



GR2000D

Owner's Manual



POWER OUTPUT GR2000D
2000W/1600W ⚡
Surge AC Output/Rated AC Output



Gasoline

**DUAL FUEL
INVERTER
GENERATOR**



Propane



WARNING! To Reduce Risk of Injury, User Must Read and Understand Owner's Manual to Use.



NOTE Retain Original Sales Receipt as Proof of Purchase!

Notes

[illegible]

WARNING!

California Proposition 65

Engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects, and other reproductive harm.

ADVERTENCIA!

Proposición 65 de California

El escape del motor y algunos de sus constituyentes se reconocen en el estado de California como causante de cáncer, defectos de nacimiento y otros daños reproductivos.

WARNING!

California Proposition 65

This product contains or emits chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

ADVERTENCIA!

Proposición 65 de California

Precaución de California
Este producto contiene o emite químicos que en el estado de California como causante de cáncer, defectos de nacimiento y otros daños reproductivos.

Table of contents

Introduction	04
General Precautions.....	05
Carbon Monoxide	05
Gasoline and Oil.....	05
Hot Components	06
Work Area	06
Chemicals	07
Noise	07
Extension Cords	07
Specifications	08
Generator General Overview	09
Engine Oil.....	10
Fuel	11
Gasoline containing alcohol	13
Starting the Engine	14
Altitude	15
Smart Throttle.....	15
Ground terminal.....	16
Electrical Safety.....	16
AC applications	18
Connecting the Battery Charging Cable	19
DC Circuit Breaker	20
Disconnecting the Battery Charging Cable	20
Oil Alert system	20
Stopping the engine.....	21
Stopping the Generator	21
Transporting	21
Parallel function.....	22
Connecting parallel Cable.....	22
Turning off Generator while in Parallel	23
Maintenance	23
Changing Oil	24
Air Cleaner	24
Spark Plug.....	25
Storing the Generator	26
Trouble shooting.....	27
Package contents	29
Wiring diagram	30
Parts diagram	31
Parts listing.....	33
Emissions control system warranty.....	37

This manual contains important information that you need to know and understand in order to assure YOUR SAFETY and PROPER OPERATION OF EQUIPMENT. The following symbols help you recognize this information. Please read the manual and pay attention to these sections.

Instructions!

Read and understand all of these safety instructions. Be sure to retain them for future use.



WARNING!

WARNINGS INDICATE A CERTAINTY OR STRONG POSSIBILITY OF PERSONAL INJURY OR DEATH IF INSTRUCTIONS ARE NOT FOLLOWED.



CAUTION:

CAUTIONS INDICATE A POSSIBILITY OF EQUIPMENT DAMAGE IF INSTRUCTIONS ARE NOT FOLLOWED PROPERLY.



Note:

Notes give helpful information.



WARNING!

IMPROPER OPERATION OR MAINTENANCE OF THIS PRODUCT COULD RESULT IN SERIOUS INJURY AND PROPERTY DAMAGE. READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT. BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF PERSONAL INJURY.



Save These Important Safety Instructions!

Read and understand all of these safety instructions. Be sure to retain them for future use.

General Safety Precautions



WARNING!

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SEVERE INJURY OR DEATH.



CAUTION:

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN ALSO RESULT IN DAMAGE TO THE EQUIPMENT AND/OR THE ITEM YOU ARE WORKING ON OR WITH.

Carbon Monoxide

- Carbon Monoxide is an odorless and colorless gas. Breathing exhaust that contains this poisonous gas can cause unconsciousness and may lead to death.
- The engine exhaust from this product contains chemicals recognized by the state of California to cause cancer, birth defects, or other reproductive harm.
- When this **generator** is running, ensure that the area is well ventilated. Never run the engine in an enclosed area. **Only use outdoors.**
- NEVER use a generator inside homes, garages, crawlspaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air.
- ONLY use a generator outdoors and far away from open windows, doors, and vents. These openings can pull in generator exhaust.
- Even when you use a generator correctly, **carbon monoxide** may leak into the home. ALWAYS use a battery-powered or battery-backup **carbon monoxide** alarm in the home.
- If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air RIGHT AWAY. See a doctor. You could have carbon monoxide poisoning.



WARNING!

THE EXHAUST CONTAINS POISONOUS CARBON MONOXIDE GAS THAT CAN CAUSE LOSS OF CONSCIOUSNESS AND MAY LEAD TO DEATH.

Gasoline and Oil

This product requires oil and fuel. THE ENGINE WILL NOT START WITHOUT OIL. Work in well ventilated area. Keep cigarettes, flames or sparks away from the work area or where gasoline is stored.



WARNING!

GASOLINE IS EXTREMELY FLAMMABLE AND IS EXPLOSIVE UNDER CERTAIN CONDITIONS. KEEP OUT OF REACH OF CHILDREN.

General Safety Precautions (cont'd)

Gasoline and Oil (cont'd)

- Gasoline fuel and fumes are flammable and potentially explosive. Use proper fuel storage and handling procedures. Always have multiple ABC class fire extinguishers nearby.
- Keep the generator and surrounding area clean at all times. Keep the generator at least 20 feet away from buildings and other equipment during operation.
- Fuel or oil spills must be cleaned up immediately. Dispose of fluids and cleaning materials as per any local, state, or federal codes and regulations. Store oily rags in a covered metal container.
- Never store fuel or other flammable materials near the generator.
- Do not smoke, or allow sparks, flames or other sources of ignition around the engine and fuel tank. Fuel vapors are explosive.
- Keep grounded conductive objects, such as tools, away from exposed, live electrical parts and connections to avoid sparking or arcing. These events could ignite fumes or vapors.
- Do not refill the fuel tank while the engine is running or while the engine is still hot. Do not operate the generator with known leaks in the fuel system.
- Excessive buildup of unburned fuel gases in the exhaust system can create a potentially explosive condition. This buildup can occur after repeated failed start attempts, valve testing, or hot engine shutdown. If this occurs, open exhaust system drain plugs, if equipped, and allow the gases to dissipate before attempting to restart the generator.
- Use only engine manufacturer recommended fuel and oil.

Hot Components



WARNING!

HOT EXHAUST CAN BURN YOU. ENGINE AND EXHAUST SYSTEM PARTS BECOME VERY HOT AND REMAIN HOT FOR SOME TIME AFTER THE ENGINE IS RUN. WEAR INSULATED GLOVES OR WAIT UNTIL THE ENGINE AND EXHAUST SYSTEM HAVE COOLED BEFORE HANDLING THESE PARTS.

Work Area

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Generators create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating a generator. Provide barriers or shields as needed.

Chemicals

- Avoid contact with hot fuel, oil, exhaust fumes, and hot solid surfaces.
- Avoid body contact with fuels, oils, and lubricants used in the generator. If swallowed, seek medical treatment immediately. Do not induce vomiting if fuel is swallowed. For skin contact, immediately wash with soap and water. For eye contact, immediately flush eyes with clean water and seek medical attention.

Noise

Prolonged exposure to noise levels above 85dBA is hazardous to hearing. Always wear ANSI approved ear protection when operating or working around the Generator when it is running.

Extension Cords

If an extension cord (not included) is used, make sure to use only UL approved cords having the correct gauge and length according to the following table:

Nameplate Amps (@full load)	Cord Lengths			
	0'-50'	50'-100'	100'-150'	150'-200'
0-5	16	16	12	12
5.1-8	16	14	10	-
8.1-12	14	12	-	-
12.1-15	12	10	-	-
15-20	10	10	-	-

Note:



Prior to powering tools and equipment, make sure the generator's rated voltage, wattage, and amperage capacity is adequate to supply all electrical loads that the unit will power. If powering exceeds the generator's capacity, it may be necessary to group one or more of the tools and/or equipment for connection to a separate generator.

WARNING!

