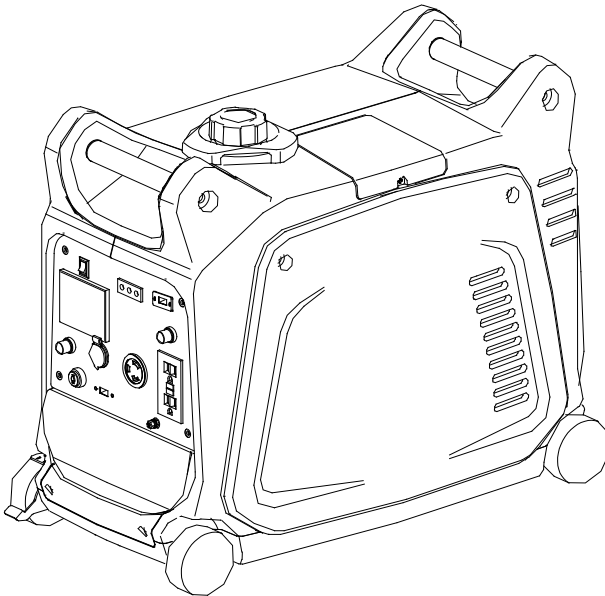


# AIMS POWER™

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## PORTABLE INVERTER GENERATOR

### GEN3200W120V



**IMPORTANT** – USERS OF THIS EQUIPMENT SHOULD READ AND UNDERSTAND THE MANUAL PRIOR TO USING. KEEP MANUAL FOR REFERENCE.

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**WARNING!**

PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE OPERATING THE GENERATOR.

## SAFETY INFORMATION

### 1) EXHAUST FUMES ARE POISONOUS

- Never operate the engine in a closed area or it may cause unconsciousness and can cause death within a short period of time. Operate the engine in a well ventilated area.

### 2) FUEL IS HIGHLY FLAMMABLE AND POISONOUS

- Always turn off the engine when refueling
- Never refuel while smoking or in the vicinity of an open flame.
- Take care not to spill any fuel on the engine or muffler when refueling.
- If you swallow any fuel, inhale fuel vapor, or allow any to get in your eyes, see your doctor immediately. If any fuel spills on your skin or clothing, immediately wash with soap and water and change your clothes.
- When operating or transporting the generator, be sure it is kept upright. If it tilts, fuel may leak from the carburetor or fuel tank.

### 3) ENGINE AND MUFFLER MAY BE HOT

- Place the generator in a place where passers-by or children are not likely to touch the generator.
- Avoid placing any flammable materials near the exhaust outlet during operation.
- Keep the generator at least 3 feet from buildings and other equipment, or the engine may overheat.
- Avoid operating the engine with a dust cover.
- Be sure to carry the generator only by its carrying handle.
- Put the generator on the flat ground, allowing the generator to vent heat freely.

### 4) ELECTRIC SHOCK PREVENTION

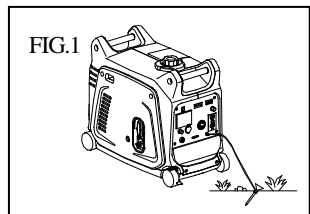
- Never operate the engine in rain or snow.
- Never touch the generator with wet hands or electrical shock will occur.
- Be sure to ground (earth) the generator.**FIG.1**

**NOTE:**

Use ground (earth) lead of sufficient current capacity.

Diameter: 0.12mm (0.005 in)/ampere

EX: 10 Ampere --1.2mm (0.055 in)- Use 8 AWG



5) CONNECTION NOTES

- Do not connect the generator to commercial power outlet.
- Do not connect the generator in parallel with any other generator.

**SAFETY SYMBOLS**



Caution - The user should be aware of a general hazard.



