Energizer®

eZV3200
USER GUIDE

Energizer®

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

CAN ICES-3 (B)/NMB-3(B) || ENG_UG_EN_2016-04-25

Thanks for choosing the EZV Series!

You're excited to power up, so we'll keep this brief. Let's get started!

THIS PRODUCT MEETS ALL CERTIFICATION REQUIREMENTS FROM:

263521

SEPARATE PROTECTION AND CONTROL MUST BE PROVIDED IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE, PART 1

WE'VE GOT YOU COVERED!

Contact us by phone at 1-877-528-3772,
email us at support@energizergenerators.com,
or visit us online at www.energizergenerators.com.

IMPORTANT SAFETY INSTRUCTIONS.

This user guide contains important instructions for your product, that should be followed during installation and maintenance of the generator and batteries.

SAVE THESE INSTRUCTIONS.

This user guide covers the safety, operation and maintenance procedures for the EZV3200.

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

Visit www.energizergenerators.com for user guide updates and operation notices.

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WARRANTY INFORMATION

You can register easily using our online form:
www.energizergenerators.com

1-877-528-3772
support@energizergenerators.com
www.energizergenerators.com

See page (35) for more information.

Product registration is required for all product support and warranty coverage, allowing you to request warranty support in the future.

Warranty support, operation assistance and product support is provided by Midland Power Inc., a licensed manufacturer of Energizer Generators. Please contact us directly for any warranty service questions.

1. SAFETY INFORMATION

Playing it safe when working with power equipment is always a good idea. Here are some important precautions to make sure you stay safe.

1.1) Safety while Operating Your Generator

Always perform an oil, fuel and air filter check before starting the engine.

- Properly clean and maintain the equipment.
- Operate the generator according to instructions for safe and dependable service.
- Before operating the generator, read the user guide carefully. Otherwise, it may result in personal injuries or equipment damage.
- Never run the generator in an enclosed area to avoid harm from exhaust emissions of a poisonous carbon monoxide gas.
- The engine exhaust from this product contains chemicals known to cause cancer, birth defects or other reproductive harm.
- Be careful not to touch the exhaust system or discharge tubing during operation due to risk of burns.
- Pay attention to the warning labels. The engine exhaust system will become heated during operation and remain hot immediately after the engine is stopped.
- Gasoline is a highly flammable and explosive liquid. Refuel in a well ventilated area with the engine stopped.
- This portable generator is not for use with gasoline/ethanol blends with over 15% ethanol.
- When refueling the generator, keep it away from cigarettes, open flames, smoke and/or sparks.
- Place the generator at least 3 feet away from buildings or other equipment during operation.
- Run the generator on a level surface. Tilting the generator may result in fuel spills.
- Know how to stop the generator quickly and understand operation of all the controls. Never permit anyone to operate the generator without proper instructions.
- Keep children, pets and machinery with rotating parts away during operation.
- Do not operate the generator in rain or snow.
- Do not allow any moisture to come in contact with the generator.

- Do not touch the spark plug while the engine is operating or shortly after the engine has been shut down

1.2) Understanding AC Safety

Before connecting the generator to an electrical device or power cord:

- Make sure that everything is in proper working order. Faulty devices or power cords can lead to an electrical shock.
- Turn off the generator immediately if the device begins to operate abnormally. Then disconnect the device and investigate the problem.
- Make sure that the electrical rating of the device does not exceed that of the generator. If the power level of the device is between the maximum output power and the running power of the generator, the generator should not be used for more than 30 minutes.
- WARNING: Connections for standby power to a building's electrical system must be done by a qualified electrician and must comply with all applicable laws and electrical codes (National Electrical Code, NFPA 70). Improper connections may cause serious injuries to electrical workers during a power outage, and when the utility power is restored, the generator may explode or cause fires. The generator shall be connected through transfer equipment 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 generator components, possibly leading to a generator failure.

1.3) Safety while Maintaining Your Generator

After any maintenance is performed, wash immediately using soap and clean water because repeated exposure to lubricant may cause skin irritation.

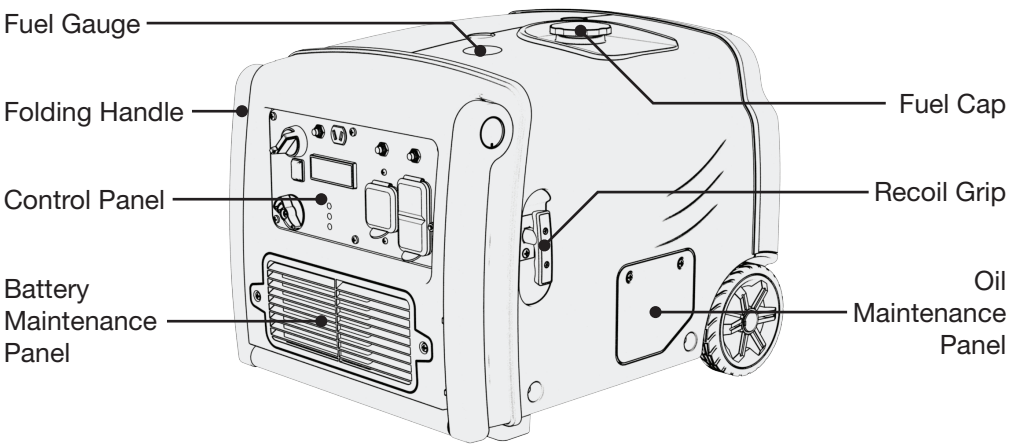
- Do not clean the filter element with flammable liquids like gasoline because an explosion may occur.
- Turn off the engine before performing any maintenance. Otherwise it can cause severe personal injury or death.
- Allow the generator set to cool down before performing any maintenance.
- Always wear safety glasses when cleaning the generator set with air.
- Do not clean the generator set with a pressure washer because it can cause damage to the generator set.
- Before working with batteries, ventilate the area, wear safety glasses, do not smoke and always disconnect the negative cable first and reconnect it last.

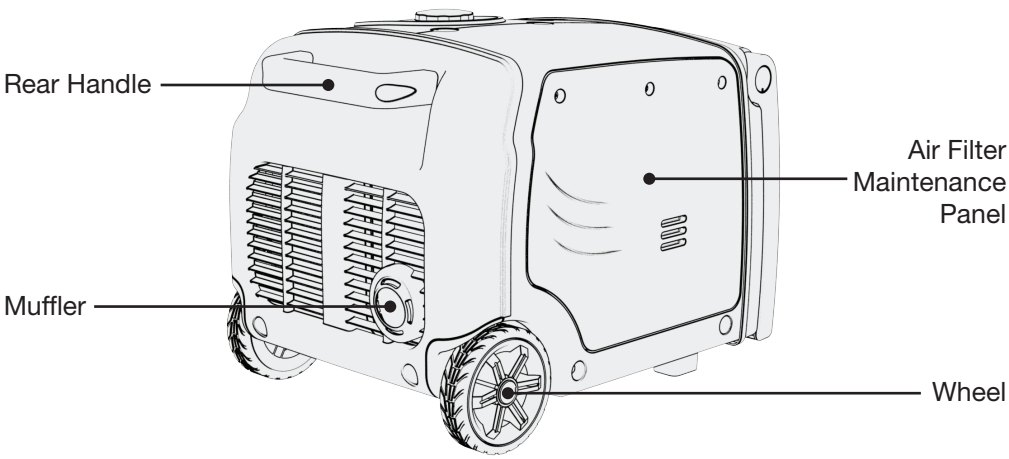
- Use rubber gloves when coming into contact with engine oil.
- Always stop the generator set before removing the oil filler cap.
- Only qualified maintenance personnel with knowledge of fuels, electricity, and machinery hazards should perform maintenance procedures.
- Lubricate all exposed metal parts regularly. See chapter 5.1 for maintenance schedule.

