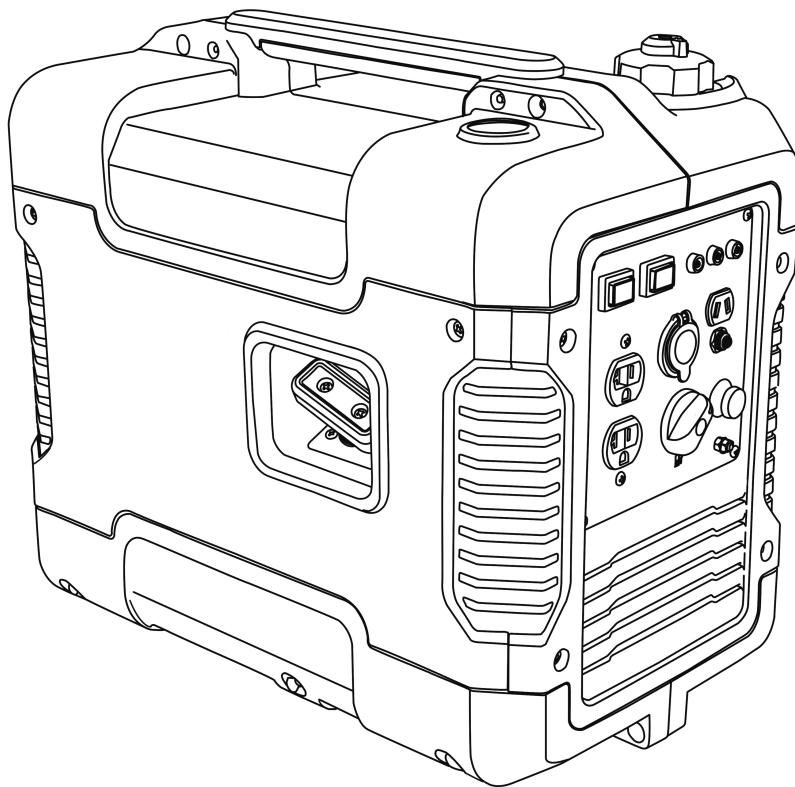




OWNER'S MANUAL **R2000i**

2000W DIGITAL INVERTER GENERATOR



WARNING : To reduce the risk of injury, user must read this manual before assembling, operating and maintaining this unit, You are responsible for operating the product properly & safely.

Version: V1.20170921

WARNING!

Read the following instructions before using the product!

These instructions below are for your safety. Please read through them thoroughly before use and retain them for future reference. Familiarize yourself with them to reduce hazards like personal injuries and damage to property.

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SAFETY RULES

Read and observe all warnings, cautions, and instructions on the generator and in this owner's manual before operating your generator.

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. Read the entire Owner's Manual for safety and operating instructions. Failure to follow instructions and safety information could result in serious injury or death.

This safety alert symbol is used to

identify safety information about hazards that can result in personal injury.



A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

DANGER indicates a hazard, which, if not avoided, will result in death or serious injury.

WARNING indicates a hazard, which, if not avoided, could result in death or serious injury.

CAUTION indicates a hazard, which, if not avoided, might result in minor or moderate injury.

CAUTION when used without the alert symbol, indicates a situation that could result in damage to the engine or generator.



DANGER:

CARBON MONOXIDE

Using a generator indoors **CAN KILL YOU IN MINUTES.**

Generator exhaust contains high levels of carbon monoxide (CO), a poisonous gas you cannot see or smell. If you can smell the generator exhaust you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a generator inside houses, garages, crawlspaces, or other partly enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. ONLY use a generator outdoors and far away from open windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the house. ALWAYS use a battery-powered or battery-backup CO alarm in your house.

If you start to feel sick, dizzy, or weak after the generator has been running,

move to fresh air **RIGHT AWAY.** See a doctor. You could have carbon monoxide poisoning."



WARNING: This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline.

- Do not operate near open flame.
- Do not smoke near generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion.
- Always check for spilled fuel before operating.
- Empty fuel tank before storing or transporting the generator.



WARNING: This generator produces powerful voltage, which can result in electrocution.

- ALWAYS ground the generator before using it (see the "Ground the Generator" portion of the "GENERATOR PREPARATION" section).
- Generator should only be plugged into electrical devices, either directly or with an extension cord. NEVER connect to a building electrical system

without a qualified electrician. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

- Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. GFCIs are available in-line with some extension cords.
- Do not use in rainy conditions.
- Do not touch bare wires or receptacles (outlets).
- Do not allow children or non-qualified persons to operate.



WARNING: This generator produces heat when running. Temperatures near exhaust can exceed 150°F (65° C).

Do not touch hot surfaces. Pay attention to warning labels on the generator identifying hot parts of the machine.

Allow generator to cool down after use before touching engine or areas of the generator that become hot during use.

CAUTION: Misuse of this generator can damage it or shorten its life.

- Only use generator for its intended purposes.
- Operate only on dry, level surfaces.
- Allow generator to run for several minutes before connecting electrical devices.
- Shut off and disconnect any malfunctioning devices from generator.
- Do not exceed the wattage capacity of

the generator by plugging in more electrical devices than the unit can handle.

- Do not turn on electrical devices until after they are connected to the generator.
- Turn off all connected electrical devices before stopping the generator.
- Turn the engine switch to “OFF” position when the engine is not running.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS - This manual contains important instructions for the AAVIX 2000W inverter generator that should be followed during installation and maintenance of the generator.

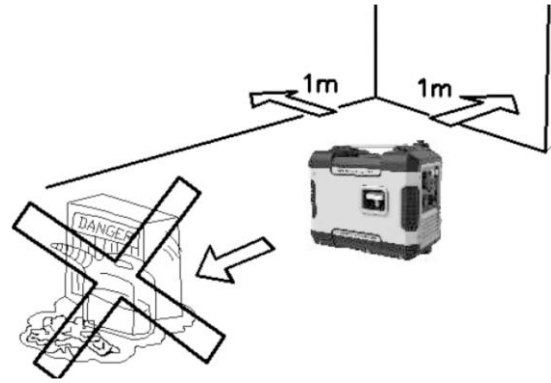
Generators vibrate in normal use. During and after the use of the generator, inspect both the generator as well as extension and power supply cords for damage resulting from vibration. Have damaged items repaired or replaced as necessary. Do not use plugs or cords that show signs of damage such as broken or cracked insulation or damaged blades.

For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing of the components, possibly leading to a generator failure.

DO NOT EXPOSE TO RAIN.

CHARGE ONLY 12V LEAD-ACID BATTERIES. OTHER TYPES OF BATTERIES MAY BURST CAUSING PERSONAL INJURY AND DAMAGE.

RISK OF EXPLOSIVE GAS MIXTURE. READ INSTRUCTIONS IN OWNER'S GUIDE BEFORE USING CHARGER.



Keep it at least 1m away from inflammable.

Fig.4



Never use it indoor.

Fig.1



Never smoke when fueling.

Fig.5



Never use it in a wet condition.

Fig.2



Don't spill when fueling.

Fig.6



Never directly connect it to a house power system.

Fig.3



Stop engine when fueling.

Fig.7

CONNECTION TO A HOUSE POWER SUPPLY



WARNING: If this generator is used as a supply for a building's wiring system as a standby, the generator must be installed by a qualified electrician and connected to a transfer switch as a separately derived system in accordance with the National Electrical Code, NFPA 70. The generator shall be connected to a transfer switch that switches all conductors excluding the equipment grounding conductor. The frame of the generator shall be connected to an approved grounding electrode. Any improper connection may cause damage to the generator, or cause a fire.

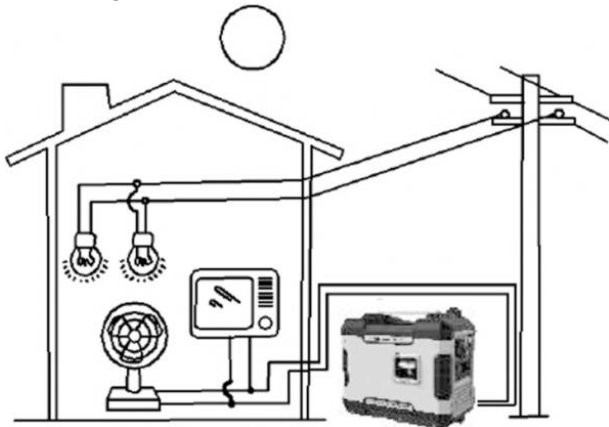


Fig.8

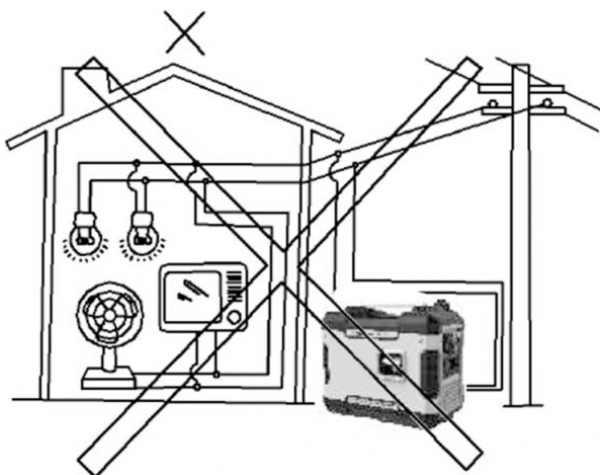


Fig.9

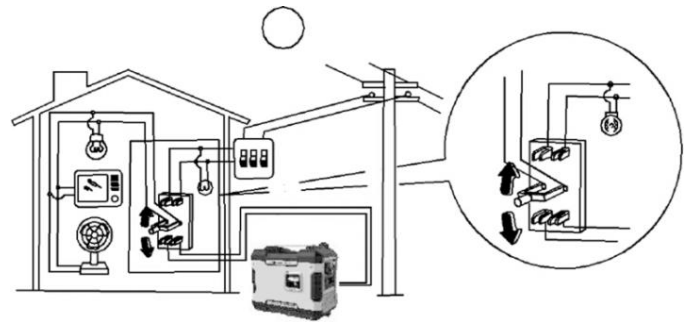
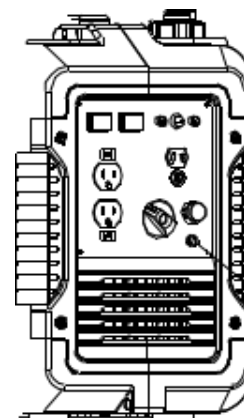


Fig.10

GENERATOR GROUND CIRCUIT

In order to prevent electric shock due to shoddy electrical appliances or wrong use of electricity, the generator must be grounded with a good-quality insulated Conductor.



Ground terminal

Fig.11



CAUTION:

Make sure the control panel, louver and the inverter bottom side cooling well and without chips, mud and water come in. it may damage the engine, inverter or alternator if the cooling vent blocked.

Do not mix the generator with other stuff If moving, storing or running the unit.

It may cause the generator damage or property safety issue when the generator in leakage.

PRODUCT SPECIFICATIONS

Model	R2000i	
Generator	Type	Inverter
	Rated Frequency (Hz)	60
	Rated Voltage (V)	120
	Rated Output Power (KW)	1.6
	Max Output Power (KW)	2.0
	Power Factor	1.0
	Charging Voltage (DC)(V)	12
	Charging Current (DC)(A)	8
	Overload Protect (DC)	Non-fuse Protector
	USB Port	5V, 1 A&2.1A
	Phase	Single
Engine	Engine Type	Single cylinder, 4-stroke, forced air cooling, OHV
	Displacement (cc)	79.7
	Fuel Type	Unleaded Gasoline
	Fuel Tank Capacity	1 US gallon (4 liters)
	Fuel Consumption (g/KW·h)	≤450
	Continue Running Time (at rated power)	4 hours
	Oil Capacity	0.37 quarts (0.35 liters)
	Spark Plug Model No.	E6TC/E6RTC
	Starting Mode	Recoil Starter
Generator Set	Length×Width×Height	480×285×390 (mm)
	Net weight	47.4 lbs

KNOW YOUR INVERTER GENERATOR

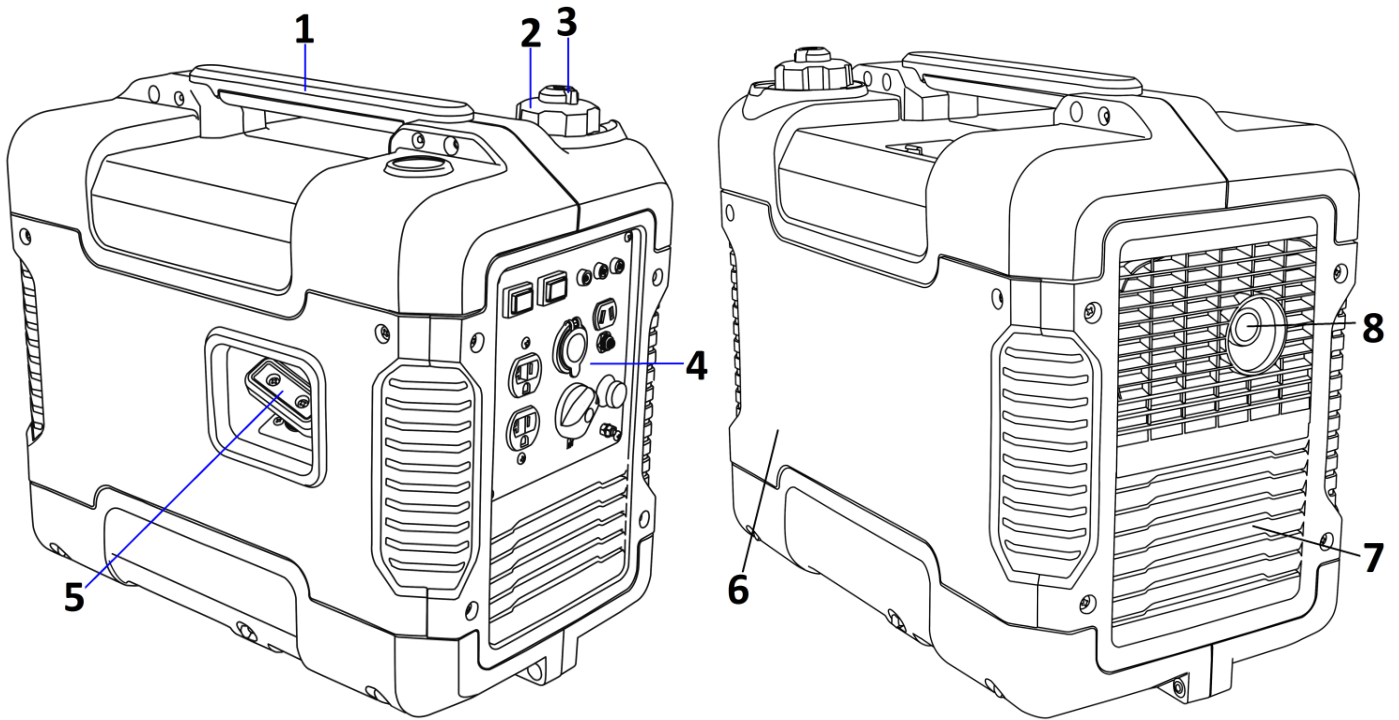
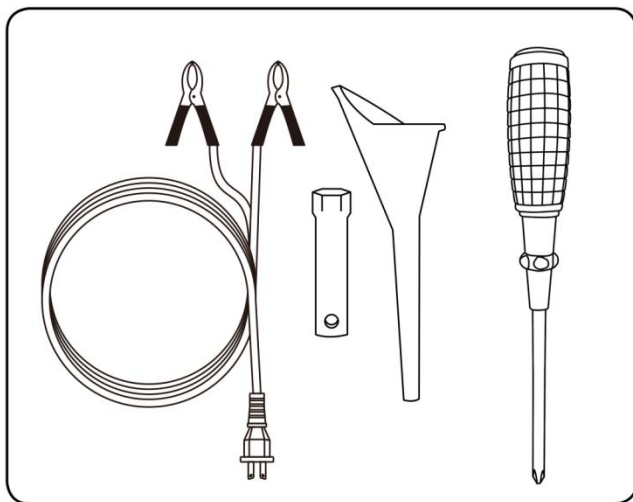


