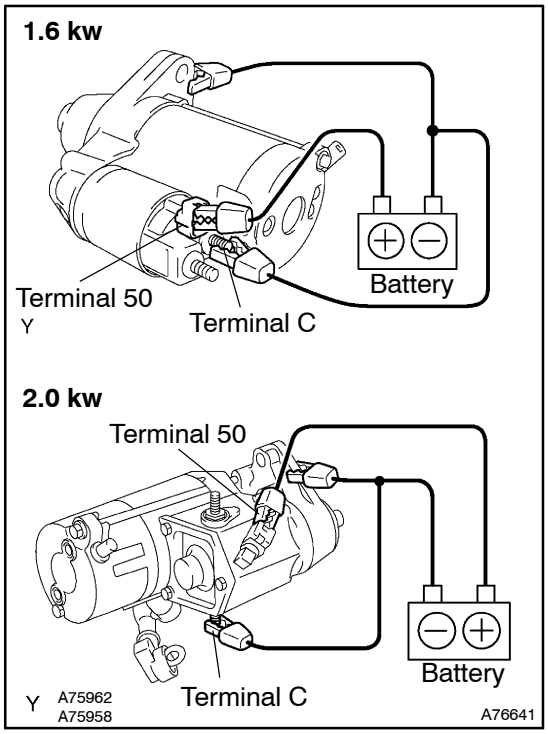
STARTING SYSTEM (1GR–FE)

INSPECTION

190MV–01



1. INSPECT STARTER ASSY

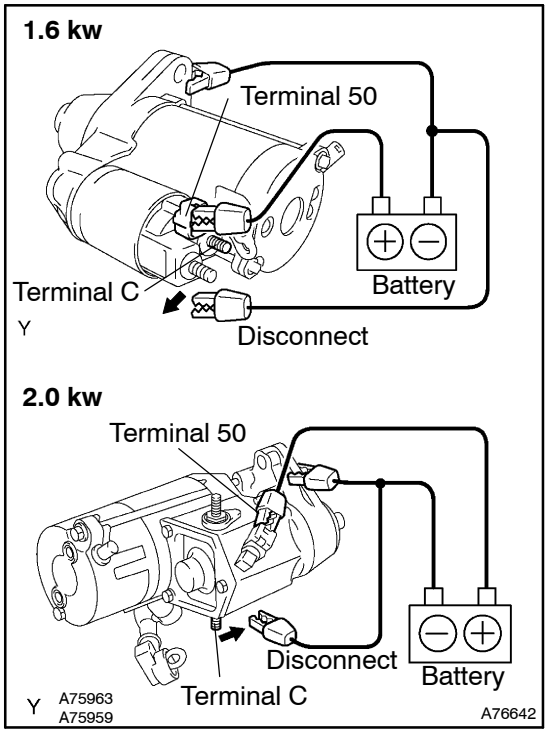
NOTICE:

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

(a) Do pull–in test.

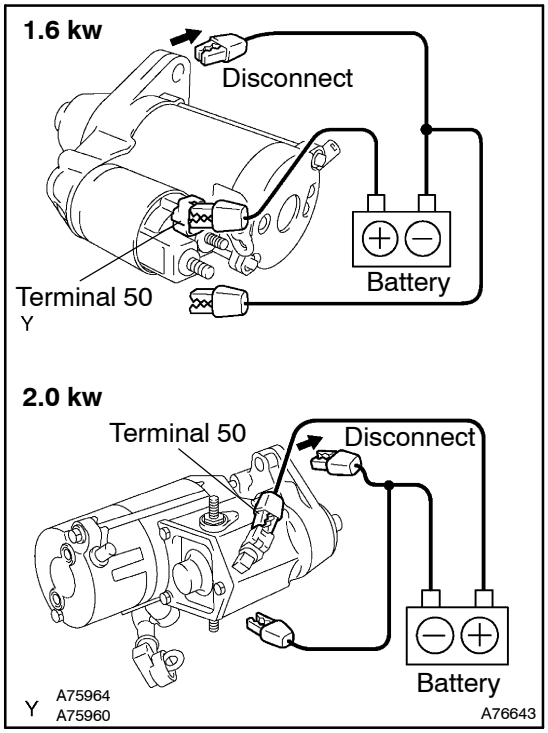
(1) Disconnect the field coil lead wire from terminal C.

(2) Connect the battery to the magnetic switch as shown in the illustration. Check that the clutch pinion gear is extended.



