CIRCUIT RESISTANCE CHART

Connection	Voltmeter Lead Connection Positive	Negative	Voltmeter Reading
Positive post on battery to cable clamp	To post	To clamp	0
Negative post on battery to cable clamp	To post	To clamp	0
Battery ground cable to engine block.	To bolt	To cable connector	Not to exceed 0.2 volts
Battery cable to starter	To battery positive post	To battery terminal on starter	Not to exceed 0.2 volts
Starter housing to ground	To starter housing	To negative post on battery	Not to exceed 0.2 volts

must be cleaned or repaired. After doing so repeat test at the connection.

CONTROL CIRCUIT

The starter control circuit consists of the interlock system, starter solenoid, starter relay, safety neutral switch (automatic transmission) clutch start switch (manual transmission), and all their wiring and connections.

Testing procedures for these components are as follows and should be followed in order as described.

CAUTION: Before performing any test disconnect coil wire from distributor cap and secure to a good ground to prevent engine from starting.

Starter Solenoid Test

Connect a heavy jumper wire on the starter relay between the battery and solenoid terminals. If the engine cranks, the starter solenoid is good. Proceed to the starter relay test.

If the engine does not crank, check the wiring and connectors from the relay to the starter for loose or corroded connections, particularly at the starter terminals. Repeat test and if the engine still fails to crank, the trouble is within the starter and it must be removed for repairs.

Starter Relay Test (After starter solenoid test)

Automatic Transmission

Position transmission gear selector in neutral or park position. Connect a jumper wire on the starter relay between the battery and ignition terminals. If the engine cranks the starter relay is good.

If the engine does not crank connect a second jumper wire on the starter relay between the ground terminal and to a good ground. Repeat test and if engine cranks the starter relay is good, however, the transmission linkage is out of adjustment or the safety neutral switch is defective. If the engine does not crank the starter relay is defective and must be replaced.

Manual Transmission

Connect a jumper wire on the starter relay between the battery and ignition terminals. If the engine cranks the starter relay is good.

If the engine does not crank connect a second jumper wire on the starter relay to a good ground. Repeat test and if engine cranks the starter relay is good, however, there is a poor ground between relay housing and its mounting surface. If the engine does not crank the starter relay is defective and must be replaced.

Ignition Switch Test

After testing the starter solenoid and relay and they prove to be in good working order, the trouble is within the ignition switch or its wiring or connections. Check all connections for corrosion or for being loose, particularly at the bulkhead connector on firewall and at the main wiring harness multiple connector to ignition switch harness multiple connector under the instrument panel.

REMOVING THE STARTER

Conventional Starter

(1) Disconnect ground cable at battery.

(2) Remove cable at starter.

(3) Disconnect solenoid lead wires at solenoid terminals.

(4) Remove one stud nut and one bolt attaching

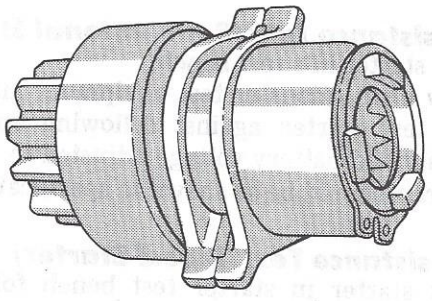

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Fig. 3—Starter Clutch