



POWER SMART MB5040A 4400W Frame Inverter Generator Instruction Manual

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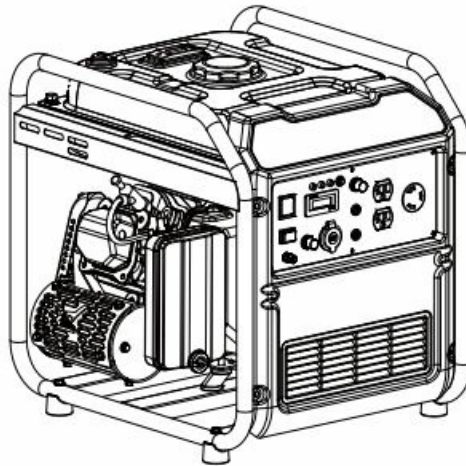
POWER SMART MB5040A 4400W Frame Inverter
Generator Instruction Manual



INSTRUCTION MANUAL

4400W FRAME INVERTER GENERATOR

Model # MB5040A
MB5040B



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

Website: www.powersmartusa.com

Toll free: 1-872-314-0005 Mon-Fri 9-5 EST

Email: support@amerisuninc.com / support@powersmartusa.com



Website

www.powersmartusa.com

support@amerisuninc.com / support@powersmartusa.com

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TECHNICAL DATA

4400W Generator:	Model#MB5040A MB5040B
Engine type:	4 stroke, OHV, single cylinder with forced air-cooling system
Start type:	Recoil
Phase:	Single
Starting wattage:	4400W
Rated wattage:	3600W
Rated voltage:	120V
DC output voltage:	12V
Max AC Amperage:	30A
Frequency:	60Hz
Displacement:	223 cc
Spark plug gap:	0.76 mm
Fuel tank capacity:	2.7 gallons
Oil capacity:	20.3 fl.oz
Runtime at 50% load:	11 hours
A-weighted sound pressure level LpA:	76db(A) at 23 feet
Package dimensions(L x W x H):	21.2x17.7x20.9 inch
Weight:	68.8lb

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 chipper shredder.

⚠ This manual contains special messages to bring attention to potential safety concerns, Generator Parallel Cable 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 / support@powersmartusa.com, or Toll Free at (872)314-0005. We are available Mon-Fri 9am-5pm EST to help solve any issues that you might encounter.

SAFETY INFORMATION


The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The warnings in this

manual, and on tags and decals affixed to the unit are, therefore, not all inclusive. If using a procedure, work method or operating technique that the manufacturer does not specifically recommend, verify that it is safe for others. Also make sure the procedure, work method or operating technique utilized does not render the equipment unsafe. Throughout this publication, and on tags and decals affixed to the generator, DANGER, WARNING, CAUTION and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Their definitions are as follows:

- ⚠ **DANGER** Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ **WARNING** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ **CAUTION** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTE: Notes contain additional information important to a procedure and will be found within the regular text of this manual. These safety warnings cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

SYMBOLS AND MEANINGS

DANGER	
	Using a generator indoors CAN KILL YOU IN MINUTES . Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.



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



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

- Adequate, unobstructed flow of cooling and ventilating air is critical to correct generator operation. Do not alter the installation or permit even partial blockage of ventilation provisions, as this can seriously affect safe operation of the generator.

The generator MUST be operated outdoors.

DANGER



Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury.

DANGER



Electrocution. Water contact with a power source, if not avoided, will result in death or serious injury.

DANGER



Electrocution. Turn utility and emergency power supplies to OFF before connecting power source and load lines. Failure to do so will result in death or serious injury.

- It is recommended to obtain parts and service from your local IASD to keep this unit in safe working order.
- Do not operate unit on uneven surfaces, or in areas where it can be exposed to excessive moisture, dirt, dust, or corrosive vapors.

WARNING



Moving Parts. Keep clothing, hair, and appendages away from moving parts. Failure to do so could result in death or serious injury.

WARNING



Hot Surfaces. When operating machine, do not touch hot surfaces. Keep machine away from combustibles during use. Hot surfaces could result in severe burns or fire.

WARNING



Equipment and property damage. Do not alter construction of, installation, or block ventilation for generator. Failure to do so could result in unsafe operation or damage to the generator.

WARNING



Do not insert any object through the air cooling slots. Generator can start at any time and could result in death, serious injury, and unit damage.

- When working on this equipment, remain alert at all times.
- Never work on the equipment when physically or mentally fatigued.
- Never use the generator or any of its parts as a step. Stepping on the unit can stress and break parts, and may result in dangerous operating conditions from leaking exhaust gases, fuel leakage, oil leakage, etc.



Hearing protection recommend.

Exhaust and Location Hazards

DANGER



Asphyxiation. Running engines produce carbon monoxide, a colorless, odorless, poisonous gas. Carbon monoxide, if not avoided, will result in death or serious injury.

DANGER



The exhaust system must be properly maintained. Do not alter or modify the exhaust system as to render it unsafe or make it non-compliant with local codes and/or standards. Failure to do so will result in death or serious injury.

WARNING



Asphyxiation. Always use a battery operated carbon monoxide alarm indoors and installed according to the manufacturer's instructions. Failure to do so could result in death or serious injury.

WARNING



Equipment and property damage. Do not alter construction of, installation, or block ventilation for generator. Failure to do so could result in unsafe operation or damage to the generator.

- If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air IMMEDIATELY. See a doctor, as you could have carbon monoxide poisoning.

Electrical Hazards

DANGER



Electrocution. Contact with bare wires, terminals, and connections while generator is running will result in death or serious injury.

DANGER



Electrocution. Water contact with a power source, if not avoided, will result in death or serious injury.

- The frame and external electrically conductive parts of the generator need to be properly connected to an approved earth ground. Local electrical codes may also require proper grounding of the generator. Consult with a local electrician for grounding requirements in the area.

DANGER



Electrocution. In the event of electrical accident, immediately shut power OFF. Use non-conductive implements to free victim from live conductor. Apply first aid and get medical help. Failure to do so will result in death or serious injury.

WARNING



Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury.

Fire Hazards

WARNING



Accidental Start-up. Disconnect the negative battery cable, then the positive battery cable when working on unit. Failure to do so could result in death or serious injury.

DANGER



Do not overfill fuel tank. Fill to 1/2 in. of top of tank to allow for fuel expansion. Overfilling may cause fuel to spill onto engine causing fire or explosion, which will result in death or serious injury.

DANGER



Risk of fire. Allow fuel spills to completely dry before starting engine. Failure to do so will result in death or serious injury.