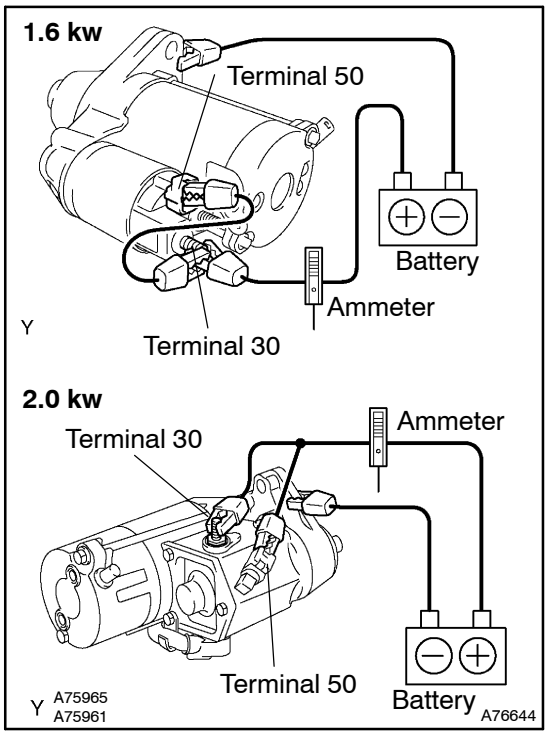
(b) Do holding test.

(1) Disconnect the negative (–) lead from terminal C with the above condition (a) is being maintained. Check that the pinion gear remains extended.



(c) Inspect clutch pinion gear return.

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



(d) Perform the operation test without load.

(1) Connect the field coil lead wire to terminal C.

Torque:

1.6kw 10 N·m (102 kgf·cm, 89 ft·lbf)

2.0 kw 5.9 N·m (60 kgf·cm, 52 in.·lbf)

(2) Clamp the starter in a vise.

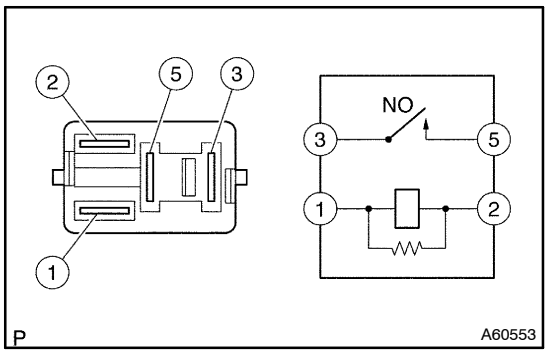
(3) Connect the battery and ammeter to the starter as shown in the illustration.

(4) Check that the ammeter indicates the specified current.

Specified current:

1.6kw 90 A or less at 11.5 V

2.0kw 100 A or less at 11.5 V



2. INSPECT STARTER RELAY ASSY

(a) Continuity inspection.

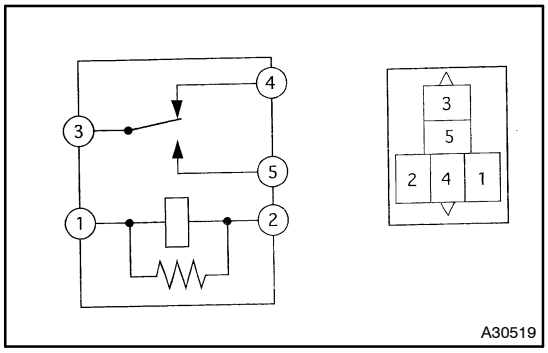
(1) Using an ohmmeter, check for continuity between each terminal.

Specified condition:

Terminal No.	Specified condition
1 – 2	Continuity
3 – 5	No continuity
3 – 5	Continuity (Apply battery voltage terminals 1 and 2)

(2) Using an ohmmeter, check for continuity between terminals 3 and 5 when the voltage is applied across terminals 1 and 2.

Specified condition: Continuity



3. INSPECT ACC RELAY NO.2

(a) Continuity inspection.

(1) Using an ohmmeter, check for continuity between each terminal.

Specified condition:

Terminal No.	Specified condition
1 – 2 3 – 4	Continuity
3 – 5	No continuity
3 – 5	Continuity (Apply battery voltage terminal 1 and 2)

(2) Using an ohmmeter, check for continuity between terminals 3 and 5 when the between voltage is applied across terminals 1 and 2.

Specified condition: Continuity