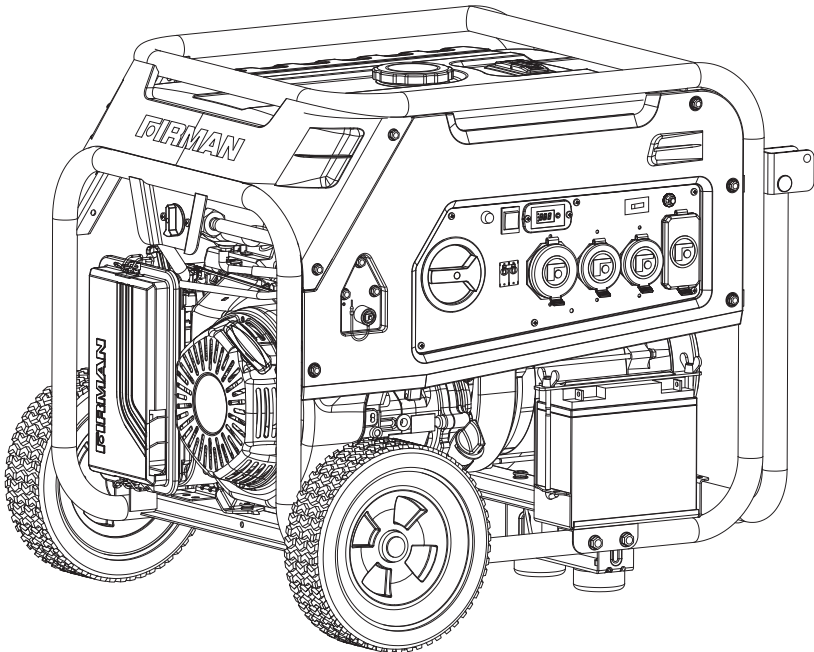


FIRMAN[®]

OPERATOR'S MANUAL TRI-FUEL PORTABLE GENERATOR



MODEL NUMBER
T08071
Rev Level:00

Record product information to reference when ordering parts or obtaining warranty coverage.

SERIAL NUMBER: _____

PURCHASE DATE: _____

STOP DO NOT RETURN TO STORE!

CALL US FIRST
1-844-347-6261

FOR QUESTIONS OR SERVICE INFORMATION



INTRODUCTION

Table of Contents

Introduction	1
Features and Controls	5
Operation	7
Maintenance - Storage	24
Troubleshooting- Specifications	30
Parts Diagrams - Parts Lists - Wiring Diagram	31
Service - Warranty	38

REGISTER YOUR PRODUCT

Register your FIRMAN generator online at www.firmanpowerequipment.com




INTRODUCTION

Thank you for purchasing a FIRMAN generator. You have selected a high-quality, precision engineered generator set designed and tested to give you years of satisfactory service. This generator is Tri-Fuel and capable of running on gasoline, liquid petroleum gas (LPG), and natural gas (NG). This generator is not intended for life safety support.

This manual contains safety information to make you aware of the hazards and risks associated with generator products and how to avoid them. This generator is designed and intended only for supplying electrical power for operating compatible electrical lighting, appliances, tools and motor loads, and is not intended for any other purpose. It is important that you read and understand these instructions thoroughly before attempting to start or operate this portable generator. Save these original instructions for future reference.

All information in this publication is based on the latest production information available at the time of approval for printing. The manufacturer reserves the right to change, alter or otherwise improve the generator and this documentation at any time without prior notice.

SIGNAL WORDS

 DANGER	 WARNING	 CAUTION	NOTICE
Indicates a hazard which, if not avoided, will result in death or serious injury.	Indicates a hazard which, if not avoided, could result in death or serious injury.	Indicates a hazard which, if not avoided, could result in minor or moderate injury.	Indicates information considered Important, but not hazard-related.



Safety Alert Symbol- Indicates a potential personal injury hazard.



Operator's Manual- Failure to follow warnings, instructions and operator's manual could result in death or serious injury.



Toxic Fumes- Engine exhaust contains carbon monoxide, a poisonous gas that will kill you in minutes. You cannot smell it or see it.



Generator could cause electrical shock resulting in death or serious injury.



Fire- Fuel and its vapors are extremely flammable which could cause burns or fire resulting in death or serious injury. Engine exhaust could cause fire resulting in death or serious injury.



Hot Surface- Muffler could cause burns resulting in serious injury.

INTRODUCTION



WARNING! This product can expose you to chemicals including gasoline engine exhaust, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

This outdoor generator can be used to power outdoor items using extension cords or to restore home power using a transfer switch. A transfer switch is a separate device installed by a licensed electrician that allows the portable generator to be cord connected, using either of the 120/240V receptacles, directly into your home's electrical system. Install a listed transfer switch as soon as possible if this generator will be used to restore power to your home.

NOTICE If you have questions about intended use, contact FIRMAN customer service. This portable generator is designed to be used only with FIRMAN authorized parts.

System Ground

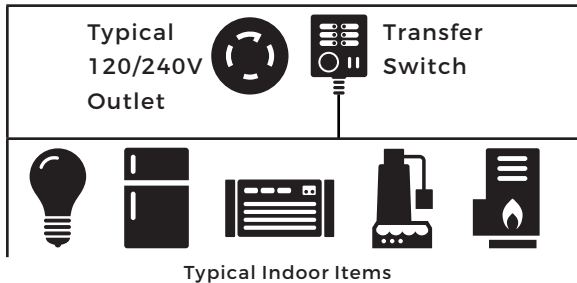
The generator has a system ground that connects the generator frame components to the ground terminals on the AC output receptacles. The system ground is connected to the AC neutral wire. The neutral is bonded to the generator frame.

Compliance Requirements

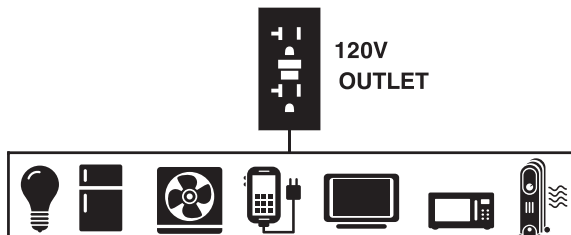
There may be Federal or State regulations, local codes, or ordinances that apply to the intended use of the generator. Consult a qualified electrician, electrical inspector, or the local agency having jurisdiction. This generator is not intended to be used at a construction site or similar activity as defined by NFPA 70-2020 (NEC) section 590.6.

To Restore Home Power Using a Listed Transfer Switch

Connections to your home's electrical system must use a listed* transfer switch installed by a licensed electrician. The connection must isolate the generator power from the utility power and comply with all applicable laws and electrical codes.



To Restore Power Using Extension Cords



1. Only use grounded cords marked for outdoor use rated for your loads.

Total Amperage	Minimum Gauge, Outdoor Rated
	Up to 50 FT (15m)
Up to 13A	16
Up to 15A	14
Up to 20A	12
Up to 30A	10
Up to 50A	6



To provide power using extension cords

2. Follow cord safety instructions.

3. Install carbon monoxide alarm(s).

4. When operating portable generator with extension cords, make sure portable generator is located in an open, outdoor area, at least 20 ft. (6 m.) from occupied spaces with exhaust pointed away.

5. Extension cords running directly into your home, powering indoor items IS NOT RECOMMENDED.

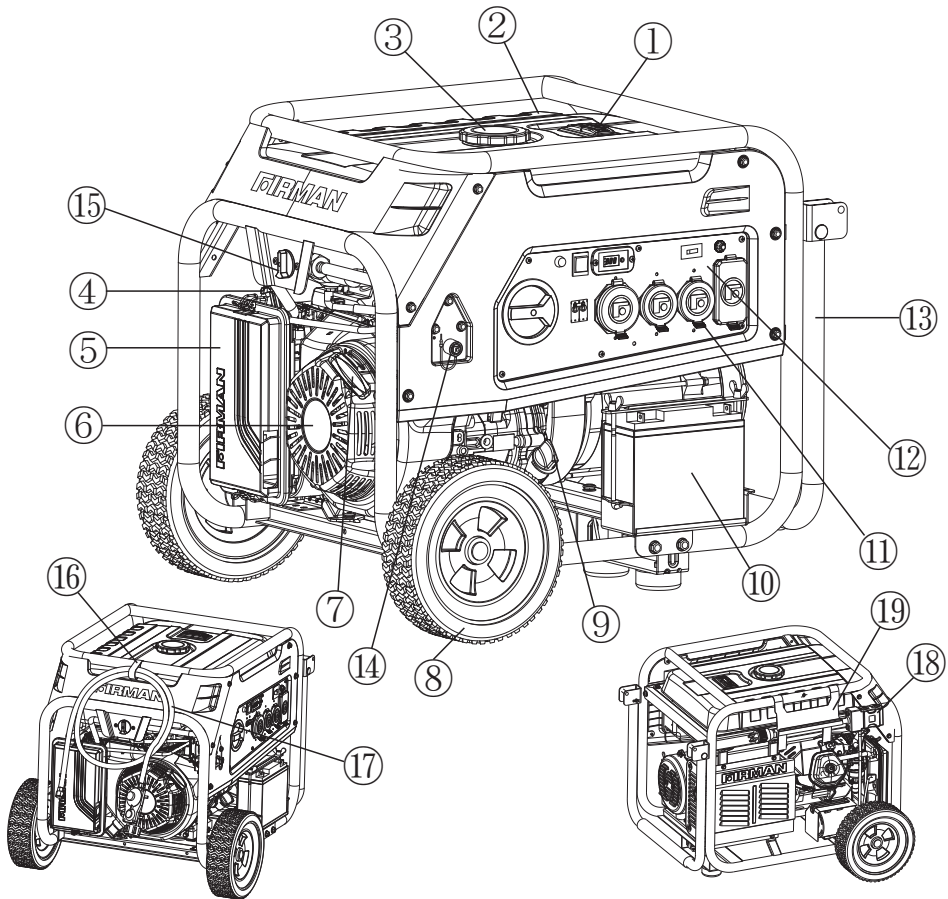


DANGER! Engine exhaust contains carbon monoxide, a poisonous gas that will kill you in minutes. You cannot smell it, see it, or taste it. Even if you do not smell exhaust fumes, you could still be exposed to carbon monoxide gas.

- Extension cords running directly into the home increase your risk of carbon monoxide poisoning through any openings.
 - If an extension cord running directly into your home is used to power indoor items, the operator recognizes that this increases the risk of CO poisoning to people inside the home and assumes that risk.
6. Install a listed *transfer switch as soon as possible if this or any generator will be used to restore power to your home.

*Certified by a Nationally Recognized Testing Laboratory that the product complies to appropriate product safety test standards.

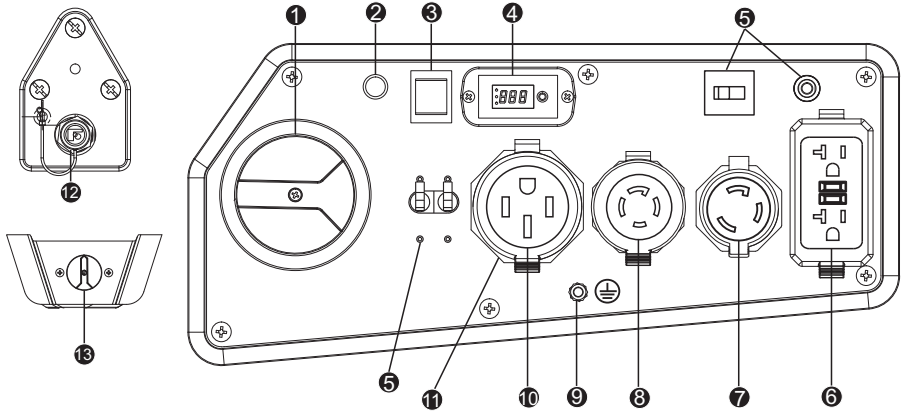
FEATURES AND CONTROLS



- | | |
|---|--|
| 1- Fuel Gauge | 11- Outlet Cover |
| 2- 8.0 Gallon Capacity Fuel Tank | 12- Control Panel |
| 3- Fuel Cap | 13- Handle |
| 4- Choke Lever (behind air filter box) | 14- LPG/NG Hose Connector (Inlet) |
| 5- Air Filter | 15- LPG/NG Selector Switch |
| 6- 439cc FIRMAN OHV Engine | 16- Hose Holder |
| 7- Recoil Starter | 17- LPG Hose with Regulator |
| 8- 10.0" Flat Free Wheel | 18- Short Power Cord (L14-30P to 4X5-20R) |
| 9- Oil Filler Cap | 19- Power Cord Holder |
| 10- Battery | |

*We are always working to improve our products. Therefore, the enclosed product may differ slightly from the image on this page.

Control Panel



NOTICE Total power drawn from all receptacles must not exceed the name plate rating.

1. **Main Fuel Selector Switch/Engine Switch** - Use to select and turn on gasoline (GAS) or LPG/NG fuel source. The GAS valve is closed when the switch is in the OFF or LPG/NG positions. Engine switch is on when the switch is in GAS or LPG/NG positions.
2. **Indicator Light** - When the main fuel selector switch is turned to the GAS or LPG/NG position, the indicator light will turn RED for up to 4 minutes (before going off). Starting the engine successfully anytime during the 4 minutes will turn the indicator light GREEN. See Indicator light-Battery Power Saving Mode section for more information.
3. **Engine Start Switch** - To start engine, press and hold the switch in the START (II) position, the engine will crank and attempt to start. When the engine starts, release the switch to the RUN (I) position.
4. **3-1 Data-Minder (Multi-Meter)** - Push the SELECT button to show the Voltage, Hertz and running hours.
5. **Circuit Breakers** - The receptacles are protected by AC circuit protectors. If the generator is overloaded or an external short circuit occurs, a circuit protector may trip. If tripping occurs, disconnect all electrical loads and determine the cause before attempting to continue using the generator. Reset any tripped circuit protectors.
If multiple receptacles are used at the same time, the total current must be kept with-in the portable generator nameplate rating.
6. **120V, 20A Duplex GFCI** (Ground Fault Circuit Interrupter)- NEMA 5-20R
A maximum of 20 Amps current may be drawn from this duplex receptacle.
7. **120V, 30A Twist Lock** - NEMA L5-30R(Not GFCI protected)
A maximum of 30 Amps current may be drawn from this receptacle.
8. **120/240V, 30A Twist Lock** - NEMA L14-30R(Not GFCI protected)
A maximum of 30 Amps current for 240 Volts or two independent 120 Volt loads at 30 Amps current each.
9. **Ground Terminal** - Consult an electrician or authority having jurisdiction for local grounding requirements.
10. **120/240V, 50A** - (NEMA 14-50R) (Not GFCI protected)
A maximum of 33.33 Amps current for 240 Volts or two independent 120 Volt loads at 33.33 Amps current each.
11. **Outlet Cover** - Protects the receptacles from dust and debris.
12. **LPG/NG Hose Connector** (Inlet: 3/8" Flare Male) - Used to connect LPG/NG hose to generator.
13. **LPG/NG Selector Switch** - Select either LPG or NG.

OPERATION

1. Location

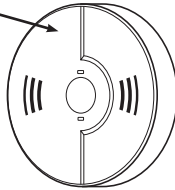


DANGER! Engine exhaust contains carbon monoxide, a poisonous gas that could kill you in minutes. You **CANNOT** smell it, see it, or taste it. Even if you do not smell exhaust fumes, you could still be exposed to carbon monoxide gas.

- Operate portable generator only outdoors, at least 20 ft. (6 m) from occupied spaces with exhaust pointed away to reduce the risk of carbon monoxide accumulating.
- Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up according to the manufacturer's instructions. Smoke alarms cannot detect carbon monoxide gas.
- Do not run this portable generator inside homes, garages, basements, crawlspaces, sheds, or other partially-enclosed spaces even if using fans or opening doors and windows for ventilation. Carbon monoxide can quickly build up in these spaces and can linger for hours, even after this product has shut off.
- If you start to feel sick, dizzy, weak or your home's carbon monoxide alarm sounds, get to fresh air right away. Call emergency services. You may have carbon monoxide poisoning.

Carbon Monoxide Alarm(s)

Install carbon monoxide alarms inside your home. Without working carbon monoxide alarms, you will not realize you are getting sick and dying from carbon monoxide poisoning.

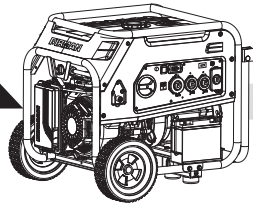


Prevent Carbon Monoxide (CO) Poisoning

Use outdoors at least 20 ft. (6 m) from any home.
Point exhaust away from all homes and occupied spaces.
Install CO alarms inside your home.



20 ft. (6 m) min.



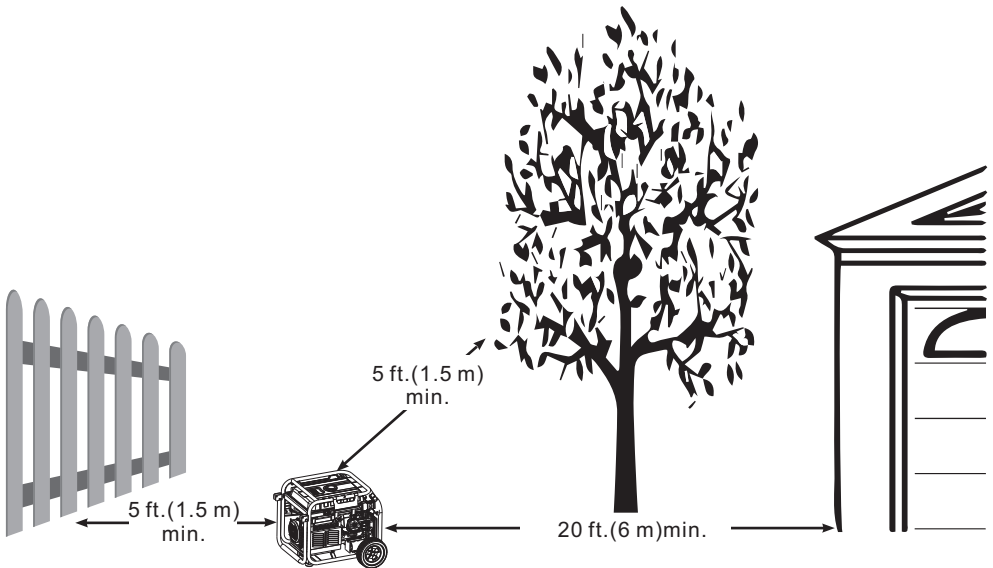
To better educate yourself about all carbon monoxide risks, go to www.takeyourgeneratoroutside.com.

