. BLEED BRAKE ACTUATOR (w/ VSC)

NOTICE:

After bleeding the brake system, if the specified height or feel of the brake pedal cannot be obtained, bleed the brake actuator assembly with the Techstream by following the procedure below.

(a) Depress the brake pedal more than 20 times with the ignition switch off.

(b) Connect the Techstream to the DLC3, and then turn the ignition switch to ON.

NOTICE:

Do not start the engine.

(c) Turn the Techstream on and select "Air Bleeding" on the screen.

NOTICE:

- Refer to the Techstream operator's manual for further details.
- Bleed air by following the steps displayed on the Techstream.

(d) Bleed air according to "Step 1: Increase Line" on the Techstream display.

NOTICE:

- Make sure that the master cylinder reservoir tank does not run out of brake fluid.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.

- (1) Connect a vinyl tube to either one of the bleeder plugs.
- (2) Depress the brake pedal several times, and then loosen the bleeder plug connected to the vinyl tube with the pedal depressed*3.
- (3) When fluid stops coming out, tighten the bleeder plug, and then release the brake pedal*4.
- (4) Repeat *3 and *4 until all the air in the fluid is completely bled out.
- (5) Tighten the bleeder plug completely.

Front bleeder plug - Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)

Rear bleeder plug (for Drum Brake) - Torque: 8.5 N·m (87 kgf·cm, 75in·lbf)

Rear bleeder plug (for Disc Brake) - Torque: 10 N·m (102 kgf·cm, 7ft·lbf)

(6) Repeat the above procedure for the rest of the wheels to bleed the brake lines.

(e) Bleed the suction line according to "Step 2: Inhalation Line" on the Techstream display.

NOTICE:

- Bleed the suction line by following the steps displayed on the Techstream.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.

- (1) Connect a vinyl tube to the bleeder plug at the right front wheel or the right rear wheel and loosen the bleeder plug.
- (2) Operate the brake actuator assembly to bleed air using the Techstream*5.

NOTICE:

- During this step, be sure to release the brake pedal.
- The actuator operation stops automatically in 4 seconds.

- (3) Check that the actuator operation has stopped by referring to the Techstream display, and tighten the bleeder plug*6.
- (4) Repeat *5 and *6 until all the air in the fluid is completely bled out.
- (5) Tighten the bleeder plug completely.

Front bleeder plug - Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)

Rear bleeder plug (for Drum Brake) - Torque: 8.5 N·m (87 kgf·cm, 75in·lbf)

Rear bleeder plug (for Disc Brake) - Torque: 10 N·m (102 kgf·cm, 7ft·lbf)

(6) For the rest of the wheels, bleed air in the same way as stated in the above procedure.

- (f) Bleed the pressure reduction line according to "Step 3: Decrease Line" on the Techstream display.

NOTICE:

- Bleed the pressure reduction line by following the steps displayed on the Techstream.
 - Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.
- (1) Connect a vinyl tube to either one of the bleeder plugs.
 - (2) Loosen the bleeder plug*7.
 - (3) While keeping the brake pedal fully depressed, operate the brake actuator assembly using the Techstream.

NOTICE:

- The actuator operation stops automatically in 4 seconds. When performing this procedure continuously, an interval of at least 20 seconds is required.
 - After the operation is completed, the brake pedal goes down slightly. This is a normal phenomenon when the solenoid opens.
 - During this procedure, the pedal seems heavy, but completely depress it so that the brake fluid comes out from the bleeder plug.
 - Be sure to keep the brake pedal depressed. Never depress and release the pedal repeatedly.
- (4) Tighten the bleeder plug, and then release the brake pedal*8.
 - (5) Repeat steps *7 to *8 until all the air in the fluid is completely bled out.
 - (6) Tighten the bleeder plug completely.

Front bleeder plug - Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)

Rear bleeder plug (for Drum Brake) - Torque: 8.5 N·m (87 kgf·cm, 75in·lbf)

Rear bleeder plug (for Disc Brake) - Torque: 10 N·m (102 kgf·cm, 7ft·lbf)

- (7) Repeat the above procedure for the rest of the brakes to bleed the brake lines.
- (g) Bleed the brake lines again according to "Step 4: Increase Line" on the Techstream display.

NOTICE:

- Bleed air by following the steps displayed on the Techstream.
 - Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.
- (1) Connect a vinyl tube to either one of the bleeder plugs.
 - (2) Depress the brake pedal several times, and then loosen the bleeder plug connected to the vinyl tube with the pedal depressed*9.
 - (3) When fluid stops coming out, tighten the bleeder plug, and then release the brake pedal*10.
 - (4) Repeat *9 and *10 until all the air in the fluid is completely bled out.
 - (5) Tighten the bleeder plug completely.

Front bleeder plug - Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)

Rear bleeder plug (for Drum Brake) - Torque: 8.5 N·m (87 kgf·cm, 75in·lbf)

Rear bleeder plug (for Disc Brake) - Torque: 10 N·m (102 kgf·cm, 7ft·lbf)

- (6) Repeat the above procedure for each brake to bleed the brake lines.
- (h) Finish "Air Bleeding" on the Techstream, and then turn the Techstream off.
- (i) Disconnect the Techstream from the DLC3.

(j) Turn the ignition switch off.

6. INSPECT FOR BRAKE FLUID LEAK

7. INSPECT FLUID LEVEL

8. INSTALL CENTER COWL TOP VENTILATOR LOUVER



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002XY200VX
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: REPLACEMENT (2010 Corolla)		

REPLACEMENT

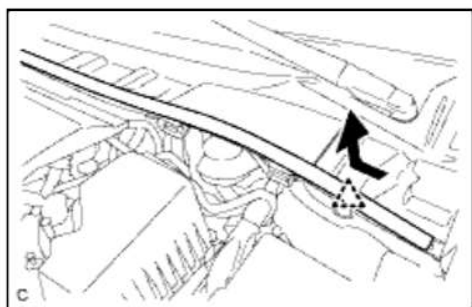
HINT:

If any work is performed on the brake system or if air in the brake lines is suspected, bleed the brake system.

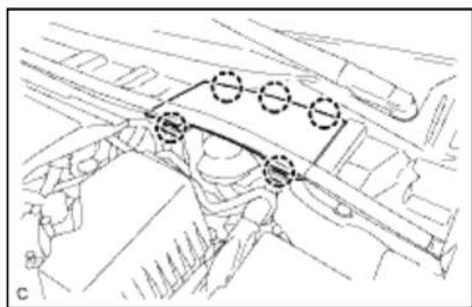
NOTICE:

- Move the shift lever to P and apply the parking brake before bleeding the brakes.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.
- If brake fluid leaks onto any painted surface, immediately wash it off.

1. REMOVE CENTER COWL TOP VENTILATOR LOUVER



(a) Slide the hood to cowl top seal and disengage the clip as shown in the illustration.



(b) Disengage the 5 claws and remove the center cowl top ventilator louver.

2. FILL RESERVOIR WITH BRAKE FLUID

(a) Fill the reservoir with brake fluid.

Brake Fluid:

SAE J1703 or FMVSS No. 116 DOT 3

NOTICE:

Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.

3. BLEED BRAKE LINE

NOTICE:

- Bleed the brake line of the wheel farthest from the master cylinder first.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brakes.

- Connect a vinyl tube to the bleeder plug.
- Depress the brake pedal several times, and then loosen the bleeder plug with the pedal depressed*1.
- When fluid stops coming out, tighten the bleeder plug, and then release the brake pedal*2.
- Repeat *1 and *2 until all the air in the fluid is completely bled out.
- Tighten the bleeder plug completely.

Front bleeder plug - Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)

Rear bleeder plug (for Drum Brake) - Torque: 8.5 N·m (87 kgf·cm, 75in·lbf)

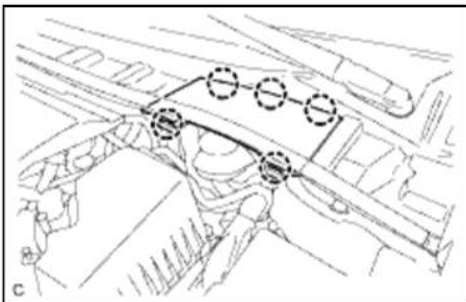
Rear bleeder plug (for Disc Brake) - Torque: 10 N·m (102 kgf·cm, 7ft·lbf)

- Repeat the above procedure for each wheel to bleed the brake line.

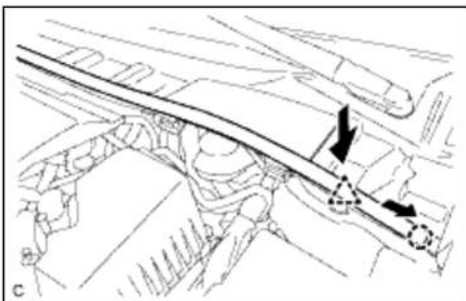
4. INSPECT FLUID LEVEL INFO

5. INSPECT FOR BRAKE FLUID LEAK

6. INSTALL CENTER COWL TOP VENTILATOR LOUVER



- Engage the 5 claws to install the center cowl top ventilator louver.



- Push and engage the clip, and slide and engage the claw of the hood to cowl top seal as shown in the illustration.

