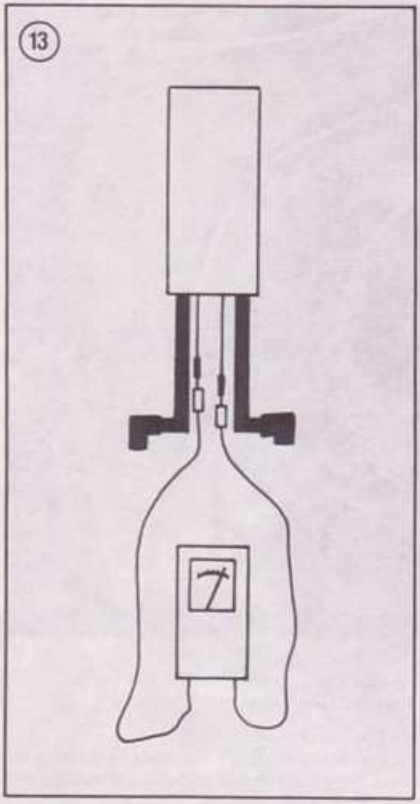
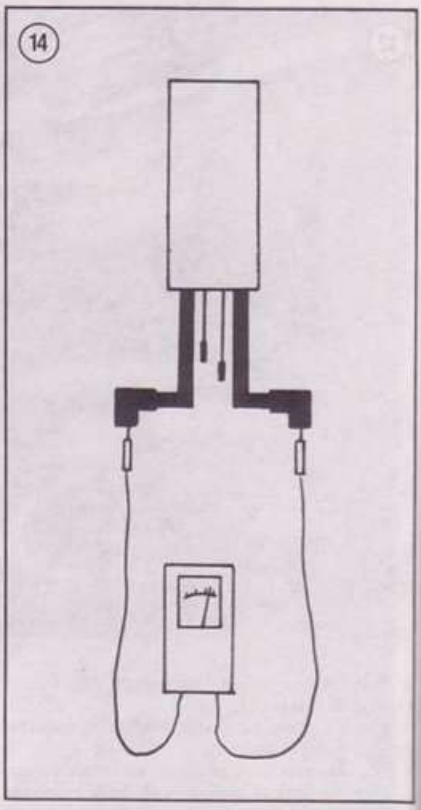




TRANSISTORIZED IGNITION (1981-1983)

The ignition system consists of 2 spark plugs, one ignition coil, an IC igniter unit and a timing pickup unit. See **Figure 15**.

Troubleshooting is covered in Chapter Two.

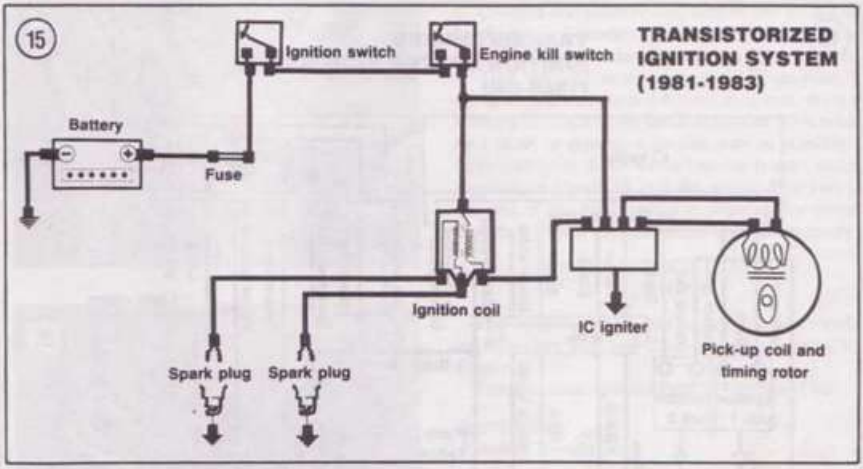
Ignition Coil
Removal/Installation

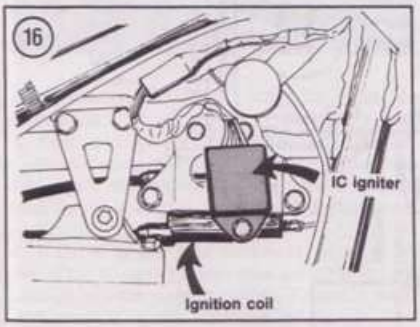
The ignition coil is under the fuel tank and the IC igniter is mounted next to it (**Figure 16**).