Dangerous Voltage



Flammable

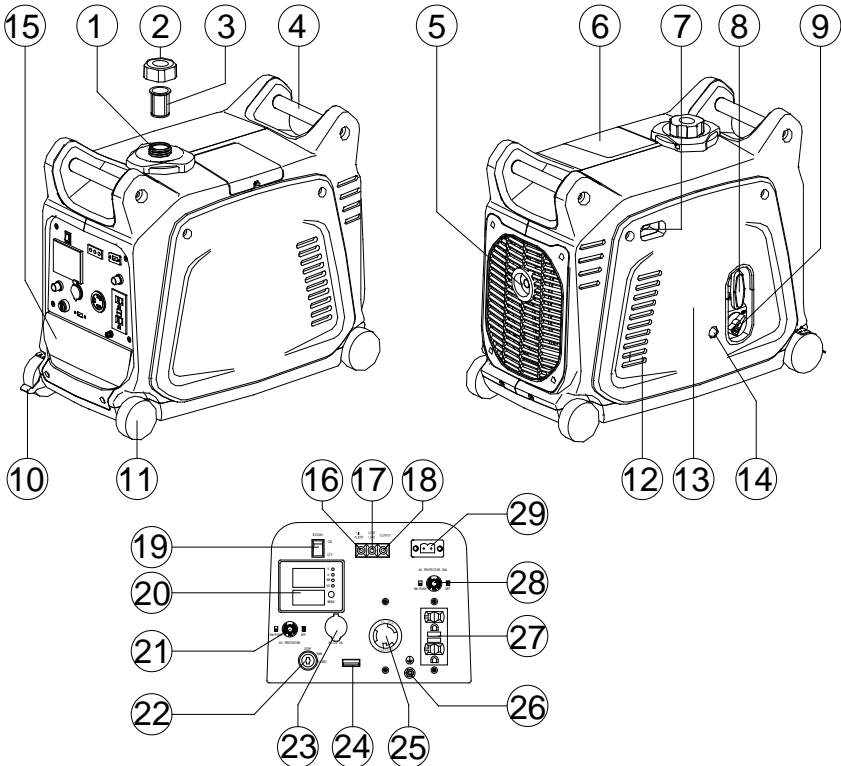


Hot Surface - Do not touch.

# CONTROL & FEATURES

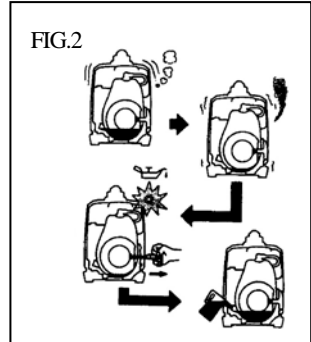
## DESCRIPTION

- |                             |                               |                          |
|-----------------------------|-------------------------------|--------------------------|
| (1) Fuel tank               | (2) Fuel tank cap             | (3) Fuel filter          |
| (4) Carrying handle         | (5) Muffler                   | (6) Spark plug           |
| (7) Choke lever             | (8) Recoil starter            | (9) Fuel cock            |
| (10) Brake lever            | (11) Wheel                    | (12) Oil filler cap      |
| (13) Air filter             | (14) Fuel pump                | (15) Battery             |
| (16) Oil warning light      | (17) Overload indicator light | (18) AC pilot light      |
| (19) Economy control switch | (20) Voltmeter                | (21) DC protector        |
| (22) Engine switch          | (23) DC receptacle            | (24) USB                 |
| (25) AC receptacle L5-30R   | (26) Ground (earth) terminal  | (27) AC receptacle 5-20R |
| (28) AC protector           | (29) Auto gen start           |                          |



### 1) OIL WARNING SYSTEM

When the oil level falls below the lower level, the engine stops automatically. Unless you refill with oil, the engine will not start again.**FIG.2**



### 2) ENGINE SWITCH

The engine switch controls the ignition system.**FIG.3**

#### ① ON (run)

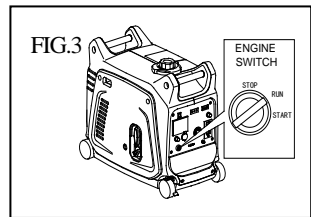
Ignition circuit is switched on. The engine can be started.

#### ② STOP

Ignition circuit is switched off. The engine will not run.

