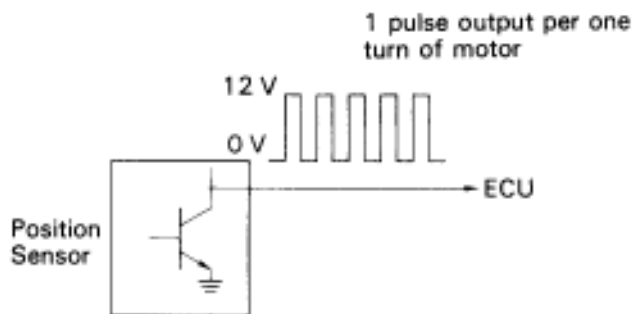


## Position Sensor Circuit

### CIRCUIT DESCRIPTION



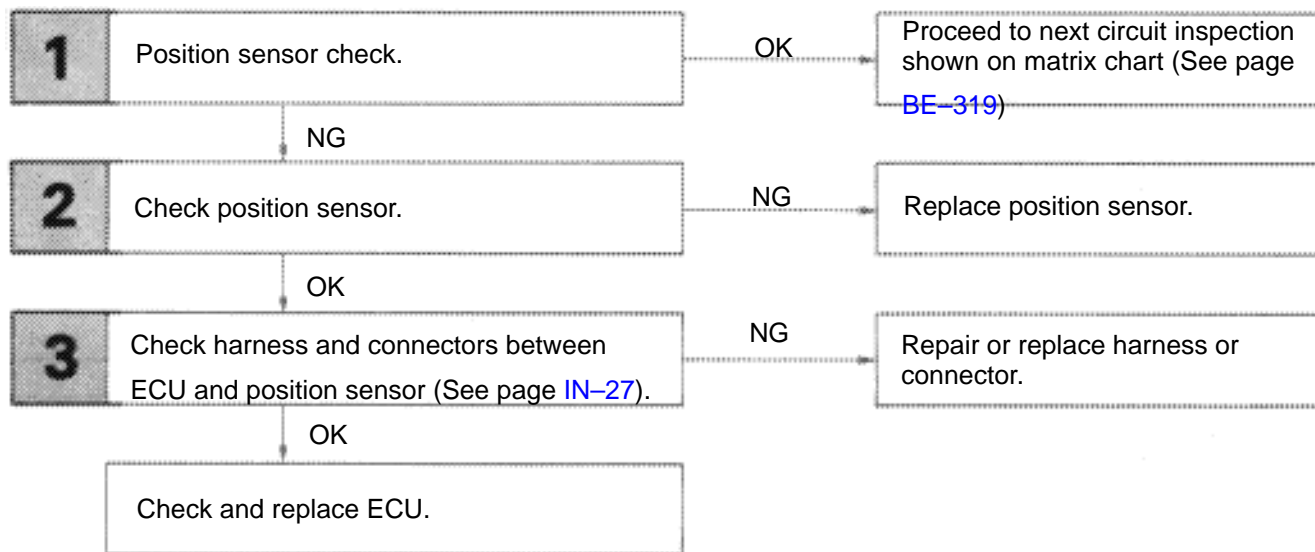
The position sensor senses movement of the seat and send pulse signals to the ECU. The position sensor sends pulses to the ECU in proportion to the amount of seat movement, as shown in the diagram on the left.

If a malfunction occurs in a position sensor and a sensor signal is not input to the ECU even when the motor operates, the ECU prohibits return operation.

