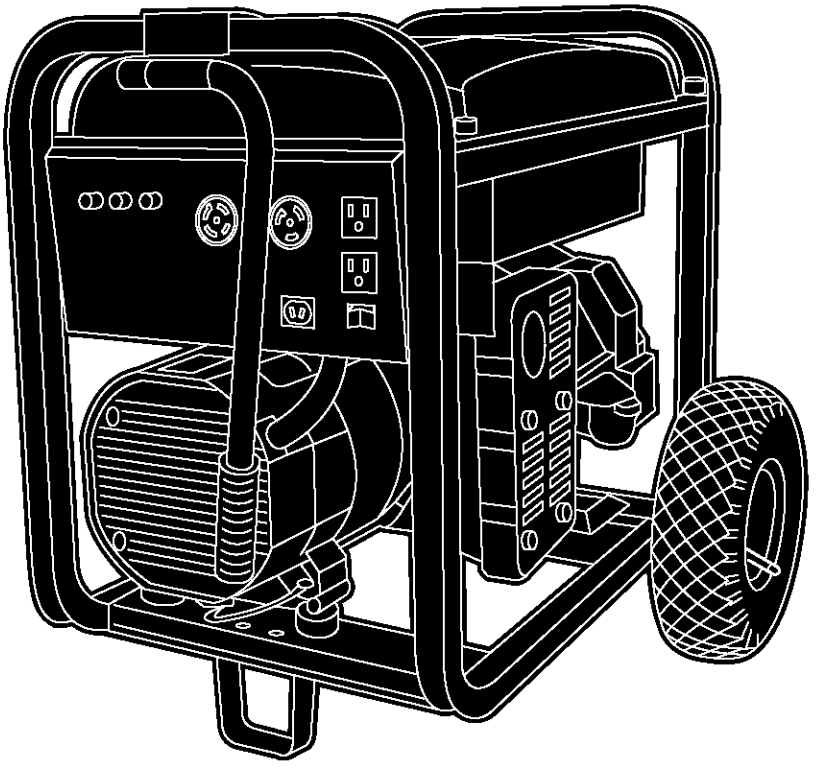
GENERAC®
Portable Products

4000XL
RATED WATT

EXTENDED LIFE GENERATOR

Owner's Manual



Parts Included*

- Generator
- Wheel kit
- Storage Cover
- Battery charge cables
- Spare Spark Plug, Air Filter, and Oil Filter
- Spark Plug Wrench
- Locking 20 Amp plug
- Locking 30 Amp plug
- Engine oil
- Owner's manual
- Engine manual

*If any parts are missing or damaged, call 1-800-270-1408.

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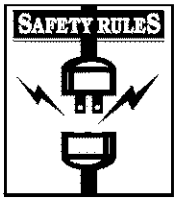
Questions? Help is just a moment away!

Call: **Generac Generator Helpline - 1-800-270-1408** M-F 8-5 CT

Web: **www.generac-portables.com** or **www.briggsandstratton.com**

Model No. 9777-4 (4,000 Watt AC Generator) Manual No. 193524GS Revision 0 (08/04/2003)



EQUIPMENT DESCRIPTION

Read this manual carefully and become familiar with your generator. Know its applications, its limitations and any hazards involved.

The generators are an engine–driven, revolving field, alternating current (AC) generator. It was designed to supply electrical power for operating compatible electrical lighting, appliances, tools and motor loads. The generator's revolving field is driven at about 3,600 rpm by a single-cylinder engine.

CAUTION! DO NOT exceed the generator's wattage/amperage capacity. See "Don't Overload Generator" on page 12.

Every effort has been made to ensure that information in this manual is accurate and current. However, we reserve the right to change, alter or otherwise improve the product and this document at any time without prior notice.

The Emission Control System for this generator is warranted for standards set by the Environmental Protection Agency. For warranty information refer to the engine owner's manual.

In the State of California a spark arrester is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. If you equip the muffler with a spark arrester, it must be maintained in effective working order.

SAFETY RULES

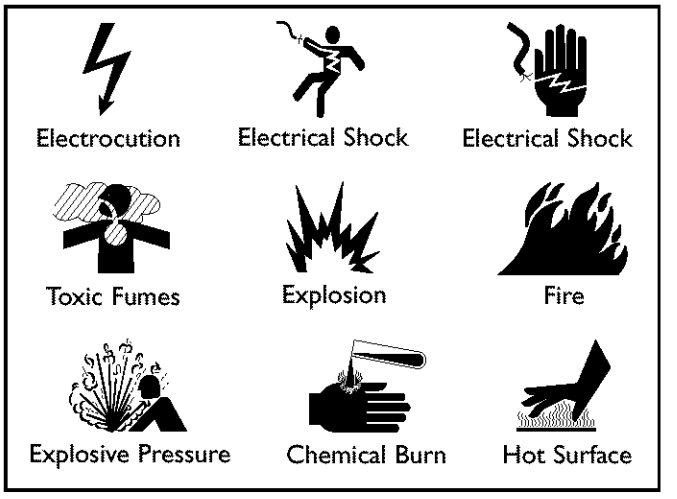
This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

The safety alert symbol (⚠) is used with a signal word (DANGER, CAUTION, WARNING), a pictorial and/or a safety message to alert you to hazards. **DANGER** indicates a hazard which, if not avoided, *will* result in death or serious injury. **WARNING** indicates a hazard which, if not avoided, *could* result in death or serious injury. **CAUTION** indicates a hazard which, if not avoided, *might* result in minor or moderate injury. **CAUTION**, when used **without** the alert symbol, indicates a situation that could result in equipment damage. Follow safety messages to avoid or reduce the risk of injury or death.

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Hazard Symbols and Meanings



⚠ DANGER

Running generator gives off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide will cause nausea, fainting or death.

- Operate generator ONLY outdoors.
- Keep at least 2 feet of clearance on all sides of generator for adequate ventilation.
- DO NOT operate generator inside any building or enclosure, including the generator compartment of a recreational vehicle (RV).

⚠ DANGER

Generator produces powerful voltage.

Failure to isolate generator from power utility can result in death or injury to electric utility workers due to backfeed of electrical energy.

- When using generator for backup power, notify utility company. Use approved transfer equipment to isolate generator from electric utility.
- Use a ground circuit fault interrupter (GFCI) in any damp or highly conductive area, such as metal decking or steel work.
- DO NOT touch bare wires or receptacles.
- DO NOT use generator with electrical cords which are worn, frayed, bare or otherwise damaged.
- DO NOT operate generator in the rain.
- DO NOT handle generator or electrical cords while standing in water, while barefoot, or while hands or feet are wet.
- DO NOT allow unqualified persons or children to operate or service generator.

⚠ DANGER

Storage batteries give off explosive hydrogen gas during recharging.

Hydrogen gas stays around battery for a long time after battery has been charged.

Slightest spark will ignite hydrogen and cause explosion.

You can be blinded or severely injured.

Battery electrolyte fluid contains acid and is extremely caustic.

Contact with battery fluid will cause severe chemical burns.

- DO NOT allow any open flame, spark, heat, or lit cigarette during and for several minutes after charging a battery.
- Wear protective goggles, rubber apron, and rubber gloves.

⚠ WARNING

Fuel and its vapors are extremely flammable and explosive.

Fire or explosion can cause severe burns or death.

WHEN ADDING FUEL

- Turn generator OFF and let it cool at least 2 minutes before removing gas cap. Loosen cap slowly to relieve pressure in tank.
- Fill fuel tank outdoors.
- DO NOT overfill tank. Allow space for fuel expansion.
- Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources.
- DO NOT light a cigarette or smoke.

WHEN OPERATING EQUIPMENT

- DO NOT tip engine or equipment at angle which causes fuel to spill.
- This generator is not for use in mobile equipment or marine applications.

WHEN TRANSPORTING OR REPAIRING EQUIPMENT

- Transport/repair with fuel tank EMPTY or with fuel shutoff valve OFF.
- Disconnect spark plug wire.

WHEN STORING FUEL OR EQUIPMENT WITH FUEL IN TANK

- Store away from furnaces, stoves, water heaters, clothes dryers or other appliances that have pilot light or other ignition source because they can ignite fuel vapors.

⚠ WARNING

- This generator does not meet U. S. Coast Guard Regulation 33CFR-183 and should not be used on marine applications.
- Failure to use the appropriate U. S. Coast Guard approved generator could result in bodily injury and/or property damage.

⚠ WARNING

Unintentional sparking can result in fire or electric shock.

WHEN ADJUSTING OR MAKING REPAIRS TO YOUR GENERATOR

- Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact spark plug.

⚠ WARNING

Running engines produce heat. Temperature of muffler and nearby areas can reach or exceed 150°F (65°C).

Severe burns can occur on contact.