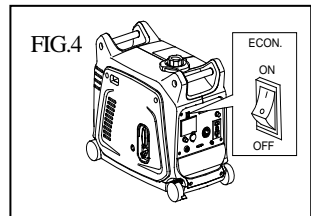
#### ③ START

Starting circuit is switched on. The starter motor starts.



### 3) ECONOMY CONTROL SWITCH

When the economy control switch is turned "ON", the economy control unit controls the engine speed according to the connected load. The result is a less efficient fuel consumption with less noise.**FIG.4**

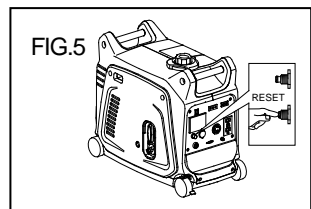


### 4) DC CIRCUIT PROTECTOR

The DC circuit protector turns off automatically when the load exceeds the generator's rated output. **FIG.5**

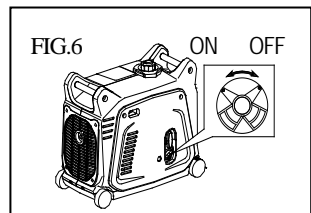
#### CAUTION:

- Reduce the load to within specified generator's rated output if the DC circuit protector turns off.



### 5) FUEL COCK

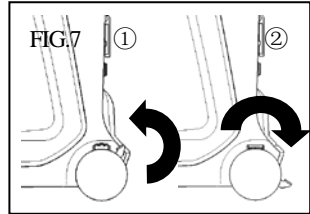
The fuel cock is used to supply fuel from the tank to the carburetor. **FIG.6**



6) BRAKE LEVER

The function of brake lever is preventing generator moving.**FIG.7**

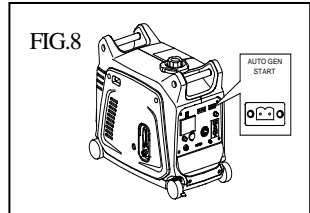
- ① If the brake lever is not on, the generator can move.
- ② If the brake lever is on, the generator can't move.



7) AUTO GEN START

The auto gen start controls the ignition system. **FIG.8**

- When the circuit of this plug connected the starter motor starts
- When the circuit of this plug disconnected the engine will stop



## PRE-OPERATION CHECK

NOTE:

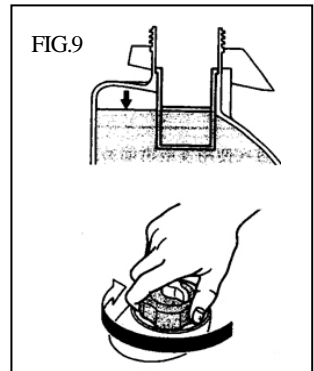
- Add the fuel (more than 5 liters for the first time using this generator).
- The first time using the generator, press the primer bulb 6 times after refueling gasoline
- Pre-operation checks should be made each time the generator is used.

1) CHECK ENGINE FUEL

- Make sure there is sufficient fuel in the tank.**FIG.9**
- If fuel is low, refill with unleaded automotive gasoline.
- Be sure to use the fuel filter screen on the fuel filter neck.
- Recommended fuel: Unleaded gasoline.
- Fuel tank capacity: (see page 17)

WARNING:

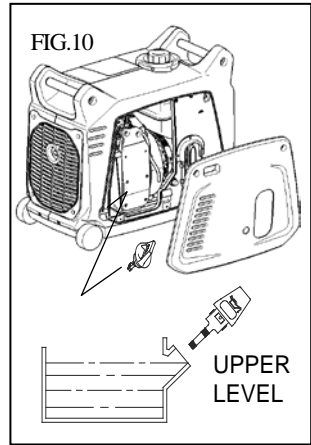
- Do not refill tank while engine is running or hot.
- Close fuel cock before refueling with fuel.
- Be careful not to allow dust, dirt, water or other foreign objects into fuel.
- Do not fill above the top of the fuel filter or it may overflow when the fuel heats up and expands.
- Wipe off spilt fuel thoroughly before starting engine.
- Keep away from open flames.



