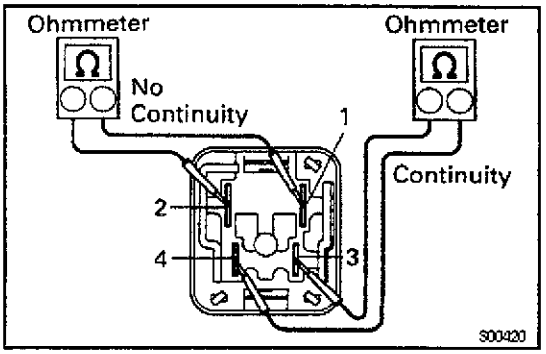


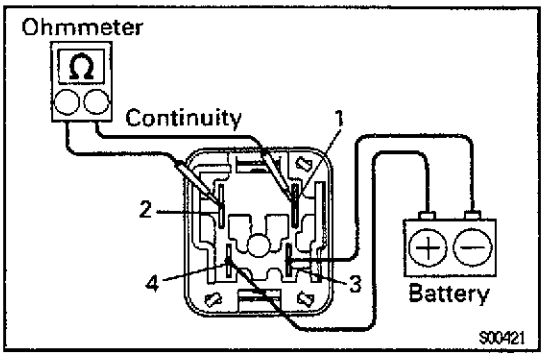
2. INSPECT STARTER RELAY

A. Inspect relay continuity

(a) Using an ohmmeter, check that there is no continuity between terminals 1 and 2.
If there is continuity, replace the relay.

(b) Check that there is continuity between terminals 3 and 4.
If there is no continuity, replace the relay.

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B. Inspect relay operation

(a) Apply battery voltage across terminals 3 and 4.

(b) Using an ohmmeter, check that there is continuity between terminals 1 and 2.
If there is no continuity, replace the relay.

3. REINSTALL STARTER RELAY

SERVICE SPECIFICATIONS

SERVICE DATA

ST015-1E

Starter	Rated voltage and output power		12 V 1.0 kW
	No-load characteristics	Current	90 A or less at 11.5 V
		rpm	3,000 rpm or more
	Brush length	STD	13.5 mm (0.531 in.)
		Minimum	8.5 mm (0.335 in.)
	Spring installed load	STD	17.6 – 23.5 N (1.8 – 2.4 kgf, 4.0 – 5.3 lbf)
		Minimum	11.8 N (1.2 kgf, 2.6 lbf)
	Commutator		
	Diameter	STD	30.0 mm (1.181 in.)
		Minimum	29.0 mm (1.142 in.)
	Undercut depth	STD	0.6 mm (0.024 in.)
		Minimum	0.2 mm (0.008 in.)
	Circle runout	Maximum	0.05 mm (0.0020 in.)
	Magnetic switch		
	Contact plate for wear	Maximum	0.9 mm (0.035 in.)

TORQUE SPECIFICATIONS

ST016-1E

Part tightened	N·m	kgf·cm	ft·lbf
Terminal 30 nut, Terminal C nut x Terminal bolt	17	170	13
End cover x Magnetic switch housing	3.6	37	32 in.·lbf
End cover x Brush holder	1.5	15	13 in.·lbf
Starter housing x Magnetic switch	9.3	95	82 in.·lbf
End cover x Starter housing	9.3	95	82 in.·lbf
Lead wire of field frame x Terminal C	5.9	60	52 in.·lbf