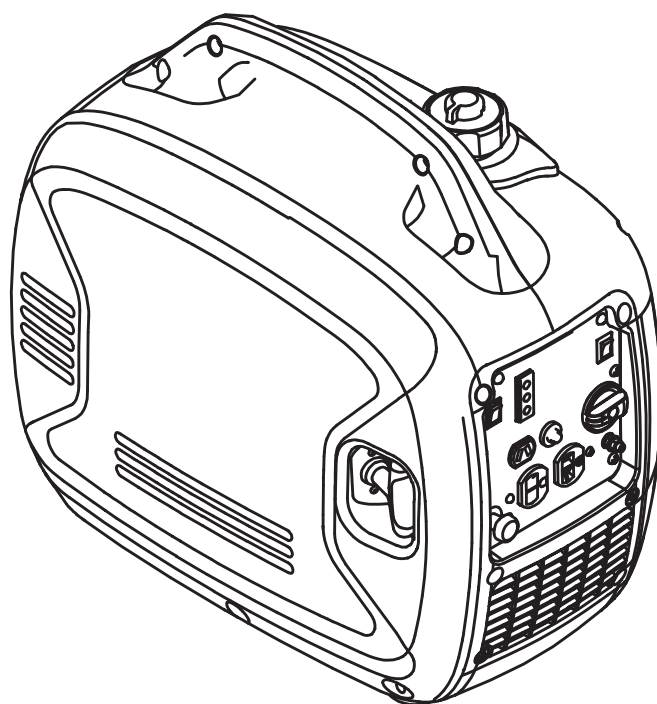


Inverter Generator



specification

 **WARNING**

The engine exhaust from this product
Contains chemicals to cause cancer, birth
Defects or other reproductive harm.

 Read this manual carefully before operating this machine. This manual should stay with this machine if it is sold.

The pictures in the manual are just for reference.

INTRODUCTION

Congratulations on your purchase of your new YAMAHA powered gasoline generator set.

This manual will provide you with a good basic understanding of the operation and maintenance of this machine.

IMPOTANT MANUAL INFORMATION

Particularly important information is distinguished in this manual by the following notations.



This is the safety alert symbol. it is Used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid Possible injury or death.



A WARNING indicates a hazardous situation which, if not abided by, could result in death or serious injury.

NOTICE

A NOTICE indicates special precautions that must be taken to avoid damage to the machine or other property-

TIP

A TIP provides the information to make Procedures easier or clearer.



PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE OPERATING THE MACHINE

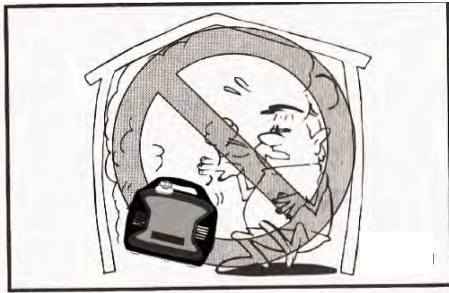
TIP

- Continually seeks advancements in product design and quality. Therefore, wherein this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your engine and this manual. if there is any question concerning this manual, please consult a dealer.
- this manual should be considered a permanent part of this engine and should remain with this engine when resold

Product and specifications are subject to change without notice.

CONTENTS

SAFETY INFORMATION.....1	Application range.....20
EXHAUST FUMES ARE POISONOUS.....1	PERIODIC MAINTENANCE21
FUEL IS HIGHLY FLAMMABLE AND POISONOUS.....1	Maintenance chart.....21
ENGINE AND MUFFLER MAY BE HOT ENGINE.....1	Spark plug inspection.....23
ELECTRIC SHOCK PREVENTION.....2	carburetor adjustment.....24
CONNECTION NOTES.....3	Engine oil replacement.....24
CONNECTION.....3	Air filter.....26
EXTENSION CORD NOTES.....3	Muffler screen and spark arrester.....27
LOCATION OF IMPORTANT LABELS4	Fuel tank filter.....29
DESCRIPTION6	STORAGE30
Control panel.....6	Drain the fuel.....30
CONTROL FUNCTION7	Engine.....32
Engine switch.....7	TROUBLESHOOTING33
Oil warning light(Red).....7	Engine won't start.....34
DC protector.....7	Generator won't produce power.....34
Economy control switch.....8	SPECIFICATIONS36
AC pilot light(Green).....8	Dimensions.....36
Overload indicator light(Red).....9	Engine.....36
Fuel tank cap.....9	Generator.....36
Fuel tank cap air vent knob.....10	CONSUMER INFORMATION37
Fuel cock knob.....10	Identification number records.....37
Ground(Earth)terminal.....10	Machine identification.....37
Twin tech.....10	LIMITED WARRANTY(EF-AND EDL-SERIES)38
PREPARATION11	EXHAUST EMISSION CONTROL SYSTEM AND COMPONENTS.....40
Fuel.....11	WIRING DIAGRAM41
Engine oil.....12	
PRE-OPERATION CHECK13	
Pre-operation check.....13	
OPERATION14	
Starting the engine.....14	
Stopping the engine.....16	
Connection.....17	
Battery charging.....18	



AE00071

SAFETY INFORMATION

AE0072

EXHAUST FUMES ARE POISONOUS

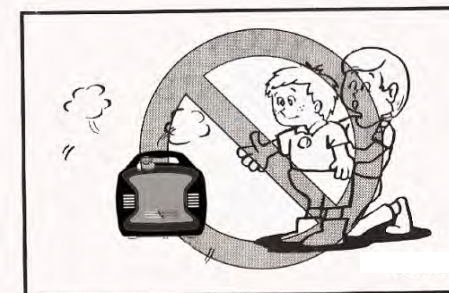
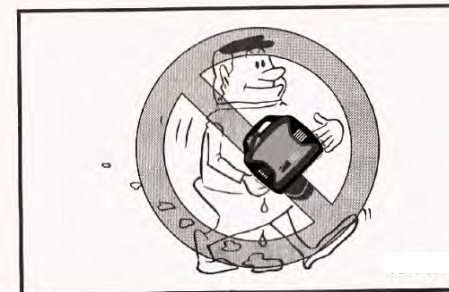
- Never operate the engine in a closed area or it may cause unconsciousness and death within a short time. Operate the engine in a well ventilated area.



AE00075

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 eye(s), 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 machine, be sure it is kept upright. If it tilts, fuel may leak from the carburetor or fuel tank.



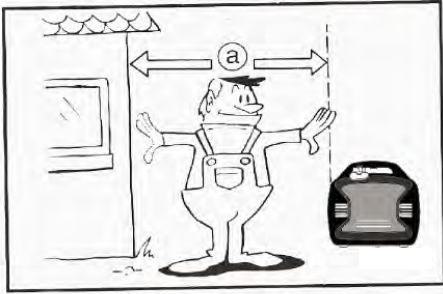
AE00843

ENGINE AND MUFFLER MAY BE HOT

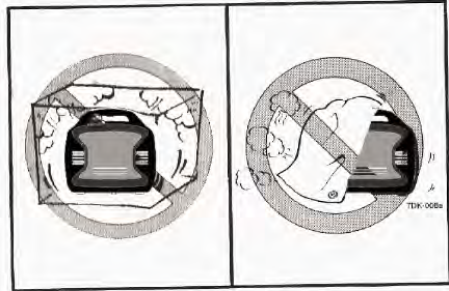
- Place the machine in a place where pedestrians or children are not likely to touch the machine.



- Avoid placing any flammable materials near the exhaust outlet during operation.

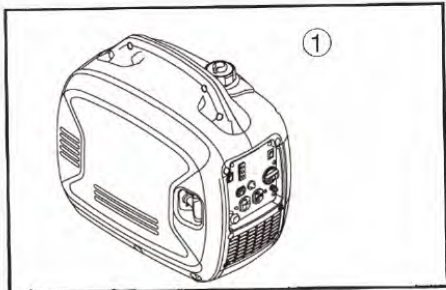


·Keep the machine at least 1m(3 ft)from buildings or other equipment, or the engine may overheat.
@ 1 m(3 ft)



·Do not operate the engine with a dust cover, or other objects covering it.
·When covering the generator, be sure to do so only after the engine and muffler have completely cooled down.

• Be sure to carry the generator only by its carrying handles 1.

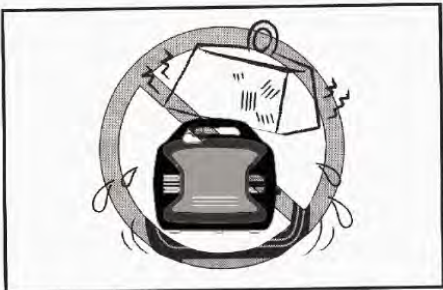


·Do not place any obstacles on the generator.

AE00083

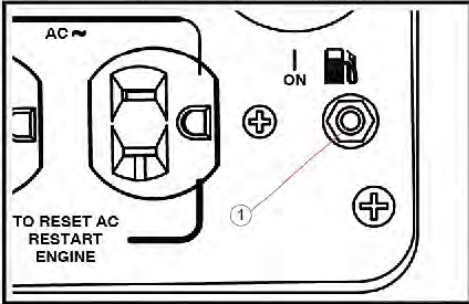
ELECTRIC SHOCK PREVENTION

• Never operate the engine in rain or snow.



• Never touch the machine with wet hands or electrical shock will occur.





- Connect the ground lead of the machine to the ground (Earth) terminal 1 and connect the end to the ground electrode buried in the ground.

AE00088

CONNECTION NOTES

- Avoid connecting the generator to commercial power outlet.
- Avoid connecting the generator in parallel with any other generator

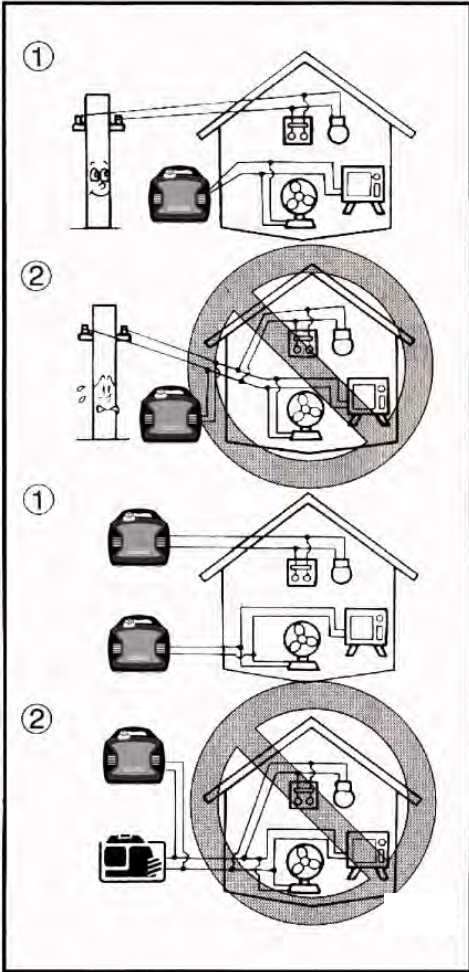
- ① correct
- ② Incorrect

AE00091

CONNECTION



Before the generator can be connected to a building's electrical system, a licensed electrician must install an isolation (transfer) switch in the building's main fuse box. The switch is the connection point for generator power and allows selection of generator or main line power to the building. This will prevent the generator from charging the main power line (back feeding) when the main power supply has failed or has been turned off for line repair. backfeeding can electrocute or injure line maintenance personnel. Also, generator and building electrical system damage can occur when normal operating power returns if unit is used without an isolation switch.



