

|            |           |                                             |
|------------|-----------|---------------------------------------------|
| <b>DTC</b> | <b>21</b> | <b>Open in Vehicle Speed Sensor Circuit</b> |
|------------|-----------|---------------------------------------------|

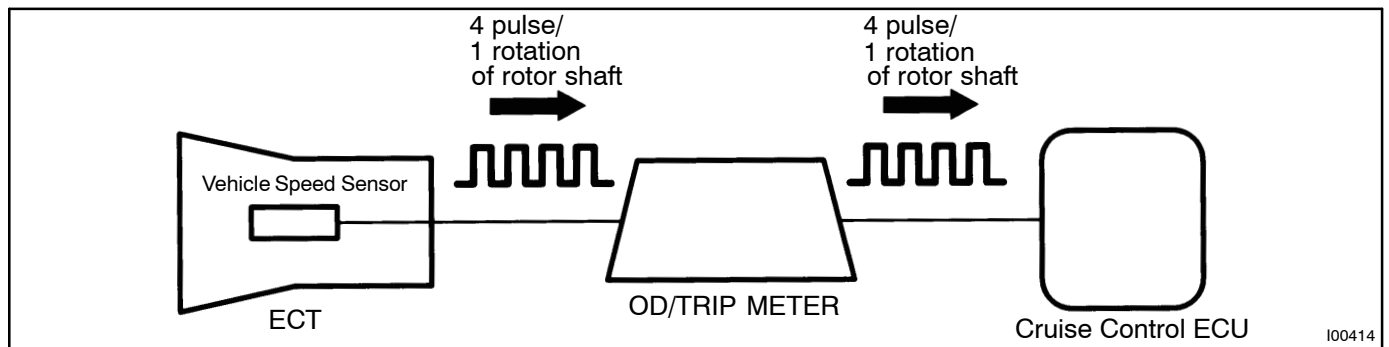
## CIRCUIT DESCRIPTION

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

The rotor shaft is driven by the gear of the transmission.

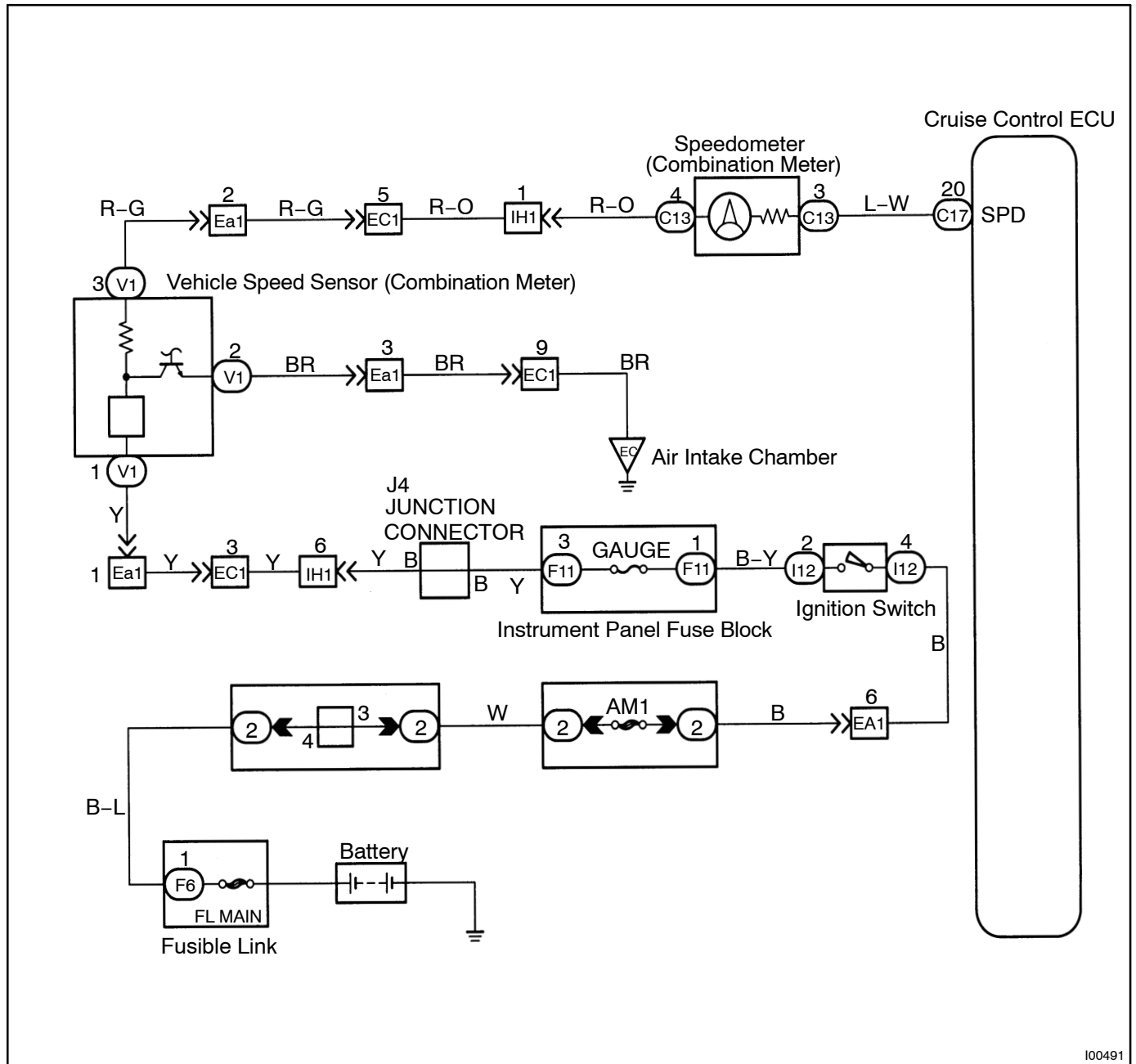
For each rotation of the shaft, the vehicle speed sensor sends a 4 pulse signal through the combination meter to the cruise control ECU (See the following).

