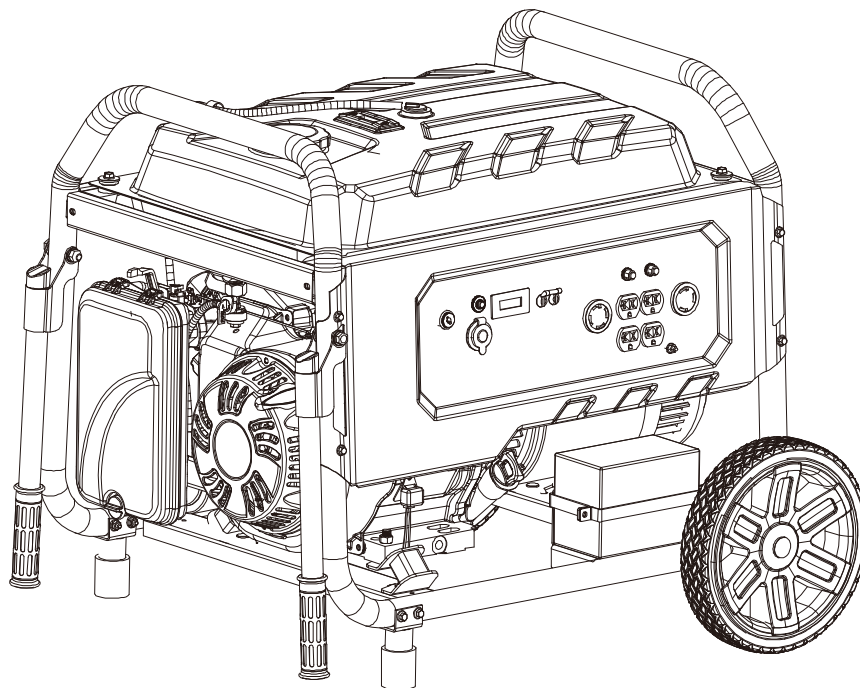


# POWER SMART<sup>®</sup>

## INSTRUCTION MANUAL

### 9625W Generator

Model # DB5080



Have product questions or need technical support? Please scan the QR code to enter our official website and contact us!

Website: [www.powersmartusa.com](http://www.powersmartusa.com)

Toll free: 1-800-791-9458 Mon-Fri 9-5 EST

Email: [support@amerisuninc.com](mailto:support@amerisuninc.com) / [support@powersmartusa.com](mailto:support@powersmartusa.com)



Website



# CONTENTS

TECHNICAL DATA .....	3
INTRODUCTION .....	4
SAFETY INFORMATION .....	4
GENERAL SAFETY RULES .....	5
SYMBOLS .....	7
KNOWING YOUR GENERATOR .....	8
GENERATOR PREPARATION .....	9
GENERATOR OPERATION .....	12
MAINTENANCE .....	15
TROUBLESHOOTING .....	19
WIRING DIAGRAM .....	20
EXPLODED VIEW & PARTS LIST .....	21
WARRANTY .....	27

## TECHNICAL DATA

9625W Generator	Model#DB5080
Engine type:	4 stroke, OHV, single cylinder with forced air-cooling system
Start type:	Recoil/Electric
Phase:	Single
Starting wattage:	9625W
Rated wattage:	8000W
Max horsepower:	19.5 MPH
Rated voltage:	120V/240V
DC output voltage:	12V
Rated AC Amperage	66.6A/33.3A
Frequency:	60Hz
Displacement:	500 cc
Spark plug gap:	0.6-0.8mm (0.024-0.031 in.)
Fuel tank capacity:	27.0 L
Oil capacity:	40.58 fl.oz
Runtime at 50% load:	10.5 hours
Noise rating:	76 dB at 23 feet
Package dimensions(L x W x H):	28.4x23.5x24.1 inch
Weight:	224 lb.

## **INTRODUCTION**

Thank You for Purchasing a PowerSmart® Product. This manual provides information regarding the safe operation and maintenance of this product. Every effort has been made to ensure the accuracy of the information in this manual. PowerSmart® reserves the right to change this product and specifications at any time without prior notice.



Please keep this manual available to all users during the entire life of the generator.

This manual contains special messages to bring attention to potential safety concerns, generator damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

### **QUESTIONS? PROBLEMS?**

Please contact our Customer Service Dept. with any questions and/or comments, either by Email: [support@amerisuninc.com](mailto:support@amerisuninc.com)/[support@powersmartusa.com](mailto:support@powersmartusa.com), or Toll Free at (800)791-9458. We are available Mon-Fri 9am-5pm EST to help solve any issues that you might encounter.

### **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).

## **SAFETY INFORMATION**

Before operating this generator, read and observe all warnings, cautions, and instructions on the generator and in this Owner's Manual.

**NOTE:** The following safety information is not meant to cover all possible conditions and situations that may occur. Read the entire Owner's Manual for safety and operating instructions. Failure to follow instructions and safety information could result in serious injury or death.

This safety alert symbol is used to identify safety information about hazards that can result in personal injury.



A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

**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 engine or generator.

## **GENERAL SAFETY RULES**

**SAVE THESE INSTRUCTIONS-**This manual contains important instructions for the PowerSmart® 9625W generator that should be followed during installation and maintenance of the generator.

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. Have damaged items repaired or replaced as necessary. Do not use plugs or cords that show signs of damage such as broken or cracked insulation.

For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing of the components, possibly leading to a generator failure.



**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 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.

### **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, crawlspace, or other partly 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 on 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:** 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 operate near open flame.
- 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. Allow for expansion.
- Always check for spilled fuel before operating.
- Empty fuel tank before storing or transporting the generator.



**WARNING:** This generator produces powerful voltage, which can result in electrocution. **ALWAYS** ground the generator before using it (see the "Generating set ground" portion of the

“GENERATOR PREPARATION” section).

Generator should only be plugged into electrical devices, either directly or with an extension cord.

**NEVER** connect to a building electrical system without a qualified electrician. 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.

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



**WARNING:** This generator produces heat when running. Temperatures near exhaust can exceed 150°F (65°C).

- Do not touch hot surfaces. Pay attention to warning labels on the generator identifying hot parts of the machine.
- Allow generator to cool down after use before touching engine or areas of the generator that become hot during use.













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

- Only use generator for its intended purposes.
- Operate only on dry, level surfaces.
- Allow generator to run for several minutes before connecting electrical devices.
- Shut off and disconnect any malfunctioning devices from generator.
- Do not exceed the wattage capacity of the generator by plugging in more electrical devices than the unit can handle.
- Do not turn on electrical devices until after they are connected to the generator.
- Turn off all connected electrical devices before stopping the generator.
- Turn the engine switch to “OFF” position when the engine is not running.

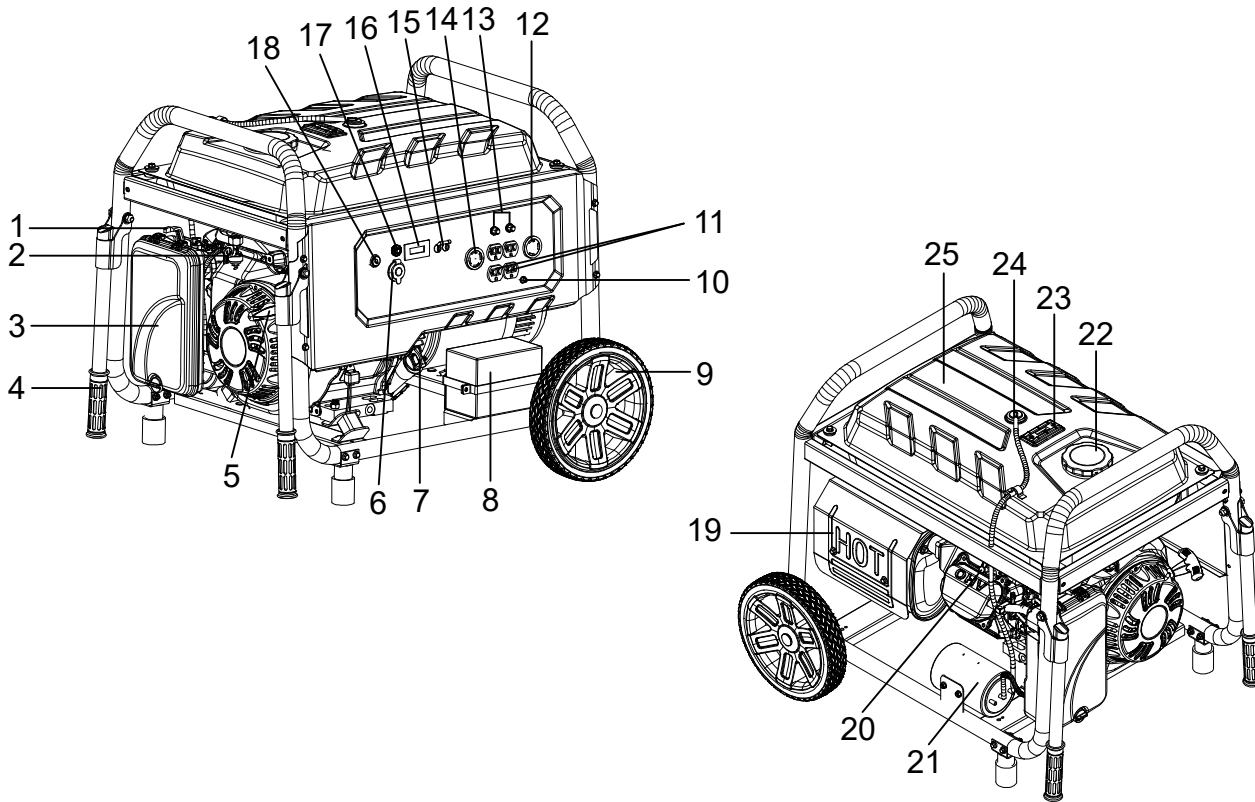
# SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
MIN	Minutes	Time
	Safety Alert	Precautions that involve your safety.
	Read the user's manual	To reduce the risk of injury, user must read and understand user's manual before using this product.
	Carbon monoxide hazard	Never operate the generator in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the generator outside and away from windows, doors and vents.
	Ground	Consult with local electrician to determine grounding requirements before operation.
	Clearance	Keep all objects at least 5 feet (1.5m) from generator. Heat from the muffler and exhaust gas can ignite combustible objects.
	Electric shock alert	Beware of electric shock hazard.
	Fire/Explosion	Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death. Keep generator at least 5 feet (1.5m) from all objects to prevent combustion.
	Wet conditions alert	Do not expose to rain or use in damp locations.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.
	Open Flame Alert	Fuel and its vapors are extremely flammable and explosive. Keep fuel away from smoking, open flames, sparks, pilot lights, heat, and other ignition sources.

