

# **OPERATOR'S MANUAL**

MODEL #500987-UK 3500W RATED WIRELESS REMOTE START INVERTER GENERATOR



**REGISTER YOUR PRODUCT ONLINE** 

at championpowerequipment.co.uk

















or visit www.championpowerequipment.co.uk

**SAVE THESE INSTRUCTIONS.** This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

# INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE 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 at the time of publication, and we reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

CPE highly values how our products are designed, manufactured, operated, and serviced as well as providing safety to the operator and those around the generator. Therefore, it is IMPORTANT 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 err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table below

# CPE TECHNICAL SUPPORT TEAM +44(0)-1942-715-407 MODEL NUMBER 500987-UK SERIAL NUMBER DATE OF PURCHASE PURCHASE LOCATION

# **SAFETY DEFINITIONS**

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

### **A** DANGER

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

### **A** WARNING

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

### **A** CAUTION

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

### NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

# **IMPORTANT SAFETY INSTRUCTIONS**

### **A** DANGER

Generator exhaust contains carbon monoxide, a colorless, odorless, poisonous 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 <u>OUTDOORS</u> ONLY IN A WELL VENTILATED AREA AND POINT EXHAUST AWAY WINDOWS, DOORS AND VENTS.

DO NOT operate the generator inside any sheds, vehicles , including garages, basements, crawlspaces and sheds vehicles, 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.

### **A** DANGER

Using a generator indoors **CAN KILL YOU IN MINUTES**. Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.

**NEVER** use inside a home or garage, **EVEN IF** doors and windows are open.

**ONLY** use **OUTSIDE** and far away from windows, doors, and vents.



Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up according to the manufacturer's instructions.

### **A WARNING**

Although the generator contains a spark arrester, maintain a minimum distance of 5 ft. (1.5 m) from dry vegetation to prevent fires.

# **A WARNING**

Always maintain a minimum distance of 3ft (0.91m) around generator to allow for adequate cooling. Do Not cover, box in or enclose this generator otherwise it will overheat and risk fire.

### **A** DANGER

Operate equipment with quards in place.

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.

DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

### **A** DANGER

Generator produces powerful voltage.

DO NOT touch bare wires or sockets.

DO NOT use electrical cords that are worn, damaged or frayed. Use only Champion electrical cords for proper application.

DO NOT operate generator in wet weather incl rain or snow.

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(MUST be installed separately).

Connection to your home's electrical system requires a listed 100A transfer switch installed by a licensed electrician and approved by the local authority having jurisdiction. The connection must isolate the generator from the utility power and must comply with all applicable laws and electrical codes.

### **A WARNING**

Do not use generator for medical and life support uses.

In case of emergency, call emergency services 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.

### **A WARNING**

Spark from removed spark plug wire 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 or any other metal object.

DO NOT check for spark with the plug removed.

Use only approved spark plug testers.

### **A** WARNING

Running engines produce heat. Severe burns can occur on contact. Combustible material can catch fire on contact.

DO NOT touch hot surfaces like engine or exhaust muffler.

Avoid contact with hot exhaust gases.

Allow equipment to cool 30mins before handling.

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.

### **A WARNING**

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

When starting engine, pull the recoil cord slowly until resistance is felt (compression point), release cord slowly back use one strong rapid pull to start to avoid any kickback, if the engine does not start repeat the process. Do Not rigorously or aggressively pull the recoil otherwise damage will occur to cord or mechanism resulting in voiding the part warranty.

### **A CAUTION**

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

DO NOT overload the generator.

DO NOT tamper with the governed speed.

DO NOT modify the generator in any way.

Do NOT modify or install any exhaust muffler extension or extraction

### **A** CAUTION

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

Use the generator only for intended uses.

Operate only on flat 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

### **A** WARNING

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

# **Fuel Safety**

### **A** DANGER

PETROL AND PETROL VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE.

Fire or explosion can cause severe burns or death.

### Petrol and petrol vapors:

- Petrol is highly flammable and explosive.
- Petrol can cause a fire or explosion if ignited.
- Petrol is a liquid fuel but it's vapors can ignite.
- Petrol is a skin irritant and needs to be cleaned up immediately if spilled on skin or clothes.
- Petrol has a distinctive odor, this will help detect potential leaks quickly.
- Petrol expands or contracts with ambient temperatures. Never fill the petrol tank to full capacity, as petrol needs room to expand when temperatures rise.
- In the case of any petroleum petrol fire, flames should never be extinguished unless the fuel supply valve can be turned OFF. By not doing so, if a fire is extinguished and the supply of fuel is not turned OFF, an explosion hazard could be created.

### When adding or removing petrol:

DO NOT light or smoke cigarettes.

Turn the generator off and let cool for at least 30 minutes before removing the petrol cap. Always loosen the cap slowly to relieve pressure in the tank.

NEVER try to refuel indoors or inside any building. Only fill or drain petrol outdoors in a well-ventilated area.

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

DO NOT overfill the fuel tank.

Always keep petrol away from sparks, open flames, pilot lights, heat and other sources of ignition.

### When starting the generator:

DO NOT attempt to start a damaged generator.

Always check that the fuel cap, air filter, spark plug, fuel lines and exhaust system are properly in place.

Always allow spilled petrol to evaporate fully before attempting to start the engine.

Always be certain that the generator is resting firmly on level ground.

### When operating the generator:

DO NOT move or tip the generator during operation.

### When transporting or servicing the generator:

Always check that the fuel valve is in the OFF position and the petrol tank is empty.

For Propane compatible models, check that the Propane cylinder is disconnected and stored securely away from the generator.

Disconnect the spark plug wire.

### When storing the generator:

Store away from sparks, open flames, pilot lights, heat and other sources of ignition.

Do not store generator, petrol or Propane cylinders near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions.

### **A** DANGER

NEVER place a petrol container, petrol tank, Propane cylinder or any combustible material in the path of the exhaust stream during operation of the engine.

### **A** WARNING

Never use a petrol container, fuel tank, or any other fuel item that is broken, cut, torn or damaged.

# **Lithium-ion Battery Safety**

Electrolyte inside the battery is harmful to skin and eyes. If the battery leaks and electrolyte gets in your eyes, do not rub them. Instead, rinse them with clean running water and immediately seek medical attention. If left untreated, electrolyte can cause permanent eye injury.

### When using the generator:

- Do not use the battery near sources of high heat or fire.
- Do not reverse or short-circuit the positive (+) or negative (-) terminals.
- Do not use the battery in parallel or in series.
- Do not discharge battery in temperatures below 14°F (-10°C) or above 104°F (40°C).

### When charging the battery:

- Do not charge the battery with voltage over 15.0V and current over 1.6A.
- Do not charge the battery below 32°F (0°C) or above 113°F (45°C).
- Always remove from the battery cradle before charging separately.
- After charging, leave the battery sitting for 0.5 to 1 hour before checking the voltage. If the voltage is less than 12.8V, additional charging is necessary.
- If the battery becomes hot to the touch, stop charging. Allow battery to cool before resuming.

### When storing the generator/battery:

- Always check that the battery connectors between the inverter and the battery are unplugged and placed away from the battery terminals.
- Always inspect the battery case for obvious signs of physical damage or warpage.
- Do not store the battery near sources of high heat or fire.

- Store the battery in a dry, well ventilated area between
   -4°F (-20°C) and 104°F (40°C).
- Do not store the battery when discharged to 20% or less state of charge (SOC).
- The battery should be charged for 10~30 mins every 180 days when in storage, to keep the battery in good condition.

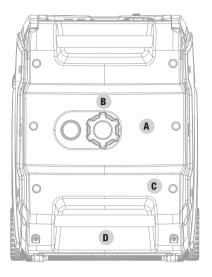
### In case of battery damage:

- If damaged, battery may emit hazardous fumes. If fumes are present, move battery to a well-ventilated area.
- Do not try to repair the battery.
- Dispose of battery in a clear plastic bag and take to your local municipal household hazardous waste (HHW) recycling center.
   Do not place it the trash for any reason.

# **Safety and Dataplate Labels**

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 Technical Support Team for possible replacement.



