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## TROUBLESHOOTING

### BATTERY IS DAMAGED OR WEAK

#### 1. BATTERY TEST

Remove the battery (page 18-6).

Check the battery condition using the recommended battery tester.

**RECOMMENDED BATTERY TESTER:**  
**BM210 or BATTERY MATE or equivalent**

*Is the battery in good condition?*

**YES** – GO TO STEP 2.

**NO** – Faulty battery.

#### 2. CURRENT LEAKAGE TEST

Install the battery (page 18-6).

Check the battery current leakage (Leak test; page 18-6).

*Is the current leakage below 0.1 mA?*

**YES** – GO TO STEP 4.

**NO** – GO TO STEP 3.

#### 3. CURRENT LEAKAGE TEST WITHOUT REGULATOR/RECTIFIER

Disconnect the regulator/rectifier 5P (Black) connector and recheck the battery current leakage.

*Is the current leakage below 0.1 mA?*

**YES** – Faulty regulator/rectifier.

**NO** –

- Shorted wire harness.
- Faulty ignition switch.

#### 4. CHARGING VOLTAGE INSPECTION

Measure and record the battery voltage using a digital multimeter (page 18-6).

Start the engine.

Measure the charging voltage (page 18-6).

Compare the measurement to result of the following calculation.

**STANDARD: Measured BV < Measured CV < 15.5 V**

- BV = Battery Voltage
- CV = Charging Voltage

*Is the measured charging voltage within the standard voltage?*

**YES** – Faulty battery.

**NO** – GO TO STEP 5.

#### 5. ALTERNATOR CHARGING COIL INSPECTION

Check the alternator charging coil (page 18-7).

*Is the alternator charging coil resistance within 0.1 – 1.0  $\Omega$  (20°C/68°F)*

**YES** – GO TO STEP 6.

**NO** – Faulty charging coil.

#### 6. REGULATOR/RECTIFIER SYSTEM INSPECTION

Check the voltage and resistance at the regulator/rectifier 5P (Black) connector (page 18-8).

*Are the results of checked voltage and resistance correct?*

**YES** – Faulty regulator/rectifier.

**NO** –

- Open circuit in related wire.
- Loose or poor contacts of related terminal.
- Shorted wire harness.