ABS & TRACTION ACTUATOR ASSY

320U5–01

ON–VEHICLE INSPECTION

1. When using hand–held tester:
CHECK ACTUATOR OPERATION

(a) Connect hand–held tester.
  (1) Connect the hand–held tester to the DLC3.
  (2) Start the engine and run it at idle.
  (3) Select the ACTIVE TEST mode on the hand–held tester.

HINT:
Refer to the hand–held tester operator's manual for further details.

(b) Check the actuator motor operation.
  (1) With the motor relay ON, check the actuator motor operation noise.
  (2) Turn the motor relay OFF.
  (3) Depress the brake pedal and hold it for about 15 seconds. Check that the brake pedal cannot be depressed any more.
  (4) With the motor relay ON, check that the pedal does not pulsate.

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

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

(c) Check right front wheel operation.

NOTICE:
Never turn ON the solenoid which is not specified below.

  (1) With the brake pedal depressed, perform the following steps.
  (2) Turn the SFRH and SFRR solenoids ON simultaneously, and check that the pedal cannot be depressed any more.

NOTICE:
Do not continuously keep solenoid ON for more than 10 seconds. When operating it continuously, set an interval of more than 20 seconds.

  (3) Turn the SFRH and SFRR solenoids OFF simultaneously, and check that the pedal can be depressed.
  (4) Turn the motor relay ON, and check that the pedal returns.

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

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

(d) Check other wheel operations.
  As in the same procedure, check the solenoids of other wheels.

HINT:
Left front wheel: SFLH, SFLR
Rear wheel: SRH, SRR

(e) Clear the DTC (See page 05–195).

2. When not using hand–held tester:
CHECK ACTUATOR OPERATION

HINT:

Using the brake actuator checker (SST), check the operation of the actuator. If the actuator does not operate, check operation of the sub–wire harness G according to the instructions on pages 05–226 and 05–231.

If the solenoid and/or pump motor relay are abnormal, replace the relay and inspect the actuator operation again.

(a) Inspect the battery voltage.
Battery voltage: 20 – 28 V

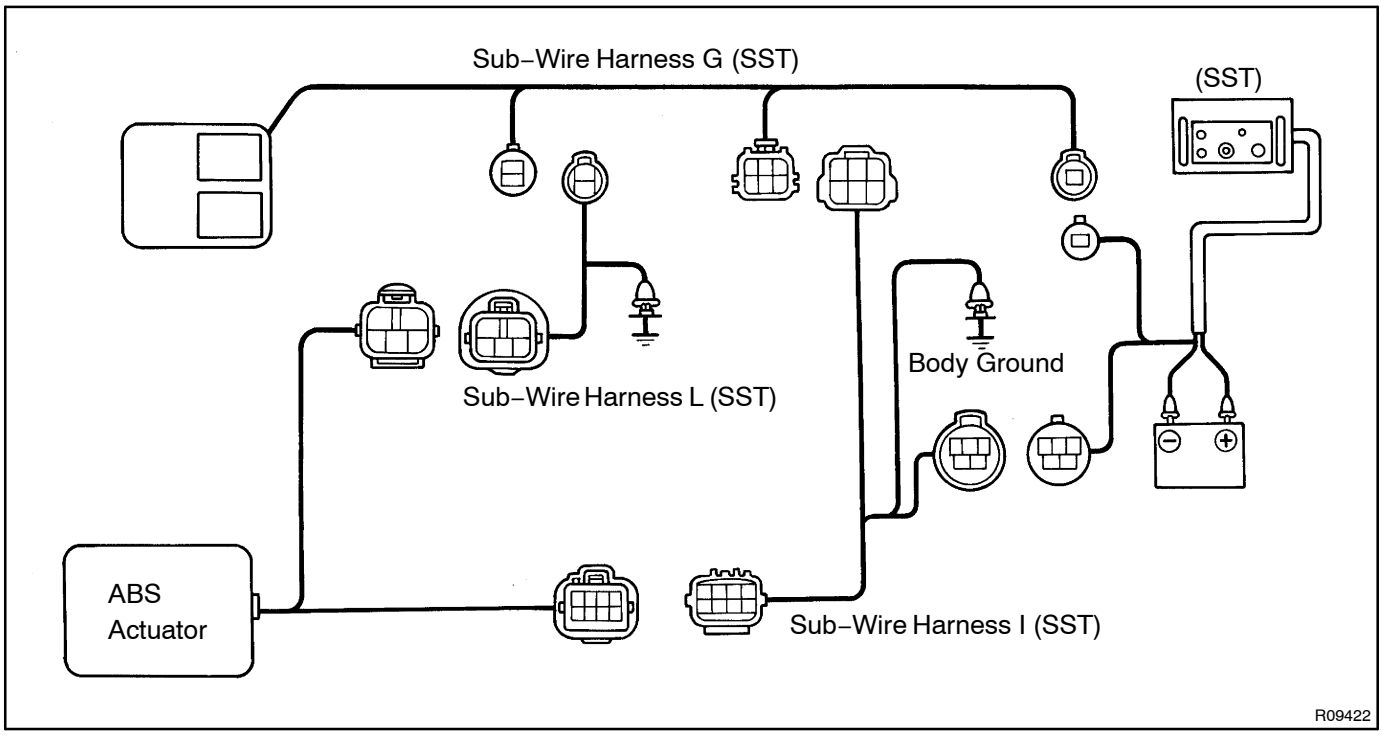
(b) Disconnect the 2 connectors from the brake actuator.