WARNING

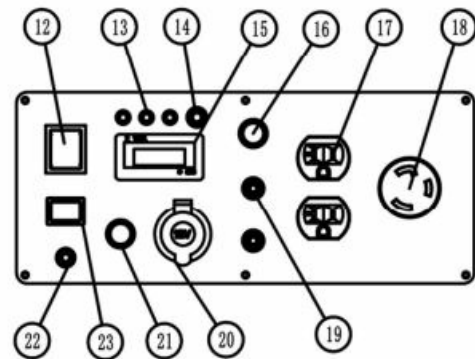
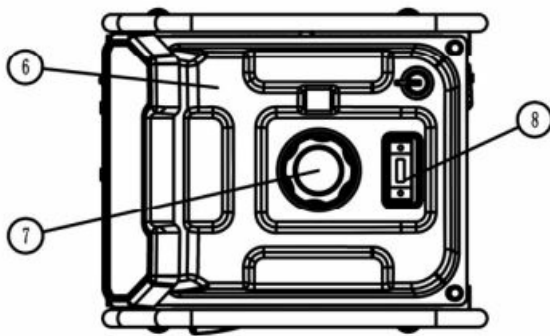
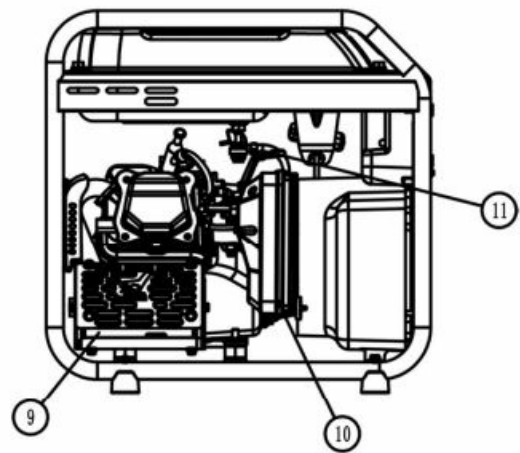
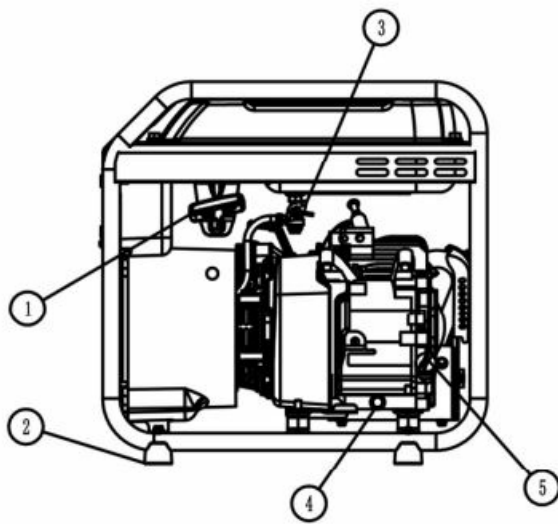


Do not insert any object through the air cooling slots. Generator can start at any time and could result in death, serious injury, and unit damage.

- Do not operate the generator if connected electrical devices overheat, if electrical output is lost, if engine or generator sparks or if flames or smoke are observed while unit is running.
- Keep a fire extinguisher near the generator at all times.

IMPORTANT NOTE: This list is not all inclusive. Check with the Authority Having Jurisdiction (AHJ) for any local codes or standards which may be applicable to your jurisdiction.

KNOWING YOUR GENERATOR



1. Recoil Starter
2. Grounding Lug
3. Air Filter
4. Oil Drain
5. Oil Fill
6. Fuel Tank
7. Gas Cap
8. Fuel Gauge
9. Muffler
10. Air Filter
11. CHOKE Knob
12. RUN/STOP Switch
13. LED ALARM 1
14. AC RESET
15. VFT meter
16. AC Breaker
17. 20A Volt AC Sock
18. 30A Volt AC Sock
19. PARALLEL OPERATION OUTLETS
20. 12 Volt DC
21. DC Breaker
22. Ground
23. ECO Switch

GENERATOR PREPARATION

Remove Contents From Carton

Open carton completely by cutting each corner from top to bottom.

Remove and verify carton contents prior to assembly. Carton contents should contain the following:

Accessories

Item	Qty.
Main Unit	1
Owner's Manual	1
Spark Plug Tool	1
Oil funnel	1

Unpack the generator and all its parts, and compare against the list. Do not discard the carton or any packaging materials. Please call 1-872-314-0005 or E-mail us at support@amerisuninc.com / support@powersmartusa.com if any parts are damaged or missing.

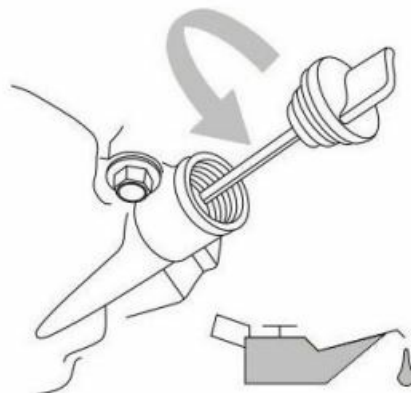
Assembly Instruction

⚠ **CAUTION** Engine damage. Verify proper type and quantity of engine oil prior to starting engine. Failure to do so could result in engine damage.

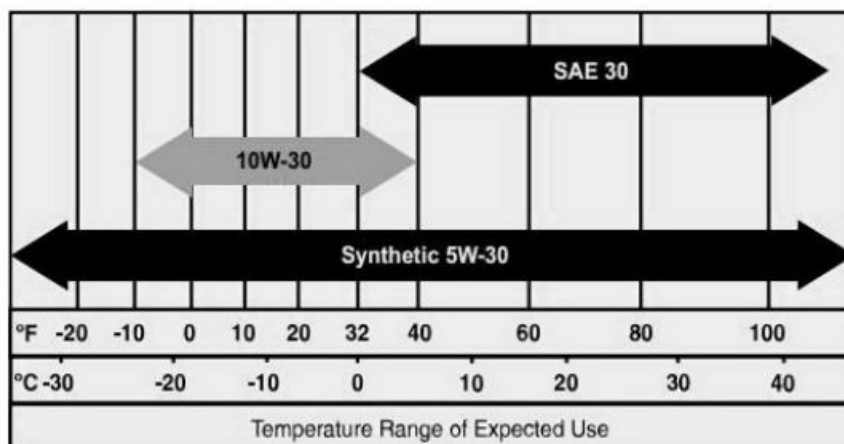
Adding Engine Oil

1. Place generator on a level surface.
2. Verify oil fill area is clean.
3. Remove oil fill cap and wipe dipstick clean.
4. Add recommended engine oil as shown in the following chart.

NOTE: Use petroleum based oil (supplied) for engine break-in before using synthetic oil.

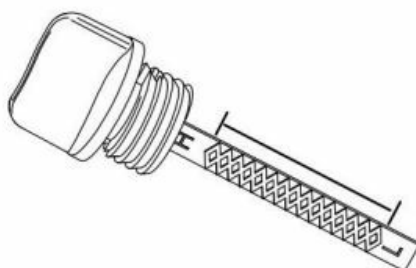


Remove Dipstick





NOTE: Some units have more than one oil fill location. It is only necessary to use one oil fill point.