1.4) Other Safety Tips

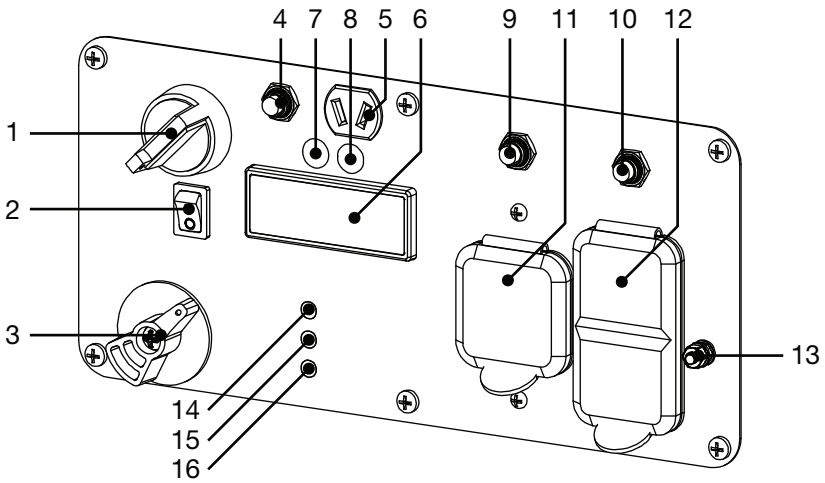
- To avoid breathing in poisonous carbon monoxide from the exhaust gases, adequate ventilation should be provided if the generator set is running in a partially enclosed space.
- If the generator set is stored outdoors, check all the electrical components on the control panel before each use. Moisture can damage the generator and can lead to an electric shock.
- When storing gasoline or equipment with fuel in tank: store away from furnaces, stoves, water heaters or other appliances that have a pilot light or other ignition source because they can ignite gasoline vapors.
- Generators vibrate in normal use. During and after the use of the generator, inspect the generator as well as extension cords and power supply cords connected to it 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.
- 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.

2. COMPONENT IDENTIFICATION





2.1) Control Panel



1. Power Switch
2. EcoMode Switch
3. Fuel Knob
4. DC Reset
5. DC Outlet
6. Digital Display
7. Reset Button
8. Display Button
9. 23.3A AC Breaker
10. 20A AC Breaker
11. Twist Lock 120V AC Outlet
12. Dual 120V AC Outlet
13. Ground Terminal
14. Output Indicator Light
15. Overload Indicator Light
16. Low Oil Indicator Light

Economy Control Switch (EcoMode)

Turning EcoMode to ON is recommended for minimizing fuel consumption. In this mode the engine will dynamically meet the demand of the current electrical load and will automatically go into an idle state if all electrical loads are disconnected.

Before connecting or removing a high load device to the generator, turn EcoMode to OFF until that device has reached running power.

When EcoMode is OFF, the engine runs at full speed.

Display Button

Press the DISPLAY button once to turn on the backlight. The hourmeter will be shown, and the backlight will turn off after 10 seconds. Press the DISPLAY button multiple times to cycle through different information displays.

Reset Button

Use the RESET button in the case of a sudden engine shutdown resulting from prolonged engine overload.

Disconnect all electrical appliances and then press and hold the reset button for 1 second, this will restart the engine. After restarting, if the overload indicator light has turned off and the output indicator light has turned back on, reconnect the electrical appliances. Otherwise, stop the engine by turning the power switch to STOP, and check the generator.

If the generator is running normally, the RESET button will have no effect.

NOTE

- The RESET button is available a maximum of 5 times for every full start of the generator. Shut down the generator and restart using the power switch to refresh the restart times.

AC Circuit Breakers

While the generator is running, the breakers should be put in the ON position. If the current has exceeded its limits it will automatically pop out to the OFF position. Reduce the electrical load on the generator and push the button back to the ON position.

Output and Overload Indicator

In normal operation, the output indicator light (green) will remain on.

If the generator is overloaded (producing more than 2800W) or a connected appliance has short-circuited, the output indicator light will turn off and the overload indicator light will turn on. In this case, the engine will continue running but the AC power will disable within 0~30min.

Low Oil Indicator Light

The oil alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase reaches an unsafe limit, the oil alert system will automatically shut down the engine (the power switch remains in the RUN position).

If the oil alert system shuts down the engine, the low oil indicator light (red) will turn on. Check the engine oil level.

2.2) Make Sure You Have Everything

Make sure your generator has everything listed in the table below

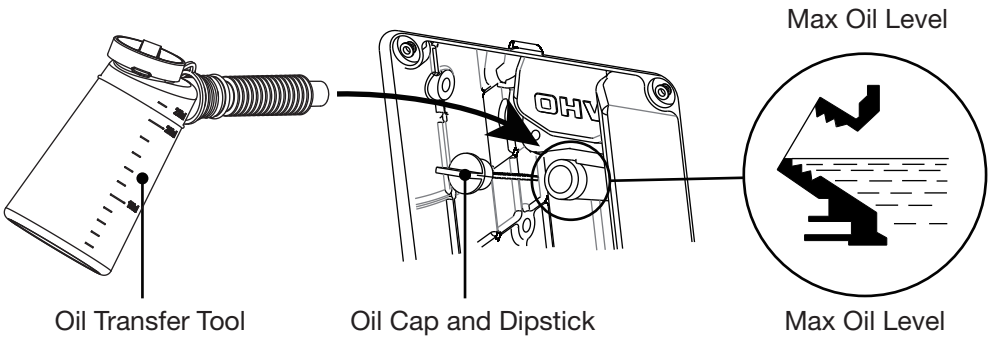
Part Name	Quantity
Inverter Generator	1
User Guide	1
Spark Plug Wrench - Sleeve	1
Spark Plug Wrench - Bar	1
Cross Screwdriver	1
DC Wiring	1
Machine Oiler	1

3. PRE-OPERATION CHECK

Set the generator on a level surface and the power switch to STOP.

3.1) Checking the Oil Level

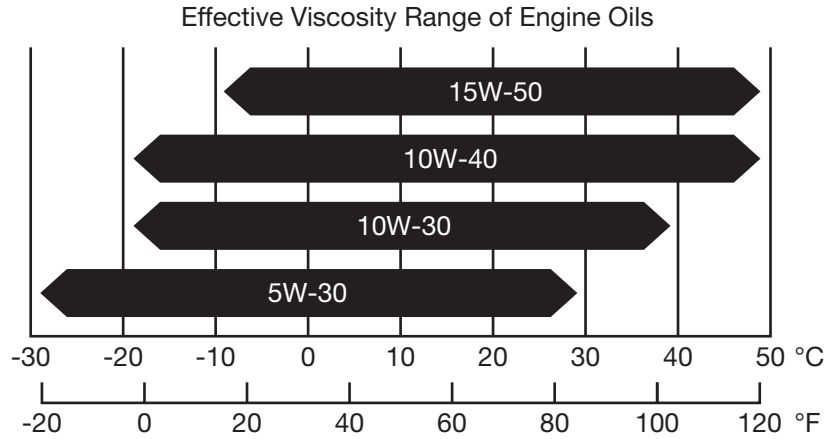
1. Unscrew and remove the oil maintenance panel.
2. Unscrew the oil cap and clean the dipstick.
3. Check the oil level by reinserting the oil cap without rotating it. Remove the oil cap and examine the oil level on the dipstick. If the oil level is at or below the minimum oil level, refill the oil to the maximum oil level mark.
4. Reinsert the oil cap and tighten securely. Replace the oil maintenance panel and screws.



NOTE

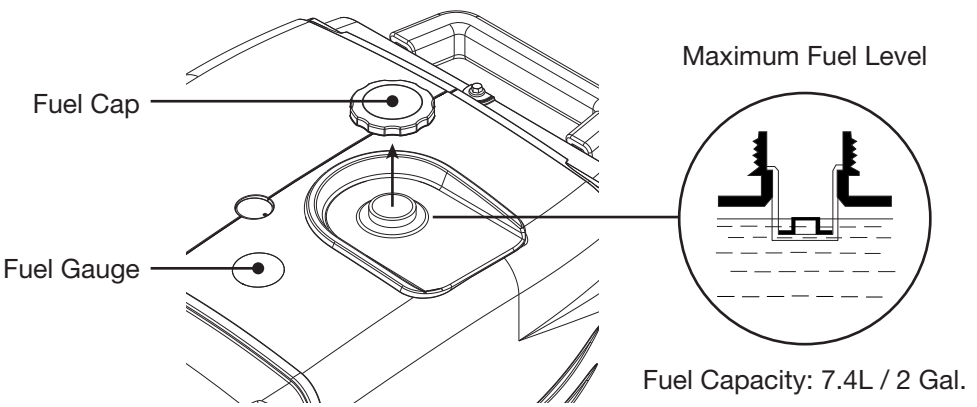
- Do not tilt the generator when adding engine oil. This could result in overfilling and damage to the engine.
- Using non-detergent or 2-stroke oil could shorten the engine's working life.
- Use high quality engine oil with strong detergents
- Handle and store the engine oil with care, avoid getting dirt or dust into the engine oil.
- Do not mix different engine oils.
- Before the engine oil falls below the safety margin, the low oil alert system will automatically shut off the engine. The low oil light will turn on.

- To avoid the inconvenience of unexpected stopping, the engine oil level should be checked as often as possible.
- Use 4-stroke engine oil, certified to meet or exceed API standard SG, SF, SAE ratings.



