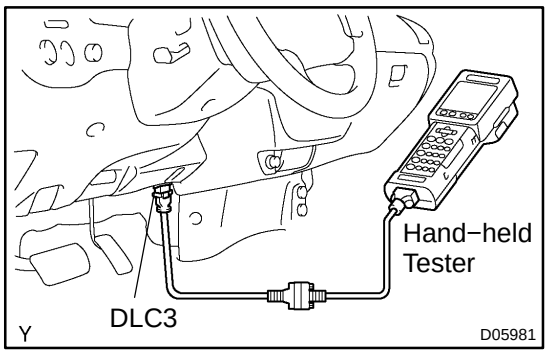

ABS ACTUATOR

BR10Z−02

ON−VEHICLE INSPECTION

1. CONNECT HAND−HELD TESTER

(a) Connect the hand−held tester to the DLC3.

(b) Start the engine and run it at idle.

(c) Select ACTIVE TEST mode on the hand−held tester.

HINT:

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

2. INSPECT ABS ACTUATOR MOTOR OPERATION

(a) Select the "ABS MOT RELAY" on the hand−held tester display, then operate the ABS actuator motor.

(b) Check that the operation sound of the ABS motor can be heard when the ABS actuator relay is turned ON by the hand−held tester.

NOTICE:

Do not keep the motor relay ON for more than 5 seconds continuously. When operating it continuously, set the interval of more than 20 seconds.

If the operation sound cannot be heard, replace the ABS actuator because motor operation is in failure.

(c) Turn the motor relay OFF.

3. INSPECT RIGHT FRONT WHEEL SOLENOID

(a) Depress the brake pedal and hold it for about 15 seconds, and then check that the brake pedal does not go down further.

If the brake pedal goes down, replace the ABS actuator because the sealing condition of the reduction solenoid valve is abnormal.

(b) Select the "ABS MOT RELAY" on the hand−held tester display, then operate the ABS actuator motor.

(c) Check that the brake pedal does not pulsate when the motor relay is turned ON by the hand−held tester.

NOTICE:

Do not keep the motor relay ON for more than 5 seconds continuously. When operating it continuously, set the interval of more than 20 seconds.

If there is pulsation in the brake pedal, replace the ABS actuator because the sealing condition of the reduction solenoid valve is abnormal.

(d) Turn the ABS actuator motor OFF.

(e) Depress the brake pedal and hold it until step (j) is completed.

(f) Select the "SFRH" on the hand−held tester display, then operate the solenoid.

(g) Check that the brake pedal does not go down further when the SFRH solenoid is turned ON by the hand−held tester.

NOTICE:

Do not keep the solenoid ON for more than 2 seconds continuously. When operating it continuously, set the interval of more than 20 seconds.

If the brake pedal goes down, replace the ABS actuator because holding solenoid valve operation is abnormal.

HINT:

To protect the solenoid, the hand−held tester turns OFF automatically 2 seconds after the solenoid has been turned ON.

(h) Select the ”SFRR” on the hand−held tester display, then operate the solenoid.

(i) Check that the brake pedal goes down further when the SFRR solenoid is turned ON by the hand−held tester.

If the brake pedal does not go down, replace the ABS actuator because reduction solenoid valve operation is abnormal.

(j) Check that the brake pedal returns when the motor relay is turned ON by the hand−held tester.

NOTICE:

Do not keep the motor relay ON for more than 5 seconds continuously. When operating it continuously, set the interval of more than 20 seconds.

If the brake pedal does not return, replace the ABS actuator because motor operation is in failure.

(k) Turn the motor relay OFF and release the brake pedal.

4. INSPECT OTHER WHEEL SOLENOIDS OPERATION

Check the solenoids of the other wheels by following the same inspection procedures as for the right front wheel solenoids.

HINT:

Left front wheel: ”SFLH” and ”SFLR”

Right rear wheel: ”SRRH” and ”SRRR”

Right front wheel: ”SFRR” and SFRH”

NOTICE:

Never depress the brake pedal when the reduction solenoid alone is turned ON and the ABS ECU is reset.

5. CLEAR DTC (See page DI−1397)