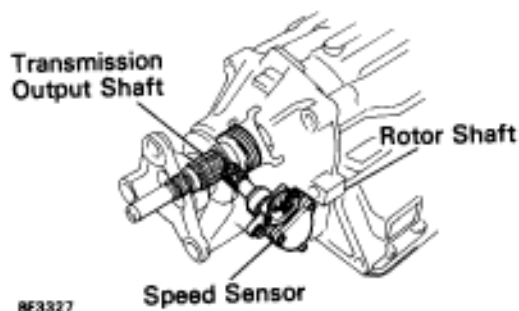


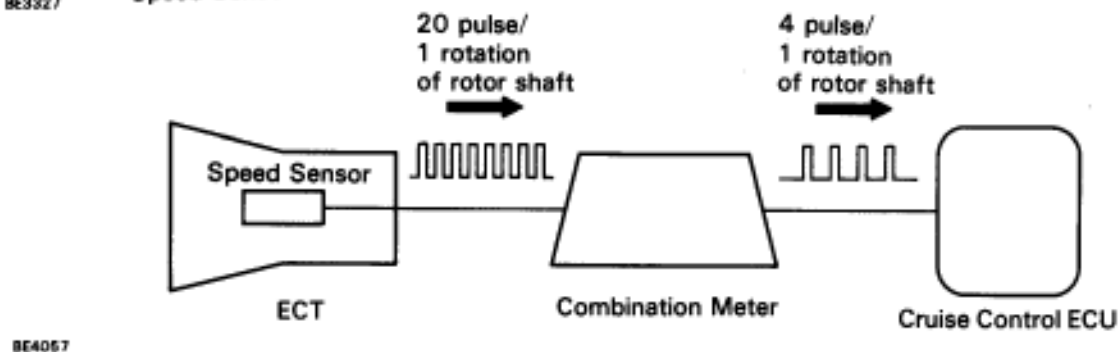
Diag. Code 21, 23**Speed Sensor Circuit****— CIRCUIT DESCRIPTION —**

The speed sensor signal is sent to cruise control ECU as vehicle speed signal.

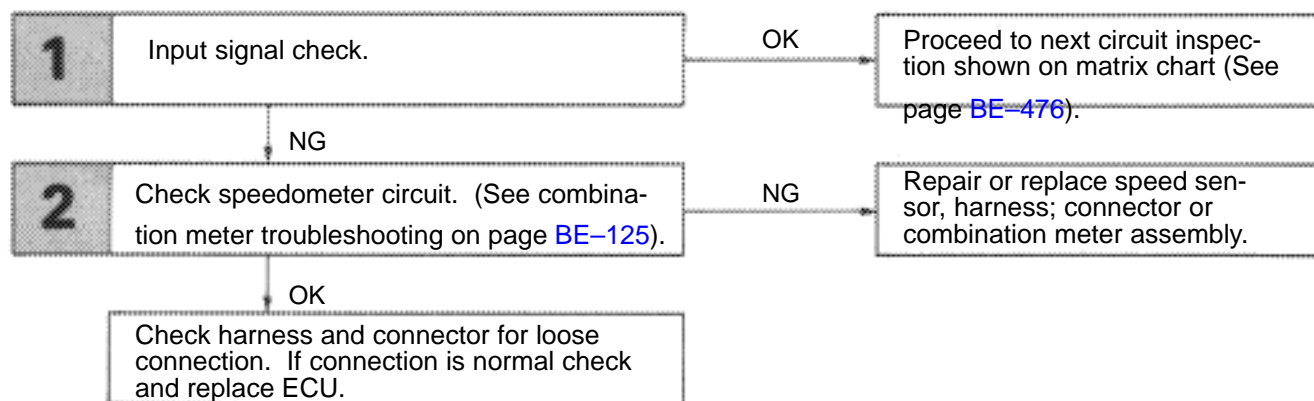
The rotor shaft is driven by the gear of the transmission. For each rotation of the shaft, the speed sensor sends a 20-pulse signal to the combination meter.

This signal is converted inside the combination meter and sent as a 4-pulse signal to the cruise control ECU.

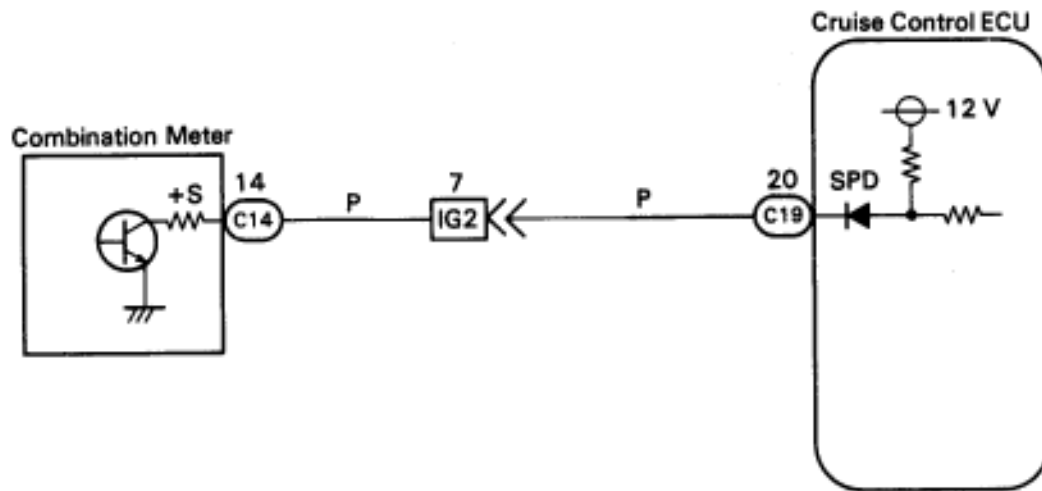
The ECU calculates the vehicle speed from this pulse frequency.



Code No.	Diagnosis	Trouble area
21	Speed signal is not input to the ECU while cruise control is set.	<ul style="list-style-type: none"> Speed sensor Combination meter Harness or connector between speed sensor and combination meter, combination meter and ECU. ECU.
23	Vehicle speed decrease 16 km/h or more than preset speed. HINT: When speed sensor circuit is opened intermittently (Below 0.2 sec), code 23 is output.	<ul style="list-style-type: none"> Actuator Speed Sensor Harness or connector in OD and SPD circuit (Open or short intermittently) ECU

— DIAGNOSTIC CHART —

WIRING DIAGRAM


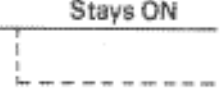


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INSPECTION PROCEDURE

1

Input signal check.

Vehicle speed	Indicator light blinking pattern
Above 40 km/h (25 mph)	<div>ON</div> <div>OFF</div> <div></div> <div>0.25 sec 0.25 sec</div>
Below 40 km/h (25 mph)	<div>ON</div> <div>OFF</div> <div></div> <div>Stays ON</div>

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(1) See input signal check on page [BE-470](#).

(2) Check indicator light operation when driving with vehicle speed above 40 km/h (25 mph), and with vehicle speed below 40 km/h (25 mph).

OK

Vehicle speed above 40 km/h (25 mph)

: Indicator light blinks

Vehicle speed below 40 km/h (25 mph)

: Indicator light stays on

NG

OK

Proceed to next circuit inspection shown on matrix chart (See page [BE-476](#)).

2

Check speedometer circuit. (See combination meter troubleshooting on page [BE-125](#)).

OK

NG

Repair or replace speed sensor, harness, connector or combination meter assembly.

Check harness and connector for loose connection. If connection is normal, check and replace ECU.