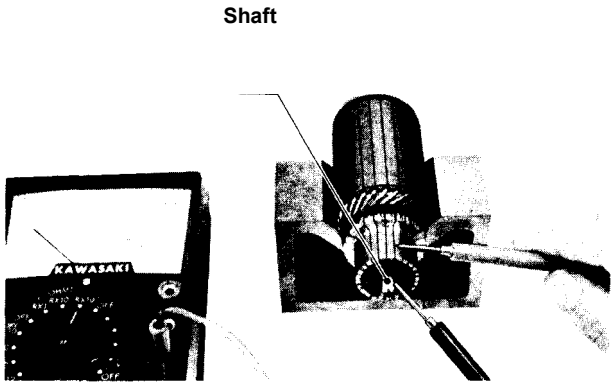
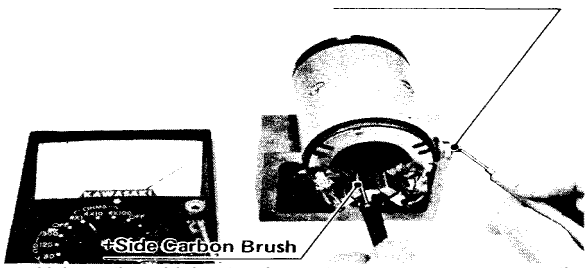
Using the highest ohmmeter range, measure the resistance between the commutator and the shaft. If there is any reading at all, the armature has a short and must be replaced.



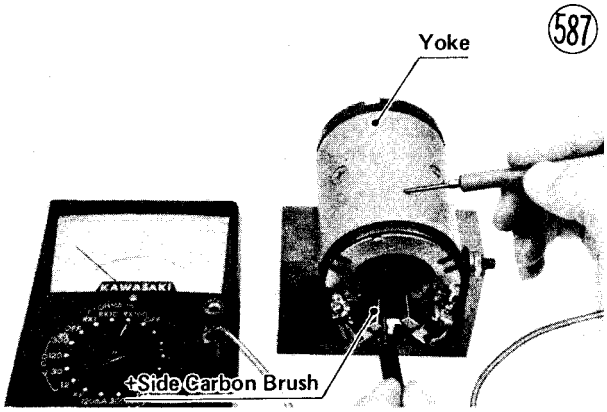
Even if the foregoing checks show the armature to be good, it may be defective in some manner not readily detectable with an ohmmeter. If all other starter motor and starter motor circuit components check good, but the starter motor still does not turn over or only turns over weakly, replace the armature with a new one.

Field coils

Using the R x 1 ohmmeter range, measure the resistance between the + side carbon brush and the starter motor terminal. If there is not close to zero ohms, the field coils have an open and the yoke assembly must be replaced.

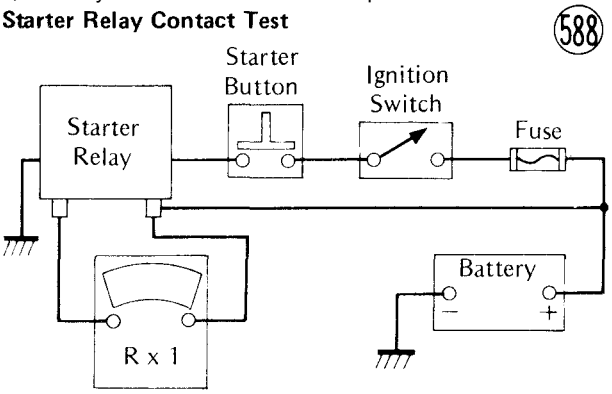


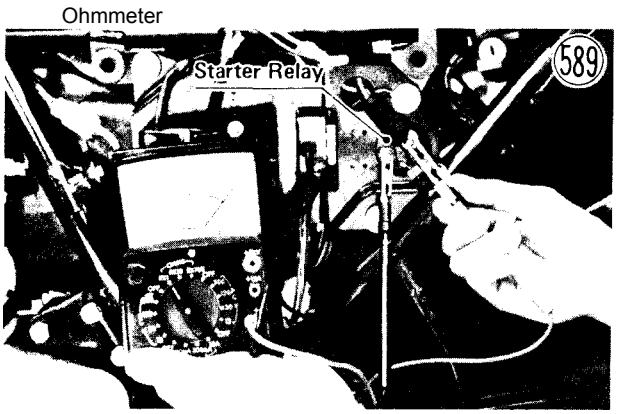
Using the highest ohmmeter range, measure the resistance between the + side carbon brush and the yoke (housing). If there is any meter reading, the coils are shorted to ground and the yoke assembly must be replaced.



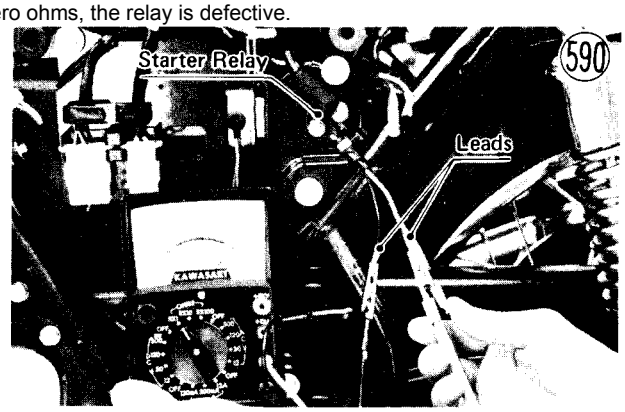
Starter relay

Disconnect the starter motor lead from the starter relay, and connect an ohmmeter set to the R x 1 range across the relay terminals. Push the starter button, and sec if the meter reads zero ohms. If the relay makes a single clicking sound and the meter reads zero, the relay is good. If the relay clicks but the meter docs not read zero, the relay is defective and must be replaced.





If the relay does not click at all, disconnect the other two leads (black and yellow/red), and measure the resistance across them. If the resistance is not close to zero ohms, the relay is defective.



However, if there is zero ohms resistance, the relay may be good; check that there is actually voltage to the relay before deciding that the relay is defective. To check for the voltage, first turn the meter to 30V DC, connect the - meter lead to the yellow/red lead which