AE00086

EXTENSION CORD NOTES

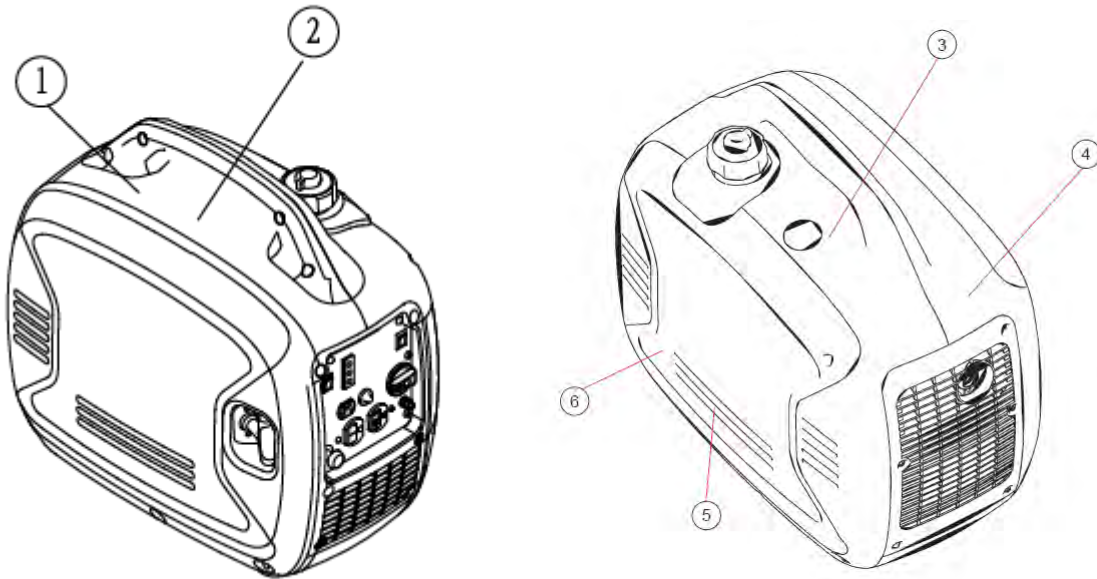
Extension cords should be protected by a tough flexible rubber sheath (I E C 245) or the equivalent to withstand mechanical stress.

LOCATION OF IMPORTANT LABELS



Please read the following labels carefully before operating this machine.

TIP

Maintain or replace safety and instruction labels, as necessary.



①

⚠ DANGER	
Using a generator indoors WILL KILL YOU IN MINUTES. Exhaust contains carbon monoxide, a poison gas you cannot see or smell.	
 NEVER use in the home or in partly enclosed areas such as garages.	 ONLY use outdoors and far from open windows, doors, and vents.

②

⚠️ WARNING

- Read the owner's manual and all labels before operating.
- Only operate in well-ventilated areas. Exhaust gas contains poisonous carbon monoxide.
- Check for spilled fuel or fuel leaks.
- Stop engine before refueling.
- Do not operate near flammable materials.
- Electrocutation can occur if generator is used in rain, snow, or near water. Keep this unit dry at all times.
- Electrocutation or property damage can occur: Do not connect this generator to any building's electrical system unless an isolation switch has been installed by a licensed electrician. Refer to the owner's manual.
- When operating the generator:
 - Never place a partition or other barrier around the generator.
 - Do not cover the generator with a box.
 - Do not place any objects on the generator.

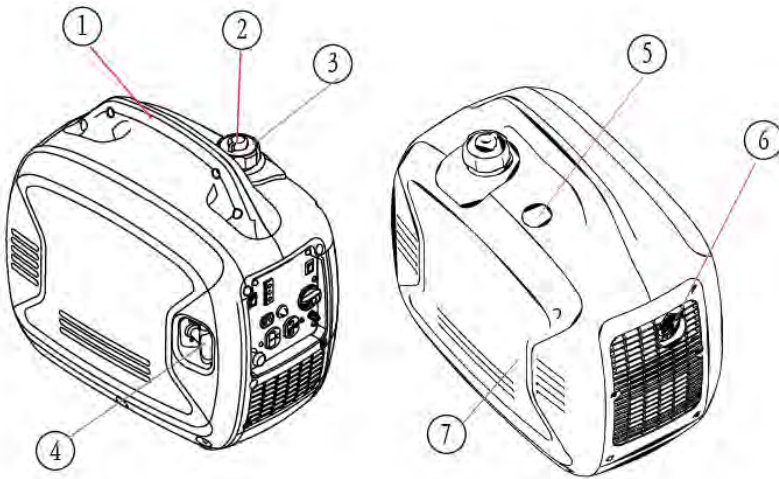
③

NOTICE

Use the specified spark plug only.
Specified plug: BPR6HS(NGK)

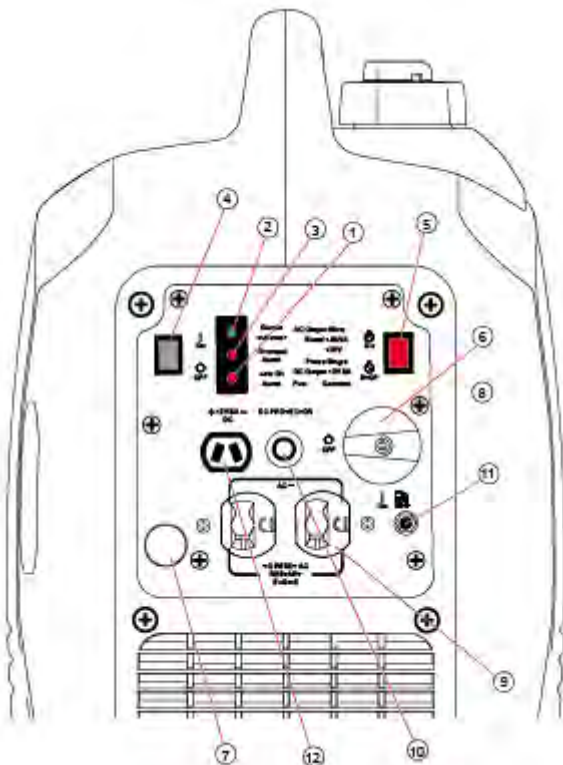
④

HOT EXHAUST



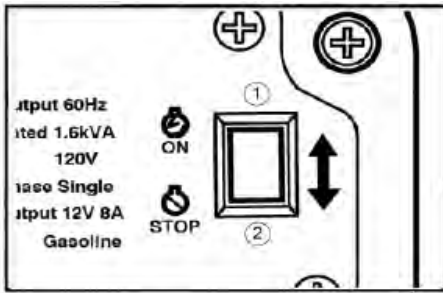
DESCRIPTION

- ① carrying handle
- ② fuel tank cap air vent knob
- ③ fuel tank cap
- ④ recoil starter
- ⑤ fuel gauge
- ⑥ muffler
- ⑦ oil filler cap



Control panel

- ① Oil warning light
- ② AC pilot light
- ③ Overload indicator light
- ④ Economy control switch (Black)
- ⑤ Engine switch (Red)
- ⑥ Fuel cock knob
- ⑦ Choke knob
- ⑧ AC receptacle
- ⑨ DC protector (breaker)
- ⑩ Ground (Earth) terminal
- ⑪ DC receptacle



CONTROL FUNCTION

Engine switch

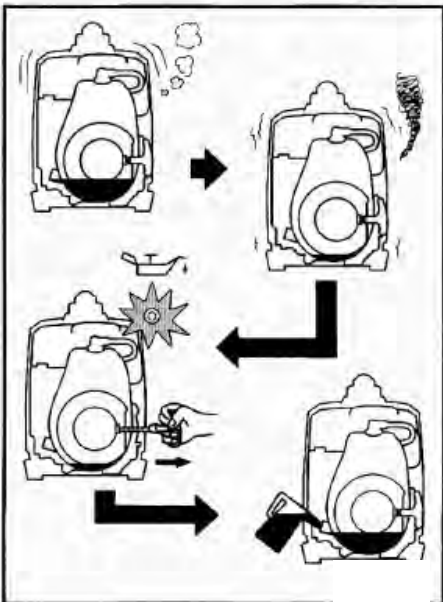
The engine switch controls the ignition system.

① "ON"

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

② "stop"

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

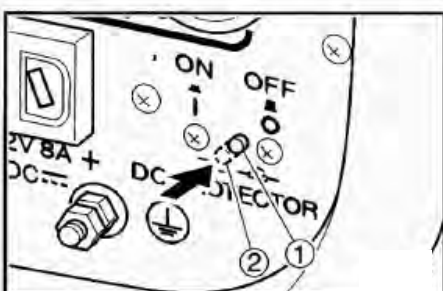


OIL Warning light (Red)

When the oil level falls below the lower, the oil warning light comes on and then the engine stops automatically. Unless you refill with oil, the engine will not start again,

TIP

If the engine stalls or does not start, turn the engine switch to "ON" and then pull the recoil starter, if the oil warning light flickers for a few seconds, the engine oil is insufficient, Add oil and restart.



DC Protector

The DC protector turns off ② automatically when electric device being connected to the generator is operating and current above the rated flows. To use this equipment again turn on the DC protector by pressing its button to "ON" ①.

