

CHAMPION

GLOBAL POWER EQUIPMENT™

OWNER'S MANUAL & OPERATING INSTRUCTIONS



3100 Max Watts / 2800 Rated Watts
Wireless Remote, Electric Start

PORTABLE INVERTER GENERATOR

MODEL NUMBER

73001i-P

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

MADE IN CHINA

www.championpowerequipment.com

FCC Statement

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.

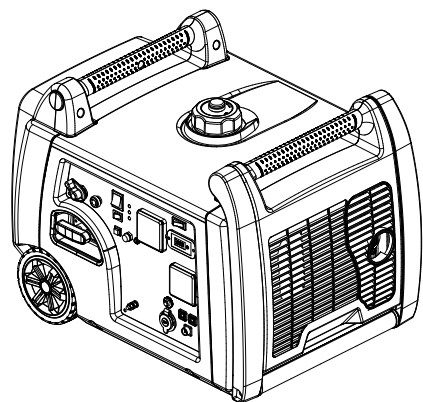
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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.



3100 Max Watts / 2800 Rated Watts Wireless Remote, Electric Start PORTABLE INVERTER GENERATOR

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INTRODUCTION

Introduction

Congratulations on your purchase of a Champion Power Equipment inverter 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	
	Model Number
	73001i-P
	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.

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 colourless, odourless, 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.

WARNING

This product contains a button battery. If swallowed, it could cause severe injury or death in just 2 hours. Seek medical attention immediately.

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 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.

WARNING

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 equipment 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.

⚠ DANGER

Fuel and fuel vapours 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.

⚠ 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 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.

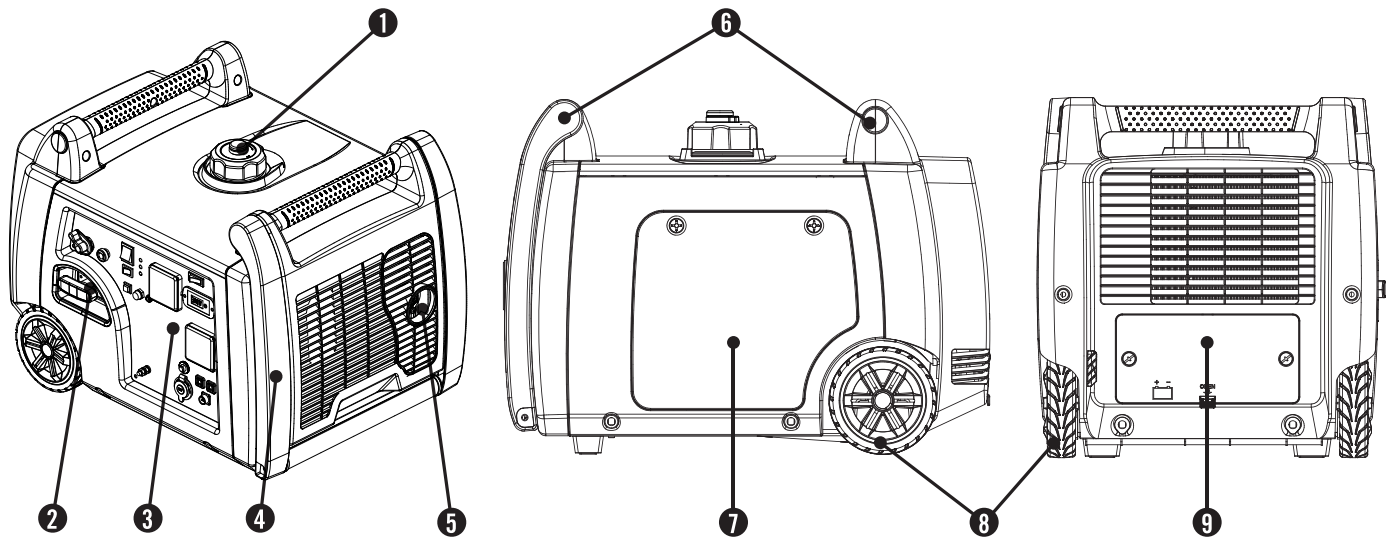
Use the generator only for intended uses.
Operate only on level surfaces.
DO NOT expose generator to excessive moisture, dust, or dirt.
DO NOT allow any material to block the cooling slots.
If connected devices overheat, turn them off and disconnect them from the generator.
DO NOT use the generator if:

- 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

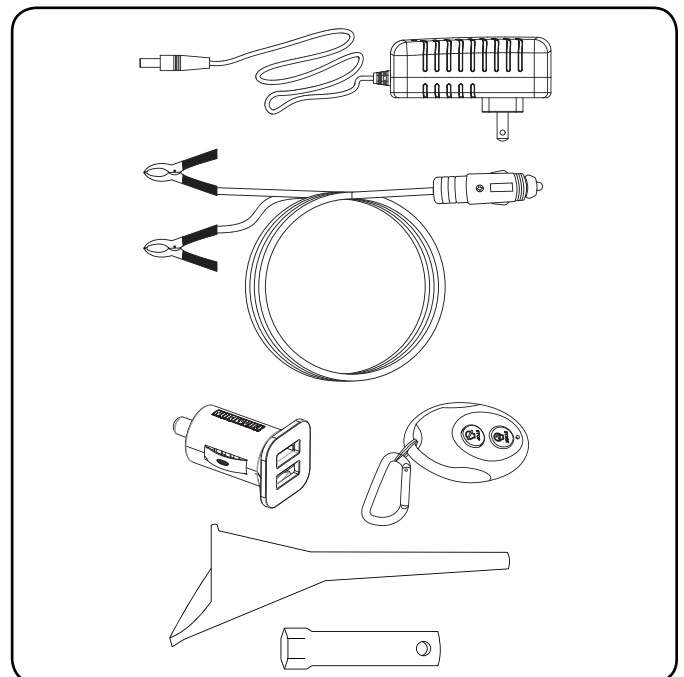


- (1) **Fuel Cap** – Remove to add fuel.
- (2) **Recoil Starter** – Used to start the engine.
- (3) **Power Panel**
- (4) **Foldaway Handle** – Do not use the foldaway handle to lift or carry the unit.
- (5) **Muffler**
- (6) **Carrying Handle**
- (7) **Maintenance Cover**
- (8) **Never Flat Wheels**
- (9) **Battery Access Cover**