- DO NOT touch hot surfaces.
- Allow equipment to cool before touching.

⚠ CAUTION

Excessively high operating speeds increase risk of injury and damage to generator.

Excessively low speeds impose a heavy load.

- DO NOT tamper with governed speed. Generator supplies correct rated frequency and voltage when running at governed speed.
- DO NOT modify generator in any way.

CAUTION

Exceeding generators wattage/amperage capacity can damage generator and/or electrical devices connected to it.

- See "Don't Overload Generator" on page 12.
- Start generator and let engine stabilize before connecting electrical loads.
- Connect electrical loads in OFF position, then turn ON for operation.
- Turn electrical loads OFF and disconnect from generator before stopping generator.

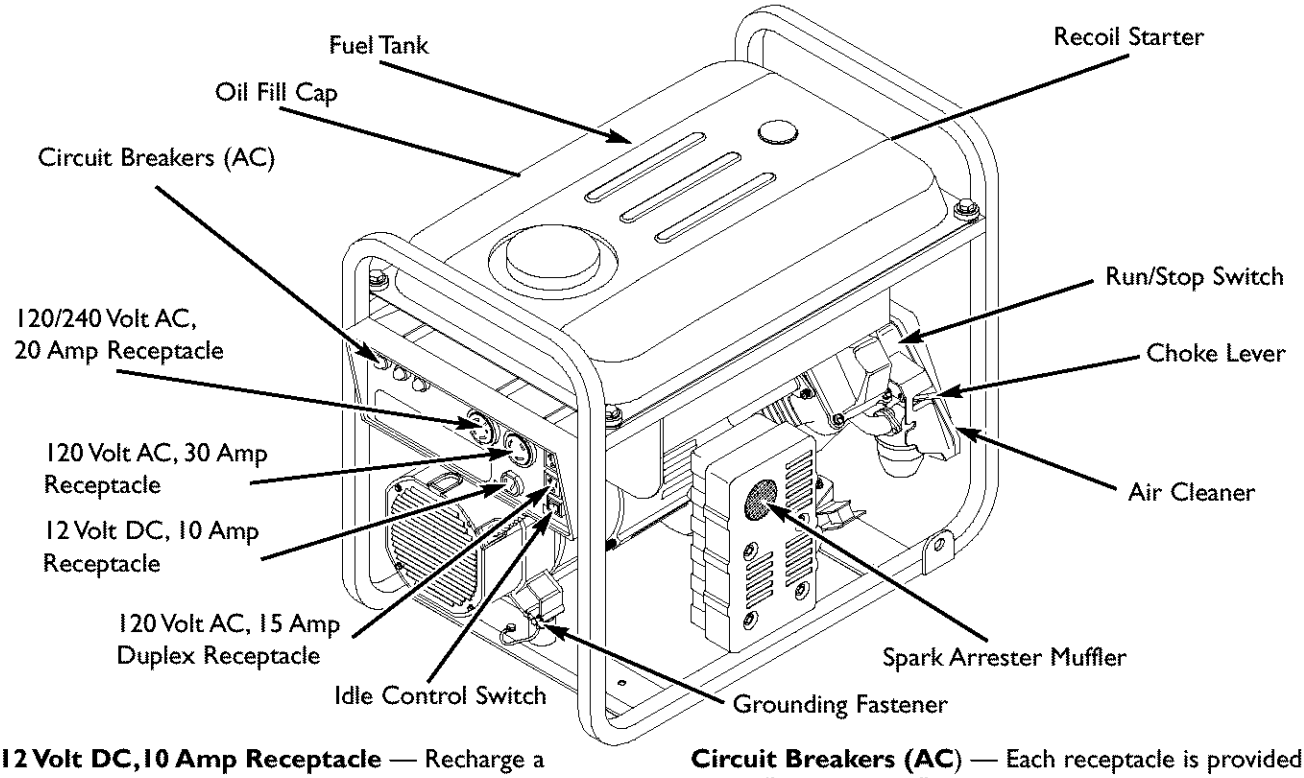
CAUTION

Improper treatment of generator can damage it and shorten its life.

- Use generator only for intended uses.
- If you have questions about intended use, ask dealer or call 1-800-270-1408.
- Operate generator only on level surfaces.
- DO NOT expose generator to excessive moisture, dust, dirt, or corrosive vapors.
- DO NOT insert any objects through cooling slots.
- If connected devices overheat, turn them off and disconnect them from generator.
- Shut off generator if:
  - -electrical output is lost;
  - -equipment sparks, smokes, or emits flames;
  - -unit vibrates excessively.

KNOW YOUR GENERATOR

Read this owner's manual and safety rules before operating your generator.
Compare the illustrations with your generator, to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



12 Volt DC,10 Amp Receptacle — Recharge a discharged 12 Volt automotive type battery through this receptacle.

120 Volt AC, 15 Amp Duplex Receptacle — May be used to supply electrical power for the operation of 120 Volt AC, 15 Amp, single phase, 60 Hz electrical lighting, appliance, tool and motor loads.

120 Volt AC, 30 Amp Receptacle — May be used to supply electrical power for the operation of 120 Volt AC, 30 Amp, single phase, 60 Hz electrical lighting, appliance, tool and motor loads.

120/240 Volt AC, 20 Amp Receptacle — May be used to supply electrical power for the operation of 120 and/or 240 Volt AC, 20 Amp, single phase, 60 Hz electrical lighting, appliance, tool and motor loads.

Air Cleaner — Uses a dry type filter element and foam pre–cleaner to limit the amount of dirt and dust sucked into the engine.

Choke Lever — Used when starting a cold engine.

Circuit Breakers (AC) — Each receptacle is provided with a "push to reset" circuit breaker to protect the generator against electrical overload.

Fuel Tank — Capacity of 4.5 U.S. gallons.

Grounding Fastener — If required, please consult a qualified electrician, electrical inspector, or the local agency having jurisdiction.

Idle Control Switch — With this switch set to ON, printed circuit board in control panel automatically reduces engine speed when no load is connected and increases engine to proper speed when load is applied. However, be sure switch is OFF when starting engine.

Oil Fill Cap — Add oil to engine here.

Recoil starter — Used to start the engine manually.

Run/Stop Switch — Set this switch to "**Run**" before using recoil starter. Set switch to "**Stop**" to switch OFF engine.

Spark Arrester Muffler — Exhaust muffler lowers engine noise and is equipped with a spark arrester screen.

ASSEMBLY

Your generator requires some assembly and is ready for use after it has been properly serviced with the recommended oil and fuel.

If you have any problems with the assembly of your generator, please call the generator helpline at 1-800-270-1408.

Remove Generator From Carton

1. Set carton on a rigid flat surface with "This Side Up" arrows pointing upward.
2. Carefully open top flaps of shipping carton. Review "Cold Weather Operation" on page 10.
3. Cut down corners at one end of carton from top to bottom and lay that side of carton down flat.
4. Remove all packing material, carton fillers, etc.
5. Remove generator from shipping carton.

Install Wheel Kit

To install the wheel kit, the following tools are required:

- Socket wrench with 1/2" or 13mm sockets
- Needle-nose pliers

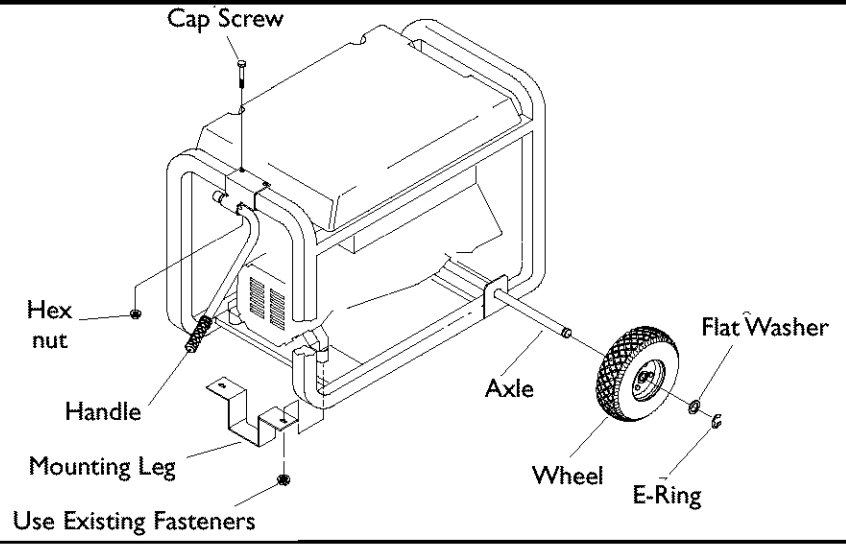
Install Wheel Kit as follows: (See Figure 1)

1. Place bottom of the generator cradle on a flat, even surface. Temporarily place unit on blocks to ease assembly.
2. Slide axle through both axle mounting brackets on cradle frame, as shown.
3. Slide wheel over axle.

