GENERAC®
Portable Products

3000WATT

Portable Generator Owner's Manual



Problems?
Questions?
Before taking your unit
call the generator
helpline at
M-F 8-5 CT

Model No. 1311–0 (3000 Watt AC Generator) Manual No. B4345 Revision 2 (07/09/2001)

Visit our Generac website: www.generac-portables.com

A

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.





EQUIPMENT DESCRIPTION

This generator is 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. This manual contains information for a generator that operates 120 Volt, single phase, 60 Hz devices that require up to 3,000 watts (3.0 kW) of power that pull up to 25 Amps.

CAUTION! Do Not exceed the generator's wattage/amperage capacity. Add up the rated watts of all devices you are connecting to generator receptacles at one time. This total should not be greater than 3,000 watts. In most cases rated watts of the electrical device can be found on the device nameplate. If the device nameplate gives only volts and amps, multiply volts times amps to obtain watts (volts X amps = watts).

The 3,000 watt portable generator has the following features:

- 120 Volt, 20 Amp duplex receptacle.
- Low Oil Shutdown: Automatically shuts down the engine if oil drops below safe operation level.
- The generator's revolving field is driven at about 3600 rpm by a Tecumseh 6 h.p. engine.



CAUTION! Do Not tamper with engine governed speed. High operating speeds are dangerous and increase risk of personal injury or damage to equipment. The generator supplies correct rated frequency and voltage only when running at proper governed speed. Incorrect frequency and/or voltage can damage some connected electrical loads. Operating at excessively low speeds imposes a heavy load. When adequate engine power is not available engine life may be shortened.

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.

SAFETY RULES

This generator set was designed and manufactured for specific applications. **Do Not** attempt to modify the unit or use it for any application it was not designed for. If you have any questions about your generator's application, ask your dealer or consult the factory.

The manufacturer could not possibly anticipate every circumstance that might involve a hazard. For that reason warnings in the manual and warnings on tags or decals affixed to the unit are not all—inclusive. If you intend to handle, operate or service the unit by a procedure or method not specifically recommended by the manufacturer, first make sure that such a procedure or method will not render this equipment unsafe or pose a threat to you and others.

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



WARNING:



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



WARNING! You must isolate the generator from the electric utility using approved transfer equipment if this unit is used for backup power. Failure to isolate the generator from the power utility may result in injury or death to electric utility workers and damage to the generator due to a backfeed of electrical energy. Whenever the unit is providing backup power, the electric utility must be notified.



DANGER! Generator exhaust gases contain DEADLY carbon monoxide gas. If breathed in sufficient concentrations, carbon monoxide can cause unconsciousness or death. Operate this equipment outdoors where adequate ventilation is available.





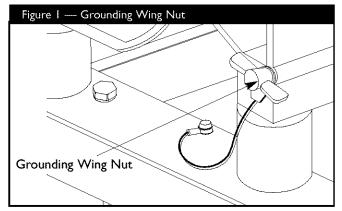
- The generator produces a very powerful voltage that can cause serious injury or death by electrocution. Never touch bare wires or receptacles. Never permit a child or any unqualified person to operate the generator.
- Never handle any kind of electrical cord or device while standing in water, while barefoot or while hands or feet are wet. Death or serious injury from electrocution may result.
- Use a ground fault circuit interrupter (GFCI) in any damp or highly conductive area (such as metal decking or steel work).
- Never use worn, bare, frayed or otherwise damaged electrical cords with the generator. Death, serious injury and property damage from electrical shock may result.
- Gasoline is highly FLAMMABLE and its vapors are EXPLOSIVE. Never allow smoking, open flames, sparks or heat in the vicinity while handling gasoline. Avoid spilling gasoline on a hot engine. Comply with all laws regulating storage and handling of gasoline.
- Do Not overfill the fuel tank. Always allow room for fuel expansion. If tank is overfilled, fuel can overflow onto a hot engine and cause a FIRE or an EXPLOSION.
- Never store a generator with fuel in the tank where gasoline vapors might reach an open flame, spark or pilot light (as on a furnace, water heater, clothes dryer). FIRE or an EXPLOSION may result.
- The unit requires an adequate flow of cooling air for its continued proper operation. Never operate the unit inside any room or enclosure where the free flow of cooling air into and out of the unit might be obstructed. Allow at least 2 feet of clearance on all sides of generator, even while operating unit outdoors, or you could damage the unit.
- Never start, or stop the unit with electrical loads connected to receptacles with the connected devices turned ON. Start the engine and let it stabilize before connecting any electrical loads. Disconnect all electrical loads before shutting down the generator.
- Do Not insert any object through cooling slots of the engine. You could damage the unit or injure yourself.