Fig.12

- ① Carrying handle
- ② Fuel tank cap
- ③ Fuel tank cap air vent knob
- ④ Control panel
- ⑤ Recoil starter
- ⑥ Oil filler cap
- ⑦ Louver
- ⑧ Muffler

ACCESSORIES



12V DC Battery charging cable	1
Spark plug socket	1
Oil funnel	1
Screw driver	1

Fig.13

Control Panel

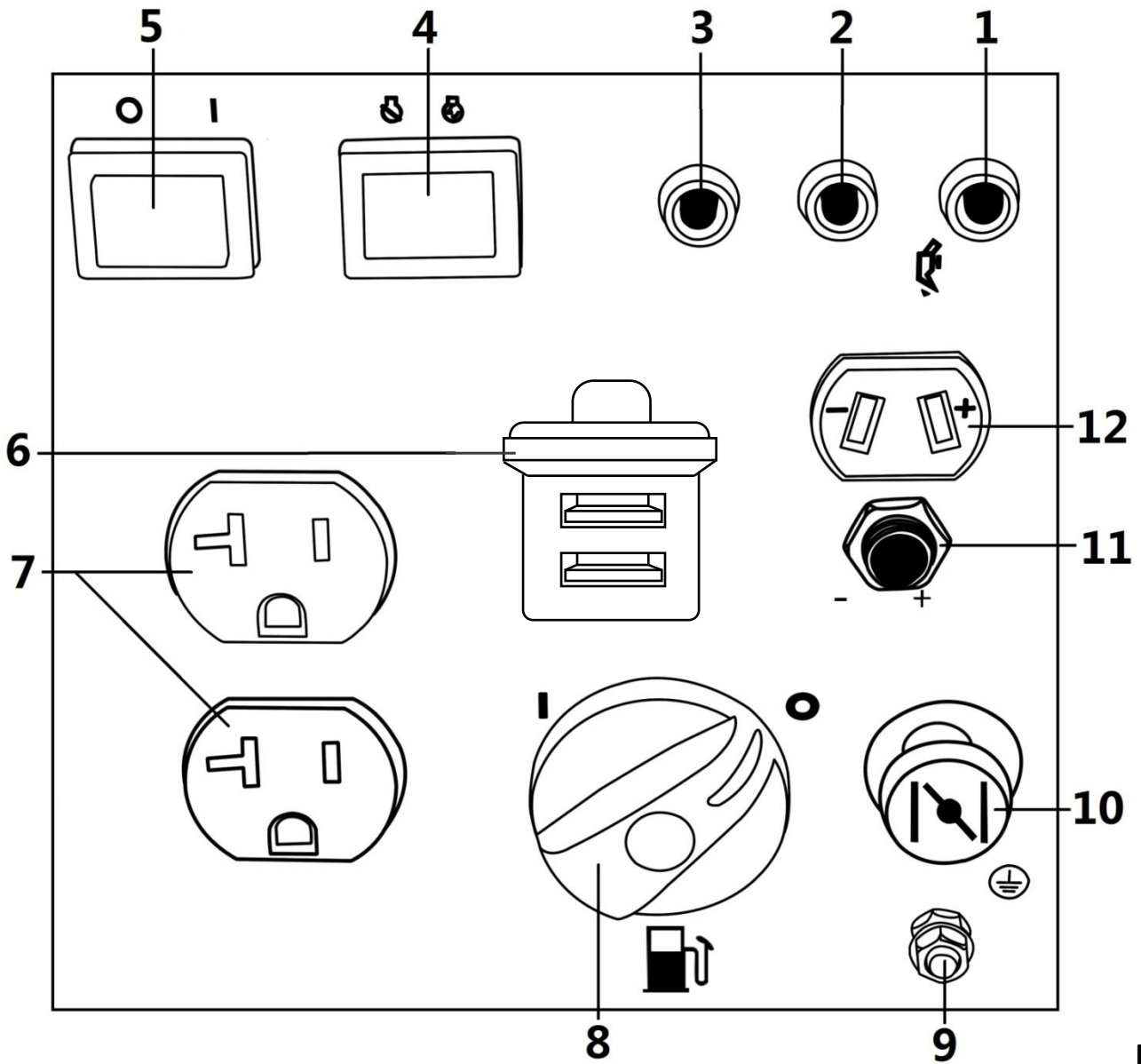


Fig.14

- | | | | |
|---|--------------------------------|----|-------------------------|
| 1 | Oil warning light | 7 | AC receptacle |
| 2 | AC pilot light | 8 | Fuel cock knob |
| 3 | Overload indicator light | 9 | Ground (earth) terminal |
| 4 | Engine switch (Red) | 10 | Choke knob |
| 5 | Economy control switch (Black) | 11 | DC protector |
| 6 | USB Port (1A/2.1A) | 12 | DC receptacle |

CONTROL FUNCTION

Engine switch (Red)

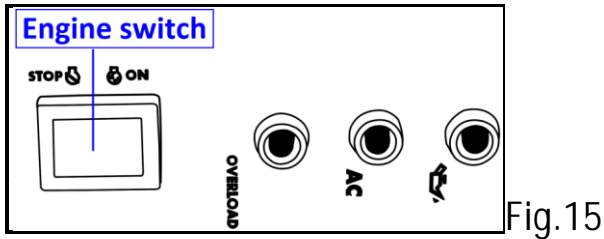


Fig.15

1. Engine switch (Red) "STOP"; Ignition circuit is switched off. The engine will not run.
2. Engine switch (Red) "ON"; Ignition circuit is switched on. The engine can be running.

Oil warning light (yellow)

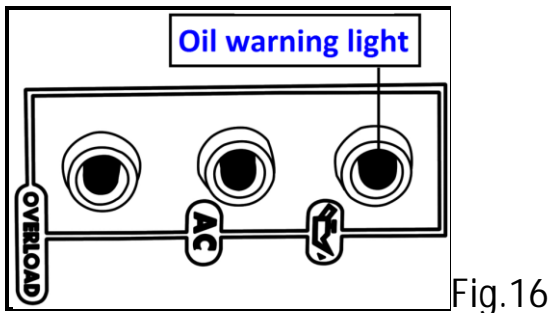


Fig.16

When the oil level falls below the lower level, the oil warning light (yellow) comes on and then 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" and then pull the recoil starter.

If the oil warning light (yellow) flickers for a few seconds, the engine oil is insufficient. Add oil and restart.

Overload indicator light (Red)

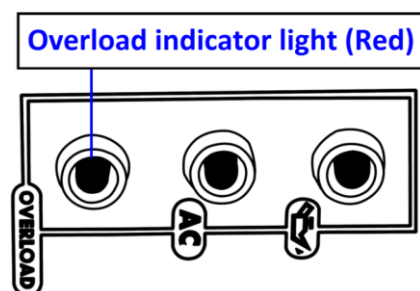


Fig.17

The overload indicator light (Red) comes

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

When the overload indicator light (Red) comes on and power generation stops, proceed as follows:

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

NOTE: The overload indicator light (Red) 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 submersible pump. However, this is not a malfunction.

AC pilot light (Green)

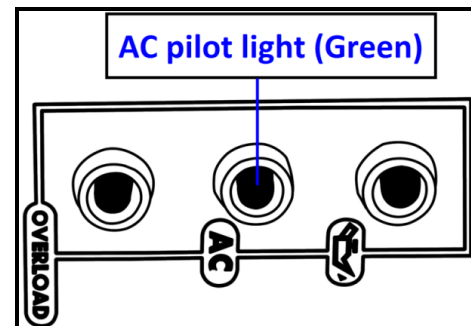


Fig.18

The AC pilot light (Green) comes on when the engine starts and produces power.

DC protector

The DC protector (11) turns to "OFF" automatically when electric device being

connected to the generator is operating and current above the rated flows. To use this equipment again, turn on DC protector by pressing its button to "ON".

1. "ON": Direct current is output.
2. "OFF": Direct current is not output.

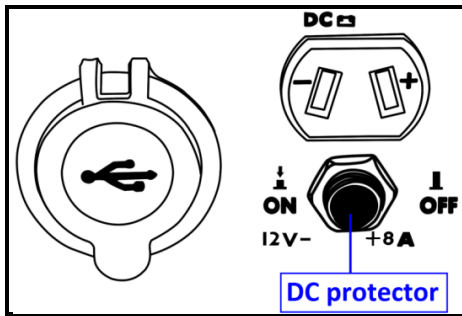


Fig.19



CAUTION:

Reduce the load of the connected electric device below the specified rated output of the generator if the DC protector turns off. If the DC protector turns off again, stop using the device immediately and consult customer service center.

Economy control switch (ECS)

1. "ON"

When the ECS (5) switch(Black) is turned to "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 ECS switch (Black) is turned to "OFF", the engine runs at the rated speed 5000r/min regardless of whether is a load connected or not.

NOTE:

The ECS switch (Black) must be turned to "OFF" when using electric devices that require a large starting current, such as a compressor of a submergible pump.

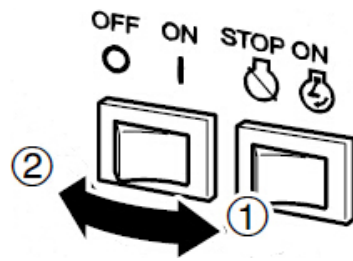


Fig.20

Fuel tank cap

Remove the fuel tank cap by turning it counterclockwise.

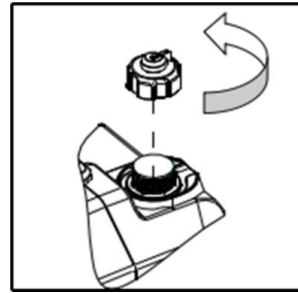


Fig.21

Fuel tank cap air vent knob

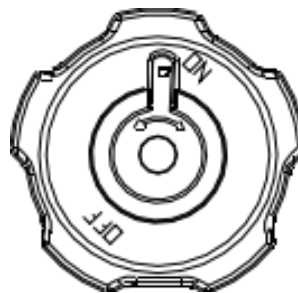


Fig.22

The fuel tank cap is provided with an air vent knob to stop fuel flow. The air vent knob must be turned to "ON". This will allow fuel to flow to the carburetor and the engine to run. When the engine is not in use, turn the air vent knob to "OFF" to stop fuel flow.

Ground (Earth) terminal

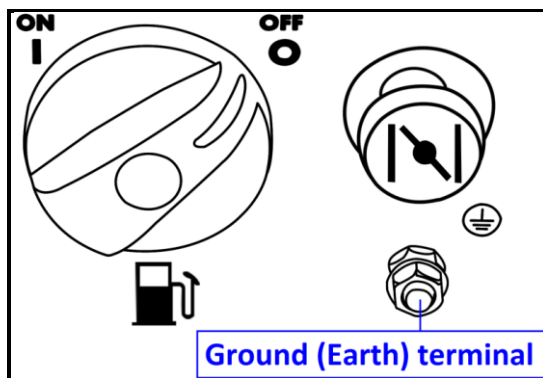


Fig.23

Ground (Earth) terminal connects the earth line for prevention of electric shock. When the electric device is earthed, always the generator must be earthed.

GENERATOR PREPARATION

USING THE GENERATOR FOR THE FIRST TIME



The following section describes steps necessary to prepare the generator for use. If after reading this section, you are unsure about how to perform any of the steps please call for customer service. Failure to perform these steps properly can damage the generator or shorten its life.

Step 1- ADD OIL

The generator is shipped without oil. User must add the proper amount of oil before operating the generator for the first time. The oil capacity of the engine crankcase is 0.37 quarts (0.35 liters). For general use (above 40° F), we recommend 30W, 4-stroke engine oil.

Do not start the engine till fill with the sufficient engine oil.

Engine Oil Recommendations

Select good quality detergent oil bearing the American Petroleum Institute (API) service classifications SJ, SL, or SM. (Synthetic oils may be used.) Use the ASE viscosity grade of oil from the following chart (Fig.24) that matches the starting temperature anticipated before the next oil changes.

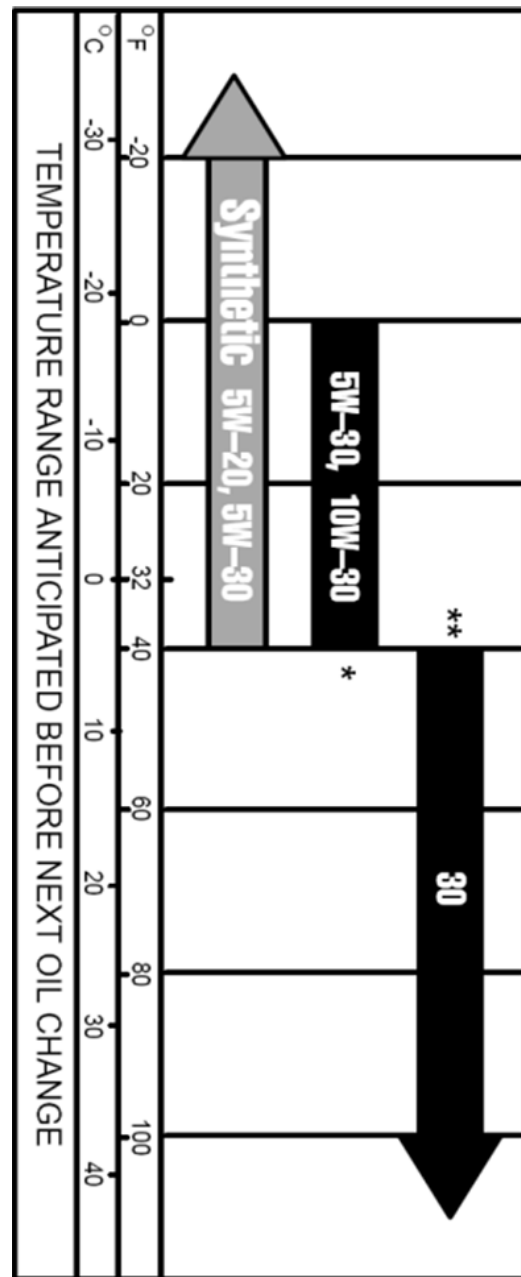


Fig.24

Engine Oil Replacemendations

To add oil, follow these steps:
1. Make sure the generator is on a level surface. Tilting the generator to assist in filling will cause oil to flow into engine areas and will cause damage. Keep generator level!

