



EF2800i YG2800i

LIT-19626-01-13 7VU-28199-12

# **A WARNING**

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

YAMAHA LIT-CALIF-65-01

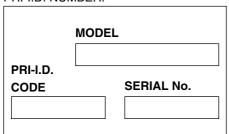
# INTRODUCTION

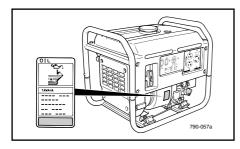
Congratulations on your purchase of your new Yamaha.

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.

#### PRI-I.D. NUMBER:





AE00012

#### **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.

AE00011

#### MACHINE IDENTIFICATION

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

NOTE: \_\_\_

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.

AE00022

EF2800i/YG2800i
OWNER'S MANUAL
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P/N LIT-19626-01-13



#### NOTE: \_

- 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 your Yamaha dealer.
- This manual should be considered a permanent part of this engine and should remain with this engine when resold.

AF00032

# **AWARNING**

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

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



The Safety Alert Symbol means ATTEN-TION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

# **▲**WARNING

Failure to follow WARNING instructions could result in severe injury or death to the engine operator, a bystander, or a person inspecting or repairing the engine.

# **CAUTION:**

A CAUTION indicates special precautions that must be taken to avoid damage to the engine.

#### NOTE:

A NOTE provides key information to make procedures easier or clearer.

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# YAMAHA MOTOR CORPORATION U.S.A. EF- AND EDL-SERIES GENERATOR LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants that new Yamaha consumer generators purchased from an authorized Yamaha consumer generator dealer in the continental United States will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

THE PERIOD OF WARRANTY Any new EFseries or EDL-series Yamaha Generator purchased for private, non-commercial use from an authorized Yamaha consumer generator dealer in the continental United States will

be warranted against defects in material or workmanship for a period two (2) years from date of purchase, subject to exclusions noted herein. Any Yamaha non-commercial

generator purchased and utilized for commercial or rental applications will be warranted for a period one (1) year from the date of purchase, subject to exclusions noted herein.

**DURING THE PERIOD OF WARRANTY** any authorized Yamaha consumer generator dealer will, free of charge, repair or replace, at Yamaha's option, any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the product's warranty period. All parts replaced under warranty become property of Yamaha Motor Corporation U.S.A.

**GENERAL EXCLUSIONS** from this warranty shall include any failures caused by:

- Installation of parts or accessories that are not qualitatively equivalent to genuine Yamaha parts.
- b. Abnormal strain, neglect, or abuse.
- c. Lack of proper maintenance.
- d. Accident or collision damage.

SPECIFIC EXCLUSIONS from this warranty shall include parts replaced due to normal wear or routine maintenance

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

Operate and maintain the generator as specified in the appropriate Owner's Manual;

Give notice to an authorized Yamaha consumer generator dealer of any and all apparent defects within ten (10) days after discovery, and make the unit available at that time for inspection and repairs at such dealer's place of business.

WARRANTY TRANSFER: To transfer the warranty from the original purchaser to any subsequent purchaser(s), it is imperative that the unit be inspected and registered for warranty by an authorized Yamaha consumer generator dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service. In no case will the warranty be extended beyond the original period.

YAMAHA MOTOR CORPORATION, U.S.A. MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

YAMAHA MOTOR CORPORATION, U.S.A. Post Office Box 6555 Cypress, California 90630

# YAMAHA MOTOR CORPORATION U.S.A. EC- AND YG-SERIES INDUSTRIAL GENERATOR LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants that new Yamaha EC- and YG-series generators purchased from an authorized Yamaha industrial generator dealer in the continental United States will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

**THE PERIOD OF WARRANTY** for Yamaha ECseries and YG-series generators shall be one (1) year from the date of purchase.

**DURING THE PERIOD OF WARRANTY** any authorized Yamaha industrial generator dealer will, free of charge, repair or replace, at Yamaha's option, any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the product's warranty period. All parts replaced under warranty become property of Yamaha Motor Corporation U.S.A.

**GENERAL EXCLUSIONS** from this warranty shall include any failures caused by:

- Installation of parts or accessories that are not qualitatively equivalent to genuine Yamaha parts.
- b. Abnormal strain, neglect, or abuse.
- c. Lack of proper maintenance.
- d. Accident or collision damage.

SPECIFIC EXCLUSIONS from this warranty shall include parts replaced due to normal wear or routine maintenance.

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

- Operate and maintain the diesel generator as specified in the appropriate Owner's Manual;
- Give notice to an authorized Yamaha industrial generator dealer of any and all apparent defects within ten (10) days after discovery, and make the unit available at that time for inspection and repairs at such dealer's place of business.

WARRANTY TRANSFER: To transfer the warranty from the original purchaser to any subsequent purchaser(s), it is imperative that the unit be inspected and registered for warranty by an authorized Yamaha industrial generator dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service. In no case will the warranty be extended beyond the original period.