Top

	LABEL	DESCRIPTION
A	A DANCER  Using a generation from Mark MULT YOU IN  MINIOTIES. Commination recharted webuild contained and the contained of t	Safety Symbols/ CO Danger
В	UNLEAGED FIFE, ONLY. Minimum schann rating of 85. Miximum 10% ethanol. NUR BLEFREELS BERLYM, Minimus-10% channel. Oktanizani 65. Miximum 10% channel. Oktanizani 65. Miximum 10% channel. Berlief of the Service Leaver Fund Southeart. Berlief of the Miximum 10% channel. Solver of the Miximum 10% ch	Fuel
С	CHAMPION POWER EQUIPMENT, INC. 12039 SMITH AVENUE SANTA FE SERINGS, CA 90670 USA (F-U. HINA) LOW POWER Generating Set  MODEL SERIAL NO. XXXXXXXXXXXXXXX MANUFACTURE DATE XXXX IP Grade  FREQUENCY (Hz)  FROM  FRANCE  FROM  FR	Dataplate
D	DO NOT TOUGH. Operation of this equipment may create Exhaust gains, muffler speaks that can star free sourced by company of the equipment may create Exhaust gains, muffler speaks that can star free sourced by company of the extremely first and seater the source of the extremely first and seater burns. The operator should contact tocal free cannot burns. The operator should contact tocal free cannot burns. Company of the extremely and remarkable and remarkable seator burns. See the seater of the extremely of the	Hot Surface

# **Safety Symbols**

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
<u> </u>	Caution.
	Read The Operator's Instruction Manual Before Use. To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Not For General Waste Disposal.
	The generating set must not be connected to other power sources, such as the power company supply mains.
4	Electric Hazard. Failure to use in dry conditions and to observe safe practices can result in electric shock. Improper connections to a building can allow current to backfeed into utility lines, creating an electrocution hazard. A transfer switch must be used when connecting to a building.
	Fire Hazard. Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death. Keep generator at least 5 feet (1.5m) from all objects to prevent combustion.
	Risk Of Being Burnt. To reduce the risk of injury or damage, avoid contact with any hot surface.
	Carbon Monoxide(co) Danger.
	Wet Conditions Alert. Do not expose to rain or use in damp locations except as follows:
	If you must operate in rain or damp locations, D0 NOT operate without proper protection of the electrical components.
	Use of a safety canopy that is fire retardant and will provide proper air ventilation for the engines exhaust stream can be used. Keep all objects a minimum of 5 feet (1.5m) away from the generator at all times. Heat from the muffler surface and exhaust stream can ignite combustible materials.

SYMBOL	MEANING
	<b>Read Operator's Manual.</b> To reduce the risk of injury, user must read and understand operator's manual before using this product.
	This product uses lithium-ion (Li-ion) batteries. Local, state, or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.
	Blindness or severe burns. Electrolyte solution can cause blindness or severe burns.
	Shield eyes. Explosive gases can cause blindness or injury.  If damaged, battery may emit hazardous fumes. If fumes present, move battery to a well-ventilated area.
	Eye protection. Always wear eye protection with side shields marked to comply with ANSI Z87.1.
	It is recommended ear protection is worn working at close quarters to the generator.

# **Operation Symbols**

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
•	Start
4	On
Ø	Stop or Off
	Choke
[+]	Run
12 V	12V Direct Current
<del>- +</del>	Battery On
	Battery Off
N→ <u>‡</u>	Neutral Floating. Neutral circuit IS NOT electrically connected to the frame/ ground of the generator.
3	Circuit Breaker Reset: Push

SYMBOL	MEANING
	Ground Terminal
<b>5</b> + <b>6</b> + <b>5</b>	Parallel Connection(s)
ECO	Economy Mode Button
	Overload Reset Button
12	Low Oil
<b>⊕</b>	Wireless Pair
	Fuel Tank: Full
	Fuel Tank: Empty
4	Power Output. Percentage of available power from generator being used.

# **Quick Start Label Symbols**

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.



### **Starting the Engine**

# **A** DANGER

Move generator outside and far away from windows, doors and intake ventilation covers.

1. Check oil level.

Recommended oil is 10W-30.(Not Included)

2. Check petrol level.

- 3. Turn battery switch to the "ON" position.
- 4. Turn the EZ Start dial to the "ON" position.
- Press the choke button. Note: If battery is dead, charge battery or remove the non recoil side maintenance cover and move choke lever to choke position to start.
- 6. Pull the recoil cord.
- 7. Press the choke button.
- 8. Plug in desired device.

### **Stopping the Engine**

- 1. Turn off and unplug all connected electrical loads.
- 2. Turn the EZ Start dial to the "STOP" position.
- 3. Turn battery switch to the "OFF" position.

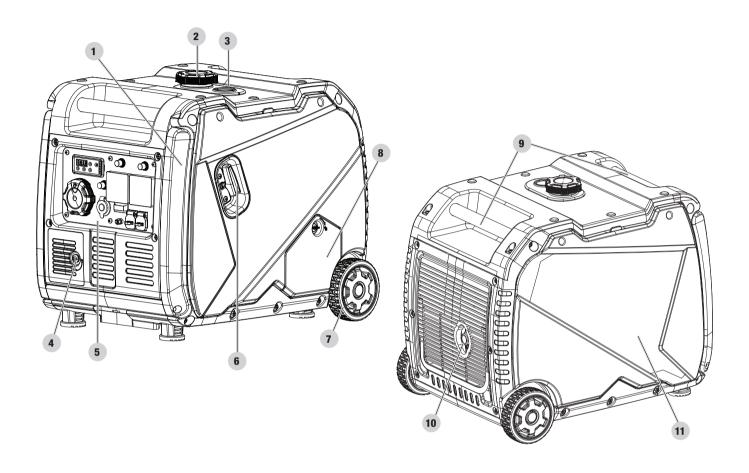
### **Wireless and Electric Start**

See page 22 in "Operation" section.

# **CONTROLS AND FEATURES**

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

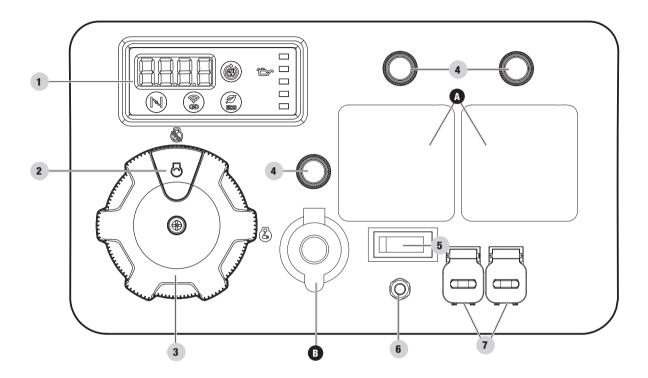
# **Generator**



- 1. **Folding Handle** Used to move unit by lifting and rolling on wheels. Do not use to lift or carry the unit.
- 2. Fuel Cap Remove to add fuel.
- 3. Fuel Gauge
- 4. Battery Access Cover
- 5. **Control Panel** See *Control Panel* section.

- 6. **Recoil Starter** Used to manually start the engine.
- 7. Never Flat Wheels -5 in. (12.7 cm)
- 8. Oil Fill Access Cover
- 9. **Carrying Handle(s)** Used to lift or carry the unit.
- 10. Muffler
- 11. Maintenance Cover

### **Control Panel**



- 1. **Intelligauge with Power Meter** See *Intelligauge with Power Meter* section.
- 2. Ignition Switch Used to START the generator.
- 3. **EZ Start Dial** Used to start and stop.
- Circuit Breakers (Push Reset) Protects the generator against electrical overloads.
- 5. **Battery Switch** Enables/disables power supply from battery for remote and electric start.
- 6. **Ground Terminal** Consult an electrician for local grounding regulations.
- 7. **Parallel Outlets** Used to parallel two inverters together for increased power output. (parallel kit sold separately).

	RECEPTACLES		
A	•	(2x) 240V AC, 13A  May be used to supply electrical power for operation of 240 Volt AC, 13 Amp, single phase, 50 Hz electrical loads.	
В		<b>12V DC, 8A (Automotive)</b> May be used to supply electrical power for operation of 12 Volt DC, 8 Amp electrical loads.	

# **A WARNING**

Do not operate a device while it is plugged into the 12V DC outlet. When 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. Prolonged exposure to engine exhaust can cause serious injury or death.

### **A WARNING**

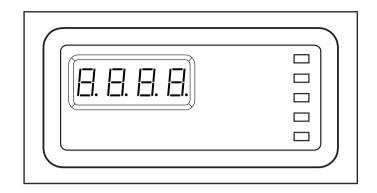
Do Not use both 240V AC and 12V DC together ONLY use one at a time separately otherwise you could damage equipment or generator.

# **Intelligauge with Power Meter**

The meter is divided into two seperate displays.

The LCD displays each mode for several seconds and then automatically cycles through.

The Power Meter LED displays output in percent (%) with 100% at the top.



MODE	DESCRIPTION		
	Output voltage of the generator.		
Voltage (V)	Example: 240 volts		
	Output frequency in hertz.		
Frequency (H)	Example: 50.0 hertz	H S O. O	
	Run time of the generator for the current session.		
Run Time (R)	Example: 6 hours	F 6. 0	
	Total run time of the generator since first operation.		
Total Run Time	Example: 16 hours	[	
	Power Output percentage.		
Power Meter	Example: 100% Output		

### **Wireless Remote Control**

This generator is equipped with a wireless remote control system for starting and stopping. The system consists of (5) main components:

- 1. Receiver Control Module (RCM)
- 2. Remote Control
- 3. Battery Switch
- 4. EZ Start Dial
- 5. Auto-Choke

### The Remote Control functions are enabled when:

- 1. The EZ Start Dial 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 wirelessly, press the "START" button on the Remote Control one time. The engine will attempt to start (6) times. The RCM controls the Auto-Choke during each attempt to start. If the generator does not start, call Champion Customer Care team for assistance at +44(0)-1942-715-407.