3.2) Checking the Fuel Level

- Only use unleaded gasoline (Research Octane 91 or higher, Pump Octane 86 or higher).



- Never use stale or contaminated gasoline, or an oil/gasoline mixture.
- Avoid getting dirt or water into the fuel tank.
- Do not use a mixture of gasoline containing ethanol or methanol. This will cause serious damage to the engine.

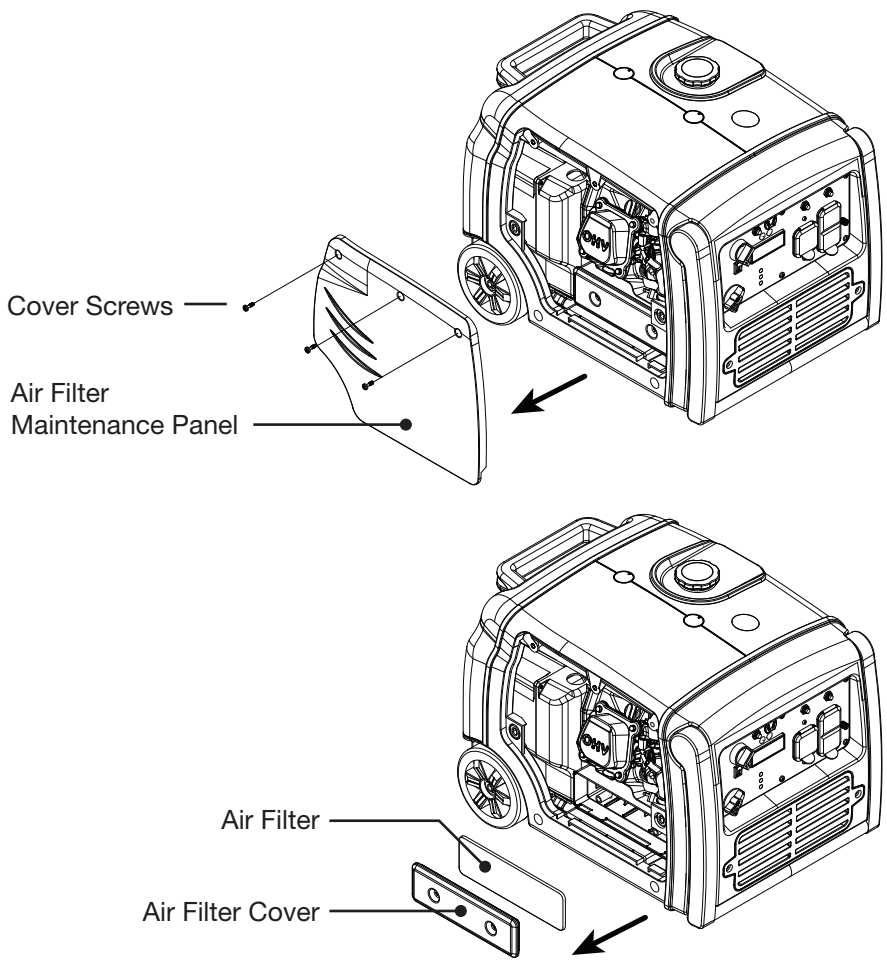
3.3) Checking the Air Filter

Clean the air filter before your first use. Check the maintenance schedule for a complete cleaning guide.

1. Unscrew and remove the engine access panel. Remove the air filter cover.
2. Clean the air filter with soap and water or solvent. Squeeze dry and then soak in clean engine oil.
3. Squeeze out all excess oil and reinstall. Replace the filter if it is damaged.

NOTE

- Running the engine without the air filter will quickly degrade the engine



4. STARTING THE ENGINE

The available engine starting methods may vary between different models.

NOTE

- Operate the generator at least 3 feet (1 meter) away from buildings and other equipment.
- Do not operate the generator in an unventilated area.
- Do not place flammable objects close to the engine.
- Before starting engine, unplug all loads from the generator.
- When fueling for the first time, or after storing for an extended period, the fuel switch should first be opened for ten or twenty seconds, so that enough fuel can enter the carburetor.

DANGER

- CARBON MONOXIDE
- USING A GENERATOR INDOORS WILL KILL YOU IN MINUTES

WARNING

- Exhaust contains poisonous carbon monoxide gas that can build up to dangerous levels in closed areas. Breathing carbon monoxide can cause unconsciousness or death.
- Never run the generator in a a closed or even partly closed area where people may be present.

1. Turn the fuel switch to OPEN.

2. Turn the power switch to RUN.

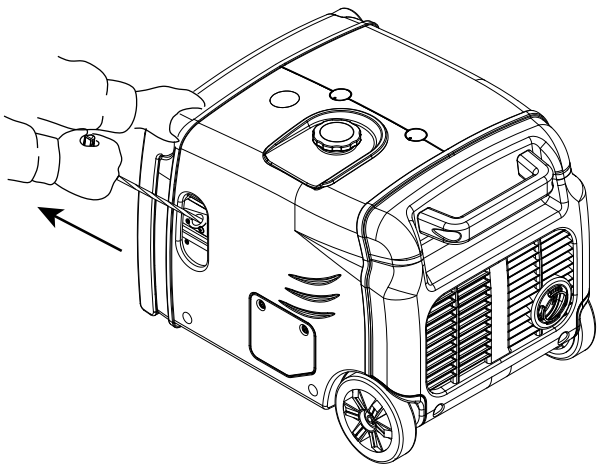
   When the power switch is turned to RUN, the unit will enter a stand-by starting mode. Start the engine within 15 minutes, otherwise the stand-by mode will deactivate, and the engine will not start. To re-enter the stand-by starting mode, turn the power switch to STOP, and then back to RUN.

3. Choose one of the starting modes to start the engine: A, B, C.

   If there is no battery in the generator or the battery has died, the generator can only be started using the recoil method. If there is a battery and it is flat, running the generator will recharge the battery.

A) Manual Recoil Start

Pull the starting grip slowly until it is engaged, then pull it quickly. Repeat until the engine starts.



Return the starter grip slowly by hand, do not release the starter grip to let it spring back quickly.

B) Electric Start

With the power switch already in RUN position, rotate the switch further to START and hold there for 1 second or until the engine starts. Release the switch to RUN position.

C) Wireless Remote Start

With the power switch already in RUN position, press the START button of the remote control once to start the engine.

NOTE

- The operating distance for the remote control is 8 meters without radio interference, or approximately 3 meters with interference.
- The life expectancy for the remote control battery is 2 years. When the battery dies, unscrew the back of the remote to replace it.
- Generators equipped with remote start come with one remote. If the remote is lost, contact customer support to purchase and decode a new one

Carburetor Modification for High Altitude Operation

At high altitudes, the standard carburetor air-fuel mixture will be too rich. Fuel consumption will increase and performance will decrease. A very rich mixture will also foul the spark plug and cause hard starting.

If using the generator at high altitudes, change the main-nozzle or adjust the idling-screw of the carburetor. If always operating the generator at altitudes above 1,000 meters, contact an authorized service centre to have the carburetor modified.

Conversely, if the carburetor has been modified for high altitude operation, the air-fuel mixture will be too lean for low altitude use. Operation at low altitude my cause the engine to overheat and result in serious engine damage. In this case the carburetor needs to be returned to its original specifications.

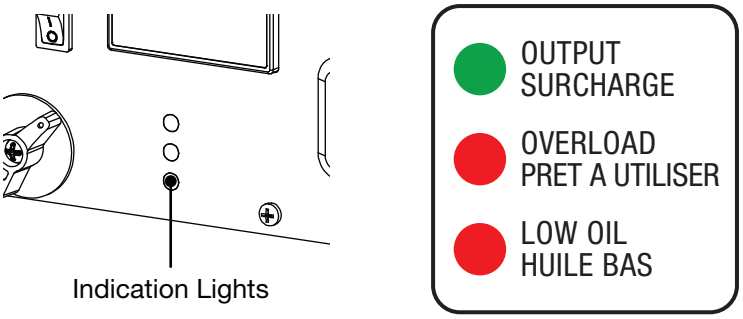
Generator output power should be modified according to the altitude and ambient temperature. See more details on the correction factors in chapter 12.

5. GENERATOR USE

WARNING

- Be sure to ground the generator when the connected electrical appliance is grounded.
- Do not connect to the building's electrical system. Doing so may result in electrical shocks and fire.
- For long engine life, do not exceed the rated running wattage of the generator.
- Do not connect an extension to the exhaust pipe.
- When an extension cable is required, be sure to use a tough rubber sheathed flexible cable (according to IEC245 or equivalent standards). The maximum length of the extension cable: 60 meters for cable of 1.5mm^2; 100 meters for cable of 2.5mm^2.
- Keep away from other electric cables or wires.

