

### 3. Combination Meter

#### A: DIAGNOSTICS PROCEDURE

If speedometer does not operate, or operates abnormally, check combination meter circuit.

**CAUTION:**

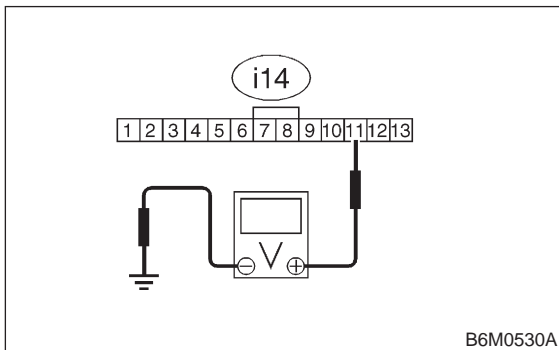
Make sure that trouble code of vehicle speed sensor 2 system appears in electrical system on-board diagnosis.

**3A1 : CHECK POWER SUPPLY FOR COMBINATION METER.**

- 1) Remove combination meter.
- 2) Turn ignition switch to ON.
- 3) Measure voltage at combination meter connector terminal.

**Connector & terminal**

(i14) No. 11 (+) — Chassis ground (-):



- CHECK** : Is the voltage more than 10 V?
- YES** : Go to step 3A2.
- NO** : Repair wiring harness.

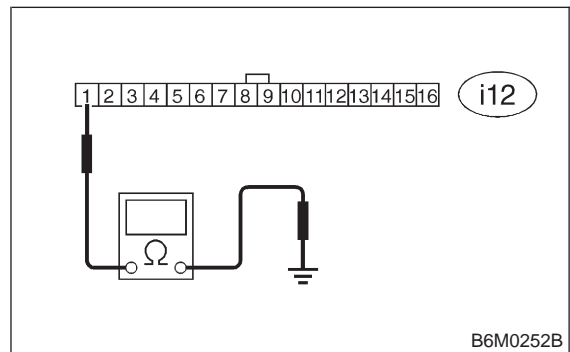
**3A2 : CHECK GROUND CIRCUIT OF COMBINATION METER.**

- 1) Turn ignition switch to OFF.

- 2) Measure resistance of harness connector between combination meter and chassis ground.

**Connector & terminal**

(i12) No. 1 (+) — Chassis ground (-):



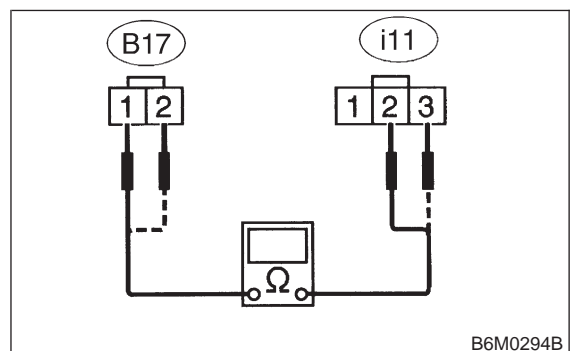
- CHECK** : Is the voltage less than 10 Ω?
- YES** : Go to step 3A3.
- NO** : Repair wiring harness.

**3A3 : CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND VEHICLE SPEED SENSOR 2.**

- 1) Disconnect connector from vehicle speed sensor 2.
- 2) Measure resistance of harness connector between vehicle speed sensor 2 and combination meter.

**Connector & terminal**

(B17) No. 1 — (i11) No. 2:



- CHECK** : Is the resistance less than 10 Ω?
- YES** : Go to step 3A4.
- NO** : Repair wiring harness. Go to step 3A4.

