

## BOSCH

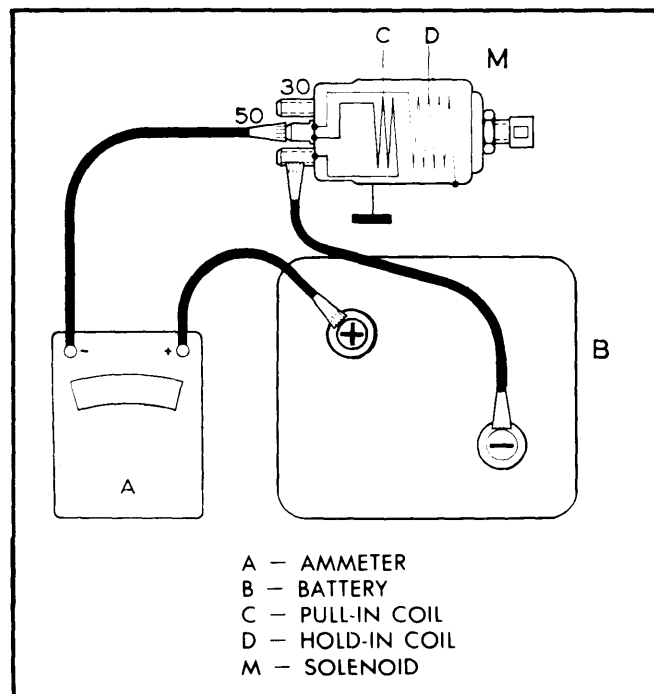
### DESCRIPTION

Bosch Starter (Solenoid) switch is used on pre-engaged screw-push starter motors. Mounted on starter, solenoid activates a soft iron plunger (armature) which is connected to the overrunning clutch shift lever, in starter motor. Two coils are used in the solenoid. A "pull-in" coil to engage starter and a "hold-in" coil to hold cranking starter into flywheel. After cutting in starter motor current, the pull-in coil is short circuited, and only hold-in coil remains energized. When starter motor is switched off, current to solenoid stops and armature returns to outer position.

### TESTING

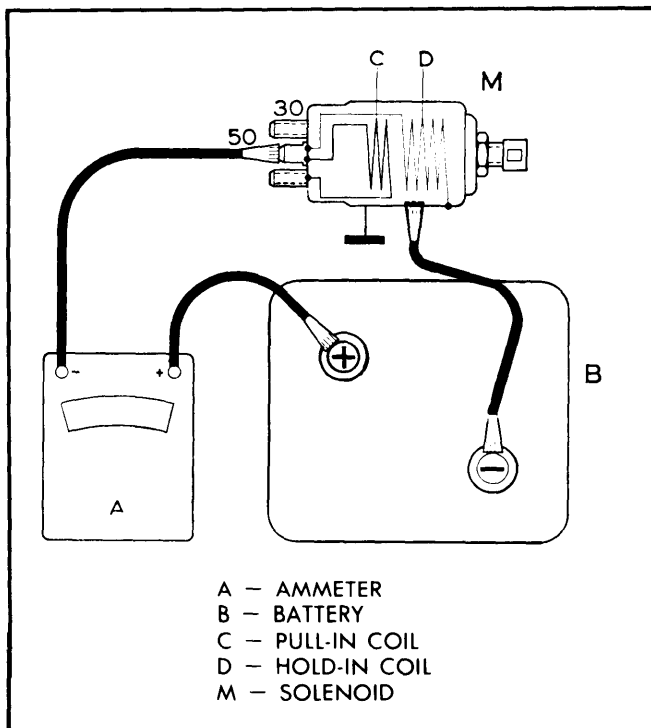
#### SOLENOID REMOVED FROM STARTER

With armature disconnected from overrunning clutch shift lever, armature must move freely in and out of solenoid. If corroded, clean thoroughly before proceeding with tests.



**Fig. 1 Typical Jumper Connections for Pull-In Test**

**Pull-In Coil** - Connect jumper wires between a 12 volt battery and the solenoid as shown in Fig. 1. The armature should pull-in suddenly and return when electrical connection is broken



**Fig. 2 Typical Jumper Connections for Hold-In Test**

**Hold-In Coil** - Connect jumper wires between a 12 volt battery and solenoid as shown in Fig. 2, at the same time, press the armature into the solenoid by hand. The armature should remain held-in. Disconnect jumper to terminal 50 and armature should immediately return to its outer position.

Do not attempt to repair solenoid. If it fails either test, replace it with a new one.