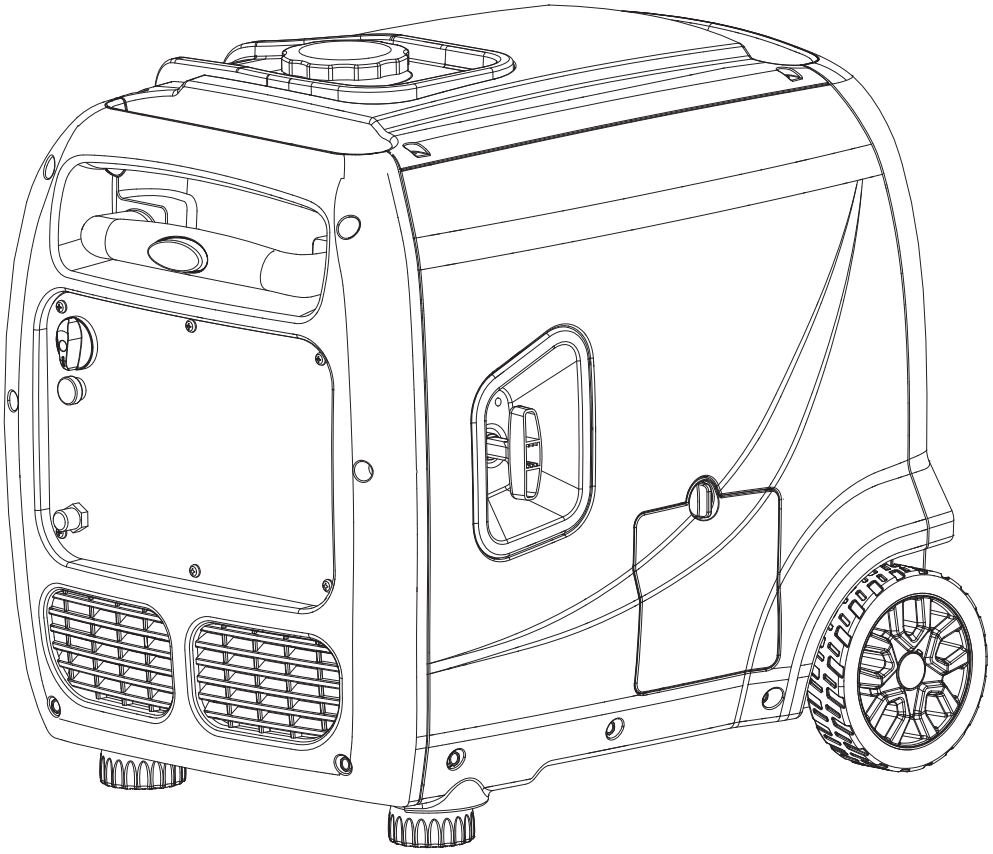
INVERTER GENERATOR

Owner's Manual

SM4500i



SAVE THIS MANUAL FOR FUTURE REFERENCE

IMPORTANT SAFETY INSTRUCTIONS ARE INCLUDED IN THIS MANUAL

CUSTOMER SERVICE

SERVICE CLIENTELE

SERVICIO AL CLIENTE

1-855-888-3598

A-iPOWER Corp.
10887 Commerce Way Unit A Fontana CA 92337
www.a-ipower.com

SAFETY INSTRUCTIONS AND WARNINGS

⚠DANGER

Risk of fire. Check for any fuel overflow or leakage. Stop the engine before refueling. / Riesgo de incendio. Revise si hay algún derrame o fuga de combustible. Apaque el motor antes de poner combustible.

Failure to properly ground generator can result in electrocution, especially if the generator is equipped with a wheel kit. / La omisión de conectar a tierra adecuadamente el generador puede resultar en electrocución, especialmente si el generador está equipado con un kit de ruedas.

Generator is a potential source of electric shock. Do not expose to moisture, rain, or snow. Do not operate with wet hands or feet. / El generador es una fuente de descarga eléctrica. No lo exponga a humedad, la lluvia, nin a la nieve. No opere con manos o pies húmedos.

⚠PELIGRO

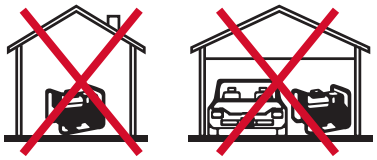
Exhaust contains poisonous carbon monoxide gas that can cause unconsciousness or DEATH. Operate in well ventilated, outdoor areas away from open windows or doors. / El escape contiene gas venenoso de monóxido de carbono que puede causar pérdida del conocimiento o MUERTE. Opere en áreas exteriores bien ventiladaslejos de puertas o ventanas abiertas.

You could be killed or seriously hurt if you do not follow the Operator's Manual instructions. / SE MATARÁ o LESIONARÁ GRAVEMENTE si no sigue las instrucciones del manual operador.

Do not expose to rain or use in damp locations. / No exponga a la lluvia ni use en lugares húmedos.

⚠DANGER

Using a generator indoors WILL KILL YOU IN MINUTES. Exhaust contains carbon monoxide, a poison gas you cannot see or smell.



NEVER use in the home or in partly enclosed areas such as garages.

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

Avoid other generator hazards.
READ MANUAL BEFORE USE.

INTRODUCTION

This Operating Manual has been designed to instruct you on the correct operation of your A-IPOWER product. Your satisfaction with this product and its safe operation is our ultimate concern. Therefore please take the time to read the entire manual, especially the Safety Precautions. They will help you to avoid potential hazards that may exist when working with this product.

⚠ **Read this manual carefully before operating this generator. This manual should stay with this generator if it is sold.**

TABLE OF CONTENTS

KEY SPECIFICATIONS

Model NO.	SM4500i
Wattage	4000 Starting Watts, 3500 Running Watts
Phase	Single
Frequency	50Hz
Voltage	AC 230V
Amperage	15.2A
Engine Type	4-stroke, OHV, single cylinder with forced air cooling system
Engine Displacement	223cc
Fuel Tank Capacity	2.6 US gallon (10.0 L), 87 octane minimum
Oil Capacity	20.2 fl. oz. (0.6 L)

SAFETY INFORMATION

⚠ **WARNING:** Before operating the generator, make sure to read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire or serious injury.

SAFETY INTRODUCTION

Safety is a combination of common sense, staying alert, and knowing how your tool works. This manual contains important information regarding the generator's potential safety concerns, as well as preparation, operation, and maintenance instructions. Before operating this generator, be sure to read and observe all warnings and instructions both on the generator labels and in this instruction manual. Failure to follow all instructions listed below may result in personal injury.

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. AIPOWER reserves the right to change this product and specifications at any time without prior notice.

SAVE THESE INSTRUCTIONS - Please keep this manual available to all users during the entire life of the tool. Review it frequently to maximize safety for both yourself and others.

SAFETY SYMBOLS

The purpose of following safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

⚠ **DANGER:** indicates a hazard, which, if not avoided, will result in death or serious injury.

⚠ **WARNING:** indicates a hazard, which, if not avoided, could result in death or serious injury.

⚠ **CAUTION:** indicates a hazard, which, if not avoided, might result in minor or moderate injury.

CAUTION: when used without the alert symbol, indicates a situation that could result in damage to the machine.

NOTICE REGARDING EMISSIONS

Engines that are certified to comply with U.S. EPA emission regulations for SORE (Small Off Road Equipment), are certified to operate on regular unleaded gasoline, and may include the following emission control systems: (EM) Engine Modifications and (TWC) Three-Way Catalyst (if so equipped).

GENERATOR SAFETY WARNINGS

⚠ DANGER: CARBON MONOXIDE

Using a generator indoors **CAN KILL YOU IN MINUTES.** Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a generator inside homes, garages, crawl spaces, 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 OUTSIDE and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. ALWAYS use a battery-powered or battery-backup CO 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 may have carbon monoxide poisoning.

⚠ **WARNING**: **RISK OF EXPLOSION. HIGHLY FLAMMABLE**: This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death, if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

- Do not operate near open flame, heat, or any other ignition source. Do not smoke near generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion. Always check for spilled fuel before operating.
- If fuel spills, move the generator at least 30 feet away from the spill and wipe clean any spilled fuel before starting the engine.
- Empty fuel tank before storing or transporting the generator.

⚠ **WARNING**: If this generator is used as a supply for a BUILDING'S WIRING SYSTEM, the generator MUST be installed by a qualified electrician and connected to a transfer switch as a separately derived system in accordance with all applicable laws and electrical codes and the National Electrical Code, NFPA 70. The generator shall be connected to a transfer switch that switches all conductors excluding the equipment grounding conductor. The frame of the generator shall be connected to an approved grounding electrode.

