YAMAHA

Generator

OWNER'S MANUAL

⚠ Read this manual carefully before operating this machine.

EF12000DE

LIT-19626-02-08
7UX-28199-1B

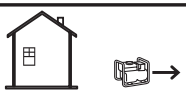
(CPSC 16 CFR Part 1407)

⚠ 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.

(California Proposition 65)

⚠ WARNING: ⚠

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

(California only)

AIR INDEX

To show compliance with California emission regulations, a hangtag has been provided displaying the Air Index level and durability period of this engine.

The Air Index level defines how clean an engine's exhaust is over a period of time. A bar graph scaled from "0" (most clean) to "10" (least clean) is used to show an engine's Air Index level. A lower Air Index level represents cleaner exhaust from an engine.

The period of time (in hours) that the Air Index level is measured is known as the durability period. Depending on the size of the engine, a selection of time periods can be used to measure the Air Index level (see below).

Descriptive Term		Applicable to Emissions Durability Period
Moderate	-	50 hours (engine from 0 to 80 cc)
		125 hours (engine greater than 80 cc)
Intermediate	-	125 hours (engine from 0 to 80 cc)
		250 hours (engine greater than 80 cc)
Extended	-	300 hours (engine from 0 to 80 cc)
		500 hours (engine greater than 80 cc)
		1000 hours (225 cc and greater)

Notice : This hangtag must remain on this engine or piece of equipment, and only be removed by the ultimate purchaser before operation.

Notice : FEDERAL EMISSION COMPONENT DEFECT WARRANTY and CALIFORNIA EMISSION CONTROL WARRANTY are applicable to only those engines/ generators complied with EPA (Environmental Protection Agency) and CARB (California Air Resources Board) emission regulations in the U.S.A.

Notice : To the engines/generators exported to and used in the countries other than the U.S.A., warranty service shall be performed by the distributor in each country in accordance with the standard engine/generator warranty policy as applicable.

INTRODUCTION

Congratulations on your purchase of your new Yamaha.
This manual will provide you with a good basic understanding of the operation and maintenance of this machine.
If you have any questions regarding the operation or maintenance of your machine, please consult a Yamaha dealer.

EF12000DE
OWNER'S MANUAL

1st Edition, November 2013

Printed in Japan.
P/N LIT-19626-02-08

IMPORTANT MANUAL INFORMATION

TIP

- Yamaha continually seeks advancements in product design and quality. Therefore, while 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 Yamaha dealer.
- This manual should be considered a permanent part of this engine and should remain with this engine when resold.

⚠ WARNING

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

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.

⚠ WARNING

A WARNING indicates a hazardous situation which, if not avoided, 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 key information to make procedures easier or clearer.

*Product and specifications are subject to change without notice.

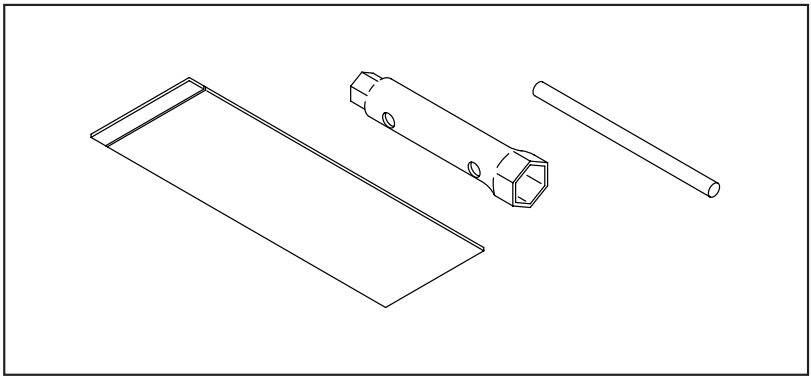
■ Check that following accessories come with your Yamaha Generator.

(1) Owner's manual

(2) Wheel mounting parts (See page 39.)

(3) Servicing tools

(4) Battery mounting bracket
(See page 13.)



■ Be sure to replenish with engine oil. (See page 10 for details.)

NOTICE

The generator has been shipped without engine oil. Do not start the engine until you have filled it with the sufficient engine oil.

Symbols and Meanings

In accordance with the European requirements (eec Directives), the specified symbols as shown in the following table are used for the products and this instruction manual.

	*Read the operator's instruction manual.*		*Fire, open light and smoking prohibited.*
	*Stay clear of the hot surface.*		*Do not connect the generator to the commercial power lines.*
	*Exhaust gas is poisonous.* *Do not operate in an unventilated room.*		*Do not operate in rain or snow.*
	*Stop the engine before refueling.*		*Call for maintenance.*
	*Caution, risk of electric shock.*		*Keep dry.*
	*HOT, avoid touching the hot area.*		

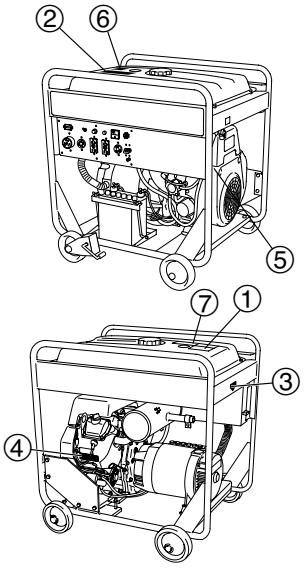
USA and CANADA only

	*Read INSTRUCTIONS FOR USE before use.*		*The engine emits toxic gas can kill you in minutes. Do not run in an enclosed area.*		*Hot surface can burn you. Stay away if engine has been running.*
	*Gasoline is extremely flammable and its vapors can explode.* *• Stop the engine before refueling.* *• Check for leakage from hoses and fittings.* *• Shut off fuel valve when the engine is not in use.*				

	*ON (power and Engine)*		*IN-position of a bistable push control*		*Engine start (Electric start)*
	*OFF (power and Engine)*		*Protective earth (ground)*		*Engine stop*
	*Alternating current*		*Fuse*		*Gasoline*
	*Direct current*		*Engine oil*		*Fast*
	*Plus ; positive polarity*		*Add oil*		*Slow*
	Minus ; negative polarity		*Battery charging condition*		*Fuel start / Open*
	*OUT-position of a bistable push control*		*Choke ; cold starting aid*		*Fuel stop / Close*

P_r	*Rated power (kW)*	*COP*	*Continuous power*	$\cos\Phi_r$	*Rated power factor*
f_r	*Rated frequency (Hz)*	U_r	*Rated voltage (V)*	I_r	*Rated current (A)*
H_{max}	*Maximum site altitude above sea-level (m)*	T_{max}	*Maximum ambient temperature (℃)*	m	*Mass (kg)*

CONTENTS



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 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, door, and vents.

7CG-24877-00

②

WARNING

Electrocution 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.

③

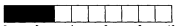
HOT EXHAUST

④

IMPORTANT ENGINE INFORMATION EM
ENGINE FAMILY- ***.****** DISPLACEMENT 653 cm^3**
REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS. THIS ENGINE MEETS EMISSION STANDARDS FOR ** U.S. EPA REGULATIONS FOR SMALL NON-ROAD ENGINES (EMISSION COMPLIANCE PERIOD OF 1000 HOURS) AND ****CALIFORNIA SI SORE's.**
YAMAHA MOTOR POWERED PRODUCTS CO.,LTD. YAMAHA EH63 .64 .65

⑤

The Air Index of this engine is 3



Note: The lower the Air Index, the less pollution.
This engine is certified to be emissions compliant for the following use:

□ Moderate 125 hours (greater than 80cc)
□ Intermediate 250 hours (greater than 80cc)
× Extended 500 hours (greater than 80cc)

Check the owner's manual for further details.

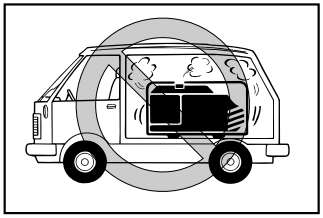
⑥

⚠ WARNING	⚠ AVERTISSEMENT
● READ THE OWNER'S MANUAL AND ALL LABELS BEFORE OPERATING. ● ONLY OPERATE IN WELL-VENTILATED AREA. EXHAUST GAS CONTAINS POISONOUS CORBON MONOXIDE. ● CHECK FOR SPILLED FUEL OR FUEL LEAKS. ● STOP ENGINE BEFORE REFUELING. ● DO NOT OPERATE NEAR FLAMMABLE MATERIALS. ● ELECTROCUTION CAN OCCUR IF GENERATOR IS USED IN RAIN, SNOW, OR NEAR WATER. KEEP THIS UNIT DRY AT ALL TIMES.	● LISEZ LE MODE D'EMPLOI ET TOUTES LES ETIQUETTES AVANT DE FAIRE FONCTIONNER LA MACHINE. ● FAITES FONCTIONNER UNIQUEMENT DANS DES LIEUX BIEN AERES. LES GAS D'ECHAPPEMENTCONTIENNET DU MONOXYDE DE CARBONE. ● VERIFIEZ SI DU CARBURANT A ETE RENVERSE DU S'IL FUIT. ● ARRETEZ LE MOTEUR AVANT DE FAIRE LE PLEIN DE CARBURANT. ● N'UTILISEZ PAS A PROXIMITE DE MATERIAUX INFLAMMABLES. ● IL Y A RISQUE D'ELECTROCUTION SI LE GENERATEUR FONCTIONNE SOUS LA PLUIE, DANS LA NEIGE, OU PRES DE L'EAU. GARDEZ LA MACHINE AUSEC EN TOUTES CIRCONSTANCES.