5. Thread dipstick into oil filler neck. Oil level is checked with dipstick fully installed.
6. Remove dipstick and verify oil level is within safe operating range.



Safe Operating Range

7. Install oil fill cap/dipstick and hand-tighten.

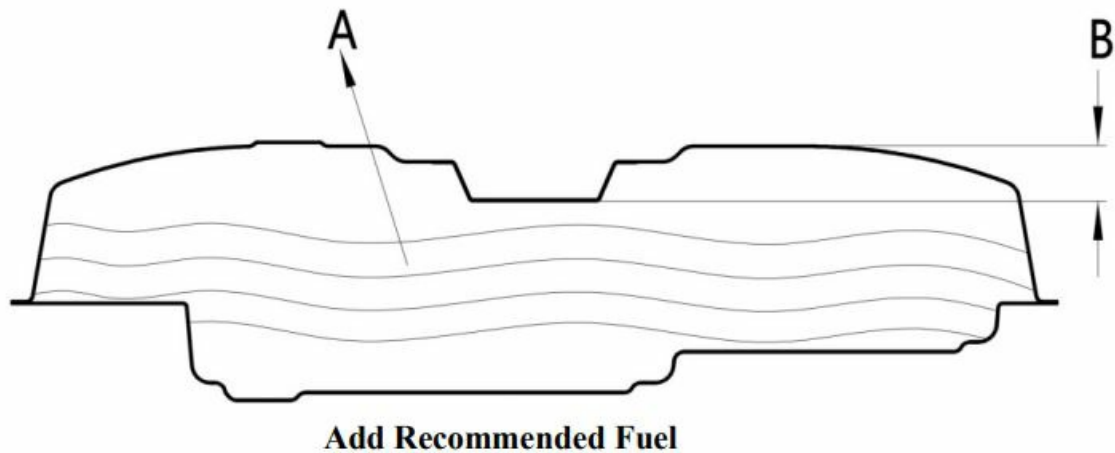
DANGER	
	Explosion and Fire. Fuel and vapors are extremely flammable and explosive. Add fuel in a well ventilated area. Keep fire and spark away. Failure to do so will result in death or serious injury.
DANGER	
	Do not overfill fuel tank. Fill to 1/2 in. of top of tank to allow for fuel expansion. Overfilling may cause fuel to spill onto engine causing fire or explosion, which will result in death or serious injury.

Adding Fuel

Fuel requirements are as follows:

- Clean, fresh, unleaded gasoline.
- Minimum rating of 87 octane/87 AKI (91 RON).
- Up to 10% ethanol (gasohol) is acceptable (where available; non-ethanol-premium fuel is recommended).
- DO NOT use E85.
- DO NOT use a gas oil mix.
- DO NOT modify engine to run on alternate fuels. Stabilize fuel prior to storage.

1. Verify unit is OFF and cooled for a mini-mum of two minutes prior to fuelling.
2. Place unit on level ground in a well venti-lated area.
3. Clean area around fuel cap and remove cap slowly.
4. Slowly add recommended fuel (A). Do not overfill (B).
5. Install fuel cap.



NOTE: Allow spilled fuel to evaporate before starting unit.

IMPORTANT NOTE: It is important to prevent gum deposits from forming in fuel system parts such as the carburetor, fuel hose or tank during storage. Alcohol-blended fuels (called gasohol, ethanol or methanol) can attract moisture, which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. See the Storage section. Never use engine or carburetor cleaner products in the fuel tank as permanent damage may occur.

GENERATOR OPERATION

Operating Location

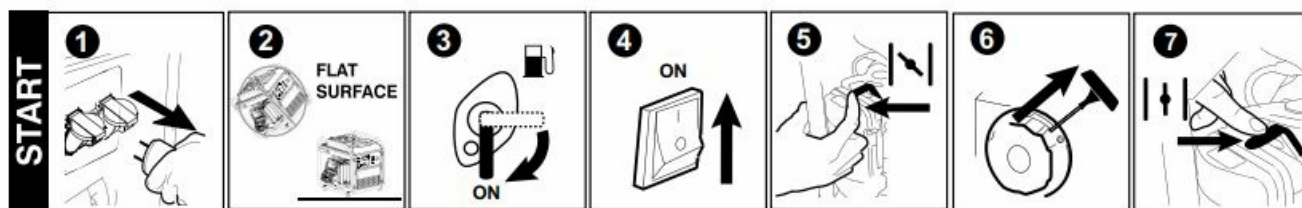
- Only use OUTSIDE and place the generating set in a well-ventilated area.
- Only operate the generating set on a flat, level surface and in a clean, dry operating environment.
- Allow two feet clearance on all side of the generating set while operating it outdoors.
- Operate in specified area, if any 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

1. Unplug all electrical loads from the unit's receptacles before starting engine.
2. Place generator on a level surface.
3. Open the fuel shut-off valve to ON position.
4. Turn engine ON/OFF switch to ON.
5. Slide engine choke to Full CHOKE position (left).
6. Firmly grasp recoil handle and pull slowly until increased resistance is felt. Pull rapidly up and away.
7. When engine starts, move choke knob to 1/2 CHOKE position until engine runs smoothly, then fully into RUN position. If engine falters, move choke back to 1/2CHOKE position until engine runs smoothly, then to RUN

position.

NOTE: If engine fires, but does not continue to run, move choke lever to Full CHOKE and repeat starting instructions.



⚠ **IMPORTANT NOTE:** Do not overload generator or individual panel receptacles. These outlets are overload protected with push-to-reset circuit breakers. If amperage rating of any circuit breaker is exceeded, that breaker opens and electrical output to that receptacle is lost. Read Know Generator Limits carefully.

PARALLEL KIT(OPTIONAL)

Its innovative paralleling capability allows you to meet higher output requirements. by connecting two models together to power your RV air conditioner, lights, cell phone, and other portable appliances at the same time. The easy access storage compartment in the back keeps power cables safe when not in use.

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.

Grounding the Generator When Used as a Portable

The generator is equipped with an equipment ground connecting the generator frame and the ground terminals on the AC output receptacles. This allows the generator to be used as a portable without grounding the frame of the generator.

Connecting the Generator to a Building Electrical System

When connecting directly to a building electrical system, it is recommended that a manual transfer switch be used. Connections for a portable generator to a building electrical system must be made by a qualified electrician and in strict compliance with all national and local electrical codes and laws.

Know Generator Limits

Overloading a generator can result in damage to the generator and connected electrical devices. Observe the following to prevent overload:

- Add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator's wattage capacity.
- The rated wattage of lights can be taken from light bulbs. The rated wattage of tools, appliances, and motors can be found on a data label or decal affixed to the device.
- If the appliance, tool, or motor does not give wattage, multiply volts times ampere rating to determine watts (volts x amps = watts).
- Some electric motors, such as induction types, require about three times more watts of power for starting than for running. This surge of power lasts only a few seconds when starting such motors. Make sure to allow for

high starting wattage when selecting electrical devices to connect to the generator:

1. Figure the watts needed to start the largest motor.
2. Add to that figure the running watts of all other connected loads. The Wattage Reference Guide is provided to assist in determining how many items the generator can operate at one time.