⚠ **California Proposition 65 WARNING:** This product contains chemicals and produces exhaust known to the State of California to cause cancer, birth defects and other reproductive harm.

GENERATOR SAFETY WARNINGS

⚠ **WARNING:** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

OPERATING ENVIRONMENT

1. Using a generator indoors can kill you in minutes. Only use a generator OUTSIDE and far away from windows, doors and vents.

2. Do not smoke near the generator.

3. Do not operate near open flame, heat, or flammable materials. This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to an explosion even if it isn't directly in contact with gasoline.

4. Do not expose the generator to rainy or wet conditions; doing so significantly increases the risk of electrical shock. Never handle the generator, electronic devices, or any cord while standing in water, while barefoot, or when hands or feet are wet.

5. Always operate the generator on a dry, firm, level surface.

6. The generator should have at least 5 feet of clearance from buildings or other equipment during operation.

7. Do not allow children or non-qualified persons to operate the generator.

GENERATOR PREPARATION

1. Always ground the generator before using it to maximize safety (see "GROUND THE GENERATOR" section.

2. Do not overfill fuel tank, as gasoline may expand during operation. Do not fill to the very top of the tank. Leave room for gasoline expansion. Always check for spilled fuel before operating.

3. If any part of the generator, electrical device or power cord is broken, damaged, or defective, make sure it is repaired or replaced before operation. Service should only be performed by a qualified technician. Do not use receptacles or cords that show signs of damage, such as broken or cracked insulation.

4. Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. Extension cords with in-line GFCIs are recommended for these operations to maximize safety.

5. If connecting the generator to a building's electrical system for standby power, you MUST consult a qualified electrician and install a transfer switch. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

6. Never modify the generator in any way. Modifying or using the machine for any other purpose for which it is not designed may result in serious injuries, machine damage and voiding of the warranty.

GENERATOR SAFETY WARNINGS

GENERATOR OPERATION

1. Only use the generator for its intended purposes. Modifying or using the generator for operations for which it was not designed may cause hazards and personal injury.

2. Do not touch bare wires or receptacles (outlets).

3. Do not exceed the wattage capacity of the generator by plugging in more electrical devices than the unit can handle. This could damage the generator and/or connected electrical devices. Check the operating voltage and frequency requirements of all electrical devices prior to plugging them into the generator.

4. Allow generator to run for several minutes before connecting electrical devices. Do not start or stop engine with electrical devices plugged in to the receptacles. Failure to do so could damage the generator and / or connected electrical devices.

5. Do not turn ON electrical devices until after they are connected to the generator.

6. Generators vibrate in normal use. During and after the use of the generator, inspect both the generator as well as extension and power supply cords for damage resulting from vibration.

7. Do not touch HOT PARTS. This generator produces heat when running. Temperatures near exhaust can exceed 150º F (65º C). Allow generator to cool down after use before touching engine or areas of the generator that become hot during use.

8. Turn off all connected electrical devices before stopping the generator.

9. Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.

10. Turn the engine switch to “OFF” position when the engine is not running.

11. Empty fuel tank before storing or transporting the generator. Do not store generator or gasoline near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions. Store the generator and fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.

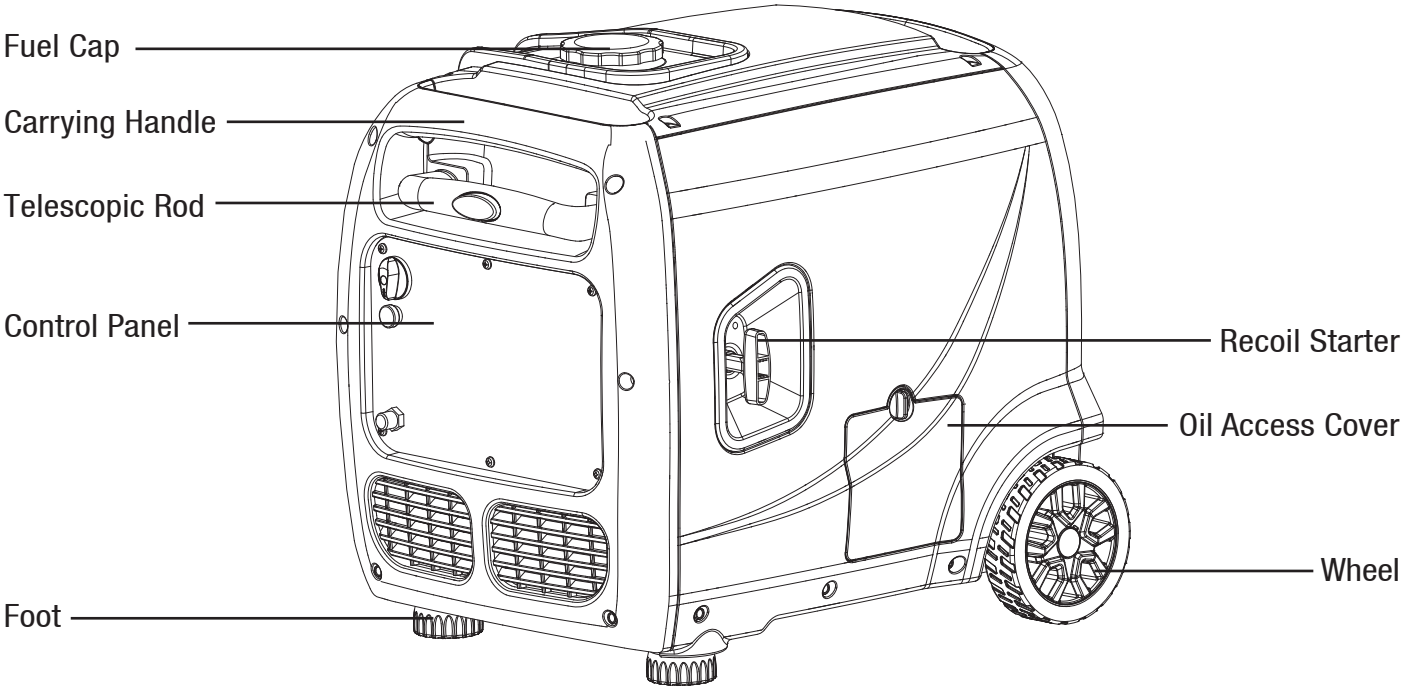
12. Always wash hands after handling generator.

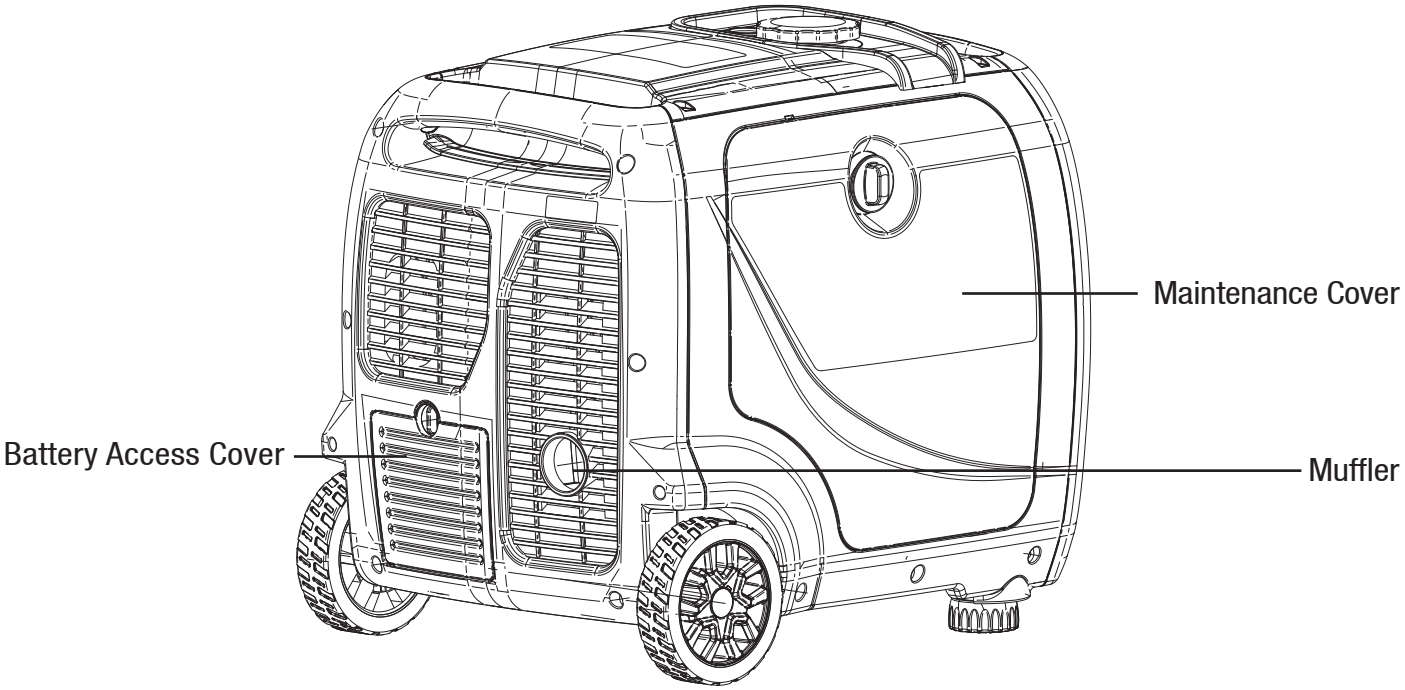
CAUTION: Misuse of this generator can damage it or shorten its lifespan.