YAMAHA MOTOR CORPORATION, U.S.A. MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

YAMAHA MOTOR CORPORATION, U.S.A. Post Office Box 6555 Cypress, California 90630

#### WARRANTY QUESTIONS AND ANSWERS

- Q. What costs are my responsibility during the warranty period?
- A. The customer's responsibility includes all costs of normal maintenance service, non-warranty repairs, accident damages, as well as oil and spark plugs.
- Q. What are some examples of "abnormal" strain, neglect, or abuse?
- A. These terms are general and overlap each other in areas. Specific examples include: Running the machine out of oil; lack of proper maintenance; operating the machine with a broken or damaged part which causes another part to fail; and so on. If you have any specific questions on operation or maintenance, please contact your dealer for advice.
- Q. Does the warranty cover incidental costs such as transportation due to a failure?
- No. The warranty is limited to repair of the machine itself.
- Q. May I perform any or all of the recommended maintenance shown in the Owner's Manual instead of having the dealer do them?
- A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's and Service Manual. We do recommend, however, that items requiring special tools or equipment be done by a Yamaha generator dealer.
- Q. Will the warranty be void or cancelled if I do not operate or maintain my new Yamaha exactly as specified in the Owner's Manual?
- No. The warranty on a new Yamaha cannot be "voided" or "cancelled."

However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's Manual, that failure may not be covered under warranty.

- Q. What responsibility does my dealer have under this warranty?
- A. Each Yamaha generator dealer is expected to:
  - Check the operation of the generator before sale.
  - 2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date.

In addition, each Yamaha generator dealer is held responsible for his setup, service and warranty repair work.

- Q. Is the warranty transferable to second owners?
- A. Yes. The remainder of the existing warranty can be transfered upon request.

The unit has to be inspected and reregistered by an authorized Yamaha generator dealer for the policy to remain effective.

#### CUSTOMER SERVICE

If your machine requires warranty service, you must take it to any authorized Yamaha generator dealer within the continental United States. Be sure to bring your warranty registration identification or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the dealership. Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write:

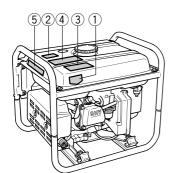
YAMAHA MOTOR CORPORATION U.S.A. CUSTOMER RELATIONS DEPARTMENT P.O. BOX 6555 Cypress, California 90630

#### **CHANGE OF ADDRESS**

The federal government requires each manufacturer to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is compiled from the purchase registrations sent to Yamaha Motor Corporation, U.S.A. by the selling dealer at the time of your purchase. If you should move after you have purchased your new generator, please advise us of your new address by sending a post-card listing your Yamaha model name, engine number, dealer number (or dealer's name) as it is shown on your warranty identification, your name and new mailing address. Mail to:

YAMAHA MOTOR CORPORATION, U.S.A. WARRANTY DEPARTMENT P.O. Box 6555 Cypress, California 90630

This will ensure that Yamaha Motor Corporation, U.S.A. has an up-to-date registration record in accordance with federal law.



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# LOCATION OF IMPORTANT LABELS

Please read the following labels carefully before operating this machine.

NOTE:

(1)

792-035

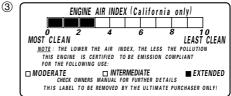
Maintain or replace safety and instruction labels, as necessary.



(2)

## WARNING

Electrocution Or property dar can occur: Do not connect this generator to any building 's electrical system unless an isolation switch has been installed by a licensed elecn. Refer to the owner's m



(4)

# **A WARNING**

READ THE OWNER'S MANUAL AND ALL LABELS BEFORE OPERATING

792-036

- ONLY OPERATE IN WELL-VENTILATED AREA.
- EXHAUST GAS CONTAINS POISONOUS CARBON 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.

- **A AVERTISSEMENT**
- LISEZ LE MODE D'EMPLOI ET TOUTES LES ETIQUETTES AVANT DE FAIRE FONCTIONNER LA MACHINE.
- FAITES FONCTIONNER UNIQUEMENT DANS DES LIEUX BIEN AERES. LES GAZ D'ECHAPPEMENT CONTIENNENT 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 AU SEC EN TOUTES CIRCONSTANCES.

(5)

#### IMPORTANT ENGINE INFORMATION ENGINE FAMILY: \*\*\*\*\*\*\*\*\*

YAMAHA

DISPLACEMENT: \* \* \* cm² VALVE LASH (mm) IN: \*.\*\*~\*.\*\* IGNITION TIMING & IDLE MIXTURE NO OTHER ADJUSTMENTS NEEDED

REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS THIS ENGINE MEETS +++++++++ CALIFORNIA EMISSION REGULATIONS FOR SMALL OFF-ROAD ENGINES. THIS ENGINE CONFORMS TO PHASE 2 U.S.EPA REGULATIONS FOR SMALL NONROAD ENGINES. EMISSIONS COMPLIANCE PERIOD-CATEGORY A (EPA)

YAMAHA MOTOR CO., LTD \*\*\*-2179R-\*\*

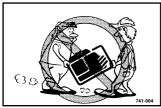
IDLE SPEED: \*\*\*\*~\*\*\*\* rpm AT NO LOAD FUEL: THIS ENGINE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE SAE 10W-30

ENGINE OIL:

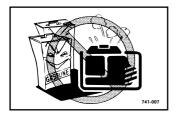












# SAFETY INFORMATION

AE00072

### **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**

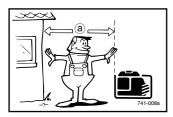
- Always turn off the engine when refuelling.
- Never refuel while smoking or in the vicinity of an open flame.
- Take care not to spill any fuel on the engine or muffler when refuelling.
- If you swallow any fuel, inhale fuel vapor, or allow any to get in your eye(s), see your doctor immediately. If 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.

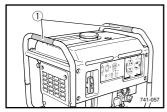


• Keep the machine at least 1 m (3 ft) from buildings or other equipment, or the engine may overheat.

(a) 1 m (3 ft)



• Avoid operating the engine with a dust cover.



