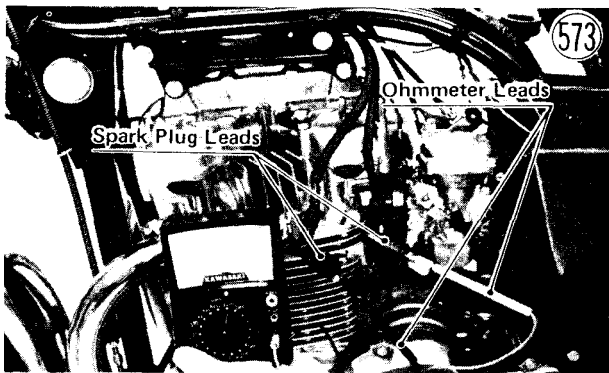
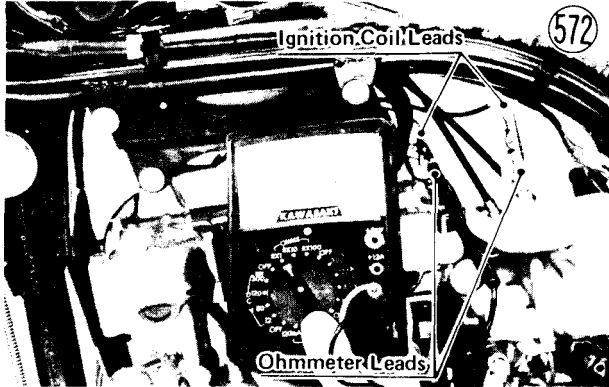


## 180 MAINTENANCE

If an electrotester is not available, the coil can be checked for a broken or a badly shorted winding with an ohmmeter. However, an ohmmeter cannot detect layer shorts and shorts resulting from insulation breakdown under high voltage.

To measure the primary winding resistance, set the ohmmeter to the R x 1 range, and connect one ohmmeter lead to the red/yellow lead and the other to the blue lead from the ignition coil. To measure the secondary winding resistance, set the ohmmeter to the R x 100 range, and connect one ohmmeter lead to one of the spark plug leads and the other ohmmeter lead to the remaining spark plug lead.



**Table 111 Ignition Coil Resistance**

	Meter	Read
Primary Winding	R x 1	3.8-4.2 S7
Secondary Winding	R x 100	about 13 k <sup>^</sup>

If the coil does not produce an adequate spark, or if either the primary or secondary winding does not have the correct resistance, replace the ignition coil.

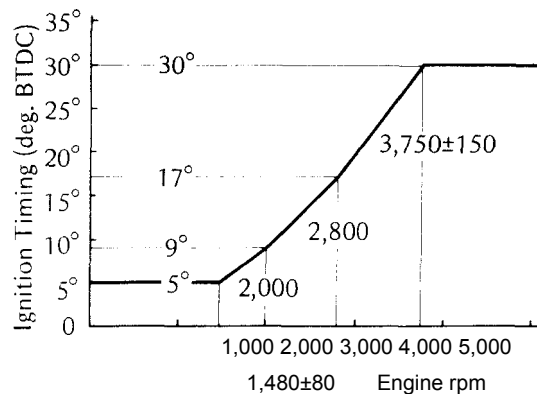
With the highest ohmmeter range, check for continuity between the red/yellow lead and the coil core and between the plug leads and the coil core. If there is any reading, the coil is shorted and must be replaced. Also, replace the ignition coil if either spark plug lead shows visible damage.

## TIMING ADVANCER

The timing advancer is a device that advances the ignition timing (makes the spark plugs fire sooner) as engine rpm rises. It consists of two weights and two springs connected to the timing cam that opens the contact breaker points. The more the engine speed rises, the further the weights are thrown out against spring tension, turning the cam in the direction of crankshaft rotation and causing the points to open sooner.

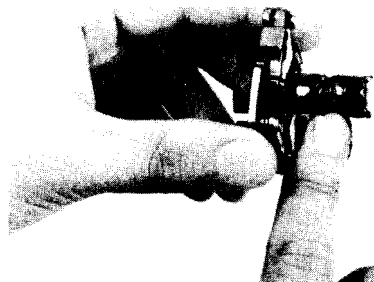
If the mechanism is damaged, has weak or broken spring(s), or does not move smoothly, the ignition timing will not advance smoothly or it may stick in one position. This will result in incorrect timing at certain engine speeds, causing poor engine performance. Failure to advance at all will cause poor high speed performance, and excessive advance will cause knocking and poor low speed performance.

### Ignition Timing/Engine rpm Relationship



### Inspection and Lubrication

Remove the timing advancer (Pg. 52 ), and check that the mechanism moves smoothly by hand and that no parts are visually worn or damaged. Periodically wipe the advancer clean, apply oil to it, and fill the groove in the advancer body with **grease**.



Install the advancer (Pg. 52 ), adjust the timing (Pg. 9 ), and check it with a strobe light for both low and high speed operation (Pg. 9 ). If the timing differs from that which is shown in the graph (Fig. 574), replace the timing advancer with a new one.