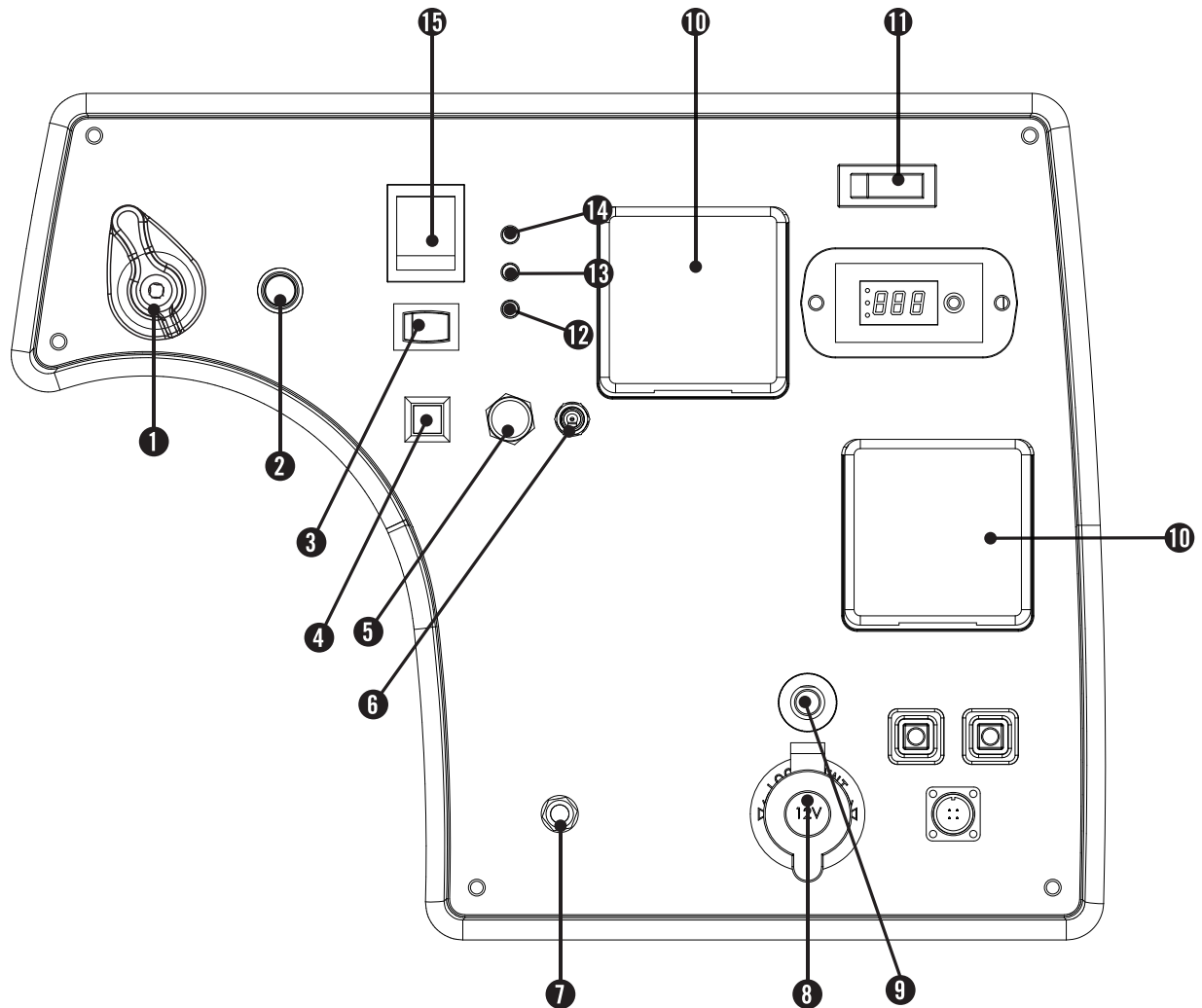
Parts Included

Your 73001i-P gasoline powered generator ships with the following parts:

- Automotive style USB adapter (2.1A and 1A ports) 1
- Automotive style battery charger cables 1
- Smart charger 1
- Oil funnel 1
- Spark plug socket 1
- Remote 1



Power Panel



- | | |
|--|---|
| <p>(1) Fuel Valve Knob</p> <p>(2) Push-Button Choke</p> <p>(3) Economy Control Switch</p> <p>(4) Wireless Set Button</p> <p>(5) Red Pilot Lamp</p> <p>(6) 12V DC Input</p> <p>(7) Ground Terminal – Consult an electrician for local grounding regulations.</p> <p>(8) 12V DC Outlet*</p> <p>(9) Circuit Breaker (Push-button) – Protects the generator against electrical overload.</p> <p>(10) AC Receptacle</p> | <p>(11) Battery Switch</p> <p>(12) Oil Warning Light – Check oil level when this light turns on. Engine will not run when indicator is lit.</p> <p>(13) Overload Indicator Light – This light turns ON when the generator is overloaded and will cut power to the receptacles.</p> <p>(14) Output Light – Remains ON during normal operating conditions. Shuts OFF when generator is overloaded.</p> <p>(15) Engine Switch</p> |
|--|---|

*Warning: Do not operate a device while it is plugged into the 12V DC outlet. Prolonged exposure to engine exhaust can cause serious injury or death. While charging a device do no place on the exhaust side of the generator. Extreme heat caused by exhaust can damage the device, and cause a potential fire hazard.

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

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.

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

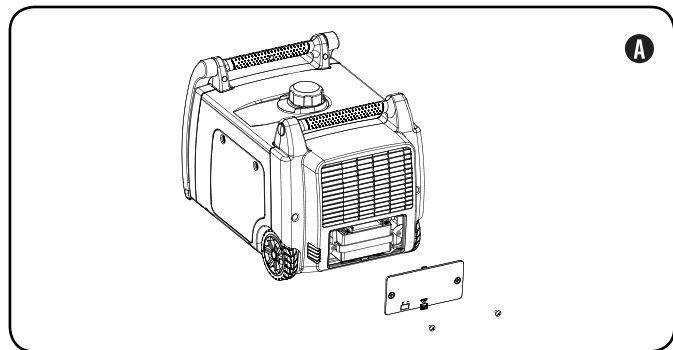
If you have any questions regarding the assembly of your generator, call our help line. Please have your serial number and model number available.

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. Using the carrying handles of the unit, carefully remove the generator from the box. (two people lifting is recommended)

Connecting the Battery

1. Using a screwdriver, remove the two (2) maintenance cover screws from the battery maintenance cover. (A)
2. Once the screws have been removed, the rubber pull-tab on the cover can be pulled out to help loosen and dislodge the maintenance cover. (A)
3. Remove the battery maintenance cover. (A)



4. Cut zip tie that is binding the battery cables together.
5. Using a screwdriver, unscrew the battery bolt in the red, positive (+) battery terminal.
6. Connect the red, positive (+) wire lead to the positive (+) terminal on the battery using the bolt.
7. Pull rubber sheath over battery cable connection and battery terminal.
8. Repeat steps 5-7 for the black, negative (-) battery wire lead and black, negative (-) battery terminal.

Connecting the Battery Cont'd.

NOTE

If the battery cables are not visible once the battery maintenance cover has been removed, please note that cables may be tucked up above the battery, not in plain view.

ASSEMBLY

Add Engine Oil

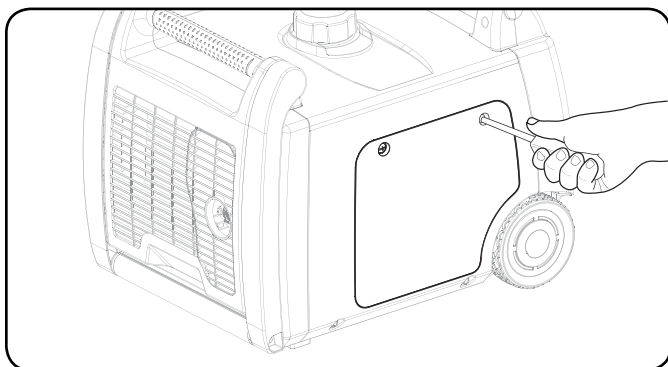
! CAUTION

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 automotive oil.

1. Place the generator on a flat, level surface.
2. Loosen the cover screws and remove the maintenance cover.



NOTE

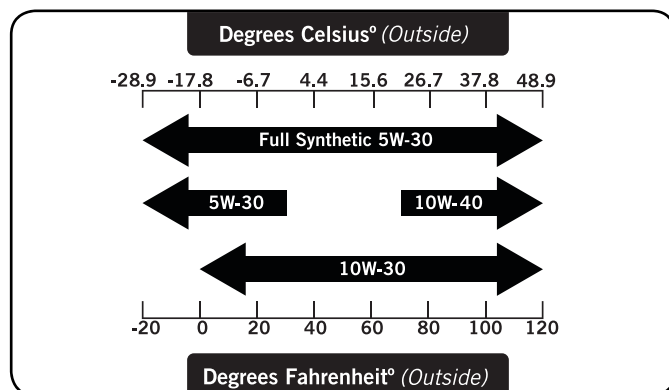
Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

NOTE

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

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

Add Engine Oil Cont'd.



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

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

NOTE

We consider the first 5 hours of run time to be the break-in 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

Synthetic oil may be used after the 5 hour initial break-in period. Using synthetic oil does not increase the recommended oil change interval.

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.

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. Fuel can expand after filling. A minimum of 1/4 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.

CAUTION

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

Do not mix oil and gasoline.