# KNOWING YOUR GENERATOR

Use the illustrations below to become familiar with the locations and functions of the various components and controls of this generator.



- |                       |                                |                  |
|-----------------------|--------------------------------|------------------|
| 1 Choke lever         | 10 Ground terminal             | 19 Muffler       |
| 2 Fuel valve          | 11 AC 120V 20A receptacle      | 20 Spark plug    |
| 3 Air filter          | 12 AC 120V 30A receptacle      | 21 Carbon tank   |
| 4 Handles             | 13 AC breaker                  | 22 Fuel tank cap |
| 5 Recoil starter grip | 14 AC 120V/240V 30A receptacle | 23 Fuel meter    |
| 6 DC socket           | 15 Main breaker                | 24 One-way valve |
| 7 Oil dipstick        | 16 V.F.T meter                 | 25 Fuel tank     |
| 8 Battery             | 17 DC breaker                  |                  |
| 9 Wheels              | 18 Engine switch               |                  |

## Unpacking

Unpack the power tool and all its parts, and compare against the list below. Do not discard the carton or any packaging materials. Please call 1-800-791-9458 or E-mail us at [support@amerisuninc.com](mailto:support@amerisuninc.com) / [support@powersmartusa.com](mailto:support@powersmartusa.com) if any parts are damaged or missing.

**Including: Generator/Wheel\*2/gasket\*2/wheel axle\*2 with pin\*2/support leg\*2/ M6 screws\*4 with hex nuts\*4/support handle\*2/M8 screw\*2 with hex nut\*2/User Manual**



# GENERATOR PREPARATION

The following section describes steps necessary to prepare the generator for use. If after reading this section, you are unsure about how to perform any of the steps please call (800) 791-9458 Mon-Fri 9-5 EST for customer service. Failure to perform these steps properly can damage the generator or shorten its lifespan.

**Unpack the generator and all its parts. Do not discard the carton or any packaging until the generator is completely assembled.**



**WARNING:** If any parts are damaged or missing, do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.



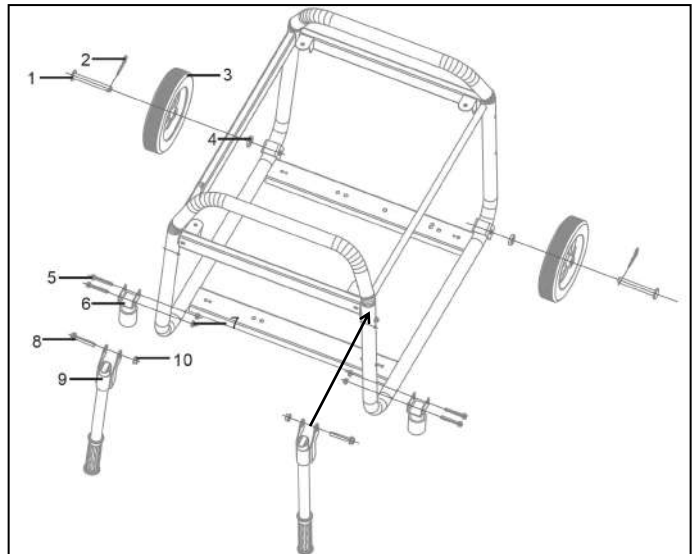
**WARNING:** Install wheel kit BEFORE filling the generator with fuel or oil. NEVER tip a unit that contains fuel or oil.

## Wheel Kit Installation

The following tools are needed to install wheel kit:

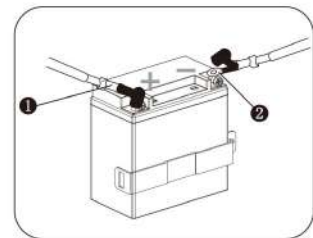
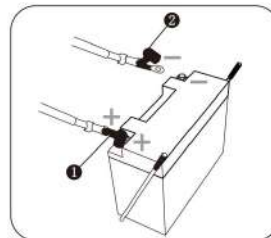
Safety Glasses/6mm-10mm Wrench Set/8mm-13mm Wrench Set /Glove.

1. Tip generator so engine end is up.
2. Place the support legs(6) under the frame brace Secure with the provided cap screws M6(5) and hex nuts(7). Securely tighten using ratchet and socket.
3. Tip the alternator end of the generator up. Slide axle through both mounting brackets.
4. Put the gasket(4) first, then place a wheel(3) on both sides as shown in below picture. Securely tighten wheel axle(1) with pins(2).
5. Place the support handles(9) on the frame brace, secure tighten the provided screws M8(8) and hex nuts(10) with Wrench Set.



## Battery Insert

1. Battery leads consist of a Red(hot) lead that connects to the(+) battery post and is connected to the (+) terminal on the starter solenoid and a Black lead which is connected to the (-) negative battery terminal and the frame mounting bolt.
2. Connect the Red (hot)terminal to the battery(it is connected already).
3. Connect the Black(negative)terminal to the battery.



1. Positive(+) terminal(red)
2. Negative(-) terminal(black)

Unscrew the hex nut on the battery, and connect the black lead to the negative(-)terminal and tight the bolt.

## High Altitude

This generating set may require a high altitude carburetor kit to ensure correct operation at high altitudes. Consult the authorized local dealer for high altitude kit information if you always operate your engine at altitudes above 3,000 feet (900 meters).

**CAUTION:** Even with carburetor modification, generating set horsepower will decrease about 3.5% for each 1,000 feet (300 meters) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

Operation the engine at altitude below 3,000 feet (900 meters) with modified carburetor may cause the generating set to overheat and result in serious engine damage. Please restore factory specifications of the carburetor at the dealer when using the engine in a low altitude area.

## Add Engine Oil



**WARNING:** This engine is not filled with oil before send out to the factory. User must add the proper amount of oil before operating the generator for the first time. Any attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil may result in engine damage and void your warranty.

### Engine Oil Recommendations

Only use 4-stroke engine oil of SJ,SL or equivalent level which are in accordance with or higher than API standard.

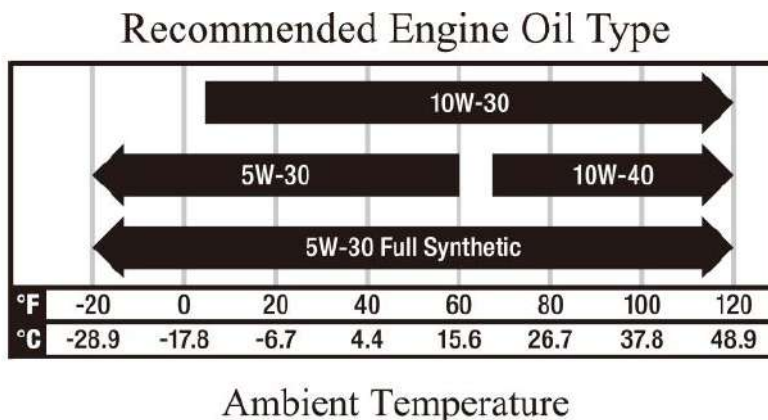
Check the API label on oil bottle or other container, and make sure the “SJ,SL” or equivalent level letter is in the label.

SAE 10W-30 is recommended for general, all-temperature use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.

1. Place generator on level surface.
2. Clean area around Oil Hole Dipstick/Plug&Unscrew Oil Hole Dipstick/Plug.
3. Fill with appropriate type and amount. Refer to Chart for recommended oil type based on Environmental temperature.