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

1 Carrying handle(s) (shaded)



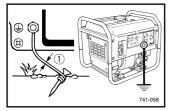
AE00083

## **ELECTRIC SHOCK PREVENTION**

Never operate the engine in rain or snow.



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



• Be sure to ground (earth) the generator.

NOTE: \_\_\_\_\_

Use ground (earth) lead of sufficient current capacity.

1 Lead diameter

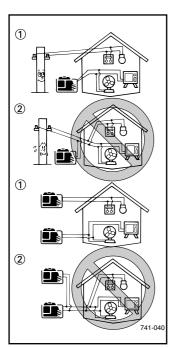
Ground (earth) Lead

Diameter:

0.12 mm (0.005 in)/ampere

EX:

10 Ampere  $\rightarrow$  1.2 mm (0.05 in)



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

# **▲**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.

AE00086

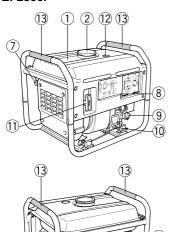
#### **EXTENSION CORD NOTES**

- 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.

#### EF2800i

6

# **CONTROL FUNCTION**



AE00102

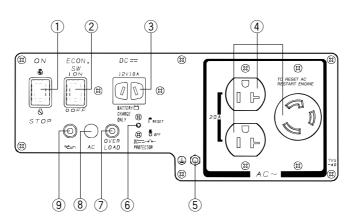
#### DESCRIPTION

- 1 Fuel tank
- 2 Fuel tank cap
- 3 Fuel cock
- (4) Air filter cover
- ⑤ Spark plug
- 6 Muffler
- 7 Choke knob
- (8) Ground (Earth) terminal
- 9 Oil filler cap
- (10) Oil drain plug
- (11) Recoil starter
- (2) Fuel level gauge
- (3) Carrying handles (shaded)

AE00103

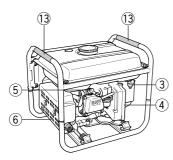
## **CONTROL PANEL**

- (1) Engine switch
- 2 Economy control switch
- (3) DC receptacle
- (4) AC receptacle
- (5) Ground (Earth) terminal
- 6 DC protector
- (7) Overload indicator light
- (8) AC pilot light
- Oil warning light



#### YG2800i





#### AE00102

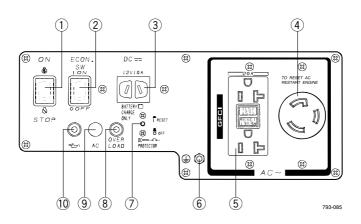
#### **DESCRIPTION**

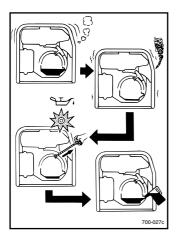
- 1 Fuel tank
- 2 Fuel tank cap
- 3 Fuel cock
- 4 Air filter cover
- (5) Spark plug
- 6 Muffler
- (7) Choke knob
- (8) Ground (Earth) terminal
- 9 Oil filler cap
- 10 Oil drain plug
- (11) Recoil starter
- (12) Fuel level gauge
- (3) Carrying handles (shaded)

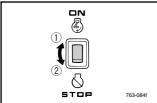
#### AE00103

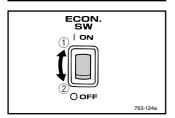
## **CONTROL PANEL**

- 1 Engine switch
- 2 Economy control switch
- ③ DC receptacle
- (4) AC receptacle
- ⑤ G.F.C.I. receptacle
- 6 Ground (Earth) terminal
- (7) DC protector
- Overload indicator light
- (9) AC pilot light
- (10) Oil warning light









#### OIL WARNING SYSTEM

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

#### NOTE: \_\_

If the engine stalls or does not start, turn the engine switch to "ON" position 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.

AE00122

#### **ENGINE SWITCH**

The engine switch controls the ignition system.

① ② "ON"

Ignition circuit is switched on.

The engine can be started.

② ⑤ "STOP"

Ignition circuit is switched off.

The engine will not run.

AE00787

### **ECONOMY CONTROL SWITCH**

① I "ON"

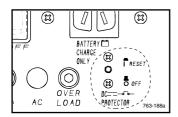
When the economy control switch is turned "ON", the economy control unit controls the engine speed according to the connected load. The results are better fuel consumption and less noise.

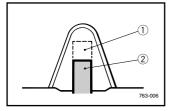
② (OFF"

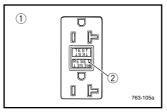
When the economy control switch is turned "OFF", the engine runs at the rated rpm (3,600 rpm) regardless of whether there is a load connected or not.

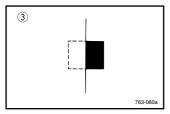
#### NOTE: \_\_\_

The economy control switch must be turned to "OFF" when using electric devices that require a large starting current, such as a compressor or a submergible pump.









#### DC PROTECTOR

The DC protector turns off automatically when the load exceeds the generator rated output.

_	^		 N:	

Reduce the load to the specified generator rated output if the DC protector turns off. If it turns off again, consult a Yamaha dealer.

N	O.	ᄄ	
IV	v		-

Press to reset the DC protector.

- ① "OFF"
- ② "ON"

AF00848

# G.F.C.I. RECEPTACLE (for YG2800i)

The G.F.C.I. (Ground Fault Circuit Interrupter) ① shuts off power to the protected receptacles if a ground fault (electrical leak) is detected.

