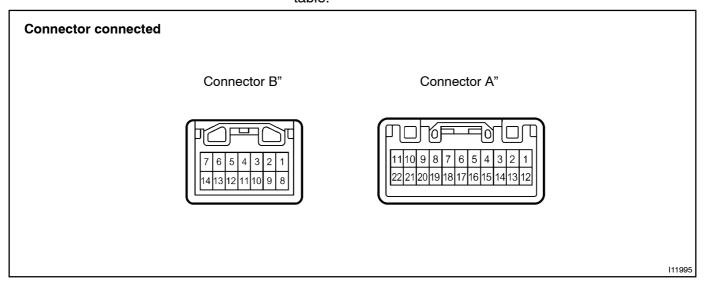
BE29G-01

# **INSPECTION**

# 1. INSPECT COMBINATION METER CIRCUIT Connector connected:

Connect connector "A" and "B" from the combination meter and inspect the connectors on the wire harness side as shown in the table.



| Tester connection                      | Condition  | Specified condition |  |
|--|--|---------------------|--|
| A2 – Ground<br>(Turn L)                | Ignition switch ON and turn signal switch Left Battery voltage |                     |  |
| A3 – Ground<br>(Turn R)                | Ignition switch ON and turn signal switch Right                | Battery voltage     |  |
| A4 - Ground<br>(Beam +)                | Constant   | Battery voltage     |  |
| A5 – Ground<br>(Beam –)                | Headlight dimmer switch HI Battery voltage                     |                     |  |
| A6 – Ground<br>(BRK level)             | Ignition switch ON and Brake fluid level warning switch LO     | Battery voltage     |  |
| A7 – Ground<br>(Check engine)          | Ignition switch ON and engine running                          | Battery voltage     |  |
| A8 – Ground<br>(SRS)                   | SRS warning light does not light up                            | Battery voltage     |  |
| A9 – Ground<br>(ABS)                   | Ignition switch ON and ABS warning does not lights up          | Battery voltage     |  |
| A10 – Ground<br>(ILL–)                 | Light control switch TAIL or HEAD                              | Continuity          |  |
| A11 – Ground<br>(Headlight beam level) | Headlight beam level control system is operation               | Battery voltage     |  |
| A12 – Ground<br>(Speed signal input)   | Ignition switch ON and turn propeller shaft slowly             | Battery voltage     |  |
| A13 – Ground<br>(Speed signal output)  | Ignition switch ON and turn propeller shaft slowly             | 1 V to 4.5 – 5.5 V  |  |
| A14 – Ground<br>(Tachometer signal)    | Engine running   | Pulse generation *1 |  |
| A15 – Ground<br>(MPX +B)               | Constant   | Battery voltage     |  |

LEXUS IS300/IS200 SUP (RM870E)

### **BODY ELECTRICAL** – COMBINATION METER

| A16 – Ground<br>(DOME +B)              | Constant   | Battery voltage  |
|--|--|------------------|
| A17 – Ground<br>(IGN)                  | Ignition switch ON   | Battery voltage  |
| A18 – Ground<br>(Power ground)         | Constant   | Continuity       |
| A19 – Ground<br>(Signal ground)        | Constant   | Continuity       |
| A20 – Ground<br>(MPX+)                 | Ignition switch ON   | Pulse generation |
| A21 – Ground<br>(MPX–)                 | Ignition switch ON   | Pulse generation |
| A22 – Ground<br>(ILL+)                 | Light control switch TAIL or HEAD                          | Battery voltage  |
| B1 – Ground<br>(SP ground)             | Constant   | Continuity       |
| B2 – Ground<br>(6M/T R buzzer)         | Ignition switch ON and shift lever except R range          | Battery voltage  |
| B3 – Ground<br>(TRC OFF)               | Ignition switch ON and TRC OFF indicator does not light up | Battery voltage  |
| B4 – Ground<br>(SLIP)                  | Ignition switch ON and SLIP indicator does not light up    | Battery voltage  |
| B5 – Ground<br>(VSC)                   | Ignition switch ON and VSC indicator does not light up     | Battery voltage  |
| B6 – Ground<br>(Rear Lights)           | Ignition Switch ON and rear lights bulb is blown           | Battery voltage  |
| B7 – Ground<br>(Front Fog)             | Light control switch TAIL and Front fog light Switch ON    | Battery voltage  |
| B8 - Ground<br>(Security)              | Theft deterrent system is operating                        | Battery voltage  |
| B9 – Ground<br>(Alternator L terminal) | Engine running   | Battery voltage  |