**NOTE: The oil capacity (rated) of the engine crankcase is 40.58 fl.oz.**

4. Replace Oil Hole Dipstick/Plug and tighten securely.



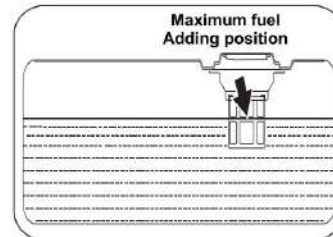
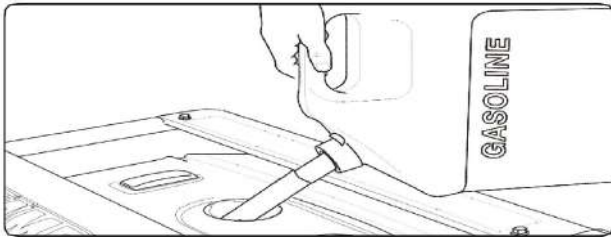
## Adding Fuel

1. Clean area around fuel cap, then remove fuel cap (Turn generator off and let it cool for a minimum of three minutes before removing if you need add fuel when using the generator).
2. Turn and remove cap slowly in order to relieve residual tank pressure. Always fill the fuel tank with the unit outdoors.
3. Slowly pour fresh, clean regular automotive grade unleaded fuel with a minimum octane rating of 87 into fuel tank.

**NOTE:** DO NOT mix fuel with oil. Fuel must have ethanol blend of 10% or less. Pay close attention to the storage requirements of these fuels.

- The capacity of the fuel tank is 27.0 L.** DO NOT overfill fuel tank. Allow room for fuel expansion.
4. Install the fuel cap. Rotate the fuel cap clockwise until it is in its locked position. Wipe away any spilled fuel.

**NOTE:** Keep fuel away from sparks, open flames, heat, pilot lights and other ignition sources.



## Operating Condition

- Check for loose or damaged parts, signs of oil or fuel leaks, and any other condition that may affect proper operation. Repair or replace all damaged or defective parts immediately.
- Clean the dirt or foreign objects on the surface around exhaust and air intake of generator. DO NOT move or tip the generating set during operation. Use generating set only for intended uses. If you have questions about intended use, ask your local dealer.

## Generating Set Grounding



**DANGER:** Failure to properly ground the generator can result in electrocution.

- The generator must be properly connected to an appropriate ground. It helps prevent electrical shock if a ground fault condition exists in the generating set or in connected electrical devices, especially when the unit is equipped with a wheel kit. Proper grounding also helps dissipate static electricity, which often builds up in underground devices.
- A ground terminal has been provided on the generating set. For remote grounding, connect of a length of heavy gauge (4mm<sup>2</sup>) copper wire between the generating set ground terminal and a copper rod driven into the ground.
- Local electrical codes may also require proper grounding of the unit. We strongly recommend that you consult with a qualified electrician for grounding requirements in your area.

## Electrical Devices

- Disconnect all electrical devices from the generator and switch off the AC circuit breaker before start the engine. The generator may be hard to start with electrical devices.
- The connected electrical equipment must not exceed the maximum limit of the generator. Please refer to the specification table for details.

**NOTE:** After completing the above preparation, the generator is ready to be started.

# GENERATOR OPERATION

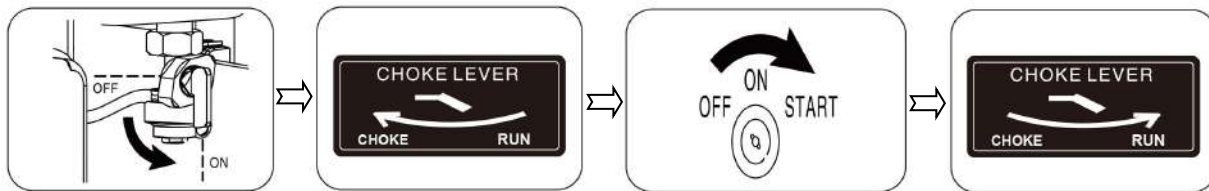
## Operating Location

- Only use OUTSIDE and place the generating set in a well-ventilated area.
- Only operate the generating set on a flat, level surface and in a clean, dry operating environment.
- Allow two feet clearance on all side of the generating set while operating it outdoors.
- Operate in specified area, if any problem on applicable occasion, please consult the authorized local dealers. In some areas, generating set must be registered with the local utility. Generating set used to construction sites may be subject to additional rules and regulations.

## Start The Generator

### Electric Start

1. Unplug all electrical loads from the generator. Make sure the generator is in a level position.
2. Turn the fuel valve to the “ON” position to ensure fuel flow.
3. Press the AC breaker protector to ON position.
4. Pull the choke lever to the “CHOKE” position.
5. Turn and keep the key to “START” position till the engine is started. After the engine is started, release the key to return to “ON” position.
6. Pull the choke lever to the “RUN” position. The generator runs.

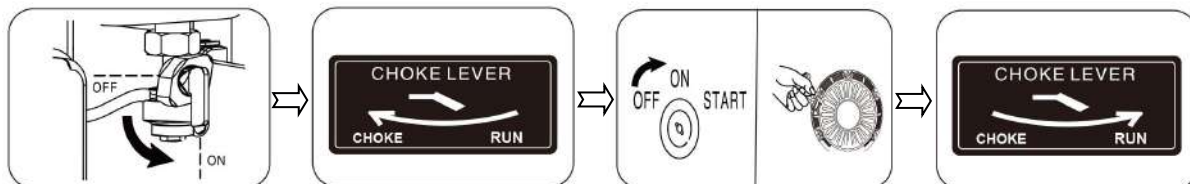


**WARNING:** During starting, don't keep the starting key to “START” position for more than 5s and otherwise it is possible to damage the motor. If the unit fails to start within first time, restart after about 10s. After the unit is used for a period, if the starting speed of the motor falls, please replace the battery.

If the electric starter fails to start the engine, immediately turn off the starter. Don't attempt to restart the engine before the failure cause is identified. Don't restart the engine by replacement of other storage battery without authorization.

### Recoil Start

1. Turn the fuel valve to the “ON” position to ensure fuel flow.
2. Press the AC breaker protector to ON position.
3. Pull the choke lever to the “CHOKE” position.
4. Turn the key to “ON” position, grasp starter handle and pull slowly until resistance is felt. Then pull the cord rapidly with a full arm stroke to avoid kickback. Allow the rope to return slowly. Do NOT allow the rope to snap back against housing.
5. After engine is started, pull the choke lever to the “RUN” position. The generator runs.



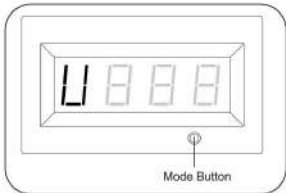
## VFT meter

The VFT meter can be used for displaying voltage, frequency(hertz),run time and total run time as applicable. (Display mode depends on the configuration). The LCD displays each mode by pressing the button below the display.

The display meter sets as either automatic switching mode or manual operation mode. In the manual state press MODE BUTTON for mode switching. But in automatic mode MODE BUTTON is used for reset (operate cautiously when necessary).

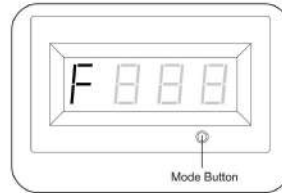
### 1. Voltage(V)

Output voltage of the generator.



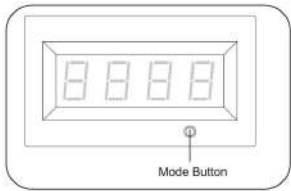
### 2. Frequency(F)

Output frequency in hertz.



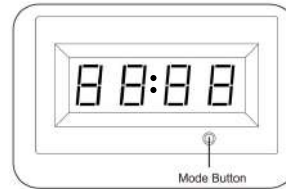
### 3. Total run time

Total run time of the generator since first operation(display mode depends on the configuration). The display value shows as an integer.



### 4.Run time

Run time of the generator for the current session.



## Connecting Electrical Devices

1. Ensure engine is started and grounding before plugging in any electrical appliance.
2. Plug in desired 120 Volt loads to the 120 Volt U-Ground and 240 Volt loads to the 240 Volt receptacles. Always plug appliances into the generator with appliance in its “OFF” position.
  - Do NOT connect 240 Volt loads to the 120 Volt receptacles.
  - Only connects single-phase 60 Hertz loads.
  - DO NOT overload the generator.follow the provided “wattage reference chat” to determine the running and starting wattage of your equipment refer to the product specifications to ensure your generator will operate the desired equipment.



**DANGER:** If connected devices overheat, turn them off and disconnect them from generating set.

## Electrical Shock

To reduce the risk of electrical shock

- DO NOT use electrical cords that are worn, frayed bare or otherwise damaged.
- DO NOT touch bare wires or receptacles.
- DO NOT handle generating set or electrical cords while standing in water while barefoot, or while hands or feet are wet.



## Loading Capacity



**WARNING:** Do not overload the generating set. Exceeding the generating set's capacity can damage the generating set and/or electric devices connected to it.

You must make sure your generating set can supply enough rated (running) and (starting) watts for the electrical devices at the same time. Follow these simple steps to calculate the running and starting watts necessary for your purposes.

1. Count the electrical devices you will power at the same time.
2. The amount of power you need to run with the devices is the total rated (running) watts of these items.
3. Starting power is the power needed shortly when electric devices start. Since not all devices start at the same time, starting power can be estimated by the maximum power of all devices plus the total power counted in step 2.