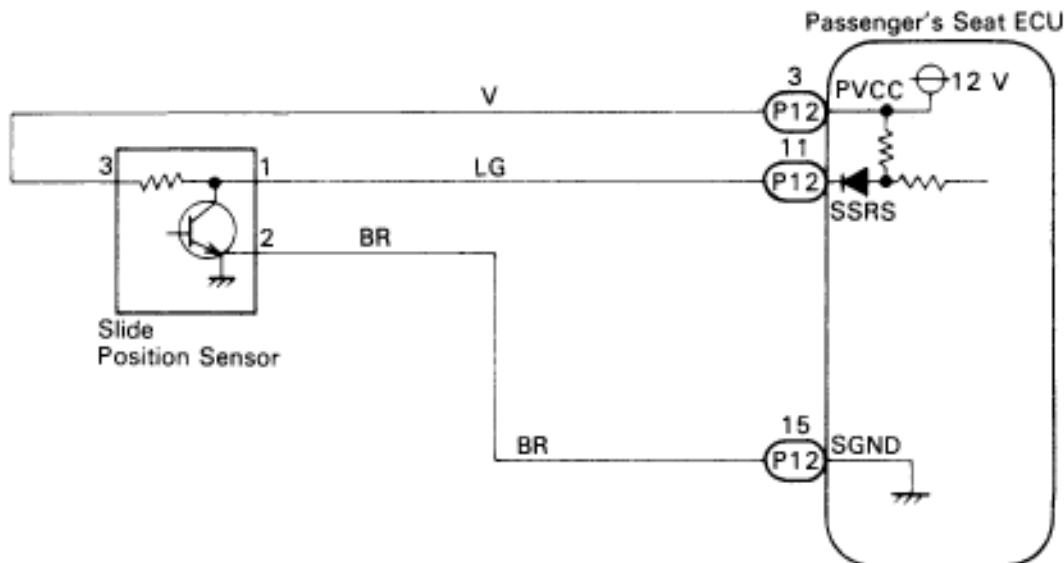
BE3991

### DIAGNOSTIC CHART

Inspect the circuit which is malfunctioning.



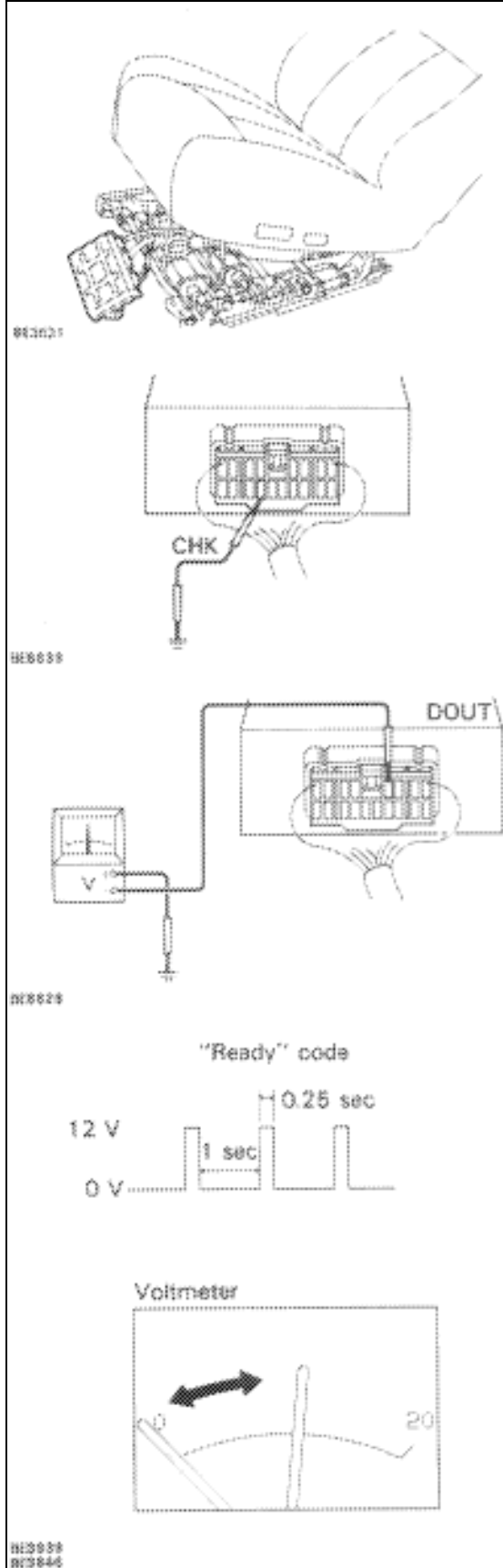
### WIRING DIAGRAM



BE6501

# INSPECTION PROCEDURE

## 1 Position Sensor Check.



- P**
- (1) Remove the passenger's seat.
  - (2) Remove the bolts for seat rail and lift the seat cushion up a little.
- Notice:** If the seat cushion is lifted too high, the harness will be pulled and the clamp may come loose.
- (3) Remove the ECU with the connector attached from where it is installed to the underside of the seat cushion.