## 2) CHECK ENGINE OIL

Make sure the engine oil is at the upper level of the oil filler hole. Add oil as necessary.

- Remove oil filler cap and check the engine oil level. **FIG.10**
- If oil level is below the lower level line, refill with suitable oil to upper level line. Do not screw in the oil filler cap when checking oil level.
- Change oil if dirty.  
Oil capacity: (see page 17)
- Recommended engine oil:  
API Service "SJ" **FIG.11**



## 3) GROUND (Earth)

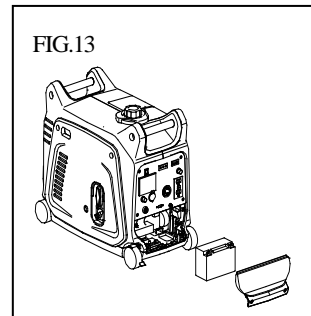
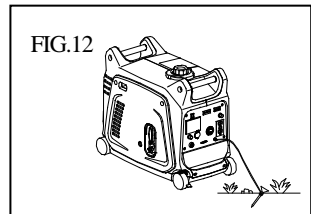
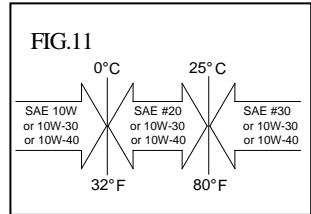
Make sure to ground (earth) the generator. Use 8 AWG wire. **FIG.12**

## 4) CONNECT BATTERY (for electric start system)

- Loosen the screw and remove the battery cover.
- Clamp the red wire to the positive (+) terminal and the black wire to the negative (-) terminal of the battery. Do not reverse these polarity.

### **FIG.13**

- Be sure the battery is installed on the battery mount tray securely.
- Install the cover and tighten the screw.
- Recommended battery: Minimum capacity 12V 6AH





## OPERATION

- The generator has been shipped without engine oil. Fill with oil or it will not start.
- Do not tilt the generator when adding engine oil. This could result in overflowing and damage to the engine


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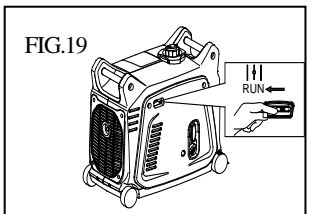
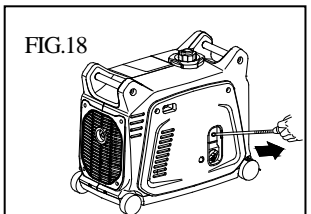
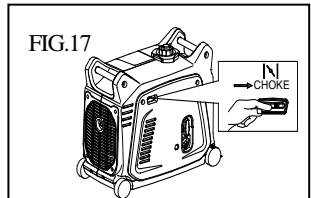
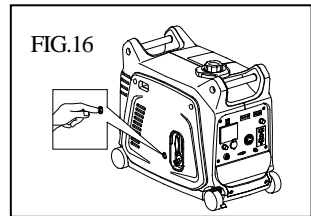
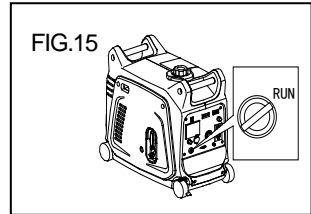
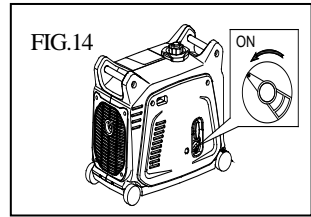
### 1) STARTING THE ENGINE

- Before starting the engine, do not connect electric appliance.