If the reset button ② pops out ③, the equipment plugged into the receptacle may be faulty. If this happens, check the equipment carefully. If the equipment appears to be in good condition, press the reset button firmly until a click is heard. This will restore power. If the reset button pops out again, unplug the equipment immediately. Have the equipment inspected and repaired by a qualified repairperson before attempting to use it again.

# **AWARNING**

# TO REDUCE THE CHANCE OF ELECTRICAL SHOCK:

- Do not attempt to operate equipment if the ground fault circuit interrupter reset button pops out repeatedly during use.
- Test the ground fault circuit interrupter during the pre-operation checks according to the maintenance instructions on page 30.
- Remember that only receptacles labeled "GFCI" have ground fault circuit interrupter protection.

# PRE-OPERATION CHECK

NOTE:

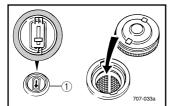
Pre-operation checks should be made each time the generator is used.



# **AWARNING**

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.



AE00856

#### **FUEL**

Make sure there is sufficient fuel in the tank.

Recommended fuel:

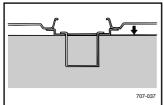
Unleaded gasoline

Fuel tank capacity:

Total: 11.2 L (2.46 Imp gal, 2.96 US gal)



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.



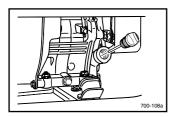
1) Fuel level gauge

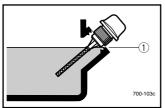
"F"	Full
"E"	Empty

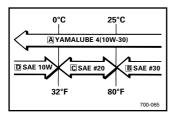
# **▲**WARNING

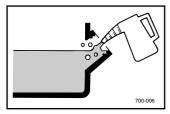
- Fuel is highly flammable and poisonous.
   Check "SAFETY INFORMATION" (See page 5) carefully before refueling.
- Do not fill above the top of the fuel filter or it may overflow when the fuel heats up later and expands.
- Wipe up any spilled fuel immediately.
- After refueling, make sure the tank cap is tightened securely.

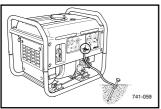












#### **ENGINE OIL**

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

Add oil as necessary.

① Upper level

Recommended oil:

- A YAMALUBE 4 (10W-30) or SAE 10W-30 type SE motor oil
- B SAE #30
- C SAE #20
- D SAE 10W

Engine oil quantity:

0.6 L (0.53 lmp qt, 0.63 US qt)

NOTE: \_\_\_\_

Recommended engine oil classification:

API Service "SE" or "SF".

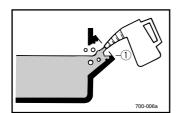
**CAUTION:** 

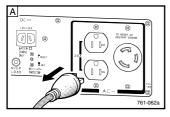
The generator has been shipped without engine oil. Fill with oil or it will not start.

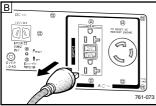
AE00241

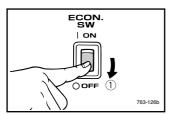
# **GROUND (Earth)**

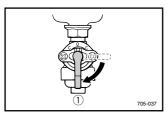
Make sure to ground (earth) the generator. Check "SAFETY INFORMATION" on page 6.

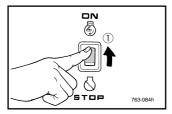












# **OPERATION**

NOTE: \_\_\_\_\_

The generator has been shipped without engine oil. Fill with oil or it will not start.

① Upper level

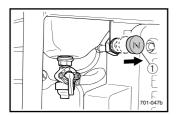
AE00989

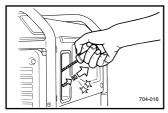
#### STARTING THE ENGINE

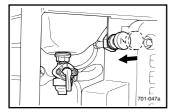
NOTE: \_\_\_\_\_

- Before starting the engine, do not connect any electric devices.
- Turn the economy control switch to the "O" (OFF) position.
- A EF2800i
- B YG2800i
- ① (OFF"

- 1. Turn the fuel cock lever to the "ON" position.
- ① "ON"
- 2. Turn the engine switch to the "②" (ON) position.
- ① ⑤ "ON"







- 3. Pull the choke knob fully out.
- 1 Choke knob

#### NOTE:

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

- 4. Pull slowly on the recoil starter until it is engaged, then pull it briskly.
- 5. After the engine starts, warm up the engine until the engine does not stop when the choke knob is returned to the original position.
- 6. Push the choke knob back to the original position.

### NOTE: \_\_\_

When starting the engine in areas where the ambient temperature is below 0°C (32°F), the engine automatically operates at the rated r/min (3,600 r/min) for three minutes to warm up the engine regardless of the economy control switch position. The economy control unit operates normally afterwards if the economy control switch is turned to "I" (ON).

#### **APPLICATION RANGE**

AC	*			DC
Power factor	1	0.8–0.95	0.4–0.75 (Efficiency 0.85)	•
EF2800i YG2800i	-2,500W	-2,000W	-850W	Rated voltage 12V Rated current 10A

	<b>®</b>
OFF BATT	
OVER  AC LOAD	DC=

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•	ч	u	4	_	

- "-" 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	2500VA	
Frequency	Power factor	
AC	1.0	–2350W
	0.8	-1880W
DC		120W
	_	(12V/10A)

 The overload indicator light ① comes on when total wattage exceeds the application range. (See page 18 for more details.)

## **CAUTION:**

Be sure the total load is within generator rated output otherwise generator damage will occur.

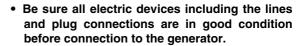
#### NOTE:

Some precision equipment is voltage sensitive and may require a more uniform voltage supply than portable generators provide. Examples include some medical equipment, personal computers, and some inverters that sense peak and RMS voltage values. Consult the precision-equipment vendor before relying on any portable generator to provide power to such equipment.