2. Remove the screws (1), and then remove the access panel (2).

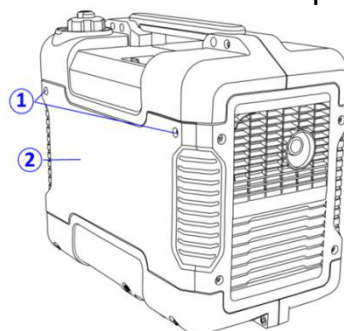


Fig.25

3. Remove the dipstick from the engine. Insert the oil funnel. (Fig.26)



Fig.26

4. Add oil slowly to bring level to full. (Fig. 27).

5. To check the oil level: wipe the dipstick with a clean rag. Insert the dipstick into the oil fill opening without screwing in. Remove the dipstick to check the oil mark.

6. Slowly add more oil and repeat step 4 until the oil mark reaches to the top of the dipstick (Fig.27). Do not over fill the crankcase. The generator is equipped with a low oil sensor and will not start if the amount of oil is insufficient.

7. Check for oil leaks. Tighten dipstick firmly before closing the access panel.

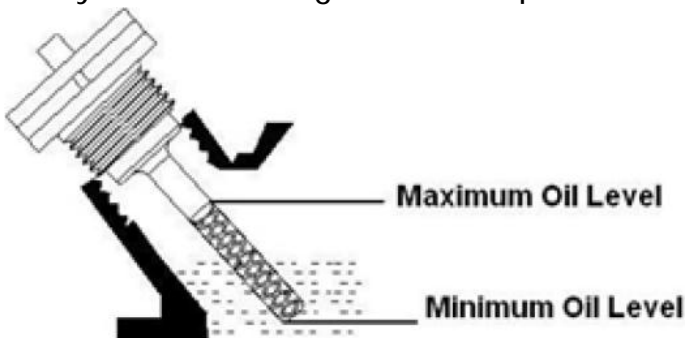


Fig.27 Oil Fill Opening, Dipstick and Oil Level

Step 2-ADD GASOLINE



DANGER:

This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline. Use fresh (within 30 days from purchase), lead-free gasoline with a minimum of 87

octane rating. Do not mix oil with gasoline.

To add gasoline, follow these steps:

1. Make sure the generator is on a level surface.

2. Unscrew fuel cap and set aside.

NOTE: The fuel cap may be tight and hard to unscrew.

3. Slowly add unleaded gasoline to the fuel tank up to the red level. ① Red line ② Fuel level.

Be careful not to overfill. The capacity of the fuel tank is 1 us gallon. NOTE: Do not fill the fuel tank to the very top. Gasoline will expand and spill over during use when the fuel warms up even with the fuel cap in place.

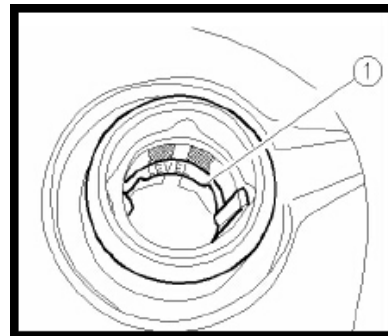


Fig.28

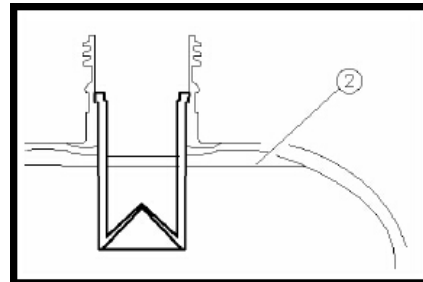


Fig.29

4. Reinstall fuel cap and wipe clean any spilled gasoline with a dry cloth.



IMPORTANT:

- Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts.

Recommended fuel: Unleaded gasoline
Fuel tank capacity: Total: 4.0L(1.06 US gal, 0.88 Imp gal)

- Never use an oil/gasoline mixture.
- Never use old gasoline.
- Avoid getting dirt or water into the fuel tank.
- Gasoline can age in the tank and make starting difficult. Never store generator for extended periods of time with fuel in the tank.
- After fill the fuel, make sure the fuel tank cap is tightened securely.

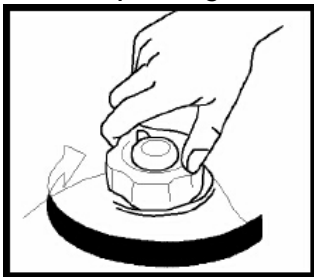


Fig.30

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



NOTE: Fuel deteriorates over time. It may be DIFFICULT to start the engine if you use fuel which has been kept for more than 30 days. Towards the end of the season, it is advisable to put only as much fuel in the tank as you need for each use, since it should be completely used up before storing the product. Empty remaining fuel from the tank and the CARBURETTOR when storing the product for over 30 days.

Step 3-GROUND THE GENERATOR

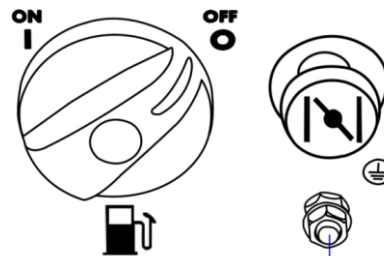


WARNING: Failure to properly ground the generator can result in

electrocution.

Ground the generator by tightening the grounding nut on the front control panel against a grounding wire. A generally acceptable grounding wire is a No. 12 AWG (American Wire Gauge) stranded copper wire. This grounding wire should be connected at the other end to a copper, brass, or steel-grounding rod that is driven into the earth. Wire and grounding rods are not included in generator contents.

Grounding codes can vary by location. Contact a local electrician to check the area codes.



Ground (Earth) terminal Fig.31

NOTE: After completing the above preparation, the generator is ready to be started.

STARTING THE GENERATOR

Before starting the generator, make sure you have read and performed the steps in the "Generator Preparation" section of this manual. If you are unsure about how to perform any of the steps in this manual please call customer service center.



DANGER: CARBON MONOXIDE.

Using a generator indoors CAN KILL YOU IN MINUTES.

Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. Even if you cannot smell the exhaust, you may be breathing CO.

NEVER use a generator inside homes, garages, crawlspaces, or other partly enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air.

ONLY use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust. Even if you use a generator correctly, CO may leak into the home. ALWAYS use a battery-powered or battery-backup CO alarm in the home.

If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.



WARNING: This generator produces powerful voltage, which can result in electrocution.

ALWAYS ground the generator before using it (see the "Ground the Generator" portion of the "Generator Preparation" section).

Generator should only be plugged into electrical devices, either directly or with an extension cord. NEVER connect to a building electrical system without a qualified electrician. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious

injury or death to utility workers.

-Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. GFCIs are available in-line with some extension cords.

-Do not use in rainy or wet conditions.

-Do not touch bare wires or receptacles (outlets).

-Do not allow children or non-qualified persons to operate.

CAUTION: Disconnect all electrical loads from the generator before attempting to start.

STARTING THE ENGINE

1. Turn the ECS switch(Black) to "OFF".

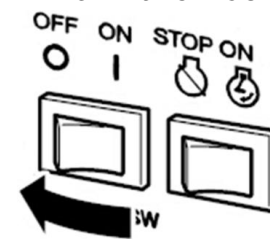


Fig.32

2. Turn the air vent knob to "ON" .

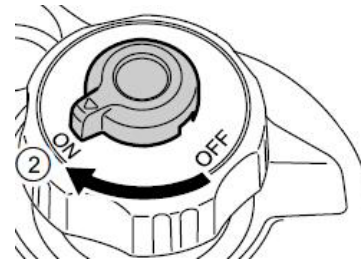


Fig.33

3. Turn the fuel cock knob to "ON".



Fig.34

4. Turn the engine switch (Red) to "ON".

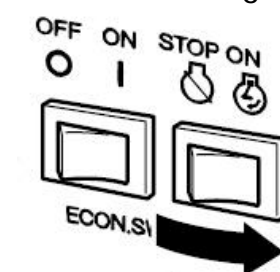


Fig.35

5. Pull the choke knob fully out.



Fig.36



WARNING: The choke is not required to start a warm engine. Push the choke knob fully in.

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

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

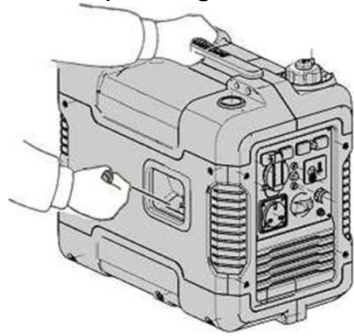


Fig.37

7. After the engine starts, warm up the engine until the engine does not stop. Then press push the choke knob fully in.



Fig.38

NOTE: When starting the engine, with the ESC "ON", and there is no load on the generator:

- In ambient temperature below 0°C (32°F), the engine will run at the rated r/min (5000r/min) for 5 minutes to warm up the engine.
- In ambient temperature below 5°C (41°F), the engine will run at the rated r/min (5000r/min) for 3 minutes to warm up the engine.

- The ESC unit operates normally after the above time period, while the ECS switch (Black) is "ON".

ECO-MODE IDLE CONTROL SWITCH

This generator is equipped with an Eco-Mode Idle Control Switch. Engaging the switch will automatically adjust the engine speed to match the load at hand. When an electrical device comes on line, the generator engine will automatically speed up to supply the power needed and will slow down as the need decreases. The variable engine speed can reduce fuel consumption and noise level. Keep this switch engaged when the power load requirement is less than 1000W. Do not engage the Idle Control Switch when the total load is more than 1000W. The generator engine must run at full speed to supply the required power for anything over 1000W.

STOPPING THE GENERATOR

To Stop The Generator

1. Turn off all electrical devices prior to unplugging them from the generator.

NOTE: Unplugging running devices can cause damage to the generator.

2. Turn the ECS switch (Black) to "OFF".

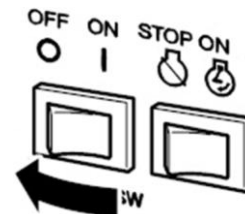


Fig.39

2. Disconnect any electric devices.

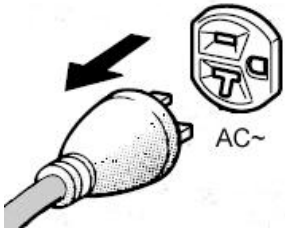


Fig.40

3. Turn the engine switch (Red) to "STOP".

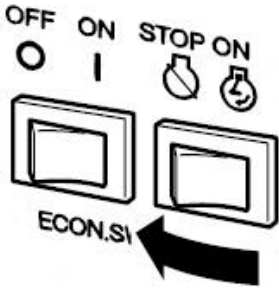


Fig.41

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



Fig.42

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

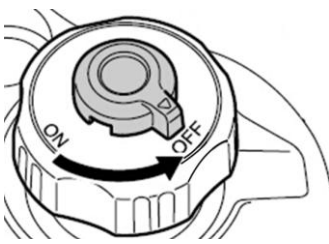



Fig.43

 **WARNING:** Allow the generator to cool for several minutes before touching areas that become hot during use.

CAUTION: Allowing gasoline to sit in the fuel tank for long periods of time can make it difficult to start the generator in the future. Never store the generator for extended periods of time with fuel in the

fuel tank. Drain off the gasoline in the carburettor. Refer to "Generator Storage" Section.

SUBSEQUENT STARTING OF THE GENERATOR


PRE-OPERATION CHECK

 **WARNING:**

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

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

NOTE: Pre-operation checks should be made each time the generator is used. If this is not the first time using the generator, the user should take the following steps to prepare it for operation.

 **IMPORTANT:** At this point the user should be familiar with the procedures described in the section titled "Using the Generator for the First Time." If the user has not yet read this section, go back and read it now.

Step 1 - CHECK THE OIL

Oil consumption is normal during generator use. The generator is equipped with a low oil pressure shutoff to protect it from damage. The oil level of the engine

should be checked before each use to ensure that the engine crankcase contains sufficient lubricant.

To check or add oil, follow these steps:

1. Place the generator on a level surface.
2. Check oil level in engine: Open access panel. Clean around oil fill hole. Remove dipstick and wipe the dipstick with a clean rag. Insert the dipstick into the oil fill opening without screwing in. Remove the dipstick to check the oil mark. Add recommended oil if the oil mark covers less than specified level.
3. Slowly add more oil and repeat step 2 until the oil mark reaches to the top of dipstick (Fig.44). Do not over fill the crankcase.

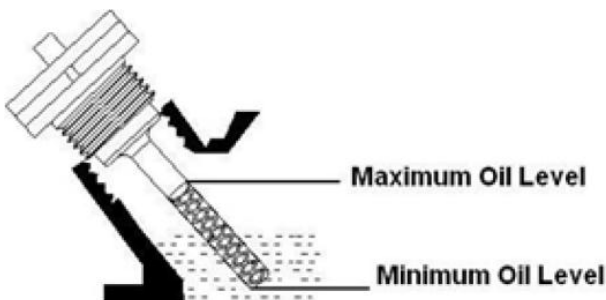


Fig.44 Oil Fill Opening, Dipstick and Oil Level

4. Tighten dipstick firmly then put back access panel before starting the engine.
5. Check generator for oil leakage. The point where abnormality was recognized by use.

6. Check operation. If necessary, add recommended oil to specified level.

Step 2 - CHECK THE FUEL LEVEL

Before starting the generator, check to see that there is sufficient gasoline in the fuel tank. Add additional gasoline as necessary but leave sufficient room in tank for expansion.



WARNING: This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if not directly in contact with fuel.

- Do not operate near open flame.
- Do not smoke near generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion.
- Always check for spilled fuel before operating. Clean up any spilled fuel before starting.
- Empty fuel tank before storing or transporting the generator.
- Before transporting, turn fuel the air vent knob to OFF position.



IMPORTANT:

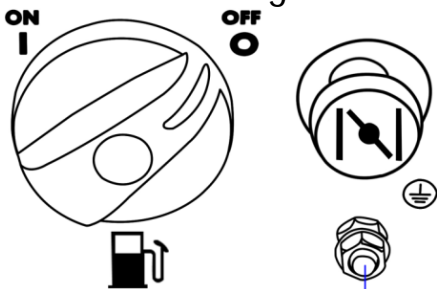
- Use only UNLEADED gasoline.
- Do not use old gasoline.
- Never use an oil/gasoline mixture.
- Avoid getting dirt or water into the fuel tank.

Step 3 - GROUND THE GENERATOR



WARNING: Failure to properly ground the generator can result in electrocution.

Ground the generator by tightening the grounding nut on the front control panel against a grounding wire. A generally acceptable grounding wire is a No. 12 AWG (American Wire Gauge) stranded copper wire. This grounding wire should be connected at the other end to a copper, brass, or steel-grounding rod that is driven into the earth. Wire and grounding rod are not included in generator contents.