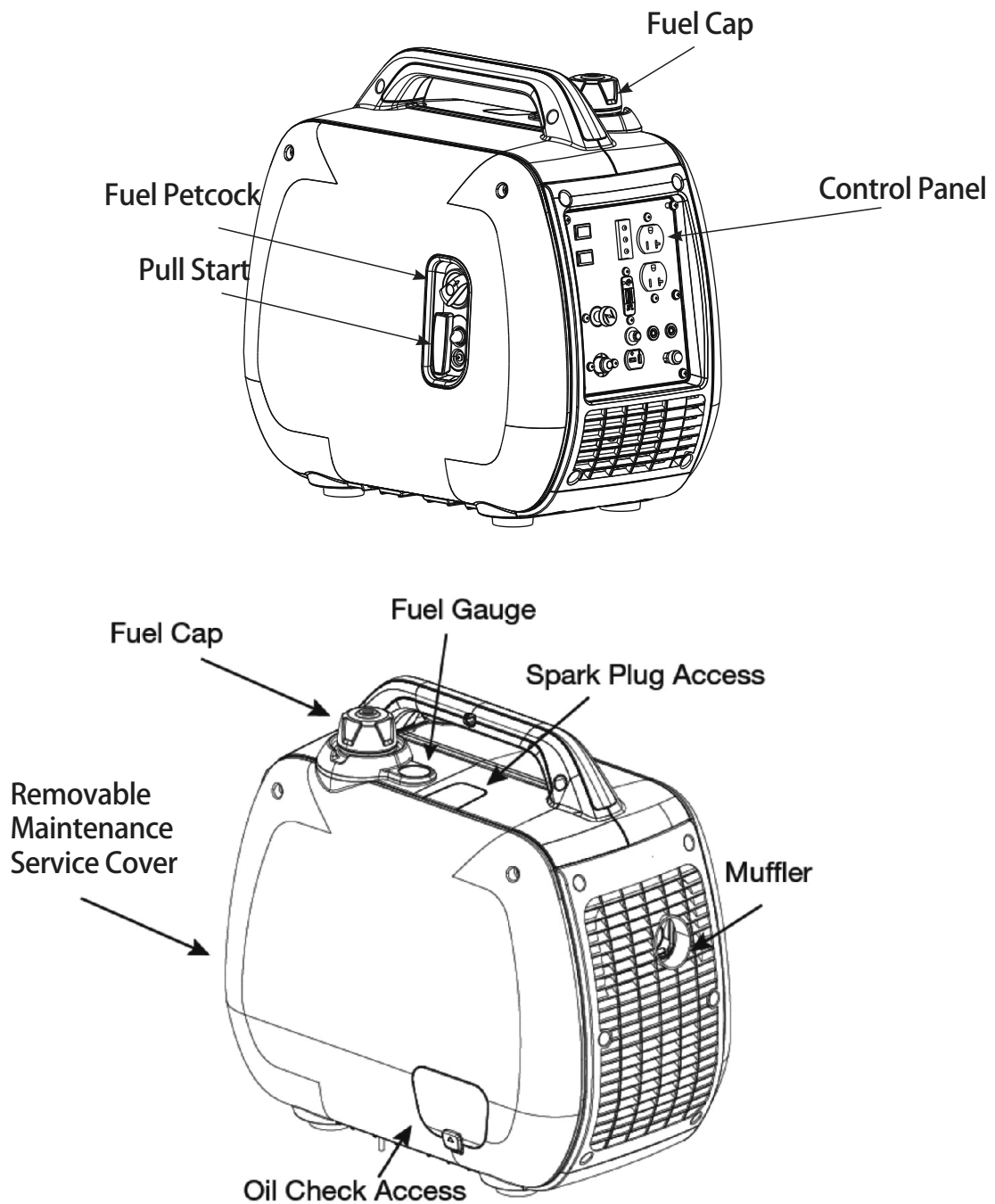


This machine cannot be connected to a building's electrical system as a standby backup power. Improper connections can allow electrical current from the generator to back feed into the utility lines. Such back feed may electrocute utility company workers or others who contact the lines during a power outage, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical systems.

Specifications

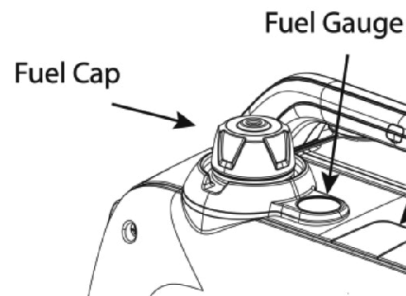
Engine Type	4-Stroke OHV Air Cooled Single Cylinder CARB Certified
Engine Displacement (CC)	79.7cc, 3.5HP
Rated Watts	1600
Surge Watts	2000
Rated Frequency	60 Hz
Rated Voltage	120
Rated Current	13.3A
Run Time	8 Hrs (at 50% load)
Receptacles (qty.)	3
Net/Gross Weight	47/51 lbs
Noise level (dB)	51 dB at idle
Fuel Type	Unleaded gasoline
Fuel Capacity (gal.)	1.1
Oil Type	SAE10W30 (.42 Qt)
Start Type	Recoil
Assembled Dimensions	19.75" x 11.25" x 18.25"
Parallel Rated Watts	3000
Parallel Surge Watts	3600
Parallel Rated Current	25A
Parallel Surge Current	30A

General Overview



Check the Fuel level

- Use unleaded gasoline only. If using gasoline fuel, add Unleaded gasoline only with an octane rating of 87 or higher.
- If the fuel level is low, refuel the fuel tank until the level increased to the specified mark.
- Never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank.
- After refueling, tighten the fuel filler cap securely
- Fuel tank capacity: 1.1 Gallons



ATTENTION: The Air-fuel Mixer is not adjustable. Tampering with the governor can damage your generator and electrical devices, and will void your warranty.



WARNING!

- Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.
- Do not overfill the fuel tank (there should be no fuel above the upper limit mark Fig. 3B).
- After refueling, make sure the tank cap is closed properly and securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor. **KEEP OUT OF REACH OF CHILDREN.**

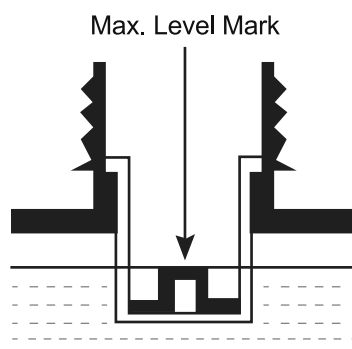


Fig. 3B

2000DFI DUAL FUEL LPG LIQUID PROPANE & GASOLINE INVERTER PORTABLE GENERATOR QUICK REFERENCE GUIDE

PREPARING THE GENERATOR FOR USE

Using this Generator for the First-Time

STOP!

CAUTION

The following section describes the required steps for preparing this generator for the first use. Failure to correctly perform these steps can damage this generator and/or shorten its life.

If this generator is being used for the first time, the following few steps are required to prepare it for operation:

Step 1 - Add Oil

This generator requires engine oil to function. Engine oil is a major factor affecting engine performance and service life. When new from the package, this generator contains no oil in the engine crankcase. The correct quantity of oil is equal to the oil capacity of the engine crankcase and is 12 fluid oz. Add the correct quantity of oil before operating this generator for the first time. When replenishing oil for subsequent use of this generator, always determine that this generator has the correct quantity of oil.

Oil Capacity	12 ounces
Oil Type Recommended	High Detergent Motor Oil, SAE10W-30

To add oil:

1. Confirm that this generator is on a level surface.
2. Unscrew the oil filler/dipstick cap from the engine as illustrated in Figure 1.
3. Using a funnel, add high detergent motor oil to fill the engine crankcase to the correct quantity. SAE10W-30 oil is recommended for general, all-temperature use. **When the engine crankcase is full, the oil level should reach all the way up to the threads** as illustrated in Figure 2.
4. Replace the oil filler/dipstick cap.

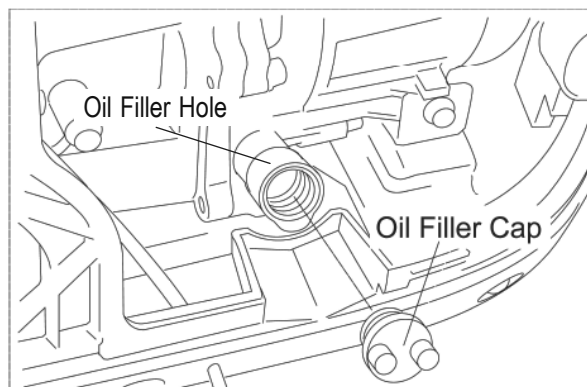


Figure 1 - Unscrew the Oil Cap



Figure 2 - Add Oil To TOP Of Threads

Step 2 – Connect Fuel

⚠ WARNING

Propane (LPG): This generator may emit highly flammable and explosive vapors, which can cause severe burns or even death. A nearby open flame can lead to an explosion even if not directly in contact the fuel.

- Do not operate this generator near open flame.
- Always operate this generator on a firm, level surface.

This fuel is highly flammable and explosive. Handling fuel can result in serious injury or burns.

- Before starting the generator, inspect your LPG tank valve for damage or leaks, attach only approved tanks that have been properly filled by an approved station. DO NOT light or smoke cigarettes.
- Replace the hose at the first sign of a leak or if age-cracking becomes apparent.
- Always handle propane fuel and generator outdoors.
- Before transporting, turn the fuel valve to the "off" position and disconnect the spark plug.

⚠ WARNING

Propane smells like rotten eggs, a skunk's spray, or a dead animal. IF YOU SMELL GAS- NO FLAMES OR SPARKS! Immediately put out all smoking materials and other open flames. Do not operate lights, appliances, telephones, or cell phones. - Flames or sparks from these sources can trigger an explosion or a fire.

If using LPG,

Step 1 Connect the regulator that was included with the generator to Propane Fuel Tank,

Step 2 Then connect the other end to the Gas Inlet. (Fig 3) Make sure the LPG cylinder is vertical and securely positioned

Step 3 Check that the gas supply source is in good condition. Check that the gas inlet connection is tightly fixed and not leaking.

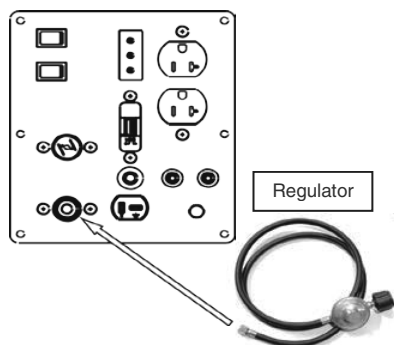


Figure 3 connect the regulator

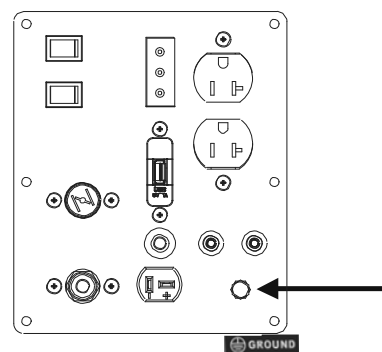


Figure 4 - Attaching the Grounding Wire to this Generator

Step 3 – Grounded the generator

⚠ WARNING

Failure to properly ground this generator can result in electrocution.

Ground this generator by tightening the grounding nut against a grounding wire as illustrated in Figure 3. A No. 12 AWG (American Wire Gauge) stranded copper wire is generally an acceptable grounding wire. The other end of this grounding wire should be connected to a copper or brass grounding rod that is driven into the earth.

Grounding codes can vary by location. Contact a local electrician for information on grounding regulations for your area.

STARTING THE GENERATOR

STOP!

Before starting this generator, confirm that all the steps in the section titled, "Preparing the Generator for Use," of this manual have been correctly completed.

CAUTION

Disconnect all electrical loads from this generator before attempting to start.

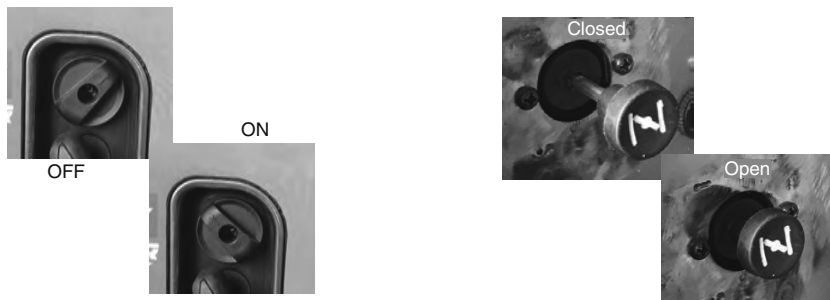
Step 1 If using Propane LPG fuel, open fuel supply on the LP tank, and turn off the gasoline Valve.