7NJ-24162-10

⑦

⚠ WARNING	⚠ AVERTISSEMENT
DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY OCCUR UNLESS INSTRUCTIONS ARE FOLLOWED CAREFULLY. ● DISCONNECT BATTERY CABLES WHEN CHARGING BATTERY. ● USE BATTERY OF SPECIFIED CAPACITY LISTED IN THE OWNER'S MANUAL. ● TURN THE STARTER SWITCH TO THE "STOP" POSITION WHEN MOUNTING OR DISMOUNTING BATTERY. CONNECT POSITIVE (+) TERMINAL FIRST WHEN MOUNTING BATTERY, AND DISCONNECT NEGATIVE (–)TERMINAL FIRST WHEN DISMOUNTING. RED CABLE : TO POSITIVE (+) TERMINAL BLACK CABLE: TO NEGATIVE (–) TERMINAL	DES BLESSURES CORPORELLES, VOIRE MORTELLES, ET/OU DES DOMMAGES MATERIELS RISQUENT DE SE PRODUIRE SI L'ON NE SUIT PAS ATTENTIVEMENT LES INSTRUCTIONS. ● DEBRANCHER LES CABLES DE BATTERIE EN CHARGEANT LA BATTERIE. ● UTILISER UNE BATTERIE DE CAPACITE REQUISE COMME INDIQUE DANS LE MANUEL DE L'UTILISATEUR. ● METTRE LE COMMUTATEUR DEMARREUR A LA POSITION "STOP" EN MONTANT OU EN DEMONTANT LA BATTERIE. AU MONTAGE DE LA BATTERIE, CONNECTER LA BORNE POSITIVE (+) EN PREMIER LIEU, TANDIS QU'AU DEMONTAGE, DECONNECTEUR LA BORNE NEGATIVE (–) EN PREMIER LIEU. CABLE ROUGE: VERS BORNE POSITIVE (+) CABLE NOIR : VERS BORNE NEGATIVE (–)



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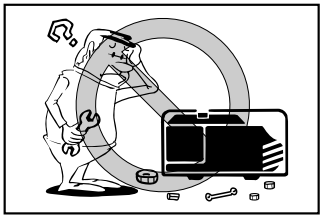
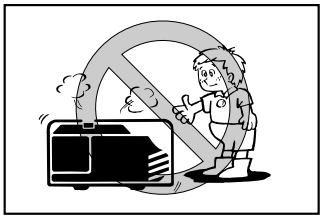
SAFETY INFORMATION

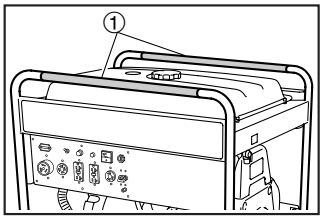
- This generator is not designed for on-board use. Do not use it while installed on the vehicle.



- Do not modify the generator or use it with its parts removed.

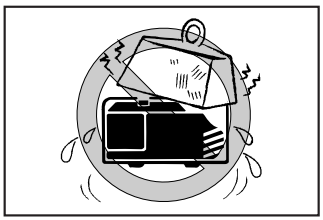


- Do not allow children to operate the generator.



- Be sure to carry the generator only by its carrying handle(s).

① Carrying handle(s) (shaded)



- Do not place any obstacles on the generator.

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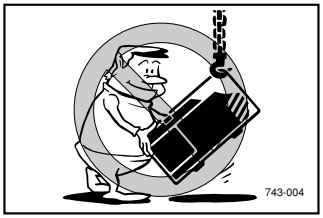
EXHAUST FUMES ARE POISONOUS

- 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.



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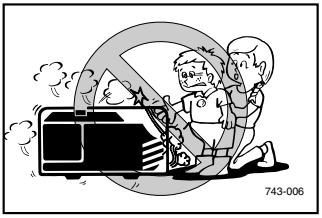
FUEL IS HIGHLY FLAMMABLE AND POISONOUS

- Always turn off the engine when refuelling.
- 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 refuelling.
- Do not leave the generator inside the vehicle or in the trunk.
- 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.



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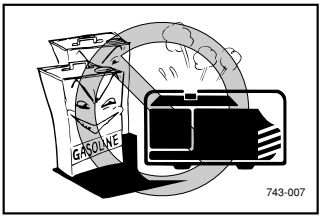
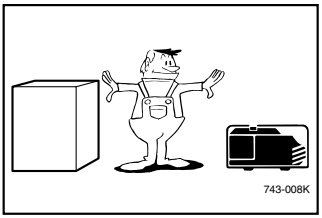
ENGINE AND MUFFLER MAY BE HOT

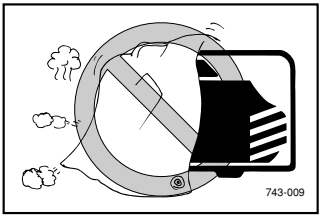
- Place the machine in a place where pedestrians or children are not likely to touch the machine.



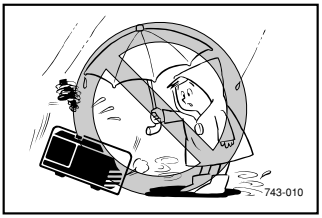
- Avoid placing any flammable materials near the exhaust outlet during operation.



- In order to prevent overheating, ensure adequate airflow by keeping the machine at least 1 m (3 ft) from objects or other equipment.



- 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.



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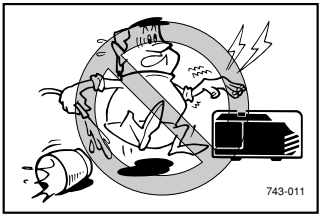
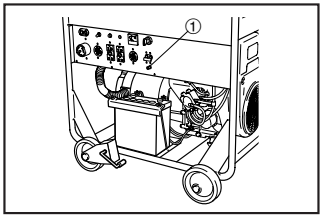
ELECTRIC SHOCK PREVENTION

- Never operate the engine in rain or snow.

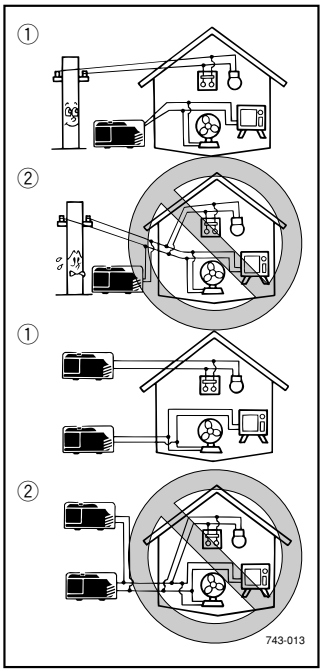


- Never touch the machine with wet hands or electrical shock will occur.



- Connect the Ground (earth) terminal to a ground source. In order to prevent electrical shock, the generator must be grounded when using an electrical device with a ground plug.

① Ground (earth) terminal



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CONNECTION NOTES

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

① Correct

② Incorrect

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CONNECTION

⚠ WARNING

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 (backfeeding) 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.

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EXTENSION CORD NOTES

- When using an extension cord, its total length should not exceed
  60 meters for cross section of 1.5 mm square and
  100 meters for cross section of 2.5 mm square.
- This extension cord should be protected by a tough flexible rubber sheath (IEC 245) or the equivalent to withstand mechanical stresses.

Notes on installation

1. If you provide the generator with wheels, always be sure to place the generator on a level surface, locking the wheel with the stopper and / or chocking the wheels.
2. Select a place that allows you to maintain and inspect the generator, which is not exposed to contamination by exhaust gas.

   If you are planning to install the generator without its wheels attached, take into consideration being able to make oil changes efficiently.
3. In ground connection, be sure to use the designated ground terminal.

   (A grounding cable is not included in the set of accessories.)
4. During use, be sure not to disconnect the battery.
5. While the power is on, do not unplug the unit or disconnect cables from the terminals.

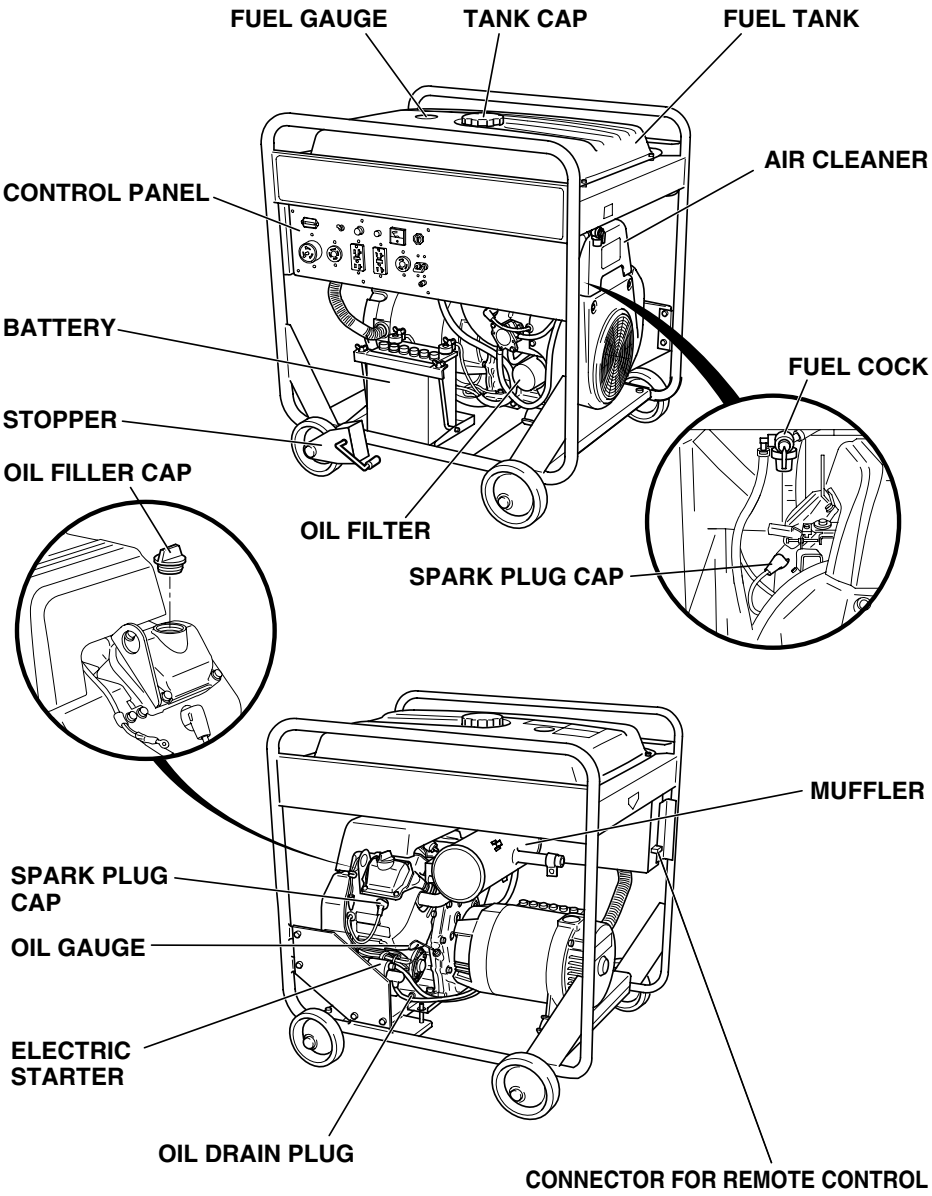
⚠ WARNING : PRECAUTIONS ON THE HANDLING OF THE WARNING LABEL

Warning labels are affixed to our engines with regard to particularly serious dangers.
When using the engines, please use them safely after carefully reading the instruction manual and understanding the dangers.