TO MAXIMIZE THE LIFESPAN OF YOUR GENERATOR:
We recommend running your generator at least once a month for 20 to 30 minutes. Start the generator according to the instructions and plug a small load in to make sure the outlet is producing electricity. If you do not run it often, it will greatly shorten the generator’s lifespan and void the warranty.

KNOW YOUR GENERATOR

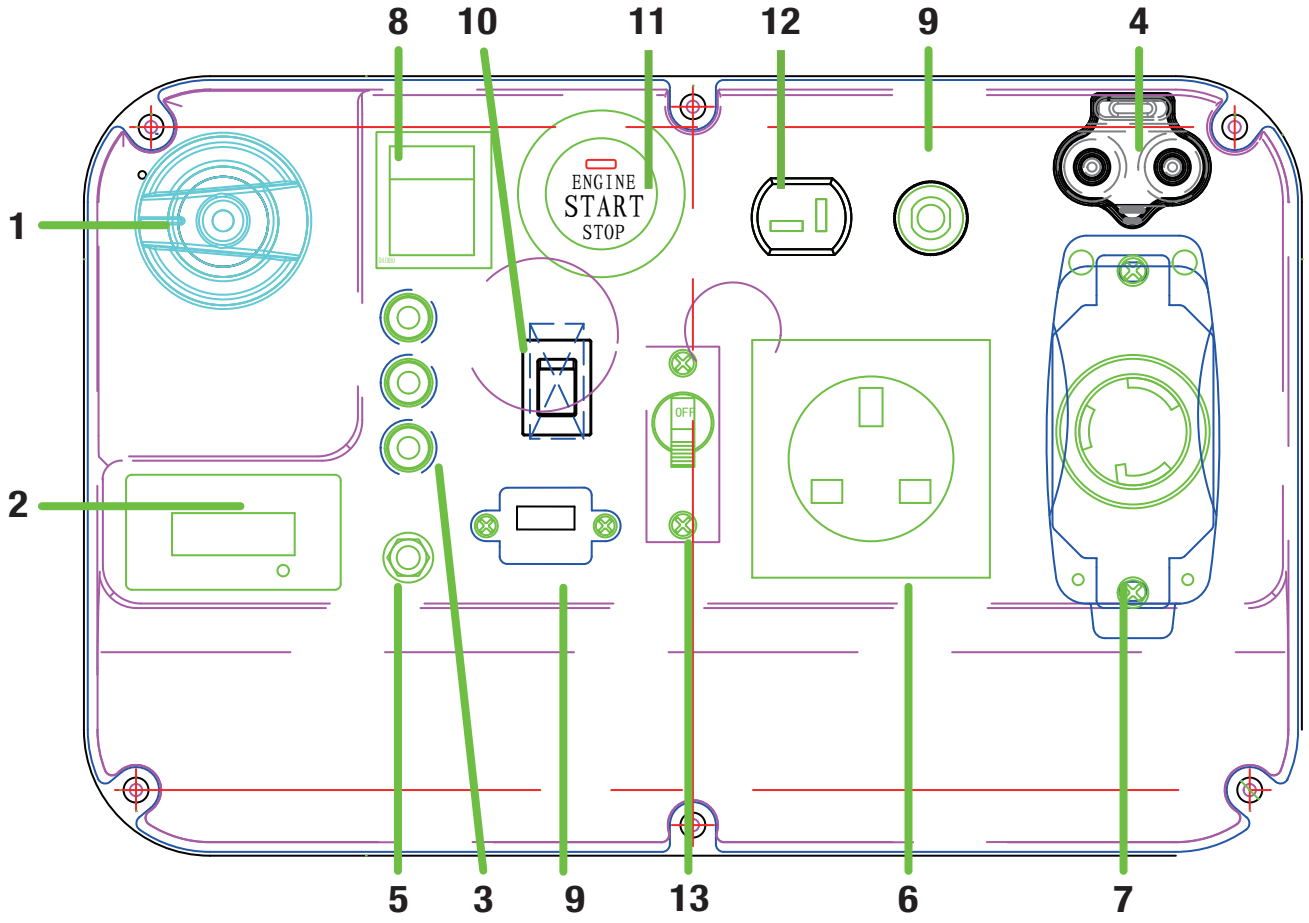
GENERATOR





KNOW YOUR GENERATOR

CONTROL PANEL



1. Fuel Switch

2. Data Center
Voltage, Run Time, Frequency, Power and Fuel

3. Indicator Light
Output indicator, Overload alarm, Low oil alert

4. Parallel Operation Outlets
Connect two AIPOWER inverter generators through a parallel connection kit for a higher output

5. Grounding Nut
Ground generator to reduce risk of electric shock

6. AC 230V NEMA 5-20 Duplex Receptacles (16A)

7. AC 230V NEMA TT-30 Receptacle (30A)

8. Main Switch

9. DC Circuit Breaker (9A)

10. Low Idle Mode
Turn ON to increase fuel economy and runtime when the load is below 75% load

11.Engine START/STOP Switch (One-key Start)

12. DC 12V Outlets (8.3A)

13. AC Circuit Breaker for NEMA 5-20R (16A)

KNOW YOUR GENERATOR

ECO-MODE SWITCH

This generator is equipped with an LOW IDLE MODE Switch (Fig. 1). Engaging this switch allows the system to regulate the engine speed and automatically adjust its fuel consumption to match the required load. When the electrical load changes, the generator engine will automatically speed up and slow down as needed. This reduces fuel consumption and noise levels, while extending runtime and engine's lifespan.

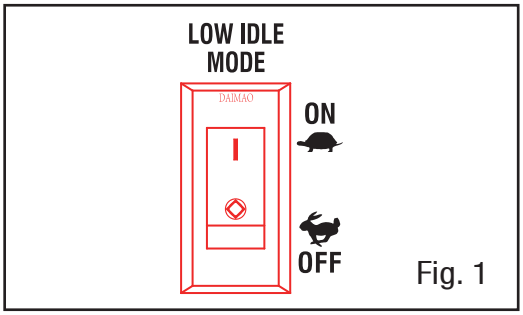


Fig. 1

Keep this switch engaged ONLY when the power load requirement is LESS THAN 75% of the rated watts. Do not engage the switch when the total load is more than 75% of the rated watts. The generator engine must run at full speed to supply power for anything over 75% of the rated watts.

PARALLEL OPERATION

The parallel operation outlets (Fig. 2) allow you to connect two AIPOWER generators to increase the total available electrical power. The AIPOWER Parallel Operation Kit can be purchased. Follow the instructions included with your parallel operation kit for proper installation and operation.

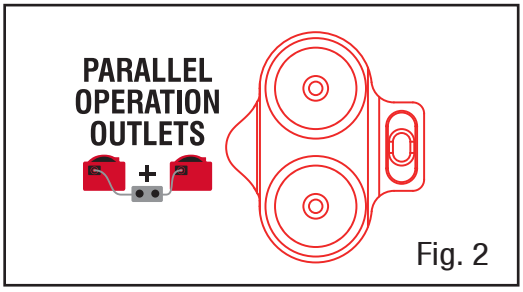


Fig. 2

CIRCUIT BREAKERS

The circuit breakers (Fig. 3) protect the individual AC and DC circuits. The 20-amp AC circuit breaker will activate when the NEMA 5-20 outlets exceed 20A. The 9-amp DC circuit breaker will activate when the DC 12V and USB outlets exceed 9A. When the circuit breaker activates, turn off and disconnect the device from its respective outlet, and press the circuit breaker to reset.