Ground (Earth) terminal Fig.45

Grounding codes can vary by location. Contact a local electrician for area codes.

USING THE GENERATOR



WARNING: When this generator is used on a building's wiring system, the generator must be installed by a qualified electrician and connected to a transfer switch as a separately derived system in accordance with the National Electrical Code, NFPA 70. The

generator shall be connected to a transfer switch that switches all conductors other than the equipment grounding conductor. The frame of the generator shall be connected to an approved grounding electrode.

For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing the machine's components, possibly leading to a generator failure.

Before connecting electrical devices, allow the generator to run for a few minutes to stabilize the speed and voltage output.

CAUTION: Become familiar with the markings on the panel before connecting electrical devices.

Connect electrical devices running on AC current according to their wattage requirements. The chart in Fig 46 shows the rated and surge wattage of the generator.

The rated (running) wattage is the wattage the generator can produce on a continuous basis.

The surge wattage is the maximum amount of power the generator can produce for an extremely short period of time (seconds). Many electrical devices such as refrigerators require short bursts of extra power in addition to the rated wattage listed by the device to start their motors.

The surge wattage ability of the generator covers this extra power requirement.

Item	Rated (Running) Wattage	Surge Wattage
A2000i	1600	2000

Fig.46 - Generator Wattage

The total running wattage requirement of the electrical devices connected to the generator should not exceed the rated wattage of the generator itself. To calculate the total wattage requirement of the electrical devices you plan to connect, find the rated (or running) wattage of each device. This number should be listed somewhere on the device or in its instruction manual. If this wattage cannot be found, calculate it by multiplying the Voltage requirement by the Amperage drawn:

Watts = Volts x Amperes

When the rated wattage requirement of each electrical device has been determined, add these numbers to find the total rated wattage needed. If this number exceeds the rated wattage of the generator, DO NOT connect all these devices. Select a combination of electrical devices, which have a total rated wattage lower than or equal to the rated wattage of the generator.

CAUTION: The generator can run at its surge wattage capacity for only a short time. Connect electrical devices requiring a rated (running) wattage equal to or less than the rated wattage

of the generator. Never connect devices requiring a rated wattage equal to the surge wattage of the generator. This can trip the circuit protectors (circuit breakers).

NOTE: Check the wattage on the electrical device . Once the electrical devices that will be powered by the generator have been determined, connect these devices according to the following procedure:

1. Plug in each electrical device, making sure that the device is turned off.
2. Check the overload light and power indicator light. If the overload light is on, unplug the electronics, then restart the generator before plugging the load back in. If the reset button does not reset, wait several minutes and try again. If the power light still does not come on, call the customer service number for further instructions.

CAUTION: Do not connect 50Hz loads to the generator.

SOME NOTES ABOUT POWER CORDS

Long or thin cords can drain the power provided to an electrical device by the generator. When using such cords, allow for a slightly higher rated wattage requirement by the electrical device. See Fig.47 for recommended cords based on the power requirement of the electrical device.

Device Requirements	Amps	2.5	5	7.5	10	15
	Watts (120V)	300	600	900	1200	1800
Max. Cord Length (ft) by	#8 wire	NR	NR	NR	NR	NR
	#10 wire	NR	NR	350	250	150

Wire Gauge	#12 wire	NR	300	200	150	100
	#14 wire	375	200	125	100	65
	#16 wire	250	125	100	50	NR

Fig.47

*NR = Not Recommended

- Maximum Extension Cord Lengths by Power Requirement.

If an overload occurs, shut down the generator. Unplug all electrical devices and wait five minutes. Then, start the unit back up again to get power back.



WARNING:

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

CAUTION:

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

NOTE: Do not tilt the generator when adding engine oil. This could result in over filling and damage to the engine.

NOTE:

The generator can be used with the rated output load at standard atmospheric conditions.

“Standard atmospheric conditions”

Ambient temperature 25°C

Barometric pressure 100kPa

Relative humidity 30%

The output of the generator varies due to change temperature, altitude (lower air pressure at higher altitude) and humidity.

The output of the generator is reduced

when the temperature, the humidity and the altitude are higher than standard atmospheric conditions.

Additionally, the load must be reduced when using in a confined areas, as generator cooling is affected.

ALTERNATING CURRENT (AC) CONNECTION



WARNING

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

CAUTION

- Be sure all electric devices including the lines and plug connections are in good condition before connection to the generator.
- Be sure the total load is within generator rated output.
- Be sure the receptacle load current is within receptacle rated current.

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

1. Start the engine.
2. Turn the ECS switch (Black) to “ON”.
3. Plug in to AC receptacle.
4. Make sure the AC pilot light (Green) is on.
5. Turn on any electric devices.

NOTE: The ECS switch (Black) must be turned to “OFF” to increase engine speed to rated rpm. If the generator is connected to multiple loads or electricity consumers, please remember to first connect the one with the highest starting current, and last connect the one with the lowest starting current.

BATTERY CHARGING

NOTE:

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

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

CAUTION

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

NOTE:

- Follow instructions in the owner's manual for the battery to determine

the end of battery charging.

- Measure the specific gravity of electrolyte to determine if the battery is fully charged. At full charge, the electrolyte specific gravity is between 1.26 and 1.28.
- It is advisable to check the specific gravity of the electrolyte at least once every hour to prevent overcharging the battery.



WARNING

Never smoke or make and break connections at the battery while charging. Sparks may ignite the battery gas. Battery electrolyte is poisonous and dangerous, causing severe burns, etc. contains sulfuric (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.

APPLICATION RANGE

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





AC	Power factor	Rated output power
	1	≤1,600W
	0.8-0.95	≤1,280W
	0.4-0.75 (Efficiency 0.85)	≤544W
DC 		Rated voltage 12V Rated current 8A

Fig.48

NOTE:

- Application wattage indicates when each device is used by itself.
- The simultaneous usage of AC and DC power is possible but total wattage should not exceed the rated output. EX:

Generator rated output		1,600W
Frequency	Power factor	
AC	1.0	≤1,600W
	0.8	≤1,280W
DC	--	96W(12V/8A)

Fig.49

The overload indicator light (Red) comes on when total wattage exceeds the application range. (See "CONTROL FUNCTION" section for more details.)

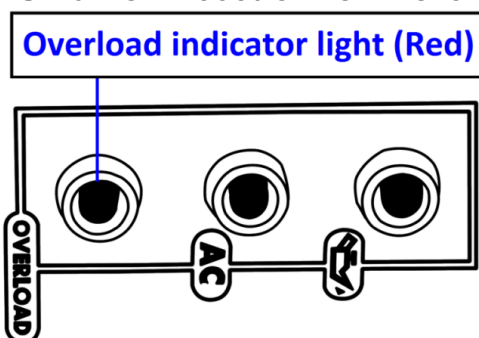


Fig.50



CAUTION

- Do not overload. The total load of all electrical appliances must not exceed the supply range of the generator. Overloading will damage the generator.
- When supplying precision equipment, electronic controllers, PC, Electronic computers, microcomputer based equipment or battery chargers, keep the generator a sufficient distance away to prevent electrical interference from the engine. Also ensure that electrical noise from the engine does not interfere with any other electrical devices located near the generator.
- If the generator is to supply medical equipment, advice should first be obtained from the manufacturer, a medical professional or hospital.
- Some electrical appliances or general-purpose electric motors have High starting currents, and cannot therefore be used, even if they lie within the supply ranges given in the above table. Consult the equipment manufacturer for further advice.

MAINTENANCE

Proper routine maintenance of the generator will help prolong the life of the machine.

Please perform maintenance checks and operations according to the schedule. If there are any questions about the maintenance procedures listed in this manual, please call our service center.

Items Frequency		Each 8 hours or daily	First 8 hours	Every 25 hours	Every 3 months .or 50 hours	Every 6 months or 100 hours	Every year	As necessary
Engine oil	Check-refill	√						
	replace		√	*√	*√			*√
Reduction gear oil (if equipped)	Oil level check	√						
	replace			√	√			
Air filter element	Check	√		√				
	Clean			√		√		
Spark plug	Check/clean					√		√
	Change						√	√
Spark arrester	Clean				√			
Fuel tank & fuel filter**	Check-refill	√						
	Clean						√	
Deposit cup (if equipped)	Clean						√	
Idling (if equipped) **	Check-adjust						√	
Valve clearance	Check-adjust						√	
Fuel line	Check	Every 2 years (change if necessary)						
Cylinder head, piston	Clean up carbon **	<225cc, every 125hrs ≥ 225cc, every 250hrs						
** The installation and major repair work shall be carried out only by our authorized dealer or other or other specifically trained personnel.								
* Clean/change more often under dusty conditions or operating under heavy load.								

Fig.51 recommended maintenance schedule

CAUTION

- If the gasoline engine frequently works under high temperature or heavy load, change the oil every 25 hours.
- If the engine frequently work under

dusty or other severe circumstances, clean the air filter element every 10 hours; If necessary, change the air filter element every 25 hours.

- The maintenance period and the exact

time (hour), the one which comes first should govern.

- If you have missed the scheduled time to maintain your engine, do it as soon as possible.



WARNING

Stop the engine before servicing. Put the engine on a level surface and remove the spark plug cap to prevent the engine from starting. Do not operate the engine in a poorly ventilated room or other enclosed area. Be sure to keep good ventilation in working area. The exhaust from the engine may contain poisonous CO, inhalation can cause shock, unconsciousness and even death.

CLEANING THE GENERATOR

Never clean the generator when it is running! Never clean with a bucket of water or a hose. Water can get inside the working parts of the generator and cause a short circuit or corrosion.

Always try to use the generator in a cool, dry place. If the generator becomes dirty, clean the exterior with a damp cloth, a soft brush, a vacuum or pressurized air.

CHECKING THE OIL

Check the oil level of the generator according to the Recommended Maintenance Schedule in Fig.51. The generator is equipped with an automatic shutoff to protect it from running on low oil. The generator should be checked before each use for proper oil level. This is a critical step for proper engine starting. To check the oil level:

1. Make sure the generator is on a level

surface.

2. Open access panel. Clean around oil fill. Remove dipstick and wipe the dipstick with a clean rag. Insert the dipstick into the oil fill opening without screwing in. Remove the dipstick to check the oil mark. Add oil if the oil mark covers less than one half of the dipstick.
3. Slowly add more oil and repeat step 2 until the oil mark reaches to the top of dipstick . Do not over fill the crankcase.

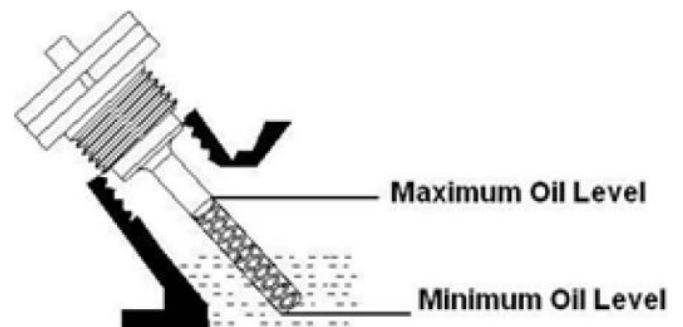


Fig.52 Oil Fill Opening, Dipstick and Oil Level

4. Reinstall oil dipstick and access panel.

CHANGING/ADDING OIL

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

Change the oil according to the Recommended Maintenance Schedule in Fig51. Change the oil when the engine is warm. This will allow for complete drainage. Change oil more often if operating under heavy load or high ambient temperatures. It is also necessary to drain the oil from the crankcase if it has become contaminated with water or dirt. The oil capacity of the generator engine is 0.37 qts. Add oil when the oil level is low. For proper type and weight of oil refer to "add oil" portion of the "Generator Preparation" section.

Replace the crankcase with oil, follow these steps:

1. Place the generator on elevated platform such as table or desk, and warm up the engine for several minutes. Then stop the engine and turn the 3 in 1 switch knob (Choke knob) to "OFF" position, fuel tank cap air vent knob to "OFF".
2. Remove the screws ① and then remove the access panel ②.

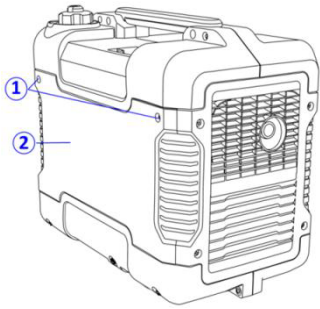


Fig.53

3. Unscrew the dipstick from the engine and set aside.
4. Place an oil pan under the engine. Tilt the generator to drain the used oil from the engine completely. Tilt some more to ensure all oil is out of the crankcase.



Fig.54

5. Replace the generator on a level surface. Keep generator level!

CAUTION

Do not tilt the generator when adding engine oil. Tilting the generator to assist in filling will cause oil to flow into engine areas and will cause damage. Keep generator level!

6. Fill the crankcase with fresh oil. Using a funnel or appropriate dispenser, add the correct amount of oil into the

crankcase. The engine is equipped with a low oil pressure sensor and will not start if the amount of oil is insufficient.



Fig.55

7. Reinstall the dipstick.

CAUTION

Be sure no foreign material enters the crankcase.

8. Clean any oil spillage before closing the side panel.
9. Install the access panel and tighten the screws.

NOTE: Never dispose of used motor oil in the trash or down a drain. Please call a local recycling center or auto garage to arrange oil disposal.

DRAINING THE FUEL TANK

Clean fuel tank each year or before storing the generator for extended periods of time. To drain the fuel tank and carburettor:

1. Turn the engine switch to "STOP".

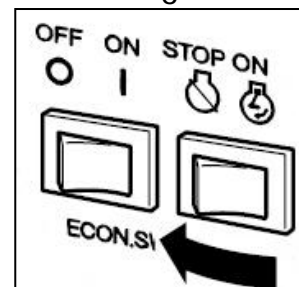


Fig.56

2. Remove the fuel tank cap, remove the filter. Carefully turn the generator over to pour the gasoline in the fuel tank to appropriate container.
3. Once fuel is drained, reinstall the fuel cap.



WARNING:

Fuel is highly flammable and poisonous. see "SAFETY INFORMATION" section carefully.

CAUTION

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

4. Turn on the engine (see "START THE ENGINE" section) and keep the engine running until it stops. This burns out the fuel in the fuel tank. The engine stops in approx. 20 minutes.

