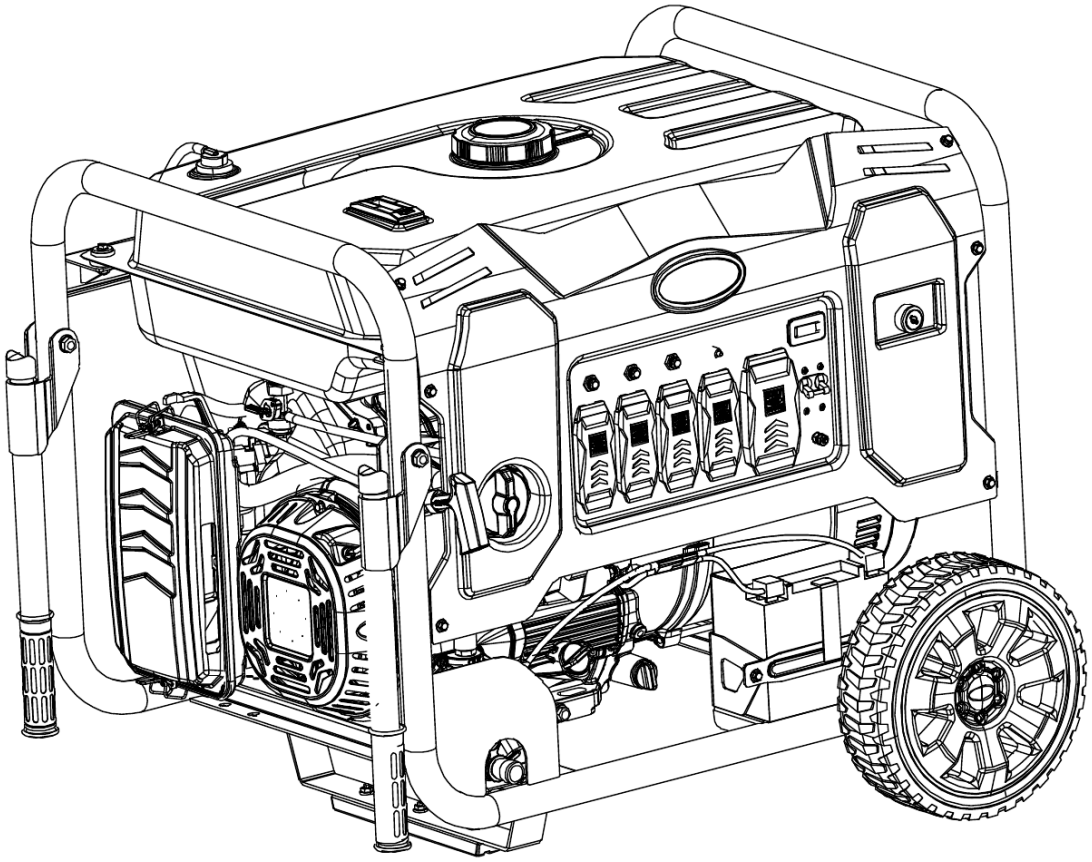
MODEL: FOEG13000TR

Tri-Fuel Generator

OPERATOR'S MANUAL

Gasoline · LPG (propane) · Natural gas



www.fordpower.ca

TABLE OF CONTENTS

Introduction **3**
- Product Specifications 3

Safety Rules **4**
- Safety Symbols 4
- Safety Instructions 4

Features **7**

Assembly **9**
- Unpacking 9
- Packing List 9
- Removing the Shipping Brackets 9
- Attaching the Wheels 10
- Installing the Support Leg 10
- Attaching the Battery Cables 10
- Installing the Handles 11
- Adding / Checking Engine Oil 12
- Adding Fuel 12
- Connecting to a Building's Electrical System 12

Operation **13**
- Grounding the Generator 13
- Starting the Engine 13
- Stopping the Engine 14
- Receptacles and Extension Cords 15
- Moving the Generator 16
- Don't Overload the Generator 16
- Wattage Reference Guide 16
- Hour Meter and Power Management 17
- Cold Weather Operation 18

Maintenance **19**
- Maintenance Schedule 19
- Changing the Oil 19
- Air Filter, Spark Plug and Spark Arrester 20
- Fuel Filter 21
- Draining the Fuel Tank and Carburetor 21
- Storage and Transportation 22

Troubleshooting **23**

Wiring Diagram **24**

INTRODUCTION

Thank you for purchasing this superior-quality portable generator from Ford Power Equipment. When operated and maintained as instructed in this manual, your generator will give you many years of reliable service.

Product Specifications

This generator is an engine-driven, revolving-field, alternating current (AC) portable generator. It is designed to supply electrical power to operate tools, appliances, camping equipment and lighting, or to serve as a backup power source during power outages.

		Gasoline	LPG (propane)	Natural gas
AC Output	Rated wattage	10,500 W	9,000 W	7,500 W
	Rated voltage	120/240 V	120/240 V	120/240 V
	Rated frequency	60 Hz	60 Hz	60 Hz
	Rated amperage	87.5 A / 43.7 A	75 A / 37.5 A	62.5 A / 31.3 A
	Rated output	10.5 kVA	9.0 kVA	7.5 kVA
	Maximum output	13 kVA	11.5 kVA	10.5 kVA
Engine	550 cc, overhead valve (OHV), 4-stroke, air-cooled			
Engine oil	SAE 5W-30 – 37.2 fl oz (1.1 L)			
Fuel tank	9.5 US gal (36 L) of unleaded gasoline			

Amperage shown at 120 V / 240 V.

Record the following information below; you will need it for service or warranty assistance.

Date of purchase:	
Model number:	
Item number:	
Serial number:	

SAVE THIS MANUAL FOR FUTURE REFERENCE

This manual contains important information about safety, operation and maintenance.

SAFETY RULES

Safety Symbols

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

CAUTION! Indicates a potentially hazardous situation which could result in damage to equipment or property.

 Toxic fumes	 Risk of fire	 Risk of explosion
 Risk of electric shock	 Hot surface	 Lifting hazard

Safety Instructions

The manufacturer cannot anticipate every possible hazardous situation the user may encounter. The warnings in this manual and on the tags and decals affixed to the unit are therefore not all-inclusive. To avoid accidents, the user must understand and follow all instructions in this manual and use common sense.

WARNING! **Read and understand this entire manual before operating this generator. Improper use could result in serious injury or death.**

WARNING!  **Do not operate indoors or in any confined space that prevents dangerous carbon monoxide gas from dissipating.**

- Using a generator indoors CAN KILL YOU IN MINUTES!
- Carbon monoxide is a poisonous, odourless gas that can cause headache, confusion, fatigue, nausea, fainting, sickness, seizures or death. If you experience any of these symptoms, get to fresh air IMMEDIATELY and seek medical attention.
- Never use the unit indoors, in a covered area or in a confined space, even if doors and windows are open.
- Install a battery-operated carbon monoxide alarm near bedrooms.
- Keep exhaust from entering a confined area through windows, doors, vents or other openings.
- When working in areas where vapours could be inhaled, wear a respirator mask and follow all of its instructions.

WARNING! **Engine exhaust contains chemicals that can cause cancer and birth defects.**

- Always wash your hands after handling the generator.

WARNING!  **To reduce the risk of serious injury, do not attempt to lift the generator alone.**

WARNING! **Never exceed the generator's wattage or amperage capacity. This could damage the generator or connected electrical devices.**

- Check the voltage and frequency requirements of all electrical devices before plugging them into the generator.

WARNING! **Never start or stop the engine with electrical devices plugged into the receptacles. This could damage the generator or connected devices.**

- Always start the engine and let it stabilize before connecting any electrical device.
- Disconnect all electrical devices before stopping the engine.