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.



| DTC No. | Detection Item                                                                                                                     | Trouble Area                                                                                                                                                                                                                                             |
|---------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21      | <ul style="list-style-type: none"> <li>Speed signal is not input to the cruise control ECU while cruise control is set.</li> </ul> | <ul style="list-style-type: none"> <li>Combination meter</li> <li>Harness or connector between cruise control ECU and combination meter, combination meter and vehicle speed sensor</li> <li>Vehicle speed sensor</li> <li>Cruise control ECU</li> </ul> |

## WIRING DIAGRAM



I00491

## INSPECTION PROCEDURE

|   |                     |
|---|---------------------|
| 1 | Input signal check. |
|---|---------------------|

| Input Signal                                    | Indicator Light<br>Blinking Pattern                                                                                                                                                 |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drive at about<br>40 km/h (25 mph)<br>or below  | Light ON <br>OFF  |
| Drive at about<br>40 km/h (25 mph)<br>or higher | Light ON <br>OFF  |

**CHECK:**

- (a) See input signal check on page [DI-286](#).  
 (b) 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**

OK

Check and replace cruise control ECU  
(See page [IN-28](#)).

NG

|   |                                                                                                   |
|---|---------------------------------------------------------------------------------------------------|
| 2 | Check speedometer circuit (See Combination meter troubleshooting on page <a href="#">BE-34</a> ). |
|---|---------------------------------------------------------------------------------------------------|

NG

Repair or replace harness, connector or combination meter assembly.

OK

|   |                                                                                                                                                             |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Check harness and connector between cruise control ECU and combination meter, combination meter and vehicle speed sensor (See page <a href="#">IN-28</a> ). |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

NG

Repair or replace harness or connector.

OK

|   |                                                               |
|---|---------------------------------------------------------------|
| 4 | Check vehicle speed sensor (See page <a href="#">BE-34</a> ). |
|---|---------------------------------------------------------------|

|    |                               |
|----|-------------------------------|
| NG | Replace vehicle speed sensor. |
|----|-------------------------------|

OK

Check and replace cruise control ECU  
(See page [IN-28](#)).