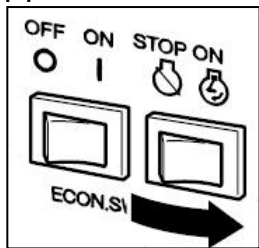


Fig.57

CAUTION

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

5. Remove the screws ①, and then remove the access panel ②.

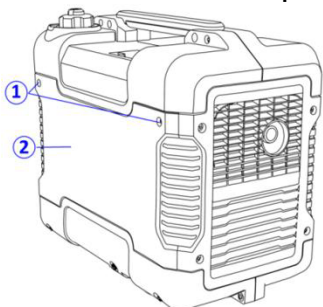


Fig.58

6. Drain the fuel from the carburetor by loosening the drain screw on the carburetor float chamber.

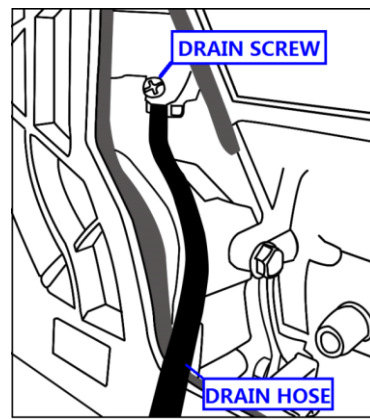


Fig.59

7. Turn the engine switch to "STOP".

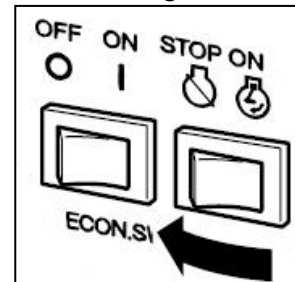


Fig.60

8. Retighten the drain screw.

9. Reinstall the access panel and tighten the screws

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

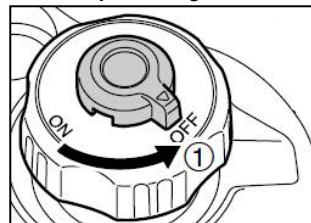


Fig.61

11. Store the emptied gasoline in a suitable place.

CAUTION: Do not store fuel for more than 3 months.

SPARK PLUG INSPECTION

The spark plug is important for proper engine operation, which should be checked periodically. A good spark plug should be intact, free of deposits, and properly gapped. Refer to Recommended Maintenance Schedule in Fig51. To inspect the spark plug:

1. Remove the cover ①
2. Remove spark plug boot ②. Be careful not to tear insulation or wire and Insert the tool ④ through the hole from the outside of the cover.

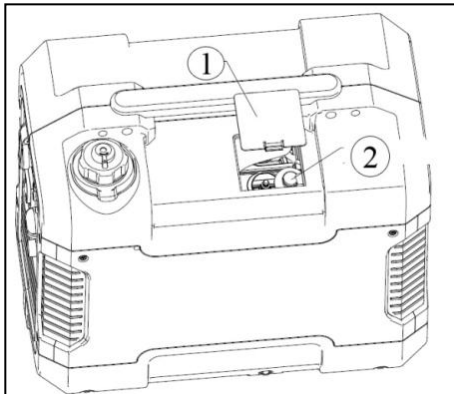


Fig62

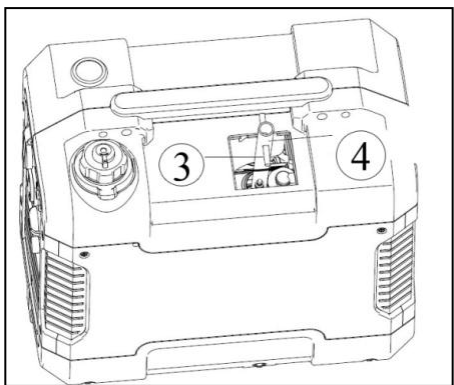


Fig.63

3. Insert the handlebar ③ into the tool ④, Unscrew the spark plug counterclockwise from the engine using the spark plug wrench provided. There is limited space for the wrench to turn. Use both rows of holes in the spark plug wrench to gain leverage to loosen the plug.
4. Visually inspect the spark plug for cracks or excessive electrode wear. Replace as necessary. Remove the carbon. The porcelain insulator around the center electrode of spark plug should be a medium-to-light tan color.
5. Measure the plug gap with a wire thickness gauge. The gap should be 0.6-0.7 mm (0.024-0.028 in).

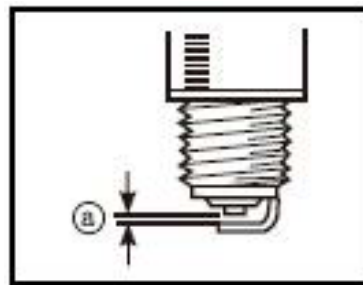


Fig.64

Standard Spark Plug: E6TC/E6RTC
 Spark Plug Gap: 0.6-0.7mm
 (0.024-0.028in)

6. If re-using the spark plug, use a wire brush to clean any dirt from around the spark plug base then re-gap the spark plug.
7. Install the spark plug: Screw the spark plug back into the spark plug hole using the spark plug wrench. Do not over-tighten spark plug. Recommended tightening of spark plug is 1/2 to 3/4 of a turn after spark plug gasket contacts spark plug hole.

Spark Plug Torque: 20.0 N*m
 (2.0kgf*m, 14.8 lbf*ft)

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

CARBURETOR ADJUSTMENT



WARNING

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

Air filter

Routine maintenance of the air cleaner helps maintain proper airflow to the carburettor. Occasionally check that the air cleaner is free of excessive dirt. Refer to Recommended Maintenance Schedule in Fig.51.

CAUTION: running the engine with dirty, damaged or missing air cleaner element will cause the engine to wear out prematurely.

1. Remove the screws (1), and then remove the access panel (2).

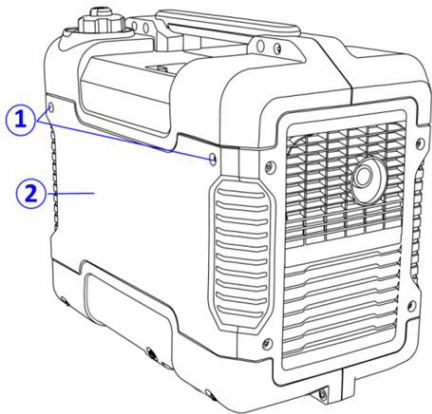


Fig.65

2. Remove the screw (3) and then remove the air filter case cover (4).

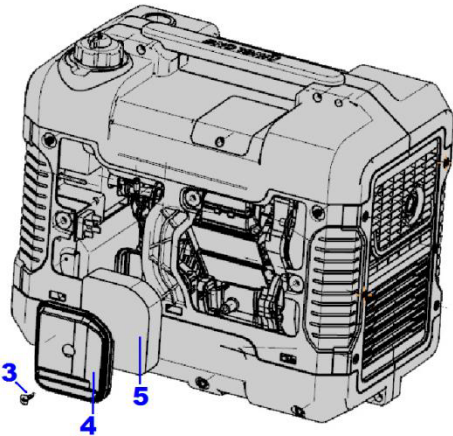


Fig.66

3. Remove the foam element (5).
4. Check and clean the air filter element, replace with a new one if the element is damaged.
5. Good element can be washed in soapy water, dried and reused.

CAUTION

Do not wring out the foam element when

- squeezing it. This could cause it to tear.
6. Oil the foam element and squeeze out excess oil.
7. Wipe off excessive oil from the air cleaner case. Small amount of oil in the element is normal and necessary for the engine to work properly.
8. Insert the foam element into the air filter case.

NOTE: Be sure the foam element sealing surface. Match the air filter so there is no air leak. The engine should never run without the foam element; excessive piston and cylinder wear may result.

9. Install the air filter case cover in its original position and tighten the screw.
10. Install the access panel and tighten the screws.

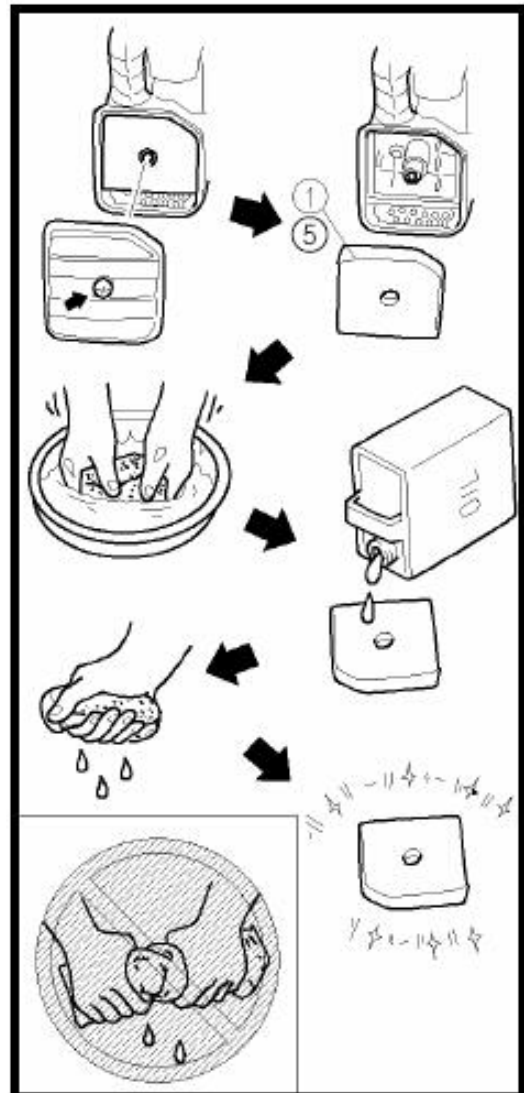


Fig.67

MUFFLER SCREEN AND SPARK ARRESTER



WARNING

The engine and muffler will be very hot after the engine has been run. Avoid touching the engine and muffler while they are still hot with any part of your body or clothing during inspection or repair.

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

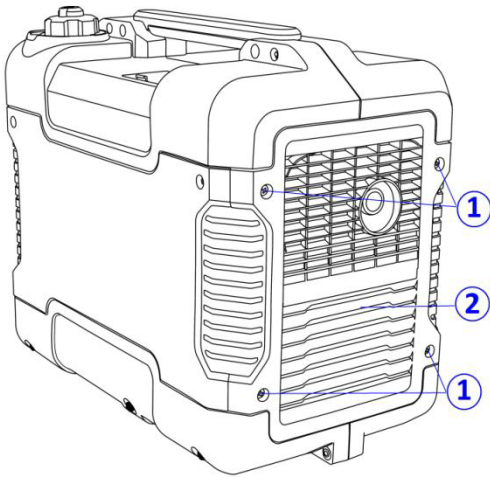


Fig.68

2. Loosen the bolt ③ and then remove the muffler cap ④, the muffler screen ⑤ and spark arrester ⑥.

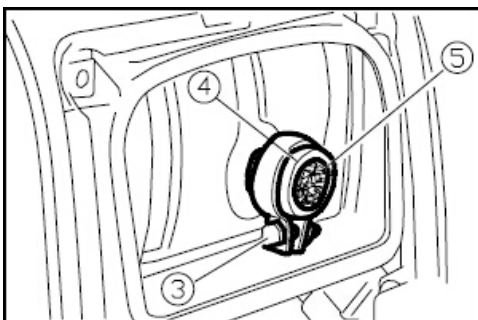


Fig.69

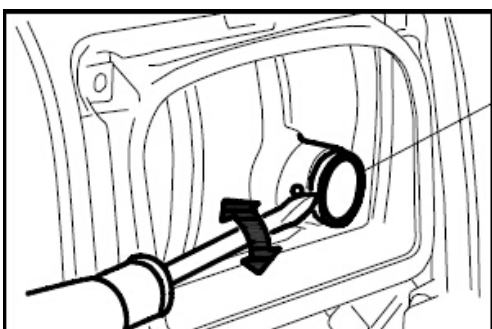


Fig.70

3. Clean 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 muffler screen and spark arrester.

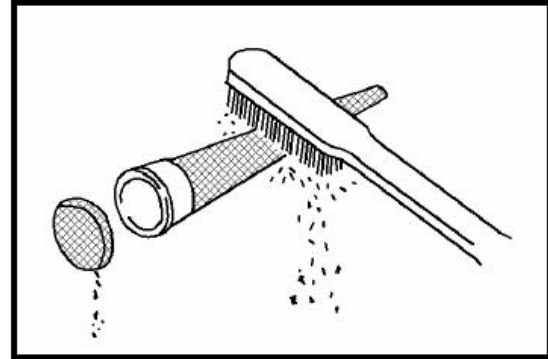


Fig.71

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

5. Install the spark arrester.

NOTE:

Align the spark arrester projection ⑦ with the hole ⑧ in the muffler pipe.

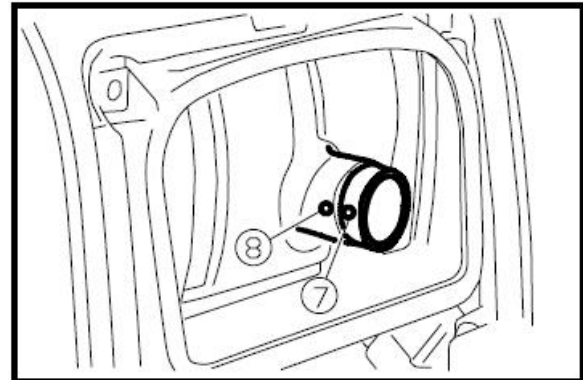


Fig.72

6. Install the muffler screen and the muffler cap.

7. Install the cover and tighten the screws.

FUEL TANK FILTER



WARNING

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

1. Remove the fuel tank cap and filter.

2. Clean the filter with gasoline.

3. Wipe the filter and install it.

4. Install the fuel tank cap.

NOTE: Be sure the fuel tank cap is tightened securely.

