

August 29, 2019

Executive Summary

Request for Binding Interpretation Petition #174

Petition Need More Info Notice for Petition #174 (via email September 28, 2019)

HWC
08.29.19

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One Question.....

Does the generator in question comply with all Florida Building Code location requirements?

Yes or No?

(Generac 22KW standby natural gas generator at 9183 Astonia Way, Estero, Florida Permit 1712790)

More exacting Question.....

Does FBC-Residential 6th Edition 2017 Sections G2406, Section 2408, Section E3403, and Section E3405 require compliance with **all** manufacturer's installation **location requirements?**

Yes or No?

There are 7 independent location violations (via the manufacturer's requirements)

1. Generator is located less than 3 feet from shrubs on its left side
2. Generator is located less than 3 feet from shrubs on its front side
3. Generator is located less than 3 feet from shrubs on its right side
4. Generator is located less than 3 feet from an AC unit (1)
5. Generator is located less than 3 feet from a second AC unit (2)
6. Generator is located inside the D.E. Drainage Easement i.e. water hazard (see site plan)
 - 6A. FBC requires compliance with **all** manufacturer's **location** requirements
 - 6B. Manufacturer's Installation Guidelines
 - p.5 "be aware of **all** federal, **state**, and local **codes** that could impact the installation"
 - p.5 "**strictly comply with all** applicable national, **state**, and local **laws**".
7. Generator is located +/- 3 feet of property line and violates State of Florida Constitution
 - 7A. **Florida Constitution** Article II General Provisions Section 7. "It shall be the policy of the state.....Adequate provision shall be made by law for the abatement of excessive and unnecessary noise"
 - 7B. **Florida Statute 877.03** "acts as are of a nature to....affect the peace and quiet of persons"...Manufacturer's spec sheet show 67 dBA at distance of 23 feet

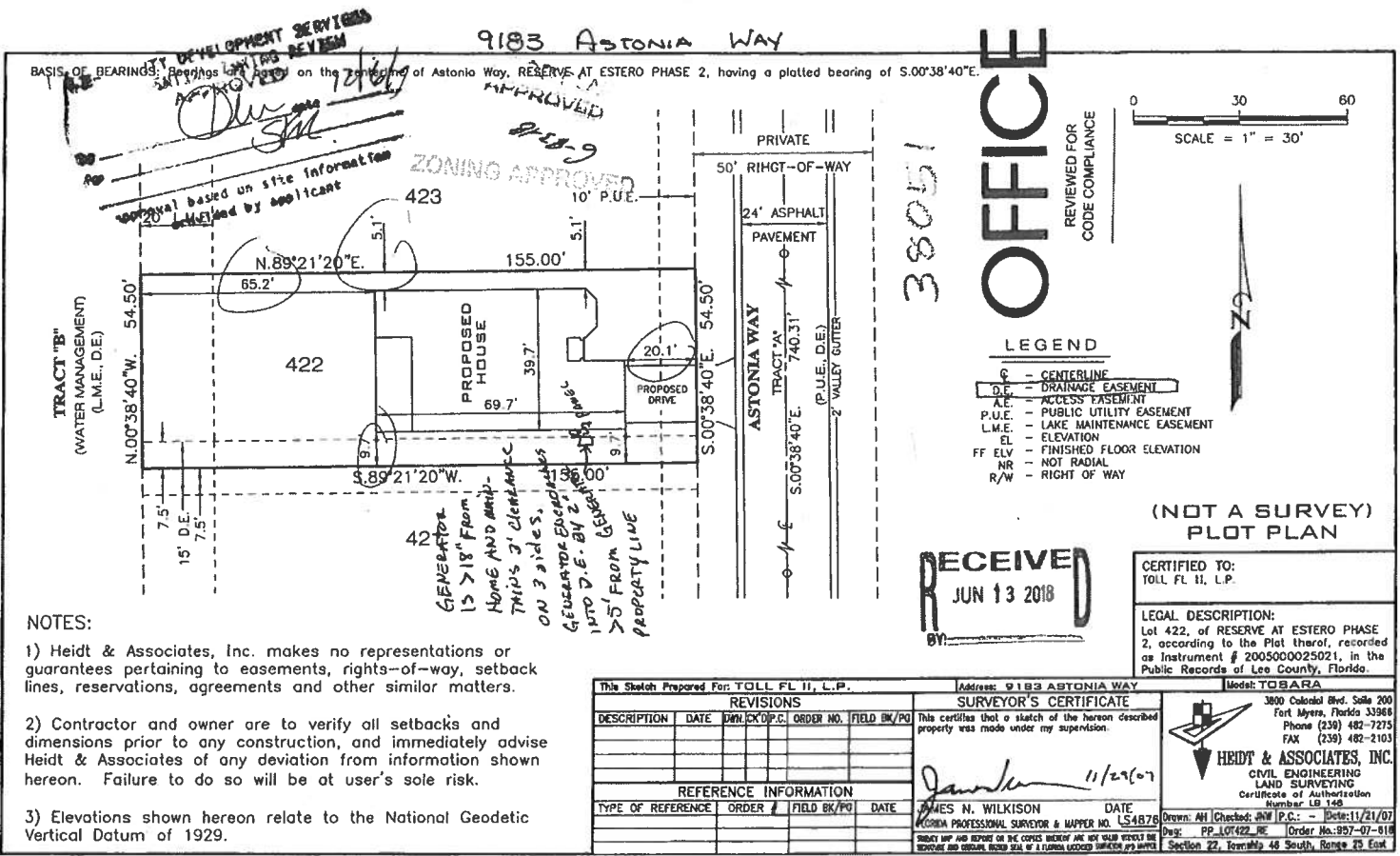
Documentation.....

1. Site plan with location of home (attached with both vertical and landscape orientation)
2. Site plan with location of generator (attached)
3. Photos (see photos)
4. Applicable Manufacturer's Documentation
 - A. Generac Installation Guidelines
 - B. Generac Owner's Manual
 - C. Generac Specification Sheet
 - D. Generac Buyer's Guide
5. DBPR Informal Interpretation Number 8283 G2406, G2408, Manufacturer's Specifications
6. Florida Constitution (online)
7. Florida Statute 877.03 (online)
8. Florida Building Code (online)

END (of Executive Summary)



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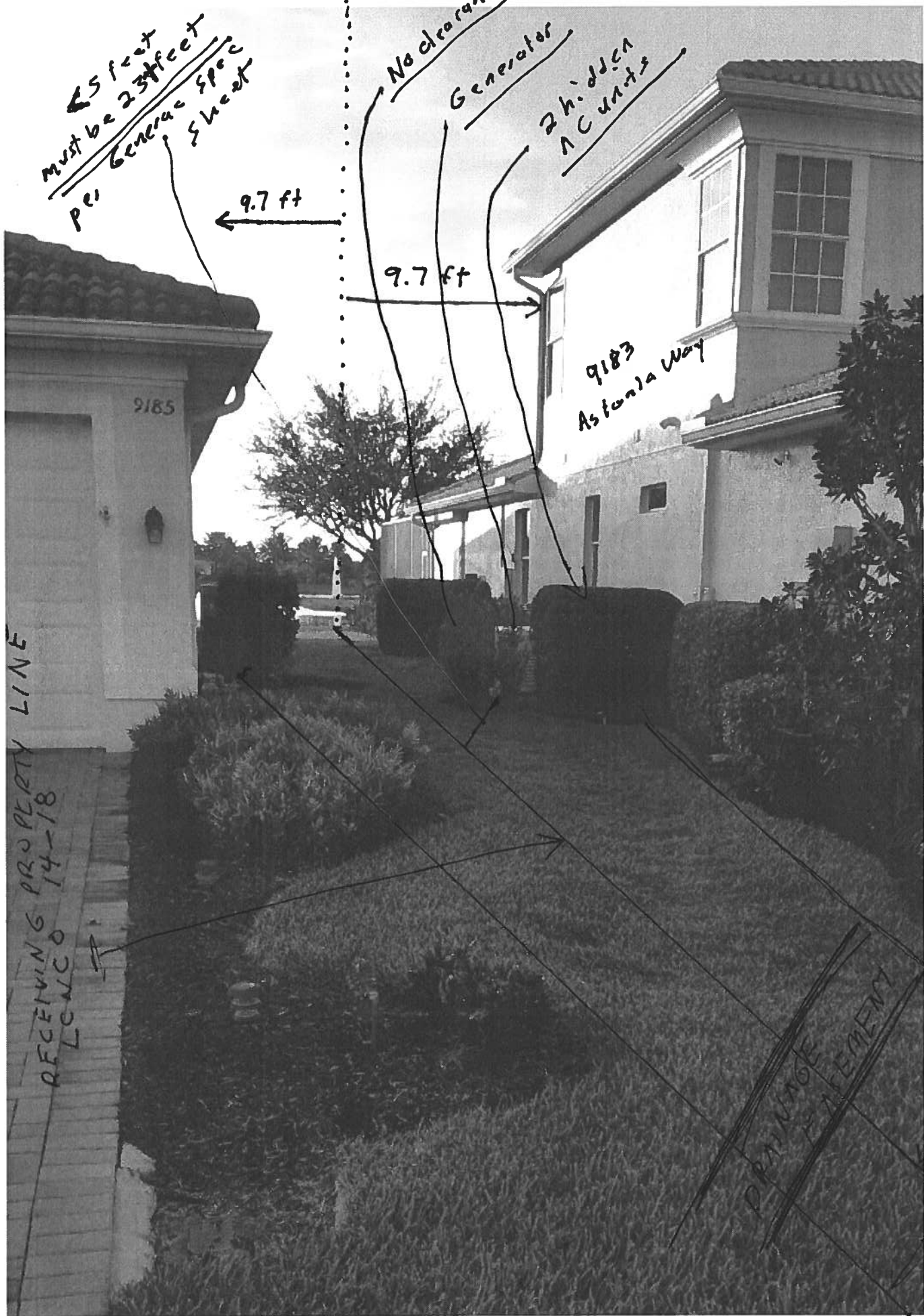


This Sketch Prepared For: TOLL FL II, L.P.				Address: 9183 ASTONIA WAY		Model: TOBARA	
REVISIONS				SURVEYOR'S CERTIFICATE			
DESCRIPTION	DATE	BY	CHK	ORDER NO.	FIELD BK/PG	This certifies that a sketch of the hereon described property was made under my supervision.	
REFERENCE INFORMATION				James N. Wilkison 11/29/07 FLORIDA PROFESSIONAL SURVEYOR & MAPPER NO. 54876 <small>SKETCH MAP AND REPORT ON THE COPIES HEREON ARE NOT VALID WITHOUT THE SIGNATURE AND OFFICIAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.</small>			
TYPE OF REFERENCE	ORDER #	FIELD BK/PG	DATE	James N. Wilkison DATE 11/29/07 FLORIDA PROFESSIONAL SURVEYOR & MAPPER NO. 54876		HEIDT & ASSOCIATES, INC. CIVIL ENGINEERING LAND SURVEYING Certificate of Authorization Number LB 1428 3800 Colonial Blvd., Suite 200 Fort Myers, Florida 33966 Phone (239) 482-7275 FAX (239) 482-2103	
				Drawn: AH Checked: JMW P.C.: - Date: 11/21/07 Disc: PP_107422_RE Order No.: 957-07-618 Section 22, Township 46 South, Range 25 East			

