

Speed Sensor and Deceleration Sensor Diagnosis System

PRECAUTION

While checking the speed sensor and deceleration sensor diagnosis system, ABS does not work and brake system works as normal brake system.

INSPECTION OF DIAGNOSIS SYSTEM

1 . INSPECT BATTERY POSITIVE VOLTAGE

Inspect that the battery positive voltage is about 12 V.

2. CHECK THAT WARNING LIGHT TURNS ON

- (a) Turn the ignition switch on.
- (b) Check that the "ABS" warning light turns on for 3 seconds.

If not, inspect and repair or replace the fuse, bulb and wire harness.

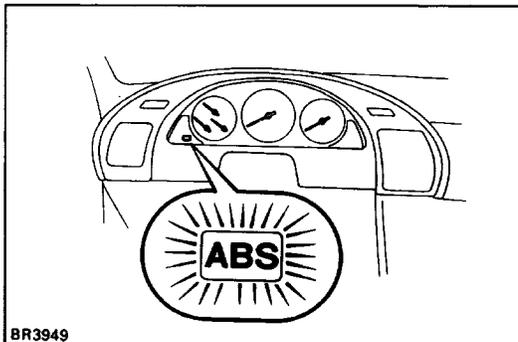
- (c) Check that the "ABS" warning light turns off.
- (d) Turn the ignition switch off.

3. PERFORM FOLLOWING STEPS

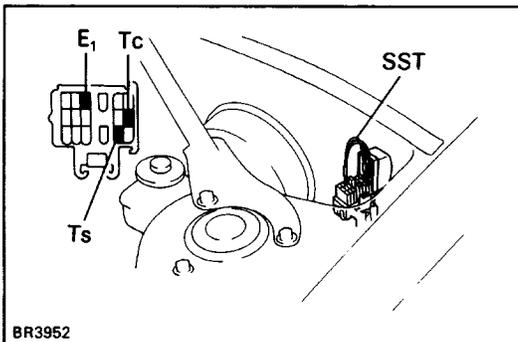
- (a) Using SST, connect terminals Ts to E 1 of the data link connector 1.

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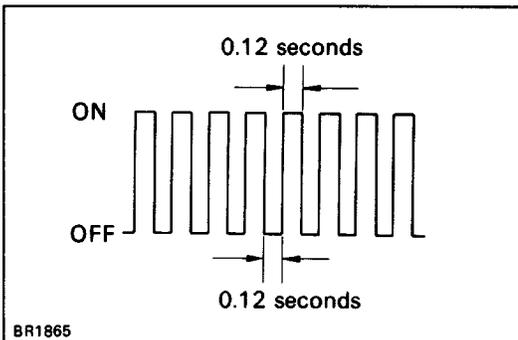
- (b) Pull the parking brake lever up, and start the engine.
HINT: Do not depress the brake pedal.



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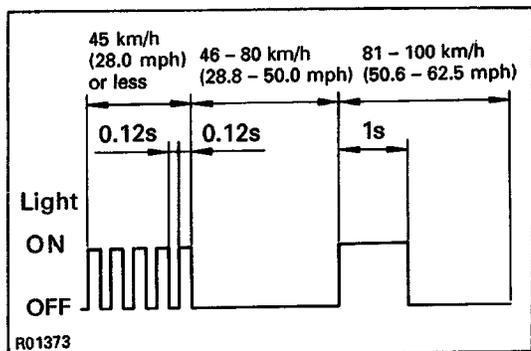


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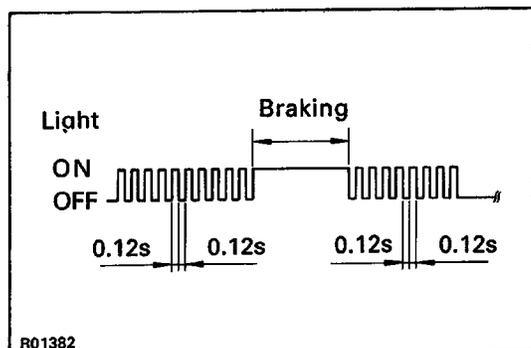
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- (c) Check that the warning light blinks about 4 times every 1 second as shown.



