Owner’s Manual

GUARDIAN™
by GENERAC® POWER SYSTEMS

Liquid-cooled, Prepackaged
Standby Generators

Model Numbers
(Natural Gas)
00907-2  00911-2
00908-2  00912-2
00909-2  00913-2
00910-2  00914-2
(Liquid Propane Vapor)
04112-0  04116-0
04113-0  04117-0
04114-0  04118-0
04115-0  04119-0

⚠️ DANGER ⚠️

ONLY QUALIFIED ELECTRICIANS OR CONTRACTORS
SHOULD ATTEMPT INSTALLATION!!
INTRODUCTION

Thank you for purchasing this model of the Guardian product line by Generac Power Systems. This model is a compact, high performance, liquid-cooled, engine-driven generator designed to automatically supply electrical power to operate critical loads during a utility power failure.

This unit is factory installed in an all-weather, metal enclosure that is intended exclusively for outdoor installation. This generator will operate using either vapor withdrawn liquid propane (LP) or natural gas.

READ THIS MANUAL THOROUGHLY

If you do not understand any portion of this manual, contact Generac or your nearest Generac/Guardian Authorized Dealer for starting, operating and servicing procedures.

Throughout this publication, and on tags and decals affixed to the generator, DANGER, WARNING, CAUTION and NOTE blocks are used to alert you to special instruction about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Their definitions are as follows:

⚠️ DANGER ⚠️

After this heading, you can read instructions that, if not strictly complied with, will result in personal injury or property damage.

⚠️ WARNING ⚠️

After this heading, you can read instructions that, if not strictly complied with, may result in personal injury or property damage.

⚠️ CAUTION ⚠️

After this heading, you can read instructions that, if not strictly complied with, could result in damage to equipment and/or property.

NOTE:

After this heading, you can read explanatory statements that require special emphasis.

These safety warnings cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the service are essential to preventing accidents.

Four commonly used safety symbols accompany the DANGER, WARNING and CAUTION blocks. The type of information each indicates is as follows:

⚠️ This symbol points out important safety information that, if not followed, could endanger personal safety and/or property of you and others.

⚠️ This symbol points out potential explosion hazard.

⚠️ This symbol points out potential fire hazard.

⚠️ This symbol points out potential electrical shock hazard.

Generac® Power Systems, Inc.

The operator is responsible for proper and safe use of the equipment. We strongly recommend that the operator read this Owner’s Manual and thoroughly understand all instructions before using this equipment. We also strongly recommend instructing other users to properly start and operate the unit. This prepares them if they need to operate the equipment in an emergency.

CONTENTS

This manual contains pertinent owner’s information, including warranty, electrical diagrams, exploded views and lists of repair parts, for the following Guardian models:

Natural Gas:
00907-2, 00908-2, 00909-2, 00910-2, 00911-2, 00912-2, 00913-2, 00914-2

Liquid Propane Vapor:
04112-0, 04113-0, 04114-0, 04115-0, 04116-0, 04117-0, 04118-0, 04119-0

OPERATION AND MAINTENANCE

It is the operator’s responsibility to perform all safety checks, to make sure that all maintenance for safe operation is performed promptly, and to have the equipment checked periodically by a Generac/Guardian Authorized Dealer. Normal maintenance service and replacement of parts are the responsibility of the owner/operator and, as such, are not considered defects in materials or workmanship within the terms of the warranty. Individual operating habits and usage contribute to the need for maintenance service.

Proper maintenance and care of your generator ensure a minimum number of problems and keep operating expenses at a minimum. See your Generac/Guardian Authorized Dealer for service aids and accessories.

HOW TO OBTAIN SERVICE

When your generator requires servicing or repairs, simply contact a Generac/Guardian Authorized Dealer for assistance. Service technicians are factory-trained and are capable of handling all of your service needs.

When contacting a Generac/Guardian Authorized Dealer or the factory about parts and service, always supply the complete model number and serial number of your unit as given on its data decal, which is located on your generator.

Model No. ___________ Serial No. ___________

AUTHORIZED DEALER LOCATION

To locate the GENERAC/GUARDIAN AUTHORIZED DEALER nearest you, please call this number:

1-800-747-1530

DEALER LOCATION INFORMATION CAN BE OBTAINED AT THIS NUMBER.
Introduction ..................................Inside Front Cover
Read This Manual Thoroughly .........................IFC
Contents....................................................IFC
Operation and Maintenance ..........................IFC
How to Obtain Service .................................IFC
Authorized Dealer Locator Number ...............IFC

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SAVE THESE INSTRUCTIONS - The manufacturer suggests that these rules for safe
operation be copied and posted near the unit's installation site. Safety should be stressed
to all operators and potential operators of this equipment.

WARNING:

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

Study these SAFETY RULES carefully before
installing, operating or servicing this equipment.
Become familiar with this Owner’s Manual and with
the unit. The generator can operate safely, effi-
ciently and reliably only if it is properly installed,
operated and maintained. Many accidents are
caused by failing to follow simple and fundamental
rules or precautions.

Generac cannot possibly anticipate every possi-
ble circumstance that might involve a hazard. The
warnings in this manual, and on tags and decals
affixed to the unit are, therefore, not all-inclusive. If
you use a procedure, work method or operating
technique Generac does not specifically recom-

mend, you must satisfy yourself that it is safe for
you and others. You also must make sure the pro-
cedure, work method or operating technique that
you choose does not render the generator unsafe.

DANGER

Despite the safe design of this generator,
operating this equipment imprudently, neglecting
its maintenance or being careless can cause
possible injury or death. Permit only responsible
and capable persons to operate or maintain this
equipment.

Potentially lethal voltages are generated by
these machines. Ensure all steps are taken to
render the machine safe before attempting to
work on the generator.

Parts of the generator are rotating and/or hot
during operation. Exercise care near running
generators.

GENERAL HAZARDS

• For safety reasons, Generac recommends
that the installation, initial start-up and mainte-
nance of this equipment is carried out by a
Generac/Guardian Authorized Dealer.

• The engine exhaust fumes contain carbon
monoxide, which can be DEADLY. This danger-
ous gas, if breathed in sufficient concentrations,
can cause unconsciousness or even death. This
exhaust system must be installed properly, in
strict compliance with applicable codes and stan-
dards. Following installation, you must do noth-
ing that might render the system unsafe or in
noncompliance with such codes and standards.

• Keep hands, feet, clothing, etc., away from drive
belts, fans, and other moving or hot parts. Never
remove any drive belt or fan guard while the unit
is operating.

• Adequate, unobstructed flow of cooling and ven-
tilating air is critical to correct generator opera-
tion. Do not alter the installation or permit even
partial blockage of ventilation provisions, as this
can seriously affect safe operation of the gener-
a. The generator MUST be installed outdoors.

• When working on this equipment, remain alert at
all times. Never work on the equipment when you
are physically or mentally fatigued.

• Inspect the generator regularly, and contact your
nearest Generac/Guardian Authorized Dealer for
parts needing repair or replacement.

• Before performing any maintenance on the gen-
erator, disconnect its battery cables to prevent
accidental start up. Disconnect the cable from
the battery post indicated by a NEGATIVE, NEG
or (–) first. Reconnect that cable last.

• Never use the generator or any of its parts as a
step. Stepping on the unit can stress and break
parts, and may result in dangerous operating
conditions from leaking exhaust gases, fuel leak-
age, oil leakage, etc.
**Important Safety Instructions**

Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators

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**ELECTRICAL HAZARDS**

- All generators covered by this manual produce dangerous electrical voltages and can cause fatal electrical shock. Utility power delivers extremely high and dangerous voltages to the transfer switch as does the standby generator when it is in operation. Avoid contact with bare wires, terminals, connections, etc., while the unit is running. Ensure all appropriate covers, guards and barriers are in place before operating the generator. If you must work around an operating unit, stand on an insulated, dry surface to reduce shock hazard.

- Do not handle any kind of electrical device while standing in water, while barefoot, or while hands or feet are wet. DANGEROUS ELECTRICAL SHOCK MAY RESULT.

- The National Electrical Code (NEC) requires the frame and external electrically conductive parts of the generator to be connected to an approved earth ground. Local electrical codes also may require proper grounding of the generator electrical system.

- After installing this home standby electrical system, the generator may crank and start at any time without warning. When this occurs, load circuits are transferred to the STANDBY (generator) power source. To prevent possible injury if such a start and transfer occur, always set the generator's Auto/Off/Manual switch to its OFF position before working on equipment.

- In case of accident caused by electric shock, immediately shut down the source of electrical power. If this is not possible, attempt to free the victim from the live conductor. AVOID DIRECT CONTACT WITH THE VICTIM. Use a nonconducting implement, such as a rope or board, to free the victim from the live conductor. If the victim is unconscious, apply first aid and get immediate medical help.

- Never wear jewelry when working on this equipment. Jewelry can conduct electricity resulting in electric shock, or may get caught in moving components causing injury.

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**FIRE HAZARDS**

- For fire safety, the generator must be installed and maintained properly. Installation always must comply with applicable codes, standards, laws and regulations. Adhere strictly to local, state and national electrical and building codes. Comply with regulations the Occupational Safety and Health Administration (OSHA) has established. Also, ensure that the generator is installed in accordance with the manufacturer's instructions and recommendations. Following proper installation, do nothing that might alter a safe installation and render the unit in noncompliance with the aforementioned codes, standards, laws and regulations.