Electric equipment		Rate power(W)	Starting power(W)
Appliances	Tablet TV 27"	80	100
	Energy saving lamp	5-50	5-50
	Electric cooker	1000	1000
	Computer	250	250
	Electric fan	50	100
	Washing machine	250	500
	Refrigerator	50	300
	Air-conditioner	1600	3200
Electric tooling	Electric hammer	1000	1500
	Impact Hammer	3000	6000
	Water pump	2200	5000
	Electric welding machine	5000	7500
	Air compressor	5000	10000

**Wattage Reference Chart**

## Charging Battery

Charge the battery by battery charging socket and keep the full charge of the battery for use at any time. Charge the battery in dry environment.



**WARNING:** DO NOT allow smoking, open flame, sparks or any other source of heat around a battery. Wear protective goggles, rubber apron and rubber gloves when working around a battery. Battery electrolyte fluid is an extremely caustic sulfuric acid solution that can cause severe burns. If spill occurs, flush area with clear water immediately.

To recharge Volt batteries, proceed as follows:

- Check fluid level in all battery cells. If necessary, add ONLY distilled water to cover separators in battery cells. DO NOT use tap water.
- If the battery is equipped with vent caps, make sure they are installed and are tight.
- If necessary, clean battery terminals.
- Connect battery charge cable clamp with red handle to the positive(+) battery terminal.
- Connect battery charge cable clamp with black handle to the negative(-) battery terminal.
- Start engine. Let the engine run while battery recharges.
- When battery has charged, shut down engine.

## Low Oil Alarm System

This model is equipped with a Low Oil Alert System designed to avoid engine damage from insufficient oil in the crankcase. The Low Oil Alarm System will stop the engine automatically before the oil level in the crankcase drops below safe operating levels.

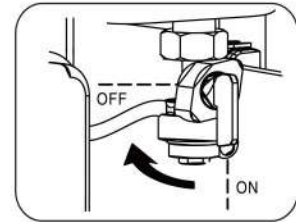
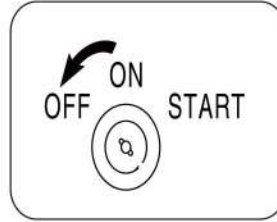
# Stopping The Generator

## Normal Shut Down

1. Unplug all electrical loads.
2. In order to stabilize internal equipment temperatures, allow the engine to run for 3-5 minutes under no load.

**NOTE:** If the generator will not be in use for more than 7 days, turn the fuel valve to the “OFF” position and allow the unit to run until the fuel in the carburetor is used and the engine shuts itself off.

3. Turn the key to the “OFF” position.
4. Turn the fuel valve to “OFF” position.
  - Allow unit to cool to ambient temperature before storage or transportation.
  - Always transport the generator with the fuel valve in the “OFF” position. Failure to do so will result in damage to the engine.



## Emergency Shut Down

- Turn the Fuel Valve to “OFF” position. The engine shuts itself off until the fuel in the carburetor is used.

# MAINTENANCE

It is the operator’s responsibility to complete all scheduled maintenance in a timely manner. Correct any issue before operating the generating set. Always follow the inspection and maintenance recommendations and schedules in this manual.



**WARNING:** Improper maintenance or failure correct a problem before operation can cause a malfunction and result in property damage, serious injury or DEATH. Improper maintenance will void your warranty.



**DANGER:** Accidental starts can cause severe injury or death. Remove the spark plug cap and ground generating set before performing any service.



**WARNING:** The filter element may contains PAHs, PAHs are harmful for your health. Please wear gloves for protection during air filter maintenance.

## Maintenance Schedule

Stop the generating set before serving, disconnect all electric devices and battery (If equipped), and cool down the generating set completely.

Serve the generating set in a clean, dry and flat area, so that no accident would happen during the serving. Please make the wheel in brake state to stop accidental movement of generating set.

Follow the service intervals indicated in the chart below. Service your generating set more frequently when operating in adverse conditions.

Contact your local authorized service dealer for your generating set or engine maintenance needs.

		Each time before use	The first month or 10 hours <small>note2</small>	Every three months or 50 hours <small>note2</small>	Every six months or 100 hours <small>note2</small>	Every year or 300 hours <small>note2</small>
Engine oil	Inspection	√				
	Replacement		√		√	
Air filter	Inspection	√				
	Cleaning			√ <small>note3</small>		
Spark plug	Inspection and adjustment				√	
	Replacement					√
Spark Extinguisher <small>note1</small>	Cleaning				√	
Idle speed	Inspection and adjustment					√ <small>note4</small>
Valve clearance	Inspection and adjustment					√ <small>note4</small>
Carbon canister <small>note1</small>	Inspection	Every two years <small>note4</small>				
Low permeability oil tube <small>note1</small>	Inspection	Every two years <small>note4</small>				
Oil tube	Inspection	Every two years <small>note4</small>				

**NOTE:**

Note1: Applicable types (if available).

Note2: Before each season and after then (whichever comes first).

Note3: Service more frequently under severe , dusty, dirty conditions.

Note4: To be performed by knowledgeable, experienced owners or the authorized dealer.

**Generating Set Maintenance**



**WARNING:** Never clean the generator when it is running! Never use water to clean the generating set. Water can enter the generating set through the cooling slots and damage the generating set windings.



**WARNING:** Do not modify the generator in any way. Do not tamper with governed speed. Generator supplies correct rated frequency and voltage when running at factory set. Tampering with the factory set governor will void your warranty.

- Make certain that the generator is kept clean and stored properly.
- Use a damp cloth to clean exterior surfaces of the generating set. Use a soft brush to clean the dirt and oil.
- Use an air compressor (25 PSI) to clear dirt and debris from the generating set.
- Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

**Engine Maintenance**

**Changing the oil**



**WARNING:** Change the oil when the engine is warm from operation. The oil can reach up to 140°C under that condition. AVOID SPLASHING OF HOT OIL, it can burn you and cause severe injury. Careful operation should be taken to prevent burns.

1. Start your engine and let it warm up to get the oil warm and thinner.
2. Turn the engine On/Off switch to the “OFF” position. Turn Fuel Valve to the “OFF” position.
3. Remove the oil cap/dipstick by turning counter clockwise. Remove the oil drain plug located below the oil cap/dipstick utilizing the appropriate tools.
4. Drain the engine oil into an approved receptacle and discard in accordance with all Federal and State Regulations. Never dump the used engine oil on the ground or into drains only discard in an approved manner. Check with your local authorities to determine the regulations in your area.



5. After oil is completely drained, replace oil drain plug and tighten with appropriate tools. Replace oil with the proper oil for your product. Refer to the “Engine Oil Recommendations” section for exact fill requirements.
6. Always use your dipstick to check the oil level and only fill to the full mark on the dipstick. Never overfill the engine as this can cause damage to the unit and void warranty.
7. Replace the dipstick/oil cap on the engine.
8. Shake generator to ensure the float in the Oil Alert System is free.

**NOTE:** Proper maintenance of the unit will increase the life of your product the oil must be changed on a regular basis for proper operation, and reliability and to also maintain the warranty on this product.

## Fuel System Maintenance:

**NOTE:** Periodically you can get sediment or trash in your Carburetor Bowl. Use the following procedures to clean:

1. Turn the fuel valve to the “OFF” Position.
2. Remove the carburetor bowl by removing the mounting bolt located at the bottom of the bowl.
3. Dump out the old fuel and sediment into an approved container and clean carburetor bowl thoroughly.

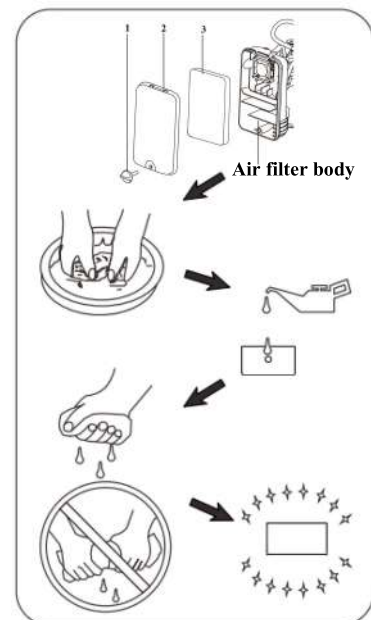
## Air Filter Maintenance



**WARNING:** Do not run the engine without the air filter, or serious danger can result.

Routine maintenance of the air cleaner helps maintain proper airflow to the carburetor. Occasionally check that the air cleaner is free of excessive dirt.

1. Remove the air filter maintenance cover.
2. Loosen the filter fix clamp and remove the cover of the air filter. Remove and check the air filter element.
3. Wash with liquid detergent and warm water. Squeeze thoroughly dry in a clean cloth.
4. Saturate in clean engine oil.
5. Squeeze in a clean, absorbent cloth to remove all excess oil.
6. Assemble the filter element onto the filter unit. Assemble the filter fix clamp. Reinstall the air filter to the generator.



## Spark Plug

**Spark plug gap : 0.6mm-0.8mm(0.024-0.031 in). Spark plug tighten torque: 15-20N.m**

The spark plug is important for proper engine operation. A good spark plug should be intact, free of deposits, and properly gapped. Refer to “Recommended Maintenance Schedule”.

To inspect the spark plug:

1. Clean any dirt from the spark plug cap and spark plug base.
2. Remove the spark plug cap.
3. Using socket wrench to loose and remove the spark plug.