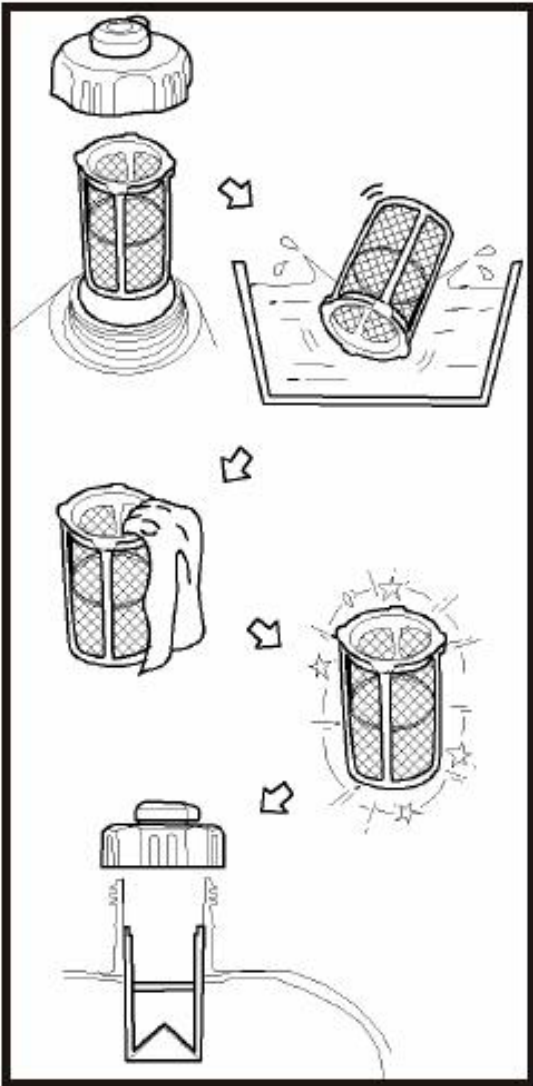


Fig.73

Fuel filter

1. Remove the screws ①, and then remove the access panel ②, and drain the fuel ③.

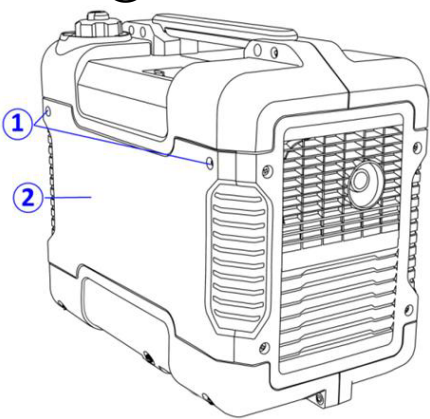


Fig.74

2. Hold and move up the clamp ④, then take off the hose ⑤ from the tank.

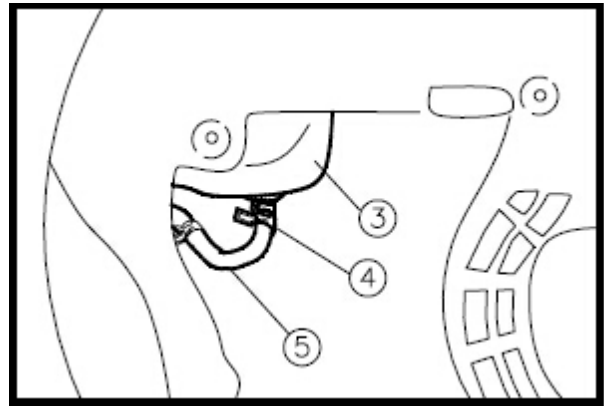


Fig.75

3. Take out the fuel filter ⑥.

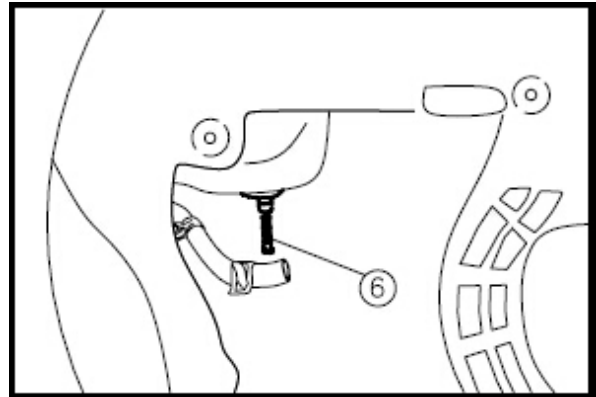


Fig.76

4. Clean the filter with gasoline.

5. Dry the filter and put it back into tank.

6. Install the hose and clamp, then open the fuel valve to check whether it is leak.

7. Reinstall the cover and tighten the screws.

STORAGE

STORAGE & TRANSPORT PROCEDURES

CAUTION: Never place any type of storage cover on the generator while it is still hot.

If the generator is being stored for short periods of time over 30 days, add stabilized fuel to the fuel tank until full.

NOTE: Filling the tank reduces the amount of air in the tank and helps reduce deterioration of fuel. Run the engine for 2 - 3 minutes allowing

stabilized fuel mixture to circulate through the carburettor.

When storing the generator for extended periods of time:

- Drain the fuel tank (see "Draining the Fuel Tank" in the "Maintenance" section).
- Drain the carburettor
- Change oil.
- Do not obstruct any ventilation openings.
- Keep the generator in a cool dry area.

When transporting generator:

- Tighten fuel cap and fuel tank cap air vent knob. Drain the fuel tank if possible (see "Draining the Fuel Tank" in the "Storage" section).
- Keep the generator upright. Never place the generator side down. Doing so will make it difficult to start.

Long term storage of your machine will

require some preventive procedures to guard against deterioration.

In order to prevent corrosion, please coat antirust oil on all screw, at least once half one year.

ENGINE

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

1. Remove the spark plug, pour about one table- spoon of SAE 10W-30 into the spark plug hole and reinstall the spark plug. Pull the Choke knob to out position.Recoil start the engine by turning over several times to coat the cylinder walls with oil.
2. Pull the recoil starter until you feel compression. Then stop pulling. (This prevents the cylinder and valves from rusting).
3. Clean exterior of the generator. Store the generator in a dry, well-ventilated place, with the cover placed over it.

TROUBLESHOOTING

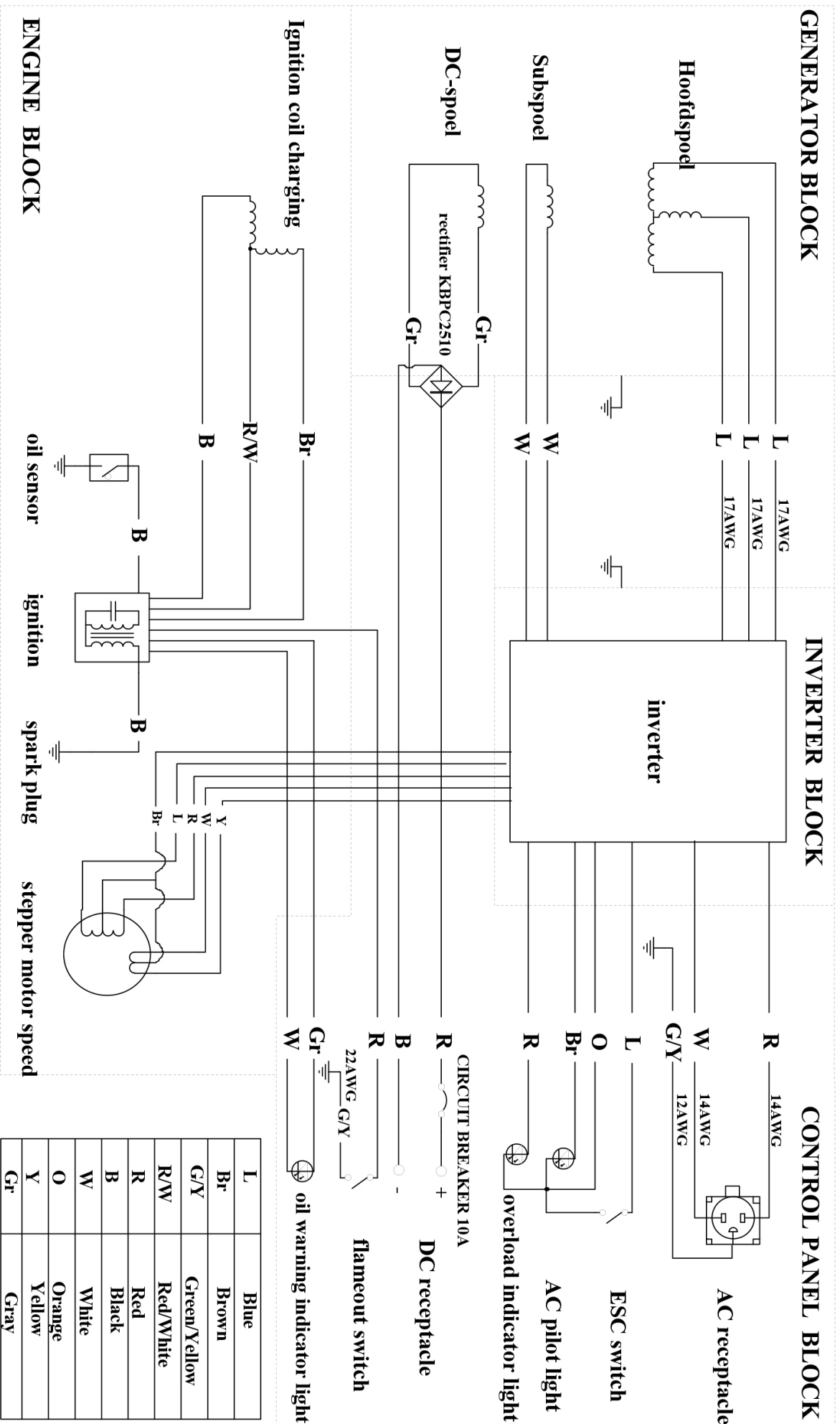


IMPORTANT: If trouble persists, please call our customer service center.

Problem	Cause	Solution
Engine will not start	Engine switch in "OFF" position	Set engine switch to "ON" position.
	Pull the Choke knob fully out when warm start	Press the choke knob fully in
	Engine is filled with contaminated or old fuel	Change the fuel in the tank.
	Not enough oil in crankcase	Add or replace engine oil.
	Air filter is dirty.	Clean or replace air filter.
	Spark plug is dirty or wet	Remove carbon or wipe spark plug dry.
	Spark plug is broken.	Replace spark plug.
	Generator is not on level surface	Move generator to a level surface to prevent low oil shutdown from triggering.
	Engine needs maintenance	Get a professional engine tune-up at an authorized small engine repair shop
	Generator was tilted when adding oil, or shipped side-down	Remove spark plugs, turn off engine switch then pull recoil starter four times to remove oil from the combustion chamber.
	Fuel systems: No fuel supplied to combustion chamber	
	1 No fuel in tank	Refuel
	2 Fuel in tank	Set fuel tank cap air vent knob and fuel cock knob to "ON"
	3 Clogged fuel filter	Clean fuel filter
4 Clogged carburettor	Clean carburettor	
Faulty ignition system	Consult service center	
Engine stops	Fuel tank cap air vent knob in "OFF" position	Turn Fuel tank cap air vent knob to "ON" position
	Not enough oil in crankcase	Add or change oil
	Engine is out of fuel	Add fuel.
Blue smoke in exhaust	Generator inclined, oil entered combustion chamber	Move generator to a level position
	Too much oil was added to the crankcase.	Drain excessive oil.

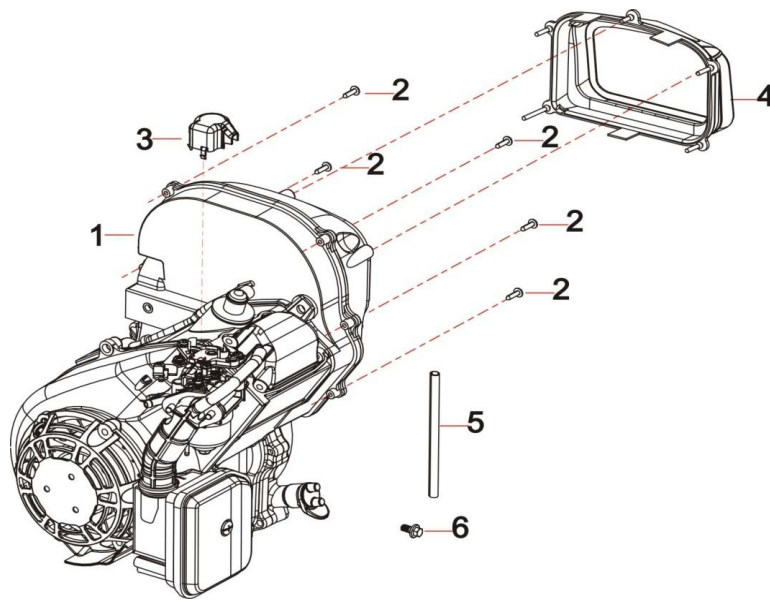
Generator runs but does not support all electrical devices connected.	Bad connecting wires/cables.	If using an extension cord, try a different one.
	Bad electrical device connected to generator.	Try connecting a different device
	Generator is overloaded, Overload light is on	Perform these steps: 1. Turn off all electrical devices. 2. Unplug all electrical devices. 3. Shut down the engine. 4. Wait several minutes and then start the engine. 5. Try connecting fewer electrical loads to the generator.
	Short in one of the connected devices.	Try disconnecting any faulty or short-circuited electrical loads.
Generator does not produce power	Safety device (DC protector) to "OFF"	Press the DC protector to "ON"
	The AC pilot light (Green) go off	Stop the engine, then restart

WIRING DIAGRAM



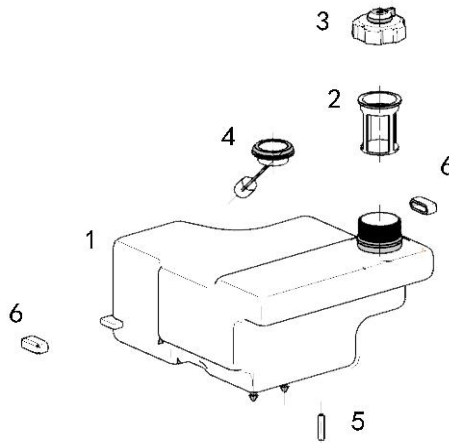
A112001 EXPLODED VIEW AND PART LIST

FIG.1 Engine (E00)



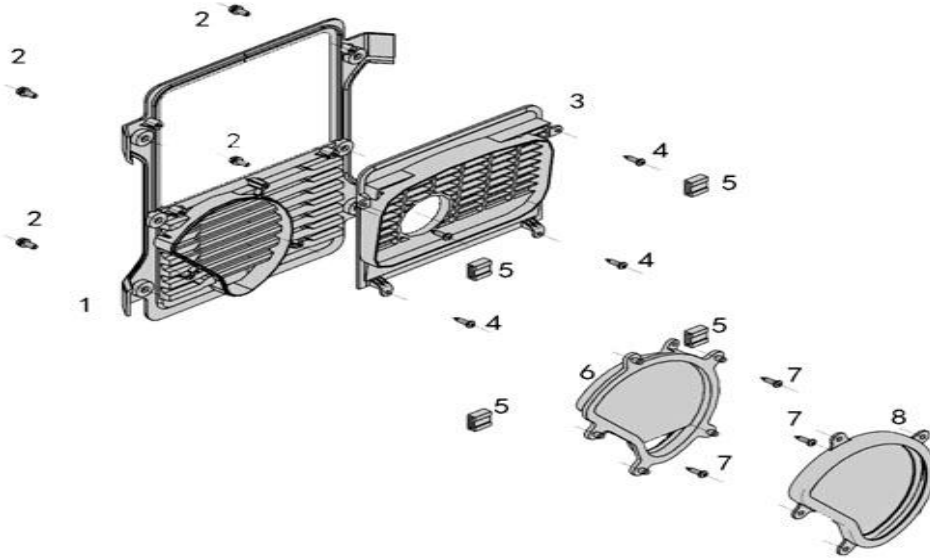
Refe#	Description	Qty/pc	Stock#	Refe#	Description	Qty/pc	Stock#
1-1	Engine	1	A112001-1-1	1-4	Muffler Cover	1	A112001-1-4
1-2	Tapping	5	A112001-1-2	1-5	Fuel Pipe	1	A112001-1-5
1-3	Cap	1	A112001-1-3	1-6	Flange Bolt	1	A112001-1-6

FIG.2 Tank, Fuel (F01)



