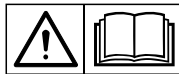


ORIGINAL INSTRUCTIONS

ATX-3300i

INVERTER GENERATING SET

OPERATOR'S MANUAL



Read this manual carefully before operation.
This manual includes important guidance for safety operation.

This Manual contains important safety information and instructions for operating this generating set. **PLEASE READ THIS MANUAL CAREFULLY.** Failure to do so could result in property damage and/or personal INJURY/DEATH.

Provide this manual to any operator of this generating set. This manual should be considered as a permanent part of your generating set and should remain with it when you sell it.

All pictures & figures are only one example of series generating set. It shall be only for reference and perhaps there will be difference between pictures & figures and physical products.

All information in this publication is based on the latest product information available at the time of printing. We reserve the right to change, alter and/or improve the product and this document at any time without notice and without incurring any obligation.

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

Write down the generating set's serial number and purchase information. Keep this manual and the receipt for future reference.

Model:

Serial number:

Date of purchase:

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I. Operator safety

1. Safety rules



Pay attention to this safety alert symbol. Obey all safety messages that followed by this symbol to avoid possible property damage. INJURY or DEATH.

Each safety message is preceded by a safety alert symbol and one of three words, DANGER, WARNING, or CAUTION.

DANGER

Indicates a hazardous situation which, if not strictly complied with, will result in substantial property damage, serious injury or DEATH.

WARNING

Indicates a hazardous situation which, if not strictly complied with, may result in property damage, serious injury or DEATH.

CAUTION

Indicates a hazardous situation which, if not strictly complied with, could result in property damage or injury.



WARNING

READ THIS MANUAL COMPLETELY BEFORE OPERATING.

DO NOT operate this generating set until you have read ALL safety, Operation, and maintenance instructions listed in this manual.

Failure to follow the instructions may result in property damage, INJURY or DEATH.

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be possessed by the operator.

WARNING

This generating set is intended for residential consumer use only.

Air cooled generating sets cannot be run full time.

No personal-modified any part of the generating set or any unsuitable usage is allowed.



⚠ DANGER

TOXIC FUMES

The exhaust of the engine contains carbon monoxide, an odorless, colorless, poison gas. Using engine indoors **CAN KILL YOU!**

NEVER use inside any building or any kind of enclosure, **EVEN IF** doors and windows are open.

Place the engine in a well-ventilated area and carefully consider wind and air currents when positioning the engine.



⚠ WARNING

KICKBACK

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains.



⚠ WARNING

FIRE

Operation of this engine may create sparks that can start fires around flammable material.

This engine may not be equipped with a spark arresting muffler. If the engine will be used around flammable materials, or on land covered with materials such as agricultural crops, forest, brush, grass, or other similar items, then an approved spark arrester must be installed.

In some area, a spark arrester is required by law.

Please contact local fire agencies for laws or regulations relating to fire prevention requirements.



Flammable materials can catch fire when they come into contact with hot surfaces. Do not place flammable objects within 1.5 meters.



⚠ WARNING

HOT SURFACE

Running engines produce heat. Severe burns can occur on contact.

DO NOT touch engine while operating or just after stopping. Avoid contact with hot exhaust gases.

⚠ WARNING

Lithium battery is maintenance free, if you have any question, please contact a local authorized dealer.



⚠ DANGER

FIRE OR EXPLOSION

Gasoline is highly flammable and extremely explosive.

Fire or explosion can cause severe burns or death.

Keep flammable items away while handling generator.

Fill fuel tank outdoors and in a well-ventilated area with the generator stopped.

Always wipe off spilled fuel and wait until the fuel has dried before starting the generator.

DO NOT operate the generator with known leaks in the fuel system.

Use proper fuel storage and handling procedures. **DO NOT** store fuel or other flammable materials nearby.

Empty the fuel tank before storing or transporting this generator.

Keep fire extinguisher handy and be prepared if a fire starts.



Open Flame Alert

Fuel and its vapors are extremely

flammable and explosive.

Keep fuel away from smoking, open flames, sparks, pilot lights, heat, and other ignition sources.

⚠ WARNING

Before each use, check for loose or damaged parts, signs of oil or fuel leaks, and any other condition that may affect proper operation.

Repair or replace all damaged or defective parts immediately.

Locate all operating controls and safety labels.

Make sure all the safety instructions are in right and working condition. Operate only on level surfaces.

DO NOT expose generating set to excessive moisture, dust, or dirt.

Keep all safety guards in place and in proper working order at all times.

DO NOT allow any material to block the cooling slots.

DO NOT allow children or untrained persons to operate the generating set.

DO NOT run the generating set unattended. Turn off the generating set before leaving the area.

Allow 0.9 meter of space around the generator to ensure good cooling.



⚠ DANGER

MOVING PARTS

Moving parts can cause severe injury. Keep hands and feet away.

DO NOT operate engine with covers, shrouds, or guards removed.

DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught. Tie up long hair and remove jewelry.

The moving parts may catch operator's hand, feet, hair or clothes that will cause traumatic amputation or broken bones, fracture.

NEVER place fingers, hands, or body near the engine when it is running.



⚠ DANGER

ELECTRICAL SHOCK

This generator produces powerful voltage and the electricity **CAN KILL YOU**.

This generator must be properly connected to an appropriate ground to help prevent electric shock. Failure to properly ground generator can result in electrocution, especially if the generator is equipped with a wheel kit. Consult an electrician for local grounding requirements.

Installation should be performed by a certified electrician. Improper installation can result in electrical shock and death.

To reduce the risk of electrical shock, **DO NOT** use electrical cords that are worn, frayed, bare or otherwise damaged.

DO NOT touch bare wires or receptacles.

DO NOT handle generator or electrical cords while standing in water, while barefoot, or while hands or feet are wet.

DO NOT allow unqualified persons or children to operate or service the generator.

DO NOT hook up any generator to a building electrical system without the proper use and installation of a transfer switch installed by a qualified electrician.

When using generator for backup power, notify utility company. Use approved transfer generator to isolate generator from electric utility.

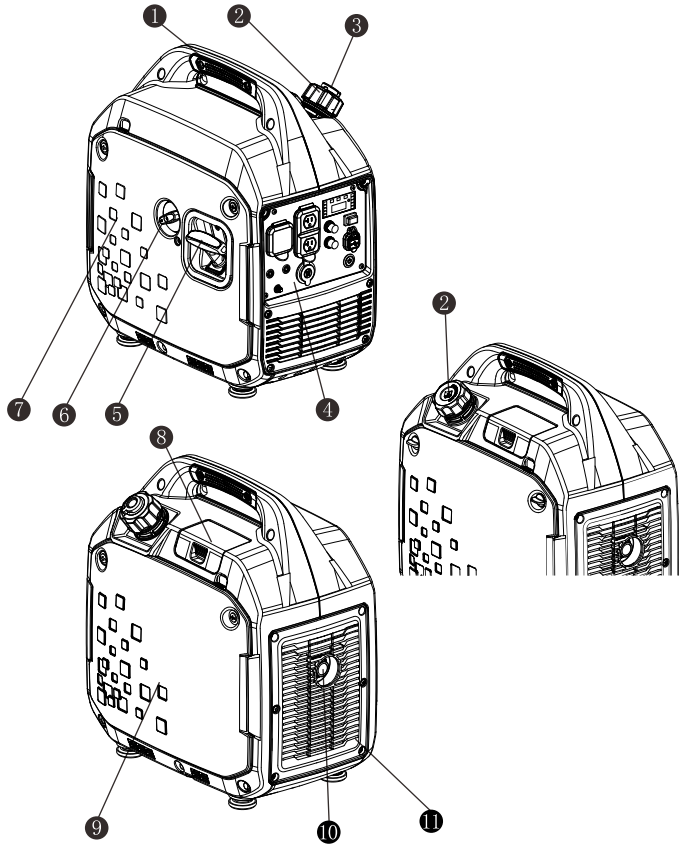
Failure to isolate generator from power utility can result in death or injury to electric utility workers due to backfeed of electrical energy.



