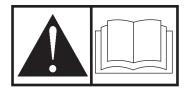
# Portable Generator Operator's Manual





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

Manual No. 205156GS Revision A (01/03/2008)



**Thank you** for purchasing this quality-built Briggs & Stratton generator. We are pleased that you've placed your confidence in the VOX<sup>™</sup> brand. When operated and maintained according to the instructions in this manual, your Briggs & Stratton generator will provide many years of dependable service.

This manual contains safety information to make you aware of the hazards and risks associated with generators and how to avoid them. This generator is designed and intended only for supplying electrical power for operating compatible electrical lighting, appliances, tools and motor loads, and is not intended for any other purpose. It is important that you read and understand these instructions thoroughly before attempting to start or operate this equipment. Save these instructions for future reference.

**This generator requires final assembly before use.** Refer to the *Assembly* section of this manual for instructions on final assembly procedures. Follow the instructions completely.

#### Where to Find Us

You never have to look far to find Briggs & Stratton support and service for your generator. Consult your Yellow Pages. There are over 30,000 Briggs & Stratton authorized service dealers worldwide who provide quality service. You can also contact Briggs & Stratton Customer Service by phone at **(800) 743-4115**, or on the Internet at BRIGGSandSTRATTON.COM. For engine related questions, call American Honda Motor Company, Inc. at **(800) 426-7701** or visit **www.honda-engines.com** for a dealer locator.

#### Generator

Model Number								
Revision								
Serial Number								
Date Purchased		]	Π	]	Г	Τ	7	

Briggs & Stratton Power Products Group, LLC 900 North Parkway Jefferson, WI 53549

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Controls

**Operation** 

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## **Operator Safety**

#### **Equipment Description**



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

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

This generator incorporates GFCI (Ground Fault Circuit Interrupter) outlet protection and has its neutral bonded to ground to comply to OSHA inspections on job sites. This generator will not function when connected to a 2 pole transfer switch since the home or building main breaker box also has a neutral bonded to ground. When both the generator and the home or building breaker box contains a neutral bonded to ground, the generators GFCI will open and no outlets will function.



## **WARNING**



Removing the neutral bond could result in death, bodily injury and/or property damage.

DO NOT remove the neutral bond.

#### NOTICE

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

 DO NOT exceed the generator's wattage/amperage capacity. See Don't Overload Generator in the Operation section.

Every effort has been made to ensure that the information in this manual is both accurate and current. However, the manufacturer reserves the right to change, alter or otherwise improve the generator and this documentation at any time without prior notice.

The Emission Control System for this generator is warranted for standards set by the Environmental Protection Agency and the California Air Resources Board.

#### **Safety Rules**

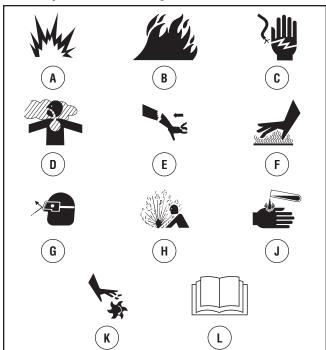


This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

The safety alert symbol (♠) is used with a signal word (DANGER, WARNING, CAUTION), a pictorial and/or a safety message to alert you to hazards. DANGER indicates a hazard which, if not avoided, will result in death or serious injury. WARNING indicates a hazard which, if not avoided, could result in death or serious injury. CAUTION indicates a hazard which, if not avoided, might result in minor or moderate injury. NOTICE indicates a situation that could result in equipment damage. Follow safety messages to avoid or reduce the risk of injury or death.

The manufacturer cannot possibly anticipate every possible circumstance that might involve a hazard. The warnings in this manual, and the tags and decals affixed to the unit are, therefore, not all-inclusive. If you use a procedure, work method or operating technique that the manufacturer does not specifically recommend, you must satisfy yourself that it is safe for you and others. You must also make sure that the procedure, work method or operating technique that you choose does not render the generator unsafe.

#### **Hazard Symbols and Meanings**



- A Explosion
- B Fire
- C Electric Shock
- D Toxic Fumes
- E Kickback
- F Hot Surface
- G Flying Objects
- H Explosive Pressure
- J Chemical Burn
- K Moving Parts
- L Read Manual

#### DANGER

Storage batteries give off explosive hydrogen gas during recharging.



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

Slightest spark will ignite hydrogen and cause explosion.

You can be blinded or severely injured.



Battery electrolyte fluid contains acid and is extremely caustic.

Contact with battery fluid will cause severe chemical burns.

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

#### **A DANGER**

Using a generator indoors CAN KILL YOU IN MINUTES.

Generator exhaust contains carbon monoxide, This is a poison you cannot see or smell.











NEVER use inside a home or garage, EVEN IF doors and windows are open.

Only use OUTSIDE and far away from windows, doors, and vents.

## WARNING



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

Breathing carbon monoxide can cause headache. fatigue, dizziness, vomiting, confusion, seizures, nausea, fainting or death.

- Operate generator ONLY outdoors.
- Install a battery operated carbon monoxide alarm near the bedrooms.
- Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes, or other openings.
- DO NOT start or run engine indoors or in an enclosed area, (even if windows and doors are open), including the generator compartment of a recreational vehicle (RV).



#### WARNING

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

## WARNING



Starter cord kickback (rapid retraction) can result in bodily injury. Kickback will pull hand and arm toward engine faster than you can let go.

Broken bones, fractures, bruises, or sprains could result.

- When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.
- NEVER start or stop engine with electrical devices plugged in and turned on.



## **WARNING**



Fuel and its vapors are extremely flammable and explosive.



Fire or explosion can cause severe burns or death.