#### CONNECTION

# **Alternating Current (AC)**

# **CAUTION:**



- Be sure any electric devices are turned off before plugging it in.
- Be sure the total load is within generator rated output.
- Be sure the receptacle load current is within receptacle rated current.

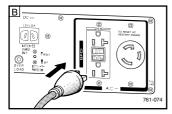


- 2. Start the engine.
- 3. Plug in to the AC receptacle.
- A EF2800i

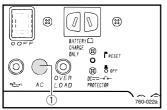
761-006

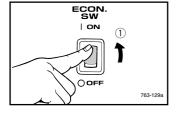
761-063

B YG2800i



ŀ

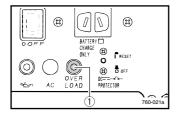




- 4. Make sure the AC pilot light is on.
- 1 AC pilot light
  - 5. Turn the economy control switch to the "I" (ON) position and turn on any electric devices.
- ① "ON"

#### NOTE: \_

The economy control switch must be turned to "O" (OFF) when using electric devices that require a large starting current, such as a compressor or a submergible pump.



# Overload indicator light

The overload indicator light ① comes on when an overload of a connected electrical device is detected, the inverter control unit overheats, or the AC output voltage rises. The electronic breaker will then activate, 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:

- Turn off any connected electric devices and stop the engine.
- 2. Reduce the total wattage of connected electric devices within the application range.
- Check for blockages in the cooling air inlet and around the control unit. If any blockages are found, remove.
- 4. After checking, restart the engine.

#### NOTE: \_

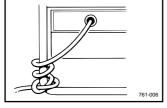
- The generator AC output automatically resets when the engine is stopped and then restarted.
- The overload indicator light may come on for a few seconds at first when using electric devices that require a large starting current, such as a compressor or a submergible pump. However, this is not a malfunction.

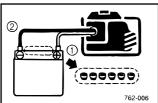
## **Battery Charging**

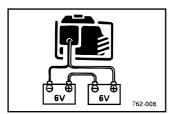
NOTE:

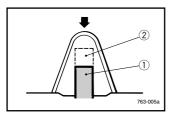
The generator DC rated voltage is 12V.

 Wind the battery charging lead (furnished as an accessory) 2 or 3 turns around the frame and plug into DC receptacle.









### NOTE: \_\_\_\_\_

- Make connections to the battery after starting the engine.
- Clamp the red wire to the positive (+) terminal and the black wire to the negative (-) terminal of the battery. Do not reverse these positions.
- 1) Red
- 2 Black
- 2. Start the engine.
- 3. Press in the DC protector and install the battery.

# **CAUTION:**

- Be sure the economy control switch is turned off while charging the battery.
- Be sure the battery leads are properly connected.
- Be sure the breather hose is properly connected and is not damaged or obstructed.
- Reduce the load to the specified generator rated output if the DC protector turns off. If it turns off again, consult a Yamaha dealer.

NOTE:
NOTE:

Press to reset the DC protector.

- ① "ON"
- ② "OFF"

## NOTE: \_

- At full charge, electrode specific gravity is between 1.26 and 1.28.
- · Check specific gravity hourly.



# **▲**WARNING

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

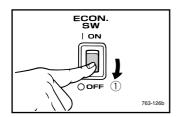
Battery electrolyte is poisonous and dangerous, causing severe burns, etc. contains sulfuric (sulphuric) acid. Avoid contact with skin, eyes or clothing.

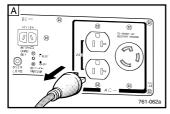
#### Antidote:

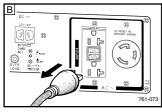
**EXTERNAL-Flush with water.** 

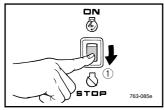
INTERNAL-Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately.

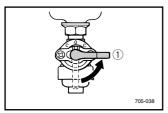
EYES: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc., away. Ventilate when charging or using in closed space. Always cover eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.











#### STOPPING THE ENGINE

NOTE: \_\_\_\_\_

- Turn off any electric devices.
- Turn the economy control switch to the "O" (OFF) position.
- 1. Disconnect any electric devices.
- A EF2800i

B YG2800i

- 2. Turn the engine switch to the " $\mbox{\ensuremath{\mbox{$"$}}}$  (STOP) position.
- ① ⑤ "STOP"
- 3. Turn the fuel cock lever to "OFF".
- ① "OFF"

# PERIODIC MAINTENANCE

AE00403

## MAINTENANCE CHART

Regular maintenance is most important for best performance and safe operation.

# **▲**WARNING

Stop the engine before starting maintenance work.

			Pre-Ope-	Initial		Every	
No.	Item	Remarks	ration check (daily)	1 month or 20 Hr	3 months or 50 Hr	6 months or 100 Hr	12 months or 300 Hr
1.	** Spark Plug	Check condition. Adjust gap and clean. Replace if necessary.			•		
2.*	Valve Clearance	Check and adjust when engine is cold.					•
3.*	Crankcase	Check breather hose for cracks or damage. Replace if necessary.					•
4.*	** Idle speed	Check and adjust engine idle speed.					•
	**	Check for leakage. Retighten or *replace gasket if necessary.	•				
5.	Exhaust System	Check muffler screen and spark arrester. Clean/ replace if necessary.					•
6.	Engine Oil	Check oil level	•				
0.	Engine Oil	Replace		•		•	
7.	** Air Filter	Clean. Replace if necessary.			•		

<sup>\* :</sup> It is recommended that these items be serviced by a Yamaha dealer.