Fill tank to approximately 1/4 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.

WARNING

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 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.

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 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.

OPERATION

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.

WARNING

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, unless the neutral wire is bonded to the frame.

Wireless Remote Start

Wireless remote starting is only possible **within 80 feet** of the generator. (Wireless signal may not pass through some solid objects.)

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

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 Battery Switch to "ON".
5. Press the Ignition Switch to "ON".
6. WIRELESS REMOTE START: 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 six times.
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.

NOTE

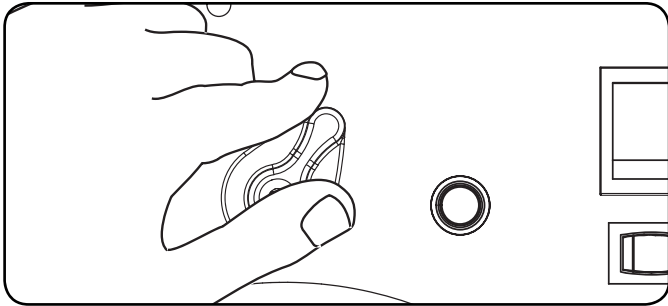
The supplied 12V 7AH battery does re-charge while the engine is running, but it is also recommended that the battery be fully charged at least once per month.

NOTE

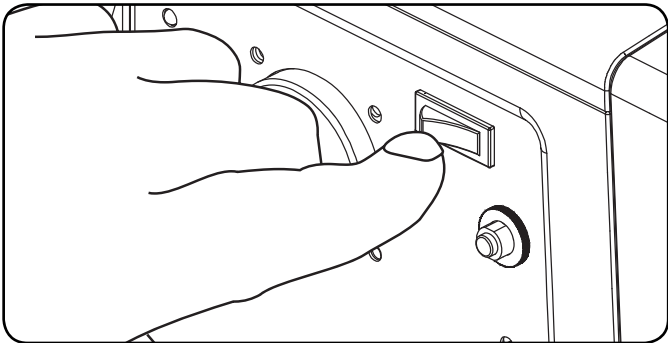
When the battery switch is in the "ON" position, the switch will light up if the battery is sending out a charge. If the switch does not light up while in the "ON" position, check that the battery connection is still good.

Electric and Recoil Start

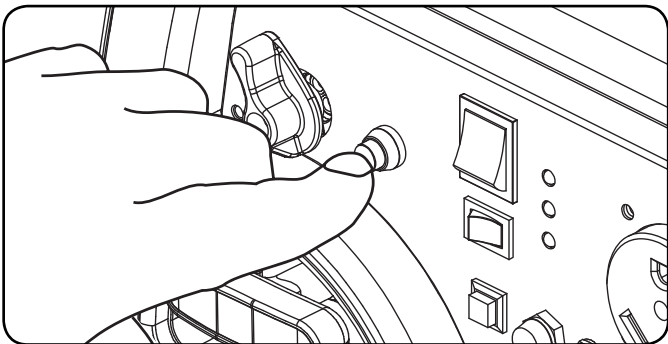
1. Make certain the generator is on a flat, level surface.
2. Disconnect all electrical loads from the generator.
Never start or stop the generator with electrical devices plugged in or turned on.
3. Turn the fuel valve to the "On" position.



4. Turn the battery switch to the "On" position.



5. Push the Choke button in to the "Choke" position.



6. Turn the engine switch to the "On" position.



7. **ELECTRIC START:** Press and hold the ignition switch to the "START" position. Release as the engine begins to roll over. If the engine fails to start

Electric and Recoil Start Cont'd.

- within five seconds, release the switch and wait at least ten seconds before attempting to start the engine again.
8. **RECOIL START:** Pull the starter cord slowly until resistance is felt and then pull rapidly.
 9. As engine warms up, push the choke button to the "Run" position.

NOTE

Keep choke button in "Choke" position for only 1 pull of the recoil starter. After first pull, push choke button 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

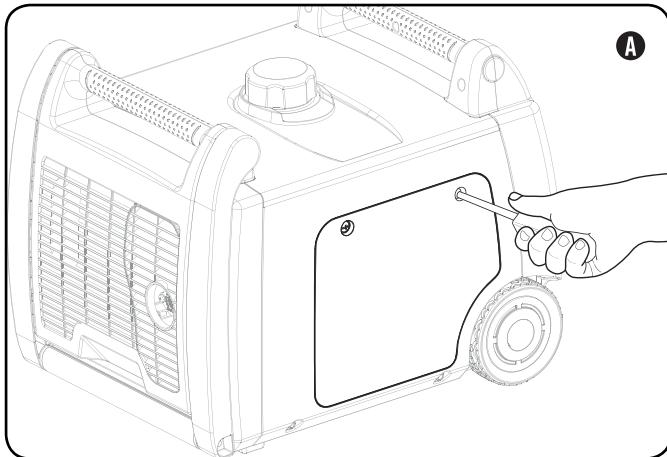
If the engine starts but does not continue to run make certain that the generator is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

OPERATION

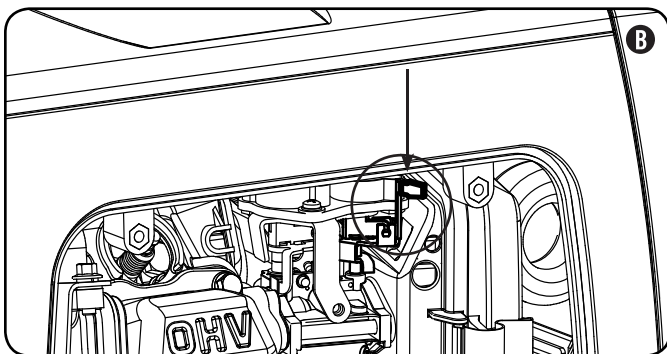
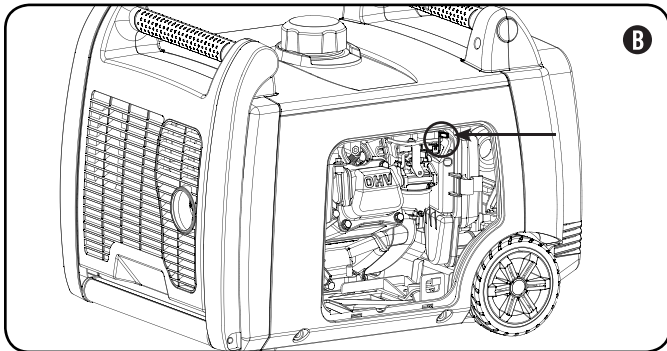
Manual Choke Start

If the battery is dead or not able to produce enough current to power the push button choke, the choke itself can be operated manually to help start the engine. To manually choke and start the inverter, follow these steps:

1. Loosen the screws and remove the maintenance cover. (A)



2. Locate the yellow manual choke lever. (B)
3. Turn the choke lever to the "CHOKE" (right) position. (B)



4. Turn the fuel valve to the "ON" position.
5. Turn the engine switch to the "ON" position.
6. Pull the recoil rope until resistance is felt, then pull rapidly.
7. As the engine starts to roll over, move the choke lever to the "RUN" (left) position.

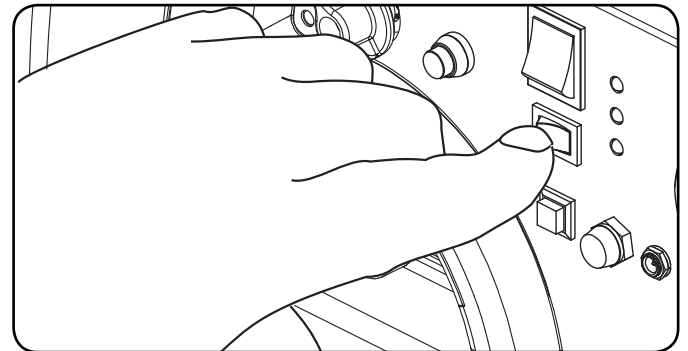
Manual Choke Start Cont'd.

