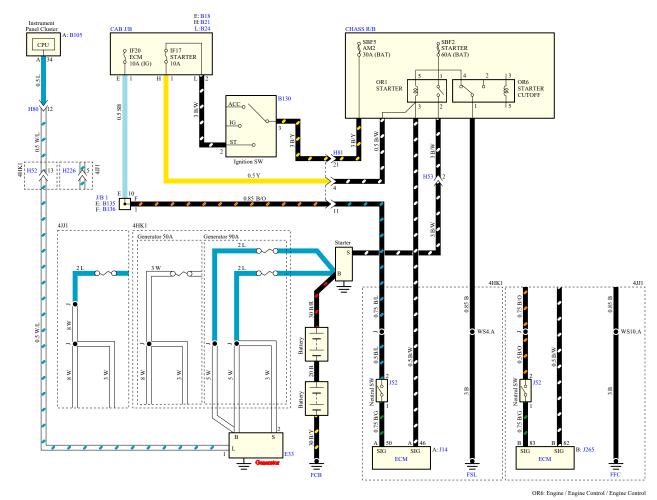
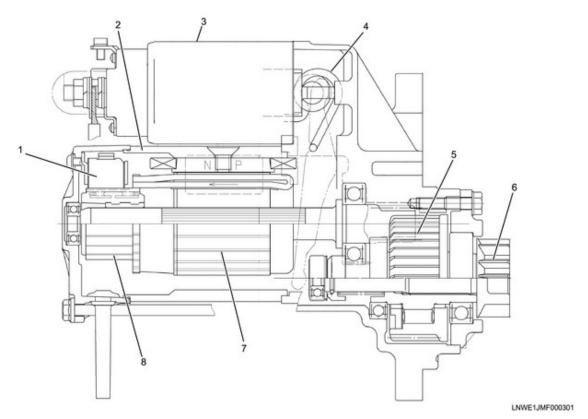


LHD Starter and Charging (4JJ1-TCC M/T Except 2021MY)



LHD Starter and Charging (M/T 2021MY)

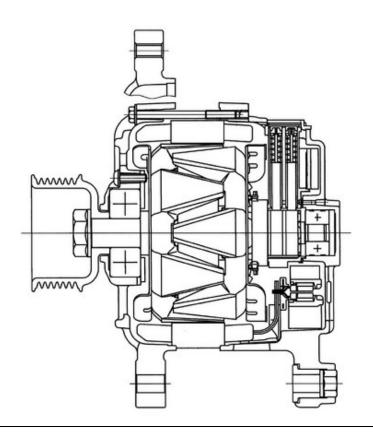


- 1. Brush
- 2. Yoke
- 3. Magnetic switch
- 4. Torsion spring
- 5. Clutch
- 6. Pinion
- 7. Armature
- 8. Commutator

## 3. Generator

The charging system uses an IC integral regulator charging method. The main components are connected as shown in the diagram. The regulator is an integrated solid-state type regulator. It is built into the generator, and installed onto the rear end cover together with the brush holder.

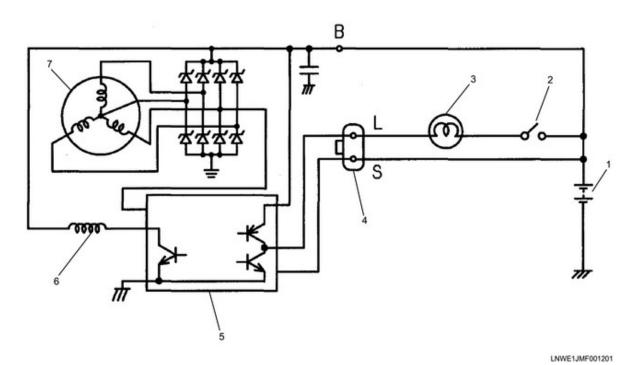
Generator maintenance such as adjusting the voltage is unnecessary. There are 8 diodes in the rectifier connected to the stator coil. They convert alternating current voltage into direct current voltage. The direct current voltage is connected to the generator output terminal.