4. INSPECT SPEED SENSOR SIGNAL

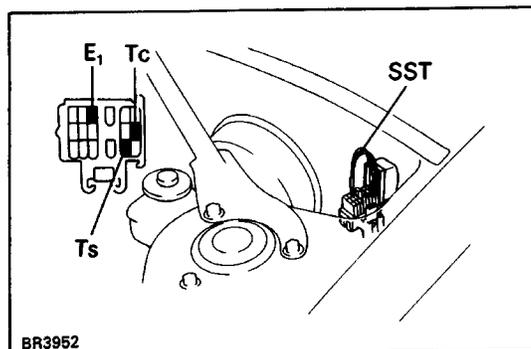
- (a) Drive the vehicle straight ahead at about 45 km/h (28.1 mph) or less, and check that the warning light blinks about 4 times very 1 second.
- (b) Up the vehicle speed to 46 - 80 km/h (28.8 - 50.0 mph), and check that the warning light turn off. If the warning light is blinking, read the diagnostic trouble code at the step 6.
- (c) Up the vehicle speed to 81 - 100 km/h (50.6 - 62.5 mph), and check that the warning light turns on for 1 second, and then turn off. If the warning light is blinking, read the diagnostic trouble code at the step 6.
- (d) Stop the vehicle.



5. (4WD vehicles)

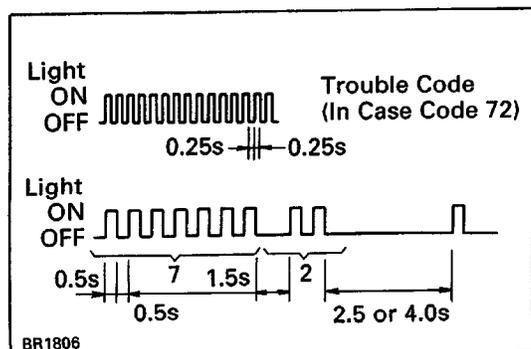
INSPECT DECELERATION SENSOR SIGNAL

- (a) Drive the vehicle straight ahead at about 20 km/h (12.4 mph) or more, depress the brake pedal a little strong.
- (b) Check that the warning light turns on while braking.
- (c) Stop the vehicle.



6. READ DIAGNOSTIC TROUBLE CODE

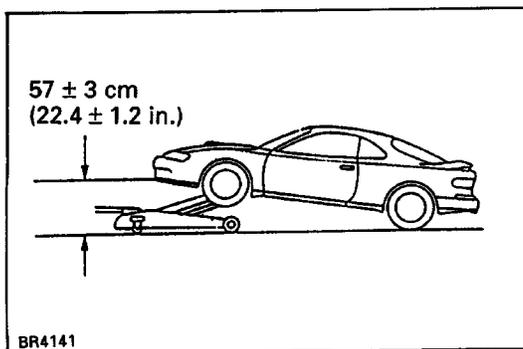
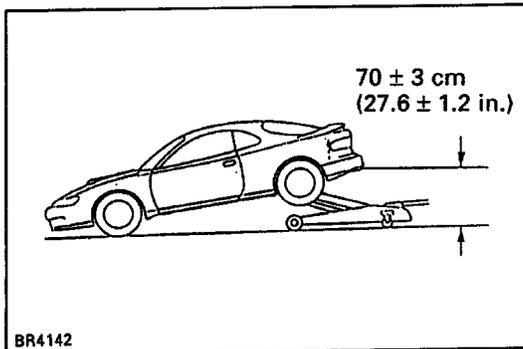
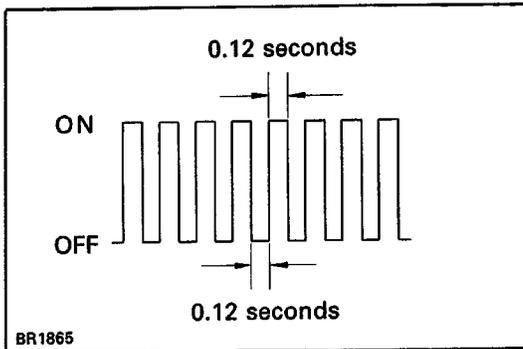
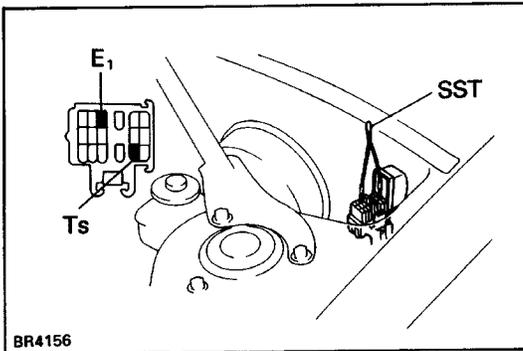
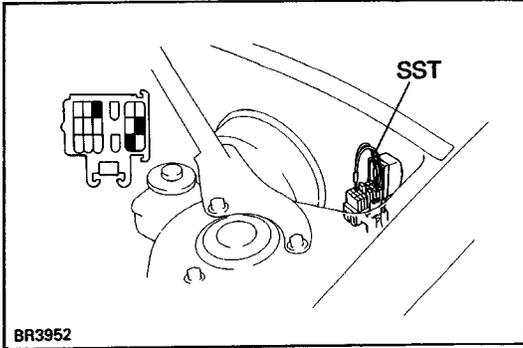
- (a) Using SST, connect the terminals Tc to E, of the data link connector 1.
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HINT: Do not disconnect the terminal Ts to Ei.