NOTE

Keep choke lever in "Choke" (right) position for only 1 pull of the recoil starter. After first pull, move the choke lever to the "Run" (left) 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.

Economy Control Switch

The Economy Control switch can be activated in order to minimize fuel consumption and noise while operating the unit during times of **reduced electrical output**, allowing the engine speed to idle during periods of non-use. The engine speed returns to normal when an electrical load is connected. When the economy switch is off, the engine runs at normal speed continuously.



WARNING

For periods of high electrical load or momentary fluctuations, the Economy Control Switch should be turned OFF.

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 AC single phase, 50 Hz electrical loads.
 - DO NOT connect 3-phase loads to the generator.
 - DO NOT connect 60 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.

12V DC Outlet

The 12V DC outlet can be used with the supplied charge cable and USB charger and other commercially available 12V DC automotive style plugs. The DC output is unregulated and can damage some products. Confirm your accessory input voltage range is at least 12-24V DC. When using the DC outlet turn the Economy mode switch to the "OFF" position.

WARNING

Do not operate a device while it is plugged in to the 12V DC outlet.

Prolonged exposure to engine exhaust can cause serious injury or death.

WARNING

While charging a device do not place on the exhaust side of the generator. Extreme heat caused by exhaust can damage the device, and cause a potential fire hazard.

12V DC Outlet – Battery Charging

1. Before connecting the battery charging cable to a battery that is installed in a vehicle, disconnect the vehicle battery ground cable from the negative (-) battery terminal.
2. Plug the battery charging cable into the 12V DC receptacle of the generator.
3. Connect the red (+) battery charger lead to the red (+) battery terminal.
4. Connect the black (-) battery charger lead to the black (-) battery terminal.
5. Start the generator.

Important: The 12V DC outlet is ONLY to be used with the supplied 12V DC battery charging cable. The 12V DC output is unregulated and will damage other 12V DC products. When using the 12V DC outlet, turn the Economy mode switch to the "OFF" position. Be sure all electric devices including the lines and plug connections are in good condition before connection to the generator.

CAUTION

Do not start the vehicle while the battery charging cable is connected and the generator is running. It will not give the battery a boost of power. The vehicle or the generator may be damaged. Charge only vented wet lead acid batteries. Other types of batteries may burst, causing personal injury or damage.

NOTE

Be sure all electric devices including the lines and plug connections are in good condition before connection to the generator.

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. Turn the engine switch to the "OFF" position.
6. Turn the battery switch to "OFF" position if applicable.

Important: Always ensure that the Fuel Valve and the Engine Switch and battery switch are in the "OFF" position when the engine is not in use.

OPERATION

Stopping the Engine Cont'd.

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.

NOTE

Always turn the battery switch to the "OFF" position when unit is not in use, this will stop the battery from being drained. Follow the maintenance and storage instructions for the generator and battery when the unit will not be used for a period of 2 weeks or more.

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.

Overload Operation

The overload indicator light will turn on when the rated load is exceeded. When the maximum load is reached, the LED will blink and cut power to the receptacles. To recover the power, shut down the engine, wait until the light turns off and restart 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 air-fuel 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
P20-3-H	Standard	83.131017.01.H	3500 Feet (1067 Meters)
	Altitude	83.131017.01.01.H	

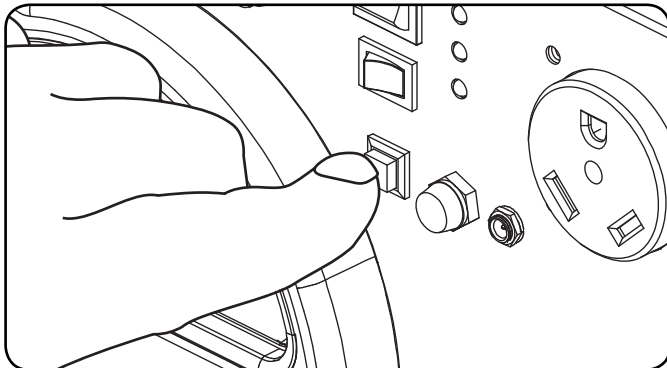
WARNING

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.

Wireless Set Button

The wireless set button is a feature that lets the user sync remotes to the generator. One can set up to two remote controls or reset a remote control with the generator. To reset a remote control or sync two remote controls follow these steps:

1. Turn the engine switch to the "ON" position.
2. Turn the battery switch to the "ON" position.
3. Push and hold the wireless set button next to the red light (located on the front panel) for approximately three seconds; the red light will turn on.
4. Push and release the "STOP" button on the remote. The red light blinks once to erase the remote program.
5. Push and release the START button. The red light blinks once to program the remote.
6. Push and hold the programming button approximately three seconds until the red light turns off.
7. Test Start & Stop features



NOTE

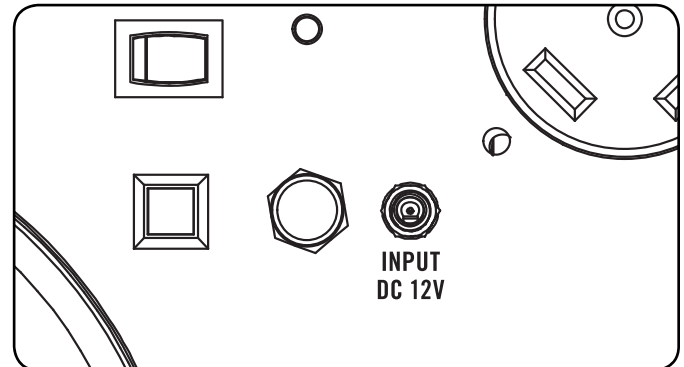
Only two remote controls can be in sync with one generator at a time.

NOTE

Changing a remote control battery may not require the user to reset the remote control.

Smart Charger

The smart charger (included) is a device that is used to charge the generator battery. The smart charger plugs into the generator, into the DC input on the front panel, and then into a household outlet power source. There is a light on the charger. If the battery is in need of a charge or charging then the red light will light up. If the battery is good and not in need of charging or has completed charging then the green light will light up. The smart charger is programmed not to charge or to stop charging when the light is green. This is a safety feature that will help prevent damage to the battery and generator.



NOTE

If the battery is completely dead, and won't hold a charge, then the smart charger can be plugged into a power source to enable power to the choke.

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.

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.

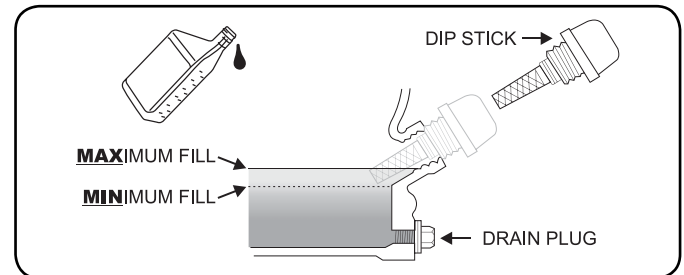
1. Set the generator on top of a work bench or table.
2. Loosen the cover screws and remove the maintenance cover.
3. Pop up the rubber maintenance plug, from below the drain bolt.
4. Remove the 12 mm drain bolt.
5. Tilt the generator on its side and allow the oil to drain completely.
6. Replace the 12 mm drain bolt.
7. Add up to 0.6 qt. (0.6 L) of standard engine oil and replace oil fill cap/dipstick. **DO NOT OVERFILL.**

Oil Cont'd.

8. Reinstall the maintenance cover and tighten the cover screws.
9. Dispose of used oil at an approved waste management facility.