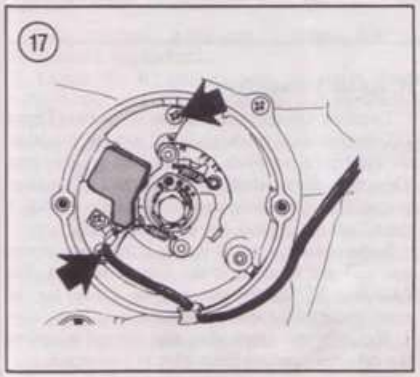
1. Remove the fuel tank.
2. Disconnect the spark plug leads by grasping the leads as near to the plugs as possible and pulling them off the plugs.
3. Disconnect the primary leads to the ignition coil.
4. Remove the coil mounting bolts and the coils and brackets. Note any ground leads that are attached by the bracket bolts.
5. Install by reversing these steps.

Ignition Coil Testing

1. Using an ohmmeter, measure coil primary resistance between both coil primary terminals (**Figure 13**). See **Table 2** and **Table 3** for specifications.
2. Measure coil secondary resistance between both spark plug caps (**Figure 14**). See **Table 2** and **Table 3** for specifications.
3. Replace the coil if it did not meet the resistance values in Steps 2 or 3. If the coil exhibits visible damage, it should be replaced.







Pick-up Coil
Removal/Installation

The pickup coil is under the timing cover on the right-hand side of the engine.

1. Remove the fuel tank and disconnect the 2-pole pickup coil/IC igniter connector.
2. Remove the 2 timing plate screws and the plate with the pickup coil (**Figure 17**).
3. Install by reversing these steps.

Pickup Coil Inspection

1. Remove the fuel tank.
2. Disconnect the 2-pole pickup coil/IC igniter connector.
3. With an ohmmeter set at R×100, measure the resistance between the pickup coil leads. The resistance should be about 360-540 ohms.
4. Set the ohmmeter at its highest scale and check the resistance between either lead and the chassis ground. The reading should be infinite.
5. If the pickup coil fails either of these tests, check the wiring to the coil. Replace the coil if the wiring is okay.

Timing Advancer
Removal/Installation

1. Remove the timing cover.
2. Remove the pickup coil assembly as described in this chapter.
3. Remove the smaller bolt from the end of the crankshaft.

4. Pull the timing advancer mechanism from the crankshaft (**Figure 12**).

5. Check all parts for wear or binding. Be sure that neither spring is broken.

6. When installing the cam, be sure to align the mark on the cam with the notch on the advance unit.

7. Install the timing advancer onto the crankshaft—be sure to align the notch on the back of the advancer with the pin on the end of the crankshaft. Tighten the retaining bolt to 25 N•m (18 ft.-lb.).

8. Check the ignition timing. See Chapter Three.

IC Igniter Voltage Test

To check the operation of the IC igniter (**Figure 16**), remove one spark plug and ground it against the cylinder head while the plug lead is connected. Then turn the ignition switch to the ON position and touch a screwdriver to the pickup coil core. If the IC igniter is good, the plug will spark.

Remember that the IC igniter is battery-powered and will not function if the battery is dead. The following IC igniter test can be made on the motorcycle to the spark plug lead.

1. Remove one spark plug and ground it against the cylinder head while its plug is connected.

2. Disconnect the 2-pole connector from the pickup coil.
3. Turn the ignition coil to the ON position. Connect a positive (+) 12-volt source to the black lead and a negative (-) 12-volt source to the blue lead. As the voltage is connected, the plug should spark.
4. If the IC igniter fails these tests, install a new one. If the IC igniter passes these tests, but you still have an ignition problem, have a Kawasaki dealer perform an IC igniter resistance test.

Ignition System Wiring Test

A DC voltmeter is required to perform this test.
1. Remove the fuel tank.
2. Locate the IC igniter under the main frame tube. Make sure the 2 IC igniter lead connectors are clean and properly connected.
3. Turn the ignition switch to the ON position and test as follows.
4. Set the voltmeter to the 25V DC scale. Connect the positive test lead to the yellow/red or yellow/blue IC igniter wire. Connect the negative test lead to ground. The voltmeter should read 12 volts.
5. Set the voltmeter to the 10V DC scale. Connect the positive test lead to the IC igniter blue wire. Connect the negative test lead to ground. The voltmeter should read 0.8-3.0 volts.

6. Connect the positive test lead to the IC igniter black wire. Connect the negative test lead to ground. The voltmeter should read 0.5-1.0 volts.
7. Turn the ignition switch to the OFF position. If the test results in Steps 4-6 were incorrect, there is a wiring problem in the ignition system. This could be a short to ground, a broken wire or possibly a dirty connector. Refer to the ignition system wiring diagram in **Figure 15** and the wiring diagrams at the end of the book to aid in locating the wiring problem. Repair or replace any part as necessary.