<sup>\*\* :</sup> Related to emission control system.

			Pre-Ope-	Initial		Every	
No.	Item	Remarks	ration check (daily)	1 month or 20 Hr	3 months or 50 Hr	6 months or 100 Hr	12 months or 300 Hr
8.	Fuel Filter	Clean fuel cock and fuel tank filter. Replace if necessary.				•	
9.	Fuel Line	Check fuel hose for crack or da- mage. *Replace if necessary.	•				
10.	** Choke knob	Check choke operation.	•				
11.	Cooling System	Check for fan damage.					•
12.	Starting System	Check recoil starter operation.	•				
13.*	** Decarbonization	More frequently if necessary.					•
14.	Generation	Check the pilot light comes on.	•				
15.	G.F.C.I. receptacle (for YG2800i)	Check operation *Repair if necessary.	•				
16.*	Fittings/ Fasteners	Check all fittings and fasteners. Correct if necessary.				•	

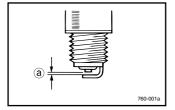
<sup>\* :</sup> It is recommended that these items be serviced by a Yamaha dealer.

# **CAUTION:**

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

<sup>\*\* :</sup> Related to emission control system.





#### **SPARK PLUG INSPECTION**

You should periodically remove and inspect the spark plug.

1. Check for discoloration and remove the carbon.

Standard electrode color:
Tan Color

2. Check the spark plug type and gap.

Standard Spark Plug: BPR4ES (NGK) Spark Plug Gap: 0.7–0.8 mm (0.028–0.031 in)

- (a) Gap
- 3. Install the spark plug.

Spark Plug Torque: 20 N•m (2 kgf•m, 14 lbf•ft)

AE00431

## **CARBURETOR ADJUSTMENT**

The carburetor is a vital part of the engine. Adjusting should be left to a Yamaha dealer with the professional knowledge, specialized data, and equipment to do so properly.

#### **ENGINE OIL REPLACEMENT**

- Place the machine on a level surface and warm up the engine for several minutes.
  - Then stop the engine.
- 2. Remove the oil filler cap.
- Place an oil pan under the engine. Remove the oil drain plug so that the oil can be completely drained.
- Check the drain plug, gasket, oil filler cap and Oring.

If damaged, replace.

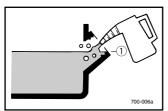
- 1) Oil drain plug
- ② Gasket

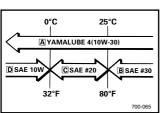
700-109a

- ③ O-ring
- 5. Reinstall the oil drain plug.

Drain Plug Torque:

17 N•m (1.7 kgf•m, 12 lbf•ft)





- 6. Add engine oil to the upper level.
- 1 Upper level

Recommended oil:

- A YAMALUBE 4 (10W-30) or SAE 10W-30 type SE motor oil
- B SAE #30
- C SAE #20
- D SAE 10W

Engine oil quantity:

0.6 L (0.53 Imp gt, 0.63 US gt)

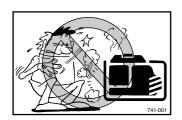
NOTE: \_\_\_

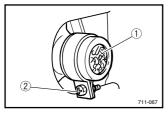
Recommended engine oil classification:

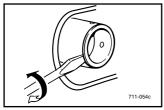
API Service "SE" or "SF".

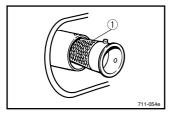
**CAUTION:** 

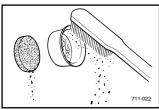
Be sure no foreign material enters the crankcase.













# 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 muffler screen.
- 1 Screen
- ② Screw
- 2. Use a flathead screw driver to pry the spark arrester out from the muffler.

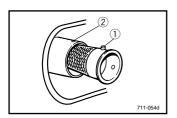
- 3. Remove the spark arrester.
- 1 Spark arrester

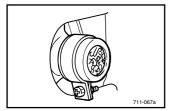
 Remove the carbon deposits on the muffler screen and spark arrester using a wire brush.

## **CAUTION:**

When cleaning, use the wire brush lightly to avoid damaging or scratching of the muffler screen and spark arrester.

5. Check the muffler screen and spark arrester. Replace them if damaged.



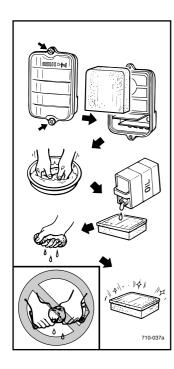


6. Install the spark arrester.

#### NOTE

Align the spark arrester projection with the hole in the muffler pipe.

- ① Projection
- ② Hole
  - 7. Install the muffler screen.



#### **AIR FILTER**

- 1. Remove the air filter cover and element.
- 2. Wash the element in solvent and dry.
- 3. Oil the element and squeeze out excess oil. The element should be wet but not dripping.

Recommended oil:	
Foam-air-filter oil	
or	
SAE #20 motor oil	

CAUTION:	
Do not wring out the elem	ent.
This could cause it to tear	•_

4. Insert the element into the air filter.

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

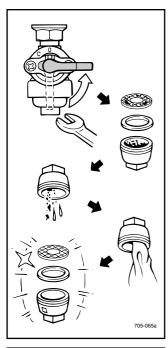
# **CAUTION:**

NOTE:

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

# **▲**WARNING

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



#### **FUEL COCK**

# **▲**WARNING

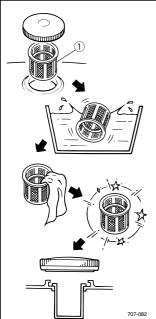
Never use or be near fuel and solvent while smoking or in the vicinity of an open flame.

