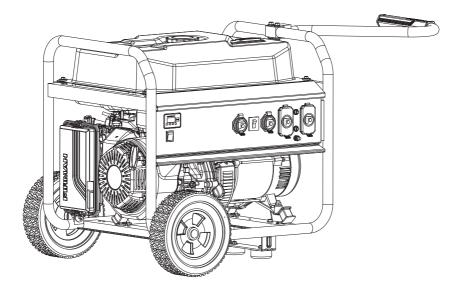


OPERATOR'S MANUAL GASOLINE PORTABLE GENERATOR





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



SERIAL NUMBER:

PURCHASE DATE:

INTRODUCTION

Table of Contents

Introduction	1
Features and Controls	5
Operation	. 10
Maintenance - Storage	. 1 9
Troubleshooting- Specifications	. 25
Parts Diagrams - Parts Lists - Wiring Diagram	. 27
Service - Warranty	32

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 designed to run only on unleaded gasoline. This generator is not intended to be run unattended or to supply power to 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	\land WARNING	riangle Caution	NOTICE	
Indicates a hazard which, if not avoided, will result in death or serious injury.	which, if not avoided,	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 the 120/240V receptacle, 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

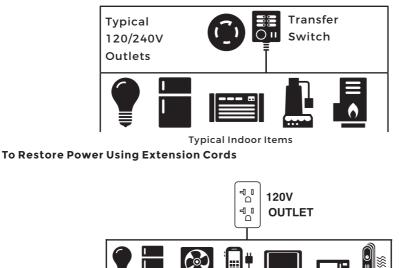
The generator has a system ground that connects the generator frame components to the ground terminals on the AC output receptacles. The system ground is connected to the AC neutral wire. The neutral is bonded to the generator frame.

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.



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

	To provide power using extension cords
Total	Minimum Gauge, Outdoor Rated
Amperage	Up to 50 FT (15m)
Up to 13A	6
Up to 15A	14
Up to 20A	12
Up to 30A	10

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.

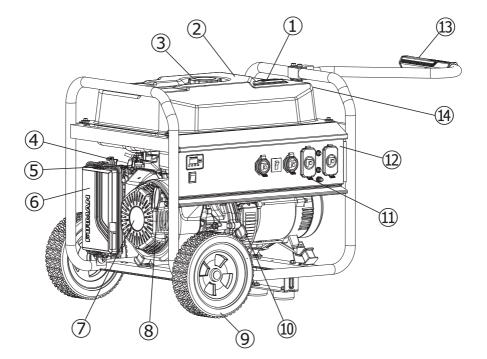


DANGER! Engine exhaust contains carbon monoxide, a poisonous gas that will kill you in minutes. You cannot smell it, see it, or taste it. Even if you do not smell exhaust fumes, you could still be exposed to carbon monoxide gas.

- 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.

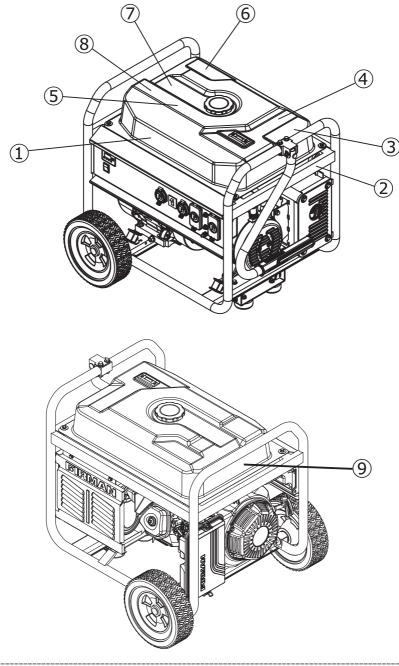


- 1- Fuel Gauge
- 2-8.0 Gallon(30L) Capacity **Fuel Tank**
- 3- Fuel Cap
- 4- Choke Lever(behind air filter box) 13- Handle
- 5- Fuel Valve
- 6- Air Filter
- 7-389cc FIRMAN OHV Engine
- 8- Recoil Starter

9-10.0"(25.4cm) Flat Free Wheel

- 10- Oil Filler Cap
- 11- Outlet Cover
- 12- Control Panel
- 14- Data Decal / Serial Number

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



FEATURES AND CONTROLS

1



2

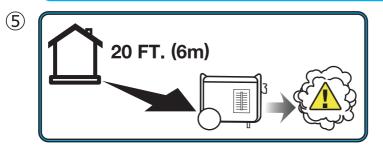
A WARNING		AVERTISSEMENT
Muffler could cause burns resulting in serious injury. •Do not touch hot parts •Avoid hot exhaust gases	quemaduras que ocasionen lesiones graves. •No toque las partes calientes	Le silencieux peut provoquer des brûlures et entraîner des blessures graves. •Ne touchez pas les pièces chaudes •Évitez les gaz d'échappe- ment chauds

Point engine exhaust away from all occupied structures. Mantenga los gases de escape del motor lejos de instalaciones ocupadas. Éloignez l'échappement du moteur des structures occupées.

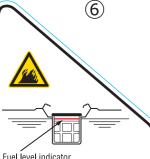


3

	NOTICE	AVISO	AVIS
	transport on firm level surface	Opere, almacene y transporte en una superficie firme y nivelada.	Faire fonctionner, ent- reposer et trans porter sur une surface plane et ferme.
	 Tilting can cause fuel spillage. 	• La inclinación puede causar fugas de combustible.	• L'inclinaison peut provoquer des fuites de carburant.



FEATURES AND CONTROLS



Fuel level indicator Indicador de nivel de combustible Indicateur de niveau de carburant

MARNING

Fuel is flammable which could cause burns resulting in death or serious injury. • Turn engine off and let it cool at least 2 minutes before refueling.

Do not fill fuel above fuel level indicator.
Never add fuel to a hot or running generator.

ADVERTENCIA

El combustible es inflamable, lo que puede causar quemaduras y provocar la muerte o lesiones graves.

 Apague el motor y déjelo enfriar al menos 2 minutos antes de repostar.
 No llene el combustible por encima del indicador de nivel de combustible.
 Nunca agregue combustible a un

generador caliente o en funcionamiento.

AVERTISSEMENT

Le carburant est inflammable, ce qui pourrait provoquer des brôlures entraînant la mort ou des blessures graves. •Arrêtez le moteur et laissezle refroidir au moins 2 minutes avant de faire le plein. •Ne remplissez pas de carburant audessus de l'indicateur de niveau de carburant. •N'ajoutez jamais de carburant à un générateur chaud ou en marche.



A WARNING

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

Generator could cause electrical shock. •Do not run indoors to avoid wet conditions. •Do not run in rain or wet weather. •Transfer switch must be used

when connecting to a home's electrical system.

Hot exhaust gases could cause fires. Keep at least 5 ft.(1.5m) clearance from any combustibles or structures, incluing overhead.

ADVERTENCIA

El incumplimiento de las advertencias, las instrucciones y el manual del operador podría provocar la muerte o lesiones graves.

El generador podría producir una descarga eléctrica. •No utilice en interiores para evitar condiciones de humedad. •No utilice en la lluvia o en



condiciones de humedad. • No utilice en la lluvia o en condiciones de humedad. • Es necesario usar un interruptor de transferencia cuando se conecta al sistema eléctrico de una casa. Los gases calientes de salida

bos gases callentes de sanda podrían causar incendios. Manténgase a una distancia mínima de 1,5m de cualquier combustible o estructura, incluyendo lugares elevados.

8

AVERTISSEMENT

Le non-respect des avertissements, des instructions et du manuel de l'opérateur peut entraîner la mort ou des blessures graves.

La génératrice pourrait provoquer un choc électrique. • Ne faites pas fonctionner à l'intérieur pour éviter les conditions humides. • Ne faites pas fonctionner sous la pluie ou par temps pluvieux. • Un commutateur de transfert doit être utilisé lors du raccordement au système électrique d'une maison.

Les gaz d'échappement chauds peuvent provoquer des incendies. Gardez au moins 5 pi (1,5 m) de dégagement de tout combustible ou de toute structure, y compris au-dessus.

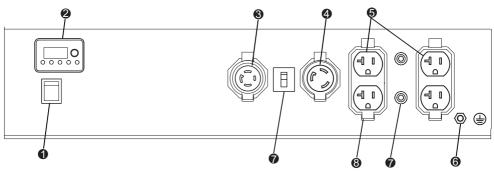


FOR RESIDENTS OF CALIFORNIA PARA LOS RESIDENTES DE CALIFORNIA POUR LES RÉSIDENTS DE LA CALIFORNIE

WARNING: This product and the engine exhaust from this product can expose you to chemicals including CO, which are known to the State of California to cause cancer or cause birth defects and other reproductive harm. For more information, go to www.P65Warnings.ca.gov. ADVERTENCIA: Este producto y el escape del motor de este producto pueden exponerlo a productos químicos, incluido CO, que en el estado de California son conocidos por causar cáncer o causar defectos de nacimiento u otros daños reproductivos. Para obtener más información, vaya a <u>www.P65Warnings.ca.gov</u>. AVERTISSEMENT: Ce produit et l'échappement du moteur de ce produit peuvent vous exposer à des produits chimiques, y compris le CO, qui sont connus par l'État de Californie pour causer le cancer ou causer des malformations congénitales et autres problèmes de reproduction. Pour plus d'informations, visitez <u>www.P66Warnings.ca.gov</u>.

FEATURES AND CONTROLS

Control Panel



NOTICE Total power drawn from all receptacles must not exceed the data decal rating.

1. **Engine Switch** – Engine Switch – Flip the switch to the "ON"(I) position and pull the recoil starter to start the generator. Turn to the "OFF"(O) position to turn off the generator.

2. 4-1 Data-Minder (Multi-Meter) - Push the SELECT button to show the Voltage, Hertz, running hours and low oil alarm.

3.120/240V, 30A Twist Lock - NEMA L14-30R(Not GFCI protected)

A maximum of 27.9 Amps current for 240 Volts or two independent 120 Volt loads at 27.9 Amps current each.

4. 120V, 30A Twist Lock - NEMA L5-30R(Not GFCI protected)

A maximum of 27.9 Amps current may be drawn from this receptacle.

5. 120V, 20A Duplex (Not GFCI protected)- NEMA 5-20R

A maximum of 20 Amps current may be drawn from this duplex receptacle.

6. Ground Terminal - Consult an electrician or authority having jurisdiction for local grounding requirements.

7. **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 data decal rating.

8. Outlet Cover - Protects the receptacles from dust and debris.

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

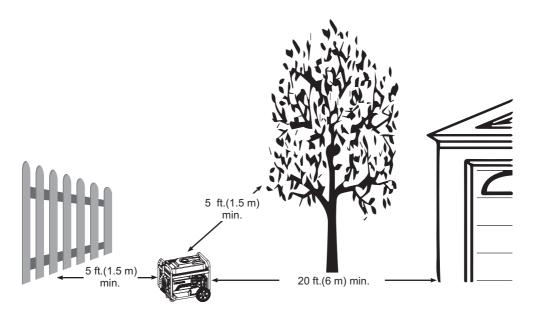
To better educate yourself about all carbon monoxide risks, go to www.takeyourgeneratoroutside.com.

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.

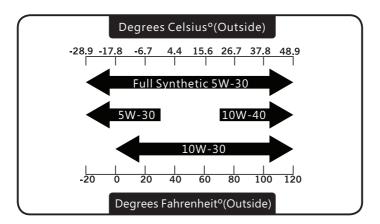


2. Oil and Gasoline

Add Engine Oil

We recommend using FIRMAN SAE 10W-30 API SJ 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.

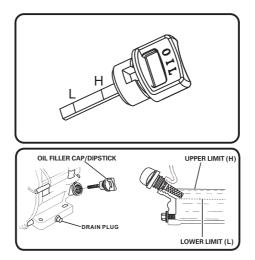
NOTICE Do not attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage due to operation with no oil will void your warranty.



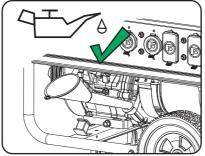
1.Place generator on a flat, level surface.

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.

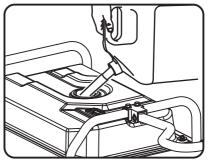


NOTICE Do not mix oil in gasoline or modify engine to run on alternate fuels not described in this manual. Use of unapproved fuels could damage engine and will not be covered under warranty.

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 service.

	389cc	Altitude
Altitude main jet 1	357717002	3000-6000Feet (914-1828 m)
Altitude main jet 2	357717003	6000-8000Feet (1828-2438 m)

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 $104^{\circ}F$ ($40^{\circ}C$). The generator may be operated at temperatures ranging from $5^{\circ}F$ (- $15^{\circ}C$) to $122^{\circ}F$ ($50^{\circ}C$) 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 $77^{\circ}F$ ($25^{\circ}C$) 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.

3.Starting the Generator

 Before starting the generator, check for loose or missing parts and for any damage which may have occurred during shipment. Ensure spark plugs, muffler, fuel cap, and air cleaner are all in place.
 Move portable generator outdoors to safe operating location at least 20 ft. (6m) from any occupied spaces.

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



4. Turn the fuel valve to the "ON" (I)position.



5. Flip the engine switch to the "ON" (I) position.



6. Move the choke lever to the "START" position.



7. Pull the starter cord slowly until resistance is felt and then pull rapidly.



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



9. 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. 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.



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.

5. 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.

2. Flip the engine switch to "OFF" (O) position.



Do not leave the generator until it has completely stopped.

3. Turn the fuel valve to the "OFF"(O) position.



If a cover is used, do not install until unit has cooled.

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.				\checkmark	
- ·	Check oil level.	\checkmark				
Engine Oil	Replace.		\checkmark		\checkmark	
Air Filter	Clean, replace if necessary.			\checkmark		
Fuel	Clean fuel tank strainer. Replace if necessary.				\checkmark	
Fuel Line	Check fuel hose for cracks or other damage. Replace if necessary.	\checkmark				
Exhaust	Check for leakage. Retighten or replace gasket if necessary.	\checkmark				
System	Check spark arrester screen. Clean/Replace if necessary.				\checkmark	
Engine	Check adjust valve clearance. *					\checkmark
	Clean combustion chamber. *					\checkmark
Fittings/ Fasteners	Check. Replace if necessary.				\checkmark	

MAINTENANCE SCHEDULE

* To be performed by knowledgable/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 plug and clean air filter assure proper fuel-air mixture and help your engine run at peak performance and last longer.

When Transporting Generator

Transport with fuel tank EMPTY or with fuel valve in OFF position. Do not tip generator at an angle which causes fuel to spill.

ENGINE MAINTENANCE

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

Change Engine Oil

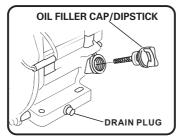
Change engine oil every 100 hours. (for a new engine, change oil after 25 hours.) If you are using your generator under extremely dirty or dusty conditions, or in extremely hot weather change the oil more often.

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.

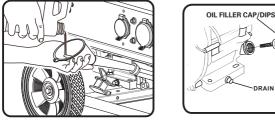


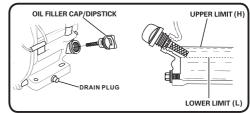
KEEP OUT OF REACH OF CHILDREN. DON'T POLLUTE. CONSERVE RESOURCES. RETURN USED OIL TO COLLECTION CENTERS.

(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 HICH(H) level on the oil filler dipstick.

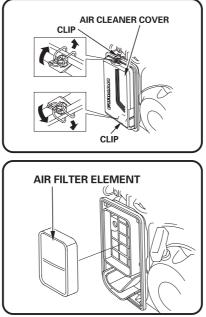




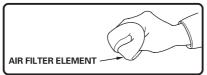
NOTICE We recommend using FIRMAN SAE 10W-30 API SJ oil for best performance. Other highquality detergent oils (API SL or higher) are acceptable. See *Oil and Gasoline*

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.

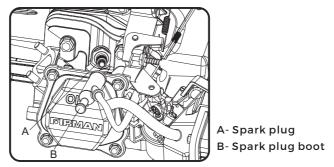


(c) Reinstall clean or new air filter element.

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.

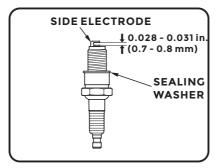


(c) Inspect spark plug for damage and clean with a wire brush before reinstalling. Replace if damaged.

(d) 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: TORCH F6RTC, NGK BPR6ES, CHAMPION RN9YC or equivalent.

Maintenance Valve Clearance

Intake: 0.004 - 0.006 in. (0.10 - 0.15 mm) Exhaust: 0.004 - 0.006 in. (0.10 - 0.15 mm)

Muffler and Spark Arrester



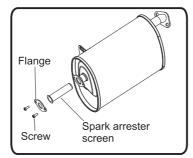
WARNING! Contact with muffler area could cause burns resulting in serious injury.

- 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.

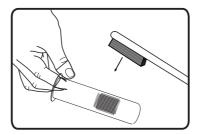
Inspect Muffler and Spark Arrester

1.Inspect the muffler for cracks, corrosion, or other damage.

2.Remove the screws securing the spark arrester in place and the remove it from muffler.



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



4. Replace the spark arrester if it is damaged. If replacement parts are required, make sure to use only FIRMAN original equipment replacement parts.

5. 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.

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. Ethanol-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 fuel valve to on 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 fuel valve 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 Pull recoil slowly until resistance is felt. This will close the valves so no moisture enters the engine cylinder. Reinstall the spark plug and attach the spark plug boot.

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.

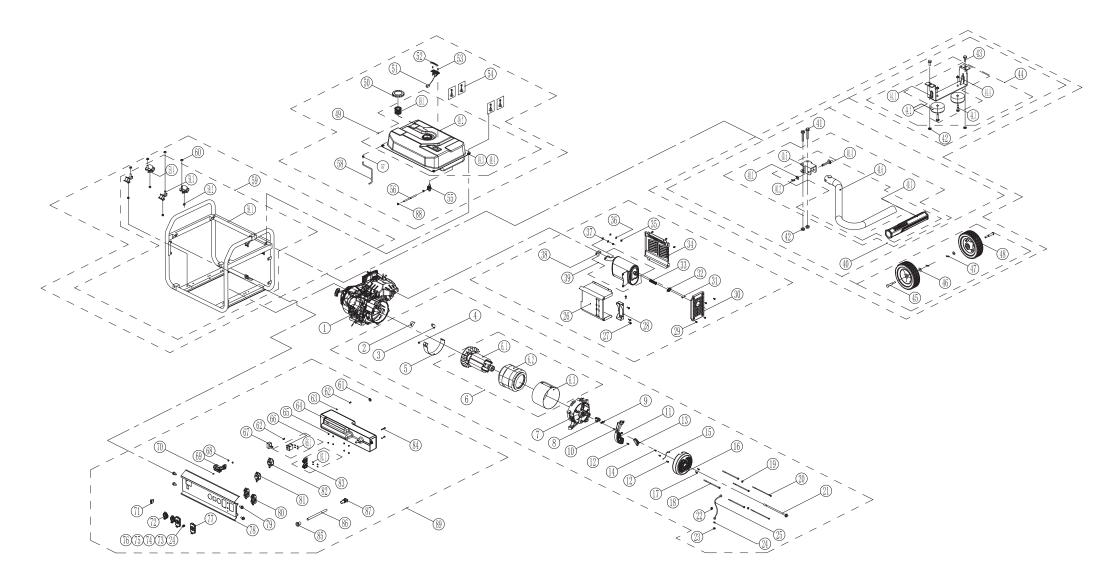
Problem	Cause	Correction
Engine is running, but no AC output is available.	 Circuit breaker is open. Fault in generator. Poor connection or defective cord set. Connected device is bad. 	 Reset circuit breaker. Contact authorized service facility. Check and repair. Connect another device that is in good condition.
ngine runs good at o-load but "bogs down" /hen loads are connected. 3. Shorted generator circuit.		 Disconnect shorted electrical load. Contact authorized service facility. Contact authorized service facility. Clean or replace fuel filter.
Engine will not start; starts and runs rough or shuts down when running.	 Fuel valve set to OFF (O) position. Low oil level. Dirty air cleaner. Out of gasoline. Stale gasoline. Spark plug wire not connected to spark plug. Bad spark plug. Water in gasoline. Flooded. Excessively rich fuel mixture. Clogged or dirty fuel filter. 	 Turn the fuel valve to the "ON" (I) position. Fill crankcase to proper level or place generator on level surface. Clean or replace air cleaner. Fill fuel tank with gasoline. Drain fuel tank and carburetor; fill with fresh gasoline. Connect wire to spark plug. Replace spark plug. Drain gas tank and carburetor; fill with fresh gasoline. Drain gas tank and carburetor; fill with fresh gasoline. Mait 5 minutes and re-crank engine. Contact authorized service facility. Clean or replace fuel filter.
Engine lacks power.	1. Load is too high. 2. Dirty air filter. 3. Clogged or dirty fuel filter. 4. Clogged spark arrester.	 Don't Overload Generator Replace air filter. Clean or replace fuel filter. Clean or replace spark arrester.
Engine "hunts" or falters.	 Carburetor is running too rich or too lean. Clogged or dirty fuel filter. 	 Contact authorized service facility. Clean or replace fuel filter.
Engine shuts down when running.	1. Out of gasoline. 2. Dirty air cleaner. 3. Low oil level.	 Fill fuel tank with gasoline. Clean or replace air cleaner. Fill crankcase to proper level or place. generator on level surface.

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

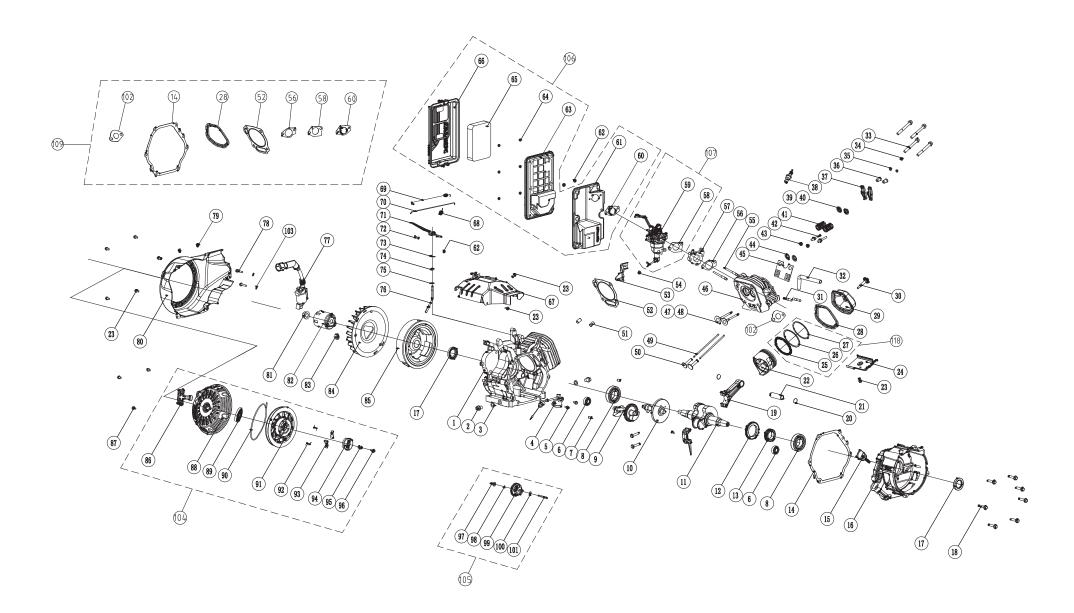
SPECIFICATIONS

Model	P06706
Starting Watts	8375
Running Watts*	6700
Rated AC Voltage	120/240V
Rated Fequency	60Hz
Phase	Single
Voltage Regulator	AVR
Power Factor	1
Alternator Type	Brushed
Engine	FIRMAN
Engine Type	Single Cylinder, 4-Stroke OHV Air Cooled
Displacement	389cc
Low Oil Shutdown	Yes
Ignition System	Breakless Ignition Type, Flywheel Magneto
Starting System	Recoil
Fuel	Unleaded Automotive Gasoline
Capacity Fuel Tank	8 U.S. Gallons (30L)
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

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



27



28

P06701 Portable Generator

NO	Part Number	Description	Otv
1 1	357713500		Qty. 1
2	357713500	FIRMAN 389cc Engine	1
		Rubber Cap B	1
3	357713524	Build Up,fore-cover A	1
	336713528	Flange. Bolt M6×8	1
5	357713573	Generator Wind Shield	1
6	367418300	Alternator Assy	
6.1	367418301	Rotor Comp	1
6.2	367418302	Stator Assy	1
6.3	357713505	Stator Cover	1
7	357713506	Generator End Cover	1
8	357713507	Carbon Brush Assembly	1
9	336713525	Carbon Brush Holder	1
10	357713563	Bolt &washer Assemblies	1
11	367718300	AVR	1
12	336713519	Flange. Bolt M5×16	3
13	336713523	Terminal Block	1
14	336713520	Bolt &washer Assemblies	2
15	357713599	Neutral Wire	1
16	357713509	Generator End Cover Cap	1
17	336713507	Flange. Bolt M5×12	2
18	336713511	Flange Bolt M6×179	4
19	336713577	Nut M5	2
20	357713510	Side Cover Bolt M5×214	2
21	357713512	Flange Bolt M10×265	1
22	336718301	Flange. Bolt M6×12	1
23	336713517	Nut M6	1
24	336713516	External Teeth Lock Washer Ø6	2
25	357713601	Ground Wire	1
26	357713523	Guard,muff.,back	1
27	336713531	Flange. Bolt M8×20	4
28	357713515	Bracket,muff	1
29	336718302	Flange. Bolt M6×12	7
30	357713516	Protector, Muff.,side	1
31	336713538	Screw&washer Assy M5×14	2
32	357713517	Holder, Spark Arrester	1
33	336713536	Arrester,spark	1
34	357713518	Protector,muff.,front	1
35	336713534	Nut M8	2
36	336713509	Spring Washer Ø8	2
37	336713533	Flat Washer Ø8	2
38	357713520	Gskt.,ext.	1
39	357713521	Muff.,assy.	1
40	357413505	Handle Assembly	1
	336713591	Flat Washer(ø8.2×ø17×0.8)	1
	336713590	Pin, Shaft	1
	357713519	Cover, Handle	1
	336713594	Pin, Handle	1
	357713526	Bracket, Handle	1
	357713522	Handle	1
40.0	357713522	Flange. Bolt M8×50	2
41		Nut M8	4
42	336713558 336713559	Flange. Bolt M8×16	2
43	357413506		2
		Support Leg Assembly	1
	357713538	Support Leg	
144.Z	336713557	Rubber, Support	2

44.3 336713561 Flange. Bolt M6×25 2 44.4 336723555 Nut M6 2 45 357713534 Flat Washer Ø10 2 47 357713534 Wheel 2 48 357713528 Fuel Tank Assy 1 49 357713528 Fuel Tank Assy 1 49.1 336713542 Grommet, Fuel Tank 4 49.3 357713528 Fuel Tank Cap Comp. 1 50 336713542 Grommet, Fuel Tank 4 49.4 357713529 Fuel Gauge Assy. 1 51 357713529 Fuel Gauge Display 1 52 336713540 Clamp Ø8×6 1 55 336713551 Fuel Valve 1 54 393713520 Formed Vapor Hose 1 59 357713521 Nut M10 4 59.3 357713533 Isolator I 2 59.4 357713533 Isolator I 2 60 357713533 <th>NO.</th> <th>Part Number</th> <th>Description</th> <th>Qty.</th>	NO.	Part Number	Description	Qty.
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	89	367415503	Control Panel Assy.	1

English

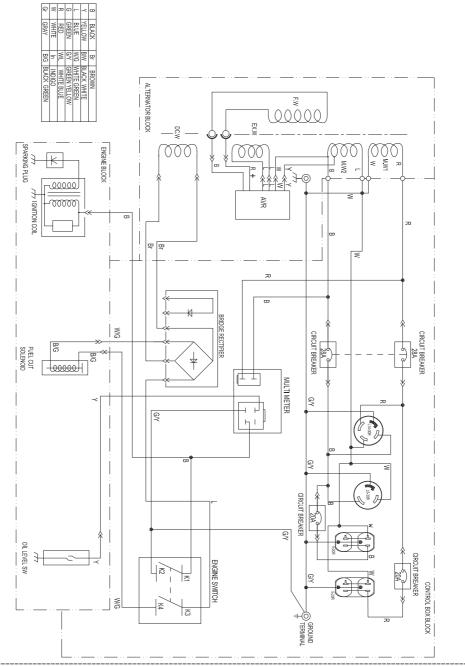
FIRMAN 389cc Engine

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NO.	Part Number	Description	Qty.	NO.	Part Numbe
1		Crankcase Subassembly.	1		357723550
2		Bolt, Drain Plug	2		357723551
3	357723502	Washer, Drain Bolt	2	59	357723588
4	357723503	Sensor, Engine Oil	1	60	357723554
5		Flg. Bolt M6×15	2	61	357723555
6	357723505		2		336723555
7		Locating Pins	2	63	357723556
8	357723506		2	64	357723557
9		Balance Shaft	1		357723558
		Camshaft Assy.	1		357723559
11	357723509	Crankshaft	1		357723560
		Gear, crank Shaft	1		357723561
	357723511		1		357723562
		Gasket, Crankcase	1		357723563
		Oil Dipstick Assy	i		357723564
16	357723514	Cover,Crankcase	1		336723567
	357723515		2		357723565
		Flg. Bolt M8×40	7		357723566
		Rod, Connecting	1		336723564
		Clip, Piston Pin	2		357723567
	357723519		1		357723568
	357723520		1		357723569
		Flg. Bolt M6×12	7		336723606
		Air Guide Lower			
			1		357723570
		Ring Set, Oil			357723571
		Ring, The Second	1		357723572
		Ring, The First	1		336723612
		Gasket, Cylinder Head Cover	1		357723573
		Cover Subassembly, Cylinder Head			357723589
	357723527		1		357723577
		Exhaust Valves Stud Bolt	2		357723578
		Breather Tube	1		357723579
		Flg. Bolt M10×80	4		357723580
		Rotator, Valve	1		357723581
		Nut, Valve Lock	2		357723582
		Nut Valve Adjusting	2		336723589
		Rocker, Valve	2		336723590
	336723556		1		336723591
		Retainer, Intake Valve	1		336723592
		Retainer, Exhaust Valve	1	96	336723593
41		Spring,valve	2		357723584
		Bolt, Valve Adjusting	2	98	336723597
		Oil Seal,valve	2	99	357723585
44	357723537	Retainer, Valve	2	100	336723595
		Plate Subassembly, Lifter Stopper	1	101	357723586
46	357723539	Head Subassembly, Cylinder	1	102	357713520
47	357723540	Valve,In.take	1	103	336723615
48	357723541	Valve, Exhaust	1		357423500
49	357723542	Push Rod	2		357423501
		Tappet, Valve	2		357423502
		Locating Pins(φ12×20)	2		357423506
		Gasket, Cylinder Head	1		357423504
		Air Cleaner Holder	1		357423507
	357723547		1		
		Stud, Intake	2		
		Gskt.,Insulator	1		

NO.	Part Number	Description	Qty
57		Plate, Carburetor Insulator	1
	357723551	Gasket, Carburetor	1
	357723588		1
		Gasket, Air Cleaner	1
		Elbow, Air Cleaner	1
	336723555		3
	357723556		1
		Nut M5	6
65		Element, Air Cleaner	1
66		Cover, Air Cleaner	1
67		Wind Guide, Top	1
	357723560		1
	357723562	Spring, Governor	1
			1
		Rod, Governor	1
		Arm, Governor	<u> </u>
72		Bolt,Governor Arm	1
73	357723565		1
	357723566		1
		RockerShim	1
76		Shaft, Governor Arm	1
		Ignition Coil	1
		Flg. Bolt M6×29	2
	336723606		2
		Fan Cover Comp	1
81	357723571		1
82		Pulley,Starter	1
83		Sheath,Wire	1
		Cooling Fan	1
85	357723589	Flywheel Comp	1
		Grip, Starter	1
87	357723578	Flg. Bolt M6×8	3
		Case Comp.,recoil Starter	1
	357723580		1
90	357723581	Cord	1
91		Pulley,Recoil Starter	1
		Spring,Patchet	2
		Patchet,Starter	2
	336723591	Pawl Guide	1
		Clip Sprg.,Pawl Guide	1
		Screw, Pawl Guide	1
		Bushing, Govorner Gear	1
		Clip, Govorner Gear	1
		Gear, Governor	1
		Inner Washer, gear	1
			1
		Gov.,gear Shaft	1
	357713520		2
		Lock Washer	2
		Recoil Starter Set	1
		Governing Gear Set	<u> </u>
		Air Cleaner Set	1
		Carburetor Set	1
		Piston Rings Set	1
109	357423507	Gasket Set	1

English

Wiring Diagram



For service information 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. found on the data decal.
- Parts number or numbers as shown in the Parts List section.
- A brief description of the trouble with the generator.

FIRMAN 3 Years 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 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.

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 MERCHANT ABLILITY 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 W 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 2021-2022 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 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 point for that part. If the part fails prior to the first scheduled replacement point for 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, the part will be warranted for the remainder of the period prior to the first scheduled replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part or to the first scheduled 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.

(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: 4. Air induction system including: - Spark plug - Intake pipe/manifold - Ignition coil - Air cleaner 2. Fuel metering system: 5. Crankcase breather assembly including: - Fuel tank - Breather connection tube - Fuel cap 6. Fuel tank evaporative emission control system including: - Fuel lines (for liquid fuel and fuel vapors) and - Purge valves related fittings/clamps - Carbon canister - Fuel regulator, carburetor and internal parts. - Vapor hoses and fitting/clamps 3. Catalytic muffler assembly including: - Exhaust manifold - Catalytic converter - Muffler gasket -pulse valve

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

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