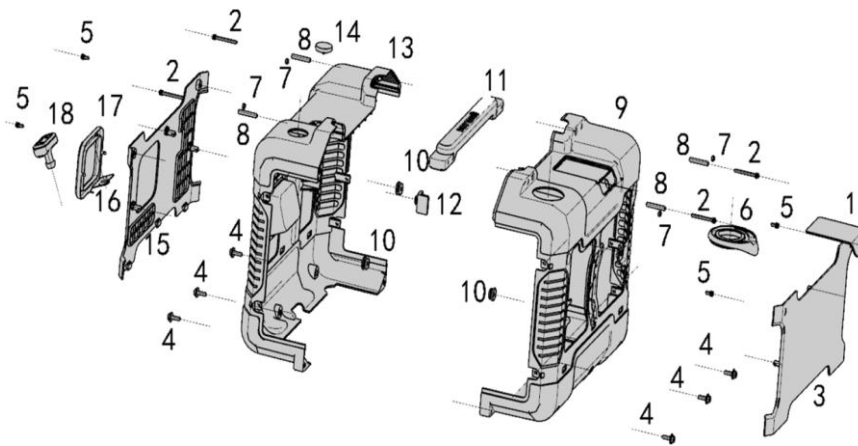
Refe#	Description	Qty/pc	Stock#	Refe#	Description	Qty/pc	Stock#
2-1	Fuel Tank Assy	1	A112001-2-1	2-4	Fuel Level Gauge	1	A112001-2-4
2-2	Fuel Filter	1	A112001-2-2	2-5	Filter Element	1	A112001-2-5
2-3	Cap	1	A112001-2-3	2-6	10# Rubber Parts	2	A112001-2-6

FIG.3 Muffler Cover (F61)



Refe#	Description	Qty/ pc	Stock#	Refe#	Description	Qty/pc	Stock#
3-1	Muffler Cover Support	1	A112001-3-1	3-5	Clip Nut	4	A112001-3-5
3-2	Cross Pan Bolts	4	A112001-3-2	3-6	Alternator Cover	1	A112001-3-6
3-3	Muffle Cover	1	A112001-3-3	3-7	Tapping Screw	3	A112001-3-7
3-4	Tapping Screw	4	A112001-3-4	3-8	5# Rubber Parts	1	A112001-3-8

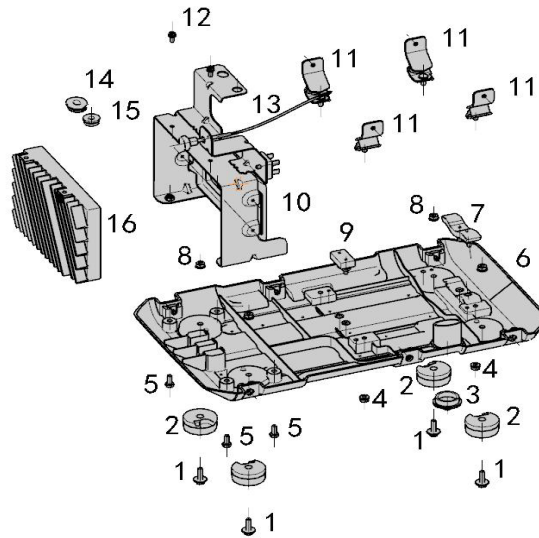
FIG.4 Cover and Panel(F61)



Refe#	Description	Qty/ pc	Stock#	Refe#	Description	Qty/ pc	Stock#
4-1	Spark Plug Cover	1	A112001-4-1	4-10	11# Rubber Part	6	A112001-4-10
4-2	Assembled Bolt	4	A112001-4-2	4-11	Handle A-B	1	A112001-4-11

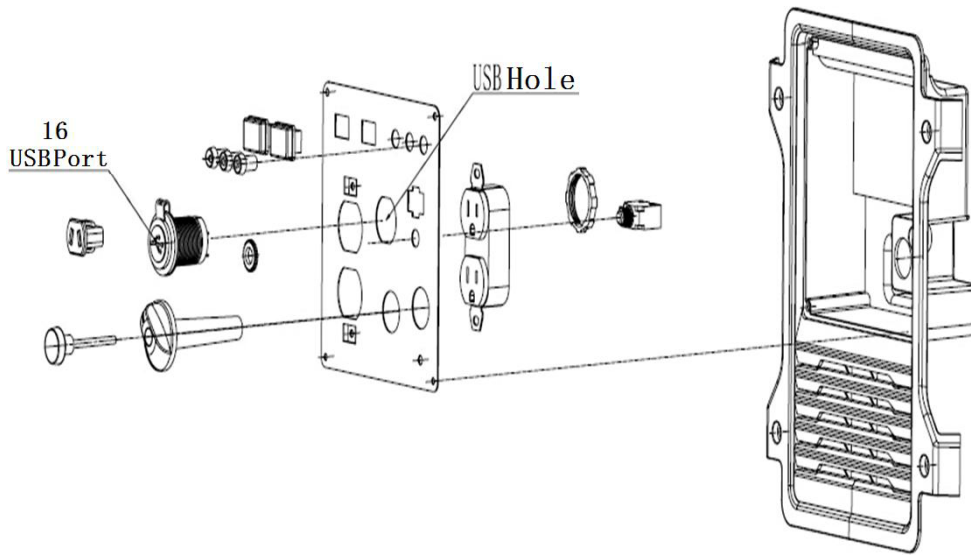
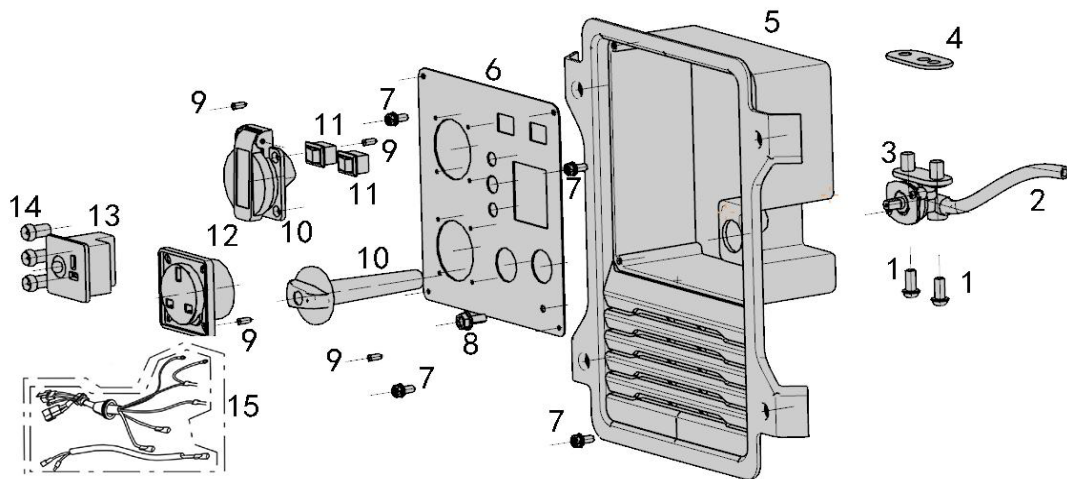
4-3	Back Panel	1	A112001-4-3	4-12	Rubber Parts	1	A112001-4-12
4-4	M6x20 Flange Bolt	6	A112001-4-4	4-13	Front Housing	1	A112001-4-13
4-5	M6x10 Flange Bolt	4	A112001-4-5	4-14	Viewing Mirror	1	A112001-4-14
4-6	4# Rubber Parts	1	A112001-4-6	4-15	Front Board	1	A112001-4-15
4-7	M5 Nut	4	A112001-4-7	4-16	Recoil Baffle	1	A112001-4-16
4-8	Bushing	4	A112001-4-8	4-17	Frame	1	A112001-4-17
4-9	Back Housing	1	A112001-4-9	4-18	Starter	1	A112001-4-18

FIG.5 Baseplate, Inverter And Inverter Frame (F61)



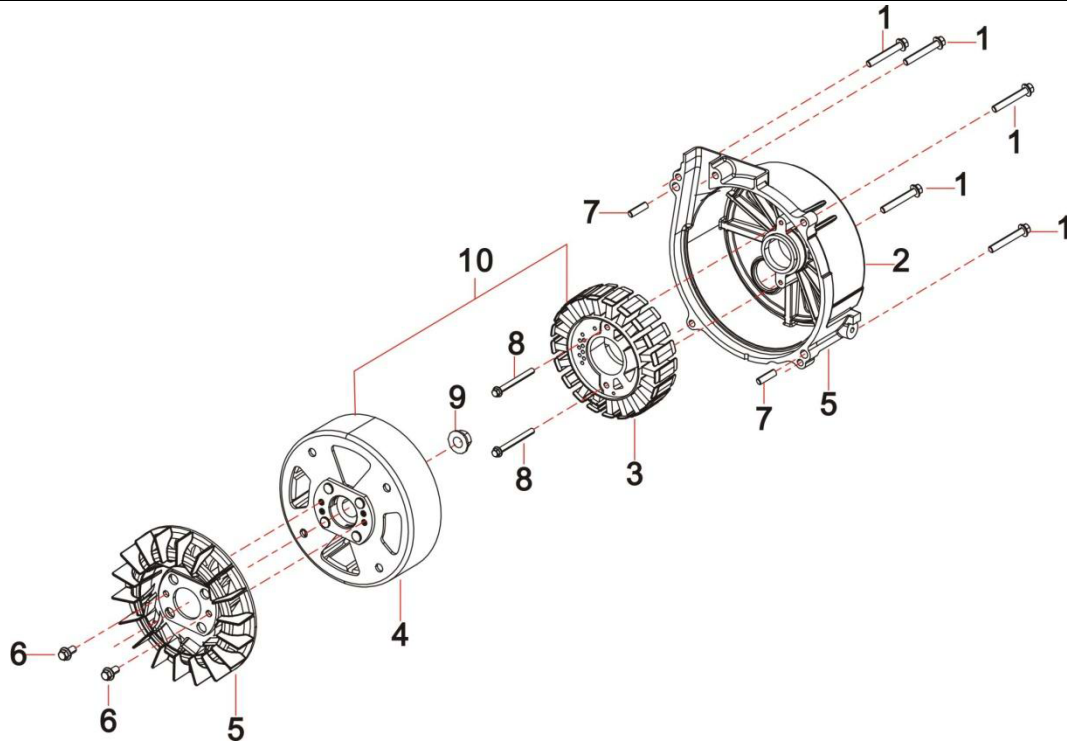
Refe #	Description	Qty /pc	Stock#	Refe#	Description	Qty/pc	Stock#
5-1	M6X18 Screw	4	A112001-5-1	5-9	13# Rubber Part	1	A112001-5-9
5-2	3# Rubber Parts	4	A112001-5-2	5-10	Iron Support	1	A112001-5-10
5-3	7# Rubber Parts	1	A112001-5-3	5-11	Shock AbsorptionFoot	1	A112001-5-11
5-4	M6 Flange	4	A112001-5-4	5-12	M6X18 Screw	2	A112001-5-12
5-5	M5X15 Bolt	4	A112001-5-5	5-13	Throttle Cable	1	A112001-5-13
5-6	Baseboard	1	A112001-5-6	5-14	6# Rubber Part	1	A112001-5-14
5-7	12# Rubber Part	1	A112001-5-7	5-15	11# Rubber Part	1	A112001-5-15
5-8	M6 Flange	4	A112001-5-8	5-16	Inverter Unit	1	A112001-5-16

FIG.6 Control Panel (F62)



Refe#	Description	Qty/ pc	Stock#	Refe#	Description	Qty/ pc	Stock#
6-1	Cross Bolt	2	A112001-6-1	6-9	Tapping Screw	4	A112001-6-9
6-2	Fuel Pipe	1	A112001-6-2	6-10	Socket	1	A112001-6-10
6-3	Fuel Switch	1	A112001-6-3	6-11	Switch	1	A112001-6-11
6-4	Shim	1	A112001-6-4	6-12	Socket	1	A112001-6-12
6-5	Panel Housing	1	A112001-6-5	6-13	DC Charger Socket	1	A112001-6-13
6-6	Panel	1	A112001-6-6	6-14	Pilot Light	3	A112001-6-14
6-7	Cross Screw	4	A112001-6-7	6-15	Cable	1	A112001-6-15
6-8	Cross Screw	1	A112001-6-8	6-16	USB Port	1	A112001-6-16

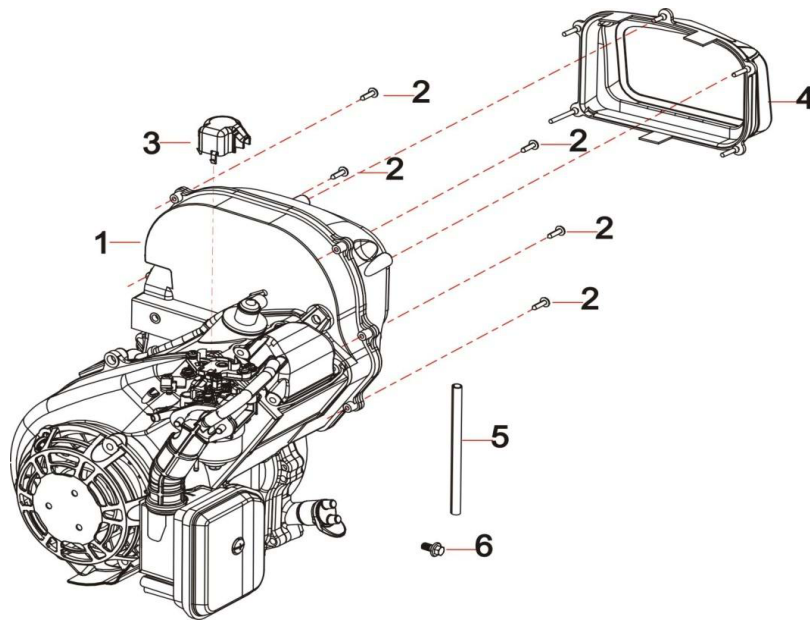
FIG.7 Rotor/Stator (F63)



Refe #	Description	Qty/pc	Stock#	Refe#	Description	Qty/pc	Stock#
7-1	Flange Bolt	5	A112001-7-1	7-6	Flange Bolt	2	A112001-7-6
7-2	Alternator Cover	1	A112001-7-2	7-7	Pin	2	A112001-7-7
7-3	Stator ASSY	1	A112001-7-3	7-8	Flange Bolt	2	A112001-7-8
7-4	Rotor ASSY	1	A112001-7-4	7-9	Flange Nut	1	A112001-7-9
7-5	Fan	1	A112001-7-5	7-10	Alternator	1	A112001-7-1

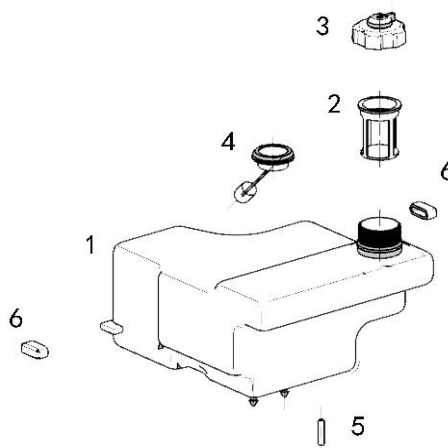
A112002 EXPLODED VIEW AND PART LIST

FIG.1 Engine (E00)