Step 2 Turn ENGINE SWITCH at ON position.

Step 3 Move Choke Lever to CHOKE position.

Step 4 For recoil start: Pull the STARTER GRIP slowly until resistance is felt and then pull rapidly. After the engine started, return the STARTER GRIP gently to prevent damage to the starter or housing. DO NOT allow the starter grip to snap back. Return it slowly by hand.

Step 5 Turn the CHOKE LEVER to RUN position.



Choke Rod

The choke is used to provide an enriched fuel mixture when starting a cold engine. It can be opened and closed by operating the choke rod manually. Pull the rod out toward CLOSED to enrich the mixture for cold starting

STOPPING THE GENERATOR

To stop this generator:

1. Turn off all connected electrical devices and then unplug them.
2. Allow this generator to run for several more minutes with no electrical devices connected to help stabilize the temperature of this generator.
3. Turn off the engine switch.
4. Turn the propane tank fuel valve to the "off" position.

WARNING

Allow this generator to cool down before touching areas that become hot during operation.

Gasoline containing alcohol

Do not use gasoline that contains more than 10% ethanol.

Note:

Fuel system damage or engine performance problems resulting from the use of fuels that contain higher percentages of alcohol are not covered under the warranty.

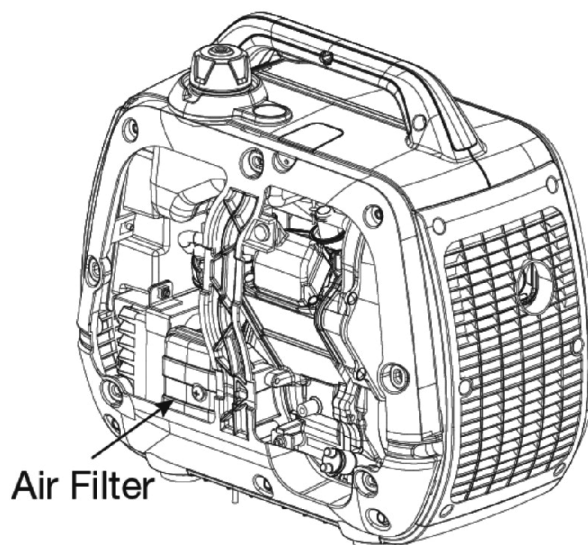
Check the AIR cleaner

Check the air cleaner element to be sure it is clean and in good condition. Loosen the cover screw and remove the maintenance cover. Press the latch tab on the top of the air cleaner body, remove the air cleaner cover and check the element. Clean or replace the element if necessary.



CAUTION:

Never run the engine without the air cleaner. Rapid engine wear will result from contaminants, such as dust and dirt, being drawn through the carburetor, into the engine.





WARNING!

Never run the generator indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, and odorless and deadly gas.

Starting the Engine

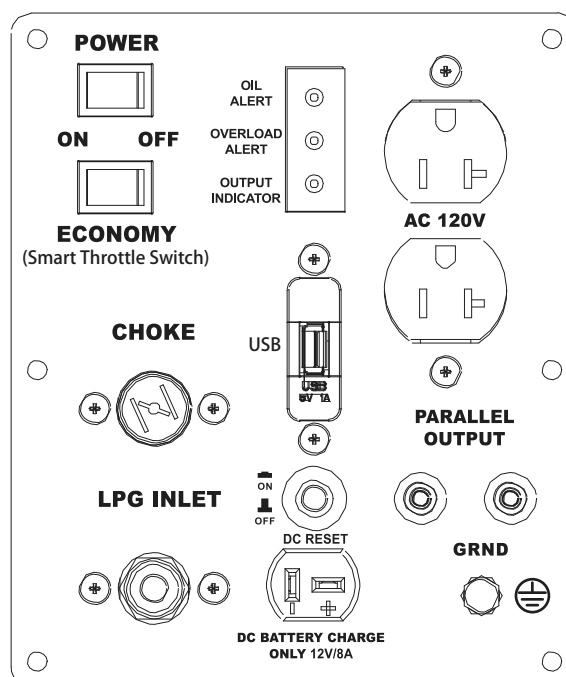
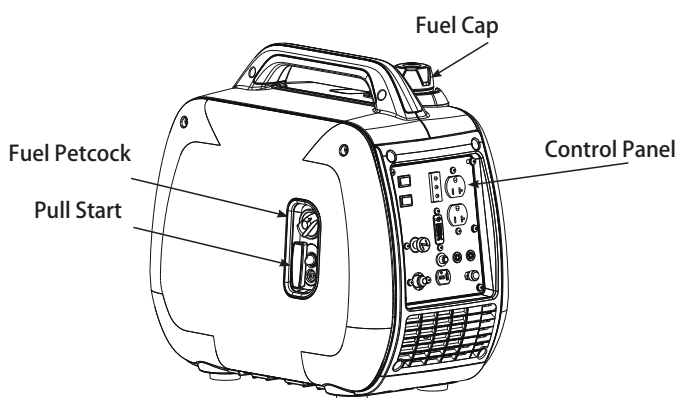
Make sure that all appliances are disconnected from the generator receptacles and that the generator is on a level surface before starting.

1. Turn the ignition switch to the “ON” position.
2. Make sure the Smart Throttle is in the “OFF” position.
3. Turn the fuel petcock to the “ON” position.
4. Pull the choke lever to “Choked” position.

NOTE: If engine is at operating temperature the choke is not needed to restart.

5. Pull the recoil starter slowly, until you feel tension in the starter rope. Then quickly pull the recoil starter handle to completely unwind the starter rope. Do not allow the starter rope to snap back. Let the starter rope slowly rewind as you hold the recoil starter handle.
6. If engine fails to start, please re-check steps 1-5 above.
7. Allow the engine to idle until warm. Then, slowly push choke to the un-choked position.
8. Turn Smart Throttle to “ON” to save fuel if not maximizing output on the generator.

NOTE: The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.



High altitude operation

At high altitude, the standard carburetor air-fuel mixture will be excessively rich. Performance will decrease, and fuel consumption will increase.

Smart throttle

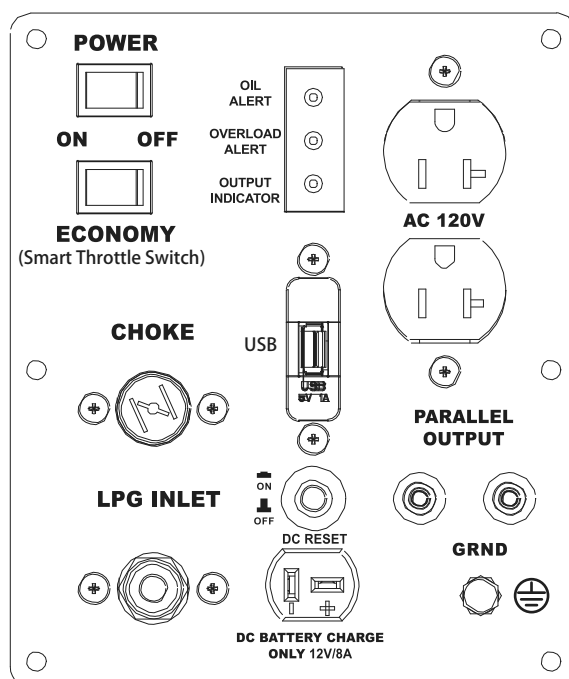
Engine speed is kept at idle automatically when the electrical appliance is not in use and it returns to the proper speed to power of the electrical load when electrical appliance is in use. This position is recommended to minimize the fuel consumption while in operation.

With the switch in the ON position, engine speed is automatically lowered when loads are reduced, turned OFF or disconnected. When appliances are turned ON or reconnected, the engine returns to the proper speed to power the electrical load. In the OFF position, the Smart Throttle Switch does not operate and unit stays at high rpm.

Appliances with large start-up power demands may not allow the engine to reach normal operating rpm when they are connected to the generator. Turn the Smart Throttle Switch to the OFF position and connect the appliance to the generator. If the engine still will not reach normal operating speed, check that the appliance does not exceed the rated load capacity of the generator.

If high electrical loads are connected simultaneously, turn the Smart Throttle Switch to the OFF position to reduce voltage changes. The Smart Throttle Switch is not effective for use with appliances that require only momentary power. If the tool or appliance will be turned ON and OFF quickly, the Smart Throttle Switch should be in the OFF position.

When using the DC output, turn the Smart Throttle Switch to the OFF position.



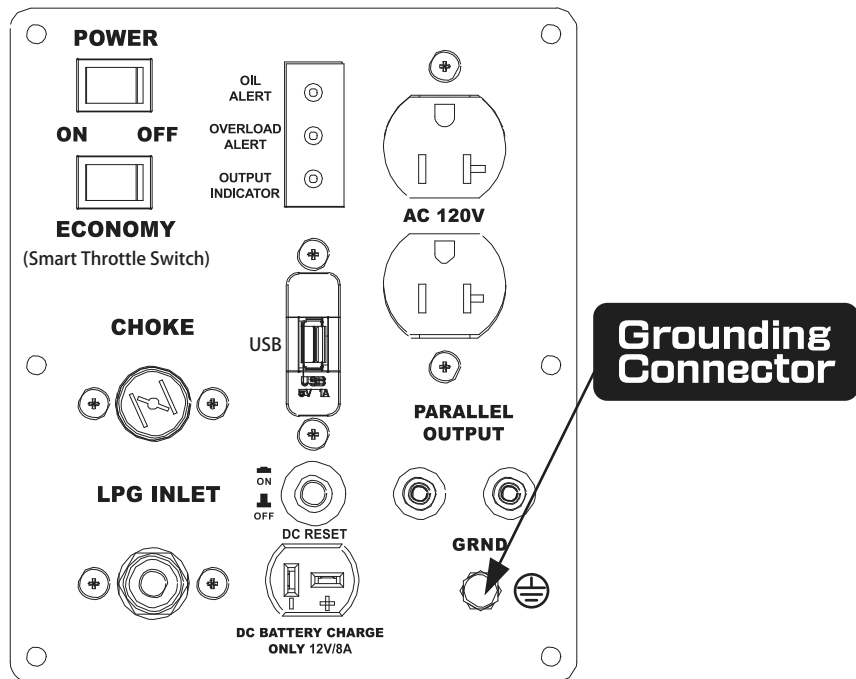


CAUTION:

If modifications are made to the carburetor for high altitude operation, at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

Ground terminal

Be sure to ground the generator when the connected equipment is grounded.