NOTE: Be sure to install both wheels with air pressure valve on outboard side.

4. Retain wheel on axle with e-ring using a needle-nose pliers. You may add the flat washer if desired.
5. Repeat step 3 and 4 to secure second wheel.

Figure 1 — Install Wheel Kit



6. Remove existing hardware from vibration mounts with 13mm wrench. Use same hardware to attach mounting leg.
7. Remove temporary blocks.
8. Center handle bracket on generator frame at control panel end of cradle.
9. Attach handle bracket with two cap screws and two hex nuts. Use two 13 mm wrenches to tighten hardware.
10. Check that all fasteners are tight and tires are inflated between 15-40 PSI.

BEFORE STARTING ENGINE

Add Engine Oil and Fuel

- Place generator on a level surface.

CAUTION

Any attempt to crank or start the engine before it has been properly filled with the recommended oil will result in equipment failure.

- Refer to engine manual for oil and fuel fill information.
- Damage to equipment resulting from failure to follow this instruction will void warranty.

- Refer to engine owner's manual and follow oil and fuel recommendations and instructions.

NOTE: Check oil often during engine break–in. Refer to engine owner's manual for recommendations.

NOTE: The generator assembly rotates on a prelubricated and sealed ball bearing that requires no additional lubrication for the life of the bearing.

USING THE GENERATOR

System Ground

The generator has a system ground that connects the generator frame components to the ground terminals on the AC output receptacles. The system ground is connected to the AC neutral wire (the neutral is bonded to the generator frame).

Special Requirements

There may be Federal or State Occupational Safety and Health Administration (OSHA) regulations, local codes, or ordinances that apply to the intended use of the generator. Please consult a qualified electrician, electrical inspector, or the local agency having jurisdiction.

- In some areas, generators are required to be registered with local utility companies.
- If the generator is used at a construction site, there may be additional regulations which must be observed.

Connecting to a Building's Electrical System

Connections for standby power to a building's electrical system must be made by a qualified electrician. The connection must isolate the generator power from utility power, and must comply with all applicable laws and electrical codes.

⚠ DANGER

Generator produces powerful voltage. Failure to isolate generator from power utility can result in death or injury to electric utility workers due to backfeed of electrical energy.

- When using generator for backup power, notify utility company. Use approved transfer equipment to isolate generator from electric utility.
- Use a ground fault circuit interrupter (GFCI) in any damp or highly conductive area, such as metal decking or steel work.
- DO NOT touch bare wires or receptacles.
- DO NOT use generator with electrical cords which are worn, frayed, bare or otherwise damaged.
- DO NOT operate generator in the rain.
- DO NOT handle generator or electrical cords while standing in water, while barefoot, or while hands or feet are wet.
- DO NOT allow unqualified persons or children to operate or service generator.

OPERATING THE GENERATOR

CAUTION

Exceeding generators wattage/amperage capacity can damage generator and/or electrical devices connected to it.

- See "Don't Overload Generator" on page 12.
- Start generator and let engine stabilize before connecting electrical loads.
- Connect electrical loads in OFF position, then turn ON for operation.
- Turn electrical loads OFF and disconnect from generator before stopping generator.

Starting the Engine

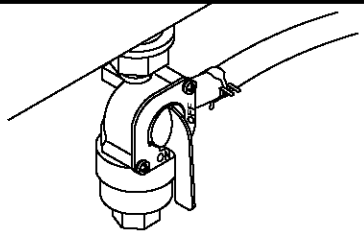
Disconnect all electrical loads from the generator. Follow these start instruction steps in numerical order:

1. Make sure unit is on a level surface.

IMPORTANT: Failure to start and operate unit on a level surface will cause the unit not to start or shut down during operation.

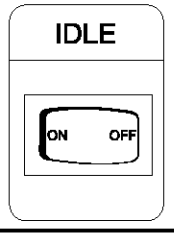
2. Turn fuel valve to "**On**" position (Figure 2).

Figure 2 — Fuel Shut-off Valve



3. Make sure Idle Control switch is in "**Off**" position (Figure 3).

Figure 3 — Idle Control Switch



3. Start engine according to instructions given in engine owner's manual.

NOTE: If engine still fails to start after 3 pulls, check for proper oil level in crankcase. This unit is equipped with a Low Oil Shutdown System. See engine manual.

Connecting Electrical Loads

- Let engine stabilize and warm up for a few minutes after starting.
- Plug in and turn on the desired 120 and/or 240 Volt AC, single phase, 60 Hz electrical loads.
- DO NOT connect 240 Volt loads to the 120 Volt receptacles.
- DO NOT connect 3–phase loads to the generator.
- DO NOT connect 50 Hz loads to the generator.
- **DO NOT OVERLOAD THE GENERATOR.** See "Don't Overload Generator" on page 12.

Stopping the Engine

1. Unplug **ALL** electrical loads from generator panel receptacles. NEVER start or stop engine with electrical devices plugged in and turned **ON**.
2. Move idle control switch to "**Off**" position.
3. Let engine run at no-load for several minutes to stabilize internal temperatures of engine and generator.
4. Turn engine off according to instructions given in the engine owner's manual.
5. Move fuel valve to "**Off**" position.

Operating Automatic Idle Control

This switch is designed to greatly improve fuel economy. **When this switch is turned ON**, the engine will only run at its normal high governed engine speed when electrical loads are connected. When an electrical load is removed, the engine will run at a reduced speed.

With the switch off, the engine will run at the normal high engine speed. **Always have the switch off when starting and stopping the engine.**

Charging a Battery

Your generator has the capability of recharging a discharged 12 Volt automotive or utility style storage battery. DO NOT use the unit to charge any 6 Volt batteries. DO NOT use the unit to crank an engine having a discharged battery.

⚠ DANGER

Storage batteries give off explosive hydrogen gas during recharging.
Hydrogen gas stays near battery for a long time after battery has been charged.
Slightest spark will ignite hydrogen and cause explosion.
You can be blinded or severely injured.

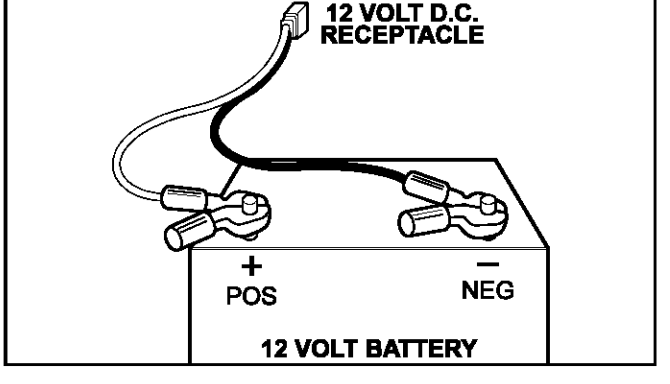
Battery electrolyte fluid contains acid and is extremely caustic.
Contact with battery fluid will cause severe chemical burns.

- DO NOT allow any open flame, spark, heat, or lit cigarette during and for several minutes after charging a battery.
- Wear protective goggles, rubber apron, and rubber gloves.

To recharge 12 Volt batteries, proceed as follows:

1. Check fluid level in all battery cells. If necessary, add ONLY distilled water to cover separators in battery cells. **DO NOT use tap water.**
2. If battery is equipped with vent caps, make sure they are installed and are tight.
3. If necessary, clean battery terminals.
4. Connect battery charge cable connector plug to panel receptacle identified by the words "12-VOLTS D.C.".
5. Connect battery charge cable clamp with **red** handle to the **positive (+)** battery terminal (Figure 4).

Figure 4 — Battery Connections



6. Connect battery charge cable clamp with **black** handle to the **negative (–)** battery terminal (Figure 4).
7. Start engine. Let engine run while battery recharges.
8. When battery has charged, shut down engine

NOTE: Use an automotive hydrometer to test battery state of charge and condition. Follow the hydrometer manufacturer's instructions carefully. Generally, a battery is considered to be at 100% state of charge when specific gravity of its fluid (as measured by hydrometer) is 1.260 or higher.

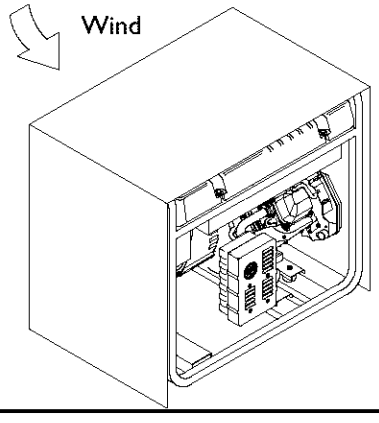
COLD WEATHER OPERATION

Under certain weather conditions (temperatures below 40°F [4°C] and a high dew point), your generator may experience icing of the carburetor and/or the crankcase breather system.