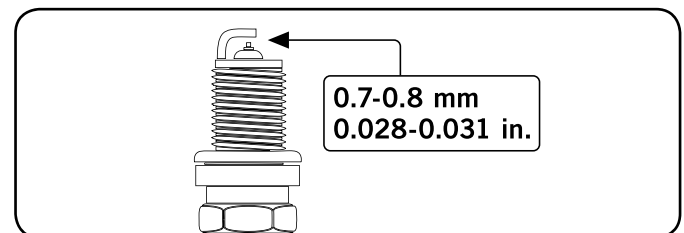
NOTE

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



7. Carefully thread the plug into the engine.
8. Use the spark plug tool to firmly install the plug.
9. Attach the spark plug cap to the plug.
10. Reinstall the spark plug access cap, and maintenance cover.

Air Filter

1. Remove the maintenance cover.
2. Locate the air filter plastic cover.
3. Unsnap the locking hinge on the cover.
4. Remove the old filter.
5. Place the new filter in the assembly.
6. Re-snap the hinge on the air filter cover.
7. Reinstall the maintenance cover and tighten the cover screw securely.

Cleaning

! CAUTION

DO NOT spray generator with water.

Water can contaminate the fuel system.

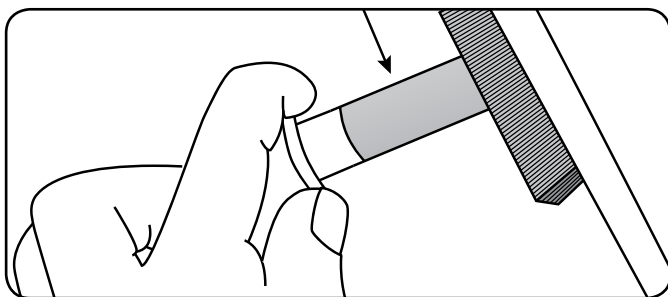
Use a damp cloth to clean exterior surfaces of the generator.

Use a soft bristle brush to remove dirt and oil.

Use an air compressor (25 PSI) to clear dirt and debris from the generator.

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.

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 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 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 250 hours	
	Clean combustion chamber*
Every 3 years	
	Replace fuel line

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

Generator Battery

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

MAINTENANCE AND STORAGE

Charge the Battery

For a generator equipped with batteries for electric starting, proper battery maintenance and storage should be followed. An automatic battery charger (included) with automatic 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.

NOTE

A Float Charger will maintain the battery condition over long storage periods.

Disconnect the Battery

1. Remove the battery panel cover.
2. Remove the protective cover from the black/negative battery lead.
3. Disconnect the black/negative lead from the black/negative terminal on the battery and store the cap screw and nut.
4. Repeat steps 1-2 for the red/positive battery lead.
5. Store the battery in a cool, dry place.

Remote Control Battery

NOTE

- Always purchase the correct size and grade of battery most suitable for the intended use.
- Clean the battery contacts and also those of the device prior to battery installation.
- Remove batteries from equipment which is not to be used for an extended period of time.
- Remove batteries if consumed or if product is to be left unused for a long time.

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 vapours.

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.

Generator Maintenance Cont'd.

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. The generator needs to cool completely before cleaning and storage.
7. Remove the spark plug cap, then pull the recoil grip 3 times to drain the gasoline from the carburetor jets.
8. Change the engine oil.
9. Remove the spark plug and pour about a tablespoon of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
10. Reattach the spark plug.
11. 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.

Engine Specifications

- Model YF166FD-331
- Displacement 171cc
- Type 4-Stroke OHV
- Start Type Wireless Remote

Generator Specifications

- Model 73001i-P
- Rated Load 2800 Watts
- Maximum Load 3100 Watts
- Phase Single
- Frequency 50 Hz
- Fuel Capacity 1.6 gal. (6 L)
- Gross Weight 108 lb. (49 kg)
- Net Weight 96.6 lb. (43.8 kg)
- Height 18.3 in. (46.4 cm)
- Width 17.3 in. (44 cm)
- Length 25.1 in. (63.7 cm)

Fuel

Fuel capacity is 1.6 gal. (6 L). Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.

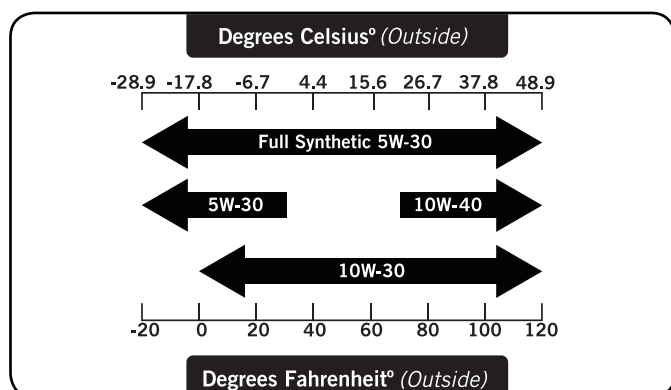
Oil

Use 10W-30 automotive oil.

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

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: NHSP F6RTC

Replacement spark plug: NGK BPR6ES or equivalent
Make certain the spark plug gap is 0.7 - 0.8 mm or (0.028 - 0.031 in.).

Maintenance Valve Clearance

– Intake: 0.06 - 0.12 mm (0.002 - 0.005 in.)

– Exhaust: 0.08 - 0.14 mm (0.003 - 0.006 in.)

Note: Tech bulletin regarding the valve adjustment procedure is on www.championpowerequipment.com.

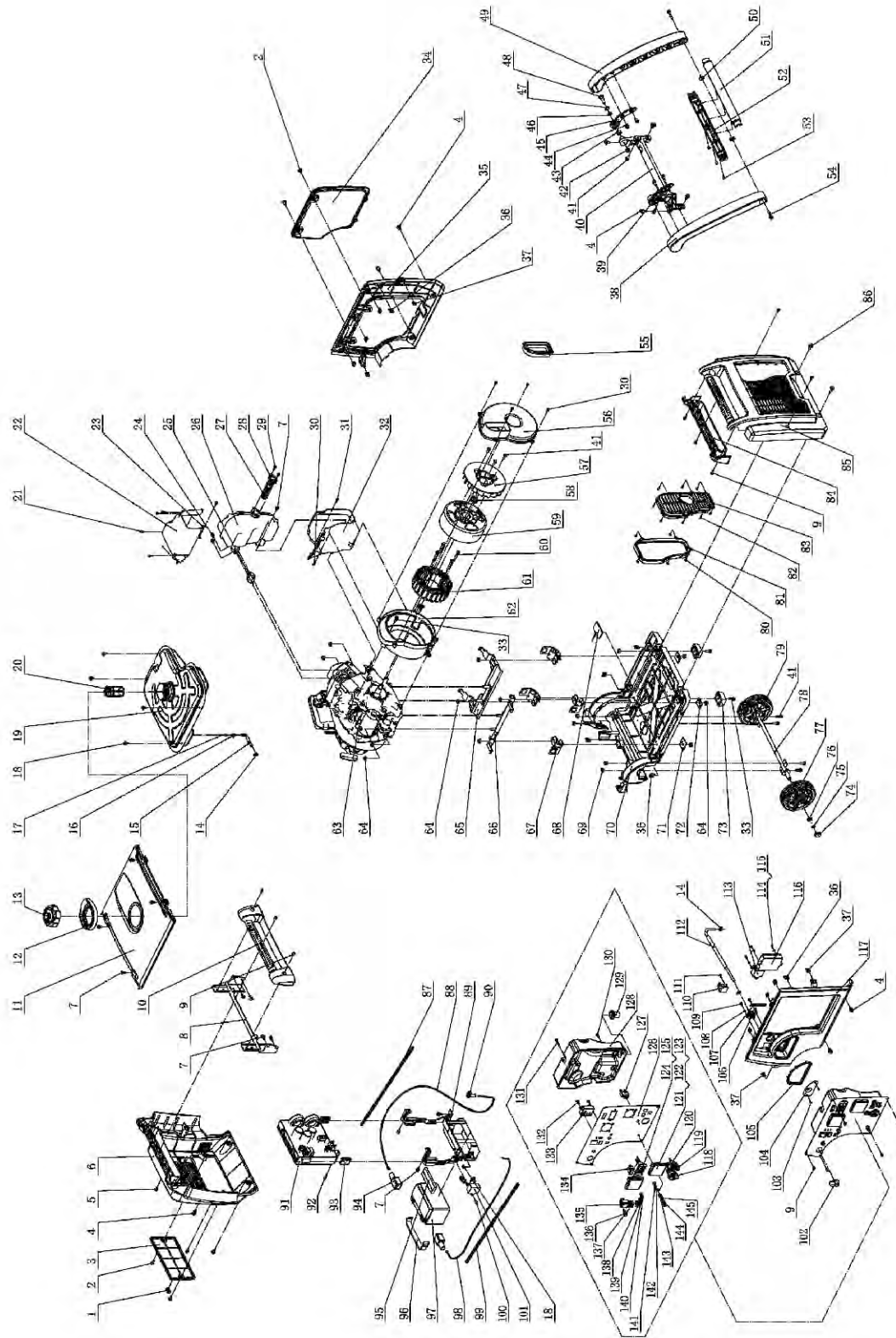
An Important Message About Temperature

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.