Electrical Safety

- Do not exceed the rated power.
- Keep all electrical equipment clean and dry. Replace any wiring where the insulation is cracked. Replace terminals that are worn, discolored, or corroded. Keep terminals clean and tight.
- Do not abuse the power cord. Keep power cords away from heat, oil, sharp edges, or moving parts. Replace damaged power cords immediately. Damaged power cords increase the risk of electric shock.
- Do not operate the generator with wet hands. Do not expose generator to rain, snow or wet conditions. Water will increase the risk of electric shock. The generator is a potential source of electrical shock if not kept dry.
- Do not attempt to connect or disconnect load connections while standing in water, or on wet or soggy ground.

Electrical Safety Continued

- Do not touch electrically energized parts of the generator and interconnecting cables or conductors with any part of the body, or with any non-insulated conductive object.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”. These extension cords are rated for outdoor use, and reduce the risk of electric shock.
- Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs.
- Double insulated tools are equipped with a polarized plug where one blade is wider than the other. This plug fits in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double insulation eliminates the need for the three-wire grounded power cord and grounded power supply system.
- Before servicing equipment powered by the generator, disconnect the equipment from its power input.
- The generator must be earth-grounded for fixed installations in accordance with all relevant electrical codes and standards before operation.
- Grounding provides a low-resistance path to carry electricity away from the user in the event of an electrical malfunction.
- All connections and conduits from the generator to the load must only be installed by trained and licensed electricians and in compliance with all relevant local, state, and federal electrical codes and standards, and other regulations where applicable.
- Connect the generator only to a load or electrical system (110/120 volt) that is compatible with the electrical characteristics and rated capacities of the generator.
- **NEVER** try to power building or home wiring by plugging the generator into a wall outlet, a practice known as “backfeeding.” This is extremely dangerous and presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.

AC Applications

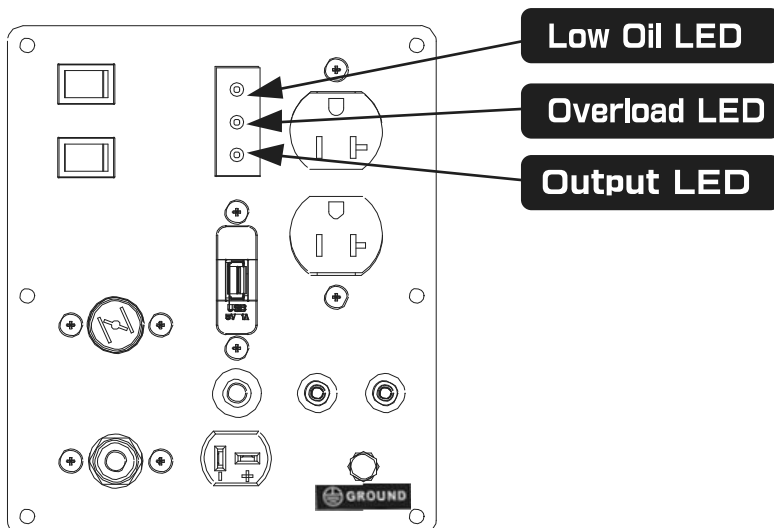
1. Start the engine and make sure the output indicator LED (green) flashes.
2. Confirm that the appliance to be used is switched off, and plug in the appliance.
3. **In order to acquire both the best effect and the maximum service life of the generator, operate the generator for 20 hours under 50% load, So that the generator may reach the best performance.**

NOTE: The DC receptacle can be used while the AC power is in use. If you use both at the same time, be sure not to exceed the total power for AC and DC.

Output and Overload Indicators

The output indicator LED (green) will flash during normal operating conditions. If the generator is overloaded, or if there is a short in the connected appliance, the output indicator LED (green) will go OFF, the overload indicator LED (red) will go ON and current to the connected appliance will be shut off.

Stop the engine if the overload indicator LED (red) comes ON and investigate the overload source



Note:



Substantial overloading that continuously lights the overload indicator LED (red) may damage the generator. Marginal overloading that temporarily lights the overload indicator LED (red) may shorten the service life of the generator.

Before connecting an appliance to the generator, check that it is in good order, and that its electrical rating does not exceed that of the generator. Then start the engine, and connect the power cord of the appliance

When an electric motor is started, both the overload indicator LED (red) and the output indicator LED (green) may go on simultaneously. This is normal if the overload indicator LED (red) goes off after about four (4) seconds. If the overload indicator LED (red) stays on, please contact **Uninex**.

DC Circuit breaker

The DC circuit breaker automatically shuts off the DC battery charging circuit when the DC charging circuit is overloaded, when there is a problem with the battery, or when the connections between the battery and the generator are improper. Check before resetting the circuit breaker.

NOTE: Check the cause reason after DC circuit breaker automatically shuts off.

NOTE: Fix the problem before manual resetting the DC circuit breaker ON.

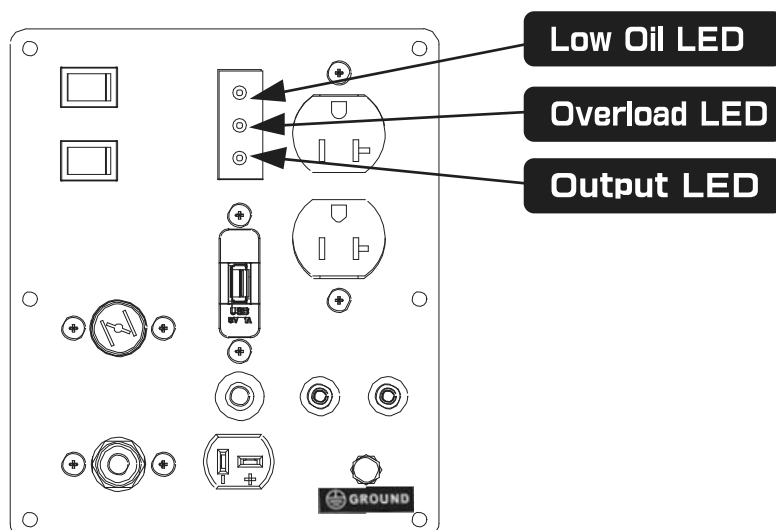
Disconnecting the battery charging cable

1. Stop the engine.
2. Disconnect the black lead of the battery charging cable from the negative (-) battery terminal.
3. Disconnect the red lead of the battery charging cable from the positive (+) battery terminal.
4. Disconnect the battery charging cable from the DC receptacle of the generator.

Oil Alert System

The oil alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase falls below a safe limit, the oil alert system will automatically shut down the engine (the fuel switch will remain in the ON position).

If the oil alert system shuts down the engine, the oil alert indicator LED (yellow) will come on when you operate the starter, and the engine will not run. If this occurs, add engine oil.



Stopping the Engine

To stop the engine in an emergency, turn the fuel switch and the Ignition switch to the OFF position.

Stopping the Generator

1. Unplug cables.
2. Turn the fuel petcock to the OFF position. (Fig. 12A)
3. Turn the ignition switch to the OFF position. (Fig.12B)

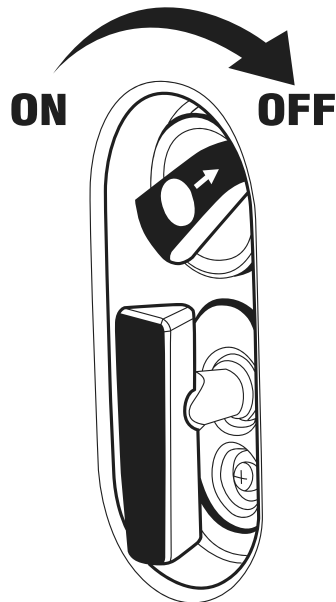


Fig. 12A

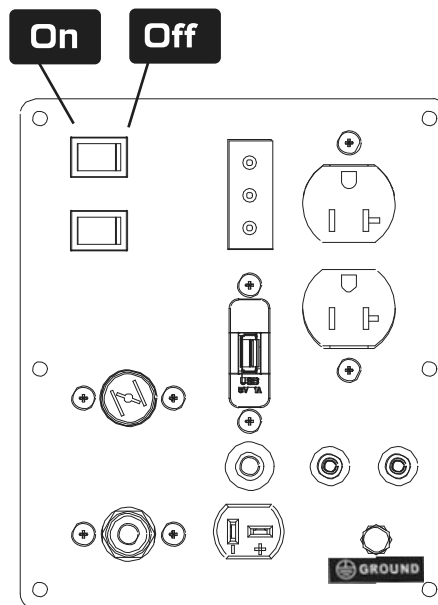


Fig. 12B

Transporting

- Take care not to drop or strike the generator when transporting. Do not place heavy objects on the generator.
- To prevent a fuel spill when transporting, ensure that the fuel cap is on and tight. The generator should be secured upright in its normal operating position with the fuel petcock OFF.
- If the generator has been used, allow it cool for at least 15 minutes before loading the generator on the transport vehicle. A hot engine and exhaust system can burn you and can ignite some material.
- Do not lay the generator on its side when moving, storing, or operating it. Oil and fuel may leak and damage the engine or your property.

Parallel Function

WARNING!



Do not pair more than 2 generators.