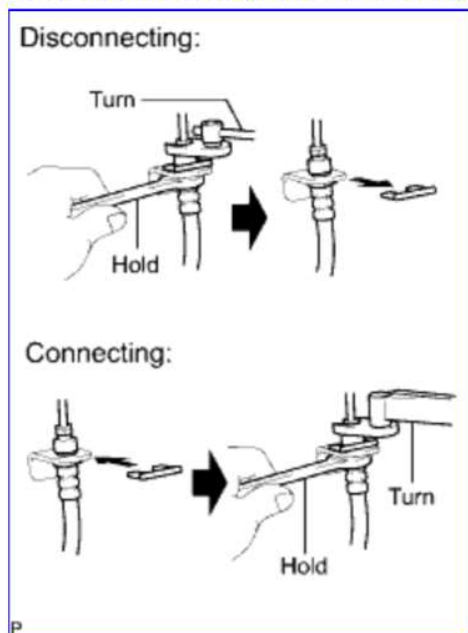
Last Modified: 3-10-2010	6.4 L	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000000SRD02RX
Title: BRAKE SYSTEM (OTHER): BRAKE LINE: PRECAUTION (2010 Corolla)		

PRECAUTION

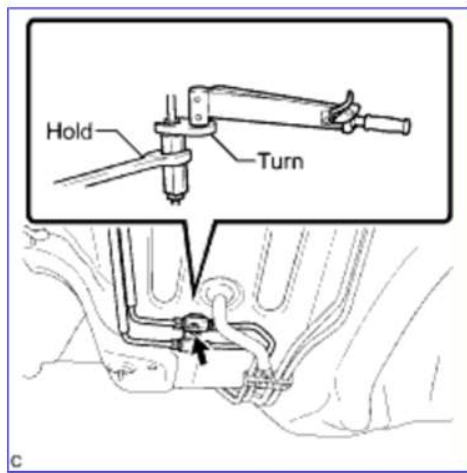
1. TROUBLESHOOTING PRECAUTION

NOTICE:

- Since the brake lines are classified as critical safety related parts, be sure to disassemble and inspect the components if a brake fluid leak is found. If any abnormality is found, replace the component with a new one.
- When removing brake components, cover the brake line connections to prevent foreign matter such as dust or dirt from entering the lines.
- Do not damage or deform the brake lines when removing or installing them.
- When installing a grommet to the body, ensure that the brake line passes through the center of the grommet.
- When installing a brake line or flexible hose, ensure that they are free from twists or bends.
- If the cap of a flexible hose does not match the groove on the bracket, twist the hose slightly to insert it.
- Flexible hoses must be free from shock absorber oil, grease, etc.
- When installing a brake line to a plastic clamp, ensure that the brake line is not loose or pinched.
- Do not reuse any clips or plastic clamps removed from a flexible hose.
- After installing a brake line or flexible hose, ensure that they do not interfere with any other components.
- When disconnecting and connecting a flexible hose and brake line:



- Hold the flexible hose with a wrench and disconnect the brake line with a union nut wrench without deforming the line.
 - Remove the clip.
 - Install a new clip.
 - Connect the brake line with a union nut wrench without deforming the line.
- When connecting a brake line and way:



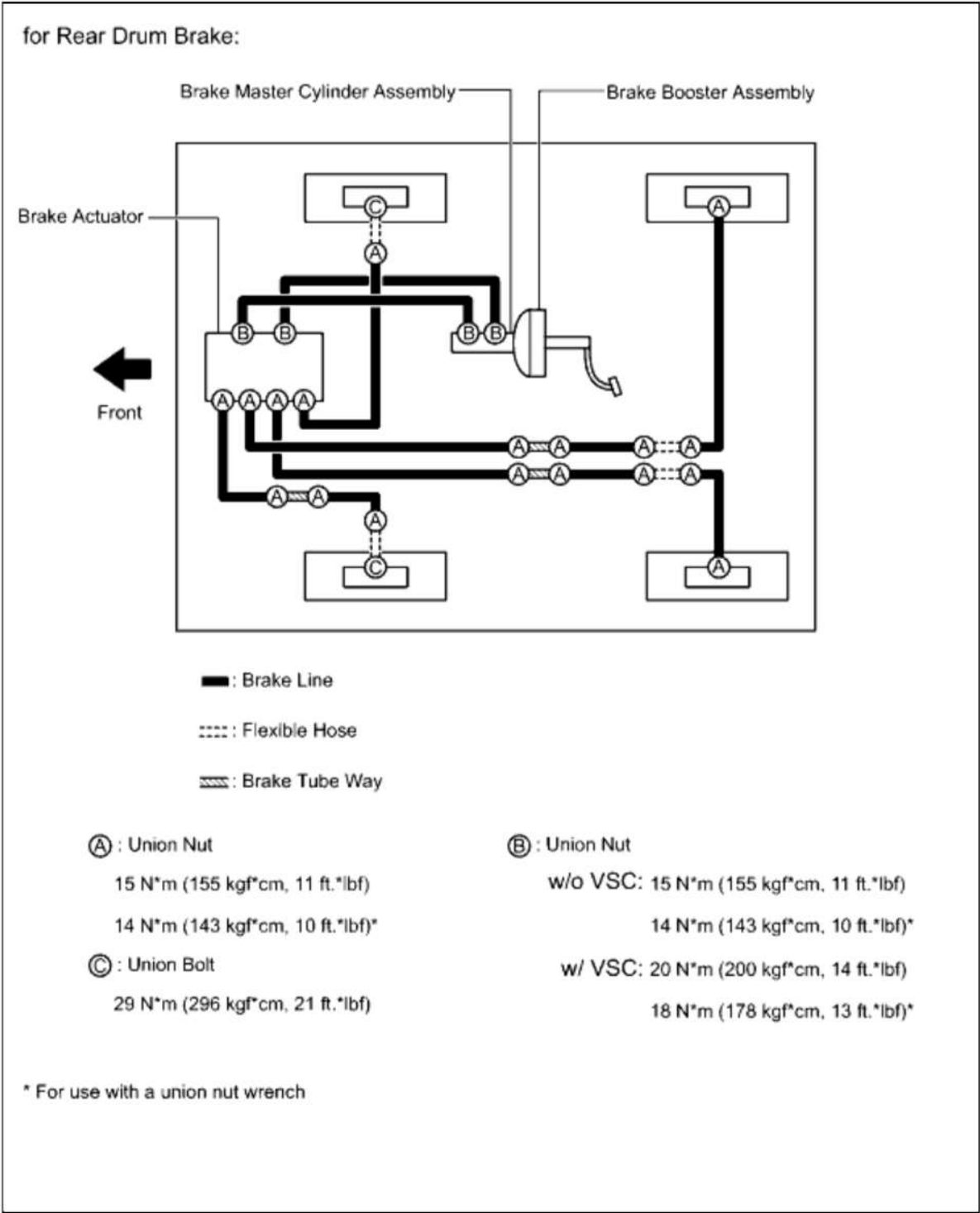
- Support the way to prevent deformation of the brake line and connect the brake line to the way with a union nut wrench.
- Support the way to prevent deformation of the brake line and install the bolt to secure the way to the body.



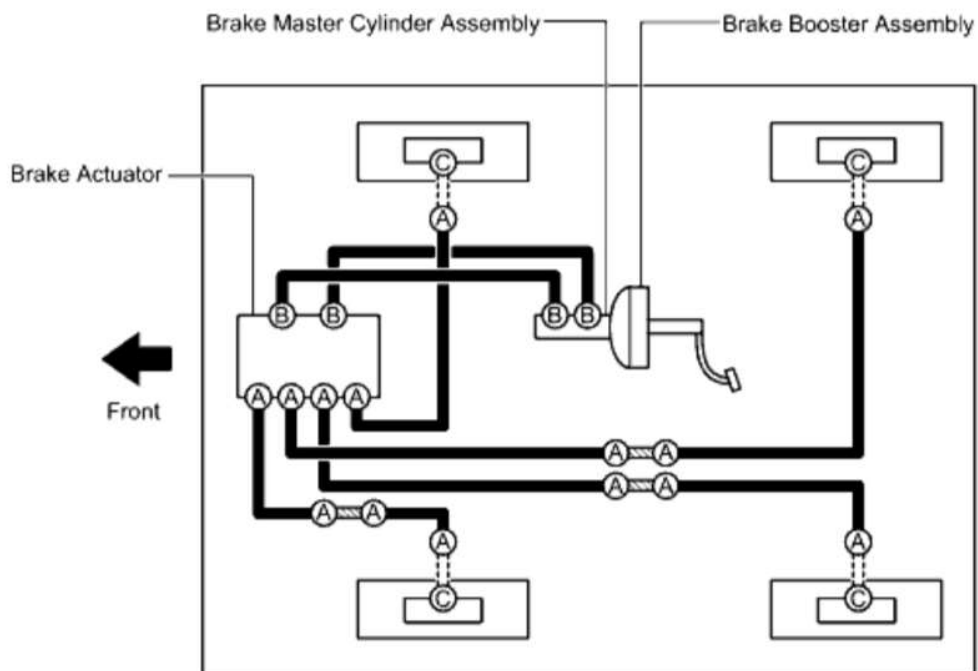
TOYOTA

Last Modified: 3-10-2010	6.4 U	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003D8B00EX
Title: BRAKE SYSTEM (OTHER): BRAKE LINE: SYSTEM DIAGRAM (2010 Corolla)		

SYSTEM DIAGRAM



for Rear Disc Brake:



— : Brake Line
 ---- : Flexible Hose
 // : Brake Tube Way

Ⓐ : Union Nut

15 N*m (155 kgf*cm, 11 ft.*lbf)

14 N*m (143 kgf*cm, 10 ft.*lbf)*

Ⓒ : Union Bolt

29 N*m (296 kgf*cm, 21 ft.*lbf)

Ⓑ : Union Nut

w/o VSC: 15 N*m (155 kgf*cm, 11 ft.*lbf)

14 N*m (143 kgf*cm, 10 ft.*lbf)*

w/ VSC: 20 N*m (200 kgf*cm, 14 ft.*lbf)