## 6-2b [T3A4] BODY ELECTRICAL SYSTEM (ELECTRICAL PARTS)

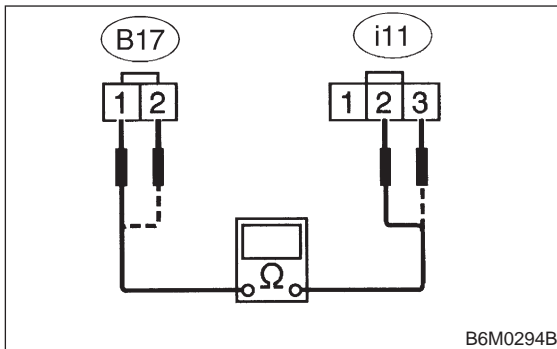
### 3. Combination Meter

#### 3A4 : CHECK HARNESS CONNECTOR BETWEEN COMBINATION METER AND VEHICLE SPEED SENSOR 2.

Measure resistance of harness connector between vehicle speed sensor 2 and combination meter.

##### Connector & terminal

(B17) No. 2 — (i11) No. 3:



**CHECK** : Is the resistance less than 10 Ω?

**YES** : Go to step 3A5.

**NO** : Repair wiring harness.

#### 3A5 : CHECK VEHICLE SPEED SENSOR 2.

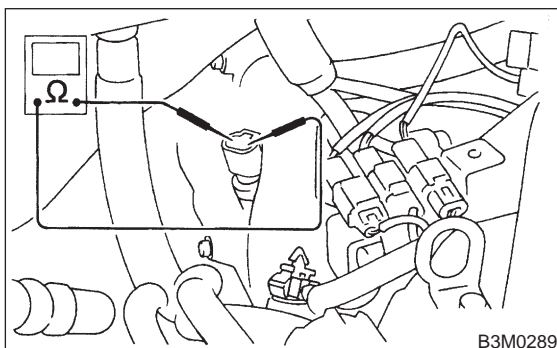
##### NOTE:

- If resistance between terminals of vehicle speed sensor 2 is out of specification, the sensor may have a failure.
- If resistance is OK and voltage between terminals of vehicle speed sensor 2 is out of specification, mechanical trouble may be present between vehicle speed sensor 2 and speedometer shaft in transmission.

- 1) Disconnect connector from vehicle speed sensor 2.
- 2) Measure resistance between terminals of vehicle speed sensor 2.

##### Terminals

No. 1 — No. 2:



**CHECK** : Is the resistance between 350 and 450 Ω?

**YES** : Go to step 3A6.

**NO** : Replace vehicle speed sensor 2.

#### 3A6 : CHECK VEHICLE SPEED SENSOR 2.

- 1) Set the vehicle on free roller, or lift-up the vehicle and support with safety stands.

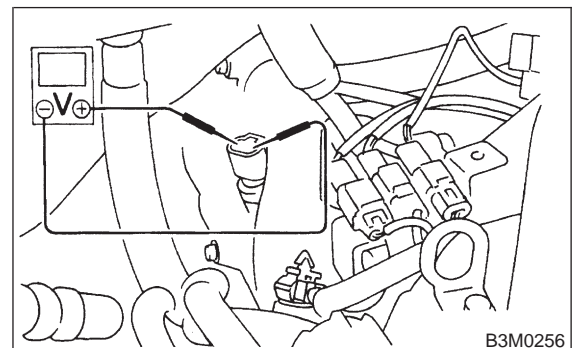
##### WARNING:

Be careful not to be caught up by the running wheels.

- 2) Drive the vehicle at speed greater than 20 km/h (12 MPH).
- 3) Measure voltage between terminals of vehicle speed sensor 2.

