

ELECTRICAL

Charging System - [2GR-FE] (Preparation) - Sienna

2GR-FE BATTERY / CHARGING

SST

SST

	09820-63021	Alternator Pulley Wrench Set	
	09950-40011	Puller B Set	
	(09951-04020)	Hanger 200	
	(09952-04010)	Slide Arm	
	(09953-04020)	Center Bolt 150	
	(09954-04010)	Arm 25	
	(09955-04071)	Claw No. 7	
	(09957-04010)	Attachment	
	(09958-04011)	Holder	
	09950-60010	Replacer Set	
	(09951-00250)	Replacer 25	
	(09951-00470)	Replacer 47	
	09950-70010	Handle Set	
	(09951-07100)	Handle 100	

RECOMMENDED TOOLS

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	09072-1C200	Vernier Calipers 150mm	-
	09080-1C110	Toyota Electrical Tester Set	-
	09080-2C100	Test Lead Set	-

EQUIPMENT

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Ammeter	
Ohmmeter	
Voltmeter	
Torque wrench	
Vise	

Pin (1.0 mm)



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Charging System - [2GR-FE] (Service Specifications) - Sienna

2GR-FE BATTERY / CHARGING

SERVICE DATA

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Battery	Standard specific gravity:	1.25 to 1.29 at 20°C (68°F)
	Standard voltage	12.6 to 12.8 V at 20°C (68°F)
Charging circuit without load	Standard current	10 A or less
	Standard voltage	13.2 to 14.8 V
Charging circuit with load	Standard current	30 A or more
Generator brush holder assembly brush exposed length	Standard exposed length	9.5 to 11.5 mm (0.374 to 0.453 in.)
	Minimum exposed length	4.5mm (0.177 in.)
Generator rotor assembly resistance	Slip rings	1.5 to 1.9 ohms at 20°C (68°F)
	Slip ring - Rotor	10 Mohms or higher
Generator rotor assembly slip ring diameter	Standard diameter	14.2 to 14.4 mm (0.559 to 0.567 in.)
	Minimum diameter	14 mm (0.551 in.)

TORQUE SPECIFICATIONS

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Part Tightened	N*m	kgf*cm	ft.*lbf
Bearing retainer plate x Generator drive end frame	2.3	23	20 in.*lbf
Generator coil assembly x Generator drive end frame	5.9	60	52 in.*lbf
Generator brush holder assembly x Generator coil assembly	1.8	18	16 in.*lbf
Generator rear end cover x Generator coil assembly	4.6	47	41 in.*lbf
Generator pulley with clutch x Generator rotor assembly (): For use with SST	80 (61)	816 (621)	59 (45)
Cylinder block x Generator bracket	20	204	15
Generator assembly x Generator	20	204	15

bracket			
Generator assembly x Cylinder block	43	438	32
Generator wire x Terminal B	9.8	100	87 in.*lbf
Generator wire harness clamp stay x Generator assembly	8.4	85	74 in.*lbf