OVERHAUL

1. DRAIN BRAKE FLUID

   NOTICE:
   Wash the brake fluid off immediately if it comes into contact with any painted surface.

2. REMOVE AIR CLEANER CAP SUB–ASSY

3. REMOVE BRAKE MASTER CYLINDER SUB–ASSY
   (a) Disconnect the brake fluid level switch connector from master cylinder reservoir sub–assy.
   (b) M/T:
       Slide the clip and disconnect the clutch reservoir tube No.1 from master cylinder reservoir sub–assy.
   (c) Using SST, disconnect the 2 brake tubes from the master cylinder.
       SST  09023–00100
   (d) Using SST, disconnect the 2 or 3 brake tubes from the No.1 way.
       SST  09023–00100
4. REMOVE BRAKE MASTER CYLINDER RESERVOIR SUB–ASSY
   (a) Remove the reservoir stopper screw and master cylinder reservoir sub–assy.
   (b) Remove the 2 cylinder reservoir grommets.

5. REMOVE BRAKE MASTER CYLINDER KIT
   (a) Hold the master cylinder in the vise with the 2 aluminum plates in between.
   (b) Remove the O–ring.
   (c) Push in the piston and remove the snap ring with snap ring pliers.
   (d) Push in the piston and remove the piston stopper bolt and gasket.
   (e) Remove the No.1 piston sub–assy by hand, pulling straight out not at an angle.

NOTICE:
If being pulled out at an angle, the piston may damage the cylinder bore.

(f) Place a cloth and 2 wooden blocks on the work table and lightly edges until the No.2 piston sub–assy drops out of the cylinder.

NOTICE:
If being pulled out at an angle, the piston may damage the cylinder bore.

HINT:
Make sure that the distance (A) from the cloth to the top of the blocks is at least 100 mm (3.94 in.).
6. INSPECT BRAKE MASTER CYLINDER
   (a) Check the cylinder bore for rust or scoring.

7. INSTALL BRAKE MASTER CYLINDER KIT
   (a) Hold the master cylinder in the vise with the 2 aluminum plates in between.
   (b) Apply the lithium soap base glycol grease to the No.1 and No.2 piston sub–assy.
   (c) Install the No.2 and No.1 piston sub–assy to the master cylinder.

   NOTICE:
   • If being inserted at an angle, the piston may damage the cylinder bore.
   • Be careful not to damage the rubber lips on the pistons.

   (d) Push in the piston and install a new gasket and a new piston stopper bolt.
   **Torque: 10 N·m (102 kgf·cm, 7 ft lbf)**

   (e) Push in the piston and install the snap ring with snap ring pliers.
   (f) Apply the lithium soap base glycol grease to a new O–ring, and install the O–ring to the master cylinder.

8. INSTALL BRAKE MASTER CYLINDER RESERVOIR SUB–ASSY
   (a) Apply the lithium soap base glycol grease to 2 brake master cylinder reservoir grommets.
   (b) Install the master cylinder reservoir with the screw.
   **Torque: 1.8 N·m (18.4 kgf·cm, 15.9 in. lbf)**

9. INSPECT AND ADJUST BRAKE BOOSTER PUSH ROD
   (a) Apply the chalk to the flat surfaced tip of the SST pin.
   (b) Set SST on the master cylinder and lower the pin of the SST until it slightly touches the piston.
   SST  09737–00013

2004 COROLLA (RM1037U)
(c) Turn SST upside down and place it on the brake booster. 
SST  09737–00013 
**Clearance: 0 mm (0 in.**) 

**HINT:**
- If there is a space between the SST main body and the booster shell (chalk is applied to the booster push rod), it means that the clearance is too small.
- If chalk is not applied to the booster push rod after placing the SST on the brake booster, it means that the clearance is too large.

(d) If clearance is outside of the specified range, fix the push rod using SST and adjust the length of the protruding adjusting bolt. 
SST  09737–00020 

**HINT:**
When adjusting the push rod, depress the brake pedal sufficiently so that the push rod sticks out.

10. **INSTALL BRAKE MASTER CYLINDER SUB–ASSY**

(a) Install the master cylinder, No.1 way and vacuum check valve bracket with the 2 nuts. 
**Torque: 12.5 N·m (127 kgf·cm, 9 ft·lbf)**

(b) Using SST, connect the 2 or 3 brake tubes to the No.1 way. 
SST  09023–00100 
**Torque: 15.2 N·m (155 kgf·cm, 11 ft·lbf)**
(c) Using SST, connect the 2 brake tubes to the master cylinder.
   SST  09023–00100
   Torque: 15.2 N·m (155 kgf·cm, 11 ft·lbf)

(d) M/T:
   Connect the clutch reservoir tube No.1 with the clip to master cylinder reservoir sub–assy.

(e) Connect the brake fluid level switch connector to master cylinder reservoir sub–assy.

11. INSTALL AIR CLEANER CAP SUB–ASSY
12. FILL RESERVOIR WITH BRAKE FLUID
13. BLEED MASTER CYLINDER (See page 32–4)
   SST  09023–00100
14. BLEED BRAKE LINE (See page 32–4)
15. CHECK FLUID LEVEL IN RESERVOIR
16. CHECK BRAKE FLUID LEAKAGE