TROUBLESHOOTING

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; Generator starts but runs roughly	Low oil level	Fill crankcase to the proper level
		Place generator on a flat, level surface
	Choke in the wrong position	Adjust choke
Generator will not start wirelessly	Remote control battery is dead	Replace remote control battery
	Generator battery is dead	Recharge generator battery
	Battery switch is in the "OFF" position	Turn battery switch to "ON" position
Generator will not start electrically	Generator battery is dead	Recharge generator battery
	Battery switch is in the "OFF" position	Turn battery switch to "ON" position
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
	Loose wiring	Inspect and tighten wiring connections
	Other	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

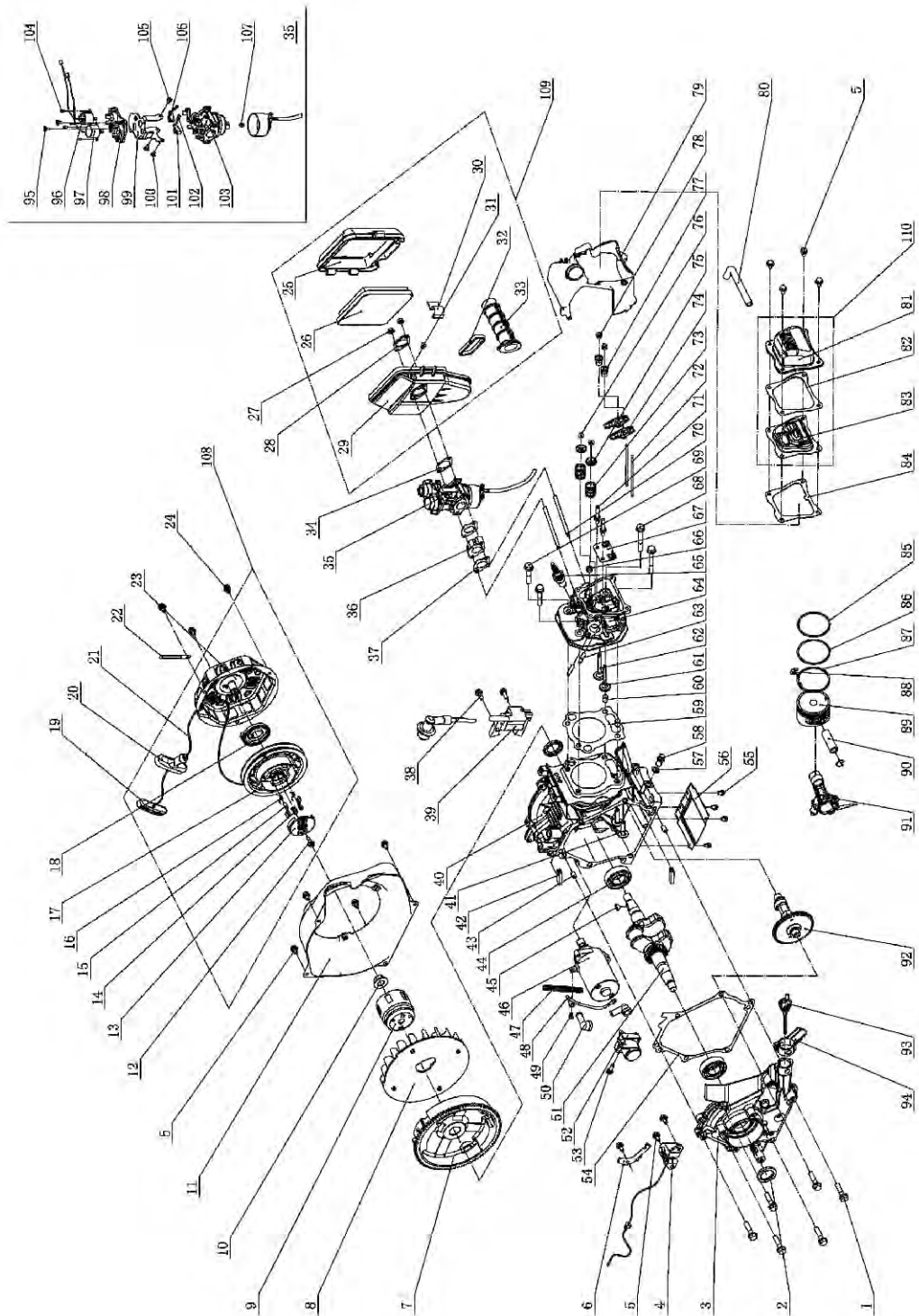
Parts Diagram



No	Alias	Name	Amount
1	83.200205.02	Hasp, Maintenance Cover	1
2	2.08.055.1	Bolt, Maintenance Cover, Black	4
3	83.200204.02.2	Maintenance Cover, Battery, Black	1
4	2.08.052.1	Bolt (M6×16)	10
5	1.9074.4.0516.1	Screw M5×16, Black	4
6	83.200201.02.2	Cover, Left, Black	1
7	1.5789.0612	Flange Bolt M6×12	11
8	83.201600.06	Supporter, Left	1
9	1.9074.4.0512.1	Screw M5×12, Black	11
10	83.200701.02.2	Handle, Left, Black	1
11	83.200500.01	Cover, Top	1
12	83.200502.01	Spillway, Fuel Tank	1
13	83.070100.02	Cap, Fuel Tank	1
14	2.06.016	Clip (Ø8.7×b8)	3
15	83.070011.01	Fuel Pipe, Fuel Tank To Fuel Valve	1
16	2.06.018	Clip (Ø10.5×b8)	1
17	111.070300.01	Inline Fuel Filter Assembly	1
18	2.08.068.2	Bolt M5×13	6
19	83.071000.02	Fuel Tank	1
20	83.070300.01	Fuel Filter, Fuel Tank	1
21	1.845.4213	Screw ST4.2×13	6
22	83.081400.01	Muffler Protector Assembly, Upper	1
23	83.081004.01	Plate	1
24	2.02.001	Nut M6, Long	2
25	83.100001.01	Gasket, Exhaust	1
26	83.101100.01	Muffler Assembly	1
27	46.101300.08	Spark Arrester Assembly	1
28	46.101503.08	Plate, Spark Arrester	1
29	1.9074.4.0514	Screw M5×14	2
30	1.845.4816	Screw ST4.8×16	6
31	1.845.4219	Screw ST4.2×19	1
32	83.081500.01	Muffler Protector Assembly, Lower	1
33	1.5789.0620	Flange Bolt M6×20	6
34	83.200402.01	Protector, Rear Cover	1
35	83.200401.01	Supporter, Rear Cover	1
36	2.02.014	Nut M6, Square	12
37	2.02.010	Cage Nut M5	8
38	83.200701.03.2	Handle, Left, Black	1
39	83.200704.01.2	Bracket, Left, Black	1
40	83.201600.05	Supporter, Right	1
41	1.5789.0615	Flange Bolt M6×15	9
42	1.6187.1.08	Lock Nut M8, Flange	2
43	2.13.001	Bushing (Ø13.3×Ø19.3×8)	2
44	1.5789.0612.1	Flange Bolt M6×12, Black	4
45	83.200704.02.2	Bracket, Right, Black	1
46	2.03.001	Bushing (Ø13.3×Ø19.3×2)	2
47	2.03.002	Washer (Ø13×Ø20×2.5)	2
48	2.08.002	Bolt M8×28	2
49	83.200701.04.2	Handle, Right, Black	1
50	2.02.002	Nut M6, T-Style	2
51	83.200705.01.2	Handle, Upper, Black	1
52	83.200705.02.2	Handle, Lower, Black	1
53	1.9074.3.0512.1	Screw M5×12, Black	3
54	1.5789.0635.1	Flange Bolt M6×35, Black	2
55	83.190006.01	Rubber Sleeve, End Cover	1
56	83.190003.01	Generator End Cover	1
57	83.190001.01	Generator Fan	1
58	2.02.006	Nut M14×1.5	1
59	83.191100.01	Rotor Assembly	1
60	1.5789.0645	Flange Bolt M6×45	4
61	83.191200.07	Stator Assembly	1
62	83.190002.01	End Cover, Motor	1
63	83.403	Engine	1
64	1.6177.1.08	Lock Nut M8, Flange	12
65	83.201600.02	Supporter, Left	1
66	83.201600.01	Supporter, Right	1
67	83.201200.01	Motor Mount	4
68	83.200607.01	Plug	1
69	1.6182.06	Lock Nut M6	1
70	83.200601.01	Base Setting Component	6
71	83.200609.02	Steel Plate 1	2
72	83.200609.01	Steel Plate 2	2
73	83.201400.01	Rubber	2