It is recommended to only use the **Uninex** parallel output cable for parallel operation.

CAUTION:



While operating in parallel, only use the parallel cable outlet.

DO NOT use the outlet on the control panel of the generator while operating in parallel. It may cause an unbalanced output to the parallel connection which may result in damage to the generator(s).

CAUTION:



DO NOT disconnect the parallel connection cable from the control panel while the generators are running. Turn off both generators before disconnecting parallel cables.

Before connecting an appliance to a generator, make sure that the appliance is in good working order and that its electrical rating does not exceed that of the outlet. Most appliances require more than their electrical rating for startup.

Connecting the Parallel cable

1. Have both generators ready to operate.
2. Make sure all three Parallel connections on both control panels are secure. (follow instructions with cable kit)



WARNING!

If parallel cables are not properly connected to the generators, either or both generators can be damaged and could explode.

3. Start each generator and allow it to normalize running.
4. Connect only to the parallel outlet.



Note:

The required power of the electrical appliance connected to the parallel outlet cannot exceed the rated output of paralleled generators. *See specifications page in owner's manual.*

Turning off generators while in parallel function

1. Disconnect or turn off item plugged into parallel receptacle.
2. Turn off both generators.
3. Carefully disconnect the parallel cables from both generators.

Maintenance



WARNING!

Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. The exhaust contains poisonous carbon monoxide gas that can kill

Use genuine Uninex parts. The use of replacement parts which are not of equivalent quality may damage the generator. The purpose of the maintenance and adjustment schedule is to keep the generator in the best operating condition. Inspect or service as scheduled in the table below.

REGULAR SERVICE PERIOD(3)		EACH USE	FIRST MONTH OR 20HRS	EVERY 3 MONTHS OR 50HRS	EVERY 6 MONTHS OR 100HRS	EVERY YEAR OR 200HRS
ITEM	Perform at every indicated month or operating hour interval, whichever comes first.					
Engine Oil	Check level	O				
	Change		O		O	
Air cleaner	Check			O		
	Change					O
Spark plug	Check-adjust			O		
	Replace					O
Combustion chamber	Clean	Every 300 Hrs. (2)				
Valve clearance	Check-adjust					O (2)
Fuel tank and filter	Clean				O (2)	
Fuel line	Check	Every 2 years (Replace if necessary) (2)				
NOTE: (1) Service more frequently when used in dusty areas. (2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. (3) For commercial use, log hours of operation to determine proper maintenance intervals.						

Changing Oil

Drain the oil while the engine is still warm to assure rapid and complete draining.

1. Loosen the cover screw and remove the maintenance cover. (Fig. 13A)
2. Remove the oil filler cap. (Fig. 13B)
3. Drain dirty oil into a container thoroughly.
4. Refill with the recommended oil, and check the oil level.
5. Reinstall the maintenance cover and tighten the cover screw securely.
6. Engine oil capacity: 0.42 USQT
7. Wash your hands with soap and water after handling used oil.

NOTE: Please dispose of used motor oil in a manner that is environmentally friendly. We suggest you take it in a sealed container to your local service station for recycling. Do not throw used oil in the trash or pour it on the ground.

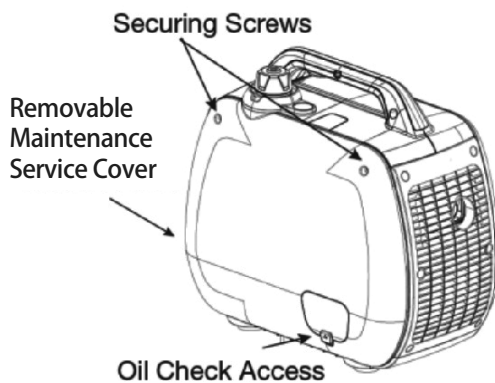


Fig. 13A

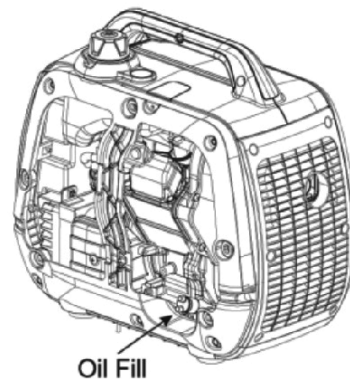


Fig. 13B

AIR cleaner

A dirty air cleaner will restrict air flow to the carburetor.

To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the generator in extremely dirty areas.



WARNING!

Do not use gasoline or low flash point solvents for cleaning. They are flammable and explosive under certain conditions.



CAUTION:

Never run the generator without the air filter, otherwise rapid engine wear may result

AIR cleaner continued

1. Loosen the cover screws and remove the maintenance cover. (Fig. 14A)
2. Remove the air cleaner cover. (Fig. 14B)
3. Wash the filter in a non-flammable or high flash point solvent and dry it thoroughly.
4. Soak the filter in clean engine oil and squeeze out the excess oil.
5. Reinstall the air filter and the air cleaner cover. Tighten the cover screw securely.
6. Reinstall the maintenance cover and tighten the cover screw securely.

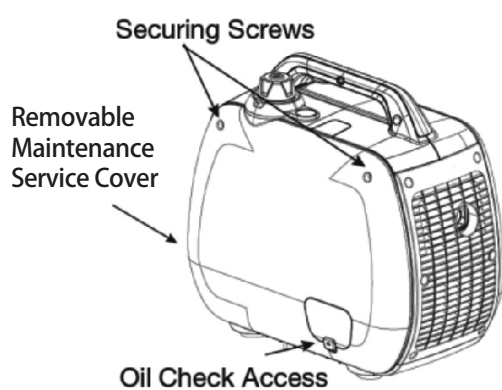


Fig. 14A

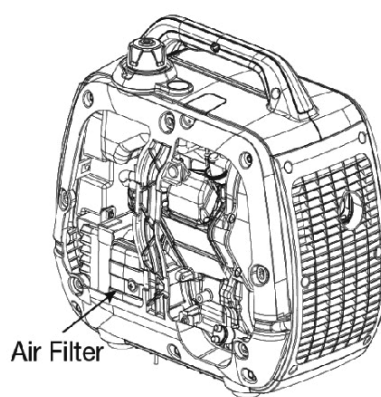


Fig. 14B

Spark plug service

- This engine use Torch A7RTC spark plug . the recommended equivalent spark plug: NGK CR7HSA.
 - To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.
1. Remove the spark plug maintenance cover. (Fig.15A)
 2. Remove the spark plug cap. (Fig. 15B)
 3. Clean any dirt from around the spark plug base.
 4. Use the wrench to remove the spark plug.
 5. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
 6. Measure the plug gap with a feeler gauge. The gap should be 0.60-0.80mm (0.024-0.032"). Correct as necessary by carefully bending the side electrode. (Fig. 15 C)
 7. Install the spark plug carefully, by hand, to avoid cross-threading.
 8. After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer.
 9. If a used plug is being reinstalled, it should only require 1/8 to 1/4 turn after being seated.
 10. Reinstall the spark plug cap on the spark plug securely.

Spark plug service continued



CAUTION:

Make sure engine is cool before servicing or removing spark plug.

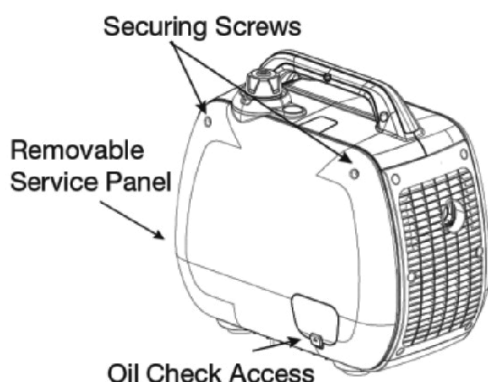


Fig. 15A

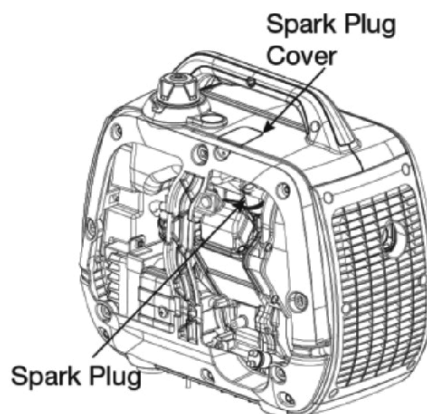


Fig 15B

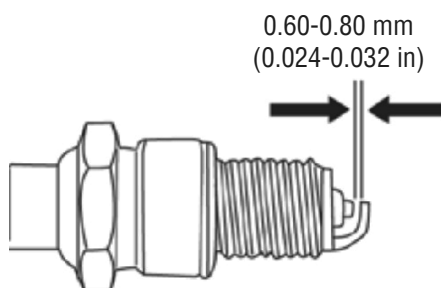


Fig 15C

Storing the Generator

To prevent fuel spill when transporting or during temporary storage, the generator should be secured upright in its normal operating position, with the engine switch OFF.

