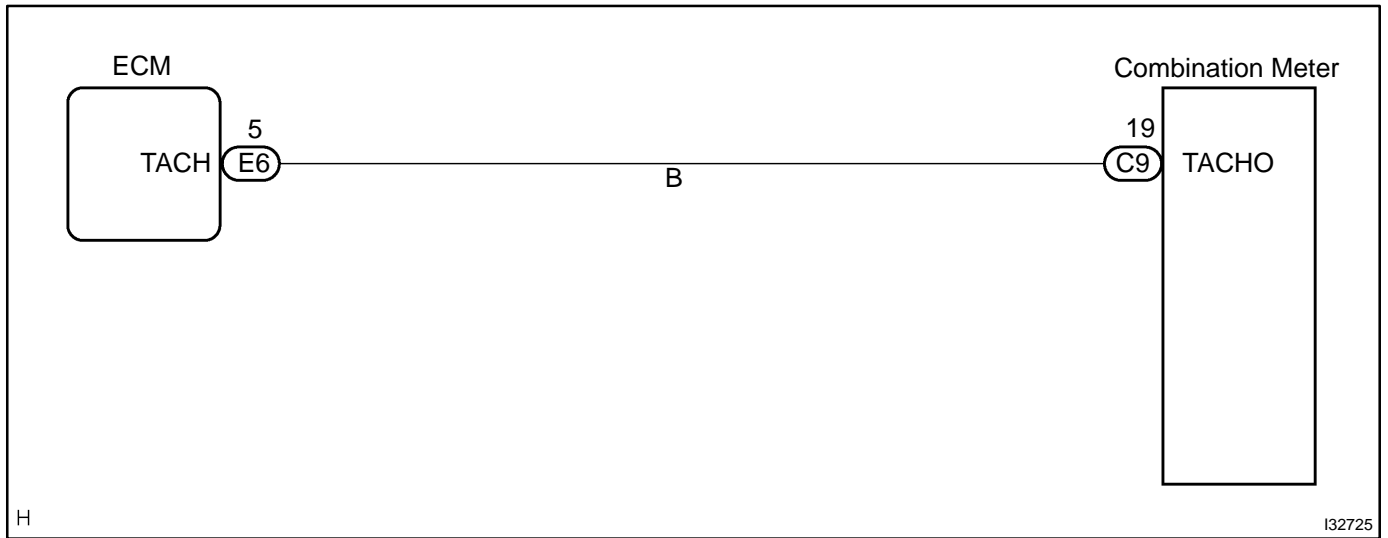


# MALFUNCTION IN TACHOMETER

## WIRING DIAGRAM



## INSPECTION PROCEDURE

### 1 READ VALUE OF HAND-HELD TESTER

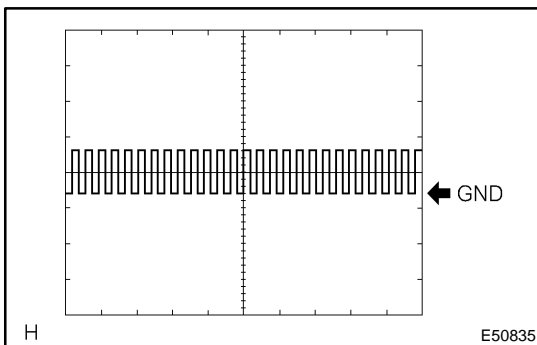
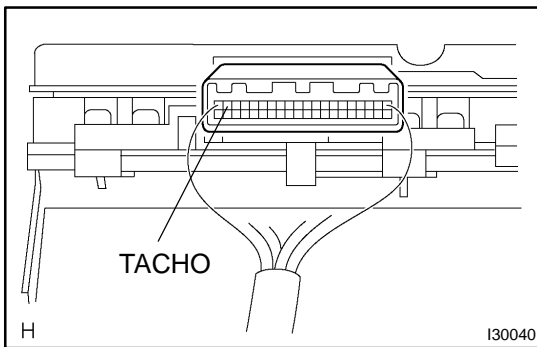
- (a) Check output value of ECM.
  - (1) Connect the hand-held tester to DLC3.
  - (2) Turn the ignition switch to ON and push the hand-held tester main switch ON.
  - (3) Select the DATA LIST mode on the hand-held tester.

Item	Condition	Specified Condition	Mesurement Item / Range (Display)
ENGINE SPD	With Engine Idling	650 - 750rpm	Engine Speed / Min.: 0 rpm, Max.: 16,383rpm

**NG** → **GO TO ENGINE CONTROL SYSTEM**

**OK**

## 2 INSPECT COMBINATION METER ASSY



### (REFERENCE) INSPECTION USING OSCILLOSCOPE

- (a) Check the input signal waveform.
  - (1) Remove the combination meter assy with connectors still connected.
  - (2) Connect the oscilloscope to the terminals C9-19 of combination meter assy and body ground.
  - (3) Start engine.
  - (4) Check the signal waveform.

Item	Contents
Tool setting	10 V/ DIV, 20 ms/ DV
Vehicle condition	Engine idle speed

OK

**CHECK AND REPLACE COMBINATION METER ASSY**

NG

## 3 CHECK HARNESS AND CONNECTOR(BETWEEN ECM AND COMBINATION METER ASSY)

- (a) Remove the combination meter.
- (b) Check the continuity between terminals 5 (TACH) of ECM and C9-19 of combination meter connector.  
**Standard: There is continuity.**

NG

**REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

**CHECK AND REPLACE ECM**