· Never operate the generator:

in rain; in any enclosed compartment; when connected electrical devices overheat; if electrical output is lost; if engine or generator sparks; if flame or smoke is observed while unit is running; if unit vibrates excessively.

GROUNDING THE GENERATOR

The National Electrical Code requires that the frame and external electrically conductive parts of this generator be properly connected to an approved earth ground. Local electrical codes may also require proper grounding of the unit. For that purpose, a GROUNDING WING NUT is provided on the generator end (Figure 1).



Generally, connecting a No. 12 AWG (American Wire Gauge) stranded copper wire to the grounding wing nut and to an earth-driven copper or brass grounding rod (electrode) provides adequate protection against electrical shock. Be careful to keep the grounding wire attached after connecting the stranded copper wire. However, local codes may vary widely. Consult with a local electrician for grounding requirements in your area.

Properly grounding the generator helps prevent electrical shock if a ground fault condition exists in the generator or in connected electrical devices. Proper grounding also helps dissipate static electricity, which often builds up in ungrounded devices.

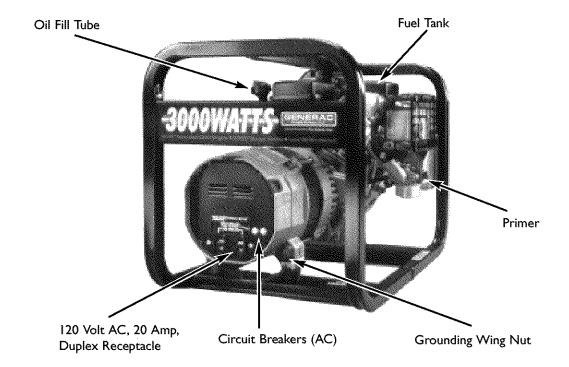




KNOW YOUR GENERATOR

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.



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

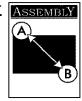
Circuit Breakers (AC) — Each receptacle is provided with a circuit breaker to protect the generator against electrical overload. Breakers are "push to reset" type.

Fuel Tank — Fill tank with regular unleaded gasoline only.

Grounding Wing Nut — Provides a tie-point for connecting the generator frame to earth ground.

Oil Fill Tube — Fill engine with oil here. See engine owners manual for oil recommendations.

Primer — Use to start a cold engine. Review the engine owner's manual for specific instructions.





BEFORE STARTING THE ENGINE

Add Oil

CAUTION! Any attempt to crank or start the engine before it has been properly filled with the recommended oil may result in an engine failure.

To fill your engine with oil:

- · Place generator on a level surface.
- · Clean area around oil fill and remove oil fill cap.
- Select the oil's viscosity grade and fill engine with oil following the instructions given in the engine owner's manual. Do Not overfill!
- · Install oil fill cap.

NOTE: The generator's revolving field rides on a prelubricated and sealed ball bearing that requires no additional lubrication for the life of the bearing.

Add Gasoline



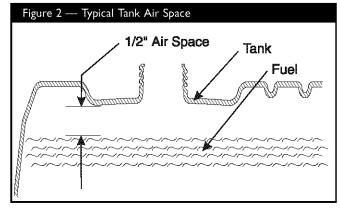
WARNING! Never fill fuel tank indoors. Never fill fuel tank when engine is running or hot. Allow unit to cool for two minutes before refueling. **Do Not** light a cigarette or smoke when filling the fuel tank.



WARNING! Do Not overfill the fuel tank. Always allow room for fuel expansion.

 Use regular UNLEADED gasoline with the generator engine. Do Not use premium gasoline. Do Not mix oil with gasoline.

- · Clean area around fuel fill cap, remove cap.
- Slowly add unleaded regular gasoline to fuel tank. Be careful not to overfill. Allow tank space for fuel expansion, as shown in Figure 2.



· Install fuel cap and wipe up any spilled gasoline.

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as the carburetor, fuel filter, fuel hose or tank during storage. Also, experience indicates that alcohol-blended fuels (called gasohol, ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic fuel can damage the fuel system of an engine while in storage.