WARNING! **The starter and other moving parts can catch clothing, jewellery and hair.**

- Do not wear loose clothing or gloves.
- Remove jewellery and anything else that could be caught in moving parts.
- Tie back long hair or wear protective head covering.

WARNING!  **Keep the engine away from flammable objects and other hazardous materials.**

- The fuel that powers this unit and its vapours are highly flammable and could explode, resulting in serious injury or death.
- Never fill or drain the fuel tank indoors.
- Never overfill the fuel tank. If fuel spills, move the unit at least 30 ft (9 m) away from the spill and wipe any remaining fuel off the unit before starting the engine.
- Never smoke while operating or refuelling the unit.
- Never operate or store the unit near an open flame, heat or any other ignition source.
- During operation, keep the generator at least 5 ft (1.5 m) away from buildings and other equipment.
- Keep the engine free of grass, leaves and grease, which are flammable.
- Before adding or draining fuel, turn the unit off and let it cool for at least 2 minutes before removing the fuel cap. If the unit has been running, the tank is under pressure: remove the cap slowly.
- To prevent fuel spills, secure the unit so it cannot tip over during operation or transport.
- When transporting the unit, disconnect the spark plug wire, make sure the fuel tank is empty and turn the fuel valve OFF.

WARNING! **The pull cord recoils rapidly and can pull your arm toward the engine faster than you can let go, which could result in injury.**

- To avoid kickback, pull the starter cord slowly until resistance is felt, then pull rapidly.

WARNING!  **Avoid contact with hot areas of the unit.**

- Use caution around the muffler, cylinder and other engine parts: they can be extremely hot.
- Allow hot components to cool before touching them.

WARNING!  **This generator produces very high voltage which could result in burns or electrocution causing serious injury or death.**

- Never handle the generator, electrical devices or any cord while standing in water, while barefoot, or when your hands or feet are wet.
- Always keep the generator dry. Never operate it in rain or wet conditions.
- Use a ground fault circuit interrupter (GFCI) in damp or highly conductive areas, such as metal decking or steel structures.
- Never plug devices with frayed, worn or bare wires into the generator. Never touch bare wires or receptacle contacts.
- Never let a child or an unqualified person operate the generator. Keep children at least 10 ft (3 m) away from the generator at all times.
- If you use the generator for backup power, notify your utility company.
- To connect the generator to a building's electrical system for standby power, have a qualified electrician install a transfer switch. Failure to isolate the generator from the utility could result in serious injury or death to utility workers.

WARNING!  **The generator must be properly grounded to prevent electrocution.**

- Only operate the generator on a level surface.
- Always connect the nut and ground terminal on the frame to an appropriate ground source.

⚠ WARNING! **Never modify this unit in any way, and never change the governed speed.**

- Increasing the governed speed is dangerous and can result in personal injury or damaged equipment.
- Decreasing the governed speed puts an excessive load on the engine and can damage equipment.
- The generator only supplies the correct rated frequency and voltage when operating at the preset governed speed.

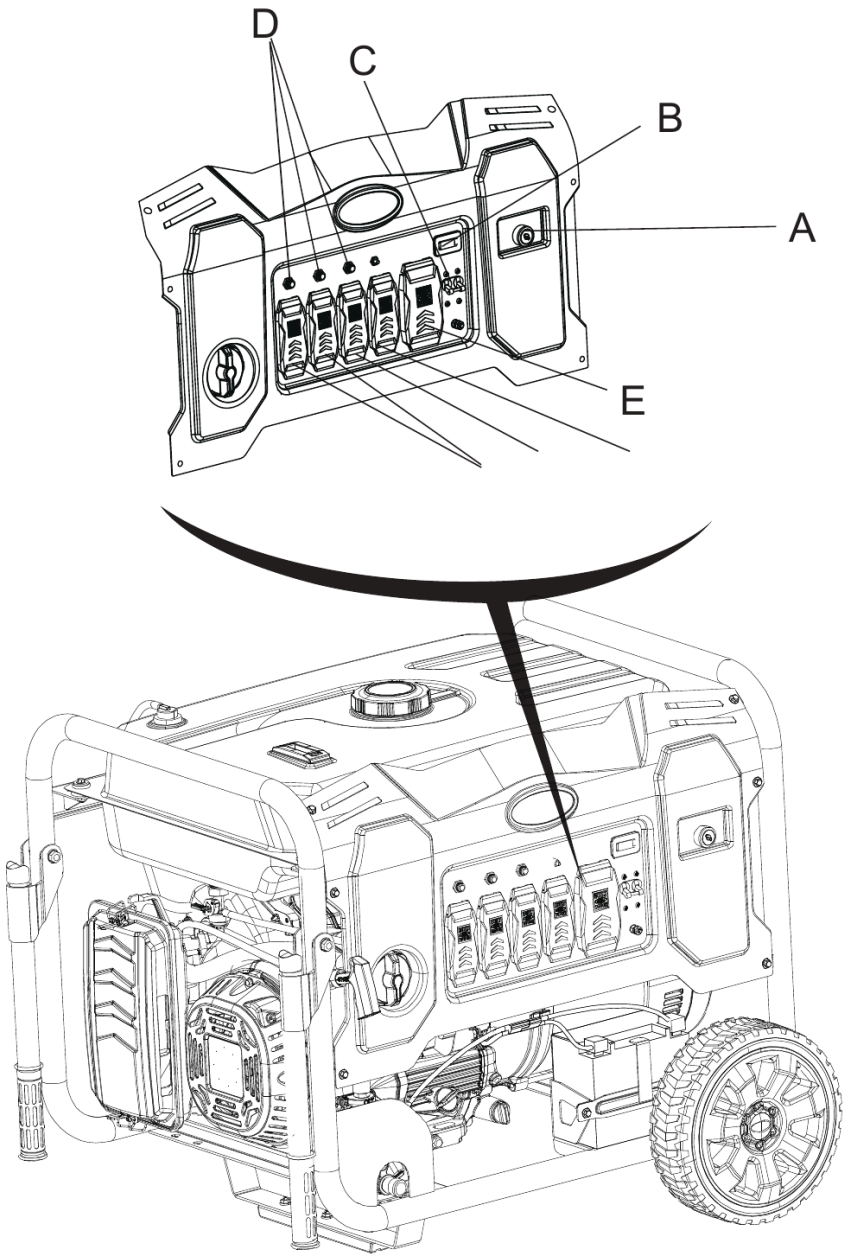
⚠ WARNING! **Only use this unit as intended, or serious injury or death could result.**

- Do not bypass any safety device. Moving parts are covered by guards: make sure all protective covers are in place.
- Never transport or adjust the unit while it is running.
- Never insert objects through the cooling slots.