18 N*m (178 kgf*cm, 13 ft.*lbf)*

* For use with a union nut wrench

C

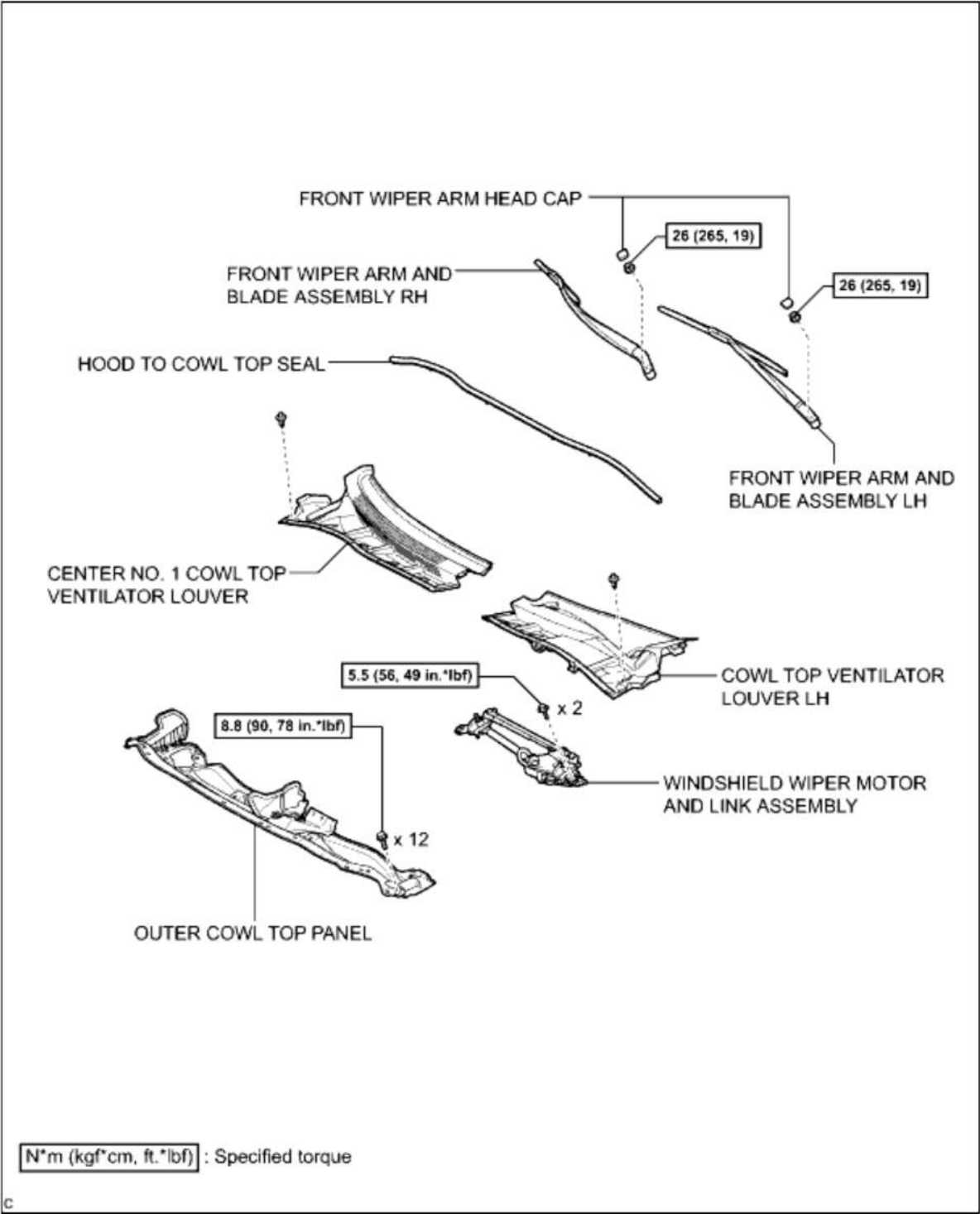


TOYOTA

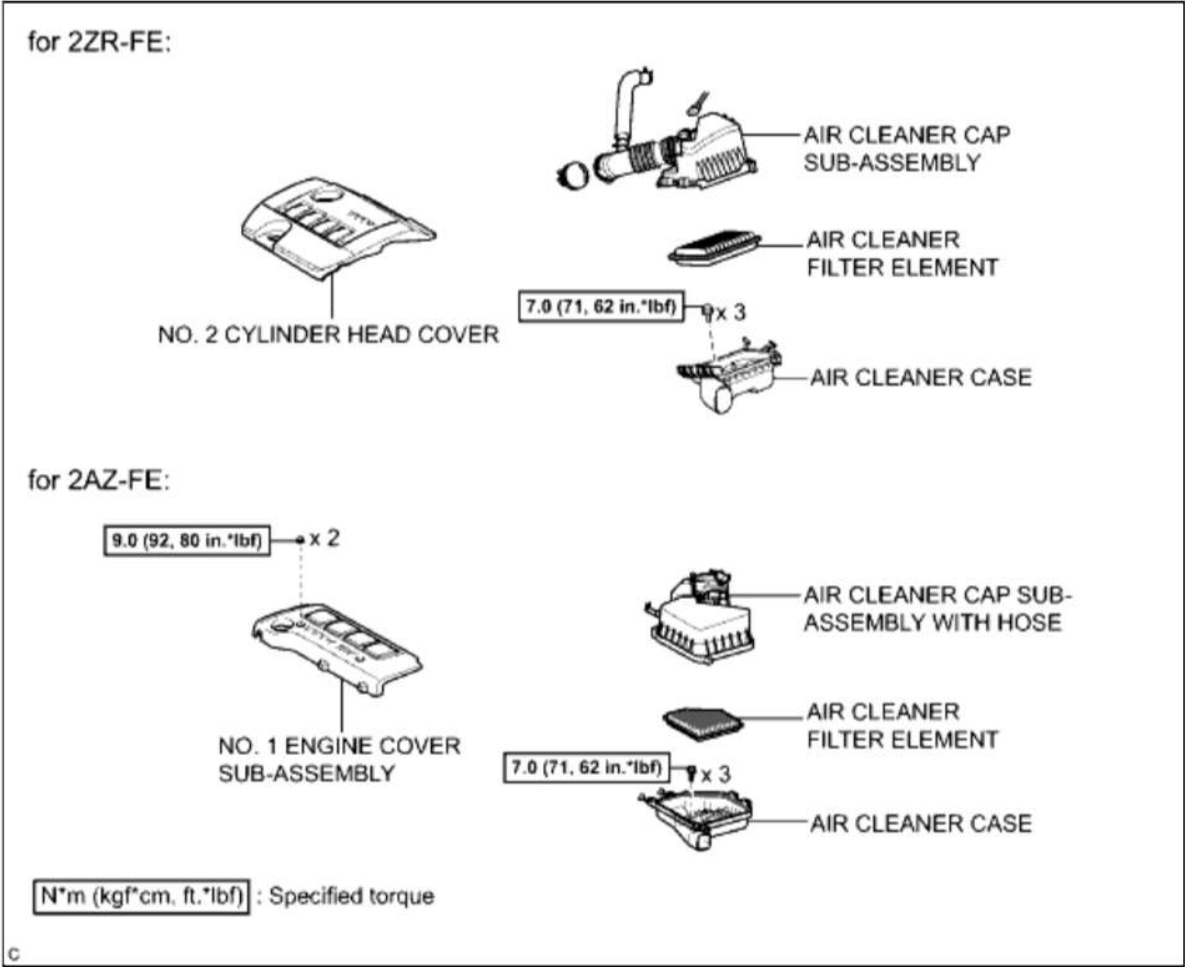
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WF000KX
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: COMPONENTS (2010 Corolla)		