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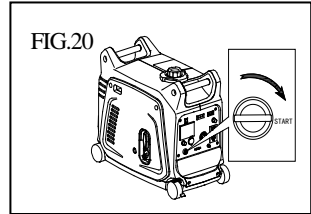
Recoil start

1. Turn the fuel cock lever to the ON position. **FIG.14**
2. Turn the engine switch to the RUN position. **FIG.15**
3. When starting the generator for the first time, press the primer bulb 6 times before attempting to start. **FIG.16**
4. Turn the choke lever to the |  | position. **FIG.17**
5. Pull the starter handle slowly until resistance is felt. This is the "Compression" point. Return the handle to its original position and pull swiftly. Do not fully pull out the rope. After starting, allow the starter handle to return to its original position while still holding the handle. Grasp the carrying handle firmly to prevent the generator from falling over when pulling the recoil starter. **FIG.18**
6. Warm up the engine without a load for a few minutes.
7. Turn the choke lever back to the operating position. **FIG.19**
8. Warm up the engine without a load for a few minutes.




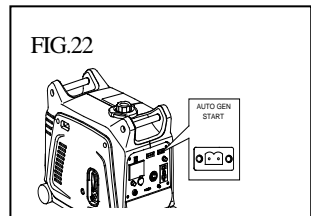
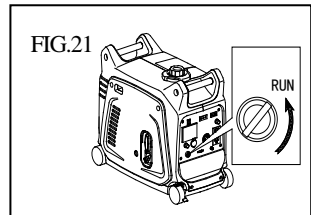
## Electric start

1. Turn the fuel cock lever to the ON position.
2. Turn the choke lever to the |  | position.
3. Turn the engine switch to the START position. **FIG.20**
4. Turn the engine switch to the RUN position. **FIG.21**
5. Turn the choke lever back to the operating position.
6. Warm up the engine without a load for a few minutes.



## Auto start

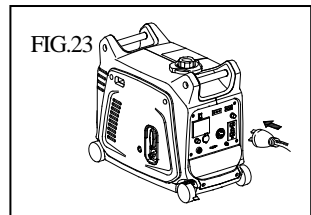
1. Make sure the fuel cock lever to the ON position.
2. Please make sure the choke lever to the |  | RUN position.
3. Make sure the engine switch to the RUN position.
4. Connect the cable to Auto Gen Start plug, as soon as the generator receives the start signal, the generator will start. If the generator does not start successfully, it will try to start again. Generator will disconnect the circuit when the generator does not start after three times.. **FIG.22**



## USING ELECTRIC POWER

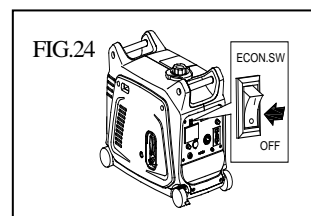
### AC APPLICATION

- (a) Check the AC pilot lamp for proper voltage.
- (b) Turn off the switch(s) of the electrical appliance(s) before connecting to the generator.
- (c) Insert the plug(s) of the electrical appliance(s) into the receptacle. **FIG.23**



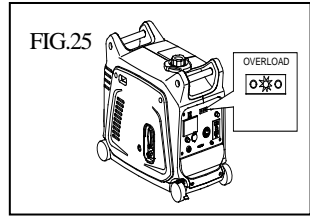
### CAUTION:

- Be sure the electric apparatus is turned off before plugging in.
- Be sure the total load is within generator rated output.
- Be sure the socket load current is within socket rated current.
- The economy control switch must be turned to "OFF" when using electric devices that require a large starting current, such as a compressor or a submersible pump. **FIG.24**



## OVERLOAD INDICATOR LIGHT

The overload indicator light comes on when an overload of a connected electrical device is detected, the inverter unit overheats, or the AC output voltage rises. The electronic breaker will then activate, stopping power to the generation in order to protect the generator and any connected electric devices. The output pilot light (green) will flicker and the overload indicator light (red) will turn on, then the engine will stop running. If so please follow the following steps:



**FIG.25**

- (a) Turn off any connected electric devices and stop the engine
- (b) Reduce the total wattage of connected electric devices to within the generator's rated output.
- (c) Check for blockages in the cooling air inlet and around the control unit. If any blockages are found, remove.
- (d) After checking, restart the engine.

