

# BRAKE FLUID

## BLEEDING

3200U-02

### HINT:

- If any work is done on the brake system or if air in the brake lines is suspected, bleed the air from the system.
- When bleeding, keep the amount of the fluid within the line of reservoir between Min. and Max.

### NOTICE:

- **Wash off the brake fluid immediately if it comes into contact with a painted surface.**
- **With the reservoir cap removed, when depressing the brake pedal, the fluid will spray.**

### 1. FILL RESERVOIR WITH BRAKE FLUID

Fluid: SAE J1703 or FMVSS NO. 116 DOT3

### 2. IN CASE OF USING HAND-HELD TESTER: BLEED BRAKE MASTER CYLINDER

### HINT:

If the brake master cylinder is disassembled, if the brake line is disconnected from the brake master cylinder if the reservoir become empty, bleed brake master cylinder.

- (a) Turn the ignition switch to OFF, depress the brake pedal more than 40 times.

### HINT:

When a pressure in power supply system is released, reaction force becomes light and stroke becomes longer.

- (b) Turn the ignition switch to ON, check that the pump stops after approx. 30 to 40 sec.

### NOTICE:

**When the pump does not stop, repeat step (a) and (b) again.**

- (c) With the ignition switch remained ON, depress the brake pedal more than 20 times.  
 (d) Follow the procedure in step 4 and bleed the right and left front brake caliper.  
 (e) Keep depressing the brake pedal, bleed the right and left rear brake caliper.

### HINT:

It is not necessary to depress the pedal continuously, because brake fluid flows out by first depressing.

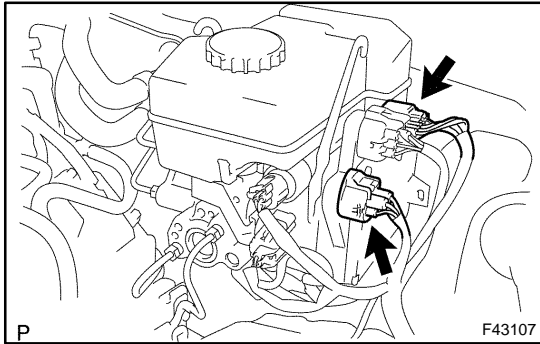
- (f) Connect hand-held tester.  
 (1) Turn the ignition switch to OFF, connect the hand-held tester to DLC3.  
 (2) Turn the ignition switch to ON and select "AIR BLEEDING" on the hand-held tester.

### HINT:

Please refer to the hand-held tester operator's manual for further details.

- (g) Bleed right front brake line.  
 (1) Select "FR LINE" on the hand-held tester.  
 (2) With "FR LINE" turned ON with the hand-held tester, depress the brake pedal and hold it to bleed the right front brake caliper.  
 (3) Repeat step (2) until there are no more air bubbles in the fluid.
- (h) Bleed left front brake line.  
 (1) Select "FL LINE" on the hand-held tester.  
 (2) With "FL LINE" turned ON with the hand-held tester, depress the brake pedal and hold it to bleed the left front brake caliper.  
 (3) Repeat step (2) until there are no more air bubbles in the fluid.
- (i) Bleed rear brake line.  
 (1) Select "RR LINE" on the hand-held tester.  
 (2) With "RR LINE" turned ON with the hand-held tester, bleed the left and right rear brake caliper.

- (j) Disconnect the hand-held tester from DLC3.
- (k) Clear the DTC (See page 05-803 ).



**3. IN CASE OF USING ABS ACTUATOR CHECKER (SST) BLEED BRAKE MASTER CYLINDER**

HINT:

If the brake master cylinder is disassembled, if the brake line is disconnected from the brake master cylinder if the reservoir become empty, bleed the brake master cylinder.

