

DTC 22 - SUSPENSION CONTROL ACTUATOR CIRCUIT

CIRCUIT DESCRIPTION

ECU sends a signal to suspension control actuator to drive the rotary valve of the shock absorber and the air valve of the pneumatic cylinder simultaneously, thus changing the shock absorber damping force and the suspension spring rate. A suspension control actuator is fitted to each pneumatic cylinder.

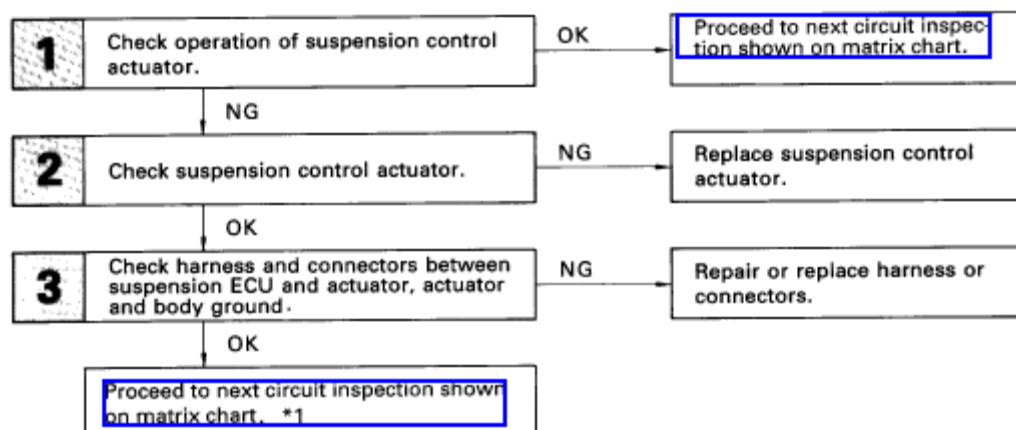
DTC No. *1	Diagnosis	Trouble Area
21 22	Open or short circuit in suspension control actuator circuit.	<ul style="list-style-type: none"> • Harness or connector between ECU and suspension control actuator. • Suspension control actuator. • ECU

The actuator is driven electromagnetically so that it can accurately follow the driving conditions that change frequently.

*1: Code 21 corresponds to the front suspension control actuator circuit.
Code 22 corresponds to the rear suspension control actuator circuit.

Once the ECU stores diagnostic trouble code 21 or 22 in memory, damping force and spring rate controls are not carried out until a normal signal is input to the ECU from the suspension control actuator.

However, control is resumed if the [ignition switch](#) is turned off, then on again.



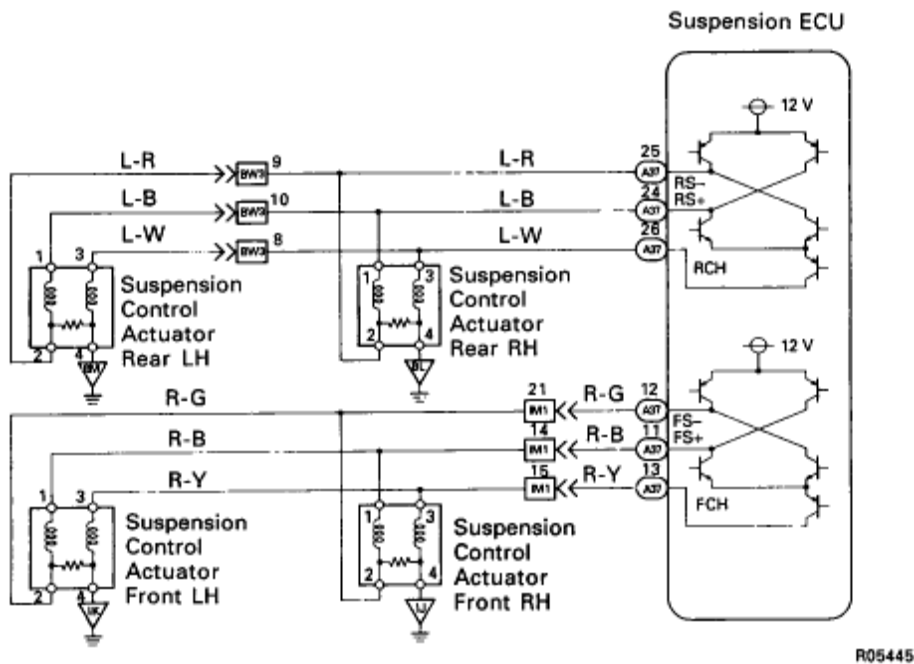
DIAGNOSTIC CHART

HINT 1:

- When diagnostic trouble code "21" is displayed, check the front suspension control actuator circuit.
- When diagnostic trouble code "22" is displayed, check the rear suspension control actuator circuit.