⚠ WARNING! **Never operate this unit with broken or missing parts, and only use Ford Power Equipment replacement parts designed for this unit.**

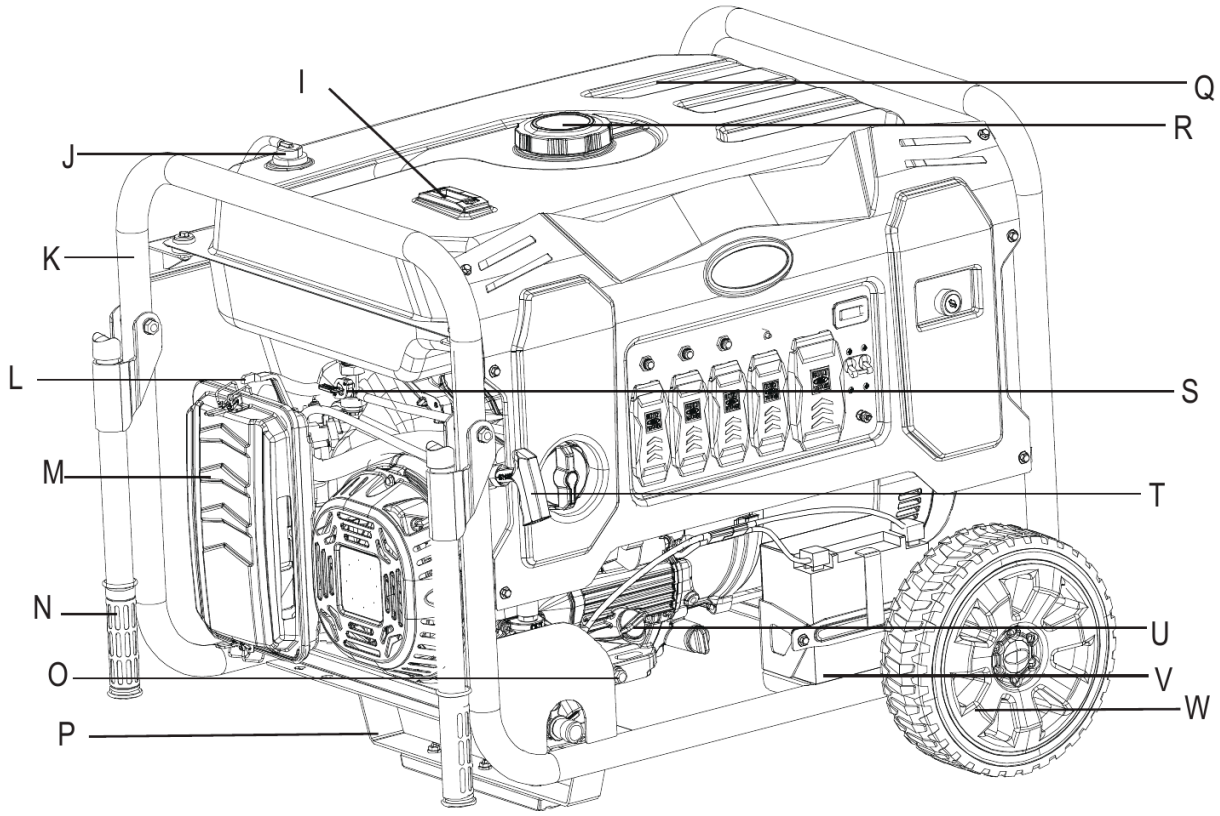
- Improper treatment can damage the generator and shorten its life.
- Always repair the unit as specified in this manual. If you have any questions, contact your dealer or a qualified service centre.
- Shut the generator off if there is no electrical output, if it vibrates excessively, or if it begins to smoke, spark or emit flames.

FEATURES



A – START/ON/OFF switch
B – Hour meter
C – Main circuit breaker
D – Receptacle circuit protectors

E – Receptacles:
– 120/240 V AC, 50 A (NEMA 14-50R)
– 120 V AC, 30 A twist-lock (NEMA L5-30R)
– Two 120 V duplex receptacles (NEMA 5-20R)
– 120/240 V AC, 30 A twist-lock (NEMA L14-30R)



I – Fuel gauge
J – Fuel tank vapour vent
K – Generator frame
L – Choke lever
M – Air filter
N – Handles and grips
O – Oil drain plug
P – Support leg

Q – Fuel tank
R – Fuel fill cap
S – Fuel valve (ON/OFF)
T – Recoil starter grip
U – Oil fill (dipstick)
V – Battery
W – No-flat foam-filled tires

ASSEMBLY

Unpacking

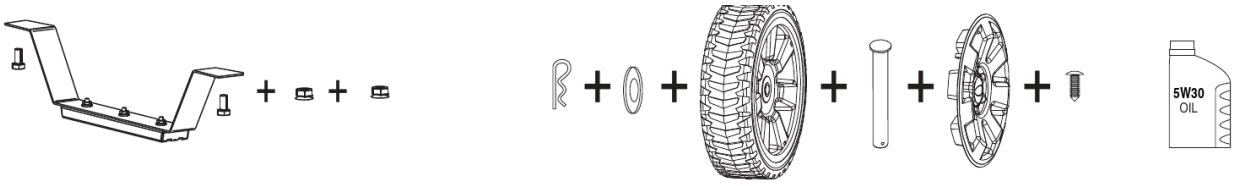
1. Place the box on a level surface.
2. Remove all items from the box except the generator. Make sure all items on the packing list are included and undamaged.
3. Cut down the sides of the box, taking care not to hit the generator.
4. Leave the generator on the bottom of the box to install the wheels.

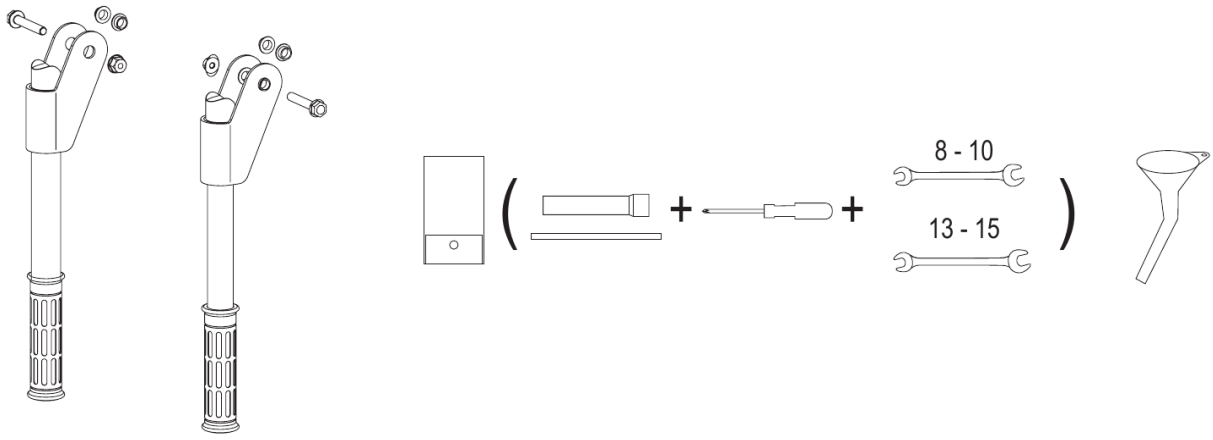
Packing List

Check all loose parts against the following list. If any part is missing, contact your dealer.

Description	Qty
Generator	1
Quick start guide	1
4-stroke engine oil (SAE 5W-30)	1
Toolkit: spark plug wrench	1
Toolkit: Phillips screwdriver	1
Toolkit: combination wrench	2
Funnel	1
Handles	2
Bushings (flanged)	4

Description	Qty
M8 × 50 mm hex bolts (handles)	2
M8 flanged nuts (handles)	2
Wheels	2
Axles	2
Hair pins	2
Hub caps	2
Self-tapping screws	2
Washers	2
Support leg	1
M8 × 16 mm hex bolts (support leg)	2
M8 flanged nuts (support leg)	2





Removing the Shipping Brackets (see Fig. 1)

- Before starting the generator, remove and discard the two RED shipping brackets and their mounting hardware.

Attaching the Wheels (see Fig. 2)

- Parts needed: 2 wheels, 2 axles, 2 hair pins, 2 washers, 2 hub caps and 2 self-tapping screws.

- Raise or tilt the generator so you can slide the axle through the wheel, the washer and the wheel mounting hole on the side of the frame.
- Secure the wheel by inserting a hair pin through the hole at the end of the axle and pressing until it locks into place.
- Press the hub cap onto the wheel until it clicks, then tighten the self-tapping screw until it is snug.
- Repeat on the other side of the generator to install the second wheel.

