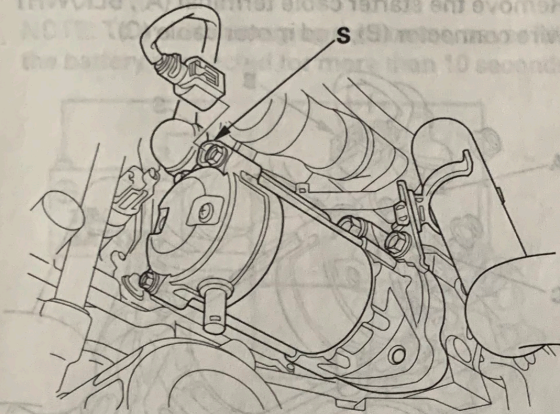




Starter Solenoid Test

- Make sure the shift lever is in the N or P position (A/T) or neutral (M/T) and set the parking brake. Disconnect the connector from the starter solenoid S terminal. Connect a jumper wire from the battery positive terminal to the solenoid S terminal.



Does the starter crank the engine?

YES—Go to step 9.

NO—Remove the starter, and repair or replace as necessary. ■

- Check the following items in the order listed until you find the open circuit:

NOTE: After the open circuit or high resistance in the circuit is found and repaired, go to step 13.

- The BLK/WHT wire and connectors between the under-dash fuse/relay box and the ignition switch.
- The BLK/RED and BLK/WHT wire and connectors between the under-dash fuse/relay box and the starter.
- The ignition switch (see page 22-55).
- The transmission range switch and connector (A/T) or the clutch interlock switch and connector (M/T).
- The starter cut relay.

Clutch Interlock Switch Test

- While cranking the engine, check the cranking voltage and the current draw.
Is the cranking voltage greater than, or equal to 8.0 V, and is the current draw less than, or equal to 200 A?

YES—Go to step 11.

NO—Replace the starter, or remove and disassemble it, and check for the following: ■

- Drag in the starter armature
- Shorted armature winding
- Excessive drag in the engine

- Check the engine speed while cranking the engine.

Is the engine speed above 100 rpm?

YES—Go to step 12.

NO—Replace the starter, or remove and disassemble it, and check for the following until you find the problem: ■

- Open circuit in the starter armature commutator segments
- Excessively worn starter brushes
- Open circuit in the starter brushes
- Dirty or damaged helical splines or drive gear
- Faulty drive gear clutch

- Remove the starter, and inspect its drive gear and the flywheel or torque converter ring gear for damage. Replace any damaged parts.

- Select ECM/PCM reset (see page 11-4) to cancel ALL INJECTORS OFF on the HDS.