To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. See "Storage" on page 9. **Never** use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.





OPERATING THE GENERATOR



CAUTION! Never start or stop the unit with electrical loads connected to the receptacles AND with the connected devices turned ON.

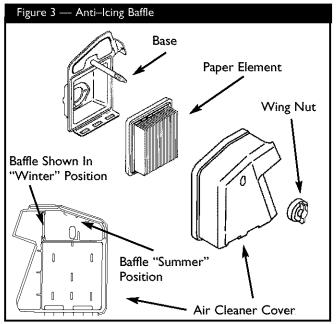
Cold Weather Operation

The engine is equipped with an anti-icing air cleaner which enables the engine to run at temperatures below 32°F (0°C), without ice forming in the carburetor.

The air cleaner base has an opening which draws warm air from the muffler into the air cleaner housing. To work effectively, it is necessary to block cold air from entering the air cleaner.

For temperatures below, 32°F (0°C),

- · Remove the wing nut on the air cleaner cover.
- · Remove the air cleaner cover from base.
- · Remove baffle from inside of air cleaner cover.
- · Insert baffle in "winter" position, as shown in Figure 3.



- · Reinstall air cleaner cover onto base.
- · Reinstall wing nut, tighten securely.

For temperatures above 32°F (0°C),

Follow above instructions, removing baffle from "winter" position and reinstalling in "summer" position.

Temporary Weather Shelter

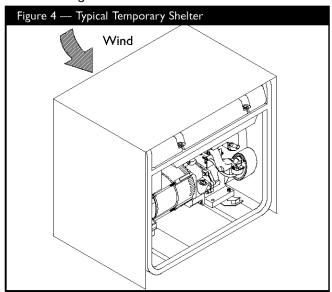
You can use the original shipping box as a temporary shelter for extremely cold weather:

- · Cut off all flaps
- Cut out one of the long sides of the box to expose exhaust side of unit. Ensure a minimum of two feet clearance between open side of box and nearest object.
- · Cut appropriate slots to access receptacles of unit.
- · Start unit, then place box over it.

IMPORTANT: Remove shelter when temperature is above 40°F [4°C].

For a more permanent shelter, build a structure that will enclose three sides and the top of the generator:

 Make sure entire muffler-side of generator is exposed, as shown in Figure 4.



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





Starting the Engine



WARNING! Never run engine indoors or in enclosed poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and deadly gas.



CAUTION! Temperature of muffler and nearby areas may exceed 150°F (65°C). Avoid these areas.

- Unplug all electrical loads from generator receptacles before starting the engine.
- · Make sure the unit is in a level position.
- · Set the engine control switch to "Start."
- Press primer three (3) times wait about two (2) seconds between each push. In cold weather (50°F/10°C or below) push five (5) times.
- Grasp starter grip and pull slowly until you feel some resistance. Then pull cord out with rapid full arm stroke.
 Let rope return slowly. Do Not let rope "snap back" against starter.

NOTE: If engine fails to start after three (3) pulls, press primer two (2) times and pull starter rope again.

Connecting Electrical Loads

- Let engine stabilize and warm up for a few minutes after starting.
- Plug in and turn on the desired 120 Volt AC, single phase, 60 Hz electrical loads.
- Do Not connect 240 Volt loads to the generator.
- Do Not connect 3-phase loads to the generator.
- Do Not connect 50 Hz loads to the generators.
- DO NOT OVERLOAD THE GENERATOR. Add up the rated watts (or amps) of all loads to be connected at one time. This total should not be greater than the rated wattage/amperage capacity of the generator. See "Don't Overload the Generator" on page 8.

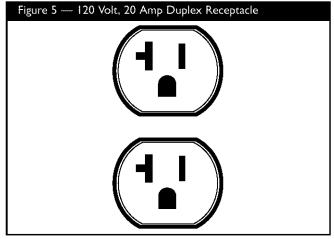
Stopping the Engine

- Unplug all electrical loads from generator panel receptacles. Never start or stop engine with electrical devices plugged in and turned on.
- Let engine run at no-load for several minutes to stabilize the internal temperatures of engine and generator.
- · Move engine control switch to "Stop."

RECEPTACLES

120 Volt, 20 Amp Receptacles

Each of these receptacles is protected against overload by push-to-reset type circuit breakers. Use each receptacle to operate 120 Volt, 60 Hz, single phase loads at 20 Amps of current (Figure 5).