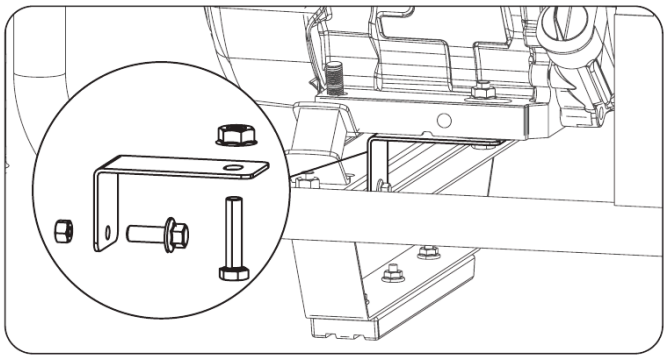


Fig. 1

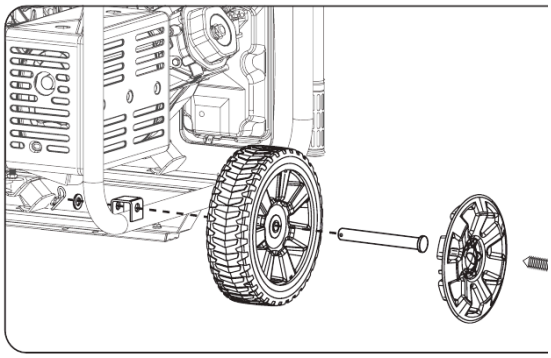


Fig. 2

Installing the Support Leg (see Fig. 3)

- Parts needed: support leg, two M8 × 16 mm bolts and two M8 flanged nuts.
- Raise the front of the generator high enough to reach the underside of the frame. Support it securely with blocks.
- Line up the holes in the support leg bracket with the holes at the front of the frame.
- Attach the support leg with the two M8 bolts and nuts.

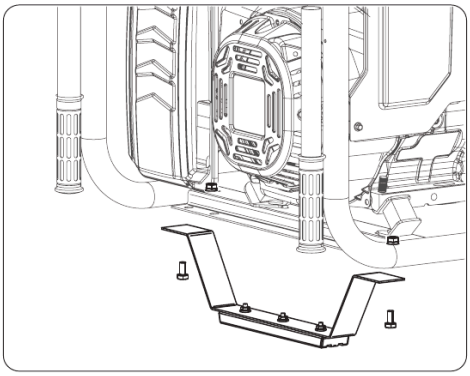


Fig. 3

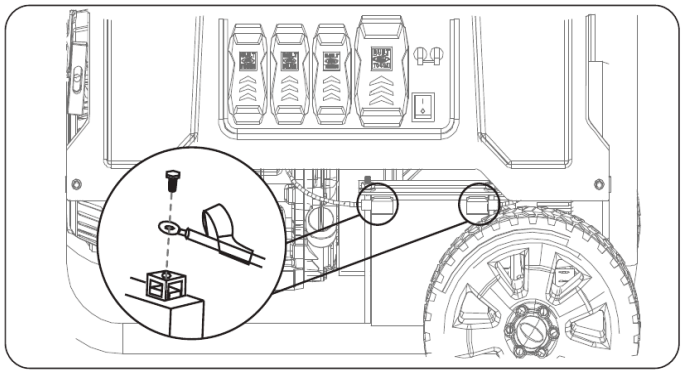


Fig. 4

Attaching the Battery Cables (see Fig. 4)

- Parts needed: black and red battery cables.
- Connect the red (+) connector to the battery first.
- Remove the screw from the battery terminal.
- Pass the screw through the cable eyelet and tighten it; make sure the terminal does not touch any part of the frame.
- Install the red protective boot.
- Repeat these steps for the black (–) terminal.
- Cover the terminals with the rubber covers.

⚠ CAUTION!	**Be careful not to short across the terminals during installation. Shorting the terminals can cause sparks, damage the battery or generator, or even cause burns or an explosion.**

To remove the battery for replacement: first remove the nut and bolt from the negative (black) terminal, then from the positive (red) terminal, being careful not to short across the terminals. Always follow the safety warnings supplied with the battery. Remove the battery and dispose of it according to local and provincial regulations.

⚠ WARNING!	**Battery posts, terminals and related accessories contain lead and lead compounds, known to cause cancer and reproductive harm.**
• Always wash your hands after handling the battery.	

Installing the Handles (see Fig. 5)

- Insert the flanged bushings into the handle brackets, position each handle on the frame, then secure it with an M8 × 50 mm bolt and an M8 flanged nut.

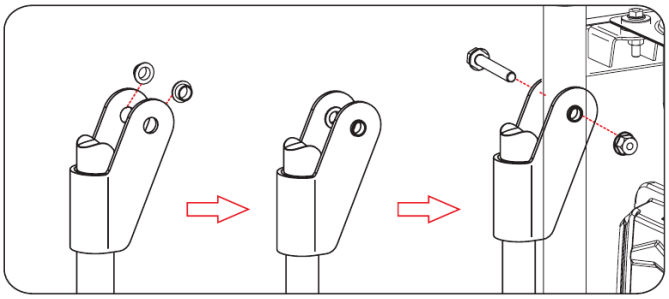


Fig. 5

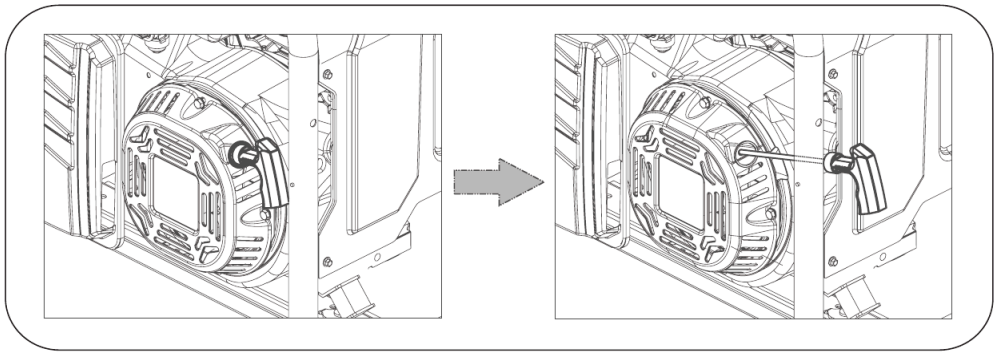


Fig. 6

Battery Label



NON-SPILLABLE SEALED BATTERY. This is a ready-filled, activated sealed battery. Never remove the strip. Refer to the owner's manual or instruction sheet for charging procedures.

DANGER / POISON: shield eyes. Explosive gases can cause blindness or injury. No sparks, flames or smoking. Sulfuric acid can cause blindness or severe burns. Flush eyes immediately with water. Get medical help fast.

WARNING:

- Wear eye protection.
- Never reverse pole connections.
- Never turn the battery upside down.
- DO NOT smoke near the battery.
- If electrolyte contacts the skin, wash the area immediately with clean water.
- If electrolyte gets in your eyes, rinse immediately with clean water and seek medical attention.

NOTICE: if the generator is stored for more than six months, the battery must be removed and charged.

Antidotes for Battery Acid

Contact	Treatment
External	Flush with water.
Internal (swallowed)	Drink large quantities of milk or water, followed by milk of magnesia, vegetable oil or beaten eggs. Get immediate medical attention.
Eyes	Flush with water. Get immediate medical attention.

