# Black Screen

## INSPECTION PROCEDURE

**1 CHECK DISPLAY SETTING**

(a) Check that the display is not in "Screen OFF" mode.
**OK:**
**The display setting is not in "Screen OFF" mode.**

NG → **CHANGE SCREEN TO "SCREEN ON" MODE**

OK ↓

**2 CHECK IMAGE QUALITY SETTING**

(a) Check that the screen color quality can be set.
**OK:**
**Setting is possible.**

NG → **Go to step 3**

OK ↓

**PRESS PANEL SWITCH "DISPLAY" AND SET SCREEN COLOR QUALITY TO NORMAL**

**3 CHECK CABIN**

(a) Check that condensation is not likely to occur in the cabin, and that the temperature is not high or extremely low in the cabin.
HINT:
- A humid cabin and a rapid change in temperature may lead to condensation. Condensation in the cabin may short circuit the screen.
- The appropriate cabin temperature is 20 to 30°C (68 to 86°F).

**OK:**
**Condensation is not likely and temperature is not high or extremely low.**

NG → **SET CABIN TO APPROPRIATE TEMPERATURE**

OK ↓

**PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

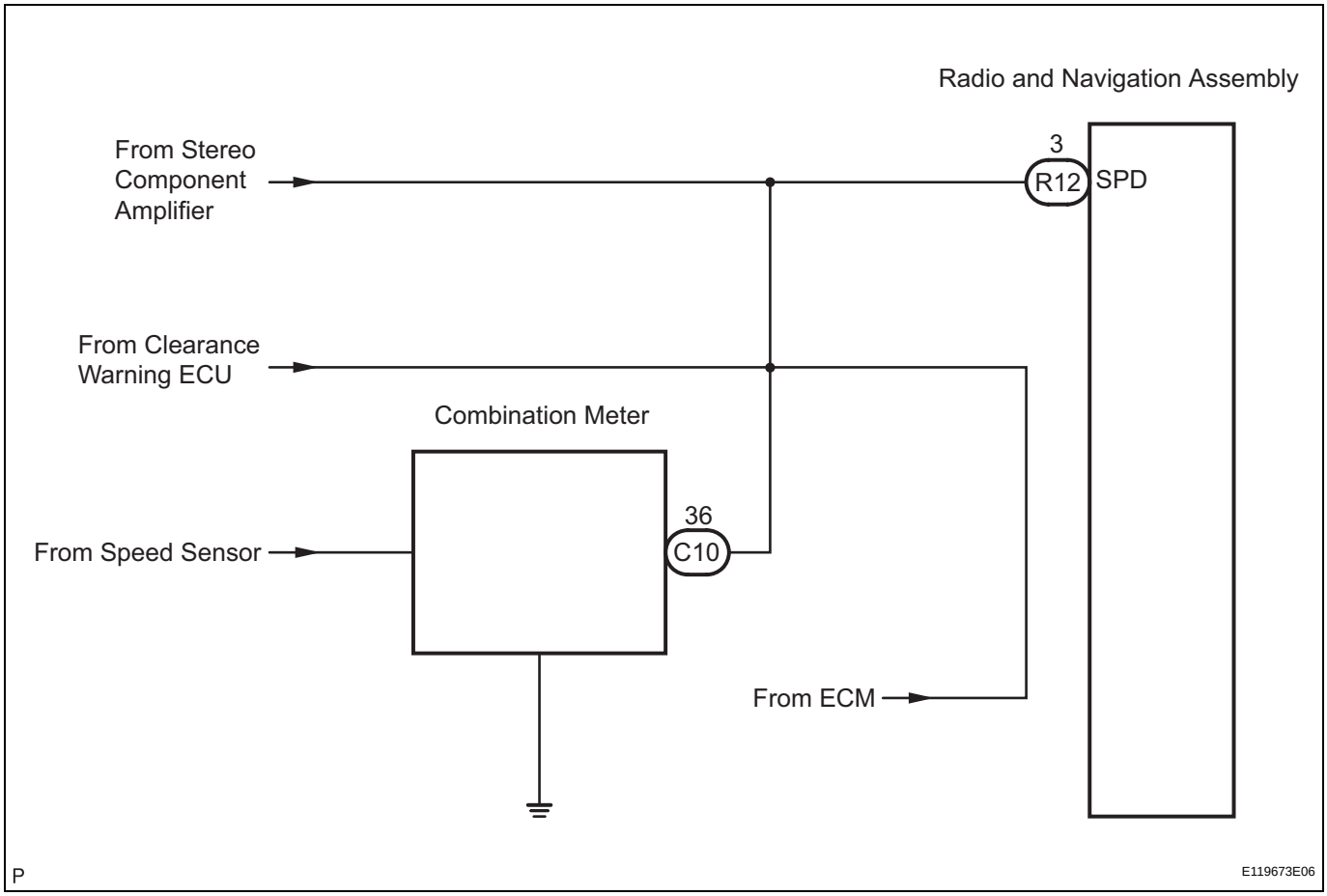
# Vehicle Speed Signal Circuit between Radio and Navigation Assembly and Combination Meter

## DESCRIPTION

The radio and navigation assembly receives a vehicle speed signal from the combination meter and information about the GPS antenna, and then adjusts vehicle position.
HINT:

- A voltage of 12 V or 5 V is output from each ECU and then input to the combination meter. The signal is changed to a pulse signal at the transistor in the combination meter. Each ECU controls the respective system based on the pulse signal.
- If a short occurs in an ECU, all systems in the diagram below will not operate normally.