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

### **Remote Control Power Consumption**

While the EZ Start Dial 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 EZ Start Dial is left in the "ON" position for extended periods (several weeks), the battery can be completely drained.

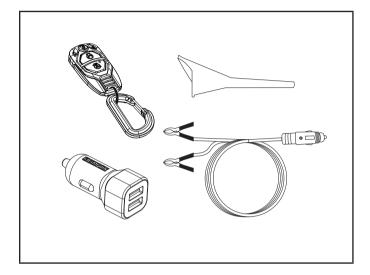
Moving the EZ Start Dial to the "OFF" position disables the Remote functions, but the RCM still consumes approximately 2 mA from the battery.

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.

# **Parts Included**

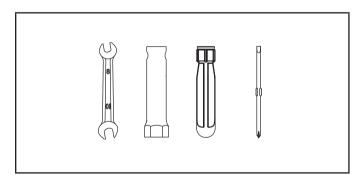
# **Accessories**

Oil Funnel
Remote Key Fob
12VDC USB Adapter
12VDC Battery Charging Cable 1



# **Tools Included**

8/10 mm Wrench
Spark Plug Socket
Reversible Phillins/Flathead Screwdriver



# **ASSEMBLY**

Your generator requires some assembly. It must be properly serviced with fuel and oil before operation.

If you have any questions regarding the assembly of your generator, call our Technical Support Team at +44(0)-1942-715-407. Please have your serial number and model number available.

# Unpacking

- 1. Set the shipping carton on a solid, flat surface.
- 2. Remove everything from the carton except the generator.
- By lifting up on the carrying handles, carefully remove the generator from the box (two people lifting is recommended).

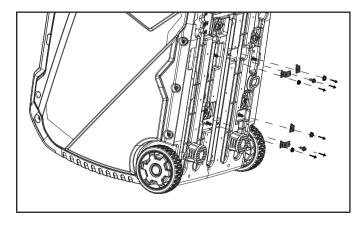
# **Remove Shipping Support Hardware**

To protect the generator during shipping, support hardware has been installed between the engine and frame. This hardware MUST BE REMOVED BEFORE adding oil or petrol to the generator.

### NOTICE

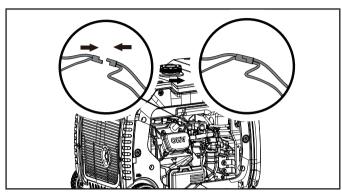
DO NOT attempt to run generator without first removing the shipping support hardware. Damage to the generator as a result of not removing the hardware will void the warranty.

- BEFORE filling the engine with oil or petrol, tip the generator onto the muffler side. Tip onto the flattened cardboard box the generator came in or other protective surface so as to not scratch the enclosure.
- Remove the four nuts and mounting plates from the bottom side of the generator using the included 8/10 mm wrench. Nuts and spacers can be discarded.
- 3. Tip the generator upright.



# **Connect the Battery**

- Remove the non recoil side maintenance cover by removing the two screws with a phillips head screw driver (not included).
- 2. Push two halves of battery connector together tightly.



# **Add Engine Oil**



### **A** CAUTION

DO NOT tip or overfill the generator otherwise it will cause degraded engine performance and(or) damage the engine resulting in voiding any warranty.

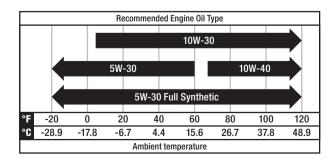
### NOTICE

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

### NOTICE

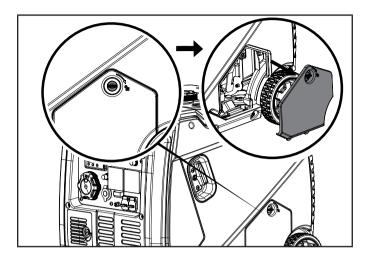
The recommended oil type for typical use is **Motul PowerX 10w30 Generator oil**. However, using the listed conventional oils shown in the "Recommended Engine Oil Type" chart may be used for typical use including the first 5 hours of the breakin run time period of the engine.

If running generator in extreme temperatures, refer to the "Recommended Engine Oil Type" chart.

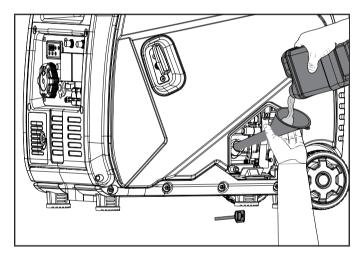


1. Place the generator on a flat, level surface.

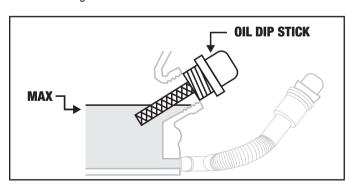
2. Turn the oil access cover fastener to the unlocked position and remove the cover.



- 3. Remove oil fill cap/dipstick to add oil.
- Using a funnel, add up to 16.9 fl. oz. (500 ml) of oil . DO NOT OVERFILL OR TIP GENERATOR WHEN FILLING OIL. Replace oil fill cap/dipstick and secure maintenance cover.



5. Check engine oil level before each use and add as needed.



# NOTICE

Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole.

When using the dipstick to check oil level, DO NOT screw in the dipstick while checking. As a general rule on a flat level surface oil is full when it can be visually seen on the middleupper threads of the port, Do Not overfill otherwise it will result it poor engine performance and(or) damage to the engine.

### NOTICE

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

### **A** CAUTION

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

# NOTICE

The first 5 hours of run time are 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 slightly and help seat piston rings. After the 5 hour break-in period, change the oil.

# NOTICE

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

### 

### **A** DANGER

Petrol vapors are highly flammable and extremely explosive.

DO NOT light or smoke cigarettes. Fire or explosion can cause severe burns or death.

Only fill or drain fuel outdoors in a well-ventilated area. DO NOT pump petrol directly into the generator. Use an approved container to transfer the fuel to the generator.

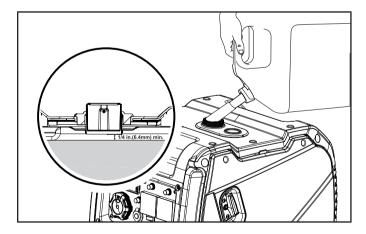
Never use a petrol container, fuel tank, or any other fuel item that is broken, cut, torn or damaged.

DO NOT overfill the fuel tank. Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.

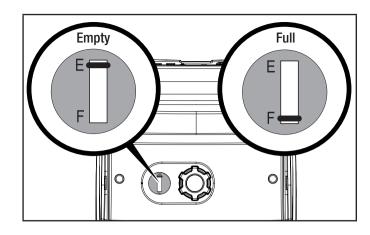
Use clean, fresh, regular unleaded petrol with a minimum octane rating of 85 and an ethanol content of 10% or less by volume.

DO NOT mix oil with petrol.

- 1. Remove the fuel cap.
- 2. Slowly add petrol to the tank. Tank is full when petrol reaches red circle on screen. DO NOT OVERFILL. Petrol can expand after filling. A minimum of ¼ in. (6.4 mm) of space left in the tank is required for petrol expansion, although more than ¼ in. (6.4 mm) is recommended. Petrol can be forced out of the tank as a result of expansion if overfilled, and can affect the stable running condition of the generator.



The approximate fuel level is shown on the fuel gauge on top of the fuel tank.



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

### **A** CAUTION

Use unleaded petrol with a minimum octane rating of 85 and an ethanol content of 10% or less by volume. (5) (60)

DO NOT light cigarettes or smoke when filling the tank.

DO NOT mix oil and petrol. Never mix oil and petrol, this is four stroke engine and requires separate oil and fuel.

DO NOT overfill the tank. Fill tank to approximately  $\frac{1}{4}$  in. (6.4 mm) below the top of the tank to allow for petrol expansion.

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

DO NOT fill tank indoors, in building and(or) any out building or vehicles

DO NOT fill tank when the engine is running or hot always allow to cool for minimum 30mins.

### **A WARNING**

Pouring petrol too fast through the fuel screen may result in petrol splashing over the generator and operator while filling.

# NOTICE

The generator engine works well with 10% or less ethanol blend petrol. When using ethanol-petrol blends there are some issues worth noting:

- Ethanol-petrol blends can absorb more water than petrol alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor. The compromised petrol can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- If a fuel stabilizer is used, confirm that it is formulated to work with ethanol-petrol blends.
- Any damages or hazards caused by using improper petrol, improperly stored petrol, and/or improperly formulated stabilizers, are not covered by manufacturer's warranty.

It is advisable to always shut off the fuel supply and run the engine to starvation after each use. See Storage instructions for extended non-use.

# **Grounding**

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

### **A WARNING**

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

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

### **Neutral Floating\***

- Neutral circuit IS NOT electrically connected to the frame/ ground of the generator.
- 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.