### CAUTION:

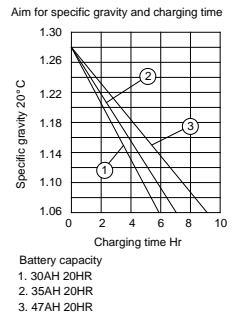
- The generator AC output automatically resets when the engine is stopped and then restarted.
- The overload indicator light may come on for a few seconds at first when using electric devices that require a large starting current, such as a compressor or a submersible pump. This is not a malfunction.

## DC APPLICATION (option)

This applies to 12V battery charging only.

- (a) Charging instruction for battery
  - Disconnect the leads for the battery.
  - For open lead acid batteries, remove caps.
  - Fill distilled water to the upper limit, if the battery fluid is low level.
  - Measure the specific gravity for the battery fluid by using the hydrometer, and calculate the charging time in according with the table shown to the right.
  - The specific gravity for the fully charged battery shall be within 1.26 to 1.28. It is recommended to confirm every hour. **FIG.26**
- (b) Connect between the DC output socket and the battery terminals using the charging leads. The leads should be connected making sure the (+) and (-) polarity are correct. **FIG.27**
- (c) The DC circuit protector is to be set to "ON" after confirming the

**FIG.26**



**FIG.27**



connection, if the protector is in "OFF" position.

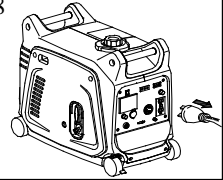
**CAUTION:**

- Be sure the economy control switch is turned off while charging the battery.

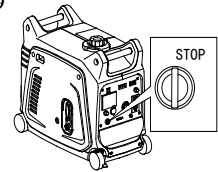
**STOPPING THE ENGINE**

1. Turn off the power switch of the electric apparatus or disconnect any electric devices. **FIG.28**
2. Turn the engine switch to STOP position. **FIG.29**
3. Turn the fuel cock lever to "OFF". **FIG.30**

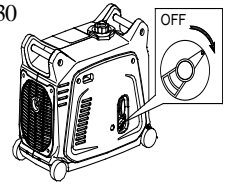
**FIG.28**



**FIG.29**



**FIG.30**



## PERIODIC MAINTENANCE

### MAINTENANCE CHART

Maintenance is important for the best performance and safe operation.

Item	Remarks	Pre-operation check (daily)	Initial 1 months or 20 Hr	Every 3 months or 50Hr	Every 6 months or 100Hr	Every 12 months or 300Hr
Spark Plug	Check condition adjust gap and clean. Replace if necessary.			●		
Engine Oil	Check oil level	●				
	Replace		●		●	
Oil filter	Clean oil filter				●	
Air Filter	Clean. Replace if necessary.			●		
Fuel Filter	Clean fuel cock filter. Replace if necessary				●	
Choke	Check choke operation	●				
Valve Clearance	Check and adjust when engine is cold.					●
Fuel Line	Check fuel hose for crack or damage. Replace if necessary.	●				
Exhaust System	Check for leakage. Retighten or replace gasket if necessary	●				
	Check muffler screen. Clean / replace if necessary.					●
Carburetor	Check choke operation	●				
Cooling system	Check fan damage.					●
Starting system	Check recoil starter operation.	●				
Idle speed	Check and adjust engine idle speed					●
Fittings / Fasteners	Check all fittings and fasteners correct if necessary.				●	
Crankcase breather	Check breather hose for cracks or damage. Replace if necessary					●
Generator	Check the pilot light comes on	●				

## ENGINE OIL REPLACEMENT

1. Place the generator on a level surface and warm up the engine for several minutes. Then stop the engine and turn the fuel cock knob to "OFF".
  2. Loosen the screw and remove the cover **FIG.31**
  3. Remove the oil filler cap **FIG.32**
  4. Place an oil pan under the engine. Tilt the generator to drain the oil completely
  5. Replace the generator on a level surface.
  6. Add engine oil to the upper level.
  7. Install the oil filler cap
  8. Install the cover and tighten the screw
- Recommended engine oil: (*see page 17*)  
API Service "SJ"

