YORKING

USER MANUAL

INVERTER GENERATOR SET

YGE1000i YGE2000i YGE3000i

Please read the manual carefully

before using the engine.

This guide contains important

guidance for safe operation.

REFACE

Thank you for purchasing Yorking generator.

This manual covers operation and maintenance of the YGE1000i, YGE2000i and YGE3000i generators including parallel versions.

All information in this publication is based on the latest product information available at the time of approval for printing.

We reserve the right to make changes at any time without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the generator and should remain with it if it is resold.

Pay special attention to statements preceded by the following words:



Failure to properly follow these precautions can result in property damage, serious injury or DEATH!

Read all labels and the owner's manual before operating this generator.

Generators produce carbon monoxide, a poisonous, colorless, odorless gas that can cause death or serious injury.

Indoor use of a generator can kill quickly. Generators should be used outdoors only

Generators should be used outdoors only and away from garages and open windows and protected from rain and snow.

Check for spilled fuel or leaks. Clean and/or repair before use.

Always stop engine before refueling. Wait 5 minutes before restarting.

Keep any source of ignition away from fuel tank, at all times.

The portable generator is not meant to be used as a permanent back-up power system for the home. A permanently installed stationary generator is designed to be safely used for this specific purpose.



Indicates a strong possibility of severe personal injury or death if instructions are not followed.



Indicates a possibility of personal injury or equipment damage if instructions are not followed



Gives helpful information.

If a problem should arise, or if you have any questions about the generator, consult an authorized dealer.

Our generators are designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.

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1. SAFETY INSTRUCTIONS

WARNING



This generator is designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.



 Exhaust gas contains poisonous carbon monoxide. Never run the generator in an enclosed area.
 Be sure to provide adequate ventilation.



- The muffler becomes very hot during operation and remains hot for several minutes after stopping the engine.
 Be careful not to touch the muffler while it is hot.
 Let the engine cool before storing the generator indoors.
- The engine exhaust system will be heated during operation and remain hot immediately after stopping the engine.

To prevent scalding, pay attention to the warning marks attached to the generator.

- Gasoline is extremely flammable and explosive under certain conditions. Refuel in a well ventilated area with the engine stopped.
- Keep away from smoking materials, sparks and other sources of combustion when refueling the generator. Always refuel in a well-ventilated location.
- Wipe up spilled gasoline immediately.

- Always make a pre-operation inspection before you start the engine. You may prevent an accident or equipment damage.
- Place the generator at least three feet or one meter away from buildings or other equipment during operation.
- Operate the generator on a level surface to prevent fuel spillage or oil starvation.
- Know how to stop the generator quickly and understand operation of all controls. Never permit anyone to operate the generator without proper instructions.
- Keep children and pets away from the generator when it is in operation.
- Keep away from rotating parts while the generator is running.
- The generator is a potential source of electrical shock when misused; do not operate with wet hands.
- Do not operate the generator in rain or snow and do not let it get wet.

2. SAFETY LABEL LOCATIONS

These labels warn you potential hazards that can cause serious injury. Read the labels and safety notes and precautions described in manual carefully.

If a label comes off or becomes hard to read, contact your dealer for a replacement.



3. COMPONENT IDENTIFICATION





A – Starter handle	B – Ventilation lever
C – Fuel tank cover	D – Control panel
E – Engine switch	F – Recoil starter
G – Service lid	H – Spark plug service lid
I - Muffler	

Control panel



1 – Smart-Throttle switch	2 – Output indicator light
3 – Overload indicator light	4 – Low oil alarm light
5 – AC receptacle	6 – Earth terminal
7 – 12 V Receptacle	8 – DC loop protector

Smart-Throttle switch:

When the load disconnected from the unit, the engine speed will be automatically adjusted to idle state, while the engine speed will automatically adjust to proper speed when the loaded is connected to the unit. Thus the fuel consumption will be decreased accordingly.

■ The Smart-Throttle switch won't work in case the load only demand instant power.

■ DO turn off the Smart-Throttle switch while connected to the load over than 75% rated power to avoid the voltage fluctuation.

DO turn off the Smart-Throttle switch for DC output.



Note: When the Smart-Throttle switch is on OFF position, the engine speed is in high level.

4. PRE-OPERATION CHECK

Be sure to check the generator on a level surface with the engine stopped.