① "ON"

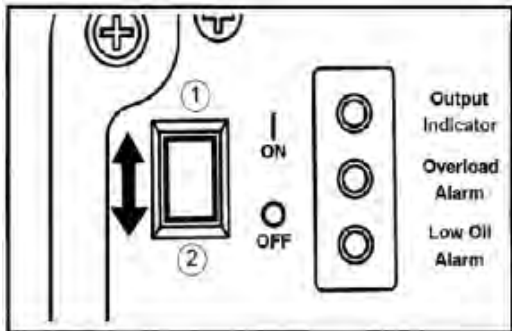
Direct current is output.(this is the default Position)

② "OFF"

Direct current is not output

NOTICE

Reduce the load of the connected electric device below the specified rated output of the generator if the DC protractor turns off again, stop using the device immediately and consult a Yamaha dealer.



Economy control switch

① 1 "ON"

When the economy control switch is turned to "on" ①, The economy control unit controls the engine speed According to the connected load. the results are better Fuel consumption and less noise.

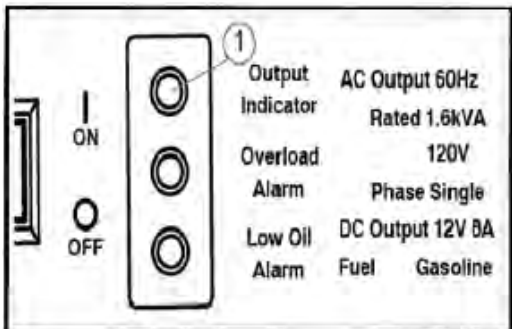
② "OFF"

When the economy control switch is turned to " OFF" ②, The engine runs at the rated r/min (4,500 r/min) regard-Less of whether is a load connected or not.

TIP

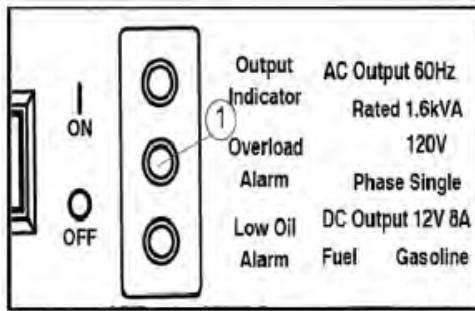
The economy control switch must be turned to " OFF" ②

when using electric devices that require a large starting current, such as a compressor of a submergible pump.



AC pilot light (Green)

The AC pilot light ① comes on when the engines starts and produces power.



Overload indicator light (Red)

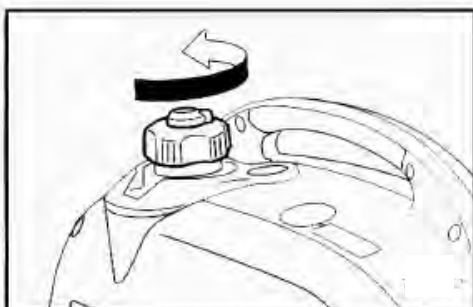
The overload indicator light ① comes on when an over- of a connected electrical decide is detected, the inverter control unit overheats, or the AC output Voltage rises. Then, the AC protector will trip, stopping power generation in order to protect the generator and any connected electric devices. The AC pilot light (Green) will go off and the overload indicator light (Red) will stay on, but the engine will not stop running.

When the overload indicator light comes on and power Generation stops, proceed as follows.

- 1、 Turn off any connected electric devices and stop the engine.
- 2、 Reduce the total wattage of connected electric devices within the rated output
- 3、 Check for blockages in the cooling air inlet and around the control unit, if any blockages are found remove
- 4、 After checking ,restart the genine.

TIP

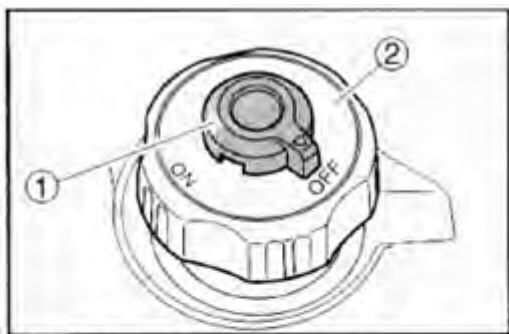
The overload indicator light may come on for a few seconds at first when using electric deices that require a large starting current, such as a compressor or a sub-mergible pump.However, this is not a malfunction.



Fuel tank cap

Remove the fuel tank cap by turning it counter clockwise.

Fuel tank cap air vent knob



The fuel tank cap ② is provided with an air vent Knob ① to stop fuel flow.

The air vent knob must be turned to “ON”. This will allow fuel to flow to the carburetor and the engine to run, when the engine is not in use, turn the air vent knob to “OFF” to stop fuel flow.

Fuel cock knob

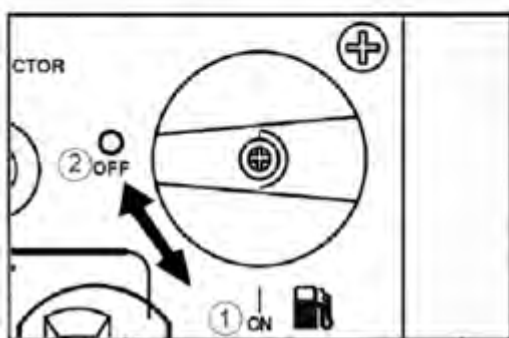
The fuel cock supplies fuel from the fuel tank to the carburetor.

① “ON”

With the knob in this position, fuel flows to the carburetor, Normal using is done with the knob in this position.

② “OFF”

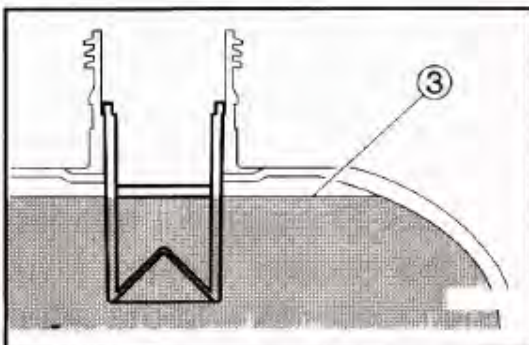
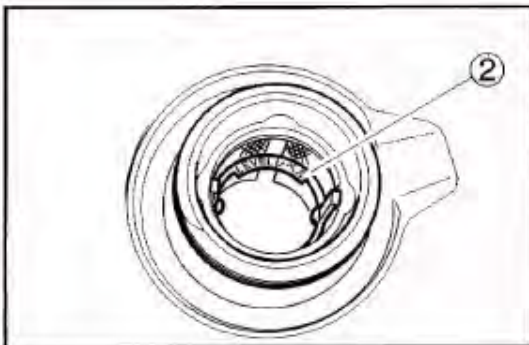
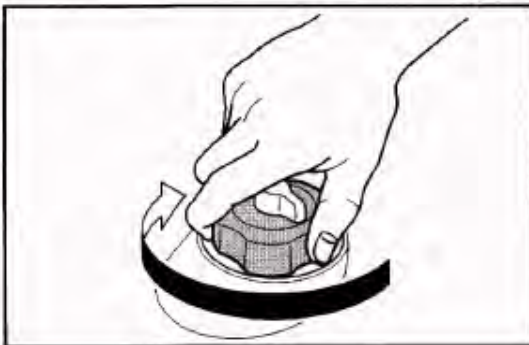
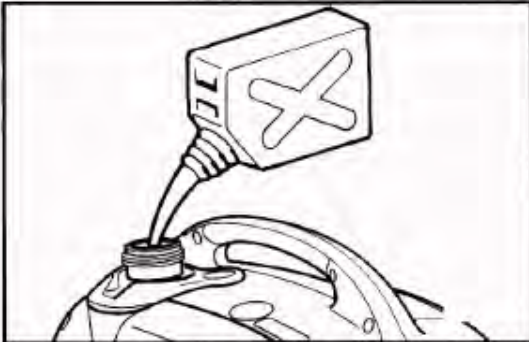
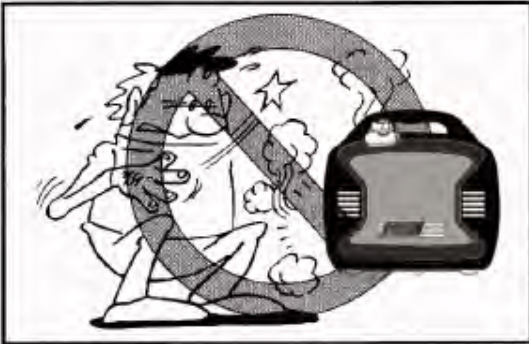
With the knob in this position, fuel will not flow. Always turn the knob to this position when the engine is not running.



Ground (Earth) terminal

Ground (Earth) terminal ① connects the earth line for prevention of electric shock.

When the electric device is earthed, always the generator must be earthed.



PREPARATION

Fuel



WARNING

- fuel is highly flammable and poisonous. Check “SAFETY INFORMATION”(See page 1) carefully before filling.
- Do not overfill the fuel tank, otherwise it may overflow when the fuel warms up and expands.
- After fill the fuel. make sure the fuel tank cap is tightened securely.

NOTICE

- Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.
- Use only unleaded gasoline. The use of laded gasoline will cause severe damage to internal engine parts.

Remove the fuel tank cap and fill the fuel into the tank up to the level ②.

