



Service Manual

Performance you rely on.™



50 Hz Portable Inverter Generator Set

EGMBJ / P3200ie

EGMBK / P4300ie

SAFETY PRECAUTIONS

Thoroughly read the OPERATOR'S MANUAL before operating the generator set. Safe operation and top performance can only be attained when equipment is operated and maintained properly.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to operators, service personnel and equipment.

⚠ DANGER *This symbol alerts you to an immediate hazard that will result in severe personal injury or death.*

⚠ WARNING *This symbol alerts you to a hazard or unsafe practice that can result in severe personal injury or death.*

⚠ CAUTION *This symbol alerts you to a hazard or unsafe practice that can result in personal injury or damage to equipment or property.*

Electricity, fuel, exhaust, moving parts and batteries present hazards against which precautions must be taken to prevent severe personal injury or death.

Exhaust Gas Is Deadly

- Operate the generator set outdoors only. Stay away from the exhaust outlet.
- Make sure generator set exhaust will not enter windows, doors, vents or air intakes of adjacent buildings, vehicles or boats.
- NEVER USE THE GENERATOR SET INSIDE a home, garage, crawl space, barn, shed, cabin, boat, boat house, RV or tent, or in a confined outdoor space such as an alley, ditch, parking garage or courtyard, or in any other space where exhaust can accumulate. Note that HAZARDOUS CARBON MONOXIDE LEVELS FROM ENGINE EXHAUST CAN ACCUMULATE INDOORS EVEN WHEN ALL WINDOWS AND DOORS ARE OPEN AND FANS ARE RUNNING.

Gasoline is Flammable / Explosive

- Refuel the generator set outdoors only.
- Static electric sparks caused by fuel flowing through a service station pump nozzle can ignite gasoline. Never fill the generator set with a service station pump nozzle. Instead, fill a safety tank sitting on the ground and then slowly transfer fuel to the generator set from the safety tank.
- DO NOT fill fuel tanks while the engine is running. A hot engine can ignite the fuel.
- To prevent fire due to fuel leakage, always close the fuel valve and let the generator set cool before transporting it or storing it in a confined space.
- DO NOT SMOKE OR ALLOW AN OPEN FLAME near the generator set. Keep flames, sparks, electrical switches, pilot lights, electrical arcs, arc-producing equipment and all other sources of ignition well away.

Generator Voltage is Deadly

- DO NOT CONNECT THE GENERATOR SET DIRECTLY TO ANY BUILDING ELECTRICAL SYSTEM. Back-feed could cause electrocution of utility line workers and damage to equipment. An approved switching device must be used to prevent interconnections. A trained and experienced electrician must make electrical connections when the generator set is used for emergency power.
- Make sure clothing, shoes and skin are dry when handling electrical equipment.
- Never operate the generator set in rain or snow or when it is sitting on wet ground.

Moving Parts Can Cause Severe Personal Injury or Death

- Before performing any maintenance on the generator set, disconnect the spark plug wire.
- Always keep hands away from moving parts.
- Do not wear loose clothing or jewelry while servicing the generator set. Loose clothing and jewelry can become caught in moving parts. Jewelry can short out electrical contacts causing sparks, flame and electrical shock.
- Make sure that fasteners and clamps on the generator set are tight. Keep guards in position over fans, rotors, etc.

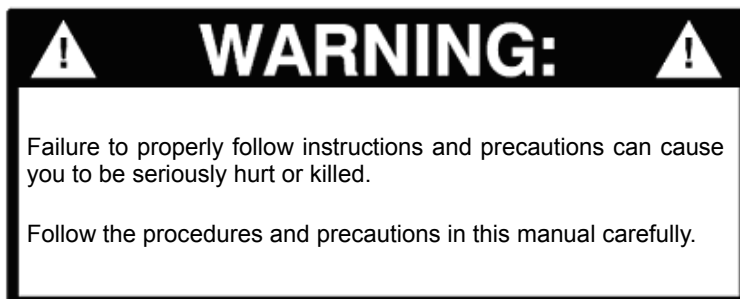
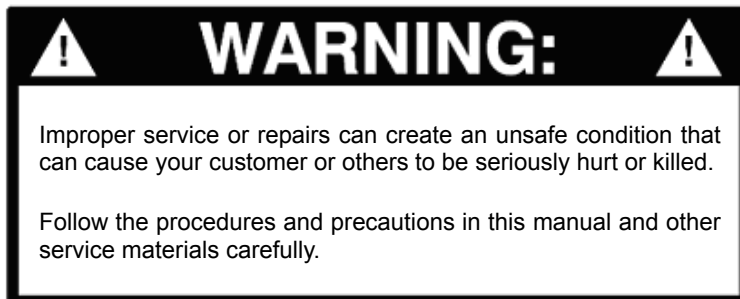
SAFETY PRECAUTIONS

Battery Gases are explosive

- Wear safety glasses when servicing batteries.
- Do not smoke.
- To reduce arcing when disconnecting or reconnecting battery cables, always disconnect the negative (–) cable of the battery first and reconnect it last.