## WIRING DIAGRAM




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## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | **CHECK OPERATION OF SPEEDOMETER** |

(a) Drive the vehicle and check if the function of the speedometer on the combination meter is normal.
**OK:**
**Actual vehicle speed and the speed indicated on the speedometer are the same.**

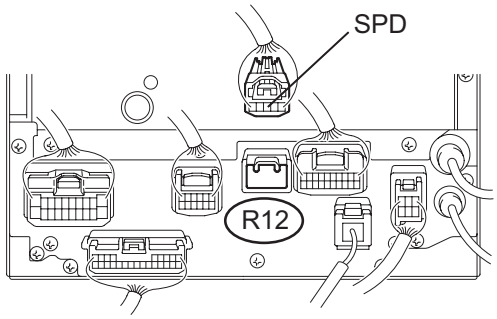
HINT:
The vehicle speed sensor is functioning normally when the indication on the speedometer is normal.

**NG** → **GO TO COMBINATION METER SYSTEM**

**OK**

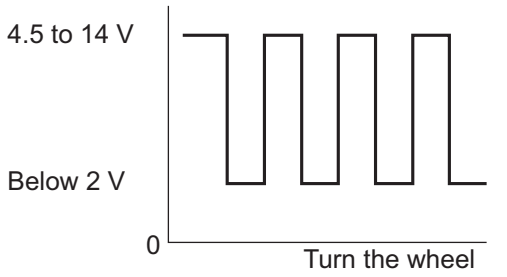
## 2 INSPECT RADIO AND NAVIGATION ASSEMBLY

**Radio and Navigation Assembly Wire Harness View:**




P E113510E02

(a) Disconnect the radio and navigation assembly connector R12.
(b) Measure the voltage.
  (1) Jack up either one of the drive wheels.
  (2) Move the shift lever to the neutral position.
  (3) Turn the ignition switch to the ON position.




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(4) Measure the voltage between terminal SPD of the radio and navigation assembly and body ground when the drive wheels are turned slowly.
**OK:**
**Voltage pulses as shown in the illustration.**

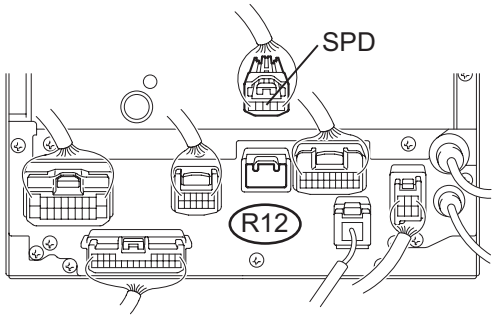
**OK** → **REPLACE RADIO AND NAVIGATION ASSEMBLY**

**NG**

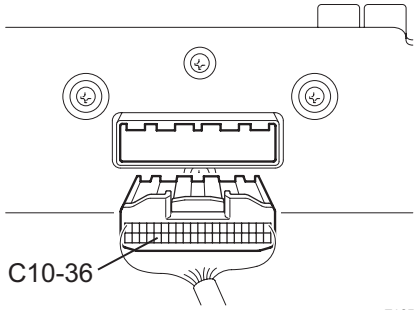
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| 3 | CHECK HARNESS AND CONNECTOR (COMBINATION METER - RADIO AND NAVIGATION ASSEMBLY) |
|---|---|

**Radio and Navigation Assembly Wire Harness View:**




**Combination Meter Wire Harness View:**




P E125114E02

(a) Disconnect the radio and navigation assembly connector R12 and combination meter connector C10.
(b) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester connection | Condition | Specified condition |
|---|---|---|
| SPD - C10-36 | Ignition switch off | Below 1 Ω |

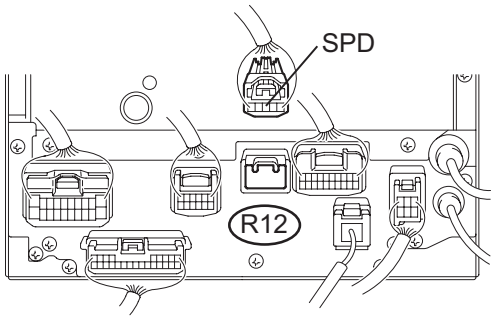
**NG** → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

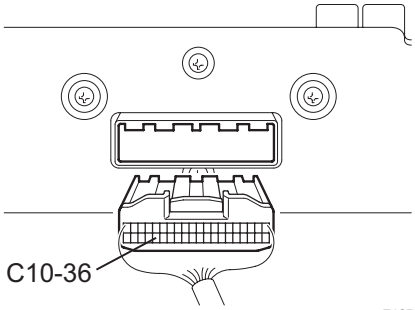
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| 4 | **CHECK HARNESS AND CONNECTOR (COMBINATION METER - RADIO AND NAVIGATION ASSEMBLY)** |
|---|---|

**Radio and Navigation Assembly Wire Harness View:**




**Combination Meter Wire Harness View:**




P E125114E02

(a) Disconnect the radio and navigation assembly connector R12 and combination meter connector C10.
(b) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester connection | Condition | Specified condition |
|---|---|---|
| SPD - Body ground | Ignition switch off | 10 kΩ or higher |

HINT:
If the resistance between terminal SPD and body ground is less than 10 kΩ, there may be a short in a wire harness, connector, or an ECU.

**NG** → **REPAIR OR REPLACE HARNESS OR CONNECTOR OR CHECK EACH ECU**

**OK**

**REPLACE COMBINATION METER**

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