Recommended fuel:

Unleaded gasoline

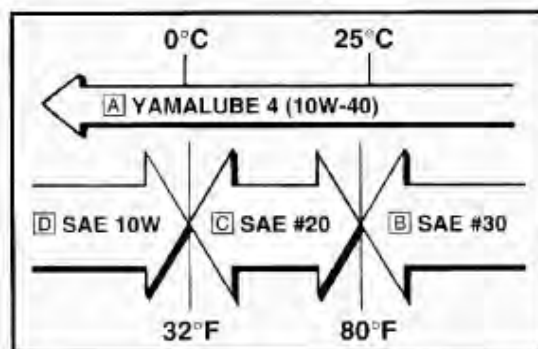
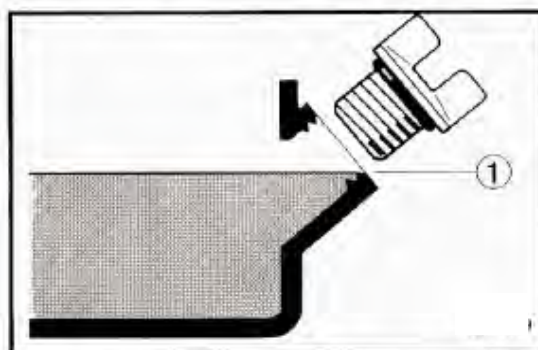
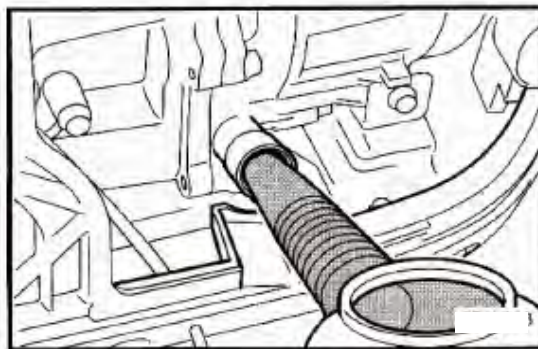
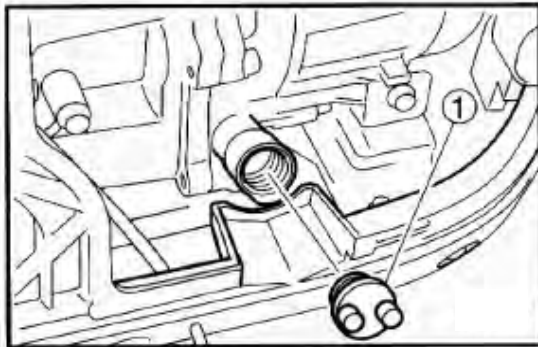
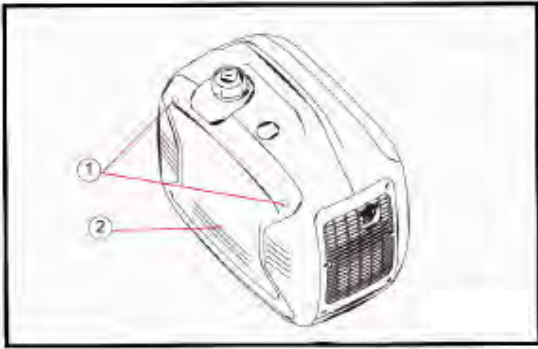
Fuel tank capacity:

Total:

4.2 L 1.1 US gal. 0.92 Imp gal)

④ “F”	Full
⑤ “E”	Empty

Your Yamaha engine has been designed to use regular unleaded gasoline with a pump octane number ((R + M) /2) of 86 or higher, or research octane number of 91 or higher.



Engine oil

NOTICE

The generator has been shipped without engine oil. Do not start the engine till with the sufficient engine oil.

- 1、 Place the generator on a level surface.
- 2、 Remove the screws ①.and then remove the cover②

- 3、 Remove the oil filler cap ①.

- 4、 Fill the specified amount of the recommended engine oil, and then install and tighten the oil filler cap.

① Upper level

Recommended engine oil:

- A、 YAMALUBE 4 (10W-40), SAE10W-30 or 10W-40
- B、 SAE #30
- C、 SAE#20
- D、 SAE#10W

Recommended engine oil grade:

API Service SE type or higher

Engine oil quantity:

0.4L (0.42 US qt, 0.35 Imp qt)

5. Install the cover and tighten the screws.

PRE-OPERATION CHECK



If any item in the pre-operation check is not work-ing properly, have it inspected and repaired before operating the generator.

The condition of a generator is the owner' responsibility. Vital components can start to deteriorate quickly and unexpectedly, even if the generator unused.

TIP

Pre-operation checks should be made each time the generator is used.

Pre –operation check

Fuel (see page 11)

- Check fuel level in fuel tank.
- Refuel if necessary.

Fuel line

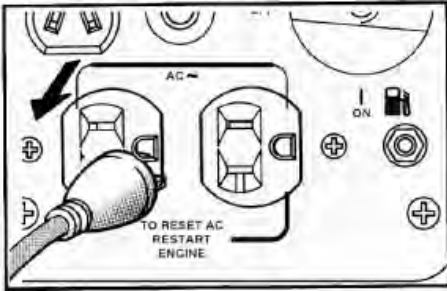
- Check fuel hose for crack or damage.
- Replace if necessary.

Engine oil (See page 12)

- Check oil level in engine.
- If necessary, add recommended oil to specified level.
- Check generator for oil leakage.

The point where abnormality was recognized by Use

- Check operation.
- If necessary, consult a Yamaha dealer.



OPERATION



- Never operate the engine in a closed area or it may cause unconsciousness and death within a short time. Operate the engine in a well ventilated area.
- before starting the engine, do not connect any electric devices.

Starting the engine

- 1、 Turn the economy control switch (Black) to “OFF” ①.

① ○ “OFF”

- 2、 While holding the fuel tank cap so that it will not move, turn the air vent knob to “ON” ①.

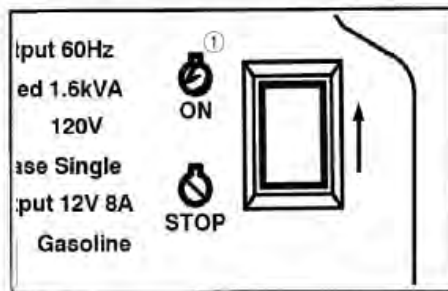
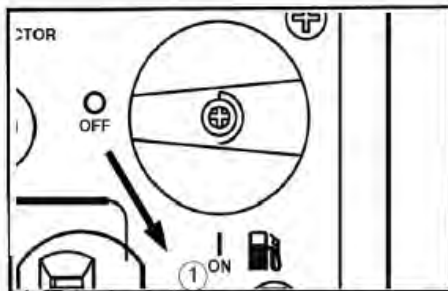
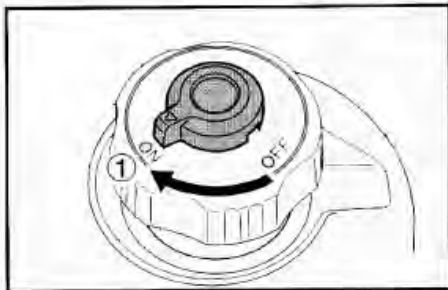
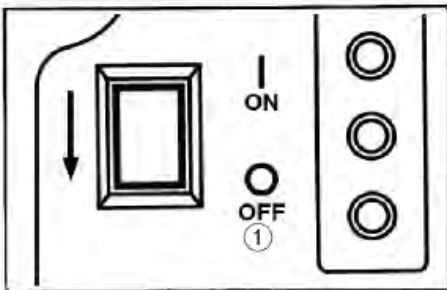
① Air vent knob

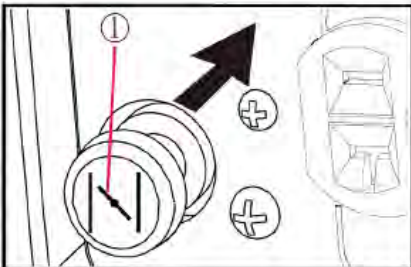
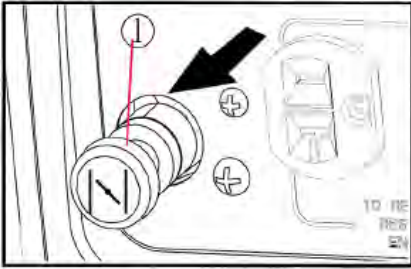
- 3、 Turn the fuel cock knob to “ON” ①.

① ”ON”

- 4、 Turn the engine switch (Red) to “ON” ①.

① ”ON”





5、 Pull the choke knob ① fully out.

① choke knob

TIP

The choke is not required to start a warm engine.
Push the choke knob in to the original position,

6、 Pull slowly on the recoil starter until it is engaged, then pull it briskly.

TIP

Grasp the carrying handle firmly to prevent the generator from falling over when pulling the recoil starter.

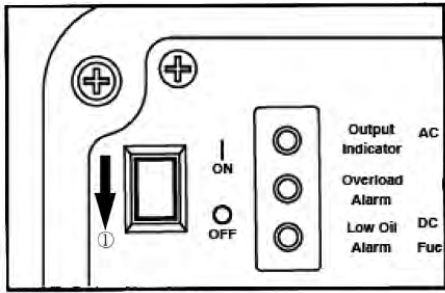
7、 After the engine starts, warm up the engine until the engine does not stop when the choke knob is returned the original position.

TIP

When starting the engine, with the economy control switch “ON” , and there is no load on the generator:

- in ambient temperature below 0°C (32°F) , the engine will run at the rated r/min (4,500 r/min) for 5 minutes to warm up the engine,
- in ambient temperature below 5°C (41°F),the engine will run at the 4,500 r/min for 3 minutes to warm up the engine.

The economy control unit operates normally after the above time period, while the economy control switch is “ON” .



Stopping the engine

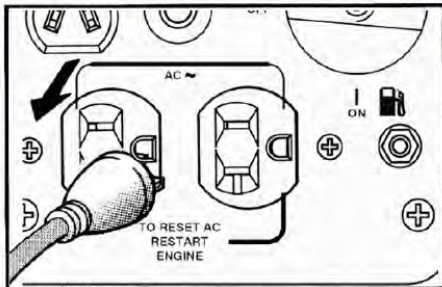
TIP

Turn off any electric devices.

1. Turn the economy control switch (Black) to "OFF"

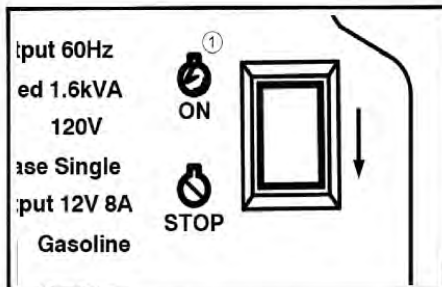
① O "OFF"

2. Disconnect any electric devices.



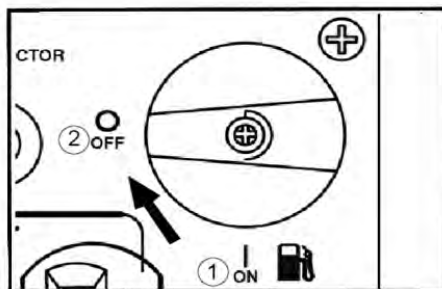
3. turn the engine switch (Red) to "STOP" ①.

① "STOP"

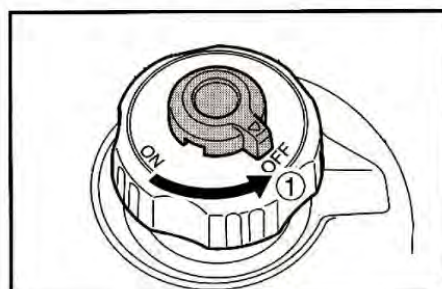


4. Turn the fuel cock knob to "OFF" ①、

① "OFF"



5. Turn the fuel tank cap air vent knob to "OFF" ① after the engine has completely cooled down.



Connection

Alternating current (AC)



Be sure any electric devices are turned off before plugging them in.