Wet Conditions Alert

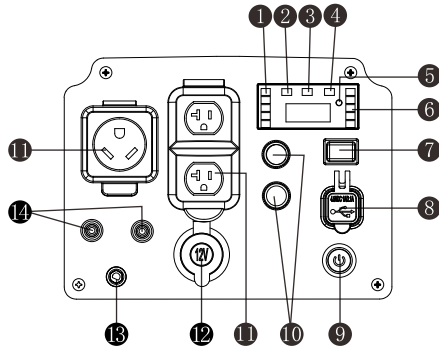
Do not expose to rain or use in damp locations.

II. Features and controls



- ① Carrying handle
- ② Fuel tank cap
- ③ Ventilation knob (If applicable)
- ④ Control Panel
- ⑤ Recoil starter
- ⑥ Combination switch
(CHOKE&RUN&OFF&STOP)
- ⑦ Left cover
- ⑧ Spark plug maintenance cover
- ⑨ Right cover
- ⑩ Muffler
- ⑪ Muffler blind window

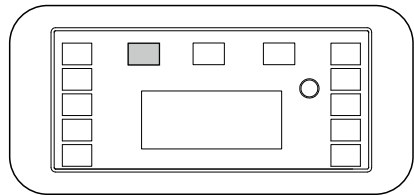
Control Panel



- | | |
|------------------------|-------------------------|
| ① Power indicator | ② Overload indicator |
| ③ Running indicator | ④ Oil level indicator |
| ⑤ Reset button | ⑥ Fuel display |
| ⑦ ECO Mode | ⑧ USB port |
| ⑨ Switch button | ⑩ AC Circuit breaker |
| ⑪ AC output receptacle | ⑫ 12V DC |
| ⑬ Ground terminal | ⑭ Parallel kit terminal |

Overload indicator (red)

When the overload indicator is on, it indicates that the generating set is overload and then the AC protector works. It will stop the output of generating set to protect the electric equipment and the generating set itself. At this time, the running indicator (green) is off and the overload indicator (red) is on, but the engine is still in running state.



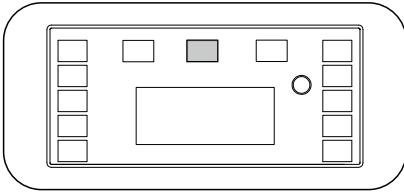
When the generating set has no output and the overload indicator is on, please take the following steps:

1. Lower the total power of the connected electric devices to the rated output range of generating set.
2. Check the air intake for impurities and check the

control parts for abnormal situation. Handle immediately if necessary.
3. Press the reset button.

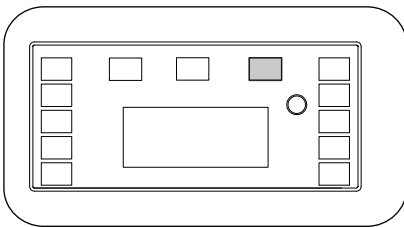
Running indicator (green)

The running indicator lights up when generating set starts and has normal output.



Oil level indicator (yellow)

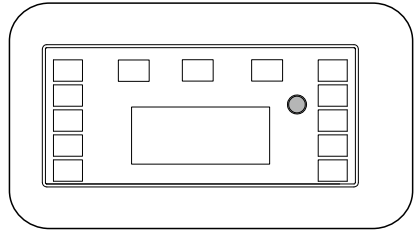
When the oil level drops below the lower limit, the oil protection system will stop the engine automatically and oil level indicator will blink by pulling the recoil starter. The engine will not run until the oil has been filled to the proper level.



Note: If the generator fails to start when the engine is turned off, please turn the Combination switch to the "RUN" position, and then pull the starter handle. If the oil alarm indicator lights up, it means that the oil capacity is insufficient, please add oil and restart.

Reset button

The reset button is used to restore output if an overload occurs. To restore output, reduce the loads and press the reset button.

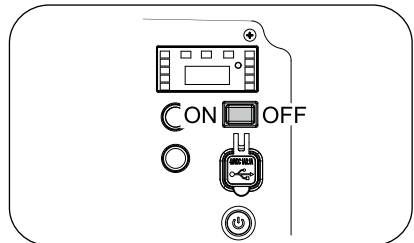


ECO Mode

When the ECO Mode is in "ON" position, the energy saving equipment controls the engine rotate speed according to the connected loads. There will be good fuel consumption and low noise.

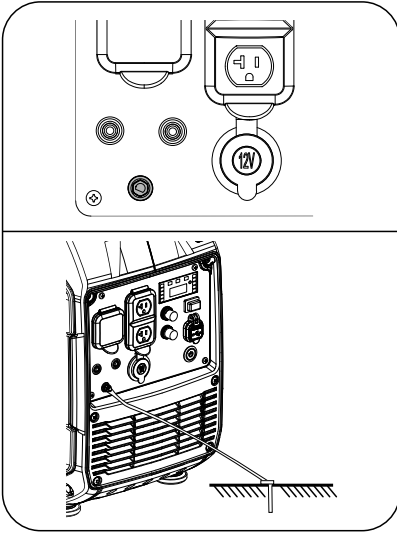
When the ECO Mode is in "OFF" position, the engine will always run in rated rotate speed no matter it is connected to the loads or not.

Note: Please set the ECO Mode to "OFF" position when connect to air compressor, sinking pump etc., because these equipments need large starting current.



Grounding terminal

The grounding terminal is designed to prevent electric shock by connecting it to the grounding wire. The generating set must be properly grounded before operation.



Combination switch (CHOKE&RUN&OFF&STOP)

Note: Switch button and remote control start, no function of manually close for the choke.

Choke: Close the choke.

Note: Turn to choke position to start when engine is cold, and turn to Run position to start when engine is hot.

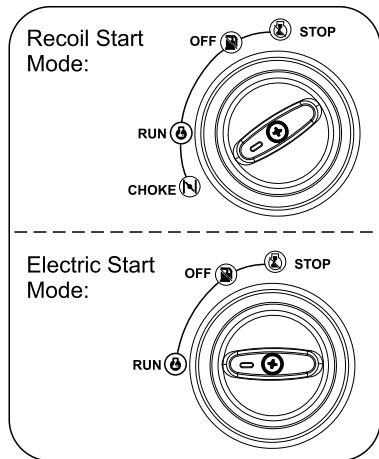
Run: The generating set operates normally.

OFF: Fuel off without stop. This position can run out of the remaining fuel and improve the reliability of the generating set.

Note: If you do not plan to use the generator in the near future, please use this function, or drain the fuel inside the carburetor through the carburetor drain bolt.

Stop: The stop position of the generator.

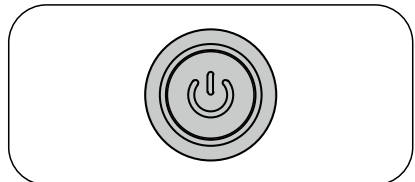
Note: After the generating set is unloaded, please run for 3 minutes at no load to stabilize the temperature, then stop the generating set.



Switch button

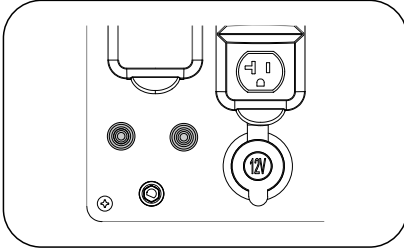
(If applicable)

You can start the generator by pressing the button with your finger.

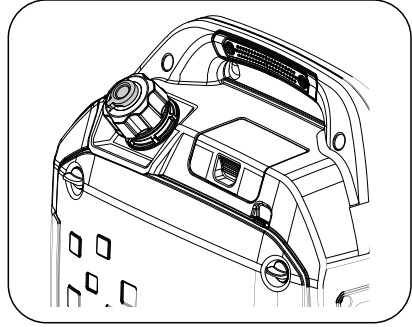


Parallel kit terminal

It is used for parallel operation with another inverter (parallel kit sold separately).