##### Terminals

No. 1 — No. 2:



**CHECK** : Is the voltage more than 5 V? (AC range)

**YES** : Repair or replace speedometer.

**NO** : Replace vehicle speed sensor 2.

#### 3A7 : CHECK VEHICLE SPEED SENSOR 2.

##### NOTE:

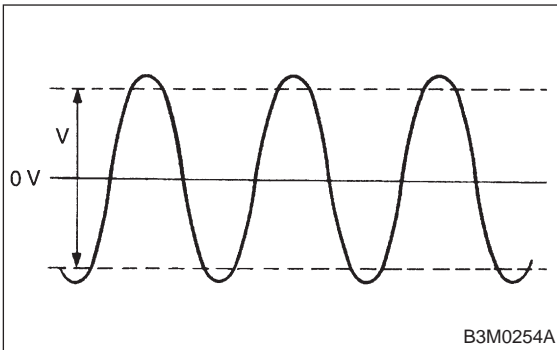
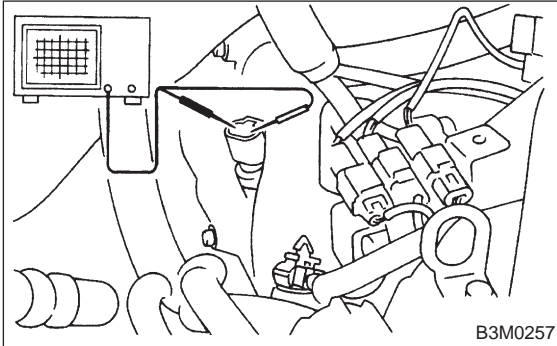
Using an oscilloscope:

- 1) Turn ignition switch to OFF.
- 2) Set oscilloscope to vehicle speed sensor 2.
- 3) Drive the vehicle at speed greater than 20 km/h (12 MPH).

4) Measure signal voltage.

**Terminals**

**No. 1 — No. 2:**



- CHECK** : *Is the voltage more than 5 V?*
- YES** : Repair or replace speedometer.
- NO** : Replace vehicle speed sensor 2.

**4. Power Window**

**A: DIAGNOSTICS PROCEDURE-1**

**TROUBLE SYMPTOM**

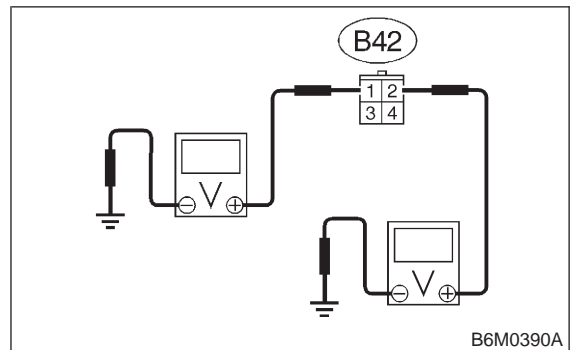
All door windows do not operate.

**4A1 : CHECK FUSE AND POWER SUPPLY.**

- 1) Check fuse No. 15.
- 2) Disconnect connector of power window relay.
- 3) Turn ignition switch to ON.
- 4) Measure voltage between power window relay connector and chassis ground.

**Connector & terminal**

**(B42) No. 1 (+) — Chassis ground (-):**



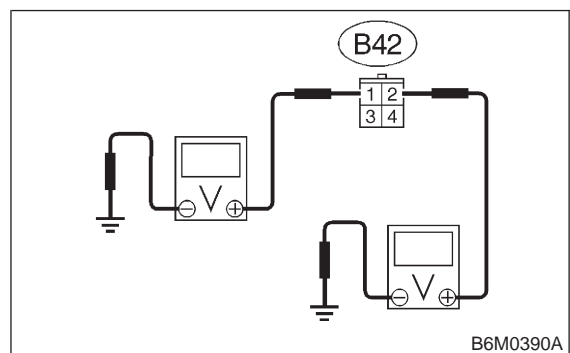
- CHECK** : *Is the voltage more than 10 V?*
- YES** : Go to step **4A2**.
- NO** : Repair wiring harness or replace fuse or circuit breaker. Go to step **4A2**.

**4A2 : CHECK FUSE AND POWER SUPPLY.**

Measure voltage between power window relay connector and chassis ground.

**Connector & terminal**

**(B42) No. 2 (+) — Chassis ground (-):**



- CHECK** : *Is the voltage more than 10 V?*
- YES** : Go to step **4A3**.