NOTE: All figures are approximate. See data label on appliance for wattage requirements.

Device Running	Watts	Device Running	Watts
*Air Conditioner (12,000 Btu)	1700	Hand Drill	250 to 1100
*Air Conditioner (24,000 Btu)	3800	Hedge Trimmer	450
*Air Conditioner (40,000 Btu)	6000	Impact Wrench	500
Battery Charger (20 Amp)	500	Iron	1200
Belt Sander (3")	1000	*Jet Pump	800
Chain Saw	1200	Lawn Mower	1200
Circular Saw (6-1/2")	800 to 1000	Light Bulb	100
*Clothes Dryer (Electric)	5750	Microwave Oven	700 to 1000
*Clothes Dryer (Gas)	700	*Milk Cooler	1100
*Clothes Washer	1150	Oil Burner on Furnace	300
Coffee Maker	1750	*Paint Sprayer, Airless (1/3 HP)	600
*Compressor (1 HP)	2000	Paint Sprayer, Airless/hand-held	150
*Compressor (3/4 HP)	1800	Radio	50 to 200
*Compressor (1/2 HP)	1400	*Refrigerator	700
Curling Iron	700	Slow Cooker	200
*Dehumidifier	650	*Submersible Pump (1-1/2 HP)	2800
Disc Sander (9")	1200	*Submersible Pump (1 HP)	2000
Edge Trimmer	500	*Submersible Pump (1/2 HP)	1500
Electric Blanket	400	*Sump Pump	800 to 1050
Electric Nail Gun	1200	*Table Saw (10")	1750 to 2000
Electric Range (per element)	1500	Television	200 to 500
Electric Skillet	1250	Hair Dryer	1200
*Freezer	700	Weed Trimmer	500
*Furnace Fan (3/5 HP)	875	Toaster 1000 to	1650
*Garage Door Opener	500 to 750		
* Allow 3 times the listed watts for starting these devices.			

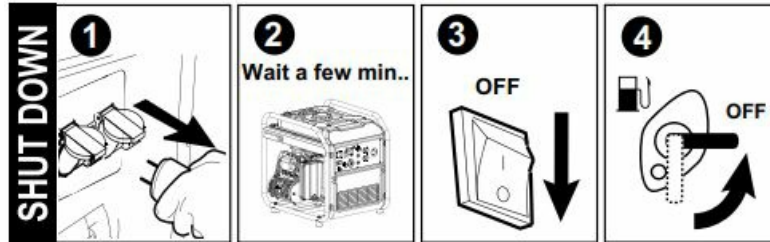
Wattage Reference Guide

Generator Shut Down

1. Shut off all loads and unplug electrical loads from generator panel receptacles.

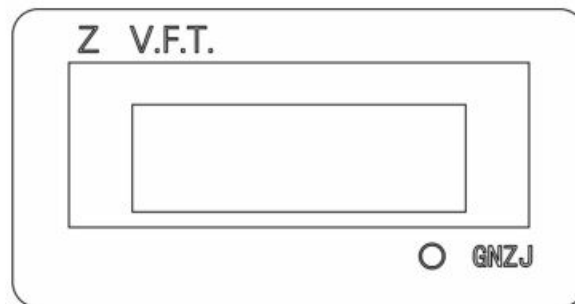
2. Let engine run at no-load for several minutes to stabilize internal temperatures of engine and generator.
3. Move ON/OFF switch to OFF.
4. Close fuel valve.

NOTE: Under normal conditions, close fuel valve and allow generator to run carburetor bowl out of fuel. For emergencies, switch to STOP.



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).



VFT meter

Function Indicator

The OIL ALARM will illuminate when the generator is low oil level. The OVERLOAD ALARM will illuminate when the generator is over load. The OUTPUT INDICATOR lamp will illuminate when the generator run steadily.



Function indicator

Low Oil Level Shutdown System

The engine is equipped with a low oil level sensor that shuts down the engine automatically when the oil level drops below a specified level. The engine will not run until the oil has been filled to the proper level. If the engine shuts down and there is sufficient fuel, check engine oil level.

MAINTENANCE

Regular maintenance will improve performance and extend engine/equipment life. It is recommended that all maintenance work be performed by an Independent Authorized Service Dealer (IASD). Regular maintenance,

replacement or repair of the emissions control devices and systems may be performed by any repair shop or person of the owner's choosing. However, to obtain emissions control warranty service free of charge, the work must be performed by an IASD. See the emissions warranty.

NOTE: Contact your nearest Independent Authorized Service Dealer (IASD) with questions about component replacement.

Maintenance Schedule

Follow maintenance schedule intervals, whichever occurs first according to use.

NOTE: Adverse conditions will require more frequent service.

NOTE: All required service and adjustments should be each season as detailed in the following chart.

At Each Use
Check engine oil level
Every 25 Hours
Clean Air Filter**
Every 100 Hours or Every Season*
Change Oil ‡
Clean/Gap Spark Plug
Every 200 Hours or Every Season
Replace Air Filter
Replace Spark Plug
Check/Adjust Valve Clearance***
‡ Change oil after first 30 hours of operation, then every season. * Change oil and oil filter every month when operating under heavy load or in high temperatures. ** Clean more often under dirty or dusty operating conditions. Replace air filter parts if they cannot be adequately cleaned. *** Check valve clearance and adjust if necessary after first 50 hours of operation and every 300 hours thereafter.

Preventive Maintenance

Dirt or debris can cause improper operation and equipment damage. Clean generator daily or before each use. Keep area around and behind muffler free from combustible debris. Inspect all cooling air openings on generator.

⚠ **WARNING** Do not insert any object through the air cooling slots. Generator can start at any time and could result in death, serious injury, and unit damage.

- Use a damp cloth to wipe exterior surfaces clean.
- Use a soft bristle brush to loosen caked on dirt, oil, etc.
- Use a vacuum to pick up loose dirt and debris.
- Low pressure air (not to exceed 25 psi) may be used to blow away dirt. Inspect cooling air slots and openings on generator. These openings must be kept clean and unobstructed.

NOTE: DO NOT use a garden hose to clean generator. Water can enter engine fuel system and cause problems. If water enters generator through cooling air slots, some water will be retained in voids and crevices of rotor and stator winding insulation. Water and dirt buildup on generator internal winding will decrease insulation resistance of winding.

⚠ **WARNING** Accidental start-up. Disconnect spark plug wires when working on unit. Failure to do so could result in death or serious injury.

To maintain the product warranty, the engine oil should be serviced in accordance with the recommendations of this manual. DO NOT use special additives.

Change Engine Oil

⚠ **WARNING** Accidental start-up. Disconnect spark plug wires when working on unit. Failure to do so could result in death or serious injury.