COMPONENTS

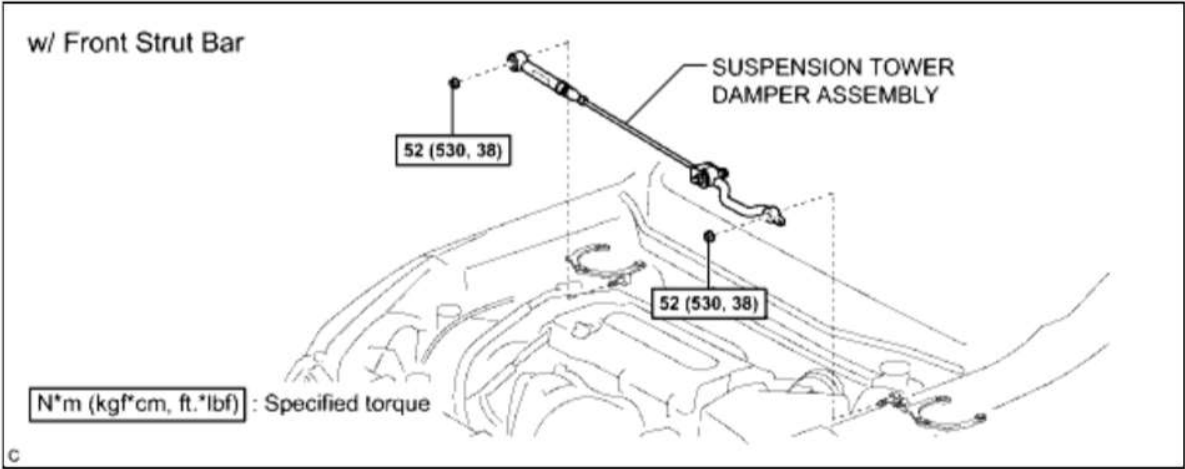
ILLUSTRATION



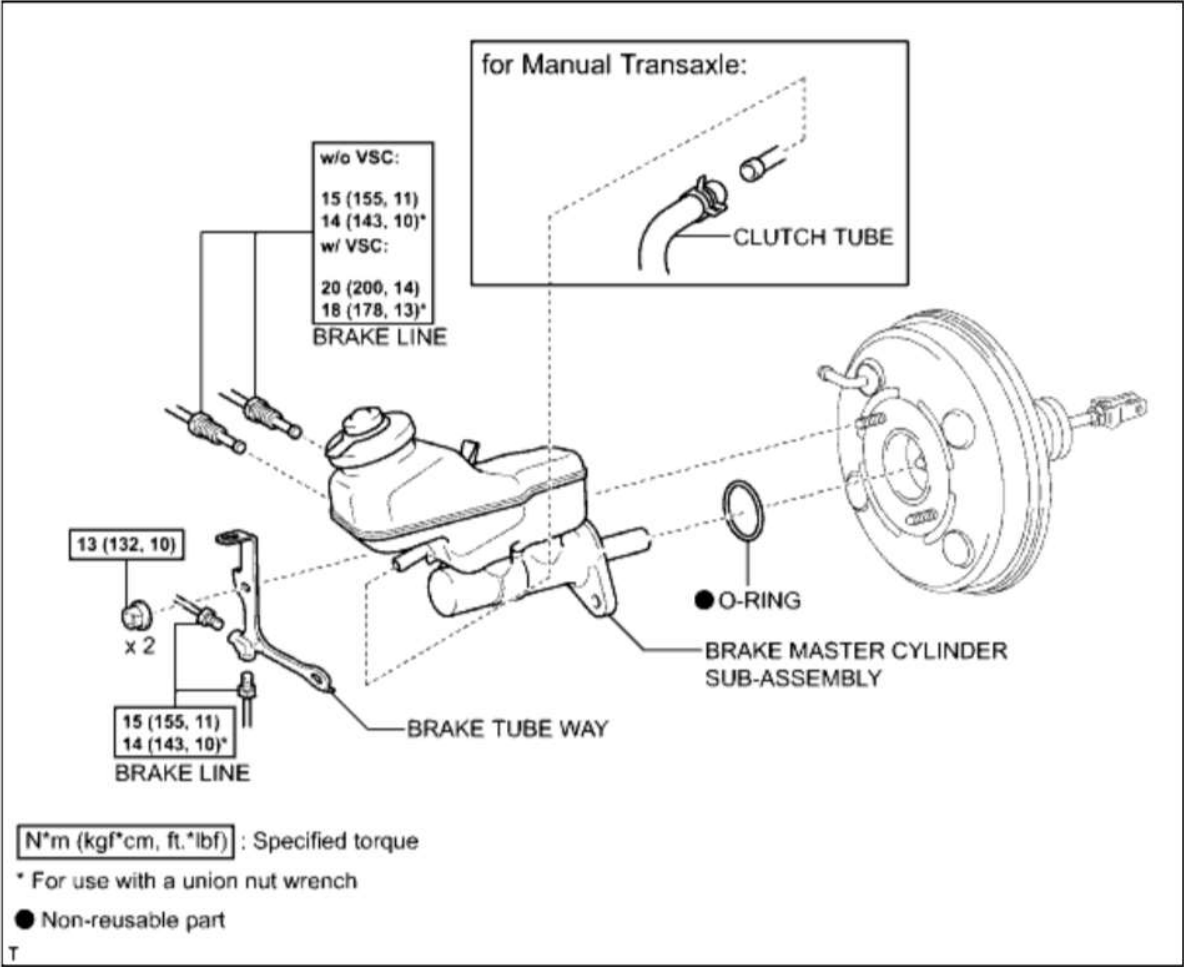
ILLUSTRATION



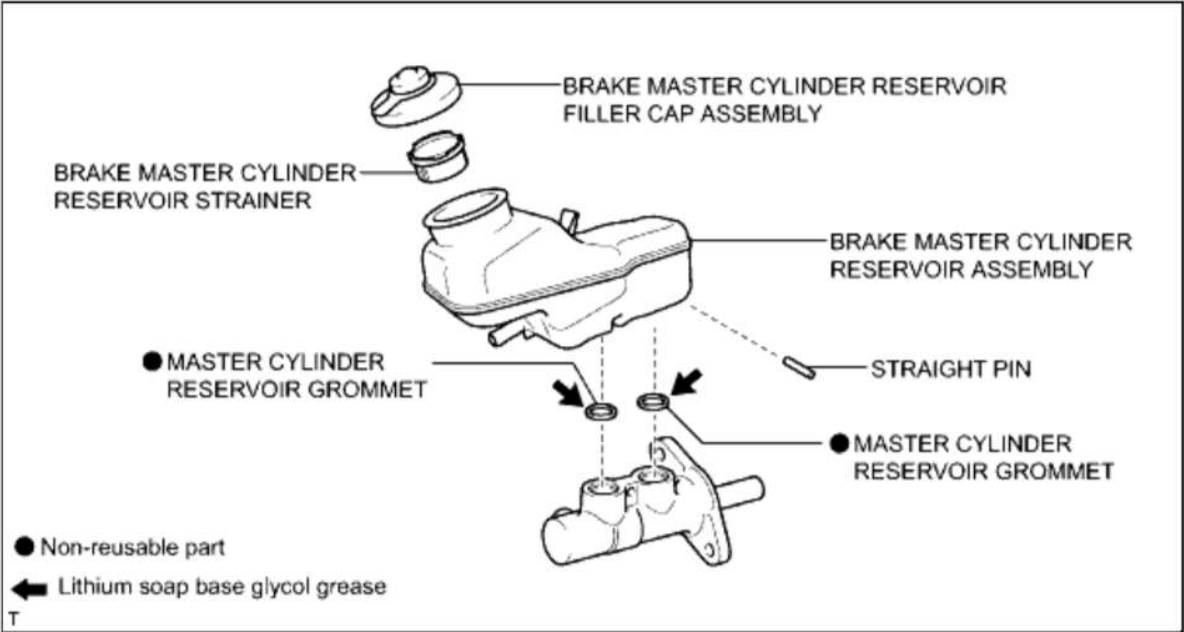
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION



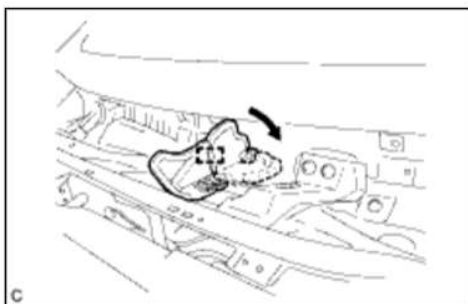
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WF100YX
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: REMOVAL (2010 Corolla)		

REMOVAL

NOTICE:

Make sure to release the vacuum from the brake booster before removing the master cylinder from the brake booster.

1. REMOVE NO. 2 CYLINDER HEAD COVER (for 2ZR-FE) [INFO](#)
2. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (for 2ZR-FE) [INFO](#)
3. REMOVE AIR CLEANER CASE (for 2ZR-FE) [INFO](#)
4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY (for 2AZ-FE) [INFO](#)
5. REMOVE AIR CLEANER CAP SUB-ASSEMBLY WITH HOSE (for 2AZ-FE) [INFO](#)
6. REMOVE AIR CLEANER CASE (for 2AZ-FE) [INFO](#)
7. REMOVE FRONT WIPER ARM HEAD CAP [INFO](#)
8. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH [INFO](#)
9. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH [INFO](#)
10. REMOVE HOOD TO COWL TOP SEAL [INFO](#)
11. REMOVE CENTER NO. 1 COWL TOP VENTILATOR LOUVER [INFO](#)
12. REMOVE COWL TOP VENTILATOR LOUVER LH [INFO](#)
13. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY [INFO](#)
14. REMOVE OUTER COWL TOP PANEL (for TMC Made)



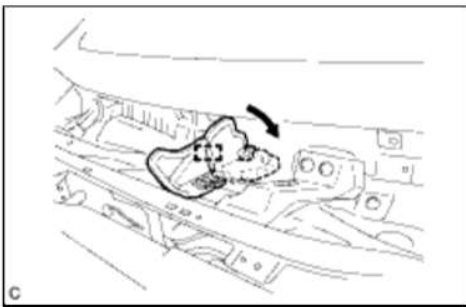
(a) Disengage the clamp and bend the water guard plate RH as shown in the illustration.

(b) Disengage the clamp.

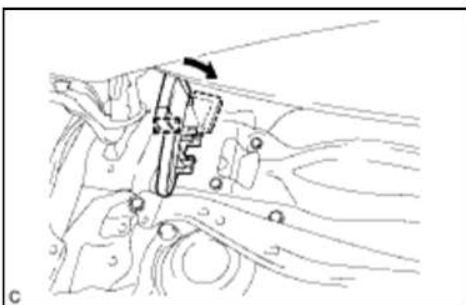


(c) Remove the 12 bolts and outer cowl top panel.

15. REMOVE OUTER COWL TOP PANEL (except TMC Made)



(a) Disengage the clamp and bend the water guard plate RH as shown in the illustration.



(b) Disengage the clamp and bend the No. 1 heater air duct splash shield seal.

(c) Disengage the clamp.

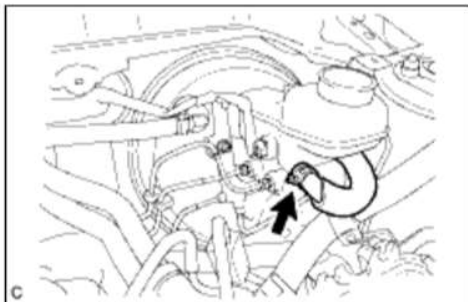


(d) Remove the 12 bolts and outer cowl top panel.

16. REMOVE SUSPENSION TOWER DAMPER ASSEMBLY (w/ Front Strut Bar) INFO

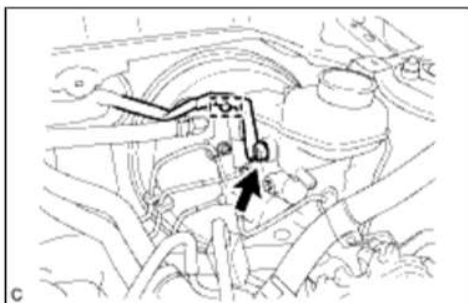
17. DRAIN BRAKE FLUID

18. DISCONNECT CLUTCH TUBE (for Manual Transaxle)



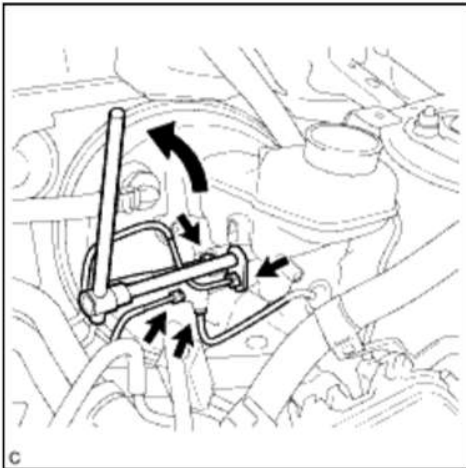
(a) Move the clip and disconnect the clutch tube.

19. REMOVE BRAKE MASTER CYLINDER SUB-ASSEMBLY



(a) Disconnect the connector and disengage the clamp.

(b) Using a union nut wrench (10 mm or 12 mm), disconnect

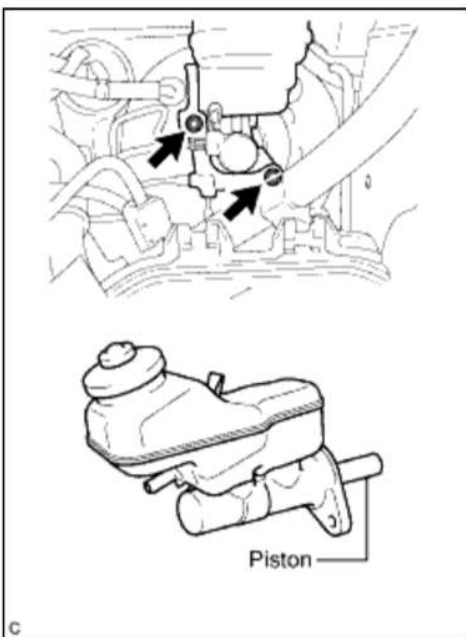


the 4 brake lines from the brake master cylinder sub-assembly.

(c) Remove the 2 nuts, brake tube way and brake master cylinder sub-assembly.

NOTICE:

- The master cylinder requires careful handling. Do not allow the master cylinder to receive any impact, such as from being dropped. Do not reuse a master cylinder that has been dropped.
- Do not strike or pinch the master cylinder piston, and do not cause any damage to the master cylinder piston by any other means.
- Make sure to release the vacuum from the brake booster before removing the master cylinder from the brake booster.
- When installing the master cylinder to the brake booster, or when removing the master cylinder from the brake booster, make sure that the master cylinder is kept horizontal or its tip faces downward (the piston faces upward) to prevent the master cylinder piston from falling off.
- Do not allow any foreign objects to contaminate the master cylinder piston. If a foreign object gets on the piston, remove it by using a piece of cloth and then apply an even layer of lithium soap base glycol grease around the circumference (sliding part) of the piston.
- Do not use any other type of grease or fluid.