NOTICE

- Be sure all electric derives including
The lines and plug connections are
In good condition before
Connection to the generator.
- Be sure the total load is within
generator rated output.
- Be sure the receptacle load surrent.

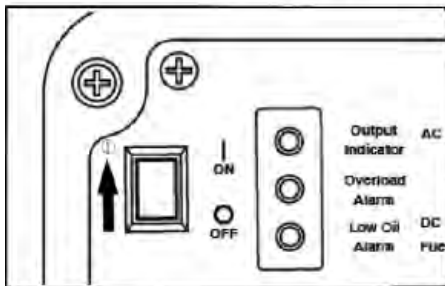
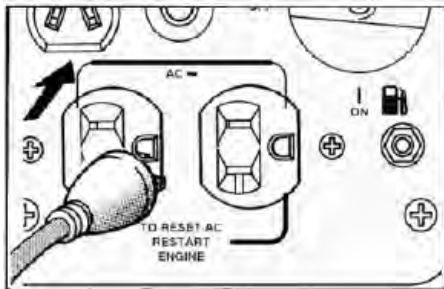
TIP

Make sure to ground (Earth) the generator. When the electric device is earthed, always the generator must be earthed.

- 1、 Start the engine.
- 2、 Plug in to DC receptacle.
- 3、 Make sure the AC pilot light ① is on
① AC pilot light
- 4、 Turn the economy control switch to “ON”
①.
- ① I “ON”
- 5、 Turn on any electric devises.

TIP

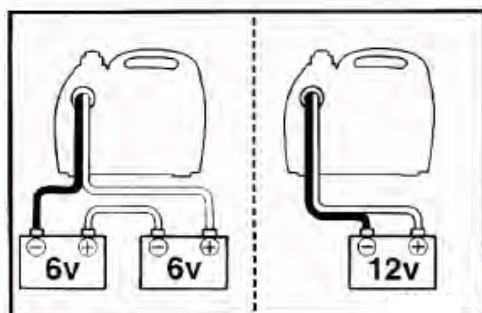
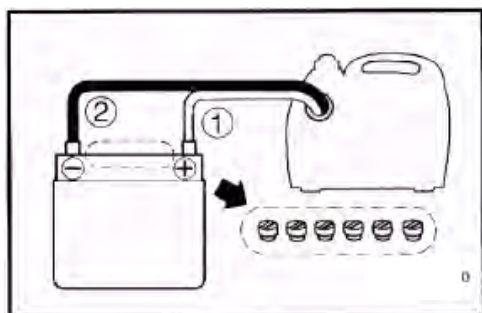
The economy control switch must be turned to “OFF” to increase engine speed to rated rpm.



Battery charging

TIP

- The generator DC rated voltage is 12V.
- Start the engine first, and then connect the generator to the battery for charging.
- Before starting to charge the battery, make sure that the DC protector is tuned on.



- ① Red wire
 - ② Black wire
1. Start the engine.
 2. Connect the red battery charger lead to the positive (+) battery terminal.
 3. connect the black battery charger lead to the negative (-) battery terminal.
 4. Turn the economy control switch off to start battery charging.

NOTICE

- Be sure the economy control stitch is turned off while charging the battery
- Be sure to connect the red battery charger lead to the positive (+) battery terminal, and connect the black lead to the negative (-) battery terminal . Do not reverse these positions.
- Connect the battery charger leads to the battery terminals securely so that they are not disconnected due do engine vibration or other disturbances,
- Charge the battery in the correct procedure by following instructions in the owner's manual for the battery charging.
To DC protector turns off ② automatically if current above the rated flows during battery charging.
To restart chairing the battery, turn the DC protector on by pressing its button to "ON"
①.If the DC protector turns off again, stop charging the battery immediately and consult a Yamaha dealer.

- ① "ON"
- ② "OFF"

TIP

- Follow instructions in the owner's manual for the battery to determine the end of battery charging.
- Measure the specific gravity of electrolyte to determine if the battery is fully charged, at full charge, the electrolyte specific gravity is between 1.26 and 1.28.
- It is advisable to check the specific gravity of the electrolyte at least once every hour to prevent over charging the battery.



WARNING

Never smoke or make and break connections at the battery while charging, Sparks may ignite the battery gas.

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. contains sulfuric (sul-phuric) acid. Avoid contact with skin, eyes or clothing.

Antidote:

EXTERNAL-Flush with water.





INTERNAL-Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately.

EYES: Flush with water for 15minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in closed space. Always cover eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN.

Application range

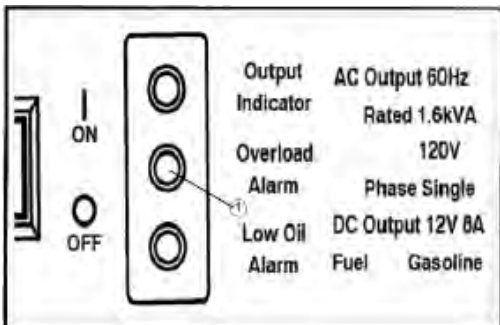
When using the generator, make sure the total load is within rated output of a generator, Otherwise, generator damage may occur.

AC				
Power factor	1	0.8-0.95	0.4-0.75 (Efficiency 0.85)	
EF2000iS	-1,600W	-1,280W	-544W	Rated voltage 12v Rated current 8A

TIP

- “—” means below.
- Application wattage indicates when each device is Used by itself.
- The simultaneous usage of AC and DC power is possible but total wattage should not exceed the rated output.

EX:



Generator rated output		1,600VA
Frequency	Power factor	
AC	1.0	-1,500W
	0.8	-1,180W
DC	-	96W (12V/8A)

- The overload indicator light ① comes on when total wattage exceeds the application range,(See page 9 for more details.)

NOTICE

- Do not overload. The total load of all electrical appliances must not exceed the supply range of the generator, Overloading will damage the generator.
- When supplying precision equipment, electrical devices located near the generator.
- If the generator is to supply medical equipment, advice should first be obtained from the manufacturer, a medical professional or hospital.
- Some electrical appliances or general-purpose electric motors have high starting currents, and cannot therefore be used, even if they lie within the supply ranges given in the above table. Consult the equipment manufacturer for further advice.

PERIODIC MAINTENANCE

Safety is an obligation of the owner, Periodic inspection, adjustment and lubrication will Keep your generator in the safest and most efficient condition possible. The most important points of generator inspection, adjustment, and lubrication are explained on the following pages .



If you are not familiar with maintenance work, have a Yamaha dealer do it for you

Maintenance chart



Stop the engine before starting maintenance work.

NOTICE

Use only Yamaha specified genuine parts for replacement. Ask an authorized Yamaha dealer for further attention.

Item	Routine	Pre-operation check	Every	
			6 months or 100 Hr	12 months or 300 Hr
spark plug	<ul style="list-style-type: none"> • Check condition • Clean and replace if necessary 		●	
Fuel	<ul style="list-style-type: none"> • Check fuel level and leakage. 	●		
Fuel hose	<ul style="list-style-type: none"> • Check fuel hose for cracks or damage • Replace if necessary. 	●		
Engine oil	<ul style="list-style-type: none"> • Check oil level in engine. 	●		
	<ul style="list-style-type: none"> • Replace 		●(*1)	
Air filter element	<ul style="list-style-type: none"> • Check condition • Clean 		●(*2)	
Muffler screen	<ul style="list-style-type: none"> • Check condition. • Clean and replace if necessary. 		●	
Spark arrester	<ul style="list-style-type: none"> • Check condition • Clean and replace if necessary. 		●	
Fuel filter	<ul style="list-style-type: none"> • Clean and replace if necessary. 			●

Item	Routine	Pre-operation check	Every	
			6 months or 100 Hr	12 months or 300 Hr
Crankcase breather hose	<ul style="list-style-type: none"> • check breather hose for cracks or Damage. • Replace if necessary. 			●
Cylinder head	<ul style="list-style-type: none"> • decarbonizes cylinder head. • more frequently if necessary. 			★
Valve clearance	<ul style="list-style-type: none"> • check and adjust when engine is cold. 			★
Fittings/fasteners	<ul style="list-style-type: none"> • check all fittings and fasteners. • correct if necessary. 			★
The point where abnormality was recognized by use		●		

1.....Initial replacement of the engine oil is after one month or 20 hours of operation.

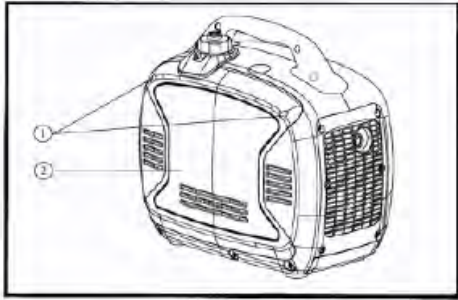
2.....The air filter element needs to be cleaned more frequently when using in unusually wet or dusty areas.

★.....Since these items require special tools, data and technical skills, have a Yamaha dealer perform the service.

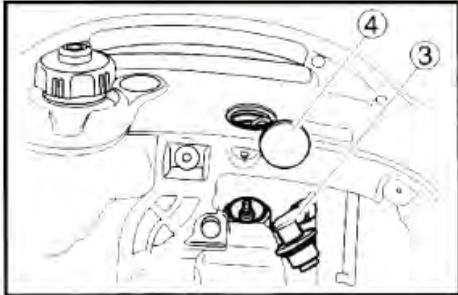
Spark plug inspection

The spark plug is important engine components this should be checked periodically.

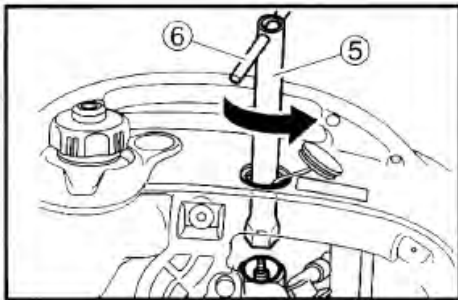
1、 Remove the screws ①, and then remove the cover ②.



2、 Remove the spark plug cap ③ and cap ④, and insert the tool ⑤ through the hole from the outside of the cover.



3、 Insert the handlebar ⑥ into the tool ⑤ and turn it counterclockwise to remove the spark plug.



4、 Check for discoloration and remove the carbon porcelain insulator around the center electrode of spark plug should be a Medium-to-light tan color.