When using generator under extreme, dirty, dusty conditions, or in extremely hot weather, change oil more frequently.

NOTE: Don't pollute. Conserve resources. Return used oil to collection centers. Change oil while engine is still warm from running, as follows:

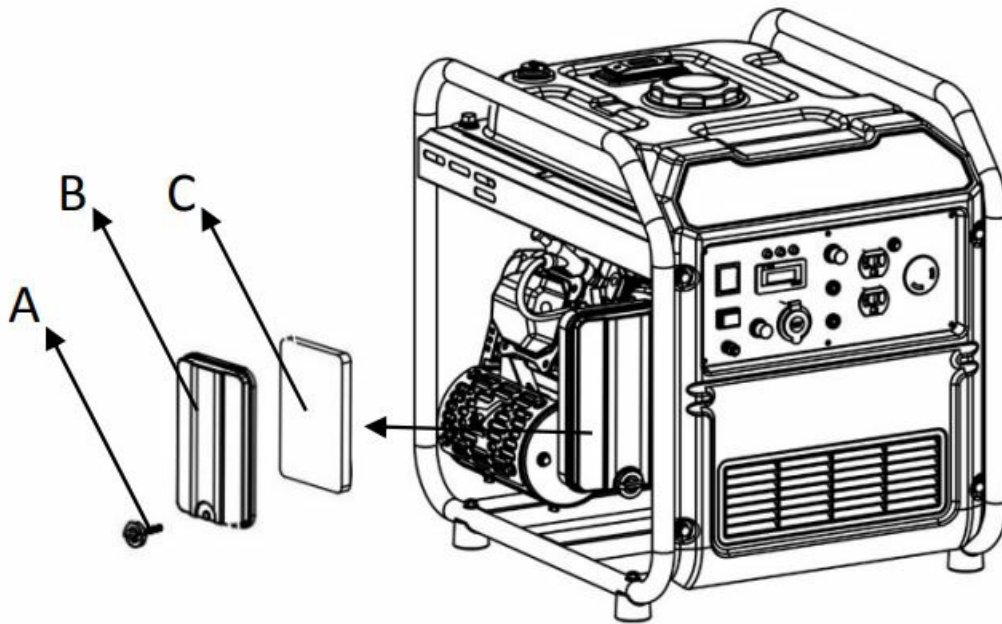
1. Place generator on a level surface.
2. Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact spark plug.
3. Clean area around oil fill, and oil drain plug.
4. Remove oil fill cap.
5. Remove oil drain plug and drain oil completely into a suitable container.
6. Install oil drain plug and tighten securely.
7. Slowly pour oil into oil fill opening until oil level is between L and H marks on dip-stick. DO NOT overfill.
8. Install oil fill cap, and finger tighten.
9. Wipe up any spilled oil. 10. Properly dispose of oil in accordance with all applicable regulations.

Air Filter Maintains

Engine will not run properly and may be damaged if run with a dirty air filter. Service air filter more frequently in dirty or dusty conditions. To service air filter:

1. Turn knob (A) and remove air filter cover (B).
2. Wash in soapy water. Squeeze filter (C) dry in clean cloth (DO NOT TWIST).
3. Clean air filter cover before re-installing it.

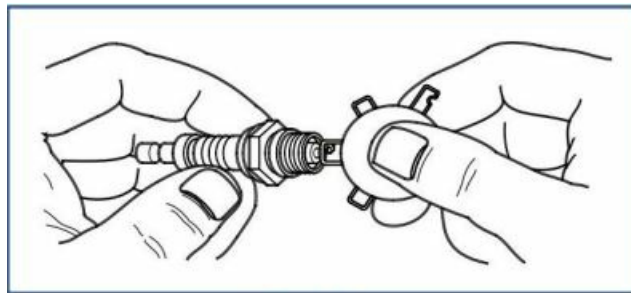
NOTE: To order a new air filter, contact the nearest Independent Authorized Service Dealer (IASD).



Air Filter Assembly

Spark Plug Maintains

To service spark plug:



Spark Plug

1. Clean area around spark plug.
2. Remove and inspect spark plug.
3. Inspect electrode gap with wire feeler gauge and reset spark plug gap to 0.76 mm.
 NOTE: Replace spark plug if electrodes are pitted, burned or porcelain is cracked.
 Use ONLY recommended replacement plug. See Specifications.
4. Install spark plug finger tight, and tighten an additional 3/8 to 1/2 turn using spark plug wrench.

Valve Clearance

IMPORTANT NOTE: If uncomfortable about doing this procedure, or the proper tools are not available, take generator to the nearest service center to have valve clearance adjusted. Check valve clearance after the first fifty-hours of operation. Adjust as necessary.

- Intake — $0.15 \pm 0.02\text{mm}$ (cold)
- Exhaust — $0.20 \pm 0.02\text{mm}$ (cold)

Storage

It is recommended to start and run the generator for 30 minutes, every 30 days. If this is not possible, refer to the following list to prepare unit for storage.

- DO NOT place a storage cover on a hot generator. Allow unit to cool to room temperature before storage.
- DO NOT store fuel from one season to another unless properly treated.
- Replace fuel container if rust is present. Rust in fuel will cause fuel system problems.
- Cover unit with a suitable protective, moisture resistant cover.
- Store unit in a clean and dry area.
- Always store generator and fuel away from heat and ignition sources.

Prepare Fuel System for Storage

Fuel stored over 30 days can go bad and damage fuel system components. Keep fuel fresh, use fuel stabilizer. If fuel stabilizer is added to fuel system, prepare and run engine for long term storage. Run engine for 10-15 minutes to circulate stabilizer throughout fuel system. Adequately prepared fuel can be stored up to 24 months.

NOTE: If fuel has not been treated with fuel stabilizer, it must be drained into an approved container. Run engine until it stops from lack of fuel. Use of fuel stabilizer in fuel storage container is recommended to keep fuel fresh.

1. Change engine oil.
2. Remove spark plug.
3. Pour tablespoon (5-10cc) of clean engine oil or spray a suitable fogging agent into cylinder.
 - ⚠ **WARNING** Vision Loss. Eye protection is required to avoid spray from spark plug hole when cranking engine. Failure to do so could result in vision loss.
4. Pull starter recoil several times to distribute oil in cylinder.
5. Install spark plug.
6. Pull recoil slowly until resistance is felt. This will close valves so moisture cannot enter engine cylinder. Gently release recoil.

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.