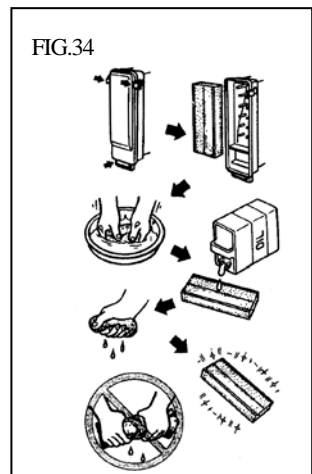
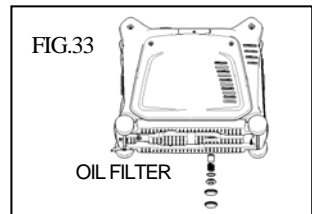
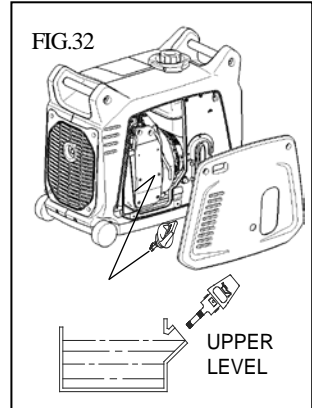
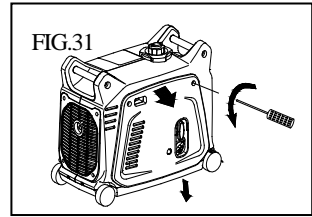
### CAUTION:

- Be sure no foreign material enters the crankcase.
- Do not tilt the generator when adding engine oil. This could result in overfilling and damage to the engine
- Clean the oil filter every 100hr. **FIG.33**

## AIR FILTER

Cleaning your air filter needs to be part of your maintenance regime. The air filter ensures that the air entering the combustion chamber is as clean as possible. The consequences of contaminated air include wear on the engine caused by foreign bodies and a less efficient combustion process. **FIG.34**

1. Remove the cover.
2. Remove the air filter cover and element.
3. Wash the element in solvent and dry.
4. Oil the element and squeeze out excess oil. The element should be wet but not dripping.
5. Insert the element into the air filter.
6. Replace the cover



**CAUTION:**

The engine should never run without the element; excessive piston and/or cylinder wear may result.

**CLEANING AND ADJUSTING SPARK PLUG**

1. Remove the cover.
2. Check for discoloration and remove the carbon.**FIG.35**
3. Check the spark plug type and gap.
4. Replace the spark plug.
5. Attach the cover

Standard electrode color: Tan Color  
Standard Spark Plug: CR7HSA (NGK)  
Spark Plug Gap: 0.6-0.7 mm (0.024-0.028 in)

**FUEL TANK FILTER**

1. Remove the fuel tank cap and filter.
2. Clean the filter with solvent. If damaged, replace.**FIG.36**
3. Wipe the filter and insert it.

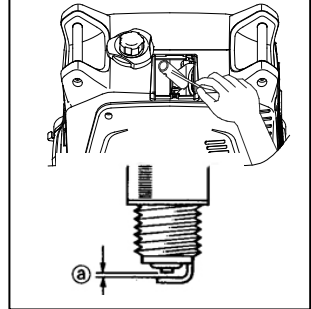
Be sure the tank cap is tightened securely.

**MUFFLER SCREEN**

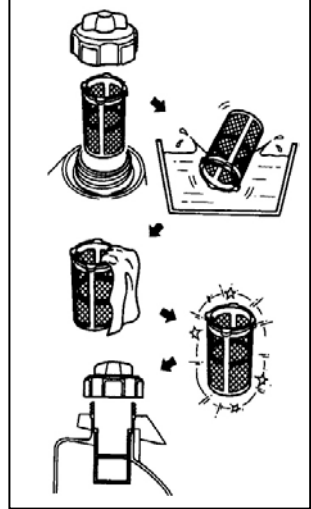
- The engine and muffler will be very hot after the engine has been run.
- Avoid touching the engine and muffler while they are still hot with any part of your body or clothing during inspection or repair.