General Precautions

- Keep children away from the generator set.
- Wear hearing protection when near an operating generator set.
- Keep a multi-class ABC fire extinguisher readily at hand. Class A fires involve ordinary combustible materials such as wood and cloth. Class B fires involve combustible and flammable liquids and gaseous fuels. Class C fires involve live electrical equipment. (ref. NFPA No. 10)
- Benzene and lead may be found in gasoline and have been identified by some state and federal agencies as causing cancer or reproductive toxicity. Do not ingest, inhale or contact gasoline.
- Used engine oils have been identified by some state and federal agencies as causing cancer or reproductive toxicity. Do not ingest, inhale or contact used engine oil or its vapors.
- Keep the generator set clean and dry at all times. Excess grease and oil can catch fire and/or accumulate dirt, which can cause overheating.
- Do not store anything on the generator set, such as oil cans, oily rags, chains or wooden blocks. A fire could result or operation could be adversely affected
- Do not work on the generator set when you are mentally or physically fatigued or have consumed alcohol or drugs.



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1. SPECIFICATIONS

Model							P3200i			P4300i			
Alternator	Type			Multi-Pole, Rotating Field Inverter Generator									
	Frequency Hz			50 / 60									
	AC	Rated Output		kVA				2.8			3.8		
		50Hz	Voltage	V				110	220	230	110	220	230
			Rated Current	A				25.5	12.7	12.2	34.5	17.3	16.5
		60Hz	Voltage	V			—	120	240	—	120	240	—
			Rated Current	A			—	23.3	11.7	—	31.7	15.8	—
		Power Factor			1.0								
	DC	Rated Output		W	100								
		Voltage		V	12								
		Current		A	8.3								
	Voltage Regulator			PWM Controlling									
Voltage Regulation			Within 10%										
Engine	Model						EX21			EX27			
	Type			Air-Cooled 4-stroke OHC Gasoline engine									
	Displacement mL(cc)						211			265			
	Fuel			Unleaded Automobile Gasoline									
	Fuel Tank Capacity L			10.0						10.8			
	Continuous Operating Hours at Rated Output h						6.0			4.5			
	Lubrication Oil Capacity L			0.6						1.0			
	Ignition System			Solid-state flywheel magneto									
	Spark Plug			NGK BR6HS									
	Starting System			Recoil Starter						Electric Starter / Recoil			
	Equipment	Over-current Protection											
For AC Output			Electronic Circuit Breaker										
For DC Output			Circuit Breaker										
Oil Sensor			STD										
Multi Monitor			STD										
Dimensions L× W× H mm			487× 432× 475						523× 477× 508				
Dry Weight kg						38			52.5				

Specifications are subject to change without notice.