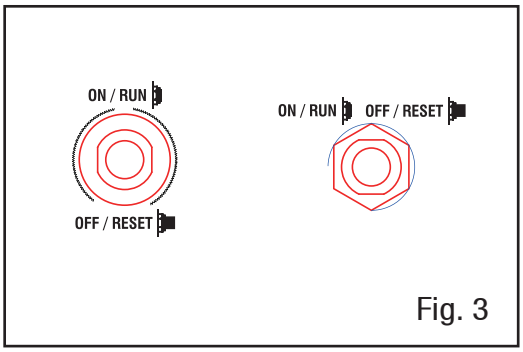


Fig. 3

CONNECTING ELECTRICAL DEVICES

CAUTION: Before connecting devices, become familiar with the markings on the control panel before connecting electrical devices. The 120V AC receptacles are for connecting electrical devices that run on 120V, 60 Hz, single phase, AC current. DO NOT connect 50Hz or 3-phase loads to the generator.

Follow the steps below to properly connect your device(s) to the generator:

1. Before connecting electrical devices, allow the generator to run for a few minutes to stabilize the speed and voltage output.

2. Select the device with the highest wattage, and make sure it is turned off. Plug the device into the generator and then turn the device on. Allow the engine to stabilize.

3. Repeat step 2 to plug in each additional device. DO NOT attempt to plug in or start multiple devices at the same time.

KNOW YOUR GENERATOR

GENERATOR CAPACITY

Make sure the generator can supply enough running (rated) and starting (max.) watts for the items you will power at the same time. Follow these simple steps.

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

Example:

Tool or Appliance	Running Watts*	Additional Starting Watts*
Refrigerator	700	1350
Portable Fan	40	120
Laptop	250	250
46 in. Flat Panel Television	190	190
Light (75 Watts)	75	75
	1255 Total Running Watts	1350 Highest Starting Watts

Total Running Watts	1255
Highest Starting Watts	+ 1350
Total Starting Watts Needed	2605

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

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

Never add more loads than the generator capacity. Take special care to consider surge loads in generator capacity as previously described.

NOTICE:
Do not overload the generator's capacity. Exceeding the generator's wattage/amperage capacity may damage the generator and/or electrical devices connected to it.

KNOW YOUR GENERATOR

The chart below serves as a reference for the estimated wattage requirements of common electrical devices. However, do not solely rely on this chart - all electronics and appliances are built differently. Always check the wattage listed on the electrical device before consulting this chart.

Tool or Appliance	Rated (Running) Watts	Surge (Starting) Watts
Hot plate	2500	0
Electric stove (each element)	1500-2800	0
Saw - circular	1500	1500
Window air conditioner	1200	1800
Saw - miter	1200	1200
Microwave	1000	0
Well water pump	1000	1000
Sump pump	800	1200
Refrigerator freezer	800	1200
Furnace blower	800	1300
Computer	800	0
Electric drill	600	900
Television	500	0
Stereo	400	0
Box fan	300	600
Security system	180	0
Common light bulb	75	0

GENERATOR PREPARATION

The following section describes the necessary steps to prepare the generator for use. Failure to perform these steps properly can damage the generator or shorten its life.

STEP 1 - ADD/CHECK OIL

The generator is shipped without oil. User must add the proper amount of oil before operating the generator for the first time. The oil capacity of the engine crankcase is **20.2 fl. oz. (0.6 L).**

To add oil, follow these steps:

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking oil.

CAUTION: Keep the generator level! Tilting the generator to assist in filling will cause oil to flow into the wrong areas of the engine and cause damage.

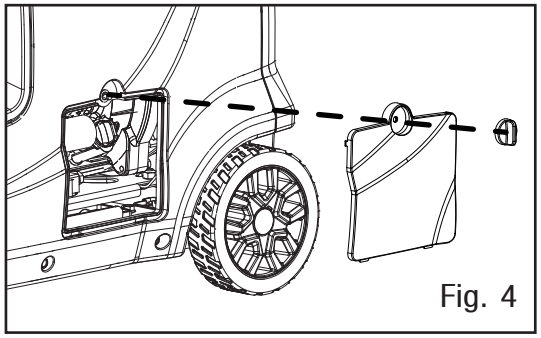


Fig. 4

2. Unscrew the oil access cover knob, and remove the cover from the side panel (Fig. 4). Unscrew the oil dipstick from the engine.

3. Using an oil funnel or appropriate dispenser, slowly add oil into the oil fill (Fig. 5), being careful not to overfill the unit. Fill the crankcase to the upper fill line so you can visually see the oil coming halfway up the oil fill threads (Fig. 6).

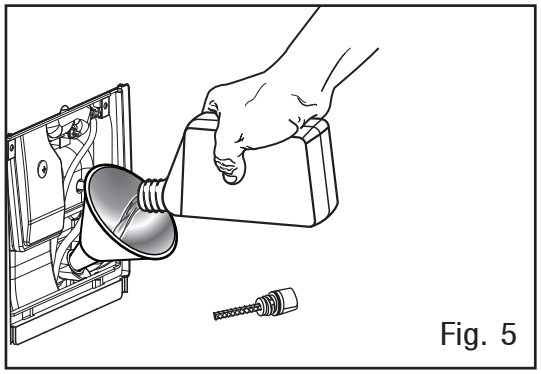
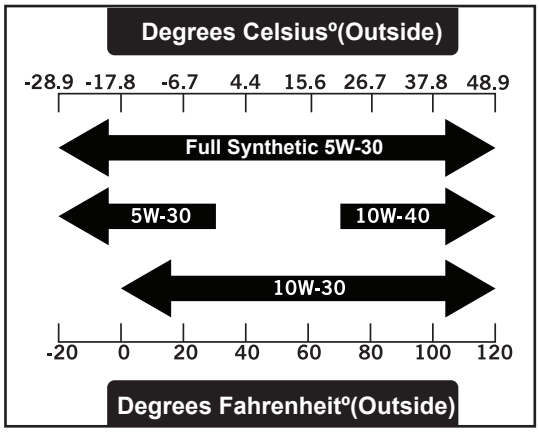


Fig. 5

4. Reinstall the oil dipstick and firmly tighten it. Wipe clean any spilled oil.

5. Reinstall the oil access cover. Turn the oil access cover knob to the locked position to secure the cover in place.

NOTE: Used engine oil should be disposed of at an approved disposal site. See local retailer for more information.



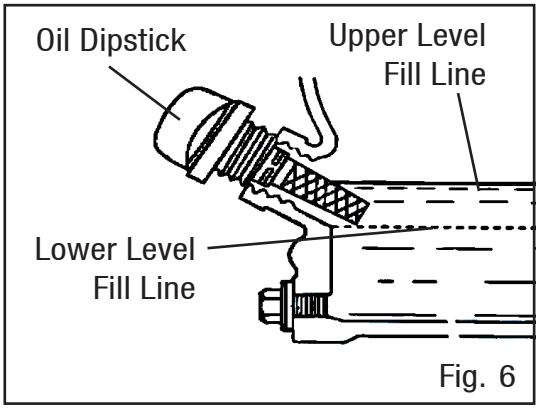


Fig. 6

GENERATOR PREPARATION

For subsequent operation, the oil level should be checked before each use, or after every 8 hours of operation. The generator is equipped with a low-oil sensor and will NOT start without a sufficient amount of oil.

To check oil level (before every subsequent start):

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking oil.

2. Open the oil access cover. Remove and wipe the dipstick with a clean rag.

3. Insert the dipstick into the oil fill without screwing it in. Remove the dipstick to check the oil mark (Fig. 7).

If the oil mark covers less than one half of the dipstick, slowly add oil until the oil mark reaches to the top of the dipstick (or when you can see the oil coming halfway up the oil fill threads).

4. Wipe clean any oil leaks and firmly tighten the dipstick. Reinstall the oil access cover.

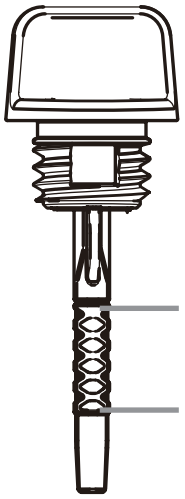


Fig. 7

STEP 2 - ADD/CHECK FUEL

⚠ **GASOLINE WARNING:** Keep generator away from open flame. This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

- Do not operate near open flame, heat, or any other ignition source.
- Do not smoke near the generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before re moving the fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Fuel may expand during operation. Do not fill to the top of the tank. Allow for expansion.
- Always check for spilled fuel before operating. Clean up any spilled fuel before starting.
- Empty fuel tank before storing or transporting the generator to prevent spilling.