#### WHEN ADDING OR DRAINING FUEL

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

#### WHEN STARTING EQUIPMENT

- Ensure spark plug, muffler, fuel cap, and air cleaner are in place.
- · DO NOT crank engine with spark plug removed.

#### WHEN OPERATING EQUIPMENT

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

#### WHEN TRANSPORTING OR REPAIRING EQUIPMENT

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

#### WHEN STORING FUEL OR EQUIPMENT WITH FUEL IN TANK

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

## WARNING

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

#### WARNING



Generator produces hazardous voltage.

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

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



## WARNING



Contact with muffler area can result in serious



Exhaust heat/gases can ignite combustibles, structures or damage fuel tank causing a fire.

- DO NOT touch hot parts and AVOID hot exhaust gases.
- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5 m) of clearance on all sides of generator including overhead.
- Code of Federal Regulation (CFR) Title 36 Parks, Forests, and Public Property require equipment powered by an internal combustion engine to have a spark arrester, maintained in effective working order, complying to USDA Forest service standard 5100-1C or later revision. In the State of California a spark arrester is required under section 4442 of the California Public resources code. Other states may have similar laws.



#### WARNING



Starter and other rotating parts can entangle hands, hair, clothing, or accessories.

- NEVER operate generator without protective housing or covers.
- DO NOT wear loose clothing, jewelry or anything that may be caught in the starter or other rotating parts.
- Tie up long hair and remove jewelry.

## **WARNING**



Unintentional sparking can result in fire or electric shock.

#### WHEN ADJUSTING OR MAKING REPAIRS TO YOUR GENERATOR

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

#### WHEN TESTING FOR ENGINE SPARK

- Use approved spark plug tester.
- DO NOT check for spark with spark plug removed.



#### CAUTION

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

Excessively low speeds impose a heavy load.

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

#### NOTICE

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

- DO NOT exceed the generator's wattage/amperage capacity. See Don't Overload Generator in the Operation section.
- Start generator and let engine stabilize before connecting electrical loads.
- Connect electrical loads in OFF position, then turn ON for operation.
- Turn electrical loads OFF and disconnect from generator before stopping generator.

#### NOTICE

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

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

## **Assembly**

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

If you have any problems with the assembly of your generator, please call the generator helpline at **(800) 743-4115**. If calling for assistance, please have the model, revision, and serial number from the data tag available. See *Generator Controls* and *Features* for data tag location.

## **Unpack Generator**

- 1. Set the carton on a rigid, flat surface.
- 2. Remove everything from carton except generator.
- 3. Open carton completely by cutting each corner from top to bottom.
- 4. Leave generator on carton to install wheel kit.

## **Shipment Contents**

#### The generator is supplied with:

- · Engine oil
- · Operator's manual
- · Engine operator's manual
- · Battery charge cables
- · Wheel kit
- 120/240 Volt, 30 Amp locking plug
- 120 Volt, 30 Amp locking plug

#### Install Wheel Kit

 $\textbf{NOTE:} \ \ \textbf{Wheel kit is not intended for over-the-road use}.$ 

You will need the following tools to install these components:

- 3/8" and 13 mm wrench
- Socket wrench with a 3/8" and a 13 mm socket
- Pliers
- · Safety glasses

#### Install the wheel kit as follows:

- 1. Tip generator so that engine end is up.
- 2. Slide axle (A) through both mounting brackets.
- 3. Slide a wheel (B) over axle.

NOTE: Be sure to install wheel with raised hub inboard.

4. Place a washer (**C**) on axle and then place an e-ring (**D**) in axle groove.

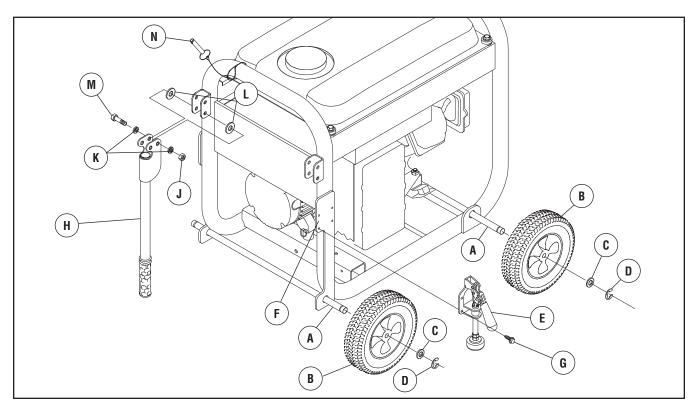




E-rings can cause eye injury.

E-rings can spring back and become airborne when installing or removing.

- · Always wear eye protection when installing/removing e-rings.
  - 5. Install e-ring with pliers, squeezing from top of e-ring to bottom of axle.
  - 6. Repeat steps 3 through 5 to secure second wheel.
- 7. Tip generator so that engine side is down.
- 8. Attach clamps (**E**) to brackets (**F**) on both sides of generator with 1/4 20 hex screws (**G**).



- 9. Repeat steps 2 through 5 to secure the third and fourth wheels.
- 10. Attach handles (**H**) to brackets on generator frame as shown, with 45 mm capscrews (**J**), flat washers (**K**), nylon washers (**L**), and M8 lock nuts (**M**).

**NOTE:** DO NOT overtighten. Handles must be able to move up and down freely.

- Return generator to normal operating position (resting on wheels).
- 12. To apply brakes, push down firmly on handle of both clamps until it locks in the down position and engages the wheels.

**IMPORTANT:** The generator is designed to be used on level surfaces.

- 13. Loop handle pins (**N**) on generator frame just above handle brackets.
- 14. Raise handles and insert handle pins to move generator.
- 15. To release brakes, pull up on handle of both clamps until it locks in the up position.

#### Add Engine Oil

· Place generator on a level surface.

