

17. IGNITION SYSTEM

SERVICE INFORMATION	17-1	CDI UNIT	17-4
TROUBLESHOOTING	17-2	PULSE GENERATOR	17-4
IGNITION COIL	17-3	IGNITION TIMING	17-5

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 3-6.
- For alternator or pulse generator removal/installation, see section 8.
- When inspecting the ignition system, check the system components and lines step-by-step according to the troubleshooting sequence on the next page.

SPECIFICATION

ITEM		STANDARD
Spark plug		CR8EH9 (NGK), U24FER9 (ND)
Spark plug gap		0.8–0.9 mm (0.031–0.035 in)
Ignition timing	At idle (F mark)	8° BTDC at 1,300 ± 100 rpm
	Full advance	30° BTDC at 4,500 ± 100 rpm
Ignition coil (20°C/68°F)	Primary coil resistance	0.1–0.2 Ω
	Secondary coil resistance (Without spark plug cap) (With spark plug cap)	3.5–4.7 kΩ 7.3–11.0 kΩ
Pulse generator resistance (20°C/68°F)		290–360 Ω

TOOLS

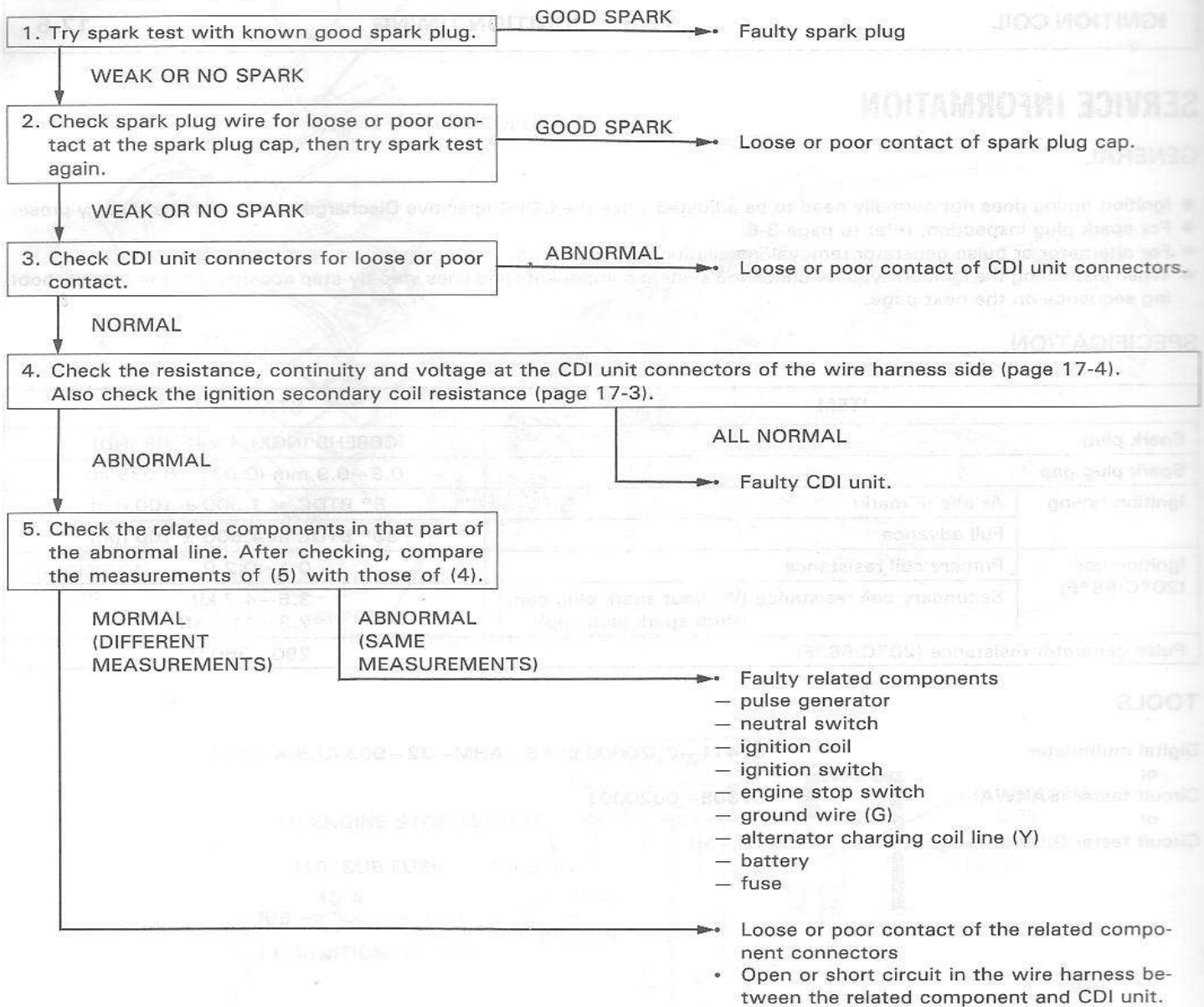
- Digital multimeter 07411–0020000 or KS–AHM–32–003 (U.S.A. only)
or
Circuit tester (SANWA) 07308–0020001
or
Circuit tester (KOWA) TH–5H

1988 NX250 Ignition System

IGNITION SYSTEM

TROUBLESHOOTING

Weak or no spark at plug

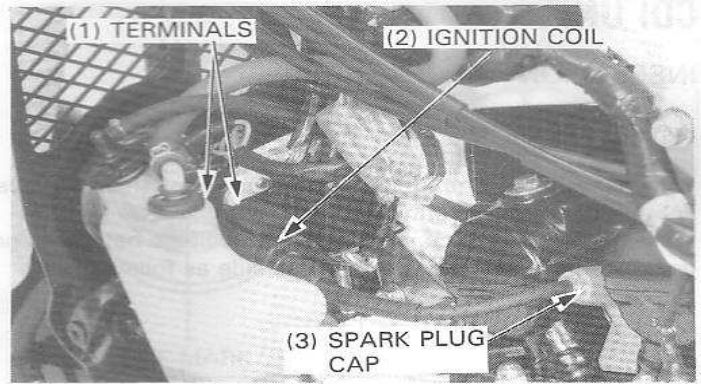


IGNITION COIL

REMOVAL

Remove the fuel tank (page 4-3).
Remove the spark plug cap from the spark plug.

