

# 909

## User Manual

**52299**

**3500W INVERTER GENERATOR  
WITH PURE SINE WAVE**



**[www.909.com](http://www.909.com)**

Read all safety warnings and all instructions thoroughly before operating this product.

# Contents

Pack contents / parts	2
Intended use of the 3500W Inverter Generator with Pure Sine Wave	2
Contents of carton	2
Description of symbols	3
General safety warnings	4
Additional Safety Rules for Petrol Products	6
Risk of electrocution and fire	8
Risk of fire	9
Risk of injury and property damage when transporting generator	10
Risk of breathing – inhalation hazard	10
Risk of unsafe operation	10
Risk of hot surfaces	11
Risk of moving parts	11
Risk from lifting	11
Parts List	12
Inverter technology	14
Assembly / Compact Stand Alone Assembly	15
Portable Wheeled Typed Generator Assembly	16
Assembly of the Main carry handle	17
Indicators	18
Preparing the Generator	19
Checking the Engine Fuel	19
Checking the Engine Oil	20
Engine Oil Replacement	21
Starting the Engine	22
Stopping the Engine	23
Failure of the Motor On/Off Switch	23
240V AC Connection	24
Connecting apparatus to the Generator	24
Overload condition	25
Carbon build up	25
Periodic Maintenance	26
Generator Maintenance	27
Storage	27
Spark Plug	28
Air Filter	29
Fuel Tank Filter	30
Tap Outlet Fuel Filter	31
Cleaning	32
Environmental protection	33
Service Support	33
Troubleshooting	34
Specifications	35

## Pack contents / parts

Congratulations on the purchase of your 909 3500W Inverter Generator with Pure Sine Wave. When you open your packaging, first remove all items and check there are no parts damaged or missing. If you find anything wrong, do not operate the product until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

**NOTE:** This is a 4 stroke Inverter Generator.

The engine **MUST** be filled with 600ml of SAE 10W-30 **BEFORE** starting. Fresh unleaded fuel must be used in this unit. Do NOT use Ethanol based fuels. Do NOT mix oil with fuel.

**NOTE:** First time users or inexperienced operators pay particular attention to the operation of the Generator, including details of starting and stopping and correct use of the Generator on pages 19-23, as well as the maintenance instructions on pages 26-31.

### Intended use of the 3500W Inverter Generator with Pure Sine Wave

**NOTE:** This product is for private domestic DIY use only.

It is not suitable for commercial or trade use.

This product is suited for home, camping and caravan applications & domestic house hold mains failure back up. It will allow you to power outdoor lights, power tools, home appliances including sensitive electronic equipment, including televisions and computers.

**NOTE:** For sensitive equipment like computers, sound systems, televisions, microwaves etc, it is highly recommended to have a surge protector connected to the generator.

**NOTE:** This petrol Generator is NOT suitable for:

- \* Marine applications, and should never be used on board water craft
- \* Continuous off the grid power

### Contents of carton

1 x 3500W Inverter Generator	2 x Wheels (+ 2 x assembly bolts, nuts, spring washer & flat washer)
1 x Instruction Manual	
1 x Quick Start Guide	4 x Feet (+ 4 x assembly hex head screws, nuts, spring washer & flat washer)
1 x 10mm Tube Spanner	1 x Wheel Foot (+ 1 x assembly hex head screw)
1 x 21mm Spark Plug Tube Spanner	1 x Handle Assembly (+ 2 x assembly screws & nyloc nuts)
1 x Multi Size Spanner	
1 x Double Ended Screwdriver (Phillips and flat)	

## Description of symbols

The rating plate on your Inverter Generator may show symbols. These represent important information about the product or instructions on its use.



Conforms to relevant standards for electrical safety and electromagnetic compatibility.



Wear hearing protection. Wear eye protection. Wear breathing protection.



Wear safety footwear.



Wear safety gloves.



Fuel Tap (direction of operation).



240V.a.c AC Outlet.



Warning.



Read these instructions for use carefully.



Low Oil Indicator.



Load Status indicator. (Refer to the instruction manual for advice)



Power Supply indicator.



Never use in the home or in partly enclosed areas such as a garages.



Exhaust contains carbon monoxide, a poisonous gas you cannot see or smell.



Explosive material. Do not operate in a hazardous location such as areas where there is a risk of explosion of petrol fumes, leaking gas or explosive dust.



Extremely hot surface. Do not touch a hot muffler, gear box or cylinder, you may get burned. These parts get extremely hot from operation and remain hot for a short time after the unit is turned off.



