# 14. IGNITION SYSTEM

SERVICE INFORMATION	14–1	ALTERNATOR EXCITER COIL	14–4
TROUBLESHOOTING	14—1	PULSE GENERATOR	14–4
CDI UNIT	14–2	IGNITION TIMING	14-5
IGNITION COIL	14–3		

## **SERVICE INFORMATION**

#### **GENERAL**

- Ignition timing does not normally need to be adjusted since the CDI (Capacitive Discharge Ignition) unit is factory preset.
- For spark plug inspection, refer to Page 3-5.
- For pulse generator removal, see Section 9.

### **SPECIFICATIONS**

Spark plug DR8ES-L (NGK) Ignition coil X24ESR-U (ND) Primary coil resistance  $0.1 - 0.3\Omega$ Spark plug gap 0.6-0.7 mm (0.024-0.028 in) Secondary coil resistance Ignition timing: (with spark plug cap) 7.4-11.0 kΩ13 ± 2° BTDC/1,400 rpm Initial - Secondary coil resistance

- Full advance  $31 \pm 2^{\circ} BTDC/3.500 rpm$ (without spark plug cap)  $3.7-4.5~k\Omega$ Exciter coil:

- Resistance 50-200  $\Omega$  (ND) 250–400  $\Omega$  (MITUBA)

Pulse generator

Resistance

290-360  $\Omega$ **TOOLS** 

07308-0020000 or Sanwa electric tester TH-5H Kowa electric tester

07411-0020000 or KS-AHM-32-003 (U.S.A. only) Kowa digital multi-tester

# TROUBLESHOOTING

#### Engine starts but stops

- 1. No spark at plug
- 2. Improper ignition timing
- 3. Faulty spark plug

#### No spark at plug

- 1. Engine stop switch "OFF"
- 2. Poorly connected, broken or shorted wires
  - Between alternator and CDI unit
  - Between CDI unit and engine stop switch
  - Between CDI unit and ignition coil
  - Between ignition coil and spark plug
  - Between pulse generator and CDI unit
- 3. Faulty ignition coil
- 4. Faulty CDI unit
- 5. Faulty pulse generator
- 6. Faulty alternator

#### Engine starts but runs poorly

- 1. Ignition primary circuit
  - Faulty ignition coil
  - Loose or bare wire
  - Faulty alternator
  - Faulty CDI unit
- 2. Ignition secondary circuit
  - Faulty spark plug
  - Faulty pulse generator
  - Faulty high tension wire
- 3. Improper ignition timing
  - Faulty pulse generator
  - Faulty CDI unit