Reduce Risk of Fire



WARNING! Exhaust heat/gases could ignite combustibles, structures or damage fuel tank causing a fire, resulting in death or serious injury.

- Keep portable generator at least 5 ft. (1.5 m) from any structure, trees or vegetation over 12 in. (30 cm) in height.
- Select an outdoor site that is dry and protected from the weather. Do not move portable generator indoors to protect it from the weather.
- Do not locate the portable generator under a deck or other similar structure that may confine heat and airflow.



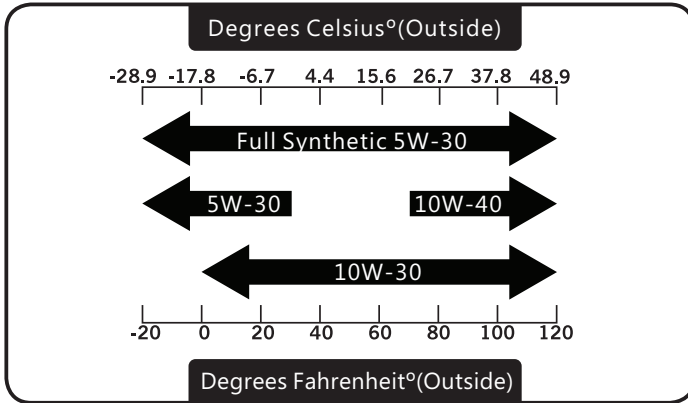
OPERATION

2, Oil and Gasoline / LPG/ NG

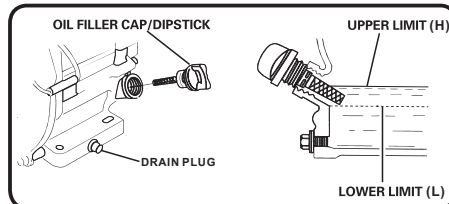
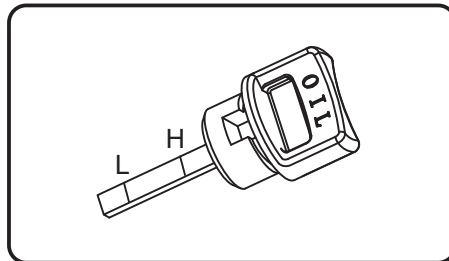
Add Engine Oil

We recommend using FIRMAN SAE 10W-30 API SL oil for best performance. Other high-quality detergent oils (API SL or higher) are acceptable. Do not use special additives. Ambient temperature determines the proper oil viscosity for the engine. Use the chart to select the proper oil for the outdoor temperature range expected.

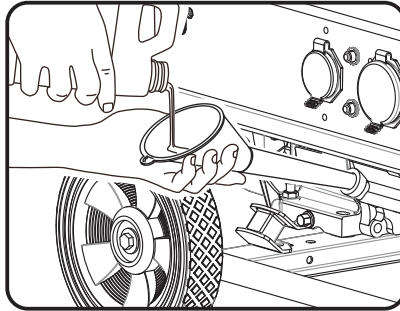
NOTICE Do not attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage due to operation with no oil will void your warranty.



1. Place generator on a flat, level surface.
2. Clean area around oil fill and remove yellow oil fill cap/dipstick.
3. Wipe dipstick clean.



4. Using oil funnel, slowly pour contents of provided oil bottle into oil fill opening until oil reaches upper limit "H" mark on the dipstick. Be careful not to overfill. Overfilling could cause engine starting problems or engine damage.



5. Replace oil fill cap/dipstick and fully tighten.

6. Oil level should be checked prior to each use or at least every 8 hours of operation. Keep oil level maintained.

Low Oil Shutdown

The portable generator is equipped with a low oil shutdown. If the oil level drops below the minimum required level, a sensor will activate an internal switch stopping the engine. If the engine shuts off and the oil level is within specifications, check to see if generator is sitting at an angle. Place portable generator on an even surface to correct this. If engine fails to start, the oil level may not be high enough to deactivate the internal low oil level switch. Make sure the sump is completely full of oil to the upper limit (H). Do not operate engine until oil level issue is corrected. Contact FIRMAN customer service.

Add Gasoline



WARNING! Fuel and its vapors are extremely flammable which could cause burns or fire resulting in death or serious injury.

- Turn generator engine OFF and let it cool at least 2 minutes before removing fuel cap.
- Do Not refuel or move generator when engine is running.
- Move generator outdoors prior to adding or draining fuel
- Keep fuel away from any ignition sources.
- Do not overfill tank, allow space for fuel expansion.
- If any fuel spills, wait until it evaporates before starting engine
- Check and replace fuel lines, tank, cap, and fittings prior to each use if any damage or leaks are found.

Fuel must meet these requirements:

- Clean, fresh, unleaded gasoline with a minimum of 87 octane.
- For high altitude use, see Operation at High Altitude.
- Gasoline with no more than 10% ethanol is acceptable.

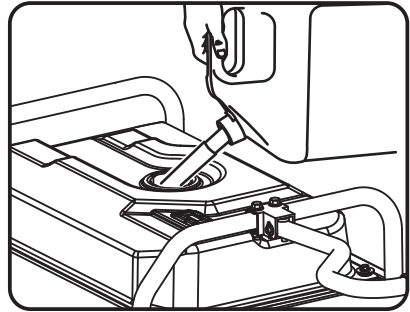
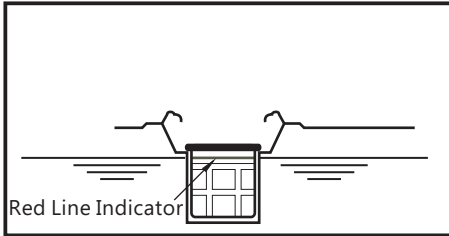
E10

E15

OPERATION

NOTICE Do not mix oil in gasoline or modify engine to run on alternate fuels not described in this manual. Use of unapproved fuels could damage engine and will not be covered under warranty.

1. Clean area around fuel fill cap, remove cap.
2. Slowly add unleaded fuel to fuel tank. Be careful not to fill above the RED fuel level indicator. This allows adequate space for fuel expansion.



3. Install fuel cap and let any spilled fuel evaporate before starting engine.

Operation at High Altitude

At altitudes over 5,000 feet (1524 meters), a minimum 85 octane gasoline is acceptable. Engine power and generator output will be reduced approximately 3.5% for every 1000 feet (305 m) of elevation above sea level. High altitude may cause hard starting, increased fuel consumption and sparkplug fouling. To operate at high altitudes FIRMAN can provide a high altitude carburetor main jet. The alternative main jet and installation instructions can be obtained by contacting Customer Support.

	439cc	Altitude
Altitude main jet 1	380717004	3000-6000Feet
Altitude main jet 2	380717005	6000-8000Feet

NOTICE Operation using an alternative main jet at elevations lower than the recommended minimum altitude can damage the engine. For operation at lower elevations, the standard main jet supplied must be used. Operating the engine with the wrong main jet may increase exhaust emissions, fuel consumption and reduce performance.

Operation at High Ambient conditions

Your FIRMAN Power Equipment product is designed and rated for continuous operation at ambient temperatures up to 104°F (40°C). The generator may be operated at temperatures ranging from 5°F(-15°C) to 122°F(50°C) for short periods. If the generator is exposed to temperatures outside this range during storage, the generator should be brought back within this range before operation. When operated above 77°F(25°C) there may be a decrease in power. Maximum wattage and current are subject to and limited by such factors as ambient temperature, altitude, engine conditions etc.

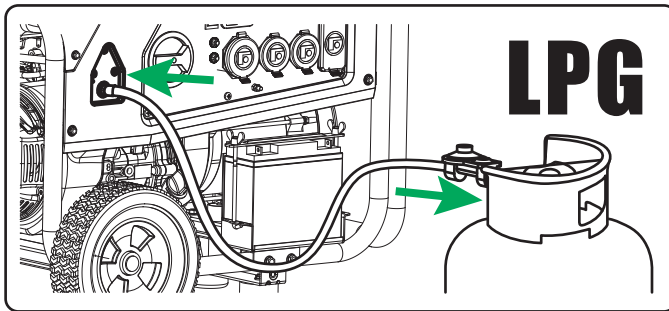
Connecting LPG/ NG Fuel



WARNING! Liquid Petroleum gas (LPG) and Natural Gas (NG) are extremely flammable which could cause burns or fire resulting in death or serious injury.

- Do not place the LPG/NG sources in the path of muffler outlet or near any ignition source.
- Keep a fire extinguisher near the generator all the time.
- Do not use or store LPG/NG portable sources not in use near generator or in a building, garage or enclosed area.
- All LPG/NG supply/ piping lines must be installed by a qualified plumber.
- If you smell gas, close off all gas sources and contact a qualified plumber to inspect and repair the LPG or NG system.
- Prior to each days first use spray a soapy water solution on LPG/NG fuel connections to check for leaks.
- Never use a gas container, LPG/ NG connector hose, LPG cylinder or NG source that appears to be damaged.
- Do not connect or disconnect the LPG/ NG source in an enclosed area.
- LPG is heavier than air and can accumulate in confined / low spaces if there is a leak.

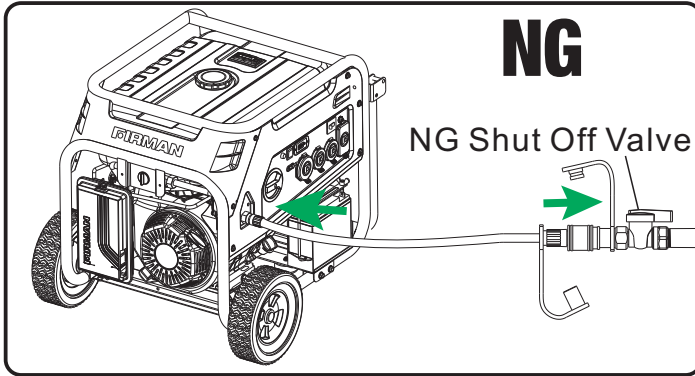
NOTICE LPG and NG systems must be installed and used in strict conformance with NFPA 58 (Liquefied Petroleum Gas Code), NFPA 54 (National Fuel Gas Code), manufacturers recommendations, and comply with the authority having jurisdiction requirements. To connect your generator to a large propane tank or Natural Gas Supply, contact your gas equipment company or authority having jurisdiction to assure that you are following all required codes and regulations.



- Always keep the LPG cylinder in an upright position.
- Use only DOT LPG cylinders in vapor service with type 1, right hand ACME threads. Verify the re-qualification date on the cylinder has not expired.
- All new cylinders must be purged of air and moisture prior to filling. The purging process should be done by your propane gas supplier.

Attach the LPG regulator hose assembly (included) to the LPG hose connector (inlet) on the control panel of the generator. Tighten the nut with a 19 mm or adjustable wrench. Remove the safety plug or cap from the LPG cylinder valve. Attach the LPG regulator to the cylinder valve. Do not use a wrench to tighten LPG cylinder nut. Tighten the nut by hand clockwise to a positive stop. Using a wrench may damage LPG cylinder components.

OPERATION



Attach the NG hose (not included) to NG connector (inlet) on the control panel and the NG Source. We recommend you use a FIRMAN quick connect hose for Natural Gas (NG) connection (This item is not included). Make sure the NG source location and hose used allows the portable generator to be located at least 20 ft (6 m) from any occupied spaces.

Indicator light - Battery Power Saving Mode

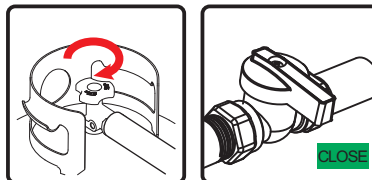
This generator is equipped with an electronic module which consumes battery power. When the main fuel selector switch is turned to the GAS or LPG/NG position, the indicator light will turn RED for up to 4 minutes (before going off). Starting the engine successfully anytime during the 4 minutes will turn the indicator light GREEN. If portable generator is not started during this 4-minute period the portable generator will switch to Battery Power Saving Mode to conserve battery life.

NOTICE Your portable generator is equipped with an internal battery charger that will properly charge the battery only when the engine is running.

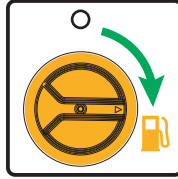
The generator cannot be started in Battery Power Saving Mode. Turn main fuel selector switch to the off position and back to the GAS or LPG/NG position to reset the RED indicator 4-minute electronic module.

3.Starting the Generator on Gasoline

1. Before starting the generator, check for loose or missing parts and for any damage which may have occurred during shipment. Ensure spark plug, muffler, fuel cap, and air cleaner are all in place.
2. Move portable generator outdoors to safe operating location at least 20 ft. (6 m) from any occupied spaces.
- 3.If connected make sure the LPG cylinder knob or the NG source valve are fully closed or disconnected.

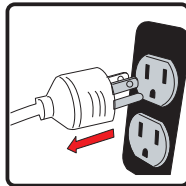


4. Turn the main fuel selector switch to "GAS" position.



NOTICE When the main fuel selector switch is turned to the GAS position, the indicator light will turn RED for up to 4 minutes (before going off). Starting the engine successfully anytime during the 4 minutes will turn the indicator light GREEN. See Indicator light-Battery Power Saving Mode section for more information.

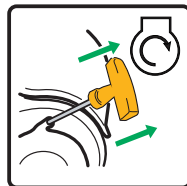
5. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in.



6. Move choke lever located on engine to "START" position. You do not need to choke a warm engine. (For electric start move to step (8))



7. For recoil start only - Pull the starter cord slowly until resistance is felt and then pull rapidly to start engine.



8. For electric start only - Flip the engine switch to the START (II) position for a few seconds and then release.



OPERATION

9. Do not over-choke. As soon as engine starts and warms up, slowly move the choke lever to the RUN position.

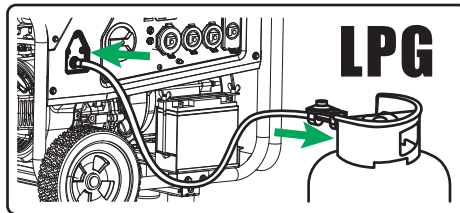


10. Allow portable generator to run at no load for a few minutes to stabilize before plugging in any electrical devices.

NOTICE If engine starts but fails to run, or if portable generator shuts down during operation, check oil level. See Low Oil Shutdown section for more information.

4. Starting the Generator on LPG

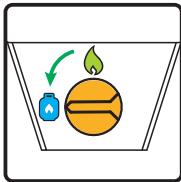
1. Before starting the generator, check for loose or missing parts and for any damage which may have occurred during shipment. Ensure spark plug, muffler, fuel cap, and air cleaner are all in place.
2. Move portable generator outdoors to safe operating location at least 20 ft. (6 m) from any occupied spaces.
3. Connect the LPG hose with regulator to both LPG cylinder and portable generator LPG/NG Hose Connector (inlet).



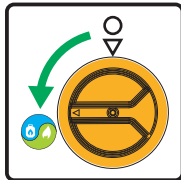
4. Fully open the LPG cylinder knob.



5. Turn the LPG/NG selector switch to LPG position.



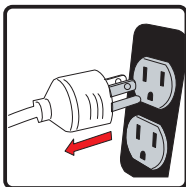
6. Turn the main fuel selector switch to LPG/NG position.



NOTICE When the main fuel selector switch is turned to the LPG/NG position, the indicator light will turn RED for up to 4 minutes (before going off). Starting the engine successfully anytime during the 4 minutes will turn the indicator light GREEN.

See Indicator light-Battery Power Saving Mode section for more information.

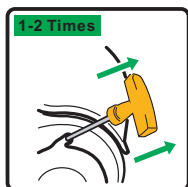
7. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in.



8. Move choke lever located on engine to "START" position.
(For electric start move to step (12))

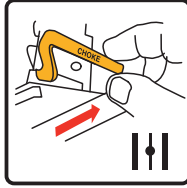


9. For recoil start only - PULL-TO-PRIME Pull the starter cord 1-2 times. Pull slowly until resistance is felt and then pull rapidly.

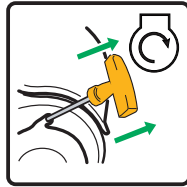


OPERATION

10. For recoil start only - Move the choke lever to the "RUN" position.



11. For recoil start only - PULL-TO-RUN Pull the starter cord slowly until resistance is felt and pull rapidly to run the portable generator.

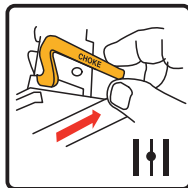


If the engine fails to start in 1-2 pulls with choke in the RUN position, move choke lever to START position and repeat the PULL-TO-PRIME step (9).

12. For electric start only - Flip the engine switch to the START (II) position for a few seconds and then release.



13. For electric start only - Move the choke lever to the RUN position.

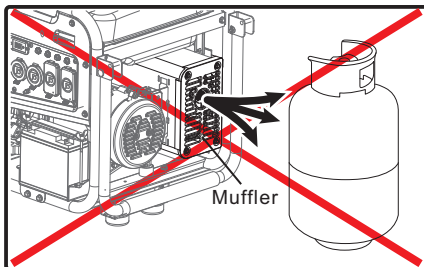


14. Allow portable generator to run at no load for a few minutes to stabilize before plugging in any electrical devices.

NOTICE If engine starts but fails to run, or if portable generator shuts down during operation, check oil level. See **Low Oil Shutdown** section for more information.

NOTICE Observing frost on LPG cylinder and regulator is common during operation and normally is not an indication of a problem. In unusual situations this frost may eventually restrict the flow of LPG gas to the generator resulting in deteriorating performance. In these rare situations it can be helpful to:

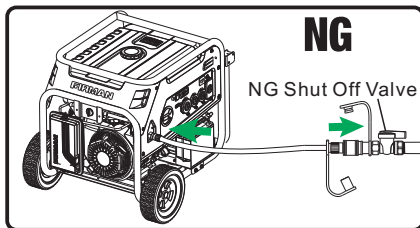
- Exchanging fuel cylinders to allow the first cylinder to warm up, repeating as necessary.
- Placing the LPG cylinder at the end of the generator near the handle, where engine fan air flows out from the generator. This air is slightly heated by air flowing over the engine. Do not place the LPG cylinder in the path of the muffler exhaust outlet.



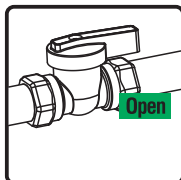
- The LPG cylinder and components can be temporarily warmed by pouring warm water over them.

5. Starting the Generator on NG

1. Before starting the generator, check for loose or missing parts and for any damage which may have occurred during shipment. Ensure spark plug, muffler, fuel cap, and air cleaner are all in place.
2. Move portable generator outdoors to safe operating location at least 20 ft. (6 m) from any occupied spaces.
3. Connect the NG hose to both the NG source and portable generator LPG/NG Hose Connector (inlet).

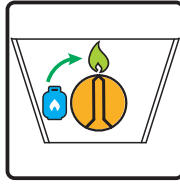


4. Fully open the NG source valve.

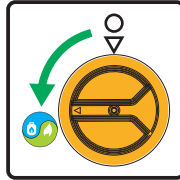


OPERATION

5. Turn the LPG/NG selector switch to NG position.

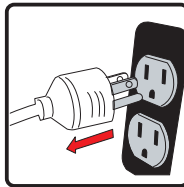


6. Turn the main fuel selector switch to LPG/NG position.



NOTICE When the main fuel selector switch is turned to the LPG/NG position, the indicator light will turn RED for up to 4 minutes (before going off). Starting the engine successfully anytime during the 4 minutes will turn the indicator light GREEN. See Indicator light-Battery Power Saving Mode section for more information.

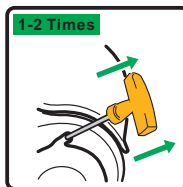
7. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in.



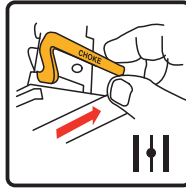
8. Move choke lever located on engine to "START" position.
(For electric start move to step (12))



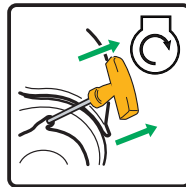
9. For recoil start only - PULL-TO-PRIME Pull the starter cord 1-2 times. Pull slowly until resistance is felt and then pull rapidly.



10. For recoil start only - Move the choke lever to the "RUN" position.



11. For recoil start only - PULL-TO-RUN Pull the starter cord slowly until resistance is felt and pull rapidly to run the portable generator.

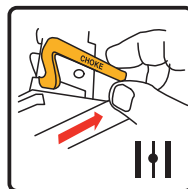


If the engine fails to start in 1-2 pulls with choke in the RUN position, move choke lever to START position and repeat the PULL-TO-PRIME step (9).

12. For electric start only - Flip the engine switch to the START (II) position for a few seconds and then release.



13. For electric start only - Move the choke lever to the RUN position.



14. Allow portable generator to run at no load for a few minutes to stabilize before plugging in any electrical devices.

NOTICE If engine starts but fails to run, or if portable generator shuts down during operation, check oil level. See **Low Oil Shutdown** section for more information.

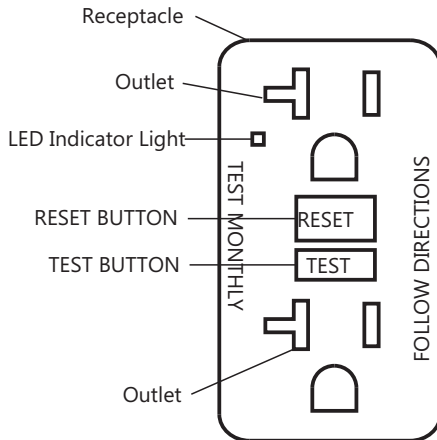
OPERATION

6. Connecting Electrical Loads

This portable generator has been pretested and adjusted to handle its full capacity. The voltage is regulated using an automatic voltage regulator (AVR). Readjusting the AVR will void warranty.

The duplex receptacle is equipped with GFCI protection. The GFCI protects against electric shock that may be caused if you become a path which electricity travels to reach earth. Even with a GFCI you may feel a shock, but the GFCI cuts power quickly so an average person should not suffer any injury. Manual test GFCI while generator is running to verify internal contacts will function

- Push the test button. The reset button will pop out, which should cut power to outlet.
- Press the reset button until it locks in the depressed position. If the GFCI does not reset as described do not use the receptacles. Call FIRMAN customer service.
- If GFCI trips while in use, reset and test the outlet. Electric cords laying on the ground with worn insulation may trip the GFCI, only use cords in good condition.



SELF-TEST OPERATION

In addition to the manual test / reset feature the GFCI receptacle tests itself periodically to confirm the GFCI electronics are functional. The indicator light will be solid green when the GFCI is powered from the generator and working correctly.

Self-test indications: If the indicator light is solid orange or flashing red a problem may exist. Press the TEST button to trip the GFCI. If unable to reset, replace the GFCI.

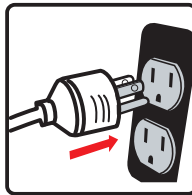


WARNING! Generator voltage could cause electrical shock or burn resulting in death or serious injury.

- Damaged or overloaded extension cords could overheat, arc, and burn resulting death or serious injury.
- Use a ground fault circuit interrupter (GFCI) in any damp or highly conductive area, such as metal decking.
- Do not touch bare wires or receptacles.

- Do not use generator with electrical cords which are worn, frayed, bare or otherwise damaged.
- Do not operate generator in the rain or wet weather.
- Do not run indoors to avoid wet conditions.
- Do not handle generator or electrical cords while standing in water, while barefoot, or while hands or feet are wet.
- Use listed transfer switch to prevent backfeed by isolating generator from electric utility workers.

1. Ensure circuit breaker on control panel is in the closed (on) position.
2. Start the generator with no electrical load attached.
3. Allow the engine to run for several minutes to stabilize.
4. Plug in and turn on the first item. It is best to attach the item with the largest load first.
5. Allow the engine to stabilize.
6. Plug in and turn on the next item.
7. Allow the engine to stabilize.
8. Repeat steps 5-6 for each additional item.

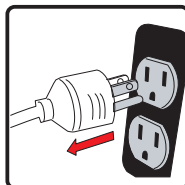


Surge Protection

There is a remote chance that voltage fluctuations may impair the proper functioning of some sensitive electronic equipment. Electronic devices, including computers and many programmable appliances may use components that are designed to operate within a narrow voltage range and may be affected by the portable generator's momentary voltage fluctuations. While there is no way to prevent all voltage fluctuations, you can take steps to protect your sensitive electronic equipment. Install a plug-in surge suppressor on the receptacles feeding your sensitive equipment. Surge suppressors come in single or multi-outlet styles. They are designed to protect against short duration voltage fluctuations.

7. Stopping the generator

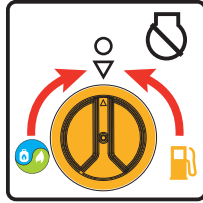
1. Turn off and remove all electrical loads.
- Never stop the generator with electrical devices plugged in and turned on.
Never stop the engine by moving the choke to the start position.



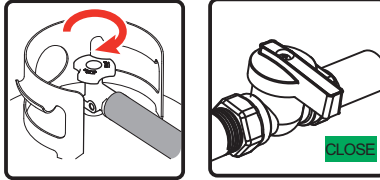
Let the generator run at no-load for one minute to stabilize internal temperatures of the engine and generator.

OPERATION

2. Turn the main fuel selector switch to OFF (O) position.



3. Fully close the LPG cylinder knob and NG source valve.



MAINTENANCE SCHEDULE

ITEM	NOTES	Daily(Before operation)	Initial 25 hours	Every 50 hours	Every 100 hours (or annual)	Every 250 hours
Spark Plug	Check condition. Adjust gap and clean. Replace if necessary.				✓	
Engine Oil	Check oil level.	✓				
	Replace.		✓		✓	
Air Filter	Clean, replace if necessary.			✓		
Fuel	Clean fuel tank strainer. Replace if necessary.				✓	
Fuel Line	Check fuel hose for cracks or other damage. Replace if necessary.	✓				
LPG Regulator /Hose Assy.	Check for damage and leaks. Replace if necessary.	✓				
Exhaust System	Check for leakage. Retighten or replace gasket if necessary.	✓				
	Check spark arrester screen. Clean/Replace if necessary.				✓	
Engine	Check adjust valve clearance. *					✓
	Clean combustion chamber. *					✓
Fittings/ Fasteners	Check. Replace if necessary.				✓	

* To be performed by knowledgeable/experienced owner or by authorized service center.

General Recommendations

Regular maintenance will improve the performance and extend the life of the generator. See any authorized dealer for service.

The generator's warranty does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the generator as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your generator.

All service and adjustments should be made at least once each season. Follow the requirements in the maintenanc shedule chart above.

NOTICE Once a year you should clean or replace the spark plug and replace the air filter. New spark plugs and clean air filter assure proper fuel-air mixture and help your engine run at peak performance and last longer.

Maintenance - Storage

When Transporting Generator

Transport with fuel tank EMPTY or with main fuel valve in OFF position.
Do not tip generator at an angle which causes fuel to spill.
Disconnect LPG/ NG fuel hose and securely stow away.

ENGINE MAINTENANCE

To prevent accidental starting, remove and ground spark plug wire before performing any service.

Change Engine Oil

Change engine oil every 100 hours. (for a new engine, change oil after 25 hours.)

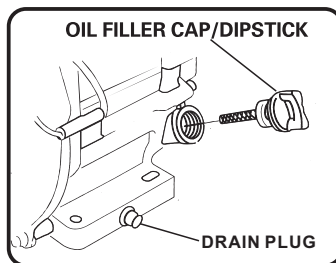
If you are using your generator under extremely dirty or dusty conditions, or in extremely hot weather change the oil more often.

CAUTION! Avoid prolonged or repeated skin contact with used motor oil. Used motor oil has been shown to cause skin cancer in certain laboratory animals. Thoroughly wash exposed areas with soap and water.

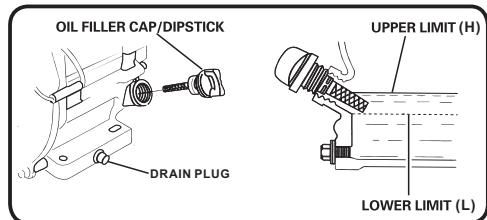
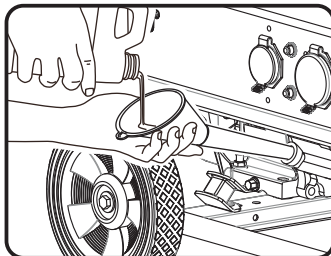


KEEP OUT OF REACH OF CHILDREN. DON'T POLLUTE. CONSERVE RESOURCES. RETURN USED OIL TO COLLECTION CENTERS.

(a) On a level surface drain oil into a suitable container by removing the drain plug and the oil filler cap while the engine is warm.



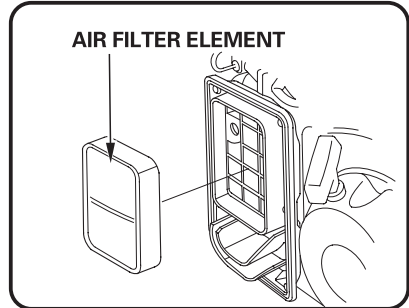
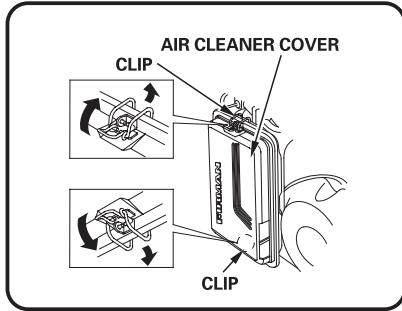
(b) Reinstall the drain plug and fill the engine with oil until it reaches the HIGH(H) level on the oil filler dipstick.



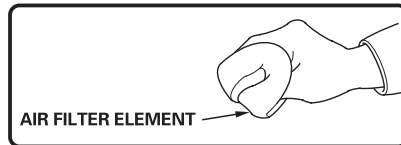
NOTICE We recommend using FIRMAN SAE 10W-30 API SL oil for best performance. Other high-quality detergent oils (API SL or higher) are acceptable. See *Oil and Gasoline / LPG/ NG*

Air Filter Maintenance

(a) Carefully remove foam air filter element and wash it with liquid detergent and water only. Squeeze dry in a clean cloth.



(b) Saturate foam air filter element with clean engine oil and squeeze in a clean cloth to remove excess oil.



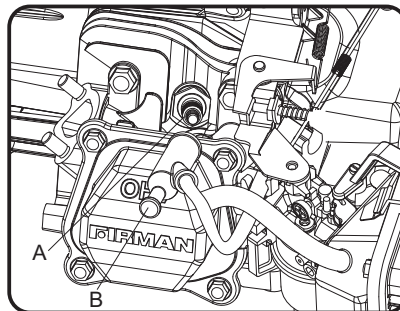
(c) Reinstall clean or new air filter element.

Spark Plug Maintenance

Changing the spark plug will help your engine start easier and run at peak performance.

(a) Remove the spark plug boot.

(b) Remove spark plug using provided wrench.

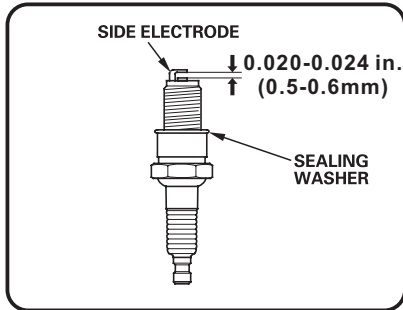


A- Spark plug

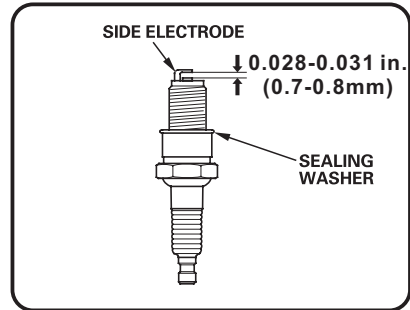
B- Spark plug boot

Maintenance - Storage

- (c) Inspect spark plug for damage and clean with a wire brush before reinstalling. Replace if damaged.
- (d-1) For spark plug FIRMAN P/N 330723001 - Adjust the electrode gap to 0.020 - 0.024 in. (0.5 - 0.6 mm).
- (d-2) For spark plug CHAMPION N9YC - Adjust the electrode gap to 0.028 - 0.031 in. (0.7 - 0.8 mm).
- (e) Seat spark plug in position and thread by hand to prevent cross threading.
- (f) Tighten plug with provided wrench and put the spark plug boot back on spark plug.



SPARK PLUG: FIRMAN P/N 330723001



SPARK PLUG: CHAMPION N9YC

SPARK PLUG: FIRMAN P/N 330723001 or CHAMPION N9YC

Maintenance Valve Clearance

Intake: 0.005 - 0.007 in. (0.13 - 0.17 mm)

Exhaust: 0.007 - 0.009 in. (0.18 - 0.22 mm)

NOTICE Tech bulletin regarding the valve adjustment procedure is on www.firmanpowerequipment.com.

Muffler and Spark Arrester

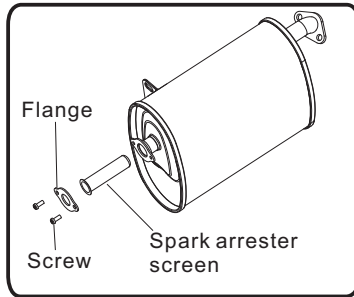


WARNING! Contact with muffler area could cause burns resulting in serious injury.

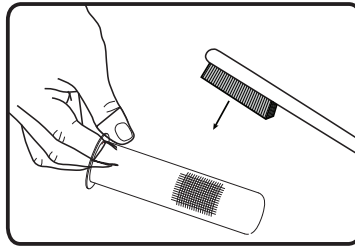
- Do not touch hot parts.
- It is a violation of California Public Resource Code, Section 4442, to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the exhaust system is equipped with a spark arrester, as defined in Section 4442, maintained in effective working order. Other states or federal jurisdictions may have similar laws, reference Federal Regulation 36 CFR Part 261.52.

Inspect Muffler and Spark Arrester

1. Inspect the muffler for cracks, corrosion, or other damage.
2. Remove the screws securing the spark arrester in place and then remove it from the muffler.



3. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.



3. Replace the spark arrester if it is damaged. If replacement parts are required, make sure to use only FIRMEN original equipment replacement parts.
4. Position the spark arrester in the muffler and attach with the screws.

NOTICE Failure to clean or replace spark arrester may result in decreased engine performance.

GENERATOR MAINTENANCE

Run the generator at least 30 minutes every month.

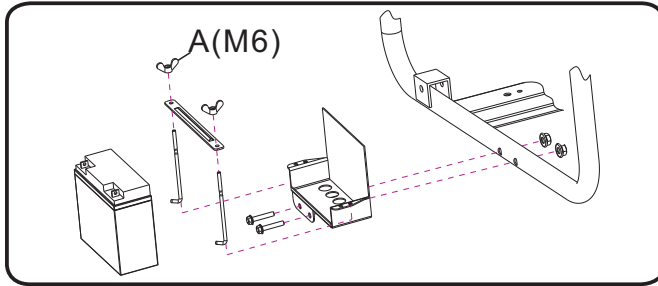
Make certain that the portable generator is kept clean and dry.

Do not expose the unit to excessive dust, dirt, moisture or corrosive vapors.

Do not insert any objects through cooling slots.

Before each use inspect underneath the generator for signs of oil or fuel. Clean any accumulated debris. Keep area around muffler free from any debris. Use a soft bristle brush to remove dirt or caked on oil. Use a damp cloth to clean all exterior surfaces.

Battery Replacement



1. Remove the spark plug boot from spark plug.
2. Remove the nut and bolt from the negative(-) post first, then the positive(+) post.
3. Loosen and remove the wing nuts (A) on the battery holding bracket.
4. Remove the battery and recycle.
5. Install the new battery with the following specification:
 - 12V sealed lead acid 15AH
 - LXWXH:180X75X165mm(7.09X2.95X6.5inch)
6. Connect the red positive (+) battery cable to the battery first.
7. Connect the black negative (-) battery cable to the battery second.
8. Cover the posts with boots provided.
9. Install the spark plug boot onto spark plug.

Battery Charging

The battery powers the starter motor and control module. This portable generator is equipped with an automatic battery charging circuit. The battery will receive charging voltage only when the engine is running. The battery will maintain a proper charge if the portable generator is used on a regular basis (about once every two weeks). If it is used less frequently, the battery should be connected to a trickle charger (not included) or battery maintainer (not included) to keep the battery properly charged. If the battery is not able to start the engine, it can be started manually only in the GAS position by pulling the engine recoil cord. If the battery voltage is extremely low, the charging circuit may not be able to re-charge the battery. In this case, the battery must be connected to a standard automotive style battery charger for re-charging before it can be used.

Long Term Storage

It is important to prevent gum deposits from forming in essential fuel system components such as the carburetor, fuel hoses or tank during storage. Alcohol-blended fuels (called gasohol, ethanol or methanol) attract moisture, which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

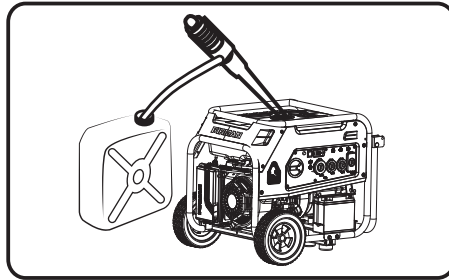
When the generator set is being stored for more than one month, follow these instructions to avoid engine problems:



WARNING! Fuel and its vapors are extremely flammable which could cause burns or fire resulting in death or serious injury.

Do not store fuel near any ignition sources.

When draining fuel move generator outdoors and use a commercially available non-conductive vacuum siphon. Fuel must be drained into an approved container.



1-Treat any stored fuel with fuel stabilizer.

2-When storing generator with gasoline in fuel tank, operate the engine for 5-10 minutes to circulate treated fuel into fuel lines and carburetor before shutdown.

3- There is no need to drain gasoline from the generator fuel tank if fuel stabilizer is added.

4-FUEL STARVATION: If you elect to drain fuel tank move generator outdoors. Once fuel tank is drained turn main fuel selector switch to GAS position. Start and run the portable generator outdoors until engine stops from lack of gasoline. This will drain remaining gasoline from tank, fuel lines, and carburetor.

5-Always turn main fuel selector switch to OFF position prior to storage.

6-Allow the portable generator to cool before cleaning and storage.

7-Change oil .

8-Remove spark plug boot and spark plug. Pour about one teaspoon of engine oil through the spark plug hole, then slowly pull the recoil starter several times to distribute the oil in the cylinder. Reinstall the spark plug and attach the spark plug boot. Pull recoil slowly until resistance is felt. This will close the valves so no moisture enters the engine cylinder.

9-Cover the portable generator and store in a clean, dry place out of direct sunlight and away from any ignition sources.

Any damage or hazards caused by using improper fuel, improperly stored fuel, and/or improperly formulated stabilizers, are not covered by manufacturer's warranty.

Do not store gasoline from one season to another season.

Troubleshooting - Specifications

Problem	Cause	Correction
Engine is running, but no AC output is available.	<ol style="list-style-type: none"> 1. Circuit breaker is open. 2. Fault in generator. 3. Poor connection or defective cord set. 4. Connected device is bad. 	<ol style="list-style-type: none"> 1. Reset circuit breaker. 2. Contact authorized service facility. 3. Check and repair. 4. Connect another device that is in good condition.
Engine runs good at no-load but "bogs down" when loads are connected.	<ol style="list-style-type: none"> 1. Short circuit in a connected load. 2. Engine speed is too slow. 3. Shorted generator circuit. 4. Clogged or dirty fuel filter. 	<ol style="list-style-type: none"> 1. Disconnect shorted electrical load. 2. Contact authorized service facility. 3. Contact authorized service facility. 4. Clean or replace fuel filter.
Engine will not start; starts and runs rough or shuts down when running.	<ol style="list-style-type: none"> 1. Fuel selector switch set to OFF (O) position. 2. The indicator light is OFF or flashing red. 3. Low oil level. 4. Dirty air cleaner. 5. Out of gasoline. 6. Stale gasoline. 7. Spark plug wire not connected to spark plug. 8. Bad spark plug. 9. Water in gasoline. 10. Flooded. 11. Excessively rich fuel mixture. 12. Clogged or dirty fuel filter. 13. Starting battery may have insufficient charge. 14. Out of LPG/NG. 15. LPG cylinder knob / NG supply valve is not open. 16. Out of battery power. 	<ol style="list-style-type: none"> 1. Set fuel selector switch to "GAS" or "LPG/NG" position. 2. Must have solid red indicator light to be able to start the engine. 3. Fill crankcase to proper level or place generator on level surface. 4. Clean or replace air cleaner. 5. Fill fuel tank with gasoline. 6. Drain fuel tank and carburetor; fill with fresh gasoline. 7. Connect wire to spark plug. 8. Replace spark plug. 9. Drain gas tank and carburetor; fill with fresh gasoline. 10. Wait 5 minutes and re-crank engine. 11. Contact authorized service facility. 12. Clean or replace fuel filter. 13. Check battery output and charge battery as necessary. 14. Replace LPG cylinder/ check NG supply. 15. Fully open LPG cylinder knob / NG supply valve. 16. Start Engine in "GAS" position. Charge or replace battery.
Engine lacks power.	<ol style="list-style-type: none"> 1. Load is too high. 2. Dirty air filter. 3. Clogged or dirty fuel filter. 4. Clogged spark arrester. 	<ol style="list-style-type: none"> 1. Don't Overload Generator 2. Replace air filter. 3. Clean or replace fuel filter. 4. Clean or replace spark arrester.
Engine "hunts" or falters.	<ol style="list-style-type: none"> 1. Carburetor is running too rich or too lean. 2. Clogged or dirty fuel filter. 	<ol style="list-style-type: none"> 1. Contact authorized service facility. 2. Clean or replace fuel filter.
Engine shuts down when running.	<ol style="list-style-type: none"> 1. Out of gasoline or LPG/NG. 2. Dirty air cleaner. 3. Low oil level. 	<ol style="list-style-type: none"> 1. Fill fuel tank with gasoline or replace LPG cylinder / check NG supply. 2. Clean or replace air cleaner. 3. Fill crankcase to proper level or place generator on level surface.

For all other issues, contact authorized dealer or FIRMAN customer service.

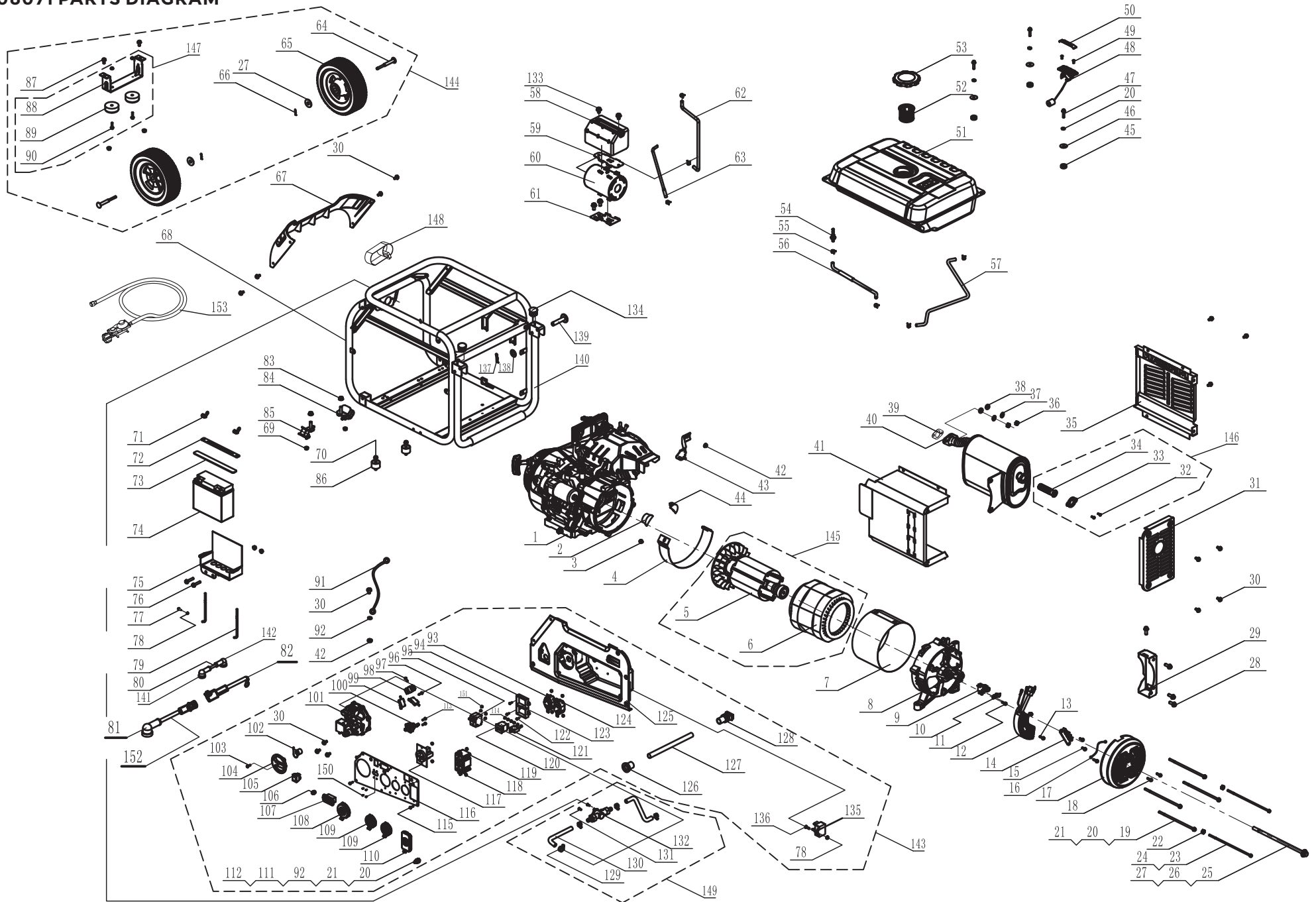
SPECIFICATIONS

Model	T08071		
Starting Watts	10000(GASOLINE)/9050(LPG)/6900(NG)		
Running Watts*	8000(GASOLINE)/7250(LPG)/5500(NG)		
Rated AC Voltage	120/240V		
Rated Frequency	60Hz		
Phase	Single		
Voltage Regulator	AVR		
Power Factor	1		
Alternator Type	Brushed		
Engine	FIRMAN		
Engine Type	Single Cylinder, 4-Stroke OHV Air Cooled		
Displacement	439cc		
Low Oil Shutdown	Yes		
Ignition System	Breakless Ignition Type, Flywheel Magneto		
Starting System	Recoil/Electric Start		
Fuel	Unleaded Automotive Gasoline/LPG/NG		
Capacity Fuel Tank	8.0 U.S. Gallons (30.3L)		
Lubricating Oil Capacity	37.2 oz (1.1L)		
Carburetor Type	Float		
Air Cleaner	Polyurethane Type		
P.T.O. Shaft Rotation	Counter Clockwise (Facing P.T.O.)		
Oil Type	See "Add Engine Oil" Section		
AC Grounding System	Neutral Bonded To Frame		
Natural gas fuel pressure range	7-11 inches water column (0.25-0.40 psi)(13-20mm mercury)(1.7-2.7 kpa)		
Natural gas fuel consumption	No Load	Half Load	Full Load
	72ft ³ /hr(2m ³ /hr)	86ft ³ /hr(2.4m ³ /hr)	101ft ³ /hr(2.9m ³ /hr)
LPG fuel consumption	15.6ft ³ /hr(1.6L/hr)	33.3ft ³ /hr(3.4L/hr)	54.6ft ³ /hr(5.7L/hr)

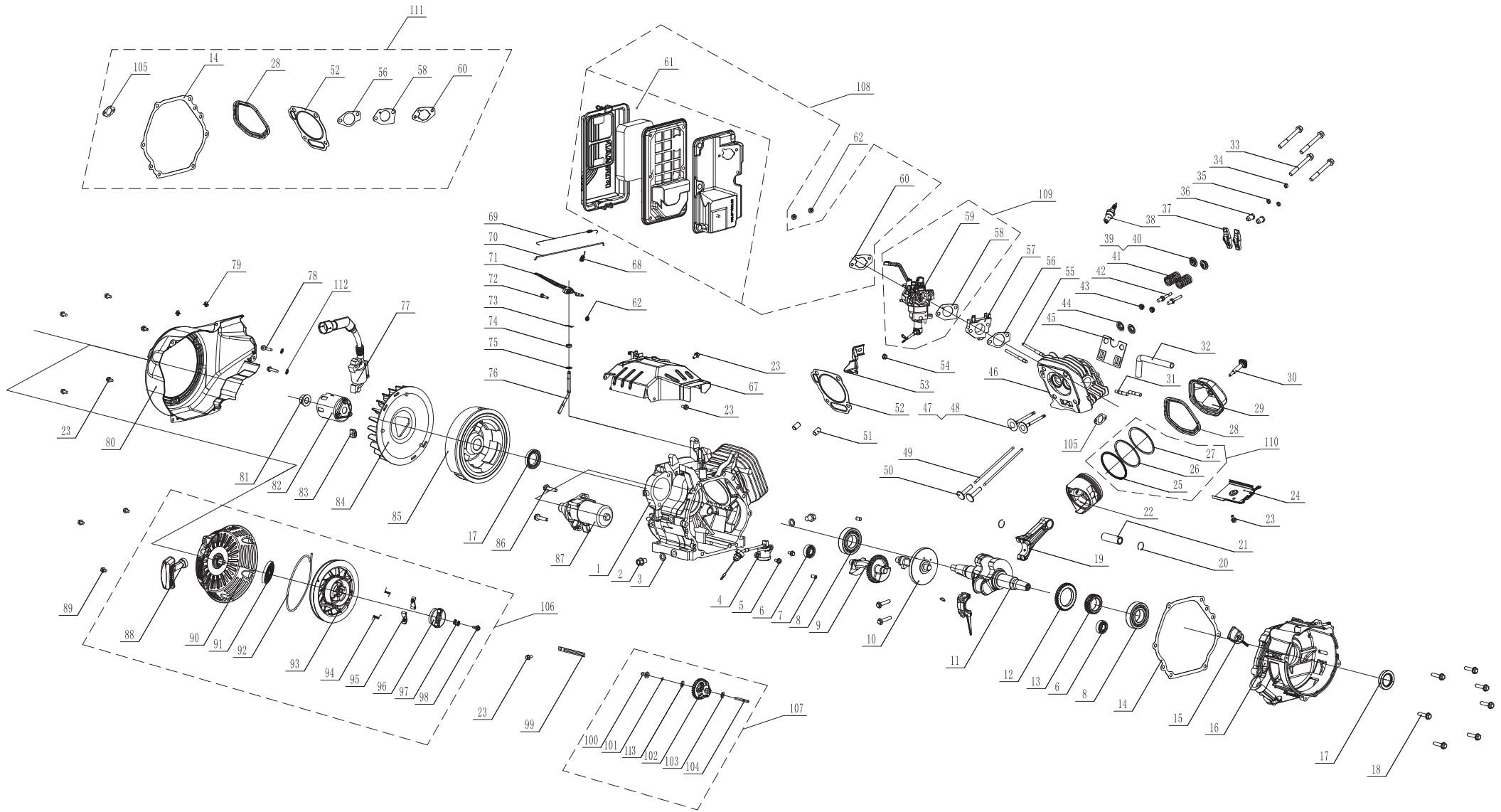
*Generator certified in accordance with CSA (Canadian Standards Association) standard C22.2 No. 100-14, Motors and Generators.

PARTS DIAGRAM AND PART LIST

T08071 PARTS DIAGRAM



439cc TRI-FUEL ENGINE PARTS DIAGRAM

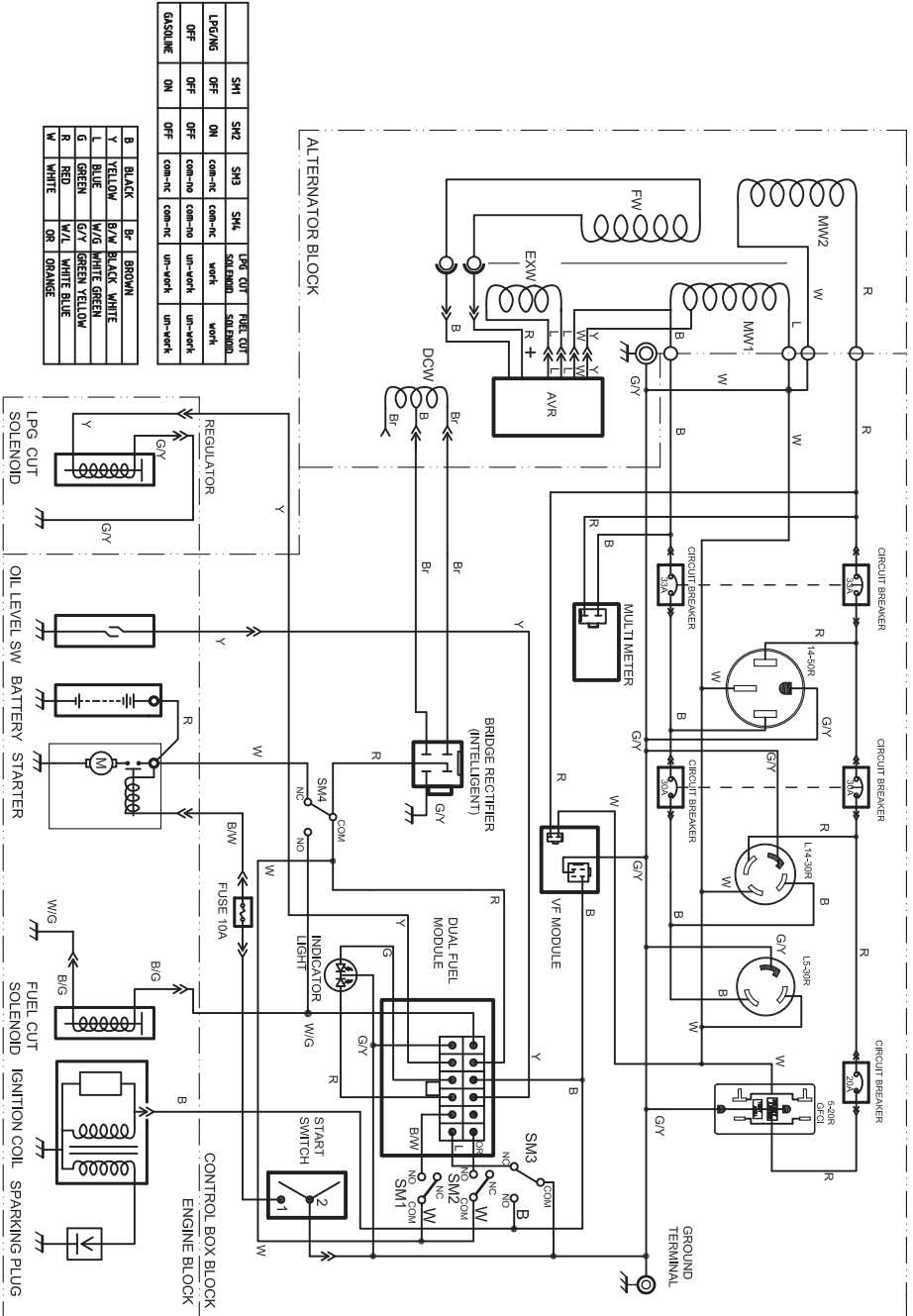


Parts Diagrams - Parts Lists - Wiring Diagram

T08071 Portable Generator

NO.	Part Number	Description	Qty.	NO.	Part Number	Description	Qty.
1	380713556	FIRMAN 439cc Tri-fuel Engine	1	75	357713554	Battery Holder	1
2	357713501	Rubber Cap B	1	76	357713593	Flange, Bolt M8x45	2
3	336713528	Flange Bolt M6x8	1	77	357713569	Screw&washer Assy M5x10	2
4	357713573	Generator Wind Shield	1	78	336713578	Nut M5	3
5	380713535	Rotor Assy	1	79	357713555	Bolt, bend Hook	2
6	380713536	Stator Assy	1	80	357713556	Battery Red Cable +	1
7	380713537	Stator Cover	1	81	336713842	Black Boot	1
8	357713506	Generator End Cover	1	82	336713693	Battery cable(Female 180mm)	1
9	357713507	Carbon Brush Assembly	1	83	357713531	Nut M10	2
10	336713525	Carbon Brush Holder	1	84	357713532	Isolator 2	1
11	336713524	Bolt &washer Assemblies	1	85	357713533	Isolator 1	1
12	380713504	AVR	1	86	357713585	Motor Mount	2
13	336713519	Flange Bolt M5x16	2	87	336713559	Flange, Bolt M8x16	4
14	336713523	Terminal Block	1	88	357713538	Support Leg	1
15	336713520	Bolt M5x16	2	89	336713557	Rubber, Support	2
16	336713522	Ground Wire	1	90	336713561	Flange Bolt M6x25	4
17	357713509	Generator End Cover Cap	1	91	336713514	Ground Wire	1
18	336713507	Flange Bolt M5x12	3	92	336713516	External Star Washer Ø6	1
19	380713506	Flange Bolt M6x200	4	93	336713601	Receptacle L14-30R	1
20	336713512	Lock Washer Ø6	8	94	336713817	Control Module	1
21	336713513	Washer Ø6	4	95	380713524	Double Pole Circuit Breaker Amp 33A	1
22	336713577	Nut M5	2	96	336713819	Tapping Screw St2.9x19	2
23	380713507	Side Cover Bolt M5x229	2	97	336713820	Tapping Screw St2.9x32	1
24	357713511	Lock Washer Ø5	2	98	336713821	Micro Switch 1	1
25	380713508	Flange Bolt M10x285	1	99	336713822	Micro Switch 2	2
26	357713513	Lock Washer Ø10	1	100	336713824	Fuel Valve	1
27	357713514	Washer Ø10	5	101	375413002	Main Regulator Assy.	1
28	336713531	Flange Bolt M8x20	4	102	336713826	LPG Inlet Cover	1
29	357713515	Holder, Muff	1	103	336713816	Screw M4x12	1
30	336713515	Flange Bolt M6x12	19	104	336713815	Main Fuel Selector Switch	1
31	357713516	Muffler Fixed Plate A	1	105	336713827	Electric Start Switch	1
32	336713538	Screw&washer Assy M5x14	2	106	336713828	Indicator Light	1
33	357713517	Holder, Spark Arrester	1	107	357713586	Multi Meter	1
34	336713536	Arrester, Spark	1	108	336713574	Outlet Cover TT-30R/14-50R	1
35	357713518	Muffler Fixed Plate B	1	109	336713573	Outlet Cover L5-30R	2
36	336713534	Nut M8	2	110	357713541	Outlet Cover 5-20R GFCI	1
37	336713509	Lock Washer Ø8	2	111	380713512	Bolt M6x22	1
38	336713533	Flat Washer Ø8	2	112	380713515	Nut M6	2
39	357713520	Gskt., Ext.	1	113	380713001	Screw&Washer Assy M4x20	2
40	375413004	Muff, Assy.	1	114	336713569	Screw&washer Assy M4x8	10
41	357713523	Muffler Fixed Plate C	1	115	330713582	Screw&washer Assy M4x14	6
42	336713517	Nut M6	4	116	380713552	Control Panel	1
43	357713577	Air Filter Bracket	1	117	380713518	Receptacle 14-50R	1
44	357713524	Rubber Cap A	1	118	336713568	Nut M4	8
45	336713542	Grommet, Fuel Tank	4	119	357713588	5-20R Duplex GFCI	1
46	336713543	Washer Tank Buffer	4	120	336713526	Double Pole Circuit Breaker Amp 30A	1
47	336713544	Flange Bolt M6x20	4	121	336713585	Circuit Breaker Amp 20A	1
48	357713578	Fuel Gauge Assy.	1	122	336713565	Screw M5x14	4
49	336713546	Screw M5x10	2	123	336713818	Charger	1
50	336713547	Fuel Gauge Display	1	124	336713583	Receptacle L5-30R	1
51	380713553	Fuel Tank Assy.	1	125	380713555	Control Box	1
52	336713806	Fuel Filter, Wire Mesh	1	126	357713545	Grommet	1
53	336713549	Fuel Cap	1	127	357713546	Sleeve	1
54	336713807	Tank Fitting With Filter	1	128	357713548	Grommet	1
55	336713540	Clamp Ø8x6	7	129	380713547	Metal Clamp	4
56	357713580	Hose, Fuel 1	1	130	375723001	NG Hose	1
57	357713581	Hose, Fuel 2	1	131	380713002	Screw&washer Assy M5x10	2
58	336713636	Carbon Canister Shield	1	132	380713550	LPG/NG Selector Switch	1
59	336713639	Carbon Canister Bracket	1	133	380713003	Flange Bolt M6x6	2
60	336713637	Carbon Canister	1	134	357713598	Waterproof Cover	2
61	336713638	Carbon Canister Holder	1	135	336713643	VF Protection Module	1
62	380713532	Vapor Hose 1	1	136	330713502	Screw M5x20	1
63	380713533	Vapor Hose 2	1	137	336713590	Cotter Pin, Handle	2
64	357713535	Axle Pin	2	138	336713844	Washer Ø8	2
65	357713592	Wheel	2	139	357713596	Axle Pin, Handle	2
66	357713536	Cotter Pin	2	140	357713597	Handle	1
67	380713554	Plastic Front Cover	1	141	336713841	Red Boot	1
68	380713546	Frame	1	142	336713611	Boot,starter	1
69	336713558	Nut M8	8	143	375413001	Control Panel Assy.	1
70	357713584	Flange Bolt M8x35	2	144	357413509	Wheel Kit	1
71	357713550	Wing Nut M6	2	145	380413510	Rotor And Stator Set	1
72	357713551	Battery Pressing Bracket	1	146	357413503	Spark Arrester Kit	1
73	357713552	Rubber Pad	1	147	357413506	Support Leg Assembly	1
74	357713553	Battery	1	148	336713691	Hose Holder	1
				149	380413512	LPG-NG Selector switch assembly	1
				150	380713542	Screw&washer Assy M3x6	4
				151	380713562	Screw&washer Assy M5x8	4
				152	357713607	Battery cable(Male 180mm)	1
				153	336713834	Regulator/Hose Assy.	1
							1
							1

Parts Diagrams - Parts Lists - Wiring Diagram



For service, contact FIRMAN customer service at 1-844-347-6261 or at www.firmanpowerequipment.com to obtain warranty service information or to order replacement parts or accessories.

HOW TO ORDER REPLACEMENT PARTS

Even quality-built equipment such as this electric generator may need occasional replacement parts to maintain it in good condition over the years. To order replacement parts, please give the following information:

- Model No. Rev. Level and Serial No.
- Parts number or numbers as shown in the Parts List section.
- A brief description of the trouble with the generator.

FIRMAN Three (3) Year Limited Warranty

Warranty Qualifications

FIRMAN GENERATOR will register the warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of FIRMAN's retail locations as proof of purchase. Please submit your warranty registration and your proof of purchase within ten(10) days of the date of purchase.

Repair/Replacement Warranty

FIRMAN warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of one(1) year(parts and labor) and three(3) years (parts and technical support) from the original date of purchase 90 days [parts and labor] and 180 days [parts] for commercial & industrial use. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return the Unit to the Place of Purchase

Contact FIRMAN customer service and FIRMAN will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, FIRMAN will, at its option, authorize evaluation, repair or replacement of the defective part or component at a FIRMAN Service Center. FIRMAN will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment.

Normal Wear

Your product needs periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Service - Warranty

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if your product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the generator's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty.

Other Exclusions

This warranty excludes:

- cosmetic defects such as paint, decals, etc.
- wear items
- accessory parts
- failures due to acts of God and other force majeure events beyond the manufacturer's control
- problems caused by parts that are not original FIRMAN parts
- units used for prime power in place of existing utility power where utility is present or in place of utility power where utility power service does not normally exist.

Limits of Implied Warranty and Consequential Damage

FIRMAN disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

You may contact FIRMAN at:

Address

FIRMAN Power Equipment Inc.
Attn: Customer Service
8716 West Ludlow Dr. Suite #6
Peoria, AZ 85381
www.firmanpowerequipment.com

We are FIRMAN POWER - And we are here for you.

FIRMAN POWER EQUIPMENT INC. Emission Control System Warranty

CALIFORNIA AND FEDERAL EXHAUST AND EVAPORATIVE EMISSIONS CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board, US Environmental Protection Agency ("US EPA") and FIRMAN POWER EQUIPMENT INC. (FIRMAN) are pleased to explain the emissions control systems warranty on your 2020-2021 or later Small Off-Road Engine ("SORE") and engine powered equipment. In California, new equipment that use small off-road engines must be designed, built and equipped to meet the State's stringent anti-smog standards. FIRMAN must warrant the emissions control systems on your SORE and engine powered equipment for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine or equipment leading to the failure of the emissions control system. Your emissions control system may include parts such as the carburetor or fuel-injection system, the ignition system, catalytic converter, fuel tanks, fuel lines (for liquid fuel and fuel vapors), fuel caps, valves, canisters, filters, clamps and other associated components. Also included may be hoses, belts, connectors, and other emission-related assemblies.

Where a warrantable condition exists, FIRMAN will repair your SORE and engine powered equipment at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:

The exhaust and evaporative emissions control system on your small off-road engine and engine powered equipment is warranted for two years. If any emissions-related part on your small off-road engine and engine powered equipment is defective, the part will be repaired or replaced by FIRMAN.

OWNER'S WARRANTY RESPONSIBILITIES:

As the SORE and engine powered equipment owner, you are responsible for the performance of the required maintenance listed in your operator's manual. FIRMAN recommends that you retain all receipts covering maintenance on your SORE and engine powered equipment, but FIRMAN cannot deny warranty coverage solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the SORE and engine powered equipment owner, you should however be aware that FIRMAN may deny you warranty coverage if your small off-road engine or engine powered equipment or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine and engine powered equipment to a FIRMAN distribution center or service center as soon as the problem exists. The warranty repairs shall be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact FIRMAN at 1-844-347-6261.

FIRMAN Emission Control Defects Warranty Provisions

The warranty period begins on the date the engine/equipment is delivered to an ultimate purchaser. FIRMAN warrants to the ultimate purchaser and each subsequent purchaser that the engine is:

Designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board and US EPA; and Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturers application for certification.

The warranty on emissions-related parts is as follows:

- (1) Any warranted part that is not scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the warranty period stated above. If any such part fails during the period of warranty coverage, the part will be repaired or replaced by FIRMAN at no charge to the owner. Any such part repaired or replaced under the warranty will be warranted for the remaining warranty period.
- (2) Any warranted part that is scheduled only for regular inspection in the owner's manual supplied, is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.
- (3) Any warranted part that is scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part will be repaired or replaced by FIRMAN at no charge to the owner. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
- (4) Repair or replacement of any warranted part under the warranty must be performed at no charge to the owner at a warranty station.
- (5) Notwithstanding the provisions of Subsection (4) above, warranty services or repairs must be provided by FIRMAN that are franchised to service the subject engines.
- (6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.
- (7) FIRMAN is liable for damages to other engine components proximately caused by a failure under warranty of any warranted part.

Service - Warranty

(8) Throughout the emissions warranty period defined in Subsection (b)(2), FIRMAN will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the ultimate purchaser will be grounds for disallowing a warranty claim.

The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

PARTS COVERED BY WARRANTY

Listed below are the parts (if equipped) covered by the Federal and California Emission Control System Warranty.

1. Ignition system including: <ul style="list-style-type: none">- Spark plug- Ignition coil	4. Air induction system including: <ul style="list-style-type: none">- Intake pipe/manifold- Air cleaner
2. Fuel metering system: <ul style="list-style-type: none">- Fuel tank- Fuel cap- Fuel lines (for liquid fuel and fuel vapors) and related fittings/clamps- Fuel regulator, carburetor and internal parts.	5. Crankcase breather assembly including: <ul style="list-style-type: none">- Breather connection tube
3. Catalytic muffler assembly including: <ul style="list-style-type: none">- Exhaust manifold- Catalytic converter- Muffler gasket- pulse valve	6. Fuel tank evaporative emission control system including: <ul style="list-style-type: none">- Purge valves- Carbon canister- Vapor hoses and fitting/clamps

Limitations

This Emission Control System Warranty shall not cover any of the following:

- (a) Consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment, etc.
- (b) Diagnosis and inspection fees that do not result in eligible warranty service being performed.

FIRMAN POWER EQUIPMENT INC.
www.firmanpowerequipment.com

FOLLOW US ON SOCIAL

USE

#EVERYGENERATORTELLSASTORY™

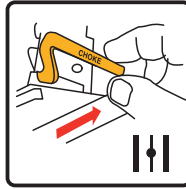
FOR YOUR CHANCE TO WIN FIRMAN SWAG



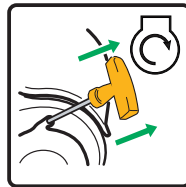
**FIRMAN POWER EQUIPMENT INC.
8716 WEST LUDLOW DR. SUITE #6
PEORIA, AZ 85381
1-844-347-6261
WWW.FIRMANPOWEREQUIPMENT.COM**

All rights reserved. Any reprinting or unauthorized use without the written permission is expressly prohibited.
P/N:380745471 Rev:05

10. Pour démarrage à rappel uniquement - Placez le levier de starter en position « RUN ».



11. Pour le démarrage à rappel uniquement - Tirez lentement sur le cordon de démarrage jusqu'à ce qu'une résistance se fasse sentir, puis tirez rapidement et d'un coup pour démarrer le moteur.

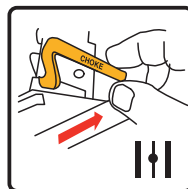


Si le moteur ne démarre pas en 2 coups avec starter en position RUN, mettez le levier de starter en position « START » et répétez l'étape 9.

12. Pour démarrage électrique uniquement - Appuyez sur l'interrupteur du moteur en position START (II) pendant quelques secondes, puis relâchez-le.



13. Pour démarrage électrique uniquement - Mettez le levier de starter en position RUN.



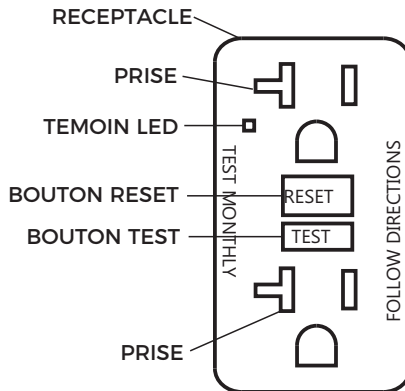
14. Laissez le groupe électrogène fonctionner sans charge pendant quelques minutes pour se stabiliser avant de brancher tout appareil électrique dessus.

NOTE : Si le moteur démarre puis s'éteint ou si le groupe électrogène s'arrête pendant le fonctionnement, vérifiez le niveau d'huile. Voir la section Arrêt automatique sur niveau d'huile bas pour plus d'informations.

6. Connexion Des Charges Électriques

Ce groupe électrogène a été testé et ajusté pour gérer sa pleine charge. Le voltage est régulé à l'aide d'un régulateur de tension automatique (AVR). Le réajustement de cet AVR mettra fin à la garantie. La prise duplex est équipée d'une protection GFCI. Le GFCI protège contre les chocs électriques qui peuvent être causés si vous devenez un conducteur pour l'électricité vers la terre. Même avec un GFCI, vous pouvez ressentir un choc, mais le GFCI coupera rapidement l'alimentation afin qu'une personne moyenne ne subisse aucune blessure. Testez le GFCI manuellement pendant que le groupe électrogène fonctionne pour vérifier que les contacts internes fonctionneront.

- Appuyez sur le bouton de test. Le bouton se remettra en position zéro, ce qui devrait couper l'alimentation de la prise.
- Appuyez sur le bouton de réinitialisation jusqu'à ce qu'il se bloque en position enfoncée. Si le GFCI ne se remet pas à zéro comme décrit, n'utilisez pas les prises. Appelez le service client de FIRMAN.
- Si le GFCI se déclenche pendant son utilisation, réinitialisez et testez la prise. Les cordons d'alimentation posés au sol avec une isolation usée peuvent déclencher le GFCI. N'utilisez que des cordons d'alimentation en bon état.



FONCTIONNEMENT D'AUTOTEST

En plus de la fonction de test/réinitialisation manuelle, la prise GFCI se teste périodiquement pour confirmer que son électronique GFCI est opérationnel. Le voyant lumineux reste vert lorsque la prise GFCI est alimentée par le groupe électrogène et fonctionne correctement.

Indications d'autotest : Si le voyant est orange ou clignote en rouge, cela indique qu'il y a un problème. Appuyez sur le bouton TEST pour activer la prise GFCI. Si celle-ci ne se réinitialise pas, veuillez la remplacer.

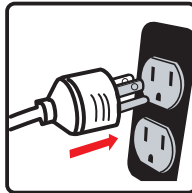


AVERTISSEMENT ! La tension du groupe électrogène peut provoquer un choc électrique ou des brûlures entraînant des blessures graves, voire la mort.

- Les cordons d'alimentation endommagés ou surchargés peuvent surchauffer, former un arc et brûler, entraînant des blessures graves, voire la mort.
- Utilisez un disjoncteur différentiel de fuite à la terre (GFCI) dans toute zone humide ou hautement conductrice en électricité, comme une terrasse métallique.
- Ne touchez pas les fils ou les prises dénudés.

- N'utilisez pas le groupe électrogène avec des cordons d'alimentation usés, dénudés ou endommagés.
- N'utilisez pas le groupe électrogène par temps de pluie.
- N'utilisez pas le groupe électrogène en intérieur pour éviter la pluie.
- Ne manipulez pas le groupe électrogène ou les cordons d'alimentation lorsque vous vous tenez dans l'eau, pieds nus ou lorsque vos mains ou vos pieds sont mouillés.
- Utilisez le commutateur de transfert pour empêcher le retour en arrière de l'électricité en isolant le groupe électrogène.

1. Assurez-vous que le disjoncteur du panneau de commande est en position fermée (marche).
2. Démarrez le groupe électrogène sans qu'il y ait un équipement électrique branché dessus.
3. Laissez le moteur tourner pendant plusieurs minutes pour se stabiliser avant d'utiliser le groupe électrogène.
4. Branchez et allumez le premier équipement électrique. Il est préférable de brancher d'abord l'élément avec la plus grosse charge.
5. Laissez le moteur tourner pour se stabiliser.
6. Branchez et allumez l'équipement suivant.
7. Laissez le moteur tourner pour se stabiliser.
8. Répétez les étapes 5 et 6 pour chaque appareil supplémentaire branché.

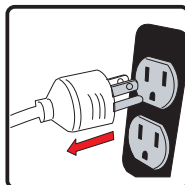


Protection Contre Les Surtensions

Il existe un faible risque que les fluctuations de tension nuisent au bon fonctionnement de certains appareils électroniques sensibles. Les appareils électroniques, y compris les ordinateurs, peuvent utiliser des composants conçus pour fonctionner dans une plage de tension étroite et peuvent donc être affectés par les fluctuations de tension momentanées du groupe électrogène. Bien qu'il n'y ait aucun moyen d'empêcher toutes fluctuations de tension, vous pouvez prendre certaines mesures pour protéger vos appareils sensibles. Installez un suppresseur de surtension enfichable sur les prises alimentant vos appareils sensibles. Les suppresseurs de surtension sont disponibles dans des styles de prise à sortie unique ou multiple. Ils sont conçus pour protéger les appareils contre les fluctuations de tension de courte durée.

7. Arrêt Du Groupe Électrogène

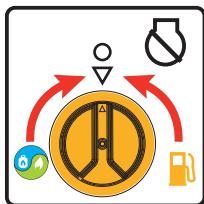
1. Éteignez et débranchez toutes les charges électriques (appareils).
- N'arrêtez jamais le groupe électrogène avec des appareils électriques branchés et allumés.
Ne jamais arrêter le moteur en plaçant le starter en position de démarrage.



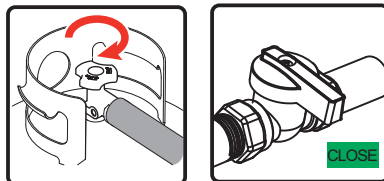
Laissez le groupe électrogène fonctionner à vide pendant une minute pour que les températures internes du moteur se stabilisent.

FONCTIONNEMENT

2. Tournez le sélecteur de carburant sur la position OFF (O).



3. Fermez complètement les vannes d'alimentation ou robinet d'arrêt de GPL ou de GN.



CALENDRIER D'ENTRETIEN

PIECE	NOTES	Quotidien (avant usage)	25 premièr es heures	Chaque 50 heures	Chaque 100 heures (annuel)	Chaque 250 heures
Bougie d'allumage	Vérifiez l'état. Ajustez et nettoyez. Remplacez si nécessaire.				✓	
Huile moteur	Vérifier le niveau d'huile.	✓				
	Remplacez.		✓		✓	
Filtre à air	Nettoyez. Remplacez si nécessaire.			✓		
Carburant	Nettoyez la crépine du réservoir de carburant. Remplacez si nécessaire.				✓	
Ligne de carburant	Vérifiez la ligne de carburant afin de détecter des fissures ou autres dommages. Remplacez si nécessaire.	✓				
Régulateur GPL	Vérifiez des dommages et des fuites. Remplacez si nécessaire.	✓				
Système d'échappem- ent	Vérifiez les fuites. Resserrez ou remplacez le joint si nécessaire.	✓				
	Vérifiez le système du pare- étincelles. Nettoyez/remplacez si nécessaire.				✓	
Moteur	Vérifiez le réglage du jeu des soupapes.*					✓
	Nettoyer la chambre de combustion.*					✓
Raccords/ Fixations	Vérifiez et remplacez si nécessaire.				✓	

* A effectuer par un propriétaire expérimenté ou par un centre de service agréé.

Recommandations

Un entretien régulier améliorera les performances du moteur et prolongera la durée de vie du groupe électrogène. Consultez un centre de service agréé pour toute réparation. La garantie du groupe électrogène ne couvre pas les pièces qui ont été soumises à un abus ou à une négligence de la part de l'opérateur. Pour bénéficier de la garantie complète, l'opérateur doit entretenir le groupe électrogène comme indiqué dans ce manuel. Certains ajustements devront être effectués périodiquement pour entretenir correctement votre groupe électrogène.

Tous les services et ajustements doivent être effectués au moins une fois par saison. Suivez les exigences du tableau des horaires d'entretien ci-dessus.

NOTE : Une fois par an, vous devez nettoyer ou remplacer la bougie d'allumage, ainsi que le filtre à air. La nouvelle bougie d'allumage et le filtre à air assurent un mélange air-carburant optimal et aident votre moteur à fonctionner à plein rendement et à augmenter sa durabilité.

Transport Du Groupe Électrogène

Transportez le groupe électrogène avec le réservoir de carburant VIDE ou avec la vanne de carburant principale en position fermée (OFF).

N'inclinez pas le groupe électrogène à un angle qui pourrait faire déborder ou déverser le carburant. Débranchez le tuyau de GPL/GN et rangez-le dans un endroit sûr.

ENTRETIEN MOTEUR

Pour éviter un démarrage accidentel, retirez et mettez le faisceau de la bougie sur terre avant d'effectuer tout entretien.

Changez L'huile Moteur

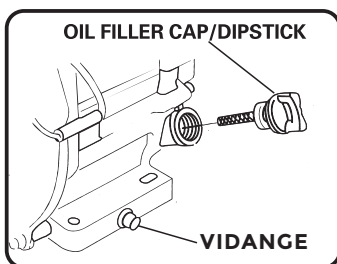
Changez l'huile moteur toutes les 100 heures. (Pour un nouveau moteur, changez l'huile après 25 heures.) Si vous utilisez votre groupe électrogène dans des conditions extrêmement sales ou poussiéreuses, ou par temps extrêmement chaud, changez l'huile plus régulièrement.

ATTENTION ! Evitez tout contact prolongé ou répété avec l'huile moteur usagée sur votre peau. Il a été démontré que l'huile moteur usagée provoque le cancer de la peau chez certains animaux de laboratoire. Lavez soigneusement les zones exposées à l'eau et au savon.

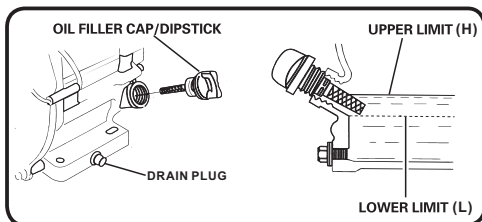
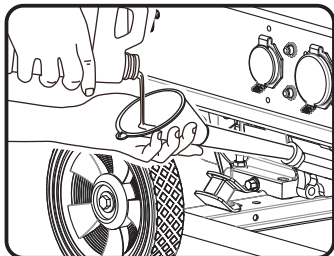


GARDEZ HORS DE LA PORTÉE DES ENFANTS. NE POLLUEZ PAS. CONSERVEZ LES RESSOURCES. RETOURNEZ L'HUILE USAGÉE AUX CENTRES DE COLLECTE.

(a) Sur une surface plane, vidangez l'huile dans un récipient approprié en retirant le bouchon de vidange et le bouchon de remplissage d'huile lorsque le moteur est chaud.



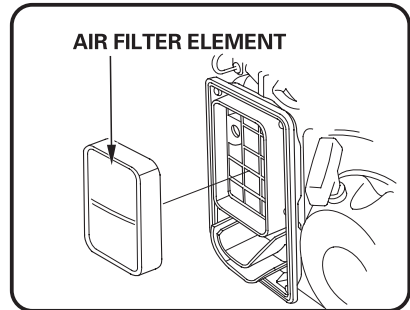
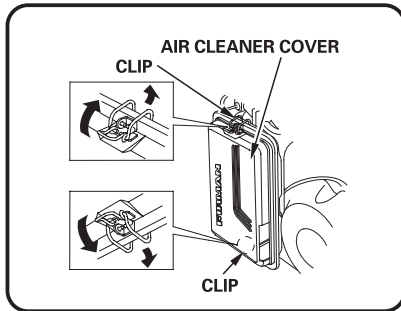
(b) Remettez le bouchon de vidange et remplissez le moteur d'huile jusqu'à ce qu'elle atteigne le niveau (H) sur la jauge d'huile.



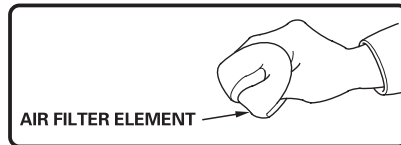
NOTE : Nous recommandons d'utiliser l'huile FIRMAN SAE 10W-30 API SL pour de meilleures performances. D'autres huiles de haute qualité (API SL ou supérieures) sont acceptables. Voir Huile et essence/GPL/GN.

Entretien Du Filtre À Air

(a) Retirez soigneusement l'élément en mousse du filtre à air et lavez-le uniquement avec un détergent liquide et de l'eau. Essorez-le et utilisez un chiffon propre pour le sécher.



(b) Saturer l'élément en mousse du filtre à air avec de l'huile moteur propre et mettez-le dans un chiffon propre pour éliminer l'excès d'huile.



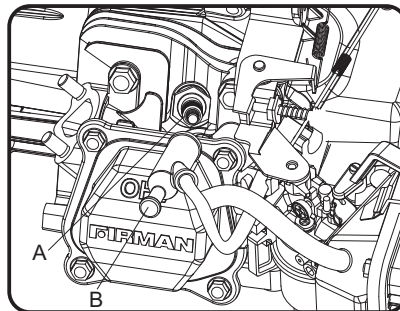
(c) Réinstallez L'élément De Filtre À Air Propre Ou Neuf.

Entretien Des Bougies D'allumage

Le changement de la bougie d'allumage aidera votre moteur à démarrer plus facilement et à fonctionner à plein rendement.

(a) Retirez le faisceau de la bougie.

(b) Retirez la bougie d'allumage à l'aide de la clé fournie.



A- Bougie d'allumage
B- Faisceau de bougie

Maintenance - Storage

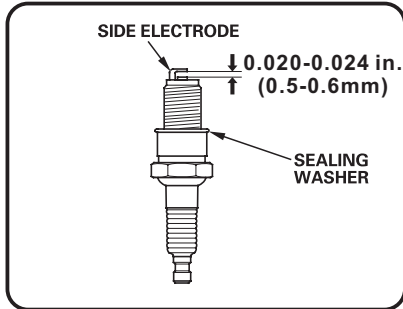
(c) Inspectez la bougie et nettoyez-la avec une brosse métallique avant de la réinstaller. Remplacez si nécessaire.

(d-1) Pour bougie d'allumage FIRMAN P/N 330723001 - Ajustez l'écart des électrodes de 0.020 - 0.024 in. (0.5 - 0.6 mm).

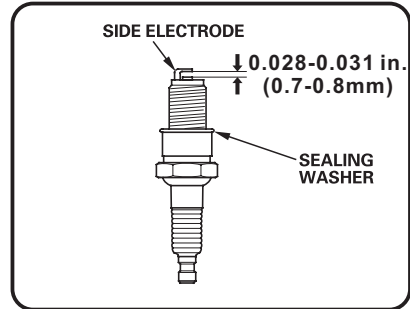
(d-2) Pour bougie d'allumage CHAMPION N9YC - Ajustez l'écart des électrodes de 0.028 - 0.031 in. (0.7 - 0.8 mm).

(e) Mettez la bougie d'allumage en position et serrez-la à la main pour éviter d'endommager le filetage.

(f) Serrez la bougie avec la clé fournie et remettez le faisceau de bougie en place.



BOUGIE D'ALLUMAGE : FIRMAN P/N 330723001



BOUGIE D'ALLUMAGE : CHAMPION N9YC

BOUGIE D'ALLUMAGE : FIRMAN P/N 330723001 ou CHAMPION N9YC

Entretien Du Jeu De Soupapes

Admission : 0,13 - 0,17 mm

Échappement : 0,18 - 0,22 mm

NOTE : La fiche technique concernant la procédure de réglage des soupapes est disponible sur www.firmanpowerequipment.com.

Silencieux Et Pare-étincelles

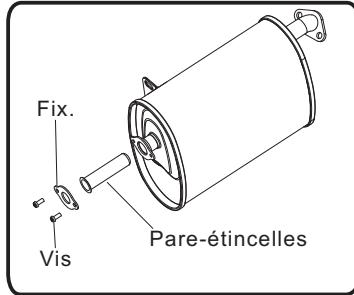


AVERTISSEMENT ! Le contact avec la zone du silencieux peut provoquer des brûlures entraînant des blessures graves.

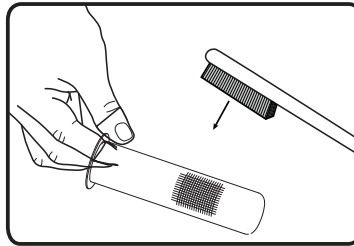
- Ne touchez pas les pièces chaudes.
- C'est une violation du California Public Resource Code, Section 4442, d'utiliser ou de faire fonctionner le moteur sur tout terrain couvert de végétation, de broussailles ou d'herbe à moins que le système d'échappement ne soit équipé d'un pare-étincelles, tel que défini dans la Section 4442, maintenu en bon état de fonctionnement. D'autres États ou juridictions fédérales peuvent avoir des lois similaires. Se référer au règlement fédéral 36 CFR, partie 261.52.

Inspectez Le Silencieux Et Le Pare-étincelles

1. Inspectez le silencieux pour d'éventuelles fissures, corrosion ou tout autre dommage.
2. Retirez les vis maintenant le pare-étincelles en place et retirez-le du silencieux.



3. Retirez soigneusement les dépôts de carbone du pare-étincelles avec une brosse métallique.



3. Remplacez le pare-étincelles si nécessaire. Si des pièces de rechange sont nécessaires, assurez-vous d'utiliser uniquement des pièces d'origine FIRMAN.

4. Positionnez le pare-étincelles dans le silencieux et fixez-le avec les vis.

NOTE : Le fait de ne pas nettoyer ou remplacer le pare-étincelles peut entraîner une baisse des performances du moteur.

ENTRETIEN DU GROUPE ÉLECTROGÈNE

Faites fonctionner le groupe électrogène chaque mois pendant au moins 30 minutes.

Assurez-vous que le groupe électrogène reste toujours propre et sec.

N'exposez pas le groupe électrogène à des poussières, des saletés, une humidité ou des vapeurs corrosives excessives.

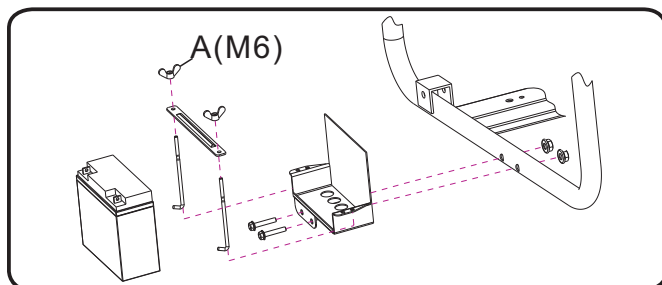
N'insérez aucun objet dans les fentes de refroidissement du groupe électrogène.

Avant chaque utilisation, inspectez le groupe pour d'éventuels signes de fuite d'huile ou de carburant. Nettoyez également tous les débris accumulés.

Gardez la zone autour du silencieux libre de tout débris. Utilisez une douce brosse pour enlever la saleté ou l'huile.

Utilisez un chiffon humide pour nettoyer toutes les parties extérieures du groupe électrogène.

Remplacement De La Batterie



1. Retirez le faisceau de bougie.
2. Retirez d'abord l'écrou et le boulon de la cosse négative (-), puis la positive (+).
3. Desserrez et retirez les écrous à oreilles (A) sur le support de la batterie.
4. Retirez la batterie et faites-la recycler.
5. Installez la nouvelle batterie avec les spécifications suivantes :
Acide de plomb scellé 12V 15AH LXWXH : 180 X 75 X165 mm
6. Connectez d'abord la cosse positive (+) de la batterie.
7. Connectez ensuite la cosse négative (-) de la batterie.
8. Couvrez les cosses avec les caoutchoucs fournis.
9. Installez le faisceau de bougie.

Battery Charging

La batterie alimente le démarreur et le module de commande. Ce groupe électrogène est équipé d'un circuit de charge automatique de la batterie. La batterie ne reçoit la tension de charge que quand le moteur tourne. La batterie maintiendra sa charge appropriée si le groupe électrogène est utilisé régulièrement (environ une fois toutes les deux semaines). Si elle est utilisée moins fréquemment, la batterie doit être connectée à un chargeur de batterie (non inclus) ou à un mainteneur de batterie (non inclus) pour que sa charge soit correctement maintenue. Si la batterie n'est pas en mesure de démarrer le moteur, ce dernier peut être démarré de façon manuelle. Si la tension de la batterie est extrêmement faible, le circuit de charge peut ne pas être en mesure de recharger la batterie. Dans ce cas, la batterie doit être connectée à un chargeur de batterie standard pour la recharger avant de pouvoir être utilisée.

SPÉCIFICATIONS

Modèle	T07571		
Watts au démarrage	10000 (ESSENCE)/9050 (GPL)/6900 (GN)		
Watts en fonctionnement*	8000 (ESSENCE)/7250 (GPL)/5500 (GN)		
Tension nominale	120/240V		
Fréquence nominale	60Hz		
Phase	1		
Régulateur de tension	AVR		
Puissance	1		
Type d'alternateur	Brossé		
Moteur	FIRMAN		
Type de moteur	Monocylindre, 4 temps OHV refroidi par air		
Cylindré	439cc		
Arrêt pour manque d'huile	Oui		
Système de démarrage	Type d'allumage sans coupure, volant magnétique		
Démarrage	A rappel/électrique		
Carburant	Essence sans plomb/GPL/GN		
Capacité du réservoir	30 L		
Capacité de l'huile	1.1 L		
Type de carburateur	Flotteur		
Filtre à air	Type de polyuréthane		
P.T.O. Rotation de l'arbre	Dans le sens antihoraire (face à P.T.O.)		
Type d'huile	Voir la section « Ajout de l'huile moteur »		
Système de mise à la terre	Neutre lié au cadre		
Plage de pression du gaz naturel	(0.25 à 0.40 psi) (13 à 20 mm de mercure) (1,7 à 2,7 kpa)		
Consommation de gaz naturel	Pas de charge	Demi-charge	Pleine charge
	72 pi ³ /h (2 m ³ /h)	86 pi ³ /h (2.4 m ³ /h)	101 pi ³ /h (2.9 m ³ /h)
Consommation de GPL	15.6pi ³ /hr(1.6L/hr)	33.3pi ³ /hr(3.4L/hr)	54.6pi ³ /hr(5.7L/hr)

*Groupe électrogène certifié à la norme CSA (Canadian Standards Association) C22.2 n°100-14, Moteurs et groupes électrogènes.

SCHEMA ET LISTES DE PIECES

T08071 SCHEMA DE PIERCE

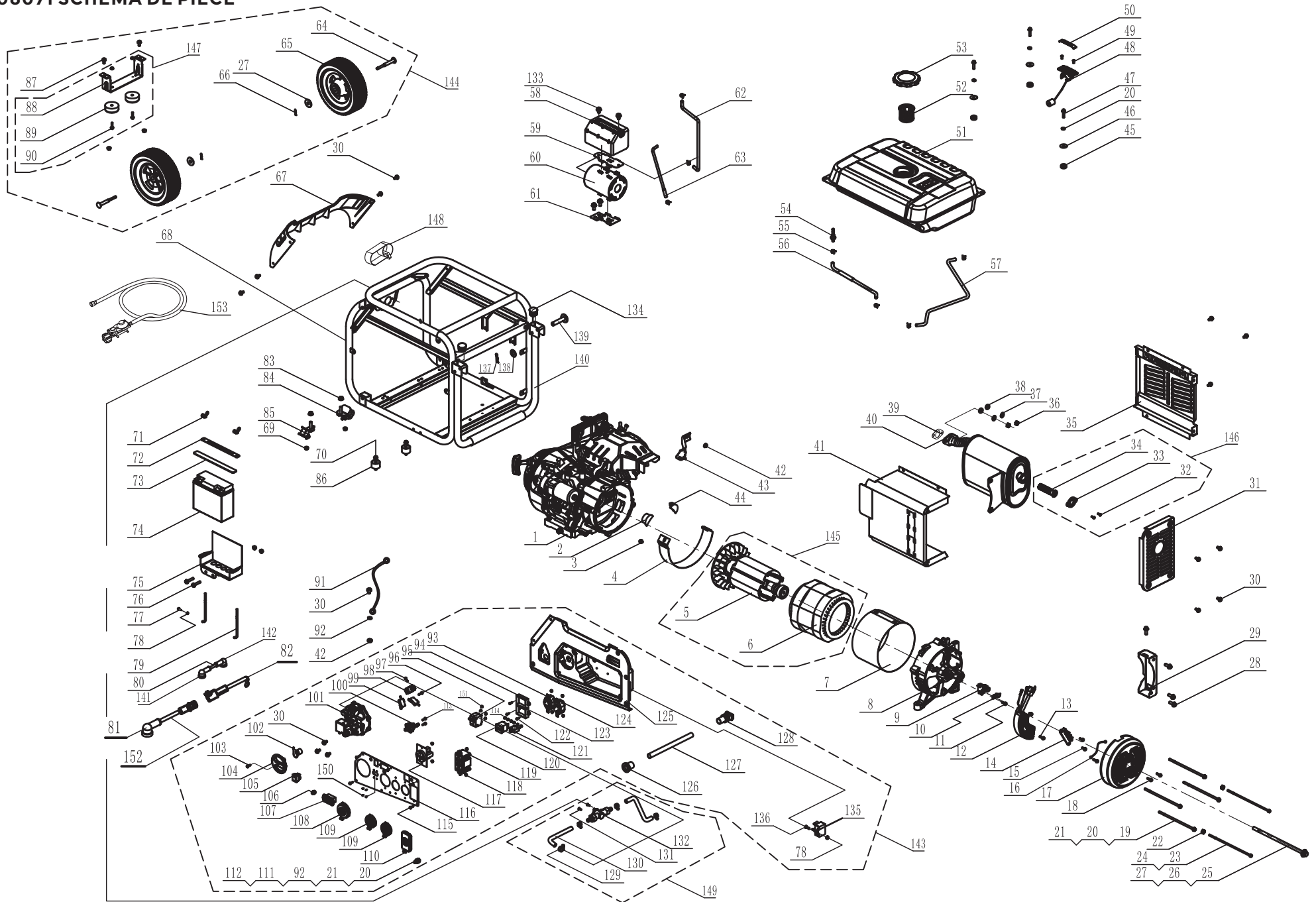


SCHÉMA DES PIÈCES DE MOTEUR À TROIS CARBURANTS DE 439 cm³

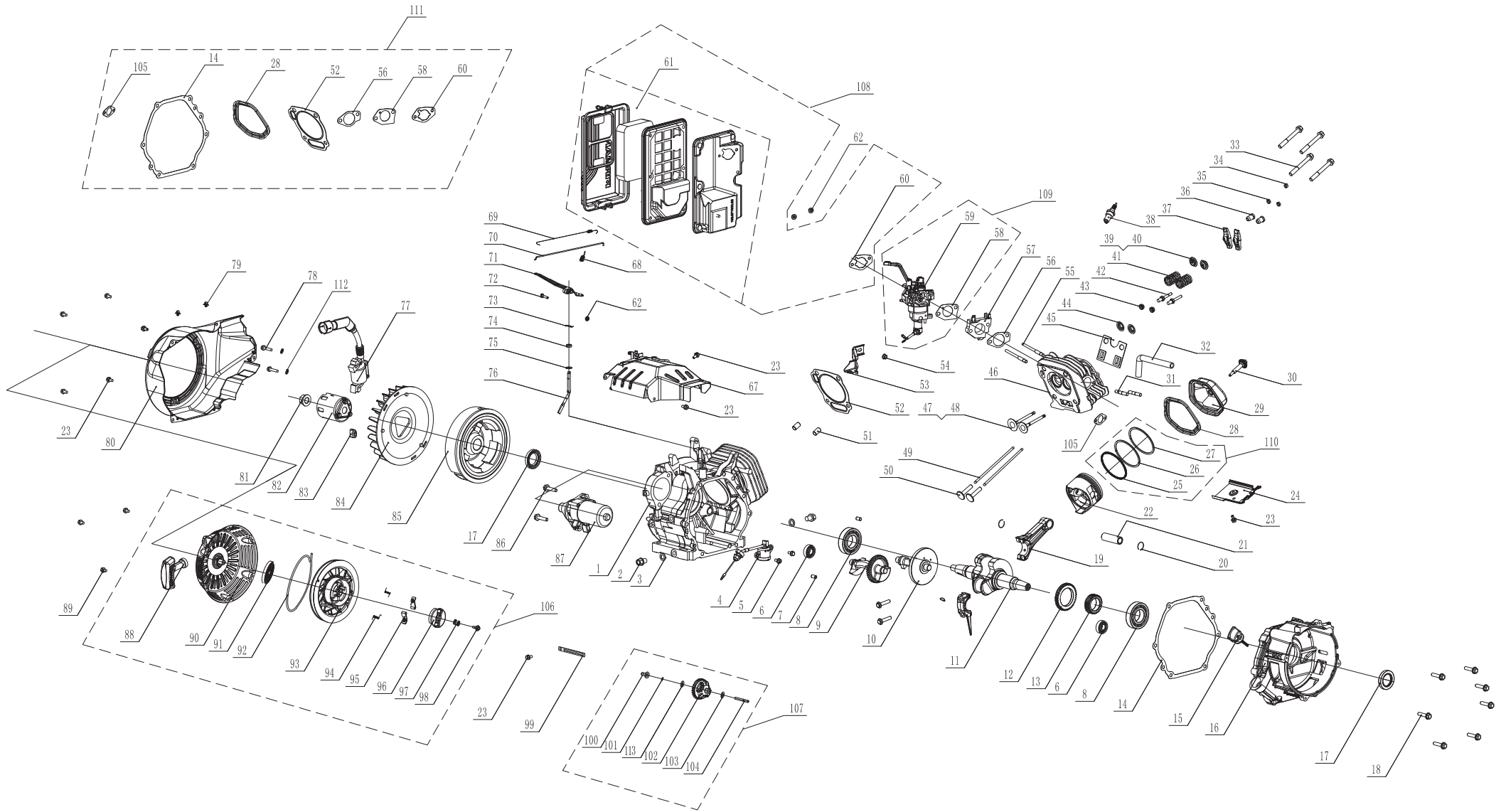
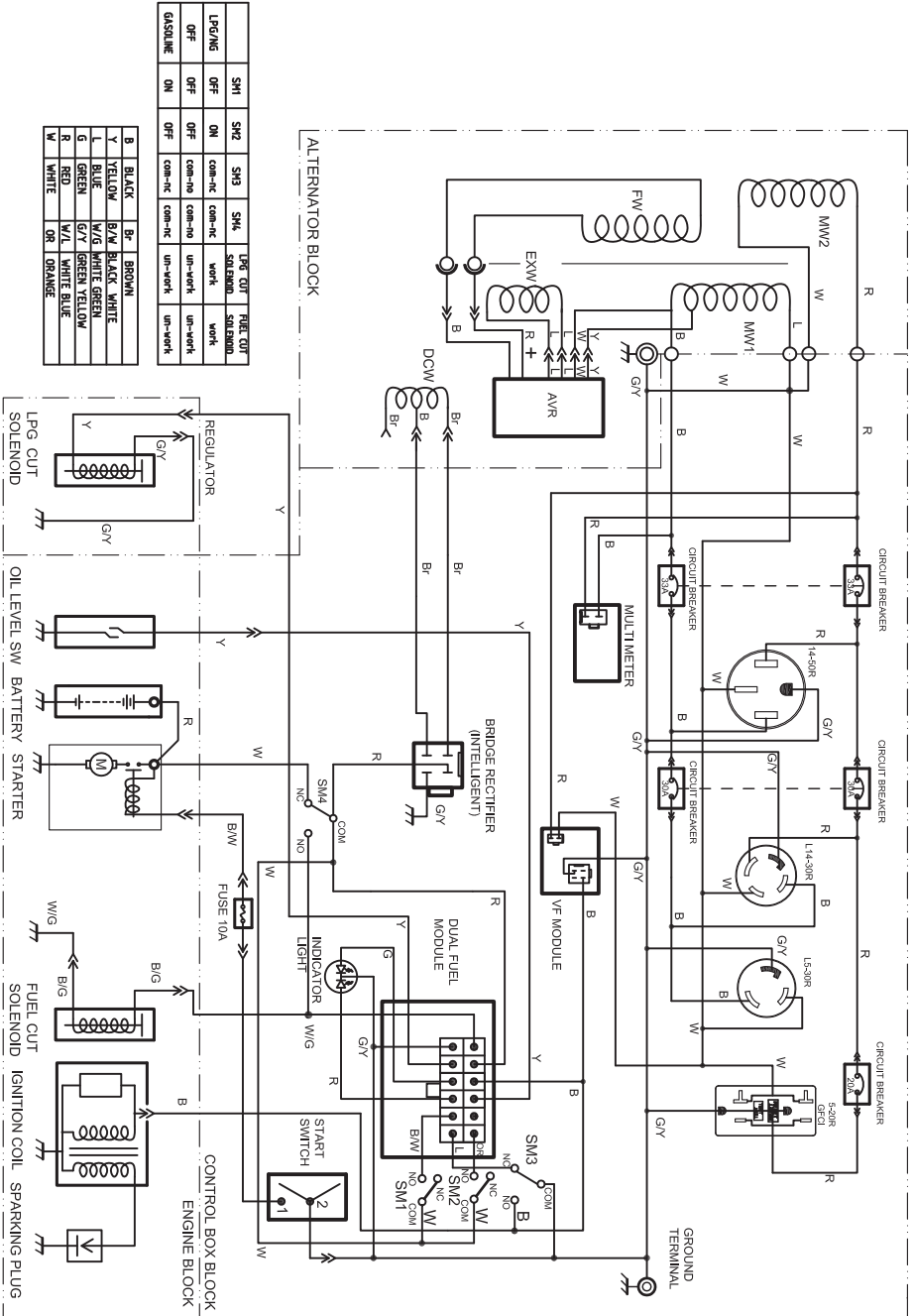


Schéma de pièces - Liste de pièces - Schéma de câblage

Groupe électrogène T08071

N°	Nb. pièce	Description	Q..	N°	Nb. pièce	Description	Q..
1	380713556	Moteur FIRMAN 439cc Tri-fuel	1	75	357713554	Support de batterie	1
2	357713501	Capuchon en caoutchouc B	1	76	357713593	Bride. Boulon M8x45	2
3	336713528	Boulon à bride M6x8	1	77	357713569	Vis et rondelle M5x10	2
4	357713573	Bouclier protecteur	1	78	336713578	Ecrou M5	3
5	380713535	Rotor	1	79	357713555	Boulon. Crochet	2
6	380713536	Stator	1	80	357713556	Câble rouge de batterie +	1
7	380713557	Couvert de stator	1	81	336713842	Protège noir	1
8	357713506	Couvert d'extrémité	1	82	336713693	Câble de batterie (femelle 180 mm)	1
9	357713507	Ensemble de balais de charbon	1	83	357713531	Ecrou M10	2
10	336713525	Porte-balais en carbone	1	84	357713532	Isolateur 2	1
11	336713524	Ensembles de boulons et rondelles	1	85	357713533	Isolateur 1	1
12	380713504	AVR	1	86	357713585	Support moteur 2	2
13	336713519	Boulon à bride M5x16	2	87	336713559	Bride. Boulon M8 x 16	4
14	336713523	Bornier	1	88	357713538	Support	1
15	336713520	Boulon M5x16	2	89	336713557	Support en caoutchouc	2
16	336713522	Fil de terre	1	90	336713561	Boulon à bride M6x25	4
17	357713509	Capuchon de couvert d'extrémité	1	91	336713514	Fil de terre	1
18	336713507	Boulon M5x12	3	92	336713516	Rondelle étoile extérieure Ø6	1
19	380713506	Boulon M6x200	4	93	336713601	Réceptacle L14-30R	1
20	336713512	Rondelle d'arrêt Ø6	8	94	336713817	Module de contrôle	1
21	336713513	Rondelle Ø6	4	95	380713524	Disjoncteur bipolaire Amp 33A	1
22	336713577	Ecrou M5	2	96	336713819	Vis à tôle St2.9x19	2
23	380713507	Boulon de couvert latéral M5x229	2	97	336713820	Vis à tôle St2.9x32	1
24	357713511	Rondelle d'arrêt Ø5	2	98	336713821	Micro Switch 1	1
25	380713508	Boulon M10x285	1	99	336713822	Micro Switch 2	2
26	357713513	Rondelle d'arrêt Ø10	1	100	336713824	Soupape de carburant	1
27	357713514	Rondelle Ø10	5	101	375413002	Ensemble régulateur principal	1
28	336713531	Boulon M8x20	4	102	336713826	Couvercle d'entrée GPL	1
29	357713515	Support	1	103	336713816	Vis M4x12	1
30	336713515	Boulon M6x12	19	104	336713815	Sélecteur de carburant	1
31	357713516	Plaque fix. silencieux A	1	105	336713827	Commutateur de démarrage électrique	1
32	336713538	Vis et rondelle Assy M5x14	2	106	336713828	Témoins	1
33	357713517	Support, bougies	1	107	357713586	Multimètre	1
34	336713536	Pare-étincelle	1	108	336713574	Couvert de sortie TT-30R / 14-50R	1
35	357713518	Plaque fix. silencieux B	1	109	336713573	Couvert de sortie L5-30R	2
36	336713534	Ecrou M8	2	110	357713541	Couvert de sortie 5-20R GFCI	1
37	336713509	Rondelle d'arrêt Ø8	2	111	380713512	Boulon M6x22	1
38	336713533	Rondelle plate Ø8	2	112	380713515	Ecrou M6	2
39	357713520	Joint ext.	1	113	380713001	Ensemble vis et rondelle M4 x 20	2
40	375413004	Ensemble silencieux	1	114	336713569	Vis et rondelle M4x8	10
41	357713523	Plaque fix. silencieux C	1	115	330713582	Vis et rondelle M4x14	6
42	336713517	Ecrou M6	4	116	380713552	Panneau de contrôle	1
43	357713577	Support filtre à air	1	117	380713518	Prise 14-50R	1
44	357713524	Capuchon en caoutchouc A	1	118	336713568	Ecrou M4	8
45	336713542	Passe-fil. réservoir de carburant	4	119	357713588	GFCI duplex 5-20R	1
46	336713543	Rondelle réservoir	4	120	336713526	Disjoncteur bipolaire Amp 30A	1
47	336713544	Boulon M6x20	4	121	336713585	Disjoncteur Amp 20A	1
48	357713578	Dauge de carburant.	1	122	336713565	Vis M5x14	4
49	336713546	Vis M5x10	2	123	336713818	Chargeur	1
50	336713547	Affichage de la jauge de carburant	1	124	336713583	Réceptacle L5-30R	1
51	380713553	Ensemble réservoir de carburant.	1	125	380713555	Boîtier de commande	1
52	336713806	Filtre à carburant, treillis métallique	1	126	357713545	CEillet	1
53	336713549	Bouchon du réservoir de carburant	1	127	357713546	Manche	1
54	336713807	Raccord de réservoir avec filtre	1	128	357713548	CEillet	1
55	336713540	Pince Ø8x6	7	129	380713547	Pince en métal	4
56	357713580	Tuyau. carburant 1	1	130	375723001	Tuyau GN	1
57	357713581	Tuyau. carburant 2	1	131	380713002	Vis et rondelle M5x10	2
58	336713636	Bouclier Carbon Canister	1	132	380713550	Sélecteur GPL/GN	1
59	336713639	Support De Cartouche De Carbone	1	133	380713003	Boulon M6x6	2
60	336713637	Cartouche De Carbone	1	134	357713598	Housse étanche	2
61	336713638	Porte-bidon De Carbone	1	135	336713643	Module de protection VF	1
62	380713532	Tuyau De Vapeur 1	1	136	330713502	Vis M5x20	1
63	380713533	Tuyau De Vapeur 2	1	137	336713590	Goupille fendue, poignée	2
64	357713535	Axe	2	138	336713844	Rondelle Ø8	2
65	357713592	Roue	2	139	357713596	Axe. poignée	2
66	357713536	Goupille	2	140	357713597	Poigné	1
67	380713554	Capot avant en plastique	1	141	336713841	Protège rouge	1
68	380713546	Cadre	1	142	336713611	Protège starter	1
69	336713558	Ecrou M8	8	143	375413001	Panneau de contrôle	1
70	357713584	Boulon M8x35	2	144	357413509	Kit de roue	1
71	357713550	Ecrou papillon M6	2	145	380413510	Ensemble rotor et stator	1
72	357713551	Support de batterie	1	146	357413503	Kit pare-étincelles	1
73	357713552	Bloc en caoutchouc	1	147	357413506	Ensemble pieds supports	1
74	357713553	Batterie	1	148	336713691	Support de tuyau	1
				149	380413512	Ensemble interrupteur sélecteur LPG-NG	1
				150	380713542	Vis et rondelle M3x6	4
				151	380713562	Vis et rondelle M5x8	4
				152	357713607	Câble de batterie (mâle 180 mm)	1
				153	336713834	Ensemble	1
							1
							1

Schéma de pièces - Liste de pièces - Schéma de câblage



POUR AVOIR DES RENSEIGNEMENTS SUR LE SERVICE, VEUILLEZ CONTACTER LE DÉPARTEMENT DU SERVICE DES PRODUITS FIRMAN AU 1-844-347-6261 ou visitez www.firmanpowerequipment.com pour obtenir des informations sur le service de garantie ou pour commander des pièces de rechange ou des accessoires.

COMMENT COMMANDER DES PIÈCES DE RECHANGE

Même des équipements de qualité comme ce groupe électrogène peuvent avoir besoin de pièces de rechange pour les maintenir en bon état au fil des années. Pour commander des pièces de rechange, veuillez donner les informations suivantes :

- N° de modèle et N° de série
- Numéro de pièces comme indiqué dans la section Liste des pièces.
- Une brève description du problème avec le groupe électrogène.

Garantie Limitée Firman De Trois (3) Ans

Qualifications de Garantie

FIRMAN GENERATOR enregistrera la garantie dès la réception de votre carte d'enregistrement de garantie et une copie de votre ticket de caisse de l'un des magasins de vente de produits FIRMAN comme preuve d'achat. Veuillez soumettre votre enregistrement de garantie et votre preuve d'achat dans les dix (10) jours qui suivent la date d'achat.

Garantie de Réparation/Remplacement

FIRMAN garantit à l'acheteur d'origine que les composants mécaniques et électriques seront exempts de tout défaut de fabrication pendant une période d'un (1) an (pièces et main-d'œuvre) et de trois (3) ans (pièces et support technique) à partir de la date d'achat originale, et de 90 jours (pièces et main d'œuvre) et 180 jours (pièces) pour un usage commercial et industriel. Les frais de transport du produit devant être réparé ou remplacé sous cette garantie sont à la charge exclusive de l'acheteur. Cette garantie ne s'applique qu'à l'acheteur d'origine et n'est pas transférable à une autre personne.

Ne Retournez Pas L'appareil Au Lieu D'achat

Contactez le centre de service FIRMAN et ce dernier s'efforcera de résoudre tout problème par téléphone ou par email. Si le problème n'est pas résolu par cette méthode, FIRMAN autorisera, à sa seule et unique décision, l'évaluation, la réparation ou le remplacement de la pièce ou du composant défectueux dans un centre de service FIRMAN. FIRMAN vous fournira un numéro de ticket pour le service de garantie. Veuillez le conserver pour référence future.

Les réparations ou remplacements sans autorisation préalable ou non effectués dans un centre de réparation non autorisé ne seront pas couverts par cette garantie.

Exclusions de Garantie

Cette garantie ne couvre pas les réparations et les équipements suivants.

Usure Normale

Votre produit a besoin de pièces et d'entretien périodiques pour bien fonctionner. Cette garantie ne couvre pas les réparations lorsque l'utilisation normale a permis d'atteindre la fin de durée de vie d'une pièce ou de l'équipement dans son ensemble.

Service - Garantie

Installation, Utilisation Et Entretien

Cette garantie ne s'applique pas aux pièces et/ou à la main-d'œuvre si votre produit a été mal utilisé, négligé, impliqué dans un accident, abusé, chargé au-delà de ses limites, modifié, installé incorrectement ou mal connecté à un composant électrique. L'entretien normal n'est pas couvert par cette garantie.

Autres Exclusions

Cette garantie exclut :

- défauts visuels comme peinture, décalcomanies...etc.
- usure des pièces
- pièces et accessoires
- défaillances dues à des cas de force majeure indépendants de la volonté du fabricant
- problèmes causés par des pièces qui ne sont pas d'origine FIRMAN
- produits utilisés pour l'alimentation principale à la place de l'alimentation de service public existante ou inexistante.

Limites De La Garantie Implicite Et Des Dommages Indirects

FIRMAN décline toute obligation de couvrir toute perte de temps, utilisation de ce produit, fret ou toute réclamation accessoire ou consécutive par quiconque d'utiliser ce produit. CETTE GARANTIE REMPLACE TOUTES LES AUTRES GARANTIES, EXPLICITES OU IMPLICITES, Y COMPRIS LES GARANTIES D'APTITUDE OU D'ADEQUATION DES MARCHANDS A UN USAGE PARTICULIER.

Un produit retourné pour échange sera soumis à la garantie du produit originel. La durée de la garantie régissant le produit échangé sera calculée par référence à la date d'achat du produit originel. Cette garantie vous donne certains droits légaux qui peuvent changer d'un Etat à un autre. Votre Etat peut également avoir d'autres droits auxquels vous pourriez avoir droit et qui ne sont pas énumérés dans cette garantie.

Informations de contact

Vous pouvez contacter FIRMAN au :

Adresse

FIRMAN Power Equipment Inc. Attn:
Service Client
8716 West Ludlow Dr. Suite #6
Peoria, AZ 85381
www.firmanpowerequipment.com

Nous sommes FIRMAN POWER - Et nous sommes là pour vous.

FIRMAN POWER EQUIPMENT INC. Garantie Du Système De Contrôle Des Émissions

ENONCE DE GARANTIE DE CONTROLE DES ECHAPPEMENTS ET DES EVAPORATIONS DE CALIFORNIE ET DES ETATS FEDERAUX

VOS DROITS ET OBLIGATIONS DE GARANTIE

La California Air Resources Board, la US Environmental Protection Agency (« US EPA ») et FIRMAN POWER EQUIPMENT INC. (FIRMAN) sont heureux d'expliquer la garantie des systèmes de contrôle des émissions sur votre petit moteur hors route 2020 - 2021 ou plus (appelé ci-après « SORE ») et les équipements motorisés. En Californie, les nouveaux équipements qui utilisent de petits moteurs hors route doivent être conçus, fabriqués et équipés pour répondre aux normes anti-pollution strictes de l'Etat. FIRMAN doit garantir les systèmes de contrôle des émissions de votre SORE et de l'équipement à moteur pour les périodes indiquées ci-dessous, à condition qu'il n'y ait pas eu d'abus, de négligence ou d'entretien inapproprié de votre petit moteur ou équipement hors route entraînant la défaillance du système de contrôle des émissions.

Votre système de contrôle des émissions peut comprendre des pièces telles que le carburateur ou le système d'injection de carburant, le système d'allumage, le convertisseur catalytique, les réservoirs de carburant, les lignes de carburant (pour le carburant liquide et les vapeurs de carburant), les bouchons de carburant, les soupapes, les cartouches, les filtres, les colliers de serrage et autres composants associés. Les tuyaux, courroies, connecteurs et autres assemblages liés aux émissions peuvent également être inclus.

Lorsque la garantie s'applique, FIRMAN réparera votre SORE et votre équipement à moteur sans frais, y compris le diagnostic, les pièces et la main-d'œuvre.

COUVERTURE DE LA GARANTIE DU FABRICANT :

Le système de contrôle des émissions d'échappement et d'évaporation de votre petit moteur hors route et de votre équipement motorisé est garanti pendant deux (02) ans. Si une pièce liée aux émissions de votre petit moteur hors route et de l'équipement motorisé est défectueuse, la pièce sera réparée ou remplacée par FIRMAN.

RESPONSABILITES DE LA GARANTIE DU PROPRIETAIRE :

En tant que propriétaire de SORE et de l'équipement propulsé par un moteur, vous êtes responsable de l'exécution de l'entretien requis indiqué dans le manuel d'utilisation. FIRMAN vous recommande de conserver tous les reçus couvrant la maintenance de votre SORE et de l'équipement à moteur, mais FIRMAN ne peut refuser la couverture de la garantie uniquement pour le manque de reçus ou pour votre incapacité à assurer l'exécution de tous les entretiens programmés.

En tant que propriétaire de SORE et de l'équipement propulsé par un moteur, vous devez cependant savoir que FIRMAN peut vous refuser la couverture de la garantie si votre petit moteur ou, équipement motorisé ou une pièce est tombé en panne en raison d'abus, de négligence, d'entretien incorrect ou de modifications non approuvées.

Il vous incombe de présenter votre petit moteur et votre équipement motorisé à un centre de distribution ou un service après-vente FIRMAN dès que le problème apparaît. Les réparations sous garantie doivent être effectuées dans un délai raisonnable, ne dépassant pas les 30 jours.

Si vous avez des questions concernant vos droits et vos responsabilités en matière de garantie, veuillez contacter FIRMAN au 1-844-347-6261 .

Dispositions De Garantie Des Défauts De Contrôle Des Émissions De Firman

La période de garantie commence à la date de livraison du moteur/de l'équipement à l'acheteur final. FIRMAN garantit à l'acheteur final et à chaque acheteur subséquent que le moteur est :

Conçu, fabriqué et équipé de manière à se conformer à toutes les réglementations applicables adoptées par l'Air Resources Board et l'US EPA ; et exempt de tout défaut de fabrication pouvant provoquer la défaillance d'une pièce garantie, comme décrit dans la demande de certification du constructeur du moteur.

La garantie sur les pièces liées aux émissions est la suivante :

(1) Toute pièce garantie dont le remplacement n'est pas prévu en tant qu'entretien requis dans le manuel d'utilisation fourni est soumise à la période de garantie indiquée ci-dessus. Si une telle pièce tombe en panne pendant la période de garantie, elle sera réparée ou remplacée par FIRMAN sans frais pour le propriétaire. Toute pièce réparée ou remplacée sous la garantie sera soumise à la période de garantie restante.

(2) Toute pièce garantie qui n'est prévue que pour une inspection régulière dans le manuel d'utilisation, est garantie pour la période de garantie indiquée ci-dessus. Toute pièce réparée ou remplacée sous garantie sera soumise à la période de garantie restante.

(3) Toute pièce garantie dont le remplacement est prévu en tant qu'entretien requis dans le manuel d'utilisation est garantie pendant la période précédant le premier point de remplacement prévu pour cette pièce. Si la pièce

Service - Garantie

tombe en panne avant le premier remplacement prévu, la pièce sera réparée ou remplacée par FIRMAN sans frais pour le propriétaire. Toute pièce réparée ou remplacée sous garantie sera soumise à la période de garantie restante précédant le premier point de remplacement prévu pour cette pièce.

(4) La réparation ou le remplacement de toute pièce garantie sous la garantie doit être effectué sans frais pour le propriétaire.

(5) Nonobstant les dispositions du paragraphe (4) ci-dessus, les services ou réparations sous garantie doivent être fournis par FIRMAN.

(6) Le propriétaire ne doit pas être facturé pour le travail de diagnostic qui conduit à déterminer si une pièce garantie est défectueuse, à condition que ce travail de diagnostic soit effectué sous période de garantie.

(7) FIRMAN est responsable des dommages aux autres composants du moteur causés par une défaillance sous garantie de toute pièce couverte par la garantie.

(8) Tout au long de la période de garantie des émissions définie au paragraphe (b) (2), FIRMAN maintiendra un approvisionnement en pièces de rechanges suffisant pour répondre à la demande prévue pour ces pièces.

(9) Toute pièce de rechange peut être utilisée pour l'exécution de tout entretien ou réparation sous garantie et doit être fournie sans frais pour le propriétaire. Une telle utilisation ne réduira pas les obligations de garantie du fabricant.

(10) Les pièces ajoutées ou modifiées qui ne sont pas exemptées par l'Air Resources Board ne peuvent pas être utilisées. L'utilisation ou l'ajout de toute pièce modifiée non exemptée par l'acheteur final sera un motif de rejet d'une demande de garantie.

Le fabricant ne sera pas tenu de garantir les défaillances des pièces couvertes par la garantie causées par l'utilisation d'une pièce ajoutée ou modifiée*.

PIECES COUVERTES PAR LA GARANTIE

La liste ci-dessous répertorie les pièces (le cas échéant) couvertes par la garantie fédérale et californienne du système anti-pollution.

1. Système d'allumage comprenant : - Bougie d'allumage - Bobine d'allumage	4. Système d'induction d'air comprenant : - Tuyau d'admission/collecteur - Filtre à air
2. Système de dosage de carburant : - Réservoir de carburant - Bouchon du réservoir - Lignes de carburant (pour carburant liquide et vapeurs de carburant) et raccords/colliers associés - Régulateur de carburant, carburateur et pièces internes.	5. Ensemble de reniflard de carter comprenant : - Tube de raccordement reniflard
3. Ensemble silencieux/catalyseur comprenant - Collecteur d'échappement - Convertisseur catalytique - Joint de silencieux - Vanne d'impulsion	6. Système de contrôle des émissions par évaporation du réservoir de carburant, y compris : - Vannes de purge - Cartouche de carbone - Tuyaux de vapeur et raccords/colliers

Limites

Cette garantie du système de contrôle des émissions ne couvre aucun des éléments suivants :

- (a) Dommages indirects tels que perte de temps, inconvénients, perte d'utilisation du moteur ou de l'équipement...etc.
- (b) Frais de diagnostic et d'inspection qui n'entraînent pas l'exécution d'un service de garantie éligible.

FIRMAN POWER EQUIPMENT INC.
www.firmanpowerequipment.com