Use ONLY fresh (within 30 days from purchase), lead-free gasoline with a **minimum of 87 octane rating.** The generator performs best with ethanol-free gasoline. DO NOT use gasoline with over 10% ethanol. The capacity of the fuel tank is **2.6 US gallons (10.0 L)** DO NOT mix oil with gasoline.

NOTICE:

- Never use an oil/gasoline mixture.
- Never use old gasoline.
- Avoid getting dirt or water into the fuel tank.
- Gasoline can age in the tank and make starting difficult. Never store generator for more than 2 months with fuel in the tank.
- Keep gasoline away from sparks, open flames, pilot lights, heat and other sources of ignition.

To add gasoline, follow these steps:

1. Make sure the generator is shut OFF and on a level surface. Unscrew the fuel cap (Fig. 8) and set it aside. The fuel cap may be tight and hard to unscrew.

2. Slowly add unleaded gasoline to the fuel tank. Be careful not to overfill.

NOTE: Do not fill the fuel tank to the very top. If you do so, gasoline will expand and spill during use, even with the fuel cap in place.

3. Reinstall fuel cap and wipe clean any spilled gasoline with a dry cloth.

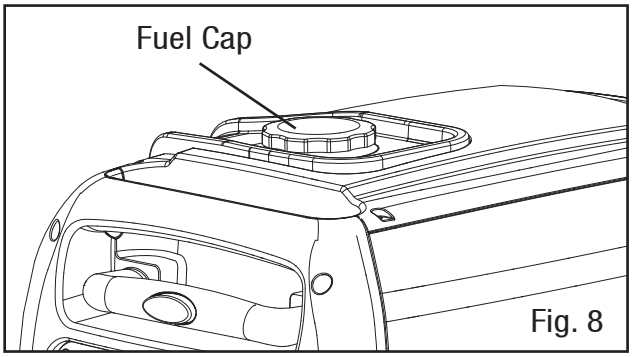


Fig. 8

To check fuel level:

During operation, the fuel level will be displayed on the DATA CENTER of the panel, or check the fuel gauge. If the fuel level is low, refill the fuel tank before starting your generator for the next time.

STEP 3 - CONNECT THE BATTERY

⚠ **WARNING:** BATTERY GIVES OFF EXPLOSIVE HYDROGEN GAS.

- Keep battery away from sparks, cigarettes, or other sources of flame.
- Do not connect or disconnect battery while generator is running.
- Service or use battery only in well ventilated areas.

⚠ **WARNING:** Battery contains sulfuric acid. Battery acid is poisonous. Tilting the generator with the battery installed can cause battery acid to spill.

- Wear protective clothing and eye wear when servicing battery.
- Keep out of reach of children.
- If battery acid gets on your skin, wash with water immediately.
- If battery acid gets in your eyes, flush with water for at least 15 minutes and call a doctor immediately.

If battery acid is swallowed, call a doctor immediately. Drink a large amount of water or milk. Then drink milk of magnesia or vegetable oil.

The generator is shipped with the lithium-ion battery's negative (-) terminal disconnected to maximize safety. To start the generator using electric start, the battery must be connected.

To connect the battery:

1. Turn the battery cover knob to the unlocked position, and remove the access cover from the back panel.

2. Loosen the rubber belts and pull out the battery.

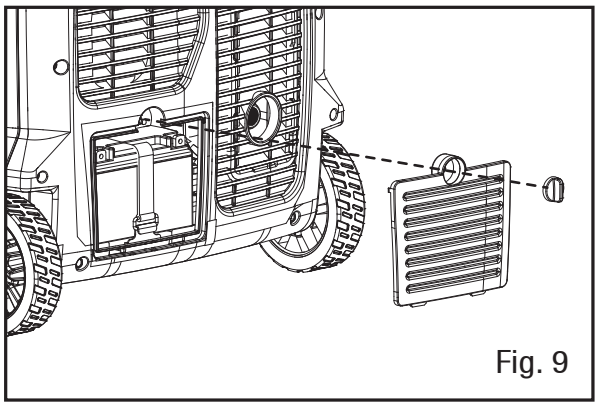


Fig. 9

3. Remove the cover from the battery's negative (-) terminal and connect the black cable to the battery's negative (-) terminal as shown in Fig. 10.

The generator's positive pole has already been connected. Double check to confirm that the connection is secure.

4. Return the battery into position and use the rubber belts to fasten the battery.

5. Reinstall and secure the battery access cover.

NOTICE: If you do not plan to use the generator for a long period of time, we recommend to DISCONNECT the negative battery cable from the battery to protect the battery from losing charge. After disconnecting the cable, cover the free end with an insulator such as electrical tape. You may also choose to use a trickle charger (not included) to maintain battery charge.

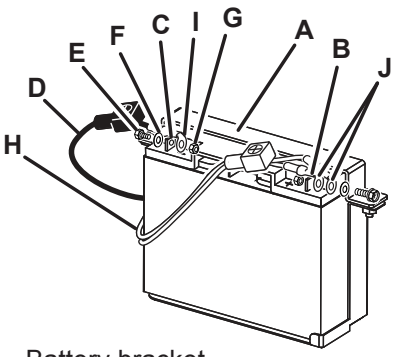


Fig. 10

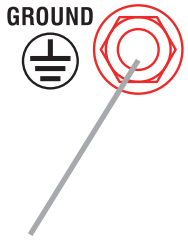
A - Battery bracket
B - Positive (+) terminal
C - Negative (–) terminal
D - Black wire (–)
E - Screw
F - Washer
G - Nut
H - Red wires (+)
I - Negative terminal connection
J - Positive terminal connections

STEP 4 - GROUND THE GENERATOR

To reduce the risk of electric shock and to maximize safety, the generator should be properly grounded.

Ground the generator by tightening the grounding nut on the front control panel (Fig. 11) against a grounding wire. A generally acceptable grounding wire is a **No. 12 AWG (American Wire Gauge) stranded copper wire.**

This grounding wire should be connected at the other end to a copper, brass, or steel grounding rod that is driven into the earth. Wire and grounding rods are not included with the generator.



Grounding Nut

Fig. 11

NOTE: Grounding codes can vary by location. Contact a local electrician to check the area codes.

⚠ **WARNING:** Failure to properly ground the generator increases your risk of electric shock.

HIGH ALTITUDE OPERATION ABOVE 3000 FEET

The fuel system on this generator may be affected by operation at high altitudes. Proper operation can be ensured by installing an altitude kit at altitudes higher than 3000 feet above sea level. At elevations above 8000 feet, the engine may experience a decrease in performance, even with the proper altitude kit. Operating this generator without said kit may increase the engine's emissions and decrease both fuel economy and performance. Please contact your authorized service center for important information regarding these modifications.

STARTING THE GENERATOR

Before starting the generator, make sure you have read and performed the steps in the “Generator Preparation” section of this manual. If you are unsure about how to perform any of the steps in this manual Please contact your authorized service center

⚠ DANGER: CARBON MONOXIDE

Using a generator indoors **CAN KILL YOU IN MINUTES.** Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a generator inside homes, garages, crawl spaces, 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 OUTSIDE and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. ALWAYS use a battery-powered or battery-backup CO 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 may have carbon monoxide poisoning.

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

⚠ **WARNING:** DO NOT operate generator near open flame or flammable materials This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn’t directly in contact with gasoline. Do not smoke near the generator.

⚠ **WARNING:** This generator produces powerful voltage, which can result in electrocution.

⚠ **WARNING:** Do not use in rainy or wet conditions. Do not touch bare wires or receptacles (outlets). Do not allow children or non-qualified persons to operate.

⚠ **WARNING:** Generator should ONLY be connected to electrical devices, either directly or with an extension cord. NEVER CONNECT TO A BUILDING ELECTRICAL SYSTEM without a qualified electrician and connected to a transfer switch as a separately derived system. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

To maximize safety, ALWAYS ground the generator before using it (see the “GROUND THE GENERATOR” section on page 14).

Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. GFCIs are available in-line with some extension cords.

CAUTION: Disconnect all electrical loads from the generator before attempting to start.

STARTING YOUR GENERATOR

Before starting the generator:

1. Verify that the generator is outside on a dry, level surface. Allow at least two feet of clearance on all sides of the generator.

2. To maximize safety, check that the generator is properly grounded (see “GROUND THE GENERATOR”).

3. Check there is sufficient level of oil in the crankcase. Add oil if necessary (see “ADD/CHECK OIL”).

4. Make sure there is sufficient level of gasoline in the fuel tank. Add fuel if necessary (see “ADD/CHECK FUEL”).

5. Make sure all electrical devices are unplugged from the generator during ignition. Otherwise it will be difficult for the engine to start.

