

CHAMPION

GLOBAL POWER EQUIPMENT™

OWNER'S MANUAL & OPERATING INSTRUCTIONS



4000 Peak Watts / 3500 Running Watts
Wireless Remote Electric Start

PORTABLE GENERATOR

2YEAR
LIMITED WARRANTY

MODEL NUMBER
46539

SAVE THESE INSTRUCTIONS
Important Safety Instructions
are included in this manual.

MADE IN CHINA
REV 46539-20101109

10006 Santa Fe Springs Road
Santa Fe Springs CA 90670
USA / 1 (877) 338-0999
www.championpowerequipment.com

Have questions or need assistance?

Do not return this product to the store!

WE ARE HERE TO HELP!

Visit our website:

www.championpowerequipment.com

for more info:

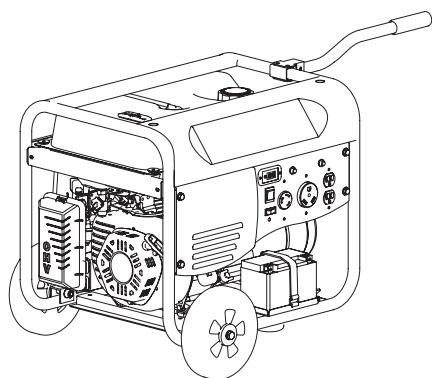
- Product Info & Updates
- Tech Bulletins
- Frequently Asked Questions
- Product Registration

– or –

Call our Customer Care Team Toll-Free at:

1-877-338-0999

24/7 Tech Support: (562) 204-1188



4000 Peak Watts / 3500 Running Watts Wireless Remote Electric Start **PORTABLE GENERATOR**

TABLE OF CONTENTS

| | | | |
|---|-----------|---|-----------|
| Introduction | 1 | Maintenance and Storage | 15 |
| Introduction | 1 | Engine Maintenance | 15 |
| Portable Power Generator | 1 | Oil | 15 |
| Accessories | 1 | Spark Plugs | 15 |
| This Booklet | 1 | Air Filter | 15 |
| Manual Conventions | 2 | Spark Arrester | 16 |
| Safety Rules | 3 | Cleaning | 16 |
| Controls and Features | 5 | Adjustments | 16 |
| Generator | 5 | Maintenance Schedule | 16 |
| Power Panel | 6 | Generator Maintenance | 17 |
| Wireless Remote Control | 7 | Storage | 17 |
| Remote Control Power Consumption | 7 | Generator Storage | 17 |
| Power Panel Load Management | 7 | Disconnect the Battery | 17 |
| Vacuum Fuel Valve | 7 | Charge the Battery | 17 |
| Starting with a “Dry Fuel Line” | 7 | Specifications | 18 |
| Starting with a “Primed Fuel Line” | 7 | Engine Specifications | 18 |
| Parts Included | 8 | Generator Specifications | 18 |
| Wheel Kit | 8 | Fuel | 18 |
| Spark Arrester Kit | 8 | Oil | 18 |
| Other | 8 | Spark Plugs | 18 |
| Assembly | 9 | Valve Clearance | 18 |
| Remove the Generator from the Shipping Carton | 9 | FCC Statement for Remote Control Device | 18 |
| Install the Wheel Kit | 9 | Parts Diagram | 19 |
| Install the Support Leg | 9 | Parts List | 20 |
| Install the Handles | 9 | Engine Parts Diagram | 21 |
| Connect the Battery | 10 | Engine Parts List | 23 |
| Install the Spark Arrester | 10 | Wiring Diagram | 23 |
| Add Engine Oil | 10 | Troubleshooting | 24 |
| Add Fuel | 11 | Warranty | 25 |
| Grounding | 11 | Warranty Qualifications | 25 |
| Operation | 12 | Repair/Replacement Warranty | 25 |
| Generator Location | 12 | Do Not Return The Unit To | 25 |
| Grounding | 12 | The Place Of Purchase | 25 |
| Surge Protection | 12 | Warranty Exclusions | 25 |
| Wireless Remote Start | 12 | Normal Wear | 25 |
| Starting the Engine without Remote | 12 | Installation, Use and Maintenance | 25 |
| Connecting Electrical Loads | 13 | Other Exclusions | 25 |
| Stopping the Engine | 13 | Limits of Implied Warranty | 25 |
| Do Not Overload Generator | 14 | and Consequential Damage | 25 |
| Capacity | 14 | Contact Information | 25 |
| Power Management | 14 | Address | 25 |
| Wattage Reference Chart | 14 | Customer Service | 25 |
| | | Technical Service | 25 |
| | | Emission Control System Warranty | 26 |

INTRODUCTION

Introduction

Congratulations on your purchase of a Champion Power Equipment generator. CPE designs and builds generators to strict specifications. With proper use and maintenance, this generator will bring years of satisfying service.

Portable Power Generator

This unit is a gasoline engine driven, alternating current (AC) generator. It is designed to supply electrical power for lighting, appliances, tools and similar equipment.

Accessories

Champion Power Equipment manufactures and sells accessories designed to help you get the most from your purchase. To find out more about our covers, power cables and storm kits, please visit our web site at:
→ www.championpowerequipment.com

This Booklet

Every effort has been made to ensure the accuracy and completeness of the information in this manual. We reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

| Champion Power Equipment Support | |
|--|--|
| 1 (877) 338-0999 | |
| Model Number | |
| 46539 | |
| Serial Number | |
| | |
| Date of Purchase | |
| | |
| Purchase Location | |
| | |
| For Oil Type see 'Add Engine Oil' section. For Fuel Type see 'Add Fuel' section. | |

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

 **DANGER**

DANGER indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

 **WARNING**

WARNING indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

 **CAUTION**

CAUTION indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **may** result in property damage.

 **NOTE**

If you have questions regarding your generator, we can help. Please call our help line at **1 (877) 338-0999**

SAFETY RULES

WARNING

Read this manual thoroughly before operating your generator. Failure to follow instructions could result in serious injury or death.

WARNING

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

DANGER

Generator exhaust contains carbon monoxide, a colorless, odorless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get to fresh air immediately.

Operate generator outdoors only in a well ventilated area.

DO NOT operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle. DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

DANGER CARBON MONOXIDE: using a generator indoors **CAN KILL YOU IN MINUTES.**

DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories.
Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts.
Tie up long hair and remove jewelry.
Operate equipment with guards in place.
DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

DANGER

Generator produces powerful voltage.

DO NOT touch bare wires or receptacles.

DO NOT use electrical cords that are worn, damaged or frayed.

DO NOT operate generator in wet weather.

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

Use a ground fault circuit interrupter (GFCI) in damp areas and areas containing conductive material such as metal decking.

Use approved transfer equipment to isolate generator from your electric utility and Notify your utility company before connecting your generator to your power system.

WARNING

Sparks can result in fire or electrical shock.

When servicing the generator:

Disconnect the spark plug wire and place it where it cannot contact the plug.

DO NOT check for spark with the plug removed.

Use only approved spark plug testers.

WARNING

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

Combustible material can catch fire on contact.

DO NOT touch hot surfaces.

Avoid contact with hot exhaust gases.

Allow equipment to cool before touching.

Maintain at least three feet of clearance on all sides to ensure adequate cooling.

Maintain at least five feet of clearance from combustible materials.

⚠ DANGER

Fuel and fuel vapors are highly flammable and extremely explosive.
Fire or explosion can cause severe burns or death.
Unintentional startup can result in entanglement, traumatic amputation or laceration.

When adding or removing fuel:

Turn the generator off and let it cool for at least two minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank.
Only fill or drain fuel outdoors in a well-ventilated area. DO NOT overfill the fuel tank.
Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.
DO NOT light or smoke cigarettes.

When starting the generator:

DO NOT attempt to start a damaged generator.
Make certain that the gas cap, air filter, spark plug, fuel lines and exhaust system are properly in place.
Allow spilled fuel to evaporate fully before attempting to start the engine.
Make certain that the generator is resting firmly on level ground.

When operating the generator:

DO NOT move or tip the generator during operation.
DO NOT tip the generator or allow fuel or oil to spill.

When transporting or servicing the generator:

Make certain that the fuel shutoff valve is in the off position and the fuel tank is empty.
Disconnect the spark plug wire.
When storing the generator:
Store away from sparks, open flames, pilot lights, heat and other sources of ignition.

⚠ WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation.

A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

⚠ WARNING

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.
Unintentional startup can result in entanglement, traumatic amputation or laceration.
Broken bones, fractures, bruises or sprains could result.

When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.
DO NOT start or stop the engine with electrical devices plugged in.

⚠ CAUTION

Exceeding the generator's running capacity can damage the generator and/or electrical devices connected to it.

DO NOT overload the generator.
Start the generator and allow the engine to stabilize before connecting electrical loads.
Connect electrical equipment in the off position, and then turn them on for operation.
Turn electrical equipment off and disconnect before stopping the generator.
DO NOT tamper with the governed speed.
DO NOT modify the generator in any way.

⚠ CAUTION

Improper treatment or use of the generator can damage it, shorten its life and void your warranty.

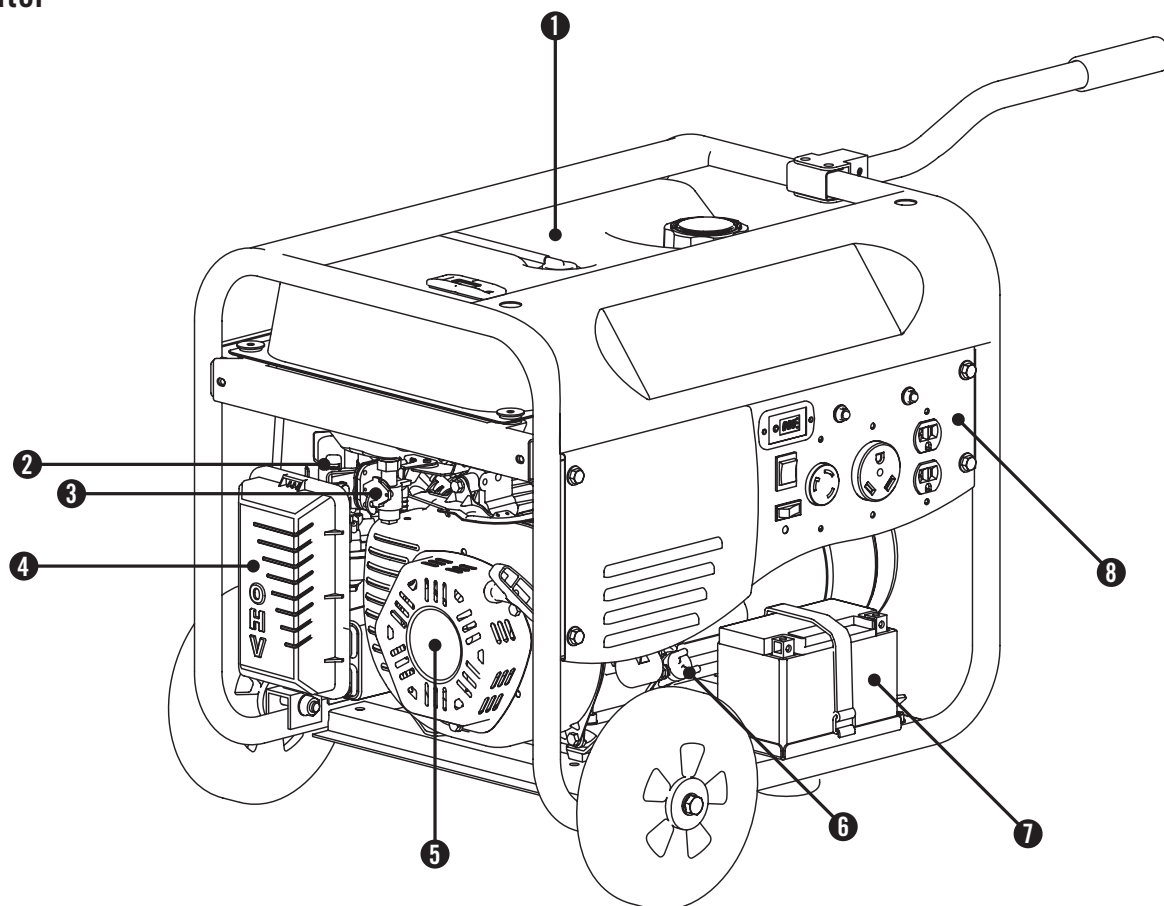
Use the generator only for intended uses.
Operate only on level surfaces.
DO NOT expose generator to excessive moisture, dust, or dirt.
DO NOT allow any material to block the cooling slots.
If connected devices overheat, turn them off and disconnect them from the generator.
DO NOT use the generator if:

- Electrical output is lost
- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

CONTROLS AND FEATURES

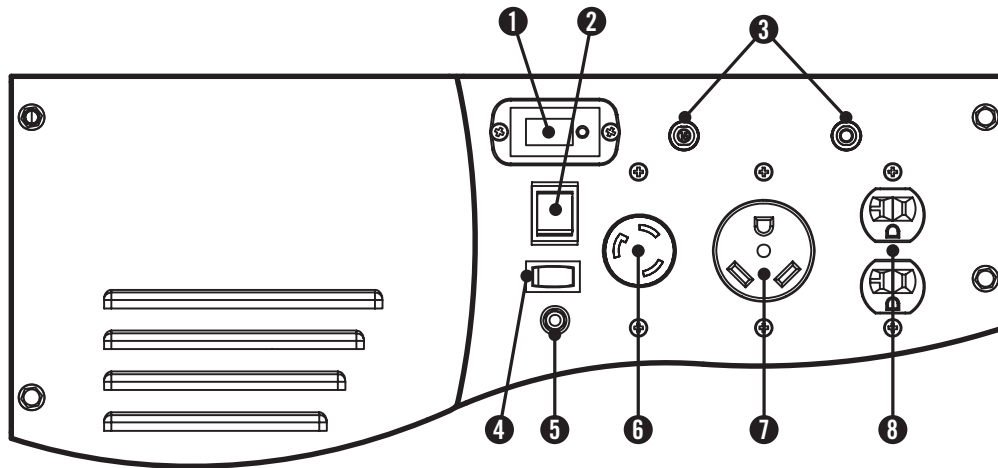
Read this owner's manual before operating your generator. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

Generator



- | | |
|--|---|
| (1) Fuel Tank – 3.8 gallon (14.4 L) capacity fuel tank. | (5) Recoil Starter – Used to start the engine. |
| (2) Auto-Choke – Used to start the engine. No manual adjustment required. | (6) Oil Filler Cap – Check and fill engine oil level. |
| (3) Vac Fuel Valve – Turn this valve to the “On” position to supply fuel to the engine. | (7) Battery – Used to start the engine. Provides 12V DC to the electric starter and receiver control module. |
| (4) Air Cleaner – Protects the engine by filtering dust and debris from the intake air. | (8) Power Panel – See “Power Panel” section. |

Power Panel



- (1) **Intelligauge** – Three mode digital meter for running hours, voltage and hertz.
- (2) **Ignition Switch**
- (3) **Circuit Breaker(s)** – Protects the generator against electrical overload.
- (4) **Battery Switch** – Enables/disables starting electrically – via remotely or by Ignition Switch.
- (5) **Ground Terminal** – Consult an electrician for local grounding regulations.
- (6) **120V / 30A Twist-Lock** – Protected by a 25 Amp push-to-reset circuit breaker. This receptacle powers 120 Volt AC, 60 Hz, single phase loads requiring up to 29.2 Amps or 3500 Watts of power.
- (7) **120V / 30A Recreational Vehicle (RV) Receptacle** – This receptacle powers 120 Volt AC, 60 Hz, single phase loads requiring up to 29.2 Amps or 3500 Watts of power.
- (8) **120V / 20A Duplex** – Protected by a 20 Amp push-to-reset circuit breaker . Use each receptacle to operate 120 Volt AC, single phase, 60 Hz loads requiring up to 20 Amp Or 2400 Watts of power.

CONTROLS AND FEATURES

Wireless Remote Control

This generator is equipped with a wireless remote control system for starting and stopping. The system consists of (4) main components:

1. Receiver Control Module (RCM)
2. Wireless Remote
3. Battery Switch
4. Ignition Switch

The Remote Control functions are enabled when:

1. The Ignition Switch is in the "ON" position, *AND*
2. The Battery Switch is in the "ON" position.

The Remote Control functions are disabled if either of the above conditions is not met.

To start the generator by Remote Control, press the "START" button on the Remote one time. The engine will attempt to start (6) times. The RCM controls the Auto Choke during each attempt to start. If the generator does not start, call Champion Customer Care team for assistance at 1 (877) 338-0999.

To stop the generator by Remote Control, press the "STOP" button on the Remote one time.

Remote Control Power Consumption

While the Ignition Switch is in the "ON" position, the RCM is active and waiting for a remote signal. This function requires electrical current from the battery. If the Ignition Switch is left in the "ON" position for extended periods (several weeks), the battery can be completely drained.

Moving the Ignition Switch to the "OFF" position disables the Remote functions, but the RCM still consumes approximately 2 mA from the battery.

To prevent battery drain, press the Battery Switch to the "OFF" position. This disconnects power to the RCM so there is no current draw on the battery.

Power Panel Load Management

When the generator initially starts by the Remote, no voltage is supplied to the Power Panel for approximately 15 seconds. This allows the engine to reach full speed before electrical loads are applied to the generator.

When the generator is stopped by the Remote, the voltage to the Power Panel is immediately turned off.

Then the engine stops approximately 5 seconds after the "STOP" button on the Remote is pressed. Turning the Power Panel voltage off before the engine shutdown protects connected appliances from being damaged by non-60 Hz voltage while the generator coasts to a stop.

The on/off voltage delay at startup and shut down only happen when the Remote Control is used. There is no

Power Panel Load Management Cont'd.

voltage delay when the pushbutton electric start or recoil start method is used.

When the pushbutton electric start or recoil start method is used, the operator must be sure all electrical loads (appliances) are turned OFF during startup and shutdown. Damage to the generator or the attached appliances can be caused by starting or stopping the generator while appliances are plugged in and turned ON.

Vacuum Fuel Valve

This generator is equipped with a Vacuum Fuel Valve. The Vac Fuel Valve functions similar to a standard on/off fuel valve with the addition of a vacuum sensor that can open and close the fuel valve based on whether the engine is running or not.

The Vac Fuel valve has (3) selectable positions:



1. **OFF** (pointing up)
 - a. Valve is switched CLOSED so no fuel passes through the valve.
2. **RUN** (pointing left)
 - a. Turns on the Vac feature of the valve. The valve only opens to allow fuel to flow when the engine is running which provides vac pressure to the valve.
 - b. Valve stays OPEN while engine is running.
 - c. Valve automatically CLOSES when the engine stops.
3. **PRIME** (pointing down)
 - a. Valve is switched OPEN to allow fuel to flow freely to the carburetor.

Starting with a "Dry Fuel Line"

When there is no residual fuel in the carburetor, the Vacuum Fuel Valve must be in the "PRIME" position in order to start the generator. This case occurs when the unit is:

- Brand new out of the box, *OR*
- The fuel line and carburetor have been drained for long term storage.

When the engine starts and reaches full speed, the Vac Fuel Valve can be turned to the "RUN" position.

Starting with a "Primed Fuel Line"

When residual fuel is present in the fuel line and carburetor, the Vacuum Fuel Valve may be turned to the "PRIME" or "RUN" position to start the generator.

Parts Included

Your 46539 Gasoline Powered Generator ships with the following parts:

Wheel Kit

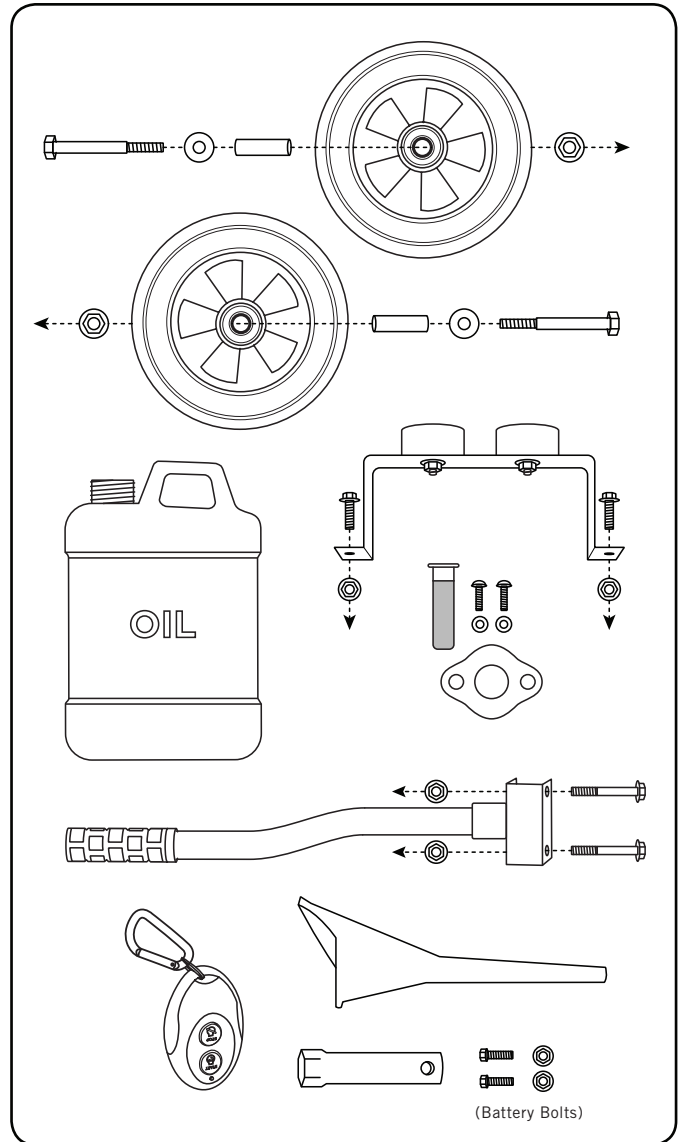
- 8" Wheel 2
- Vibration Mounts 2
- Support Leg 1
- Bushing 2
- Handle 1
- Flange Bolt (M10x105 for Wheel) 2
- Flange Bolt (M8x45 for Handle) 2
- Flange Bolt (M8x25 for Vibration Mounts) 2
- Flange Bolt (M8x16 for Support Leg) 2
- Nut (M10) 2
- Flat Washer 10 2
- Nut (M8) 6

Spark Arrester Kit

- Spark Arrester 1
- Cover Plate 1
- Screw with Lock Washer 2

Other

- Oil Funnel 1
- Oil 0.6 L
- Spark Plug Socket 1
- Remote 1
- Cap Screw (M6x10 for Battery Terminals) 2
- Nut (M6) 2



ASSEMBLY

Your generator requires some assembly. This unit ships from our factory without oil. It must be properly serviced with fuel and oil before operation.

If you have any questions regarding the assembly of your generator, call our help line at 1 (877) 338-0999. Please have your serial number and model number available.

Remove the Generator from the Shipping Carton

1. Set the shipping carton on a solid, flat surface.
2. Remove everything from the carton except the generator.
3. Carefully cut each corner of the box from top to bottom. Fold each side flat on the ground to provide a surface area to install the wheel kit and support leg.

Install the Wheel Kit

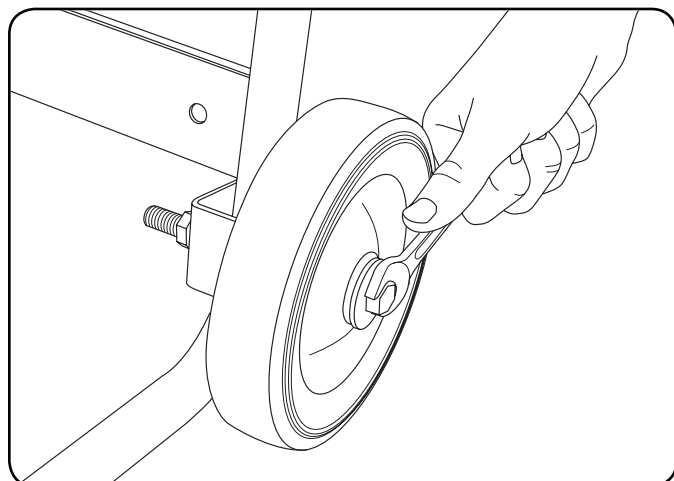
! CAUTION

The wheel kit is not intended for over-the-road use.

You will need the following tools to install the wheels:

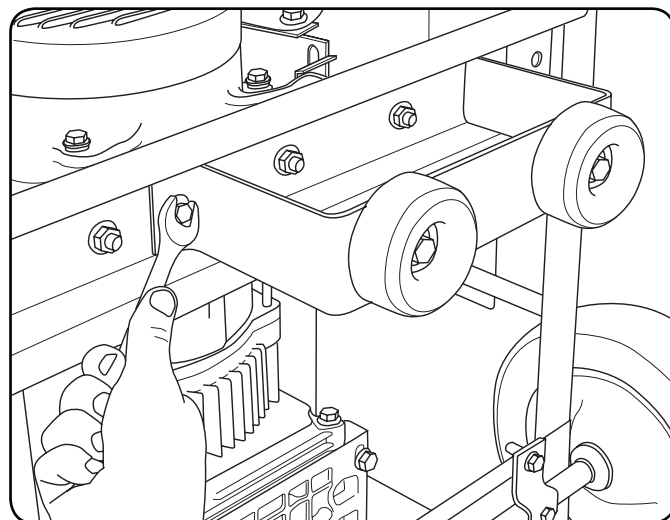
- 17 mm wrench OR adjustable wrench (not included)
- Socket wrench with a 16 mm socket (not included)
- Pliers (not included)

1. Before adding fuel and oil, tip the generator on its side.
2. Slide the M10x105 wheel bolt through the washer, sleeve and wheel.
3. Slide the bolt through the mount point on the frame.
4. Fasten securely with the M10 nut.
5. Repeat steps 2-4 to attach the second wheel.



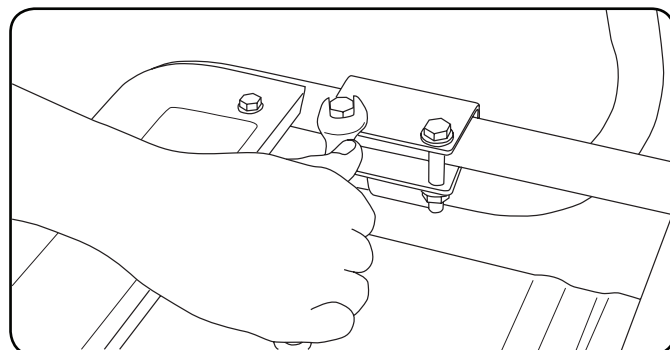
Install the Support Leg

1. Attach the support leg to the generator frame with cap screws (M8x16) and lock nuts (M8).
2. Tip the generator slowly so that it rests on the wheels and support leg.



Install the Handles

1. Place the handle over the mounting channel on the frame.
2. Secure the handle to the frame using the two handle bolts (M8x45).
3. Place a lock nut (M8) on the end of each bolt and fasten securely. DO NOT over tighten the lock nuts.

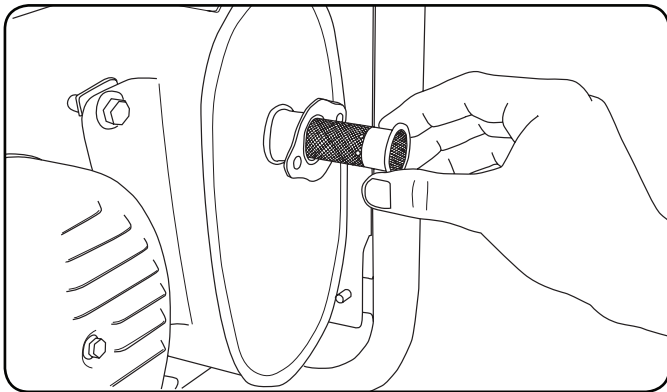


Connect the Battery

1. Remove the protective cover from the red (+) lead on the battery.
2. Attach the red (+) lead to the red (+) terminal on the battery with the cap screw (M6x10) and secure with the lock washer (M6).
3. Repeat steps 1-2 for the black (-) battery lead.

Install the Spark Arrester

Insert the spark arrester screen into the muffler outlet. Secure the spark arrester by placing the cover plate over the end of the screen, with the lettering facing outward.



Secure the cover plate with the two screws and lock washers provided with the spark arrester kit.

NOTE

Federal and local laws and administrative requirements indicate when and where spark arresters are required. When ordered, spark arresters are required for operation of this generator in National Forest lands. In California, this generator must not be used on any forest-covered land, brush-covered land, or grass-covered land unless the engine is equipped with a spark arrester.

CAUTION

Failure to install the spark arrester may result in an increased risk of fire.

Add Engine Oil

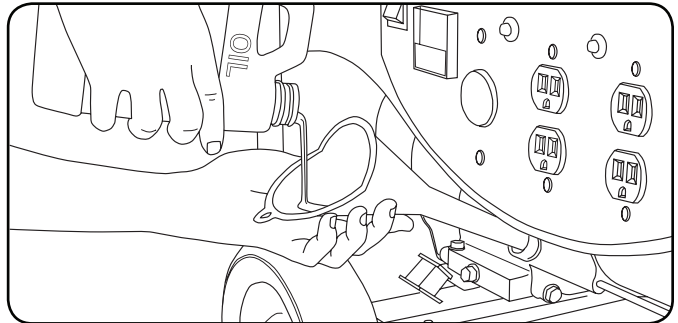
CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the generator as a result of failure to follow these instructions will void your warranty.

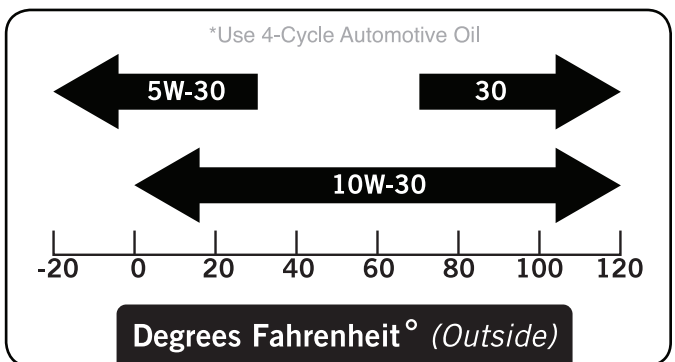
NOTE

The recommended oil type is 10W-30 4-cycle automotive oil. Please see "Specifications" section for more information on oil types.

1. Place the generator on a flat, level surface.



2. Remove oil fill cap/dipstick to add oil.
3. Add 0.63 qt (0.6 L) of oil (included) and replace oil fill cap/dipstick. See "Specifications" pages for oil recommendations based on operating conditions.



4. Check engine oil level daily and add as needed.

CAUTION

The engine is equipped with a low-oil-shutoff and will stop when the oil level in the crankcase falls below the threshold level.

ASSEMBLY

Add Engine Oil Cont'd.

NOTE

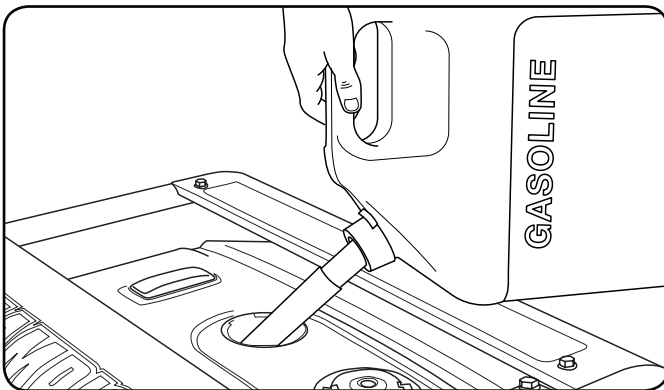
Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

NOTE

The generator rotor has a sealed, pre-lubricated ball bearing that requires no additional lubrication for the life of the bearing.

Add Fuel

1. Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.
2. DO NOT mix oil with fuel.
3. Clean the area around the fuel cap.
4. Remove the fuel cap.
5. Slowly add fuel to the tank. DO NOT overfill. Allow approximately $\frac{1}{2}$ inch of space for fuel expansion.



6. Screw on the fuel cap and wipe away any spilled fuel.

CAUTION

Use regular unleaded gasoline with a minimum octane rating of 85.

Do not mix oil and gasoline.
 Fill tank to approximately $\frac{1}{2}$ inch below the top of the tank to allow for fuel expansion.
 DO NOT fill fuel tank indoors.
 DO NOT fill fuel tank when the engine is running or hot.
 DO NOT overfill the fuel tank.
 DO NOT light cigarettes or smoke when filling the fuel tank.

Grounding

Your generator must be properly connected to an appropriate ground to help prevent electric shock.

WARNING

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

A ground terminal connected to the frame of the generator has been provided on the power panel. For remote grounding, connect a length of heavy gauge (12 AWG minimum) copper wire between the generator ground terminal and a copper rod driven into the ground. We strongly recommend that you consult with a qualified electrician to ensure compliance with local electrical codes.

Generator Location

Please consult your local authority. In some areas, generators must be registered with the local utility. Generators used at construction sites may be subject to additional rules and regulations.

This generator must have at least five feet of clearance from combustible material. Leave at least three feet of clearance on all sides of the generator to allow for adequate cooling, maintenance and servicing.

Place the generator in a well-ventilated area. DO NOT place the generator near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning generator.

Grounding

The generator system ground connects the frame to the ground terminals on the power panel.

Surge Protection

CAUTION

Voltage fluctuation may impair the proper functioning of sensitive electronic equipment.

Electronic devices, including computers and many programmable appliances use components that are designed to operate within a narrow voltage range and may be affected by momentary voltage fluctuations. While there is no way to prevent voltage fluctuations, you can take steps to protect sensitive electronic equipment.

1. *Install UL1449, CSA-listed, plug-in surge suppressors on the outlets feeding your sensitive equipment.*
Surge suppressors come in single- or multi-outlet styles. They're designed to protect against virtually all short-duration voltage fluctuations.
2. *Obtain an Uninterruptible Power Supply (UPS) device.*
Most UPS devices come with a rechargeable battery between the electronic equipment and power supply source. The device buffers the voltage and protects against virtually all short-duration voltage fluctuations.

Wireless Remote Start

Wireless remote starting is only possible **within 80 feet** of the generator.

Do not attempt to adjust the carburetor choke. The remote system will automatically close and open the choke.

1. Make certain the generator is on a flat, level surface.
2. Press the Ignition Switch to "ON".
3. Press the Battery Switch to "ON".
4. Turn the fuel valve to the "PRIME" position.
5. To start the engine, press and release the "START" button on the handheld Remote Control device. DO NOT hold the button down, only press the button once. The engine will attempt to start 6 times.
6. Turn the vac fuel valve to the "RUN" position.
7. A safety feature is provided which delays the electrical power availability during starting mode. The delay lasts for approximately 15 seconds. The delay is provided to prevent damage to the generator if electrical loads are inadvertently turned on during engine startup.
8. If the generator fails to start, check the battery condition and cable connections.

Starting the Engine without Remote

1. Make certain the generator is on a flat, level surface.
2. Turn off all electrical loads connected to the generator. Never start or stop the generator with electrical devices plugged in and turned on.
3. Turn the fuel valve to the "PRIME" position.
4. Press the Battery Switch to "ON".
5. ELECTRIC START: Press the switch to the "START" position.
6. RECOIL START: Pull the starter cord slowly until resistance is felt and then pull rapidly.

NOTE

If the engine starts but does not run make certain that the generator is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

7. After starting the engine, turn the fuel valve to the "RUN" position.

OPERATION

Connecting Electrical Loads

1. Let the engine stabilize and warm up for a few minutes after starting
2. Plug in and turn on the desired 120 Volt AC single phase, 60 Hz electrical loads.
 - DO NOT connect 3-phase loads to the generator.
 - DO NOT connect 50 Hz loads to the generator.
 - DO NOT overload the generator.

NOTE

Connecting a generator to your electric utility company's power lines or to another power source may be against the law. In addition this action, if done incorrectly, could damage your generator and appliances and could cause serious injury or even death to you or a utility worker who may be working on nearby power lines. If you plan to run a portable electric generator during an outage, please notify your electric utility company immediately and remember to plug your appliances directly into the generator. Do not plug the generator into any electric outlet in your home. Doing so could create a connection to the utility company power lines. You are responsible for ensuring that your generator's electricity does not feed back into the electric utility power lines.

If the generator will be connected to a building electrical system, consult your local utility company or a qualified electrician. Connections must isolate generator power from utility power and must comply with all applicable laws and codes.

Stopping the Engine

1. Turn off all electrical loads connected to the generator. Never start or stop the generator with electrical devices plugged in and turned on.
2. Press and release the STOP button on the Remote Control device OR turn the Ignition Switch to the "Off" position.
3. Turn the fuel valve to the "Off" position.

NOTE

When the stop button on the remote is pressed, power to the receptacles is turned off and the engine will stop after 5 seconds.

Important: If the generator will be moved or stored turn the fuel valve to the "OFF" position, press the Ignition Switch and the Battery Switch on the power panel to the "OFF" position.

Do Not Overload Generator

Capacity

Follow these simple steps to calculate the running and starting watts necessary for your purposes.

1. Select the electrical devices you plan on running at the same time.
2. Total the running watts of these items. This is the amount of power you need to keep your items running.
3. Identify the highest starting wattage of all devices identified in step 1. Add this number to the number calculated in step 2. Surge wattage is the extra burst of power needed to start some electric driven equipment. Following the steps listed under "Power Management" will guarantee that only one device will be starting at a time.

Power Management

Use the following formula to convert voltage and amperage to watts:

$$\text{Volts} \times \text{Amps} = \text{Watts}$$

To prolong the life of your generator and attached devices, follow these steps to add electrical load:

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

NOTE

Never exceed the specified capacity when adding loads to the generator.

Wattage Reference Chart

Use the chart to determine approximate wattage requirements for your equipment.

CAUTION

Exceeding specified load capacity can result in damage to the generator.

To determine total wattage necessary to power a device, **ADD Running Watts** to **Starting Watts**. (A+B). Starting watts can exceed three times the running watts. The values in the following table are approximate. Refer to your tool or appliance for actual wattage consumption.

| Item | Running Watts (A) | Starting Watts (B) |
|------------------------------|-------------------|--------------------|
| Essentials | | |
| Light Bulb 100W | 100 | |
| Refrigerator/Freezer | 1200 | 2400 |
| Freezer | 500 | 500 |
| Sump Pump | 600 | 1800 |
| Well Pump 1 HP | 2000 | 4000 |
| Water Heater | 4000 | |
| Security System | 180 | |
| AM/FM Radio | 300 | |
| Garage Door Opener 1/2 HP | 500 | 600 |
| Battery Charger 12V DC | 110 | |
| Heating/Cooling | | |
| Air Conditioner 12000 BTU | 1700 | 2500 |
| Fan | 300 | 600 |
| Furnace Fan 1/3 HP | 1200 | 2000 |
| Home Appliances | | |
| Microwave 1000W | 1000 | |
| Electric Range - One Element | 1500 | |
| Electric Skillet | 1250 | |
| Coffee Maker | 1500 | |
| Clothes Washer | 1200 | |
| Entertainment | | |
| CD/DVD Player / VCR | 100 | |
| Stereo Receiver | 450 | |
| Television 27" | 500 | |
| PC with 15" Monitor | 800 | |
| Job Site | | |
| Belt Sander 3" | 1000 | 1500 |
| Bench Grinder 6" | 700 | 1500 |
| Circular Saw | 1500 | 1500 |
| Compressor 1 1/2 HP | 2500 | 2500 |
| Edge Trimmer | 500 | 500 |
| Hand Drill 1/2" | 1000 | 1000 |
| Lawn Mower | 1200 | 1800 |
| Paint Sprayer | 600 | 1200 |
| Table Saw | 2000 | 2000 |

MAINTENANCE AND STORAGE

The owner/operator is responsible for all periodic maintenance.

WARNING

Never operate a damaged or defective generator.

WARNING

Tampering with the factory set governor will void your warranty.

WARNING

Improper maintenance will void your warranty.

NOTE

Maintenance, replacement, or repair of emission control devices and systems may be performed by any non-road engine repair establishment or individual.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the generator.

NOTE

For service or parts assistance, contact our help line at 1 (877) 338-0999

Engine Maintenance

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

Oil

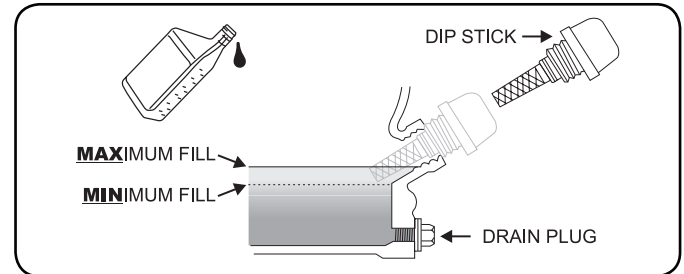
Change oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.

1. Remove the oil drain plug with a 15 mm socket and extension.
2. Allow the oil to drain completely.
3. Replace the drain plug.
4. Remove oil fill cap/dipstick to add oil.
5. Add 0.63 qt (0.6 L) of oil and replace oil fill cap/dipstick.
6. Dispose of used oil at an approved waste management facility.

Oil Cont'd.

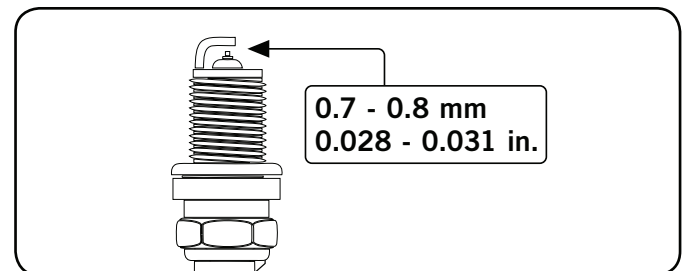
NOTE

Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.



Spark Plugs

1. Remove the spark plug cable from the spark plug.
2. Use the spark plug tool that shipped with your generator to remove the plug.
3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
4. Make certain the spark plug gap is 0.7 - 0.8mm or (0.028 - 0.031 in.).



5. Refer to the spark plug recommendation chart when replacing the plug.
6. Carefully thread the plug into the engine.
7. Use the spark plug tool to firmly install the plug.
8. Attach the spark plug wire to the plug.

Air Filter

1. Remove the snap-on cover holding the air filter to the assembly.
2. Remove the foam element.
3. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
4. Saturate in clean engine oil.
5. Squeeze in a clean, absorbent cloth to remove all excess oil.
6. Place the filter in the assembly.
7. Reattach the air filter cover and snap in place.

Spark Arrester

1. Allow the engine to cool completely before servicing the spark arrester.
2. Remove the two screws holding the cover plate which retains the end of the spark arrester to the muffler.
3. Remove the spark arrester screen.
4. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.
5. Replace the spark arrester if it is damaged.
6. Position the spark arrester in the muffler and attach with the two screws.

⚠ CAUTION

Failure to clean the spark arrester will result in degraded engine performance.

Cleaning

⚠ CAUTION

DO NOT spray engine with water.

Water can contaminate the fuel system.

Use a damp cloth to clean exterior surfaces of the engine.
Use a soft bristle brush to remove dirt and oil.
Use an air compressor (25 PSI) to clear dirt and debris from the engine.

Adjustments

The air-fuel mixture is not adjustable. Tampering with the governor can damage your generator and your electrical devices and will void your warranty. CPE recommends that you contact our service line at **1 (877) 338-0999** for all other service and/or adjustment needs.

Maintenance Schedule

Follow the service intervals indicated in the following maintenance schedule.

Service your generator more frequently when operating in adverse conditions.

Contact our help line at **1 (877) 338-0999** to locate the nearest Champion Power Equipment certified service dealer for your generator or engine maintenance needs.

| Every 8 hours or daily | |
|---------------------------------|---|
| | Check oil level |
| | Clean around air intake and muffler |
| First 5 Hours | |
| | Change oil |
| Every 50 hours or every season | |
| | Clean air filter |
| | Change oil if operating under heavy load or in hot environments |
| Every 100 hours or every season | |
| | Change oil |
| | Clean/Adjust spark plug |
| | Check/Adjust valve clearance * |
| | Clean spark arrester |
| | Clean fuel tank and filter * |
| Every 3 years | |
| | Replace fuel line |

*To be performed by knowledgeable, experienced owners or Champion Power Equipment certified dealers.

MAINTENANCE AND STORAGE

Generator Maintenance

Make certain that the generator is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapors.

⚠ CAUTION

DO NOT use a garden hose to clean the generator.

Water can enter the generator through the cooling slots and damage the generator windings.

Use a damp cloth to clean exterior surfaces of the generator. Use a soft bristle brush to remove dirt and oil. Use an air compressor (25 PSI) to clear dirt and debris from the generator. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

Storage

The generator should be started at least once every 14 days and allowed to run for at least 20 minutes. For longer term storage, please follow these guidelines.

Generator Storage

1. Allow the engine to cool completely before storage.
2. Clean the generator according to the instructions in the Maintenance section.
3. Turn the vac fuel valve to the "OFF" position.
4. Be sure all appliances are disconnected from the generator. Start the engine and let it run until the fuel in the line and the carburetor is consumed and the engine dies.
5. Press the Battery Switch to "OFF".
6. Add a fuel stabilizer into the fuel tank.
7. Change the oil.
8. Remove the spark plug and pour about ½ ounce of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
9. Reattach the spark plug.
10. Store the unit in a clean, dry place out of direct sunlight.

⚠ DANGER

Generator exhaust contains odorless and colorless carbon monoxide gas.

To avoid accidental or unintended ignition of your remote start generator during periods of storage, the following precautions should be followed:

- When **storing the generator for short periods of time** make sure that the Ignition Switch, the Fuel Valve and the Battery Switch are set in the **OFF** position.
- When **storing the generator for extended periods of time** make sure that the Ignition Switch, the Fuel Valve and the Battery Switch are set in the **OFF** position and the battery leads have been **disconnected** from the battery.

Disconnect the Battery

1. Remove the protective cover from the black/negative battery lead.
2. Disconnect the black/negative lead from the black/negative terminal on the battery and store the cap screw (M6x10) and lock washer (M6).
3. Repeat steps 1-2 for the red/positive battery lead.
4. Store the battery in a cool, dry place.

Charge the Battery

For generators equipped with batteries for electric starting, proper battery maintenance and storage should be followed. An automatic battery charger with automatic trickle charging capability should be used to charge the battery. Maximum charging rate should not exceed 1.5 amps. Follow the instructions included with the battery charger. The battery should be fully charged at least once per month.

Engine Specifications

- Engine 196 cc OHV CPE (Electric Start)

Generator Specifications

- Running Wattage 3500 Watts
- Starting Wattage 4000 Watts
- AC Load 120/240 V
- Phase Single
- Frequency 60 Hz
- Fuel Capacity 3.8 gallons (14.4 L)
- Weight G.W. 139.7 lbs (63.5 kg)
 N.W. 129.8 lbs (59 kg)
- Height 23.6 inches (60 cm)
- Width 24.2 inches (61.5 cm)
- Length 27.2 inches (69 cm)

Fuel

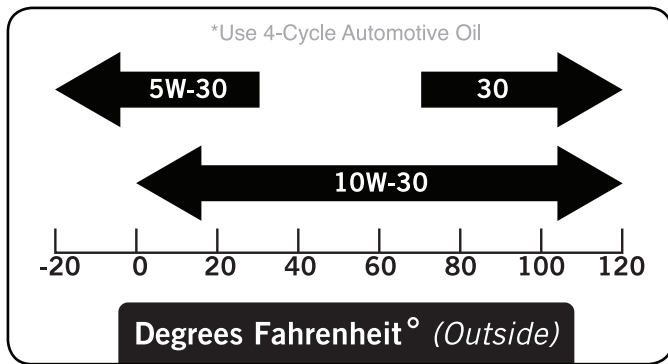
Fuel capacity is 3.8 gallons (14.4 L). Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.

Oil

Use 4-Cycle automotive oil.

Oil capacity is 0.63 qt (0.6 L).

Please reference the following chart for recommended oil types for use in the generator.



Spark Plugs

Recommended replacement spark plug:

- **NGK BR6ES or equivalent**

Make certain the spark plug gap is 0.7 – 0.8 mm or (0.028 – 0.031 in.).

Valve Clearance

- Intake: 0.13 – 0.17 mm (0.005 – 0.007 in.)
- Exhaust: 0.18 – 0.22 mm (0.007 – 0.009 in.)

FCC Statement for Remote Control Device

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference.
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

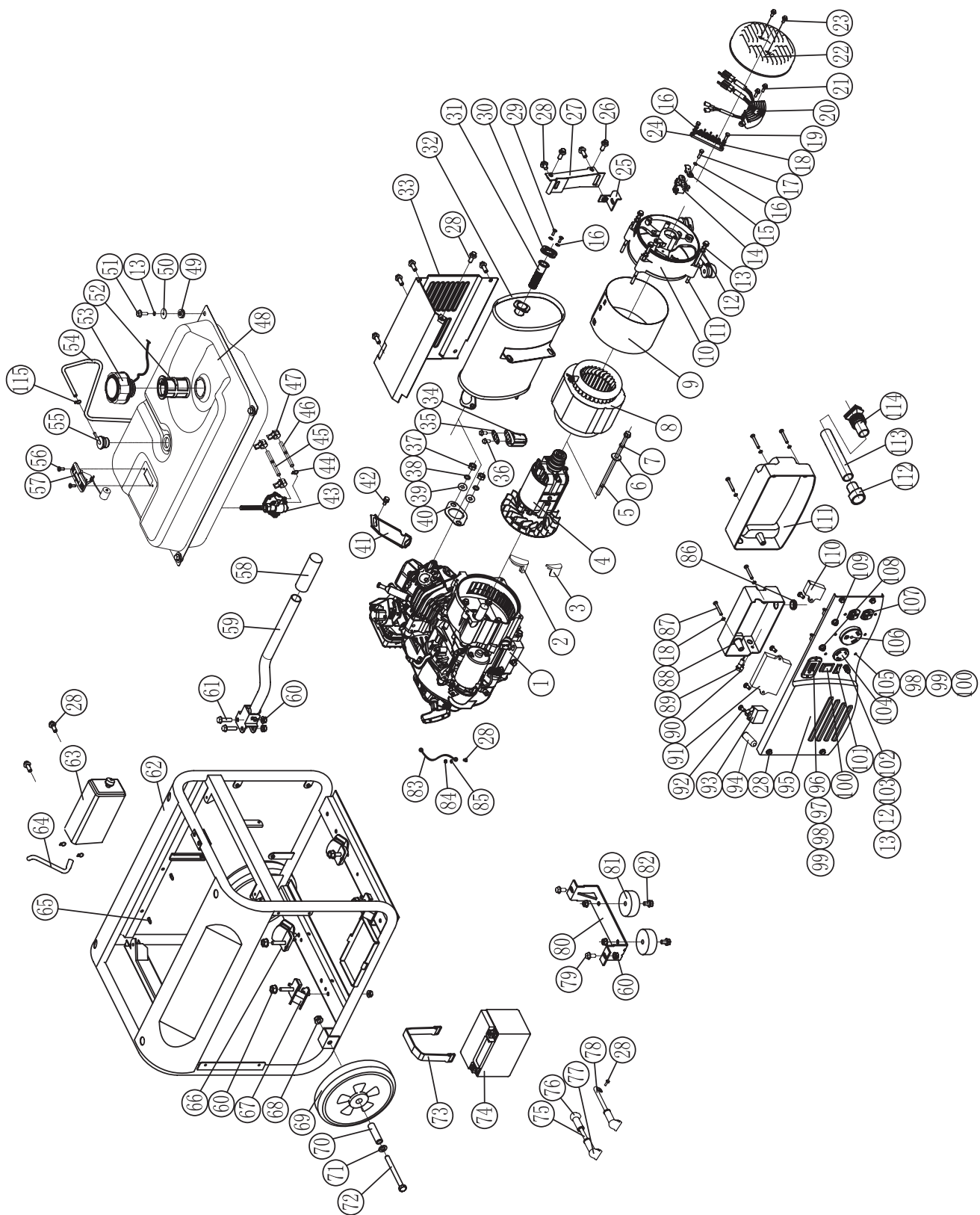
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

SPECIFICATIONS

Parts Diagram

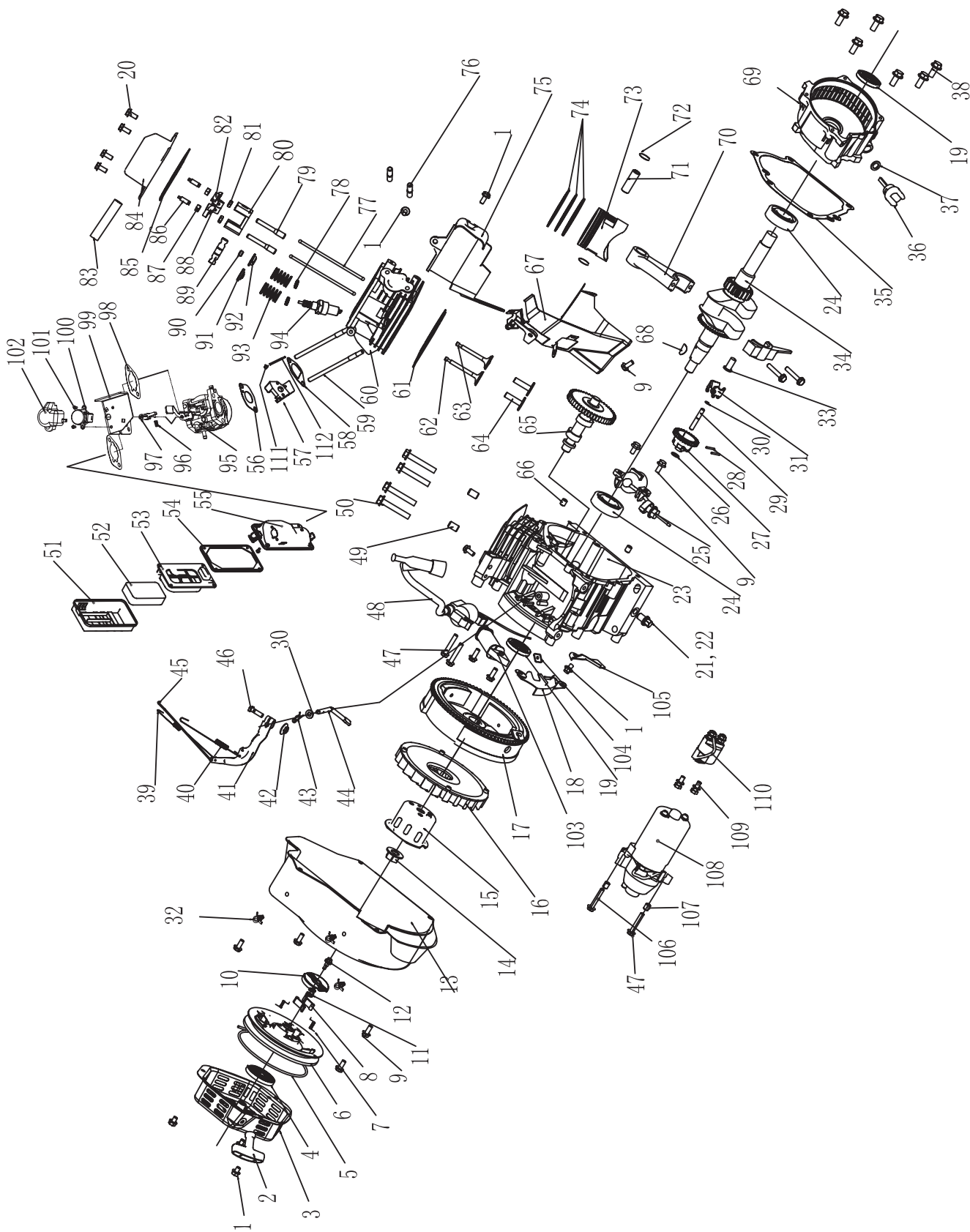


| # | Part Number | Description | Qty |
|----|----------------------|-------------------------|-----|
| 1 | 168FDE-2-GC3 | Engine | 1 |
| 2 | ST02FD-02100011 | Build Up B | 1 |
| 3 | ST02FD-02100012 | Build Up A | 1 |
| 4 | ST02FD-02110000-2.5 | Rotor Comp | 1 |
| 5 | ST02FD-02100005-2.5 | Flange Bolt M8x233 | 1 |
| 6 | GB96 8 | Washer 8 mm | 1 |
| 7 | GB7244 8 | Lock Washer 8 mm | 1 |
| 8 | ST02FD-02120000-2.5 | Stator Assembly | 1 |
| 9 | ST02FD-02100002-2.5 | Stator Cover | 1 |
| 10 | ST02FD-02100003 | End Cover | 1 |
| 11 | ST02FD-02100001-2.5 | Flange Bolt M6x158 | 4 |
| 12 | GB97.1 6 | Washer 6 mm | 6 |
| 13 | GB93 6 | Lock Washer 6 mm | 10 |
| 14 | ST02FD-02100009 | Brush Assembly | 1 |
| 15 | ST02FD-02100008 | Plate Pinch | 1 |
| 16 | GB93 5 | Lock Washer 5 mm | 5 |
| 17 | GB5783 M5x16 | Bolt M5x16 | 1 |
| 18 | GB97.1 5 | Washer 5 mm | 7 |
| 19 | GB5783 M5x16 | Bolt M5x16 | 2 |
| 20 | AVR02-00000000 | AVR | 1 |
| 21 | GB16674 M5X16 | Flange Bolt M5x16 | 2 |
| 22 | ST02FD-02100004 | Generator End Cover | 1 |
| 23 | GB16674 M5X12 | Flange Bolt M5x12 | 2 |
| 24 | ST02FD-02100010 | Terminal | 1 |
| 25 | ST02FD-1150200 | Muffler Stay I | 1 |
| 26 | GB5789 M8X20 | Flange Bolt M8x20 | 3 |
| 27 | ST02FD-1150100 | Muffler Stay II | 1 |
| 28 | GB5789 M6X12 | Flange Bolt M6x12 | 14 |
| 29 | GB818 M5X15 | Screw M5x15 | 2 |
| 30 | ST188FD-1100010-88 | Spark Arrester Cover | 1 |
| 31 | ST188FD-1180121 | Spark Arrester Assembly | 1 |
| 32 | ST168FD-1100000-GC | Muffler | 1 |
| 33 | ST02FD-03030400 | Muffler Cover | 1 |
| 34 | ST168FD-1100300-CARB | Air Fill Clique | 1 |
| 35 | ST168FD-1100003-CARB | Air Fill Clique Washer | 1 |
| 36 | GB16674 M6X16 | Flange Bolt M6x16 | 2 |
| 37 | GB6175 M8 | Nut M8 | 2 |
| 38 | GB93 8 | Lock Washer 8 mm | 2 |
| 39 | GB848 8 | Washer 8 mm | 2 |
| 40 | ST168F-1100200-G | Muffler Gasket | 1 |
| 41 | ST168FD-1090006-A | Air Cleaner Stay-LPG | 1 |
| 42 | GB5789 M6x8 | Flange Bolt M6x8 | 1 |
| 43 | 168.070400.01 | Fuel Cock | 1 |
| 44 | ST160F-1070001 | Clip | 1 |
| 45 | 168.070900.01 | Minus Press Pipe | 1 |
| 46 | ST168FD-1160002B | Fuel Line | 1 |
| 47 | ST188FD-1070006A | Clip | 3 |
| 48 | 504.071000.35 | Fuel Tank | 1 |
| 49 | ST02FD-04100010 | Tank Rubber | 4 |
| 50 | ST02FD-04100014 | Washer 6 mm | 4 |
| 51 | GB5789 M6x20 | Flange Bolt M6x20 | 4 |
| 52 | ST168F-1070006A | Tank Filter | 1 |
| 53 | 168.070100.01 | Fuel Tank Cap | 1 |
| 54 | 168.070014.01 | Rollover Valve Hose | 1 |
| 55 | ST168FD-1070400-CARB | Rollover Valve | 1 |
| 56 | GB819 M5x10 | Screw M5x10 | 2 |
| 57 | ST02FD-04120000-CARB | Fuel Meter Assembly | 1 |
| 58 | ST188FD-1741002-C | Handle Sheath | 1 |

| # | Part Number | Description | Qty |
|-----|----------------------|-------------------------|-----|
| 59 | ST182FD-1151110-B | Handle | 1 |
| 60 | GB6177 M8 | Nut M8 | 14 |
| 61 | GB5789 M8x45 | Flange Bolt M8x45 | 2 |
| 62 | ST02FD-0183 | Frame | 1 |
| 63 | ST02FD-04001001-CARB | Canister | 1 |
| 64 | ST02FD-04001003-CARB | Air Cleaner Hose | 1 |
| 65 | ST168FD-1070408-CARB | Clip | 2 |
| 66 | ST02FD-1151300C-1 | Bottom Rubber II | 2 |
| 67 | ST02FD-1151300D-1 | Bottom Rubber I | 2 |
| 68 | GB6182 M10 | Nut M10 | 2 |
| 69 | ST177FD-1152300 | 8" Wheel | 2 |
| 70 | ST02FD-03621001 | Bush 10.5x58.5 | 2 |
| 71 | GB96 10 | Flat Washer 10 | 2 |
| 72 | GB5782 M10x105 | Bolt M10x105 | 2 |
| 73 | 504.200904.00 | Rubber Belt | 1 |
| 74 | FM1290 | 9AH Battery | 1 |
| 75 | ST188FD-1750002-C3 | Battery Red Wire (+) | 1 |
| 76 | ST05FD-03011112 | Jacket | 1 |
| 77 | ST168FD-1751002-A | Battery Terminal Cover | 2 |
| 78 | ST188FD-1750002-C7 | Battery Black Wire (-) | 1 |
| 79 | GB5789 M8x16 | Flange Bolt M8x16 | 2 |
| 80 | ST05FD-03020301-60 | Support Leg | 1 |
| 81 | ST188FD-1743002-C | Vibration Mount | 2 |
| 82 | GB5789 M8x25 | Flange Bolt M8x25 | 2 |
| 83 | ST02FD-02100013-2.5 | Earth Line | 1 |
| 84 | GB6177 M6 | Nut M6 | 1 |
| 85 | GB862 6 | Washer 6 | 1 |
| 86 | ST188FD-1020001 | Grommet | 2 |
| 87 | GB823 M5x38 | Screw M5x38 | 5 |
| 88 | 504.210002.10 | Control Box | 1 |
| 89 | ST02FD-05612005 | Indicator Light | 1 |
| 90 | ST02FD-05612004 | Button | 1 |
| 91 | WR05-00000000 | Remote Control | 1 |
| 92 | GB823 M5x14 | Screw M5x14 | 4 |
| 93 | EC02 | Charger | 1 |
| 94 | ST02FD-05302010 | FUSE(10A) | 1 |
| 95 | 2P6 | Control Panel | 1 |
| 96 | DP03-00000000 | Intelliguage | 1 |
| 97 | GB823 M4x14 | Screw M4x14 | 8 |
| 98 | GB848 4 | Washer 4 mm | 8 |
| 99 | GB859 4 | Lock Washer 4 mm | 8 |
| 100 | 29.001.00 | Ignition Switch | 1 |
| 101 | 21.001000.02 | Battery Switch | 1 |
| 102 | GB5781 M6x22 | Bolt M6x22 | 1 |
| 103 | GB6175 M6 | Nut M6 | 2 |
| 104 | ST02FD-05502020 | Receptacle L5-30R | 1 |
| 105 | GB6177 M4 | Nut M4 | 6 |
| 106 | ST02FD-05502029 | RV Receptacle | 1 |
| 107 | ST02FD-05502023 | 5-20R Receptacle | 1 |
| 108 | ST02FD-05302001-L25 | AC.25A CIRCUIT BREAKERS | 1 |
| 109 | ST02FD-05302001-L20 | AC.20A CIRCUIT BREAKERS | 2 |
| 110 | OV01-00000000-1 | Transition | 1 |
| 111 | 504.210002.00 | Control Box | 1 |
| 112 | ST02FD-05212001 | Build Up | 1 |
| 113 | ST02FD-05212007 | Conduit | 1 |
| 114 | ST02FD-05212002 | Build Up | 1 |
| 115 | ST160F-1070007 | Clip | 3 |

SPECIFICATIONS

Engine Parts Diagram

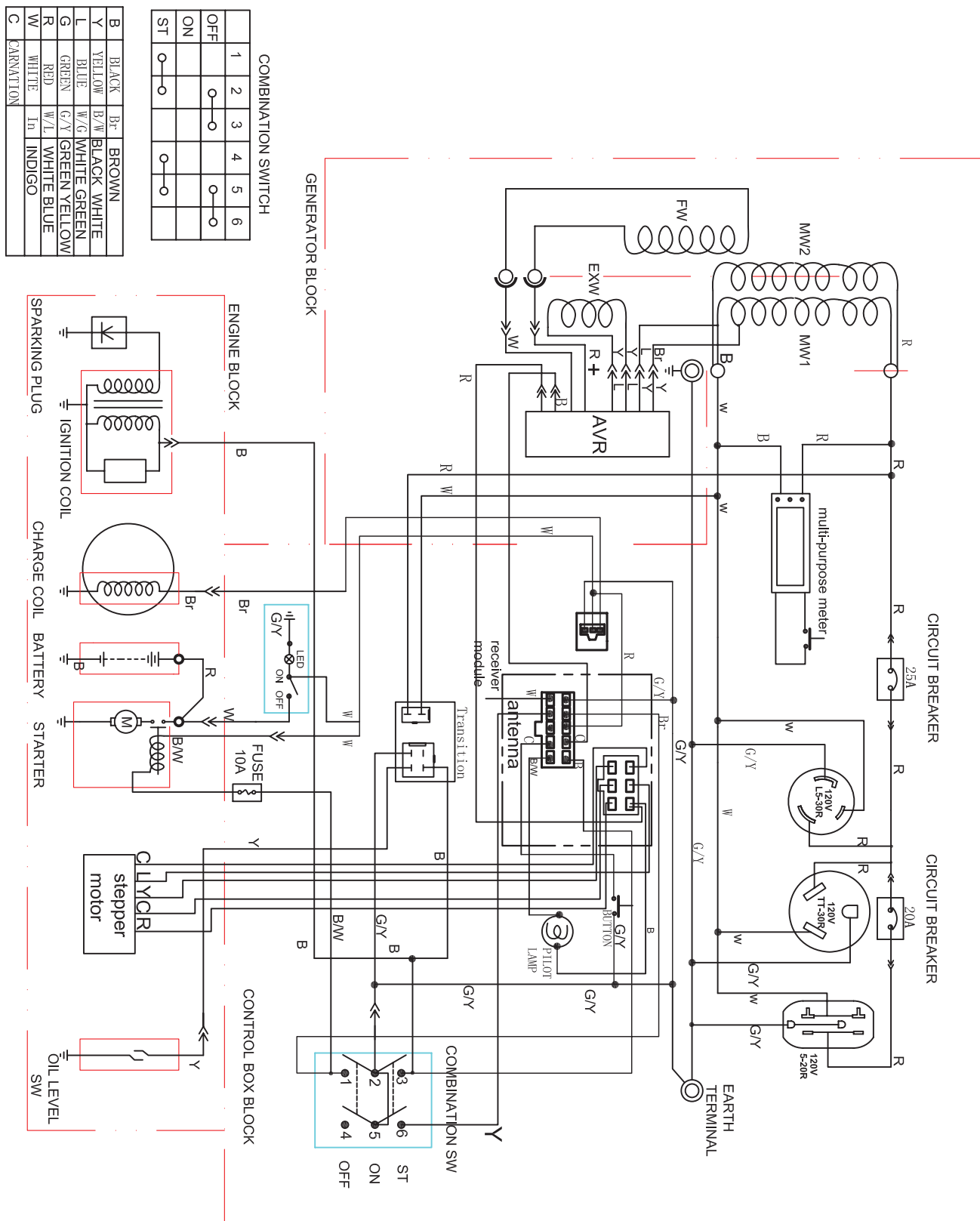


| # | Part Number | Description | Qty |
|----|----------------------|----------------------------------|-----|
| 1 | GB5789--86-FB6-8 | Flange Bolt 6X8 | 5 |
| 2 | ST160F--1061200 | Recoil Starter Knob | 1 |
| 3 | ST160F--1061100-Q | Recoil Startercomp | 1 |
| 4 | ST160F--1061005 | Recoil Starter Spring | 1 |
| 5 | ST160F--1061009 | Recoil Starter Rope | 1 |
| 6 | ST160F--1061001-A | Recoil Starter Reel | 1 |
| 7 | ST188F--1060006 | Return Spring | 2 |
| 8 | ST188F--1060005 | Starter Ratchet (Metal) | 2 |
| 9 | GB5789--86-FB6-12 | Flange Bolt M6X12 | 8 |
| 10 | ST188F--1060003 | Ratchet Guide | 1 |
| 11 | ST188F--1060004 | Ratchet Guide Spring | 1 |
| 12 | ST188F-1060002 | Setting Screw | 1 |
| 13 | 168.080100.06 | Fan Cover Comp | 1 |
| 14 | ST160F--1050010 | Nut M14 | 1 |
| 15 | ST160F--1060001 | Start Hub | 1 |
| 16 | ST168F--1080001 | Cooling Fan | 1 |
| 17 | ST168F--1120100-A | Fly Wheel | 1 |
| 18 | ST168F--1080200-A | Side Place (li) | 1 |
| 19 | ST168F--1030100 | Oil Seal | 2 |
| 20 | GB5789--86-FB6-15 | Flange Bolt M6X15 | 4 |
| 21 | ST160F--1030003 | Drain Plug Bolt | 2 |
| 22 | ST160F--1030004 | Drain Bolt Washer | 2 |
| 23 | ST168F-2-1030012-G-E | Crankcase (For Usa) | 1 |
| 24 | GB/T—276--94 | Radial Ball Bearing 6205 | 2 |
| 25 | ST160F--1127000-A | Oil Level Switch Assembly | 1 |
| 26 | ST160F--1110108 | Governor Washer (li) | 1 |
| 27 | ST160F--1110101 | Governor Weight Holder | 1 |
| 28 | ST160F--1110102 | Governor Weight Pin | 2 |
| 29 | ST160F--1110104 | Governor Shaft | 1 |
| 30 | ST160F--1110103 | Governor Holder Clip | 1 |
| 31 | ST160F--1110107 | Governor Weight | 2 |
| 32 | ST188FD-1130004 | Clip, String | 2 |
| 33 | ST160F--1110105-A | Governor Cover | 1 |
| 34 | ST168FD-2-1050001-A | Crankshaft Comp | 1 |
| 35 | ST168F--1030008-G | Case Over Packing (No Asbestos) | 1 |
| 36 | ST160F--1030001-B | Oil Filler Cap Assembly | 1 |
| 37 | ST160F--1030002 | Oil Filler Cap Packing | 2 |
| 38 | GB5789--86-FB8-32 | Flange Bolt 8X32 | 6 |
| 39 | ST168F--1110005 | Throttle Return Spring | 1 |
| 40 | ST168F--1110007 | Governor Spring | 1 |
| 41 | ST160F--1110003 | Governor Arm | 1 |
| 42 | GB6177--86 | Nut M6 | 3 |
| 43 | ST160F--1110008 | Lock Pin | 1 |
| 44 | ST160F--1110001 | Governor Arm Shaft | 1 |
| 45 | ST168F--1110006 | Governor Rod | 1 |
| 46 | ST160F--1110004 | Governor Arm Bolt | 1 |
| 47 | GB5789--86-FB6-25 | Flange Bolt 6X25 | 5 |
| 48 | ST160F--1123000-G | Ignition | 1 |
| 49 | 152FMD--1001007 | Dowel Pin 10X16 | 2 |
| 50 | GB5789--86-FB8-55 | Flange Bolt 8X55 | 4 |
| 51 | ST168FD--1090200-G | Air Cleaner Cover Comp | 1 |
| 52 | ST168FD--1090004 | Element | 1 |
| 53 | ST168FD--1090003 | Separator | 1 |
| 54 | ST168FD--1090002 | Air Cleaner Seal | 1 |
| 55 | ST168FD-1090004-CARB | Air Cleaner Case Comp | 1 |
| 56 | ST160F--1130003-CPE | Carburetor Packing (No Asbestos) | 1 |
| 57 | ST168F--1130001-LPG | Carburetor Insulator | 1 |
| 58 | ST168F--1130002-CPE | Insulator Packing (No Asbestos) | 1 |

| # | Part Number | Description | Qty |
|-----|----------------------|-------------------------------|-----|
| 59 | ST168FD--1010001-A | Stud Bolt 6X95 | 2 |
| 60 | ST168F-2-1010100-G | Cylinder Head Comp | 1 |
| 61 | ST168F-2-1030009-G | Cylinder Head Gasket | 1 |
| 62 | ST168F--1040002 | Intake Valve | 1 |
| 63 | ST168F--1040006 | Exhaust Valve | 1 |
| 64 | ST168F-2-1040013 | Valve Lifter | 2 |
| 65 | ST168F-2-1041000 | Camshaft Assembly | 1 |
| 66 | ST168F--1030015-G | Dowel Pin 9X14 | 2 |
| 67 | ST168FD-1080200-CARB | Shroud Comp | 1 |
| 68 | GB1099--79 | Key | 1 |
| 69 | ST168FD--1030007-G | Crankcase Cover | 1 |
| 70 | ST168F--1050100 | Connecting Rod Comp | 1 |
| 71 | ST168F--1050003 | Piston Pin | 1 |
| 72 | ST168F--1050004 | Piston Pin Clip | 2 |
| 73 | ST168F-2-1050005 | Piston | 1 |
| 74 | ST168F--1050007 | First Ring Set | 1 |
| | ST168F--1050006 | Second Ring Set | 1 |
| | ST168F--1050200 | Ring Comp | 1 |
| 75 | ST168F--1080002-GC | Shroud Comp (I) | 1 |
| 76 | GB900--88 | Stud Bolt | 2 |
| 77 | ST168F--1040005 | Push Rod | 2 |
| 78 | ST168--1040014-A | Oil Seal | 2 |
| 79 | ST168F--1040027 | Pivot Bolt | 2 |
| 80 | ST168F--1040026 | Valve Rocker Arm | 1 |
| 81 | GB6177--86-N6 | Nut M6 | 2 |
| 82 | ST168F--1040023 | Exhaust Rocker | 1 |
| 83 | ST160F--1020001 | Breather Tube | 1 |
| 84 | ST168F--1020100-C | Head Over Comp | 1 |
| 85 | ST160F--1020002-A | Head Over Packing | 1 |
| 86 | ST168F--1040024 | Rectify Bolt | 2 |
| 87 | ST168F--1040025 | Locknut | 2 |
| 88 | ST168F--1040022 | Entrance Rocker | 1 |
| 89 | ST168F--1040021 | Rocker Axes | 1 |
| 90 | ST160F--1040008 | Valve Rotator | 1 |
| 91 | ST160F--1040001 | Intake Valve Spring Retainer | 1 |
| 92 | ST160F--1040007 | Exhaust Valve Spring Retainer | 1 |
| 93 | ST160F--1040003 | Valve Spring | 2 |
| 94 | F6RTC | Spark Plug | 1 |
| 95 | 468.131000.02 | Carburetor | 1 |
| 96 | 0902.130010.00 | Spring | 1 |
| 97 | 168.130015.01 | Connector, Starter | 1 |
| 98 | ST168FD--1130005-CPE | Packing | 2 |
| 99 | 168.130005.01 | Support, Stepper Motor | 1 |
| 100 | 188.132200.00 | Stepper Motor Comp | 1 |
| 101 | GB818 M4x8 | Screw M4x8 | 2 |
| 102 | 0902.132001.00 | Cover, Stepper Motor | 1 |
| 103 | ST188F-1123000 | Electrify Coil | 1 |
| 104 | ST168F-1180104 | Grommet | 1 |
| 105 | ST168F-1180002 | Wire Flat | 1 |
| 106 | GB5789--86-FB6-29 | Flange Bolt 6X29 | 1 |
| 107 | ST168F-1180001 | Dowel Pin 8x10 | 2 |
| 108 | ST168F-1181100 | Start Motor | 1 |
| 109 | GB29.2-88-FB5-16 | Flange Bolt M5x16 | 2 |
| | GB93-87-SW5 | Spring Washer 5 mm | 2 |
| 110 | 168.125200.01 | Relay | 1 |
| 111 | ST188FD-1070006-A | Clip | 1 |
| 112 | 168.070900.01 | Pipe | 1 |

SPECIFICATIONS

Wiring Diagram



COMBINATION SWITCH

| | | | | | | |
|-----|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| OFF | | ○ | ○ | | ○ | ○ |
| ON | | | | | | |
| ST | ○ | ○ | | | | |

| | | | |
|---|-----------|-----|--------------|
| B | BLACK | Br | BROWN |
| Y | YELLOW | B/W | BLACK WHITE |
| L | BLUE | W/G | WHITE GREEN |
| G | GREEN | G/Y | GREEN YELLOW |
| R | RED | W/L | WHITE BLUE |
| W | WHITE | In | INDIGO |
| C | CARNATION | | |

| Problem | Cause | Solution |
|---|-------------------------------------|--|
| Generator will not start | No fuel | Add fuel |
| | Faulty spark plug | Replace spark plug |
| | Unit loaded during start up | Remove load from unit |
| Generator will not start; | Low oil level | Fill crankcase to the proper level |
| Generator starts but runs roughly | | Place generator on a flat, level surface |
| | Choke in the wrong position. | Adjust choke. |
| | Spark plug wire loose | Attach wire to spark plug |
| Generator shuts down during operation | Out of fuel | Fill fuel tank |
| | Low oil level | Fill crankcase to the proper level. Place generator on a flat, level surface |
| Generator cannot supply enough power or overheating | Generator is overloaded | Review load and adjust. See "Power Management" |
| | Insufficient ventilation | Check for air restriction. Move to a well ventilated area |
| No AC output | Cable not properly connected | Check all connections |
| | Connected device is defective | Replace defective device |
| | Circuit breaker is open | Reset circuit breaker |
| | Faulty brush assembly | Replace brush assembly (Service Center) |
| | Faulty AVR (auto voltage regulator) | Replace AVR (Service Center) |
| | Loose wiring | Inspect and tighten wiring connections |
| | Other | Contact the help line. |
| Generator gallops | Engine governor defective | Contact the help line |
| Repeated circuit breaker tripping | Overload | Review load and adjust. See "Power Management" |
| | Faulty cords or device | Check for damaged, bare or frayed wires. Replace defective device |

For further technical support:

Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)

Toll Free: 1 (877) 338-0999

tech@championpowerequipment.com

WARRANTY

WARRANTY

CHAMPION POWER EQUIPMENT
2 YEAR LIMITED WARRANTY

Warranty Qualifications

Champion Power Equipment (CPE) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of CPE'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

CPE 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 year (parts and labor) and two years (parts) 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 CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE 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

Generators need 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 this generator 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.

Installation, Use and Maintenance Cont'd.

Normal maintenance such as spark plugs, air filters, adjustments, fuel system cleaning and obstruction due to buildup is not covered by this warranty.

Other Exclusions

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as filter elements, o-rings, etc.
- Accessory parts such as starting batteries, and storage covers.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.

This warranty does not apply to generators used for prime power in place of a utility.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment 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 generator. 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

Address

Champion Power Equipment, Inc.
Customer Service
10006 Santa Fe Springs Rd.
Santa Fe Springs, CA 90670
www.championpowerequipment.com

Customer Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)
Toll Free: 1 (877) 338-0999
Fax no.: 1 (562) 236-9429

Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)
Toll Free: 1 (877) 338-0999
tech@championpowerequipment.com
24/7 Tech Support: (562) 204-1188

**Champion Power Equipment, Inc (CPE),
The California Air Resources Board (CARB) and the United States Environment Protection Agency (U.S. EPA.)
Emission Control System Warranty**

Your Champion Power Equipment (CPE) engine complies with both the U.S. EPA and state of California Air Resources Board (CARB) emission regulations.

YOUR WARRANTY RIGHTS AND OBLIGATIONS:

The California Air Resources Board, US EPA AND CPE are pleased to explain the Federal and California Emission Control Systems Warranty on your 2010 small off-road engine. In California, new, small off-road engines must be designed, built and equipped to meet the State's stringent anti smog standards. In the other states, new engines must be designed, built and equipped, at the time of sale, to meet U.S. EPA regulations for small non-road engines. CPE must warrant the emission control system on your small off-road engine for the period of time listed below, provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your small off-road engine.

Your emission control system may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter and fuel lines. Also included may be hoses, belts, connectors and other emission related assemblies. Where a warrantable condition exists, CPE will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:

This emission control system is warranted for two years, subject to provisions set forth below. If, during the warranty period, emission related part on your engine is defective in materials or workmanship, the part will be repaired or replaced by CPE.

OWNER WARRANTY RESPONSIBILITIES:

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine, but CPE cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

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

You are responsible for presenting your small off-road engine to an Authorized CPE service outlet, CPE dealer or CPE, Santa Fe Springs, Ca. as soon as a problem exists. The warranty repairs should 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:

Champion Power Equipment, Inc.
ATTN: Customer Service
10006 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Tel: 1-877-338-0999

The emission warranty is a defects warranty. Defects are judged on normal engine performance. The warranty is not related to an in-use emission test.

WARRANTY

EMISSION CONTROL SYSTEM WARRANTY

The following are specific provisions relative to your Emission Control System Warranty Coverage.

Emission Control System Warranty (ECS Warranty) for 1995 and later model year California small off-road engines (for other states, 1997 and later model year engines):

1. **APPLICABILITY:** This warranty shall apply to 1995 and later model year California small off- road engines (for other states, 1997 and later model year engines). The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.
2. **GENERAL EMISSIONS WARRANTY COVERAGE**
CPE warrants to the original, end-use purchaser of the new engine or equipment and to each subsequent purchaser that each of its small off-road engines is:
 - a. Designed, built and equipped so as to conform with all applicable regulations adopted by the Air Resources Board pursuant to its authority in Chapters 1 and 2, Part 5, Division 26 of the Health and Safety Code, and
 - b. 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 manufacturer's application for certification for a period of two years.
3. **THE WARRANTY ON EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:**
 - a. Any warranted part that is not scheduled for replacement as required maintenance in the Owners Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by CPE according to Subsection "d" below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.
 - b. Any warranted, emissions-related part which is scheduled only for regular inspection as specified in the Owners Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.
 - c. Any warranted, emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual shall be 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 shall be repaired or replaced by CPE according to Subsection "d" below. Any such emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.
 - d. Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a CPE Authorized Service Outlet.
 - e. The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.
 - f. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.
 - g. Throughout the ECS Warranty Period, CPE shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.
 - h. Any CPE Authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.
 - i. Unapproved add-on or modified parts may not be used to modify or repair a CPE engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

EMISSION-RELATED PARTS INCLUDE THE FOLLOWING (using those portions of the list applicable to the engine):

| Systems covered by this warranty | Parts Description |
|----------------------------------|--|
| Fuel Metering System | Fuel regulator, Carburetor and internal parts |
| Air Induction System | Air cleaner, Intake manifold |
| Ignition System | Spark plug and parts, Magneto ignition system |
| Exhaust System | Exhaust manifold, catalytic converter |
| Miscellaneous Parts | Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems |
| Evaporative Emissions | Fuel Tank, Fuel Cap, Fuel Line, Fuel Line Fittings, Clamps, Pressure Relief Valves, Control Valves, Control Solenoids, Electronic Controls, Vacuum Control Diaphragms, Control Cables, Control Linkages, Purge Valves, Vapor Hoses, Liquid/Vapor Separator, Carbon Canister, Canister Mounting Brackets, Carburetor Purge Port Connector |

TO OBTAIN WARRANTY SERVICE:

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during his normal business hours. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call the Customer service of Champion Power Equipment, Inc.:

Champion Power Equipment, Inc.

ATTN: Customer Service
 10006 Santa Fe Springs Road
 Santa Fe Springs, CA 90670
 Tel: 1-877-338-0999