

Section : Body  
Electrical  
Ref. No. : BE-2019  
Date : Jul., 2002  
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Area Application : USA/Canada, Europe, General, G.C.C. Countries, Australia

Model Name : TOYOTA RAV4

Model Code : ACA20, 21, 26 CL20, 21

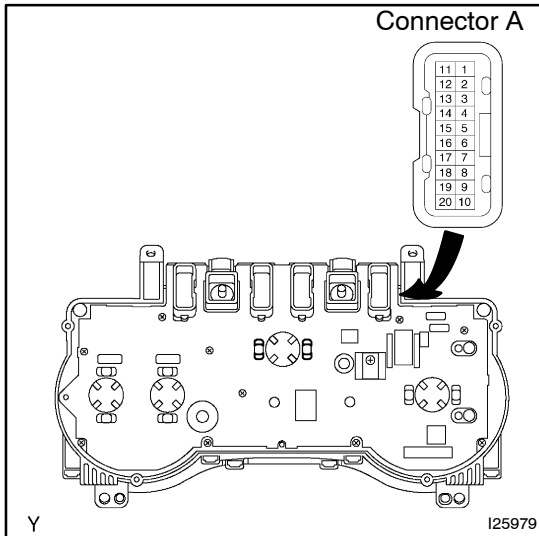
**Subject : TROUBLESHOOTING OF COMBINATION METER**

This Service Bulletin is to inform you of the troubleshoot for the speedometer.

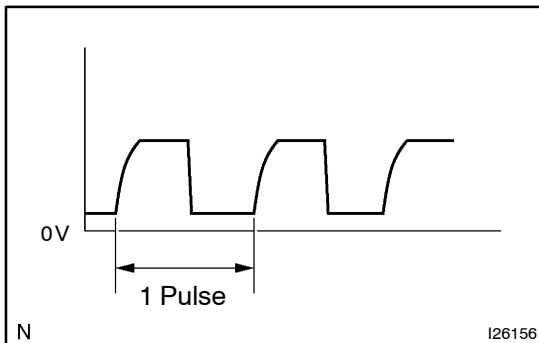
In case of occurrences such as no operation of speed meter, needle swing, inaccurate display, and when the odometer displays less than the actual indication for the E352F and 353F transaxle, repair according to the troubleshoot.

## INSPECTION PROCEDURE

- 1 Check voltage between terminal SI and SE of combination meter connector.**



- (a) Remove combination meter with the connector still connected.  
(b) Connect the oscilloscope between terminal 5 and 7 of the combination meter connector A.  
(c) Drive at the speed that causes failure.



- (d) Check number of pulse with the oscilloscope.

**OK:**

**Vehicle speed (km/h) x 0.71 pulse/sec.**

**Example:**

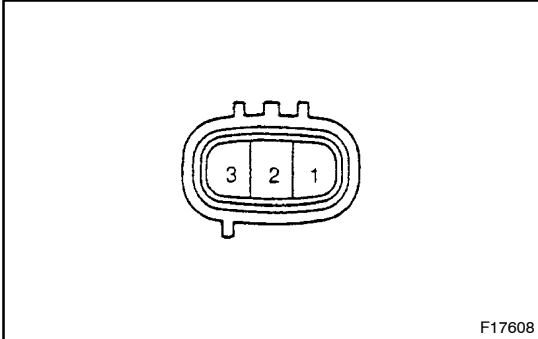
**Vehicle speed (30 km/h)**

**$30 \times 0.71 = 21.3$  pulse/sec.**

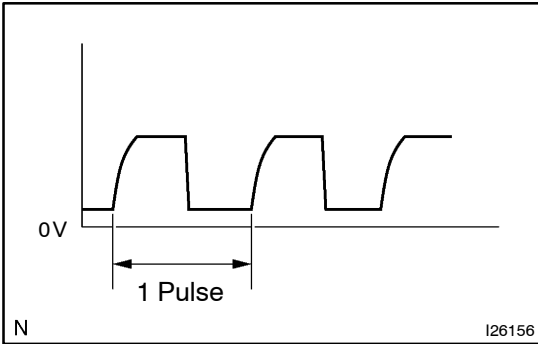
**OK**

**Go to step 4.**

**NG**

**2 Check voltage between terminal 3 and 2 of speed sensor connector.**

- (a) Connect the oscilloscope between terminal 2 and 3 of the vehicle speed sensor.
- (b) Rotate the front wheels at the speed that causes failure.



- (c) Check number of pulse with the oscilloscope.

**OK:**

**Vehicle speed (km/h) x 0.71 pulse/sec.**

**Example:**

**Vehicle speed (30 km/h)**

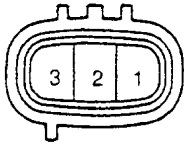
**$30 \times 0.71 = 21.3$  pulse/sec.**

- (d) Check number of pulse with the oscilloscope.

**OK**

**Check and replace harness and connector between combination meter and speed sensor.**

**NG**

**3 Check speed sensor.**

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- (a) Remove the vehicle speed sensor from the trans-axle.
- (b) Apply battery positive voltage between terminal 1 and 2.
- (c) Rotate the shaft of the vehicle speed sensor and check voltage between terminal 2 and 3.

**OK:****4 pulses are generated in one rotation.****OK****Check and replace drive gear.****NG****Replace speed sensor.****4 Check contact condition of combination meter and connector.****OK****Replace combination meter.****NG****Repair connector.**