1. Check the engine oil level.

WARNING

■ Using non detergent oil or 2 cycle engine oil could shorten the engine's service life.

Use a high-detergent, premium quality 4-stroke engine oil, certified to meet or exceed U.S. automobile manufacturer's requirements for API Service Classification SG/SF. Select the appropriate viscosity for the average temperature in your area.



SAE Viscosity Grades

AMBIENT TEMPERATURE

Loosen the cover screw and remove the left side maintenance cover. Remove the oil filler cap, and wipe the dipstick with a clean rag. Check the oil level by inserting the dipstick in the filler hole without screwing it in.

If the oil level is below the end of the dipstick, refill the recommended oil up to the top of the oil filler neck.

WARNING

Running the engine with insufficient oil can cause serious engine damage.

NOTE: The Low Oil Alarm System will automatically stop the engine before the oil level falls below the safe limit. However, to avoid the inconvenience of an unexpected shutdown, it is still advisable to visually inspect the oil level regularly.

You must screw down the dipstick completely to measure the oil level.



2. Check the fuel level.

Use automotive unleaded regular gasoline only. A fuel preservative and stabilizer should be added to any container of stored fuel.

If the fuel level is low, refill the fuel tank until the level reaches the specified mark.

Never use an oil/gasoline mixture or dirty gasoline.

Avoid getting dirt, dust or water in the fuel tank.

After refueling, tighten the fuel filler cap securely.

- Gasoline is extremely flammable and is explosive under certain conditions.
- Refuel in a well-ventilated area with the engine stopped. Keep all smoking materials, sparks, and any other source of combustion away from the generator during refueling.
- Do not overfill the fuel tank (there should be no fuel above the upper limit mark). After refueling, make sure the tank cap is closed properly and securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite, If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor. KEEP OUT OF REACH OF CHILDREN.





Gasoline containing alternate fuels

If you decide to use a gasoline containing ethanol, be sure its octane rating is no lower than the specification. Do not use a blend that contains more than 10% ethanol. Do not use gasoline containing methanol.

- Fuel system damage or engine performance problems resulting from the use of fuels that contain an improper alcohol blend are not covered under warranty.
- Before buying fuel from an unfamiliar station, Determine if the fuel contains ethanol and if it does, confirm the type and percentage of ethanol used. If you notice any undesirable operating symptoms while using a gasoline that contains ethanol, or one that you think contains ethanol, replace it by a gasoline that you know has the proper blend.

3. Check the air cleaner

Check the air cleaner element to be sure it is clean and in good condition.

Loosen the cover screw and remove the left side maintenance cover.

Press the latch tab on the top of the air cleaner body, remove the air cleaner cover, check the element. Clean or replace the element if necessary.



Never run the engine without the air cleaner. Rapid engine wear will result from contaminants, such as dust and dirt, being drawn through the carburetor, into the engine.





5. STARTING THE ENGINE

Before starting the engine, disconnect any load from the AC receptacle.

1. Clockwise turn the fuel cap ventilation lever to OPEN position.

Ventilation lever



2. Turn the engine switch to the ON position.



3. Move the choke lever to the CLOSE position.

NOTE:

Do not use the choke when the engine is warm or the ambient air temperature is high.



4.Pull the starter grip until resistance is felt then pull the starter grip briskly toward the arrow as shown below.

Do not allow the starter grip to snap back. Return it slowly by hand.



5. Move the choke lever to the RUN position after the engine warms up.





■ If the engine stops and will not restart, check the engine oil level before further troubleshooting.

6. GENERATOR USE

Be sure to ground the generator when loads are connected.

- To prevent electrical shock from faulty appliances, the generator should be grounded. Connect a length of heavy cable between the generator's ground terminal and an external ground source.
- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections can allow electrical current from the generator to back feed into the utility lines. Such back feed may electrocute utility company workers or others who contact the lines during a power outage. When utility power is restored the generator may explode, burn, or cause fires in the building's electrical system.
- Do not connect the generator to an automatic transfer device. Severe damage to the inverter module may result.