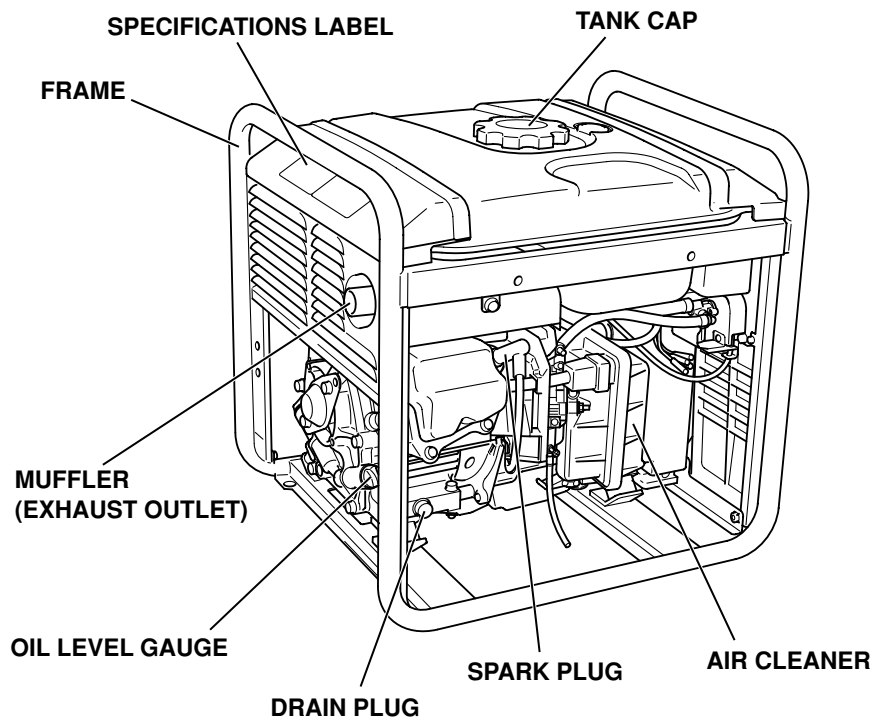
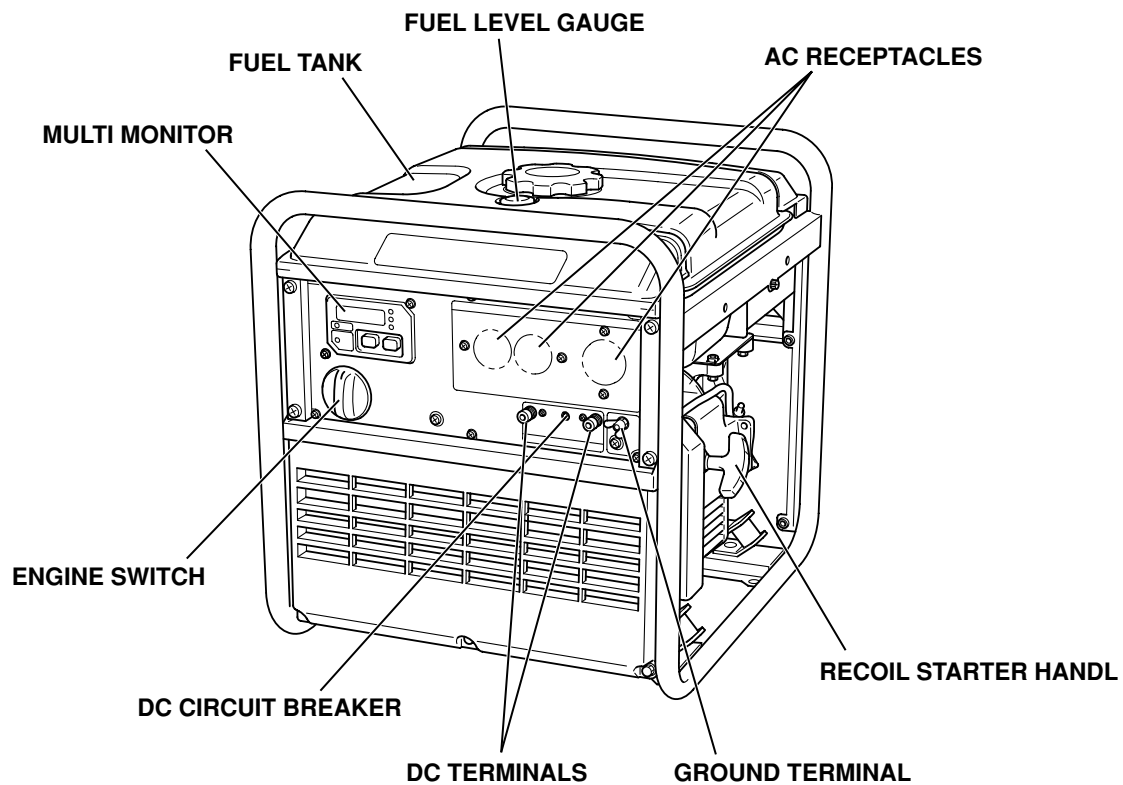
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		Voltage		V	12								
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	Ignition System			Solid-state flywheel magneto									
	Spark Plug			NGK BR6HS									
	Starting System						Electric Starter / Recoil						
	Equipment	Over-current Protection											
For AC Output			Electronic Circuit Breaker										
For DC Output			Circuit Breaker										
Oil Sensor			STD										
Multi Monitor			STD										
Dimensions L× W× H mm			537× 482× 583						580× 527× 618				
Dry Weight kg						59			74				

Specifications are subject to change without notice.