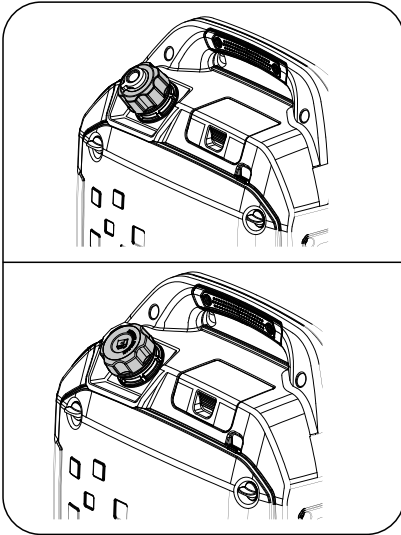


Ventilation knob (If applicable)



Fuel tank cap

Remove the fuel tank cap by rotating it anticlockwise.



The fuel cap is equipped with a ventilation knob to prevent fuel leakage. During operation, the ventilation knob must be in the “ON” position for the generator to operate normally. When the generator will not be use for a long time or needs to be transported, turn the ventilation knob to the “OFF” position to prevent fuel leakage.

III. Operating

1. Operating checklist

1 Operating Location

Only use OUTSIDE and place the generating set in a well-ventilated area.

Only operate the generating set on a flat, level surface and in a clean, dry operating environment.

Allow two feet clearance on all side of the generating set while operating it outdoors.

Operate in specified area, if any problem on applicable occasion, please consult the authorized local dealers. In some areas, generating set must be registered with the local utility. Generating set used to construction sites may be subject to additional rules and regulations.



⚠ DANGER

TOXIC FUMES

The exhaust of the generating set contains carbon monoxide, Using engine indoors **CAN KILL YOU!**

NEVER use inside any building or any kind of enclosure, **EVEN IF** doors and windows are open.

Place the generating set in a well-ventilated and clean area. Note the wind direction

and air current when place the generating set.

High altitude

This generating set may require a high altitude carburetor kit to ensure correct operation at high altitudes. Consult the authorized local dealer for high altitude kit information if you always operate your engine at altitudes above 5, 000 feet (1,500 meters).

⚠ CAUTION

Even with carburetor modification, generating set horsepower will decrease about 3.5% for each 1,000 feet (300 meters) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

⚠ CAUTION

Operation the engine at altitude below 5, 000 feet (1,500 meters) with modified carburetor may cause the generating set to overheat and result in serious engine damage. Please restore factory specifications of the carburetor at the dealer when using the engine in a low altitude area.

2 Operating Condition

Check for loose or damaged parts, signs of oil or fuel leaks, and any other condition that may affect proper operation.

Repair or replace all damaged or defective parts immediately.

⚠ WARNING

Failing to correct problem(s) before operation could result in property damage, serious injury or DEATH.

Clean the dirt or foreign objects on the surface around exhaust and air intake of generator.

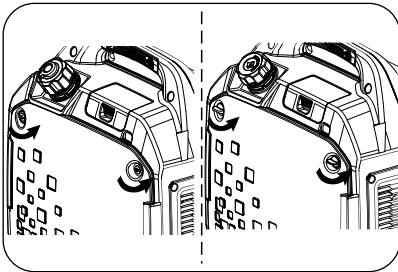
DO NOT move or tip the generating set during operation.

Use generating set only for intended uses. If you have questions about intended use, ask your local dealer.

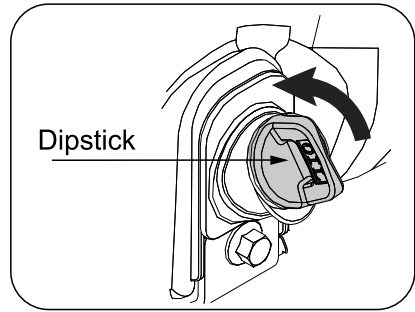
3 Engine oil check

Place the engine on a level surface with engine stopped. Check the engine oil level.

Remove the oil maintenance cover.



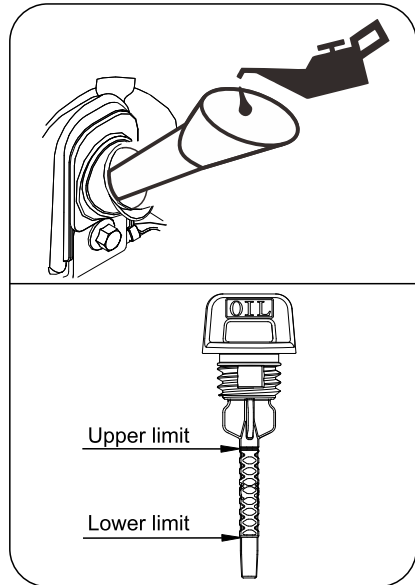
Remove the dipstick and wipe it clean.



Reinstall dipstick into hole; rest on oil fill neck, DO NOT thread cap into hole.

Remove the dipstick again and check oil level. Level should be between the upper and lower limit.

Fill to the upper limit of the dipstick with the recommended oil if the oil level is too low.



Reinstall and fully tighten the dipstick.

Refer to **add oil** instruction in **MAINTENANCE** section for more information.

Oil capacity(rated):

See Parameters

⚠ WARNING

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil recommended in the **MAINTENANCE** section of this manual.

⚠ CAUTION

Operate generating set only on leveled surfaces. The engine is equipped with a low oil sensor (applicable types) that will automatic stop the engine when the oil level falls below the safe limit. To avoid the inconvenience of an unexpected shutdown. Fill to the upper limit and check the oil level regularly.

⚠ WARNING

This engine is not filled with oil before send out to the factory. Any attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil may result in engine damage and void your warranty.

4 Generating set fuel check

With the engine stopped, check the fuel level. Refill the fuel tank if necessary.

Use clean, fresh, regular unleaded gasoline.

DO NOT mix oil with gasoline.

Always wipe up any spilled fuel.

⚠ CAUTION

Pressure can build up in the fuel tank. Allow the generating set to cool for at least two minutes before removing fuel cap.

Loosen the fuel cap slowly to relieve any pressure in the tank.

Be sure not to fill above the upper limit mark. Always allow room for fuel expansion.

Fuel capacity (rated):

See parameters.



⚠ DANGER

FIRE OR EXPLOSION

Gasoline is highly flammable and extremely explosive.

Keep flammable items away while handling gasoline.

Fill fuel tank outdoors and in a well-ventilated area with the generating set stopped.

Always wipe off spilled fuel and wait until the fuel has dried before starting the generating set.

DO NOT operate the generating set with known leaks in the fuel system. Regularly check if there is any leak on fuel system.

Use proper fuel storage and handling procedures. DO NOT store fuel or other flammable materials nearby.

Keep fire extinguisher handy and be prepared if a fire starts.

NEVER use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

It is important to prevent gum deposits from forming in essential fuel system parts,

Such as the carburetor, fuel filter, fuel hose or tank during storage. Also, experience indicates that alcohol-blended fuels (called gasohol, ethanol or methanol) can attract moisture, which leads to separation and formation of acids during storage.

Acidic fuel can damage the fuel system of the generating set while in storage. Be sure to review the instructions given in "Storage" section.

Gasoline/Alcohol blends: up to 10% alcohol, 90% unleaded gasoline by volume is approved as a fuel. Other gasoline/alcohol blends are not approved.

Effects of old, stale or contaminated fuel are not warrantable.

⚠ DANGER

Do not fill the fuel tank above the upper limit. Over fill will result in engine die or damage the carbon canister (if equipped) and void your warranty.

⚠ CAUTION

To minimize gum deposits in your fuel system and to insure easy starting, do not use gasoline left over from the previous season.