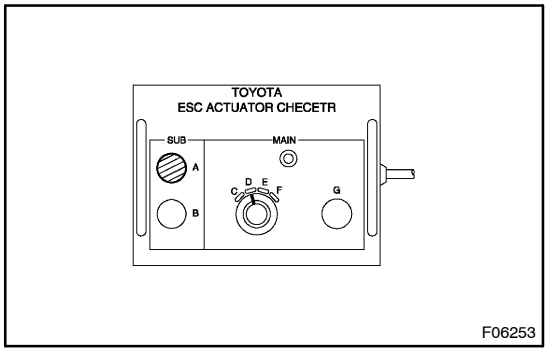
(c) Connect the actuator checker (SST) to the brake actuator.

(1) Connect the actuator checker (SST) to the actuator, control relay and body side wire harness through the sub–wire harness G, I and L (SST), as shown in the illustration.

SST 09990–00150, 09990–00250, 09990–00300, 09990–00360

(2) Connect the red cable of the checker to the battery positive (+) terminal and black cable to the negative (–) terminal. Connect the black cable of the sub–wire harness to the battery negative (–) terminal or the body ground.





(d) Check the brake actuator operation of the front RH wheel.

HINT:

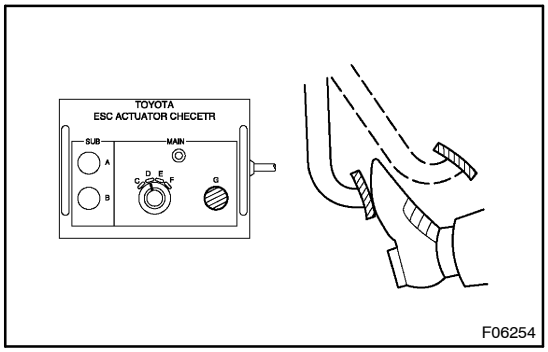
The functions of the actuator checker switches are shown in the table below.

A	Motor ON/OFF
B	Front LH solenoid ON/OFF
C	–
D	Front RH solenoid
E	–
F	Rear solenoid
G	Solenoid ON/OFF

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

(2) Turn the select switch of the actuator checker to the ”D” position.

(3) Push the ”A” switch and hold it for a few seconds. Make sure that you can hear the motor running sound.



(4) Depress the brake pedal and hold it until step 7 is completed.

(5) Push in the ”G” push switch and hold it for a few seconds, and check that the brake pedal does not go down any more.

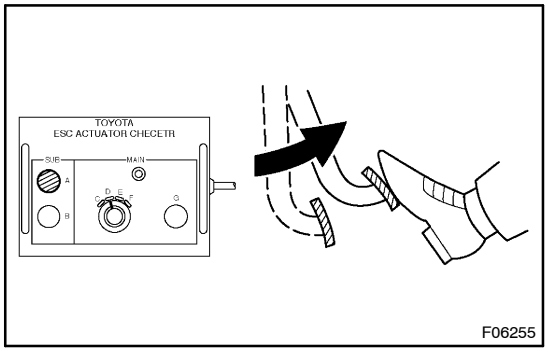
NOTICE:

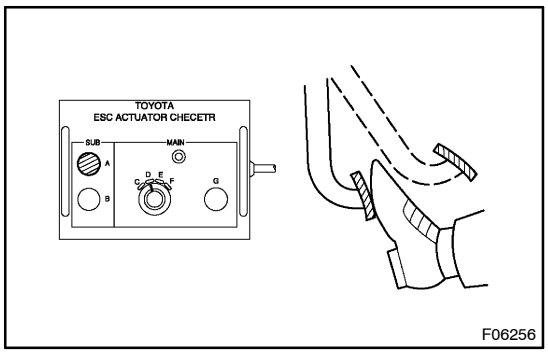
Do not keep the ”G” push switch held down for more than 10 seconds.

(6) Release the ”G” push switch and check that the pedal goes down further more.

(7) Push in the ”A” switch and check that the pedal returns.

(8) Release the brake pedal.