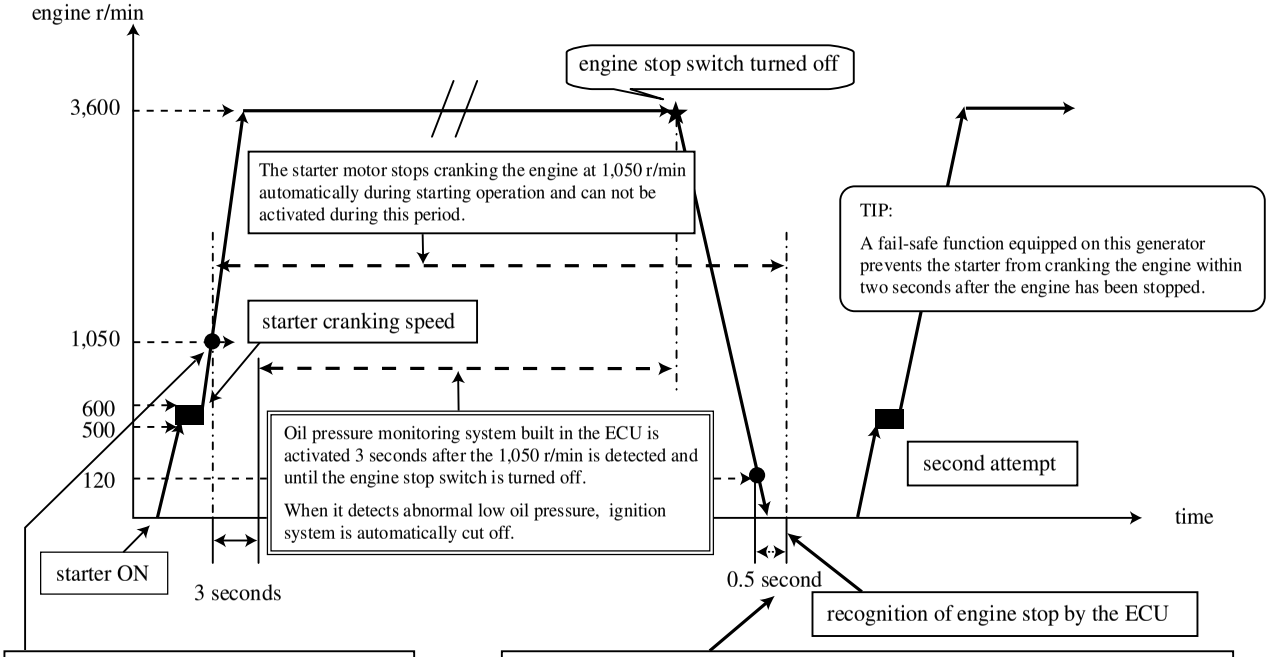
Warning Label Exclusively for the United States and Canada

For use in the United States or Canada, please affix the label suited to the region from among the enclosed warning labels.

CONTROL FUNCTION



Oil Pressure Monitoring System and Starter Motor Operation for EF12000DE



The starter circuit is cut off when the ECU recognizes that the engine is started by detecting engine speed of 1,050 r/min.

The ECU recognizes that the engine is stopped when the engine r/min drops to 120 r/min or below.

It takes 0.5 second for the ECU to recognize the engine speed of 120 r/min after actual engine speed reaches 120 r/min due to the interval of ignition pulses.

Oil Pressure Monitoring System

The engine is equipped with an oil pressure sensor (of a hydraulic pressure detection type).

If this sensor detects the oil pressure below the specified level, it stops the engine automatically. Then, the oil pressure warning lamp flashes for 3 minutes and goes off.

TIP

- If the engine stalls, check the engine oil level or contamination.
  Add or change oil, and restart. (See page 10 for more details.)
  Check the fuel level and the fuel cock because the same result can be expected when the fuel runs out.
- If the engine runs over 4500 r/min for 7 seconds, the engine stops automatically and the oil pressure warning lamp flashes for 3 minutes.

Automatic bulb checking

When the starter switch is turned to the "START" from the "STOP" position, the oil pressure warning lamp flashes only once to check the bulb.

If it does not flash, ask a Yamaha dealer to inspect the electrical circuit.

Fail-safe Function of ECU (Electronic Control Unit)

- When the remote control unit is connected, the engine will not start unless both starter switch on the control panel and the engine switch on the remote control unit are switched on.
- If the engine does not run for 3 seconds when the starter switch is turned to the "START" position on either the generator or the remote control unit, the starter motor will stop automatically.
- If the engine does not start for 21 seconds when the starter switch is turned to the "START" position on either the generator or the remote control unit, the starter motor will stop automatically.

PRE-OPERATION CHECK

CHECK ENGINE OIL

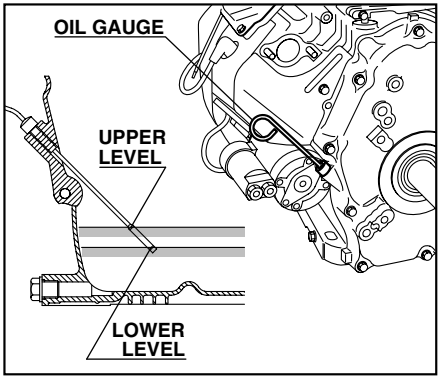
Before checking or refilling oil, be sure generator is located on stable and level surface with engine stopped.

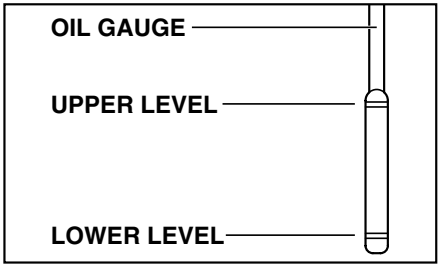
1) Remove oil level gauge and check the engine oil level.
2) If oil level is below the lower level line on the oil gauge, refill with suitable oil (see table) to upper level after removing the engine oil filler cap.
3) Change oil if contaminated.
(See "How-To" Maintenance.)

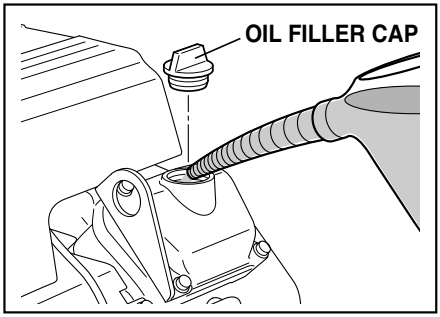
Oil capacity ····· 1.55 L (1.64 US qt, 1.36 Imp qt)

TIP

- The engine is equipped with an oil sensor unit (hydraulic pressure detection type) that will automatically stop the engine if oil in the crank case is reduced below the specified level. Should the engine be automatically stopped, be sure to check the amounts of fuel and oil.
- When the oil is reduced below the specified level, add new oil to the upper limit. Since the oil sensor will not detect the deterioration of oil, visually check the quality or determine it by the specified time and then change the oil if necessary.
(Refer to page 27.)

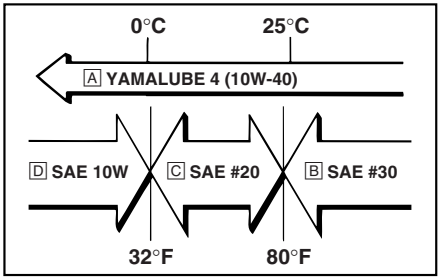






Recommended engine oil:
- [A] YAMALUBE 4 (10W-40), SAE 10W-30 or 10W-40
- [B] SAE #30
- [C] SAE #20
- [D] SAE 10W

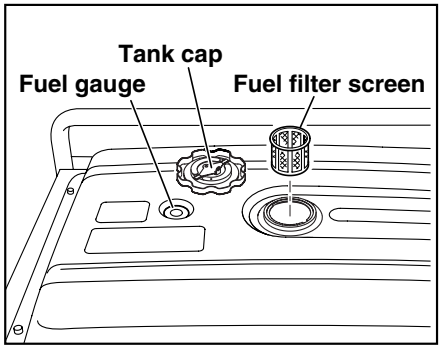
Recommended engine oil grade:
API Service SE type or higher



CHECK FUEL

⚠ WARNING

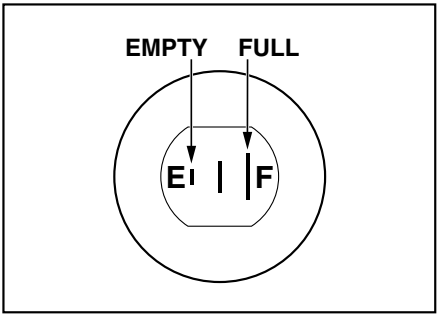
Do not refuel while smoking or near open flame or other such potential fire hazards. Otherwise fire accident may occur.



1) Check fuel level at fuel level gauge.
2) If fuel level is low, refill with unleaded automotive gasoline.

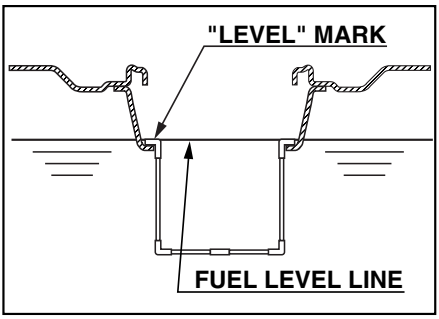
   This engine is certified to operate on automotive unleaded gasoline.
3) Use unleaded automotive gasoline only.
   - Unleaded regular/premium or reformulated gasoline containing no more than 10% Ethanol (E10), or 15% MTBE may also be used.
   - Never use gasoline containing ethanol exceeding 10%, or MTBE exceeding 15% because engine or fuel system damage could result.
   - Never use stale or contaminated gasoline.
   - Use of these non-recommended fuels may result in reduced performance and/or denial of warranty.
4) Stop the engine and open the cap.
5) Close the fuel valve before filling the fuel tank.
6) Be sure the fuel filter screen is inserted.
7) Reattach the fuel cap by turning clockwise until reaching the physical stop (about one quarter turn). Do not attempt to turn past the physical stop or the fuel cap may be damaged.

Fuel Amount
up to "LEVEL" position
38 L (10.04 US gal, 8.36 Imp gal)



TIP

- The full level of fuel is the upper surface of the fuel filter.
- Be sure to add the fuel in small amounts as the fuel level approaches to the full fuel level mark.



Continuous operation time in normal use (rated load)	
60 Hz	Approx. 7.1 hours

⚠ WARNING

Make sure you review each warning in order to prevent fire hazard.

