

## TEST

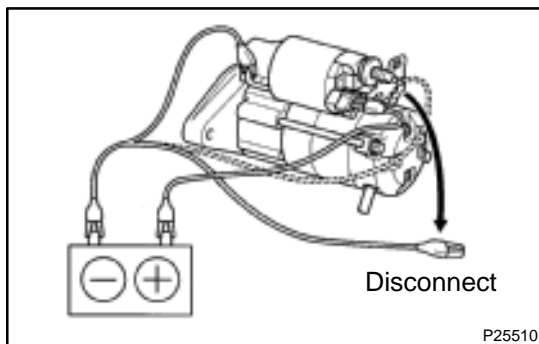
### NOTICE:

**These tests must be performed within 3 to 5 seconds to avoid burning out the coil.**

#### 1. DO PULL-IN TEST

- Disconnect the field coil lead from terminal C.
- Connect the battery to the magnetic switch as shown. Check that the clutch pinion gear moves outward.

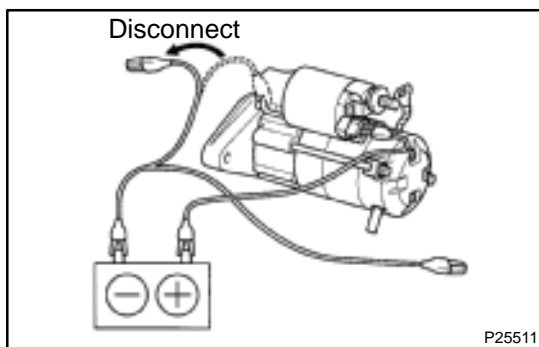
If the clutch pinion gear does not move, replace the magnetic switch.



#### 2. DO HOLD-IN TEST

While connected as above with the clutch pinion gear out, disconnect the negative (–) lead from terminal C. Check that the clutch pinion gear remains out.

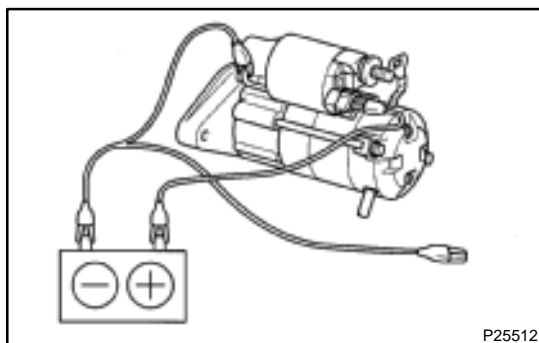
If the clutch pinion gear returns inward, replace the magnetic switch.



#### 3. INSPECT CLUTCH PINION GEAR RETURN

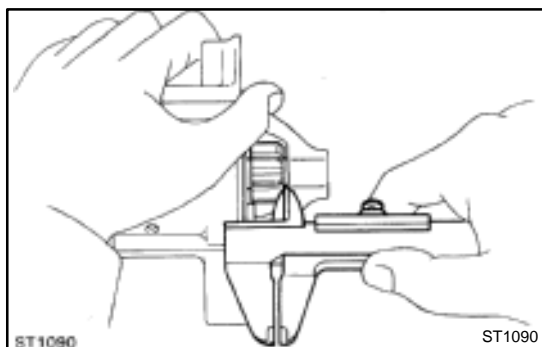
Disconnect the negative (–) lead from the switch body. Check that the clutch pinion gear returns inward.

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



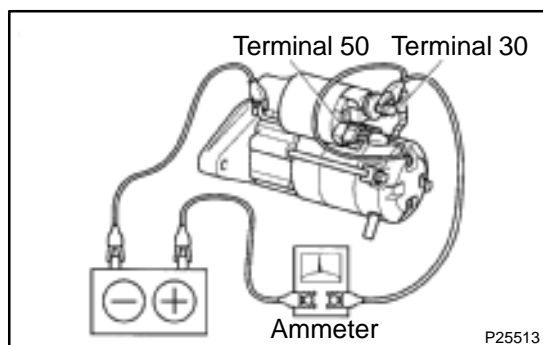
#### 4. INSPECT CLUTCH PINION GEAR CLEARANCE

- Connect the battery to the magnetic switch as shown.



- (b) Move the pinion gear toward the armature to remove slack and measure the clearance between the pinion gear end and stop collar.

**Standard clearance: 1 – 5 mm (0.04 – 0.20 in.)**



## 5. DO NO-LOAD PERFORMANCE TEST

- (a) Connect the field coil lead to terminal C. Make sure the lead is not grounded.
- (b) Connect the battery and ammeter to the starter as shown.
- (c) Check that the starter rotates smoothly and steadily with the clutch pinion gear moving out. Check that the ammeter reads the specified current.

**Specified current: At 11.5 V: 90 A or less**