Adding / Checking Engine Oil (see Fig. 7)

- Place the generator on a level surface.
- Remove the crankcase dipstick to make sure you do not overfill the engine.
- Insert a funnel into the dipstick hole and carefully add SAE 5W-30 4-stroke engine oil until the oil reaches the outer edge of the oil fill hole.
- Reinstall the dipstick before starting the engine.
- To check the oil level, place the generator on a level surface, wipe the dipstick clean, then reinsert it without screwing it in.

Adding Fuel (see Fig. 8)

- Place the generator on a clean, level surface in a well-ventilated area.
- Remove the fuel cap.
- Insert a funnel into the fuel tank and carefully pour in gasoline until the level reaches about 1½ in (3.8 cm) below the top of the neck. Do not overfill: leave room for fuel expansion.

⚠ CAUTION!	**You must add oil before operating this generator for the first time. Always check the oil level before each use.** **DO NOT USE E15 OR E85 FUEL IN THIS UNIT. IT WILL DAMAGE THE UNIT AND VOID YOUR WARRANTY.**

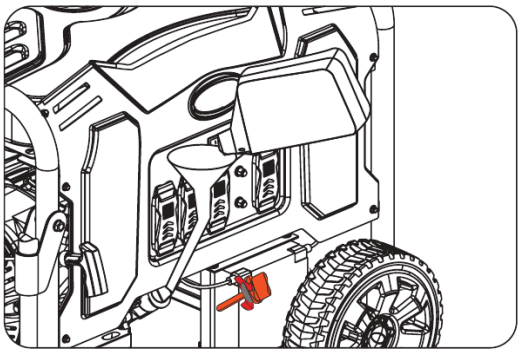


Fig. 7

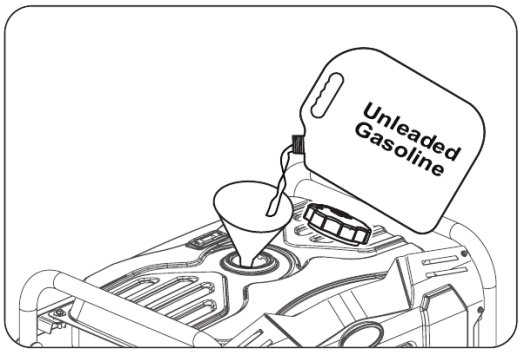


Fig. 8

Connecting to a Building's Electrical System

- To connect the generator to a building's electrical system for standby power, have a qualified electrician install a transfer switch. Generator power must be isolated from the breaker panel and any other power source. The connection must comply with all applicable electrical codes and laws.

Also follow the electrical hazard warnings in the "Safety Rules" section (p. 4).

OPERATION

Grounding the Generator (see Fig. 9)

The ground terminal on the back of the generator frame must always be used to connect the generator to a driven ground rod. Use No. 8 AWG copper wire. The wire connects to the terminal between the lock washer and the nut. Tighten the nut securely to ensure a proper connection. Grounding protects you from electric shock caused by a build-up of static electricity or an undetected ground fault.

THERE IS A PERMANENT CONDUCTOR BETWEEN THE GENERATOR (STATOR WINDING) AND THE FRAME.

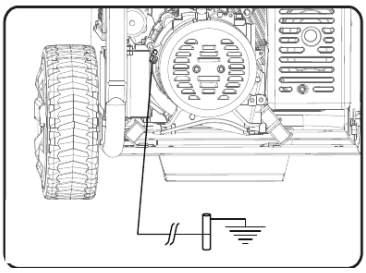


Fig. 9

WARNING! **The generator must be properly grounded to prevent electrocution.**

- Only operate the generator on a level surface.
- Always connect the nut and ground terminal on the frame to an appropriate ground source.

Starting the Engine (see Figs. 10 to 18)

- Place the generator on a level surface. All electrical loads MUST be disconnected.

GASOLINE

- Turn the fuel valve ON (Fig. 11).
- Turn the fuel selector to "GASOLINE" (Figs. 12 and 17).
- Move the choke lever to "CHOKE" (Fig. 13). **SKIP THIS STEP IF THE ENGINE IS WARM OR HOT.**
- **Electric start:** hold the START/ON/OFF switch in the "START" position. Do not hold it for more than 15 seconds. Wait 1 minute between attempts (Fig. 14).
- **Manual start:** turn the START/ON/OFF switch to "ON". Pull the recoil starter grip slowly until resistance is felt, then pull rapidly (Fig. 15).
- Let the engine run for a few seconds, then, as it warms up, gradually move the choke lever all the way to "RUN" (Fig. 16).

LPG (PROPANE)

- Turn the fuel selector to "PROPANE" (Figs. 12 and 17).
- Connect the propane hose to the regulator inlet, then open the LPG cylinder valve (Figs. 10 and 18).
- Move the choke lever to "CHOKE" (Fig. 13). **SKIP THIS STEP IF THE ENGINE IS WARM OR HOT.**
- Start the engine electrically or manually, as for gasoline (Figs. 14 and 15).
- Let the engine run for a few seconds, then gradually move the choke lever all the way to "RUN" (Fig. 16).

NATURAL GAS (NG)

- Turn the fuel selector to "NATURAL GAS" (Fig. 17).
- Connect the natural gas hose to the generator's LPG/NG inlet, then open the natural gas shutoff valve (Fig. 18).
- Move the choke lever to "CHOKE" (Fig. 13). **SKIP THIS STEP IF THE ENGINE IS WARM OR HOT.**
- Start the engine electrically or manually, as for gasoline (Figs. 14 and 15).
- Let the engine run for a few seconds, then gradually move the choke lever all the way to "RUN" (Fig. 16).

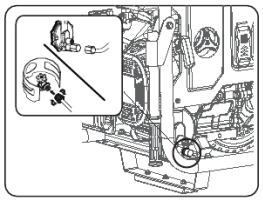


Fig. 10

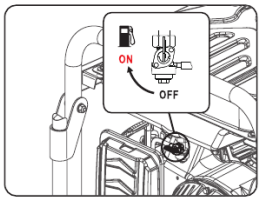


Fig. 11

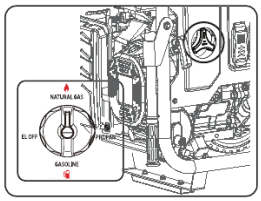


Fig. 12

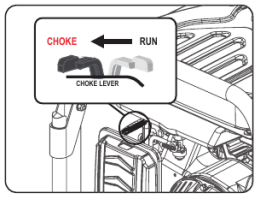


Fig. 13 – skip if the engine is warm or hot

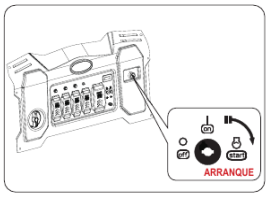


Fig. 14 – Electric start

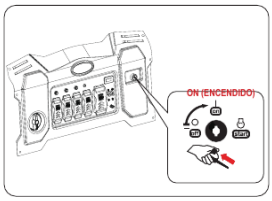


Fig. 15 – Recoil start

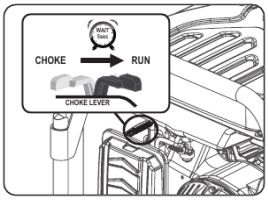


Fig. 16

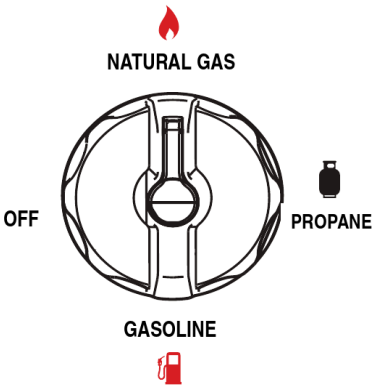


Fig. 17 – Fuel selector

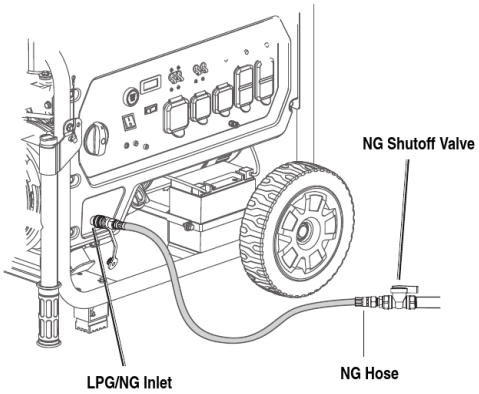


Fig. 18 – LPG/NG connection

WARNING!