**NOTE:** Verify provided oil bottles are the correct viscosity for current ambient temperature.

 Refer to engine operator's manual and follow oil recommendations and instructions.

### **NOTICE**

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

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

**NOTE:** Check oil often during engine break—in. Refer to engine operator's manual for recommendations.

#### Add Fuel

**NOTE:** Refer to engine operator's manual and follow fuel recommendations.



## WARNING



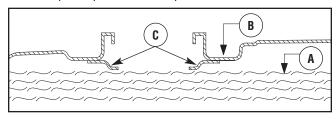
Fuel and its vapors are extremely flammable and explosive.



Fire or explosion can cause severe burns or death.

#### WHEN ADDING FUEL

- Turn generator OFF and let it cool at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank
- · Fill fuel tank outdoors.
- DO NOT overfill tank. Allow space for fuel expansion.
- If fuel spills, wait until it evaporates before starting engine.
- Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources.
- DO NOT light a cigarette or smoke.
- 1. Clean area around fuel fill cap, remove cap.
- 2. Slowly add unleaded gasoline (**A**) to fuel tank (**B**). Be careful not to fill above the baffle (**C**). This allows adequate space for fuel expansion as shown.



3. Install fuel cap and let any spilled fuel evaporate before starting engine.

#### **System Ground**

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

#### **Special Requirements**

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

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

#### **Connecting to a Building's Electrical System**

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



## WARNING



Generator produces hazardous voltage.

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

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

#### **Generator Location**

#### **Clearances and Air Movement**



## WARNING



Exhaust heat/gases can ignite combustibles, structures or damage fuel tank causing a fire.

 Keep at least 5 ft. (1.5 m) clearance on all sides of generator including overhead.

Place generator outdoors in an area that will not accumulate deadly exhaust gas. DO NOT place generator where exhaust gas (A) could accumulate and enter inside or be drawn into a potentially occupied building. Ensure exhaust gas is kept away from any windows, doors, ventilation intakes, or other openings that can allow exhaust gas to collect in a confined area. Prevailing winds and air currents should be taken into consideration when positioning generator.

#### **A DANGER**

Using a generator indoors CAN KILL YOU IN MINUTES.

Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.



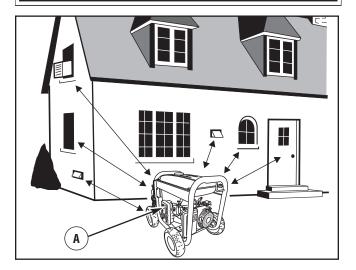






NEVER use inside a home or garage, EVEN IF doors and windows are open.

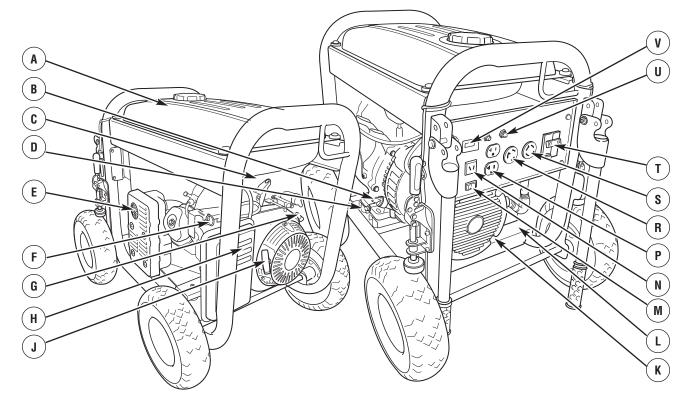
Only use OUTSIDE and far away from windows, doors, and vents.



## **Features and Controls**

Read this Operator's Manual and safety rules before operating your generator.

Compare the illustrations with your generator, to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



- A Fuel Tank Capacity of seven (7) U.S. gallons.
- B Oil Fill Cap/Dipstick Check and add engine oil here.
- **C Fuel Valve** Used to turn fuel supply on and off to engine.
- D Oil Drain Plug Drain engine oil here.
- **E Spark Arrester Muffler** Exhaust muffler lowers engine noise and is equipped with a spark arrester screen.
- **F Choke Lever** Used when starting a cold engine.
- **G On/Off Switch** Set this switch to "**On**" before using recoil starter. Set switch to "**Off**" to stop engine.
- **H Air Cleaner** Protects engine by filtering dust and debris out of intake air.
- J Recoil Starter Used to start the engine.
- K Grounding Fastener If required, please consult a qualified electrician, electrical inspector, or local agency having jurisdiction.
- L Data Tag Provides model, revision and serial number of generator. Please have these readily available if calling for assistance.
- M Idle Control Switch Use this switch to turn the idle control feature on and off.

- N 12 Volt DC Receptacle Use this receptacle with battery charge cables to charge a 12 Volt battery.
- P 120 Volt AC, 20 Amp Duplex Receptacle May be used to supply electrical power for the operation of 120 Volt AC, 20 Amp, single phase, 60 Hz electrical lighting, appliance, tool and motor loads.
- R 120 Volt AC, 30 Amp Locking Receptacle May be used to supply electrical power for the operation of 120 Volt AC, 30 Amp, single phase, 60 Hz electrical lighting, appliance, tool and motor loads.
- S 120/240 Volt AC, 30 Amp Locking Receptacle May be used to supply electrical power for the operation of 120 and/or 240 Volt AC, 30 Amp, single phase, 60 Hz electrical lighting, appliance, tool and motor loads.
- **T GFCI Circuit Breaker** A GFCI circuit breaker is provided to protect against electrical ground fault and protect the generator against electrical overload.
- U Circuit Breakers (AC) The 120 Volt AC, 20A duplex receptacle is provided with "push to reset" circuit breakers to protect the generator against electrical overload.
- **V Hour Meter** Displays and records how many hours your generator has run (up to 9,999.9).