- 1. Stop the engine.
- 2. Turn the fuel cock lever to "OFF".
- 3. Remove the fuel cock cup and gasket.
- 4. Clean the cup with solvent and wipe it off.
- 5. Check the gasket. Replace it if damaged.6. Reinstall the gasket and fuel cock cup.



**A**WARNING

Be sure the fuel cock cup is tightened securely.



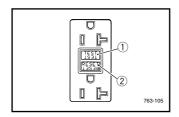
AE00471

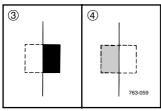
## **FUEL TANK FILTER**

- 1. Remove the fuel tank cap and filter.
- 1) Filter
- 2. Clean the filter with solvent. If damaged, replace.
- 3. Wipe the filter and insert it.

# **▲**WARNING

Be sure the tank cap is tightened securely.





# G.F.C.I. RECEPTACLE TEST (for YG2800i)

- 1. Start the engine.
- 2. Press the test button ①, then check the position of the reset button ②.

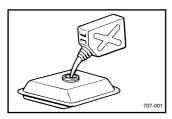
G.F.C.I. Reset Button Position after Test	G.F.C.I. Receptacle Operation
Pop Out ③	Correct
Stay In ④	Incorrect

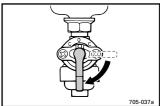
3. If G.F.C.I. operation is correct, push in the reset button.

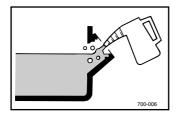
If the G.F.C.I. operates incorrectly, consult a Yamaha dealer.

# **AWARNING**

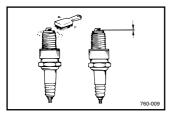
Do not operate the generator with a faulty G.F.C.I. circuit. Electric shock could occur. Have the generator repaired by a qualified mechanic.











#### **TROUBLESHOOTING**

## Engine won't start

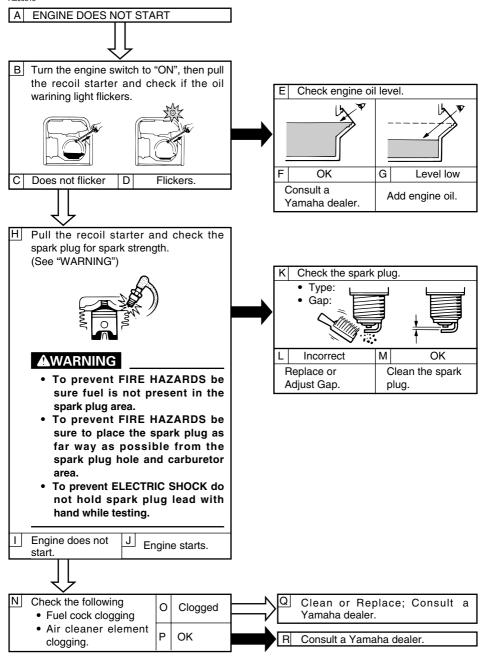
- 1. Fuel systems
  - No fuel supplied to combustion chamber.
- No fuel in tank .... Supply fuel.
- Clogged fuel line .... Clean fuel line.
- Foreign matter in fuel cock .... Clean fuel cock.
- O Clogged carburetor .... Clean carburetor.

- 2. Engine oil system Insufficient
- Oil level is low .... Add engine oil.
- 3. Electrical systems
- Engine switch to "ON".
   Poor spark
- Spark plug dirty with carbon or wet .... Remove carbon or wipe spark plug dry.
- Faulty ignition system .... Consult dealer.
- Compression Insufficient
- O Worn out piston and cylinder .... Consult dealer.
- Loose cylinder head nuts .... Tighten nuts properly.
- Damaged gasket .... Replace gasket.

AE00785

## Generator won't produce power

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





### STORAGE

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

AE00611

#### **DRAIN THE FUEL**

- Drain the fuel tank, fuel cock, and carburetor float bowl.
- (a) Carburetor drain plug
- 2. Pour a cup of SAE 10W30 or 20W40 motor oil into the tank.
- Shake the tank to coat the inner surfaces thoroughly.
- 4. Drain off the excess oil.



AE00621

#### **ENGINE**

- Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 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.
- Pull the recoil starter until you feel compression. Then stop pulling. (This prevents the cylinder and valves from rusting).
- 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.

# EXHAUST EMISSION CONTROL SYSTEM AND COMPONENTS

Item	Acronym
• CARB. ASSY., LH. & JT.,	CARB (Carburetor)
CARBURETOR2	,
• C.D.I. UNIT ASSY. & C.D.I	El (Electronic Ignition)
MAGNETO ASSY. &	,
PLUG, SPARK	
CRANKCASE1 & HEAD,	PCV (Positive Crankcase
CYLINDER1	Ventilation)
AIR FILTER ASSY	ACL (Air Cleaner)
<ul><li>MUFF., 2, CAP, NET, WIRE2 &amp;</li></ul>	
ARRESTER, SPARK	

The above items and the corresponding acronyms are provided in accordance with U.S. EPA REGULATIONS FOR NEW NONROAD SPARK-IGNITION NONHANDHELD ENGINES and the CALIFORNIA REGULATIONS FOR 1995 AND LATER SMALL OFF-ROAD ENGINES.