LNWE1JMF000901

# 4. Multi-function IC regulator (trouble diagnosis function)

The trouble diagnosis is included to illuminate the charge light when the feed coil circuit is open and also when there is excessive voltage.



1. Battery

- 2. Key switch
- 3. Charge light
- 4. Relay
- 5. IC regulator
- 6. Field coil
- 7. Stator coil

### Warm-up system

The warm-up system is installed in order to reduce white smoke, improve engine warm-up performance, and improve interior heating performance.

The warm-up system is composed of the intake throttle valve, EGR valve, and exhaust throttle valve. The throttle valves are closed according to the engine coolant conditions. When the valves are closed, the exhaust pressure increases the engine load, and the thermal energy generated by the engine is released via the cylinder block into the engine coolant, improving engine warm-up performance and interior heating performance. The intake throttle, exhaust throttle, and injectors are controlled to increase the fuel flow and raise the exhaust temperature. This raises the engine coolant temperature and promotes better engine warm-up performance and interior heating performance. The exhaust throttle valve is activated to increase the amount of combustion gas remaining inside the cylinder. This raises the temperature inside the combustion chamber and the exhaust temperature, which in turn reduces white smoke by reducing the amount of uncombusted gas that causes white smoke

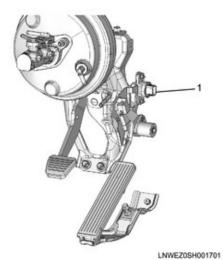
The control unit that controls the QWS is the ECM.

#### 6. Glow control system

The glow control system facilitates engine start at low temperatures, and also reduces white smoke and noise immediately after engine start. If the ignition switch is turned ON, the ECM detects the engine coolant temperature based on the signal from the engine coolant temperature sensor. This can change the glow time to always start the engine under optimum conditions. Also, the after-glow function can stabilize the idling immediately after the engine is started. The ECM determines the glow time according to the coolant temperature, and activates the glow relay and glow indicator light.

#### 15. Engine Controls Component Views

#### 1. Engine component location diagram



1. Accelerator pedal position sensor

Отпечатано: 2024-02-27

0-66A	GENERATOR
FIG-No.	
	36 2 3 (B) 22 2 2 3 (B) 27 27 27 29 10 10 29 10 10 10 10 10 10 10 10 10 10 10 10 10
	6
\( \tag{TN1} \) 1 A A N 1 A C C	85EK7100204

VIIN. JAAINIVIROSEK/ 100294		
Напоминание		

Отпечатано: 2024-02-27

0-66A G		GEI	NERAT	OI	R					
FIC	G-No.									
KEY No.	Part Nar	me								
	Part Nu	mber	Applied Date	L R	Q t y	Restriction/Remarks				
1	COVER	ASM;	RR,GEN							
	8-97480-9	87-0	-2111		01					
2	ROTOR;	GEN		•						
	8-98273-8	16-0			01					
3	BEARING; ROTOR,GEN									
(A)	8-98273-8	14-0			01	(A)				
(B)	8-98273-8	17-0			01	(B)				
6	REGULA	TOR A	ASM; VOL	-TA	GE,	GEN				
	8-98273-8	25-0	-2111		01					
10	RECTIFI	ER; G	EN							
	8-98273-8	23-0			01					
17	COVER	ASM;	FRT,GEN							
	8-98273-8	13-0			01					
19	PULLEY	; GEN								
	8-98273-8	29-0	-1909		01					
22	STATOR	; GEN								
	8-98273-8	19-0			01					
27	NUT; RE	CTIF	ER,GEN							
	8-98273-8	24-0			01					
29	BRUSH;	GEN								
	8-98273-8	26-0			01					
36	SCREW;	FRT (	OVER							
	8-97178-1	36-0			01					
86	NUT SE	T; PUI	LEY,GEN							
	8-97145-3	27-0			01					
127	BOLT SE	ET; GE	N							
	8-97145-3	28-0			01	1 SET=4 PIECE				

VIN: JAANMR85EK7100294	
Напоминание	