### Position sensor check

- C**
- (1) Connect terminal CHK of the ECU to body ground to put the ECU into check mode.

- (2) Measure voltage between terminal DOUT of ECU and body ground.

Use an analog type meter.

### Hint

- (3) Check that the "ready" code is output as shown in the illustration.

1

Position sensor check (Cont'd).

Slide

Reclining

OK Code

NG Code

Hint

(4) Operate the power seat manual switch and check the change in the voltage when the seat is moving.

(5) The changes in the output voltage when the input signal is normal and when it is abnormal are shown in the illustrations. Compare the results with those from (4) and diagnose the condition of each circuit.

- The OK and NG codes continue to be output while the manual switch is ON.
- When the seat reaches the limit of movement, e.g. when the headrest reaches the highest or lowest position, the voltage changes from the OK code to the NG code.

After operating any of the system functions with no problem and confirming the OK code and NG code by comparing the amount of wavering of the voltmeter needle, inspect the function with a problem.

- The amount of wavering of the voltmeter needle depends on the meter.

OK

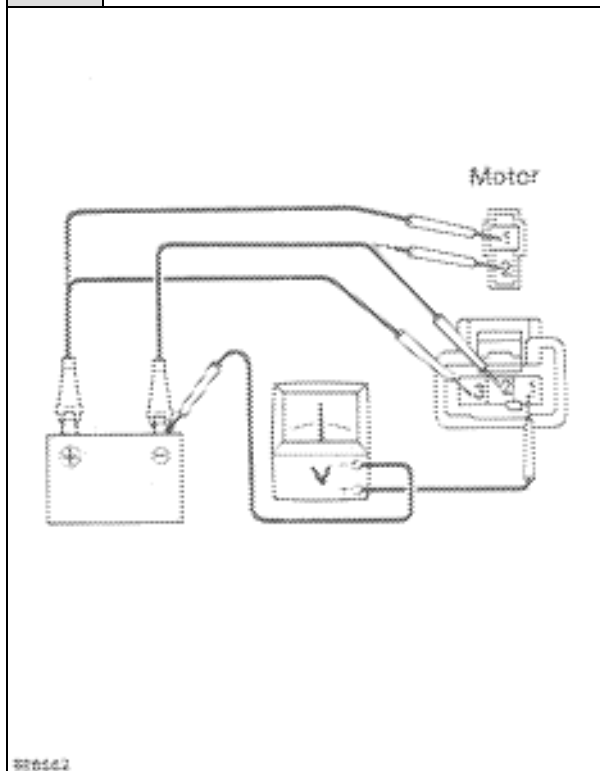
Output	OK	OK Code
	NG	NG Code

NG

OK

Proceed to next circuit inspection shown on the matrix chart (See page BE-318).

Go to step [2].

**2 Check position sensor.**

**P** Disconnect the connector of the sensor and the connector of the motor leading to the sensor.

**C**

- (1) Connect the positive  $\oplus$  lead to terminal 3 of sensor and negative  $\ominus$  lead to terminal 2.
- (2) Measure voltage between terminal 1 of sensor and body ground when battery voltage is applied between terminals 1 and 2 of motor connector.

**Hint** When the battery voltage is applied to the motor connector terminals,  $\oplus$  and  $\ominus$  are interchangeable.

**OK**


**OK**

**NG**

Replace position sensor.

**3 Check for open and short in harness and connectors between ECU and position sensor (See page IN-27).**

**OK**

**NG**

Repair or replace harness or connectors.

Check and replace ECU.