5.1) Output, Overload and Oil Alert Indicator



Indication Lights

Light (Solid)			Description
Green	Output Indicator	ON	Indicates normal operation
		OFF	Indicates problem
Red	Overload Indicator	ON	Indicates overload or problem with connected appliances, disconnect any appliances and press and hold the reset button (1s).
		OFF	Indicates normal operation
Red	Low Oil Indicator	ON	Indicates insufficient oil in the crankcase
		OFF	Indicates normal operation

5.2) DC Applications

The DC receptacle, 15-30V under no-load condition, may be used for charging 12V battery only. In DC operation, turn EcoMode to OFF.

NOTE

The DC receptacle can be used while the AC power is in use. If used at the same time, be sure not to exceed the total power for AC and DC. (AC: 2.8kVA, DC: 5A)

- Motor vehicles require more than their rated wattage when starting.

1. Disconnect the vehicle battery ground cable from the negative (-) battery terminals.
2. Connect the DC outlet to the battery terminals using the included charging cable. Connect red lead to positive (+) battery terminal and black lead to negative (-) battery terminal.
3. Turn EcoMode to OFF, and start engine.

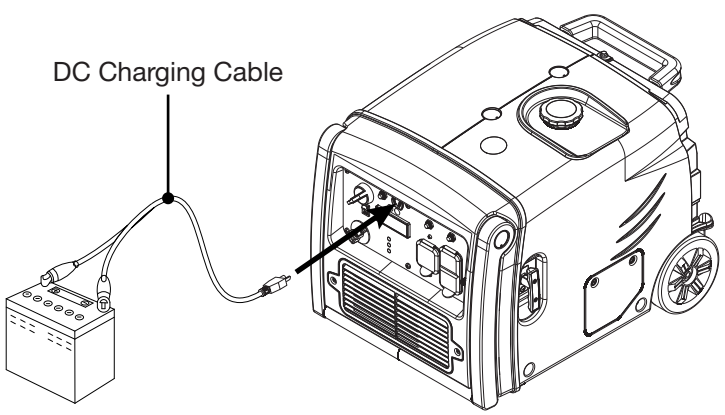
NOTE

- Do not start the automobile engine when the generator is still connected to the battery, this will damage the generator. System floating for DC output.

Disconnecting the charging cable:

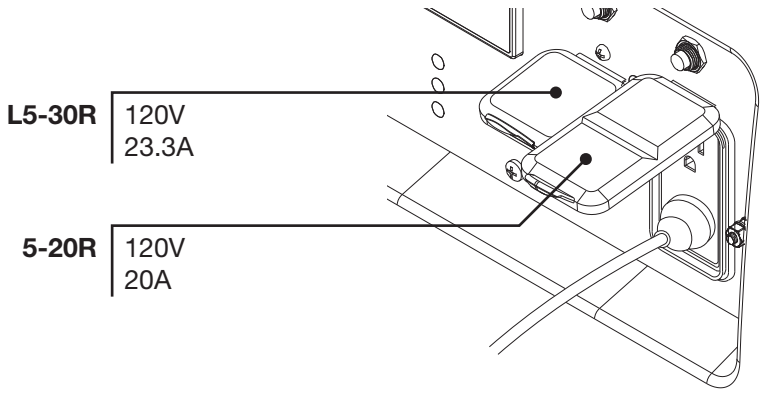
1) Turn the power switch to STOP.

2) Disconnect the black lead from the negative (-) battery terminal, and the red lead from the positive (+) battery terminal.



5.3) AC Applications

1. Start engine and make sure the output indicator light is on.
2. Confirm all electrical appliances are switched off, and connect the appliance plugs to the generator receptacle.
3. Turn on the appliances.
4. Turn EcoMode to ON.



NOTE

- Confirm all electrical appliances are in good working condition before connecting them to the generator. If an electrical appliance becomes abnormal, sluggish, or stops suddenly, shut off the generator engine immediately, and disconnect the appliance.
- The grounding system is not connected to the AC neutral wire
- Neutral floating for AC system.

6. STOPPING THE ENGINE

To stop the engine in an emergency, turn the power switch to STOP immediately.

1. Switch off the connected electrical appliances, and pull out their plugs.
2. Turn the power switch to STOP or press the OFF button on the remote control.
3. Turn the fuel switch to CLOSED.

7. MAINTENANCE

Proper maintenance keeps your generator in the best operating condition by ensuring safe, economical and trouble-free operation. Only use genuine parts and recommended fluids to replace the worn components. Improper maintenance may cause the generator to malfunction and can lead to serious injuries. Contact Energizer Customer Support if you have any maintenance questions.

General Inspection Tips

1. Look for fuel leaks around the fuel tank, fuel hose, and fuel valve. Close the fuel valve and repair leaks immediately.
2. Look and listen for exhaust leaks while the engine is running. Have all the leaks repaired before continuing operation.
3. Check for dirt and debris and clean as necessary .
4. Check the engine oil level and add oil as necessary.

Maintenance Schedule

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

NOTE

- Service more frequently when used in dusty areas.
- These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to manual for service procedures.
- For commercial use, long hours of operation to determine proper maintenance intervals.

ITEM	TASK	Daily	Every 20 Hours	Every 50 Hours	Every 100 Hours	Every 300 Hours
Generator	General Inspection	•				
Engine Lubricants	Inspect Oil Level	•				
	Replace		•*		•	
Air Filter	Inspection	•				
	Cleaning			•		
Sediment Cup	Cleaning			•		
Spark Arrester	Cleaning				•	
Spark Plug	Inspection & Cleaning				•	
	Replacement					•
Valve Clearance	Inspection & Adjusting					•
Combustion Chamber	Inspection & Adjusting					•
Fuel Tank and Strainer	Cleaning					•
Fuel Line	Cleaning	Every two months (replace if necessary)				
Exposed Metal Parts	Lubricate with oil	After every use and especially before storage				

* For first use of the generator.

7.1) Emission Control System

Emission Source

Exhaust gas contains carbon monoxide, nitrogen oxides (NO_x) and hydrocarbons. It is very important to control the emissions of NO_x and hydrocarbons as they are a major contributor to air pollution. Carbon monoxide is a poisonous gas. The emission of fuel vapors is a source of pollution as well. The generator engine utilizes a precise air-fuel ratio and emission control system to reduce the emissions of carbon monoxide, NO_x, hydrocarbons and evaporative fuel emissions.

Regulation

Your engine has been designed to meet current Environmental Protection Agency (EPA) and the California Air Resource Board (CARB) clean air standards. The regulations dictate that the manufacturer provides operation and maintenance standards regarding the emission control systems. Tune up specifications are provided in the Specifications section and a description of the emission control system may be found in the appendix to this manual. Adherence to the following instruction will ensure your engine meets the emission control standards.

Modification

Modification of the emission control system may lead to increased emissions. Modification is defined as the following:

- Disassembling or modifying the function or parts of the intake, fuel or exhaust system.
- Modifying or destroying the speed governing function of the generator.

Engine faults that may affect emission

Any of the following faults must be repaired immediately. Consult with your authorized service centre for diagnosis and repair:

- Hard starting or shut down after starting.
- Unstable idle speed.
- Shut down or backfire after applying an electrical load.
- Backfire or after fire.
- Black smoke and/or excessive fuel consumption.

Replacement parts and accessories

The parts making up the emission control system in your product's engine have been specifically approved and certified by the regulatory agencies. You can trust that the replacement parts supplied by customer service have been manufactured to the same production standard as the original parts. The use of replacement parts or accessories which are not designed by – may negatively affect the engine emission performance. Therefore only use replacements parts and accessories from a qualified service centre to guarantee that the replacement products will not adversely affect emission performance.

Replacement parts other than those from an authorized service centre will void the warranty.

Air Index
(Models certified for sale in California)

An Air Index Information label is applied to engines certified to an emission durability time period in accordance with the requirements of the California Air Resources Board.

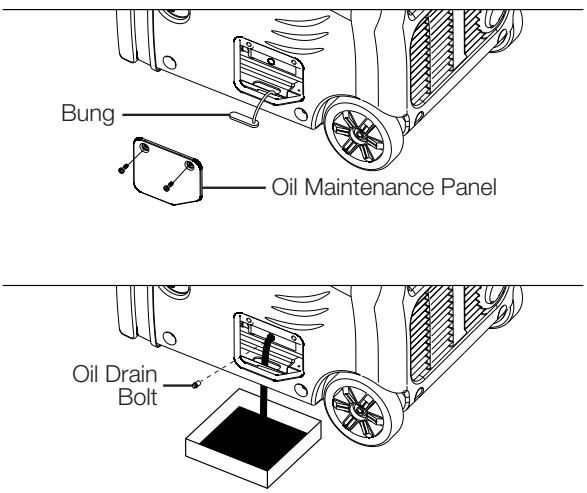
The bar graph is intended to provide you, our customer, the ability to compare the emissions performance of available engines. The lower the Air Index, the less pollution.