- The total wattage of all appliances connected must be considered.
- Do not exceed the current limit specified for any one receptacle.
- Do not connect the generator to a household circuit. This could cause the damage to the generator or to electrical appliances in the house.
- Do not modify or use the generator for other purpose than it is intended for. Also observe the following when using the generator.
- Do not connect an extension to exhaust pipe.
- When an extension cable is required, be sure to use a rubber sheathed flexible cable (IEC 245 or equivalent).
- Limit length of extension cables to 195 ft (60 m) for cables of 1.5mm² and 325 feet (100 m) for cables of 2.5mm². Long extension cables will reduce usable power due to resistance in the extension cable.
- Keep the generator away from other electric cables or wires such as commercial power supply lines.

- The DC receptacle can be used while the AC power is in use. If you use both at the same time, be sure not to exceed the total power for AC and DC.
- Most appliance motors require more than their rated wattage for start-up.

AC application

- 1. Start the engine and make sure only the output indicator light (green) comes on.
- 2. Confirm that the appliance to be used is switched off, and plug in the appliance.



- Substantial overloading that continuously lights the overload indicator light (red) may damage the generator. Marginal overloading that temporarily lights the overload indicator light (red) may shorten the service life of the generator.
- Be sure that all appliances are in good working order before connecting them to the generator. If an appliance begins to operate abnormally, becomes sluggish, or stops suddenly, turn off the generator engine switch immediately. Disconnect the appliance and examine it for signs of malfunction.

3. In order to insure the optimum output and the maximum service life of the generator, the generator should run at a 50% load for the first 20 hours.

Stop the engine if the overload indicator light (red) comes on and investigate the overload source

Before connecting an appliance to the generator, check that it is in good order and that its electrical rating does not exceed that of the generator. Connect the power cord of the appliance and start the engine.

■ When an electric motor is started, both the overload indicator light (red) and the output indicator light (green) may go on simultaneously. This is normal if the overload indicator light (red) goes off after about four (4) seconds. If the overload indicator light (red) stays on, consult your generator dealer.

DC Operation

The DC receptacle may be used for charging 12 volt automotive style batteries only, the no load voltage is 15V-30V.



■ In DC operation, turn the Smart-throttle switch to the OFF position.

Connect the charging cables to the DC receptacle of the generator and then to the battery terminals.

- To prevent the possibility of creating a spark near the battery, connect the charging cable first to the generator then to the battery. Disconnect the cable first at the battery.
- Before connecting charging cables to a battery that is installed in a vehicle, disconnect the vehicle's ground battery cable. Reconnect the vehicle's ground battery cable after the charging cables are removed. This procedure will prevent the possibility of a short circuit and

sparks if you make accidental contact between a battery terminal and the vehicle's frame or body.

- Do not attempt to start an automobile engine with the generator still connected to the battery. The generator may be damaged.
- Connect the positive battery terminal to the positive charging cord. Do not reverse the charging cables, or serious damage to the generator and/or battery may occur.

- The battery gives off explosive gases; keep spark, flames and cigarettes away. Provide adequate ventilation when charging.
- The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.

-If electrolyte gets on your skin, flush with water.

-If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician.

- Electrolyte is poisonous.
 -If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician.
- KEEP OUT OF REACH OF CHILDREN.
- 2. Start the engine

■ The DC receptacle may be used while the AC power is in use.

■ An overloaded DC circuit will trip the DC circuit fuse. The fuse must be replaced before the DC receptacle is operative.



Replace the fuse with one of the same size and rating (5A). Exceeding the current rating may lead to alternator damage.



Low oil alarm system

The low oil alarm system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase falls below a safe limit, the low oil alarm system will automatically shut down the engine (the engine switch will remain in the ON position).

If the low oil alarm system shuts down the engine, the low oil alarm indicator light (red) will come on when you operate the starter and the engine will not run. If this occurs add engine oil.



Smart Throttle System

When the smart throttle switch is placed in the on position, engine speed is kept at idle automatically when the electrical load is disconnected and returns to the proper speed to match the power of the electrical load when the load is reconnected. This position is recommended to minimize fuel consumption while in operation.

■ The Smart throttle system does not operate effectively if the electrical appliance requires constant fluctuations in power.

■ When high electrical loads are connected simultaneously, turn the Smart throttle switch to the OFF position to reduce voltage fluctuation or shutdown.

■ In DC operation, turn the Smart throttle switch to the OFF position.

OFF:

Smart throttle system does not operate. Engine speed varies with the load.

High altitude operation

At higher altitudes, the standard carburetor air-fuel mixture will be excessively rich. Performance will decrease, and fuel consumption will increase. Power output will decrease 3.5% for each 1000 feet (305 meters) above sea level.