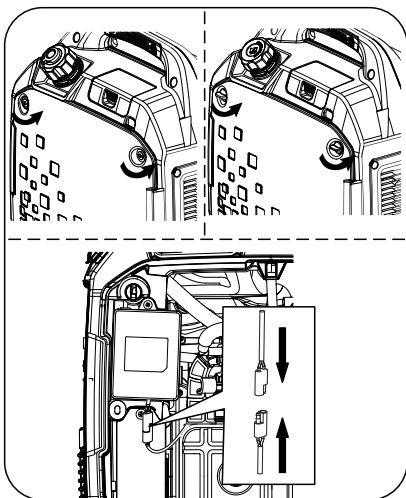
CAUTION

Allow the generating set to cool for at least two minutes before removing fuel cap when adding fuel.

Loosen the fuel cap slowly to relieve any pressure in the tank.

5 Battery connection (If applicable)

Remove the battery maintenance cover, connect the battery terminal to the motor terminal, and reinstall the maintenance cover.



Notice: This product is equipped with an electric starter, powered by a battery within the product. If leave unused for more than 3 months, charge the battery in time or it will be damaged.

6 Electrical devices

Disconnect all electrical devices from the generating set and switch off the AC circuit breaker before start the engine.

The generating set may be hard to start with electrical devices connected.

The power of connected electrical devices cannot exceed the generating set max power, specific power see parameter sheet for reference.

7 Generating set grounding

The generating set must be properly connected to an appropriate ground. It helps prevent electrical shock if a ground fault condition exists in the generating set or in connected electrical devices, especially when the unit is equipped with a wheel kit.

Proper grounding also helps dissipate static electricity, which often builds up in ungrounded devices.



DANGER

Electrical Shock



Ground

Consult with local electrician to determine grounding requirements before operation.

Failure to properly ground the generator can result in electric shock.

A ground terminal has been provided on the generating set.

For remote grounding, connect of A ground terminal has been provided on the generating set. For remote grounding, a copper wire that is no small than (4mm²) should be used between the generator ground terminal and the ground.

The grounding requirements varies from different regions, so we strongly recommend your to consult a qualified dealer in your area. We strongly recommend that you consult with a qualified electrician for grounding requirements in your area.

2. Starting the generating set

1

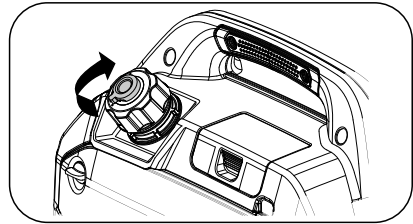
Perform operating checklist and remove all loads.

2

(Applicable types)

Turn the ventilation knob of fuel cap to the “ON” position to ensure fuel flow.

Note: You don’t need to follow this step, if your generator has no carbon cannister.



3

Select according to the actual configuration of the user

Recoil start:

1. Cold start and Warm start.

Cold start

Turn the combination switch to “CHOKE” position to shut off the choke.

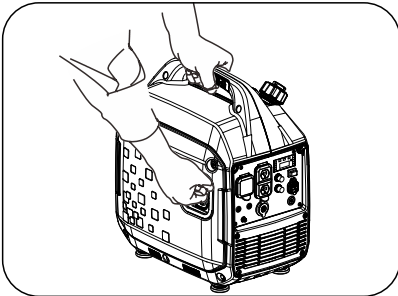
Warm start

Turn the combination switch to “RUN” position, if not started, please turn the combination switch to “CHOKE” position before restarting.

2. When starting engine, grasp the recoil starter handle and pull slowly until resistance is felt. Then pull rapidly to avoid kickback. When pulling the recoil starter, firmly grasp the generator to avoid tumble of generator or personal injury caused by tumble.

⚠ WARNING

Check starter cord conditions before operating. Have it replaced immediately by local authorized dealer if cord is frayed.



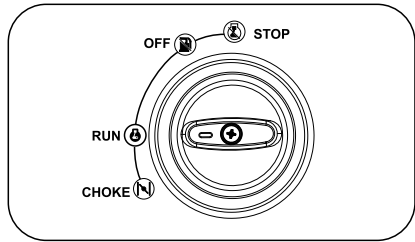
⚠ WARNING

KICKBACK

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

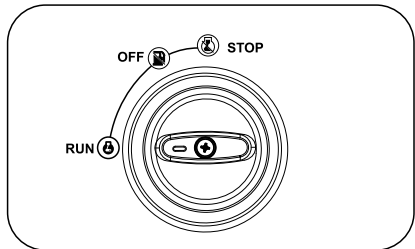
Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

3. Turn the Combination switch to "RUN" position.

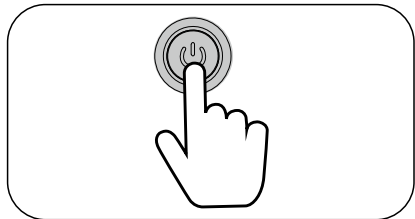


Electric start: Switch button

1. Turn the combination switch to "Run" position.



2. Press the Switch button and release it after the engine starts.



If it fails to start, release the switch. The unit will restart by itself. If it fails to start after repeated 6 times, please allow the generator to cool for 1 minute and start again.

Note: If electric start fails, you may try manual start.

⚠ WARNING

If the generator cannot be started due to the long time storage or improper use, please follow the manual start steps to manually control the choke and start the generator. The generator will automatically charge the lithium battery after normal operation.

⚠ WARNING

If you try to start the generator for three times, and the generator still cannot start or shut down after start, please find the cause and troubleshoot.

If the generator equipped with oil alarm, the generator will not start if the oil level in the crankcase is lower than the lowest level.

During the break-in, please do a regular oil inspection, and please perform maintenance at the recommended interval. For details, please refer to the maintenance chapter.

⚠ CAUTION

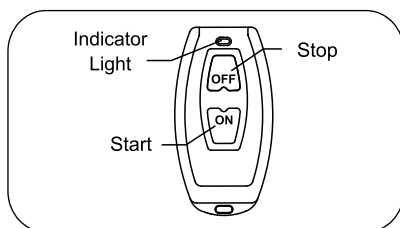
Never continue to start the generator without removing the fault.

It's forbidden to start the generator after changing to another battery without authorization.

⚠ WARNING

The engine shall not exceed 15 seconds for each continuous start. If it fails to start, please allow the generator to cool for 1 minute before next attempt to start. Failure to do so will damage the starter motor.

Electric start: Wireless remote control



1. Turn the combination switch to "Run" position.
2. Turn on the remote control switch.
3. Press the START button and hold for more than 0.3s for startup.

NOTE: Sometimes the generator can take a few attempts to start in cold weather. If machine does not start in the first 10 seconds, wait for 30 seconds before attempting again.

If the motor turns a little then stops when you press the Start button, it may indicate a low battery. Charge the battery before operation or start by recoil start.

⚠ WARNING

Remote transmitter and generator learning

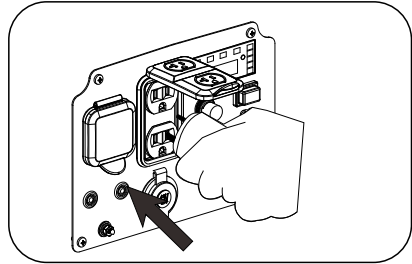
The generator and the remote controller have been successfully matched at the factory, and users do not need to perform matching when use.

If you need to re-pairing the wireless remote control, please choose the correct matching method according to the actual configuration.

- a. Turn the combination switch to “RUN”.
- b. Press and hold the switch button for 5 seconds and then release it when green light stays on.
- c. Press the “ON” button of the wireless remote control for 1 second, if the generator starts, it means that the wireless remote control is matched successfully, if the start fails, please repeat the above steps.

4

After completing the operations above, the generator can be connected to electrical devices.



⚠ WARNING

It is prohibited to start or close the generating set when the output terminal of generating set is connected to an electric device and the electric device is in “ON” state.