(d) Remove the O-ring from the brake master cylinder sub-assembly.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WF201CX
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: DISASSEMBLY (2010 Corolla)		

DISASSEMBLY

1. REMOVE BRAKE MASTER CYLINDER RESERVOIR FILLER CAP ASSEMBLY

- (a) Remove the brake master cylinder reservoir filler cap assembly from the brake master cylinder reservoir assembly.

2. REMOVE BRAKE MASTER CYLINDER RESERVOIR STRAINER

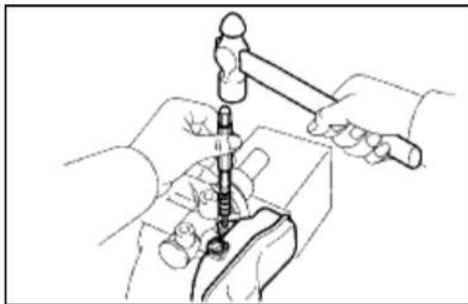
- (a) Remove the brake master cylinder reservoir strainer from the brake master cylinder reservoir assembly.

3. REMOVE BRAKE MASTER CYLINDER RESERVOIR ASSEMBLY

- (a) Mount the brake master cylinder sub-assembly in a vise.

NOTICE:

Place aluminum plates on the vise to prevent damage to the brake master cylinder sub-assembly.



- (b) Using a pin punch and a hammer, tap out the straight pin and remove the brake master cylinder reservoir assembly.

4. REMOVE MASTER CYLINDER RESERVOIR GROMMET

- (a) Remove the 2 master cylinder reservoir grommets from the brake master cylinder reservoir assembly.



Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000000V3301RX
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: INSPECTION (2010 Corolla)		

INSPECTION

1. INSPECT AND ADJUST BRAKE BOOSTER PUSH ROD

NOTICE:

Make an adjustment with no vacuum in the brake booster assembly. (Depress the brake pedal several times with the engine stopped.)

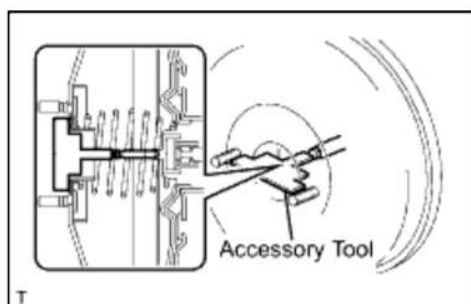
HINT:

- Adjustment of the brake booster push rod is required when the brake master cylinder sub-assembly is replaced with a new one.
- Adjustment is not necessary when the removed brake master cylinder sub-assembly is reused and the brake booster assembly is replaced with a new one.

(a) Apply chalk to the tip of the accessory tool.

HINT:

An accessory tool is enclosed with a new brake master cylinder sub-assembly.



(b) Place the accessory tool on the brake booster assembly.

(c) Measure the clearance between the brake booster push rod and accessory tool.

Standard clearance:

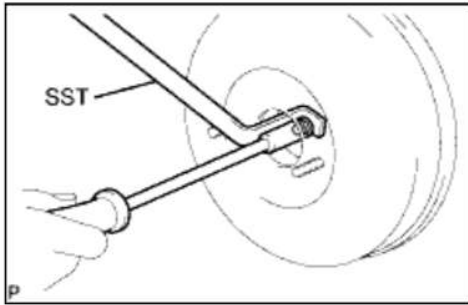
0 mm (0 in.)

HINT:

Adjust the clearance in the following cases:

- If there is a clearance between the accessory tool and the shell of the brake booster (floating accessory tool), the push rod is protruding too far.
- If the chalk does not stick on the tip of the brake booster push rod, the push rod protrusion is insufficient.

(d) If the clearance is not as specified, adjust the push rod length by holding the rod using SST and turning the tip of



the rod using a socket driver (7 mm).

SST: 09737-00020

HINT:

Check the push rod clearance again after adjustment.



TOYOTA

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WEZ00YX
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: INSTALLATION (2010 Corolla)		

INSTALLATION

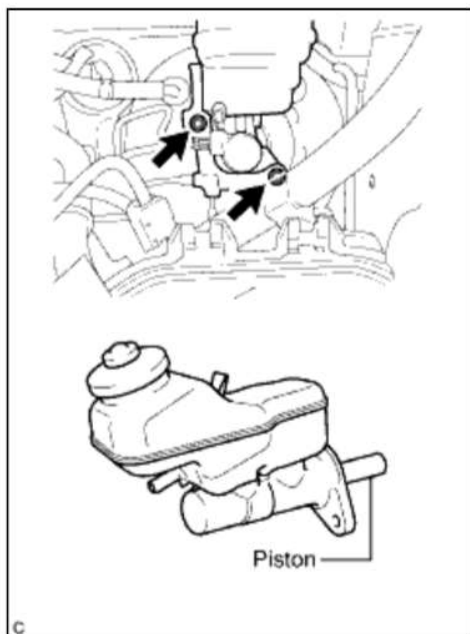
1. INSPECT AND ADJUST BRAKE BOOSTER PUSH ROD

2. INSTALL BRAKE MASTER CYLINDER SUB-ASSEMBLY

(a) Install a new O-ring to the brake master cylinder sub-assembly.

(b) Install the brake master cylinder sub-assembly and brake tube way to the brake booster assembly with the 2 nuts.

Torque: 13 N·m (132 kgf·cm, 10ft·lbf)



NOTICE:

- The master cylinder requires careful handling. Do not allow the master cylinder to receive any impact, such as from being dropped. Do not reuse a master cylinder that has been dropped.
- Do not strike or pinch the master cylinder piston, and do not cause any damage to the master cylinder piston by any other means.
- When installing the master cylinder to the brake booster, or when removing the master cylinder from the brake booster, make sure that the master cylinder is kept horizontal or its tip faces downward (the piston faces upward) to prevent the master cylinder piston from falling off.
- Do not allow any foreign objects to contaminate the master cylinder piston. If a foreign object gets on the piston, remove it by using a piece of cloth and then apply an even layer of lithium soap base glycol grease around the circumference (sliding part) of the piston.
- Do not use any other type of grease or fluid.

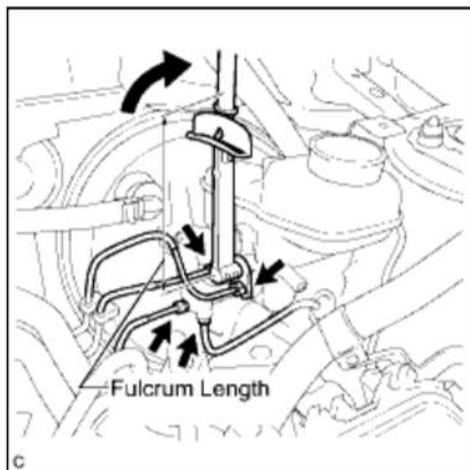
(c) Using a union nut wrench (10 mm or 12 mm), connect the 4 brake lines to the brake master cylinder sub-assembly.

w/o VSC without a union nut wrench - Torque: 15 N·m (155 kgf·cm, 11ft·lbf)

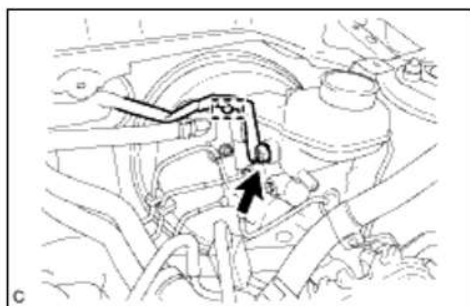
w/o VSC with a union nut wrench - Torque: 14 N·m (143 kgf·cm, 10ft·lbf)

w/ VSC without a union nut wrench - Torque: 20 N·m (200 kgf·cm, 14ft·lbf)

w/ VSC with a union nut wrench - Torque: 18 N·m (178 kgf·cm, 13ft·lbf)

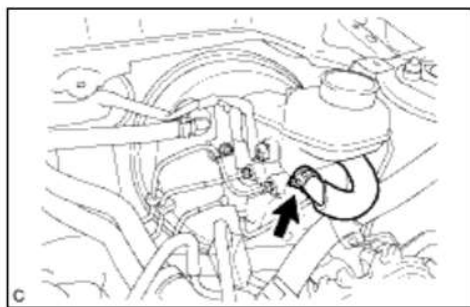
**NOTICE:**

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective when the union nut wrench is parallel to the torque wrench.



(d) Engage the clamp and connect the connector.

3. CONNECT CLUTCH TUBE (for Manual Transaxle)



(a) Connect the clutch tube to the brake master cylinder reservoir assembly with the clip.

4. FILL RESERVOIR WITH BRAKE FLUID INFO

5. BLEED CLUTCH LINE (for C59) INFO

6. BLEED CLUTCH LINE (for E351) INFO

7. BLEED BRAKE MASTER CYLINDER INFO

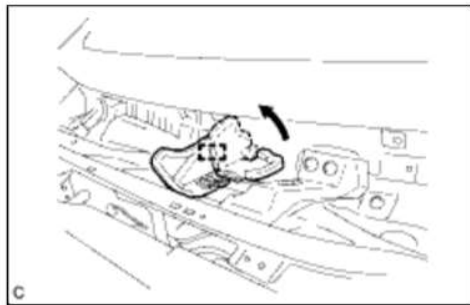
8. BLEED BRAKE LINE INFO

9. BLEED BRAKE ACTUATOR (w/ VSC) INFO**10. INSPECT FOR BRAKE FLUID LEAK****11. INSPECT FLUID LEVEL** INFO**12. INSTALL SUSPENSION TOWER DAMPER ASSEMBLY (w/ Front Strut Bar)** INFO**13. INSTALL OUTER COWL TOP PANEL (for TMC Made)**

(a) Install the outer cowl top panel with the 12 bolts.

Torque: 8.8 N·m (90 kgf·cm, 78in·lbf)

(b) Engage the clamp.