Never start or stop the engine with electrical devices plugged into the receptacles. This could damage the generator or connected devices.

- Always start the engine and let it stabilize before connecting any electrical device.
- Disconnect all electrical devices before stopping the engine.

WARNING!

The pull cord recoils rapidly and can pull your arm toward the engine faster than you can let go, which could result in injury.

- To avoid kickback, pull the starter cord slowly until resistance is felt, then pull rapidly.

Battery Charger for Electric Starter

Keep the generator battery fully charged and ready to use, so you do not need to start the generator manually with the recoil starter.

Stopping the Engine (see Figs. 19 to 21)

- All loads MUST be disconnected from the generator. Never start or stop the engine with electrical devices plugged into the receptacles.
- Turn the START/ON/OFF switch to "OFF".
- Turn the fuel valve OFF. When running on LPG or natural gas, also close the cylinder valve or the gas shutoff valve.

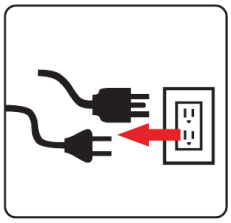


Fig. 19

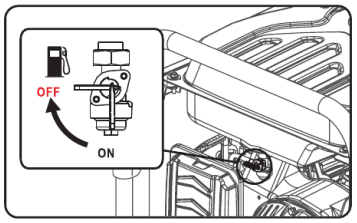


Fig. 20

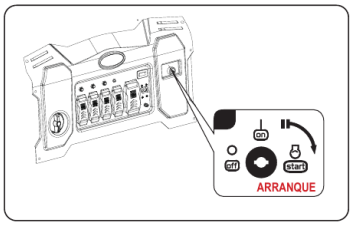


Fig. 21

Receptacles and Extension Cords

Only use high-quality, well-insulated, grounded extension cords in good condition. Follow each device manufacturer's power rating recommendations when choosing a receptacle and extension cord.

This generator is equipped with the following receptacles:

- Two 120 V, 20 A duplex receptacles (NEMA 5-20R)
- One 120 V AC, 30 A twist-lock receptacle (NEMA L5-30R)
- One 120/240 V AC, 30 A twist-lock receptacle (NEMA L14-30R)
- One 120/240 V AC, 50 A RV receptacle (NEMA 14-50R)

120 V AC, 20 A Receptacles (NEMA 5-20R)

- These receptacles are protected against overload by a 20 A circuit breaker.
- Each receptacle is rated to operate 120 V AC, single-phase, 60 Hz loads requiring up to 2,400 W (2.4 kW) at 20 A.
- Use extension cords rated at least 125 V AC, 20 A.

120 V AC, 30 A Receptacle (NEMA L5-30R)

- This receptacle is rated to operate 120 V AC, single-phase, 60 Hz loads requiring up to 3,600 W (3.6 kW) at 30 A.

120/240 V AC, 50 A RV Receptacle (NEMA 14-50R)

- This receptacle is protected against overload by a 44 A two-pole circuit breaker.
- It is rated to operate 120 V AC, single-phase, 60 Hz loads requiring up to 5,300 W (5.3 kW) at 50 A, and 240 V AC, single-phase, 60 Hz loads requiring up to 10,500 W (10.5 kW).
- Use a NEMA 14-50 plug with this receptacle.
- Use a 4-wire cord rated 240 V AC, 50 A. The same 4-wire cord can also be used to operate a 120 V load.

⚠ CAUTION!	**Do not connect 3-phase loads to the generator.**

Extension Cord Selection

Use the table below to make sure your extension cord can carry the required load. An undersized cord causes a voltage drop that can damage the device and the cord.

Current (A)	Load (W) at 240 V	Maximum cord length by wire gauge				
		#8 AWG	#10 AWG	#12 AWG	#14 AWG	#16 AWG
2.5	600	–	1,000 ft (305 m)	600 ft (183 m)	375 ft (114 m)	250 ft (76 m)
5	1,200	–	500 ft (152 m)	300 ft (91 m)	200 ft (61 m)	125 ft (38 m)
7.5	1,800	–	350 ft (107 m)	200 ft (61 m)	125 ft (38 m)	100 ft (30 m)
10	2,400	–	250 ft (76 m)	150 ft (46 m)	100 ft (30 m)	50 ft (15 m)
15	3,600	–	150 ft (46 m)	100 ft (30 m)	65 ft (20 m)	×
20	4,800	175 ft (53 m)	125 ft (38 m)	75 ft (23 m)	×	×
25	6,000	150 ft (46 m)	100 ft (30 m)	×	×	×
30	7,200	125 ft (38 m)	65 ft (20 m)	×	×	×

× = gauge not recommended for this load. – = value not listed.

Moving the Generator

- Disconnect all electrical devices, then turn the generator off.
- Turn the fuel valve OFF.
- Tilt the generator until it balances on its wheels, then roll it to the desired location.
- If the generator must be lifted, fold the handle down. Never lift or carry the generator by its handle.

⚠ CAUTION!	**This product is heavy and requires several people to lift. To avoid injury, lift and lower with your legs by bending at the knees, not your back.**

Don't Overload the Generator

Make sure the generator can supply enough rated (running) watts and surge (starting) watts for all devices that will be connected to it. Rated watts are the power a generator must supply to keep a device running. Surge watts are the power needed to start a device. This surge usually lasts 2 to 3 seconds, but it must be taken into account when choosing the devices you plan to connect. To prevent overloading the generator:

1. Add up the rated watts of all devices that will be connected at the same time.
2. Estimate the surge watts using the device (or devices) with the highest output. There is no need to add the surge watts of every device, since they should be connected one at a time.
3. Add these surge watts to the total from step 1. Keep the total load within the generator's capacity.

Check the voltage and frequency requirements of all devices before plugging them in. A device that is not designed to tolerate a ±10% voltage variation and a ±3 Hz frequency variation from the generator's nameplate ratings could be damaged. To reduce this risk, always plug in an additional load when using solid-state equipment (such as a television). A power line conditioner is recommended for some solid-state applications.

Wattage Reference Guide

(Wattages are approximate. Check the device for its actual wattage.)