To start the generator, perform the following steps:

1. Turn the LOW IDLE MODE switch (Fig. 12) to “OFF”.

2. Turn the FUEL switch (Fig. 13) to the “ON” position.

NOTE: Skip this if starting the generator with a warm engine.

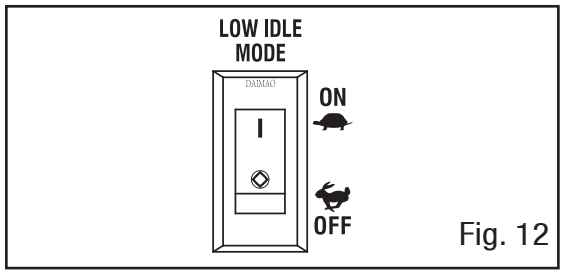


Fig. 12

Electric Start:

4. Turn and hold the ENGINE START/STOP switch for 5 seconds until the engine start (Fig. 14).

NOTE: If the engine does not start, release the switch and try again. Keeping the switch in the START position too long can damage the starter.

Manual Start:

4.1 Place one hand on the generator to hold it in place, and pull on the recoil starter handle slowly until a slight resistance is felt (Fig. 14). Then pull quickly to start the engine. Return cord gently into the machine. Never allow the cord to snap back.

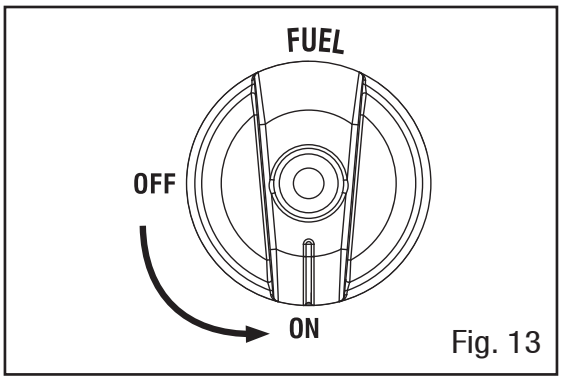


Fig. 13

NOTE: If you have repeated failed attempts to start the engine, please consult the troubleshooting guide.

5. When engine starts, push the CHOKE LEVER in to the “RUN” position (Fig. 13).

6. Allow the generator to run for several minutes before attempting to connect any electrical devices. This allows the generator to stabilize its speed and temperature.

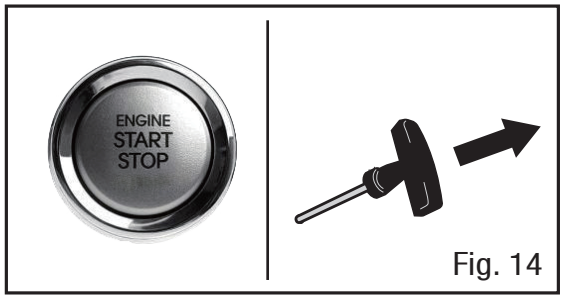


Fig. 14

SHUTTING OFF THE GENERATOR

⚠ **CAUTION:** Unplugging running devices can cause damage to the generator. Never stop the engine with electrical devices connected and running.

1. Turn off all electrical devices prior to unplugging them from the generator. Unplugging running devices can cause damage to the generator.

2. Allow generator to run at no load for a few minutes to stabilize internal temperatures.

3. Turn the ENGINE switch to the “OFF” position (Fig. 15).

4. Turn the FUEL switch to the “ON” position (Fig. 15).

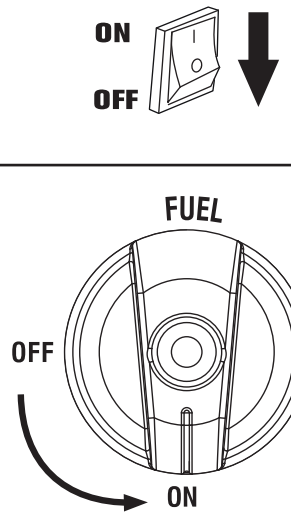


Fig. 15

⚠ **WARNING:** Allow the generator to cool down before touching areas that become hot during use.

CAUTION: Allowing gasoline to sit in the fuel tank for long periods of time can make it difficult to start the generator in the future. NEVER store the generator for extended periods of time (over 2 months) with fuel in the fuel tank. Refer to “STORING THE GENERATOR.”

MAINTENANCE

RECOMMENDED MAINTENANCE SCHEDULE

Proper routine maintenance of the generator will help prolong the life of the machine. Please perform maintenance checks and operations according to the Maintenance Schedule. If there are any questions about the maintenance procedures listed in this manual, Please contact your authorized service center.

⚠ **WARNING:** Never perform maintenance operations while the generator is running. Before maintaining or servicing the generator, turn OFF the generator, disconnect all devices and allow the generator to cool down.

Recommended Maintenance Schedule		Each 8 hours or daily	Every 25 hours	Every 3 months or 50 hours	Every 6 months or 100 hours	Before Storage	As necessary
Engine Oil	Check level	x					
	Replace		x*			x	x
Air Filter	Check			x*			
	Clean			x*			
Spark Plug	Check/clean/ regap				x		
	Change					x	x
Fuel Tank	Check level	x					
	Drain					x	x
Carburetor (Auto Shutoff)	Drain					x	x
Carburetor (Manual Shutoff)		x				x	
Spark Arrestor	Check/Clean				x		
Battery	Disconnect					x	

* Clean/change more often under dusty conditions or operating under heavy load.

IMPORTANT GENERATOR MAINTENANCE TIPS:

- Drain your carburetor after each use and before storage to prevent it from clogging.
- Do not store the generator with fuel inside the tank for more than 2 months - the fuel will go bad.
- Run the generator for at least 20 minutes every month to charge the battery and maximize the generator's lifespan.

NOTE: Failure to properly maintain the generator will void the warranty.

AIR FILTER MAINTENANCE

Check every 50 hours of operation (refer to Recommended Maintenance Schedule).
Routine maintenance of the air filter helps maintain proper airflow to the carburetor. Occasionally check that the air cleaner is free of excessive dirt.

To inspect and clean the air filter:

1. Unscrew the maintenance cover knob, and remove the cover from the side panel.

2. Take the cover off of the air cleaner (Fig. 17). Remove the sponge-like air filter element from the casing. Wipe excessive oil and any dirt from inside of the air filter casing.

3. Check and clean the foam air filter element. Good elements can be washed in soapy water. Dry the element in clean cloth (do not twist it). Add a few drops of engine oil to the air filter element and spread it evenly.

If the air filter element has been damaged, replace it with a new one. Please contact your authorized service center.

4. Reinstall the air filter element, air filter cover and maintenance cover.

⚠ **WARNING:** Running the engine with a dirty, damaged or missing air filter element can result in danger to the operator and cause the engine to wear out prematurely.

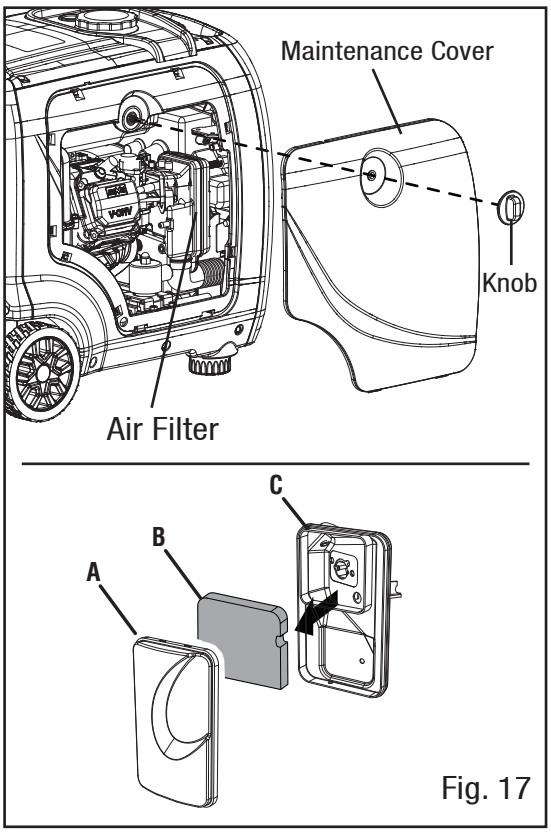


Fig. 17

SPARK PLUG MAINTENANCE

Refer to Recommended Maintenance Schedule for maintaining the spark plug.
The spark plug must be properly gapped and free of deposits in order to ensure proper engine operation. If the engine is hot, allow it to cool before servicing the spark plug.