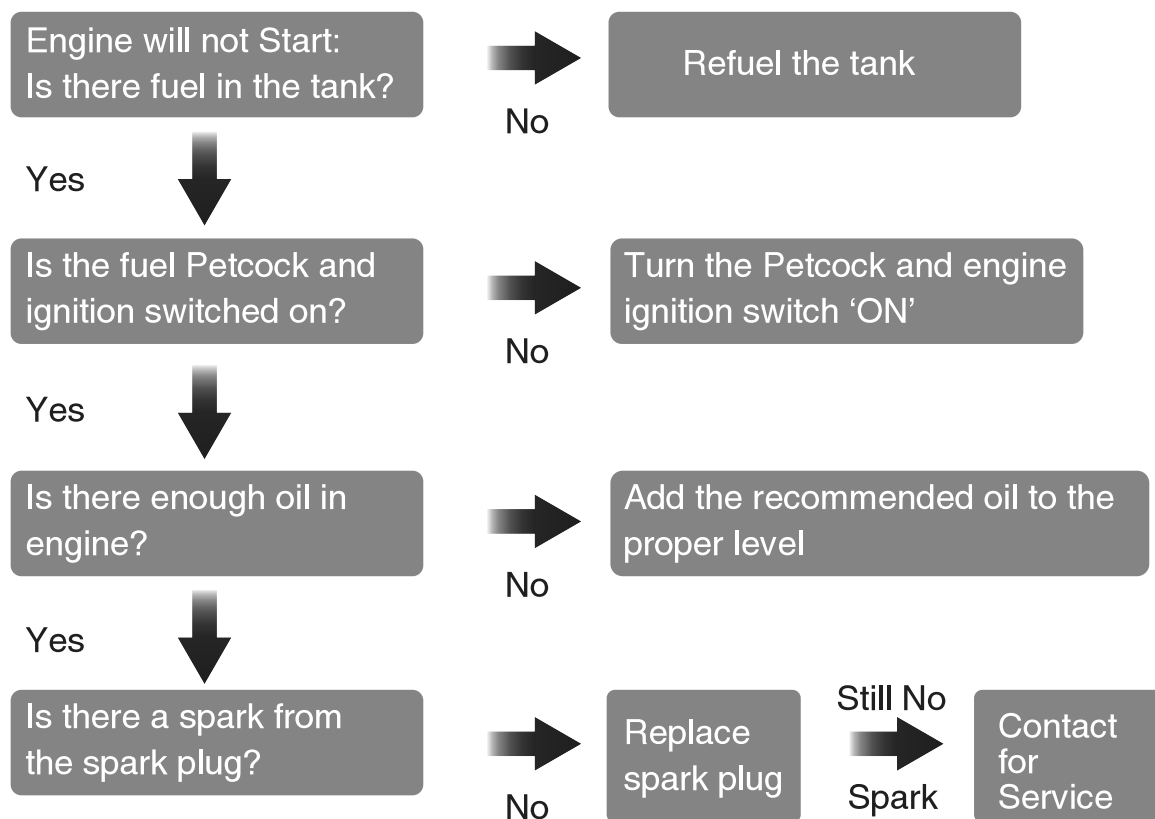
Storing the unit

1. Be sure the storage area is free of excessive humidity and dust.
 - a. Keep heat, sparks, and flame away.
 - b. Handle fuel only outdoors.
 - c. Wipe up spills immediately.
 - d. Keep out of reach of children and pets.

Storing the unit Continued

2. Drain the fuel.
 - a. Drain all gasoline from the fuel tank into an approved gasoline container.
 - b. Turn the petcock to ON, and loosen the carburetor drain screw and drain the gasoline from the carburetor into a suitable container.
 - c. When all the fuel is drained, turn the petcock to the OFF position, and tighten the drain screw securely.
3. Change the engine oil.
4. Remove the spark plug and pour about a table- spoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil, the reinstall the spark plug.
5. Reinstall the spark plug cap on the spark plug securely.
6. Reinstall the spark plug maintenance cover.
7. Reinstall the maintenance cover and tighten the cover screw securely.
8. Pull the starter grip slowly until resistance is felt, then return the starter grip gently. This closes the valves so moisture cannot enter.

Troubleshooting





WARNING!








Be sure that is no spilled fuel around the spark plug.
Spilled fuel may ignite.

To check:

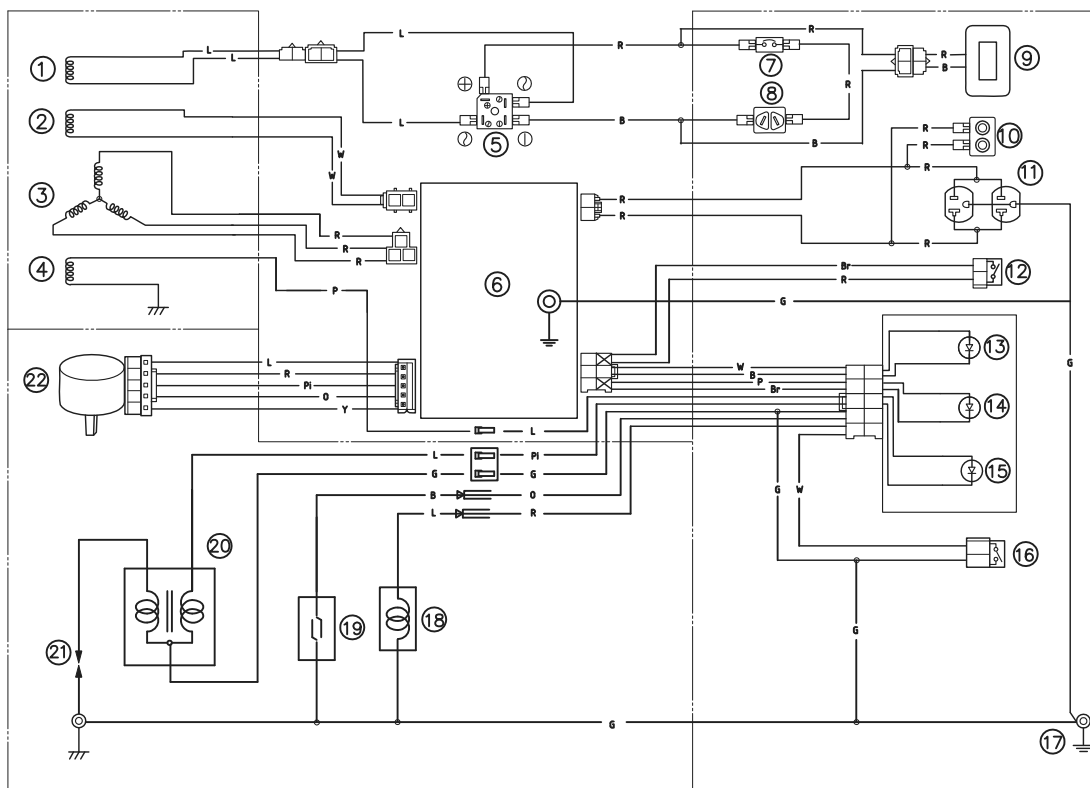
1. Remove the spark plug cap and clean any dirt from around the spark plug
2. Remove the spark plug and install the spark plug in the plug cap.
3. Set the plug electrode on the cylinder head.
4. Pull the recoil starter; sparks should jump across the gap.
5. If the engine still does not start, contact Uninex.

PACKAGE CONTENTS

The following items are supplied with this Generator. Verify that all items are included.

Item List:	
	Set of 2 DC connector wires for charging 12 Volt automotive-type batteries
	Spark plug wrench
	Funnel for adding Oil
	5 Ft. Regulator Hose Kit (YOU MUST USE THE SUPPLIED REGULATOR FOR SAFE OPERATION)
	T Type Wrench
	Sockets
	Crosshead screwdriver

Wiring diagram

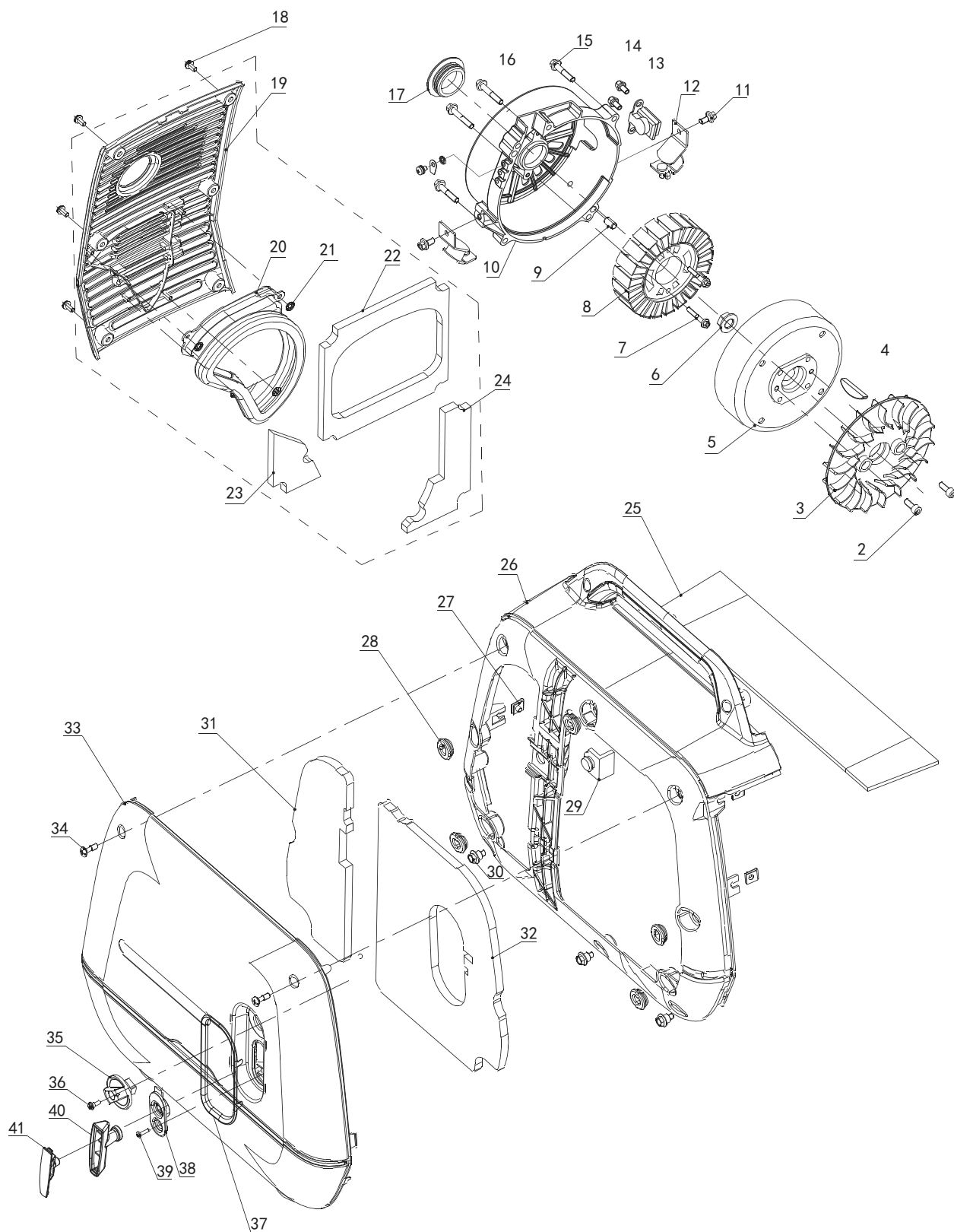


- ① DC WINDING
- ② SUB WINDING
- ③ MAIN WINDING
- ④ EXCITER WINDING
- ⑤ RECTIFIER
- ⑥ INVERTER UNIT
- ⑦ CIRCUIT BREAKER (DC)
- ⑧ DC OUTPUT RECEPTACLE
- ⑨ USB OUTPUT RECEPTACLE
- ⑩ TWIN TECH (PARALLEL RUNNING TERMINAL)
- ⑪ AC OUTPUT RECEPTACLE
- ⑫ ECO THROTTLE SWITCH
- ⑬ OUTPUT INDICATOR
- ⑭ OVERLOAD INDICATOR
- ⑮ OIL ALERT INDICATOR
- ⑯ ENGINE STOP SWITCH
- ⑰ GROUND (Earth) terminal
- ⑱ IGNITION PULSE GENERATOR
- ⑲ OIL LEVEL SWITCH
- ⑳ IGNITION COIL
- ㉑ SPARK PLUG
- ㉒ THROTTLE CONTROL MOTOR