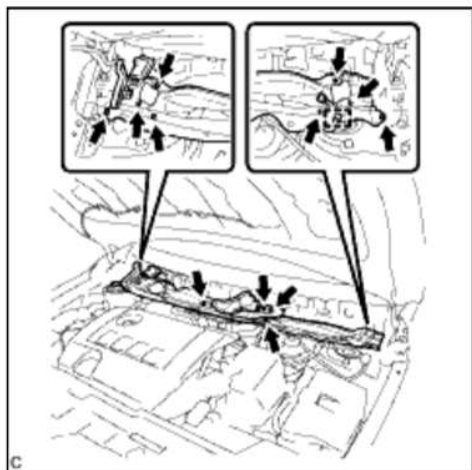


(c) Bend the water guard plate RH as shown in the illustration and engage the clamp.

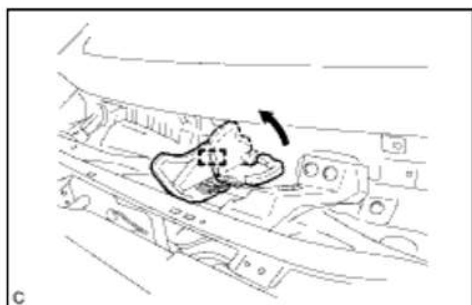
14. INSTALL OUTER COWL TOP PANEL (except TMC Made)

(a) Install the outer cowl top panel with the 12 bolts.

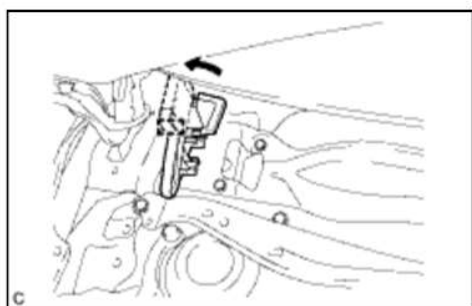
Torque: 8.8 N·m (90 kgf·cm, 78in·lbf)



(b) Engage the clamp.



(c) Bend the water guard plate RH as shown in the illustration, and engage the clamp.



(d) Bend the No. 1 heater air duct splash shield seal as shown in the illustration, and engage the clamp.

15. INSTALL WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

INFO

16. INSTALL COWL TOP VENTILATOR LOUVER LH

INFO

17. INSTALL CENTER NO. 1 COWL TOP VENTILATOR LOUVER

INFO

18. INSTALL HOOD TO COWL TOP SEAL

INFO

19. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH

INFO

20. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH 

21. INSTALL FRONT WIPER ARM HEAD CAP 

22. INSTALL AIR CLEANER CASE (for 2ZR-FE) 

23. INSTALL AIR CLEANER CAP SUB-ASSEMBLY (for 2ZR-FE) 

24. INSTALL NO. 2 CYLINDER HEAD COVER (for 2ZR-FE) 

25. INSTALL AIR CLEANER CASE (for 2AZ-FE) 

26. INSTALL AIR CLEANER CAP SUB-ASSEMBLY WITH HOSE (for 2AZ-FE) 

27. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY (for 2AZ-FE) 



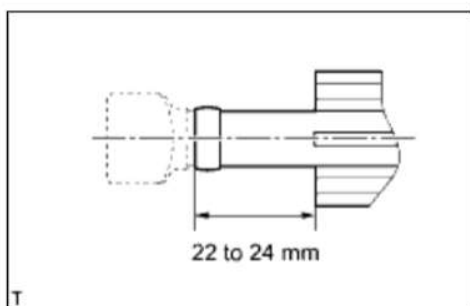
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002WF301CX
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: REASSEMBLY (2010 Corolla)		

REASSEMBLY

1. INSTALL MASTER CYLINDER RESERVOIR GROMMET

- Apply lithium soap base glycol grease to 2 new master cylinder reservoir grommets.
- Install the 2 master cylinder reservoir grommets to the brake master cylinder reservoir assembly.

2. INSTALL BRAKE MASTER CYLINDER RESERVOIR ASSEMBLY



- When installing a new brake master cylinder reservoir assembly, cut off the clutch tube tip of the brake master cylinder reservoir assembly as shown in the illustration (for Manual Transaxle).

Length of clutch tube tip:
22 to 24 mm (0.866 to 0.945 in.)

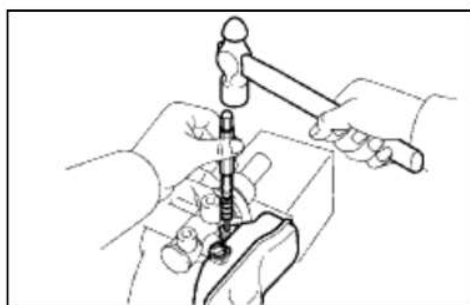
NOTICE:

- Do not allow any foreign matter to enter the brake master cylinder reservoir assembly.
- Make sure that fluid supply is not hindered after cutting the tube.

- Install the brake master cylinder reservoir assembly to the master cylinder body.
- Mount the brake master cylinder sub-assembly in a vise.

NOTICE:

Place aluminum plates on the vise to prevent damage to the brake master cylinder sub-assembly.



- Using a pin punch and a hammer, tap in the straight pin.

3. INSTALL BRAKE MASTER CYLINDER RESERVOIR STRAINER

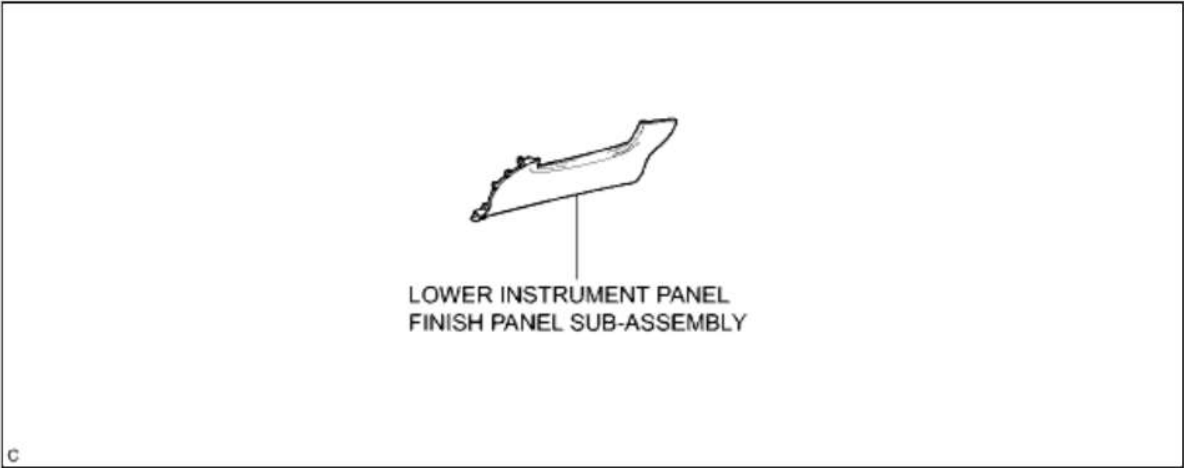
4. INSTALL BRAKE MASTER CYLINDER RESERVOIR FILLER CAP ASSEMBLY



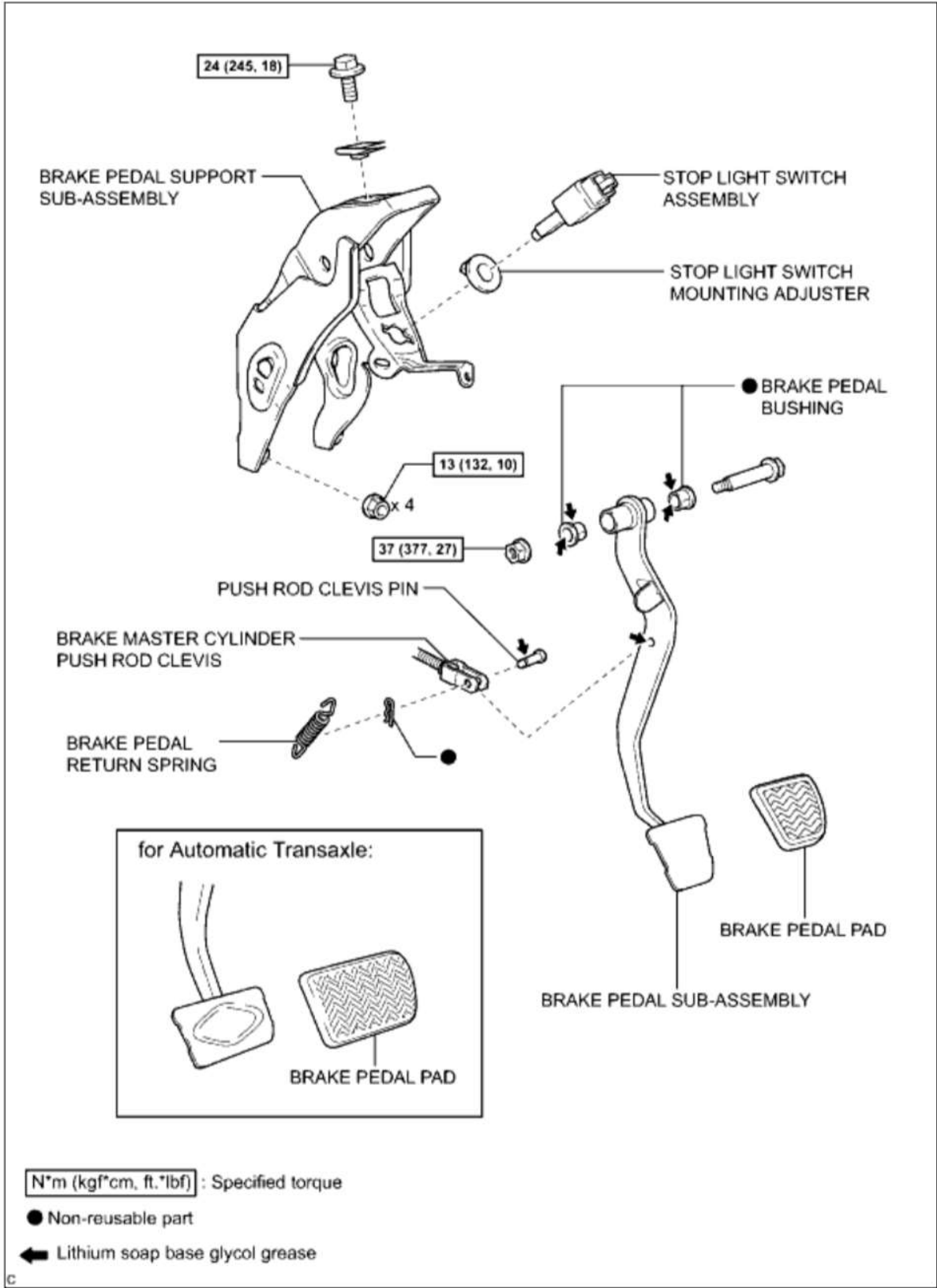
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002W8Z00HX
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



cardiagn.com

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002W9000YX
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: REMOVAL (2010 Corolla)		

REMOVAL

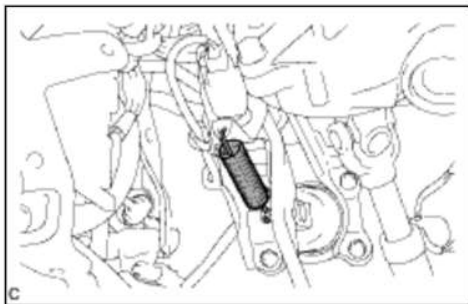
1. REMOVE UPPER INSTRUMENT PANEL SUB-ASSEMBLY

HINT:

Refer to the instructions for Removal of the upper instrument panel sub-assembly  .

2. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

3. REMOVE BRAKE PEDAL RETURN SPRING



(a) Remove the brake pedal return spring from the brake pedal support sub-assembly.

4. SEPARATE BRAKE MASTER CYLINDER PUSH ROD CLEVIS

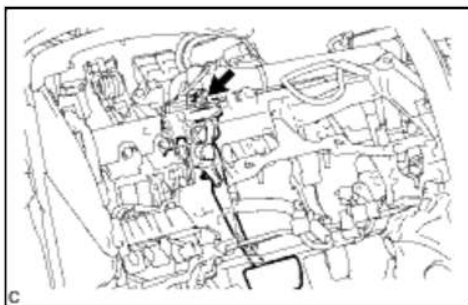
(a) Remove the clip and clevis pin and separate the brake master cylinder push rod clevis from the brake pedal sub-assembly.

5. REMOVE STOP LIGHT SWITCH ASSEMBLY

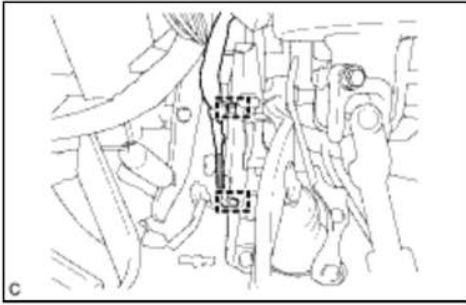
6. REMOVE STOP LIGHT SWITCH MOUNTING ADJUSTER

(a) Remove the stop light switch mounting adjuster from the brake pedal support sub-assembly.

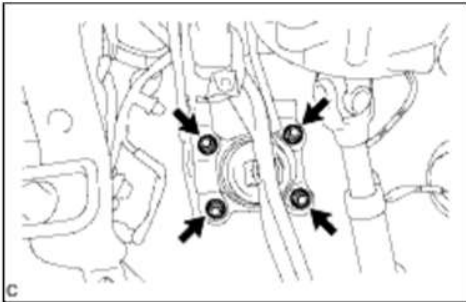
7. REMOVE BRAKE PEDAL SUPPORT SUB-ASSEMBLY



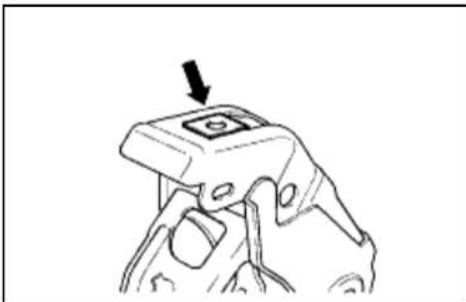
(a) Remove the bolt and separate the brake pedal support sub-assembly from the instrument panel reinforcement.



(b) Disengage the 2 clamps from the brake pedal support sub-assembly.



(c) Remove the 4 nuts and brake pedal support sub-assembly.

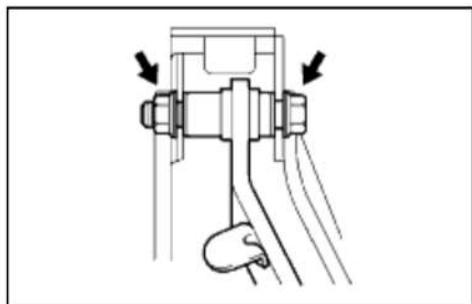


(d) Remove the nut from the brake pedal support sub-assembly.

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002W9100YX
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: DISASSEMBLY (2010 Corolla)		

DISASSEMBLY

1. REMOVE BRAKE PEDAL SUB-ASSEMBLY



(a) Remove the bolt, nut and brake pedal sub-assembly from the brake pedal support sub-assembly.

2. REMOVE BRAKE PEDAL BUSHING

(a) Remove the 2 brake pedal bushings from the brake pedal sub-assembly.

3. REMOVE BRAKE PEDAL PAD

(a) Remove the brake pedal pad.



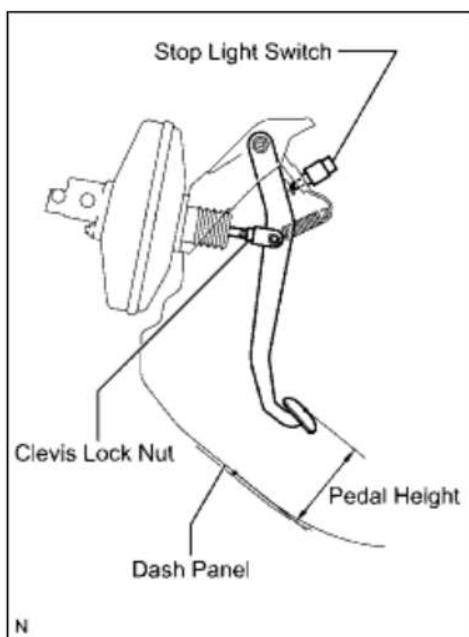
Last Modified: 3-10-2010	6.4 N	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002W8X00YX
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: ADJUSTMENT (2010 Corolla)		

ADJUSTMENT

1. INSPECT AND ADJUST BRAKE PEDAL HEIGHT

(a) Check the brake pedal height.

- (1) Turn back the carpet.
- (2) Turn back the dash silencer from the slit provided on the dash silencer.



(3) Measure the shortest distance between the brake pedal surface and dash panel.

Pedal height from floor panel:

141.4 to 151.4 mm (5.57 to 5.96 in.)

(b) Adjust the brake pedal height.

- (1) Disconnect the stop light switch connector.
- (2) Remove the stop light switch assembly.
- (3) Loosen the push rod clevis lock nut.
- (4) Adjust the brake pedal height by turning the push rod.
- (5) Tighten the push rod clevis lock nut.

Torque: 26 N·m (265 kgf·cm, 19ft·lbf)

(6) Insert the stop light switch into the adjuster mounting until the switch body touches the brake pedal.

NOTICE:

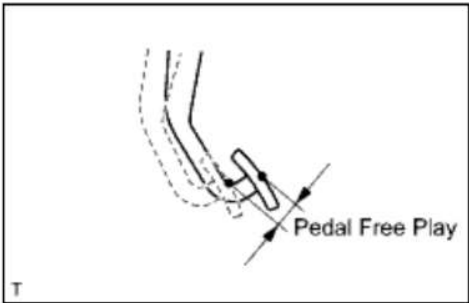
Do not depress the brake pedal.

(7) Adjust the stop light switch .

(8) Connect the stop light switch connector.

2. INSPECT BRAKE PEDAL FREE PLAY

(a) Stop the engine. Depress the brake pedal several times until no vacuum is left in the brake booster. Release the brake pedal.



(b) Depress the pedal until a slight resistance is felt. Measure the distance as shown in the illustration.

Pedal free play:
1.0 to 6.0 mm (0.0394 to 0.236 in.)

If the pedal free play is not as specified, check the stop light switch clearance [INFO](#) . If the pedal free play is as specified, proceed to the Inspect brake pedal reserve distance procedure.

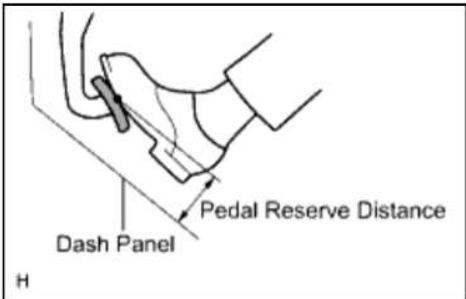
3. INSPECT BRAKE PEDAL RESERVE DISTANCE

HINT:

Measure the distance at the same point used for the brake pedal height inspection.

(a) Release the parking brake lever.

(b) With the engine running, depress the brake pedal and measure the pedal reserve distance as shown in the illustration.



Pedal Reserve Distance from the Dash Panel at 294 N (30 kgf, 66 lbf):

	SPECIFIED CONDITION
w/ ABS	81 mm (3.19 in.)
w/ VSC	87 mm (3.43 in.)

If the distance is not as specified, troubleshoot the brake system [INFO](#) .

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002W9200ZX
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: REASSEMBLY (2010 Corolla)		

REASSEMBLY

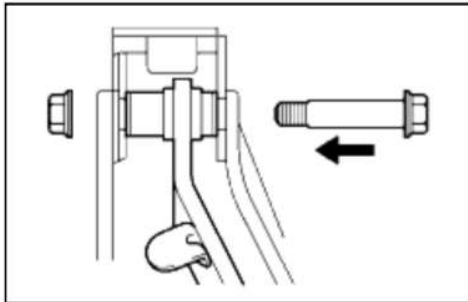
1. INSTALL BRAKE PEDAL PAD

- (a) Install the brake pedal pad.

2. INSTALL BRAKE PEDAL BUSHING

- (a) Apply lithium soap base glycol grease to 2 new brake pedal bushings, and install them to the brake pedal sub-assembly.

3. INSTALL BRAKE PEDAL SUB-ASSEMBLY



- (a) Install the brake pedal sub-assembly to the brake pedal support sub-assembly with the bolt and nut as shown in the illustration.