#### **Cord Sets and Receptacles**

Use only high quality, well-insulated, grounded extension cords with the generator's 120 Volt duplex receptacle. Inspect extension cords before each use.

Check the ratings of all extension cords before you use them. Extension cord sets used should be rated for 125 Volt AC loads at 20 Amps or greater for most electrical devices. Some devices, however, may not require this type of extension cord. Check the operator's manuals of those devices for the manufacturer's recommendations.

Keep extension cords as short as possible to minimize voltage drop.

## A v

## WARNING

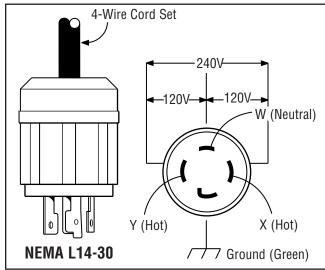


Overloaded electrical cords can overheat, arc, and burn resulting in death, bodily injury, and/or property damage.

- · ONLY use cords rated for your loads.
- · Follow all safeties on electrical cords.

#### 120/240 Volt AC, 30 Amp, Locking Receptacle

Use a NEMA L14-30 plug with this receptacle. Connect a 4-wire cord set rated for 250 Volt AC loads at 30 Amps (or greater). You can use the same 4-wire cord if you plan to run a 120 Volt load.



This receptacle powers 120/240 Volt AC, 60 Hz, single phase loads requiring up to 6,500 watts of power (6.5 kW) at 27.0 Amps for 240 Volts or two independent 120 Volt loads at 27.0 Amps each. The outlet is protected by a 2 pole GFCI circuit breaker.

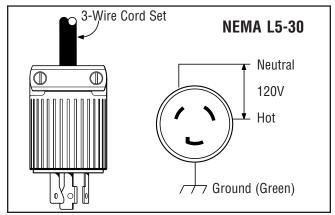
#### NOTICE

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

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

#### 120 Volt AC, 30 Amp Locking Receptacle

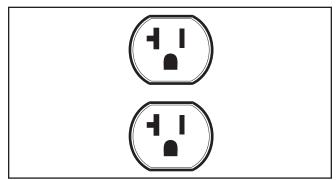
Use a NEMA L5-30 plug with this receptacle. Connect a 3-wire cord set rated for 125 Volt AC loads at 30 Amps to the plug.



Use this receptacle to operate 120 Volt AC, 60 Hz, single phase loads requiring up to 3,600 watts (3.6 kW) of power at 30 Amps. The outlet is protected by a 2 pole GFCI circuit breaker.

#### 120 Volt AC, 20 Amp, Duplex Receptacle

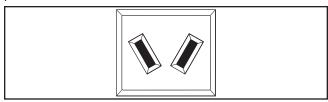
The duplex receptacle is protected against overload by a push-to-reset circuit breaker and/or a 2 pole GFCI circuit breaker.



Use receptacle to operate 120 Volt AC, single-phase, 60 Hz electrical loads requiring up to 2,400 watts (2.4 kW) at 20 Amps of current. Use cord sets that are rated for 125 Volt AC loads at 20 Amps (or greater). Inspect cord sets before each use.

#### 12 Volt DC, 10 Amp Receptacle

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



This receptacle can not recharge 6 Volt batteries and can not be used to crank an engine having a discharged battery. See the section *Charging a Battery* before attempting to recharge a battery.

#### **Ground Fault Protection**

This unit is equipped with a Ground Fault Circuit Interrupter (GFCI). This device meets applicable federal, state and local codes.

The GFCI protects against electrical shock that may be caused if your body becomes a path which electricity travels to reach ground. This could happen if you touch a "Live" appliance or wire, or are touching plumbing or other materials that connect to the ground.

When protected by a GFCI, one may still feel a shock, but the GFCI should cut current off quickly enough so that a person in normal health should not suffer any serious electrical injury.



## WARNING



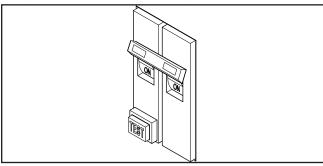
Generator produces hazardous voltage/current.

- The GFCI will not protect you against the following situations:

   Line-to-line shocks;
  - -Current overloads or line-to-line short circuits.
- The fuse or circuit breaker at the control panel must provide such protection.

#### Test GFCI Circuit Breaker

Test your GFCI circuit breaker every month, as follows:



While generator is running, push white "Test" button.
 The circuit breaker should trip (handle will move to approximate center position), which will disconnect power to outlets.



#### CAUTION

If circuit breaker does not trip:

- DO NOT use generator.
- · Call a Briggs & Stratton Power Products service center.
- If handle moves to center, reset circuit breaker by firmly moving handle to "Off" (down) position, then to "On" (up) position.



#### **CAUTION**

If circuit breaker does not reset properly:

- DO NOT use generator.
- Call a Briggs & Stratton Power Products service center.

#### **During Generator Use**

If circuit breaker trips during use, it usually indicates faulty electrical equipment or cords. However, test the circuit breaker as follows:

 Disconnect loads, reset and test circuit breaker as described earlier. Let generator run without any loads for 1 minute.



## **CAUTION**

If circuit breaker trips in the 1 minute period:

- DO NOT use generator.
- Call a Briggs & Stratton Power Products service center.
- If circuit breaker tests correctly, the electrical equipment or extension cords may be faulty. Replace faulty electrical equipment and cords before further use.



## **CAUTION**

If circuit breaker tests correctly:

- Have qualified personnel check all electrical equipment and cords for any defects.
- Replace electrical equipment and cords or take to a qualified repair center.



## WARNING



Generator produces hazardous voltage.