No	Alias	Name	Amount
74	83.201702.01	Plug, Wheel	2
75	1.894.1.12	Retaining Ring Ø12	2
76	1.848.12	Washer Ø12	2
77	83.201701.01	Wheel, Left	1
78	83.201500.01	Axle	1
79	83.201701.02	Wheel, Right	1
80	83.200305.01	Spring Patch	5
81	83.200304.01	Rubber Seal Sleeve	1
82	1.845.3595	Screw ST3.5×9.5	8
83	83.200303.01.2	Cover, Right Muffler, Black	1
84	83.200701.01.2	Handle, Right, Black	1
85	83.200302.01.2	Cover, Right Side, Black	1
86	2.08.075.1	Bolt M6×20	2
87	5.1320.023	Plastic Corrugated Pipe (Ø6.8×Ø10×530)	1
88	5.1900.019	Red Wire, 600mm, Battery	1
89	83.200018.01	Holder, Control Unit and Battery	1
90	152.200013.01	Sheath, Rubber	1
91	83.221000.00	Control Unit, 120V/60Hz	1
92	1.16674.0516	Flange Bolt M5×16	1
93	81.220001.00	Protector, Control Unit	2
94	122.200013.01	Sheath, Rubber	2
95	83.200908.01	Fixation Bar, Sponge	1
96	122.200904.00	Pinch, Rubber	1
97	9.1000.070	Battery 7AH	1
98	5.1900.060	Black Wire, 600mm, Battery	1
99	5.1320.022	Pipe (Ø6.8×Ø10×450)	1
100	1.16674.0512	Flange Bolt M5×12	1
101	5.1800.003	Rectifier	1
102	83.070001.01	Fuel Knob	1
103	1.823.0408.1	Screw M4×8, Black	2
104	83.061200.01.2	Guide, Rope, Black	1
105	83.200106.02	Protector	1
106	83.070400.01	Petcock	1
107	2.05.050	Wire Clip, 100mm	1
108	1.97.1.05	Washer Ø5	1
109	1.845.4819	Screw ST4.8×19	2
110	5.1840.002	Case, Power Supply	1
111	1.845.3522	Screw ST3.5×22	1
112	83.070011.02	Fuel Pipe, Fuel Valve To Carburetor	1
113	5.1820.001	Charger	1
114	1.845.3516	Screw ST3.5×16	3
115	1.97.1.04	Washer Ø4	3
116	5.1830.006	Remote Module	1
117	83.200101.02	Front Cover	1
118	5.1110.005	Receptacle, DC 12V	1
119	5.1910.001	Special Receptacle	1
120	83.210001.00.1	Connect Port, 125V/25A, Black	2
121	5.1120.011	Receptacle	2
122	1.819.0414	Screw M4×14	8
123	1.6177.1.04.1	Lock Nut M4, Flange, Black	10
124	5.1430.002	Intelligauge	1
125	1.9074.4.0414.1	Screw M4×14	2
126	83.019.20.2	Control Panel, Black	1
127	5.1200.110.1	10A Circuit Breaker, Push Button	1
128	83.210002.03	Control Box	1
129	122.210003.01	Jacket, Control Box	1
130	1.9074.4.0512	Screw M5×12	1
131	1.9074.4.0535	Screw M5×35	1
132	1.818.0514.3	Screw M5×14	2
133	83.210016.00	Speed Limiter	1
134	5.1000.000.3	Switch, Battery, Red	1
135	5.1000.001	Switch, 3-Mode	1
136	5.1040.007	Button, Throttle Control	1
137	5.1010.003.1	Switch, Economy, Black	1
138	5.1040.004	Remote Program Button	1
139	5.1460.003	Pilot Lamp	1
140	5.1110.006	Receptacle, Battery Charger	1
141	1.5783.0514.3	Bolt M5×14, Green	1
142	1.862.05	Lock Washer Ø5	1
143	1.97.1.05.3	Washer Ø5, Green	2
144	1.93.05.3	Lock Washer Ø5, Green	2
145	1.6170.05.3	Nut M5, Green	2