- Keep a fire extinguisher near the generator at all times. Extinguishers rated "ABC" by the National Fire Protection Association are appropriate for use on the standby electric system. Keep the extinguisher properly charged and be familiar with its use. If you have any question pertaining to fire extinguishers, consult your local fire department.

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**EXPLOSION HAZARDS**

- Do not smoke around the generator. Wipe up any fuel or oil spills immediately. Ensure that no combustible materials are left in the generator compartment, or on or near the generator, as FIRE or EXPLOSION may result. Keep the area surrounding the generator clean and free from debris.

- Gaseous fluids such as natural gas and liquid propane (LP) gas are extremely EXPLOSIVE. Install the fuel supply system according to applicable fuel-gas codes. Before placing the home standby electric system into service, fuel system lines must be properly purged and leak tested according to applicable code. After installation, you must inspect the fuel system periodically for leaks. No leakage is permitted.
1.1 UNPACKING/INSPECTION
After unpacking, carefully inspect the contents for damage.
- This standby generator set has been factory supplied with a weather protective enclosure that is intended for outdoor installation only.
- This standby generator set comes supplied with a separate automatic transfer switch. This UL listed, two-pole switch is rated at 100 AC amperes at 250 volts maximum. This transfer switch is for indoor use only.

⚠️ WARNING ⚠️
If this generator is used to power electrical load circuits normally powered by a utility power source, you are required by code to install a transfer switch. The transfer switch must effectively isolate the electrical system from the utility distribution system when the generator is operating (NEC 701). Failure to isolate an electrical system by such means will result in damage to the generator and also may result in injury or death to utility power workers due to backfeed of electrical energy.

If any loss or damage is noted at time of delivery, have the person(s) making the delivery note all damage on the freight bill or affix his or her signature under the consignor’s memo of loss or damage.

If you note loss or damage after delivery, separate the damaged materials and contact the carrier for claim procedures.

"Concealed damage" is understood to mean damage to the contents of a package that is not in evidence at the time of delivery, but is discovered later.

◆ 1.1.1 LIFTING THE GENERATOR

⚠️ WARNING ⚠️

When lifting or hoisting equipment is used, be careful not to touch overhead power lines.

The generator's weight of more than 900 pounds requires proper tools and equipment, and qualified personnel to be used in all phases of handling and unpacking.

1.2 THE GENERATOR
This liquid-cooled, Guardian generator set is UL listed. It is designed to supply electrical power to operate critical electrical loads during utility power failure. Use this generator as a source of electrical power for the operation of 120- and/or 240-volt, single- or three-phase loads; or 120- and/or 208-volt, three-phase loads.

These NATURAL GAS models are available, rated as follows:
00907: Provides 10,000 watts (10 kW) of single-phase power.
00906: Provides 10,000 watts (10 kW) of three-phase power.
00909: Provides 15,000 watts (15 kW) of single-phase power.
00910: Provides 15,000 watts (15 kW) of three-phase power.
00911: Provides 20,000 watts (20 kW) of single-phase power.
00912: Provides 20,000 watts (20 kW) of three-phase power.
00913: Provides 25,000 watts (25 kW) of single-phase power.
00914: Provides 25,000 watts (25 kW) of three-phase power.

These LP VAPOR models are available, rated as follows:
04112: Provides 10,000 watts (10 kW) of single-phase power.
04113: Provides 10,000 watts (10 kW) of three-phase power.
04114: Provides 15,000 watts (15 kW) of single-phase power.
04115: Provides 15,000 watts (15 kW) of three-phase power.
04116: Provides 20,000 watts (20 kW) of single-phase power.
04117: Provides 20,000 watts (20 kW) of three-phase power.
04118: Provides 25,000 watts (25 kW) of single-phase power.
04119: Provides 25,000 watts (25 kW) of three-phase power.

1.3 GENERATOR AC CONNECTION SYSTEMS
The three-phase generators are shipped from the factory with their stator AC output leads connected in "Delta" configuration (Figure 1.1). This type of connection system will supply a 120- and/or 240-volt, single-phase output as shown in the illustration.

If, however, load voltage requires a 120/208-volt, three-phase output, the stator's output leads will need to be reconnected. This task should be performed only by a qualified Generac/Guardian Authorized Technician. Refer to the Guardian Installation, Start-up and Adjustment Manual (Part No. 79699) for details.

Figure 1.1 – Three-phase Delta Generator AC Connection System
Figure 1.2 represents a single-phase, three-wire generator AC connection system. The stator assembly in this system consists of a pair of stationary windings with two leads brought out of each winding. Each single winding can supply a 120-volt, 60-Hertz AC output. When the two windings are connected in series, a 240-volt, 60-Hertz AC output results. Typically, the two “hot” leads in the circuit are Wires 11 and 44. The neutral leads are the junction of Wires 22 and 33.

1.6 ENGINE PROTECTIVE DEVICES

The engine has several safety switches that cause it to automatically shut down under the following conditions: low oil pressure, high coolant temperature, low coolant level, and engine overspeed or overcrank.

◆ 1.6.1 LOW OIL PRESSURE SWITCH

This switch is normally closed (N.C.) but is held open by engine oil pressure during engine running. Should operating oil pressure drop below approximately 8-10 psi (55-68 kPa), the switch contacts close, and the engine shuts down automatically (Figure 1.3).

1.4 AUTOMATIC SYSTEM OPERATION

When this generator, along with its transfer switch, has been installed and interconnected, a circuit board in the generator panel continuously monitors utility power source voltage. Should that voltage drop below a preset value, and remain at such a low state for a preset amount of time, the generator cranks and starts. After the generator starts, the transfer switch transfers load circuits so the generator can power them.

When utility source voltage has been restored, the switch transfers back to the utility source voltage, and the generator then shuts down.

1.5 MAIN CIRCUIT BREAKER

The generator’s main circuit breaker is included with the unit as shipped from the factory. The breaker for each unit is described as follows:

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Circuit Breaker Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>00907 and 04112</td>
<td>50-amp BQ2 breaker</td>
</tr>
<tr>
<td>00908 and 04113</td>
<td>40-amp BQ3 breaker</td>
</tr>
<tr>
<td>00909 and 04114</td>
<td>70-amp BQ2 breaker</td>
</tr>
<tr>
<td>00910 and 04115</td>
<td>60-amp BQ3 breaker</td>
</tr>
<tr>
<td>00911 and 04116</td>
<td>90-amp BQ2 breaker</td>
</tr>
<tr>
<td>00912 and 04117</td>
<td>70-amp BQ3 breaker</td>
</tr>
<tr>
<td>00913 and 04118</td>
<td>125-amp BQ2 breaker</td>
</tr>
<tr>
<td>00914 and 04119</td>
<td>90-amp BQ3 breaker</td>
</tr>
</tbody>
</table>

◆ 1.6.2 HIGH COOLANT TEMPERATURE SWITCH

This normally open (N.O.) thermostatic switch has a sensing tip that is immersed in captive coolant. Should the coolant temperature exceed approximately 110° C (230° F), the switch contacts close, which causes the engine to shut down automatically (Figure 1.3).
1.6.3 LOW COOLANT LEVEL SWITCH

Should the engine coolant level drop below the level of the high coolant temperature switch, it is possible for the engine to overheat without automatic shut down. To prevent such overheating without automatic shut down, the engine has a low coolant level sensor. If the engine coolant drops too low, the engine automatically shuts down (Figure 1.3, Page 5).

1.6.4 OVERSPEED SHUTDOWN

The control module assembly (CMA) circuit board on liquid-cooled units receives AC frequency (rpm) signals directly from the stator AC power windings, via sensing leads S15 and S16. Should AC frequency exceed approximately 72 Hertz, circuit board action will automatically shut down the engine.

1.6.5 OVERCRANK SHUTDOWN

After 90 seconds of crank-rest cycles, this function ends cranking if the engine fails to start in that 90-second span.

1.7 SPECIFICATIONS

1.7.1 GENERATOR

<table>
<thead>
<tr>
<th>Model (Natural Gas)</th>
<th>THREE-PHASE</th>
<th>SINGLE-PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>00914</td>
<td>00912</td>
<td>00910</td>
</tr>
<tr>
<td>04119</td>
<td>04117</td>
<td>04115</td>
</tr>
</tbody>
</table>

- **Rated Maximum Continuous AC Power Output (kW)**: 25, 20, 15, 10
- **Rated Voltage (volts)**: 120/240, 120/240
- **Rated Maximum Continuous Current at...**
  - **240 Volts, Single-phase (amps)**: 104.2, 83.3, 62.5, 41.6
  - **240 Volts, Three-phase (amps)**: 75.2, 60.1, 45.1, 30.1
  - **208 Volts, Three-phase (amps)**: 86.8, 69.5, 52.1, 34.7
- **Number of Rotor Poles**: 2, 2, 4, 4
- **Driven Speed of Rotor (rpm)**: 3,600, 3,600, 1,800, 1,800
- **Type of Stator**: 12-wire Reconnectable, Four-wire Reconnectable
- **Rotor Excitation System**: Direct Excited Brush-type System
- **Rotor and Stator Insulation Class**: "F"

1.7.2 ENGINE

**Make**: Mitsubishi
**Displacement**: 1.5 liters (92 cu. in.)
**Cylinder Arrangement**: 4, in-line
**Valve Arrangement**: Overhead Cam
**Firing Order**: 1-3-4-2
**Number of Main Bearings**: 5
**Compression Ratio**: 9 to 1
**No. of Teeth on Flywheel**: 104