The durability description is intended to provide you with information relating to the engine's emission durability period. The descriptive term indicates the useful life period for the engine's emission control system.

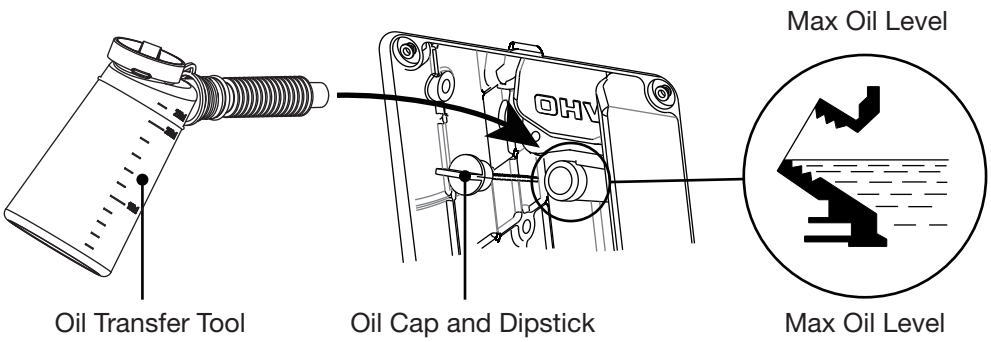
The Air Index Information hang tag must remain on the generator until it is sold. Remove the hang tag before operating the generator.

7.2) Change Oil

Drain the oil rapidly and completely while the engine is still warm.



1. Loosen screws of the oil maintenance cover, and remove the cover.
2. Remove the oil dipstick and the bottom casing's rubber bung.
3. Place oil collection pan under oil drain bolt.
4. Remove the oil drain bolt, and drain oil into the oil collection pan completely.
5. Reinstall the oil drain bolt.



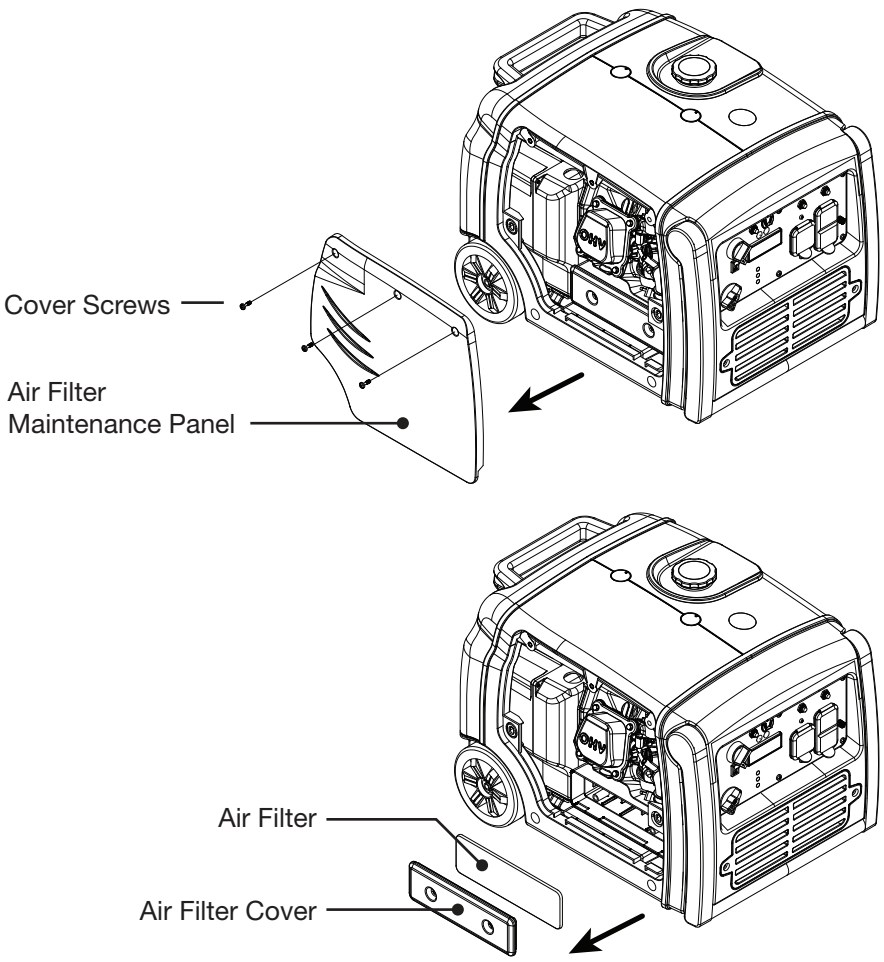
6. Refill the oil, and check the oil level.
7. Reinstall the oil dipstick and tighten it. Replace the rubber bung.

NOTE

- For conforming to the environment requirement, the used oil will be put into a sealed container and then be transported to the service station for proper disposal. Do not throw it into the trash or pour it on the ground.

7.3) Air Filter Service

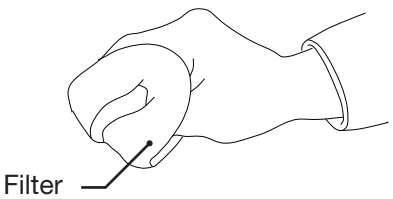
A dirty air filter will restrict air flow into the carburetor. Clean and maintain the air cleaner regularly, especially in dusty areas.



NOTE

- Never run the generator without an air filter, doing so will quickly degrade the engine.

1. Unscrew and remove the air filter maintenance panel.
2. Unscrew and remove the air filter assembly.
3. Remove the foam filter.
4. If the foam element is dirty, clean it in warm soapy water, rinse, and allow it to dry thoroughly, or clean in non-flammable solvent and allow to dry.
5. Dip the foam element in clean engine oil, then squeeze out all excess oil. The engine will smoke when started if too much oil is left in the filter.
6. Wipe dirt from the air filter assembly and reinstall into the unit.

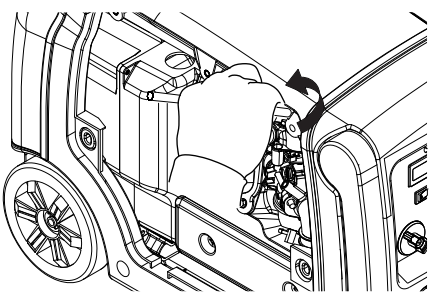


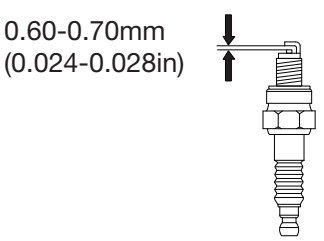
7.4) Spark Plug Service

Recommendation spark plug: F7TC

Check the spark plug gap and clean the carbon deposits at the bottom of the spark plug. Do not rinse spark plug in water. Follow guidelines and be careful not to overtighten the spark plug.

1. Remove the spark plug cap.
2. Remove the spark plug with the spark plug spanner.
3. Visually inspect the spark plug. Replace with a new one plug if the insulation is cracked or chipped. Clean with a wire brush if the spark plug is reused.
4. Measure the spark plug gap with a feeler gauge. The normal value is: 0.6-0.7mm (0.024- 0.028in). Adjust the gap by carefully bending the electrode.
5. Carefully reinstall the spark plug by hand, to avoid cross-threading. A new spark plug should be tightened 1/2 turn with a spanner. A used Spark plug should be tightened 1/8 to 1/4 turn with spanner.



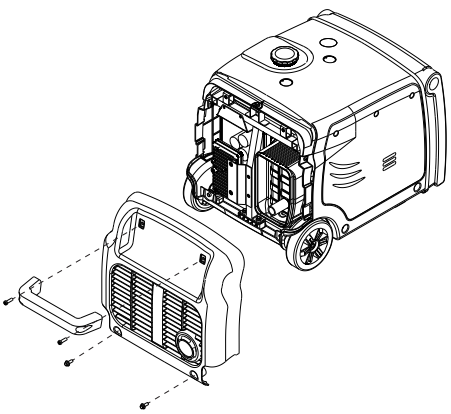


6. Reinstall the spark plug cap.
7. Reinstall the spark plug maintenance cover.

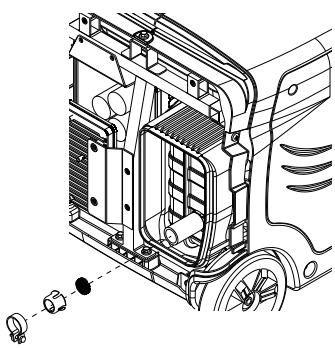
NOTE

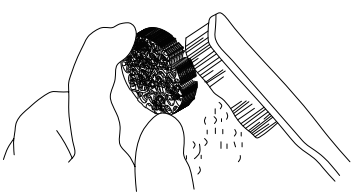
- The spark plug must be securely tightened. Tightening in wrong way will cause spark plug to heat up, enough to damage the engine.
- Never use a spark plug with an improper heat range.