If circuit is not as specified, wiring diagram and inspect the circuits connected to other parts.

### 2. INSPECT SPEEDOMETER/ON-VEHICLE

Using a speedometer tester, inspect the speedometer for allowable indication error and check the operation of the odometer. HINT:

Tire wear and tire over or under inflation will increase the indication error.

## **Europe Models**

| (mph)               |                 | (km/h)              |                 |
|---------------------|-----------------|---------------------|-----------------|
| Standard indication | Allowable range | Standard indication | Allowable range |
| 20                  | 21 – 23.5       | 20                  | 21 – 25         |
| 40                  | 41.5 – 44       | 40                  | 41.5 – 46       |
| 60                  | 62.5 – 66       | 60                  | 62.5 – 67       |
| 80                  | 83 – 87         | 80                  | 83 - 88         |
| 100                 | 104 – 108.5     | 100                 | 104 – 109       |
| 120                 | 125 – 130       | 120                 | 125 – 130.5     |
| 140                 | 146 – 151.5     | 140                 | 145.5 – 151.5   |
| -                   | _               | 160                 | 166 – 173       |
| -                   | -               | 180                 | 186.5 – 194.5   |
| -                   | -               | 200                 | 207 – 216       |
| -                   | -               | 220                 | 227.5 – 237.5   |
| -                   | -               | 240                 | 248 – 259       |

### **Australia**

| (mph)               |                 | (km/h)              |                 |
|---------------------|-----------------|---------------------|-----------------|
| Standard indication | Allowable range | Standard indication | Allowable range |
| -                   | -               | 20                  | 17.5 – 21.5     |
| -                   | -               | 40                  | 38 – 42         |
| -                   | -               | 60                  | 58 – 63         |
| -                   | -               | 80                  | 78 – 84         |
| -                   | -               | 100                 | 99 – 104.5      |
| -                   | -               | 120                 | 119.5 – 125.5   |
| -                   | -               | 140                 | 139.5 – 146.5   |
| -                   | -               | 160                 | 159.5 – 167.5   |
| -                   | -               | 180                 | 179.5 – 188.5   |
| -                   | -               | 200                 | 199.5 – 209.5   |
| -                   | -               | 220                 | 219.5 – 230.5   |
| -                   | -               | 240                 | 239.5 – 251.5   |

If error is excessive, replace the speedometer.

## 3. INSPECT TACHOMETER/ON-VEHICLE

- (a) Connect a tune-up test tachometer, and start the engine. **NOTICE:**
- Reversing the connection of the tachometer will damage the transistors and diodes inside.
- When removing or installing the tachometer, be careful not to drop or subject it to heavy shocks.
- (b) Compare the tester and tachometer indications.

# DC 13.5 V 25 °C at (77°F)

| Standard indication | Allowable range |  |
|---------------------|-----------------|--|
| 700                 | 630 – 770       |  |
| 1,000               | (900 – 1,100)   |  |
| 2,000               | (1,850 – 2,150) |  |
| 3,000               | 2,850 – 3,150   |  |
| 4,000               | (3,800 – 4,200) |  |
| 5,000               | 4,800 – 5,200   |  |
| 6,000               | (5,750 – 6,250) |  |
| 7,000               | 6,700 – 7,300   |  |
| 8,000               | 7,700 – 8,300   |  |