1. Remove the cover. **FIG.37**
2. Remove the muffler screen.
3. Use the flathead screw driver to pry the spark arrester out from the muffler

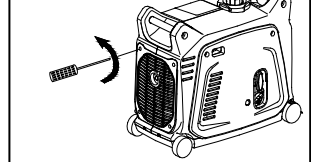
**FIG.35**



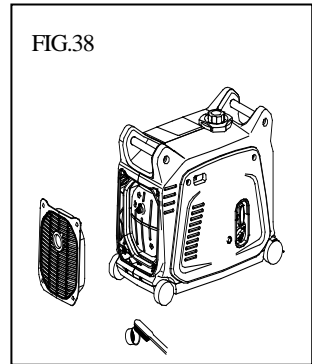
**FIG.36**



**FIG.37**



4. Remove the carbon deposits on the muffler screen and spark arrester using a wire brush.**FIG.38**
5. Re-install the muffler screen.
6. Re-install the cover



## TROUBLESHOOTING

Engine won't start

### 1. Fuel systems

No fuel supplied to combustion chamber.

- No fuel in tank....Supply fuel.
- Fuel in tank....Fuel tank cap air vent knob to "ON", fuel cock knob to "ON".
- Clogged fuel line....Clean fuel line.
- Clogged carburetor....Clean carburetor.

### 2. Engine oil system

Insufficient oil

- Oil level is low....Add engine oil.

### 3. Electrical systems

Poor spark

- Spark plug dirty with carbon or wet....Remove carbon or wipe spark plug dry.
- Faulty ignition system....Consult dealer.

### 4. Compression insufficient

- Worn out piston and cylinder....Consult dealer.

Generator won't produce power

- 1.Safety device (AC) to "OFF" ...Stop the engine, then restart.
- 2.Safety device (DC) to "OFF" ...Press to reset the DC protector



## STORAGE

Long term storage of your generator will require some preventative maintenance to guard against deterioration.

### DRAIN THE FUEL

1. Remove the fuel tank cap, drain the fuel from the fuel tank
2. Remove the cover, drain fuel from the carburetor by loosening the drain screw.

### ENGINE

1. Remove the spark plug, pour in about one tablespoon of SAE 10W30 or 20W40 motor oil into the spark plug hole and reinstall the spark plug.
2. Use the recoil starter to turn the engine over several times (with ignition off).
3. Pull the recoil starter until you feel compression.
4. Stop pulling.
5. Clean exterior of the generator and apply a rust inhibitor.
6. Store the generator in a dry, well-ventilated place, with the cover placed over it.
7. The generator must remain in a vertical position.

# SPECIFICATION

MODEL		GEN3200W120V
GENERATOR	Type	Portable Inverter Generator
	AC Voltage	100V,110V,120V
	Frequency	60Hz
	Max. Output	3.2 kW
	Rated Output	2.8 kW
	Power Factor	1.0
	DC Output	12V / 5.0A
ENGINE	Model	XY157F
	Type	Air-cooled, 4 cycle, OHC, Gasoline Engine
	Bore × Stroke    mm × mm	57.4 × 57.8
	Displacement	149.5cc
	Max. Output	4.0KW / 5500rpm
	Fuel	Unleaded Automobile Gasoline
	Fuel tank Capacity	6.3 liters
	Rated Continuous Operation	5h (50% Load)
	Lubricating oil	SAE 10W30
	Lubricating oil Capacity	0.9 liter
	Starting System	Electric / Recoil Starter
	Ignition system	C.D.I.
	Spark Plug: Type	A7RTC
DIMENSION	Net dimension    L × W × H	24.17" × 13.42" × 20"
	Overall dimension    L × W × H	35.2" × 14.14" × 20.86"
	Net Weight	73.85lb
	Dry Weight	80.44lb

- Specifications subject to change without prior notice.

# WIRING DIAGRAM