3. Connect to electrical devices

1. Inspect power cord for damage before using. There is a hazard of electrical shock from crushing, cutting or heat damage.
2. Make sure that the generating set has been properly grounded. If the electric devices require grounding, the generating set must ground.
3. Make sure that the electric devices are in “OFF” position.
4. Allow the engine to stabilize and warm up for a few minutes after starting.
5. Connect and start the electric devices.
6. Turn off all electric devices and disconnect them from the generating set.
7. If the generating set supplies for several loads or electric devices, start the smallest one first and the largest one last.

DANGER

If connected devices overheat, turn them off and disconnect them from generating set.



DANGER

ELECTRICAL SHOCK

To reduce the risk of electrical shock, **DO NOT** use electrical cords that are worn, frayed, bare or otherwise damaged.

DO NOT touch bare wires or receptacles.

DO NOT handle generating set or electrical cords while standing in water, while barefoot, or while hands or feet are wet.

Loading capacity

WARNING

DO NOT overload the generating set.

Exceeding the generating set's capacity can damage the generating set and/or electric devices connected to it.

You must make sure your generating set can supply enough rated (running) and (starting) watts for the electrical devices at the same time. Follow these simple steps to calculate the running and starting watts necessary for your purposes.

a. Count the electrical devices you will power at the same time.

b. The amount of power you need to run with the devices is the total rated (running) watts of these items.

c. Starting power is the power needed shortly when electric devices start. Since not all devices start at the same time, starting power can be estimated by the maximum power of all devices plus the total power counted in step b.

⚠ WARNING

It is necessary to equip with circuit protector or switch to isolate the generating set from the electric utility when the generating set is mainly used for backup. Failure to isolate the generating set from the power utility may result in injury or death to electric utility workers and damage to the generating set due to back feed of electrical energy.

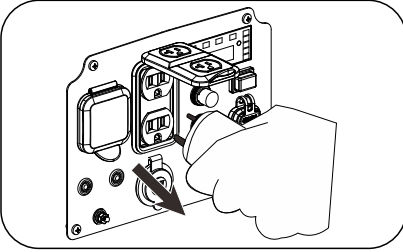
Wattage Reference Chart

Electric equipment		Rate power(W)	Starting power(W)
Appliances	Tablet TV 27"	80	100
	Energy saving lamb	5-50	5-50
	Electric cooker	1000	1000
	Computer	250	250
	Electric fan	50	100
	Washing machine	250	500
	Refrigerator	50	300
	Air-conditioner	1600	3200
Electric tooling	Electric hammer	1000	1500
	Impact Hammer	3000	6000
	Water pump	2200	5000
	Electric welding machine	5000	7500
	Air compressor	5000	10000

4. Stopping the generating set

1

Remove the connectors of all electric equipment from the generating set panel.



⚠ WARNING

NEVER stop the engine with electrical devices connected and running.

2

Let the generator run without load for 3 min to stabilize the internal temperatures of the engine and the generator.

3

Select according to the actual configuration of the user

Combination switch stop :

Turn the combination switch to the “stop” position, the generator stops operation.

Wireless remote shutdown :

Press and hold the “OFF” button

for at least 0.3 seconds to stop the generator. After the generator stops , turn the combination switch to the “stop” position.

Note: When the control distance is shortened or the indicator light is on but the remote control function is not available, Wireless remote replace the battery. Contact your local dealer for more information.

Switch button:

Press the Switch button to turn off the generator. After the generator shutdown, turn the combination switch to “stop” position.

⚠ WARNING

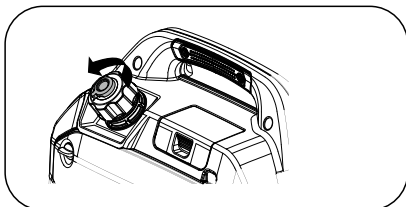
If the generator will not be used for a long time, please turn the combination switch to the “off” position. After the fuel in the carburetor oil cup to runs out and the generator automatically shuts down, turn the knob to the “stop” position. If the combination switch knob is not turned to the “stop” position, there is a risk of fuel leakage. And the battery will be undercharged after a long time placed, resulting in failure to start the generator.

3

(If applicable)

After the generator stops and cools down, turn the fuel tank

cap ventilation knob to “OFF” position.



5. Parallel operation

(If applicable)

Make sure that the generating set is in a good running state before connecting it to other generating sets. The total power of electric devices should not exceed rated power of generating set.

When electric motor starts, the overload indicator (red) will light up and normally it will stop within 4 seconds. If it cannot stop, please consult your local dealer.

During parallel operation, energy-saving switches of generating sets should be in the same position.

1

Connect one generating set to other generating set(s) in parallel. Use the parallel kit to make the parallel connection (the parallel kit needs to be purchased separately).

2

Start the engine in proper order and make sure that the running

indicator (green) is normal.

3

Connect the plug of electric devices to the AC receptacle of parallel kit.

4

Run the electric devices.

⚠ CAUTION

When overload too much, overload indicator (red) blinks continuously, and the generating set may be damaged. When overload a little, overload indicator (red) lights up continuously, it may shorten the service life of generating set.

When continuously operating the generating set, power cannot exceed the rated power of generating set.

The total power of electric devices cannot exceed the rated power of generating set. The manufacturers of electric devices or tools always list the rated power of similar models or serial number.

IV. Maintenance

It is the operator's responsibility to complete all scheduled maintenance in a timely manner. Correct any issue before operating the generating set. Always follow the inspection and maintenance recommendations and schedules in this manual.

WARNING

Improper maintenance or failure to correct a problem before operation can cause a malfunction and result in property damage, serious injury or DEATH.

Improper maintenance will void your warranty.



DANGER

Accidental starts can cause Severe injury or death. Remove the spark plug cap and ground generating set before performing any service.

CAUTION

The filter element may contains PAHs, PAHs are harmful for your health. Please wear gloves for protection during air filter maintenance.

1. Maintenance schedule for > 80 cc - < 225 cc engine

Follow the service intervals indicated in the chart below.
 Service your engine/equipment more frequently when operating in adverse conditions.
 Contact your local service dealer for your engine/equipment maintenance needs.

	Each time before use	After 20 hours of first use	Every 50 hours or annually	Every 100 hours or annually	125 hours after use or annually	250 hours after use or annually	375 hours after use or annually	500 hours after use or annually	Long storage or necessary
Oil	Check	X (Note 1)							
	Replace	X (Note 2)			X	X	X	X	
Air Filter	Inspect		X (Note 3)						
	Replace				X	X	X (Note 4)	X	
Spark Plug	Inspect				X (Note 4)				
	Replace					X		X	
Spark arrestor (if equipped)	Clean/Replace			X (Note 5)					
Combustion chamber	Clean					X (Note 6)		X (Note 6)	
Fuel/Oil	Drain								X

Note 1: Check engine oil level at every time before use and add oil to the specified range as needed, otherwise the engine may be damaged.

Note 2: Break-in period is needed when engine first put into use, it will accelerate oil consumption and deterioration during this period, so it is necessary to change the oil after 20 hours of first engine use, otherwise the engine may be damaged.

Note 3: Engine may be used under heavy duty and dirty conditions, inspect and clean the air filter is necessary when it is dirty.

Note 4: Engine may be used under heavy duty and dirty conditions, inspect and clean/adjust/ replace the spark plug is necessary when it is dirty or defective.

Note 5: Dirty spark arrestor will increase exhaust back-pressure and affect engine performance, clean/replace spark arrestor when it is dirty/damaged.

Note 6: Clean combustion chamber to be performed by knowledgeable, experienced owners or by the certified service centers. Clean combustion chamber is not necessary for emission and performance throughout engine entire service life unless the engine long-term working in heavy duty and dirty conditions.

2. Generating set maintenance

Use a damp cloth to clean exterior surfaces of the generating set. Use a soft brush to clean the dirt and oil.

