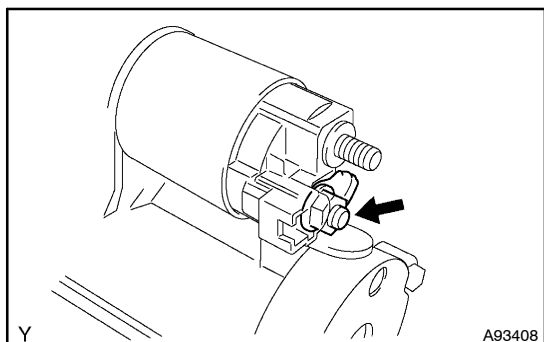


STARTING SYSTEM (1AZ-FE/2AZ-FE)

INSPECTION

190XC-01

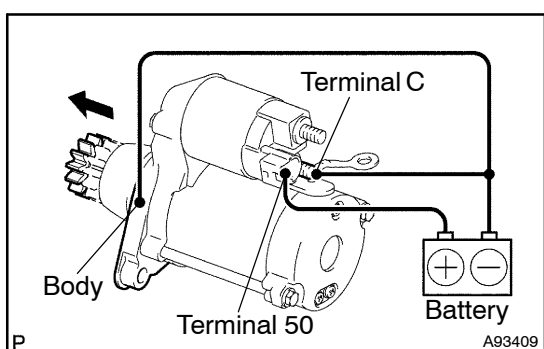


1. INSPECT STARTER ASSY

NOTICE:

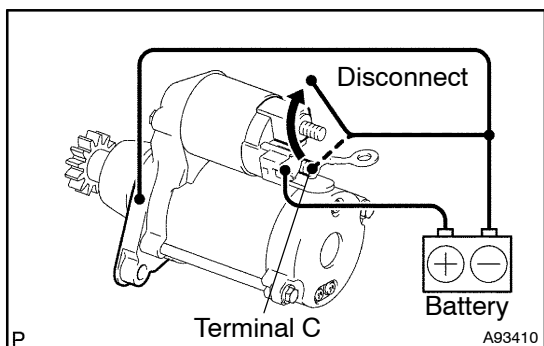
These tests must be performed within 3 to 5 seconds to prevent burnout of the coil.

- (a) Perform the pull-in test.
 - (1) Remove the nut, then disconnect the lead wire from terminal C.



- (2) Connect the battery to the repair service starter kit as shown in the illustration. Check that the clutch pinion gear is extended.

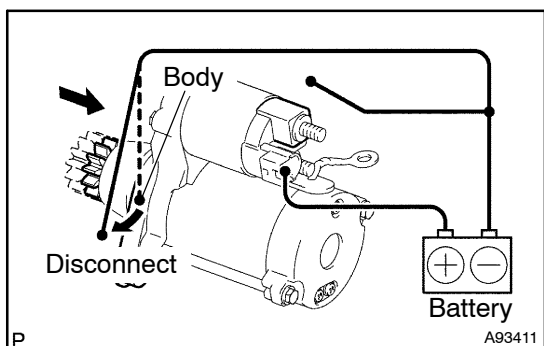
If the clutch pinion gear does not move, replace the starter magnetic switch.



- (b) Perform the hold-in test.

- (1) Disconnect the negative (-) lead from terminal C with the lead wire disconnected from terminal C. Check that the clutch pinion gear remains extended.

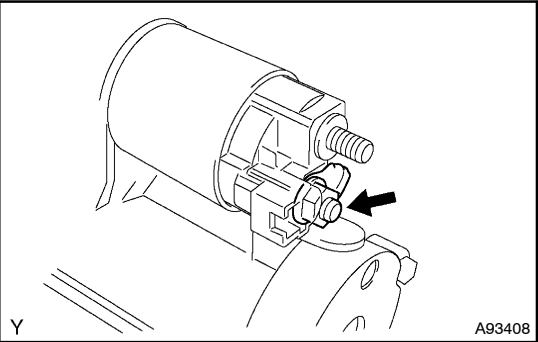
If the clutch pinion gear returns inward, replace the starter magnetic switch.



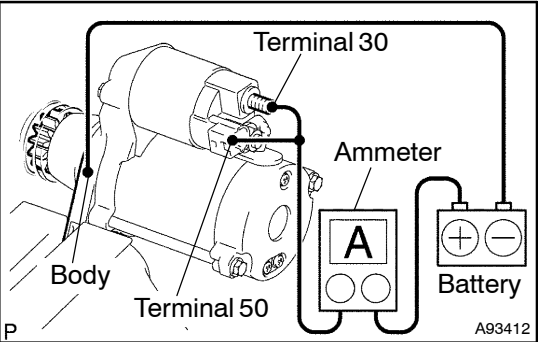
- (c) Check the operation.

- (1) Disconnect the negative (-) lead from the switch body. Check that the clutch pinion gear returns.

If the clutch pinion gear does not return inward, replace the starter magnetic switch.



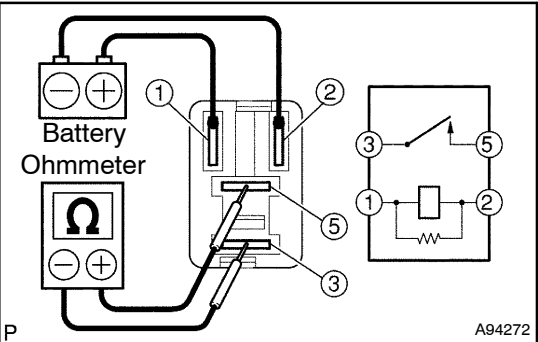
- (d) Perform the no-load performance test.
- (1) Connect the lead wire to terminal C. Make sure that the lead is not grounded.
- Torque: 10 N·m (102 kgf·cm, 7.4 ft·lbf)**



- (2) Clamp the starter in a vise.
- (3) Connect the battery and an ammeter to the starter as shown in the illustration.
- (4) Check that the starter rotates smoothly and steadily with the clutch pinion gear extended. Check that the ammeter reads the specified current.

Specified current: 90 A or less at 11.5 V

If the current is not as specified, replace the starter.



2. INSPECT STARTER RELAY ASSY

- (a) Inspect the resistance.
- (1) Using an ohmmeter, measure the resistance between the terminals.

Standard:

Tester Connection	Specified Condition
3 – 5	10 kΩ or higher
3 – 5	Below 1Ω (Apply battery voltage to terminals 1 and 2)

If the result is not as specified, replace the starter relay.