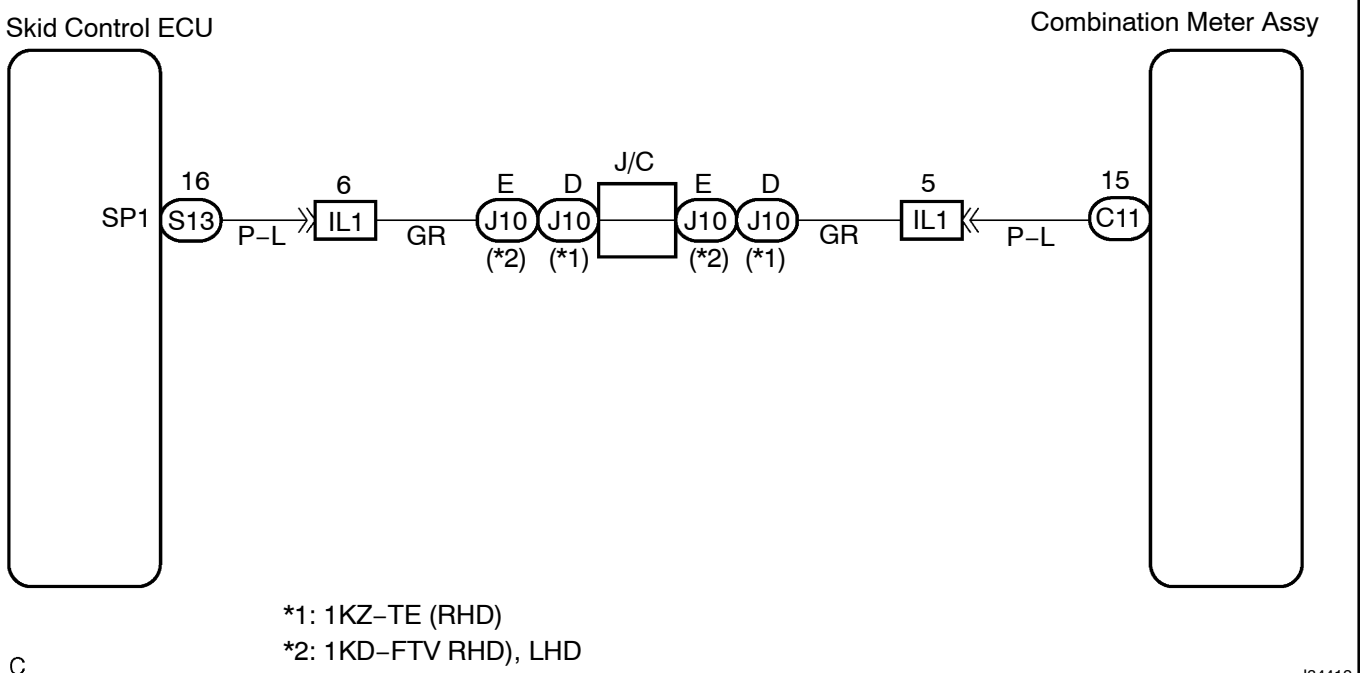
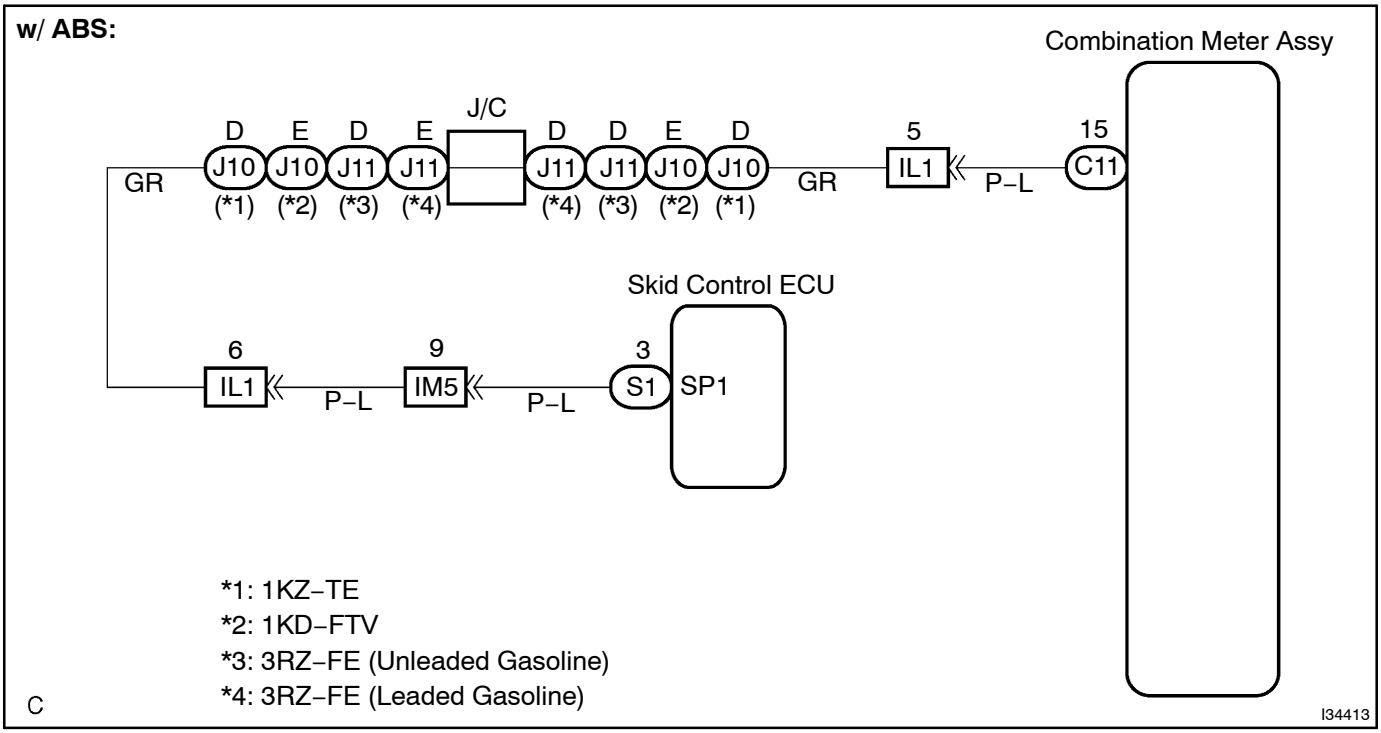
MALFUNCTION IN SPEEDOMETER