- DO NOT touch bare wires or receptacles.
- DO NOT use generator with electrical cords which are worn, frayed, bare or otherwise damaged.
- DO NOT operate generator in the rain or wet weather.
- DO NOT handle generator or electrical cords while standing in water, while barefoot, or while hands or feet are wet.
- DO NOT allow unqualified persons or children to operate or service generator or electrical loads.

## **Operation**

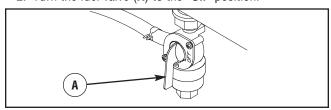
## Starting the Engine

Disconnect all electrical loads from the generator. Use the following start instructions:

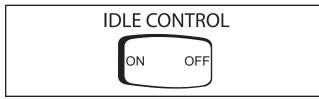
1. Make sure unit is on a level surface.

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

2. Turn the fuel valve (A) to the "On" position.



3. Make sure idle control switch is in "Off" position.



4. Start engine according to instructions given in the engine operator's manual.





Starter cord kickback (rapid retraction) can result in bodily injury. Kickback will pull hand and arm toward engine faster than you can let go.

Broken bones, fractures, bruises, or sprains could result.

- When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.
- NEVER start or stop engine with electrical devices plugged in and turned on.

**NOTE:** If engine starts after 3 pulls but fails to run, or if unit shuts down during operation, make sure unit is on a level surface and check for proper oil level in crankcase. This unit may be equipped with a low oil protection device. See engine operator's manual.

## **WARNING**



Contact with muffler area can result in serious burns.



Exhaust heat/gases can ignite combustibles, structures or damage fuel tank causing a fire.

- . DO NOT touch hot parts and AVOID hot exhaust gases.
- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5 m) of clearance on all sides of generator including overhead.
- Code of Federal Regulation (CFR) Title 36 Parks, Forests, and Public Property require equipment powered by an internal combustion engine to have a spark arrester, maintained in effective working order, complying to USDA Forest service standard 5100-1C or later revision. In the State of California a spark arrester is required under section 4442 of the California Public resources code. Other states may have similar laws.

## **Connecting Electrical Loads**

- 1. Let engine stabilize and warm up for a few minutes after starting.
- 2. Plug in and turn on the desired 120 and/or 240 Volt AC, single phase, 60 Hz electrical loads.

#### NOTE:

- DO NOT connect 240 Volt loads to the 120 Volt duplex receptacles.
- DO NOT connect 3-phase loads to the generator.
- DO NOT connect 50 Hz loads to the generator.
- DO NOT OVERLOAD THE GENERATOR. See *Don't Overload Generator*.

#### NOTICE

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

- DO NOT exceed the generator's wattage/amperage capacity. See *Don't Overload Generator* in the *Operation* section.
- Start generator and let engine stabilize before connecting electrical loads.
- Connect electrical loads in OFF position, then turn ON for operation.
- Turn electrical loads OFF and disconnect from generator before stopping generator.

## Stopping the Engine

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

## **Operating Automatic Idle Control**

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

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

## **Charging a Battery**

Your generator has the capability of recharging a discharged 12 Volt automotive or utility style storage battery.

- DO NOT use the unit to charge any 6 Volt batteries.
- DO NOT use the unit to crank an engine having a discharged battery.



#### DANGER

Storage batteries give off explosive hydrogen gas during recharging.



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

Slightest spark will ignite hydrogen and cause explosion.



You can be blinded or severely injured.

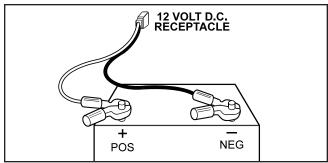
Battery electrolyte fluid contains acid and is extremely caustic.

Contact with battery fluid will cause severe chemical burns.

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

#### To recharge 12 Volt batteries, proceed as follows:

- Check fluid level in all battery cells. If necessary, add ONLY distilled water to cover separators in battery cells. DO NOT use tap water.
- 2. If battery is equipped with vent caps, make sure they are installed and are tight.
- 3. If necessary, clean battery terminals.
- 4. Connect battery charge cable connector plug to panel receptacle identified by the words "12V 10A D.C."
- 5. Connect battery charge cable clamp with **red** handle to the **positive** (+) battery terminal.



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

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

#### **Don't Overload Generator**

#### Capacity

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

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

#### **Example:**

Tool or Appliance	Running (Rated) Watts	Additional Starting (Surge) Watts
Water Well Pump	1200	2100
Refrigerator	700	2200
Furnace Fan	800	2350
Television	500	_
Light (75 Watts)	75	_
	3275 Total Running Watts	2350 Highest Starting Watts

Total Rated (Running) Watts = 3275 Highest Additional Surge Watts = 2350 Total Generator Output Required = 5625

#### **Power Management**

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

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

Wattage Reference Guide				
Tool or Appliance	Running* (Rated) Watts	Additional Starting (Surge) Watts		
Essentials				
Light Bulb - 75 watt	75	_		
Furnace Fan Blower - 1/2 HP	800	2350		
Sump Pump - 1/3 HP	800	1300		
Refrigerator/Freezer	700	2200		
Water Well Pump - 1/2 HP	1000	2100		
Heating/Cooling				
Window AC - 10,000 BTU	1200	3600		
Humidifier - 13 Gal	175	_		
Central AC - 24,000 BTU	3800	11400		
Kitchen				
Microwave Oven - 1000 Watt	1000	_		
Coffee Maker	1000	_		
Electric Stove - 8" Element	2100	_		
Toaster	850	_		
Family Room				
DVD/CD Player	100	_		
VCR	100	_		
Stereo Receiver	450	_		
Color Television - 27 in	500	_		
Personal Computer w/17 in monitor	800	_		
Other				
Security System	500	_		
AM/FM Clock Radio	100	_		
Garage Door Opener - 1/2 HP	875	2350		
Electric Water Heater	4700	11700		
DIY/Job Site				
Quartz Halogen Work Light	1000	_		
Airless Sprayer - 1/3 HP	600	1200		
Reciprocating Saw	960	_		
Electric Drill - 1/2 HP, 5.4 Amps	600	900		
Circular Saw - 7-1/4 in	1400	2300		
Miter Saw - 10 in	1800	1800		
Table Planer - 6 in	1800	1800		
Table Saw/Radial Arm Saw - 10 in	2000	2000		
Air Compressor - 1 HP	1600	4500		

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

<sup>\*</sup> Wattages listed are approximate only. Check tool or appliance for actual wattage.