Build a structure that will enclose three sides and the top of the generator:

1. Make sure entire muffler-side of generator is exposed. Note that your generator may appear different from that shown in Figure 5.

Figure 5 — Temporary Cold Weather Shelter



2. Ensure a minimum of two feet clearance between open side of box and nearest object.
3. Face exposed end away from wind and elements.
4. Enclosure should hold enough heat created by generator to prevent problems.

⚠ DANGER

Running generator gives off carbon monoxide, an odorless, colorless, poison gas.

Breathing carbon monoxide will cause nausea, fainting or death.

- Operate generator ONLY outdoors.
- Keep at least 2 feet of clearance on all sides of generator for adequate ventilation.
- DO NOT operate generator inside any building or enclosure, including the generator compartment of a recreational vehicle (RV).
- Remove generator from shelter when temperature is above 40°F [4°C].

RECEPTACLES

⚠ CAUTION

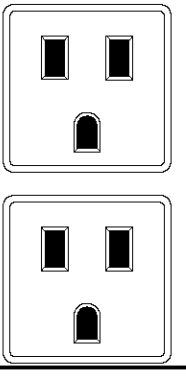
Receptacles may be marked with rating value greater than generator output capacity.

- NEVER attempt to power a device requiring more amperage than generator or receptacle can supply.
- DO NOT overload the generator. See "Don't Overload Generator".

120 Volt AC, 15 Amp Receptacles

Each of these outlets is protected against overload by 15 Amp push-to-reset type circuit breakers (Figure 6).

Figure 6 — 120 Volt AC, 15 Amp Duplex Receptacle

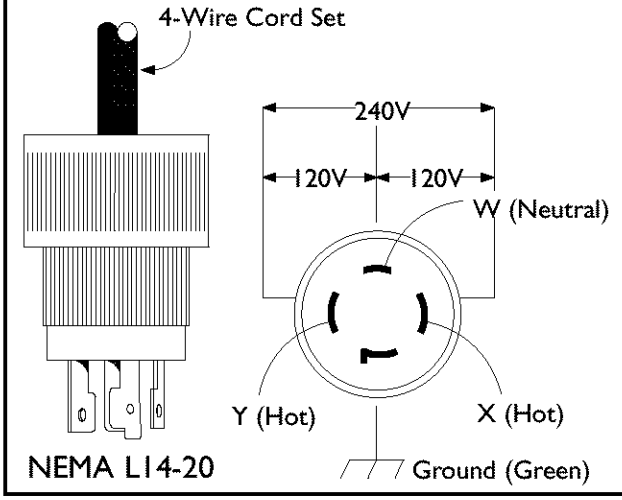


Use each outlet to operate 120 Volt, 60 Hz, single phase loads requiring 1,800 (1.8 kW) watts at 15 Amps of current.

120/240 Volt AC, 20 Amp Locking Receptacle

Use a NEMA L14-20 plug with this receptacle. Connect a 4-wire cord set rated for 250 Volts at 20 Amps (or greater) (Figure 7). You can use the same 4-wire cord if you plan to run a 120 Volt load.

Figure 7 — 120/240 Volt AC, 20 Amp Receptacle

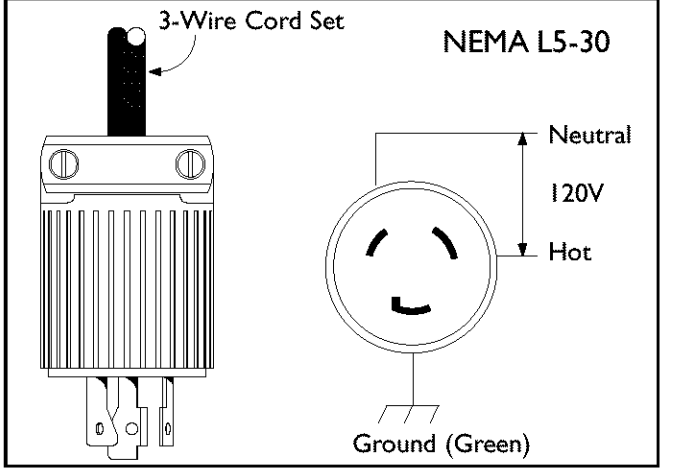


This receptacle powers 120/240 Volt AC, 60 Hz, single phase loads requiring up to 2,400 watts of power at 20 Amps for 120 Volts; 4,000 watts of power (4.0 kW) at 16.7 Amps for 240 Volts. The outlet is protected by a 20 Amp push-to-reset circuit breaker.

120 Volt AC, 30 Amp Locking Receptacle

Use a NEMA L5-30 plug with this receptacle. Connect a 3-wire cord set rated for 125 Volts AC at 30 Amps to the plug (Figure 8).

Figure 8 — 120 Volt AC, 30 Amp, Locking Receptacle

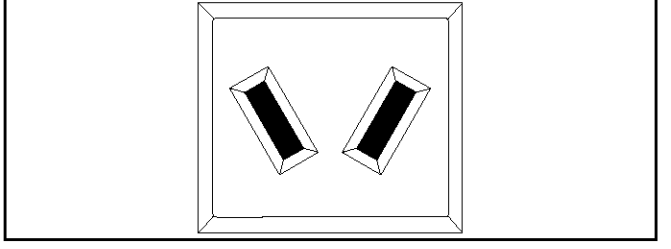


Use this receptacle to operate 120 Volt AC, 60 Hz, single phase loads requiring up to 3,600 watts (3.6 kW) of power at 30 Amps. The outlet is protected by a 30 Amp push-to-reset circuit breaker.

12 Volt DC, 10 Amp Receptacle

This receptacle (Figure 9) allows you to recharge a 12 Volt automotive or utility style storage battery with the battery charge cables provided.

Figure 9 — 12 Volt DC, 10 Amp Receptacle



This receptacle can not recharge 6 Volt batteries and can not be used to crank an engine having a discharged battery. See "Charging a Battery" on page 9 before attempting to recharge a battery. This outlet is protected by a 10 Amp self resetting circuit breaker.

DON'T OVERLOAD YOUR GENERATOR

Capacity

You must make sure your generator can supply enough rated (running) and surge (starting) watts for the items you will power at the same time. Follow these simple steps:

1. Select the items you will power at the same time.
2. Total the rated (running) watts of these items. This is the amount of power your generator must produce to keep your items running. See Figure 10.
3. Estimate how many surge (starting) watts you will need. Surge wattage is the short burst of power needed to start electric motor-driven tools or appliances such as a circular saw or refrigerator. Because not all motors start at the same time, total surge watts can be estimated by adding only the item(s) with the highest additional surge watts to the total rated watts from step 2.

Example:

Tool or Appliance	Rated (Running) Watts	Additional Surge (Starting) Watts
Window Air Conditioner	1200	1800
Refrigerator	800	1600
Deep Freezer	500	500
Television	500	-
Light (75 Watts)	75	-
	3075 Total Running Watts	1800 Highest Surge Watts

Total Rated (Running) Watts = 3075
Highest Additional Surge Watts = 1800
Total Generator Output Required = 4875

Power Management

To prolong the life of your generator and attached devices, it is important to take care when adding electrical loads to your generator. There should be nothing connected to the generator outlets before starting it's engine. The correct and safe way to manage generator power is to sequentially add loads as follows:

1. With nothing connected to the generator, start the engine as described in this manual.
2. Plug in and turn on the first load, preferably the largest load you have.
3. Permit the generator output to stabilize (engine runs smoothly and attached device operates properly.
4. Plug in and turn on the next load.
5. Again, permit the generator to stabilize.
6. Repeat steps 4 and 5 for each additional load.

NEVER add more loads than the generator capacity. Take special care to consider surge loads in generator capacity, as described above.

Figure 10 - Wattage Reference Chart

Tool or Appliance	Rated* (Running) Watts	Additional Surge (Starting) Watts
Essentials		
Light Bulb - 75 watt	75	-
Deep Freezer	500	500
Sump Pump	800	1200
Refrigerator/Freezer - 18 Cu. Ft.	800	1600
Water Well Pump - 1/3 HP	1000	2000
Heating/Cooling		
Window AC - 10,000 BTU	1200	1800
Window Fan	300	600
Furnace Fan Blower - 1/2 HP	800	1300
Kitchen		
Microwave Oven - 1000 Watt	1000	-
Coffee Maker	1500	-
Electric Stove - Single Element	1500	-
Hot Plate	2500	-
Family Room		
DVD/CD Player	100	-
VCR	100	-
Stereo Receiver	450	-
Color Television - 27"	500	-
Personal Computer w/17" monitor	800	-
Other		
Security System	180	-
AM/FM Clock Radio	300	-
Garage Door Opener - 1/2 HP	480	520
Electric Water Heater - 40 Gallon	4000	-
DIY/Job Site		
Quartz Halogen Work Light	1000	-
Airless Sprayer - 1/3 HP	600	1200
Reciprocating Saw	960	960
Electric Drill - 1/2 HP	1000	1000
Circular Saw - 7 1/4"	1500	1500
Miter Saw - 10"	1800	1800
Planer/Jointer - 6"	1800	1800
Table Saw/Radial Arm Saw - 10"	2000	2000
Air Compressor - 1-1/2 HP	2500	2500

*Wattages listed are approximate only. Check tool or appliance for actual wattage.