- (b) Read the number of blinks.
(See DIAGNOSTIC TROUBLE CODE on page BR-70)
HINT: The first number of blinks will equal the first digit of a two digit diagnostic trouble code. After a 1.5 second pause, the 2nd number of blinks will equal the 2nd number of a two digit code. If there are two or more codes, there will be a 2.5 second pause between each code, and then indication will begin again after a 4.0 second pause, continuing in order from the smaller value up to the larger one.

DIAGNOSTIC CODE

Code No.	Light Pattern	Diagnosis	Malfunctioning Part
	ON OFF 	All speed sensors and sensor rotors are normal	
71		Low voltage of front right speed sensor signal	-Front right speed sensor -Sensor installation
72		Low voltage of front left speed sensor signal	-Front left speed sensor -Sensor installation
73		Low voltage of rear right speed sensor signal	-Rear right speed sensor -Sensor installation
74		Low voltage of rear left speed sensor signal	-Rear left speed sensor -Sensor installation
75		Abnormal change of front right speed sensor signal	-Front right sensor rotor
76		Abnormal change of front left speed sensor signal	-Front left sensor rotor
77		Abnormal change of rear right speed sensor signal	-Rear right sensor rotor
78		Abnormal change of rear left speed sensor signal	-Rear left sensor rotor



7. REPAIR MALFUNCTIONING PARTS

Repair or replace the malfunctioning parts.

8. PERFORM FOLLOWING STEPS

- (a) Turn the ignition switch off.
- (b) Remove the SST from terminals E, and Tc, Ts of the data link connector 1.

INSPECTION OF DECELERATION, SENSOR INSTALLATION

1. INSPECT BATTERY POSITIVE VOLTAGE

Inspect that the battery positive voltage is about 12 V.

2. INSPECT SENSOR DETECTION POINT

- (a) Turn the ignition switch off.
- (b) Using SST, connect terminals Ts and E₁ of the data link connector 1.

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- (c) Pull the parking brake lever up and depress the brake pedal, and turn the ignition switch on.
- (d) Check that the warning light blinks about 4 times every 1 second as shown.

- (e) Jack up the rear side of the vehicle slowly as shown.

HINT: When measuring the height, measure at the center of the rear bumper lower edge.

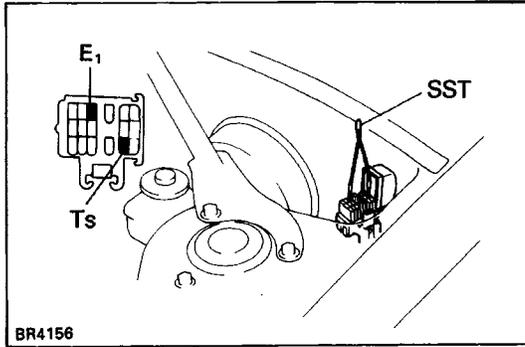
- (f) Check that the warning light does not turn on.
- (g) Jack down the vehicle and check that the warning light blinking.

- (h) Jack up the front side of the vehicle slowly as shown.

HINT: when measuring the height, measure at the center of the lower body or spoiler edge of the vehicle.

- (i) Check that the warning light does not turn on. Jack down the vehicle and check that the warning light blinking.

If the warning light turns on, inspect the deceleration sensor installation. And if the sensor installation is OK, replace the deceleration sensor.



(k) Turn the ignition switch off.

Remove the SST from terminal Ts and E₁ , of the data link connector 1 .