### **Neutral Bonded to Frame\***

 Neutral circuit IS electrically connected to the frame/ground of the generator.  The generator system ground connects lower frame crossmember below the alternator. The system ground is connected to the AC neutral wire.

# **OPERATION**

### **Generator Location**

### **A WARNING**

NEVER operate the generator inside any building, garage, basement, crawlspace, shed, enclosure or compartment, including a generator compartment of a recreational vehicle.

NEVER operate or start the generator in the back of an SUV, camper, trailer, truck bedor any vehicles (regular sides, flat or other configuration), under staircases, stairwells, next to walls or buildings or in any other location that will not allow for adequate cooling of the generator or for the proper exit of the exhaust flow from the muffler system.

DO NOT operate or store the generator in wet weather conditions such as rain or snow. Using a generator in wet conditions could result in serious injury or death due to electrocution.

In some state's generators may be required to be registered with the local utility company when used at construction sites and may be subject to additional rules and regulations, consult your local municipal authority.

Generators should always be operated on a flat, level surface at all times (even when not in operation).

Generators must have a minimum of 5 feet (1.5 m) of clearance from all combustible material.

Generators must also have a minimum of 3 feet (91.4 cm) of air flow clearance on all sides to allow for adequate performance cooling, maintenance and servicing.

Always place the generator in a well-ventilated area. NEVER place the generator near air intake vents or where exhaust fumes could be drawn into occupied or confined spaces.

Always carefully consider wind and air currents when positioning generator.

Always allow generators to properly cool before transport or for storage purposes.

Failure to follow proper safety precautions may result in personal injury, damage to the generator and void the manufacturer's warranty.

<sup>\*</sup>See your Specifications section for specified type of grounding.

### **A WARNING**

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

### **A WARNING**

Never modify or install any exhaust muffler extension or extraction otherwise it will cause degraded engine performance and(or) damage engine resulting in voiding any warranty.

**Wet Conditions Alert:** Do not expose to rain or use in damp locations except as follows:

If you must operate in rain or damp locations, DO NOT operate without proper protection of the electrical components.

Use of a safety canopy that is fire retardant and will provide proper air ventilation for the engines exhaust stream can be used. Keep all objects a minimum of 5 feet (1.5m) away from the generator at all times. Heat from the muffler surface and exhaust stream can ignite combustible materials.

Visit championpowerequipment.com or call to find your Storm Shield cover.

# **Surge Protection**

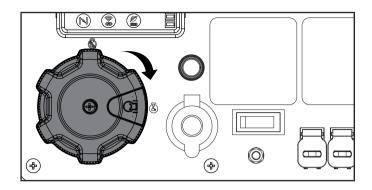
Electronic devices, including computers and many programmable appliances use components that are designed to operate within a narrow voltage range and may be affected by momentary voltage fluctuations. While there is no way to prevent voltage fluctuations, you can take steps to protect sensitive electronic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

 Install certified-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.

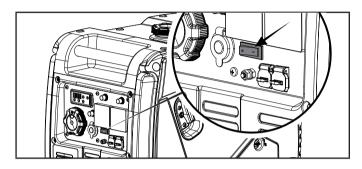
### **Wireless Set Button**

The wireless set button is a feature that lets the user synchronize the remote key fob to the generator. Up to two remote key fobs can be paired to one generator at a time. Follow the proceeding steps to reset a remote or pair two remotes:

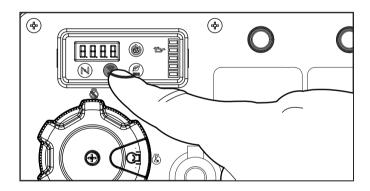
1. Turn the EZ Start Dial to the "ON" position.



2. Turn the battery switch to the "ON" position.

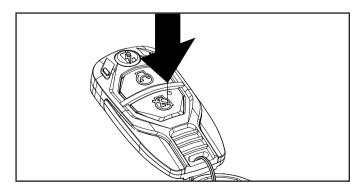


 Push and hold the wireless set button found on the Intelligauge for approximately three seconds until the button LED illuminates blue.

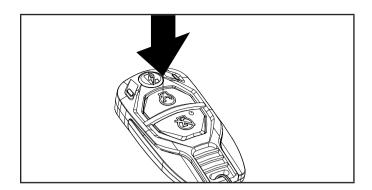


4. Push and release the STOP 🖏 button on the remote key fob.

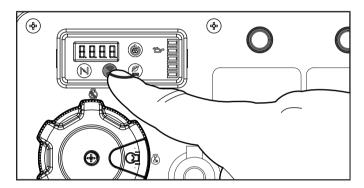
The blue LED on wireless set button will blink once to indicate program is erased and generator is ready for pairing.



5. Push and release the START **b** button on the remote key fob. The blue LED on wireless set button will blink once to indcate the remote has been programmed.



Push and hold the wireless set button approximately three seconds until the blue LED on wireless set button turns off.



7. Follow the remote START and STOP instructions to verify the remote(s) are working properly.

### NOTICE

Two remote key fobs can be paired to one generator at one time. If pairing second remote and do not want to erase programming on current remote, skip step 4.

### NOTICE

Changing a remote key fob battery may not require the user to reset the remote. If remote does not function after changing the battery, proceed with Wireless Set Button instructions.

# **Starting the Engine**

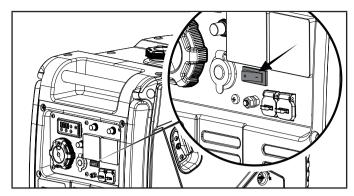
1. Make certain the generator is on a flat, level surface.

### **Wireless Remote Start**

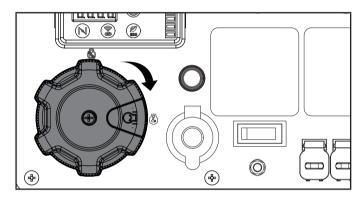
Wireless remote starting is only possible within 80 feet of the generator.

DO NOT attempt to adjust the choke. The remote system will automatically close and open the choke.

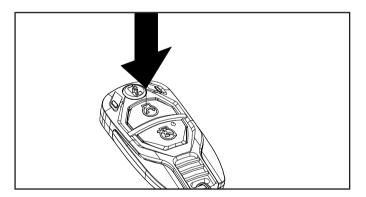
1. Push the battery switch to the "ON" position.



2. Turn the EZ Start Dial to the "ON" position.

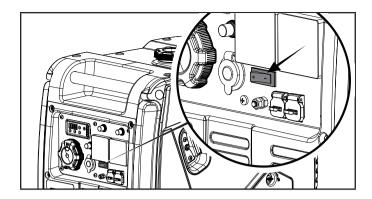


Press and release the "START" button on the remote control.
 DO NOT hold the button down, only press the button once.
 The engine will attempt to start six times.

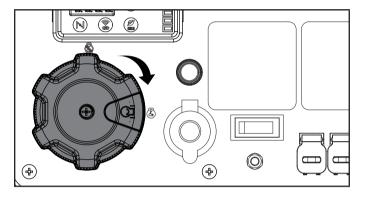


### **Electric Start**

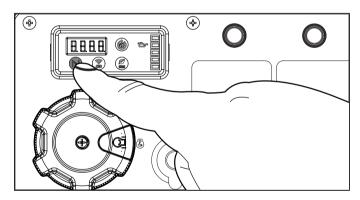
- Disconnect all electrical loads from the generator. Never start or stop the generator manually with electrical devices plugged in or turned on.
- 2. Push the battery switch to the "ON" position.



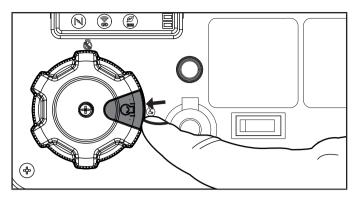
3. Turn the EZ Start Dial to the "ON" position.



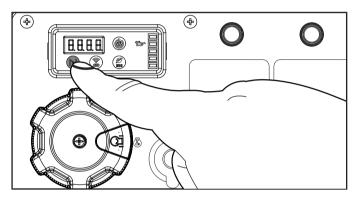
4. Push the choke button one time to set the choke to the "CHOKE" position. Choke button will illuminate when in "CHOKE" position.



5. Press and hold the yellow ignition switch on the EZ Start Dial toward the center of the dial. Release as the engine begins to start. If the engine fails to start within five seconds, release the switch and wait at least ten seconds before attempting to start the engine again.



6. Do not over-choke. As soon as engine starts, push the choke button one time to set the choke to the "RUN" position. Choke button will no longer be illuminated when in "RUN" position.