7.5) Spark Arrester Maintenance



1. Remove the screws, and remove the muffler guard.
2. Take off the spark arrester from the muffle after the engine cool down.
3. Use a brush to remove carbon deposits from the spark arrester. If the spark arrester is worn down, replace it.
4. Reinstall the spark arrester and muffle guard.





7.6) Replace Battery and Fuse

Not all models include a battery with an electric start system.

Battery Specifications

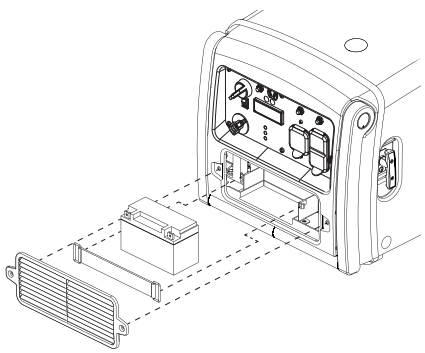
Voltage	Capacity	Dimension
		L≤138mm
12V	7Ah	W≤66mm
		H≤88mm

NOTE

- When the engine is running, the battery will be charging.
- The battery will slowly loose charge when left for long periods. For use with a trickle charging system, the charging current should be less than 0.15c amperes (c: battery rated capacity).
- If the battery is dead, start the generator manually, and the battery will charge.

Replacing the battery

1. Loosen the screws of the battery maintenance cover, remove the cover.
2. Unhook the battery belt.
3. Remove the black cable from the battery negative (-) terminal, and then remove the red cable from the battery positive (+) terminal.
4. Remove the battery from battery tray, and replace with a new one.
5. Reconnect the red cable to the battery positive (+) terminal, and reconnect the black cable to the battery negative (+) terminal.
6. Re-hook the battery belt, and reinstall the cover.



8. TRANSPORTATION & STORAGE

Avoid fuel spilling during transporting or temporary storing, the power switch should be turned to STOP, and the generator should be placed on a level surface.

8.1) Transporting the Generator

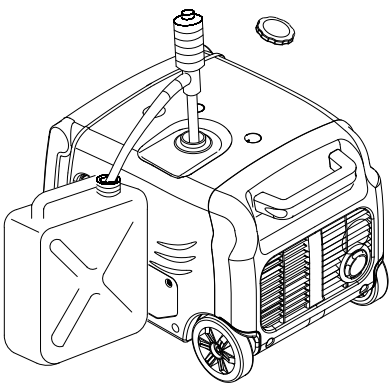
- Do not overfill the fuel tank. (No residual fuel on the neck of tank).
- Do not use the generator on the transport vehicle. The generator should be used while in a well ventilated area.
- Avoid exposing the generator to prolonged direct sunlight while in an enclosed transport vehicle. The high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Drain the generator of fuel and oil before being transported on rough roads.

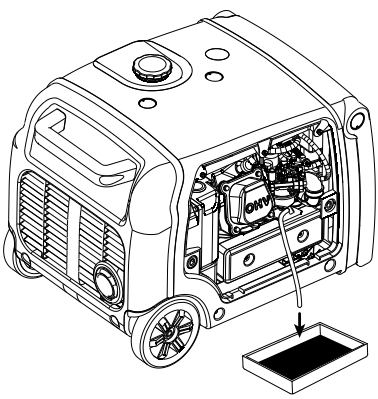
8.2) Storage

Before storing the generator set for an extended period:

1. Ensure that the storage area is free of excess humidity and dust.
2. Drain the fuel tank and the carburetor.
3. To prevent corrosion, coat screws and exposed metal with anti-rust oil at least twice per year.

a. Drain off the gasoline from the fuel tank, and store in a suitable container.





b. Turn the fuel switch to OPEN, and loosen the carburetor drain bolt to discharge all gasoline from inside of the carburetor.

c. Take off the spark plug cap, revolve the engine three or four times by pulling on the recoil start, discharge the gasoline from the fuel lines.

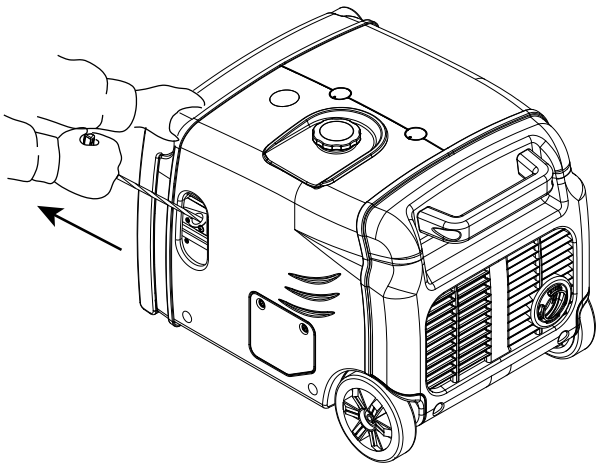
d. Turn the fuel switch to CLOSED, and tighten the drain bolt of carburetor.

e. Reinstall the spark plug cap.

3) Change new oil while engine is still warm from operation.

4) Remove the spark plug, and pour a tablespoon of clean engine oil (10~20ml) into the cylinder. Revolve the engine several times by pulling on the recoil start to distribute the oil. Reinstall the spark plug.

5) Pull the starter grip slowly until you feel resistance. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. This position helps to protect the engine from internal corrosion.