4. Inspect the spark plug and spark plug washer, if it was broken or worn, replace with a new one. Clean the spark plug with wire brush if reuse it.
5. Check spark plug gap. Carefully bend side electrode to adjust the gap if necessary.
6. Carefully thread the plug into the engine by hand.
7. After the spark plug is seated, use spark plug wrench to tighten the plug.
8. Attach the spark cap to the plug and connect the spark plug wire to the plug.



**CAUTION:** Only use recommended spark plug or equivalent. Do not use spark plugs that have improper heat range.

## Spark Arrester

1. Allow the generating set to cool completely before servicing the spark arrester.
2. Remove the muffler blind window first, then remove the spark arrester screen.
3. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.
4. Replace the spark arrester if it is damaged.
5. Reinstall the spark arrester in the muffler and reinstall the muffler blind window.

## Storage



**WARNING:** Gasoline is highly flammable and extremely explosive. Empty the fuel tank and shut off fuel valve before storing or transporting this generating set.

The generating set should be started at least once every 2 weeks and allowed to run for at least 20 minutes. Follow the instructions below for longer term storage if the generating set will be out of service for 2 months or more.

- Allow the generating set to cool completely before storage.
- Clean the generating set according to instruction in maintenance section.
- Drain all fuel completely from the fuel tank, fuel hose and carburetor to prevent gum from forming.
- Turn off the fuel supply at the fuel valve.
- Change the oil.
- Reattach the spark plug.
- Remove the spark plug and pour about 15ml of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
- Store the unit in a clean, dry area out of direct sunlight.

## Transport

To prevent fuel spillage when transporting or during temporary storage, the generating set should be secured upright in its normal operating position, with the engine switch OFF. The combination switch should be in the “stop” position and knob of the fuel cap should be turned to the “OFF” position.

### When transporting:

- Do not overfill the tank.
- Do not operate the generating set while it is on vehicle. Take the generating set off the vehicle and use it in a well-ventilated place. Avoid a place exposed to direct sunlight when putting the generating set on a vehicle. If the generating set is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Do not drive on a rough road for an extended period with the generating set on a rough road, drain the fuel from the generating set beforehand.

## **TROUBLESHOOTING**

### **If The Engine Will Not Start**

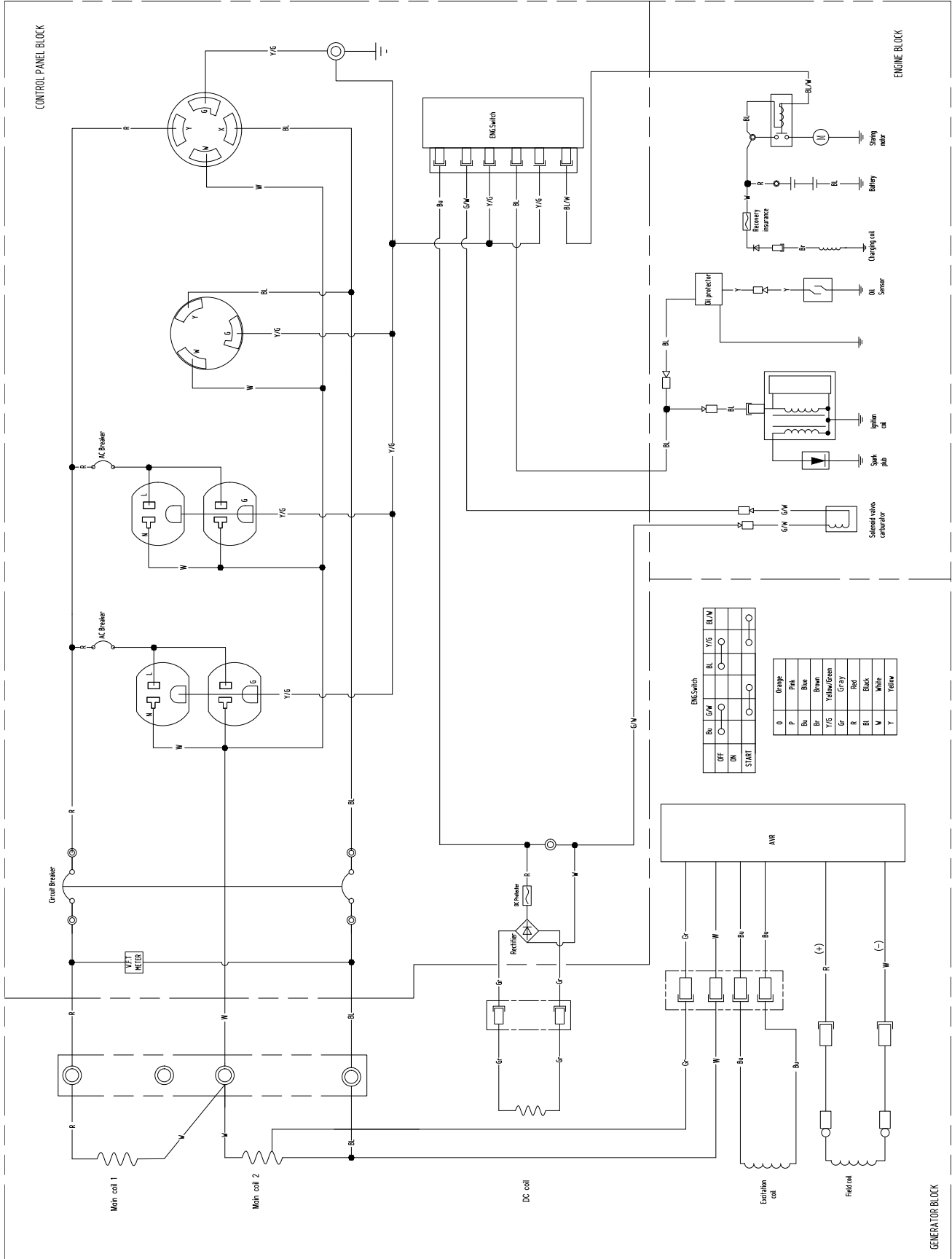
1. Check to ensure the switches are in the “ON” position (Both unit and engine).
2. Check engine oil level. Your unit possesses a Low Oil Alarm System that will not allow your engine to start if the oil is below safe operating levels. This feature is installed to increase the life of your engine and prevent engine damage. If oil level is low, fill to the full mark on dipstick refer to the “Product Specifications” for exact oil type and amounts.
3. Check the fuel level to ensure adequate fuel. Add fuel if necessary.
4. Remove and inspect the spark plug for cleanliness and proper electrode gap. If needed, clean or replace the spark plug. Refer to “Spark Plug Maintenance” in the Maintenance section of the Owner's Manual for proper procedure.
5. If your unit will still NOT start after performing the above checks, please call (800) 791-9458 & Mon-Fri 9-5 EST or email: support@powersmartusa.com & support@amerisuninc.com for customer service.

**NOTE:** Periodically on the initial start-up or after the unit has been stored for a long period of time, the float for the “Low Oil Alarm System” will stick to the bottom of your oil pan. Locate the two (2) wires to the Low Oil Sensor Diode on the side of the engine block. **Unplug the yellow wire** and, only after ensuring the engine is full of oil start the engine and allow to run until warm (normally 20 minutes. as this will heat the oil and release the float on the Low Oil Alert System). Then re-plug the wires to the terminals on the Low Oil Alarm Sending Unit.

### **The Generator Does Not Provide Electrical Current**

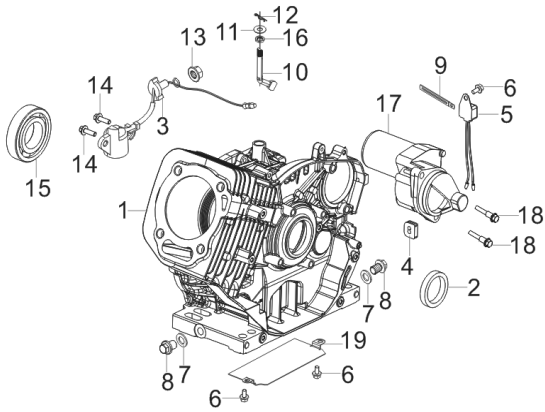
1. Plug in a small appliance or tool to test.
2. Check if the AC(or DC) Circuit Breaker is in the “ON” position. If not, place in “ON” position. If equipped with a GFCI receptacle, reset GFCI breaker by pushing in the reset button in the middle of the GFCI’s faceplate (this must be done with the engine running).
3. If your unit still does NOT produce electricity after performing the previous checks, please call (800) 791-9458 for customer service.