**Ignition Timing**
- at 1,800 rpm: 35 degrees BTDC
- at 3,600 rpm: 43 degrees BTDC
**Spark Plug Gap**: 0.020-0.025 inch
**Recommended Spark Plugs**: Champion RN11YC4
**Fuel Consumption**

| Natural Gas | 00913/00914 | 441 cu. ft. per hour |
| 00911/00912 | 359 cu. ft. per hour |
| 00909/00910 | 277 cu. ft. per hour |
| 00907/00908 | 195 cu. ft. per hour |
| LP Gas | 04118/04119 | 175 cubic ft. (4.8 gal.) per hour |
| 04116/04117 | 143 cubic ft. (4.0 gal.) per hour |
| 04114/04115 | 110 cubic ft. (3.1 gal.) per hour |
| 04112/04113 | 77 cubic ft. (2.2 gal.) per hour |

**NOTE:**

Fuel consumption is given at rated maximum continuous power output when using natural gas rated at 1,000 Btu per cubic foot; or LP gas rated 2,520 Btu per cubic foot. Actual fuel consumption obtained may vary depending on such variables as applied load, ambient temperature, engine conditions and other environmental factors.
1.8 ENGINE OIL RECOMMENDATIONS
Use a high quality detergent oil that meets or exceeds American Petroleum Institute [API] Service SF requirements for gasoline engines. The PRIMARY recommended oil has a viscosity of 15W-40.

--- WARNING ---
Gaseous fuels such as natural gas and liquid propane (LP) gas are highly explosive. Even the slightest spark can ignite such fuels and cause an explosion. No leakage of fuel is permitted. Natural gas, which is lighter than air, tends to collect in high areas. LP gas is heavier than air and tends to settle in low areas.

1.9 FUEL REQUIREMENTS AND RECOMMENDATIONS
With LP gas, use only the vapor withdrawal system. This type of system uses the vapors formed above the liquid fuel in the storage tank.

The engine has been fitted with a fuel carburetion system that meets the specifications of the California Air Resources Board for tamper-proof fuel systems.

Recommended fuels should have a Btu content of at least 1,000 Btus per cubic foot for natural gas; or at least 2,520 Btus per cubic foot for LP gas. Ask your fuel supplier for the Btu content of your fuel.

Fuel pressure for both natural gas and liquid propane setups should be 11 inches to 14 inches of water column (0.6 psi) at all load ranges.

--- DANGER ---
Storage batteries give off explosive hydrogen gas. This gas can form an explosive mixture around the battery for several hours after charging. The slightest spark can ignite the gas and cause an explosion. Such an explosion can shatter the battery and cause blindness or other injury. Any area that houses a storage battery must be properly ventilated. Do not allow smoking, open flame, sparks or any spark producing tools or equipment near the battery.

Battery electrolyte fluid is an extremely caustic sulfuric acid solution that can cause severe burns. Do not permit fluid to contact eyes, skin, clothing, painted surfaces, etc. Wear protective goggles, protective clothing and gloves when handling a battery. If you spill the fluid, flush the affected area immediately with clear water.

--- WARNING ---
Do not dispose of the battery in a fire. The battery is capable of exploding.

Do not open or mutilate the battery. Released electrolyte can be toxic and harmful to the skin and eyes.

The battery represents a risk of high short circuit current. When working on the battery, always remove watches, rings or other metal objects, and only use tools that have insulated handles.

1.10 THE BATTERY
Use a 12-volt battery with a rating of 350 cold-cranking amps at -17.8°C (0°F) minimum. When using a maintenance-free battery, it is not necessary to check the specific gravity or electrolyte level. Have these procedures performed at the intervals specified in the service schedule. A negative ground system is used. Battery connections are shown on the wiring diagrams. Make sure the battery is correctly connected and terminals are tight. Observe battery polarity when connecting the battery to the generator set.

Note:
Damage may result if the battery connections are made in reverse.
2.1 CONTROL CONSOLE COMPONENTS

The components of a liquid-cooled generator control console (Figure 2.1) are as follows:

Figure 2.1 – Control Console

2.1.1 AC VOLTMETER

The voltmeter displays generator AC output voltage during operation. Voltage is regulated by a solid-state voltage regulator and is proportional to AC frequency. Refer to your unit’s DATA PLATE for rated AC voltage.

2.1.2 AC AMMETER

This indicates current draw of connected electrical loads during operation. DO NOT EXCEED YOUR UNIT’S RATED MAXIMUM CONTINUOUS CURRENT. Refer to the unit DATA PLATE.

2.1.3 AC FREQUENCY METER

This indicates generator AC output frequency in Hertz (cycles per second). Frequency is proportional to engine speed. Units with a four-pole rotor supply 60 Hertz at 1,800 rpm. Units with a two-pole rotor supply 60 Hertz at 3,600 rpm. The frequency reading with no electrical loads connected (no-load condition) should be between 59-61 Hertz.

2.1.4 DC VOLTMETER

The generator is equipped with a belt-driven DC alternator, which maintains battery state of charge when the engine operates. The control module assembly also incorporates a trickle charge circuit that maintains battery state of charge during nonoperating periods. Battery voltage should read approximately 12.5 to 14.5 volts DC. A low battery voltage indicates the battery is discharging.

2.1.5 HOURMETER

This indicates the time the engine-generator has operated, in hours and tenths of hours. Use the hourmeter along with the periodic maintenance schedule for your generator set.

2.1.6 AUTO/OFF/MANUAL SWITCH

See Section 2.2.

2.1.7 FAULT INDICATOR LAMP

This lamp goes ON when one or more of the following engine faults occurs and when engine shuts down.
- Low oil pressure
- High coolant temperature
- Low coolant level
- Overcrank
- Overspeed

2.1.8 30-AMP FUSE

This fuse protects the control console’s DC control circuit against electrical overload. If the fuse has melted open because of an overload, engine cranking and start-up cannot occur. Should you need to replace the fuse, use only an identical 30-amp replacement fuse.

2.1.9 VOLTAGE-PHASE SELECTOR SWITCH

This switch permits you to select either line-to-line or line-to-neutral voltage and amperage readings on the console AC voltmeter and ammeter.

2.1.10 SET EXERCISE TIME SWITCH

This switch allows you to program the generator to start and exercise automatically.

2.2 USING THE AUTO/OFF/MANUAL SWITCH

2.2.1 "AUTO" POSITION

Selecting this switch position activates fully automatic system operation. It also allows you to start and exercise the engine every seven days with the setting of the exercise timer (see Section 2.7).

2.2.2 "OFF" POSITION

This switch position shuts down the engine. This position also prevents automatic operation.

2.2.3 "MANUAL" POSITION

Set the switch to MANUAL to crank and start the engine. Transfer to standby power will not occur unless there is a utility failure.

⚠️ WARNING ⚠️

With the switch set to AUTO, the engine may crank and start at any time without warning. Such automatic starting normally occurs when utility power source voltage drops below a preset level or during the normal exercise cycle. To prevent possible injury that might be caused by such sudden starts, always set the switch to OFF and remove the fuse before working on or around the generator or transfer switch. Then, place a “Do Not Operate” tag on the generator panel and on the transfer switch.
2.3 AUTOMATIC TRANSFER OPERATION

To select automatic operation, do the following:

1. Make sure the transfer switch main contacts are set to their “Utility” position, i.e., loads connected to the utility power source. (Figure 2.2, Page 10).
2. Be sure that normal utility power source voltage is available to transfer switch terminal lugs N1 and N2. (See the electrical data on Pages 21 and 23.)
3. Set the generator’s Auto/Off/Manual switch to AUTO.
4. Set the generator’s main circuit breaker to its ON (or closed) position.

With the preceding steps complete, the generator will start automatically when utility source voltage drops below a preset level. After the unit starts, loads are transferred to the standby power source. Refer to “Sequence of Automatic Operation.”

2.4 SEQUENCE OF AUTOMATIC OPERATION

The generator’s control panel houses a control logic circuit board. This board constantly monitors utility power source voltage. Should that voltage drop below a preset level, circuit board action will signal the engine to crank and start. After the engine starts, the circuit board sends the transfer switch to activate and connect load circuits to the standby power supply (load terminal lugs T1/T2 connect to terminal lugs E1/E2). (See the electrical data on Pages 21 and 23.)

Upon restoration of utility source voltage above a preset level, generator circuit board action signals the transfer switch to transfer loads back to that power supply. After retransfer, the engine is signalled to shut down.

The actual sequence of operation is controlled by sensors and timers on a control logic circuit board, as follows:

A. Utility Voltage Dropout Sensor
   • This sensor monitors utility source voltage.
   • If utility source voltage drops below about 60 percent of the nominal supply voltage, the sensor energizes a 15-second timer.
   • Once the timer has expired, the engine will crank and start.

B. Engine Warm-up Time Delay
   • This mechanism lets the engine warm up for about 10 seconds before the load is transferred to a standby source.

C. Standby Voltage Sensor
   • This sensor monitors generator AC output voltage. When the voltage has reached 50 percent of the nominal rated voltage, transfer to standby can occur.

D. Utility Voltage Pickup Sensor
   • This sensor monitors utility power supply voltage. When that voltage is restored above 80 percent of the nominal source voltage, a retransfer time delay starts timing.