The acronyms conform to the latest version of the SAE's recommended practice document J1930, "Diagnostic Acronyms, Terms, and Definitions For Electrical/Electronic System".

It is recommended that these items be serviced by a Yamaha dealer.

# **SPECIFICATIONS**

AE00702

# **DIMENSIONS**

	Unit	EF2800i/YG2800i
Overall Length	mm (in)	487 (19.2)
Overall Width	mm (in)	395 (15.6)
Overall Height	mm (in)	425 (16.7)
Dry Weight	kg (lb)	29 (63.9)

AE00704

## **ENGINE**

	Unit	EF2800i/YG2800i
Туре		Forced air cooled 4-stroke gasoline OHV
Cylinder Arrangement		Inclined, 1 cylinder
Displacement	cm <sup>3</sup>	171
Bore × Stroke	mm (in)	66.0 × 50.0 (2.60 × 1.97)
Rated Output	kW(HP)/r/min	3.3 (4.4)/3,600
Operation Hours	Hr	7.7
Fuel		Unleaded gasoline
Fuel Tank Capacity	L (Imp gal, US gal)	11.2 (2.46, 2.96)
Engine Oil Quantity	L (Imp qt, US qt)	0.6 (0.53, 0.63)
Ignition System		CDI
Spark Plug: Type		BPR4ES (NGK)
Gap	mm (in)	0.7–0.8 (0.028–0.031)
Noise Level*	dB (A)	67

<sup>\*:</sup> Measured at rated operation from 7 m (23 ft) distance.

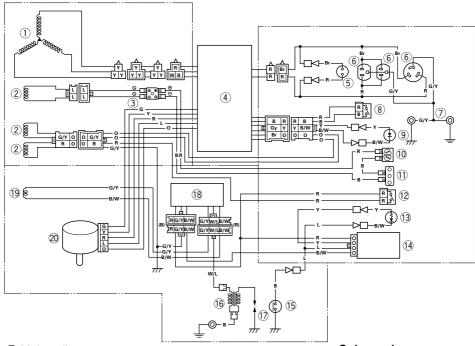
AE00707

# **GENERATOR**

	Unit	EF2800i/YG2800i
AC Output		
Rated Voltage	V	120
Rated frequency	Hz	60
Rated current	A	20.8
Rated Output	kVA	2.5
Safty Device: Type		Electronic
DC Output		
Rated voltage	V	12
Rated current	A	10
Safety Device: Type		DC protector

#### **WIRING DIAGRAM**

# EF2800i



- 1) Main coil
- 2 Sub coil
- (3) DC rectifier
- (4) Control unit
- (5) AC pilot light
- (6) AC receptacle
- (7) Ground (Earth) terminal
- (8) Economy control switch
- (9) Overload indicator light
- (10) DC receptacle
- (1) DC protector (breaker)
- (12) Engine switch
- (13) Oil warning light
- (4) Oil warning unit
- (5) Oil level gauge
- (16) Ignition coil
- (17) Spark plug
- (18) AC-CDI unit
- (19) Pulser coil
- **20** Stepping motor

## Color code

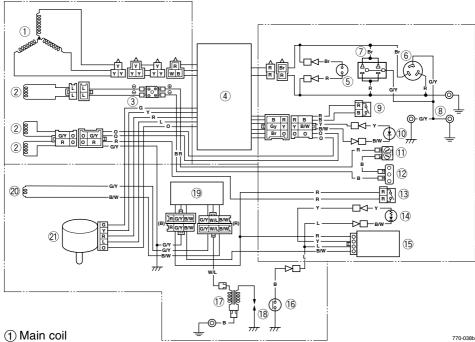
В Black Br Brown G Green Gν Gray L Blue 0 Orange R Red W White Υ Yellow Black/White B/W G/Y Green/Yellow

White/Blue

W/L

# **WIRING DIAGRAM**

# YG2800i



- 2 Sub coil
- (3) DC rectifier
- (4) Control unit
- (5) AC pilot light
- (6) AC receptacle
- 7 G.F.C.I. receptacle
- (8) Ground (Earth) terminal
- (9) Economy control switch
- (10) Overload indicator light
- (11) DC receptacle
- (12) DC protector (breaker)
- (13) Engine switch
- (4) Oil warning light
- (15) Oil warning unit
- (6) Oil level gauge
- (17) Ignition coil
- (18) Spark plug
- (19) AC-CDI unit
- 20 Pulser coil
- (21) Stepping motor

Color code

В Black Br Brown

G Green

Gν Gray L Blue

0 Orange

R Red W White

Υ Yellow

Black/White B/W

G/Y Green/Yellow

W/L White/Blue



PLACE STAMP HERE

YAMAHA MOTOR CORPORATION U.S.A. P.O. BOX 6555
CYPRESS, CALIFORNIA 90630

ATTN: WARRANTY DEPARTMENT

# **CUSTOMER WARRANTY REGISTRATION**

	OWNER'S NAME		
MODEL	ADDRESS		
MACHINE SERIAL NUMBER	STATEAREA	ZIF	
IMPORTANTI:	PHONE NUMBER (	)	
<ul> <li>Please complete and accurately registered</li> <li>Manufacturers are re- purchasers of produce</li> </ul>	your purchase for quired to maintain a q	warranty. complete up-to-date l	ist of all first

Please check the box that best describes the primary area of usage of this product:
 Private
 Commercial
 Rental

and recall.

MAIL THIS TO YAMAHA MOTOR CORPORATION, U.S.A.