SPECIFICATIONS

Maximum Surge Watts	6,600 watts
Continuous Wattage Capacity	4,000 watts
Power Factor	1.0
Rated Maximum Continuous AC Load Current:	
At 120 Volts	33.3 Amps
At 240 Volts	16.7 Amps
Phase	1–phase
Rated Frequency	60 Hertz
Fuel Tank Capacity	4 U.S. gallons
Shipping Weight	134 lbs.

GENERAL MAINTENANCE RECOMMENDATIONS

The Owner/Operator is responsible for making sure that all periodic maintenance tasks are completed on a timely basis; that all discrepancies are corrected; and that the unit is kept clean and properly stored. **NEVER operate a damaged or defective generator.**

Engine Maintenance

See engine owner's manual for instructions.

⚠ CAUTION

Avoid prolonged or repeated skin contact with used motor oil.

- Used motor oil has been shown to cause skin cancer in certain laboratory animals.
- Thoroughly wash exposed areas with soap and water.

KEEP OUT OF REACH OF CHILDREN. DON'T POLLUTE. CONSERVE RESOURCES. RETURN USED OIL TO COLLECTION CENTERS.

Generator Maintenance

Generator maintenance consists of keeping the unit clean and dry. Operate and store the unit in a clean dry environment where it will not be exposed to excessive dust, dirt, moisture or any corrosive vapors. Cooling air slots in the generator must not become clogged with snow, leaves or any other foreign material.

NOTE: DO NOT use a garden hose to clean generator. Water can enter engine fuel system and cause problems. In addition, if water enters generator through cooling air slots, some of the water will be retained in voids and cracks of the rotor and stator winding insulation. Water and dirt buildup on the generator internal windings will eventually decrease the insulation resistance of these windings.

⚠ WARNING

Unintentional sparking can result in fire or electric shock.

WHEN ADJUSTING OR MAKING REPAIRS TO YOUR GENERATOR

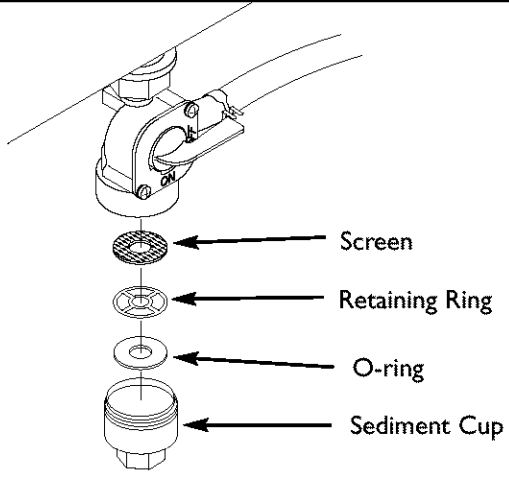
- Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact spark plug.

Fuel Valve Maintenance

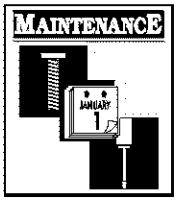
The fuel valve is equipped with a fuel sediment cup, screen, retaining ring and o-ring that need to be cleaned every 6 months or 100 hours (whichever occurs first).

1. Move fuel valve to "**Off**" position.
2. Remove sediment cup from fuel valve. Remove o-ring, retaining ring and screen from fuel valve (Figure 11).

Figure 11 — Fuel Valve Maintenance



3. Wash sediment cup, o-ring, retaining ring, and screen in a nonflammable solvent. Dry them thoroughly.
4. Place screen, retaining ring, and o-ring into fuel valve. Install sediment cup and tighten securely.



5. Move fuel valve to "**On**" position, and check for leaks. Replace o-ring if there is any leakage.

Generator Cleaning

- Use a damp cloth to wipe exterior surfaces clean.

CAUTION

Improper treatment of generator can damage it and shorten its life.

- DO NOT expose generator to excessive moisture, dust, dirt, or corrosive vapors.
- DO NOT insert any objects through cooling slots.

- Use a soft bristle brush to loosen caked on dirt or oil.
- Use a vacuum cleaner to pick up loose dirt and debris.
- Use low pressure air (not to exceed 25 psi) to blow away dirt. Inspect cooling air slots and opening on generator. These openings must be kept clean and unobstructed.

STORAGE

The generator should be started at least once every seven days and allowed to run at least 30 minutes. If this cannot be done and you must store the unit for more than 30 days, use the following guidelines to prepare it for storage.

Generator Storage

- Clean the generator as outlined in "Generator Cleaning".
- Check that cooling air slots and openings on generator are open and unobstructed.

WARNING

Storage covers can be flammable.

- DO NOT place a storage cover over a hot generator.
- Let equipment cool for a sufficient time before placing the cover on the equipment.

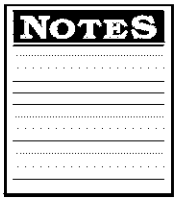
Engine Storage

See engine owner's manual for instructions.

Other Storage Tips

- To prevent gum from forming in fuel system or on essential carburetor parts, add fuel stabilizer into fuel tank and fill with fresh gasoline. Run the unit for several minutes to circulate the additive through the carburetor. The unit and fuel can then be stored for up to 24 months. Fuel stabilizer can be purchased locally.
- DO NOT store gasoline from one season to another unless it has been treated as described above.
- Replace fuel container if it starts to rust. Rust and/or dirt in fuel can cause problems if it's used with this unit.
- Store in clean and dry area.