E. Retransfer Time Delay
   • This timer runs for about 15 seconds.
   • At end of a 15-second delay, circuit board action de-energizes transfer relay in the transfer switch.
   • Retransfer to utility power source then occurs.

F. Engine Cool-down Timer
   • When the load is transferred back to utility power source, the engine cool-down timer starts timing.
   • The timer will run for about one minute, and the generator will then shut down.

2.5 MANUAL TRANSFER OPERATION

This generator is packaged with either a "V" or a "Y" transfer switch. Follow the appropriate instructions for your unit.

◆ 2.5.1 "V"-TYPE TRANSFER SWITCHES

To start the generator and activate a "V"-type transfer switch manually, proceed as follows:

1. Set the generator’s Auto/Off/Manual switch to OFF.
2. Set the generator’s main circuit breaker (CB1) to its OFF (or open) position.
3. Turn OFF the utility power supply to the transfer switch using the means provided (such as a utility main line circuit breaker).

⚠️ DANGER ⚠️

Do not attempt to activate the switch transfer manually until all power voltage supplies to the switch have been positively turned off. Failure to turn off all power voltage supplies may result in extremely hazardous and possibly fatal electrical shock.

Figure 2.2 – “V”-type Transfer Switch Operation
4. Use the manual transfer handle inside the transfer switch to move the main contacts to their “Standby” position, i.e., loads connected to the standby power source (Figure 2.2, Page 9).

5. Turn ON the utility power supply to the transfer switch using the means provided (such as a utility main line circuit breaker).

6. To crank and start the engine, set the Auto/Off/Manual switch to MANUAL.

7. Let the engine stabilize and warm up for a few minutes.

8. Set the generator’s main circuit breaker to its ON (or closed) position. The standby power source now powers the loads.

2.5.2 "Y"-TYPE TRANSFER SWITCHES

To start the generator and activate a “Y”-type transfer switch manually, follow steps 1-3 in Section 2.5.1 (Page 9) and then proceed as follows:

4. Attach the square opening of the manual handle over the square shaft at the lower right corner of the transfer mechanism.

Figure 2.3 – “Y”-type Transfer Switch Operation

5. Move the handle UP. When the movement stops at NEUTRAL, return the handle to its original position (Figure 2.3).

6. Observe the changeover display (Figure 2.4) on the transfer mechanism as follows:
   - If the “Utility” arrow is aligned with the GREEN band, load is connected to the utility (normal) power source.
   - If the “Standby” arrow is aligned with the GREEN band, load is connected to the standby (emergency) source.

7. Repeat steps 3 and 4 several times, being sure the switch main contacts move normally to all positions.

8. When certain that the switch operates normally, move the main contacts to their utility (normal) source.

Figure 2.4 – Transfer Switch Changeover Display

2.5.3 TRANSFER BACK TO UTILITY POWER SOURCE

When utility power has been restored, you will want to transfer back to that source and shut down the generator. This can be accomplished as follows:

1. Set the generator’s main circuit breaker to its OFF (or open) position.

2. Let the engine run for a minute or two at no-load to stabilize the internal temperatures.

3. Set the generator’s Auto/Off/Manual switch to its OFF (or open) position. The engine should shut down.

4. Check that utility power supply to the transfer switch is turned OFF.

DANGER

Do not attempt to activate the transfer switch manually until all power voltage supplies to the switch have been positively turned off. Failure to turn off all power voltage supplies may result in extremely hazardous and possibly fatal electrical shock.

5. Use the manual transfer handle inside the transfer switch to move the main contacts back to their “Utility” position, i.e., loads connected to the utility power source (Figure 2.2).

6. Turn ON the utility power supply to the transfer switch using the means provided.

7. Set the system to automatic operation as outlined in “Automatic Transfer Operation,” Section 2.3.
2.6 ENGINE HEATER

Your Generac standby generator comes equipped with a block heater (Figure 2.5) that is similar to the block heaters used in automotive applications.

Figure 2.5 – Engine Block Heater

Refer to applicable wiring diagram(s) and electrical schematic(s) at the back of this manual for wiring connections.

2.7 WEEKLY EXERCISE CYCLE

The generator will start and exercise once every seven days. During this weekly exercise, the unit runs for approximately 20 minutes and shuts down. Transfer of loads to generator output does not occur during the exercise unless power is lost during the exercise period.

To select the day of the week and time of day for exercising, proceed as follows:

- Set the Auto/Off/Manual switch to OFF.
- Set generator’s main circuit breaker to its OFF (or open) position.
- Locate the rocker switch on the control panel identified with the words “Set Exercise Time” (Figure 2.6).
- Push “Set Exercise Time” switch to the ON position for 20 to 30 seconds and then release. The switch will spring back into its original position when released.
- Wait 30 seconds before setting the Auto/Off/Manual switch to the AUTO position.

NOTE:

The unit will exercise 20 minutes after it is set.

Example: Set – Noon; Exercise – 12:20 p.m.

--- CAUTION ---

⚠️ If you switch the Auto/Off/Manual switch too soon, the engine may start. If engine does start, it will shut down automatically in about two (2) minutes.

- Set the generator’s main circuit breaker to its ON (or closed) position.
- The generator is now programmed to start and exercise every seven days thereafter, on the day and at the time of day the switch was activated.
- Place a sign on the generator’s control panel and on the transfer switch that indicates the day and time the generator will be exercising.

2.8 GTS TRANSFER SWITCH

This generator can be installed in conjunction with a standard Generac GTS-type automatic transfer switch, if desired.

The standard transfer switch has no sensing or controlling circuit boards. Instead, the generator control console houses a control module assembly (CMA), which controls all phases of operation, including engine start-up and load transfer.

2.8.1 USING A STANDARD GTS TRANSFER SWITCH

When you use a standard GTS-type transfer switch, it controls automatic operation and automatic transfer as follows:

- Solid-state circuits in the transfer switch monitor utility power source voltage.
- When utility source voltage drops below a preset level, transfer switch action closes the circuit. The engine then cranks and starts as controlled by the generator’s control module circuit board.
- After the engine starts and when the generator AC output voltage and frequency have reached a preset value, transfer circuitry signals the transfer switch main contacts to move to the standby power source side. Generator AC output then powers load circuits.

- When the utility power source voltage is restored above a preset level, transfer switch solid-state circuits signal the switch main contacts to move back to their utility power source side.
- Following transfer back to the utility power source side, transfer switch circuit board action opens the circuit. The engine then shuts down.

NOTE:

If your generator is installed in conjunction with a standard GTS-type transfer switch, refer to the applicable transfer switch manual for exact operating parameters and timing sequences.
3.1 CHECKING THE ENGINE OIL LEVEL

For oil capacities, see "Specifications," Section 1.7. For engine oil recommendations, see Section 3.2.1. To check the engine oil level, proceed as follows (Figure 3.1):

1. Start the generator by moving the Auto/Off/Manual switch to the MANUAL position. Allow it to run for a short while and then shut it down by moving the switch to the OFF position.
2. Remove the dipstick and wipe it dry with a clean cloth.
3. Install and tighten the dipstick cap; then, remove it again. The oil level should be at the dipstick "Full" mark. If necessary, add oil to the "Full" mark only. DO NOT FILL ABOVE THE "FULL" MARK.

CAUTION

Never operate the engine with the oil level below the "Add" mark on the dipstick. Doing this could damage the engine.

4. Install and tighten the dipstick.

Figure 3.1 – Oil Dipstick and Fill

3.2 CHANGING THE ENGINE OIL AND FILTER

◆ 3.2.1 ENGINE OIL RECOMMENDATIONS

Use oil of API Service Class SG, SH or SJ. The recommended oil grade for your engine is SAE 15W-40.

NOTE:
The unit is supplied with "break-in" oil. See the "Service Schedule," Section 3.12 (Page 16), for the first required oil change.

--- CAUTION ---

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

◆ 3.2.2 OIL AND FILTER CHANGE PROCEDURE

To change the oil and filter, proceed as follows:

Refer to the "Service Schedule" for engine oil and filter change frequencies.

Drain the oil while the engine is still warm from running. This means you should warm up the engine, shut it down and drain it immediately as follows:

1. Remove the oil drain hose from its retaining clip.
2. Loosen and remove the oil drain hose cap. Drain the oil completely into a suitable container.
3. When all of the oil has drained, install and tighten the oil drain hose cap.
4. Turn the oil filter, part number 244-A4531, (Figure 3.2) counterclockwise and remove it. Dispose of the old filter.

Figure 3.2 – Oil Filter

5. Apply a light coating of engine oil to the seal of new oil filter. Install the filter and tighten by hand only. DO NOT OVERTIGHTEN.
6. Remove the oil fill cap (Figure 3.1). Add the recommended oil (see Section 3.2.1). DO NOT FILL ABOVE THE DIPSTICK "FULL" MARK. Crankcase oil capacity is 4.0 U.S. quarts (3.8 liters).

--- CAUTION ---

After refilling the crankcase with oil, always check the oil level on the dipstick. Never operate the engine with the oil level below the "Add" mark on the dipstick. Doing this could damage the engine.

7. Start the engine and check for oil leaks.
3.3 CHANGING THE ENGINE AIR CLEANER
To replace the engine air cleaner, (part number 59402), simply remove the air cleaner cover and replace the air filter making sure it is positioned properly before reattaching the cover.