Use an air compressor (25 PSI) to clear dirt and debris from the generating set.

Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

⚠ WARNING

DO NOT use water to clean the generating set. Water can enter the generating set through the cooling slots and damage the generating set windings.

⚠ WARNING

It is forbidden to tamper with the generator in any of the above ways. Do not tamper with the inverter speed. The generator is set to the correct rated frequency and voltage before factory. Tampering with the factory settings of the inverter without authorization will void your product warranty.

3. Engine maintenance

Engine oil

⚠ WARNING

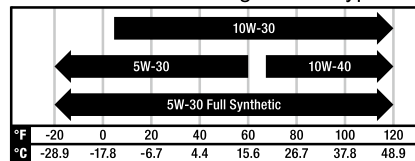
The engine is not filled with oil at the factory. Any operation before it has been properly filled with the recommended type and amount of oil may result in engine damage and void your warranty.

Only use four-stroke engine oil of SJ, SL or equivalent level which are in accordance with or higher than API standard.

Check the API label on oil bottle or other container, and make sure the “SJ, SL” or equivalent level letter is in the label.

SAE 10W-30 is recommended for general, all-temperature use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.

Recommended Engine Oil Type



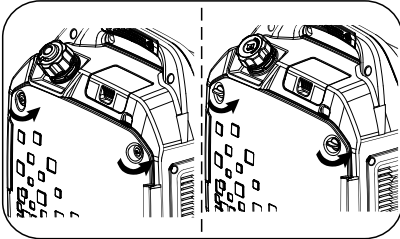
Ambient temperature

Oil capacity (rated):
See parameters

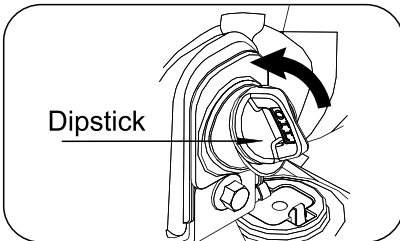
Add oil

a. Place the engine on a level Surface.

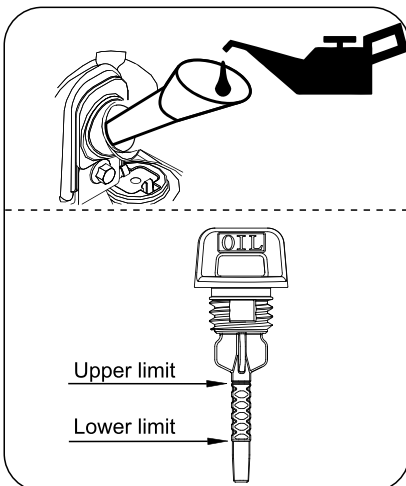
b. Remove the Right cover



c. Remove the dipstick and wipe it clean.



d. Add recommended oil to the upper limit.



e. Fully tighten the dipstick.

⚠ CAUTION

Oil level check

Insert the dipstick into filler port and stay at the filler neck. Do not screw the dipstick into the port, then remove the dipstick and check the oil level.

f. Dispose of used oil at an approved waste management facility.

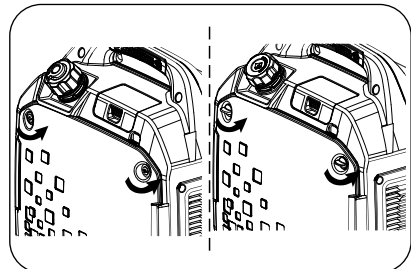
Change oil

⚠ CAUTION

Change oil when the engine is warm from operation. The oil temperature can reach up to 140°C in the warm state, and careful operation should be taken when changing the oil to prevent burns.

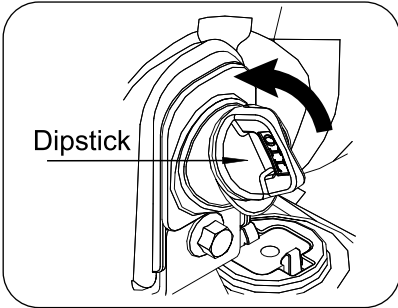
a. Place the machine on a level surface which is 300mm higher than the ground.

b. Remove the Right cover

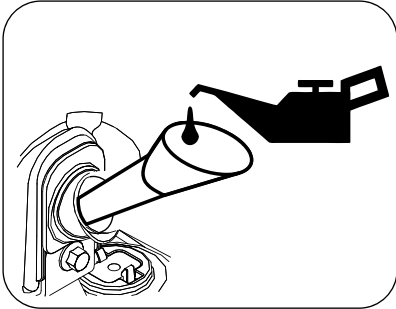


c. Place the waste oil box on the ground.

d. Remove the oil dipstick, and tilt the machine to pour the oil.



e. Add recommended oil to the upper limit.



f. Fully tighten the dipstick.

g. Properly dispose of any used oil at an approved waste management facility.

h. Reinstall the oil maintenance cover.

Air filter

a. Remove the appearance cover.

b. Loosen the filter fix clamp and remove the cover of the air filter.

c. Remove the foam filter element.

d. Wash in liquid detergent and warm water.

e. Squeeze thoroughly dry in a clean cloth.

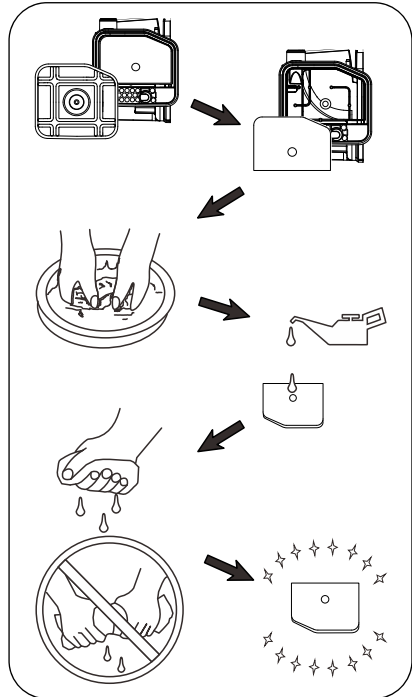
f. Saturate in clean engine oil.

g. Squeeze in a clean absorbent cloth to remove all excess oil.

h. Assemble the filter element onto the filter unit

i. Assemble the filter fix clamp.

j. Reinstall the appearance cover.



⚠ WARNING

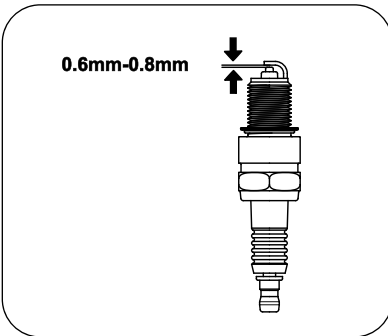
DO NOT run the engine without the air filter, or serious danger can result.

Spark plug

- a. Clean any dirt from the spark plug cap and spark plug base.
- b. Remove the spark plug cap.
- c. Using socket wrench to loose and remove the spark plug.
- d. Inspect the spark plug and spark plug washer, if it was broken or worn, replace with a new one. Clean the spark plug with wire brush if reuse it.
- e. Check spark plug gap. Carefully bend side electrode to adjust the gap if necessary.

Spark plug gap:

0.6mm-0.8mm



- f. Carefully thread the plug into the engine **by hand**.
- g. After the spark plug is seated, use spark plug wrench to tighten the plug.

Spark Plug Tighten Torque:

15-20 N.m

- h. Attach the spark cap to the plug and connect the spark plug wire to the plug.

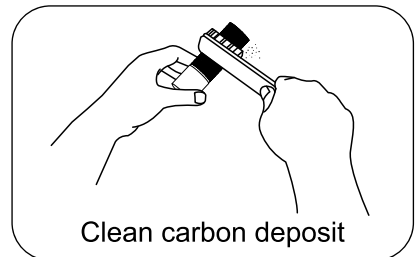
⚠ WARNING

Only use recommended spark plug or equivalent. **DO NOT** use spark plugs that have improper heat range.