Disconnect the ignition coil wire (B/Y and G) terminals and remove the ignition coil.



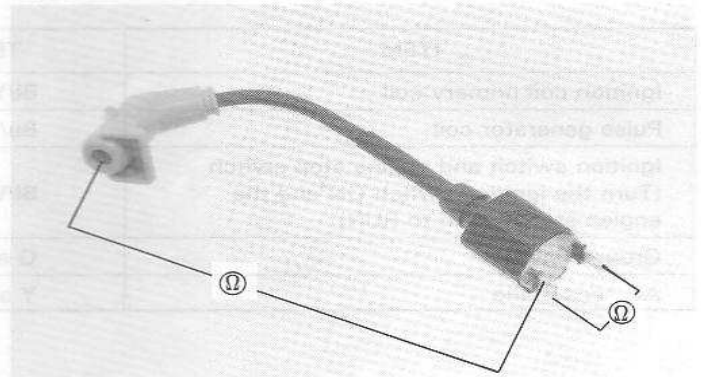
INSPECTION

Measure the resistance of the primary coil.

STANDARD (at 20°C/68°F): 0.1 Ω

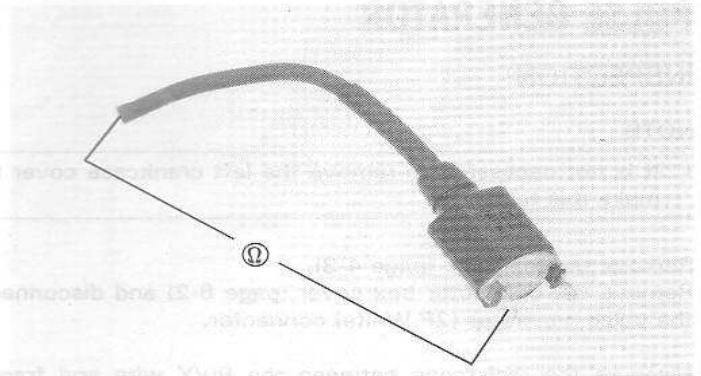
Measure the resistance of the secondary coil with the plug cap in place.

STANDARD (at 20°C/68°F): With cap 9.1 k Ω



If the measured resistance is not within standard values, remove the spark plug cap and measure the secondary coil resistance again.

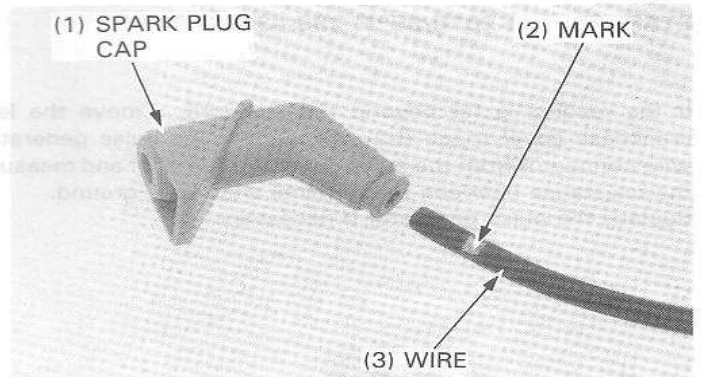
STANDARD (at 20°C/68°F): Without cap 4.1 k Ω



Install the spark plug cap, making sure that the mark on the wire is completely covered by the end of the cap.

INSTALLATION

Install the ignition coil in the reverse order of removal.
Install the fuel tank (page 4-3).



1988 NX250 Ignition System

IGNITION SYSTEM

CDI UNIT

INSPECTION

Remove the fuel tank (page 4-3).

Disconnect the CDI unit connectors and check them for loose contact or corroded terminals.

Measure the resistance, continuity and voltage between connector terminals of the wire harness side as follows:



ITEM	TERMINAL	STANDARD
Ignition coil primary coil	Bl/Y and G	0.1—0.2 Ω (at 20°C/68°F)
Pulse generator coil	Bu/Y and G	290—360 Ω (at 20°C/68°F)
Ignition switch and engine stop switch (Turn the ignition switch ON and the engine stop switch to RUN)	Bl/W and G	The battery voltage should register.
Ground line	G and ground	Continuity
AC sensor line	Y and G	No continuity

PULSE GENERATOR

INSPECTION

NOTE

- It is not necessary to remove the left crankcase cover to make this test.

Remove the fuel tank (page 4-3).

Remove the connector box cover (page 8-2) and disconnect the pulse generator (2P White) connector.

Measure the resistance between the Bu/Y wire and frame ground.

STANDARD: (at 20°C/68°F) 290—360 Ω

If the reading is far beyond the standard, remove the left crankcase cover (page 8-2), disconnect the pulse generator wire connector from the pulse generator terminal and measure the resistance between the terminal and frame ground. Replace the pulse generator if necessary.