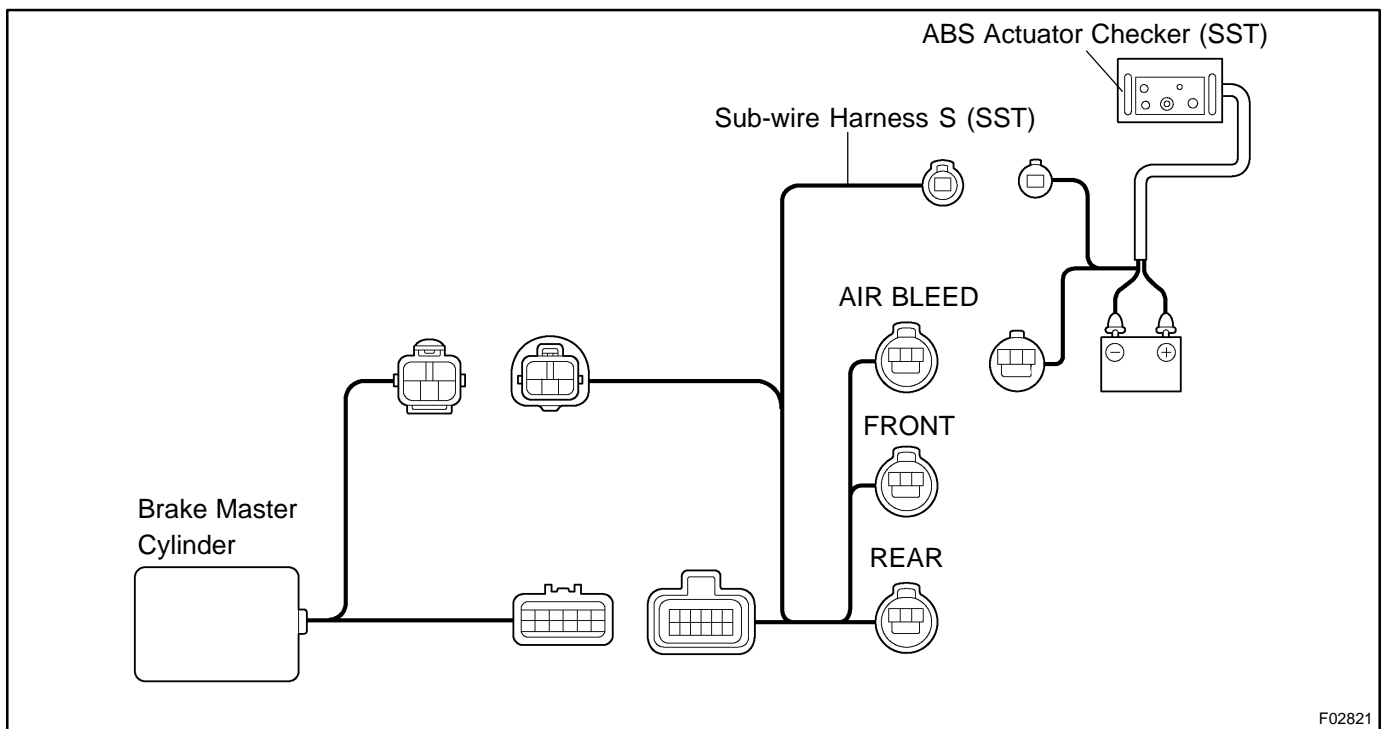
- (a) Disconnect the 2 connectors from the brake master cylinder.
- (b) Connect the actuator checker (SST) to the brake master cylinder side wire harness via the sub-wire harness (SST), as shown in the chart below.

SST 09990-00150, 09990-00480

HINT:

Connect the connector with the label of "AIR BLEED" attached to the connector of actuator checker.

- (c) Connect the red cable of the checker to the battery positive (+) terminal and the black cable to the negative (-) terminal.



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- (d) Turn the ignition switch to OFF, depress the brake pedal more than 40 times.

**HINT:**

When a pressure in power supply system is released, reaction force becomes light and stroke becomes longer.

- (e) Turn the ignition switch to ON, check that the pump stops after 30 to 40 sec.

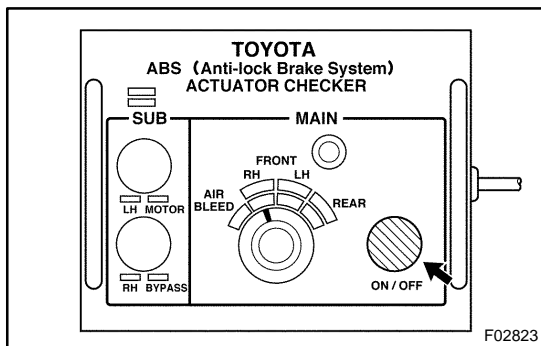
**NOTICE:**

**When the pump does not stop, repeat step (d) and (e) again.**

- (f) With the ignition switch remained ON, depress the brake pedal more than 20 times.
- (g) Follow the procedure in step 4 and bleed the right and left front wheel caliper.
- (h) Keep depressing the brake pedal depressed, bleed the right and left rear brake caliper.

**HINT:**

It is not necessary to depress the pedal continuously, because brake fluid flows out by first depressing.