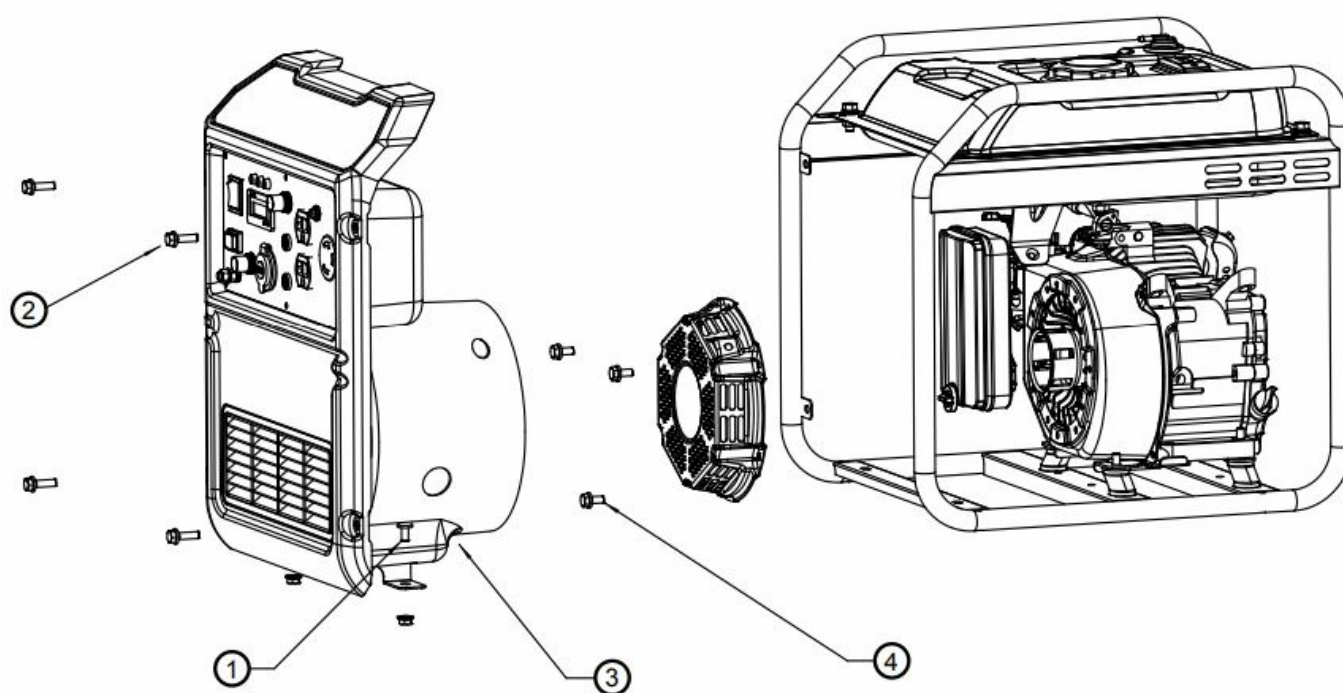
How to replace the recoil starter in steps

Step1: Loosen 2 fixed bolts on the inverter.

Step3: Pull apart the panel slowly.

Step2: Loosen 2 fixed bolts on the control panel.

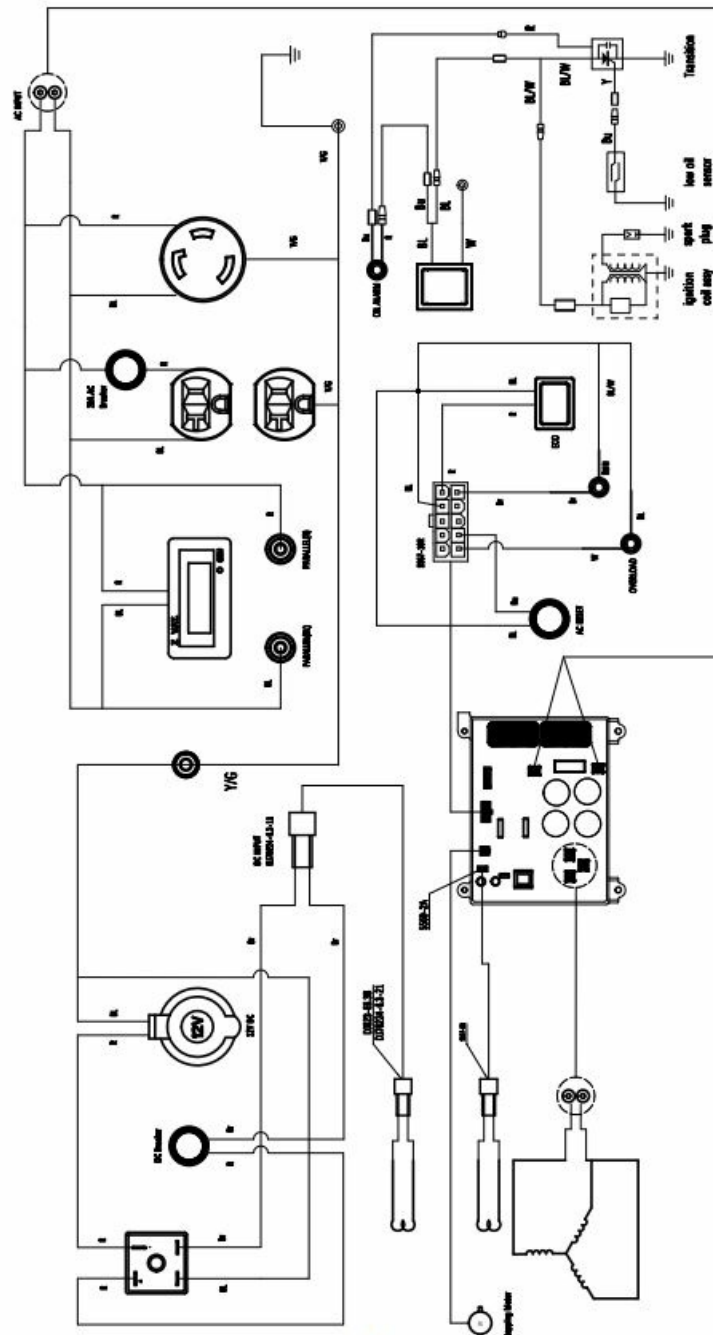
Step4: Loosen 3 bolts on the recoil starter.