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

AE00231

BATTERY
(See page 31 for more details)

Check the fluid level and fill if necessary.
Use only distilled water if refilling is necessary.

Recommended Battery

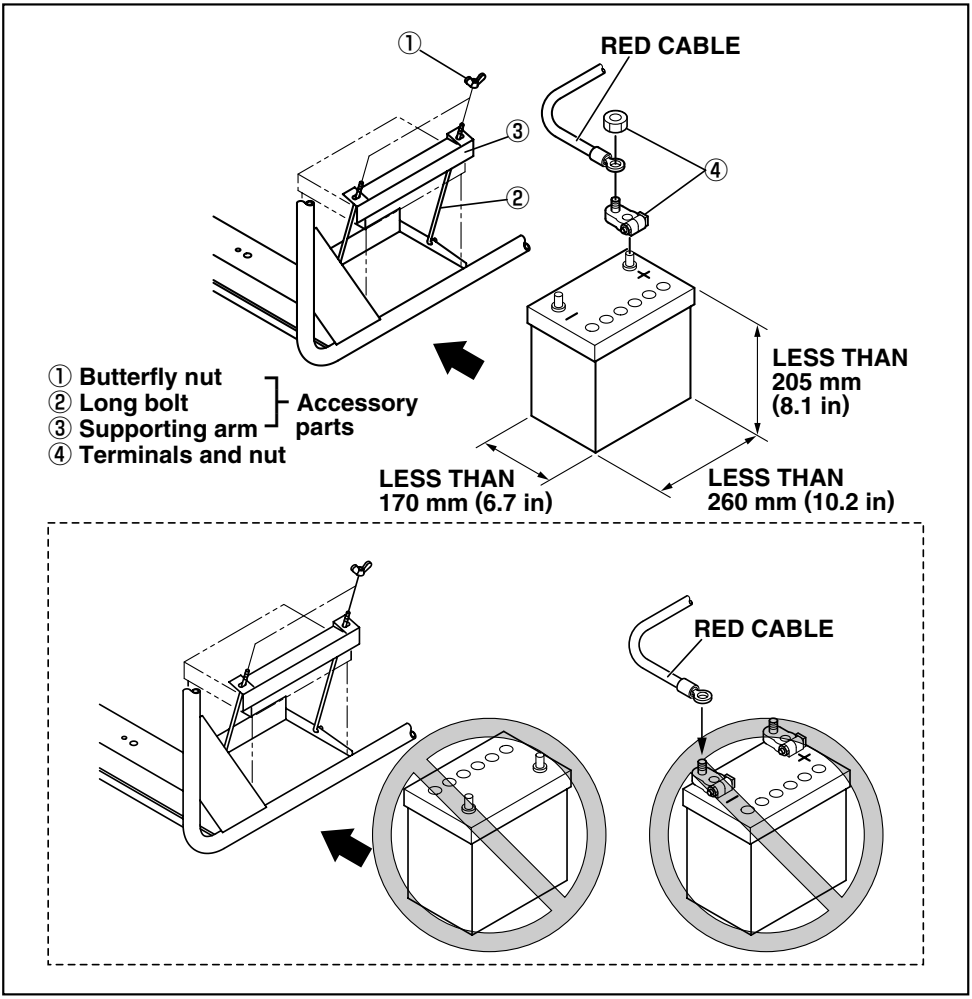
Lead-acid battery : A capacity of 12V-32A･h or larger.
For the generators used in low temperature below -5˚C(23˚F), 12V-40A･h or larger battery is recommended.

Installation

1) Turn the starter switch to the "STOP" position to prevent accidental short circuiting.
2) Attach terminals to a lead-acid battery already charged. Mount the battery onto the position as specified below, with its terminals facing inward.
3) Insert each long bolt through the specified hole, its tip pointing outward.
4) Put the supporting arm on the long bolts and tighten with the butterfly nuts. (Push the lead-acid battery all the way inward.)
5) Arrange the wiring so that it won't be damaged by possible vibration caused by the engine.
6) Only after checking that the engine's starter key is in the "STOP" position, securely connect the cable with a red, to the positive (+) terminal first. And then connect the other cable to the negative (-) terminal.

NOTICE

Should the connection be made in incorrect manner, the engine will be damaged.



Red cable: to the positive (+) terminal

Black cable: to the negative (–) terminal

CHECK COMPONENT PARTS

Check following items before starting engine:

- Fuel leakage from fuel hose, etc.
- Bolts and nuts for looseness.
- Components for damage or breakage.
- Generator not resting on or against any adjacent wiring.

CHECK GENERATOR SURROUNDINGS

⚠ WARNING

Make sure you review each warning in order to prevent fire hazard.

- **Keep area clear of inflammables or other hazardous materials.**
- **Keep generator at least 1 meter (3 feet) away from buildings or other structures.**
- **Only operate generator in a dry, well ventilated area.**
- **Keep exhaust pipe clear of foreign objects.**
- **Keep generator away from open flame. No smoking!**
- **Keep generator on a stable and level surface.**
- **Do not block generator air vents with paper or other material.**

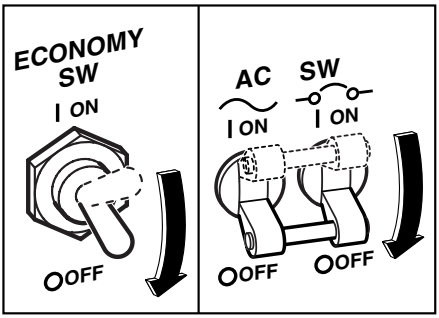
OPERATION

STARTING THE ENGINE

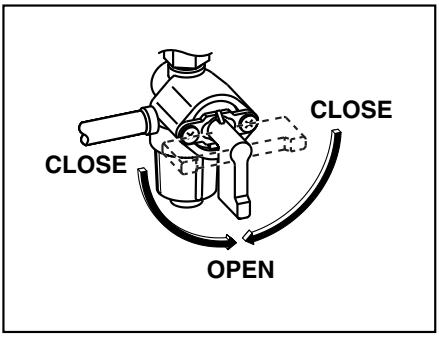
NOTICE

- **Check the oil level before each operations. (See page 10)**
- **Perform the specified daily inspection to see if it is in normal condition.**

(1) Make sure that the economy switch and AC switch (no-fuse breaker) are off.

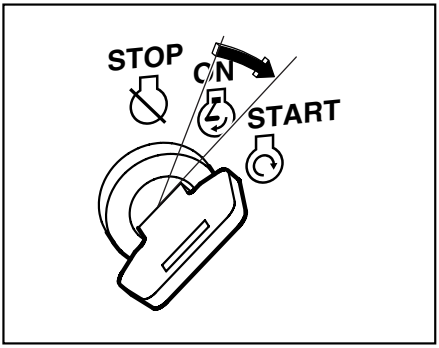


(2) Turn the fuel cock lever to the vertical (open) position.



(3) Turn the starter switch to the "START" position.

- Take your hand off the switch immediately after the engine starts.
- If the engine fails to start, release the switch, wait a few seconds, then try again. Each attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt.



TIP

A fail-safe function equipped on this generator prevents the starter from cranking the engine within 0.5 second after the engine has been stopped.

■ In the following occasion, two or three trials may be required for starting the engine :

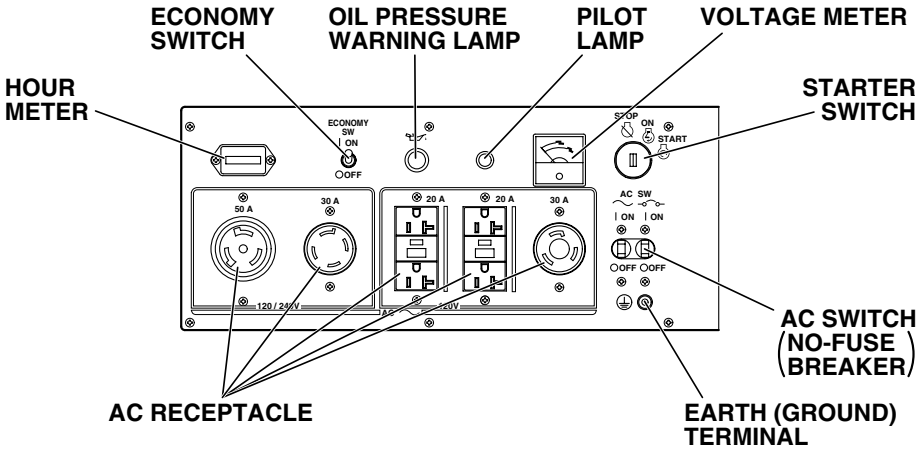
(1) The very first starting of a new generator.

(2) After the refueling of the engine which has been stopped due to fuel shortage.

(3) Starting after the oil filter change.

USING ELECTRIC POWER

CONTROL PANEL



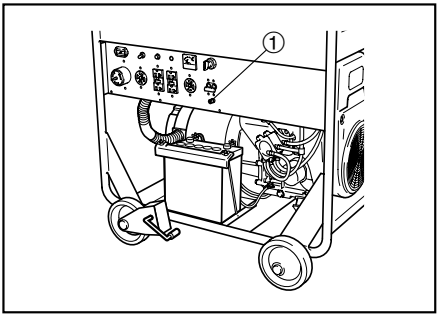
⚠ WARNING

- **Make sure that the appliance is switched OFF before connecting it to the generator.**
- **Do not move the generator while it is running.**
- **Be sure to ground the generator if the connected appliance is grounded. Failure to ground unit may lead to electrical shock.**
- **Clean dusts, dirt or water off the receptacle before use.**

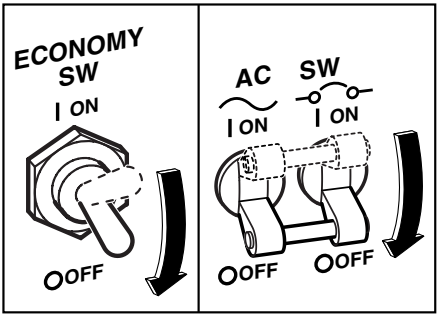
(1) AC APPLICATION

(a) Ground the generator, using the ground terminal located at the side of the panel.