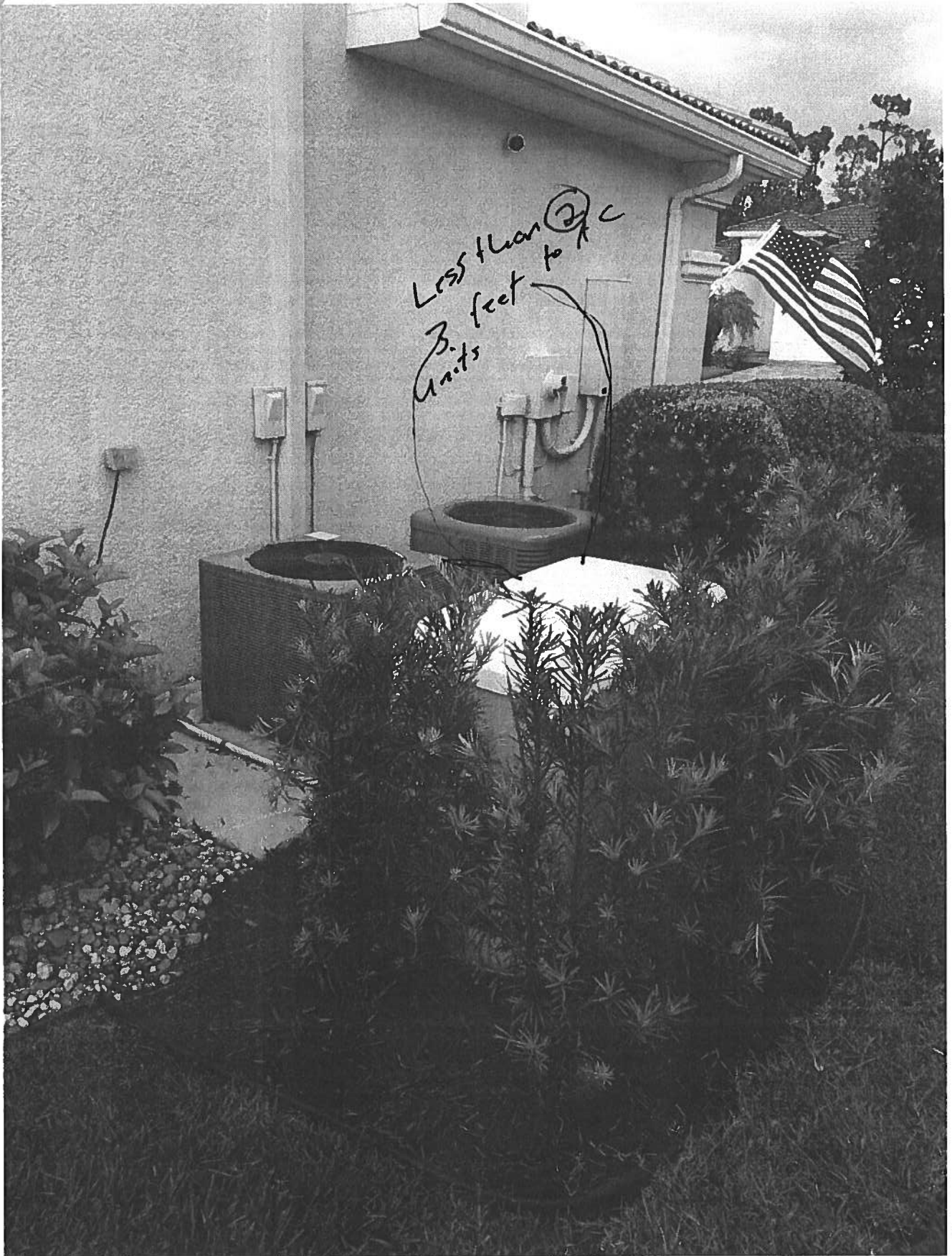
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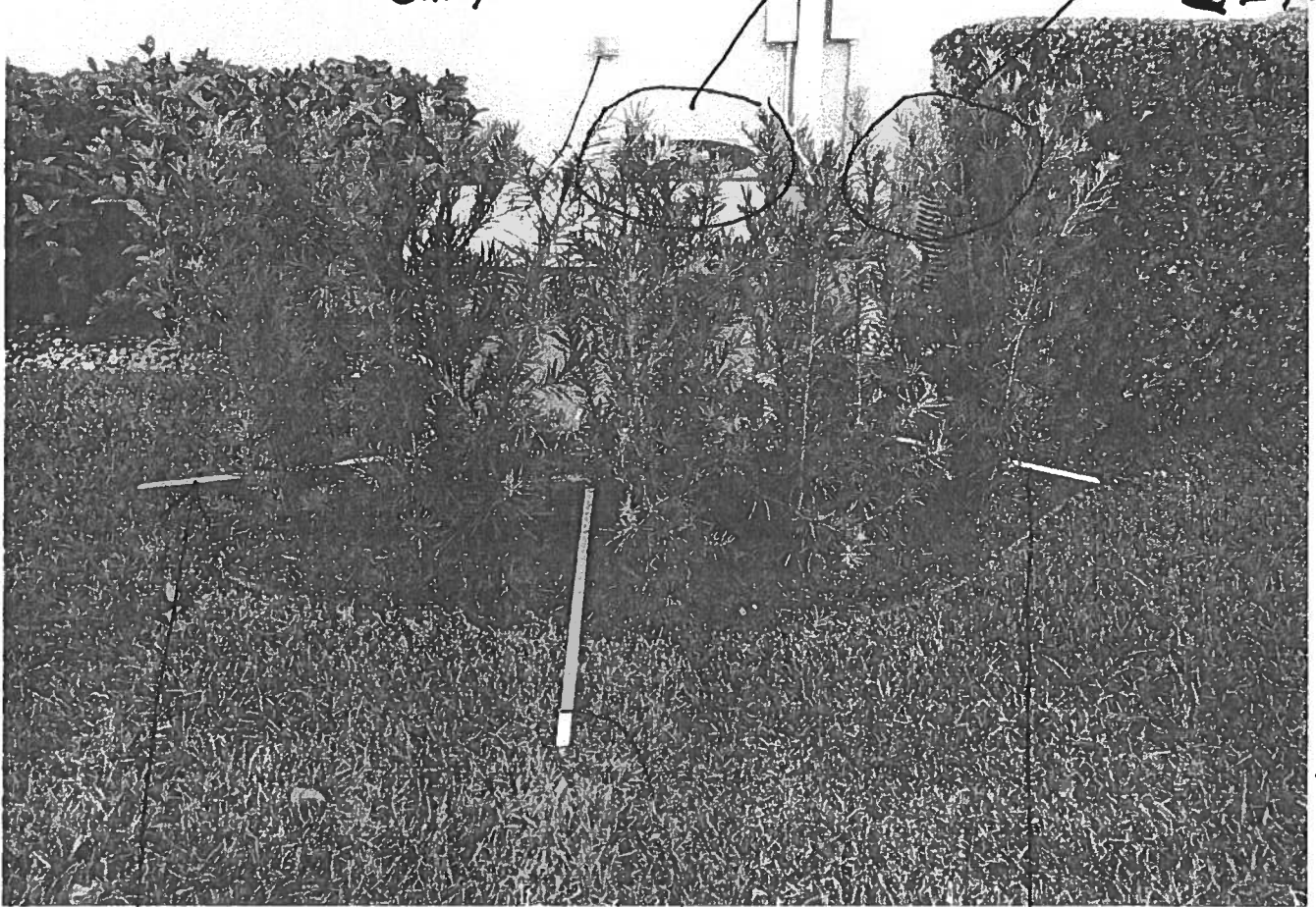
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UNLAWFUL PERMITS
GAS/ELECTRIC

VIOLATIONS
3ft AC UNIT 1

AC UNIT 0
3ft



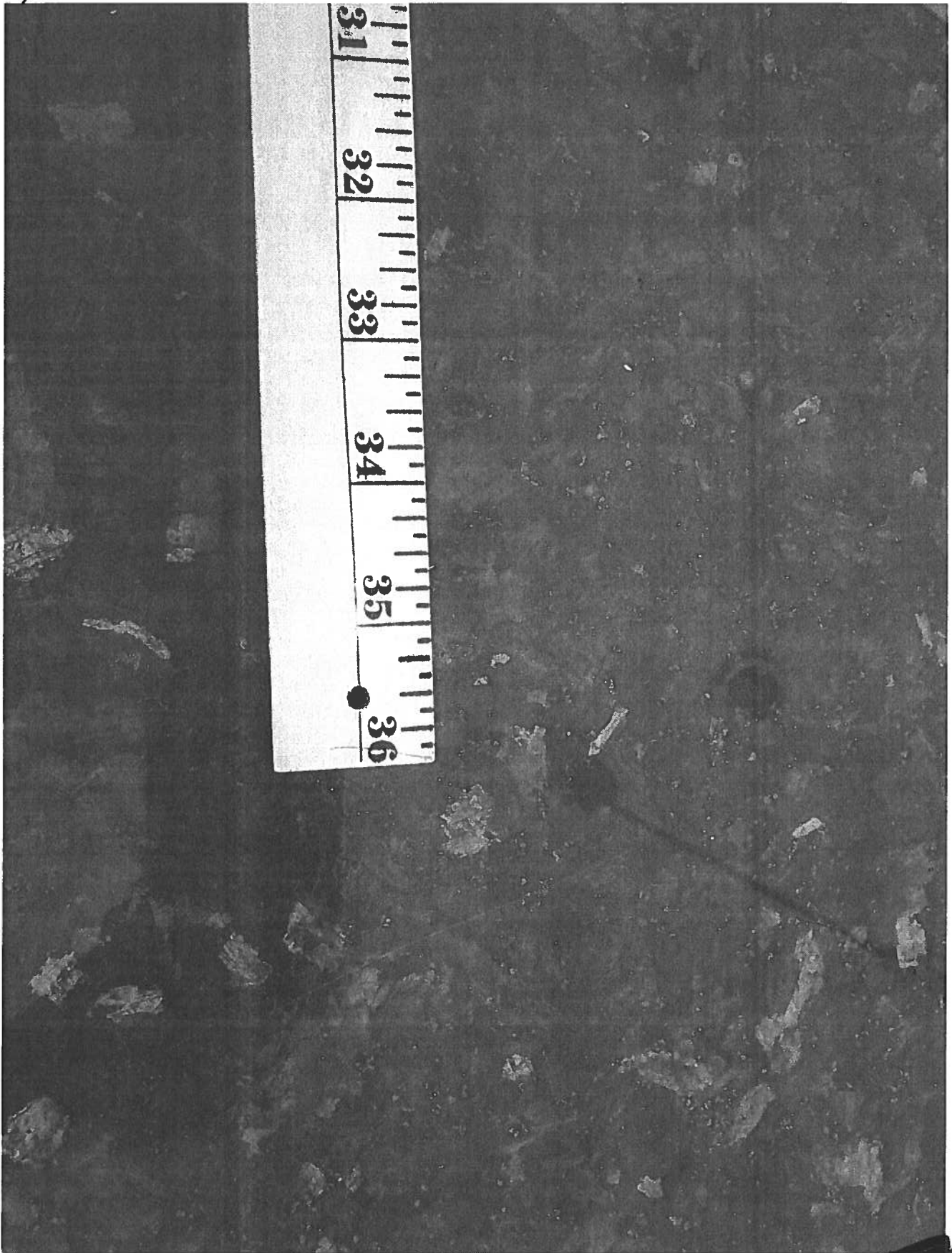
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LEFT SIDE
YARD STICK
3ft
VIOLATION
UNLAWFUL PERMIT

FRONT
SIDE
YARD STICK
3ft
VIOLATION
UNLAWFUL PERMIT

RIGHT
SIDE
YARD
STICK
3ft
VIOLATION
UNLAWFUL PERMIT

SHOWING EXACT USED
YARD STICKS CLOSE UP SHOWING 3 FT

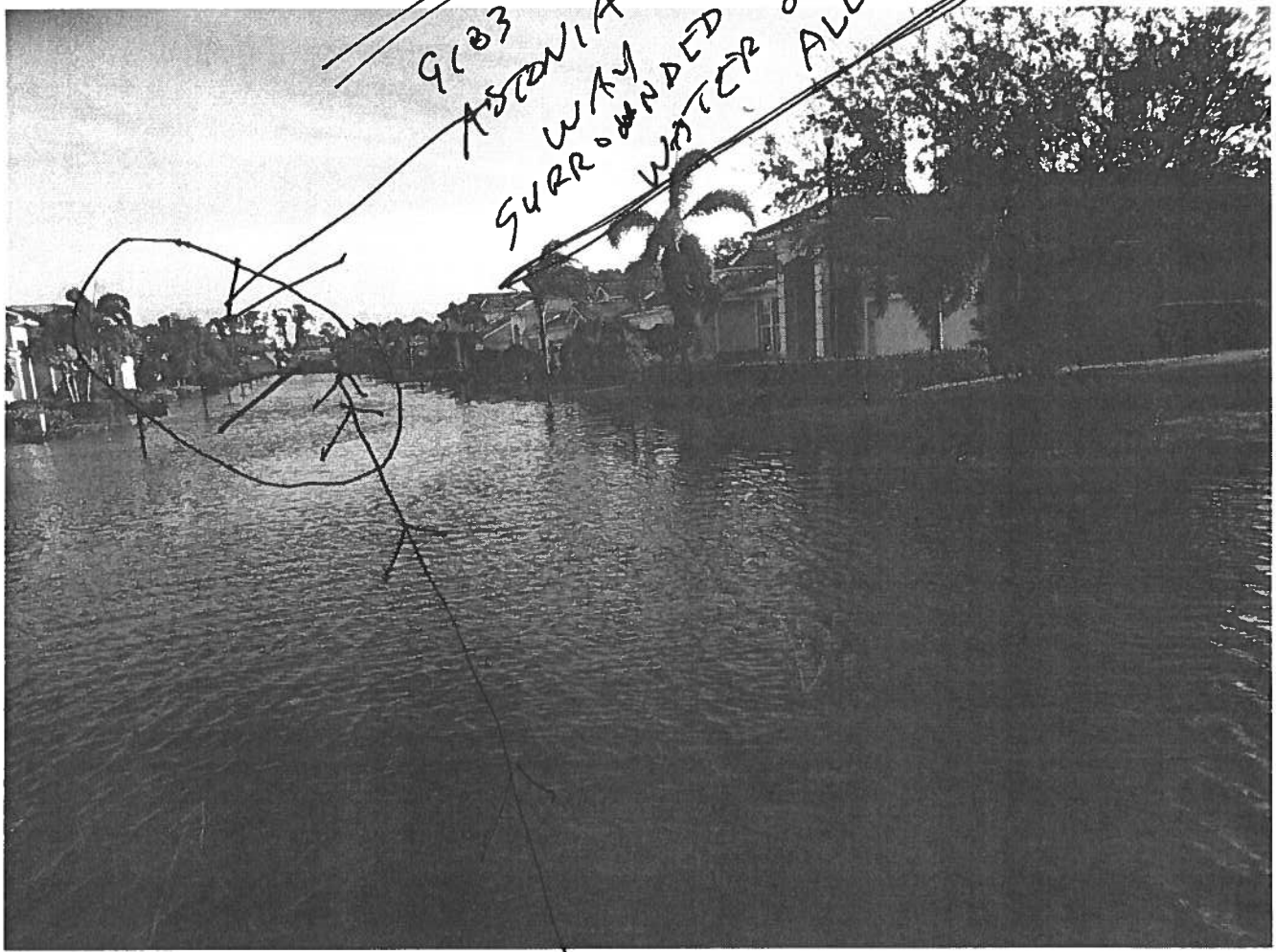


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3 ft \equiv 36 inches



9103
ASTONIA
WAY
SURROUNDED BY
WATER ON ALL SIDE,



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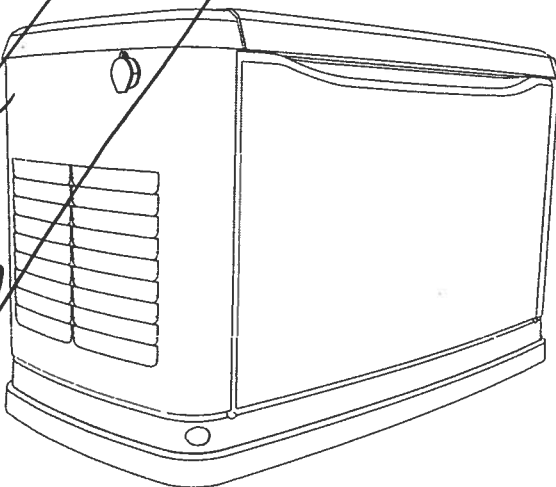
MIDDLE OF
ASTONIA WAY
AT IRMA



Installation Guidelines

60 Hz Air-Cooled Generators

9 kW to 22 kW



PDF 50 pages Installation Guide
OM Owners Manual
PDF 22 PAGES Specification Sheet
PDF 7 pages Buyers Guide
PDF 14 pages

plus iii, iiiiv
49 page

Installation Guidelines (page #1) refers to

Owners Manual (page #6) refers to

Specification Sheet

page # 3
67DBa @ 23 feet



WARNING

This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury. (000209a)

Register your Generac product at:
WWW.GENERAC.COM
1-888-GENERAC
(888-436-3722)

Para español, visita: <http://www.generac.com/service-support/product-support-lookup>
Pour le français, visiter : <http://www.generac.com/service-support/product-support-lookup>

SAVE THIS MANUAL FOR FUTURE REFERENCE

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Section 1: Safety Rules & General Information

Introduction

Thank you for purchasing this compact, high performance, air-cooled, engine-driven generator. It is 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 (NG).