High altitude performance can be improved by installing a smaller diameter main fuel jet in the carburetor. If you always operate the generator at altitudes higher than 5000 feet or 1500 meters above sea level, have your authorized dealer install a high altitude main jet.

Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5% for each 1000 feet or 305 meter increase in altitude. The affect of altitude on the horsepower will be greater than this if no carburetor modification is made.

■ Operation of the generator at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

Be sure to have any modification reversed at lower altitudes.

Temperature

High temperature adversely affects generator operation. Generator performance will decrease 1% for each 10°F (5.5°C) increase in temperature above 85°F (29°C) The normal operating range of this generator is -20° to 113° F (-29° to 45°C)

- Do not operate the generator when the ambient temperature is below -20°F (-29°C)
- Do not operate the generator when the ambient temperature exceeds 113°F (45°C)

7. STOPPING THE ENGINE

To stop the engine in an emergency, turn the engine switch to the OFF position. **IN NORMAL USE:**

1. Switch off the connected equipment and pull the inserted plug out.



2. Turn the engine switch to the OFF position



3.Turn the ventilation lever to OFF position when the engine completely cooled.



Make sure that the ventilation lever and engine switch is on "OFF" position before stopping, moving or storing the generator set.

8. MAINTENANCE

The purpose of the maintenance and adjustment schedule is to keep the generator in the best operating condition.

Inspect or service as scheduled in the table below.

■ Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. The exhaust contains poisonous carbon monoxide gas.

Use genuine our parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the generator.

Maintenance

Maintain the generator according to the maintenance schedule in this section. Service items more frequently when used in dusty areas, or under conditions of high load, temperature, and humidity.

REGULAR SERVICE PERIOD(1)			EIDST			EVEDV
ITEM Perform at every indicated month or operating hour interval, which- ever comes first.		EACH USE	MONTH OR 20HRS	MONTHS OR 50HRS	MONTHS OR 100 HRS	YEAR OR 200 HRS
Engine oil	Check level	0				
	Change		0		0	
Air cleaner	Check	0				
	Clean			(1)		
Spark plug	Clean-adjust				0	
	Replace					0
Combustion chamber	Clean	○ Every 300Hrs. (2)				
Valve clearance	Clean-adjust					(2)
Fuel tank and filter	Clean				(2)	
Fuel lines	Check	Every 2 years (Replace if necessary) (2))	

Maintenance Schedule

NOTE: (1) Service more frequently when used in dusty areas.

(2) These items should be serviced by your servicing dealer unless you have the proper tools and are mechanically proficient. Refer to the shop manual for service procedures.

(3) For commercial use, log hours of operation to determine proper maintenance intervals.

1. CHANGING OIL

Drain the oil while the engine is still warm to assure rapid and complete draining.

- Make sure to turn the engine switch and the fuel cap vent lever OFF before draining.
- 1. Loosen the cover screw and remove the left side maintenance cover.
- 2. Remove the oil filler cap.
- 3. Drain dirty oil into a container thoroughly.
- 4. Refill with the recommended oil, and check the oil level.
- 5. Reinstall the left side maintenance cover and tighten the cover screw securely.

Engine oil capacity: 0.25L



Please dispose of used motor oil in a manner that is compatible with the environment and local disposal regulations. Do not throw it in the trash or pour it on the ground.

■ Do not use gasoline or low flash point solvents for cleaning. They are flammable and explosive under certain conditions.

■Never run the generator without the air cleaner, otherwise rapid engine wear may result.

- 1. Loosen the cover screw and remove the left side maintenance cover.
- 2. Remove the air cleaner cover and remove the fine and coarse elements.
- 3. Wash the elements in a non-flammable or high flash point solvent and dry it thoroughly.
- 4. Soak the elements in clean engine oil and squeeze out the excess oil.

5. Reinstall the coarse and fine air cleaner elements and the air cleaner cover. Tighten the cover screw securely.

6. Reinstall the maintenance cover and tighten the cover screw securely.



SPARK PLUG MAINTENANCE

Recommended spark plug: A5RC or NGK R7HSA

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

1. Remove the spark plug maintenance cover.



- 2. Remove the spark plug cap.
- 3. Clean any dirt from around the spark plug base.
- 4. Use the wrench provided to remove the spark plug.



5. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped.

Clean the spark plug with a wire brush if it is to be reused.

6. Measure the plug gap with a feeler gauge.

The gap should be 0.024-0.028in (0.6-0.7mm). Correct as necessary by carefully bending the side electrode.



7. Install the spark plug carefully, by hand, to avoid cross-threading.

8. After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer. If a used plug is being reinstalled, it should only require 1/8 to 1/4 turn after being seated.

9. Reinstall the spark plug cap on the spark plug securely.

10. Reinstall the spark plug maintenance cover.



- The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the generator.
- Never use a spark plug with an improper heat range.
- Never use a spark plug without damping resistance or it will cause no AC output.

9. TRANSPORTING and STORAGE

To prevent fuel spillage when transporting or during temporary storage, the generator should be secured upright in its normal operating position with the engine switch OFF.

When transporting the generator:

- If you must transport the generator in a vehicle, drain all fuel from the generator.
- Do not operate the generator while it is on or in a vehicle. Take the generator out of the vehicle and use it in a well ventilated area.
- Avoid a storage area exposed to direct sunlight when putting the generator on a vehicle. If the generator is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause residual fuel to vaporize resulting in a possible explosion.
- Do not drive on a rough road for an extended period with the generator on board.

Before storing the unit for an extended period:

- 1. Be sure the storage area is free of excessive humidity and dust.
- 2. Drain the fuel.

- Gasoline is extremely flammable and explosive under certain conditions.
- Do not smoke or allow flames or sparks in the area.





Exercising the Generator

It is essential that the generator be exercised on a regular basis. This will prevent the accumulation of varnish or sludge in the fuel system and also remove moisture from the generator windings. Additionally the engine seals and moving components are lubricated. Exercise the generator by running it with at least a 1/2 load for 60 minutes each month. Gasoline fuel treatments to prevent contamination of your fuel supply are available from your dealer. Fuel varnishing necessitating replacement of the carburetor is not a warrantable failure.

Storage

- a. Drain all gasoline from the fuel tank into an approved gasoline container.
- b. Turn the engine switch ON, and loosen the carburetor drain screw and drain the gasoline from the carburetor into a suitable container.
- c. With the drain screw loosened remove the spark plug cap and pull the starter grip 3 to 4 times to drain the gasoline from the fuel pump.
- d. Turn the engine switch to the OFF position, and tighten the drain screw securely.
- e. Reinstall the spark plug cap on the spark plug securely.
- 3. Change the engine oil.
- 4. Remove the spark plug and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil and then reinstall the spark plug.
- 5. Slowly pull the starter grip until resistance is felt. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect it from internal corrosion.



10. TROUBLESHOOTING

Engine will not start:



Appliance does not operate:



11. SPECIFICATIONS

Generator

Model	YGE1000i	YGE2000i	YGE3000i	
Rated frequency (Hz)	50/60			
Rated voltage (V)	230/120/240			
Rated output (W)	900	1800	2300	
Rated current(A)	3.9/50Hz, 7.5/3.7/60Hz	7.8/50Hz, 15/7.5/60Hz	12.2/50Hz, 23.3/11.6/60Hz	
Max output (W)	1000	2000	2600	
DC Output	12 V, 6.0 A			
Phase	Single			

Engine

Model	144F	160F	170F	
Туре	Single cylinder, 4 stroke, vertical shaft, air-cooled, OHV			
Displacement- CC	53.5	207		
Compression Ratio	8.5:1			
Rated Speed	5500	4300	3600	
Ignition System	T.C.I.			
Starting System	Recoil Starter			
Spark Plug	NGK CR7HSA or A5RTC	NGK CR7HSA or A5RTC	LG R6TC	
Fuel	Automotive Unleaded Gasoline			
Lube Oil	SAE 10W30 (see viscosity chart)			
Lube Oil Capacity (L)	0.25	0.4	0.6	
Fuel Tank Capacity (L)	2.1 3.5		10.5	
Run Time@75%load	3.5Hrs	4 Hrs	7.5 Hrs	
Noise level- dB@7m no load-full load	54-61	59-64	59-67.5	

Dimensions

Model	YGE1000	YGE2000i YGE3	
LxWxH in (mm)	480*260*380	555*305*460	650*410*485
Dry weight(kg)	14.8	26.5	38.6



12. WIRING DIAGRAMS



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