Essentials	Rated (W)	Surge (W)
75 W light bulbs	75 ea.	75 ea.
18 cu ft refrigerator/freezer	800	2,200
Furnace fan (⅓ HP)	800	2,350
Sump pump (⅓ HP)	1,000	2,000
Water pump (⅓ HP)	1,000	3,000
Heating / Cooling		
Dehumidifier	650	800
Table fan	800	2,000
Window AC (10,000 BTU)	1,200	3,600
Central air (10,000 BTU)	1,500	6,000
Electric blanket	400	400
Space heater	1,800	1,800
Kitchen		
Blender	300	900
Toaster (2-slice)	1,000	1,600
Coffee maker	1,500	1,500
Electric range (1 element)	1,500	1,500
Dishwasher	1,500	3,000
Electric oven	3,410	3,410
Electric water heater	4,000	4,000
Laundry Room		
Iron	1,200	1,200
Washing machine	1,150	3,400
Gas clothes dryer	700	2,500
Electric clothes dryer	5,400	6,750

Bathroom	Rated (W)	Surge (W)
Hair dryer	1,250	0
Curling iron	1,500	0
Family Room		
Game console	40	0
AM/FM radio	100	100
VCR	100	100
Colour TV (27 in)	500	500
Home Office		
Fax machine	65	0
Personal computer (17 in monitor)	800	0
Laser printer	950	0
Copy machine	1,600	0
Power Tools		
1,000 W quartz halogen work light	1,000	0
Airless sprayer (⅓ HP)	600	1,200
Reciprocating saw	960	0
Circular saw (7¼ in)	1,400	2,300
Miter saw (10 in)	1,800	1,800
Table / radial arm saw	2,000	2,000
Electric drill (½ HP, 5.4 A)	600	900
Hammer drill	1,000	3,000
Air compressor	1,600	4,500
Other		
Home security system	500	500
Garage door opener (⅓ HP)	750	750

⚠ WARNING! **Never exceed the generator's wattage or amperage capacity. This could damage the generator or connected electrical devices.**

- Check the voltage and frequency requirements of all electrical devices before plugging them into the generator.

Hour Meter (see Fig. 22)

The digital hour meter runs whenever the engine is running and keeps track of the unit's total hours of use. Use it together with this manual to determine when each type of service is needed. The display shows the word "LUBE" after the first 25 hours of operation and again every 100 hours after that.

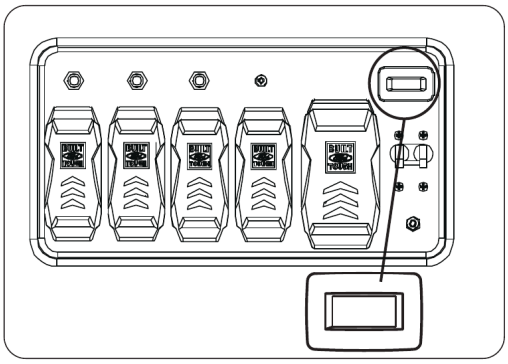


Fig. 22

Power Management

- Start the engine with nothing connected to the generator.
- Once the engine has stabilized, plug in and turn on the first load. It is strongly recommended to plug in the devices with the largest output first and the smallest last, to help prevent overloading the generator.
- Let the generator output stabilize (engine and connected devices running evenly) before plugging in the next load.

Cold Weather Operation

In humid conditions, when temperatures drop to 40 °F (4 °C), the carburetor or crankcase breather system may begin to freeze. To prevent icing:

1. Replace any old fuel with clean, fresh fuel.
2. Use SAE 5W-30 engine oil. Check the oil level daily or every 8 hours of use.
3. Turn the fuel valve to the open position.
4. Make sure the generator is serviced according to the schedule in the "Maintenance" section.
5. Shelter the unit from the elements.

Creating a Temporary Cold Weather Shelter

In an emergency, the original shipping carton can be used as a temporary shelter. The shelter should hold enough of the heat produced by the generator to prevent icing.

1. Cut off all the flaps.
2. Cut off one of the long sides of the carton to expose the muffler and exhaust. Do not enclose the muffler/exhaust side of the generator.
3. Slide the carton over the generator. If necessary, remove the wheels for a better fit.
4. Keep 5 ft (1.5 m) of clearance between the open side of the carton and other objects. The open side should face away from the wind and the elements.
5. Remove the shelter when temperatures reach 40 °F (4 °C).

MAINTENANCE

Regular maintenance will extend the life of this generator and improve its performance. The warranty does not cover problems resulting from operator negligence, misuse or abuse. To receive full value from the warranty, the operator must maintain the generator as instructed in this manual, including proper storage.

⚠ WARNING! **Before inspecting or servicing the unit, make sure the engine is off and no parts are moving. Disconnect the spark plug wire and move it away from the spark plug.**

Before Each Use

- Check the engine oil level and the fuel level.
- Make sure the air filter is clean.
- Remove any debris from the generator and around the muffler and controls. Use a vacuum for loose debris and a soft-bristle brush for caked-on dirt.
- Inspect the work area for hazards.

After Each Use

- Shut off the engine.
- Store the unit in a clean, dry area.

Maintenance Schedule

Interval	Service
After the first 5 hours	Change the oil
Every 8 hours or daily	Clean off debris
	Check the engine oil level
Annually or every 25 hours	Check and clean the air filter
	Change the engine oil (more often in dirty or dusty conditions)
	Check the muffler and spark arrester
Annually or every 100 hours	Service the spark plug (replace with NGK BP6ES, Champion N9YC or equivalent)
	Service the fuel valve
	Inspect the muffler and spark arrester
	Check and clean the air filter; replace the filter element
	Clean the cooling system (authorized dealer)

Changing the Oil (see Fig. 23)

- Run the generator until the engine is warm, then stop it.
- Place the generator on a level surface.
- Remove the crankcase dipstick.
- Place an oil pan under the oil drain plug to collect the used oil.
- Remove the oil drain plug and let the oil drain completely.
- Reinstall the drain plug and tighten it securely.
- Carefully add SAE 5W-30 oil until it reaches the outer edge of the oil fill hole.
- Reinstall the dipstick.

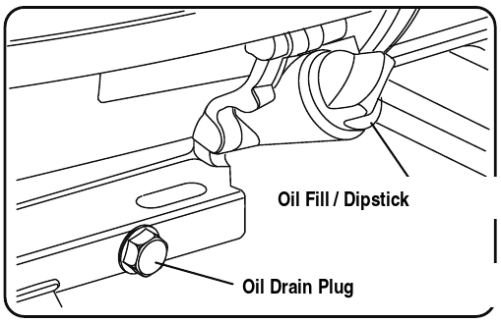


Fig. 23

Oil Recommendations

- Do not use special additives.

- Use only SAE 5W-30 4-stroke engine oil (conventional or synthetic), regardless of outdoor temperature.
- Oil capacity: 37.2 fl oz (1.1 L).

⚠ CAUTION!	**Dispose of used oil at an approved disposal site. Ask your local oil retailer for more information.**

Air Filter (see Fig. 24)

A dirty air filter shortens engine life, makes the engine hard to start and reduces the unit's performance.

- Remove the air filter cover.
- Carefully pull the filter out by lifting it along the edges.
- Remove dirt from the filter by tapping it or blowing it out. Replace with a new filter annually.
- Reinstall the filter so that it seals, then replace the cover.

Checking the Spark Plug (see Fig. 25)

- Disconnect the spark plug wire.
- Before removing the spark plug, clean the area around its base to keep debris out of the engine.
- Clean carbon deposits off the electrode with a wire brush.
- Check the electrode gap and, if necessary, carefully adjust it to 0.028–0.031 in (0.70–0.80 mm).
- Reinstall the spark plug and tighten it to 16–20 ft·lb (22.0–26.9 N·m).
- Reconnect the spark plug wire.
- If the spark plug is worn, replace it only with an equivalent part (Bosch F7TC, NGK BP6ES, Champion N9YC or equivalent). The spark plug should be replaced annually.