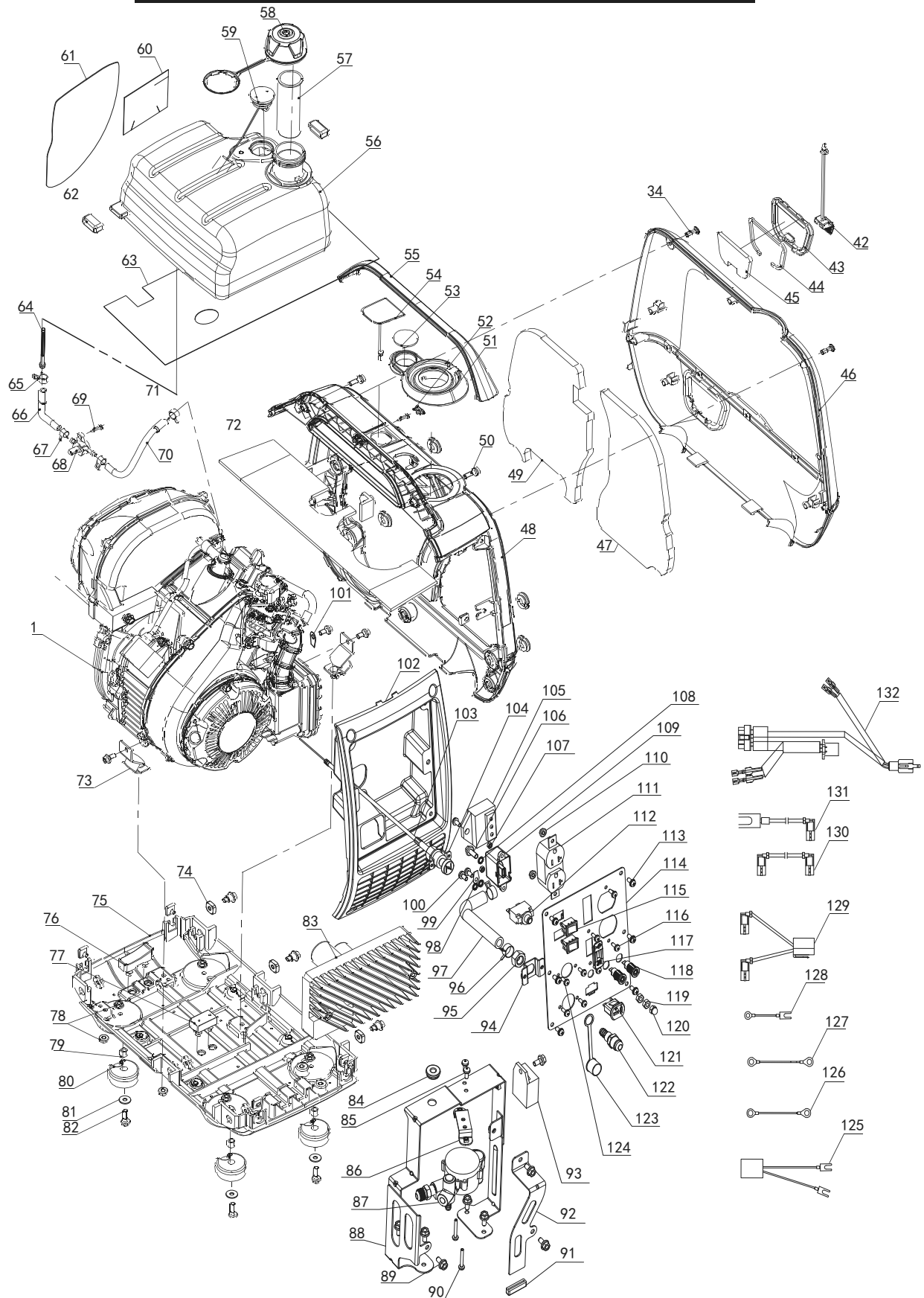
Color code

B	Black
Br	Brown
G	Green
L	Blue
O	Orange
P	Purple
Pi	Pink
R	Red
W	White

Parts diagram



Parts diagram continued



Parts List

No	Part Number	Part Name	Qty
1	101200140001000	ENGINE	1
2	B02210601627	Cross Recess Head Screw M6*16	2
3	32100422003800	FAN	1
4	B11210305013	KEY	1
5	20070422005000	Alternator	1
6	34010114001000	Hexagon Flange Nut	1
7	B02040503565	Inner Hexagon Screw M5*35	2
8	20060422005000	Stator	1
9	31140127002000	Pin	2
10	32070422005000	End Cover	1
11	B01310601267	Increased Flange Bolt M6*12	13
12	22030422003800	Shock Absorbing Foot	2
13	24020423003000	Flip-flop	1
14	B01310501266	Increased Flange Bolt M5*12	2
15	B01310603065	Increased Flange Bolt M6*30	3
16	B01310603565	Increased Flange Bolt M6*35	2
17	32080422003000	Plug, end cover	1
18	B13080501627	Screw M5*16	13
19	34120422003800	Rear Exhaust Cover	1
20	34130422003800	Rubber Duct	1
21	30010222511060	Retainer Ring	5
22	34140422003000	Insulating Foam, Exhaust Port	1
23	34150422003000	Insulating Foam, Left Inlet	1
24	34160422003000	Insulating Foam, Right Inlet	1
25	34350422003000	Foam, Left Body	1
26	24030422003000	Left Body	1
27	30220421202000	Spring Nut	12
28	34040422003800	Rubber Grommet	10
29	34030422003800	Rubber Pad	2
30	31150422003020	Shoulder Screws	6
31	34200422003000	Left Foam Seal II	1
32	34190422003000	Left Foam Seal II	1
33	341804220033H0	Left Body Cover	1
34	30230421202000	Screw	4
35	34220422003800	Fuel Petcock Knob	1
36	30040422001670	Screw	1
37	34330422003000	Decorating Ring	1
38	34210422003800	Rope Guide Plate Assembly	1
39	B05210501607	Truss Head Tapping Screw ST5*16	2
40	30160421202000	Rope, Starter	1

No	Part Number	Part Name	Qty
41	30170421202000	Starter Cover Assy	1
42	34270422003800	Tether, Oil Fill Cover	1
43	342604220033H0	Oil Fill Cover	1
44	34290422003000	Foam II, Oil Fill Cover	1
45	34280422003000	Foam II, Oil Fill Cover	1
46	342304220033H0	Right Body	1
47	34240422003000	Insulating Foam I, Right Body Cover	1
48	24050422003000	Right Casing	1
49	34250422003000	Insulating Foam II, Right Body Cover	1
50	B02210602027	Cross Recess Head Screw M6*20	2
51	34080422003800	Rubber Mat, fuel filling Port	1
52	34310422003000	Trim Strip, Handle	1
53	34090422003160	Fuel Gauge	1
54	34100422003800	Spark Plug Access Cover	1
55	343004220033H0	Handle Inset	1
56	23050422003800	Fuel Tank	1
57	21030421202000	Fuel Filter	1
58	21120421202001	Fuel Tank Cap	1
59	23040422003000	OIL GAUGE	1
60	33070422003000	Silver Paper I	1
61	33080422003000	Silver Paper II	1
62	33060422003800	Tank Mounting Rubber Cushion	2
63	34090422005000	Silver Paper III	1
64	20140421200000	Fuel Filter	1
65	37010117001000	Clamp Φ10	1
66	33100422003800	Oil Pipe	1
67	31190421202000	Clamp Φ8	2
68	20110421200001	Fuel Cock	1
69	B05214201605	Truss Head Tapping Screw ST4.2*16	1
70	33110422003800	Fuel Hose, Carburetor	1
71	31200421202000	Clamp Φ9	1
72	34360422003000	Foam, Right Body	1
73	22030422003801	Shock Absorbing Foot	2
74	31070422003020	Square Nut	6
75	21020422003002	Body Base Plate	1
76	31030422003800	Cushion Pad	1
77	31040422003800	Bumper Block, Engine	1
78	B04280600047	Flang Nut M6	8
79	31020412600010	Spacer	4
80	31050422003800	Damping Foot	4