HINT 2:

- When diagnostic trouble code 21 or 22 is displayed, perform inspection from step [2].



R05445

WIRING DIAGRAM

1 Check operation of suspension control actuator.

IG ON

AB0119 SA1281 SA1309

P For the front suspension control actuator,
(1) Remove the actuator cover and actuator.
(2) Turn ignition switch on.

For the rear suspension control actuator,
(1) Remove the rear seat and package tray trim.
(2) Remove the actuator cover and actuator.
(3) Turn ignition switch on.

C Check operation of suspension control actuator when LRC switch is pressed to SPORT side and NORM side.

OK The actuator operates.

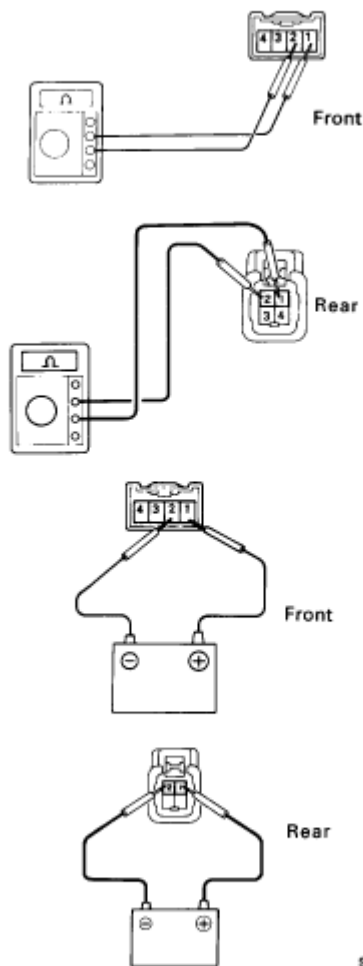
NG

OK Proceed to next circuit inspection shown on matrix chart.

Step 1

2

Check suspension control actuator.



SA1322
R04852
SA1312
R04853

- P** For the front suspension control actuator,
(1) Remove the actuator cover and actuator.
(2) Disconnect the actuator connector.

- For the rear suspension control actuator,
(1) Remove the rear seat and package tray trim,
actuator cover and actuator.
(2) Disconnect the actuator connector.

- C** Measure resistance between terminals of suspension control actuator connector shown below.

OK

Terminals	Resistance
1 - 2	3 - 6 Ω
3 - 4	3 - 6 Ω
2 - 4	2.3 - 4.3 k Ω

- C** Check operation of suspension control actuator when battery voltage is applied to the terminals of suspension control actuator connector shown below.

OK

Position	Battery \oplus	Battery \ominus
Firm	Terminal 1	Terminal 2
Medium	Terminal 3	Terminal 4
Soft	Terminal 2	Terminal 1

- Hint** Perform inspection in a short time (within 1 second).

OK

NG Replace suspension control actuator.

Step 2

3

Check harness and connectors between suspension ECU and actuator, actuator and body ground.

OK

NG Repair or replace harness or connectors.

Proceed to next circuit inspection shown on matrix chart. *1

*1: However, when diagnostic trouble code 21 or 22 is displayed, check and replace suspension ECU.

Step 3

*1: However, when diagnostic trouble code 21 or 22 is displayed, check and replace suspension ECU.

INSPECTION PROCEDURE

HINT 1:

- When diagnostic trouble code "21" is displayed, check the front suspension control actuator circuit.
- When diagnostic trouble code "22" is displayed, check the rear suspension control actuator circuit.

HINT 2:

- When diagnostic trouble code 21 or 22 is displayed, perform inspection from step [2].