WIRING DIAGRAM

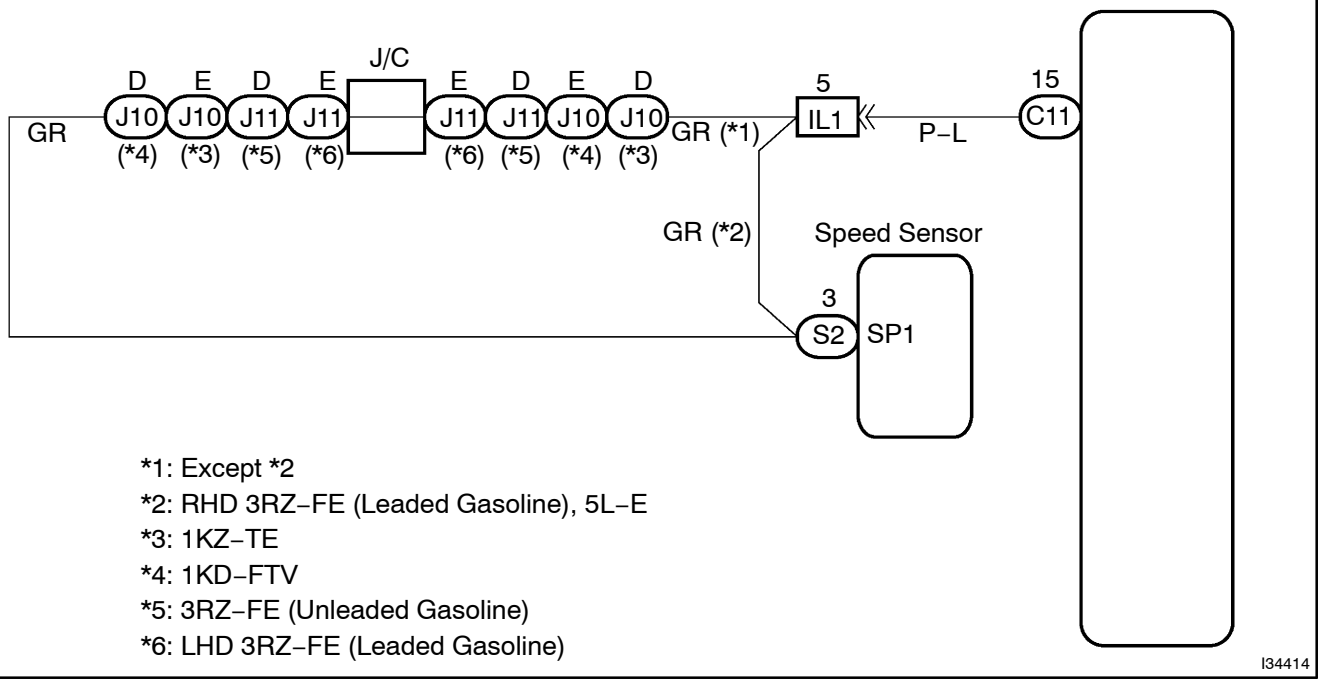
w/ VSC:



w/ ABS:

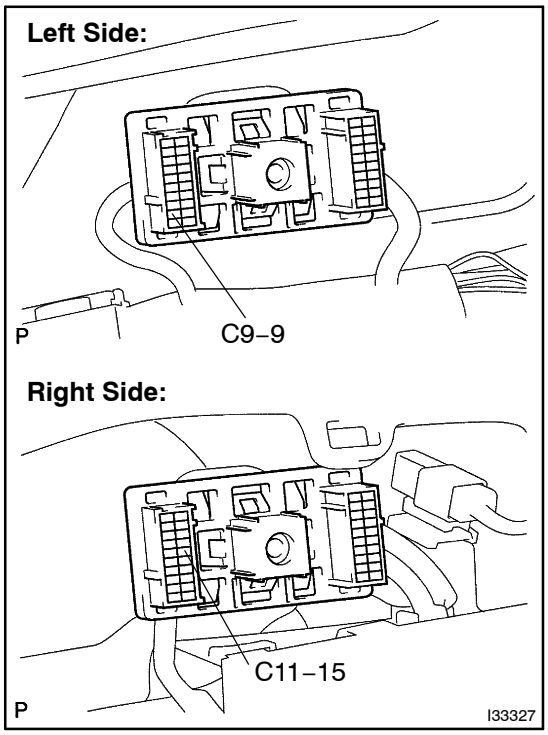


w/o VSC, ABS:


Combination Meter Assy
J/C
D E D E E D E D
J10 J10 J11 J11 J11 J11 J10 J10
(*4) (*3) (*5) (*6) (*6) (*5) (*4) (*3)
GR
GR (*1)
5
IL1
P–L
15
C11
GR (*2)
Speed Sensor
3
S2
SP1
*1: Except *2
*2: RHD 3RZ–FE (Leaded Gasoline), 5L–E
*3: 1KZ–TE
*4: 1KD–FTV
*5: 3RZ–FE (Unleaded Gasoline)
*6: LHD 3RZ–FE (Leaded Gasoline)
C
I34414

INSPECTION PROCEDURE

1	INSPECT COMBINATION METER ASSY

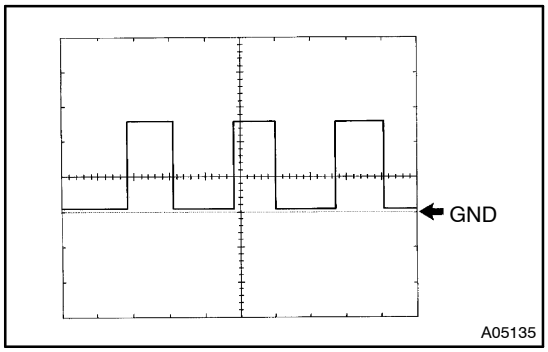


(REFERENCE) INSPECTION USING OSCILLOSCOPE

(a) Check the input signal waveform.
  (1) Remove the combination meter assy.
  (2) Connect the oscilloscope to the terminal C11–15 and C9–9 of combination meter assy.
  (3) Start the engine.
  (4) Check the signal waveform.

Item	Contents
Tool setting	5 V/ DIV, 200 ms/ DV
Vehicle condition	Driving at approx. 20Km/h

HINT:
As the engine speed becomes higher, the cycle shorter.



A	NG (w/o VSC, ABS)
B	NG (w/ VSC)
C	NG (w/ ABS)
D	OK

B → **Go to step 3**

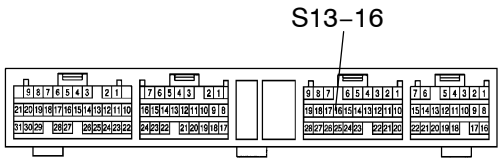
C → **Go to step 5**

D → **CHECK AND REPLACE COMBINATION METER ASSY**

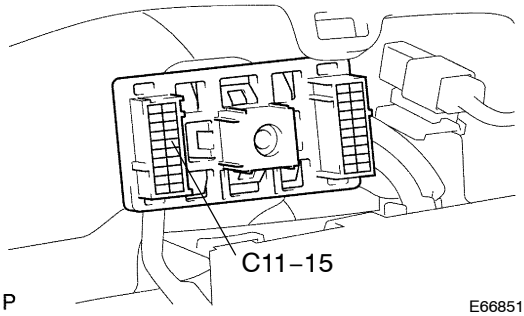
A

2	CHECK HARNESS AND CONNECTOR(BETWEEN SKID CONTROL ECU AND COMBINATION METER ASSY)

Skid Control ECU:



Right Side:



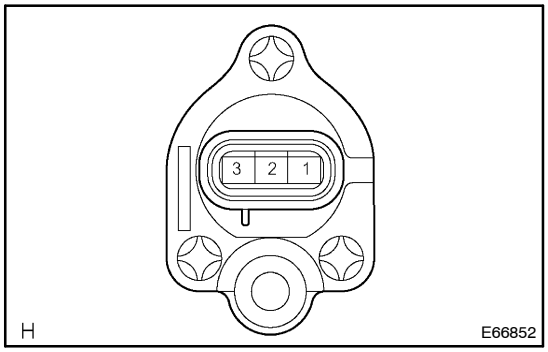
(a) Remove the combination meter.
(b) Disconnect the connector from skid control ECU.
(c) Check the continuity between terminal S13–16 (SP1) of skid control ECU and C11–15 of combination meter connector.
Standard: There is continuity.