To inspect or replace the spark plug:

1. Unscrew the maintenance cover knob, and remove the cover from the side panel (Fig. 17).

2. Remove the spark plug cap (Fig. 18).

3. Use the included spark plug wrench to unscrew and then carefully remove the spark plug from the engine.
TIP: There is limited space for the wrench to turn. Use both rows of holes in the spark plug wrench to gain leverage to loosen the plug.

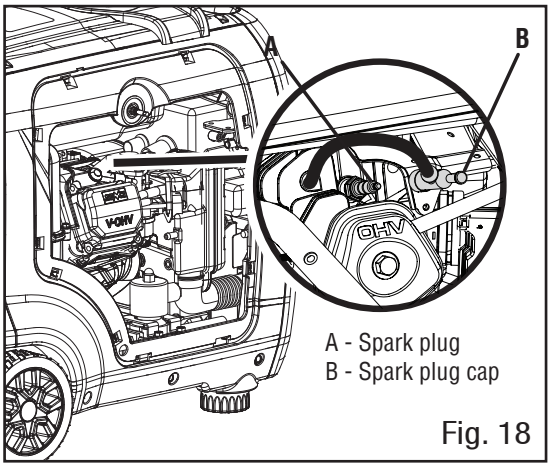


Fig. 18

4. Visually inspect the spark plug. If it is cracked or chipped, or if the electrodes are worn or burned, discard it and replace with a new spark plug.

5. If re-using the spark plug, use a wire brush to clean any dirt from around the spark plug base, then re-gap the spark plug.

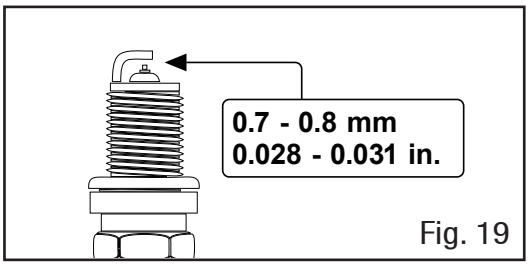


Fig. 19

6. Measure the plug gap with a spark plug gap gauge. The gap should be 0.7 - 0.8 mm (0.028 - 0.031 in) (Fig. 19). Carefully adjust the gap if necessary.

7. Screw the spark plug back into the spark plug hole using the spark plug wrench. Do not over-tighten spark plug. Recommended tightening of spark plug is ½ to ¾ of a turn (15 ft-lb torque/20.33 Nm) after spark plug gasket contacts spark plug hole.

8. Reinstall the spark plug cap and maintenance cover.

SPARK ARRESTOR MAINTENANCE

Inspect and clean the spark arrestor every 100 hours of operation.
The spark arrester is located outside the muffler, which gets very hot during operation. Allow the engine to cool completely before servicing the spark arrester. To inspect and clean the spark arrester:

1. Remove the two screws, and remove the tail pipe and spark arrester.

2. Use a brush to remove carbon deposits from the spark arrester screen. Be careful to avoid damaging the screen.

The spark arrester must be free of breaks and tears. Replace the spark arrester if it is damaged.

3.Install the spark arrester in the reverse order of removal.

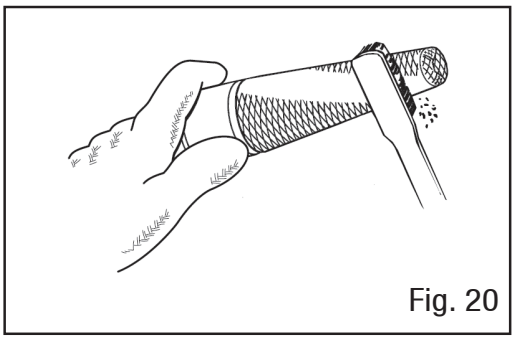


Fig. 20

DRAINING THE FUEL TANK / CARBURETOR

To help prevent gum deposits in the fuel system, drain the fuel from the tank and carburetor before storing.

1. With the help of another person, place the generator on an elevated platform such as a table or desk.

2. Unscrew the maintenance cover knob, and remove the cover from the side panel.

To draining fuel tank:
3. Make sure that the fuel switch to turned to “ON”.

To draining carburetor:
3. Make sure that the fuel switch to turned to “OFF”, at this position, the fuel valve is turned OFF so that only the fuel left inside the carburetor will be drained out.

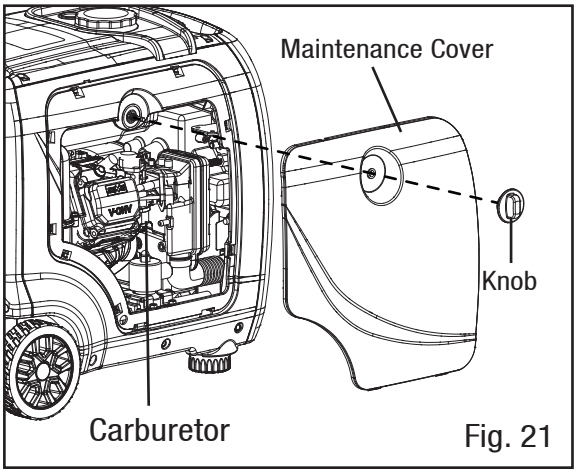


Fig. 21

4. The carburetor can be accessed between the engine and the air filter (Fig. 21). Locate the transparent tube from the carburetor (Fig. 22) that extends down through the base plate of the generator.

5. Prepare an approved gasoline-storage container and direct the end of the drain tube into the container.

6. Open up the carburetor drain screw (Fig. 22) with a flat-head screwdriver (not included) and drain out any gasoline that has built up inside the carburetor through the drain tube into the approved gasoline-storage container.

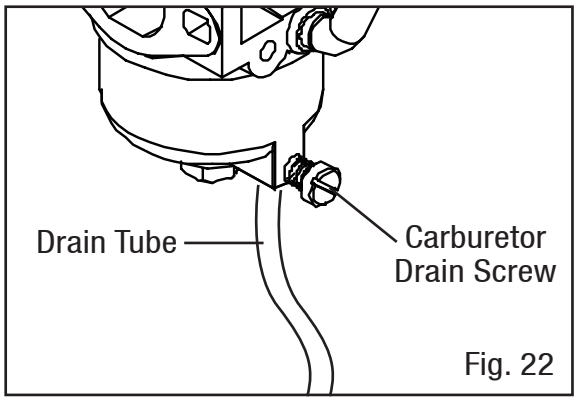


Fig. 22

7. Once the fuel has drained, tighten the drain screw with the screwdriver.

NOTE: Make sure to drain your carburetor before storing the generator for long periods of time.

8. Reinstall the service panel.

DRAINING/CHANGING OIL

Change the oil according to the Recommended Maintenance Schedule.
Change the oil MORE OFTEN if operating under heavy load or high ambient temperatures. It is also necessary to drain the oil from the crankcase if it has become contaminated with water or dirt. Changing the oil when the engine is warm allows for complete drainage.

To change engine oil:
1. With the help of another person, place the generator on an elevated platform such as table or workbench.

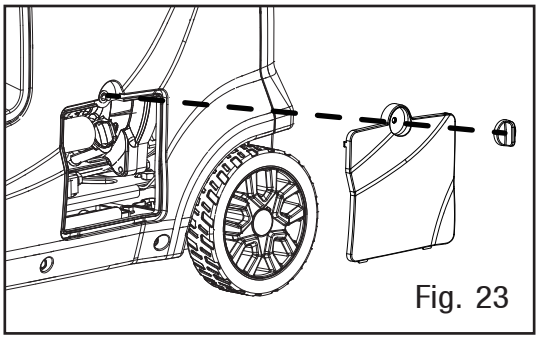


Fig. 23

NOTE: To avoid possible oil spills from the carburetor bowl, drain the carburetor before draining oil.

2. Unscrew the oil access cover knob, and remove the cover from the side panel (Fig. 23).

3. Place a suitable container underneath the generator to catch the used oil.

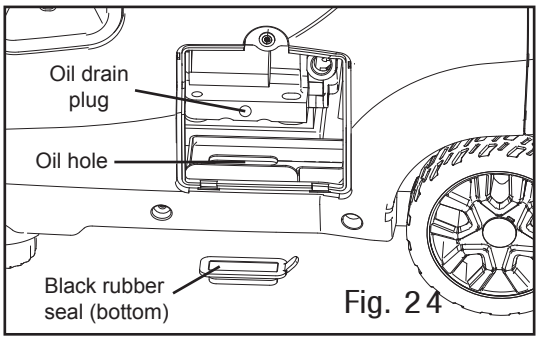


Fig. 24

4. Reach under the generator and remove the black rubber seal located below the oil drain plug.

5. Remove the oil fill cap/dipstick.

6. Use a wrench ro remove the oil drain plug and allow the oil to drain completely.

7. Reinstall the oil drain plug after the oil has drained.

8. Reinstall the black rubber seal.

NOTE: Never dispose of used engine oil in the trash or down a drain. Please call a local recycling center or auto garage to arrange proper oil disposal.