# WIRING DIAGRAM



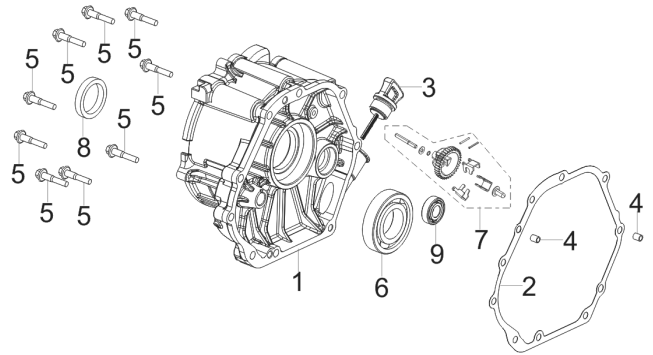
# EXPLODED VIEW & PARTS LIST

## E01 CRANKCASE. / GEAR ASSY, GOVERNOR.



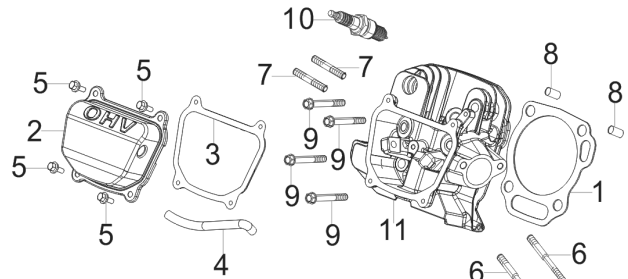
REF.NO.	DESCRIPTION	Q'TY
E01-1	CRANKCASE SUBASSEMBLY.	1
E01-2	SEAL, OIL	1
E01-3	SENSOR, ENGINE OIL	1
E01-4	PLUG, RUBBER	1
E01-5	PROTECTOR, OIL	1
E01-6	BOLT	3
E01-7	FLAT WASHER	2
E01-8	BOLT, DRAIN PLUG	2
E01-9	WIRE CLIP	1
E01-10	ARM, GOVERNOR	1
E01-11	FLAT WASHER	1
E01-12	COTTER PIN	1
E01-13	HEXAGON NUT WITH FLANGE	1
E01-14	BOLT	2
E01-15	DEEP GROOVE BALL BEARING	1
E01-16	SEAL, OIL	1
E01-17	MOTOR, STARTING	1
E01-18	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	2
E01-19	DEFLECTOR, CRANKCASE AIR	1

## E02 COVER SUBASSEMBLY, CRANKCASE



REF.NO.	DESCRIPTION	Q'TY
E02-1	COVER, CRANKCASE	1
E02-2	GASKET, CRANKCASE	1
E02-3	DIPSTICK SUBASSEMBLY, OIL	1
E02-4	POSITION PIN	2
E02-5	BOLT	9
E02-6	DEEP GROOVE BALL BEARING	1
E02-7	GEAR ASSY, GOVERNOR	1
E02-8	SEAL, OIL	1
E02-9	DEEP GROOVE BALL BEARING	1

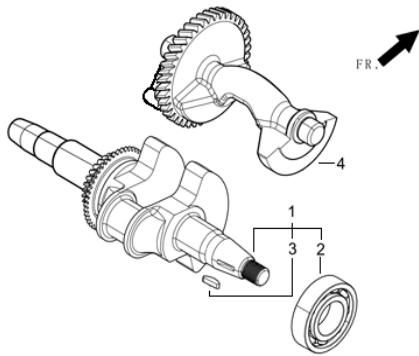
## E03 HEAD SUBASSEMBLY, CYLINDER / PLUG, SPARK



REF.NO.	DESCRIPTION	Q'TY
E03-1	GASKET, CYLINDER HEAD	1
E03-2	COVER SUBASSEMBLY, CYLINDER HEAD	1
E03-3	CYLINDER HEAD COVER GASKET	1
E03-4	TUBE, BREATHER	1
E03-5	BOLT	4
E03-6	STUD BOLT	2
E03-7	STUD BOLT	2
E03-8	POSITION PIN - TYPE A	2
E03-9	CYLINDER HEAD BOLT	4
E03-10	PLUG, SPARK	1
E03-11	HEAD SUBASSEMBLY, CYLINDER	1

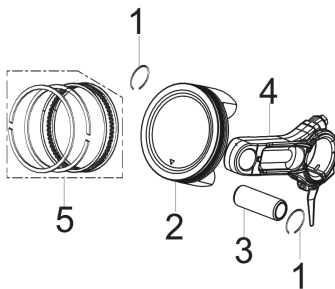
# EXPLODED VIEW & PARTS LIST

## E04 ROD, CRANKSHAFT CONNETING



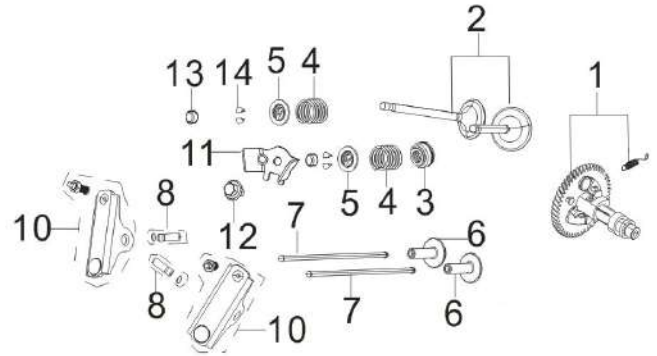
REF.NO.	DESCRIPTION	Q'TY
E04-1	CRANKSHAFT ASSY.	1
E04-4	BALANCING SHAFT	1

## E05 RING SET, OIL / ROD, CRANKSHAFT CONNETING



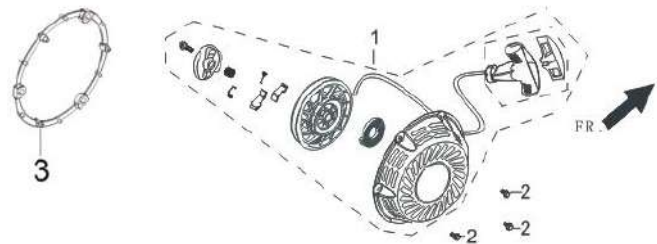
REF.NO.	DESCRIPTION	Q'TY
E05-1	CLIP, PISTON PIN	2
E05-2	PISTON	1
E05-3	PIN, PISTON	1
E05-4	ROD, CONNECTING	1
E05-5	RING ASSY, PISTON	1

## E06 TRAIN, VALVE / CAMSHAFT SUBASSEMBLY



REF.NO.	DESCRIPTION	Q'TY
E06-1	CAMSHAFT ASSY.	1
E06-2	VALVES SET	1
E06-3	GUIDE, SEAL	1
E06-4	SPRING, VALVE	2
E06-5	SEAT, VALVE SPRING	2
E06-6	TAPPET, VALVE	2
E06-7	LIFTER SUBASSEMBLY, VALVE	2
E06-8	SHAFT, VALVE ROCKER	2
E06-10	ROCKER, VALVE	2
E06-11	CYLINDER HEAD COVER PIN LIMIT PLATE	1
E06-12	BOLT	1
E06-13	ROTATOR, VALVE	2
E06-14	CLAMP, VALVE LOCK	4

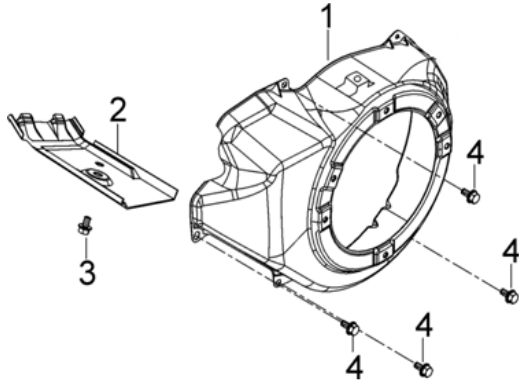
## E07 STARTER, RECOIL



REF.NO.	DESCRIPTION	Q'TY
E07-1	STARTER ASSY, RECOIL	1
E07-2	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	3
E07-3	RECOIL STARTER REEL COVER RETAINER	1

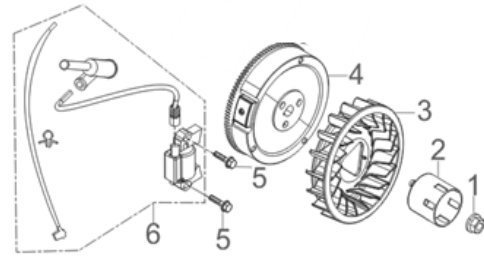
# EXPLODED VIEW & PARTS LIST

## E08 SHROUD / SHIELD, LOWER



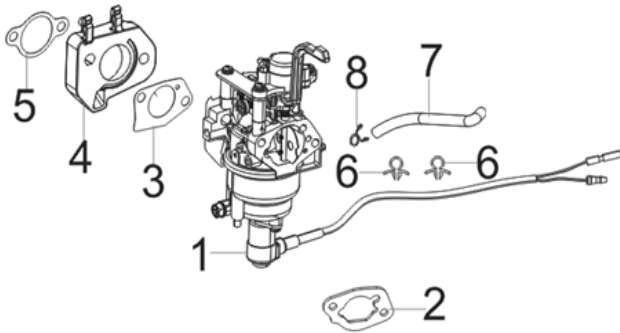
REF.NO.	DESCRIPTION	Q'TY
E08-1	SHROUD	1
E08-2	SHROUD, CYLINDER BODY	1
E08-3	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	1
E08-4	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	4