NOTE: When sized properly, this generator is suitable for supplying typical residential loads such as induction motors (sump pumps, refrigerators, air conditioners, furnaces, etc.), electronic components (computer, monitor, TV, etc.), lighting loads, and microwaves.

The information in this manual is accurate based on products produced at the time of publication. The manufacturer reserves the right to make technical updates, corrections, and product revisions at any time without notice.

Read This Manual Thoroughly



WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

If any portion of this manual is not understood, contact the nearest Independent Authorized Service Dealer (IASD) for starting, operating, and servicing procedures.

This manual must be used in conjunction with the appropriate owner's manual.

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

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

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

(000001)

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

(000002)

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

(000003)

NOTE: Notes provide additional information important to a procedure or component.

Safety alerts cannot eliminate the hazards they indicate. Observing safety precautions and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

The operator is responsible for proper and safe use of the equipment. The manufacturer strongly recommends that if the operator is also the owner, to read the owner's manual and thoroughly understand all instructions before using this equipment. The manufacturer also strongly recommends instructing other users to properly start and operate the unit. This prepares them if they need to operate the equipment in an emergency.

How to Obtain Service

When the generator requires servicing or repairs, contact an IASD for assistance. Service technicians are factory-trained and are capable of handling all service needs. Please visit the dealer locator at: www.generac.com/Service/DealerLocator/ to locate the nearest IASD.

When contacting an IASD about parts and service, always supply the complete model number and serial number of the unit as given on its data decal, which is located on the generator. Refer to owner's manual for decal location. Record the model and serial numbers in the spaces provided on the inside front cover of this manual.

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Safety Rules

Study these SAFETY RULES carefully before installing, operating, or servicing this equipment. Become familiar with this installation manual, the owner's manual, and with the unit. The generator can operate safely, efficiently, 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.

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The alerts in this manual and on tags and decals affixed to the unit are not all-inclusive. If using a procedure, work method, or operating technique the manufacturer does not specifically recommend, verify that it is safe for others and does not render the generator unsafe.

General Hazards

▲ DANGER

Loss of life. Property damage. Installation must always comply with applicable codes, standards, laws and regulations. Failure to do so will result in death or serious injury. (000190)

▲ DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury. (000191)

▲ WARNING



Electrocution. Potentially lethal voltages are generated by this equipment. Render the equipment safe before attempting repairs or maintenance. Failure to do so could result in death or serious injury. (000187)

▲ WARNING



This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury. (000209a)

▲ WARNING

Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury. (000130)

▲ WARNING

Only qualified service personnel may install, operate and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000182)

▲ WARNING

This unit is not intended for use as a prime power source. It is intended for use as an intermediate power supply in the event of temporary power outage only. See individual unit specifications for required maintenance and run times pertaining to use. (000247)

▲ WARNING

Only a trained and licensed electrician should perform wiring and connections to unit. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000155)

▲ WARNING



Moving Parts. Do not wear jewelry when starting or operating this product. Wearing jewelry while starting or operating this product could result in death or serious injury. (000115)

▲ WARNING



Moving Parts. Keep clothing, hair, and appendages away from moving parts. Failure to do so could result in death or serious injury. (000111)

▲ WARNING



Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire. (000108)

▲ WARNING

Equipment and property damage. Do not alter construction of, installation, or block ventilation for generator. Failure to do so could result in unsafe operation or damage to the generator. (000146)

▲ WARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to service this equipment and could result in death or serious injury. (000215)

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⚠ WARNING

Environmental Hazard. Always recycle batteries at an official recycling center in accordance with all local laws and regulations. Failure to do so could result in environmental damage, death or serious injury. (000228)

⚠ WARNING

Injury and equipment damage. Do not use generator as a step. Doing so could result in falling, damaged parts, unsafe equipment operation, and could result in death or serious injury. (000216)

- Inspect the generator regularly, and contact the nearest IASD for parts needing repair or replacement.

Exhaust Hazards



⚠ DANGER

Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury. (000103)

⚠ WARNING

Equipment and property damage. Do not alter construction of, installation, or block ventilation for generator. Failure to do so could result in unsafe operation or damage to the generator. (000146)



⚠ WARNING

Asphyxiation. Always use a battery operated carbon monoxide alarm indoors and installed according to the manufacturer's instructions. Failure to do so could result in death or serious injury. (000178a)

- The generator must be installed and operated outdoors only.

WATER

Electrical Hazards

⚠ DANGER



Electrocution. Contact with bare wires, terminals, and connections while generator is running will result in death or serious injury. (000144)

⚠ DANGER



Electrocution. Never connect this unit to the electrical system of any building unless a licensed electrician has installed an approved transfer switch. Failure to do so will result in death or serious injury. (000150)

⚠ DANGER

Electrical backfeed. Use only approved switchgear to isolate generator from the normal power source. Failure to do so will result in death, serious injury, and equipment damage. (000237)

⚠ DANGER



Electrocution. Verify electrical system is properly grounded before applying power. Failure to do so will result in death or serious injury. (000152)

⚠ DANGER



Electrocution. Do not wear jewelry while working on this equipment. Doing so will result in death or serious injury. (000188)

⚠ DANGER



Electrocution. Water contact with a power source, if not avoided, will result in death or serious injury. (000104)

⚠ DANGER





Electrocution. In the event of electrical accident, immediately shut power OFF. Use non-conductive implements to free victim from live conductor. Apply first aid and get medical help. Failure to do so will result in death or serious injury. (000145)





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Fire Hazards


 **WARNING**
Fire hazard. Do not obstruct cooling and ventilating airflow around the generator. Inadequate ventilation could result in fire hazard, possible equipment damage, death or serious injury. (000217)

 **WARNING**
Fire and explosion. Installation must comply with all local, state, and national electrical building codes. Noncompliance could result in unsafe operation, equipment damage, death or serious injury. (000218)

 **WARNING**
Fire hazard. Use only fully-charged fire extinguishers rated "ABC" by the NFPA. Discharged or improperly rated fire extinguishers will not extinguish electrical fires in automatic standby generators. (000219)


 **WARNING**
Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

 **WARNING**
Electrocution. Refer to local codes and standards for safety equipment required when working with a live electrical system. Failure to use required safety equipment could result in death or serious injury. (000257)


 **WARNING**
Risk of Fire. Unit must be positioned in a manner that prevents combustible material accumulation underneath. Failure to do so could result in death or serious injury. (000147)


- Comply with regulations the Occupational Safety and Health Administration (OSHA) has established. Verify 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.

Explosion Hazards

 **DANGER**
Explosion and fire. Fuel and vapors are extremely flammable and explosive. No leakage of fuel is permitted. Keep fire and spark away. Failure to do so will result in death or serious injury. (000192)

DANGER
Connection of fuel source must be done by a qualified professional technician or contractor. Incorrect installation of this unit will result in death, serious injury, and damage to equipment and property damage. (000151)

 **DANGER**
Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury. (000174)

 **WARNING**
Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury. (000110)

"Recommendations"



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General Rules

⚠ DANGER

Loss of life. Property damage. Installation must always comply with applicable codes, standards, laws and regulations. Failure to do so will result in death or serious injury. (000190)

⚠ DANGER

Electrical backfeed. Use only approved switchgear to isolate generator from the normal power source. Failure to do so will result in death, serious injury, and equipment damage. (000237)

⚠ WARNING

Only qualified service personnel may install, operate and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000182)

⚠ WARNING

Electrocution. Refer to local codes and standards for safety equipment required when working with a live electrical system. Failure to use required safety equipment could result in death or serious injury. (000257)

Follow all safety precautions in the owner's manual, installation guidelines manual, and other documents included with your equipment.

- Never energize a new system without opening all disconnects and breakers.
- Always consult your local code for additional requirements for the area in which the unit is being installed.
- Improper installation can result in personal injury and damage to the generator. It may also result in the warranty being suspended or voided. All the instructions listed below must be followed including location clearances and pipe sizes.

Before You Begin

Contact the local inspector or city hall to be aware of all federal, state, and local codes that could impact the installation. Secure all required permits before starting the install.

Carefully read and follow all of the procedures and safety precautions detailed in the installation guide. If any portion of the installation manual, technical manual, or other factory-supplied documents is not completely understood, contact an IASD for assistance.

- Fully comply with all relevant NEC, NFPA, and OSHA standards, as well as all federal, state, and local building and electric codes. As with any generator, this unit must be installed in accordance with current NFPA 37 and NFPA 70 standards, as well as any other federal, state, and local codes for minimum distances from other structures.
- Verify the capacity of the natural gas meter or the LP tank in regards to providing sufficient fuel for both the generator and other household and operating appliances.

NEC Requirements

Local code enforcement may require that Arc Fault Circuit Interrupters (AFCIs) be incorporated into the transfer switch distribution panel. The transfer switch provided with this generator has a distribution panel that will accept AFCIs (pre-wired transfer switches only).

Siemens Part No. Q115AF - 15A or Q120AF - 20A can be obtained from a local electrical wholesaler and will simply replace any of the single pole circuit breakers supplied in the pre-wired transfer switch distribution panel.

Standards Index

⚠ WARNING

This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury. (000209a)

- Strictly comply with all applicable national, state, and local laws, as well as codes or regulations pertaining to the installation of this engine-generator power system. Use the most current version of applicable codes or standards relevant to the local jurisdiction, generator used, and installation site.

NOTE: Not all codes apply to all products and this list is not all-inclusive. In the absence of pertinent local laws and standards, the following publications may be used as a guide (these apply to localities which recognize NFPA and IBC).

1. National Fire Protection Association (NFPA) 70: The NATIONAL ELECTRIC CODE (NEC) *
2. NFPA 10: Standard for Portable Fire Extinguishers *
3. NFPA 30: Flammable and Combustible Liquids Code *
4. NFPA 37: Standard for Stationary Combustion Engines and Gas Turbines *
5. NFPA 54: National Fuel Gas Code *

6. NFPA 58: Standard for Storage and Handling Of Liquefied Petroleum Gases *
7. NFPA 68: Standard On Explosion Protection By Deflagration Venting *
8. NFPA 70E: Standard For Electrical Safety In The Workplace *
9. NFPA 110: Standard for Emergency and Standby Power Systems *
10. NFPA 211: Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances *
11. NFPA 220: Standard on Types of Building Construction *
12. NFPA 5000: Building Code *
13. International Building Code **
14. Agricultural Wiring Handbook ***
15. Article X, NATIONAL BUILDING CODE
16. ASAE EP-364.2 Installation and Maintenance of Farm Standby Electric Power ****
17. ICC:IFGC

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This list is not all-inclusive. Check with the Authority Having Local Jurisdiction (AHJ) for any local codes or standards which may be applicable to your jurisdiction.