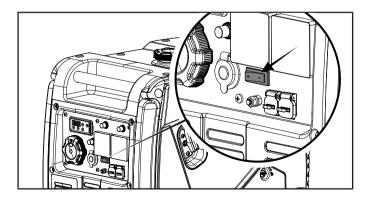


# **A** CAUTION

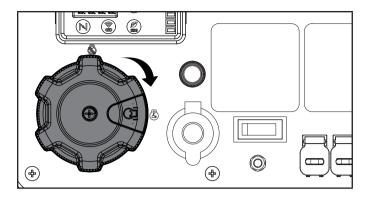
If the ignition switch is held down in the "START" position longer than 5 seconds it could damage the starter.

# **Manual Start**

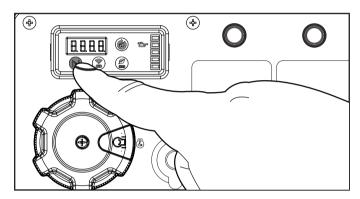
- Disconnect all electrical loads from the generator. Never start or stop the generator manually with electrical devices plugged in or turned on.
- 2. Push the battery switch to the "ON" position.



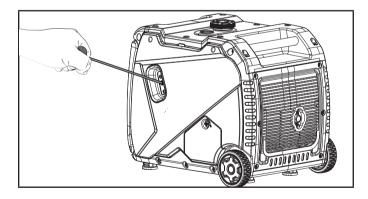
3. Turn EZ Start Dial to the "ON" position.



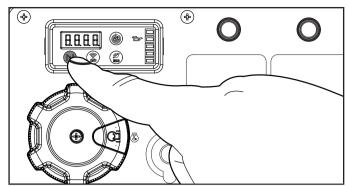
4. Push the choke button one time to set the choke to the "CHOKE" position. Choke button will illuminate when in "CHOKE" position.



Pull the recoil cord slowly until resistance is felt (compression point), then release the cord slowly back use one strong rapid pull to start, if the generator does not start repeat the process.



Do not over-choke. As soon as engine starts, push the choke button one time to set the choke to the "RUN" position. Choke button will no longer be illuminated when in "RUN" position.



# NOTICE

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

### **A WARNING**

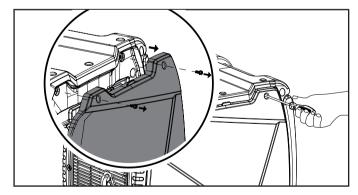
Pull the recoil cord slowly until resistance is felt (compression point), then release the cord slowly back use one strong rapid pull to start, if the generator does not start repeat process.

DO NOT rigorously or aggressively pull the recoil otherwise it will damage cord or mechanism and result in voiding your warranty.

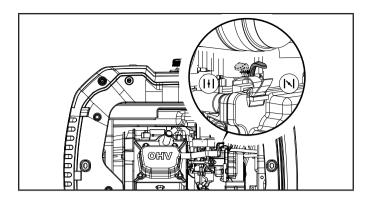
### **Manual Choke Start**

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 generator, follow these steps:

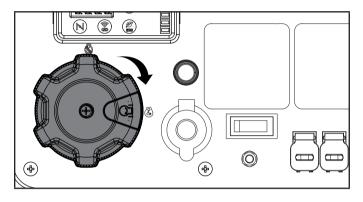
1. Loosen the two screws and remove the maintenance cover.



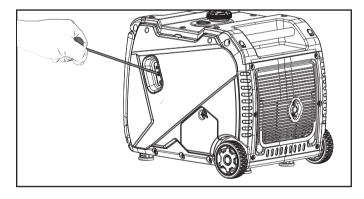
- 2. Locate the yellow manual choke lever.
- 3. Turn the choke lever to the "CHOKE" (right) position.



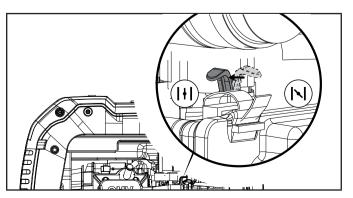
4. Turn the EZ Start Dial to the "ON" position.



Pull the recoil cord slowly until resistance is felt (compression point), then release the cord slowly back use one strong rapid pull to start, if the generator does not start repeat the process.



6. Do not over-choke. As soon as engine starts, move the choke lever to the "RUN" (left) position.



# NOTICE

For electric and manual starts only (not wireless remote start): Keep choke in "CHOKE" position for only 1 start attempt. After first start attempt, move the choke to the "RUN" position for up to the next 3 start attempts. 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.

# **Connecting Electrical Loads**

Let the engine stabilize and warm up for a few minutes after starting.

Plug in and turn on the desired 240 Volt AC single phase, 50 Hz electrical loads.

- D0 N0T connect 3-phase loads to the generator.
- DO NOT overload the generator.

### **A WARNING**

Always remember to plug your appliances directly into the generator and do not plug the generator power cord into any electrical outlet or connect to the circuit breaker panel in your home. Connecting a generator to your home's electric utility company's power lines, or to another power source, called 'backfeeding' is a dangerous practice that is illegal in many states and municipalities.

This action if done incorrectly could damage your generator, appliances and could cause serious injury or death to you or a utility worker when attempting to restore power during an outage occurrence in the neighborhood who may then unexpectedly encounter high voltage on the utility line and suffer a fatal shock.

Whether injuries occur or not, if installed incorrectly and not to applicable laws and codes, you may be subject to fines or the utility company may disconnect your home power should this practice be found in your home.

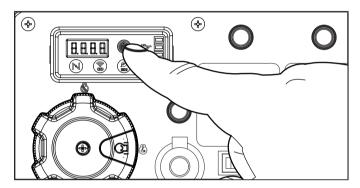
If the generator will be connected to a building electrical system, those connections must isolate the generator power from the utility power. You are responsible for ensuring your generator's electricity does not backfeed into the electric utility power lines. These connections must comply with all applicable laws and codes — Consult your local utility company or a qualified electrician to properly install this connection.

### **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.
- Identify the highest starting wattage of all devices identified in step 1. Add this number to the number calculated in step 2. Starting wattage is the surge 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.
- 4. If the generator power output is cut off due to an overload condition indicated by the AC overload blinking light, lower the load by unplugging one or more items, then press the AC overload reset button before restarting the generator for continued normal operation.



### **Power Management**

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

### Volts × 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 get up to temperature.
- 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.

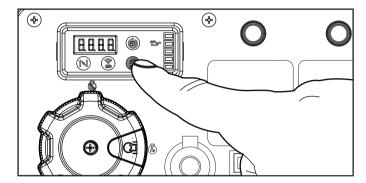
### NOTICE

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

# **Eco (Economy) Mode**

The Eco Mode button can be activated to turn on economy control in order to minimize fuel consumption and noise while operating the unit during times of reduced electrical output. Eco Mode allows 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.



### **A** CAUTION

For periods of high electrical load or momentary fluctuations, the Eco Mode should be off.

# **12V DC Automotive Style Outlet**

The 12V DC outlet(s) can be used with supplied accessories and other commercially available 12V DC automotive style plugs.

Confirm the input voltage range of your item is at least 12-24V DC.

### **A 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.

### **A** 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.

### **A WARNING**

This 12V DC socket is unregulated and it is not recommended running any piece of equipment off it otherwise you could damage equipment or generator. Do Not use both 240V AC and 12V DC together ONLY use one at a time otherwise you could damage equipment or generator.

Failure to follow these warning will result in voiding your warranty.

### **External Battery Charging**

- Before connecting the battery charging cable (not included) to a battery that is installed in a vehicle, disconnect the vehicle battery ground cable from the negative (-) battery terminal.
- 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 supplied accessories and other commercially available 12V DC automotive style plugs. Be sure all electric devices including the lines and plug connections are in good condition before connection to the generator.

### **A WARNING**

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.Do Not use both 240V AC and 12V DC together ONLY use one at a time otherwise you could damage equipment or generator.

### NOTICE

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

# **Parallel Operation**

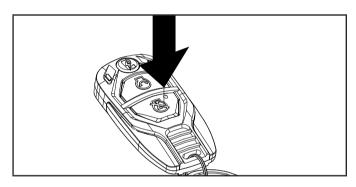
The Champion model 500987-UK is parallel ready and can be operated in parallel with another Champion unit to increase the total available electrical power. A Champion model 75500i-WL-UK parallel kit (sold separately) is required for parallel operation. For a list of compatible models or to order a parallel kit, please call customer service at +44(0)-1942-715-407 or visit www. championpowerequipment.co.uk

Detailed instructions for parallel kit installation and operation of the connected generators are provided in the parallel kit operator's manual.

# **Stopping the Engine**

### **Remote Stop**

- 1. Turn off all electrical connected loads. Never start or stop the generator with electrical devices turned on.
- 2. Let the generator run at no-load for several minutes to stabilize internal temperatures of the engine and generator.
- 3. Press the "STOP" button on the remote.



### NOTICE

Engine will shut off but the battery switch and EZ Start Dial will remain in the "ON" position waiting for the next start instruction.

To completely shut down the generator, make sure the EZ Start Dial and battery switch are in the "OFF" position when the generator will not be used for an extended period of time.