Spark Arrester

(Applicable types)

- a. Allow the generating set to cool completely before servicing the spark arrester.
- b. Remove the muffler blind window first.
- c. Remove the spark arrester screen.
- d. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.
- e. Replace the spark arrester if it is damaged.
- f. Reinstall the spark arrester in the muffler and reinstall the muffler blind window.



V. Trouble-shooting

Failure	Trouble	Solution
Generating set fails to start	Combination switch is in "OFF" or "STOP" position.	When engine is cold, Combination switch to "CHOKE", and follow starting procedure to start the generating set. When engine is hot, Combination switch to "RUN", and follow starting procedure to start the generating set.
	Lack of fuel.	Fill fuel tank per instructions in this manual.
	Lack of engine oil.	Check oil level. This engine is equipped with a low oil sensor. The engine cannot be started unless the oil level is above the prescribed lower limit.
	No ignition.	Remove the spark plug cap. Clean any dirt around the plug base, and then remove the spark plug. Install the spark plug in the plug cap. Turn the Combination switch to "RUN" position. Grounding the electrode to any engine ground, pull the recoil starter to see if sparks jump across the gap. If there is no spark, replace the plug. Reinstall the plug and start engine according to instructions in this manual. Consult Customer Service if necessary.
	Spark plug is splashed by fuel	Remove the spark plug and wipe the fuel.
	The generating set flames out after running for a certain time.	Turn the ventilation knob on the fuel tank cap to "ON" position; Check the fuel and oil level. Add them if necessary.
	Battery undercharge (electric start)	Charge the battery by starting the generator manually (at least 30 minutes). After closing the choke manually, start the generator according to the manual startup steps.
Generating set has no output	Breaker trip	Reset circuit breakers.
	Inadequate cord sets or extension cords.	Check cord sets or extension cords capabilities in section controls; cable size in this manual. Consult Customer Service if necessary.

VI. Storage and transportation

Storage

The generating set should be started at least once every 2 weeks and allowed to run for at least 20 minutes. Follow the instructions below for longer term storage if the generating set will be out of service for 2 months or more.



Fire or explosion

Gasoline is highly flammable and extremely explosive.

Empty the fuel tank and shut off fuel valve before storing or transporting this generating set.

1. Allow the generating set to cool completely before storage.
2. Clean the generating set according to instructions in Maintenance section.
3. Drain all fuel completely from the fuel tank, fuel hose and carburetor to prevent gum from forming.
4. Turn the Combination switch in "STOP" position to cut off the fuel.
5. Remove the oil drain plug to drain out the oil (See "Engine oil" section).
6. Remove the spark plug and pour about 15 ml of fresh oil into the cylinder. Pull the recoil starter slightly to distribute the oil and lubricate the cylinder. And then

attach the spark plug.

7. Store the unit in a clean, dry area out of direct sunlight.

8. please disconnect the battery.

Transportation

When generator transportation or short term storage, the generator should be in the normal operating position and fixed vertically to prevent fuel leakage. The combination switch should be in the "stop" position and knob of the fuel cap should be turned to the "OFF" position.

WARNING

When transporting:

Do not overfill the tank. Do not operate the generating set while it is on vehicle. Take the generating set off the vehicle and use it in a well-ventilated place. Avoid a place exposed to direct sunlight when putting the generating set on a vehicle. If the generating set is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion. Do not drive on a rough road for an extended period with the generating set on board. If you must transport the generating set on a rough road, drain the fuel from the generating set beforehand.

VII. Specification

1. Specification parameter table

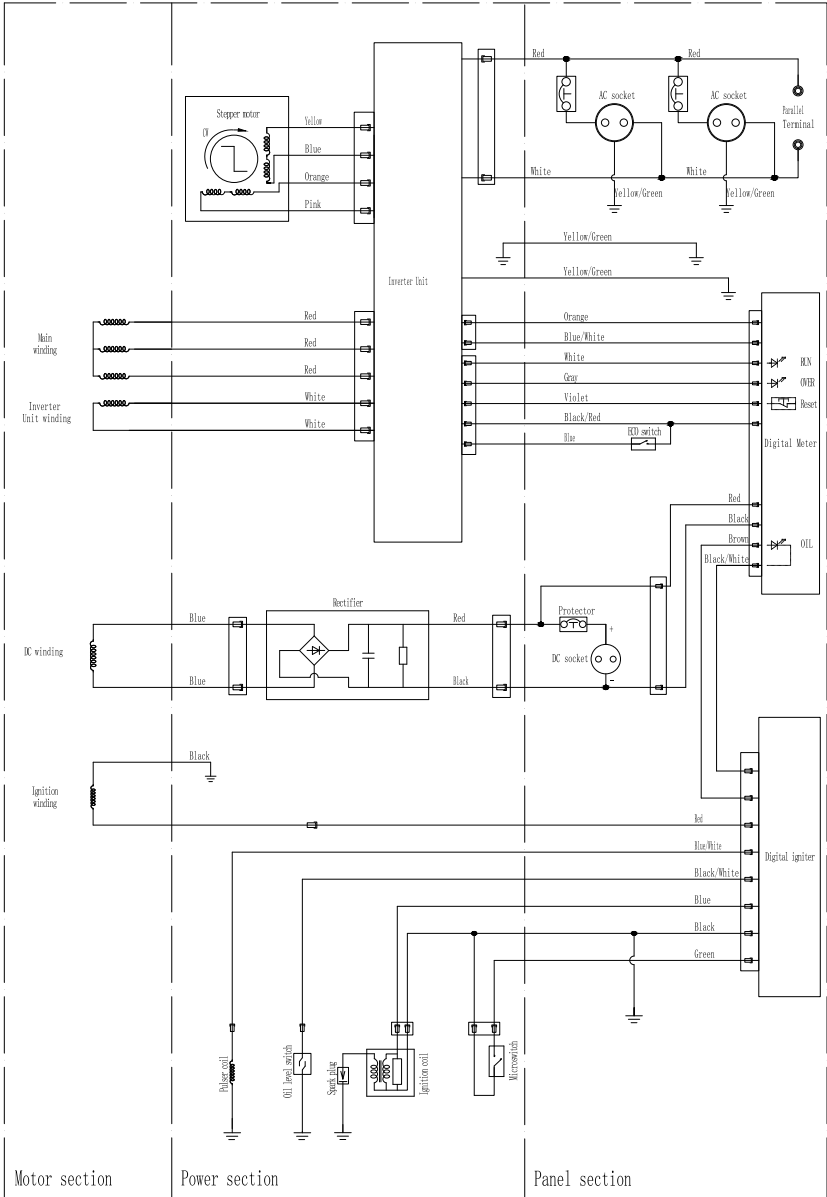
Model		BQH2800II		BQH3300II	
Feature					
Engine parameter	Engine model	165FED/P		165FED/P	
	Style	OHV			
	Displacement (cm ³)	149			
	Ignition system	CDI			
	Start style	Recoil starting			
	Oil capacity(L)	0.5			
Generating set parameter	Frequency(Hz)	50	60	50	60
	Voltage(V)	100,100/220,110/220,120,240,110,220,230			
	Rated power(kW)	2.3		2.7	
	Maximum power(kW)	2.5		2.9	
	Power factor	1		1	
	Insulation grade	F		F	
	Fuel capacity(L)	5.8		5.8	
	Operating temperature(°C)	-10~40		-10~40	
	Max. site altitude of installation(m)	1500		1500	
	Measured sound pressure level(dB(A))	≤72		≤72	
	Measurement uncertainty(dB(A))	≤1.5		≤1.5	
	Guaranteed sound power level(dB(A))	≤93		≤93	
Net weight(kg)	21		21		