Figure 3.3 – Engine Air Cleaner

See the “Service Schedule,” Section 3.12, for air cleaner maintenance.

3.4 SPARK PLUGS
Reset the spark plug gap or replace the spark plugs as necessary. See Section 3.12.

1. Clean the area around the base of the spark plugs to keep dirt and debris out of the engine. Clean by scraping or washing using a wire brush and commercial solvent. Do not blast the spark plugs to clean.
2. Remove the spark plugs and check the condition. Replace the spark plugs if worn or if reuse is questionable. See the “Service Schedule,” Section 3.12, for recommended inspection.
3. Check the spark plug gap using a wire feeler gauge. Adjust the gap to 0.5-0.6 mm (0.020-0.025 inch) by carefully bending the ground electrode (Figure 3.4).

Figure 3.4 – Setting the Spark Plug Gap

SET PLUG GAP AT 0.5-0.6 mm (0.020-0.025 inch)

3.5 BATTERY MAINTENANCE
The battery should be inspected per the “Service Schedule,” Section 3.12. The following procedure should be followed for inspection:

1. Inspect the battery posts and cables for tightness and corrosion. Tighten and clean as necessary.
2. Check the battery fluid level of unsealed batteries and, if necessary, fill with DISTILLED WATER ONLY. DO NOT USE TAP WATER IN BATTERIES.
3. Have the state of charge and condition checked. This should be done with an automotive-type battery hydrometer.

⚠️ DANGER ⚠️

Storage batteries give off explosive hydrogen gas. This gas can form an explosive mixture around the battery for several hours after charging. The slightest spark can ignite the gas and cause an explosion. Such an explosion can shatter the battery and cause blindness or other injury. Any area that houses a storage battery must be properly ventilated. Do not allow smoking, open flame, sparks or any spark producing tools or equipment near the battery.

⚠️ Battery electrolyte fluid is an extremely caustic sulfuric acid solution that can cause severe burns. Do not permit fluid to contact eyes, skin, clothing, painted surfaces, etc. Wear protective goggles, protective clothing and gloves when handling a battery. If you spill the fluid, flush the affected area immediately with clear water.

⚠️ Do not use any jumper cables or booster battery to crank and start the generator engine. If the battery has completely discharged, remove it from the generator for recharging.

⚠️ WARNING ⚠️

Be sure the Auto/Off/Manual switch is set to the OFF position before connecting the battery cables. If the switch is set to AUTO or MANUAL, the generator can crank and start as soon as the battery cables are connected.

⚠️ Be sure the utility power supply is turned off, or sparking may occur at the battery posts as you attach the cables and cause an explosion.
3.6 COOLING SYSTEM
Air intake and outlet openings in the generator compartment must be open and unobstructed for continued proper operation. This includes such obstructions as high grass, weeds, brush, leaves and snow.

Without sufficient cooling and ventilating air flow, the engine/generator quickly overheats, which causes it to shut down. (See Figure 3.5 for vent locations.)

![Figure 3.5 – Cooling Vent Locations](image)

⚠️ WARNING ⚠️

The exhaust from this product gets extremely hot and remains hot after shutdown. High grass, weeds, brush, leaves, etc. must remain clear of the exhaust. Such materials may ignite and burn from the heat of the exhaust system.

3.7 OVERLOAD PROTECTION FOR ENGINE DC ELECTRICAL SYSTEM

Engine cranking, start-up and running are controlled by a solid-state engine controller circuit board. Battery voltage is delivered to that circuit board via a 30-amp fuse. These overcurrent protection devices will open if the circuit is overloaded.

⚠️ CAUTION ⚠️

If a circuit breaker opens or a fuse element melts, you should find the cause of the overload before resetting the circuit breaker or replacing the fuse.

3.8 FUSE
The generator panel’s 30-amp fuse (Figure 3.6) protects the DC control circuit against overload. The fuse is wired in series with the battery output lead to the panel. If the fuse element has melted open, you cannot crank or start the engine. You should replace the fuse using only an identical 30-amp replacement.

![Figure 3.6 – Location of 30-amp Fuse](image)

3.9 ENGINE COOLANT

Check the coolant level in the coolant recovery bottle.

- Add the recommended coolant mixture as necessary. See Section 1.7.2 on Page 6.
- Periodically remove the radiator pressure cap to make sure the coolant recovery system is functioning properly. Coolant should be at the bottom of the radiator filler neck. If the coolant level is low, inspect the gasket in the radiator pressure cap. Replace the cap, if necessary. To have the pressure cap tested, contact a Generac/Guardian Authorized Dealer. Inspect the cooling system and coolant recovery system for leaks.
3.10 MISCELLANEOUS MAINTENANCE

◆ 3.10.1 CLEANING THE GENERATOR

Keep your generator as clean and as dry as possible. Dirt and moisture that accumulate on internal generator windings have an adverse effect on insulation resistance.

Periodically, clean the generator’s exterior surfaces. A soft brush may be used to loosen caked on dirt. You can use a vacuum system or dry, low pressure air to remove any accumulations of dirt. The generator is housed inside an all-weather enclosure; clean the enclosure with a soft, damp cloth or sponge and water.

Once each year, have the generator cleaned and inspected by a Generac/Guardian Authorized Dealer. Service technicians will use dry, low pressure air to clean internal windings. Parts inside the control console should be cleaned and inspected at this time as well.

Finally, have the insulation resistance of stator and rotor windings checked. If insulation resistances are excessively low, the generator may require drying.

◆ 3.10.2 RODENT PROTECTION

The intrusion of rodents into the generator set can cause a wide range of problems, from failure of the unit to start, to personal injury and, in extreme circumstances, short circuit or fire. Although the unit was designed with this problem in mind, further precautions can be taken by the owner to help minimize both the chance of rodent entry and the extent of any damage. The following inspection should be performed.

1. The base frame of the unit contains an optional fuel inlet location and four lifting holes that are capped at the factory. These caps are sometimes removed for transportation during installation but always should be replaced afterwards. Check that they are secured in place. The same applies for any access ports in the roof of the enclosure. If you are missing any of these caps, contact your Generac/Guardian Authorized Dealer.

2. Inside the generator set, the chance of rodent entry into the control panel is greatly reduced by the inclusion of adjustable wire connectors. Check that the wire connector screws are tight, thus closing off any gap between the access holes and the wires.

3.11 OUT OF SERVICE PROCEDURE

◆ 3.11.1 REMOVAL FROM SERVICE

If you cannot exercise the generator every seven days, and it is to be out of service longer than 90 days, prepare the generator for storage as follows:

1. Start the engine and let it warm up.
2. Close the fuel shutoff valve in the fuel supply line and allow the unit to shut down.
3. Once the unit has shut down, it will signal a fault on the control panel.
4. Set the Auto/Off/Manual switch to OFF and turn off the utility power to the transfer switch.
5. While the engine is still warm from running, drain the oil completely. Refill the crankcase with SAE 15W-40 oil having API Service Class SG, SH or SJ.
6. Attach a tag to the engine indicating the viscosity and classification of the oil in the crankcase.
7. Remove the spark plug(s) and spray fogging agent into the spark plug(s) threaded openings. Reinstall and tighten the spark plug(s).
8. Remove the battery and store it in a cool, dry room on a wooden board. Never store the battery on any concrete or earthen floor.
9. Clean and wipe the entire generator.

◆ 3.11.2 RETURN TO SERVICE

To return the unit to service after storage, proceed as follows:

1. Verify that utility power is turned off to the transfer switch and that the Auto/Off/Manual switch is set to OFF.
2. Check the tag on the engine for oil viscosity and classification. Verify that the correct recommended oil is used in engine. See Section 3.2.1 (Page 12). If necessary, drain and refill with the proper oil.
3. Check the battery. Fill all cells to the proper level with distilled water. DO NOT USE TAP WATER IN THE BATTERY. Remove the battery before charging. Recharge the battery to 100 percent state of charge, or, if defective, replace the battery with a 12-volt DC Group 26 battery rated for 75 amp hours (part # 77483).
4. Clean and wipe the entire generator.
5. Reconnect the battery. Observe battery polarity. Damage may occur if the battery is connected incorrectly.
6. Open the fuel shutoff valve.
7. Start the unit by moving the Auto/Off/Manual switch to MANUAL. Allow the unit to warm up thoroughly.
8. Stop the unit and set the Auto/Off/Manual switch to AUTO.
9. Turn on the utility power to the transfer switch.
10. Your generator is now ready for service.
# 3.12 SERVICE SCHEDULE

**ATTENTION:** It is recommended that all service work be performed by your nearest Generac/Guardian Authorized Dealer.

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<th>SYSTEM/COMPONENT</th>
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<th>FREQUENCY</th>
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<td>Inspect</td>
<td>W = Weekly</td>
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<tr>
<td>R = Replace/Adjust as Needed</td>
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**COMPLETE TUNE-UP***