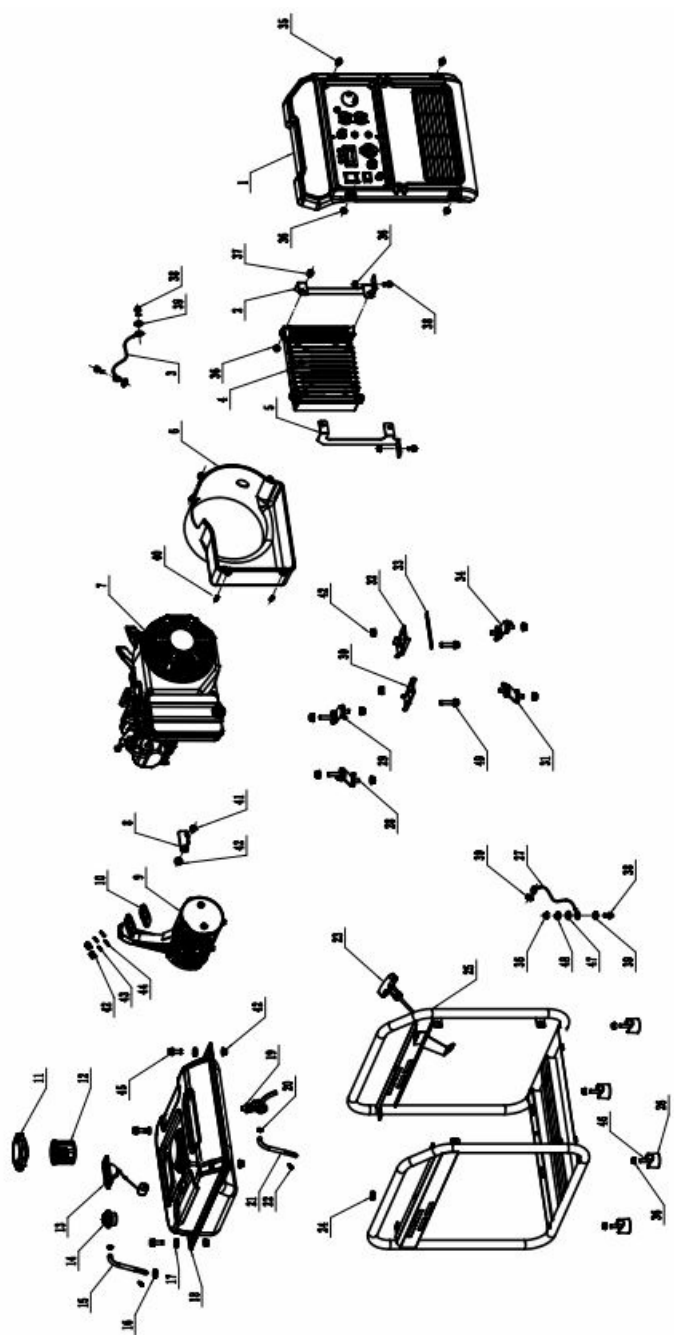
TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Engine is running, but AC output is not available.	<ol style="list-style-type: none"> 1. Circuit breaker OPEN. 2. Poor connection or defective cord set. 3. Connected device is bad. 4. Fault in generator. 	<ol style="list-style-type: none"> 1. Reset circuit breaker. 2. Check and repair. 3. Connect another device that is in good condition. 4. Contact IASD.
Engine runs well at no-load, but bogs when load is applied.	<ol style="list-style-type: none"> 1. Short circuit in a connected load. 2. Generator is overloaded. 3. Engine speed is too slow. 4. Shorted generator circuit. 	<ol style="list-style-type: none"> 1. Disconnect shorted electrical load. 2. See Know Generator Limits. 3. Contact IASD. 4. Contact IASD.
Engine will not start; or starts and runs rough.	<ol style="list-style-type: none"> 1. Fuel shut-off is OFF. 2. Dirty air filter. 3. Out of fuel. 4. Stale fuel. 5. Spark plug wire not connected to spark plug. 6. Bad spark plug. 7. Water in fuel. 8. Over choking. 9. Low oil level. 10. Excessive rich fuel mixture. 11. Intake valve stuck open or closed. 12. Engine lost compression. 	<ol style="list-style-type: none"> 1. Turn fuel shut-off ON. 2. Clean or replace air filter. 3. Fill fuel tank. 4. Drain fuel tank and fill with fresh fuel. 5. Connect wire to spark plug. 6. Replace spark plug. 7. Drain fuel tank; fill with fresh fuel. 8. Set choke to no choke position. 9. Fill crankcase to correct level. 10. Contact IASD. 11. Contact IASD. 12. Contact IASD.
Engine shuts down during operation.	<ol style="list-style-type: none"> 1. Out of fuel. 2. Low oil level. 3. Fault in engine. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. Fill crankcase to correct level. 3. Contact IASD.
Engine lacks power.	<ol style="list-style-type: none"> 1. Load is too high. 2. Dirty air filter. 3. Engine needs to be serviced. 	<ol style="list-style-type: none"> 1. Reduce load (see Know Generator Limits). 2. Clean or replace air filter. 3. Contact IASD.
Engine surges or stumbles.	<ol style="list-style-type: none"> 1. Choke is opened too soon. 2. Carburetor is running too rich or too lean. 	<ol style="list-style-type: none"> 1. Set choke to 1/2 CHOKE until engine runs smoothly. 2. Contact IASD.