## E10 FLYWHEEL / IMPELLER / STARTER PULLEY / IGNITION COIL



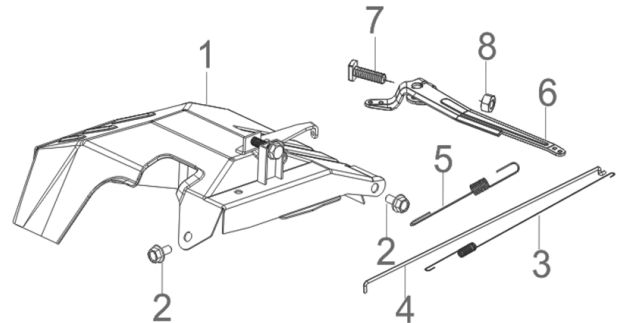
REF.NO.	DESCRIPTION	Q'TY
E10-1	NUT, FLYWHEEL	1
E10-2	PULLEY, STARTER	1
E10-3	IMPELLER	1
E10-4	FLYWHEEL SUBASSEMBLY	1
E10-5	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	2
E10-6	COIL, IGNITION	1

## E09 CARBURETOR ASSY.



REF.NO.	DESCRIPTION	Q'TY
E09-1	CARBURETOR ASSY.	1
E09-2	AIR CLEANER SEAL GASKET	1
E09-3	CARBURETOR SEAL GASKET	1
E09-4	PLATE, CARBURETOR INSULATOR	1
E09-5	GASKET, INLET	1
E09-6	WIRE CLIP	2
E09-7	TUBE, FUEL	1
E09-8	PIPE CLAMP	1

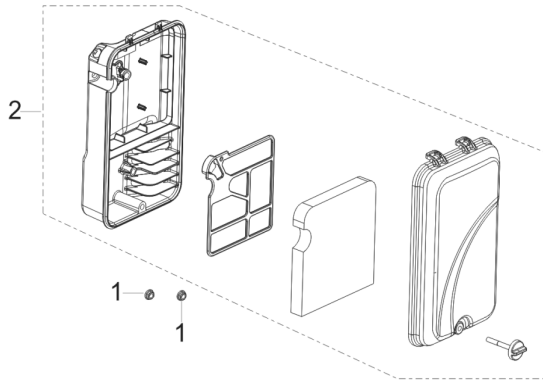
## E11 CONTROL ASSY, THROTTLE



REF.NO.	DESCRIPTION	Q'TY
E11-1	CONTROL ASSY, THROTTLE	1
E11-2	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	2
E11-3	SPRING, THROTTLE VALVE RETURNING	1
E11-4	ROD, GOVERNEOR	1
E11-5	SPRING, GOVERNOR	1
E11-6	GOVERNOR BRACKET SUBASSEMBLY	1
E11-7	BOLT, GOVERNOR SUPPORT	1
E11-8	HEXAGON NUT WITH FLANGE	1

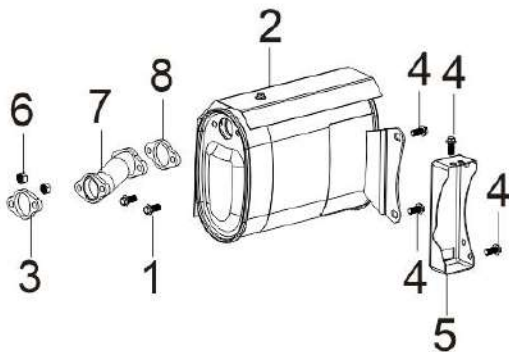
# EXPLODED VIEW & PARTS LIST

## F01 CLEANER, AIR



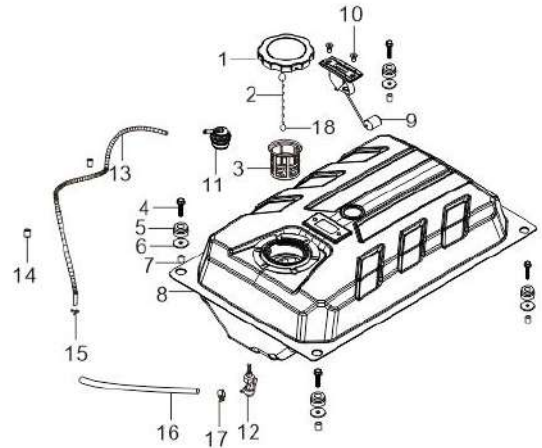
REF.NO.	DESCRIPTION	Q'TY
F01-1	HEXAGON NUT WITH FLANGE	2
F01-2	AIR CLEANER	1

## F02 MUFFLER ASSY.



REF.NO.	DESCRIPTION	Q'TY
F02-1	BOLT	2
F02-2	MUFFLER ASSY.	1
F02-3	GASKET, MUFFLER	1
F02-4	BOLT	4
F02-5	BRACKET, MUFFLER	1
F02-6	HEXAGON NUT	2
F02-7	PIPE, EXHAUST	1
F02-8	GASKET, MUFFLER	1

## F03 TANK ASSY, FUEL

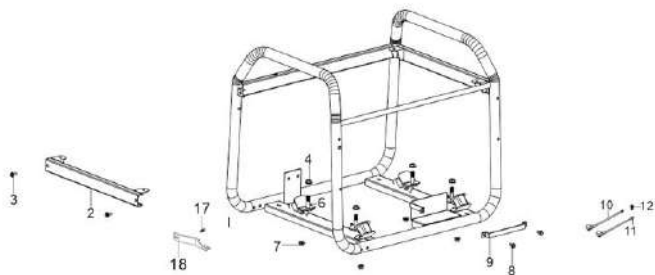


REF.NO.	DESCRIPTION	Q'TY
F03-1	COVER, FUEL TANK	1
F03-2	CHAIN PROOF OFF, FUEL TANK COVER	1
F03-3	STRAINER, FUEL	1
F03-4	BOLT	4
F03-5	SLEEVE, FUEL TANK RUBBER	4
F03-6	FLAT WASHER - GRADE A	4
F03-7	BUSH	4
F03-8	FUEL TANK	1
F03-9	LEVELER ASSY, OIL	1
F03-10	BOLT	2
F03-11	VALVE, ONE WAY	1
F03-12	COCK ASSY, FUEL	1
F03-13	HOSE, FUEL STEAM RUBBER	1
F03-14	PROTECTIVE RUBBER SLEEVE	2
F03-15	PIPE CLAMP	1
F03-16	JACKET, RUBBER	1
F03-17	PIPE CLAMP	1
F03-18	ANTI-OFF CHAIN CLIP	1



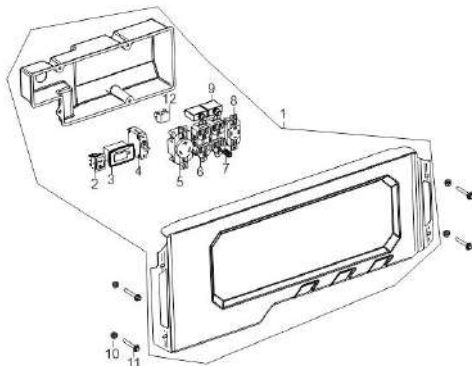
# EXPLODED VIEW & PARTS LIST

## F04 FRAME, ENGINE



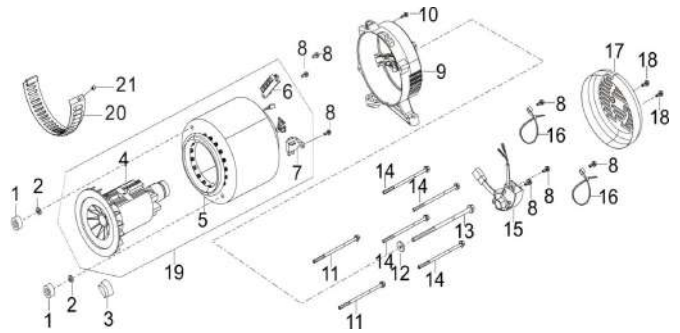
REF.NO.	DESCRIPTION	Q'TY
F04-1	FRAME ASSY, ENGINE	1
F04-2	CROSSPIECE SUBASSEMBLY	1
F04-3	BOLT	2
F04-4	HEXAGON NUT WITH FLANGE	4
F04-6	CUSHION, ENGINE FRAME REAR	4
F04-7	HEXAGON NUT WITH FLANGE	4
F04-8	BOLT	2
F04-9	CLAMP, BATTERY	1
F04-10	WIRE, ANODE	1
F04-11	WIRE, CATHODE	1
F04-12	BOLT	1
F04-13	HEXAGON NUT WITH FLANGE	2
F04-17	BOLT	1
F04-18	SUPPORT, ATR CLEANER	1

## F05 PANEL SUBASSEMBLY, CONTROL



REF.NO.	DESCRIPTION	Q'TY
F05-1	PANEL SUBASSEMBLY, CONTROL	1
F05-2	SWITCH SUBASSEMBLY	1
F05-3	TIMER	1
F05-4	BREAKER, DOUBLE-POLE	1
F05-5	SOCKET SUBASSEMBLY, POWER SUPPLY	1
F05-6	SOCKET SUBASSEMBLY, POWER SUPPLY	2
F05-7	TERMINAL SUBASSEMBLY, GROUNDING	1
F05-8	SOCKET SUBASSEMBLY, POWER SUPPLY	1
F05-9	PROTECTOR, OVERCURRENT	2
F05-10	NUT	4
F05-11	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	4
F05-12	CHARGER MODULE	1