TO BE COMPLETED BY A GENERAC/GUARDIAN AUTHORIZED DEALER
### 4.1 TROUBLESHOOTING GUIDE

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<td>1. Replace fuse.</td>
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<tr>
<td></td>
<td>2. Loose, corroded or defective battery cables</td>
<td>2. Tighten, clean or replace as necessary.</td>
</tr>
<tr>
<td></td>
<td>3. Defective starter contactor</td>
<td>3. *</td>
</tr>
<tr>
<td></td>
<td>4. Defective starter motor</td>
<td>4. *</td>
</tr>
<tr>
<td></td>
<td>5. Dead Battery</td>
<td>5. Charge or replace battery.</td>
</tr>
<tr>
<td>The engine cranks but will not start.</td>
<td>1. Out of fuel</td>
<td>1. Replenish fuel.</td>
</tr>
<tr>
<td></td>
<td>2. Defective fuel solenoid (FS)</td>
<td>2. *</td>
</tr>
<tr>
<td></td>
<td>3. Open #14 wire from engine control board</td>
<td>3. *</td>
</tr>
<tr>
<td></td>
<td>4. Defective spark plug(s)</td>
<td>4. Clean, re-gap or replace plug(s).</td>
</tr>
<tr>
<td>The engine starts hard and runs rough.</td>
<td>1. Air cleaner plugged or damaged</td>
<td>1. Check, clean or replace air cleaner.</td>
</tr>
<tr>
<td></td>
<td>2. Defective spark plug(s)</td>
<td>2. Clean, re-gap or replace plug(s).</td>
</tr>
<tr>
<td>The engine starts, but then shuts down.</td>
<td>1. Engine oil level low</td>
<td>1. Check oil and add oil as needed.</td>
</tr>
<tr>
<td></td>
<td>2. Defective low oil pressure switch</td>
<td>2. *</td>
</tr>
<tr>
<td></td>
<td>3. Defective high temperature switch</td>
<td>3. *</td>
</tr>
<tr>
<td></td>
<td>4. Defective control board</td>
<td>4. *</td>
</tr>
<tr>
<td></td>
<td>5. Low coolant level</td>
<td>5. Check coolant level, repair leaks and refill.</td>
</tr>
<tr>
<td>The Auto/Off/Manual switch is set to OFF, but the engine continues to run.</td>
<td>1. Defective switch</td>
<td>1. *</td>
</tr>
<tr>
<td></td>
<td>2. Defective control board</td>
<td>2.</td>
</tr>
<tr>
<td>There is no AC output from the generator.</td>
<td>1. Main line circuit breaker open</td>
<td>1. Reset circuit breaker to ON (or closed).</td>
</tr>
<tr>
<td></td>
<td>2. Generator internal failure</td>
<td>2.</td>
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<tr>
<td>There is no transfer to standby after utility source failure.</td>
<td>1. Main line circuit breaker open</td>
<td>1. Reset circuit breaker to ON (or closed).</td>
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<tr>
<td></td>
<td>2. Defective transfer switch coil</td>
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<td></td>
<td>3. Defective transfer relay</td>
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</tr>
<tr>
<td></td>
<td>5. Defective control logic board</td>
<td>5.</td>
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</tbody>
</table>

*Contact your nearest Generac/Guardian Authorized Dealer for assistance.*
Section 5 — Notes
Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Electrical Schematic (1.5 Liter Engine) - Drawing No. A7182.

Section 6 - Electrical Data

---

**Legend**

- **CC** - Control Contactor
- **DCA** - DC Alternator
- **EH** - Engine Heater
- **FS** - Fuel Solenoid
- **GRD** - Ground
- **ISC** - Ignition System Contact
- **LOS** - Low Oil Switch
- **SM** - Starter Motor
- **WTS** - Water Temperature Switch
- **WLS** - Water Level Switch

---

Diagram depicting electrical connections and components, including labels for various circuit components and connections. The diagram illustrates the detailed wiring for the electrical system of the generator, highlighting the integration of control and safety mechanisms.
### PARTS LIST

#### Section 7 — Exploded Views and Parts Lists

**Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators**

**Compartment — Drawing No. A7188-D**

---

**Note:**

Use door latch fastener to secure Ground Wire.

---

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<tr>
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<th>DESCRIPTION</th>
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<tbody>
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<td>Brace, Side</td>
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<td>2</td>
<td>A3769</td>
<td>2</td>
<td>Door, Enclosure</td>
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<td>3</td>
<td>A3768</td>
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<td>4</td>
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<td>Top, Enclosure</td>
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<td>67042</td>
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<td>Latch</td>
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<td>22254</td>
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<td>Lock Washer, #8</td>
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<td>67035</td>
<td>6</td>
<td>Screw, Pan Head Mach.-#8-32 x 5/16”</td>
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<td>8</td>
<td>82570</td>
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<td>Plug-4”</td>
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<td>Swage Fastener-W/Nylon Washer</td>
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<td>32990</td>
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<td>Grommet 3/16”-7/8”</td>
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<td>Button-Plug 1-1/2”</td>
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<td>91297-063</td>
<td>3</td>
<td>Ground Wire Assembly</td>
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<td>91297-064</td>
<td>3</td>
<td>Ground Wire Assembly</td>
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<td>49813</td>
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<td>Hex Nut M6 x 1.0</td>
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<td>18</td>
<td>70005</td>
<td>3</td>
<td>Lock Washer M6</td>
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<td>19</td>
<td>49811</td>
<td>3</td>
<td>Flat Washer M6</td>
</tr>
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</table>
Section 7 — Exploded Views and Parts Lists

Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Generator – Drawing No. A9348-A

ITEM    PART NO. QTY. DESCRIPTION
1        98671    1    ROTOR ASSEM.-10KW
1        98681    1    ROTOR ASSEM.-15KW
1        98675    1    ROTOR ASSEM.-20KW
1        98696    1    ROTOR ASSEM.-25KW
2        A5338A   1    HOUSING, BLOWER
3        A1659    1    SCREEN, AIR OUTLET
4        71912    4    CAPSCR., HEX HD-M5-0.8 x 8
5        22152    4    LOCK WASHER-#10
6        51713    4    FLAT WASHER-M5
7        22129    4    LOCK WASHER-M8 (5/16")
8        98672    1    STATOR ASSEM.-10KW-1-PHASE A
1        98673    1    STATOR ASSEM.-10KW-3-PHASE D
1        98674    1    STATOR ASSEM.-10KW-3-PHASE GJK
1        98682    1    STATOR ASSEM.-15KW-1-PHASE A
1        98683    1    STATOR ASSEM.-15KW-3-PHASE D
1        98684    1    STATOR ASSEM.-15KW-3-PHASE GJK
1        98576    1    STATOR ASSEM.-20KW-1-PHASE A
1        98677    1    STATOR ASSEM.-20KW-1-PHASE D
1        98678    1    STATOR ASSEM.-20KW-1-PHASE GJK
1        97620    1    STATOR ASSEM.-25KW-1-PHASE A
1        98937    1    STATOR ASSEM.-25KW-1-PHASE D
1        97621    1    STATOR ASSEM.-25KW-1-PHASE GJK
9        A5362    1    CARRIER, REAR BEARING
10       75591    1    HOLDER, BRUSH ASSEM.
11       52813    4    SCREW, HEX HD-M4-0.7 x 20
12       A5601    1    COVER, REAR BEARING CARRIER

ITEM    PART NO. QTY. DESCRIPTION
13       75554B   4    BOLT, STATOR #10-24 x 2" RHMS
14       A9375    4    LOCK WASHER-#10
15       22152    4    FAN & RING GEAR ASSEM.
16       97146    1    KEY-3/8" SQUARE x 1" LONG
17       42558    1    SPACER-FLEX PLATE
18       A5061    1    PLATE, FLEX
19       A4989    1    CAPSCR., HEX HEAD-M10-1.25 x 20
20       52213    1    LOCK WASHER-M12
21       51769    6    CAPSCR., HEX HD-M10-1.5 x 35
22       49541    4    LOCK WASHER-M10
23       46526    4    NUT, HEX-M10-1.5
24       45772    2    MPU, SPEED SENSOR, RPM
25**     82130B   1    PLUG, PLASTIC
26       87599    1    FLEX GUARD 1" I.D. x 10" LONG (NOT SHOWN)
27       77043E   4    FLAT WASHER-M10
28       49809    1    WASHER-ROTOR SHAFT
29       72578    1    CAPSCREW, M12-1.25 x 25
30       A7043    5    FLAT WASHER M12
31       48668    5    DECAL-WARNING
32       58589    1    STAR WASHER-#8
33       22365    4    WASHER .34-.75 x .125 LONG
35       A8830    4    *USED ON PREPACKAGED UNITS ONLY
36       A9375    4    **USED ON "C" OPTION PANEL UNITS ONLY

Generac® Power Systems, Inc.  27
## Section 7 - Exploded Views and Parts Lists

Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Control Panel – Drawing No. A2872-D