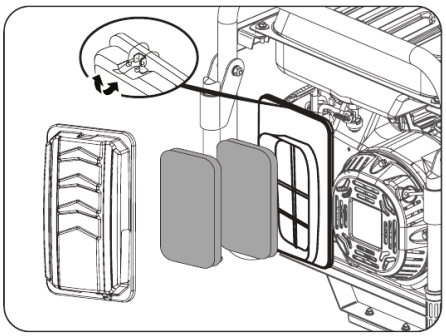


Fig. 24

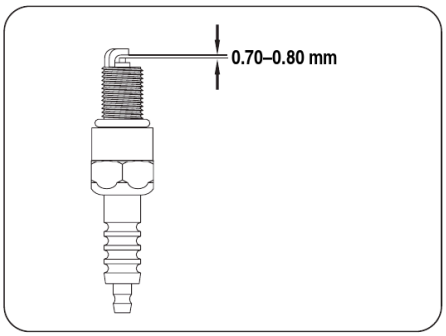


Fig. 25

Spark Arrester (see Fig. 26)

- Inspect the spark arrester for breaks or holes and replace it if necessary. To purchase a replacement, contact customer service.
- Use a brush to remove carbon deposits from the spark arrester screen as needed.
- To remove the spark arrester: when the muffler is cool, loosen the locking clamp and slide the spark arrester out of the muffler. Reverse this procedure to reinstall it.

Cooling System

The cooling system should only be serviced by an authorized dealer.

Carburetor Adjustment

The carburetor is a low-emission type with a non-adjustable idle mixture valve. If adjustment is needed, contact an authorized dealer.

Replacing the Fuel Filter (see Fig. 27)

The fuel filter may occasionally become clogged and need replacing. To purchase a replacement fuel filter, contact customer service or your local small engine repair shop.

- Turn the fuel valve OFF.
- Release the fuel line on both sides of the filter by squeezing the ends of the retaining clip with pliers.
- Slide the fuel line off.
- Replace the filter with a new one.
- Reconnect the fuel lines to the new filter.
- Turn the fuel valve ON.

⚠ CAUTION!	**The fuel tank must be empty before replacing the fuel filter. If needed, run the unit until the tank is empty, or inspect the filter before refuelling.**

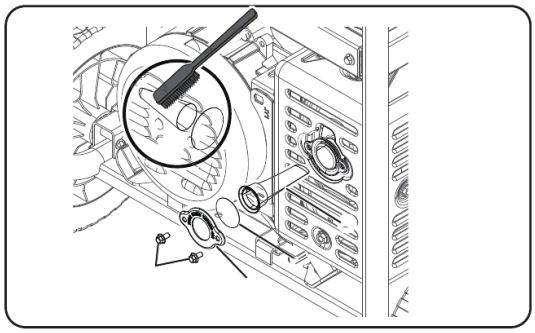


Fig. 26

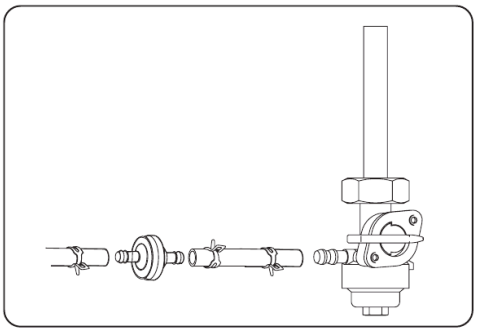


Fig. 27

Draining the Fuel Tank and Carburetor

To prevent gum deposits in the fuel system, drain the fuel from the tank and carburetor before storing the unit for a long period. This will help prevent starting problems. If the unit is stored with fuel and the fuel goes stale, turns gummy or forms varnish, the repair is not covered by the warranty.

Draining the Fuel Tank

- Turn the engine OFF.
- Turn the fuel valve OFF.
- Disconnect the fuel line that leads from the fuel valve to the carburetor by squeezing the ends of the hose clamp and sliding the line off.
- If needed, install a fuel hose long enough to reach a suitable fuel container large enough to hold all the fuel in the tank.
- Turn the fuel valve ON.
- When the tank is empty, close the fuel valve and reconnect the fuel line securely to the valve.

Draining the Carburetor

- Turn the engine OFF.
- Turn the fuel valve OFF.
- Place a suitable container under the carburetor drain screw, then loosen the screw.
- Let the fuel drain completely into the container.
- Retighten the drain screw.

⚠ CAUTION!	**Contact your local hazardous waste management service for the proper way to dispose of used fuel.**

Storage and Transportation (see Fig. 28)

- Remove any debris from the generator and around the muffler and control panel with a brush or vacuum.
- Inspect the cooling slots and remove any debris blocking them.
- Short-term storage: start the generator once every 7 days.
- Medium-term storage: add fuel stabilizer to prevent stale fuel from forming acid and gum deposits in the fuel system and carburetor.
- Long-term storage: drain the fuel.
- Store the generator indoors to protect it from freezing.
- The generator must be shipped, operated and stored in the upright position, as shown.

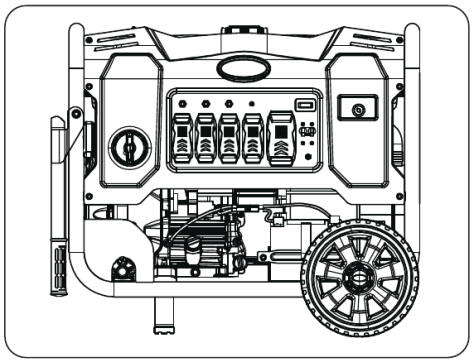


Fig. 28

Long-Term Engine Storage

- Remove the spark plug and pour about 1 teaspoon (5 mL) of 5W-30 engine oil into the spark plug hole. Reinstall the spark plug. With the switch in the OFF position, pull the recoil starter cord several times to coat the cylinder walls with oil.
- Then slowly pull the cord until you feel the engine build compression (resistance), and leave the engine in that position. This protects the cylinder walls from corrosion during long-term storage.

TROUBLESHOOTING

Problem	Cause	Solution
Engine is running, but there is no AC output.	1. Open circuit breaker 2. Poor connection 3. Defective cord set 4. Connected device is faulty 5. Fault in generator	1. Reset the circuit breaker 2. Check and repair 3. Check and repair 4. Connect a device that works properly 5. Contact the service department
Engine runs well with no load but bogs down when loads are connected.	1. Short circuit in connected device 2. Generator is overloaded 3. Clogged fuel filter 4. Engine speed too slow 5. Short circuit in generator	1. Disconnect the device 2. See "Don't Overload the Generator", p. 16 3. Clean or replace the fuel filter 4. Contact the service department 5. Contact the service department
Engine will not start, shuts down during operation, or runs rough.	1. Switch set to "OFF" 2. Dirty air filter 3. Clogged fuel filter 4. Stale fuel 5. Spark plug wire disconnected 6. Bad spark plug 7. Water in fuel 8. Fuel valve in "OFF" position 9. Over-choking 10. Low oil level 11. Rich fuel mixture 12. Intake valve stuck open or closed 13. Loss of compression 14. Dead battery 15. Flooded engine	1. Turn the switch to "ON" 2. Replace the air filter 3. Clean or replace the fuel filter 4. Replace the fuel 5. Reconnect the spark plug wire 6. Replace the spark plug 7. Drain the tank and replace the fuel 8. Turn the fuel valve "ON" 9. Turn off the choke 10. Fill the crankcase to the proper level and place the generator on a level surface 11. Contact the service department 12. Contact the service department 13. Contact the service department 14. Recharge or replace the battery 15. Wait 5 minutes and crank the engine again
Engine lacks power.	1. Generator is overloaded 2. Clogged fuel filter 3. Dirty air filter 4. Engine needs servicing	1. See "Don't Overload the Generator", p. 16 2. Clean or replace the fuel filter 3. Replace the air filter 4. Contact the service department
Engine "hunts" or falters.	1. Choke was turned off too soon 2. Clogged fuel filter 3. Carburetor running too rich or too lean	1. Move the choke to the middle position until the engine runs evenly 2. Clean or replace the fuel filter 3. Contact the service department

WIRING DIAGRAM