## **Maintenance**

#### **General Recommendations**

Regular maintenance will improve the performance and extend the life of the generator. See an authorized dealer for service.

The generator's warranty does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the generator as instructed in this manual and the engine operator's manual.

**NOTE:** Should you have questions about replacing components on your generator, please call **(800) 743-4115** for assistance.

- Some adjustments will need to be made periodically to properly maintain your generator.
- All maintenance in this manual and the engine operator's manual should be made at least once each season.
- Once a year you should clean or replace the spark plug, clean or replace the air filter. A new spark plug and clean air filter assure proper fuel-air mixture and help your engine run better and last longer. Please refer to your engine operator's manual for more details.

#### **Generator Maintenance**

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

**NOTE:** DO NOT use water or other liquids to clean generator. Liquids can enter engine fuel system, causing poor performance and/or failure to occur. In addition, if liquid enters generator through cooling air slots, some of the liquid will be retained in voids and cracks of the rotor and stator winding insulation. Liquid and dirt buildup on the generator internal windings will eventually decrease the insulation resistance of these windings.

#### Cleaning

Daily or before use, look around and underneath the generator for signs of oil or fuel leaks. Clean accumulated debris from inside and outside the generator. Keep the linkage, spring and other engine controls clean. Keep the area around and behind the muffler free from any combustible debris. Inspect cooling air slots and openings on generator. These openings must be kept clean and unobstructed.

Engine parts should be kept clean to reduce the risk of overheating and ignition of accumulated debris:

• Use a damp cloth to wipe exterior surfaces clean.

#### NOTICE

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

- DO NOT expose generator to excessive moisture, dust, dirt, or corrosive vapors.
- DO NOT insert any objects through cooling slots.
  - Use a soft bristle brush to loosen caked on dirt or oil.
  - Use a vacuum cleaner to pick up loose dirt and debris.

#### Service Spark Arrester

The engine exhaust muffler has a spark arrester screen. Inspect and clean the screen every 100 hours of operation or once each year, whichever comes first.

If you use your generator on any forest-covered, brush-covered, or grass-covered unimproved land, it must have a spark arrester. The spark arrester must be maintained in good condition by the owner/operator.



#### WARNING



Contact with muffler area can result in serious

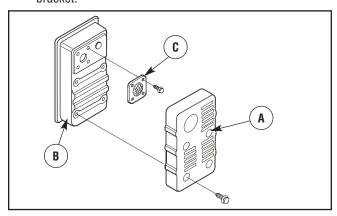


Exhaust heat/gases can ignite combustibles, structures or damage fuel tank causing a fire.

- DO NOT touch hot parts and AVOID hot exhaust gases.
- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5 m) of clearance on all sides of generator including overhead.
- Code of Federal Regulation (CFR) Title 36 Parks, Forests, and Public Property require equipment powered by an internal combustion engine to have a spark arrester, maintained in effective working order, complying to USDA Forest service standard 5100-1C or later revision. In the State of California a spark arrester is required under section 4442 of the California Public resources code. Other states may have similar laws.

#### Clean and inspect the spark arrester as follows:

 To remove muffler heat shield (A) from muffler (B), remove four screws that connect guard to muffler bracket.

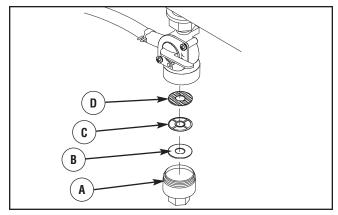


- 2. Remove four screws that attach spark arrester screen  $(\mathbf{C})$ .
- Inspect screen and obtain a replacement if torn, perforated or otherwise damaged. DO NOT use a defective screen. If screen is not damaged, clean it with commercial solvent.
- 4. Reattach screen and muffler guard.

#### **Fuel Valve Maintenance**

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

- 1. Move fuel valve to "Off" position.
- 2. Remove sediment cup (A) from fuel valve. Remove o-ring (B), retaining ring (C) and screen (D) from fuel valve.



- 3. Wash sediment cup, o-ring, retaining ring, and screen in a nonflammable solvent. Dry them thoroughly.
- 4. Place screen, retaining ring, and o-ring into fuel valve. Install sediment cup and tighten securely.
- 5. Move fuel valve to "**On**" position, and check for leaks. Replace o-ring if there is any leakage.

## **Engine Maintenance**

See the engine operator's manual for instructions on how to properly maintain the engine.

## **A** CAUTION

Avoid prolonged or repeated skin contact with used motor

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



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

#### **Storage**

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

#### **Generator Storage**

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

#### **Long Term Storage**

Fuel can become stale when stored over 30 days. Stale fuel causes acid and gum deposits to form in the fuel system or on essential carburetor parts. To keep fuel fresh, use Briggs & Stratton FRESH START™ fuel stabilizer, available as a liquid additive or a drip concentrate cartridge.

There is no need to drain gasoline from the engine if a fuel stabilizer is added according to instructions. Run the engine for 2 minutes to circulate the stabilizer throughout the fuel system. The engine and fuel can then be stored up to 24 months.