CAUTION! Although each outlet has a rating of 120 Volts at 20 Amps (up to 4,800 watts), the generator is only rated for 3,000 Watts. Powering loads that exceed the wattage/amperage capacity of the generator can damage it or cause serious injuries.





DON'T OVERLOAD THE GENERATOR

Overloading a generator in excess of its rated wattage capacity can result in damage to the generator and/or connected electrical devices. Observe the following to prevent overloading the unit:

- Add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator's wattage capacity.
- The rated wattage of lights can be taken from light bulbs.
 The rated wattage of tools, appliances and motors can usually be found on a data plate or decal affixed to the device.

- If the appliance, tool or motor does not give wattage, multiply 120 Volts times ampere rating to determine watts (volts x amps = watts).
- Some electric motors, such as induction types, require about three times more watts of power for starting than for running. This surge of power lasts for only a few seconds when starting such motors. Be sure you allow for this high starting wattage when selecting electrical devices to connect to your generator. First figure the watts needed to start the largest motor. Add to that figure the running watts of all other connected loads.
- Items in the wattage reference guide (Figure 6) are provided to help you determine how many items the generator can operate at one time.

Figure 6 — Wattage Reference Guide Recreational/Home Uses Professional/Contractor Uses Tool/Appliance.....Watts Tool/Appliance Watts AM/FM clock radio.....50 *1/3 hp airless sprayer......600 Light bulb.......100 3/8" hammer drill600 Variable speed Sawzall®960 20" color TV.......400 ½" power drill1000 *Deep freezer500 Quartz-halogen work light......1000 Personal computer and 15" monitor......800 Belt sander......1200 *1/3 hp furnace fan blower800 7 ¼" worm drive saw......1600 Microwave oven......800 *18 cu ft refrigerator......800 *1½ hp air compressor......1800 Sump pump......1000 Electric skillet......1250 6" bench grinder......1800 *10" table/radial arm saw2000 Wire feed welder......2400 *=allow 3 times listed watts for starting surge Electric water heater4000







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: Generac **Does Not** recommend using 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.

To Clean the Generator

- · Use a damp cloth to wipe exterior surfaces clean.
- Soft, bristle brush may be used to loosen caked on dirt or oil
- A vacuum cleaner may be used to pick up loose dirt and debris.

 Low pressure air (not to exceed 25 psi) may be used to blow away dirt. Inspect cooling air slots and opening on generator. These openings must be kept clean and unobstructed.

STORAGE INSTRUCTIONS

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 "To Clean the Generator."
- Check that cooling air slots and openings on generator are open and unobstructed.



CAUTION! Storage covers can be flammable. **Do Not** place a storage cover over a hot generator. Let the unit cool for a sufficient time before placing the cover on the unit.

Engine Storage

See engine owner's manual for instructions.

Other Storage Tips

- · Do Not store gasoline from one season to another.
- Replace gasoline can if it starts to rust. Rust and/or dirt in gasoline can cause problems when that fuel is used with this unit.
- · Store in clean and dry area.

SPECIFICATIONS

Maximum Surge Watts
Continuous Wattage Capacity 3,000 watts
Power Factor
Rated Maximum Continuous Load Current at 120 Volts
PhaseI-phase
Rated Frequency
Shipping Weight





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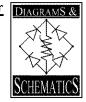
TROUBLESHOOTING