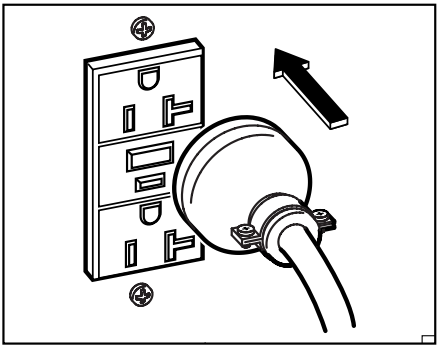
① Ground (Earth) terminal



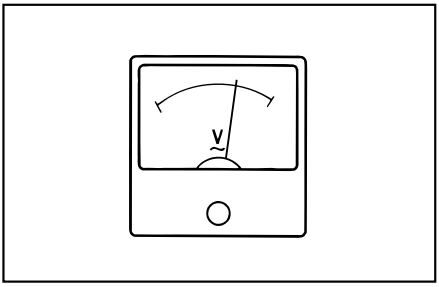
(b) Before starting the engine, check that the economy switch and AC switch of the generator and the power switches of the appliances are turned off.



(c) Connect the plugs of the appliances to the receptacles before starting the engine.



(d) Start the engine and check that the voltage meter indicates the rated voltage.



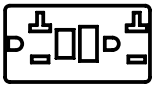
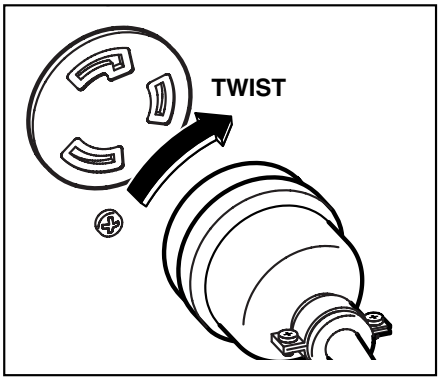
Style	Ampere	Receptacle	AC plug	Description
	up to 20A	NEMA 5-20R	NEMA 5-20P	G.F.C.I. (Ground Fault Circuit Interrupter) Receptacle, duplex (REC1)
	up to 30A	NEMA L5-30R	NEMA L5-30P	Locking Receptacle (REC2)
	up to 30A	NEMA L14-30R	NEMA L14-30P	Locking Receptacle (REC3)
	up to 50A	HUBBELL CS6369	HUBBELL CS6365C	Locking Receptacle (REC4)

TABLE 1

⚠ WARNING

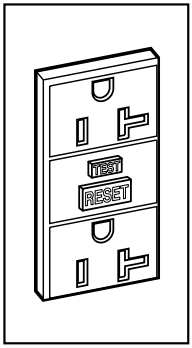
- **To take power out from the TWIST LOCK RECEPTACLE, insert the plug into the receptacle, and turn it clockwise to the lock position.**
- **Be sure to ground the generator if the connected electrical device Is grounded.**



NOTICE

The duplex 120V receptacle is protected by a G.F.C.I. (Ground Fault Circuit Interrupter). G.F.C.I. shuts off the output current from the duplex 120V receptacle when a ground fault occurs in the generator or the appliance.
Please note that other receptacles are not protected by G.F.C.I..

G.F.C.I. RECEPTACLE TEST



After starting the engine, check the G.F.C.I. for proper functioning by the following test procedure.

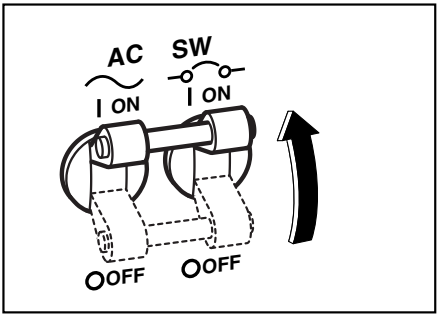
- Push yellow TEST button, the red RESET button will pop out exposing the word TRIP. Power is now off at the outlets protected by the G.F.C.I., indicating that the device is functioning properly.
- If TRIP dose not appear when testing, do not use the generator. Call a qualified electrician.
- To restore power, push RESET button.

⚠ WARNING

If the RESET button pops out during operation, stop the generator immediately and call a qualified electrician for checking generator and the appliances.

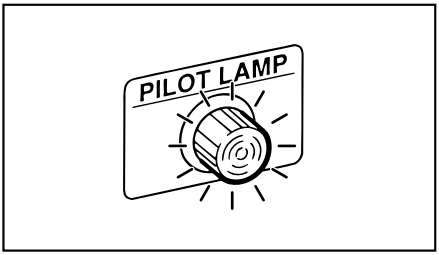
(e) Turn the AC switch (no fuse breaker) to on and check to see that the pilot lamp is on.

(f) Turn on the switch of the appliance.



TIP

The AC switch (no-fuse breaker) turns off automatically when the load exceeds the generator rated output.



NOTICE

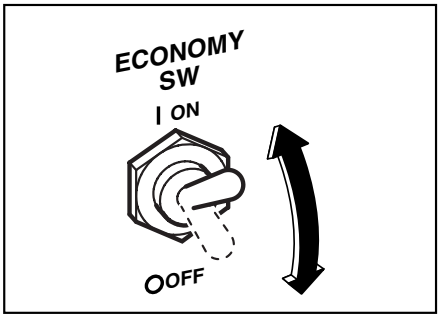
When the AC switch (no-fuse breaker) turns off during operation, the generator is over loaded or the appliance is defective. Stop the generator immediately, check the appliance and / or generator for overloading or detect and have repaired as necessary by Yamaha dealer or service shop.

ECONOMY SWITCH

ECONOMY SWITCH automatically reduces engine speed when load is OFF, and automatically increases engine speed to rated r/min when load is ON.
ECONOMY SWITCH provides fuel economy and low noise operation at no-load running.

(1) HOW TO USE ECONOMY SWITCH

- Start the engine with ECONOMY SWITCH off.



TIP

Warm up the engine without a load for a few minutes.

- Turn ECONOMY SWITCH on.

(2) CHECKING THE OPERATION

When ECONOMY SWITCH does not operate normally, please check following :

- Overloaded ?
  Please make it sure that the generator is not overload.

TIP

Most induction loads such as electric motors require three to five times more wattage than their ratings during starting.
This starting wattage should not exceed the rated output of the generator for proper operation of ECONOMY SWITCH.

- Turn ECONOMY SWITCH off when the ECONOMY SWITCH does not work normally under the rated output.

TIP

The ECONOMY SWITCH must be turned to "OFF" to increase engine speed to rated r/min when using a load of 0.04A or less.

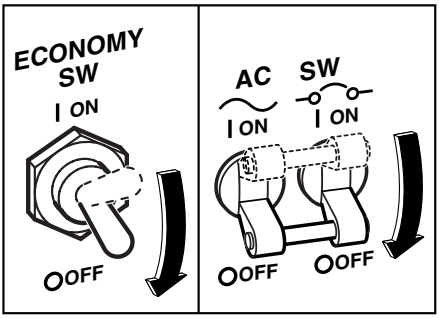
- The ECONOMY idling speed is 2,400 – 2,700 r/min.

STOPPING THE GENERATOR

(1) Turn off the power switch of the electric equipment.

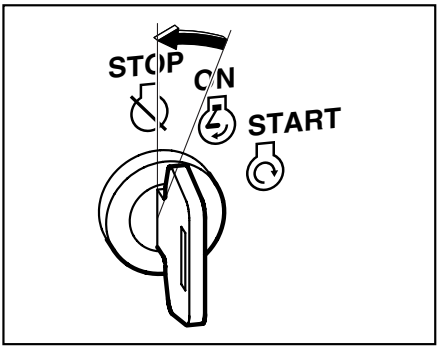
(2) Turn the economy switch and AC switch (no-fuse breaker) to off.

(3) Unplug the cord from receptacle of the generator.

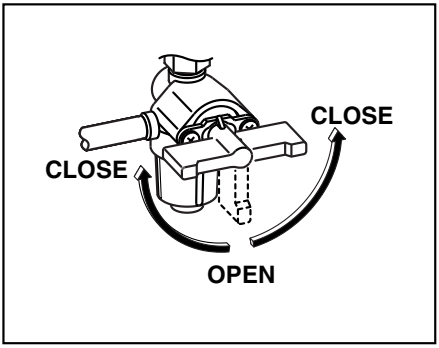


(4) Allow the engine to run at no-load for about 3 minutes to cool down before stopping.

(5) Turn the starter switch to the STOP position.



(6) Close the fuel cock.



TIP

It is normal that the engine speed goes up for a moment when you turn the starter switch to "STOP" while the Economy switch is in the "ON" position.

WATTAGE INFORMATION

Some appliances need a "surge" of energy when starting.
This means that the amount of electrical power needed to start the appliance may exceed the amount needed to maintain its use.
Electrical appliances and tools normally come with a label indicating voltage, cycles/Hz, amperage (amps) and electrical power needed to run the appliance or tool.
Check with your nearest dealer or service center with questions regarding power surge of certain appliances or power tools.

- Electrical loads such as incandescent lamps and hot plates require the same wattage to start as is needed to maintain use.
- Loads such as fluorescent lamps require 1.2 to 2 times the indicated wattage during start-up.
- Loads for mercury lamps require 2 to 3 times the indicated wattage during start-up.
- Electrical motors require a large starting current. Power requirements depend on the type of motor and its use. Once enough "surge" is attained to start the motor, the appliance will require only 50% to 30% of the wattage to continue running.
- Most electrical tools require 1.2 to 3 times their wattage for running under load during use. (For example, a 9,000 watt generator can power a 3,200 to 7,000 watt electrical tool.)
- Loads such as submersible pumps, air conditioners and air compressors require a very large force to start. They need 3 to 5 times the normal running wattage in order to start. (For example, a 5,000 watt generator would only be able to drive a 1,800 to 3,100 watt pump.)
- If the power consumption of electrical appliances exceeds the operating range or if there is short circuit or other problems in the appliances, the AC breaker could trip "OFF" or the rotation of the generator could be abnormally reduced. In this case, stop the generator to see if the power consumption of the appliances is too large and if there is a problem in the appliances.
- The frequency (the number of the generators rotation) was adjusted before the time of shipment. Changing the frequency could result in the generators breakdown, so refrain from changing it.

To determine the total wattage required to run a particular electrical appliance or tool, multiply the voltage figure of the appliance/tool by the amperage (amps) figure of same. The voltage and amperage (amps) information can be found on a name plate which is normally attached to electrical appliances and tools.

Applications	Applicable Wattage (W)
	60 Hz
Incandescent lamp, Heater	9,500
Fluorescent lamp, Electric tool	4,700
Pump, Compressor	2,400

TIP

- The above wattage chart is general guide only. Refer to your specific appliance for correct wattage.
- When you use two or more alternating current outlets at a time, be careful that the sum of the appliances' power consumption does not exceed the value specified in the above chart.