If gasoline in the engine has not been treated with a fuel stabilizer, it must be drained into an approved container. Run the engine until it stops from lack of fuel. The use of a fuel stabilizer in the storage container is recommended to maintain freshness.



#### WARNING



Fuel and its vapors are extremely flammable and explosive.



Fire or explosion can cause severe burns or death.

#### WHEN STORING FUEL OR EQUIPMENT WITH FUEL IN TANK

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

#### WHEN DRAINING FUEL

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

#### Storing the Engine

See the engine operator's manual for instructions on how to properly prepare the engine for storage.

#### **Other Storage Tips**

- 1. DO NOT store fuel from one season to another unless it has been treated as described in *Long Term Storage*.
- Replace fuel container if it starts to rust. Rust and/or dirt in fuel can cause problems if it's used with this unit.
- 3. Cover unit with a suitable protective cover that does not retain moisture.



## WARNING

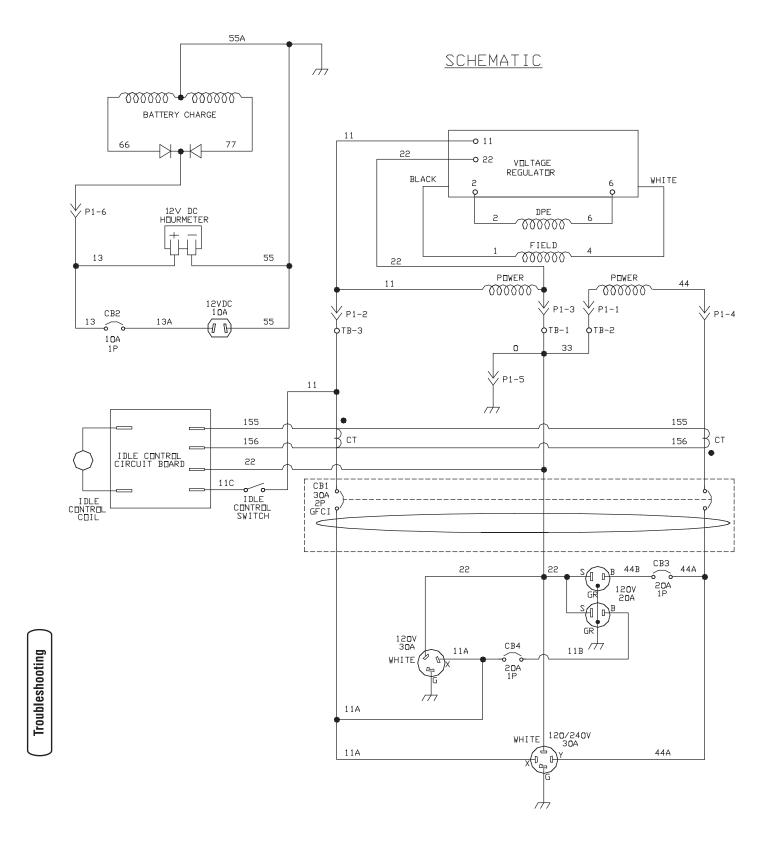


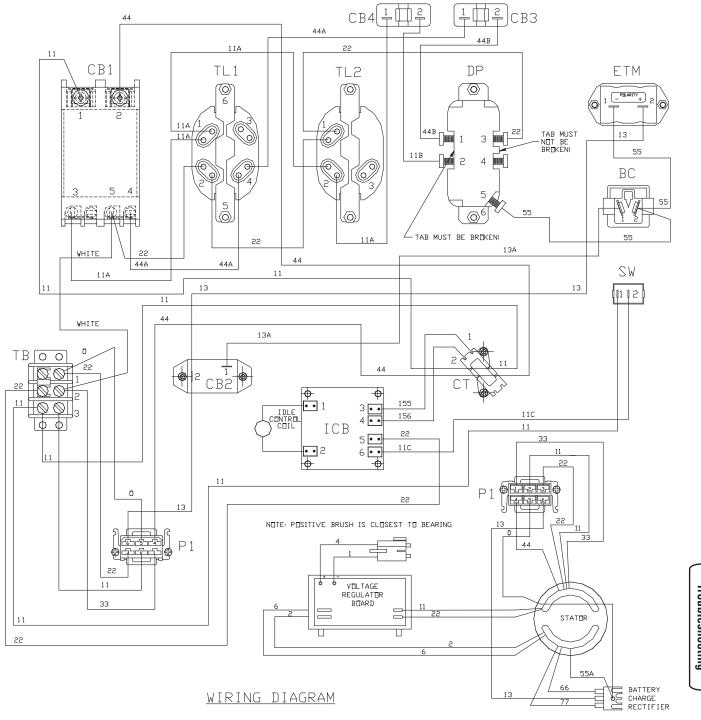
Storage covers can be flammable.

- DO NOT place a storage cover over a hot generator.
- Let equipment cool for a sufficient time before placing the cover on the equipment.
- 4. Store generator in clean, dry area.