Problem	Cause	Solution
Engine is running,	Circuit breaker is open.	Reset circuit breaker.
but no AC output is	2. Poor connection or defective cord set.	2. Check and repair.
available.	3. Connected device is bad.	Connect another device that is in good condition.
	4. Fault in generator.	4. Contact Generac service facility.
Engine runs good	Short circuit in a connected load.	Disconnect shorted electrical load.
but bogs down when	2. Generator is overloaded.	2. See "Don't Overload the Generator" on
loads are connected.		page 8.
	3. Engine speed is too slow.	3. Contact Generac service facility.
	4. Shorted generator circuit.	4. Contact Generac service facility.
Engine will not start;	On/Off switch set to "Stop."	Set switch to "Start."
or starts and runs	2. Dirty air cleaner.	2. Clean or replace air cleaner.
rough.	3. Out of gasoline.	3. Fill fuel tank.
-	4. Stale gasoline.	4. Drain gas tank and fill with fresh fuel.
	5. Spark plug wire not connected to	5. Connect wire to spark plug.
	spark plug.	
	6. Bad spark plug.	6. Replace spark plug.
	7. Water in gasoline.	7. Drain gas tank; fill with fresh fuel.
	8. Low oil level.	8. Fill crankcase to proper level.
	9. Excessively rich fuel mixture.	9. Contact Tecumseh service facility.
	10. Intake valve stuck open or closed.	Contact Tecumseh service facility.
	11. Engine has lost compression.	11. Contact Tecumseh service facility.
Engine shuts down	Out of gasoline.	I. Fill fuel tank.
during operation.	2. Low oil level.	2. Fill crankcase to proper level.
	3. Fault in engine.	3. Contact Tecumseh service facility.
Engine lacks power.	1. Load is too high.	See "Don't Overload the Generator" on
		page 8.
	2. Dirty air filter.	2. Replace air filter.
	Engine needs to be serviced.	3. Contact Tecumseh service facility.
Engine "hunts" or	Carburetor is running too rich or too lean.	Contact Tecumseh service facility.
falters.	· ·	



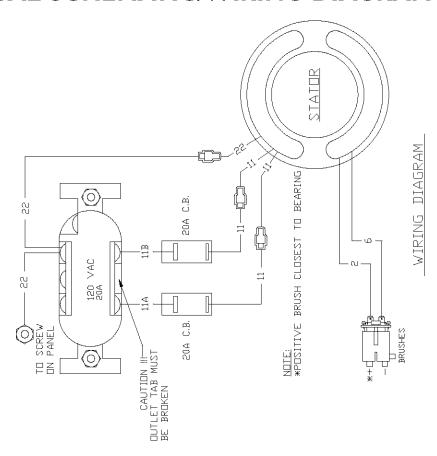


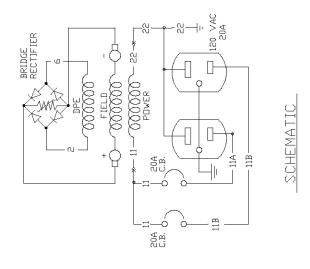
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ELECTRICAL SCHEMATIC/WIRING DIAGRAM