The above listed standards are available from the following internet sources:

* www.nfpa.org

** www.iccsafe.org

*** www.nerc.org Rural Electricity Resource Council P.O. Box 309 Wilmington, OH 45177-0309

**** www.asabe.org American Society of Agricultural & Biological Engineers 2950 Niles Road, St. Joseph, MI 49085

Section 3: Site Selection and Preparation

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Site Selection

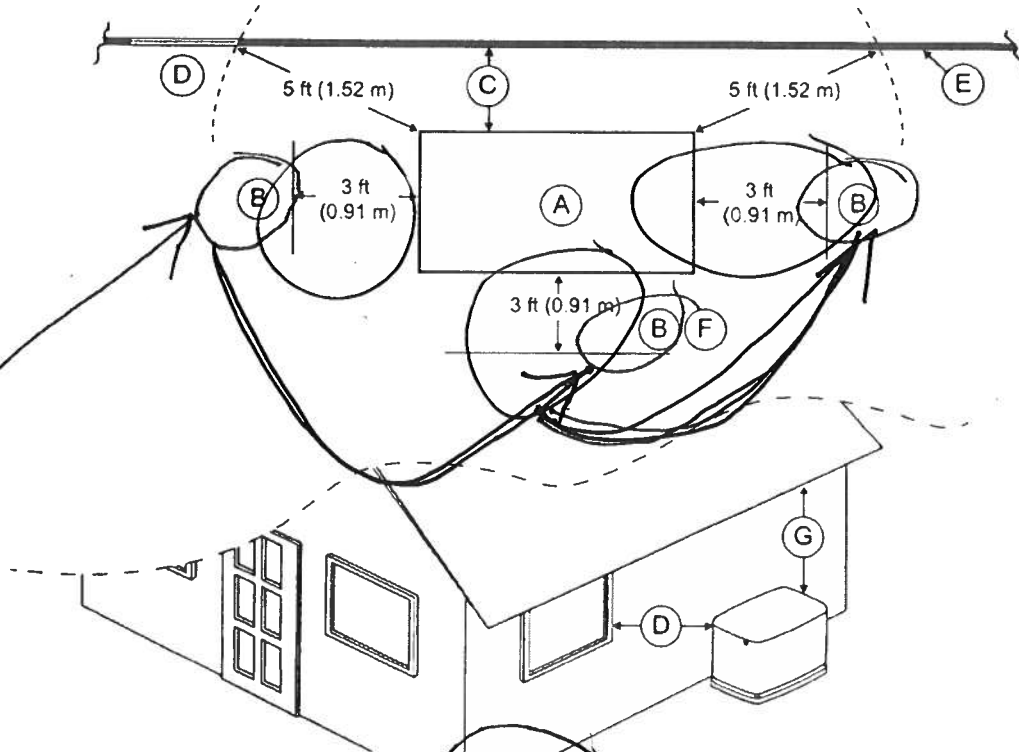


Figure 3-1. Installation Clearances

ID	Description	Comments
A	Top of generator	—
B	Front and rear clearance	Minimum clear distance. <u>cannot include shrubs, bushes, or trees.</u>
C	Rear clearance	18 in (45.7 cm) minimum clearance per NFPA testing, labeling, and listing, unless state or local codes dictate otherwise.
D	Windows and openings	No operable windows, doors, or openings in the wall are permitted within 5 ft (1.52 m) from any point of the generator.
E	Existing wall	One-hour fire rated walls allow closer placement of the generator set. Confirm before installation.
F	Removable fence	Removable fence panels for servicing cannot be placed less than 3 ft (0.91 m) in front of the generator.
G	Overhead clearance	5 ft (1.52 m) minimum distance from any structure, overhang, or projections from the wall. DO NOT install under wooden decks or structures unless this distance is maintained.

LOCATION (WATER) PE drainage easement

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Install the generator set, in its protective enclosure, outdoors where adequate cooling and ventilating air is always available (Figure 3-1). Consider these factors:

- The installation of the generator must comply strictly with ICC IFGC, NFPA 37, NFPA 84, NFPA 58, and NFPA 70 standards.
- Install the unit where air inlet and outlet openings will not become obstructed by leaves, grass, snow, etc. If prevailing winds will cause blowing or drifting, consider using a windbreak to protect the unit.
- Install the generator on high ground where water levels will not rise and endanger it. This unit should not operate in or be subjected to standing water.
- Allow sufficient room on all sides of the generator for maintenance and servicing. This unit must be installed in accordance with any local, state, or national codes for minimum distances from other structures.
- Clearance from the ends and front of the generator must be 3 ft (0.91 m). This includes shrubs, bushes, and trees. Clearance from the back of the generator must be a minimum of 18 in (457 mm). Clearance at the top should be a minimum of 5 ft (1.52 m) from any structure, overhang, or projections from the wall.
- DO NOT install under wooden decks or structures unless there is at least 5 ft (1.52 m) of clearance above the generator.
- Install the unit where rain gutter down spouts, roof run-off, landscape, irrigation, water sprinklers, or sump pump discharge does not flood the unit or spray the enclosure, including any air inlet or outlet openings.
- Install the unit where services will not be affected or obstructed, including concealed, underground, or covered services such as electrical, fuel, phone, air conditioning or irrigation. This could affect warranty coverage.
- Where strong prevailing winds blow from one direction, face the generator air inlet openings to the prevailing winds.
- Install the generator as close as possible to the fuel supply to reduce the length of piping. REMEMBER THAT LAWS OR CODES MAY REGULATE THE DISTANCE AND LOCATION. In the absence of local codes regarding placement or clearance, we recommend following these guidelines:
 - Install the generator as close as possible to the transfer switch. REMEMBER THAT LAWS OR CODES MAY REGULATE THE DISTANCE AND LOCATION.

DE ✓



- The generator must be installed on a level surface. The generator must be level within a 0.5 in (13 mm) all around.
- The generator is typically placed on pea gravel, compacted soil, crushed stone, or a concrete pad. Check local codes to see what type is required. If a concrete pad is required, all applicable codes should be followed.

WATER

Installation Guidelines for Stationary Air-Cooled Generators

NFPA 37 is the The National Fire Protection Association's standard for the installation and use of stationary combustion engines. Its requirements limit the spacing of an enclosed generator set from a structure or wall (Figure 3-1).

NFPA 37, Section 4.1.4, Engines Located Outdoors: Engines, and their weatherproof housings if provided, that are installed outdoors shall be located at least 5 ft (1.52 m) from openings in walls and at least 5 ft (1.52 m) from structures having combustible walls. A minimum separation shall not be required where the following conditions exist:

1. The adjacent wall of the structure has a fire resistance rating of at least one hour.
2. The weatherproof enclosure is constructed of noncombustible materials and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

COMP. AIR

Annex A — Explanatory Material

A4.1.4 (2) Means of demonstrating compliance are by means of full scale fire test or by calculation procedures.

Because of the limited spaces that are frequently available for installation, it has become apparent that exception (2) would be beneficial for many residential and commercial installations. With that in mind, the manufacturer contracted with an independent testing laboratory to run full scale fire tests to assure that the enclosure will not ignite combustible materials outside the enclosure.

NOTE: Southwest Research Institute testing approves 18 in (457 mm) installation minimum from structure (Figure 3-1, C). Southwest Research Institute is a nationally recognized third party testing and listing agency.

The criteria was to determine the worst case fire scenario within the generator and to determine the ignitability of items outside the engine enclosure at various distances. The enclosure is constructed of non-combustible materials, and the results and conclusions from the independent testing lab indicated that any fire within the

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generator enclosure would not pose any ignition risk to nearby combustibles or structures, with or without fire service personnel response.

Site Preparation

WATER

- Locate the mounting area as close as possible to the transfer switch and fuel supply.
- Leave adequate room around the area for service access (check local code), and place high enough to keep rising water from reaching the generator.
- Choose an open space that will provide adequate and unobstructed airflow.
- Place the unit so air vents won't become clogged with leaves, grass, snow, or debris. Verify that exhaust fumes will not enter any building through eaves, windows, ventilation fans, or other air intakes (see *Site Selection*).
- Select the type of base, such as—but not limited to—compacted soil, gravel, or concrete, as desired or as required by local laws or codes. Verify your local requirements before selecting.

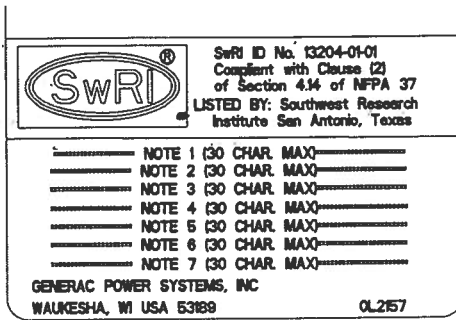


Figure 3-2. Southwest Research Institute Marking

<http://www.swri.org/4org/d01/fire/listlab/listprod/director.htm>

Based on this testing and the requirements of NFPA 37, Sec 4.1.4, the guidelines for installation of the generators listed above are changed to 18 in (457 mm) from the back side of the generator to a stationary wall or building (C). For adequate maintenance and airflow clearance, the area above the generator should be at least 5 ft (1.52 m) with a minimum of 3 ft (0.91 m) at the front and ends of the enclosure. This includes trees, shrubs, and bushes. Vegetation not in compliance with these clearance parameters could obstruct air flow. In addition, exhaust fumes from the generator could inhibit plant growth. See Figure 3-1 and the installation drawing within the owner's manual for details.

▲ DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury.

(000191)



▲ DANGER

Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury.

(000103)

NOTE: If the generator is not set to OFF, it can crank and start as soon as the battery cables are connected. If the utility power supply is not turned off, sparking can occur at the battery posts and cause an explosion.

Material Sufficient for Level Installation

- Prepare a rectangular area approximately 5 in (127 mm) deep (A) and approximately 6 in (152 mm) longer and wider (B) than the footprint of the generator. Verify that the surface where the generator will be mounted is compacted, leveled, and will not erode over time. A concrete pad can be poured if desired or required.

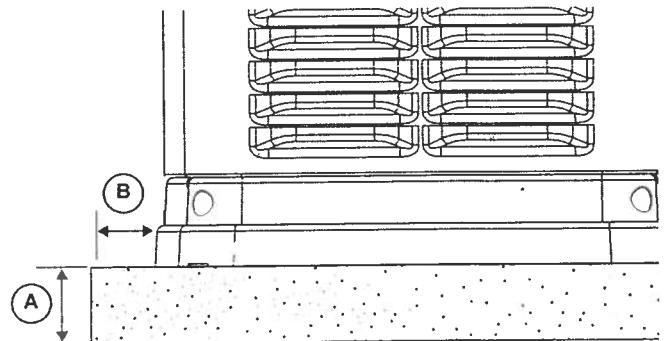


Figure 3-3. Compacted Soil or Gravel Pad

NOTE: If a concrete pad is required, follow all applicable federal, state, or local codes.

Section 4: Generator Placement

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Generator Placement

All air-cooled generators come with a non-sinking direct to dirt (DTD) composite base pad. The DTD pad elevates the generator and helps prevent water from pooling around the base. (**Figure 4-1**).

The DTD pad allows the generator to be placed on three types of surfaces:

- directly on level, solid ground
- on 4 in (102 mm) of compacted pea gravel
- on a concrete pad

Check local codes to see what type of site base is required. If a concrete pad is required, all federal, state, and local codes should be followed. Place the generator, with the DTD pad attached, and position correctly as per the dimensional information given in **Site Preparation**.

NOTE: Generator must be level within 0.5 in (13 mm).

NOTE: See **Figure 4-2**. DO NOT remove the DTD pad for mounting the generator to concrete. The pad is pre-drilled to accommodate mounting bolts.

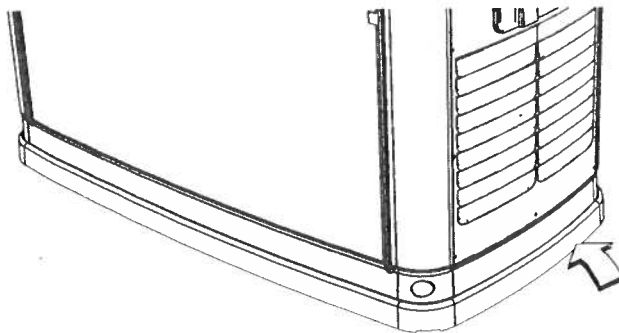


Figure 4-1. DTD Composite Pad

See **Figure 4-2**. Three mounting holes are available if codes require securing the generator to the concrete. Two holes are inside the front of the generator compartment, and one hole is in the back.

Three 3/8 in (or M10) lag bolts (not supplied) are recommended for securing the generator to a concrete pad.

NOTE: The top of the generator carton has a template that can be used to mark the concrete pad to pre-drill the mounting holes.

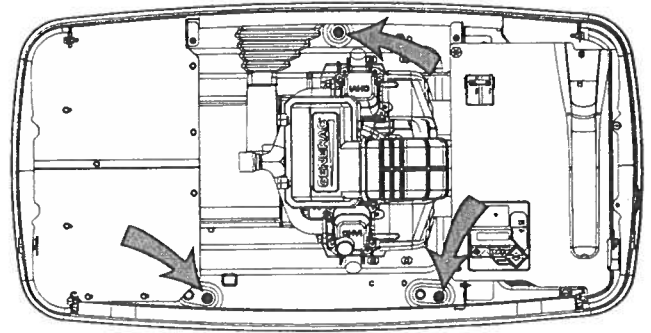


Figure 4-2. Mounting Hole Location

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11. Verify gas pressure while under full load. Record loaded gas pressure: _____.
12. When testing under load is complete, turn off electrical loads.
13. Set the generator MLCB (generator disconnect) to OFF (OPEN).
14. Let the engine run at no-load for 2–5 minutes.
15. Push the generator OFF button. The engine will shut down.

NOTE: If gas pressure under full load is below the minimum operating pressure guideline, the generator may not function properly. The pressure gauge needle should also remain steady while testing. A fluctuating needle indicates that gas piping may be undersized or restricted. It may also indicate that a step-down gas regulator is too small, or too close to the unit.

Checking Automatic Operation

Proceed as follows to check the system for proper automatic operation:

1. Verify that the generator is off.
2. Install the front cover of the transfer switch.
3. Turn on the utility power supply to the transfer switch using the means provided (such as a utility MLCB).

NOTE: Transfer switch will transfer to utility position.

4. Set the generator MLCB (generator disconnect) to ON (CLOSED).
5. Push the generator AUTO button. The system is now ready for automatic operation.
6. Turn off the utility power supply to the transfer switch.

The generator is ready for automatic operation. The engine will crank and start when the utility source power is turned OFF after a five second delay and five second warmup (factory default setting). After starting, the transfer switch will connect load circuits to the standby side after a 5 or 30 second delay. See *Cold Smart Start*. Allow the system to operate through the entire automatic sequence of operation.