WIRING DIAGRAM

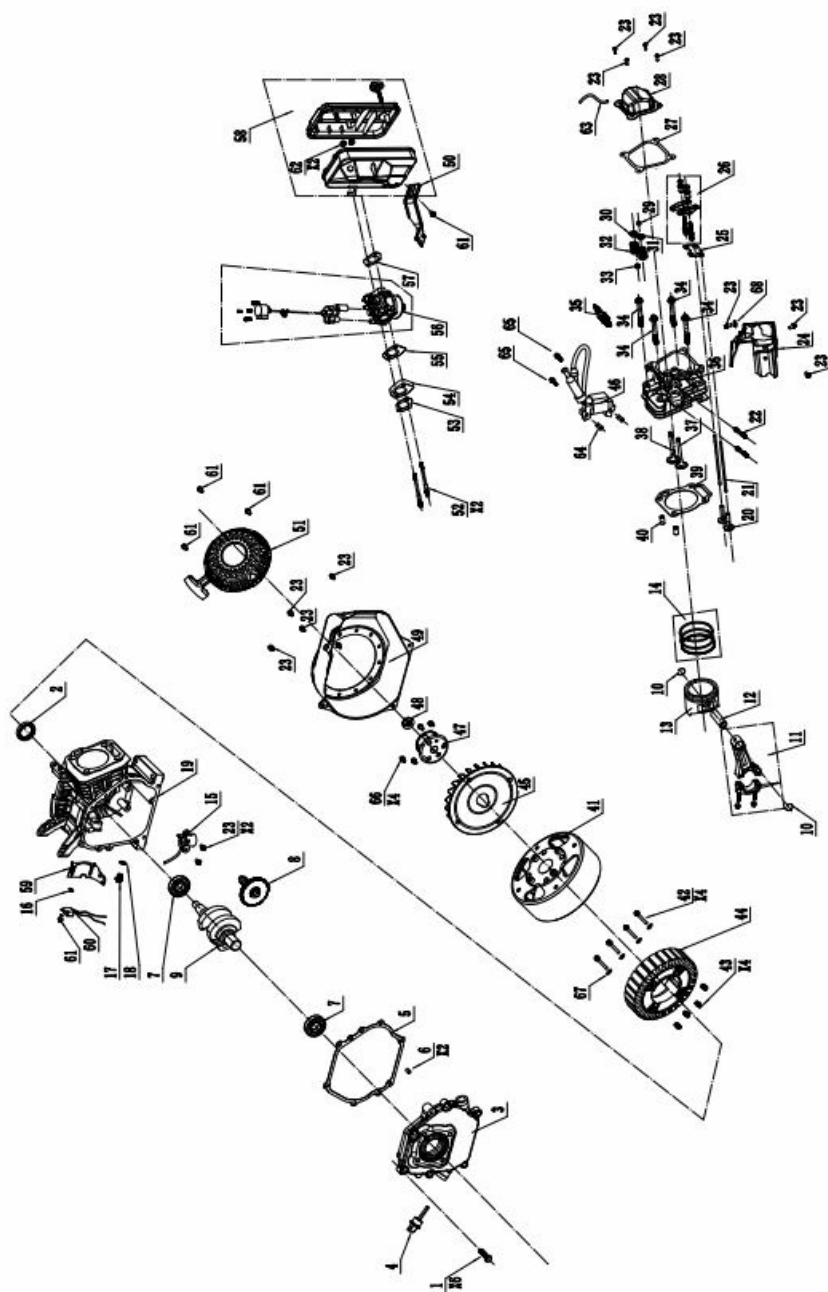


EXPLODED VIEW & PARTS LIST



ITEM	CODE	DESCRIPTION	QTY.
1	029027000005	Control panel	1
2	026210000300	Inverter gasket (right)	1
3	029930001902	Inverter grounding wire	1
4	029031100903	inverter	1
5	026210000200	Inverter gasket (left)	1
6	026210000100	inverter cover	1
7	012130000093	Engine	1
8	026170000300	Muffler gasket	1
9	026170000200	Muffler	1
10	029049910200	Muffler bracket	1
11	02901990111004	Fuel tank cap	1
12	029019900606	Fuel tank filter	1
13	029019903806	Fuel level indicator	1
14	029019990019	Fuel tank check valve	1
15	029019902103	Fuel pipe	0.5
16	029019901203	shock absorption	4
17	029010370101	Fuel tank	1
18	02901990070904	Fuel switch	1
19	029019900401	Clamp	2
20	029019900100	Fuel pipe	0.5
21	029019900408	Clamp	2
22	026300000100	Recoil handle	1
23	029019901201	Shock absorption	1
24	026300100001	Frame	1
25	029910101000	shock absorption	4
26	029930000401	Grounding wire	1
27	029910400101	Shock absorption	1
28	029910400102	Shock absorption	1

ITEM	CODE	DESCRIPTION	QTY.
29	026210000400	Shock absorption	1
30	029910400201	Shock absorption	1
31	026210000500	Shock absorption	1
32	021060000202	Clip	1
33	029910400202	Shock absorption	1
34	511050602001	Flane bolt	4
35	512040600001	Nut M6	12
36	511050602501	Flane bolt	4
37	511050601201	Flane bolt	3
38	513030600000	Gasket ø6	4
39	517050401800	Screw ST4.8x18	4
40	511050801601	Flane bolt	1
41	512040800001	Nut M8	11
42	513020800000	spring washer	2
43	513010800001	Flat washer	2
44	510050802501	Flane bolt M8X25(with f	4
45	511050603501	Flane bolt M8x35	4
46	513010600001	Flat washer	1
47	513020600000	Spring washer	1
48	511050803501	Flane bolt M8X35	2



ITDE	CODE	DESCRIPTION	QTY.
1	511050803301	Bolt M8X33.5	6
2	522010100401	Oil sealing B2541	1
3	01202000081205	Crankcase cover	1
4	012020200031	Oil dipstick	1
5	012020000900	crankcase gaskets	1
6	514010801400	pin 8X14	2
7	521010010502	bearing 6205	2
8	012130100001	cam shaft	1
9	012130200003	crankshaft	1
10	518041800000	Piston pin circlip	2
11	012130300000	Connect rod assy	1
12	012020002600	Piston pin	1
13	01203000040204	Piston	1
14	012030400001	Piston ring set	1
15	015020000200	low oil sensor	1
16	511050602201	Bolt M6X22	1
17	019990000300	Oil drain bolt M10*15	1
18	019990000400	Oil drain bolt gaskets	1
19	01213000010205	cylinder head cover	1
20	012030000300	valve tappet	2
21	012020002200	valve lifter	2
22	516040803401	studs M8X34	2
23	511050601201	Bolt M6X12	12
24	012130000202	Lead wind cover	1
25	012130400000	Push guide assy	1
26	012130600000	Valve rocket assy	2
27	012020001100	cylinder head cover	1
28	012020001000	cylinder head cover	1
29	012020001300	Cap	1
30	012020001500	Intake spring seat	1
31	012020001400	Exhaust spring seat	1
32	012020001600	valve spring	2
33	012020002400	Oil seal, pipe	1
34	511050806006	Bolt M8X60	4
35	01202000330104	spark plug	1
36	012030001700	cylinder head	1
37	012030000600	outlet valve	1
38	012030000700	inlet valve	1
39	012130000500	cylinder head gaskets	1
40	514011001600	pin10X16	2
41	3VDZ590202	motor stator assembly	1
42	511130606501	Bolt M6X65	4
43	012030004700	pin8	4
44	3VZZ590201	Flywheel	1
45	012030005200	Flywheel fan	1
46	012020003207	Ignition coil	1

ITDE	CODE	DESCRIPTION	QTY.
47	012030004500	Starting flange	1
48	012020002900	Nut M14×1.5	1
49	012160000601	Starting flange	1
50	012020007400	Breathing tube	1
51	012131600001	Recoil starter	1
52	516040609401	studs M6X94	2
53	012020003800	Inlet gasket	1
54	012020003902	carburator Cushion block	1
55	012020004000	carburator gasket	1
56	012130700013	carburator	1
57	012020004100	Air cleaner gasket	1
58	01203070000206	Air cleaner	1
59	012030003601	Shroud comp.	1
60	019990001704	Sheet wizard valve	1
61	511050600807	Bolt M6X8	4
62	512040600001	Nut M6	3
63	019990000502	Breathing tube	1
64	012030005300	Gasket	2
65	511050604501	Bolt M6X45	2
66	511050601601	Bolt M6X16	4
67	513010600001	washer Φ6.6*12	4
68	513040600000	washer Φ 6.4X18	1

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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 two (2) years from date of purchase. Ninety (90) days for all PowerSmart Products, if the tool is used for professional or commercialise.

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For questions/ comments, technical assistance or repair parts –

Please call toll free at: 1-872-314-0005 (M-F 9am-5pm CST)

Email: support@amerisuninc.com , support@powersmartusa.com

SAVE YOUR RECEIPTS. THIS WARRANTY IS VOID WITHOUT THEM.

Documents / Resources

	<p>POWER SMART MB5040A 4400W Frame Inverter Generator [pdf] Instruction Manual MB5040A Inverter Generator, MB5040A, Inverter Generator, Generator</p>
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References

- [^ Power Up Your Smart Life with Our Outdoor Power Equipment](#)
- [User Manual](#)

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