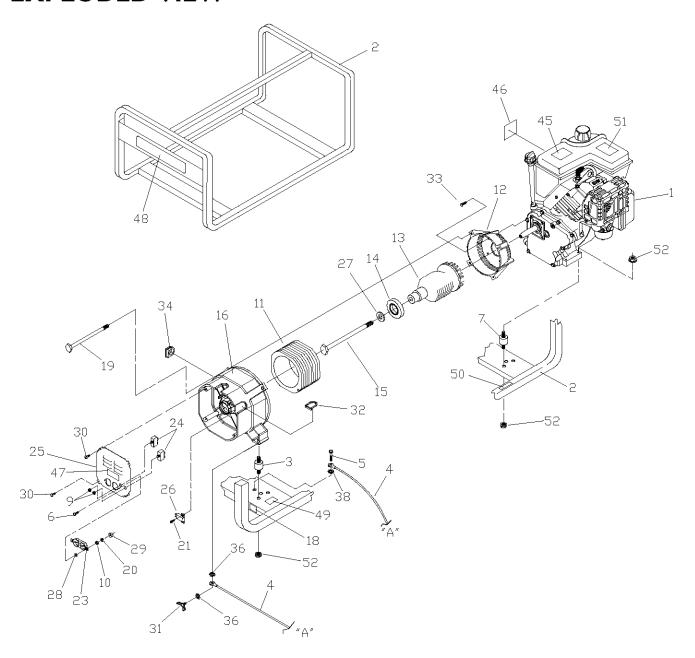








EXPLODED VIEW







PARTS LIST

ltem	Part#	Qty.	Description
	NSP	ı	ENGINE
2	B91018B	I	ASSEMBLY, Cradle
3	85652	2	MOUNT, Vibration Alt.
4	14353621	I	WIRE, Ground
5	86292	I	CAPSCREW, Self Driller #10
6	75475	2	SCREW, PHM M4 - 0.7 x 10
7	8565 l	2	MOUNT, Vibration Engine
9	99617	2	NUT, Pal
10	38150	2	WASHER, #8 Flat
11	B2817J	I	ASSEMBLY, Stator
12	66365F	I	HOUSING, Engine Adapter
13	B2816J	I	ASSEMBLY, Rotor
14	65791	I	BEARING, Ball
15	47480	I	BOLT, Rotor 5/16" - 24 x 7.00"
16	66825B	I	CARRIER, Rear Bearing
18	B4986	I	DECAL, Ground
19	86308G	4	BOLT, Stator M6 1.00 x 100mm
20	22264	2	WASHER, No. 8 Lock
21	66849	2	SCREW, M580 x 16mm Taptite
23	68759	I	RECEPTACLE, 120V AC, 20AMP
24	77247	2	BREAKER, Circuit - 20AMP
25	B2819	ı	ASSY., Control Panel
26	91825	I	RECTIFIER, Brush & Bridge
27	96796	I	WASHER, Flat
28	23365	2	WASHER, Shakeproof No. 8
29	51715	2	NUT, M4 - 0.7 Hex
30	74 9 08	4	SCREW, M5 0.80 x 10mm Taptite
31	86494	I	SCREW, M6 - 1.0 x 16 Wing
32	84242	2	GROMMET, Plastic RBC
33	86307	4	CAPSCREW, Hx Hd $5/16$ "-24 x $3/4$ "
34	67022	I	GROMMET, Rubber
36	26850	2	WASHER, M6 1/4 Shakeproof
38	22769	I	WASHER, #10 Shakeproof
45	93639	ı	DECAL, Danger (English)
46	93640	I	DECAL, Danger (Spanish)
47	98319	I	DECAL, Control Panel
48	B4346	I	DECAL, Unit
49	20566	I	DECAL, I-800 Number
50	77816	- 1	DECAL, Caution Hot Muffler
51	99541	I	DECAL, Start Instructions
52	67989	6	NUT, M8 Flanged Serrated

PORTABLE GENERATOR LIMITED WARRANTY

GENERAC PORTABLE PRODUCTS, LLC (hereafter referred to as the COMPANY) warrants to the original purchaser that the components in its generator will be free from defects in materials or workmanship for a period of one year* from the date of original purchase. This warranty does not apply to units used for prime power in place of utility. This warranty does not include the gasoline engine when furnished or attached because such engine is covered solely by the engine manufacturer's warranty Starting batteries are not warranted by the COMPANY.. The term "original purchaser" means the person for whom the generator is originally purchased. This warranty is not transferable.

*NOTE: Rental units, demonstrators, commercial applications, such as construction or income producing, are warranted for 90 days. Rental units, demonstrators, or commercial applications such as construction or utility which are resold are not covered under warranty by the COMPANY. Any warranty, whether expressed or implied, rests solely with the seller.

During the warranty period, the COMPANY will, at its option, repair or replace any part which, upon examination by the COMPANY is found to be defective under normal use and service. All transportation costs under warranty, including return to the factory if necessary, are to be borne by the purchaser and prepaid by the purchaser. This warranty does not include nominal maintenance and service and does not apply to a generator set, or parts, which have been subjected to improper or unauthorized installation, misuse, negligence, accident, overloading, overspeeding, improper maintenance, repair or storage so as, in the COMPANY's judgment, to adversely affect its performance and reliability.

THERE IS NO OTHER EXPRESS WARRANTY. THE COMPANY HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE EXTENT PERMITTED BY LAW. THE DURATION OF ANY IMPLIED WARRANTIES WHICH CANNOT BE DISCLAIMED IS LIMITED TO THE TIME PERIOD AS SPECIFIED IN THE EXPRESS WARRANTY. LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES UNDER ANY AND ALL WARRANTIES IS EXCLUDED TO THE EXTENT PERMITTED BY LAW. THE COMPANY ALSO DISCLAIMS ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SUCH AS THE LOSS OF TIME OR THE USE OF THE POWER EQUIPMENT, OR ANY COMMERCIAL LOSS DUE TO THE FAILURE OF THE EQUIPMENT; AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

This warranty is effective for all products manufactured after June, 1998, and supersedes all prior warranties of the COMPANY.

For service, see your nearest COMPANY authorized warranty service facility or call I-877-544-0982. Or look on the internet at www.generac-portables.com. Warranty service can be performed only by a COMPANY authorized service facility. This warranty will not apply to service at any other facility. At the time of requesting warranty service, evidence of original purchase date must be presented.

GENERAC PORTABLE PRODUCTS, LLC

Jefferson, Wisconsin U.S.A.