Torque: 37 N·m (377 kgf·cm, 27ft·lbf)

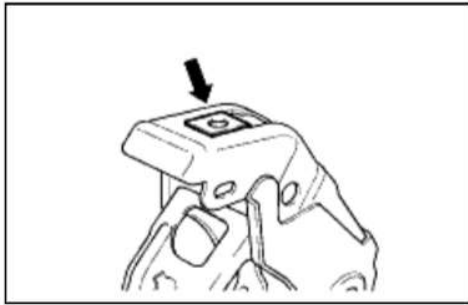


TOYOTA

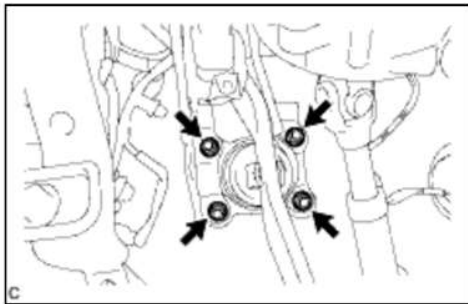
Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002W8Y00XX
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL BRAKE PEDAL SUPPORT SUB-ASSEMBLY

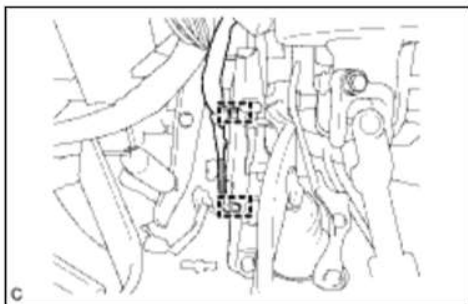


(a) Install the nut to the brake pedal support sub-assembly.



(b) Install the brake pedal support sub-assembly with the 4 nuts.

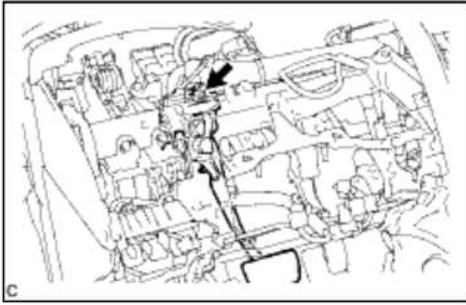
Torque: 13 N·m (132 kgf·cm, 10ft·lbf)



(c) Engage the 2 clamps to the brake pedal support sub-assembly.

(d) Install the brake pedal support sub-assembly to the instrument panel reinforcement with the bolt.

Torque: 24 N·m (245 kgf·cm, 18ft·lbf)

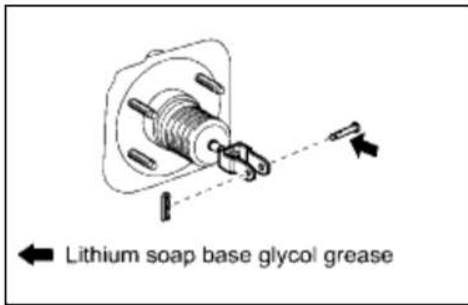


2. INSTALL STOP LIGHT SWITCH MOUNTING ADJUSTER

(a) Install the stop light switch mounting adjuster to the brake pedal support sub-assembly.

3. INSTALL STOP LIGHT SWITCH ASSEMBLY INFO

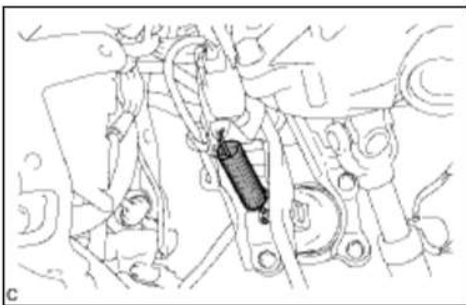
4. CONNECT BRAKE MASTER CYLINDER PUSH ROD CLEVIS



(a) Apply lithium soap base glycol grease to the push rod pin.

(b) Connect the brake master cylinder push rod clevis to the brake pedal with the push rod clevis pin, and install a new clip as shown in the illustration.

5. INSTALL BRAKE PEDAL RETURN SPRING



(a) Install the brake pedal return spring between the brake pedal support sub-assembly and brake master cylinder push rod clevis.

6. INSPECT AND ADJUST BRAKE PEDAL HEIGHT INFO

7. INSPECT BRAKE PEDAL FREE PLAY INFO

8. INSPECT BRAKE PEDAL RESERVE DISTANCE INFO

9. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY**10. INSTALL UPPER INSTRUMENT PANEL SUB-ASSEMBLY****HINT:**

Refer to the instructions for Installation of the upper instrument panel sub-assembly  .



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Model Year: 2010	Model: Corolla	Doc ID: RM000001JQM01MX
Title: BRAKE SYSTEM (OTHER): BRAKE SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of the problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Brake System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Low pedal or spongy pedal	Fluid leaks in brake system	-
	Air in brake system	INFO
	Piston seal (Worn or damaged) (Front disc brake)	INFO
	Piston seal (Worn or damaged) (Rear disc brake)	INFO
	Wheel cylinder cup (Damaged) (Rear drum brake)	INFO
	Brake master cylinder (Faulty)	INFO
Brake drag	Brake pedal free play (Minimum)	INFO
	Parking brake lever travel (Out of adjustment)	INFO
	Rear drum brake shoe clearance (Out of adjustment) (Rear drum brake)	INFO
	Pad (Cracked or distorted) (Front disc brake)	INFO
	Pad (Cracked or distorted) (Rear disc brake)	INFO
	Brake shoe (Cracked or distorted) (Rear drum brake)	INFO
	Front disc brake piston (Stuck) (Front disc brake)	INFO
	Rear disc brake piston (Stuck) (Rear disc brake)	INFO
	Piston (Stuck) (Rear drum brake)	INFO
	Front disc brake piston (Frozen) (Front disc brake)	INFO
	Rear disc brake piston (Frozen) (Rear disc brake)	INFO
	Piston (Frozen) (Rear drum brake)	INFO
	Tension or return spring (Faulty) (Rear drum brake)	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	Booster system (Vacuum leaks)	INFO
	Brake master cylinder (Faulty)	INFO
Brake pull	Front disc brake piston (Stuck) (Front disc brake)	INFO
	Rear disc brake piston (Stuck) (Rear disc brake)	INFO
	Piston (Stuck) (Rear drum brake)	INFO
	Pad (Oily) (Front disc brake)	INFO
	Pad (Oily) (Rear disc brake)	INFO
	Brake shoe (Oily) (Rear drum brake)	INFO
	Front disc brake piston (Frozen) (Front disc brake)	INFO
	Rear disc brake piston (Frozen) (Rear disc brake)	INFO
	Piston (Frozen) (Rear drum brake)	INFO
	Front disc (Scored) (Front disc brake)	INFO
	Rear disc (Scored) (Rear disc brake)	INFO
	Rear brake drum (Scored) (Rear drum brake)	INFO
	Pad (Cracked or distorted) (Front disc brake)	INFO
	Pad (Cracked or distorted) (Rear disc brake)	INFO
	Brake shoe (Cracked or distorted) (Rear drum brake)	INFO
Hard pedal but braking inefficient	Fluid leaks in brake system	-
	Air in brake system	INFO
	Front disc brake piston (Stuck) (Front disc brake)	INFO
	Rear disc brake piston (Stuck) (Rear disc brake)	INFO
	Piston (Stuck) (Rear drum brake)	INFO
	Pad (Cracked or distorted) (Front disc brake)	INFO
	Pad (Cracked or distorted) (Rear disc brake)	INFO
	Brake shoe (Cracked or distorted) (Rear drum brake)	INFO
	Pad (Oily) (Front disc brake)	INFO
	Pad (Oily) (Rear disc brake)	INFO
	Brake shoe (Oily) (Rear drum brake)	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	Pad (Glazed) (Front disc brake)	INFO
	Pad (Glazed) (Rear disc brake)	INFO
	Brake shoe (Glazed) (Rear drum brake)	INFO
	Front disc (Scored) (Front disc brake)	INFO
	Rear disc (Scored) (Rear disc brake)	INFO
	Rear brake drum (Scored) (Rear drum brake)	INFO
	Booster system (Vacuum leaks)	INFO
Noise from brakes	Pad (Cracked or distorted) (Front disc brake)	INFO
	Pad (Cracked or distorted) (Rear disc brake)	INFO
	Brake shoe (Cracked or distorted) (Rear drum brake)	INFO
	Installation bolt (Loose) (Front disc brake)	INFO
	Installation bolt (Loose) (Rear disc brake)	INFO
	Front disc (Scored) (Front disc brake)	INFO
	Rear disc (Scored) (Rear disc brake)	INFO
	Rear brake drum (Scored) (Rear drum brake)	INFO
	Pad support plate (Loose) (Front disc brake)	INFO
	Pad support plate (Loose) (Rear disc brake)	INFO
	Sliding pin (Worn) (Front disc brake)	INFO
	Sliding pin (Worn) (Rear disc brake)	INFO
	Pad (Dirty) (Front disc brake)	INFO
	Pad (Dirty) (Rear disc brake)	INFO
	Brake shoe (Dirty) (Rear drum brake)	INFO
	Pad (Glazed) (Front disc brake)	INFO
	Pad (Glazed) (Rear disc brake)	INFO
	Brake shoe (Glazed) (Rear drum brake)	INFO
	Tension or return spring (Faulty) (Rear drum brake)	INFO
	Anti-squeal shim (Damaged) (Front disc brake)	INFO
	Anti-squeal shim (Damaged) (Rear disc brake)	INFO

SYMPTOM	SUSPECTED AREA	SEE PAGE
	Shoe hold down spring (Damaged) (Rear drum brake)	INFO

Last Modified: 3-10-2010	6.4 L	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000000SRD02QX
Title: BRAKE SYSTEM (OTHER): BRAKE SYSTEM: PRECAUTION (2010 Corolla)		

PRECAUTION

1. TROUBLESHOOTING PRECAUTION

NOTICE:

- Care must be taken to replace each part properly as it could affect the performance of the brake system and result in a driving hazard. Replace the parts with those having the same part number or equivalent.
- It is very important to keep parts and the area clean when repairing the brake system.
- If the vehicle is equipped with a mobile communication system, refer to the Precaution in the introduction section .
- Care must be taken when using magnets as they could affect the performance of the speed sensors.
- Since the brake lines are classified as critical safety related parts, be sure to disassemble and inspect the components if a brake fluid leak is found. If any abnormality is found, replace the component with a new one.
- When removing brake components, cover the brake line connections to prevent foreign matter such as dust or dirt from entering the lines.
- Do not damage or deform the brake lines during the removal and installation procedures.
- Do not allow brake fluid to adhere to any painted surface such as the vehicle body. If brake fluid leaks onto any painted surface, immediately wash it off.