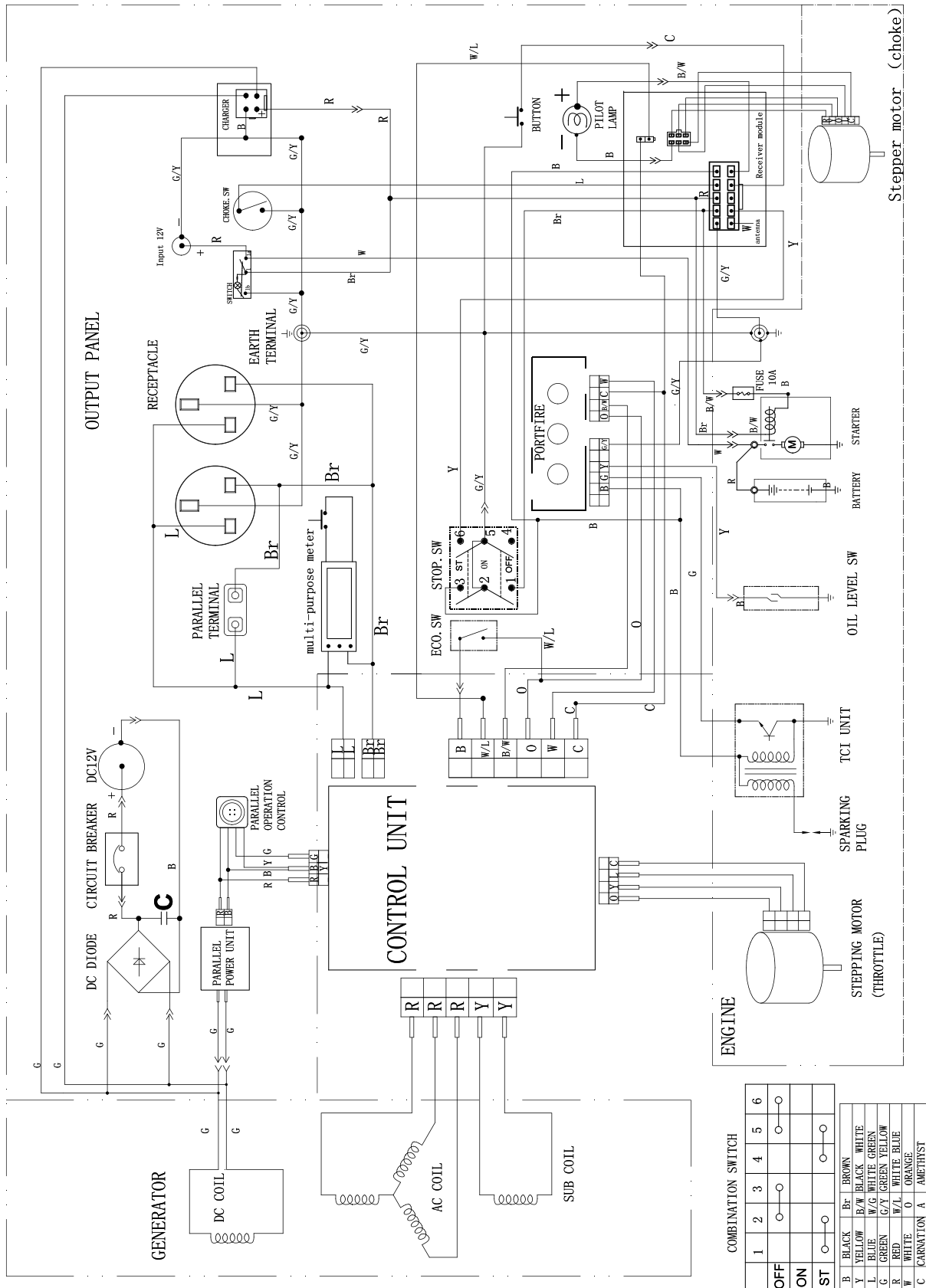
Engine Parts Diagram



No	Alias	Name	Amount
1	1.5789.0835	Flange Bolt M8×35	6
2	2.11.014	Oil Seal (Ø25×Ø40×7)	2
3	83.030007.01	Cover, Crankcase	1
4	83.127000.01	Oil Level Sensor	1
5	1.5789.0612	Flange Bolt M6×12	10
6	83.030010.01	Plate, Coil	1
7	83.120100.02	Flywheel	1
8	83.080001.01	Cooling Fan	1
9	83.060001.01	Pulley, Starter	1
10	2.02.006	Nut M14×1.5	1
11	83.080100.01.2	Fan Cover, Black	1
12	45.060008.00	Screw, Ratchet Guide	1
13	45.060007.00	Ratchet Guide	1
14	45.060009.00	Spring, Ratchet Guide	1
15	45.060002.00	Starter Ratchet (Iron)	2
16	45.060003.00	Spring, Ratchet	2
17	21.061001.01	Recoil Starter Reel	1
18	21.061005.00	Recoil Starter Spring	1
19	81.061010.01	Rope Button	1
20	81.061006.00	Grip, Starter	1
21	2.10.001	Rope (Ø4×1570)	1
22	2.05.050	Wire Clip, 100mm	1
23	83.061100.01.2	Recoil Starter Cover, Black	1
24	1.5789.0608	Flange Bolt M6×8	3
25	83.091200.01	Cover, Air Cleaner	1
26	83.091300.01	Element, Air Cleaner	1
27	1.6177.1.06	Flange Lock Nut M6	2
28	83.090001.01	Flange	1
29	83.091100.01	Base, Air Cleaner	1
30	83.091006.01	Buckle	1
31	83.091008.01	Plug, Air Cleaner Base	1
32	83.091002.02	Seal	1
33	83.090004.01	Pipe, Air Cleaner	1
34	83.130004.01	Gasket, Air Cleaner	1
35	83.130000.02	Carburetor, Assembly	1
36	83.130001.01	Insulator, Carburetor	1
37	83.130002.01	Gasket, Insulator	2
38	1.5789.0620	Flange Bolt M6×20	2
39	83.123000.01	Ignition Coil	1
40	83.030100.01	Crankcase	1
41	83.040013.01	Lifter, Valve	2
42	83.030013.01	Seal Strip, Crankcase Cover	2
43	2.04.002	Dowel Pin (Ø8×14)	2
44	1.276.6205	Bearing 6205	2
45	2.14.017	Woodruff Key (4×6.5×16)	1
46	83.125100.01	Starter Motor	1
47	5.1320.010	Plastic Corrugated Pipe (Ø6.8×Ø10×100)	1
48	5.1900.065	Red Wire, 130mm	1
49	1.9074.3.0508	Screw M5×8	1
50	152.200013.01	Sheath, Rubber	2
51	83.050100.01	Crankshaft	1
52	83.125200.01	Relay, Starter	1
53	1.5789.0615	Flange Bolt M6×15	1
54	83.030008.01	Gasket, Crankcase Cover	1
55	1.9074.4.0510	Screw M5×10	4
56	83.080014.01	Air Guide Board	1
57	2.03.016	Washer, Drain Bolt	1

No	Alias	Name	Amount
58	2.08.037	Bolt, Drain (M10×1.25×25)	1
59	83.030009.01	Gasket, Cylinder Head	1
60	2.04.003	Dowel Pin (Ø10×14)	2
61	83.040006.01	Valve, Exhaust	1
62	83.040002.01	Valve, Intake	1
63	2.01.017	Stud Bolt (M6×32)	2
64	83.010100.01	Cylinder Head	1
65	2.15.002	Spark Plug (F6RTC)	1
66	83.040017.01	Oil Seal, Valve	1
67	83.040004.01	Guide Plate, Push Rod	1
68	1.5789.0865	Flange Bolt M8×65	2
69	1.5789.0845	Flange Bolt M8×45	2
70	2.01.020	Stud Bolt (M6×97)	2
71	83.040010.01	Bolt, Rocker Arm	2
72	83.040005.01	Push Rod	2
73	83.040003.01	Spring, Valve	2
74	83.040009.01	Rocker Arm, Intake Valve	2
75	83.040001.01	Retainer, Valve Spring (Up)	2
76	83.040014.01	Valve Collet	2
77	21.040020.00	Adjusting Nut, Valve	2
78	21.040021.00	Nut, Lock	2
79	83.080200.01	Air Shroud, Cylinder	1
80	23.020001.01	Breather Tube	1
81	83.021101.01	Cover, Cylinder Head	1
82	83.021001.01	Gasket, Cylinder Head Element	1
83	83.021200.01	Element Component, Head Cover	1
84	83.020002.01	Gasket, Cylinder Head Cover	1
85	83.050301.01	Ring, First Piston	1
86	83.050302.01	Ring, Second Piston	1
87	83.050303.01	Ring, Oil	1
88	2.09.002	Circlip (Ø16×Ø1)	2
89	83.050005.01	Piston	1
90	83.050003.01	Wrist Pin	1
91	83.050200.01	Connecting Rod	1
92	83.040100.01	Camshaft	1
93	83.031000.01	Oil Dipstick Assembly	1
94	83.030035.01	Oil Nipple	1
95	1.9074.1.0408	Screw M4×8	2
96	45.132200.01	Stepper Motor, Choke Valve	1
97	81.132200.00	Stepper Motor, Throttle Valve	1
98	83.132100.01	Stepper Motor Base	1
99	83.130005.02	Support, Stepper Motor	1
100	1.819.0508	Screw M5×8	1
101	81.130008.00	Connector, Throttle Valve Axis	1
102	81.130010.00	Spring, Connector	2
103	83.131000.02	Carburetor	1
104	1.818.0306	Screw M3×6	4
105	1.9074.3.0508	Screw M5×8	2
106	83.130008.01	Connector, Choke Valve Axis	1
107	83.131017.01	Standard Main Jet	1
	83.131017.01.01	Altitude Main Jet	/
108	83.061000.01	Recoil Assembly	1
109	83.091000.01	Air Cleaner Assembly	1
110	83.021000.01	Cylinder Head Cover	1

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	O	ORANGE
C	CARNATION	A	AMETHYST