Feature		Model		BQH2800EII		BQH3300EII	
Engine parameter	Engine model	165FED/P		165FED/P			
	Style	OHV					
	Displacement (cm ³)	149					
	Ignition system	CDI					
	Start style	Recoil or Electric starting					
	Oil capacity(L)	0.5					
Generating set parameter	Frequency(Hz)	50	60	50	60		
	Voltage(V)	100/220, 110/220, 120, 240 110, 220, 230					
	Rated power(kW)	2.3		2.7			
	Maximum power(kW)	2.5		2.9			
	Power factor	1		1			
	Insulation grade	F		F			
	Fuel capacity(L)	5.8		5.8			
	Operating temperature(°C)	-10~40		-10~40			
	Max. site altitude of installation(m)	1500		1500			
	Measured sound pressure level(dB(A))	≤72		≤72			
	Measurement uncertainty(dB(A))	≤1.5		≤1.5			
	Guaranteed sound power level(dB(A))	≤93		≤93			
	Net weight(kg)	22.5		22.5			

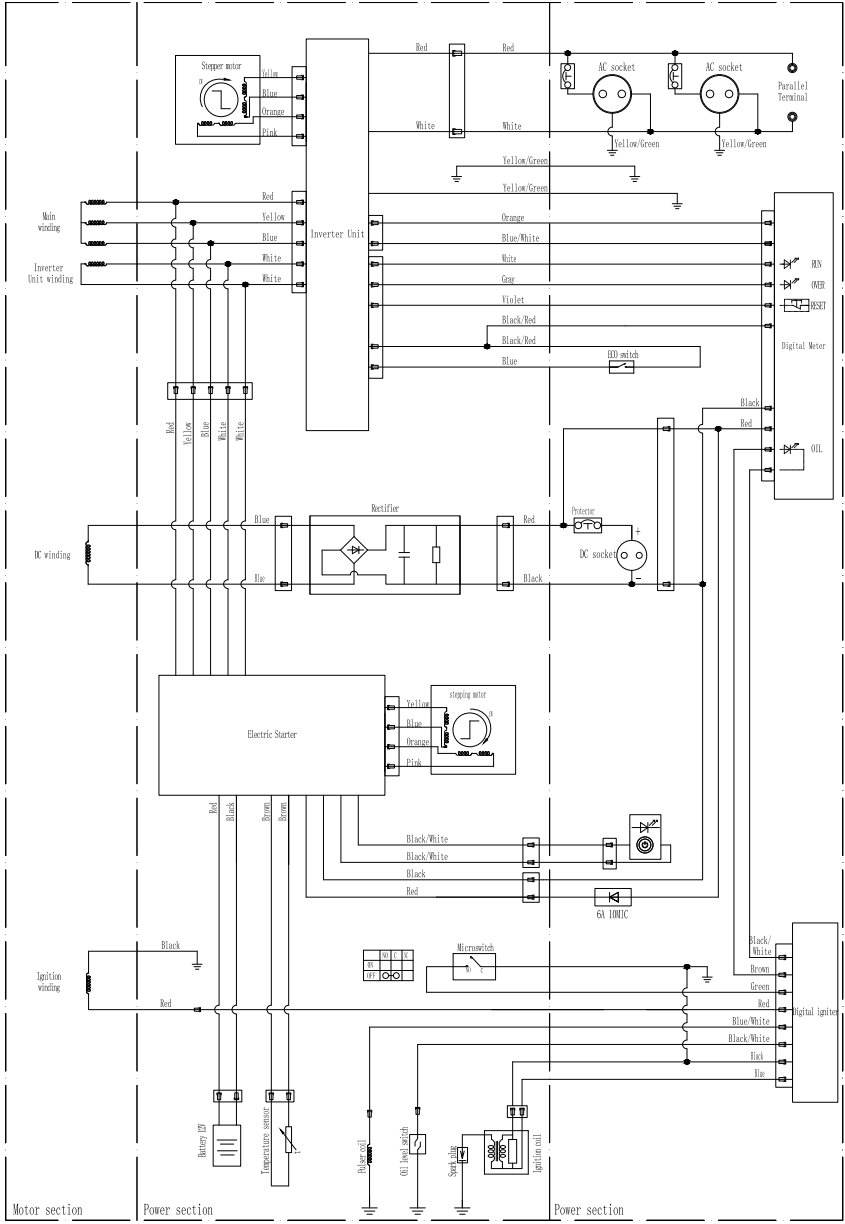
Note: The generating set with different specification and configurations may have different parameters and may change at any time without notice.

2. Wiring diagram

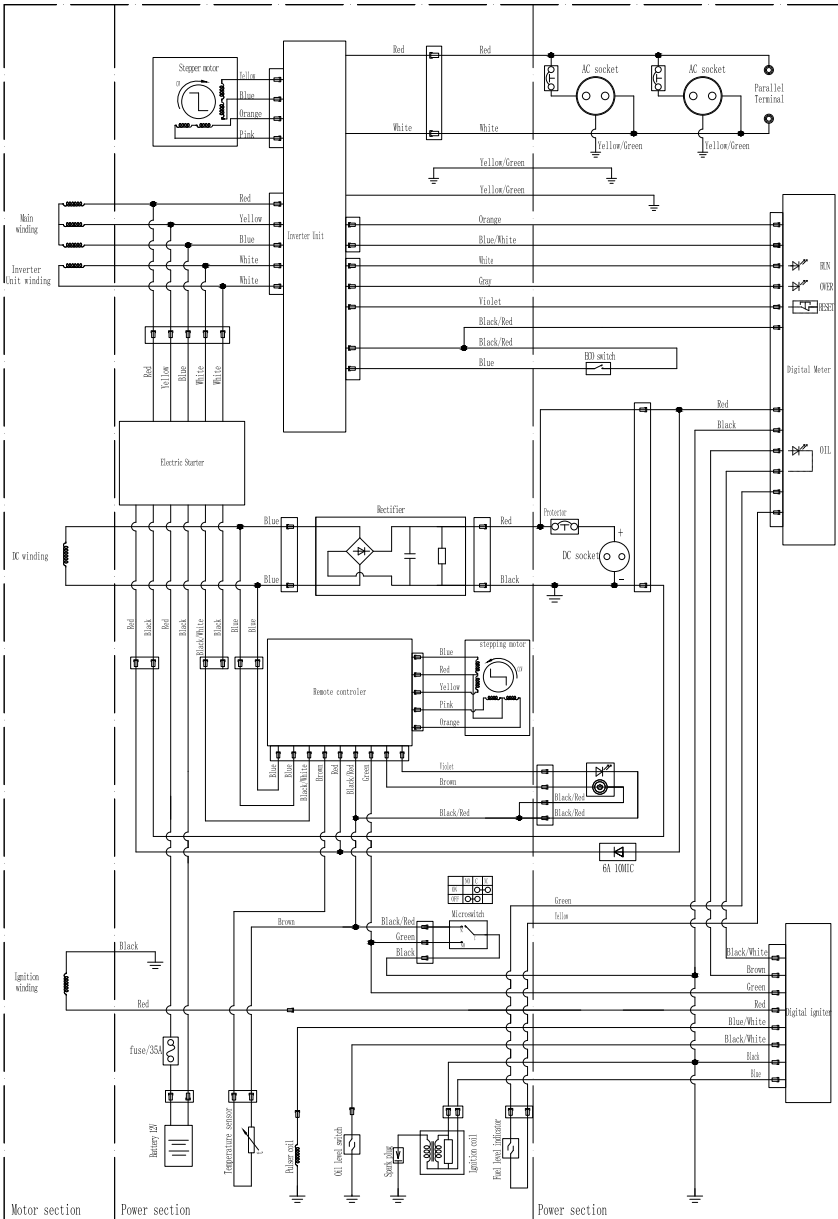
Recoil starting



Electric starting



Electric (Remote control) starting



NOTE: Because of the difference of generator, the wiring diagram is only for reference.