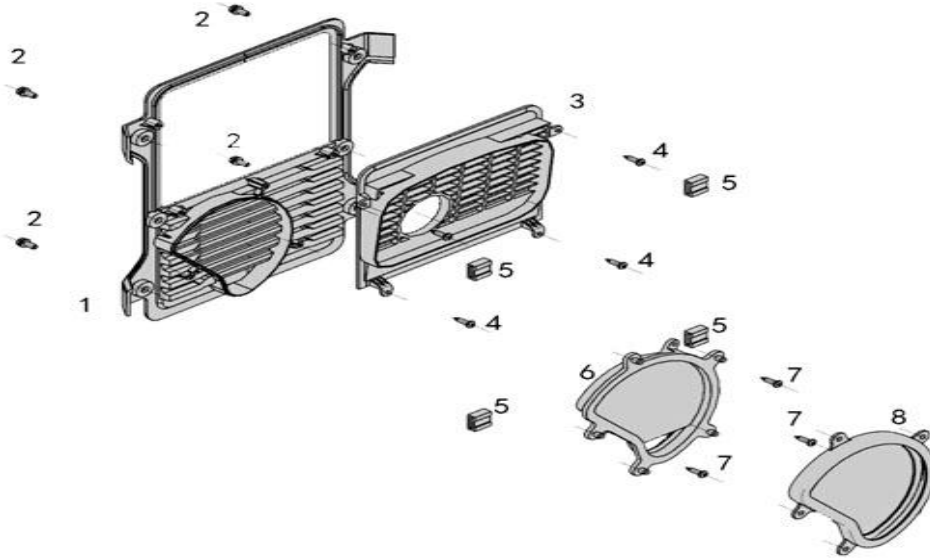
Refe#	Description	Qty/pc	Stock#	Refe#	Description	Qty/pc	Stock#
1-1	Engine	1	A112002-1-1	1-4	Muffler Cover	1	A112002-1-4
1-2	Tapping	5	A112002-1-2	1-5	Fuel Pipe	1	A112002-1-5
1-3	Cap	1	A112002-1-3	1-6	Flange Bolt	1	A112002-1-6

FIG.2 Tank, Fuel (F01)



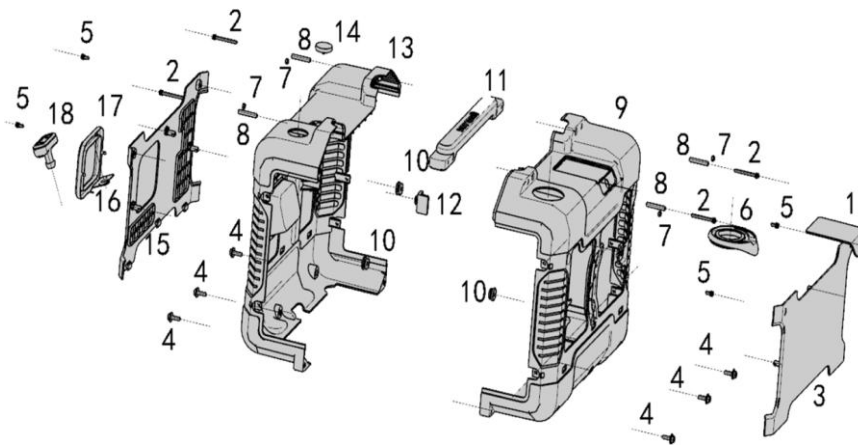
Refe#	Description	Qty/pc	Stock#	Refe#	Description	Qty/pc	Stock#
2-1	Fuel Tank Assy	1	A112002-2-1	2-4	Fuel Level Gauge	1	A112002-2-4
2-2	Fuel Filter	1	A112002-2-2	2-5	Filter Element	1	A112002-2-5
2-3	Cap	1	A112002-2-3	2-6	10# Rubber Parts	2	A112002-2-6

FIG.3 Muffler Cover (F61)



Refe#	Description	Qty/ pc	Stock#	Refe#	Description	Qty/pc	Stock#
3-1	Muffler Cover Support	1	A112002-3-1	3-5	Clip Nut	4	A112002-3-5
3-2	Cross Pan Bolts	4	A112002-3-2	3-6	Alternator Cover	1	A112002-3-6
3-3	Muffle Cover	1	A112002-3-3	3-7	Tapping Screw	3	A112002-3-7
3-4	Tapping Screw	4	A112002-3-4	3-8	5# Rubber Parts	1	A112002-3-8

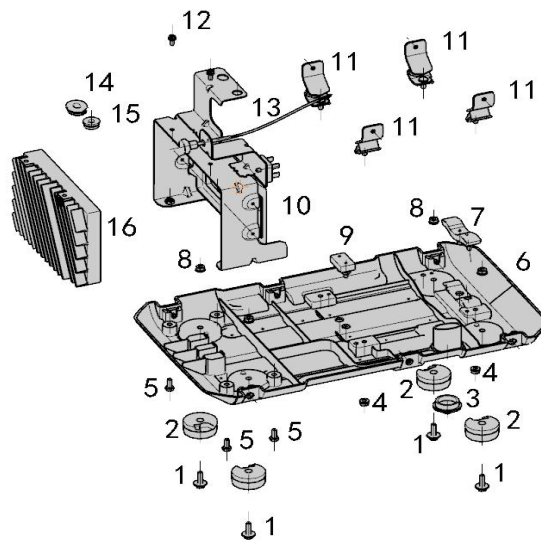
FIG.4 Cover and Panel(F61)



Refe#	Description	Qty/ pc	Stock#	Refe#	Description	Qty/ pc	Stock#
4-1	Spark Plug Cover	1	A112002-4-1	4-10	11# Rubber Part	6	A112002-4-10
4-2	Assembled Bolt	4	A112002-4-2	4-11	Handle A-B	1	A112002-4-11

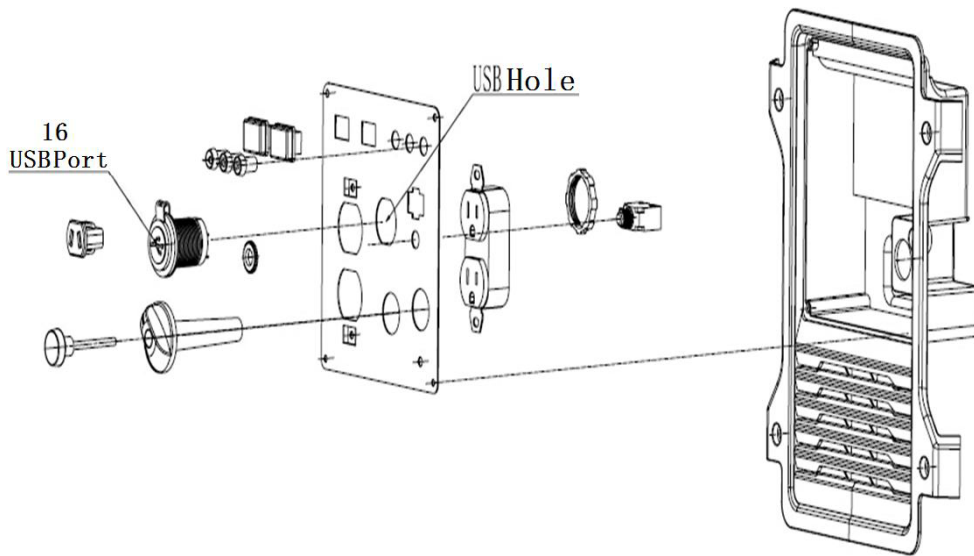
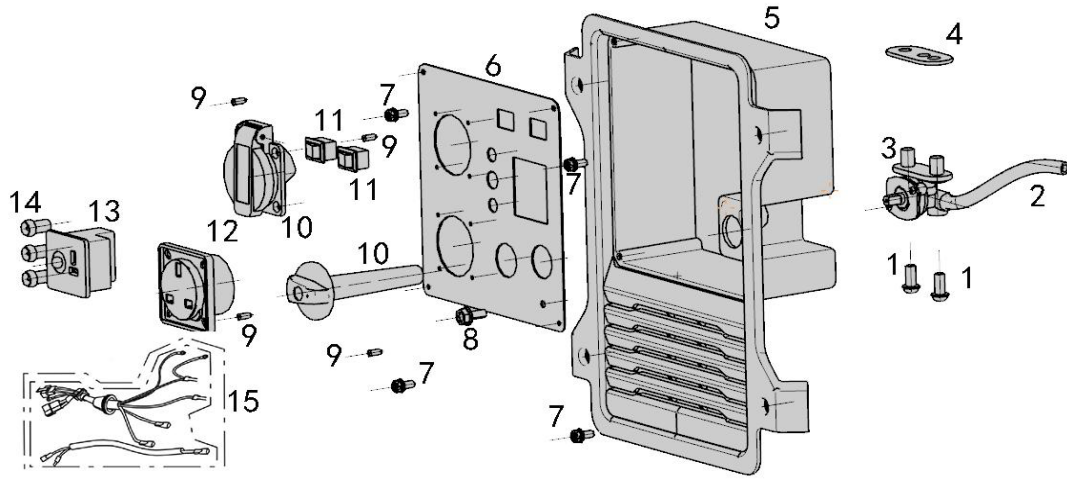
4-3	Back Panel	1	A112002-4-3	4-12	Rubber Parts	1	A112002-4-12
4-4	M6x20 Flange Bolt	6	A112002-4-4	4-13	Front Housing	1	A112002-4-13
4-5	M6x10 Flange Bolt	4	A112002-4-5	4-14	Viewing Mirror	1	A112002-4-14
4-6	4# Rubber Parts	1	A112002-4-6	4-15	Front Board	1	A112002-4-15
4-7	M5 Nut	4	A112002-4-7	4-16	Recoil Baffle	1	A112002-4-16
4-8	Bushing	4	A112002-4-8	4-17	Frame	1	A112002-4-17
4-9	Back Housing	1	A112002-4-9	4-18	Starter	1	A112002-4-18

FIG.5 Baseplate, Inverter And Inverter Frame (F61)



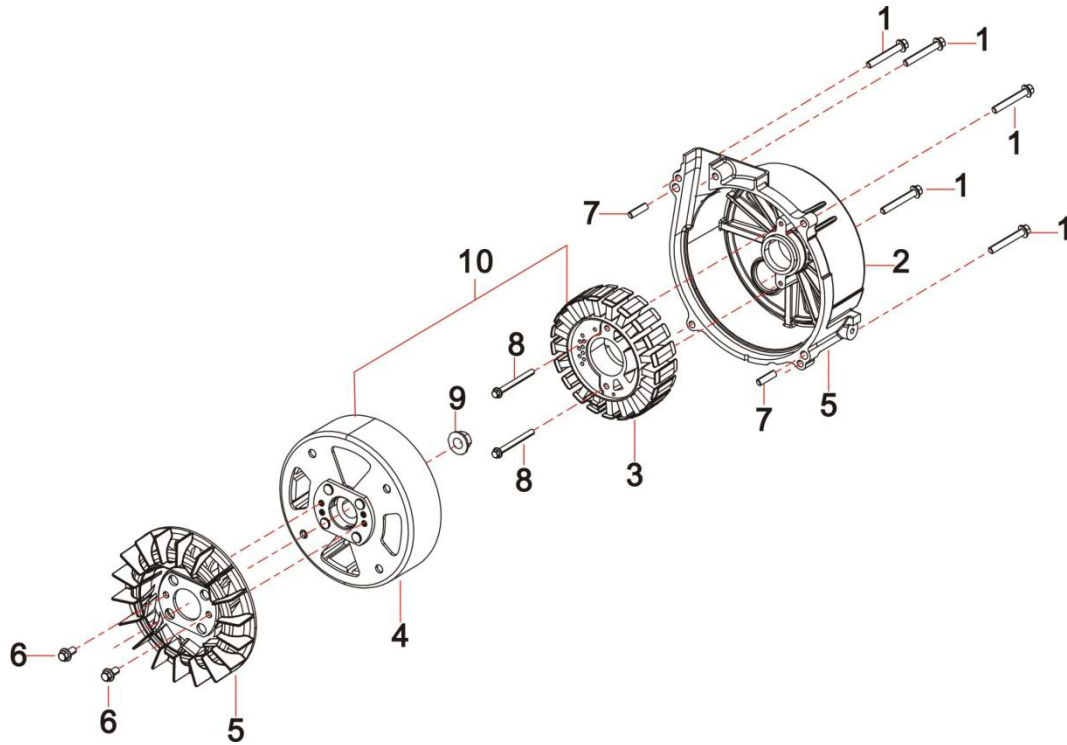
Refe #	Description	Qty /pc	Stock#	Refe#	Description	Qty/ pc	Stock#
5-1	M6X18 Screw	4	A112002-5-1	5-9	13# Rubber Part	1	A112002-5-9
5-2	3# Rubber Parts	4	A112002-5-2	5-10	Iron Support	1	A112002-5-10
5-3	7# Rubber Parts	1	A112002-5-3	5-11	Shock AbsorptionFoot	1	A112002-5-11
5-4	M6 Flange Nut	4	A112002-5-4	5-12	M6X18 Screw	2	A112002-5-12
5-5	M5X15 Bolt	4	A112002-5-5	5-13	Throttle Cable	1	A112002-5-13
5-6	Baseboard	1	A112002-5-6	5-14	6# Rubber Part	1	A112002-5-14
5-7	12# Rubber Part	1	A112002-5-7	5-15	11# Rubber Part	1	A112002-5-15
5-8	M6 Flange Nut	4	A112002-5-8	5-16	Inverter Unit	1	A112002-5-16

FIG.6 Control Panel (F62)



Refe#	Description	Qty/ pc	Stock#	Refe#	Description	Qty/ pc	Stock#
6-1	Cross Bolt	2	A112002-6-1	6-9	Tapping Screw	4	A112002-6-9
6-2	Fuel Pipe	1	A112002-6-2	6-10	Socket	1	A112002-6-10
6-3	Fuel Switch	1	A112002-6-3	6-11	Switch	1	A112002-6-11
6-4	Shim	1	A112002-6-4	6-12	Socket	1	A112002-6-12
6-5	Panel Housing	1	A112002-6-5	6-13	DC Charger Socket	1	A112002-6-13
6-6	Panel	1	A112002-6-6	6-14	Pilot Light	3	A112002-6-14
6-7	Cross Screw	4	A112002-6-7	6-15	Cable	1	A112002-6-15
6-8	Cross Screw	1	A112002-6-8	6-16	USB Port	1	A112002-6-16

FIG.7 Rotor/Stator (F63)



Refe #	Description	Qty/pc	Stock#	Refe#	Description	Qty/pc	Stock#
7-1	Flange Bolt	5	A112002-7-1	7-6	Flange Bolt	2	A112002-7-6
7-2	Alternator Cover	1	A112002-7-2	7-7	Pin	2	A112002-7-7
7-3	Stator ASSY	1	A112002-7-3	7-8	Flange Bolt	2	A112002-7-8
7-4	Rotor ASSY	1	A112002-7-4	7-9	Flange Nut	1	A112002-7-9
7-5	Fan	1	A112002-7-5	7-10	Alternator	1	A112002-7-1