VOLTAGE DROP IN ELECTRIC EXTENSION CORDS

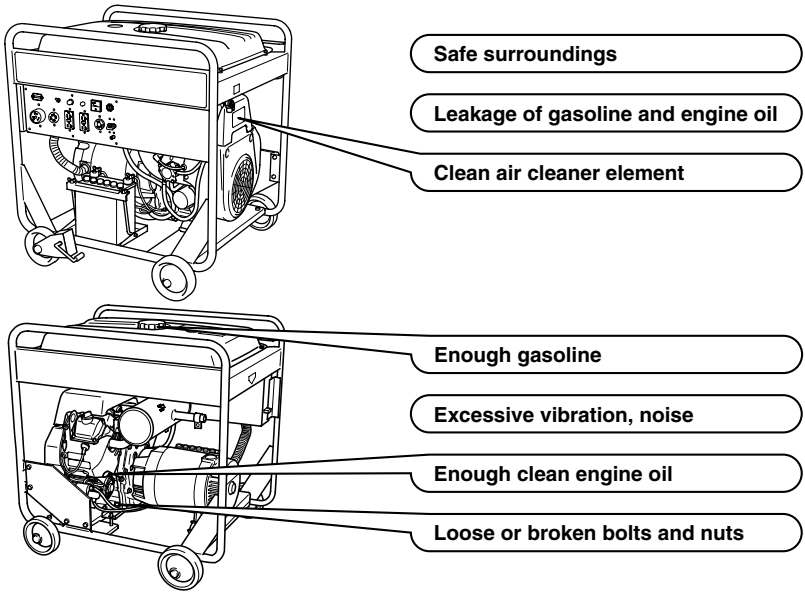
When a long electric extension cord is used to connect an appliance or tool with the generator, a certain amount of voltage drop occurs in the extension cord which lessens the effective voltage available to the appliance or tool.
The chart below has been prepared to illustrate the approximate voltage loss when an extension cord of 300 feet (approx. 100 meters) is used to connect an appliance or tool to the generator.

Nominal cross section	A.W.G. Gauge No.	Allowable current	No.of strands / strands dia.	Resistance	Current Amp.							
mm^2	No.	A	No./mm	Ω/100m	1A	3A	5A	8A	10A	12A	15A	
0.75	18	7	30/0.18	2.477	2.5V	8V	12.5V	—	—	—	—	Voltage drop
1.27	16	12	50/0.16	1.486	1.5V	5V	7.5V	12V	15V	18V	—	
2.0	14	17	37/0.26	0.952	1V	3V	5V	8V	10V	12V	15V	
3.5	12 to 10	23	45/0.32	0.517	—	1.5V	2.5V	4V	5V	6.5V	7.5V	
5.5	10 to 8	35	70/0.32	0.332	—	1V	2V	2.5V	3.5V	4V	5V	

MAINTENANCE SCHEDULE

DAILY INSPECTION

Before running the generator, check the following service items:



PERIODIC MAINTENANCE

Periodic maintenance is vital to safe and efficient operation of your generator. Check the table below for periodic maintenance intervals.

IT IS ALSO NECESSARY FOR THE USER OF THIS GENERATOR TO CONDUCT THE MAINTENANCE AND ADJUSTMENTS ON THE EMISSION-RELATED PARTS LISTED BELOW TO KEEP THE EMISSION CONTROL SYSTEM EFFECTIVE.

The emission control system consists of the following parts :

(1) Carburetor and internal parts
(2) Cold start enrichment system, if applicable
(3) Intake manifold, if applicable
(4) Air cleaner element
(5) Spark plugs
(6) Magneto or electronic ignition system
(7) Spark advance/retard system, if applicable
(8) Exhaust manifold, if applicable
(9) Hoses, belts, connectors, and assemblies

The maintenance schedule indicated in the table is based on the normal generator operation. Should the generator be operated in extremely dusty condition or in heavier loading condition, the maintenance intervals must be shortened depending on the contamination of oil, clogging of filter elements, wear of parts, and so on.

Periodic Maintenance Schedule table

Maintenance Items	Every 8 hours (Daily)	Every 20 hours	Every 50 hours	Every 200 hours	Every 500 hours	Every 1000 hours
Clean generator and check bolts and nuts	● (Daily)					
Check for leakage from hoses and fitting	● (Daily)					
Check and refill engine oil	● (Refill daily to upper level)					
Change engine oil (*Note 1 and 3)		● (Initial)	● (Every 100 hours)			
Replace engine oil filter (*Note 1 and 3)		● (Initial)		●		
Check battery electrolyte fluid level			●			
Clean spark plug			●			
Clean air cleaner			●			
Replace air cleaner element (*Note 3)				●		
Clean fuel strainer				●		
Clean and adjust spark plug and electrodes				●		
Replace spark plug					●	
Spark arrester			● (Every 100 hours)			
Remove carbon from cylinder head (*Note 2)					●	
Clean and adjust carburetor (*Note 2)					●	
Clean engine base (oil pan) (*Note 2)					●	
Check and adjust valve clearance (*Note 2)					●	
Check and replace carbon brushes					●	
Replace fuel lines						● (Every 2 years)
Overhaul engine (*Note 2)						●

*Note 1 : Initial oil change should be performed after first twenty (20) hours of operation.
Thereafter change oil every hundred (100) hours.
Before changing oil, check for a suitable way to dispose of old oil.
Do not pour it down into sewage drains, onto garden soil or into open streams.
Your local zoning or environmental regulations will give you more detailed instructions on proper disposal.

*Note 2 : As to the procedures for these items, please refer to the SERVICE MANUAL or consult your nearest Yamaha dealer.

*Note 3 : More frequent oil changing, oil filter replacement and air cleaner service on replacement may be necessary depending on operating conditions.
This would include dusty environment, high ambient temperature, heavy engine loading.

"HOW-TO" MAINTENANCE

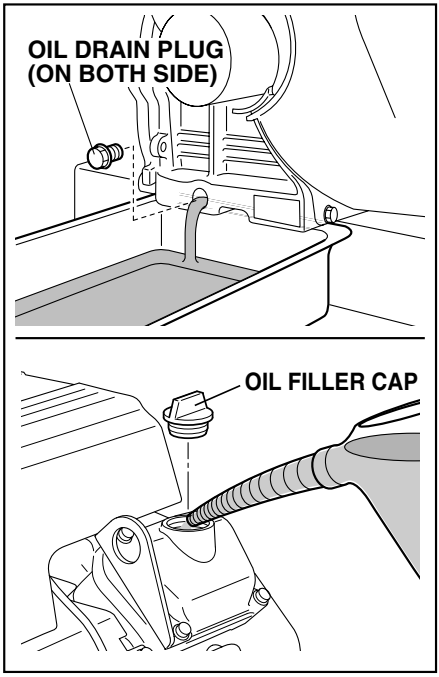
ENGINE OIL CHANGE

■ Initial oil change
・・・・・After 20 hours of operation

■ Thereafter
・・・・・Every 100 hours of operation

1. When changing oil, stop the engine and remove the drain plug.
2. Install the drain plug before refilling oil.
3. Refer to the recommended oil table on page 10.
4. Always use the best grade and clean oil. Contaminated oil, poor quality oil and shortage of oil cause damage to engine or shorten the engine life.

OIL CAPACITY : 1.55 L (1.64 US qt, 1.36 Imp qt)

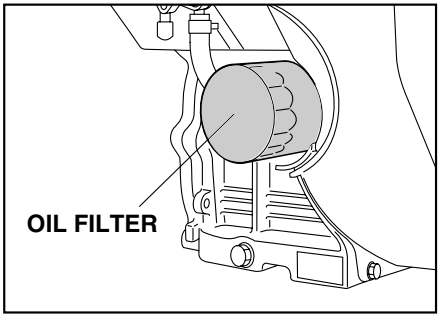


ENGINE OIL FILTER REPLACEMENT

■ Initial engine oil filter replacement should be performed after 20 hours of operation. Thereafter replace the engine oil filter every 200 hours.

■ When installing a new oil filter, apply oil to O-ring, attach the oil filter in position and tighten 2/3 turns by hand or with wrench after touching the O-ring to the sealing surface of engine.

■ Run the engine for a minute ; stop the engine and check for oil leakage around the oil filter and recheck the oil level.



NOTICE

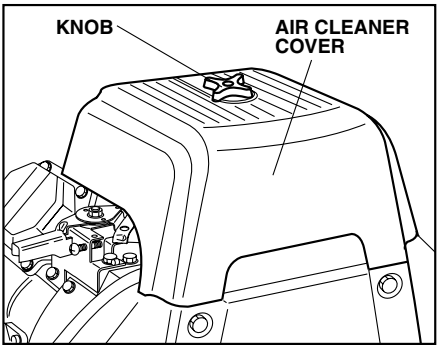
To prevent injury, pay attention to the spilled hot engine oil when replacing engine oil filter.

SERVICING AIR CLEANER

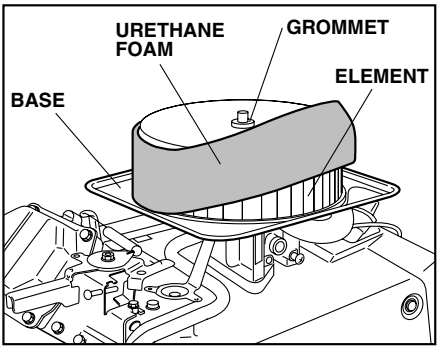
A dirty air cleaner element will cause starting difficulty, power loss, engine malfunctions, and shorten engine life extremely.

Always keep the air cleaner element clean. Replace the air cleaner element set more often in dusty environments.

The air cleaner paper inner element and urethane foam outer element can be removed after removing knob and air cleaner cover. When installing, set the paper element and urethane foam on the air cleaner base. Check that the grommet is in position, and then install the cover with knob tightened securely.



■ Urethane Foam cleaning
Wash and clean the urethane foam in kerosene. Saturate in a mixture of 3 parts kerosene and 1 part engine oil, and then squeeze to remove excess oil. Clean or replace the urethane foam element every 50 hours. (more often in dusty environments)



■ Paper element
Clean by tapping gently to remove dirt and blow off dust. Never use oil.
Clean or replace the paper element every 50 hours of operation, and replace element set every 200 hours or once a year.

CLEANING AND ADJUSTING SPARK PLUG

(a) Unplug the high-voltage cables (located at the outlet panel and lead-acid battery).