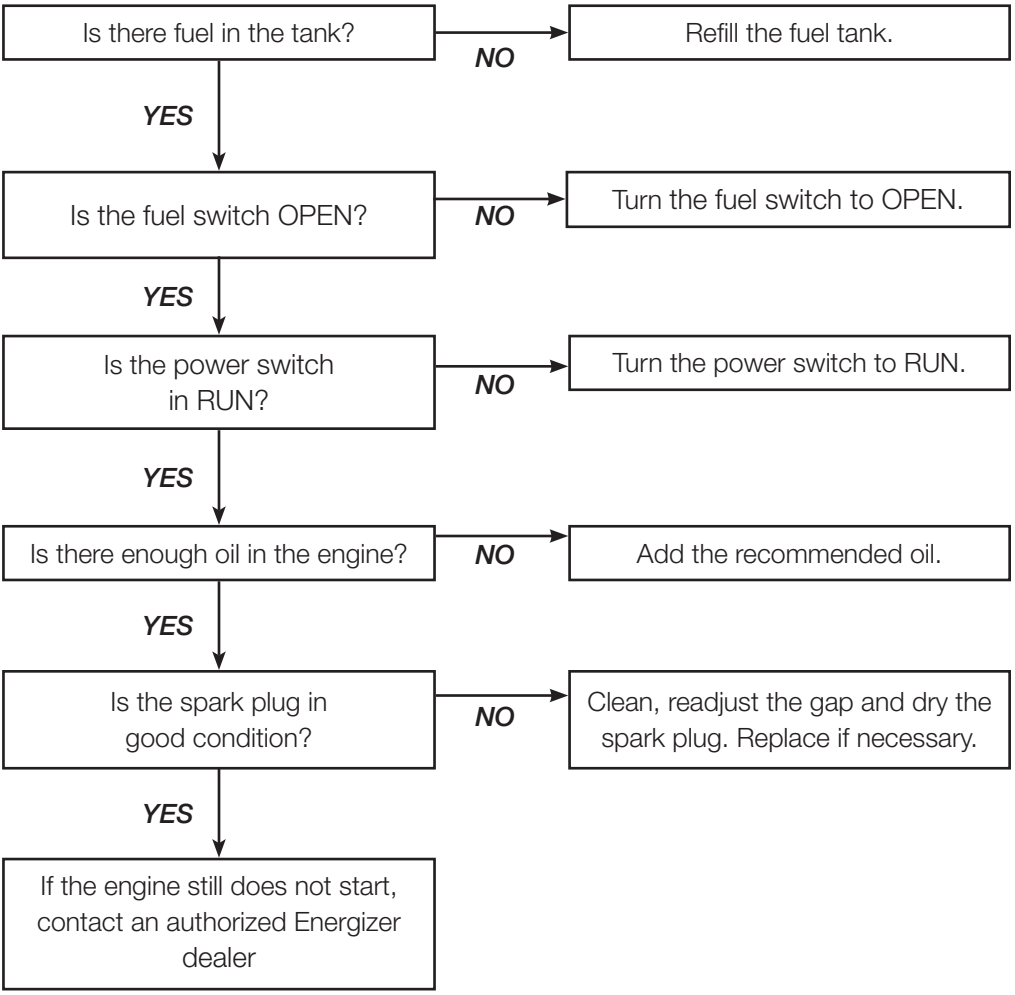


8.3) Draining the Fuel Tank

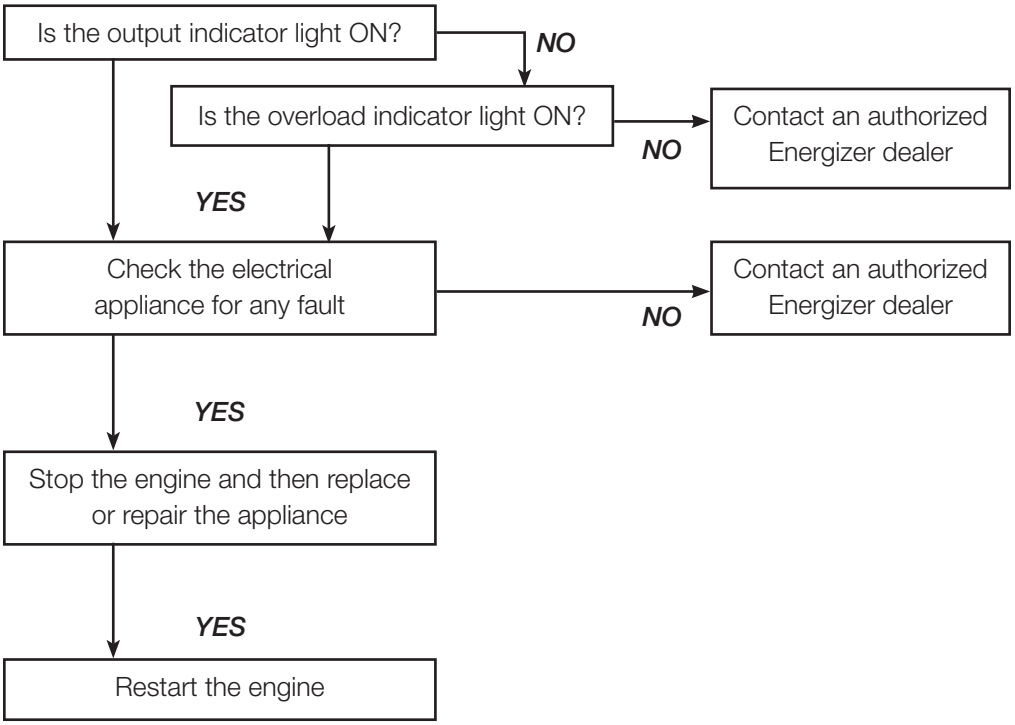
1. Turn OFF the engine. Remove the fuel cap and the debris screen underneath the fuel cap.
2. Siphon the fuel into an approved gasoline container.

9. TROUBLESHOOTING

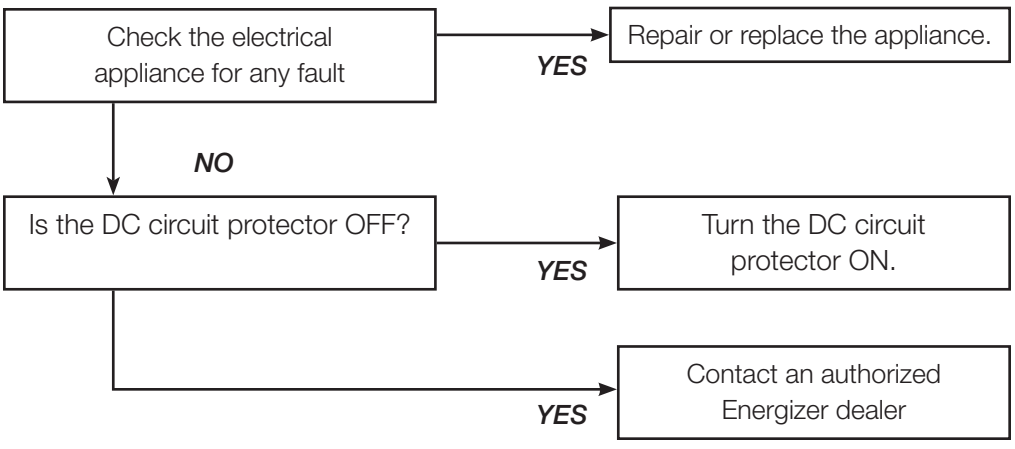
If the engine does not start:



If appliances do not operate:



DC receptacle without any electricity:

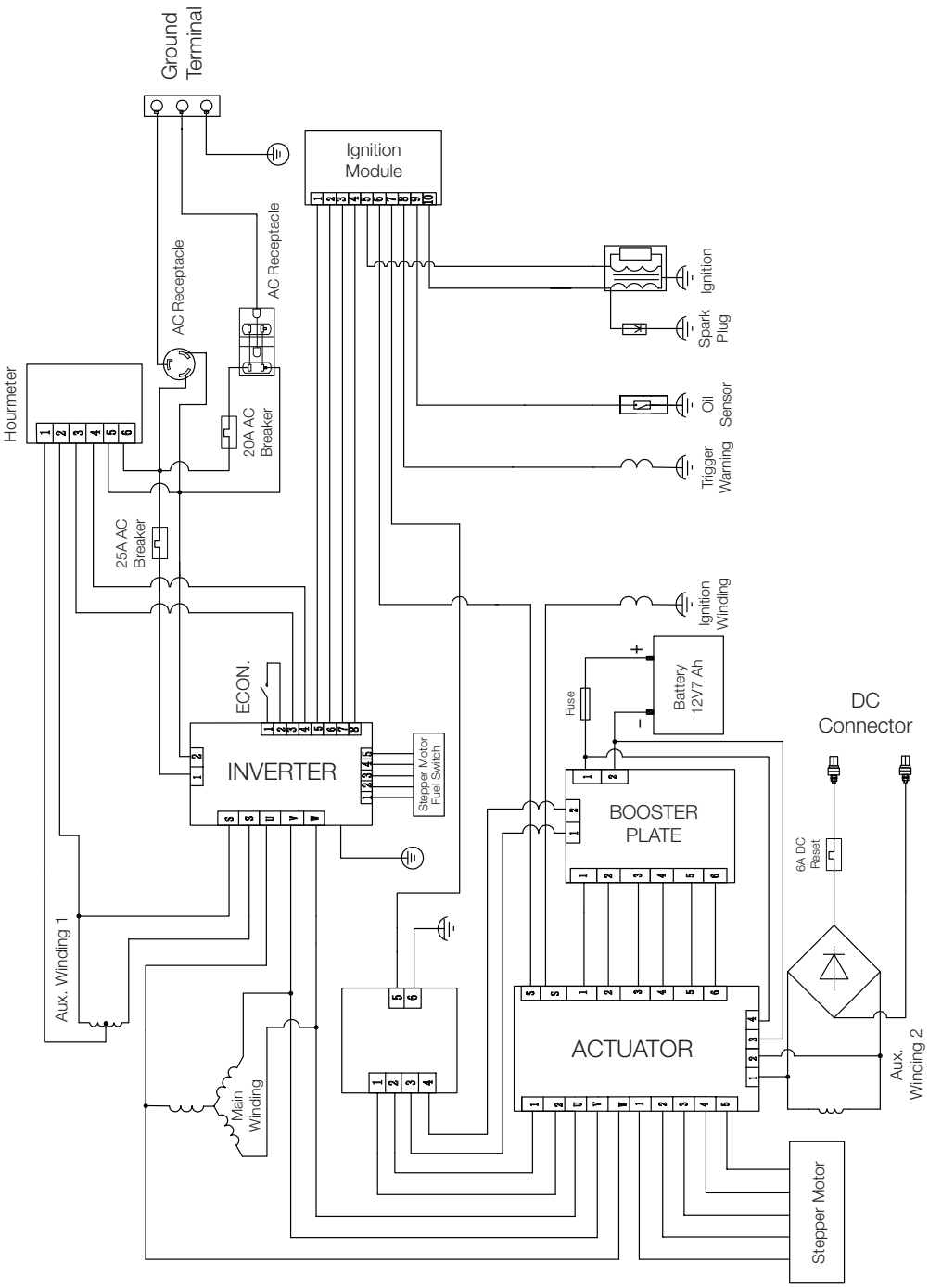


10. TECHNICAL SPECIFICATIONS

	SPECIFICATIONS	PARAMETERS
ENGINE	Model Name	DJ170F
	Type	4-stroke, overhead valve, single cylinders, forced-air cooling
	Engine Displacement	208ml
	Bore* Stroke	70.0mm*54.0mm
	Compression Ratio	8.5:1
	Rated Power	4.0kW/3600min^{-1}
	Ignition System	Full transistor
	Start System	Recoil starter
	Fuel Type	Unleaded Gasoline
	Oil Capacity	0.6L
	Oil Model	SE 15W-30
GENERATOR	Model Name	EZV3200
	Rated Frequency	60Hz
	Rated Voltage	120V
	Rated Current	23.3A
	Rated Speed	3600min^{-1}
	Rated Output Power	2.8kVA
	Max. Output Power	3.2kVA
OTHER SPECIFICATIONS	DC Output	12V/5A
	Fuel Tank Volume	7.4L / 1.95Gal
	Continuous Running Time	6.0h @ 75% Load
	Fuel Consumption	484g/kWh @ 75% Load
	Working Ambient Temperature	-20°C ~ 40°C
	Max. Altitude	1000m
	Sound Power Level at 4m	75dB(A) @ 75% Load
	Sound Power Level at 7m	71dB(A) @ 75% Load
	Dimensions (L*W*H)	580mm*500mm*450mm
	Net Weight	39.5kg

- Noise level is measured when EcoMode is ON.
- The noise level may vary in different environments.

11. WIRING DIAGRAMS



12. APPENDIX

12.1) Environment Correction

The standard condition of rated power output:

Altitude: 0m
Ambient temperature: 25°C
Relative humidity: 30%

Factor of Environment Correction:

Altitude (m)	Ambient Temperature°C				
	25	30	35	40	45
0	1	0.98	0.96	0.93	0.90
500	0.93	0.91	0.89	0.87	0.84
1000	0.87	0.85	0.82	0.80	0.78
2000	0.75	0.73	0.71	0.69	0.66
3000	0.64	0.62	0.60	0.58	0.56
4000	0.54	0.52	0.50	0.48	0.46

NOTE:

Relative humidity 60% correction factor C-0.01
Relative humidity 80% correction factor C -0.02
Relative humidity 90% correction factor C-0.03
Relative humidity 100% correction factor C-0.04

Example:

Rated power (P_N) 2.8kVA generator (Altitude: 1000m) Ambient temperature: 35°C, Relative humidity: 80%

P=Pn*(C-0.02)=2.8*(0.82-0.02)=2.24kVA

13. LIMITED WARRANTY

Toll Free: 1-877-528-3772
E-mail: support@energizergenerators.com
Online: www.energizergenerators.com

Energizer Generator products are distributed by:

Midland Power Inc.
376 Magnetic Drive, Toronto, ON M3J 2C4, Canada

This product is warranted to be free of defects in material and workmanship for two years from date of purchase. This warranty guarantees that any defective parts will be repaired or replaced at no cost, including diagnosis and replacement parts.

Limited Warranty Periods

Recreational and Residential use: Two Years Limited

- 1st Year: Parts and Labor
- 2nd and 3rd Year: Parts only

Commercial use: 6 months limited, parts and labor

This limited warranty begins at the initial time of retail purchase and covers manufacturer's defects caused by a defect in components or workmanship during the three (3) Year period. The warranty coverage is continual from the initial date of purchase and does not restart at anytime under any circumstances. This limited warranty is valid for residential or recreational applications only and only when the generator receives all necessary preventative maintenance as described in the Energizer Generators User Guide. The repair or replacement of a generator will take place within a reasonable period of time during normal business hours. All repair and replacement parts shall be warranted for (90) days after the initial date of installation or purchase.

Limitation of Remedies and Disclaimers

Midland International Inc. disclaims any responsibility for loss of time or use of the generator in a recreational vehicle or any vehicle in which the generator is installed, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written warranty.
THE FOREGOING LIMITED WARRANTY IS EXCLUSIVE OF AND IN LIEU

OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND OF ANY OTHER WARRANTY WHETHER EXPRESS OR IMPLIED. Consumable parts, such as oil or fuel filters, fuel cut off valve, brushes, fuel injection nozzle valve, lubricant, or ignition plug, are not covered under this warranty. All expenses incurred in maintaining and replacing parts for generator shall fall on the purchaser. This warranty coverage does not include parts affected by accident and/or collision, corrosion or rust, normal wear, incorrect fuel type or fuel contamination, use in an application for which the product was not intended, unauthorized service, or any other misuse, neglect, incorporation or use of unsuitable attachments or parts. Damage to voltage regulators caused by failure to ground, shorting or overloading will not be covered under this warranty. Under this Warranty, we do not have the obligation to bear any transportation fees of any product to/from an authorized Warranty Center. Unauthorized alteration, installation or any cause other than defects in material or workmanship of the product will not be covered under the warranty.

Exclusions Not Covered by this Limited Warranty

1. Normal engine/alternator wear
2. Damage caused by lack of maintenance as described in the Energizer User Guides, or negligence by using improper or impure motor oil, coolant, or fuel
3. Damage caused by accidents, improper installation or storage;
4. Damage caused by water ingestion, submersion, or external water damage
5. Damage or non-performance caused by operation of the generator set in a marine application
6. Damage caused by operation with improper fuel, or at speeds, loads, conditions, or modifications contrary to published specifications.
7. Items not supplied by Energizer, including, but not limited to, starting batteries, battery cables, external wiring, fuel lines, filters, etc;(refer to exclusions)
8. Repairs made during the warranty period, without first obtaining a case number from Energizer.

Batteries supplied with any generator product should be considered a bonus item and not covered by warranty. Batteries can be damaged by shock, shorting terminals, heat, acid spillage and a number of other factors that cannot be controlled after they have left our facility. It is the customer's responsibility to take great care when handling a battery so no spillage of acid will occur and cause corrosion; damage caused by battery acid is not covered under this warranty.

Emission Control System Warranty Parts:

SYSTEMS COVERED IN WARRANTY	PARTS DESCRIPTION
Fuel Metering	Carburetor assembly (includes starting enrichment system), Engine temperature sensor, Engine control module, Fuel regulator, Intake manifold
Evaporative	Fuel Tank, Fuel Cap, Fuel Hoses, Vapor Hoses, Carbon Canister, Canister Mounting Brackets, Fuel Strainer, Fuel cock, Fuel Pump, Fuel Hose Joint, Canister Purge Hose Joint
Exhaust	Catalyst, Exhaust Manifold
Air Induction	Air filter housing, Air filter element
Ignition	Flywheel magneto, Ignition pulse generator, Crankshaft position sensor, Power coil, Ignition coil assembly, Ignition control module, Spark plug cap, Spark plug
Crankcase Emission Control	Crankcase breather tube, Oil filler cap
Miscellaneous Parts	Tubing, fittings, seals, gaskets, and clamps associated with these listed systems

This list applies to parts supplied by Midland Power Inc. and does not cover parts supplied by the equipment manufacturer. Please see the original equipment manufacturer's emissions warranty for non-Midland Power Inc. parts.

Consumable parts are covered up to a maximum of 30 days.

Warranty Claim Procedure

Warranty service must be performed by one of our authorized service dealers. Do not return your product where purchased. If you feel your generator is malfunctioning due to a defect or misuse, simply contact our customer support center for technical advice, a warranty claim or general information. Warranty service, operation assistance and product support is provided by Midland Power Inc., contact us at the following numbers.

Product Registration

Product registration is required for product support and warranty coverage. The owner's registration found in the user guide can be completed and mailed. You can also register online at www.energizergenerators.com. Once your registration is complete, your receipt will be on file and any future warranty claims will be easily created.

Proof of purchase may be required for warranty claims. Keep a copy of the original receipt, UPC code and serial number with this user guide.

Customer Service

Toll Free: 1-877-528-3772
E-mail: support@energizergenerators.com
Online: www.energizergenerators.com

Warranty Registration Instructions

Ownership must be registered with Energizer Generators in order to ensure continued warranty and service support.

If you wish, you can confirm your registration by calling customer service at or by e-mail at support@energizergenerators.com.

YOU CAN REGISTER EASILY USING OUR ONLINE FORM:

www.energizergenerators.com/warranty.php

Enjoy!

Be sure to check energizergenerators.com for updates regarding your generator.