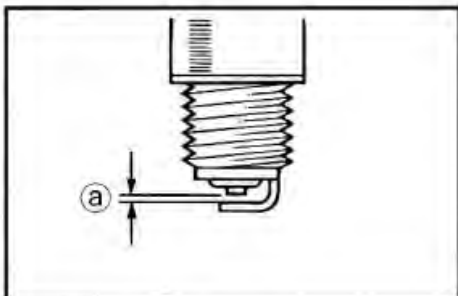
5、 Check the spark plug type and gap @ .

Standard Spark Plug:

BPR6HS (NGK)

Spark Plug Gap @:

0.6-0.7 mm (0.024-0.028 in)



TIP

The spark plug gap should be measured with a wire thickness gauge and, if necessary, adjusted to specification.

5、 Install the spark plug.

Spark plug torque:
20.0 N • m (2.0kgf • m,14.8 lbf • ft)

If a torque wrench is not available when installing a spark plug, a good estimate of the correct torque is 1/4-1/2 turn past finger tight. However, the spark plug should be tightened to the specified torque as soon as possible.

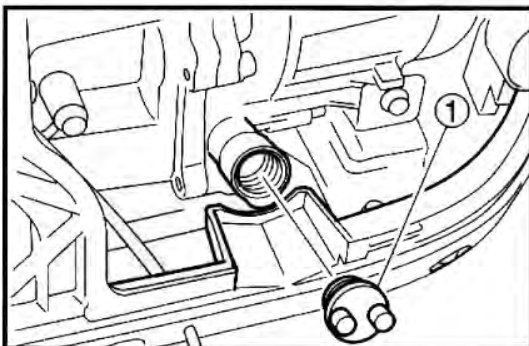
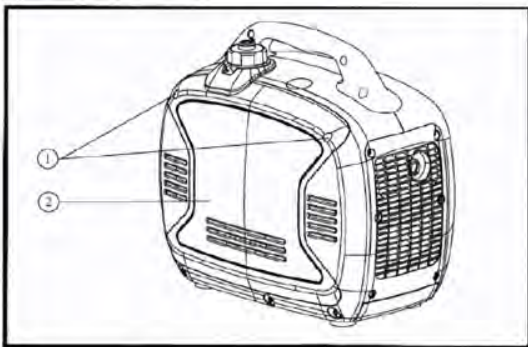
7、 Install the spark plug cap and cap.

8、 Install the cover and tighten the screws.

Carburetor oil replacement

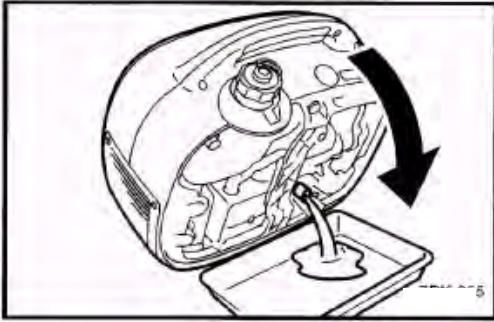


Avoid draining the engine oil immediately after stopping the engine. The oil is hot and should be handled with care to avoid burns.



- 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, fuel tank cap air vent knob to “OFF”
- 2、 Remove the screws ① and then remove the cover ②.

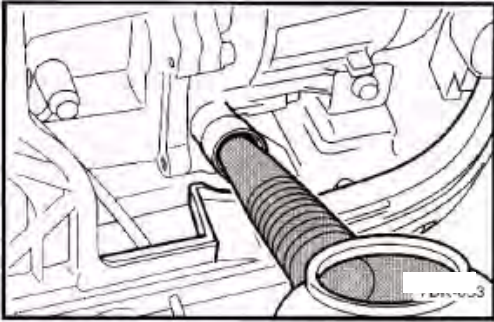
- 3、 Remove the oil filler cap ①.



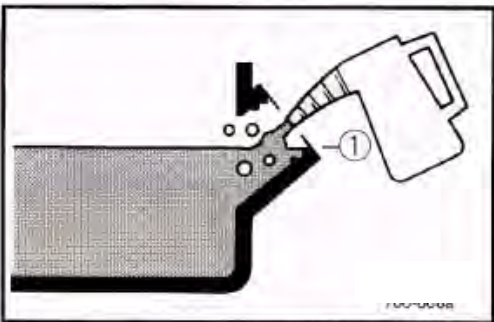
- 4、 place an oil pan under the engine. Tilt the generator to drain the oil completely.
- 5、 Replace the generator on a level surface.

NOTICE

Do not tilt the generator when adding engine oil. This could result in overfilling and damage to the engine.



6、 Add engine oil to the upper level ①.



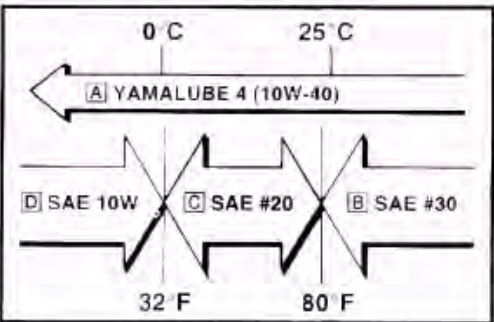
Recommended engine oil :

- ① YAMALUBE 4 (10W-40), SAE 10W-30 or 10W-40
- ② SAE#30
- ③ SAE#20
- ④ SAE10W

Recommended engine oil grade:
API Service SE type or higher

Engine oil quantity:

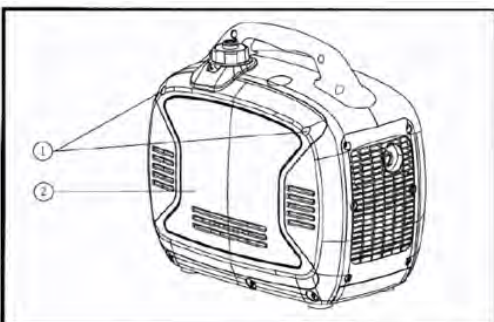
0.4L (0.42US qt, 0.035 Imp qt)



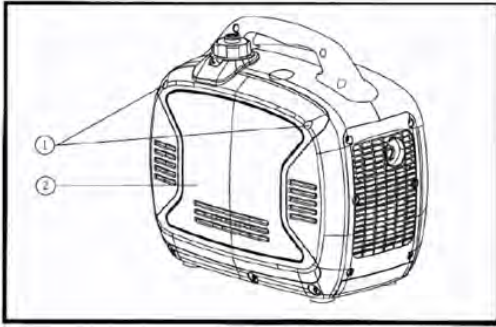
- 7、 Wipe the cover clean, and wipe up any spilled oil.

NOTICE

Be sure no foreign material enters the crankcase.

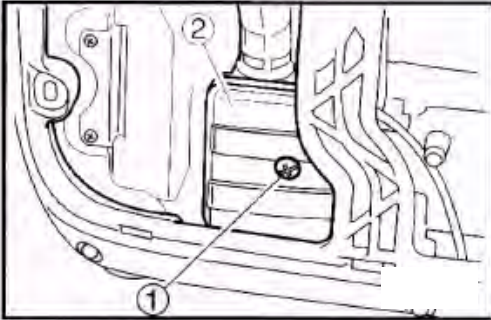


- 8、 Install the oil filler cap.
- 9、 Install the cover ② and tighten the screws ①.

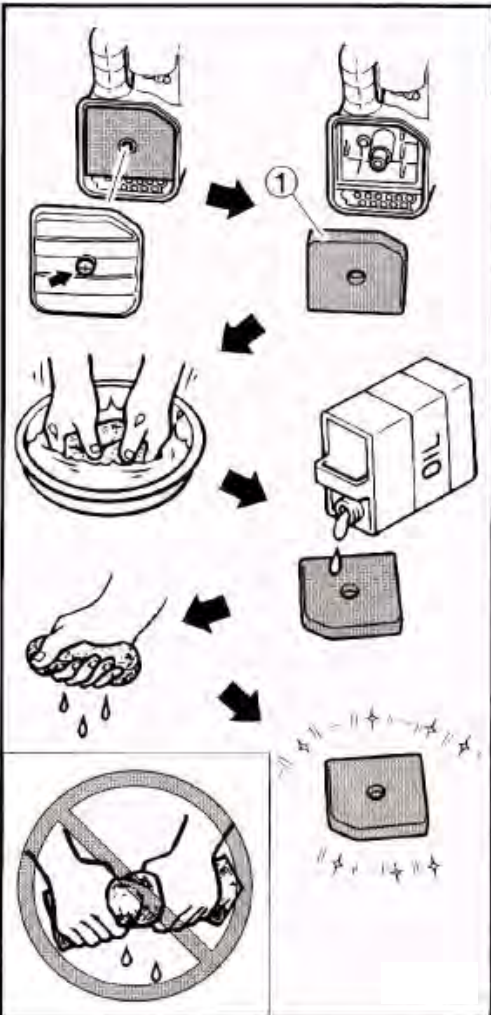


Air filter

1、 Remove the screws ①, and then remove the Cover ②.



2、 Remove the screw ① and then remove the air filter case cover ②.



3、 Remove the foam element ①.

4、 Wash the foam element in solvent and dry it.

5、 Oil the foam element and squeeze out excess Oil. The foam element should be wet but not dripping.

Recommended oil:

Foam-air-filler oil or SAE #20 motor oil

NOTICE

Do not wring out the foam element when Squeezing it. This could cause it to tear,

6、 Insert the foam element into the air filter case.

TIP

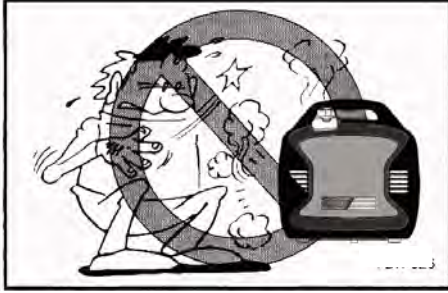
Be sure the foam element sealing surface matches the air filter so there is no air leak.

NOTICE

The engine should never run without the foam Element; excessive piston and cylinder wear Way result.

7、 Install the air filter case cover in its original position and tighten the screw.

8、 Install the cover and tighten the screws.



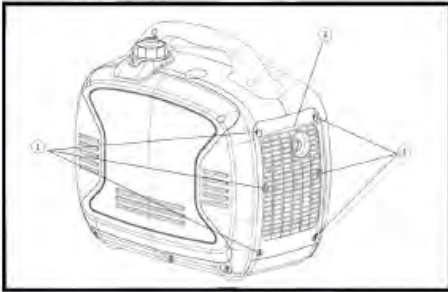
Muffler screen and spark arrester



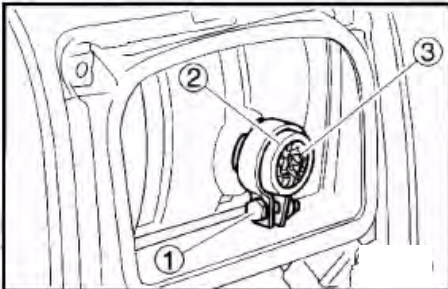
WARNING

The engine and muffler will be very hot after the engine has been run.