9. With the generator in a level position and refill with engine oil following the instructions in the Checking/Adding engine oil section previously in this manual.

10. Reinstall the oil dipstick and tighten it securely. Wipe clean any oil spillage and reinstall the oil access cover.

TRANSPORTATION & STORAGE

TRANSPORTING THE GENERATOR

To prevent fuel spillage when transporting, be sure to perform the following:

1. Tighten the fuel cap and turn the vacuum relief valve to “OFF”.
2. Set the engine switch to “OFF”.
3. Drain the fuel tank if possible.
4. Keep the generator upright. Never place the generator on its side or upside down - doing so will make it difficult to start.

⚠ **WARNING:** Avoid direct sunlight inside a vehicle. If the generator is left in an enclosed vehicle for many hours, the high temperature could cause the fuel to vaporize and result in a possible explosion.

STORING THE GENERATOR

Shut off the generator and allow the unit to cool to room temperature before storing it. NEVER place any type of storage cover on the generator while it is still hot. Do not obstruct any ventilation openings.

Follow the procedures below for properly storing your generator. We highly recommend running your generator once a month for 20 to 30 minutes. Plug in a small load in to ensure there is proper power output.

For Short Periods (30 to 60 Days):	**For Extended Periods (Over 60 Days):**
• Drain the carburetor. • Disconnect the negative lead from the battery. • **Add fuel stabilizer:** Follow the suggested portions and instructions of your preferred stabilizer. Run the engine for 15 to 20 minutes, allowing the fuel stabilizer to mix with the gasoline and circulate through the carburetor, and then top off with fuel. Filling the fuel tank full reduces the amount of air in the tank and helps fight deterioration of fuel.	• Disconnect the negative lead from the battery. • Drain the fuel tank and carburetor (see “DRAINING THE FUEL TANK”). NEVER store generator with fuel in the tank for more than two months. • Change the engine oil (see “CHANGING OIL”).

⚠ **WARNING:** Store the generator upright in a cool and dry location, away from sources of heat, open flames, sparks or pilot lights.

PRODUCT DISPOSAL

Do not dispose of used generator or parts with your household waste. This product contains electrical or electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal to minimize its environmental impact.

Do not dispose of used oil or fuel in the trash or down a drain. Please contact your local recycling center or auto garage to arrange proper oil/fuel disposal.

TROUBLESHOOTING GUIDE

ENGINE WILL NOT START

Possible Cause	Solution
Battery not charged.	Charge battery.
Engine switch is in the OFF position.	Turn engine switch to the ON position.
No fuel.	Fill fuel tank.
Stale gasoline or water in gasoline.	Drain entire system and refill with fresh fuel.
Engine oil level is low.	Engine is equipped with Low Oil Shutoff. If engine oil level is low, it must be filled before unit will start. Check engine oil level and fill, if necessary.
Fuel-switch is in OFF position.	Turn fuel-switch to the ON position.
Spark plug faulty, fouled, or improperly gapped.	Replace spark plug.
Engine stored without treating or draining gasoline, or refueled with bad gasoline.	Drain fuel. Refuel with fresh gasoline.
Dirty fuel filter.	Replace fuel filter or contact a qualified service center.

ENGINE LACKS POWER.

Possible Cause	Solution
Dirty air filter.	Check air filter element. Clean or replace as needed.
Engine stored without treating or draining gasoline, or refueled with bad gasoline.	Drain fuel. Refuel with fresh gasoline. If problem continues, contact a qualified service center.

AC RECEPTACLE DOES NOT WORK.

Possible Cause	Solution
OUTPUT indicator is OFF, and OVERLOAD indicator is ON.	Check AC load. Stop and restart the engine. Check the cooling air inlet. Stop and restart the engine.
AC Circuit protector(s) tripped.	Check AC load and reset AC circuit protector(s)
GFCI system activated.	Reset the GFCI.
Item plugged in is defective.	Try a different item.

If problem persists after trying the above solutions, contact your nearest authorized service center for assistance.

LIMITED WARRANTY

KEEP YOUR RECEIPT. Proof of purchase will be required to substantiate any warranty claim.
WHAT IS COVERED: A-iPower Corp. warrants to the original retail purchaser in the United States of America, or Canada that this product is free of defects in material and workmanship and agrees, at A-iPower Corp's direction, to either repair, provide replacement parts for, or replace (without charge for parts or labor) any product or component with a material defect for a period of 2 years from the date of purchase, except as limited below. Warranty service and replacement parts are warranted only for the duration of the warranty on the original product. All replaced parts or products become a property of A-iPower Corp.
This product is also covered by an Emissions Control System Warranty which is separate from and in addition to the warranty.

Warranty

A-iPower Limited Warranty – 2 Years Residential and 1 Year Commercial
2 year Residential warranty applies as follow: 1st year Parts & Labor / 2nd year Parts ONLY

Thank you for choosing A-iPower products. To ensure proper registration of your product warranty, please submit your warranty registration along with proof of purchase within 10 days of the date of purchase, this can be done by

a) Completing the Warranty Registration form at the back of this manual and mailing to:
   A-IPOWER CORP
   10887 COMMERCE WAY UNIT A
   FONTANA CA 92337 USA
b) Visit us at www.a-ipower.com and click the product registration icon

Warranty Term

A-iPower will provide warranty for any of its products purchased through any authorized A-iPower dealer in North America to the original purchaser and will be warranted against defects in material or workmanship for a period of two (2) years for Consumer use from date of purchase, subject to exclusions noted herein. Commercial and Rental applications are warranted for a period of one (1) year from date of purchase.

"Consumer Use" – residential household use by a retail consumer

"Commercial Use" – all other use – commercial , business, industrial, or rental purpose

How to Obtain Warranty Service

Please call our Customer Service Dept. 855-888-3598 or e-mail to support@a-ipower.com
Please have necessary information available – Model Number, Serial Number, Proof of Purchase

DO NOT RETURN THE PRODUCT TO THE PLACE OF PURCHASE

A-iPower Customer Service Dept will assist with all product related questions and will help troubleshoot issues and will send any replacement parts as necessary while product is within the warranty period at no charge. If the issue cannot be resolved then A-iPower Customer Service Dept at its discretion determine and authorize diagnosis and repair through one of its authorized Service Centers. A-iPower Corp at its discretion may choose to provide replace of part, component, or product.

Service or replacement of parts at any unauthorized repair facility without prior authorization will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following

Regular wear and maintenance – this warranty will not cover repair when normal use has exhausted the lifetime of a part(s) or engine

Installation and Maintenance - this warranty does not cover improper or unauthorized assembly, alteration, modification or any other damage resulting from misuse or neglect.

Normal maintenance parts - this warranty does not cover spark plugs, air filters, adjustments, or other related service due to obstructions and other build ups resulting from improper maintenance

Additional exclusions – this warranty does not cover wearable parts such as filers, spark plugs , o-rings, batteries etc. It does not cover any cosmetic defects such as scratches to paint, decals etc. It does not cover any damage resulting from use of non-original manufacturer's parts, use of aftermarket parts. It does not cover any failures due to acts of God and other force majeure events beyond the control of the manufacturer.

Warranty limits and Implications and Consequential Damages

A-iPower is not obligated to cover any loss of time, use of product, freight cost, or any other incidental or consequential claim from the use of this product. This warranty is in Lieu of all other warranties, express or implied

This warranty gives you specific legal rights which vary from state to state.

MERCHANDISE RETURN GUIDELINES

- All products must be returned in original or equivalent packaging. Improperly packaged returns will not be accepted.

- Must have adequate packing for transportation

- Federal Law requires that all machines that utilize gasoline, oil, or other flammable liquids must be drained Completely & Thoroughly prior to shipment.

- Gas caps and oil plugs must be left off for 24 hours prior to shipping. Please note: liability for this violation of the law resides with the sender of the shipment.

- Return to address provided in return authorization, using the parcel service required. Units returned without authorization will not be honored.

- *Please Note: Refunds will not be granted for items that have been modified or damaged by abuse or usage not in accordance with product instructions.*

YOUR POWER SOLUTION!

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32082-01518-00