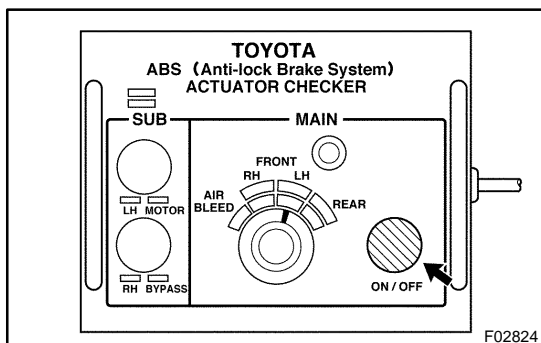


- (i) Bleed right front brake line.
- (1) Turn the selector switch of the actuator checker to the "FRONT RH" position.
  - (2) Push and hold in MAIN push switch, depress the brake pedal and hold it to bleed the right front brake caliper.

**NOTICE:**

**Do not keep the MAIN switch pushed in for more than 10 sec. When operating it continuously, set the interval of more than 20 sec.**

- (3) Repeat step (2) until air bubbles in the fluid has gone.

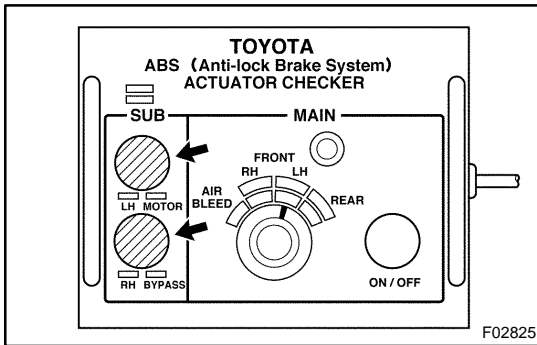


- (j) Bleed left front brake line.
- (1) Turn the selector switch of the actuator checker to the "FRONT LH" position.
  - (2) Push and hold in the MAIN push switch, depress the brake pedal and hold it to bleed the left front brake caliper.

**NOTICE:**

**Do not keep the MAIN switch pushed in for more than 10 sec. When operating it continuously, set the interval of more than 20 sec.**

- (3) Repeat step (2) until air bubbles in the fluid has gone.

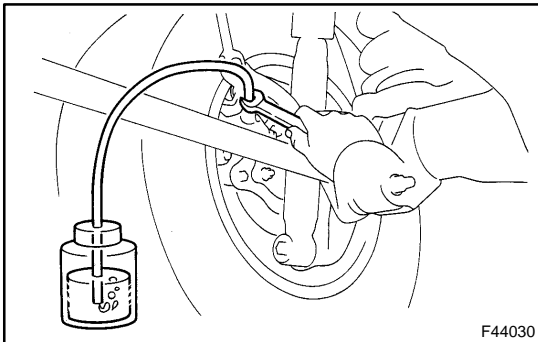


- (k) Bleed right rear brake line.  
 (1) Push and hold in the "SUB LH" and "SUB RH" switches, bleed the right rear brake caliper.

**NOTICE:**

**Do not keep the MAIN switch pushed in for more than 10 sec. When operating it continuously, set the interval of more than 20 sec.**

- (2) Repeat step (1) until air bubbles in the fluid has gone.
- (l) Observe the procedure in step (k) and bleed left rear brake line.
- (m) Disconnect the actuator checker (SST) and sub-wire harness (SST) from the brake master cylinder.  
 SST 09990-00150, 09990-00480
- (n) Connect the 2 connectors to the brake master cylinder.
- (o) Clear the DTC (See page 05-803 ).

**4. BLEED BRAKE LINE**

- (a) Connect the vinyl tube to the brake caliper.
- (b) Ignition key is turn to ON.
- (c) Depress the brake pedal several times, and then loosen the bleeder plug with the pedal held down.
- (d) At the point when fluid stops coming out, tighten the bleeder plug, then release the brake pedal.
- (e) Repeat (b) and (c) until all the air in the fluid has been bled out.
- (f) Repeat the above procedure to bleed the brake line for each wheel.

**Torque: 11 N·m (112 kgf·cm, 8 ft·lbf)**

**5. CHECK FLUID LEVEL IN RESERVOIR**

- (a) With the ignition switch to OFF, depress the brake pedal more than 40 times.

**HINT:**

When a pressure in power supply system is released, reaction force becomes lighter and stroke becomes longer.

- (b) Remove the reservoir cap. Add brake fluid up to the "MAX" line.

**Fluid: SAE J1703 or FMVSS NO. 116 DOT3**