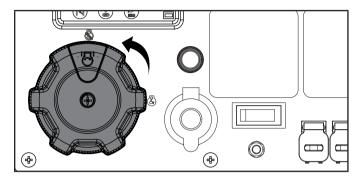
### NOTICE

Battery power is drawn while the generator is in standby mode (battery switch ON).

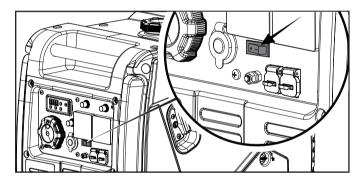
Do not leave generator in standby mode for an extended period of time or the battery will be completely drained and the wireless remote and electric start feature will no longer function.

### **Manual Stop**

- Turn off and unplug all electrical connected loads. Never start or stop the generator with electrical devices plugged in or turned on.
- Let the generator run at no-load for several minutes to stabilize internal temperatures of the engine and generator.
- 3. Turn the EZ Start Dial to the "OFF" position.



4. *If battery switch is in the "ON" position,* press the battery switch to the "OFF" position.



**Important:** Always ensure that the EZ Start Dial and battery switch are in the "OFF" position when the generator will not be used for an extended period of time.

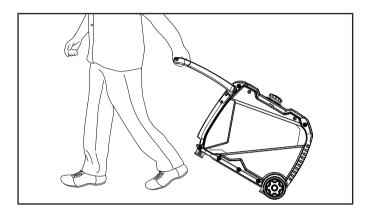
# NOTICE

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.

# **Moving the Generator**

- NEVER lift or carry the generator using the folding handle.
- ALWAYS place the generator on its wheels in the upright position.
- ALWAYS turn the generator off.
- ALWAYS make sure engine and muffler are cooled down before the generator can be handled safely (typically 30 minutes).

- Begin by raising the folding handle, found on opposite side of wheels
- 2. Using the handle, tilt the end of the generator slightly off the ground until balanced on the wheels.
- 3. While maintaining balance, roll the generator to the desired location.



- NEVER tilt sideways while moving the generator.
- Failure to follow these instructions could result in personal injury or damage to the generator.

# **Operation at High Altitude**

The density of air at high altitudes 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 ft. of elevation above sea level. 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, CPE can provide a high altitude carburetor main jet. The alternative main jet and installation instructions can be obtained by contacting our Technical Support Team. Installation instructions are also available in the Technical Bulletin area of the CPE website.

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

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 high altitude jet part number corresponding to the carburetor code found on your particular carburetor.

Carb. Code	High Alt. Jet Part Number	Min. Altitude
16161- Z090510-	16161-Z090410-00A0	3000 ft. (914 m)
00A0	16161-Z140310-00A0	6000 ft. (1829 m)

### **A 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 originally supplied 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**

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.

### **A WARNING**

Never operate a damaged or defective generator.

### **A WARNING**

Improper maintenance will void your warranty. The owner/ user is responsible for service and maintenance of the generator including oil, spark plug, spark arrestor, filters and valve adjustments. Improper servicing or maintenance of this generator will void any warranty.

### NOTICE

For Emission control devices and systems, read and understand your responsibilities for service as stated in the Emission Control Warranty Statement of this manual.

The owner/operator is responsible for all periodic maintenance.

Complete all scheduled maintenance in a timely manner.

Correct any issue before operating the generator.

For service or parts assistance, contact our Technical Support Team at +44(0)-1942-715-407.

# **Cleaning the Generator**

### **A** CAUTION

DO NOT spray, jet or pressure wash generator directly with water.

Water can enter the generator through the cooling slots and damage the generator windings. It can also contaminate the fuel system.

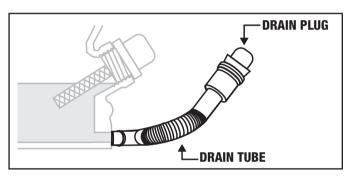
- 1. Use a damp cloth to clean exterior surfaces of the generator.
- 2. Use a soft bristle brush to remove dirt and oil.
- 3. Use an air compressor (25 PSI) to clear dirt and debris from the generator.
- 4. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

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

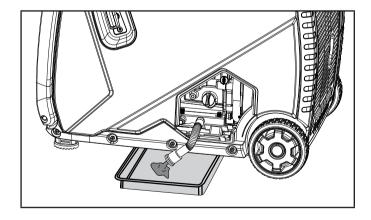
# **Changing the Engine Oil** (Champion PowerX 10w30 oil)

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

- 1. Place the generator on a flat level surface.
- 2. Turn the oil access cover fastener to the unlocked position and remove the cover.
- 3. Remove the oil drain plug by turning it counter clockwise.



4. Ensure the oil drain hose is lower than the engine and allow the oil to drain completely into an appropriate container.



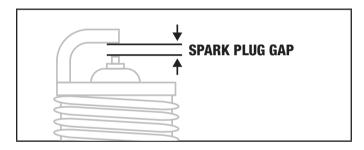
- 5. Replace the oil drain plug.
- Add oil according to Add Engine Oil in Assembly section.
   DO NOT OVERFILL. Oil not included for routine maintenance.
- Dispose of used oil at an approved waste management facility.

# NOTICE

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. As a general rule on a flat level surface oil is full when it can be visually seen on the middle-upper threads of the port, Do Not overfill otherwise it will result it poor engine performance and(or) damage to the engine.

# **Cleaning and Adjusting the Spark Plug**

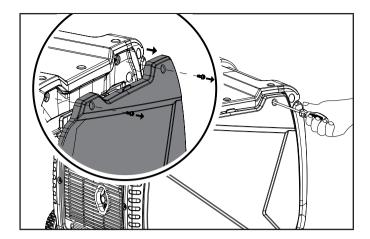
- Remove the non recoil side maintenance cover by removing the two screws with a phillips head screw driver (included).
- 2. Remove the spark plug cable from the spark plug.
- Use a spark plug socket tool (included), or a 13/16 in. (21 mm) socket (not included) to remove the plug.
- 4. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
- 5. Make certain the spark plug gap is 0.028-0.031 in. (0.7-0.8 mm).



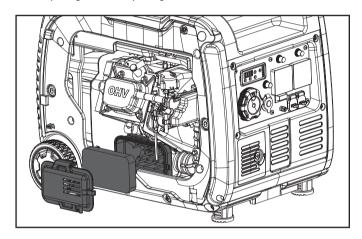
- Refer to the spark plug types in *Specifications* when replacing the plug.
- 7. Firmly re-install the plug.
- 8. Attach the spark plug cable to the spark plug.
- 9. Reinstall the maintenance cover.

# **Cleaning the Air Filter**

 Remove the non recoil side maintenance cover by removing the two screws with a phillips head screw driver (included).



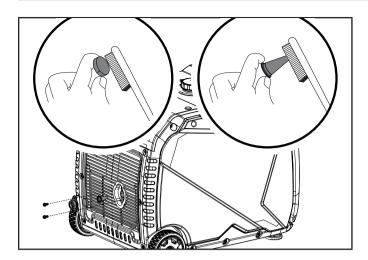
2. Locate the air filter plastic cover and remove by pinching the clips together and pulling the cover off.



- 3. Remove the foam element.
- 4. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
- 5. Saturate in clean engine oil.
- 6. Squeeze in a clean, absorbent cloth to remove all excess oil.
- 7. Place the filter in the assembly.
- 8. Reattach the air filter cover.
- 9. Reinstall the maintenance cover and tighten the cover screw securely.

# **Cleaning the Spark Arrestor**

- Allow the engine to cool completely before servicing the spark arrestor.
- 2. Remove the two screws holding the cover plate which retains the spark arrestor to the muffler.
- 3. Remove the spark arrestor and spark arrestor screen.
- 4. Carefully remove the carbon deposits from the spark arrestor and spark arrestor screen with a wire brush.



- Replace the spark arrestor and spark arrestor screen if it they damaged.
- 6. Position the spark arrestor and spark arrestor screen on the muffler and cover plate and screws removed in step 2.

### **A** CAUTION

Failure to regularly check or clean the spark arrestor will result in degraded engine performance and(or) damage the engine. Recommended every 100 hours check or clean spark arrestor.

### NOTICE

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

# **Generator Battery**

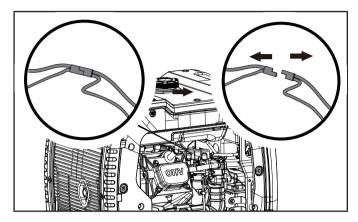
Your generator is equipped with an automatic battery charging circuit that charges the battery while the engine is running. The battery will maintain a proper charge if the unit is used at least once every 180 days for 2 hours with ECO mode off. If it is used less frequently, the battery should be connected to a trickle charger or battery maintainer (not included) to keep the battery properly charged.

Maximum charging rate should not exceed 1.6 amps. Follow the instructions included with the battery charger. The battery should be fully charged at least twice per year. 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.