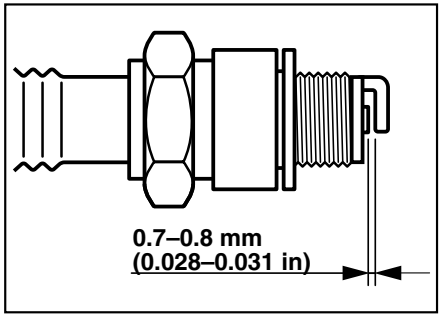
(b) Using the supplied plug wrench and handle, turn it counterclockwise until it comes off.

(c) Clean the area around the mounting hole.

(d) Clean the electrodes if they are dirty. Adjust the clearance to 0.7–0.8 mm (0.028–0.031 in). Replace it with a new one if the abrasion has developed to the degree where a flat surface cannot be obtained on its projection. If the electrodes turn black, also inspect the air cleaner.

(e) Attach and tighten the plug with the specified torque : 25–30 Nm (2.5–3.0 m·kgf, 18–22 ft·lbf).

(f) After checking that the contact area inside the plug cap is not corroded, connect the high-voltage cables.



Spark plug
NGK BPR5ES

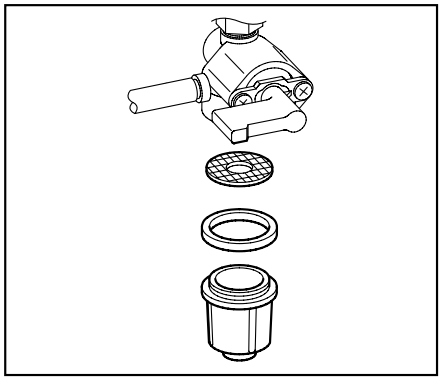
CLEANING FUEL STRAINER

Dirt and water in the fuel are removed by the fuel strainer.

(a) Remove the strainer cup and throw away water and dirt.

(b) Clean the screen and strainer cup with gasoline.

(c) Tightly fasten the cup to main body, making sure to avoid fuel leak.



FUEL HOSE REPLACEMENT

⚠ WARNING

Take extreme caution when replacing fuel hose ; gasoline is flammable.

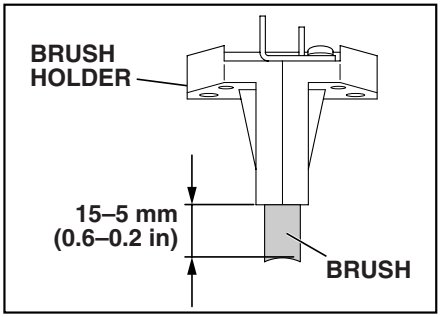
Replace the fuel hose every 1,000 hours or every 2 years.
If fuel hose leak is found, replace the fuel hose immediately.

CHECKING CARBON BRUSH

If the brush become excessively worn, its contact pressure with the slip ring changes and causes a roughened surface on the slip ring, resulting in irregular generator performance.

Check the brush every 500 hours or if generator performance is irregular.

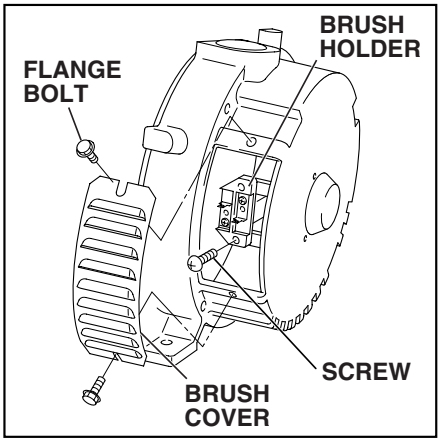
If the brush is 5 mm (0.2 in) long or less, replace it with a new one.



(a) Remove the brush cover.

(b) Disconnect the wire connector and remove the brush.

(c) Carefully note the brush direction and relative position with the slip ring when installing new brush.



AE00481

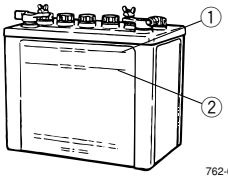
BATTERY

Replenishing the battery fluid

1. Check the fluid level. The level should be between the upper and lower level marks.

① Upper level
② Lower level

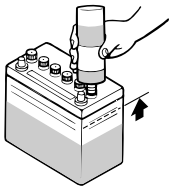
2. Add only distilled water if necessary.



762-035

NOTICE

Normal tap water contains minerals which are harmful to a battery; therefore, refill only with distilled water.


762-036

⚠ WARNING

Battery electrolyte is poisonous and dangerous. It contains sulfuric acid and can cause severe burns. 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 15 minutes and get prompt medical attention.**

Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc. away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.


762-012

SPARK ARRESTER

SPARK ARRESTER

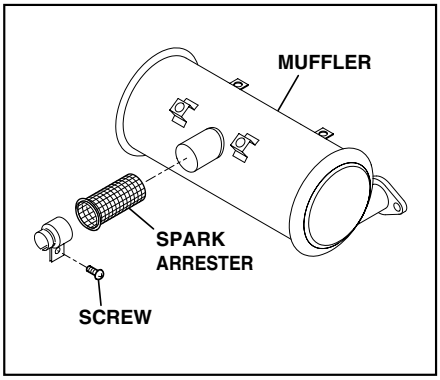
In a dry or wooded area, it is recommendable to use the engine with a spark arrester. Some areas require the use of a spark arrester. Please check your local laws and regulations before operating your engine.

The spark arrester must be cleaned regularly to keep it functioning as designed.
A clogged spark arrester :

- Prevents the flow of exhaust gas
- Reduces engine output
- Increases fuel consumption
- Makes starting difficult

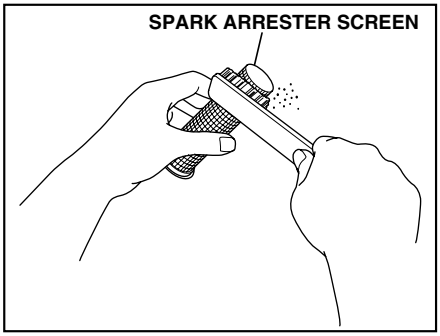
⚠ WARNING

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.



How to remove the spark arrester

1. Remove the flange bolts from the muffler cover and remove the muffler cover.
2. Remove the screw from the spark arrester and remove the spark arrester from the muffler.



Clean the spark arrester screen

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

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

Install the spark arrester, and muffler protector in the reverse order of disassembly.

PREPARATION FOR STORAGE

The following procedures should be followed prior to storage of your generator for a period of 6 months or longer.

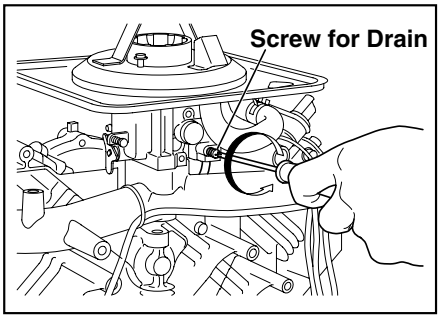
⚠ WARNING

Fuel is highly flammable and poisonous. Check "SAFETY INFORMATION" (See page 3) carefully.

NOTICE

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

- Drain fuel from fuel tank and strainer (cup) carefully by disconnecting the fuel line. Gasoline left in the fuel tank will eventually deteriorate making engine-starting difficult.
- Drain fuel from the carburetor by loosening the drain screw on the carburetor float chamber , or run the engine at no-load until it stops.



- Disconnect the terminal of the battery.
- Change engine oil.
- Check for loose bolts and screws, tighten them if necessary.
- Clean generator thoroughly with oiled cloth. Spray with preservative if available. NEVER USE WATER TO CLEAN GENERATOR !
- Store generator in a well ventilated, low humidity area.

HIGH ALTITUDE ENGINE OPERATION

- Please have an authorized Yamaha dealer modify this engine if it is to be run continuously above 5000 feet (1500 meters). Failure to do so, may result in poor engine performance, spark plug fouling, hard starting, and increased emissions.
- Carburetor modification by an authorized Yamaha dealer will improve performance and allow that this engine meets EPA (Environmental Protection Agency) and California ARB (Air Resources Board) emission standards throughout its useful life.
- An engine converted for high altitudes can not be run at 5000 feet or lower. In doing so, the engine will overheat and cause serious engine damage. Please have an authorized Yamaha dealer restore high altitude modified engines to the original factory specification before operating below 5000 feet.

AE00633

BATTERY

1. Remove the battery.
2. Check the fluid level. Add only distilled water if necessary.
   (See page 31 "BATTERY–Replenishing the battery fluid")
3. After checking the fluid level, charge the battery.
4. Store the battery in a cool, dark and dry place.
   Do not store the battery in an excessively warm or cold place [i.e., less than 0°C (30°F) or more than 30°C (90°F)].
5. Check battery condition with a hydrometer monthly, and charge as necessary.

⚠ WARNING

- **Disconnect the negative lead first, then the positive lead from the battery.**
- **Connect the positive lead first, then the negative lead to the battery when installing the battery.**
- **Never smoke or make and break connections at the battery while charging. Sparks may ignite the battery gas.**
- **Be sure the battery terminals are tight and that the battery vent tube is properly routed and is securely attached to the battery.**

NOTICE

- **Do not disconnect the battery during engine operation.**
- **Avoid operating the generator with the battery removed.**

TROUBLESHOOTING

When generator engine fails to start after several attempts, or if no electricity is available at the output receptacles, check the possible causes in accordance with the following table. If your generator still fails to start or generate electricity, contact your nearest Yamaha dealer or authorized service center for further information or corrective procedures.

Problem \ Possible causes		Low battery	Blown fuse	Deteriorated fuel	Fuel piping: Leakage	Fuel piping: Clogging	Clogging of Air cleaner	Clogging of Cooling air intake	Low oil level	Faulty spark plug	Overload by connected appliance	Incorrect or poor connection of wires	Insufficient capacity of extension cable	Carbon brushes are excessively worn
Starter will not run		×	×											
Starter runs, but Engine will not start.				×	×		×		×	×				
During operation	Rotation decreased			×	×		×	×	×	×	×			
	Unstable rotation			×	×		×	×		×				
	Breaker turned off										×	×		
	Low power			×	×		×	×		×	×	×	×	×

The starter motor will not run :

- Wait for more than 0.5 second after the engine is stopped and then turn the starter switch to the "START" position.
- If a remote control unit is connected, check if both starter switch on the control panel and the engine switch on the remote control unit are switched on.

The engine stopped and the oil pressure warning lamp flashed for three minutes. Check the following.