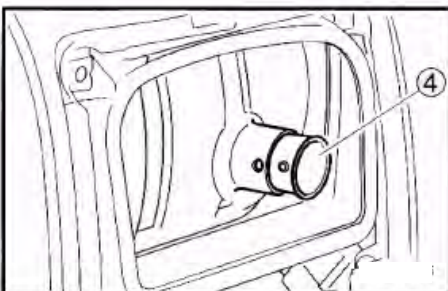
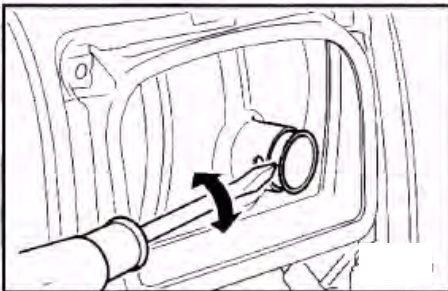
Avoid touching the engine and muffler while they are still hot with any part of your body or clothing during inspection or repair.

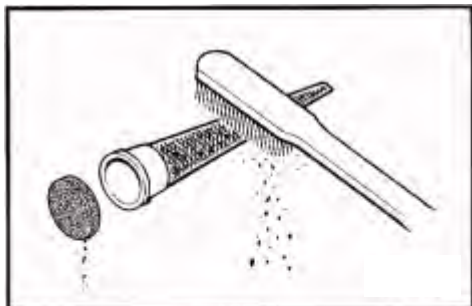


- 1、 Remove the screws ①, and then pull outward the areas of the cover ② shown.



- 2、 Loosen the bolt ① and then remove the muffler cap ②, the muffler screen ③ and spark arrester ④



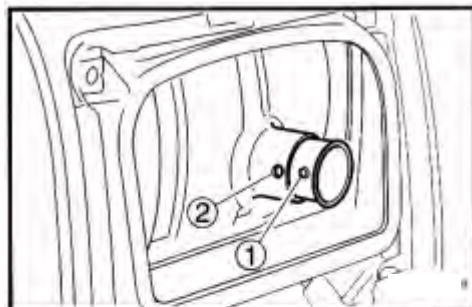


- 3、 Remove the carbon deposits on the muffler screen and spark arrester using a wire brush

NOTICE

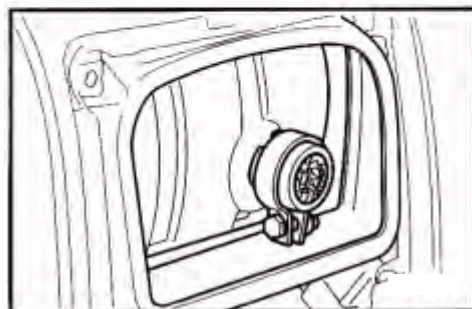
**When cleaning, use the wire brush lightly
To avoid damaging or scratching of the
Muffler screen and spark arrester.**

- 4、 Check the muffler screen and spark arrester
replace them if damaged,
- 5、 Install the spark arrester.

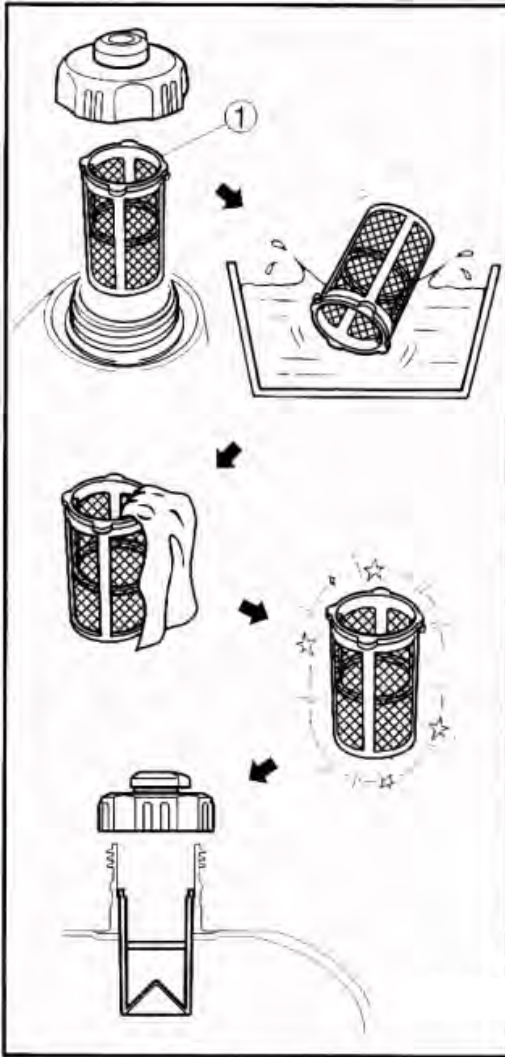


TIP

Align the spark arrester projection ① with the
② Hole in the muffler arrester.



- 6、 Install the muffler screen and the muffler cap.
- 7、 Install the cover and tighten the screws.



Fuel tank filter



Never use the gasoline while smoking or in the vicinity of an open flame.

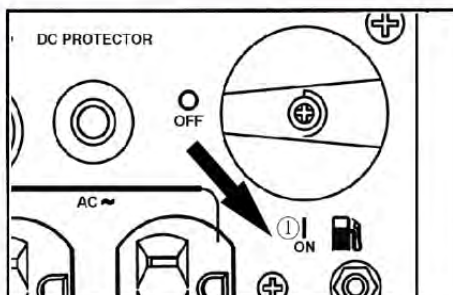
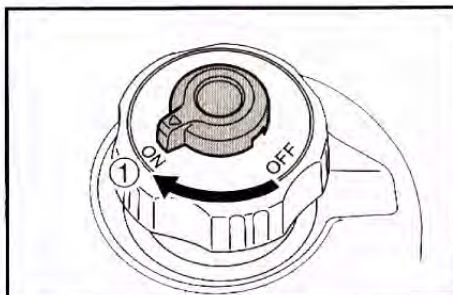
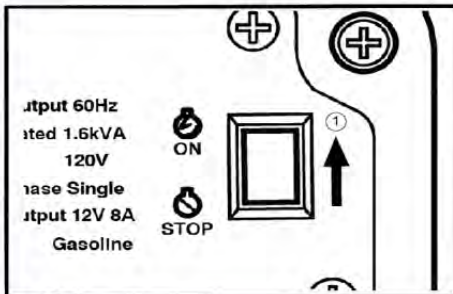
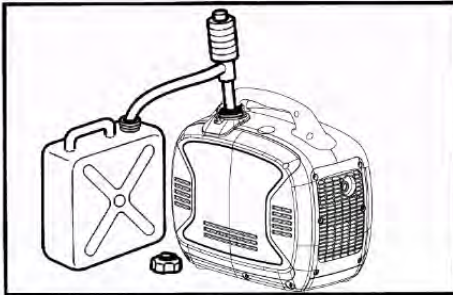
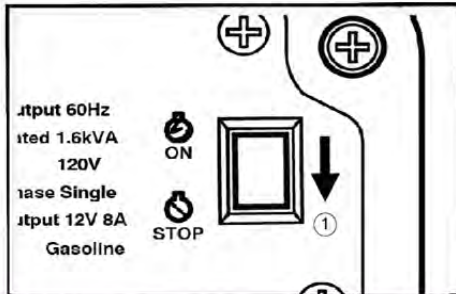
1. Remove the fuel tank cap and filter ①.
2. Clean the filter with gasoline.
If damaged, replace it.
3. Wipe the filter and install it.
4. Install the fuel tank cap.



Be sure the fuel tank cap is tightened securely.

STORAGE

Long term storage of your machine will require some preventive procedures to guard against deterioration.



Drain the fuel

- 1、 Turn the engine switch to "STOP" ①.
- 2、 Remove the fuel tank cap. Extract the fuel tank into an approved gasoline container using a commercially available hand siphon. Then, install the fuel tank cap.

⚠ WARNING

Fuel is highly flammable and poisonous. "SAFETY INFORMATION" (See page 1) carefully.

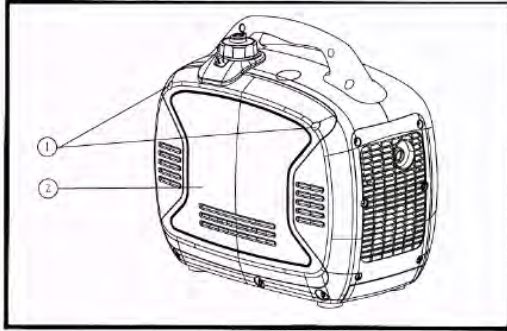
NOTICE

Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.

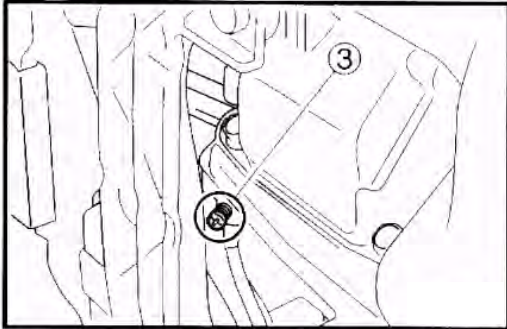
- 3、 Turn the engine switch to "on" ①.
- 4、 Turn the fuel tank cap air vent knob and fuel cock knob to "ON". ①.
- 5、 Start the engine and leave it run until it stops. The engine stops in approx. 20 minutes by running out of fuel.

TIP

- Do not connect with any electrical devices. (unloaded operation)
- Duration of the running engine depends on the amount of the fuel left in the tank.



6、 Remove the screws①, and then remove the cover ②.



7、 Drain the fuel from the carburetor by loosening the drain screw ③ on the carburetor float chamber.

8、 Turn the engine switch to “OFF”

9、 Turn the fuel cock knob to “OFF”

10、 Tighten the drain screw ③.

11、 Install the cover and tighten the screws,

12、 Turn the fuel tank cap air vent knob to “OFF”



13、 Tighten further if any screws, bolts and nuts air loose.

14、 Store the generator in a dry, well-ventilated place, with the cover placed over it.