With the generator running and loads powered by generator AC output, turn on the utility power supply to the transfer switch. The following will occur:

- After approximately 15 seconds, the switch will transfer loads to the utility power source.
- Approximately one minute after re-transfer, the engine will shut down.

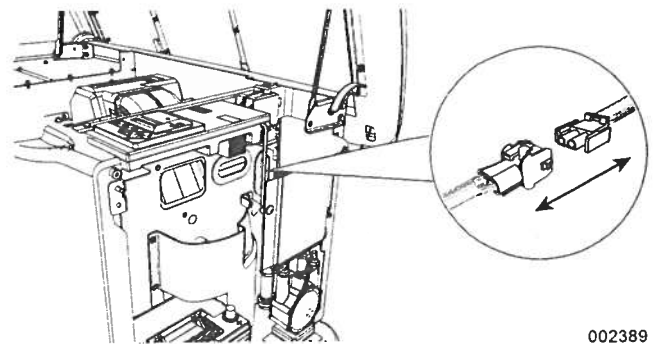
Installation Summary

1. Verify the installation has been properly performed as outlined by the manufacturer and that it meets all applicable laws and codes.
2. Test and confirm proper operation of the system as outlined in the appropriate installation and owner's manuals.
3. Educate the end-user on the proper operation, maintenance and service call procedures.

Shutting Generator Down While Under Load Or During An Extended Outage

Proceed as follows to turn the generator off during utility outages to perform maintenance or conserve fuel:

1. Turn the main utility disconnect OFF (OPEN).
2. Lift lid and turn the MLCB (generator disconnect) on the generator to OFF (OPEN).
3. Press the OFF mode button on the controller.
4. Remove the 7.5 amp fuse from the control panel.
5. With the generator shut down, remove the front and intake side panel. (See *Intake Side Panel Removal*.)
6. See *Figure 7-3*. Disconnect white battery charger cable.



002389

Figure 7-3. Disconnect Battery Charger Cable

7. Perform required maintenance procedure(s).

To turn the generator back ON:

1. See *Figure 7-3*. Connect white battery charger cable.
2. Install the intake side panel and front panel. (See *Intake Side Panel Removal*.)
3. Install the 7.5 amp fuse in the control panel.
4. Set the MLCB (generator disconnect) on the generator to ON (CLOSED).
5. Turn the main utility disconnect ON (CLOSED).

The system is now in automatic mode. To shut the unit off, repeat this complete process.

LOCATION

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Section 3: Operation

Site Prep Verification

The generator must be installed so that airflow into and out of the generator is not impeded. Verify that all shrubs or tall grasses within 3 ft (0.91 m) of the intake and discharge louvers on the sides of the enclosure have been removed. Install the generator on high ground where water levels will not rise and endanger it. This unit should not operate in or be subjected to standing water. Verify that all potential water sources such as water sprinklers, roof run-off, rain gutter downspouts, and sump pump discharges are directed away from the generator enclosure.



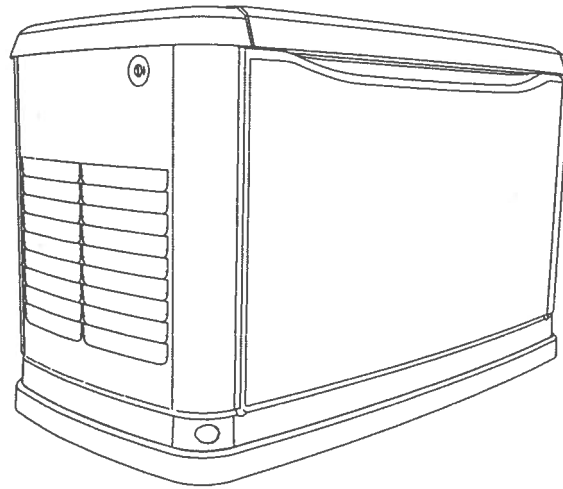
GENERAC®

OM

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Owner's Manual
60 Hz Air-Cooled Generators

8 kW to 22 kW



WARNING

This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury. (000209a)

Register your Generac product at:
WWW.GENERAC.COM
1-888-GENERAC
(888-436-3722)

Para español , visita: <http://www.generac.com/service-support/product-support-lookup>
Pour le français, visiter : <http://www.generac.com/service-support/product-support-lookup>

SAVE THIS MANUAL FOR FUTURE REFERENCE

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Section 1: Safety Rules & General Information

Introduction

Thank you for purchasing this compact, high performance, air-cooled, engine-driven generator. It is 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 (NG).

NOTE: When sized properly, this generator is suitable for supplying typical residential loads such as induction motors (sump pumps, refrigerators, air conditioners, furnaces, etc.), electronic components (computer, monitor, TV, etc.), lighting loads and microwaves.

Read This Manual Thoroughly



WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

If any portion of this manual is not understood, contact the nearest Independent Authorized Service Dealer for starting, operating and servicing procedures.

This manual must be used in conjunction with the appropriate Owner's Manual.

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

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

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

(000001)

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

(000002)

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

(000003)

NOTE: Notes provide additional information important to a procedure or component.

These safety warnings cannot eliminate the hazards they indicate. Observing safety precautions and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

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

How to Obtain Service

When the generator requires servicing or repairs, contact an Independent Authorized Service Dealer for assistance. Service technicians are factory-trained and are capable of handling all service needs. For assistance locating a dealer, go to www.generac.com/Service/DealerLocator/.

When contacting a dealer about parts and service, always supply the complete model number and serial number of the unit as given on its data decal, which is located on the generator. Refer to **Figure 2-1** and **Figure 2-2** for decal location. Record the model number and serial numbers in the spaces provided on the inside front cover of this manual.

Safety Rules

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, efficiently 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.

The manufacturer cannot anticipate every possible 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 using a procedure, work method, or operating technique the manufacturer does not specifically recommend, verify that it is safe for others. Also, make sure the procedure, work method or operating technique utilized does not render the generator unsafe.

General Hazards

⚠ DANGER

Loss of life, Property damage. Installation must always comply with applicable codes, standards, laws and regulations. Failure to do so will result in death or serious injury. (000190)

⚠ DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury. (000191)

⚠ WARNING



Electrocution. Potentially lethal voltages are generated by this equipment. Render the equipment safe before attempting repairs or maintenance. Failure to do so could result in death or serious injury. (000187)

⚠ WARNING



This product is not intended to be used in a critical life support application. Failure to adhere to this warning could result in death or serious injury. (000209a)

⚠ WARNING

Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury. (000130)

⚠ WARNING

Only qualified service personnel may install, operate and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000182)

⚠ WARNING

This unit is not intended for use as a prime power source. It is intended for use as an intermediate power supply in the event of temporary power outage only. See individual unit specifications for required maintenance and run times pertaining to use. (000247)

⚠ WARNING

Only a trained and licensed electrician should perform wiring and connections to unit. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000155)

⚠ WARNING



Moving Parts. Do not wear jewelry when starting or operating this product. Wearing jewelry while starting or operating this product could result in death or serious injury. (000115)

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⚠ WARNING



Moving Parts. Keep clothing, hair, and appendages away from moving parts. Failure to do so could result in death or serious injury. (000111)

⚠ WARNING



Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire. (000108)

⚠ WARNING

Equipment and property damage. Do not alter construction of, installation, or block ventilation for generator. Failure to do so could result in unsafe operation or damage to the generator. (000146)

⚠ WARNING

Risk of injury. Do not operate or service this machine if not fully alert. Fatigue can impair the ability to service this equipment and could result in death or serious injury. (000215)

⚠ WARNING

Environmental Hazard. Always recycle batteries at an official recycling center in accordance with all local laws and regulations. Failure to do so could result in environmental damage, death or serious injury. (000228)

⚠ WARNING

Injury and equipment damage. Do not use generator as a step. Doing so could result in falling, damaged parts, unsafe equipment operation, and could result in death or serious injury. (000216)

Inspect the generator regularly, and contact the nearest Independent Authorized Service Dealer for parts needing repair or replacement.

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Exhaust Hazards



⚠ DANGER

Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury. (000103)



⚠ WARNING

Asphyxiation. Always use a battery operated carbon monoxide alarm indoors and installed according to the manufacturer's instructions. Failure to do so could result in death or serious injury. (000178a)

Adequate, unobstructed flow of cooling and ventilating air is critical to correct generator operation. Do not alter the installation or permit even partial blockage of ventilation provisions, as this can seriously affect safe operation of the generator. The generator must be installed and operated outdoors only.

Electrical Hazards



⚠ DANGER

Electrocution. Contact with bare wires, terminals, and connections while generator is running will result in death or serious injury. (000144)



⚠ DANGER

Electrocution. Never connect this unit to the electrical system of any building unless a licensed electrician has installed an approved transfer switch. Failure to do so will result in death or serious injury. (000150)

⚠ DANGER

Electrical backfeed. Use only approved switchgear to isolate generator when electrical utility is the primary power source. Failure to do so will result in death, serious injury, and equipment damage. (000131a)



⚠ DANGER

Electrocution. Verify electrical system is properly grounded before applying power. Failure to do so will result in death or serious injury. (000152)



⚠ DANGER

Electrocution. Do not wear jewelry while working on this equipment. Doing so will result in death or serious injury. (000188)



⚠ DANGER

Electrocution. Water contact with a power source, if not avoided, will result in death or serious injury. (000104)



⚠ DANGER

Electrocution. Contact with bare wires, terminals, and connections while generator is running will result in death or serious injury. (000144)




⚠ DANGER


Electrocution. In the event of electrical accident, immediately shut power OFF. Use non-conductive implements to free victim from live conductor. Apply first aid and get medical help. Failure to do so will result in death or serious injury. (000145)


Not even partial plant coverage within 3 feet of left and/or right ends




Fire Hazards


 **WARNING**
Fire hazard. Do not obstruct cooling and ventilating airflow around the generator. Inadequate ventilation could result in fire hazard, possible equipment damage, death or serious injury. (000217)

 **WARNING**
Fire and explosion. Installation must comply with all local, state, and national electrical building codes. Noncompliance could result in unsafe operation, equipment damage, death or serious injury. (000218)

 **WARNING**
Fire hazard. Use only fully-charged fire extinguishers rated "ABC" by the NFPA. Discharged or improperly-rated fire extinguishers will not extinguish electrical fires in automatic standby generators. (000219)


 **WARNING**
Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)


 **WARNING**
Risk of electrocution. Refer to NFPA 70E for safety equipment required when working with with a live electrical system. Failure to use required safety equipment could result in death or serious injury. (000221)


 **WARNING**
Risk of Fire. Unit must be positioned in a manner that prevents combustible material accumulation underneath. Failure to do so could result in death or serious injury. (000147)


Comply with regulations the Occupational Safety and Health Administration (OSHA) has established. Also, verify 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.

Explosion Hazards

 **DANGER**
Explosion and Fire. Fuel and vapors are extremely flammable and explosive. No leakage of fuel is permitted. Keep fire and spark away. Failure to do so will result in death or serious injury. (000192)

 **DANGER**
Connection of fuel source must be done by a qualified professional technician or contractor. Incorrect installation of this unit will result in death, serious injury, and damage to equipment and property damage. (000151)

 **DANGER**
Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury. (000174)

 **WARNING**
Risk of Fire. Hot surfaces could ignite combustibles, resulting in fire. Fire could result in death or serious injury. (000110)

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plant coverage
insurance
compliance

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Specifications

Generator

Model	8 kW	11 kW	16 kW	20 kW	22 kW
Rated Voltage	240				
Rated Maximum Load Current (Amps) at Rated Voltage*	33.3	45.8	66.6	83.3	91.7
Main Circuit Breaker	35 Amp	50 Amp	65 Amp	90 Amp	100 Amp
Phase	1				
Rated AC Frequency	60 Hz				
Battery Requirement	Group 26R, 12 Volts and 540 CCA Minimum (see <i>Replacement Parts</i>)				
Enclosure	Aluminum	Aluminum/Steel	Aluminum/Steel	Steel	Aluminum
Weight (lbs/kilos)	378/171.5	394/178.7 (Steel) 358/162.4 (Aluminum)	455/206.4 (Steel) 419/190 (Aluminum)	505/229	476/216
Normal Operating Range	This unit is tested in accordance to UL 2200 standards with an operating temperature of -20 °F (-29 °C) to 122 °F (50 °C). For areas where temperatures fall below 32 °F (0 °C) a cold weather kit is recommended. When operated above 77 °F (25 °C) there may be a decrease in engine power. (Please reference the engine specifications section.)				
<p>These generators are rated in accordance with UL 2200 Safety Standard for Stationary Engine Generator Assemblies, and CSA-C22.2 No. 100-04 Standard for Motors and Generators.</p> <p>* Natural Gas ratings will depend on specific fuel joules/Btu content. Typical derates are between 10-20% off the LP gas rating.</p> <p>** Circuits to be moved must be protected by same size breaker. For example, a 15 amp circuit in the main panel must be a 15 amp circuit in the transfer switch.</p>					

Engine

Model	8 kW	11 kW	16 kW	20/22 kW
Type of Engine	GH-410	GTH-530	GT-990	GT-999
Number of Cylinders	1	2	2	2
Displacement	410 cc	530 cc	992 cc	999 cc
Cylinder Block	Aluminum w/ cast iron sleeve			
Recommended Spark Plug	see <i>Replacement Parts</i>			
Spark Plug Gap	0.508 mm (0.020 in)	0.76 mm (0.030 in)	1.02 mm (0.040 in)	1.02 mm (0.040 in)
Valve Clearance	0.05 - 0.1 mm (0.002 - 0.004 in)	0.05 - 0.1 mm (0.002 - 0.004 in)	0.05 - 0.1 mm (0.002 - 0.004 in)	0.05 - 0.1 mm (0.002 - 0.004 in)
Starter	12 VDC			
Oil Capacity Including Filter	Approx. 1.5 qt/ 1.4 l	Approx. 1.7 qt/ 1.6 l	Approx. 1.9 qt/ 1.8 l	Approx. 1.9 qt/ 1.8 l
Recommended Oil Filter	see <i>Replacement Parts</i>			
Recommended Air Filter	see <i>Replacement Parts</i>			
<p>Engine power is subject to and limited by such factors as fuel Btu/joules, ambient temperature and altitude. Engine power decreases about 3.5 percent for each 1000 feet (304.8 meters) above sea level, and also will decrease about 1 percent for each 6 °C (10 °F) above 15 °C (60 °F) ambient temperature.</p>				

and public available on the internet

The specification sheet for your generator was included in the documentation provided with the unit at the time of purchase. For additional copies, consult your local Independent Authorized Service Dealer for your specific generator model.