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<td>98062</td>
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<td>SUPPORT, CONTROL PANEL</td>
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<td>2</td>
<td>75589</td>
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<td>BRACKET, VOLTAGE REGULATOR</td>
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<td>3</td>
<td>A1775</td>
<td>1</td>
<td>PANEL, CONTROL BOTTOM &amp; BACK</td>
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<td>SUPPORT, CONTROL PANEL</td>
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<td>A2106</td>
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<td>BLOCK, JUNCTION</td>
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<td>7</td>
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<td>WASHER, FLAT #6</td>
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<tr>
<td>8</td>
<td>70080</td>
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<td>INSULATOR</td>
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<td>70043</td>
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<td>VOLTMETER, AC 0-300</td>
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<td>70055</td>
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<td>AMMETER, AC 0-100</td>
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<td>70042</td>
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<td>METER, FREQUENCY (HERTZ)</td>
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<td>70081</td>
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<td>HOURMETER</td>
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<td>VOLTMETER, DC</td>
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<td>WASHER, LOCK #10</td>
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<td>NUT, HEX #10-32</td>
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<td>SWITCH, AMP/VOLT SELECTOR</td>
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<td>HOLDER, FUSE</td>
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<td>18</td>
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<td>FUSE, 30 AMP</td>
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<td>19</td>
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<td>SWITCH, ON/OFF/ON</td>
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<td>REGULATOR, VOLTAGE ASSEMBLY</td>
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<td>21</td>
<td>67680</td>
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<td>REGULATOR, VOLTAGE (3-PHASE)</td>
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<td>SCREW, PPHM M4-0.7 x 16MM</td>
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<td>WASHER, LOCK-M4</td>
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<td>WASHER, LOCK 3/8'</td>
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<td>51715</td>
<td>**</td>
<td>NUT, HEX M4-0.7</td>
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<td>6-32 x 5/8&quot; SWAGEFORM PPH</td>
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<td>SCREW, PPHM-M5-0.8 x 40MM</td>
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<td>HHCS, M10-1.5 x 20</td>
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<td>WIRE CONNECTOR 1.25</td>
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<td>TRANSFORMER (MODEL 913 ONLY)</td>
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<td>ROCKER SWITCH</td>
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<td>LAMP, FAULT INDICATOR</td>
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<td>DECAL SET-EXERCISE TIME</td>
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<td>CAPPLUG, BFP-1/4&quot;</td>
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*NOT SHOWN*

**SEE CHART ON OPPOSITE PAGE**
### Section 7 — Exploded Views and Parts Lists

**Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators**

**Radiator — Drawing No. A7206-A**

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<td>RADIATOR</td>
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<td>VENTURI</td>
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<td>A6238</td>
<td>1</td>
<td>GUARD, FAN</td>
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<td>84918</td>
<td>1</td>
<td>ENGINE HEATER</td>
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<td>6</td>
<td>50967</td>
<td>12&quot;</td>
<td>HOSE - 5/8&quot; I.D. (sold by foot)</td>
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<tr>
<td>7</td>
<td>57823</td>
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<td>CLAMP, HOSE #10</td>
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<td>99502</td>
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<td>CLAMP, HOSE #24</td>
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<td>SPRING CLAMP, HOSE #9</td>
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<td>52250</td>
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<td>TAPE, FOAM 1&quot; SQUARE</td>
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### Section 7 — Exploded Views and Parts Lists

Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Mounting Base — Drawing No. A7187-A

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### Exploded Views and Parts Lists

**Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators**

**Muffler – Drawing No. A7618-A**

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### PARTS LISTS

**Section 7 – Exploded Views and Parts Lists**

**Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators**

**Circuit Breaker – Drawing No. A3371-**

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**NOTE:**

See Section 1.5, “Main Circuit Breaker,” on Page 5 to determine the proper breaker for your unit.

34 Generac® Power Systems, Inc.
### Item List

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Section 7 – Exploded Views and Parts Lists
Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Governor Assembly – Drawing No. A7216-

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3    38805-B  1  CABLE, BATTERY-BLACK, 23'
4    131-74260  1  CABLE, RED 29'
5    22131  1  WASHER, FLAT-M10
6    46526  1  WASHER, LOCK-M10
7    52213  1  HEX HD. CAPSCREW, M10-1.25 x 20 LONG
8    55567  2  J-BOLTS, BATTERY HOLD-DOWN
9    78121  1  BAR, HOLD-DOWN
10   22145  2  WASHER, FLAT-5/16'
11   22129  2  WASHER, LOCK-5/16'
12   22259  2  NUT, HEX-5/16"-18
Section 7 — Exploded Views and Parts Lists
Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Natural Gas Fuel System – Drawing No. A9349-B
### Section 7 — Exploded Views and Parts Lists

Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators  
Natural Gas Fuel System – Drawing No. A9349-B

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--- | --- | --- | ---
1 | A4531 | 1 | ENGINE-1.5L
2 | 35685 | 1 | CLAMP-HOSE-#28
3 | 75546A | 1 | PIPE-FLEX EXHAUST
4 | 258-A4531 | 1 | GASKET-EXHAUST MANIFOLD
5 | A4355 | 1 | MANIFOLD-EXHAUST
6 | A6699 | 1 | SHIELD-HEAT
7 | 22097 | 8 | WASHER-LOCK-1/4"
8 | 22057 | 2 | HHCS-1/4"-20 x 1/2" LG.
9 | 52212 | 4 | HHCS-M10-1.25 x 25 LG.
10 | 46526 | 14 | WASHER-LOCK-M10
11 | 22131 | 16 | WASHER-FLAT-M10
12 | A4863 | 1 | LEG-LEFT ENGINE SUPPORT
13 | 55993 | 1 | SPACER-41-.75-.12"
14 | 45772 | 4 | HEX NUT-M10-1.5
15 | 99379 | 2 | SHCS-5/16"-18 x 3" LG.
16 | 20692 | 1 | STARTER-12V
17 | A7005 | 2 | SPACER-ENGINE PLATE
18 | 52243 | 1 | HHCS-M10-1.50 x 60 LG.
19 | A4772 | 1 | ENGINE PLATE
20 | 70901 | 2 | DOWEL SLEEVE-BLOWER HOUSING
21 | 51735 | 3 | HHCS-M10-1.50 x 70 LG.
22 | 56768 | 2 | HHCS-M10-1.50 x 90 LG.
23 | 22145 | 2 | WASHER-FLAT-5/16"-M8
24 | 22129 | 23 | WASHER-LOCK-5/16"-M8
25 | 22259 | 2 | HEX NUT-5/16-18
26 | 52213 | 1 | HHCS-M10-1.25 x 20 LG.
27 | 47411 | 2 | HHCS-M6-1.0 x 16 LG.
28 | 52830 | 2 | HHCS-M10-1.25 x 45 LG.
29 | 46525 | 1 | HEX NUT-M10-1.25
30 | 45771 | 10 | HEX NUT-M8-1.25
31 | 58306 | 5 | SHCS-M8-1.25 X 25 LG.
32 | 30795 | 2 | HHCS-5/16"-18 x 1" LG.
33 | A2711A | 1 | ADAPTER-THERMOSTAT
34 | 48665 | 1 | GASKET, WATER OUTLET
35 | 75885 | 1 | THERMOSTAT
36 | 257-A4531 | 1 | GASKET-INTAKE MANIFOLD
37 | A4682 | 1 | MANIFOLD-INTAKE
38 | 57522 | 1 | SWITCH-WATER LEVEL
39 | A6751 | 1 | SWITCH-WATER TEMPERATURE
40 | 34339 | 1 | FITTING-HOSE BARB 3/8" P x 5/8" H
41 | 26925 | 1 | FITTING-PIPE PLUG-3/8" NPT
42 | 61012 | 1 | FITTING-PIPE PLUG-1/8" NPT
43 | 39253 | 6 | HHCS-M8-1.25 x 20 LG.
44 | A5110 | 1 | TUBE-WATER INLET
45 | A7006 | 1 | SEAL-O-RING
46 | A4862 | 2 | LEG-RIGHT ENGINE SUPPORT
47 | 2200B | 2 | SPACER-41-.75-.25"
48 | A8584 | 1 | SWITCH-OIL PRESSURE
49 | 36277 | 1 | FITTING-STREET ELBOW-1/8" NPT
50 | A2574 | 1 | ADAPTER-OIL PRESSURE SWITCH
51 | 26073A | 1 | FITTING-PIPE PLUG-1/4" NPT
52 | A6701 | 1 | HHCS-M10-1.5 X 110 LG.
53 | A568 | 1 | HHCS-M8-1.25 X 35 LG.
54 | A568 | 1 | HHCS-M12-1.25 X 55 LG.
55 | 51769 | 1 | WASHER-LOCK-M12
56 | A4804 | 1 | PULLEY-CRANKSHAFT (1800 RPM)
57 | A4800 | 1 | PULLEY-CRANKSHAFT (3600 RPM)
58 | A5839 | 1 | SUPPORT-DC ALTERNATOR
59 | A1354B | 1 | DC ALTERNATOR-12V
60 | A4839 | 1 | BRACKET-ALTERNATOR ADJUSTMENT
61 | 58616 | 4 | HCS-M6-1.0 X 70 LG.
62 | 48911 | 4 | WASHER-FLAT-1/4"-M6
63 | 75614 | 1 | FAN-RADIATOR
64 | A2628 | 1 | PULLEY-1/2"
65 | A586 | 1 | V-BELT (1800 RPM)
66 | A586 | 1 | V-BELT (3600 RPM)
67 | A2628 | 1 | SPACER-FAN PULLEY
68 | 244-A4531 | 1 | FILTER-OIL
69 | 244-A4531 | 1 | ADAPTER-OIL DRAIN-M14 X 1.5
70 | 70828 | 1 | CLAMP-HOSE
71 | 68690C | 1 | HOSE ASL-OIL DRAIN
72 | A5117 | 1 | CAP-OIL DRAIN HOSE
73 | A5351 | 1 | NAME PLATE-ENGINE
74 | 22473 | 2 | FLAT WASHER 1/4"-M6
Section 8 – Installation Drawings
Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators
Installation Drawing – Drawing No. A7214-B

NOTE: FUEL SYSTEM COMES SET UP FOR OUTSIDE STUB UP CONNECTIONS.
SMALL FUEL SYSTEM MODIFICATION REQUIRED FOR INSIDE FUEL
STUB UP CONNECTIONS.
ALL DIMENSIONS IN MILLIMETERS (INCHES)

42 Generac Power Systems, Inc.
762 [30] AROUND PERIMETER OF UNIT SHOULD BE FREE OF OBSTRUCTIONS FOR OPERATION AND MAINTENANCE PURPOSES (SHOWN NOT-TO-SCALE)
CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board (CARB) and Generac Power Systems, Inc. (Generac) are pleased to explain the Emission Control System Warranty on your new engine.* In California, new utility, and lawn and garden equipment engines must be designed, built and equipped to meet the state’s stringent anti-smog standards. Generac will warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect, unapproved modification or improper maintenance of your engine.