NOTES

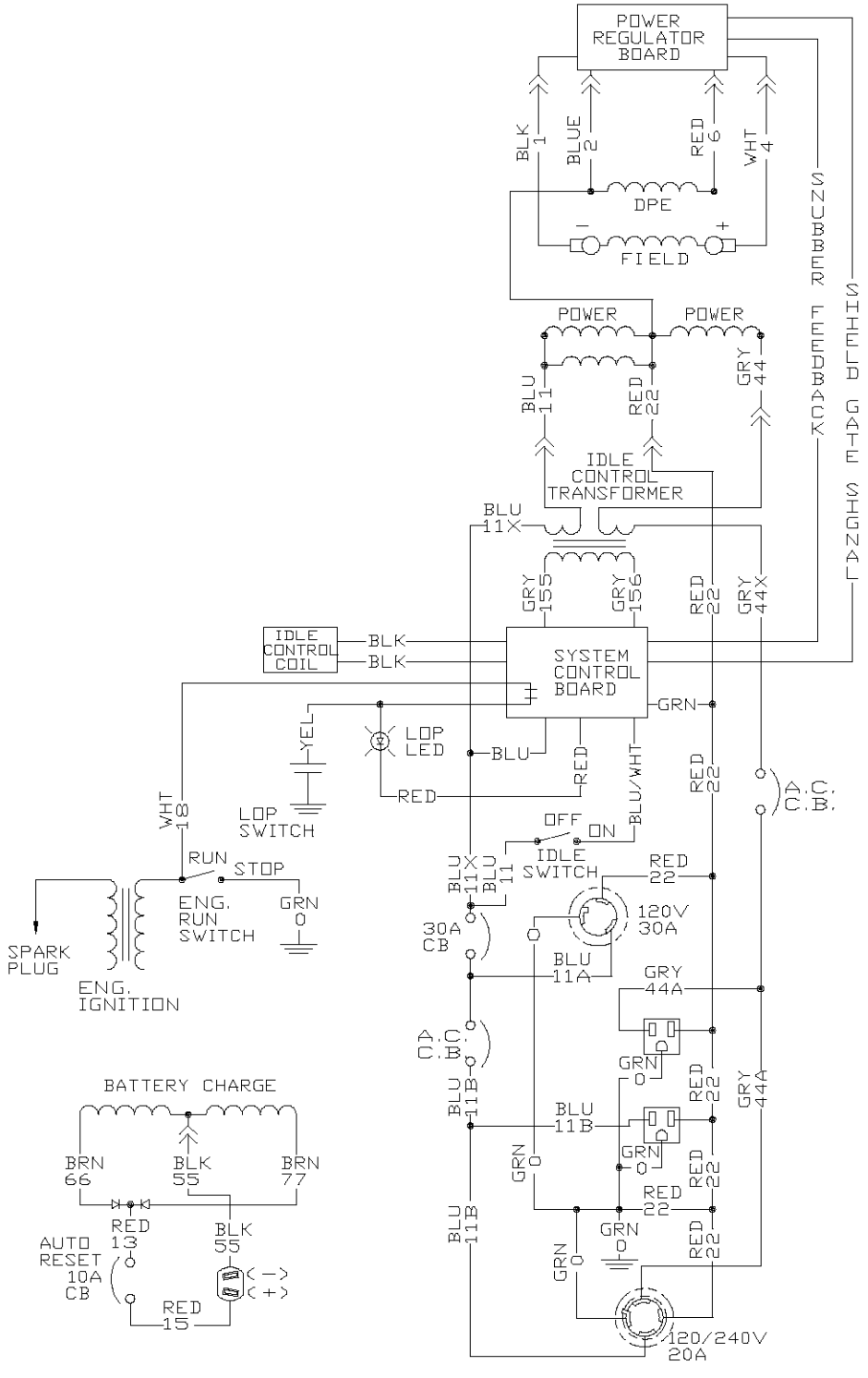


NOTES

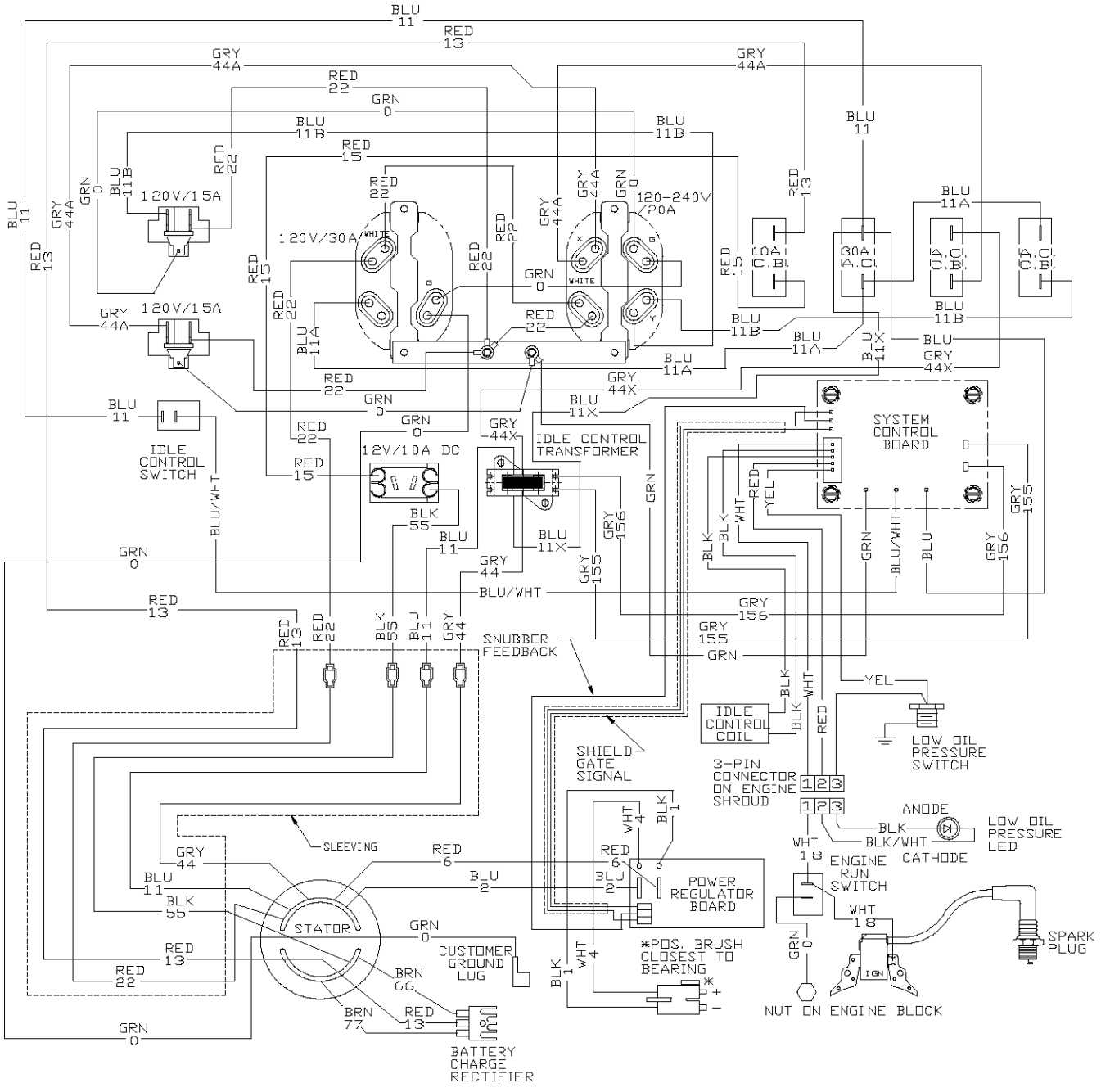
TROUBLESHOOTING

Problem	Cause	Correction
No AC output is available, but generator is running.	1. One of the circuit breakers is open. 2. Fault in generator. 3. Poor connection or defective cord set. 4. Connected device is bad.	1. Reset circuit breaker. 2. Contact Authorized service facility. 3. Check and repair. 4. Connect another device that is in good condition.
Generator runs good at no-load but "bogs" down" when loads are connected.	1. Short circuit in a connected load. 2. Generator is overloaded. 3. Shorted generator circuit.	1. Disconnect shorted electrical load. 2. See "Don't Overload Generator". 3. Contact Authorized service facility.
Generator will not start; or starts and runs rough.	Low oil level.	Fill crankcase to proper level or place generator on level surface.
Generator shuts down during operation.	1. Out of gasoline. 2. Low oil level.	1. Fill fuel tank. 2. Fill crankcase to proper level or place generator on level surface.
Generator lacks power.	Load is too high.	See "Don't Overload Generator".