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Protection Systems

The generator may have to run for long periods of time with no operator present to monitor the engine/generator conditions. Therefore, the generator is equipped with a number of systems to automatically shut down the unit to protect it against potentially damaging conditions. Some of these systems are as follows:

Alarms:

- High Temperature
- Low Oil Pressure
- Overcrank
- Overspeed
- Overvoltage
- Undervoltage
- Overload
- Underspeed
- RPM Sensor Loss
- Controller Fault
- Wiring Error
- Fuse Problem
- Stepper Overcurrent

Warnings:

- Charger Warning
- Charger Missing AC
- Low Battery
- Battery Problem
- Exercise Set Error
- USB Warning
- Download Failure

The control panel contains a display which alerts the operator when a fault condition occurs. The above list is not all inclusive. For more information about alarms and control panel operation, see Section 3 *Operation*.

NOTE: A warning will indicate a condition, on the generator, that should be addressed but not shut the generator down. An alarm will shut the generator down to protect the system from any damage. In the event of an alarm, an owner can clear the alarm and restart the generator prior to contacting an Independent Authorized Service Dealer. If the intermittent issue occurs again, contact an Independent Authorized Service Dealer.

Emission Information

The United States Environmental Protection Agency (US EPA) (and California Air Resources Board (CARB), for engines/equipment certified to California standards) requires that this engine/equipment complies with exhaust and evaporative emissions standards. Locate the emissions compliance decal on the engine to determine applicable standards. For emissions warranty information, please reference the included emissions warranty. It is important to follow the maintenance specifications in Section 4 *Maintenance* to ensure that the engine complies with the applicable emissions standards for the duration of the product's life.

This generator is certified to operate on Liquid Propane Vapor fuel or pipeline Natural Gas.

The Emission Control System code is EM (Engine Modification). The Emission Control System on this generator consists of the following:

System	Components
Air Induction	- Intake Manifold - Air Cleaner
Fuel Metering	- Carburetor and Mixer Assembly - Fuel Regulator
Ignition	- Spark Plug - Ignition Module
Exhaust	- Exhaust Manifold - Muffler

Fuel Requirements



▲ DANGER

Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Add fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury. (000105)

The engine has been fitted with a dual fuel carburetion system. The unit will run on natural gas or LP gas (vapor), but it has been factory set to run on natural gas. The fuel system will be configured for the available fuel source during installation.

Recommended fuels should have a BTU content of at least 1000 Btus per cubic foot (37.26 megajoules per cubic meter) for natural gas, or at least 2500 BTUs per cubic foot (93.15 megajoules per cubic meter) for LP gas (vapor).

NOTE: If converting to LP gas from natural gas, a minimum LP tank size of 250 gallons (946 liters) is recommended. See the Installation Manual for complete procedures and details.

Battery Requirements

Group 26R, 12V, minimum 540 CCA.

For proper battery maintenance procedures, see Section 4 *Maintenance*.

Battery Charger

The battery charger is integrated into the control panel module in all models. It operates as a Smart Charger which ensures output charging levels are safe and continuously optimized to promote maximum battery life.

Engine Oil Requirements

For proper oil viscosity, see chart in *Figure 4-1*.

Section 3: Operation

DE
ALL POTENTIAL WATER SOURCES

Site Prep Verification

It is important that the generator is installed in such a way that the airflow into and out of the generator is not impeded. Verify that all shrubs or tall grasses have been removed within 3 ft. (0.91m) of the intake and discharge louvers on the sides of the enclosure. It is also important that the generator is not subject to water intrusion. Verify that all potential sources such as water sprinklers, roof run-off, rain gutter down spouts and sump pump discharges are directed away from the generator enclosure.

▲ DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury. (000191)

Turn the generator OFF before performing maintenance. Remove 7.5 Amp fuse, T1 and T2 battery charge fuses, and disconnect battery cables to prevent accidental start up. Disconnect the NEGATIVE (-) cable first, then disconnect the POSITIVE (+) cable. When connecting the cables, connect the POSITIVE cable first, the NEGATIVE cable last.

▲ WARNING

Only qualified service personnel may install, operate and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000182)

Side Compartment

Local codes may require this compartment to be locked. A hasp is provided so the owner/operator can secure the compartment with a padlock. Check local codes for side compartment locking requirements.

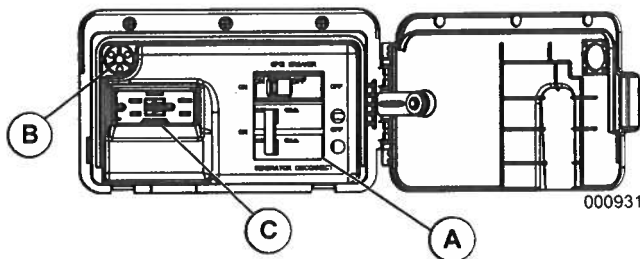


Figure 3-1. Open Side Compartment

Main Circuit Breaker (Generator Disconnect)

This is a 2-pole breaker rated according to relevant specifications. See "A" in Figure 3-1.

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LED Indicator Lights

See "B" in Figure 3-1.

- Green LED "Ready" light is on when utility is present and the control panel button is in the AUTO position. This also indicates when the generator is running.
- Red LED "Alarm" light is on when the generator is OFF or a fault is detected. Contact an authorized servicing dealer.
- Yellow LED "Maintenance" light.

NOTE: Yellow LED may be on at the same time as either the Red or Green LED.

120V GFCI Outlet/15 Amp Breaker (16-22 kW Only)

Some units are equipped with an external 15 Amp, 120 volt GFCI convenience outlet located in the top corner of the compartment. See "C" in Figure 3-1.

When the generator is running, in the absence of utility power, this outlet may also be used to power items outside the home such as lights or power tools. This outlet may also be used when utility power is present by running the generator in manual mode.

This outlet does not provide power if the generator is not running. Do not use this outlet when the generator is in Exercise mode. This outlet is protected by a 15 Amp circuit breaker in the side compartment.

Generator Enclosure

The lid will be locked. A set of keys is attached to the circuit breaker box door with a cable tie.

1. Cut the cable tie to remove the keys.
2. Use the keys to open the lid of the generator.

NOTE: The enclosed keys provided with this unit are intended for service personnel use only.

Section 4: Maintenance

Maintenance

Regular maintenance will improve performance and extend engine/equipment life. The manufacturer recommends that all maintenance work be performed by an Independent Authorized Service Dealer (IASD). Regular maintenance, replacement or repair of the emissions control devices and systems may be performed by any repair shop or person of the owner's choosing. However, to obtain emissions control warranty service free of charge, the work must be performed by an IASD. See the emissions warranty.

WARNING

Only qualified service personnel may install, operate and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and damage to equipment or property. (000182)

Performing Scheduled Maintenance

It is important to perform maintenance as specified in the **Service Schedule** for proper generator operation and to ensure that the generator complies with the applicable emission standards for the duration of its useful life. Service and repairs may be performed by any qualified service person or repair shop.

Engine oil and filter must be changed and valve clearance adjusted after the first 25 hours of operation.

Additionally, emissions critical maintenance must be performed as scheduled in order for the Emissions Warranty to be valid. Emissions critical maintenance consists of servicing the air filter and spark plugs in accordance with the Service Schedule.

The controller will prompt for Schedule A or Schedule B maintenance to be performed. See **Service Schedule** for recommendations.

Since most maintenance alerts will occur at the same time (most have two year intervals), only one will appear on the control panel display at any one time. Once the first alert is cleared, the next active alert will be displayed.

Service Schedule

Service	Daily If Running Continuously or Before Each Use	Every Year	Schedule A Every Two Years or 200 Hours	Schedule B Every Four Years or 400 Hours
Check Enclosure Louvers for Dirt and Debris *	•			
Check Lines and Connections for Fuel or Oil Leaks	•			
Check Engine Oil Level	•			
Check for Water Intrusion **		•		
Check Battery Condition, Electrolyte Level, and State of Charge		•	•	•
Replace Engine Oil and Oil Filter †			•	•
Replace Engine Air Filter				•
Replace/Gap Spark Plugs				•
Inspect/Adjust Valve Clearance ‡				•
<p>Contact the nearest Independent Authorized Service Dealer for assistance if necessary.</p> <p>* Remove any shrubs or tall grasses which have grown within 3 ft. (0.91m) of the intake and discharge louvers on the sides of the enclosure. Clean any debris (dirt, grass clippings, etc.) which have accumulated inside the enclosure.</p> <p>** Verify that all sources of potential water intrusion such as water sprinklers, roof run-off, rain gutter down spouts and sump pump discharges are directed away from the generator enclosure.</p> <p>† Change engine oil and filter after the first 25 hours of operation. In cold weather conditions (ambient below 40 °F / 4.4 °C), or if unit is operated continuously in hot weather conditions (ambient above 85 °F / 29.4 °C), change engine oil and filter every year or 100 hours of operation.</p> <p>‡ Check/adjust valve clearance after the first 25 hours of operation.</p>				

NOTE: Contact an Independent Authorized Service Dealer or visit www.generac.com for additional information on replacement parts.

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Battery Maintenance

The battery should be regularly inspected per the **Service Schedule**:

1. With the generator shut down, lift the lid and remove the front panel.
2. Inspect the battery posts and cables for tightness and corrosion. Tighten and clean as necessary.
3. Check the battery fluid level of unsealed batteries, and if necessary, fill with distilled water only. DO NOT use tap water. Also, have the Independent Authorized Service Dealer or a qualified Service Technician check the state of charge and condition.



WARNING

Explosion. Do not dispose of batteries in a fire. Batteries are explosive. Electrolyte solution can cause burns and blindness. If electrolyte contacts skin or eyes, flush with water and seek immediate medical attention.

(000162)



WARNING

Explosion. Batteries emit explosive gases while charging. Keep fire and spark away. Wear protective gear when working with batteries. Failure to do so could result in death or serious injury.

(000137a)



WARNING

Electrical shock. Disconnect battery ground terminal before working on battery or battery wires. Failure to do so could result in death or serious injury.

(000164)



WARNING

Risk of burns. Batteries contain sulfuric acid and can cause severe chemical burns. Wear protective gear when working with batteries. Failure to do so could result in death or serious injury.

(000138a)

WARNING

Environmental Hazard. Always recycle batteries at an official recycling center in accordance with all local laws and regulations. Failure to do so could result in environmental damage, death or serious injury.

(000228)

Always recycle batteries in accordance with local laws and regulations. Contact your local solid waste collection site or recycling facility to obtain information on local recycling processes. For more information on battery recycling, visit the Battery Council International website at: <http://batteryCouncil.org>

Strictly observe the following precautions when working on batteries:

- Remove the 7.5 Amp fuse from the generator control panel.
- Remove all jewelry—watches, rings, metal objects, etc.
- Use tools with insulated handles.
- Wear rubber gloves and boots.
- Do not lay tools or metallic objects on top of the battery.
- Disconnect the charging source prior to connecting or disconnecting battery terminals.
- Wear full eye protection and protective clothing.
- Where electrolyte contacts the skin, wash it off immediately with water.
- Where electrolyte contacts the eyes, flush thoroughly and immediately with water and seek medical attention.
- Wash down spilled electrolyte with an aid neutralizing agent. A common practice is to use a solution of 500 grams (1 pound) bicarbonate of soda to 4 liters (1 gallon) of water. The bicarbonate of soda solution is to be added until the evidence of reaction (foaming) has ceased. The resulting liquid is to be flushed with water and the area dried.
- DO NOT smoke when near the battery.
- DO NOT cause flame or spark in the battery area.
- Discharge static electricity from the body before touching the battery by first touching a grounded metal surface.

Attention After Submersion

If the generator has been submerged in water, it **MUST NOT** be started and operated. Following any submersion in water, have an Independent Authorized Service Dealer thoroughly clean, dry, and inspect the generator. If the structure (home) has been flooded, it should be inspected by a certified electrician to ensure there won't be any electrical problems during generator operation or when utility power is returned.

9183
Astoria
the current was
location was
under water
for FRMA 25
Had it been there
it would have been submerged 21

Corrosion Protection

Regular scheduled maintenance should be conducted to perform a visual inspection of the unit for corrosion. Inspect all metal components of the generator. Example: Base frame, enclosure, brackets, alternator can, the entire fuel system (inside and outside of the generator) and fastener locations. If there is corrosion found on generator components (i.e. regulator, engine/alternator mounts, fuel plenum, etc.), replace parts as necessary.

Periodically wash and wax the enclosure using automotive type products. Do not spray the unit with a hose or power washer. Use warm, soapy water and a soft cloth. Frequent washing is recommended in salt water coastal areas. Spray engine linkages with a light oil such as WD-40.