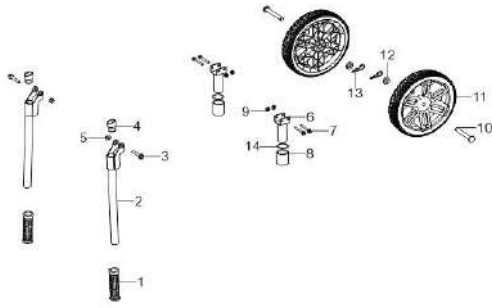
## F06 ROTOR/STATOR



REF.NO.	DESCRIPTION	Q'TY
F06-1	NUT, STATOR	2
F06-2	STANDARD SPRING WASHER	2
F06-3	STOPPER, MOTOR RIGHT COVER	1
F06-6	BLOCK, TERMINAL	1
F06-7	BRUSH SUBASSEMBLY, CARBON	1
F06-8	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	7
F06-9	MOTOR SUPPORT	1
F06-10	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	1
F06-11	STATOR BOLT	2
F06-12	FLAT WASHER - GRADE A	1
F06-13	BOLT, ROTOR	1
F06-14	STATOR BOLT	4
F06-15	REGULATOR, VOLTAGE	1
F06-16	BAND	2
F06-17	MOTOR TAIL COVER	1
F06-18	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	2
F06-19	MOTOR ASSY.	1
F06-20	SHROUD, MOTOR	1
F06-21	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	1

# EXPLODED VIEW & PARTS LIST

## **F07 WHEEL ASSY, FRONT**



REF.NO.	DESCRIPTION	Q'TY
F07-1	SLEEVE, HANDLE RUBBER	2
F07-2	HANDLE TUBE ASSY	2
F07-3	BOLT	2
F07-4	HANDLE TUBE CONNECTING SEAT	2
F07-5	NUT	2
F07-6	SUPPORT, ENGINE FRAME SHOCK ABSORPTION	2
F07-7	HEXAGON SOCKET FLANGE FACE BOLT - SMALL SERIES	4
F07-8	ENGINE FRAME SHOCK ABSORPTION SUPPORT SLEEVE	2
F07-9	HEXAGON NUT WITH FLANGE	4
F07-10	SHAFT, FRONT WHEEL	2
F07-11	WHEEL, FRONT	2
F07-12	PAD	2
F07-13	SOCKET	2
F07-14	FLAT WASHER	2

## **THREE (3) YEARS LIMITED WARRANTY**

PowerSmart is committed to building equipment that will provide years of dependable service. Our warranties are consistent with our commitment and dedication to quality.

### THREE (3) YEARS LIMITED WARRANTY OF POWER SMART PRODUCTS FOR HOME USE.

PowerSmart ("Seller") warrants to the original purchaser only, that all PowerSmart consumer power tools will be free from defects in material or workmanship for a period of three (3) years from date of purchase. If the tool(s) is used while providing professional or commercial services, the warranty coverage shall be for a maximum of (90) days.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Three (3) Years Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or improperly repaired, by person(s) other than an Authorized Seller or Service Center.

Please be aware that normal wear parts are not covered this warranty. This includes drive belts, blades and grass bags. Carburetor issues, and/or other damage found to be the result of stale, contaminated or compromised fuel, are not covered under this limited warranty.

To make a claim under this Limited Warranty, you must return the entire power tool product; transportation prepaid, to PowerSmart. The owner must include a legible copy of the original receipt, which shall list the date of purchase, along with the company's name where the product was purchased.

THIS LIMITED WARRANTY DOES NOT APPLY TO ANY ACCESSORY ITEMS INCLUDED WITH THE TOOL SUCH AS CIRCULAR SAW BLADES OTHER RELATED ITEMS OR TO ANY REPLACEMENT PARTS LISTED UNDER MAINTENANCE.

ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO THREE(3) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

For questions / comments, technical assistance or repair parts –  
Please call toll free at: 1-800-791-9458 (M-F 9am – 5pm EST)  
Email: [support@amerisuninc.com](mailto:support@amerisuninc.com) / [support@powersmartusa.com](mailto:support@powersmartusa.com)

PLEASE SAVE ALL OF YOUR ORIGINAL RECEIPTS. THIS WARRANTY IS VOID WITHOUT THEM.

# ***California and Federal Exhaust and Evaporative Emissions Control Warranty Statement***

## **YOUR WARRANTY RIGHTS AND OBLIGATIONS**

The California Air Resources Board, the United States Environmental Protection Agency and Amerisun Inc. (Amerisun), are pleased to explain the exhaust and evaporative emissions (“emissions”) control system warranty on your 2023/2024 small off-road engine/equipment. 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. Amerisun must warrant the emissions control system on your small off-road engine/equipment for the period listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine/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, Amerisun will repair your small off-road engine/equipment 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/equipment is warranted for two years. If any emissions-related part on your small off-road engine/equipment is defective, the part will be repaired or replaced by Amerisun.

## **OWNER'S WARRANTY RESPONSIBILITIES:**

As the small off-road engine/equipment owner, you are responsible for performance of the required maintenances listed in your owner's manual. Amerisun recommends that you retain all receipts covering maintenance on your small off-road engine/equipment, but Amerisun 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/equipment owner, you should however be aware that Amerisun may deny you warranty coverage if your small off-road engine/equipment 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/equipment to an Amerisun 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 Amerisun at 1-800-791-9458 or support@amerisuninc.com.

## **DEFECTS WARRANTY REQUIREMENTS:**

- (a) The warranty period begins on the date the small off-road engine/equipment is delivered to an ultimate purchaser.
- (b) General Emissions Warranty Coverage. Amerisun warrants to the ultimate purchaser and each subsequent owner that the engine or equipment is:
  - (1) Designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; and
  - (2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.
- (c) The warranty on emission-related parts will be interpreted as follows:
  - (1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions must be warranted for the warranty period defined in Subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by Amerisun according to Subsection (4) below. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.
  - (2) Any warranted part that is scheduled only for regular inspection in the written instructions must be warranted for the warranty period defined in Subsection (b)(2). A statement in such written instructions to the effect of “repair or replace as necessary” shall advise owners of the warranty coverage for emissions related parts. Replacement within the warranty period is covered by the warranty and will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for the remaining warranty

period.

- (3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by Amerisun according to Subsection (4) below. Any such part repaired or replaced under warranty must 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 must be performed at no charge to the owner at a warranty station.
  - (5) Notwithstanding the provisions of Subsection (4) above, warranty services or repairs must be provided at distribution centers that are franchised to service the subject engine/equipment.
  - (6) The 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) Amerisun is liable for damages to other engine/equipment components proximately caused by a failure under warranty of any warranted part.
  - (8) Throughout the emissions control system's warranty period set out in subsection (b)(2), Amerisun must maintain a supply of warranted parts sufficient to meet the expected demand for such parts and must obtain additional parts if that supply is exhausted.
  - (9) Manufacturer-approved replacement parts that do not increase the exhaust or evaporative emissions of the engine or emissions control system must 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 Amerisun.
  - (10) 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 will be grounds for disallowing a warranty claim. Amerisun will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.
  - (11) Amerisun issuing the warranty shall provide any documents that describe that warranty procedures or policies within five working days of request by the Executive Officer.
- (d) Emission Warranty Parts List for Exhaust
- (1) Fuel Metering System
    - (i) Carburetor and internal parts (and/or pressure regulator or fuel injection system).
    - (ii) Air/fuel ratio feedback and control system.
    - (iii) Cold start enrichment system.

- (2) Air Induction System
  - (i) Controlled hot air intake system.
  - (ii) Intake manifold.
  - (iii) Air filter.
- (3) Ignition System
  - (i) Spark Plugs.
  - (ii) Magneto or electronic ignition system.
  - (iii) Spark advance/retard system.
- (4) Exhaust Gas Recirculation (EGR) System
  - (i) EGR valve body, and carburetor spacer if applicable.
  - (ii) EGR rate feedback and control system.
- (5) Air Injection System
  - (i) Air pump or pulse valve.
  - (ii) Valves affecting distribution of flow.
  - (iii) Distribution manifold.
- (6) Catalyst or Thermal Reactor System
  - (i) Catalytic converter.
  - (ii) Thermal reactor.
  - (iii) Exhaust manifold.
- (7) Particulate Controls
  - (i) Traps, filters, precipitators, and any other device used to capture particulate emissions.
- (8) Miscellaneous Items Used in Above Systems
  - (i) Electronic controls.
  - (ii) Vacuum, temperature, and time sensitive valves and switches.
  - (iii) Hoses, belts, connectors, and assemblies.
- (e) Emission Warranty Parts List for Evap
  - (1) Fuel Tank
  - (2) Fuel Cap
  - (3) Fuel Lines (for liquid fuel and fuel vapors)
  - (4) Fuel Line Fittings
  - (5) Clamps\*
  - (6) Pressure Relief Valves\*
  - (7) Control Valves\*
  - (8) Control Solenoids\*
  - (9) Electronic Controls\*
  - (10) Vacuum Control Diaphragms\*
  - (11) Control Cables\*
  - (12) Control Linkages\*
  - (13) Purge Valves\*
  - (14) Gaskets\*
  - (15) Liquid/Vapor Separator
  - (16) Carbon Canister
  - (17) Canister Mounting Brackets
  - (18) Carburetor Purge Port Connector

\*Note: As they relate to the evaporative emission control system.

Amerisun will furnish with each new small off-road engine/equipment written instructions for the maintenance and use of the engine/equipment by the owner.