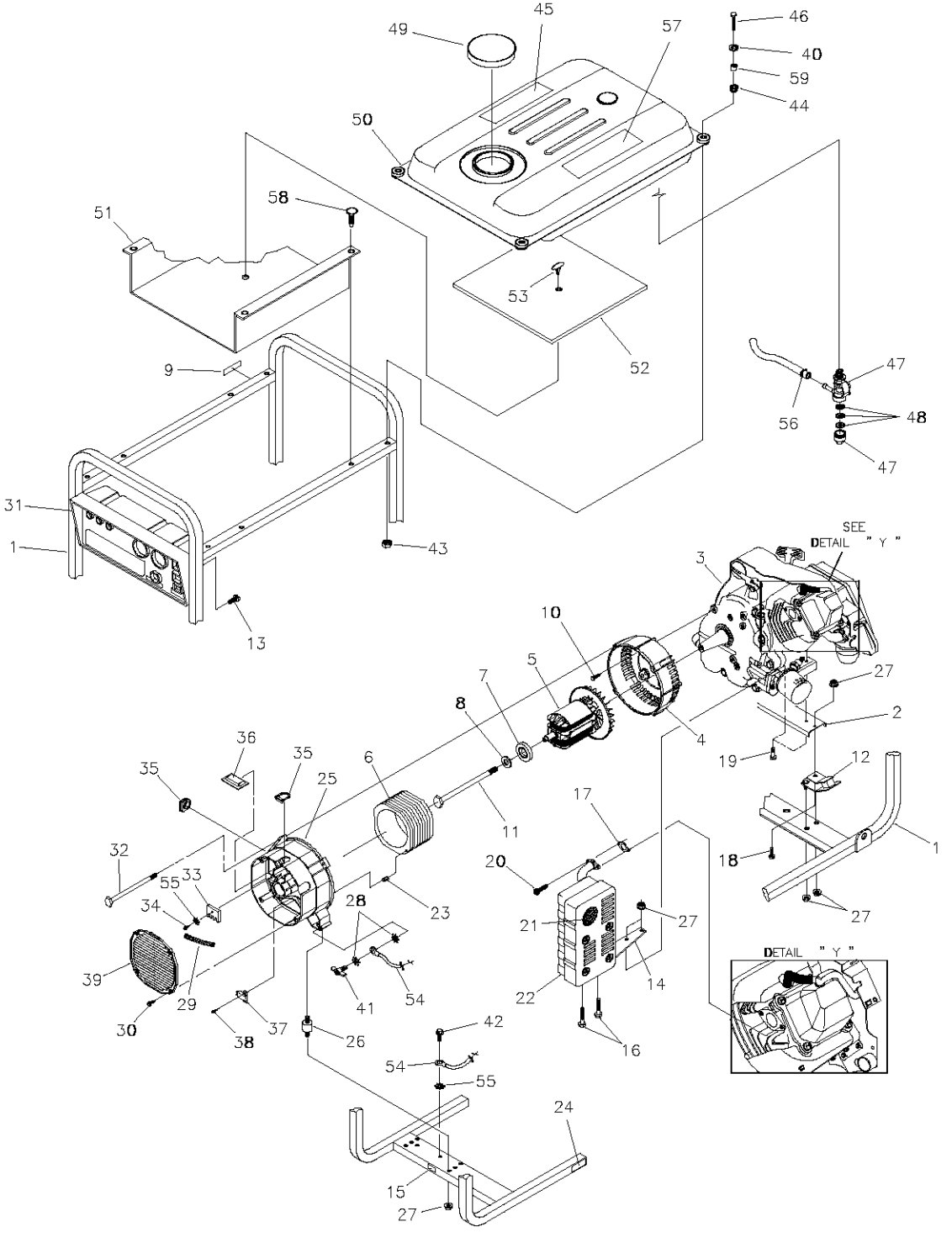
SCHEMATIC


POWER REGULATOR BOARD
BLK 1
BLUE 2
RED 6
WHT 4
DPE
FIELD
POWER
POWER
BLU 11
RED 22
GRY 44
IDLE CONTROL TRANSFORMER
BLU 11X
GRY 155
GRY 156
RED 22
GRY 44X
IDLE CONTROL COIL
BLK
BLK
SYSTEM CONTROL BOARD
GRN
YEL
LOP LED
BLU
RED
BLU/WHT
RED 22
WHT 18
LOP SWITCH
OFF
ON
IDLE SWITCH
RUN
STOP
ENG. RUN SWITCH
GRN 0
SPARK PLUG
ENG. IGNITION
BLU 11X
BLU 11
RED 22
30A CB
120V 30A
BLU 11A
GRY 44A
BLU 11B
GRN 0
BATTERY CHARGE
BRN 66
BLK 55
BRN 77
RED 13
BLK 55
AUTO RESET 10A CB
RED 15
120/240V 20A

WIRING DIAGRAM



EXPLODED VIEW – MAIN UNIT



PARTS LIST – MAIN UNIT

Item	Part #	Description
1	M189159GS	CRADLE
2	M84021GS	SUPPORT, Engine, Red
3	NSP	ENGINE
4	66365GS	HOUSING, Engine Adapter
5	84141JGS	ASSY, Rotor (Includes Item 7)
6	83540JGS	ASSY, Stator
7	65791GS	BEARING
8	96796GS	WASHER
9	73054GS	DECAL, Fuel Shut Off
10	86307GS	SCREW
11	47480GS	SCREW
12	84508GS	MOUNT, Vibration
13	B2153GS	SCREW
14	83208GS	BRACKET, Muffler
15	B4986GS	DECAL, Ground
16	66476GS	SCREW
17	89476GS	GASKET, Exhaust
18	70644GS	SCREW
19	84346GS	SCREW
20	40976GS	SCREW
21	83083GS	SCREEN, Spark Arrest
22	83071GS	MUFFLER
23	81917GS	PIN, Roll
24	77816GS	DECAL, Caution Hot Muffler
25	SRV66825DGS	CARRIER, Rear Bearing
26	85652GS	MOUNT, Vibration
27	67989GS	NUT
28	26850GS	WASHER
29	84409GS	SLEEVING, Flexo
30	74908GS	SCREW
31	87116GS	ASSY, Control Panel (see page 22)
32	86308GS	BOLT
33	65795GS	RECTIFIER, Battery Charge
34	66849AGS	SCREW
35	67022GS	GROMMET, Rubber
36	84132GS	ASSY, Drive Module Pwr Reg.
37	66386GS	ASSY, Brush Holder
38	66849GS	SCREW
39	B4871GS	COVER, Bearing Carrier
40	22145GS	WASHER
41	86494GS	SCREW, Wing
42	86292GS	SCREW
43	52858GS	NUT, Lock
44	189134GS	GROMMET, Tank
45	93826GS	DECAL, Operating Instructions
46	51731GS	SCREW
47	189133GS	VALVE, Tank (Includes Item 48)
48	189759GS	KIT, Fuel Valve Repair
49	189135GS	CAP, Tank Fuel, Vented
50	193574GS	ASSY, Tank, Fuel (Includes Items 47 & 48)
51	J84042GS	SHIELD, Heat
52	84687GS	INSULATION
53	85000GS	CLIP, Insulation
54	14353621GS	WIRE, Ground
55	23762GS	WASHER
56	189568GS	CLAMP, Hose
57	92982GS	DECAL, Danger
58	B1797GS	CLIP, Tree
59	189137GS	SPACER

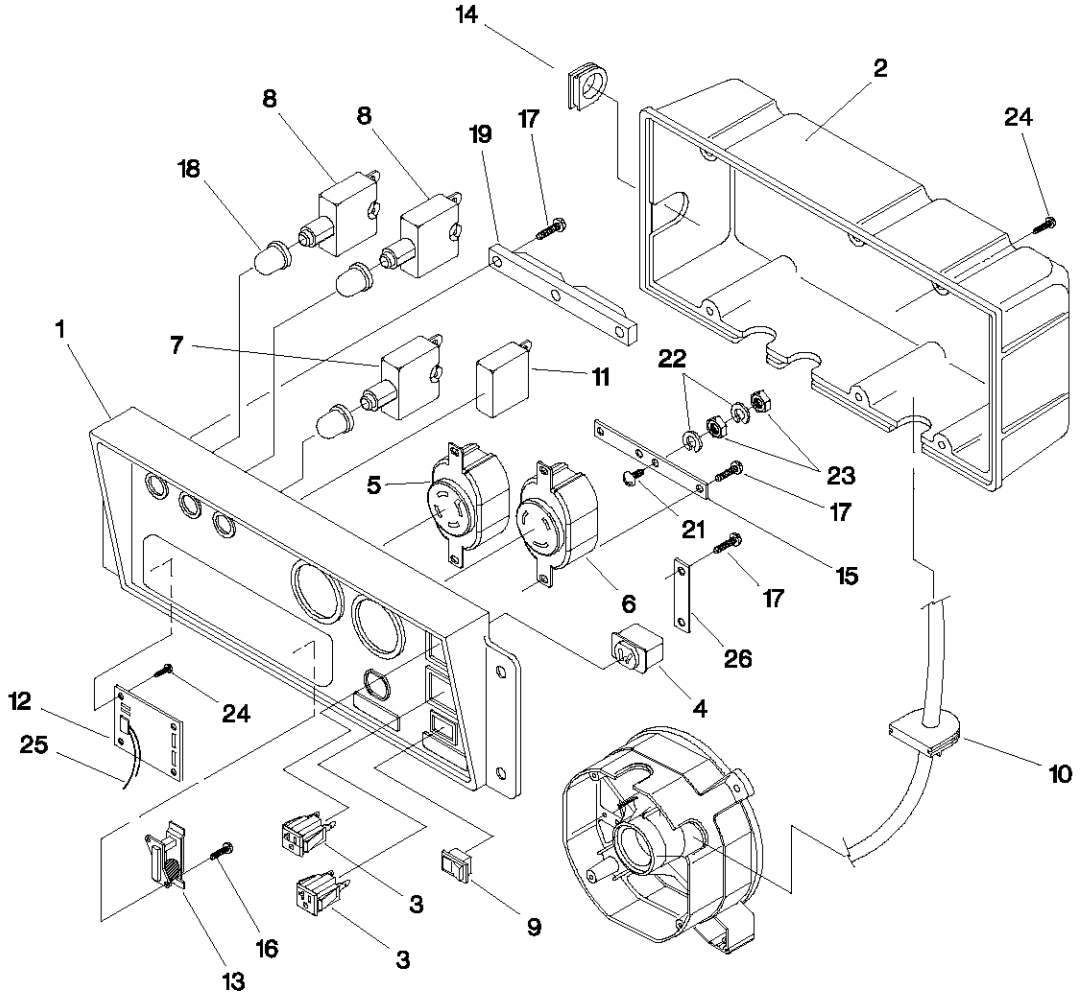
Items Not Shown:

BB3061GS	OIL BOTTLE
43483GS	PLUG, 250V 20A 4-Prong
37806GS	PLUG, 125V 30A 3-Prong
70185GS	OIL FILTER
78601GS	AIR CLEANER
65787GS	CABLE, Battery Charge
193524GS	MANUAL, Owners
A8926GS	MANUAL, Engine
84882GS	WRENCH, Spark Plug
72347GS	SPARK PLUG
84895GS	COVER, Storage
193575GS	KIT, Decals

Optional Accessories Not Included:

84883GS	Cord Wrap

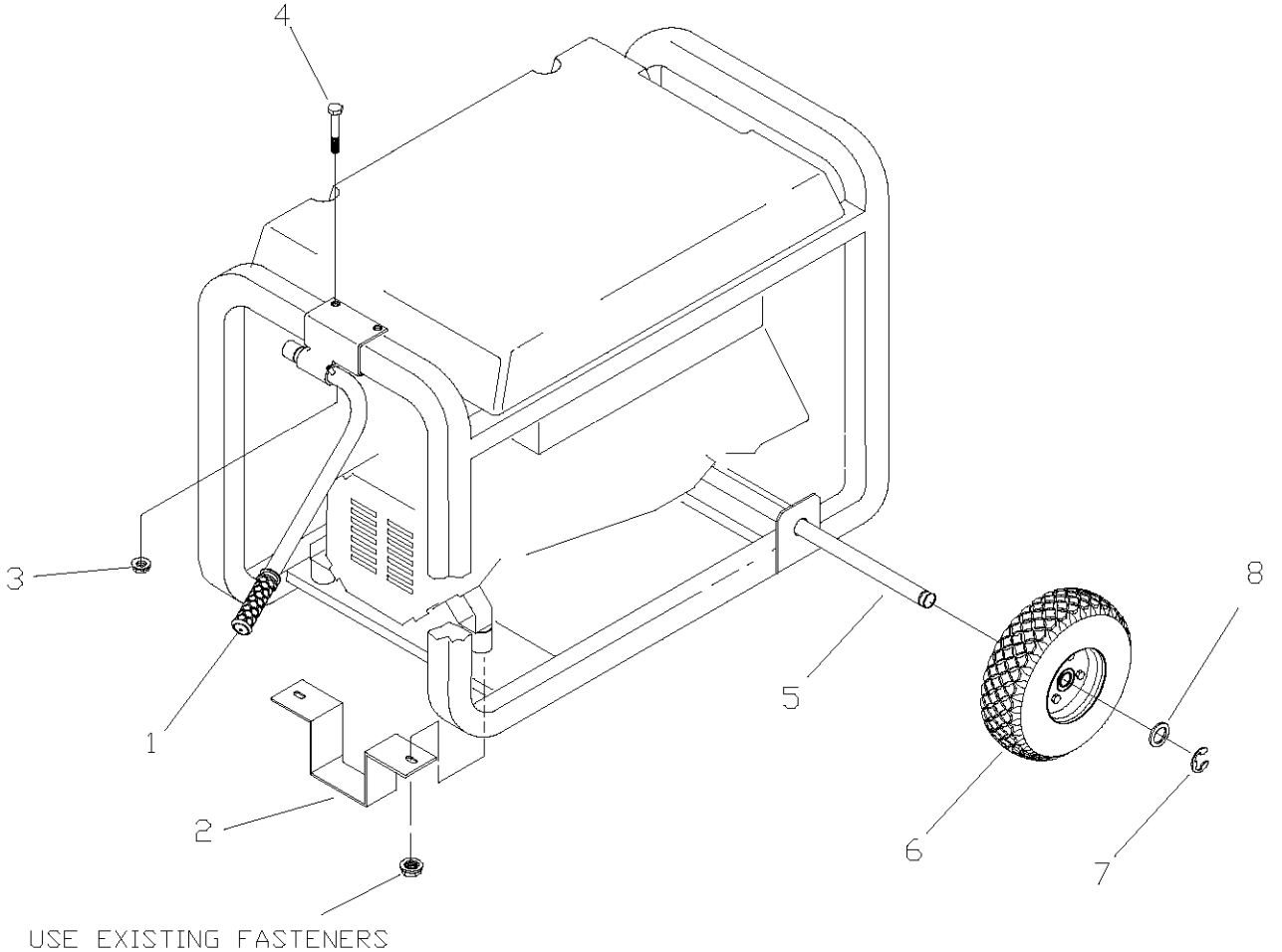
EXPLODED VIEW AND PARTS LIST – CONTROL PANEL



Item	Part #	Description
1	83976GS	PANEL, Control
2	83975GS	BOX, Control
3	66818GS	OUTLET, 120 V AC, 15 A Duplex
4	66821GS	OUTLET, 12 V DC
5	68867CGS	OUTLET, 120/240 V AC, 20 A Locking
6	68868CGS	OUTLET, 120 V AC, 30 A Locking
7	75207AGS	BREAKER, Circuit
8	75207GGS	BREAKER, Circuit
9	82538GS	SWITCH, On/Off Rocker
10	84134GS	GROMMET, Rubber
11	83514GS	BREAKER, Circuit
12	83970GS	CONTROL BOARD, System

Item	Part #	Description
13	84028GS	TRANSFORMER, Idle Control
14	67022GS	GROMMET, Rubber
15	85584GS	BAR, Bus
16	84543AGS	SCREW
17	84543CGS	SCREW
18	84198GS	SHIELD, Circuit Breaker
19	84197GS	BAR, Circuit Breaker Retaining
21	75476GS	SCREW
22	22264GS	WASHER, Lock
23	51715GS	NUT
24	84543BGS	SCREW
25	84335GS	HARNESS, Wire
26	82542GS	BAR, DC Outlet Retaining

EXPLODED VIEW AND PARTS LIST – WHEEL KIT



Item	Part #	Description
1	189715GS	ASSY, Handle
2	B1764GS	LEG, Mounting
3	52858GS	NUT, Locking
4	39287GS	SCREW
5	191267FGS	AXLE
6	B4966GS	WHEEL
7	191265GS	E-RING
8	22247GS	WASHER

GENERAC PORTABLE PRODUCTS OWNER WARRANTY POLICY Effective January 1, 2003

LIMITED WARRANTY

"Generac Portable Products is a licensed trademark of Briggs & Stratton Power Products. Briggs & Stratton Power Products will repair or replace, free of charge, any part, or parts of the equipment** that are defective in material or workmanship or both. Transportation charges on parts submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions provided for in this policy. For warranty service, find your nearest Authorized service dealer by calling 1-800-270-1408. Warranty service may only be performed by a Briggs & Stratton Power Products Authorized service dealer.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE TIME PERIOD SPECIFIED, OR TO THE EXTENT PERMITTED BY LAW. ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some countries or states do not allow limitations on how long an implied warranty lasts, and some countries or states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from country to country or state to state."

WARRANTY PERIOD*

Equipment **	Consumer Use	Commercial Use
Pressure Washer	1 Year	90 Days
Portable Generator	2 Years (2nd year parts only)	1 Year

* The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated in the table above. "Consumer use" means personal residential household use by a retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once equipment has been used commercially, it shall thereafter be considered to be in commercial use for purposes of this warranty.

** The engine and starting batteries are warranted solely by the manufacturers of those products.

WARRANTY REGISTRATION IS NOT NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON POWER PRODUCTS EQUIPMENT. SAVE YOUR PROOF OF PURCHASE RECEIPT. IF YOU DO NOT PROVIDE PROOF OF THE INITIAL PURCHASE DATE AT THE TIME WARRANTY SERVICE IS REQUESTED, THE MANUFACTURING DATE OF THE EQUIPMENT WILL BE USED TO DETERMINE THE WARRANTY PERIOD.

About your equipment warranty:

We welcome warranty repair and apologize to you for being inconvenienced. Any Authorized service dealer may perform warranty repairs. Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. For example, warranty service would not apply if equipment damage occurred because of misuse, lack of routine maintenance, shipping, handling, warehousing or improper installation. Similarly, the warranty is void if the manufacturing date or the serial number on the equipment has been removed or the equipment has been altered or modified. During the warranty period, the Authorized service dealer, at its option, will repair or replace any part that, upon examination, is found to be defective under normal use and service. This warranty will not cover following repairs and equipment:

- **Normal Wear:** Outdoor power equipment, like all mechanical devices, needs periodic parts, service and replacement to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment.
- **Installation and Maintenance:** This warranty does not apply to equipment or parts that have been subjected to improper or unauthorized installation or alteration and modification, misuse, negligence, accident, overloading, overspeeding, improper maintenance, repair or storage so as, in our judgment, to adversely affect its performance and reliability. This warranty also does not cover normal maintenance such as adjustments, fuel system cleaning and obstruction (due to chemical, dirt, carbon or lime, etc.).
- **Other Exclusions:** Also excluded from this warranty are wear items such as quick couplers, oil gauges, belts, o-rings, filters, pump packing, etc., pumps which have been run without water supplied or damage or malfunctions resulting from accidents, abuse, modifications, alterations, or improper servicing or freezing or chemical deterioration. Accessory parts such as guns, hoses, wands and nozzles are excluded from the product warranty. Also excluded is used, reconditioned, and demonstration equipment; equipment used for prime power in place of utility power and equipment used in life support applications.

BRIGGS & STRATTON POWER PRODUCTS GROUP, LLC
JEFFERSON, WISCONSIN, U.S.A.