Remove From, and Return To Service Procedure

Remove From Service

If the generator cannot be exercised every 7 days and will be out of service longer than 90 days, prepare the generator for storage:

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, set the generator main circuit breaker (Generator Disconnect) to OFF (OPEN).
4. Turn off the utility power to the transfer switch.
5. Remove the 7.5 Amp fuse from the generator's control panel.
6. Disconnect the battery cables. Remove negative cable first.
7. Remove battery charger AC input T1/Neutral cable (has white sleeve) at controller.
8. While the engine is still warm, drain the oil completely, and then refill the crankcase with oil.
9. Attach a tag to the engine indicating the viscosity and classification of the new oil in the crankcase.
10. Remove the spark plug(s) and spray a fogging agent into the spark plug(s) threaded openings. Reinstall and tighten the spark plug(s).
11. Remove the battery and store it in a cool, dry room on a wooden board.
12. Clean and wipe down the entire generator.

Return to Service

To return the unit to service after storage:

1. Verify utility power is OFF.
2. Check the tag on the engine for oil viscosity and classification. If necessary, drain and refill with proper oil.
3. Check the state of the battery. Fill all cells of unsealed batteries to the proper level with distilled water. DO NOT use tap water. Recharge the battery to 100% state of charge. If defective, replace the battery.
4. Clean and wipe down the entire generator.
5. Make sure the 7.5 Amp fuse is removed from the generator Control Panel.
6. Reconnect the battery. Observe battery polarity. Damage may occur if the battery is connected incorrectly. Install positive cable first.
7. Reconnect the battery charger AC input T1/Neutral cable (has white sleeve) at controller.
8. Open the fuel shutoff valve.

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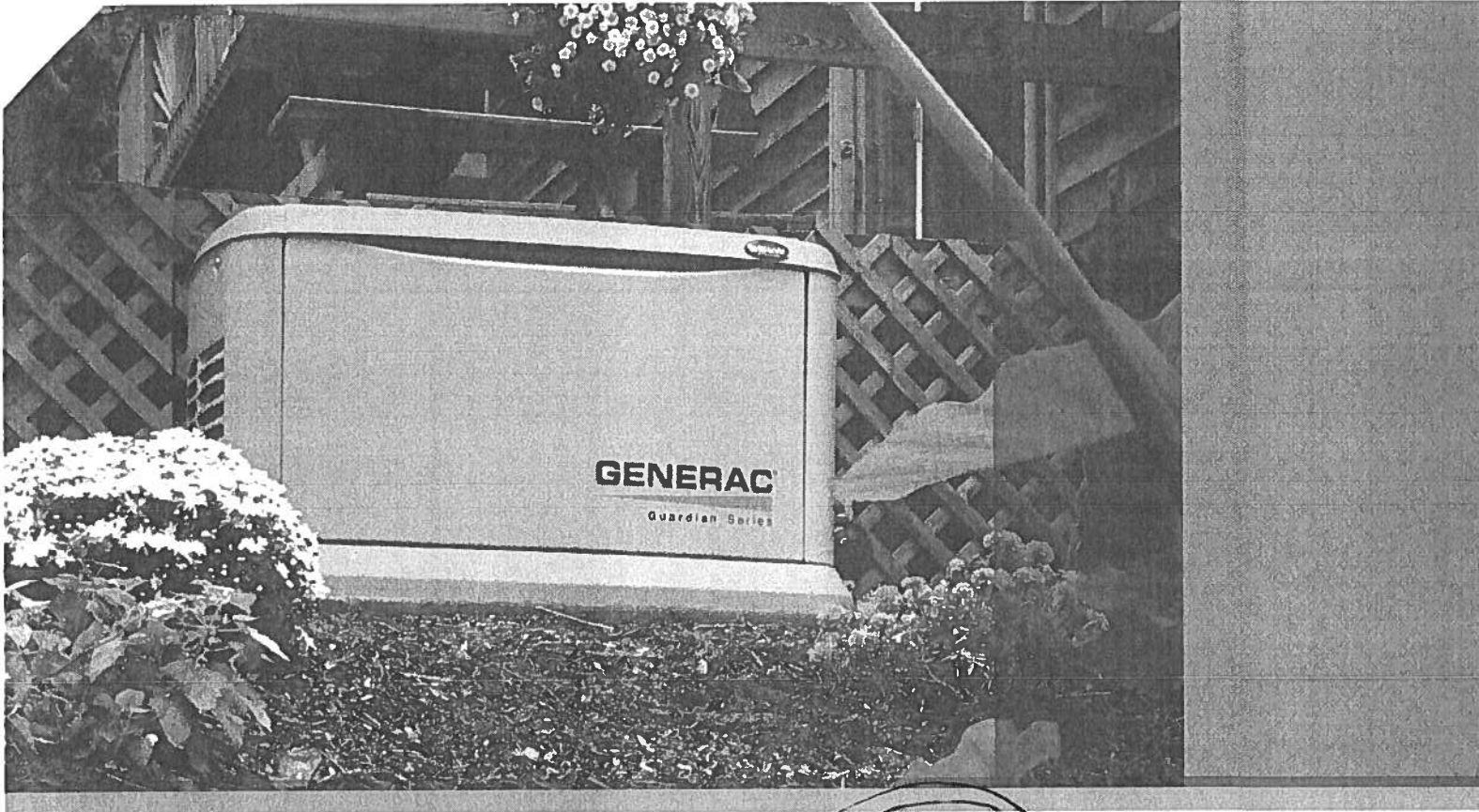
SPECIFICATIONS
sheet

GENERAC

GUARDIAN[®] SERIES
AUTOMATIC STANDBY GENERATOR

8-22 kW

36
46



Choose the #1 Selling Home Standby Generator Brand

Generac's Guardian[®] Series provides the automatic backup power you need to protect your home and family during a power outage. Connected to your existing LP or natural gas fuel supply, it kicks in within seconds of determining power loss—automatically—and runs for as long as necessary until utility power returns. Choose from just enough power to cover essential circuits, or all the way up to 22 kW for the most power per kilowatt and whole-house coverage.

Control your power. Control your life.™

GUARDIAN SERIES FEATURES:



OHVI[®] ENGINE

Your Guardian Series generator might have to get you through days—or weeks—without utility power. Generac's OHVI[®] engine, specifically designed for generator use, provides the reliability to power through the most severe outages. Engineered and built in the USA.*



TRUEPOWER[™] TECHNOLOGY

Delivers best-in-class power quality with less than 5% total harmonic distortion for clean, smooth operation of sensitive electronics and appliances.



EVOLUTION[™] CONTROLLER

The next generation of intuitive controllers featuring a multilingual, two-line LCD text display with color-coded, backlit buttons.



FUEL OPTIONS WITH TOOL-LESS CONVERSION

Runs on natural gas and LP fuel, easily converts during installation without the need for tools.



MOBILE LINK[™] CELLULAR REMOTE MONITORING

Mobile Link cellular remote monitoring system from Generac lets you check on your generator's status even when you are away using your computer, tablet or smartphone. Downloadable app available. Sold separately.

*Built in the USA using domestic and foreign parts.

BG

Buyer's Guide 37
see page 13
46

Weather ANY Storm

with the #1 Brand
in Home Standby Power



Your guide to protecting your home
from power outages.

GENERAC

1

INSTALLATION

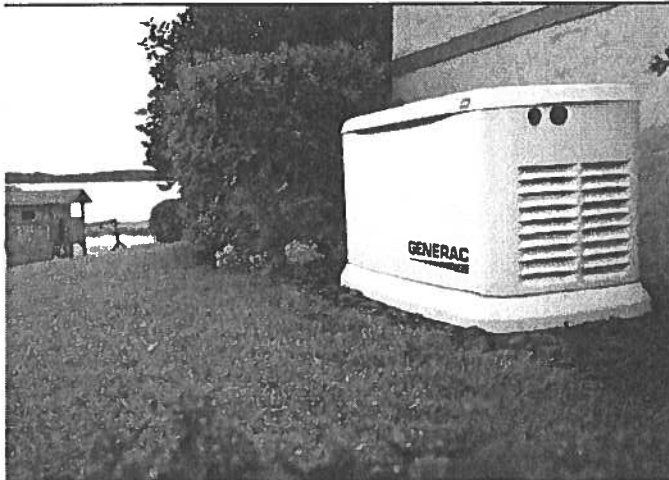
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A Generac Expert Near You Can Have Your Home Standby Generator Installed—Usually in 1 Day!

As experts in home standby power, we are in the best possible position to install your Generac system quickly, professionally, and cost effectively.

We strongly encourage you to take advantage of our free in-home assessment, to make sure you get the correct size generator for your needs, not just for the size of your house. You will be provided with a no-obligation quote that will include the generator system and installation costs. If you decide to go ahead, installation is fast and easy. Here's what is involved—

*Please consult a HSB manual for more details.



① Choosing a site

When considering the location for your generator, you will want to find a stable area that is well-drained and does not flood. Keep in mind that the generator can be no closer than 3 feet to utility meters, air conditioning units, combustibles or anything serviceable. And the closer the site is to the electric meter and the natural gas supply line, the more you'll save on installation. Once the site is chosen, your installer will take care of any required local permits.

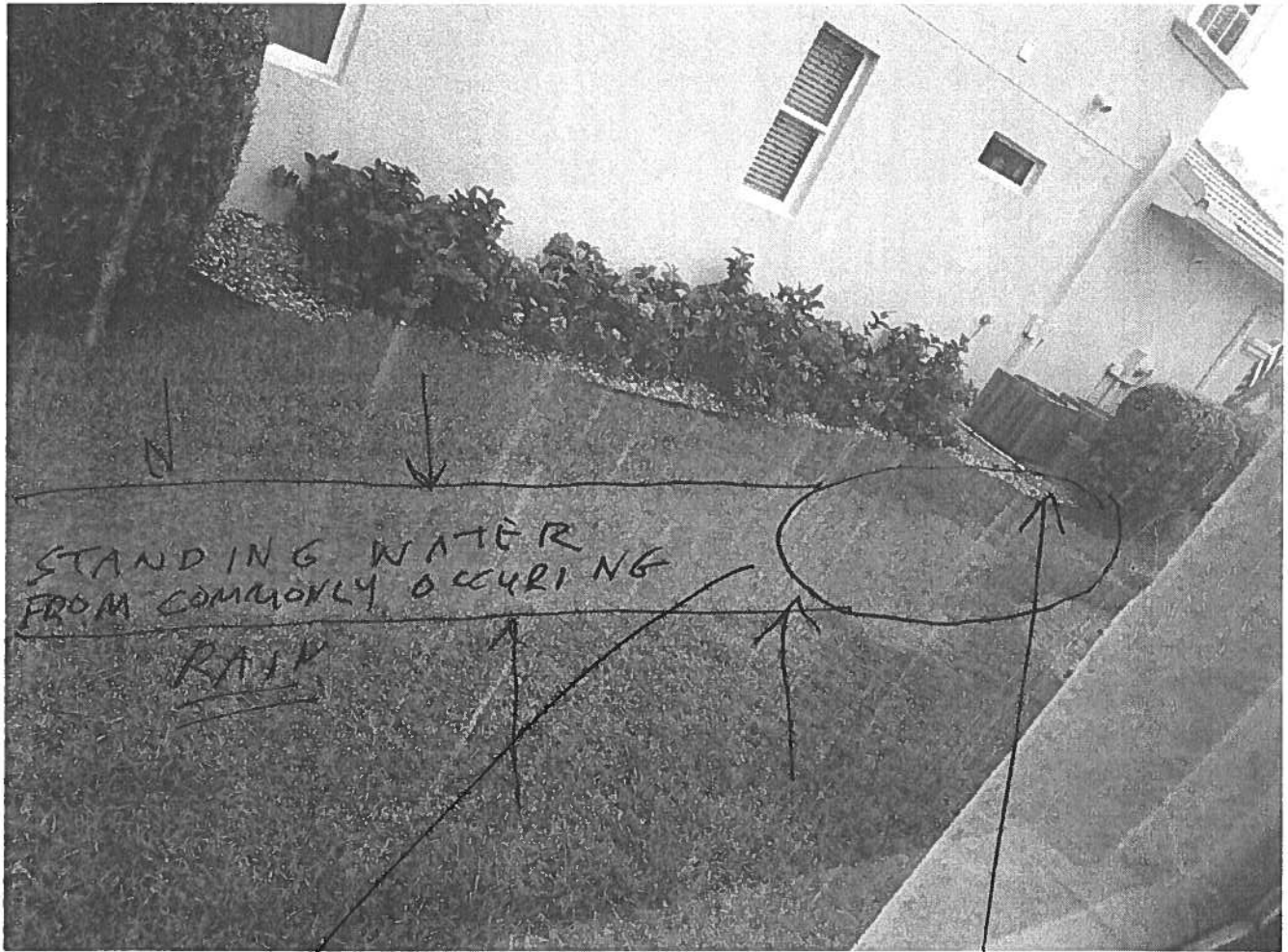
DE Water source



② Installing a Generator

Prior to placing the generator, the site needs to be prepared. Usually this is achieved by putting down a bed of pea gravel or pouring a cement slab. Your installer will make sure the placement allows for all the right clearances (18" from the house, 60" from doors, windows and fresh air intakes, 36" in front to allow for a technician to perform any future checkups or maintenance).