No	Part Number	Part Name	Qty
81	B07020006047	Flat Gasket	4
82	B01310602067	Increased Flange Bolt M6*20	4
83	21040422005000	Inverter Assy	1
84	31140422003800	Damping Ring, Fuel Tank	1
85	B13080501227	Screw M5*12	2
86	20010422005120	Valve Fixing Plate	1
87	2704012008000	Pressure Reducing Valve	1
88	21060422005800	Inverter Mounting Bracket Assembly	1
89	B01310601267	Flange Nuts M6*12	13
90	B02270403025	Cross Recess Head Screw M4*30	2
91	31130422003800	Rubber Cushion, Inverter Mounting Bracket	1
92	31120422003800	Inverter Mounting Bracket ,Front	1
93	23250421200000	Voltage regulator	1
94	35020452005120	Air Hose Fitting Mounting Bracket	1
95	3X200457501000	Fixing Nut G1/4	1
96	3X230457501000	Stainless Clamp	2
97	3X220457501000	Fuel Gas Hose	1
98	B07180005056	Lock Washer Φ5	2
99	32060421202000	Grounding Piece φ5	1
100	B13080500827	Screw M5*8	2
101	30090422001000	Grounding Piece φ6	1
102	34110422003800	Front Cover	1
103	22080422003000	Choke Lever	1
104	32160422003800	Choke Lever Mounting Plate	1
105	25030422003000	Light Indicator Assembly	1
106	B01310601628	Flang Blot M6*16	1
107	B04010400047	Hex Nut M4	2
108	B07180006056	Lock Washer Φ6	2
109	25040422003001	USB Socket 5V/2A	1
110	B04280400047	Flang Nut	2
111	22070413200000	120V Socket	1
112	B28421080010	Circuit Breaker 8A	1
113	B02210501227	Cross Recess Head Screw M5*12	4
114	25020452005800	Panel Assy	1
115	22030410900000	Engine Switch	2
116	B02210401227	Cross Recess Head Screw M4*12	6
117	35270422003002	USB Rubber Holder 2A	1
118	20110421202000	Parallel Connection Socket	2
119	B04010600048	Hex Nut M6	2

No	Part Number	Part Name	Qty
120	B04190600044	Cap Nut M6	1
121	22060411500000	T Type Socket	1
122	3X190457501000	Gas Inlet Connector	1
123	3X210457501000	Gas Inlet Cap	1
124	B13080400827	Screw M4*8	2
125	22070421202000	AC Connecting Cable	1
126	32090422003000	Ground Wire6-6	1
127	35090422003000	Ground Wire5-6	1
128	35080422003000	Ground Wire5-5	1
129	35120422003000	DC Connecting Cable (American)	1
130	35130422003000	Connection Cabel,DC protector	1
131	35110422005000	Parallel Cable	2
132	21070422003000	Cable Assy	1

EMISSION CONTROL SYSTEM WARRANTY

UNINEX INTERNATIONAL.

Your Warranty Rights and Obligations

The California Air Resources Board, The United States Environmental Protection Agency(US EPA) and UNINEX INTERNATIONAL are pleased to explain the exhaust and evaporative emissions control system warranty on your 2019 model year small off-road engine. In California, new equipment that use small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. UNINEX INTERNATIONAL must warrant the emissions control system on your small off-road engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine or equipment leading to the failure of the emissions control system.

Your emissions control system may include parts such as the carburetor or fuel-injection system, the ignition system, catalytic converter, fuel tanks, fuel lines (for liquid fuel and fuel vapors), fuel caps, valves, canisters, filters, clamps and other associated components. Also included may be hoses, belts, connectors, and other emission-related assemblies.

Where a warrantable condition exists, UNINEX INTERNATIONAL will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

Manufacturer's Warranty Coverage:

The exhaust and evaporative emissions control system on your small off-road engine is warranted for two years. If any emissions-related part on your small off-road engine is defective, the part will be repaired or replaced by UNINEX INTERNATIONAL.

Owner's Warranty Responsibility

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. UNINEX INTERNATIONAL recommends that you retain all receipts covering maintenance on your small off-road engine, but UNINEX INTERNATIONAL cannot deny warranty coverage solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine owner, you should however be aware that UNINEX INTERNATIONAL may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to a UNINEX INTERNATIONAL distribution center or service center as soon as the problem exists. The warranty repairs shall be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact UNINEX INTERNATIONAL customer service representative at 1-800-864-3288 or write to customerservice@uninex.com.

DEFECTS WARRANTY COVERAGE

Adopted by the Air Resources Board, UNINEX INTERNATIONAL warrants to the ultimate purchaser and each subsequent purchaser that the small off-road engine (SORE)(1) has been

designed, built and equipped so as to conform with all applicable regulations; and (2) is free from defects in materials and workmanship that cause the failure of a warranted part to conform with those regulations as may be applicable to the terms and conditions stated below.

(a) The warranty period begins on the date the engine is delivered to an ultimate purchaser or first placed into service. The warranty period is two years.

(b) Subject to certain conditions and exclusions as stated below, the warranty on emissions related parts is as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in your Owner's Manual is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by UNINEX INTERNATIONAL according to Subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the periods.

(2) Any warranted part that is scheduled only for regular inspection in your owner's manual is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in your owner's manual is warranted for the period of time before the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part will be repaired or replaced by UNINEX INTERNATIONAL according to Subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty provisions herein must be performed at a warranty station at no charge to the owner.

(5) Notwithstanding the provisions herein, warranty services or repair will be provided at all of our distribution centers that are franchised to service the subject engines.

(6) The engine owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) UNINEX INTERNATIONAL is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the engine warranty period stated above, UNINEX INTERNATIONAL will maintain a supply of warranted part sufficient to meet the expected demand for such parts.

(9) Any replacement may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of UNINEX INTERNATIONAL.

Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the ultimate purchaser will be grounds for disallowing a warranty claims. UNINEX INTERNATIONAL will not be liable to warrant

- (1) failures of warranted parts caused by the use of a non-exempted add-on or modified part.
- (2) The manufacturer issuing the warranty shall provide any documents that describe that manufacturer's warranty procedures or policies within five working days of request by the Air Resources Board.

EMISSION WARRANTY PARTS LIST

(1) Fuel Metering System:

- (a) Gasoline carburetor assembly and its internal components
- (b) Carburetor gaskets (c) fuel lines (for liquid fuel and fuel vapors)
- (d) Clamps (e) Fuel tank
- (f) Fuel line fittings (g) Pressure regulator(if equipped)
- (h) Mixer assembly and its internal components (if equipped)

(2) Air induction system including:

- (a) Intake pipe/manifold (b) Air cleaner

(3) Ignition system including:

- (a) Spark plug (b) Ignition coil

(4) Catalytic muffler assembly including:

- (a) Muffler gasket (b) Exhaust manifold
- (c) Catalytic converter

(5) Crankcase breather assembly including:

- (a) Breather connection tube

(6) Fuel tank evaporative emissions control system including:

- (a) Purge valves (b) Fuel cap
- (c) Fuel tank (d) fuel lines (for liquid fuel and fuel vapors)

(7) Miscellaneous items used in above systems including:

- (a) Switches (b) Hoses, belts connectors and assemblies

(8) Air injection system

- (a) Pulse valve

Please Note:

For this warranty, UNINEX INTERNATIONAL shall warrant the Evaporative and Exhaust combined emission control system on your products.

Connecting the battery charging cable

1. Before connecting the battery charging cable to a battery that is installed in a vehicle, disconnect the vehicle battery ground cable from the negative (-) battery terminal.
2. Connect the charging cables to the DC outlet of the generator and then to the battery terminals.
3. Connect the red lead of the battery charging cable to the positive (+) battery terminal and the black lead to the negative (-) battery terminal.



CAUTION:

Do not attempt to start an automobile engine with the generator still connected to the battery. The generator may be damaged.



WARNING!

To prevent the possibility of creating a spark near the battery, connect charging cable first to the generator, then to the battery. Disconnect cable first at the battery.

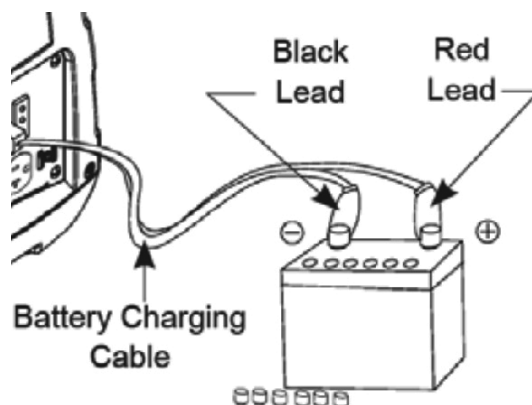
Before connecting charging cables to a battery that is installed in a vehicle, disconnect the vehicles grounded battery cable.

Reconnect the vehicle's grounded battery cable after the charging cables are removed. This procedure will prevent the possibility of a short circuit and sparks if you make accidental contact between a battery terminal and the vehicle's frame or body.



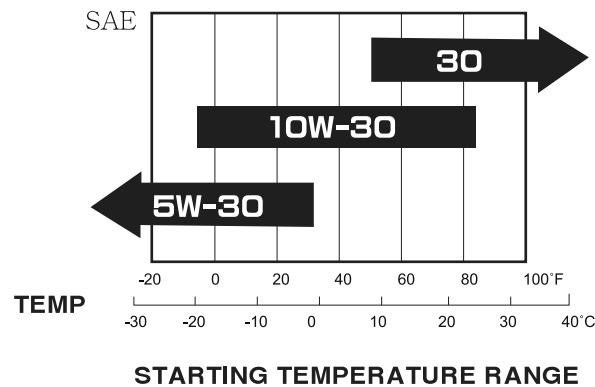
CAUTION:

Connect the positive battery terminal to the positive charging cord. Do not reverse the charging cables, or serious damage to the generator and/or battery may occur



Check the Engine oil level

Use premium quality 4-stroke engine oil, certified to meet or exceed U.S. automobile manufacturer's requirements for API Service Classification SG, SF. Select the appropriate viscosity for the average temperature in your area.



Remove the **oil check** access cover. Remove the oil filler cap, and look to see that oil is at the bottom of the threads of the oil filler hole. If the oil level is below the bottom of the threads, refill the recommended oil up to the top of the oil filler neck.



CAUTION:

Running the engine with insufficient oil can cause serious engine damage.



Note:

The Oil Alert System will automatically stop the engine before the oil level falls below the safe limit. However, to avoid the inconvenience of an unexpected shutdown, check the oil level regularly.