### **Disconnect the Battery**

1. Pull two halves of battery connector apart.



### **Charge the Battery**

For a generator equipped with batteries for electric starting, proper battery maintenance and storage should be followed. A trickle charger or battery maintainer should be used to charge the battery while the generator is in storage. Maximum charging rate should not exceed 1.6 amps. Follow the instructions included with the trickle charger or battery maintainer. The battery should be fully charged at least once per month.

- 1. Remove the battery from the generator.
- 2. Charge battery following the battery charger's instructions.
- 3. After charging, leave the battery for 0.5 to 1 hour before checking the voltage. If the voltage is less than 12.8 volts, additional charging is necessary.

### NOTICE

Electrolyte inside the battery is harmful to skin and eyes. If the battery leaks and electrolyte gets in your eyes, do not rub them. Instead, rinse them with clean running water and immediately seek medical attention. If left untreated, electrolyte can cause permanent eye injury.

### NOTICE

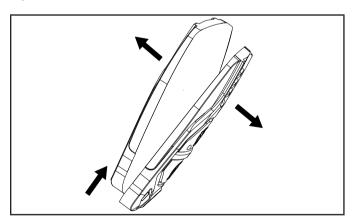
- Do not charge the battery with charging voltage over 15.0V and charging current over 1.6A.
- Do not charge the battery below 32°F (0°C) or above 113°F (45°C).
- If the battery becomes hot to the touch, stop charging.
   Allow battery to cool before resuming.

# **Remote Key Fob Battery**

Batteries have a shelf life and after time used or unused will deteriorate

### NOTICE

- 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.
- 1. Remove the remote key fob from the key ring.
- 2.Remove the screw with a Phillips screwdriver (not included) by turning anti-clockwise.
- 3.Pry the two halves of the remote key fob apart slightly at the key ring end gently with a small flat headed screwdriver
- 4.Separate the two halves of the remote key fob gently by sliding the back side of the remote key fob up toward the key ring end.
- 5.Carefully remove the circuit board to locate and replace the CR2016 battery.
- 6.Reverse these instructions from 5:1 to reassemble the remote key fob.



After a battery change if your remote transmitter doesn't work you will need to pair your remote transmitter again, please follow the instructions in this manual to reprogramme transmitter to the receiver.

# **Adjusting the Governor**

### **A WARNING**

Tampering with the factory set governor will void your warranty.

The air-fuel mixture is not adjustable. Tampering with the governor can damage your generator and your electrical devices and will void your warranty. Contact our Technical Support Team at +44(0)-1942-715-407 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 Technical Support Team at +44(0)-1942-715-407 to locate the nearest CPE certified service dealer for your generator or engine maintenance needs.

### **EVERY 8 HOURS OR PRIOR TO EACH USE**

- □ Check oil level
- Clean around air intake and muffler

### **FIRST 5 HOURS (BREAK IN)**

☐ Change oil (Champion PowerX 10w30 oil Recommended)

### **EVERY 50 HOURS OR ANNUALLY**

- Clean air filter
- ☐ Change oil if operating under heavy load or in hot environments

### **EVERY 100 HOURS OR ANNUALLY**

- ☐ Change oil (Champion PowerX 10w30 oil Recommended)
- ☐ Clean/adjust spark plug
- Clean spark arrestor
- Clean fuel valve filter\*

### **EVERY 250 HOURS**

- ☐ Clean combustion chamber\*
- ☐ Check/adjust valve clearance\*

### **EVERY 3 YEARS**

☐ Replace fuel line\*

<sup>\*</sup>To be performed by knowledgeable, experienced owners or CPE certified service centers.(charges apply).

# **STORAGE**

### **A WARNING**

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

 When storing the generator make sure the EZ Start dial is set to the "OFF" position.

# **Short Term Storage (up to 30 days)**

Petrol in the fuel tank has a maximum shelf life of up to 1 year with the addition of properly formulated fuel stabilizers and if stored in a cool, dry place. Petrol in the carburetor, however, may gum up and clog the carburetor if it isn't used or drained within 2-4 weeks.

If using the generator within 2 weeks, follow the steps according to *Stopping the Engine* section.

- If not using the generator for 2-4 weeks, begin by making sure all appliances are disconnected from the generator.
- 2. Start the generator as instructed in *Starting the Engine* section.
- Let the engine run until fuel starvation has stopped the engine.
- 4. After the engine stops, turn the EZ Start dial counterclockwise to the "STOP" position.

# Mid Term Storage (30 days - 1 year)

Petrol in the tank has a maximum shelf life of up to 1 year with the addition of a properly formulated fuel stabilizer and stored in a cool, dry place.

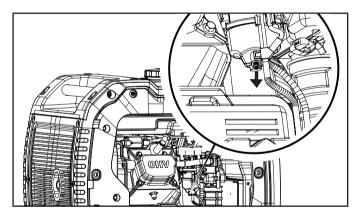
- 1. Be sure all appliances are disconnected from the generator.
- 2. Add a properly formulated fuel stabilizer to the fuell tank.
- 3. Start engine by following directions in the *Starting the Engine* section.
- 4. Run the generator for 10 minutes so the treated petrol cycles through the fuel system and carburetor.
- Let the engine run until fuel starvation has stopped the engine.
- After the engine stops, turn the EZ Start dial counterclockwise to the "STOP" position.
- 7. After fuel has run out and the engine has stopped, allow the engine to cool.
- 8. Remove the non recoil side maintenance cover by removing the two screws with a phillips head screw driver (included).
- 9. Remove the spark plug and pour about a tablespoon of oil into the cylinder.

- 10. SLOWLY pull the recoil to rotate the engine to distribute and lubricate the cylinder.
- 11. Re-install the spark plug and spark plug wire.
- 12. Re-install the maintenance cover.
- 13. Clean the generator according to Cleaning the Generator.
- 14. Store the generator in a cool, dry place out of direct sunlight.

# **Long Term Storage (more than 1 year)**

For storage over 1 year, the fuel tank and carburetor must be completely drained of petrol.

- 1. Be sure all appliances are disconnected from generator.
- 2. Place inverter on blocks to allow appropriate petrol container or pan to slide under inverter.
- 3. Remove the non recoil side maintenance cover by removing the two screws with a phillips head screw driver (included).
- 4. Disconnect the battery by pulling the two halves of battery connector apart.
- 5. Turn the EZ Start dial clockwise to the full "ON" position.
- Using a flat head screwdriver, rotate drain screw counterclockwise (3) full turns. Petrol will drain through clear tubing out underneath the inverter. Make sure draining petrol empties into an appropriate container.



- When petrol stops flowing from the clear tube, rotate drain screw clockwise until tight. Properly dispose of the drained petrol according to local regulations or guidelines.
- 8. Turn the EZ Start dial to the "STOP" position.
- 9. Follow steps 8-12 according to Short Term Storage.

# **Removing from Storage**

### NOTICE

If the generator has been improperly stored for a period longer than 30 days with ethanol blended petrol in the fuel tank and/or carburetor, all fuel must be drained and the carburetor must be thoroughly cleaned of ethanol build up. This process involves technically advanced tasks. For assistance please call our Technical Support Team at +44(0)-1942-715-407.

If the fuel tank and carburetor were properly emptied of all ethanol blended petrol prior to the generator being stored, follow the below steps when removing from storage.

- 1. Be sure the EZ Start dial is in the "STOP" position.
- 2. Add petrol to the generator according to Add Fuel.
- 3. Move the EZ Start dial to the "ON" position.
- 4. After 5 minutes check the carburetor and air filter areas for any leaking petrol. If any leaks are found, the carburetor will need to be disassembled and cleaned or replaced. If no petrol leaks are found, turn the EZ Start dial to the "STOP" position.
- 5. Check engine oil level and add clean, fresh oil if needed. See *Oil Specifications* for proper oil type.
- Check and clear air filter of any obstructions such as bugs or cobwebs. If necessary, clean air filter according to *Cleaning* the Air Filter.
- 7. If disconnected, connect the battery by pushing the two halves of battery connector together tightly.
- 8. Start the generator according to Starting the Engine.

# **SPECIFICATIONS**

# **Generator Specifications**

Generator Model	500987-UK
Start Type	Wireless, Electric, Manual
Watts (Max/Running)	3600/3500
Volts AC	240
AC Amps @ 240V	
Volts DC	12
DC Amps	8
Frequency	50 Hz
Max site altitude of installation	1500m
Measured sound pressure level (7m).	68 dB(A)
Measured sound pressure level (4m).	72 dB(A)
Noise measurement uncertainty	≤1.5 dB(A)
Guaranteed sound power level	96 dB(A)
Phase	Single
Grounding Type	Neutral Floating
Weight	99.6 lb. (45.2 kg)
Length	23.2 in. (59 cm)
Width	17.7 in. (45 cm)
Height	20.1 in. (51 cm)

# **Engine Specifications**

Model	R210-V
Displacement	212 cc
Type	4-Stroke OHV
Spark Plug	
OEM Type	F6RTC
Replacement Type	NGK BPR6ES or equivalent
Gap	0.028-0.031 in. (0.7-0.8 mm)
Valve	
Intake Clearance	0.002-0.006 in. (0.05-0.15 mm)
Exhaust Clearance	0.002-0.006 in. (0.05-0.15 mm)

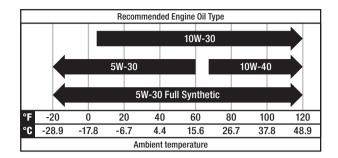
### NOTICE

A technical bulletin regarding valve adjustment procedures is available at www.championpowerequipment.co.uk

# **Oil Specifications**

DO NOT OVERFILL.