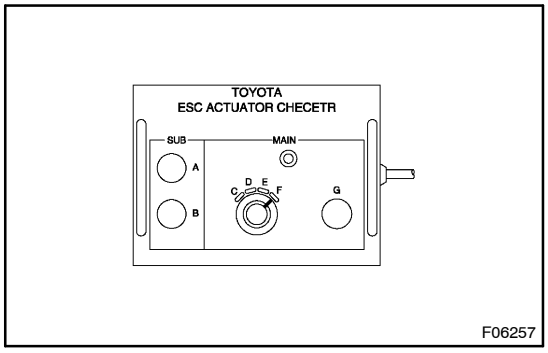




(9) Push in the ”A” switch and hold it for a few seconds.

(10) Depress the brake pedal and hold it for about 15 seconds. As you hold the pedal down, push in the ”A” switch for a few seconds, and check that the brake pedal does not pulsate.

(11) Release the brake pedal.



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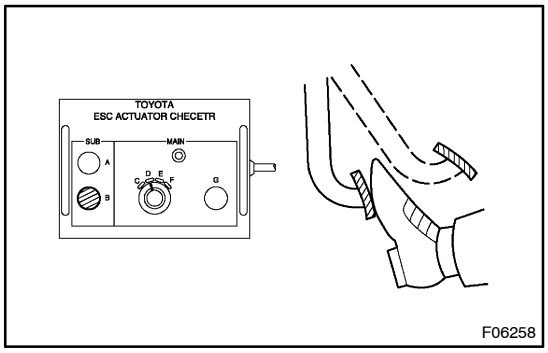
(e) Check the operation of the rear wheel.
  (1) Turn the select switch to the ”F” position.
  (2) Repeat 3 to 11 of step d, checking the actuator operation in the same way.

(f) Inspect the operation of the front wheel.

HINT:

Push in the ”B” switch instead of the ”G” switch, and inspect it in any selector switch position.

  (1) Push in the ”A” switch and hold it for a few seconds.



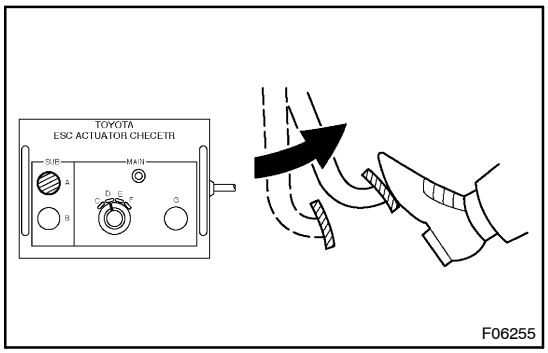
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  (2) Depress the brake pedal and hold it until step 5 is completed.
  (3) Push in the ”B” switch and hold it for a few seconds, and check that the brake pedal does not go down any more.

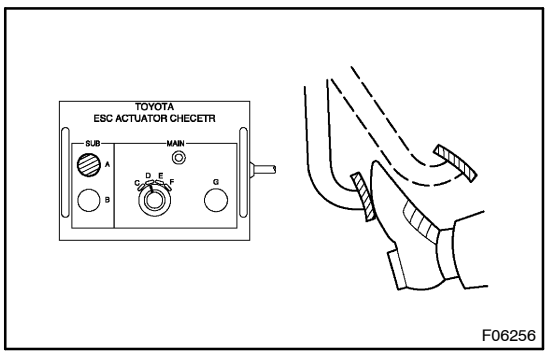
NOTICE:

Do not keep the ”B” switch held down for more than 10 seconds.

  (4) Release the ”B” switch and check that the pedal goes down further.
  (5) Push in the ”A” switch and check that the pedal returns.
  (6) Release the brake pedal.

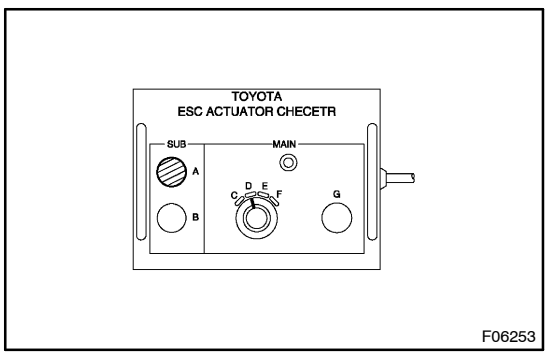


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  (7) Push in the ”A” switch and hold it for a few seconds.
  (8) Depress the brake pedal and hold it for about 15 seconds. As you hold the pedal down, push in the ”A” switch for a few seconds, and check that the brake pedal does not pulsate.
  (9) Release the brake pedal.



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(g) Push the ”A” switch.
  (1) Push in the ”A” switch and hold it for a few seconds.
  (2) Stop the engine.

(h) Disconnect the actuator checker (SST) and 3 sub–wire harness (SST) from the actuator.

  SST 09990–00150, 09990–00250, 09990–00300, 09990–00360

(i) Connect the 2 connectors to the actuator.