2. GENERAL DESCRIPTION

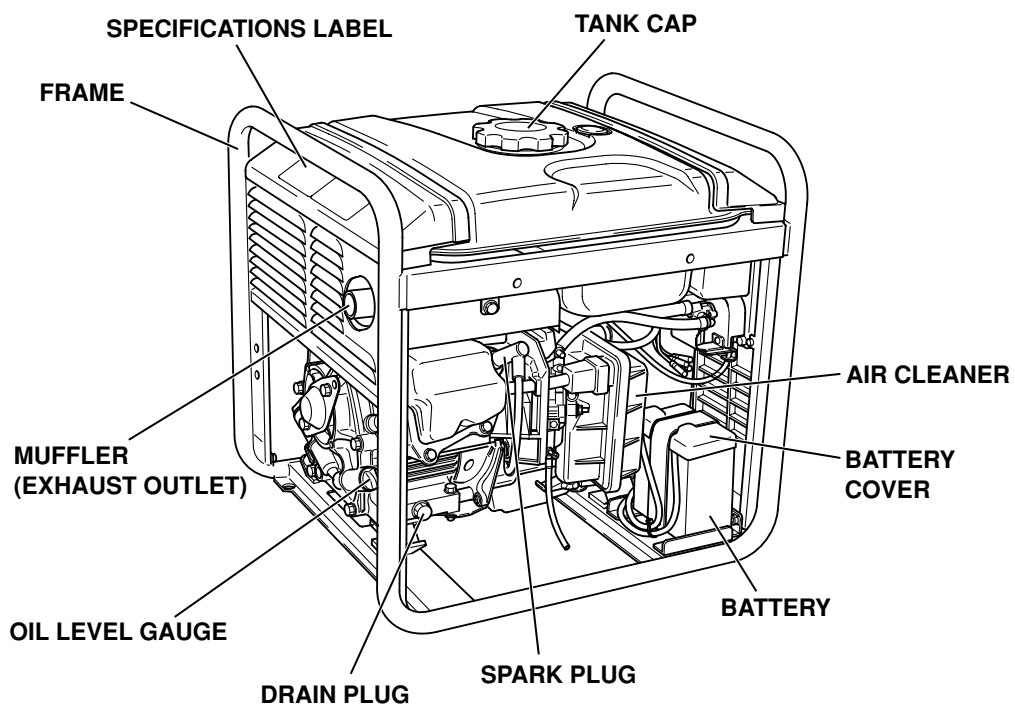
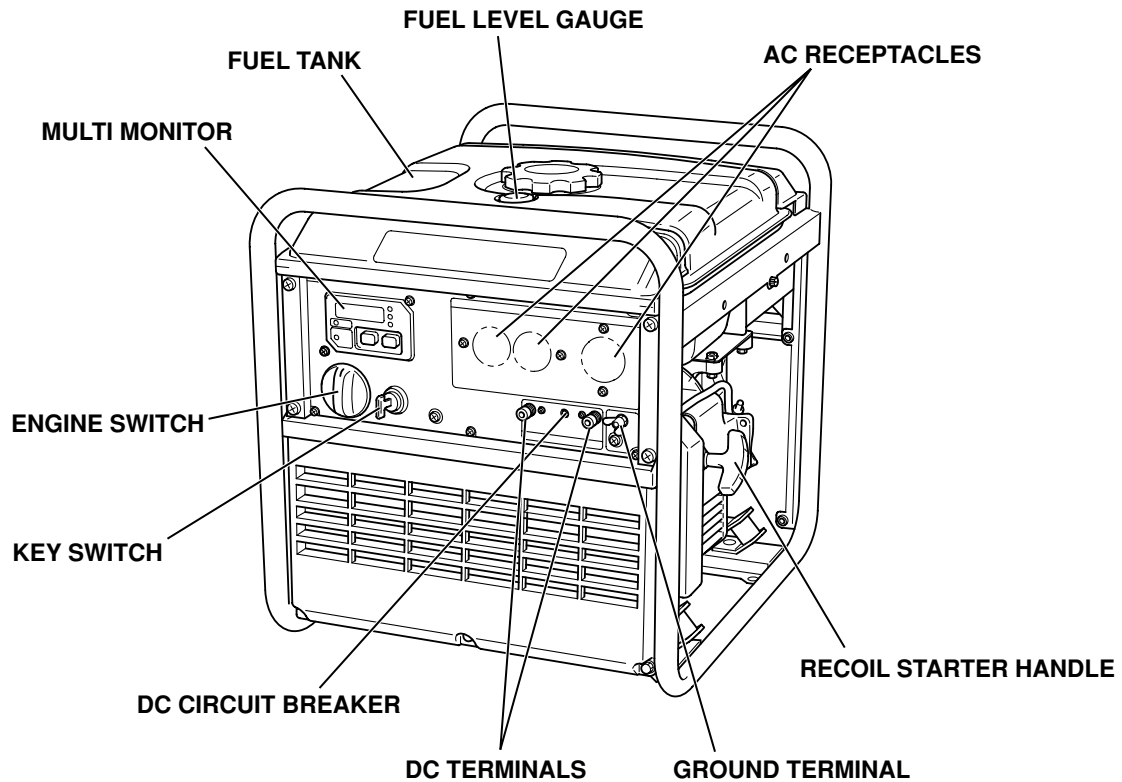
2-1-1) EXTERNAL VIEW OF GENERATOR : OPEN FRAME TYPE

P3200i



2-1-2) EXTERNAL VIEW OF GENERATOR : OPEN FRAME TYPE WITH ELECTRIC STARTER

P4300i



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