

01-19 STARTING SYSTEM

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01-19

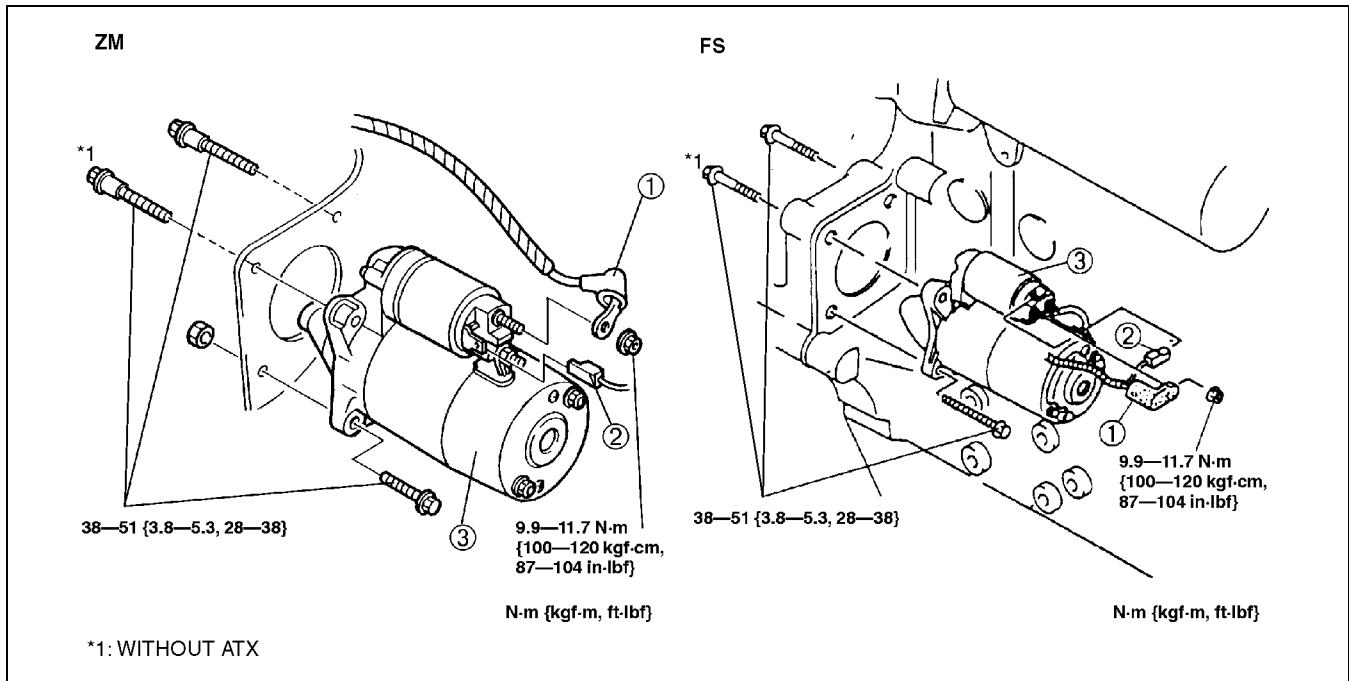
STARTER REMOVAL/INSTALLATION

A3U011918400W01

Warning

- When the battery cables are connected, touching the vehicle body with starter terminal B will generate sparks. This can cause personal injury, fire, and damage to the electrical components. Always disconnect the battery before performing the following operation.

1. Disconnect the negative battery cable.
2. Remove the battery.
3. Remove the intake manifold bracket.
4. Remove in the order indicated in the table.
5. Install in the reverse order of removal.



Z3U0119W001

1	Terminal B wire
2	Terminal S wire

3	Starter
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STARTING SYSTEM

STARTER INSPECTION

A3U011918400W02

On-Vehicle Inspection

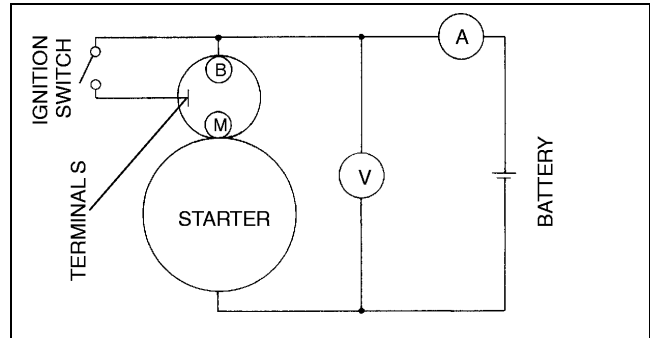
1. Verify that the battery is fully charged.
2. Crank the engine and verify that the starter rotates smoothly without any noise.
3. Measure the voltage at terminals S and B when the ignition switch is at START position.
 - If the voltage is within the specification, remove the starter and inspect the magnetic switch and the starter.
 - If the voltage is not as specified, inspect the wiring harness, ignition switch, starter interlock switch (MTX), and transaxle range switch (ATX).

Specification
Above 8 V

No Load Test

1. Verify that the battery is fully charged.
2. Connect the starter, battery, voltmeter and ammeter as shown.
3. Operate the starter and verify that it rotates smoothly.
4. Measure the voltage and current while the starter is operating.
 - If not as specified, repair or replace the starter as necessary.

Specification
Voltage: 11 V
Current: below 90 A



X3U119WA2

STARTER INTERLOCK SWITCH INSPECTION (MTX)

A3U011943440W01

On-vehicle Inspection

1. With the clutch pedal not depressed, verify that the engine does not start.
2. With the clutch pedal fully depressed, verify that the engine starts.
 - If the above cannot be verified, carry out continuity inspection.

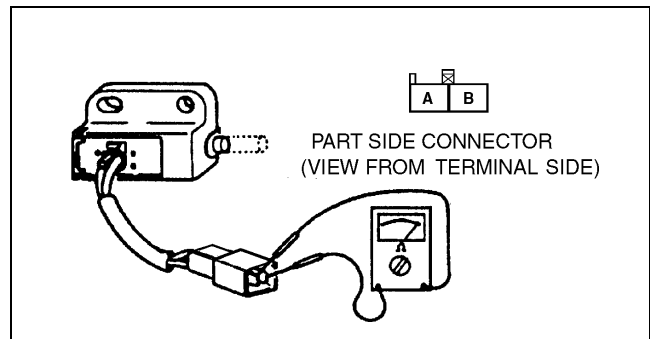
Continuity Inspection

1. Disconnect the starter interlock switch connector.
2. Inspect for continuity between terminals of the starter interlock switch using an ohmmeter.
 - If not as specified, replace the starter interlock switch.

○—○ : Continuity

Condition	Terminal	
	A	B
Clutch pedal not depressed		
Clutch pedal depressed	○—○	○—○

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Y3U119WA0