# Troubleshooting

Problem Cause		Correction				
	1. GFCI circuit breaker is open.	Reset circuit breaker.				
Engine is running, but no AC	2. Fault in generator.	2. Contact authorized service facility.				
output is available.	3. Poor connection or defective cord set.	3. Check and repair.				
·	4. Connected device is bad.	4. Connect another device that is in good condition.				
	1. Short circuit in a connected load.	1. Disconnect shorted electrical load.				
Engine runs good at no-load	2. Engine speed is too slow.	2. Contact authorized service facility.				
but "bogs down" when loads	3. Generator is overloaded.	3. See Don't Overload Generator.				
are connected.	4. Shorted generator circuit.	4. Contact authorized service facility.				
	5. Clogged or dirty fuel filter.	5. Clean or replace fuel filter.				
	1. Engine switch set to " <b>Off</b> " position.	1. Set switch to "On" position.				
	2. Fuel valve is in " <b>Off</b> " position.	2. Turn fuel valve to " <b>On</b> " position.				
	3. Low oil level.	3. Fill crankcase to proper level or place generator on level surface.				
	4. Dirty air cleaner.	4. Clean or replace air cleaner.				
	5. Clogged or dirty fuel filter.	5. Clean or replace fuel filter.				
	6. Out of fuel.	6. Fill fuel tank.				
Engine will not start; or starts	7. Stale fuel.	7. Drain fuel tank and carburetor; fill with fresh fuel.				
and runs rough.	8. Spark plug wire not connected to spark plug.	8. Connect wire to spark plug.				
	9. Bad spark plug.	9. Replace spark plug.				
	10. Water in fuel.	10. Drain fuel tank and carburetor; fill with fresh fuel.				
	11. Flooded.	11. Wait 5 minutes and re-crank engine.				
	12. Excessively rich fuel mixture.	12. Contact authorized service facility.				
	13. Intake valve stuck open or closed.	13. Contact authorized service facility.				
	14. Engine has lost compression.	14. Contact authorized service facility.				
	1. Out of fuel.	1. Fill fuel tank.				
Engine shuts down when	2. Clogged or dirty fuel filter.	2. Clean or replace fuel filter.				
running.	3. Low oil level.	3. Fill crankcase to proper level or place generator on level surface.				
	1. Load is too high.	1. See Don't Overload Generator.				
Engine lacks power.	2. Dirty air filter.	2. Replace air filter.				
	3. Clogged or dirty fuel filter.	3. Clean or replace fuel filter.				
Fraine Ilburdell ex feltere	1. Carburetor is running too rich or too lean.	Contact authorized service facility.				
Engine "hunts" or falters.	2. Clogged or dirty fuel filter.	2. Clean or replace fuel filter.				





#### BRIGGS & STRATTON POWER PRODUCTS GROUP, LLC PORTABLE GENERATOR OWNER WARRANTY POLICY

Effective July 1, 2007 replaces all undated Warranties and all Warranties dated before July 1, 2007

#### LIMITED WARRANTY

Briggs & Stratton Power Products Group, LLC will repair or replace, free of charge, any part(s) of the portable generator that is defective in material or workmanship or both. Transportation charges on product submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions stated below. For warranty service, find the nearest Authorized Service Dealer in our dealer locator map at BRIGGSandSTRATTON.com.

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

#### **WARRANTY PERIOD**

Consumer Use 2 years\*
Commercial Use 2 year\*

\*Second year parts only

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

NO WARRANTY REGISTRATION IS NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON PRODUCTS. SAVE YOUR PROOF OF PURCHASE RECEIPT. IF YOU DO NOT PROVIDE PROOF OF THE INITIAL PURCHASE DATE AT THE TIME WARRANTY SERVICE IS REQUESTED, THE MANUFACTURING DATE OF THE PRODUCT WILL BE USED TO DETERMINE THE WARRANTY PERIOD.

#### **ABOUT YOUR WARRANTY**

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

- Normal Wear: Outdoor Power Equipment, like all mechanical devices, needs periodic parts and service to perform well. This warranty does not cover
  repair when normal use has exhausted the life of a part or the equipment.
- Installation and Maintenance: This warranty does not apply to equipment or parts that have been subjected to improper or unauthorized installation or alteration and modification, misuse, negligence, accident, overloading, overspeeding, improper maintenance, repair or storage so as, in our judgment, to adversely affect its performance and reliability. This warranty also does not cover normal maintenance such as air filters, adjustments, fuel system cleaning and obstruction (due to chemical, dirt, carbon, lime, and so forth).
- Other Exclusions: This warranty excludes the engine. For engine warranty questions, call American Honda Motor Company at 1-800-426-7701 or visit www.honda-engines.com for a dealer locator.

This warranty excludes wear items such as o-rings, filters, etc., or malfunctions resulting from accidents, abuse, modifications, alterations, or improper servicing or freezing or chemical deterioration. Accessory parts such as starting batteries, generator adapter cord sets and storage covers are excluded from the product warranty. This warranty excludes used, reconditioned, and demonstration equipment, equipment used for prime power in place of utility power, equipment used in life support applications, and failures due to acts of God and other force majeure events beyond the manufacturers control. 204107E, Rev. -, 8/1/2007

# BRIGGS & STRATTON POWER PRODUCTS GROUP, LLC JEFFERSON, WI, USA



## **Portable Generator**

## **Product Specifications**

Model 030339
Starting Wattage6,875 Watts
Wattage5,500 Watts
AC Voltage
at 240 Volts
at 120 Volts
Frequency
PhaseSingle Phase
Fuel Capacity

## Model 030340

Starting Wattage	
Wattage	6,500 Watts
AC Voltage	120/240 Volts
at 240 Volts	27.0 Amps
at 120 Volts	54.1 Amps
Frequency	60 Hz at 3600 rpm
Phase	Single Phase
Fuel Capacity	.7 U.S. Gallons (26.5 Liters)

## **Common Service Parts**

Engine Oil Bottle	100005 or 100028
Fuel Stabilizer	5041D
Spark Arrester	83083GS

This generator is rated and certified to be compliant with CSA (Canadian Standards Association) standard C22.2 No. 100-04 (motors and generators).

Briggs & Stratton Power Products Group, LLC 900 N. Parkway Jefferson, Wisconsin, 53549 U.S.A.

24 (800) 743-4115 BRIGGSandSTRATTON.COM