Type	*See following chart
Capacity	16.9 fl. oz. (500 ml)



# NOTICE

Temperature will affect engine oil and engine performance. Change the type of engine oil used based on temperature shown in the "Recommended Engine Oil Type" table.

# **Fuel Specifications**

Use unleaded petrol with a minimum octane rating of 85 and an ethanol content of 10% or less by volume. DO NOT USE E15 or E85. DO NOT OVERFILL.

Fuel Capacity 2	.3 gal.	. (8.5 L)
-----------------	---------	-----------

# **Battery Specifications**

Type	Rechargeable, Lithium Ion
Volts DC	
Capacity	1.6 Ah
Replacement	. Contact Customer Service

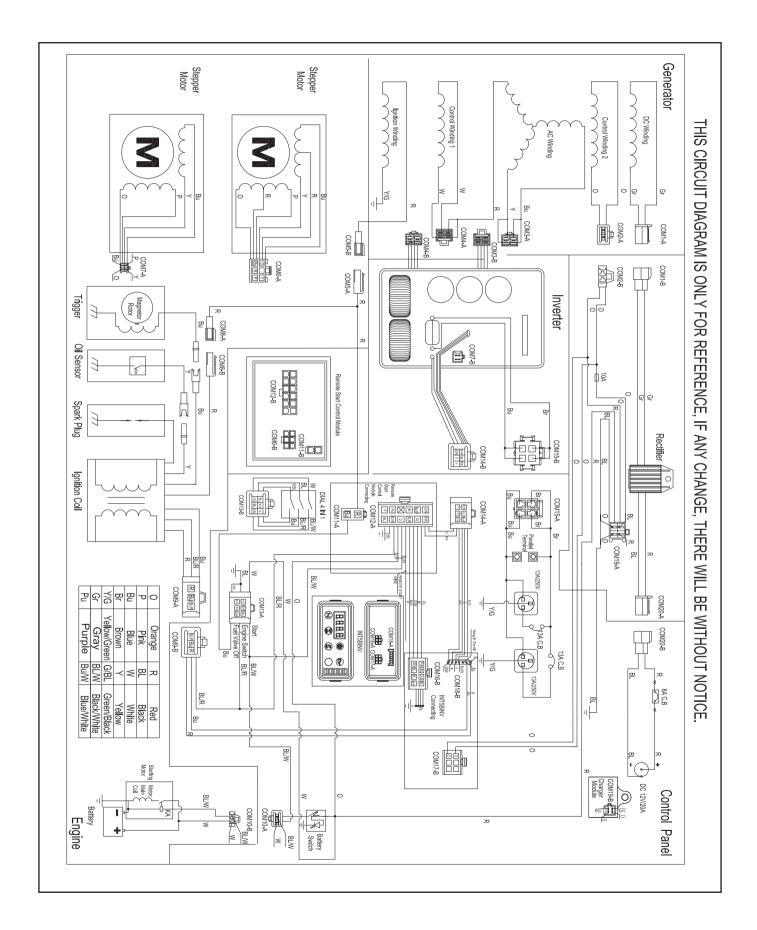
# **Temperature Specifications**

Manual Startin	ng Temperature Range (°F/°C)	5 to 104/-15 to 40
Remote and El	lectric Starting Temperature	
Range (°F/°C)		23 to 104/-5 to 40

### NOTICE

An important message about temperature: Your product is designed and rated for continuous operation at ambient temperatures up to 104°F (40°C). When needed, it may be operated at temperatures ranging from 5°F (-15°C) to 122°F (50°C) for short periods of time. If 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 vents.

# **Wiring Diagram**



# **Engine Parts List**

#	Part Number	Description	Qty.
1	16002-Z950110-00A0	Carburetor Insulator Gasket	1
2	16003-Z1D0110-00A0	Carburetor Insulator Plate	1
3	16001-Z010110-00A0	Carburetor Gasket	1
4	16100-Z1D0510-00A1	Carburetor Assembly	1
10	16112-Z010110-0000	Seal Ring, Float	1
	16161-Z090510-00A0	Main Jet (H128×0.68)	1
11	16161-Z090410-00A0	Main Jet (H128×0.71), Altitude 3000-6000 Feet	/
	16161-Z140310-00A0	Main Jet (H128×0.74), Altitude 6000-8000 Feet	/
12	90681-Z010610-0000	Seal Ring	1
5	16652-Z800110-00A0	Fuel Filter	1
6	90685-D090-0EA0	Clamp, Ø9 x Ø0.8 x 8, Army Green Zinc	1
7	90686-YBW0310- 00M0	Fuel Tube, Ø4.5 x Ø8.5 x 260	1
8	17001-Z1D0110-00A0	Air Cleaner Gasket	1
9	30431-YBW0210-00A1	Rubber Sleeve	1

# **TROUBLESHOOTING**

Problem	Cause	Solution
	No fuel.	Add fuel.
	Faulty spark plug.	Clean and adjust spark plug or replace.
	Laurail laurai	Fill crankcase to the proper level.
Faring will not stort	Low oil level.	Place generator on a flat, level surface.
Engine will not start.	Spark plug wire loose.	Attach wire to spark plug.
	EZ Start dial is in "STOP" position.	See "Starting the Engine" section.
	Old fuel or water in fuel.	Drain fuel and replace with fresh fuel.
	Flooded with fuel.	Let unit stand for 10 mins.
	Choke in the wrong position.	Press choke button until no longer illuminated green. If battery dead, turn choke lever to "RUN" position.
Engine starts but runs roughly.	Dirty air filter.	Clean or replace air filter.
	Dirty fuel valve.	Clean the fuel valve.
	Clogged spark arrestor.	Clean spark arrestor.
	Remote control battery is dead.	Replace remote control battery.
	Generator battery is dead.	Start manually and allow battery to recharge or see "Charge the Battery Section".
Engine will not start wirelessly.	Battery switch is in the OFF position.	Turn battery switch to ON position.
	Generator out of range of remote signal.	Remote must be with 80 feet of generator.
	Obstructions in between generator and remote.	Clear line of site between generator and remote.
Engine will not start electrically.	Generator battery is dead.	Start manually and allow battery to recharge or see "Charge the Battery Section".
	Battery switch is in the OFF position.	Turn battery switch to ON position.
	Out of fuel.	Fill fuel tank.
Engine shuts down during operation.	Low oil level.	Fill crankcase to the proper level. Place generator on a flat, level surface.
	Clogged spark arrestor.	Clean spark arrestor.
Generator cannot supply enough power or overheating.	Generator is overloaded.	Review load and adjust. See "Connecting Electrical Loads."
	Dirty air filter.	Clean or replace air filter.
	Choke in wrong position.	Press choke button until no longer illuminated green. If battery dead, turn choke lever to "RUN" position.
Engine is running but no AC output.	Poor cord connection.	Check all connections.
	Circuit breaker is open.	Reset circuit breaker.
	AC Overload: Button illuminated red.	Reduce AC load and press Overload Reset Button until illuminated green.
	Loose wiring.	Inspect and tighten wiring connections.
	Other.	Contact the help line.

Problem	Cause	Solution
Engine hunts or falters.	Engine governor defective.	Contact the help line.
	Dirty fuel valve.	Clean the fuel valve.
	Carburetor is dirty and running lean.	Contact the help line.
	EZ Start dial in wrong position.	Press choke button until no longer illuminated green. If battery is dead, turn choke lever to the "RUN" position.
Repeated circuit breaker tripping.	Overload.	Review load and adjust. See "Connecting Electrical Loads."
	Faulty power cords or device.	Check for damaged, bare or frayed wires. Replace defective device.
	Circuit breaker still too hot.	Let unit sit for 5 mins.

# For other issues and technical support:

Technical Support Team
Toll Free +44(0)-1942-715-407
support@championpowerequipment.co.uk

# **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.co.uk

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 (3) years for domestic usage and One (1) Year 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. For full T&C's please visit www.championpowerequipment.co.uk.

# 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,improper servicing 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 stickers, labels, etc.
- Service or worn items such as oil, spark plugs, spark arrestors, filter elements, piston & rings and O-rings, etc
- Accessory parts such as starting batteries (After 1 year), hoses, regulators, valves, recoils assemblies 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 country to country. This warranty is ONLY written for the GB and terms may be different for any other country.

### **Contact Information**

Winch Solutions Itd
Unit 17-18 Bradley Trading Estate
Standish WN6 0XQ / UK
www.championpowerequipment.co.uk
support@cpeeurope.co.uk