OK → **CHECK AND REPLACE SKID CONTROL ECU ASSY**

NG

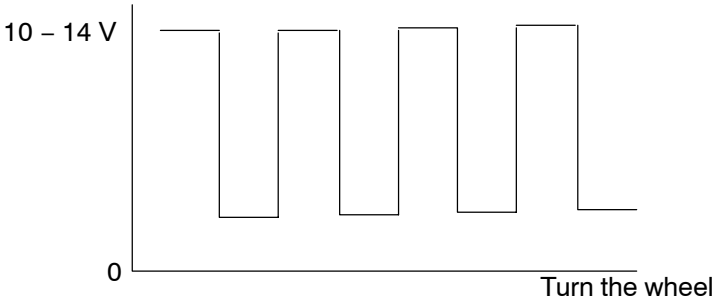
REPAIR OR REPLACE HARNESS OR CONNECTOR

3	INSPECT SPEEDOMETER SENSOR



(a) Check voltage.
(1) Shift the shift lever to neutral.
(2) Jack up either of the front wheel.
(3) Turn the ignition switch to ON.
(4) Measure voltage between terminals 3 and 2 of speed sensor when the front wheel is turning slowly.

Standard voltage:
Voltage is generated intermittently.

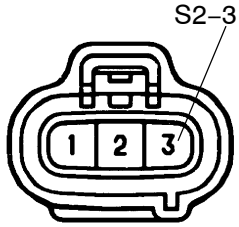


NG → **CHECK AND REPLACE SPEEDOMETER SENSOR**

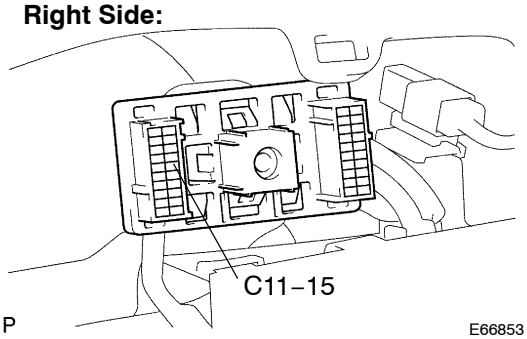
OK

4	CHECK HARNESS OR CONNECTOR(BETWEEN SPEEDOMETER SENSOR AND COMBINATION METER ASSY)

Speedometer Sensor:



Right Side:



(a) Remove the combination meter.
(b) Disconnect the connector from skid control ECU.
(c) Check the continuity between terminal S2–3 of speedometer sensor and C11–15 of combination meter connector.

Standard: There is continuity.

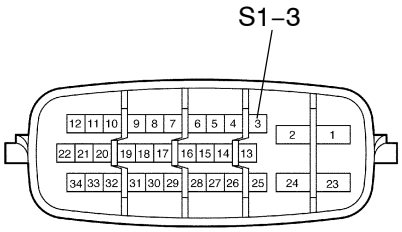
OK → **CHECK AND REPLACE COMBINATION METER ASSY**

NG

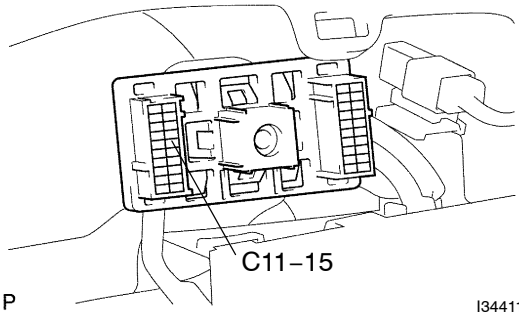
REPAIR OR REPLACE HARNESS OR CONNECTOR

5	CHECK HARNESS OR CONNECTOR(BETWEEN SKID CONTROL ECU WITH ACTUATOR AND COMBINATION METER ASSY)

Skid Control ECU with actuator:



Right Side:



(a) Remove the combination meter.
(b) Disconnect the connector from skid control ECU with actuator.
(c) Check the continuity between terminal S1–3 (SP1) of skid control ECU with actuator and C11–15 of combination meter connector.
Standard: There is continuity.

OK	CHECK AND REPLACE SKID CONTROL ECU WITH ACTUATOR

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR