

OWNER'S MANUAL



4375 Starting Watts / 3500 Running Watts Recoil Start

PORTABLE GENERATOR



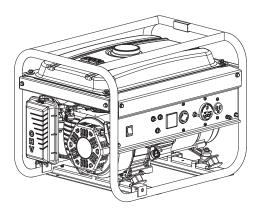
100314

AN IMPORTANT MESSAGE ABOUT TEMPERATURE:

Your Champion Power Equipment product is designed and rated for continuous operation at ambient temperatures up to 40°C (104°F). When your product is needed your product may be operated at temperatures ranging from -15°C (5°F) to 50°C (122°F) for short periods. If the product is exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and other vents.

Parts Ordering:

Mon - Fri 8:30 AM - 5:00 PM (PST/PDT) Toll Free: 1-877-338-0999



4375 Starting Watts / 3500 Running Watts Recoil Start

PORTABLE GENERATOR

TABLE OF CONTENTS

Introduction
Manual Conventions
Safety Rules
Safety Label Locations
Controls and Features
Generator
Power Panel
Parts Included
Assembly
Remove the Generator from the Shipping Carton . 8
Add Engine Oil
Add Fuel
Grounding
Operation
Generator Location
Grounding
Surge Protection
Recoil Start
Connecting Electrical Loads
Stopping the Engine
Do Not Overload Generator
Capacity
Power Management
Operation at High Altitude
Maintenance and Storage
Engine Maintenance
Oil
Spark Plugs
Air Filter
Spark Arrester
Cleaning
Adjustments
Maintenance Schedule
Generator Maintenance
Storage
Generator Storage

Specifications	16
Engine Specifications	16
Generator Specifications	16
Fuel	16
Oil	16
Spark Plugs	16
Maintenance Valve Clearance	16
An Important Message About Temperature	16
Parts Diagram	17
Parts List	18
Engine Parts Diagram	19
Engine Parts List	20
Wiring Diagram	21
Troubleshooting	22

INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment product. Champion Power Equipment and Champion Engine Technology designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

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

Since CPE/CET highly value how our products are designed, manufactured, operated and are serviced, and also highly value your safety and the safety of others, we would like you to take the time to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always error on the side of caution when operating the product to ensure no accidents, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE/CET product for years to come.

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	
100314	
Serial Number	
Date of Purchase	
Purchase Location	
For Oil Type see 'Add Engine Oil' section. For Fuel Type see 'Add Fuel'	section.

MANUAL CONVENTIONS

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

MARNING

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**.

⚠ WARNING

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

A 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**.

A 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.

MARNING

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.

A 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

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 3 ft. (91.4 cm) of clearance on all sides to ensure adequate cooling.

Maintain at least 5 ft. (1.5 m) of clearance from combustible materials.

MARNING

Medical and Life Support Uses.

In case of emergency, call 911 immediately. NEVER use this product to power life support devices or life support appliances.

NEVER use this product to power medical devices or medical appliances.

Inform your electricity provider immediately if you or anyone in your household depends on electrical euipment to live.

Inform your electrical provider immediately if a loss of power would cause you or anyone in your household to experience a medical emergency.

A 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 pump gas directly into the generator at the gas station. Use an approved container to transfer the fuel to the generator.

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.

(1) 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.

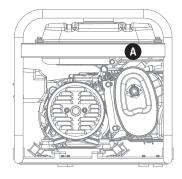
DO NOT use the generator if:

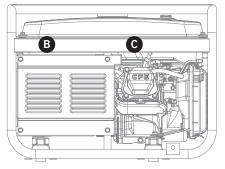
- Electrical output is lost
- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

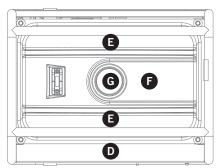
Safety Label Locations

These labels warn you of potential hazards that can cause serious injury. Read them carefully.

If a label comes off or becomes hard to read, contact Champion Power Equipment's customer service department for possible replacement.















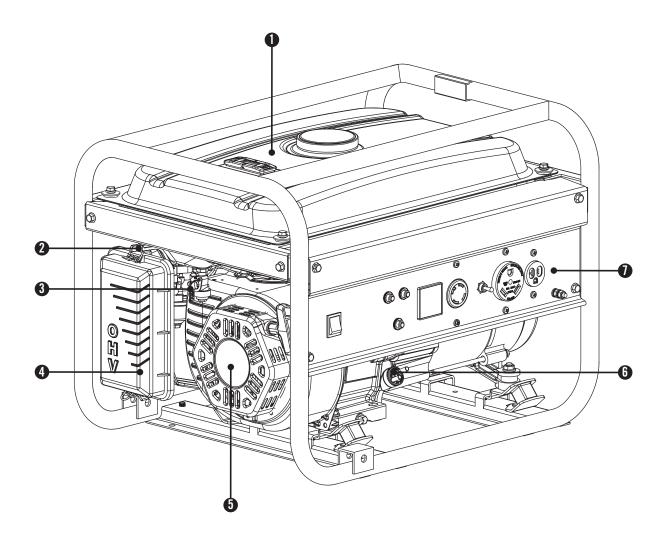






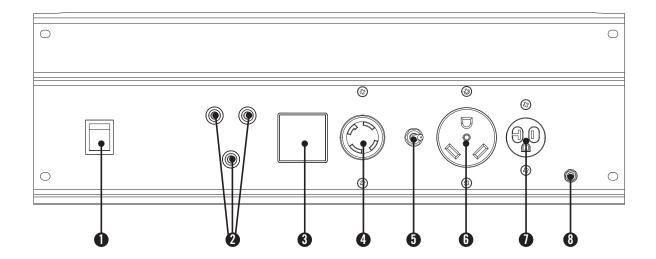
Read this owner's manual before operating your generator. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

Generator



- (1) Fuel Tank 4 gal. (15 L) capacity fuel tank.
- (2) Choke Used to start the engine.
- (3) Fuel Valve Used to turn fuel supply on and off to engine.
- (4) Air Filter Protects the engine by filtering dust and debris from the intake air.
- (5) Recoil Starter Used to manually start the engine.
- (6) Oil Filler Cap Check and fill engine oil level.
- (7) Power Panel See "Power Panel" section.

Power Panel

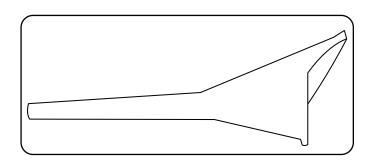


- (1) Engine Switch Used to start or stop the generator.
- (2) **Circuit Breakers** Protects the generator against electrical overloads.
- (3) Intelligauge Three mode digital meter for displaying running time, voltage and hertz..
- (4) 120/240 Volt AC, 30 Amp Twist-Lock Receptacle (NEMA L14-30R) May be used to supply electrical power for the operation of 120/240 Volt AC, 30 Amp, single phase 60 Hz electrical loads.

- (5) Voltage switch Choose between 120V or 240V
- (6) 120 Volt AC, 30 Amp Receptacle (NEMA TT-30R)
 May be used to supply electrical power for the operation of 120 Volt AC, 30 Amp, single phase 60 Hz electrical loads.
- (7) 120 Volt AC, 20 Amp Receptacle (NEMA 5-20R)
 May be used to supply electrical power for the operation of 120 Volt AC, 20 Amp, single phase 60 Hz electrical loads.
- **(8) Ground Terminal** Consult an electrician for local grounding regulations.

Parts Included

Your 100314 Gasoline Powered Generator ships with the following parts:



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.
- Remove everything from the carton except the generator.
- 3. Carefully cut each corner of the box from top to bottom.

Add Engine Oil

(I) 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.

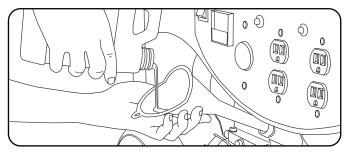
■ NOTE

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

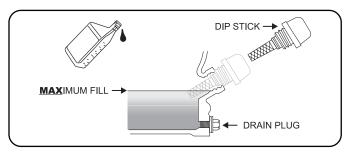
■ NOTE

The recommended oil type is 10W-30 automotive oil.

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



- 2. Remove oil fill cap/dipstick to add oil.
- 3. Add up to 0.6 qt. (0.6 L) of oil (not included) and replace oil fill cap/dipstick. DO NOT OVERFILL.
- 4. Check engine oil level daily and add as needed.



Add Engine 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.

CAUTION

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



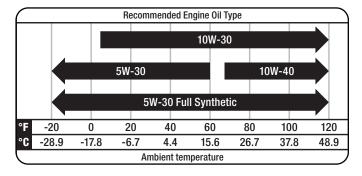
NOTE

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



NOTE

We consider the first 5 hours of run time to be the breakin period for the unit. During the break in period stay at or below 50% of the running watt rating and vary the load occasionally to allow stator windings to heat and cool. Adjusting the load will also cause engine speed to vary and help seat piston rings. After the 5 hour break-in period, change the oil.





■ NOTE

Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

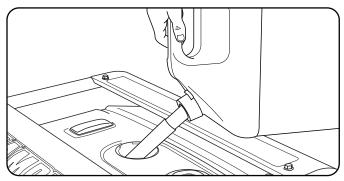
♥NOTE

Synthetic oil may be used after the 5 hour initial breakin period. Using synthetic oil does not increase the recommended oil change interval. Full synthetic 5W-30 oil will aid in starting in cold ambient <5°C (41°F)

ASSEMBLY

Add Fuel

- 1. Use clean, fresh, regular unleaded fuel with a minimum octane rating of 87 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. Fuel can expand after filling. A minimum of ½ in. (6.4 mm) of space left in the tank is required for fuel expansion, more than 1/4 in. (6.4 mm) is recommended. Fuel can be forced out of the tank as a result of expansion if it is overfilled, and can affect the stable running condition of the product. When filling the tank, it is recommended to leave enough space for the fuel to expand.



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

① CAUTION

Use regular unleaded gasoline with a minimum octane rating of 87.

Do not mix oil and gasoline.

Fill tank to approximately ¼ in. (6.4 mm) below the top of the tank to allow for fuel expansion.

DO NOT pump gas directly into the generator at the gas station. Use an approved container to transfer the fuel to the generator.

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.



Pouring fuel too fast through the fuel screen may result in blow back of fuel at the operator while filling. Add Fuel Cont'd.

◯ NOTE

Our engines work well with 10% or less ethanol blend fuels. When using blended fuels there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol blend
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/ or improperly formulated stabilizers, are not covered by manufacture's warranty.

It is advisable to always shut off the fuel supply, run the engine to fuel starvation and drain the tank when the equipment is not in use for more than 30 days.

Grounding

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



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 of 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

NEVER operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle. 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. Generators should be on a flat, level surface at all times. (Even while not in operation) Generators must have at least 5 ft. (1.5 m) of clearance from all combustible material. In addition to clearance from all combustible material, generators must also have at least 3 ft. (91.4 cm) of clearance on all sides to allow for adequate cooling, maintenance and servicing. Generators should never be started or operated in the back of a SUV, camper, trailer, in the bed of a truck (regular, flat or otherwise), under staircases/stairwells, next to walls or buildings, or in any other location that will not allow for adequate cooling of the generator and/or the muffler. DO NOT contain generators during operation. Allow generators to properly cool before transport or storage.

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.

Failure to follow proper safety precautions may void manufacturer's warranty.

MARNING

Do not operate or store the generator in rain, snow, or wet weather.

Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution.

⚠ WARNING

During operation the muffler and exhaust fumes produced will become hot. If adequate cooling and breathing space are not supplied, or if the generator is blocked or contained, temperatures can become extremely heated and may lead to fire.

Grounding

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

- The generator (stator winding) is isolated from the frame and from the AC receptacle ground pin.
- Electrical devices that require a grounded receptacle pin connection will not function if the receptacle ground pin is not functional.

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.

 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.

OPERATION

Recoil Start

- 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 "ON" position.
- 4. Press the Engine Switch to "ON".
- 5. Move the choke lever to the "CHOKE" position.
- 6. Pull the starter cord slowly until resistance is felt and then pull rapidly.
- 7. Do not over-choke. As soon as engine starts, move the choke lever to the "RUN" position.



NOTE

Keep choke lever in "Choke" position for only 1 pull of the recoil starter. After first pull, move choke lever to the "Run" position for up to the next 3 pulls of the recoil starter. Too much choke leads to spark plug fouling/engine flooding due to the lack of incoming air. This will cause the engine not to start.



◯ NOTE

If the engine starts but does not continue to 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.

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 120/240 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.

Connecting Electrical Loads Cont'd.



■ 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 and unplug all electrical loads. Never start or stop the generator with electrical devices plugged in or turned on.
- 2. Let the generator run at no-load for several minutes to stabilize internal temperatures of the engine and generator.
- 3. Turn the fuel valve to the "OFF" position.
- 4. Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
- 5. Press the engine switch to the "OFF" position.

Important: Always ensure that the fuel valve and the engine switch are in the "OFF" position when the engine is not in use.



NOTE

If the engine will not be used for a period of two (2) weeks or longer, please see the Storage section for proper engine and fuel storage.

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:

Volts x Amps = 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.



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

Operation at High Altitude

The density of air at high altitude is lower than at sea level. Engine power is reduced as the air mass and airfuel ratio decrease. Engine power and generator output will be reduced approximately 3½% for every 1000 feet of elevation above sea level. This is a natural trend and cannot be changed by adjusting the engine. At high altitudes increased exhaust emissions can also result due to the increased enrichment of the air fuel ratio. Other high altitude issues can include hard starting, increased fuel consumption and spark plug fouling. To alleviate high altitude issues other than the natural power loss, Champion Power Equipment can provide a high altitude carburetor main jet. The alternative main jet and installation instructions can be obtained by contacting Customer Support. Installation instructions are also available in the Technical Bulletin area of the Champion Power Equipment internet site.

The part number and recommended minimum altitude for the application of the high altitude carburetor main jet is listed in the table below.

In order to select the correct high altitude main jet it is necessary to identify the carburetor model. For this purpose, a code is stamped on the side of the carburetor. Select the correct main jet part number corresponding to the carburetor code found on your particular carburetor.

Carburetor Code	Main Jet	Part Number	Altitude
P22-2-H	Standard	27.131017.01.H	
Γ22-2-Π	Altitude	27.131017.01.01.H	
P22-2-Z	Standard	27.131017.01.Z	3500 Feet
F22-2-L	Altitude	27.131017.01.01.Z	(1067 Meters)
P22-2-Y	Standard	27.131017.01.Y	
FZZ-Z-Y	Altitude	27.131017.01.01.Y	

MARNING

Operation using the alternative main jet at elevations lower than the recommended minimum altitude can damage the engine. For operation at lower elevations, the standard main jet must be used. Operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance.

MAINTENANCE AND STORAGE

The owner/operator is responsible for all periodic maintenance.

$oldsymbol{\wedge}$ 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.



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.

0il

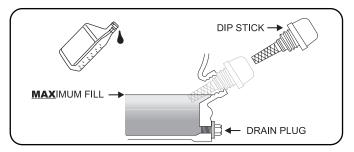
Change oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.

- 1. Remove the oil drain plug with a 12 mm socket and extension (not included).
- 2. Allow the oil to drain completely.
- 3. Replace the drain plug.
- 4. Remove oil fill cap/dipstick to add oil.
- 5. Add up to 0.6 gt. (0.6 L) of oil and replace oil fill cap/dipstick. DO NOT OVERFILL.
- 6. Dispose of used oil at an approved waste management facility.

Oil Cont'd.

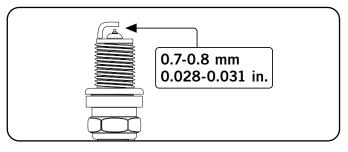
◯ NOTE

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 a 13/16 in. or 21 mm socket to remove the plug (not included).
- 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 0.8 mm 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 a 13/16 in. or 21 mm socket (not included) to firmly install the plug.
- 8. Attach the spark plug wire to the plug.

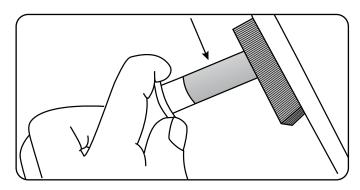
Air Filter

- 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.

MAINTENANCE AND STORAGE

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



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 helpline 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		
С	Check oil level	
С	Clean around air intake and muffler	
	First 5 Hours	
С	Change oil	
	Every 50 hours or every season	
С	Clean air filter	
	Change oil if operating under heavy load or in hot invironments	
	Every 100 hours or every season	
С	Change oil	
С	Clean/Adjust spark plug	
С	Check/Adjust valve clearance*	
С	Clean spark arrester	
С	Clean fuel tank and filter*	
Every 250 hours		
С	Clean combustion chamber*	
Every 3 years		
R	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.



(I) 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. Add a properly formulated fuel stabilizer to the tank.
- 2. Be sure all appliances are disconnected from the generator.
- 3. Run the generator for a few minutes so the treated fuel cycles through the fuel system and carburetor.
- 4. Turn the fuel valve to the "Off" position.
- 5. Let the generator run until fuel starvation has stopped the engine. This usually takes a few minutes.
- 6. Press the engine switch to the "Off" position.
- 7. The generator needs to cool completely before cleaning and storage.
- 8. Clean the generator according to the maintenance section.
- 9. Change the oil.
- 10. Remove the spark plug and pour about 1/2 ounce (14.8 mL) of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
- 11. Reattach the spark plug.
- 12. Store the unit in a clean, dry place out of direct sunlight.

Generator Storage Cont'd.



◯ NOTE

Our engines work well with 10% or less ethanol blend fuels. When using blended fuels there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol blend fuels.
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/ or improperly formulated stabilizers, are not covered by manufacture's warranty.

It is advisable to always shut off the fuel supply, run the engine to fuel starvation and drain the tank when the equipment is not in use for more than 30 days.



A DANGER

Generator exhaust contains odorless and colorless carbon monoxide gas.

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

 When storing the generator for short or extended periods of time make sure that the engine switch and the fuel valve are set in the OFF position.

Engine Specifications

-	Model
_	Displacement
_	Type
_	Start Type Recoi

Generator Specifications

	-
_	Model
_	Running Wattage
_	Starting Wattage
_	AC Load120/240 V
-	Phase
-	Frequency
-	Fuel Capacity 4 gal. (15 L)
-	Gross Weight
-	Net Weight
-	Height
-	Width 17.8 in. (45.1 cm)
_	Length

Fuel

Fuel capacity is 4 gal. (15 L). Use regular unleaded gasoline with a minimum octane rating of 87 and an ethanol content of less than 10% by volume.

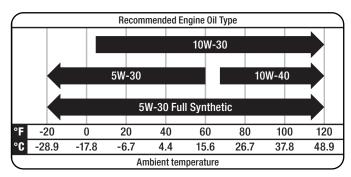
0il

Use 10W-30 automotive oil.

Oil capacity is up to 0.6 qt. (0.6 L).

DO NOT OVERFILL.

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



NOTE

Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

Spark Plugs

OEM spark plug: F6TC

Replacement spark plug: NGK BP6ES or equivalent Make certain the spark plug gap is 0.7 - 0.8 mm or (0.028 - 0.031 in.).

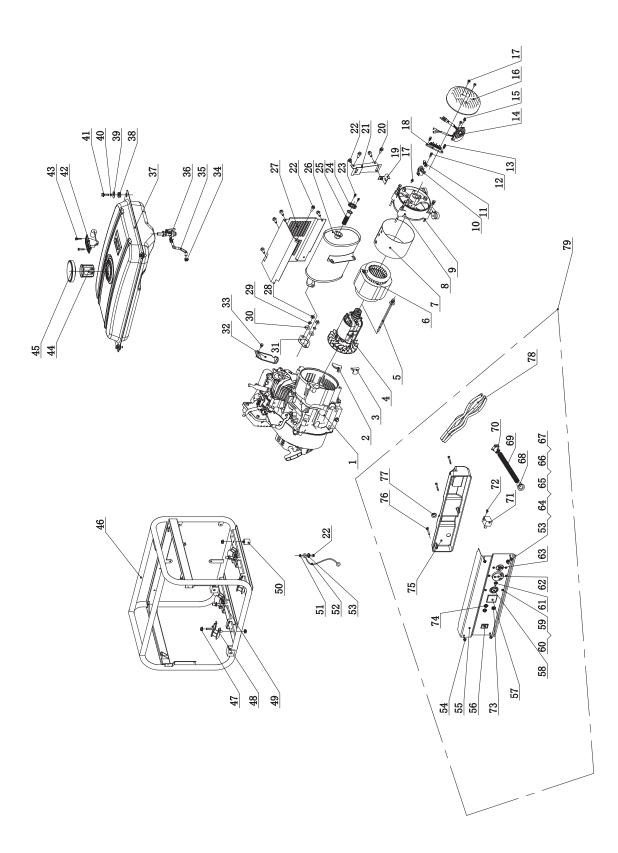
Maintenance Valve Clearance

- Intake: 0.13 0.17 mm (0.005 0.007 in.)
- Exhaust: 0.18 0.22 mm (0.007 0.009 in.)
 Note: Tech bulletin regarding the valve adjustment procedure is on www.championpowerequipment.com.

An Important Message About Temperature

Your Champion Power Equipment product is designed and rated for continuous operation at ambient temperatures up to 40°C (104°F). When your product is needed your product may be operated at temperatures ranging from -15°C (5°F) to 50°C (122°F) for short periods. If the product is exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and other vents.

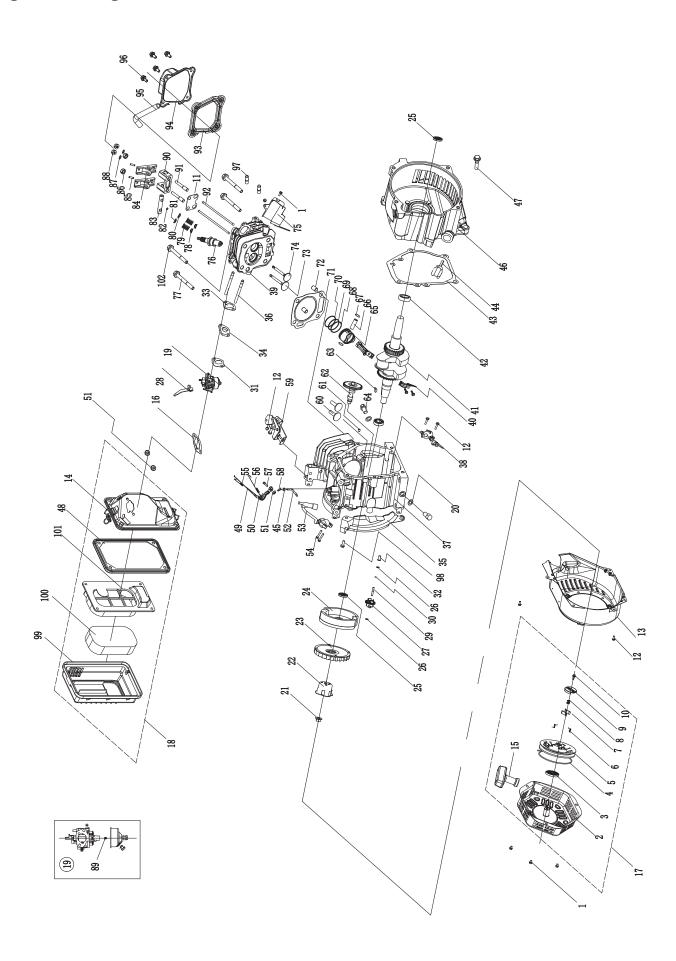
Parts Diagram



#	Part Number	Description	Qty
1	27A.401	Engine, 224cc	1
2	122.190005.00	Rubber, Fore-Cover, B	1
3	122.190005.01	Rubber, Fore-Cover, A	1
4	124.191100.02	Rotor Assembly, AI, Ø160 x 130 mm, CSA	1
5	2.08.109	Flange Bolt/Washer Assembly M8 x 252	1
6	124.191200.17	Stator Assembly, AI, Ø160 x 130 mm, CSA	1
7	124.191002.01	Stator Cover	1
8	122.190002.00	End Housing	1
9	2.08.0.32	Flange Bolt/Washer Assembly M6 x 179	4
10	122.190300.00	Carbon Brush Assembly	1
11	122.190004.01	Pinch, Carbon Brush	1
12	1.9074.15.0520	Screw/Washer Assembly M5 x 20	1
13	1.9074.17.0516	Screw/Washer Assembly M5 x 16	2
14	122.190200.03	AVR	1
15	1.16674.0516	Flange Bolt M5 x 16	2
16	122.190003.00.48	Generator End Cover, Yellow	1
17	1.16674.0512.2	Flange Bolt M5 x 12	3
18	122.190400.00	Terminal Block	1
19	122.190018.00	Bracket 1, Muffler	1
20	1.16674.0820	Flange Bolt M8 x 20	3
21	122.190018.01	Bracket 2, Muffler	1
22	1.5789.0612	Flange Bolt M6 x 12 7	
23	1.9074.4.0514	Screw/Washer Assembly M5 x 14	2
24	46.101503.08	Plate, Spark Arrester	1
25	46.101300.08	Spark Arrester Assembly	1
26	26.101000.00	Muffler Assembly	1
27	23.102000.03.2	Muffler Cover	1
28	1.6175.08	Nut M8	2
29	1.93.08	Lock Washer Ø8	2
30	1.848.08	Washer Ø8	
31	26.100001.00	Gasket, Exhaust 1	
32	23.090006.21	Holder, Air Cleaner	1
33	1.5789.0608 2.06.016	Flange Bolt M6 x 8 Clamp, Ø8 x b6	1
34	-		2
35	122.070011.04 122.070400.04	Pipe, Fuel, 140 mm	1
37	122.070400.04	Fuel Valve 1 Fuel Tank, 15L, Yellow 1	
38	122.070015.01	Mount Vibration, Fuel Tank	4
39	2.03.004	Flat Washer, Ø24 x Ø6.5 x 1.5	4
	12.00.00	Flat Washer, \$24 X \$0.5 X 1.5 4	

#	Part Number	Description	Qty
40	1.93.06	Lock Washer Ø6	4
41	1.5789.0620	Flange Bolt M6 x 20	4
42	122.072000.01	Fuel Level Assembly	1
43	1.819.0510	Screw M5 x 10	2
44	122.070300.02	Fuel Filter	1
45	122.070100.02	Fuel Tank Cap	1
46	62334.29.16.2	Frame, 590 x 451 x 437	1
47	1.6177.1.08	Lock Nut M8, Flange	12
48	122.201200.06	Motor Mount 1	2
49	122.201200.07	Motor Mount 2	2
50	122.201400.01	Rubber, Support	4
51	1.6177.1.06	Lock Nut M6, Flange	1
52	5.1900.026	Grounding Line 150 mm	1
53	1.862.06	Lock Washer Ø6, Toothed	2
54	2.08.068.2	Flange Bolt M5 x 13	4
55	122.01.108.2	Control Panel	1
56	5.1000.004.3	Ignition Switch, Red	1
57	5.1430.008.99	Intelligauge, VFT-2	1
58	5.1120.009	Receptacle L14-30R	1
59	1.9074.4.0414.1	Screw/Washer Assembly M4 x 14, Black	6
60	1.6177.1.04.1	Lock Nut M4, Flange, Black	6
61	5.1020.002	120/240V Selection Switch, 12 Pins	1
62	5.1120.034	Receptacle TT-30R	1
63	5.1120.030	Receptacle 5-20R	1
64	1.5783.0622.3	Bolt M6 x 22, Green	1
65	1.6175.06.3	Nut M6, Green	2
66	1.97.1.06.3	Washer Ø6, Green	2
67	1.93.06.3	Lock Washer Ø6, Green	2
68	122.210003.01	Wire Jacket, Control Box	1
69	5.1330.001	Conduit, Plastic	1
70	122.210003.03	Plug, End Cover	1
71	5.1810.001	Over Voltage Protector	1
72	1.823.0514	Screw M5 x 14	1
73	5.1210.920	20Amp Circuit Breaker, Push Button, CSA	1
74	5.1200.215	15Amp Circuit Breaker, Push Button, CSA	2
75	122.210002.02	Control Box	1
76	1.9074.1.0538.2	Screw/Washer Assembly M5 x 38	3
77	122.210003.00	Grommet	1
78	100314.21.10	Wire Assembly	1
79	100314.21	Control Panel Assembly	1

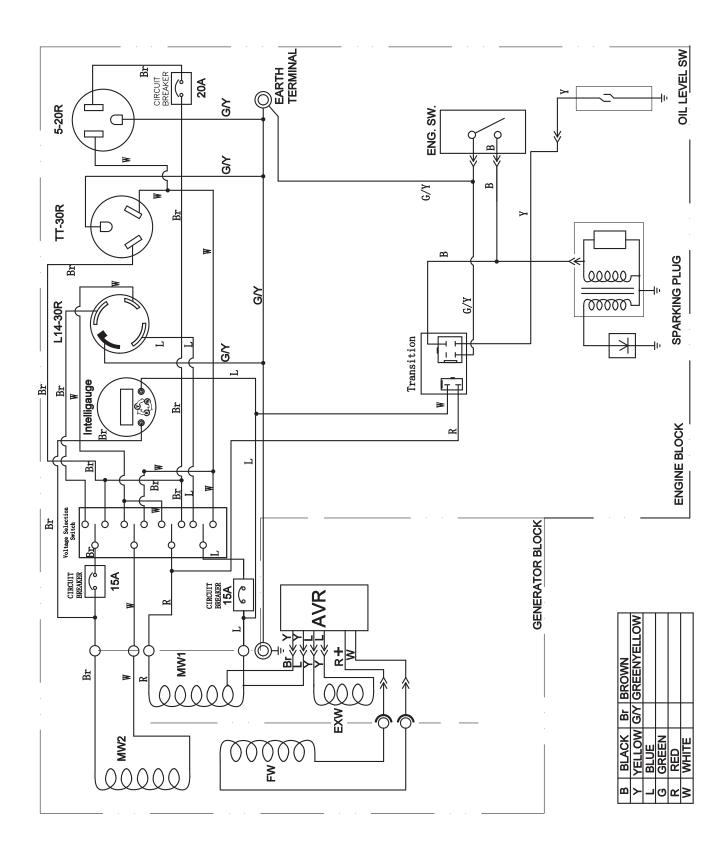
Engine Parts Diagram



#	Part Number	Description	Qty
1	1.5789.0608	Flange Bolt M6 x 8	5
2	22.061100.00.2	Cover, Recoil Starter, Black	1
3	21.061005.00	Spring, Recoil Starter	1
4	2.10.003.1	Rope Ø4 x 1550, Black	1
5	21.061001.01	Reel, Recoil Starter	1
6	45.060003.00	Spring, Ratchet	2
7	45.060002.00	Starter Ratchet, Steel	2
8	45.060009.00	Spring Guide, Ratchet	1
9	45.060007.00	Ratchet Guide	1
10	45.060008.00	Screw. Ratchet Guide	1
11	24.040004.00	Guide Plate, Push Rod	1
12	1.5789.0612	Flange Bolt M6 x 12	8
13	27.080100.00.48	Fan Cover, Yellow	1
14	24.091100.20	Base, Air Cleaner	1
15	21.061300.00	Handle, Recoil, Soft	1
16	24.130004.20	Gasket, Air Cleaner	1
17	22.061000.00	Recoil Assembly	1
18	27.091000.01	Air Cleaner Assembly	1
10	27.131000.01		1
19	27.131000.06	Carburetor	1
20	2.03.016	Washer Ø10 x Ø16 x 1.5, Drain Bolt	2
21	2.02.006	Nut M14 x 1.5	1
22	83.060001.01	Pulley, Starter	1
23	27.080001.00	Cooling Fan	1
24	24.120100.06	Flywheel	1
25	2.11.001	Oil Seal Ø25 x Ø41.3 x 6	
26	2.03.020.1	Washer Ø6.2 x Ø15 x 0.5, Black	2
27	21.110100.00	Gear, Governor	1
28	23.130100.20	Choke Lever	
29	21.110013.00	Shaft, Governor Gear	
30	21.110011.00	Clip, Governor Gear	
31	22.130003.00	Gasket, Carburetor	
32	21.110012.01	Bushing, Govornor Gear, Steel	
33	24.130002.00	Gasket, Insulator	1
34	27.130001.00	Insulator, Carburetor	1
35	23.080600.00	Air Guide, Right Side	1
36	2.01.003	Stud Bolt M6 x 90	2
37	27.030100.00	Crankcase	1
38	21.127000.02	Oil Level Sensor	1
39	26.010100.01	Cylinder Head, 224cc	1
40	27.050200.00	Connecting Rod	1
41	27.050100.00 1.276.6205	Crankshaft Pooring 6205	1
42	24.030008.00	Bearing 6205 2 Gasket, Crankcase Cover 1	
44	22.031000.00.48	- - 	
45	2.03.021.1		1
46	23.030007.01	Washer Ø6.4 x Ø13 x 1, Black 1	
47	1.5789.0832.0.8	Cover, Crankcase 1 Flange Bolt M8 x 32 5	
48	23.091002.21	Seal, Air Cleaner 1	
49	23.110006.00	Rod, Governor 1	
50	27.110003.00	Arm, Governor	1
51	1.6177.06	Flange Nut M6	3
	1 =: 327 7.00	1.10.180.1101.110	

#	Part Number	Description	Qty
52	21.110001.00	Shaft, Governor Arm	1
53	22.123000.01	Ignition Coil, Silicon Rubber	1
54	1.5789.0625	Flange Bolt M6 x 25	2
55	23.110005.01	Spring, Throttle Return	1
56	27.110007.00	Spring, Governor	1
57	2.08.040	Bolt M6 x 21, Governor Arm	1
58	21.110008.00	Pin, Shaft	1
59	23.111000.20	Control Assembly	1
60	25.040013.00	Lifter, Valve	2
61	2.04.001	Dowel Pin Ø9 x 14	2
62	27.041000.00	Camshaft	1
63	2.14.012	Woodruff Key 4 x 7.5 x 19	1
64	2.08.037	Drain Bolt M10 x 1.25 x 25	2
65	27.050005.00	Piston	1
66	23.050003.00	Pin, Piston	1
67	2.09.001	Circlip Ø18 x Ø1	2
68	27.050303.00	Ring, Oil	1
69	27.050302.00	Ring, Second Piston	1
70	27.050301.00	Ring, First Piston	1
71	27.030009.01	Gasket, Cylinder Head	1
72	2.04.003	Dowel Pin Ø10 x 14	2
73	23.040002.02	Valve, Intake	1
74	23.040006.02	Valve, Exhaust	1
75	26.080400.00	Air Guide, Lower	1
76	2.15.001(F6TC)	Spark Plug F6TC	
77	1.5789.0865	Flange Bolt M8 x 65	3
78	23.040017.00	Oil Seal, Valve, Steel	2
79	21.040003.00	Spring, Valve	2
80	21.040007.00	Retainer, Exhaust Valve Spring	1
81	21.040001.00	Retainer, Intake Valve Spring	1
82	21.040008.00	Rotator, Exhaust Valve	1
83	24.040202.00	Shaft, Rocker Arm	1
84	22.040009.00	Rocker Arm, Intake Valve	2
85	22.040012.00	Screw, Valve Adjustment	2
86	21.040021.00	Nut M6 x 0.5, Lock	2
87	1.97.1.06 1.6177.1.06	Washer Ø6	2
88	27.131017.01	Lock Nut M6, Flange	1
89	27.131017.01	Standard Main Jet Altitude Main Jet	/
90	24.040201.00	Retainer, Rocker Arm	1
91	23.040010.00	Bolt, Rocker Arm	2
92	27.040005.00	Push Rod	2
93	21.020002.01		
94	24.021000.00	Gasket, Cylinder Head Cover Cover, Cylinder Head	
95	23.020001.02	Cover, Cylinder Head Breather Tube 112 + 35	
96	1.5789.0615	Flange Bolt M6 x 15	1
97	2.01.010	Stud Bolt M8 x 35	2
98	1.5789.0620	Flange Bolt M6 x 20	1
99	27.091200.01	Cover, Air Cleaner	1
100	23.091003.21	Element, Air Cleaner	
101	23.091001.21	Separator, Air Cleaner	1
102	2.08.121	Flange Bolt M10 x 65	1
		1	<u> </u>

Wiring Diagram



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*

CHAMPION POWER EQUIPMENT 3 YEAR LIMITED WARRANTY

Warranty Qualifications

To register your product for warranty and FREE lifetime call center technical support please visit:

https://www.championpowerequipment.com/register

To complete registration you will need to include a copy of the purchase receipt as proof of original purchase. Proof of purchase is required for warranty service. Please register within ten (10) days from 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 three years (parts and labor) from the original date of purchase and 270 days (parts and labor) for commercial and 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

Products with mechanical and electrical components 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 the product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the product's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty and is not required to be performed at a facility or by a person authorized by CPE.

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.

When applicable, this warranty does not apply to products 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 product. THIS WARRANTY AND THE ATTACHED U.S. EPA and/or CARB EMISSION CONTROL SYSTEM WARRANTIES (WHEN APPLICABLE) ARE 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 or province to province. Your state or province may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

Champion Power Equipment, Inc. 6370 S Pioneer Way, Unit 101 Las Vegas, NV 89113 USA www.championpowerequipment.com

Customer Service

Toll Free: 1-877-338-0999

info@championpowerequipment.com

Fax no.: 1-562-236-9429

Technical Service

Toll Free: 1-877-338-0999

tech@championpowerequipment.com

■ EMERGENCY 24 HOUR SUPPORT: 1-562-204-1188