- No fuel in the fuel tank ·····Supply fuel
- Fuel cock not open ·····Turn on fuel cock
- No sufficient engine oil ·····Add or change engine oil

SPECIFICATIONS

Model			EF12000DE
Alternator	Type		Brush, Self-exciting, 2-pole, Single phase
	Rated frequency		60 Hz
	Rated voltage		120V / 240V
	Rated current		79.2 A / 39.6 A
	Rated output		9500 VA
	Maximum output		12000 VA
	Power factor		1.0
	Voltage regulator		A.V.R type
Engine	Model		EH65D
	Type		Twin cylinder, Air-cooled, 4-stroke, Overhead valve engine
	Displacement		653 cm^3
	Fuel		Automotive Unleaded Gasoline
	Oil capacity		1.55 L (1.64 US qt, 1.36 Imp qt)
	Starting system		Electric starter
Fuel tank capacity			38 L (10.04 US gal, 8.36 Imp gal)
Rated continuous operation per a tankful of fuel		Rated	Approx. 7.1 hours
Dimension	Large		826 mm (32.5 in)
	Width		611 mm (24.1 in) [758 mm (29.8 in)]*1
	High		771 mm (30.4 in) [856 mm (33.7 in)]*1
Dry weight			141 kg (310.8 lb) [149 kg (328.5 lb)]*2
Remote controller terminal (Auto choke)			Standard
Valve clearance (Intake & Exhaust)			0.1 ± 0.02 mm (0.0039 ± 0.0008 in) Note : Adjust the valve clearance while the engine is cold.

Specifications are subject to change without notice.
*1: [ ] shows dimensions with castors.
*2: [ ] shows dry weight with castors installed.

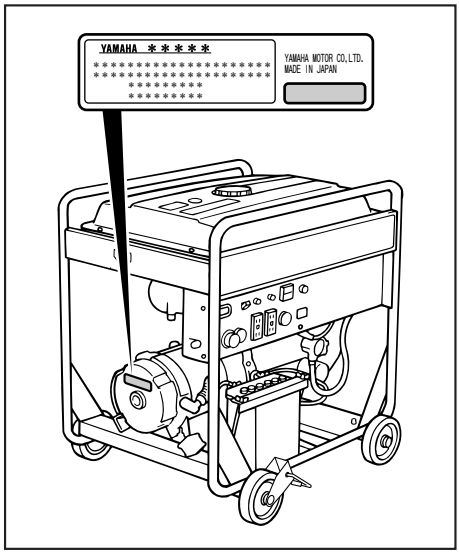
CONSUMER INFORMATION

PRI-I.D. NUMBER

MODEL

PRI-I.D. CODE

SERIAL No.



IDENTIFICATION NUMBER RECORDS

Record your Primary I.D., and serial numbers in the spaces provided, to assist you in ordering spare parts from a Yamaha dealer.

Also record and keep these I.D. numbers in a separate place in case your machine is stolen.

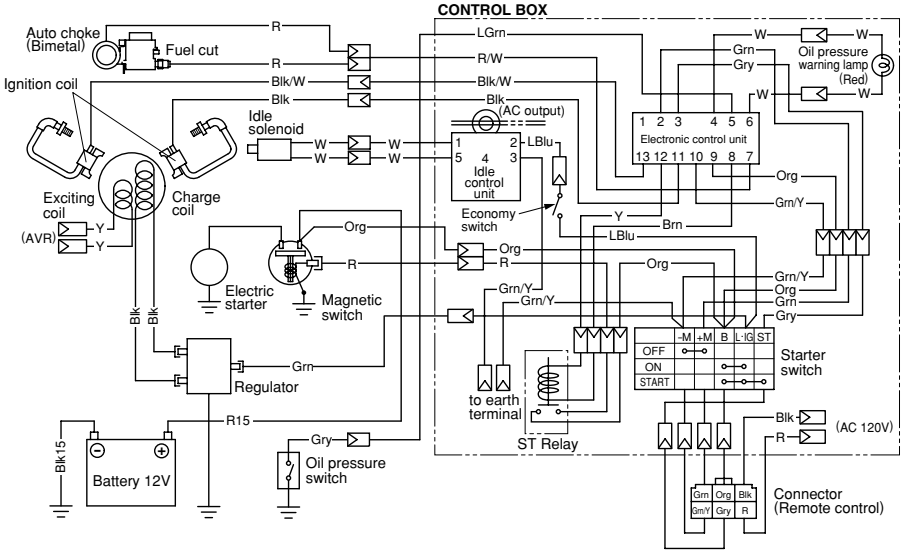
MACHINE IDENTIFICATION

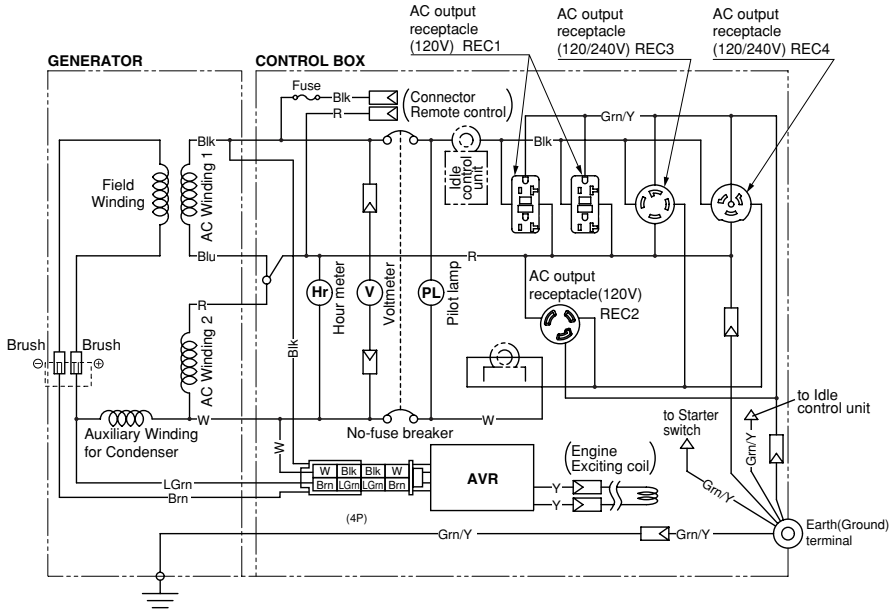
The machine serial number is stamped in the location as shown.

TIP

The first three digits of these numbers are for model identification; the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer.

WIRING DIAGRAM





Wiring color cord

Blk	:	Black	Brn/W	:	Brown/White	R	:	Red	Blk/R	:	Black/Red
Blk/W	:	Black/White	Grn	:	Green	W	:	White	R/W	:	Red/White
Blu	:	Blue	Grn/W	:	Green/White	Y	:	Yellow	LGrn	:	Light green
LBlu	:	Light blue	Org	:	Orange	Pik	:	Pink			
Brn	:	Brown	Gry	:	Gray	Grn/Y	:	Green/Yellow			

OPTIONAL PARTS

"HOW-TO" INSTALL THE WHEEL

(1) Checking of supplied accessories

(2) Tool preparation

- Hoist or square bar (100 mm (3.94 in) by 100 mm (3.94 in), length : 700 mm (27.56 in))
- Pliers
- Spanner or socket wrench (12 mm (0.472 in)), 2 units

(3) Installation procedures

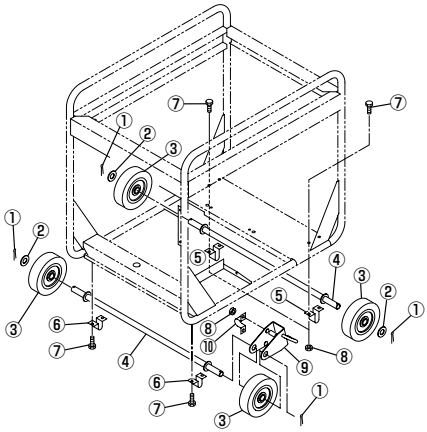
(a) Raise the generator by about 100 mm (3.94 in), with hoist or with square bar put under the bottom panel.

(b) Attach wheel mounting parts ①, ②, stopper ⑨, using clamp ⑩, ⑧, and wheel ③, to wheel shaft ④.
Then check that wheel ③ is rotated smoothly. If moving turns out to be too complicated, assemble them together using grease. (4 locations / 2 pieces)

(c) Bend the tip of ① according to the shape of wheel shaft ④ as possible.

(d) Attach the assembled shaft to the foundation plate of the engine, using ⑤, ⑦, and ⑧.

(e) Attach the other shaft to the foundation plate of the generating unit, using ⑥ and ⑦. (⑧ is not used.)
The tightening torque of bolts should be 20–25 Nm (2.0–2.5 m·kgf, 18–22 ft·lbf).



⚠ WARNING

If you provide the generator with wheels, always be sure to place the generator on a level surface, locking the wheel with the stopper and /or chocking the wheels.

REMOTE CONTROL UNIT

When the remote control unit is connected, the engine will not start unless both starter switch on the control panel and the engine switch on the remote control unit are switched on.

YAMAHA EXTENDED SERVICE (Y.E.S.)

Keep your Yamaha Generator protected even after your warranty expires with genuine Yamaha Extended Service (Y.E.S.).

- Y.E.S. is designed and administered by Yamaha Motor Corporation to provide maximum owner satisfaction. You get uninterrupted factory-backed coverage for extra peace of mind.
- Y.E.S. is flexible. You can choose the plan that's right for you: 12 months, 24 months or 36 months coverage.
- Y.E.S. is administered by the same Yamaha people that handle your warranty - and it shows in the comprehensive coverage benefits. There are no hour limitations and Y.E.S. covers manufacturing defects just like your warranty. See a sample contract at your Yamaha dealer and see how comforting uninterrupted factory backed protection can be.
- There are no "out-of-pocket" expenses for covered repairs. Yamaha will never ask you to pay a deductible.
- Nationwide coverage. Y.E.S. coverage is honored at any authorized Yamaha Outdoor Power Equipment Service dealer.
- Y.E.S. coverage is transferable to a new owner if you sell or trade-in. That can make you Yamaha much more valuable.

This excellent Y.E.S. plan coverage is only available to Yamaha owners like you, and only while your Yamaha is still within the Yamaha Limited Warranty period. So visit your authorized Yamaha dealer to get all the facts. He can show you how easy it is to protect your investment with Yamaha Extended Service.

Special note:
If visiting your dealer isn't convenient, contact Yamaha with your Primary ID number (your frame number). We'll be happy to help you get the Y.E.S. coverage you need.

Yamaha Service Marketing
P.O. Box 6555
Cypress, CA 90630
1-866-YES-EXTD
(1-866-937-3983)

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