Engine

Perform the following steps to protect the cylinder, piston ring, etc. from corrosion.

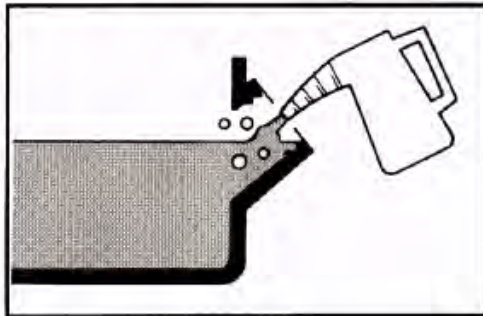
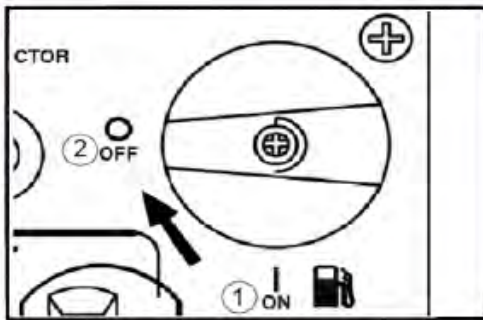
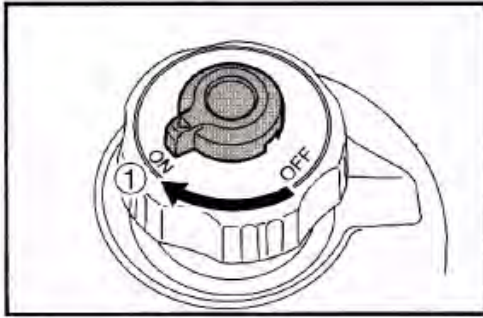
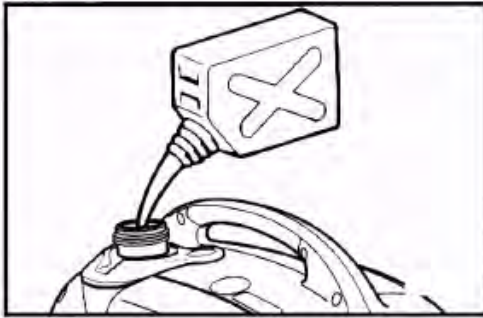
- 1、 Remove the spark plug, pour about one table-spoon of SAE 10W-30 or 20W-40 motor oil into the spark plug hole and reinstall the spark plug. Recoil start the engine by turning over several times (with ignition off) to coat the cylinder walls with oil,
- 2、 Pull the recoil starter until you feel compression. Then stop pulling. (this prevents the cylinder and valves from rusting).
- 3、 Clean exterior of the generator and apply a rust inhibitor,
- 4、 Store the generator in a dry, well-ventilated place, with the cover placed over it.
- 5、 The generator must remain in a vertical position when stored. Carried or operated.

TROUBLESHOOTING

Engine won't start

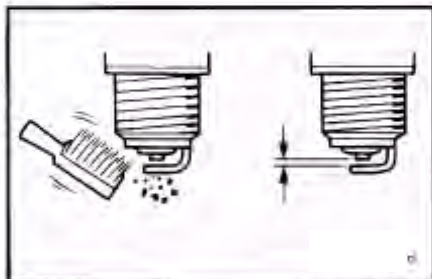
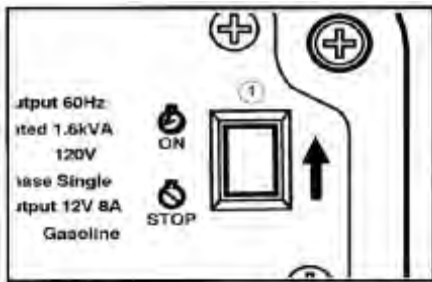
1、 Fuel systems

- No fuel supplied to combustion chamber,
 - No fuel in tank.....supply fuel.
 - Fuel in tank.....Fuel tank cap air vent knob and fuel cock knob to "ON" ①.
 - Clogged fuel line.....clean fuel line.
 - Clogged carburetor....clean carburetor.



2、 engine oil system insufficient

- oil level is low....add engine oil.



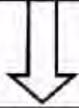
3. Electrical systems

- Engine switch to “ON” and pull the recoil starter. Poor spark
- Spark plug dirty with carbon or wet...Remove carbon or wipe spark plug dry.
- Faulty ignition system....Consult a Yamaha dealer,

Generator won't produce power

- Safety device (DC protector) to “OFF”②
....press the DC protector to “ON” ①
- Safety device (AC) to “OFF”....stop the engine, then restart.

A ENGINE DOES NOT START



B Turn the engine switch to "ON", then pull the recoil starter and check if the oil warning light flickers.

C Does not flicker	D Flickers.
---------------------------	--------------------



H Pull the recoil starter and check the spark plug for spark strength. (See "WARNING")

⚠ WARNING

- To prevent **FIRE HAZARDS** be sure fuel is not present in the spark plug area.
- To prevent **FIRE HAZARDS** be sure to place the spark plug as far way as possible from the spark plug hole and carburetor area.
- To prevent **ELECTRIC SHOCK** do not hold spark plug lead with hand while testing.

I OK	J Dose not spark
-------------	-------------------------



E Check engine oil level.

F OK	G Level low
Consult a Yamaha dealer.	Add engine oil.

K Check the spark plug.

- Type: BPR6HS
- Gap: 0.6–0.7 mm (0.024–0.028 in)

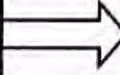
L Incorrect	M OK
Replace or Adjust Gap.	Clean the spark plug.



N Check the following

- Fuel line clogging
- Air cleaner element clogging.

O Clogged	Q Clean or Replace; Consult a Yamaha dealer.
P OK	R Consult a Yamaha dealer.



SPECIFICATIONS

Dimensions

	Unit	2000is
Overall Length	mm(in)	500(19.7)
Overall Width	mm(in)	288(11.3)
Overall Height	mm(in)	463(18.2)
Dry Werght	kg(lb)	21.3(47)

Engine

	unit	2000i
Type		Air cooled 4-stroke gasoline OHV
Cylinder Arrangement		Inclined, 1 cylinder
Displacement	cm ³	79
Bore×Stroke	mm(in)	48.6×43.0(1.91×1.69)
Operation Hours	Hr	4.2-10.5(rated load-1/4 load)
Fuel		Unleaded gasoline
Fuel Tank Capacity	L(US gal, lmp Gal)	4.35(1.15, 0.95)
Engine Oil Quantity	L(US qt, lmp qt)	0.4(0.42, 0.35)
Ignition System		CDI
spark Plug: Type		BPR6HS(NGK)
Cap	mm(in)	0.6-0.7(0.024-0.028)
Noise Level	dB(A)	62

Measured at rated operation from 7m (23ft) distance.

Generator

	Unit	2000i
AC Output		
Rated voltage	V	120 220V(230V, 240V)
Rated frequency	Hz	60 50Hz
Rated current	A	13.3 , 7.27(6.96, 6.67)
Rated putput	kVA	1.6
Safety Device:Type		Electronic
DC Output		
Rated voltage	V	12
Rated current	A	8
Safety Device:Type		DC protector



WARRANTY INFORMATION FOR SENCI UK GENERATORS

Register your UK warranty online at www.senci.co.uk

Inverter and Petrol Frame Generators

Inverter and Petrol Framed generators are warranted to be free of defects in materials and workmanship for two years from the original date of purchase. This limited warranty guarantees that any defective parts will be repaired or replaced, at the discretion of SENCI UK.

Leisure Use

2 year limited warranty, provides parts, labour and return carriage for the first year and parts only for the second year. Warranty period is effective as of the date of purchase.

Commercial Use

1 year / 1000 hours limited warranty, 90-day for hire/rental use, providing parts, labour and return carriage. Warranty period is effective as of the date of purchase. N.B. Inverter generators are not recommended for every day commercial use.

The warranty coverage is continual from the initial date of purchase and does not restart at anytime under any circumstances. This limited warranty is valid only when the machine receives all necessary preventative maintenance and servicing as described in the SENCI Owner's Manual. The repair or replacement of a machine will take place within a reasonable period of time during normal business hours.

IMPORTANT – ALL PRODUCTS

In the event of a product failure, in the first instance, contact Senci UK. If it is established that the fault is a warranty failure, we will arrange collection of the machine, (Highlands & Islands may incur a surcharge), or authorise a local dealer repair. If it is found to be a non-warranty fault, the customer will be charged.

If the machine is being returned, it is the customer's responsibility to package the machine securely, remove all fuel and oil and put the address label we supply by email to the package. It is advisable to keep the original packaging for this purpose.

If fuel or oil is left in the machine, the courier we use to collect the machine may refuse to deliver. If this happens, we may incur an additional redelivery charge, which will have to be passed onto the customer.

Parts Only Supply

If the customer requests a part to be sent out under warranty, we must have photographic proof that the old part has failed due to a manufacturing defect, or have the old part returned to us before we send out the new part. If we are to send out a new part before we have either of these, it is to be chargeable. When we receive the old part back, we will make a refund, if it is found that the old part has failed due to a manufacturing defect.

Not covered by Warranty

1. Normal wear and tear.
2. Damage caused by a lack of maintenance as described in the SENCI User Manual.
3. Damage caused by accidents, impact, improper installation or storage.
4. Damage caused by water ingestion, submersion, or external water damage.
5. Damage or non-performance caused by operation of the machine in a marine application.
6. Damage caused by operation with improper pressure, conditions, or modifications contrary to published specifications.
7. Items not supplied by SENCI, such as, but not limited to, external wiring, filters, etc.
8. Repairs made during the warranty period without first obtaining approval from SENCI
9. Service items, such as spark plugs, filters.
10. Wearing items such as recoil start units, brushes, bearings, hoses, seals, wheels/tyres, lances, batteries, cables, blades, trimmer heads, straps, belts etc.
11. AVRs are not covered under warranty, as these can be damaged by stopping the generator when under full load.
12. Fuel related faults caused by stale petrol or contaminated petrol or diesel.
13. Damaged caused during transit, unless signed for by customer as 'damaged' and reported immediately to SENCI or their dealer.
14. Damage caused by under-loading or over-loading a generator.

IMPORTANT

IF WE RECEIVE ANY MACHINES BACK TO OUR SERVICE CENTRE THAT HAVE A NON-WARRANTY FAULT, THE CUSTOMER WILL BE CHARGED FOR CARRIAGE BOTH WAYS, LABOUR AND PARTS USED.