Your emission control system may include parts such as the carburetor, ignition system and exhaust system. Generac will repair your engine at no cost to you for diagnosis, replacement parts and labor, should a warrantable condition occur.

MANUFACTURER’S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:

Emissions control systems on 1995 and later model year engines are warranted for two years as hereinafter noted. If, during such warranty period, any emission-related component or system on your engine is found to be defective in materials or workmanship, repairs or replacement will be performed by a Generac Authorized Warranty Service Facility.

PURCHASER’S/OWNER’S WARRANTY RESPONSIBILITIES:

As the engine purchaser/owner, you are responsible for the completion of all required maintenance as listed in your factory supplied Owner’s Manual. For warranty purposes, Generac recommends that you retain all receipts covering maintenance on your engine. However, Generac cannot deny warranty solely due to the lack of receipts or for your failure to ensure the completion of all scheduled maintenance.

As the engine purchaser/owner, you should, however, be aware that Generac may deny any and/or all warranty coverage or responsibility if your engine, or a part/component thereof, has failed due to abuse, neglect, improper maintenance or unapproved modifications, or the use of counterfeit and/or “grey market” parts not made, supplied or approved by Generac.

You are responsible for presenting your engine to a Generac Authorized Warranty Service Facility as soon as a problem occurs. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

Warranty service can be arranged by contacting either your selling dealer or a Generac Authorized Warranty Service Facility. To locate the Generac Authorized Warranty Service Facility nearest you, call our toll-free number:

1-800-333-1322

IMPORTANT NOTE: This warranty statement explains your rights and obligations under the Emission Control System Warranty (ECS Warranty), which is provided to you by Generac pursuant to California law. See also the “Generac Limited Warranties for Generac Power Systems, Inc.,” which is enclosed herewith on a separate sheet, also provided to you by Generac. The ECS Warranty applies only to the emission control system of your new engine. If there is any conflict in terms between the ECS Warranty and the Generac Warranty, the ECS Warranty shall apply except in circumstances where the Generac Warranty may provide a longer warranty period. Both the ECS Warranty and the Generac Warranty describe important rights and obligations with respect to your new engine.

Warranty service can be performed only by a Generac Authorized Warranty Service Facility. When requesting warranty service, evidence must be presented showing the date of the sale to the original purchaser/owner.

If you have any questions regarding your warranty rights and responsibilities, you should contact Generac at the following address:

ATTENTION WARRANTY DEPARTMENT
GENERAC POWER SYSTEMS, INC.
P.O. BOX 8
WAUKESHA, WI 53187

Part 1
EMISSION CONTROL SYSTEM WARRANTY

Emission Control System Warranty (ECS Warranty) for 1995 and later model year engines:

(a) Applicability: This warranty shall apply to 1995 and later model year engines. The ECS Warranty Period shall begin on the date the new engine or equipment is purchased by/delivered to its original, end-use purchaser/owner and shall continue for 24 consecutive months thereafter.

(b) General Emissions Warranty Coverage: Generac warrants to the original, end-use purchaser/owner of the new engine or equipment and to each subsequent purchaser/owner that each of its engines is ...

1) Designed, built and equipped so as to conform with all applicable regulations adopted by the CARB pursuant to its authority, and
2) Free from defects in materials and workmanship which, at any time during the ECS Warranty Period, may cause a warranted emissions-related part to fail to be identical in all material respects to the part as described in the engine manufacturer's application for certification.

(c) The ECS Warranty only pertains to emissions-related parts on your engine, as follows:

1) Any warranted, emissions-related parts that are not scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by Generac according to Subsection (4) below. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

2) Any warranted, emissions-related part that is scheduled only for regular inspection as specified in the Owner's Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary" shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

3) Any warranted, emissions-related part that is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by Generac according to Subsection (4) below. Any such emissions-related part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.

4) Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a Generac Authorized Warranty Service Facility.

5) When the engine is inspected by a Generac Authorized Warranty Service Facility, the owner shall not be held responsible for diagnostic costs if the repair is deemed warrantable.

6) Generac shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of any emission-related part covered by the ECS Warranty.

7) Throughout the ECS Warranty Period, Generac shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.

8) Any Generac authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repairs and will be provided without charge to the owner. Such use shall not reduce Generac ECS Warranty obligations.

9) Unapproved, add-on, modified, counterfeit and/or "grey market" parts may not be used to modify or repair a Generac engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. Generac shall not be held liable hereunder for failures of any warranted parts of a Generac engine caused by the use of such an unapproved, add-on, modified, counterfeit and/or "grey market" part.

EMISSION RELATED PARTS INCLUDE THE FOLLOWING:

1) Fuel Metering System:
   1.2) LPG/Natural Gas carburetion assembly and its internal components.
      a) Fuel controller (if so equipped)
      b) Mixer and its gaskets (if so equipped)
      c) Carburetor and its gaskets (if so equipped)
      d) Primary gas regulator (if so equipped)
      e) LP liquid vaporizer (if so equipped)
   2) Air Induction System including:
      a) Intake pipe/manifold
      b) Air cleaner

*Generac engine types covered by this warranty statement include the following:
1) Prepackaged Standby Generator
2) Auxiliary Power Unit (APU) Generator
3) Standby Generator

3) Ignition System including:
   a) Spark plug
   b) Ignition module

4) Catalytic Muffler Assembly (if so equipped) including:
   a) Muffler gasket
   b) Exhaust manifold

5) Crankcase Breather Assembly including:
   a) Breather connection tube
Section 9 – Warranty
Guardian Liquid-cooled 10 kW, 15 kW, 20 kW and 25 kW Generators

GENERAC’S STANDARD ONE-YEAR LIMITED WARRANTY FOR STANDBY POWER SYSTEMS

For a period of one year or 1,500 hours of operation from the date of original sale, whichever occurs first, Generac Power Systems, Inc. (Generac) will, at its option, repair or replace any part which, upon examination by Generac or a Generac/Guardian Authorized Warranty Service Facility, is found to be defective under normal use and service, in accordance with the warranty schedule set forth below. Any equipment that the purchaser/owner claims to be defective must be returned to and examined by the nearest Generac/Guardian Authorized Warranty Service Facility. All transportation costs under the warranty, including return to the factory, are to be borne and prepaid by the purchaser/owner. This warranty applies only to generators used in “Standby” applications, as Standby has been defined by Generac, provided said generators have been initially installed and inspected on-site by a Generac/Guardian Authorized Service Dealer or branch thereof.

WARRANTY SCHEDULE

YEAR ONE – 100 percent coverage on mileage*, labor and parts listed:

• Engine – All components
• Alternator – All components
• Transfer System – All components

*Travel allowance is limited to 300 miles or 7.5 hours, whichever occurs first, and applies only to permanently wired and mounted units.

All warranty expense allowances are subject to the conditions defined in Generac’s Warranty Policies, Procedures and Flat Rate Manual.

Units that have been resold are not covered under the Generac warranty, as this warranty is not transferable.

THIS WARRANTY SHALL NOT APPLY TO THE FOLLOWING:

1. Costs of normal maintenance, adjustments, installation and start-up.
2. Units sold, rated or used for “Prime Power” applications as Prime Power has been defined by Generac. Contact a distributor for Prime Power definition and warranty.
3. Failures due to (a) normal wear and tear, or (b) accident, misuse, abuse, negligence or improper installation.
4. Products that are modified or altered in a manner not authorized by Generac in writing.
5. Any incidental, consequential or indirect damages caused by defects in materials or workmanship, or any delay in repair or replacement of the defective parts.
6. Failure due to misapplication.
7. Telephone, telegraph, teletype or other communication expenses.
8. Living or travel expenses of persons performing service, except as specifically included within the terms of a specific unit warranty.
9. Rental equipment used while warranty repairs are being performed.
10. Overtime labor.
11. Starting batteries, fuses, light bulbs and engine fluids.

THIS WARRANTY IS IN PLACE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. SPECIFICALLY, GENERAC MAKES NO OTHER WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

GENERAC’S ONLY LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF PARTS AS STATED ABOVE. IN NO EVENT SHALL GENERAC BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF SUCH DAMAGES ARE A DIRECT RESULT OF GENERAC’S NEGLIGENCE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. Purchaser/owner agrees to make no claims against Generac based on negligence.

This warranty gives you specific legal rights. You also may have other rights that vary from state to state.

GENERAC® POWER SYSTEMS, INC.
P.O. BOX 8
WAUKESHA, WI 53187

Part No. C1000
Revision A (10/15/99)
Printed in U.S.A.