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STANDING WATER

DRAINAGE EXPENSE NT

PRIOR TO
INSTALL
LOCATION
HERE



The Village of Estero Building & Permitting

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46

Services processes Commercial and Residential Building permit applications and Reviews Plans for compliance with The Village of Estero Building and Zoning requirements and all provisions of the laws of the State of Florida, and all regulation relating to or applying to Building, Plumbing, Electrical, Low-Voltage, Roofing, Air Conditioning and/or all other types of construction activity.



www.leg.state.fl.us/Statutes/ind



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Online Sunshine

Official Internet Site of the Florida Legislature

December 19, 2018

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- Joint Legislative Committees & Other Entities
- Historical Committees
- Florida Government Efficiency Task Force
- Legislative Employment
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The 2018 Florida Statutes

Title XLVI
CRIMES

Chapter 877
MISCELLANEOUS CRIMES

View Entire Chapter

Select Year: 2018 Go

877.03 Breach of the peace;

disorderly conduct. — **Whoever** commits such acts as are of a nature to corrupt the public morals, or outrage the sense of public decency, or affect the peace and quiet of persons who may witness them, or engages in brawling or fighting, or engages in such conduct as to constitute a breach of the peace or disorderly conduct, shall be guilty of a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083.

Village of Estero permitting office

Interpreter Services for the Deaf and Hard of Hearing

MY FLORIDA HOUSE Sunshine Facts



16/20/22 kW

Generator

Model

	G007035-0, G007036-0, G007037-0 (16 kW)	G007038-0, G007039-0 (20 kW)	G007042-1, G007043-1 (22 kW)
Rated Maximum Continuous Power Capacity (LP)	16,000 Watts*	20,000 Watts*	22,000
Rated Maximum Continuous Power Capacity (NG)	16,000 Watts*	18,000 Watts*	19,500
Rated Voltage	240	240	240
Rated Maximum Continuous Load Current - 240 Volts (LP/NG)	66.6/66.6	83.3/75	91.6/81.3
Total Harmonic Distortion	Less than 5%	Less than 5%	Less than 5%
Main Line Circuit Breaker	70 Amp	100 Amp	100 Amp
Phase	1	1	1
Number of Rotor Poles	2	2	2
Rated AC Frequency	60 Hz	60 Hz	60Hz
Power Factor	1.0	1.0	1.0
Battery Requirement (not included)	12 Volts, Group 26R 540 CCA Minimum or Group 35AGM 650 CCA Minimum		
Unit Weight (Lbs/Kg)	406/186	448, 203	466/211
Dimensions (L x W x H) in/mm		48 x 25 x 29/1218 x 638 x 732	
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load**	66	66	67
Sound output in dB(A) at 23 ft (7 m) with generator in Quiet-Test™ low-speed exercise mode**	58	58	58
Exercise duration	5 min	5 min	5 min

67 dBA @ 23 feet

FS 877.03

Engine

	GENERAC G-Force 1000 Series		
Type of Engine	2		
Number of Cylinders	2		
Displacement	999 cc		
Cylinder Block	Aluminum w/ Cast Iron Sleeve		
Valve Arrangement	Overhead Valve	Overhead Valve	Overhead Valve
Ignition System	Solid-state w/ Magneto	Solid-state w/ Magneto	Solid-state w/ Magneto
Governor System	Electronic		
Compression Ratio	9.5:1		
Starter	12 Vdc		
Oil Capacity including Filter	Approx. 1.9 q/1.8 L		
Operating rpm	3,600		
Fuel Consumption			
Natural Gas	ft ³ /hr (m ³ /hr)		
	1/2 Load	218 (6.17)	204 (5.78)
	Full Load	309 (8.75)	301 (8.52)
Liquid Propane	ft ³ /hr (gal/hr) [l/hr]		
	1/2 Load	91.6 (2.52) [9.53]	86 (2.37) [8.99]
	Full Load	106.8 (2.94) [11.11]	129.6 (3.56) [13.48]
			142 (3.90) [14.77]

Note: Fuel pipe must be sized for full load. Required fuel pressure to generator fuel inlet at all load ranges - 3.5-7" water column (7-13 mm mercury) for natural gas, 10-12" water column (19-22 mm mercury) for LP gas. For Btu content, multiply ft³/hr x 2500 (LP) or ft³/hr x 1000 (NG). For Megajoule content, multiply m³/hr x 93.15 (LP) or m³/hr x 37.26 (NG)

Controls

2-Line Plain Text Multilingual LCD Display	Simple user interface for ease of operation.
Mode Buttons: Auto	Automatic Start on Utility failure. 7 day exerciser.
Manual	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Off	Stops unit. Power is removed. Control and charger still operate.
Ready to Run/Maintenance Messages	Standard
Engine Run Hours Indication	Standard
Programmable start delay between 2-1500 seconds	Standard (programmable by dealer only)
Utility Voltage Loss/Return to Utility Adjustable (Brownout Setting)	From 140-171 V/190-216 V
Future Set Capable Exerciser/Exercise Set Error Warning	Standard
Run/Alarm/Maintenance Logs	50 Events Each
Engine Start Sequence	Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration).
Starter Lock-out	Starter cannot re-engage until 5 sec after engine has stopped.
Smart Battery Charger	Standard
Charger Fault/Missing AC Warning	Standard
Low Battery/Battery Problem Protection and Battery Condition Indication	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Under-Frequency/Overload/Stepper Overcurrent Protection	Standard
Safety Fused/Fuse Problem Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed (@ 72 Hz)/rpm Sense Loss Shutdown	Standard
High Engine Temperature Shutdown	Standard
Internal Fault/Incorrect Wiring Protection	Standard
Common External Fault Capability	Standard
Field Upgradable Firmware	Standard

FS 877.03

** Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters. Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. Run ratings in accordance with ISO 8528-14, ISO 8528-15 and DIN 1527. Maximum kilowatt amps and current are subject to and limited by such factors as fuel, megajoule content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet (304.8 meters) above sea level and also will decrease about 1 percent for each 6°C (10°F) above 16°C (60°F).

16/20/22 kW 3

8-22 KILOWATTS

ADDITIONAL FEATURES:



RHINOCOAT

Our durable Rhinocoat powder-coat finish helps make sturdy aluminum and, galvanized steel enclosures perfect for all weather conditions. Able to withstand 150 mph winds.



QUIET-TEST™ SELF-TEST MODE

All standby generators run a weekly test to ensure the system is running properly. Thanks to Quiet-Test, your Guardian Series home standby generator runs its self-test at a lower, quieter RPM than standard operation, and can be programmed to run weekly, bi-weekly, or monthly.



POWER MANAGEMENT SYSTEM

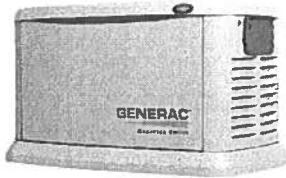
Intelligently manages household loads for a more affordable standby solution by using our smart management module.



CONVENIENT INSTALLATION SYSTEM

Can be installed only 18" from the home, if located away from doors, windows, and fresh air intakes, unless otherwise directed by local codes.

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- 5 year limited warranty
- External "at-a-glance" indicator lights offer an easy way to see generator status without opening the generator enclosure
- Easy installation and an excellent value when purchased pre-packaged with a pre-wired transfer switch (8-16 kW).
- Utilize the benefits of power management by pairing the generator with a Smart Transfer Switch for whole-house or managed power coverage.

SPECIFICATIONS

	8/7 kW	11/10 kW	16/16 kW	20/18 kW	22/19.5 kW
Generator Only Model#	6245	6439/6720 Steel/Aluminum*	6459/6721 Steel/Aluminum*	6730	6552
Generator / Pre-wired Switch Package Model#	6237 50 Amp Switch	6437 50 Amp Switch	6461 100 Amp Switch	n/a	n/a
Generator / 200 Amp Service Rated Load Shedding Smart Switch Package Model#	n/a	6438	6462	6729	6551
Voltage (Single Phase)			240V		
Amps @ 240V LPG	33.3	45.8	66.6	83.3	91.6
Amps @ 240V NG	29.2	41.7	66.6	75	81.25
Engine/Alternator RPM			3600 / 3600		
Engine	OHVI / 410cc	OHVI / 530cc	OHVI / 992cc	OHVI / 999cc	OHVI / 999cc
Fuel Consumption @ 1/2 Load - NG cu. ft/hr	78	124	193	205	184
Fuel Consumption @ Full Load - NG cu. ft/hr	121	195	312	308	281
Fuel Consumption @ 1/2 Load - LPG cu. ft/hr (gal/hr)	31.6 (0.87)	42.8 (1.18)	72.4 (1.99)	75.6 (2.08)	78.5 (2.16)
Fuel Consumption @ Full Load - LPG cu. ft/hr (gal/hr)	51.6 (1.42)	70 (1.92)	130 (3.57)	140 (3.85)	133.8 (3.68)
Quiet-Test Mode		No		Yes	
db(A) at Exercise	62	63	60		58
db(A) at Normal Operating Load	62	63	66		67
Enclosure	Steel	Steel or Aluminum	Steel or Aluminum	Steel	Aluminum; includes base fascia
Enclosure Color	Bisque	Bisque/Gray	Bisque/Gray	Bisque	Gray
Warranty			5-Year Limited		
Dimensions (L" x W" x H")			48 x 25 x 29		
Weight (lbs.) (Steel/Aluminum)	360	407/424	471/478	451	476

*Aluminum units available without transfer switch.

Nationwide Dealer Service Network

Generac's commitment to service includes scheduled maintenance programs, warranty assistance and emergency service to ensure that Generac customers are never left powerless. The largest nationwide dealer network has factory-trained technicians on staff and maintains large inventories of Generac parts, components and accessories. Find a dealer near you at generac.com.

WE GENERAC
THE PROMISE



FS 877.03

GENERAC

Generac Power Systems, Inc.
S45 W29200 Hwy. 59
Waukesha, WI 53189

Bulletin 0193260SBY Printed USA REV. B 02-2015
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Specifications are subject to change without notice.

generac.com 1-888-GENERAC (1-888-436-3722)



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AWD

Local Building Department

The primary function of a building department is to review plans and inspect residential and commercial construction for compliance with the Florida Building Code and any other applicable construction requirements. Some building departments are also responsible for other (but related) functions such as zoning, housing code, fire, environmental, or other local code enforcement provisions.

Building officials are empowered to adopt local amendments to the state Florida Building Code. These amendments are very limited in scope. The use of particular types of designs and materials (generally called "product approval") and whether these comply with construction codes are matters within the province of the building department.

For the consumer, the most common evidence of building department involvement is the issuance of a building permit. As part of this process, building departments typically are required to take action in two areas that are not their responsibility:

- Verification of compliance with Florida's workers'

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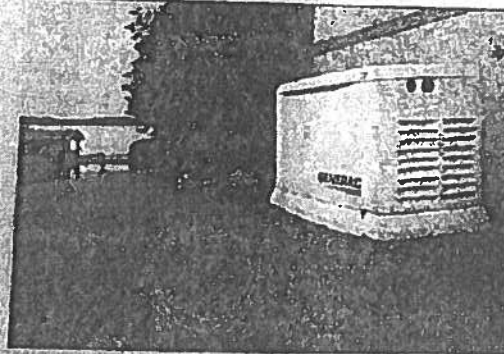
INSTALLATION

A Generac Expert Near You Can Have Your Home Standby Generator Installed—Usually in 1 Day!

As experts in home standby power, we are in the best possible position to install your Generac system quickly, professionally, and cost effectively.

We strongly encourage you to take advantage of our free in-home assessment, to make sure you get the correct size generator for your needs, not just for the size of your house. You will be provided with a no-obligation quote that will include the generator system and installation costs. If you decide to go ahead, installation is fast and easy. Here's what is involved:—

*Please consult a licensed electrician for more details.

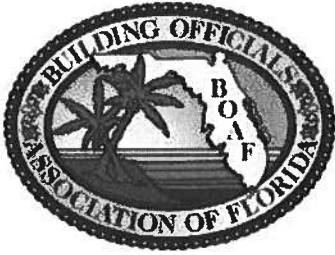


1 Choosing a site

When considering the location for your generator, you will want to find a stable area that is well-drained and does not flood. Keep in mind that the generator can be no closer than 3 feet to utility meters, air conditioning units, combustibles or anything serviceable. And the closer the site is to the electric meter and the natural gas supply line, the more you'll save on installation. Once the site is chosen, your installer will take care of any required local permits.

No closer than 3 feet to... air conditioning units





Informal Interpretation Report
Number 8283

Florida
dbopr

46
46

Date 05/22/2019
Report 8283
Edition: 2017
Section G2406 (303) INSTALLATION

Question:

Does this code section apply to the location of a permanently installed standby natural gas home generator?
(2 story residence and natural gas line linked to existing residential gas line in gated community)

Answer:

Yes this applies, please note that NFPA 37 would dictate, as well as G2408 and manufacturers specifications, or, Look to the listing or manufacturer installation instructions to determine location requirements. In addition, clearances per sections of the plumbing and mechanical sections must be met in order to maintain clearance from combustibles, windows, soffits and other items.

On 06/03/2019 at 3:22 PM

Commentary:

From the Committee: The definition of appliance includes "a device that utilizes a fuel or raw material as a fuel to produce light, heat, power, refrigeration or air conditioning."

From the Residential volume Chapter 2:

APPLIANCE. A device or apparatus that is manufactured and designed to utilize energy and for which this code provides specific requirements.

EQUIPMENT. Piping, ducts, vents, control devices and other components of systems other than appliances that are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.

Notice:

The Building Officials Association of Florida, in cooperation with the Florida Building Commission, the Florida Department of Community Affairs, ICC, and industry and professional experts offer this interpretation of the Florida Building Code in the interest of consistency in their application statewide. This interpretation is informal, non-binding and subject to acceptance and approval by the local building official.

LOCATION

AC units