Choke Control.



## General safety warnings



**WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in fire and/or serious injury.**

**The word power tool used in the following warnings and throughout this manual refers to petrol driven power tools and Generators.**

This unit may not be used by people (including children) with reduced physical, sensory or mental capacities, with a lack of experience and without the appropriate knowledge, unless they are supervised by someone who is responsible for their safety or have been instructed by such a person with regard to how the unit is to be operated. Children should be supervised to ensure that they do not play with the device.

Non-skilled persons and first time users should read and understand the full instruction manual before proceeding with use of the product or recommended maintenance tasks.

**Save all warnings and instructions for future reference**

### 1. Work area safety

- a. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents. Rags, cloths, cord, string and similar items should never be left around the work area.
- b. **Do not operate power tools in explosive environments, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks, which may ignite the dust or fumes.
- c. **Keep children and bystanders away while operating a power tool.** Distractions can cause the operator to lose control.

### 2. Personal safety

- a. **Stay alert, watch what you are doing and use common sense when operating a power tool.** Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection will reduce personal injuries.

- c. **Prevent unintentional starting.** Ensure the switch is in the "off" position when starting, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or key left attached to a rotating part of the power tool may result in personal injuries.
- e. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f. **Dress properly. Do not wear loose clothing or jewellery.** Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

### 3. Product use and care

- a. **Do not force the product.** Use the correct product for your application. The correct product will do the job better and safer at the rate for which it was designed.
- b. **Do not use the product if the switch does not turn it "on" and "off".** Any product that cannot be controlled with the switch is dangerous and must be repaired.
- c. **Ensure the product is switched off before making any adjustments, changing accessories, or storing the product.** Such preventive safety measures reduce the risk of starting the product accidentally.
- d. **Store idle products out of the reach of children and do not allow persons unfamiliar with the product or these instructions to operate the product.** Generators are dangerous in the hands of untrained users.
- e. **Maintain products with care.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the product's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained products.
- f. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g. **Use the product, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the product for operations different from those intended could result in a hazardous situation.

## Additional Safety Rules for Petrol Products

### Additional safety rules for Generators

- The generator is supplied with lifting handles on each side of the generator, and when lifting, two operators should lift the generator together.
- The generator can also be fitted with wheels, and if these are fitted, the generator can be moved with the additional front lifting handle by one person.
- DO NOT OPERATE IN A HAZARDOUS LOCATION. SUCH AREAS INCLUDE WHERE THERE IS A RISK OF EXPLOSION OF PETROL FUMES, LEAKING GAS OR EXPLOSIVE DUST.
- DO NOT OPERATE IN A CONFINED AREA. EXHAUST GASES, SMOKE OR FUMES COULD REACH DANGEROUS CONCENTRATIONS.
- THE OUTPUT OF THIS GENERATOR IS POTENTIALLY LETHAL. THE GENERATOR SHOULD NOT BE CONNECTED TO A FIXED ELECTRICAL INSTALLATION EXCEPT BY AN APPROPRIATELY LICENSED PERSON.
- Protect your generator. This generator is NOT WEATHERPROOF and should not be exposed to direct sunlight, high ambient temperature and damp, wet or high humidity conditions.
- Do not smoke while refuelling. This is potentially dangerous as it may ignite the fuel and cause an explosion.
- Take care not to spill fuel. When refuelling the generator ensure that the motor has been switched off. Prevent the spilling of fuel as this may also ignite with the hot motor.  
Never refuel whilst the engine running.
- Be careful where you store the generator. Store the generator in a dry area away from inflammable liquids.
- Keep your distance. The generator emits exhaust fumes. As a safety precaution do not stand close to the unit whilst it is in operation. Ensure bystanders also keep their distance.

## Additional Safety Rules for Petrol Products

- Locate the generator for use in a convenient place so as to use the shortest extension lead as possible, but still sufficiently away from the exhaust fumes.
- Ensure the generator has oil. Before commencing the generator, ensure that the unit has been filled with SAE 10W-30 4 stroke oil.
- Any extension cable should be of heavy duty, 3 core and rated to 15A, and suitable for outdoor applications.
- Never fill fuel tank indoors. Never fill fuel tank when engine is running or hot. Do not smoke when filling fuel tank.
- NEVER REFUEL WHEN THE GENERATOR IS RUNNING. Switch the generator to the off position prior to removing the fuel cap and refuelling.
- Not suitable for ethanol fuels.
- Engine speed has been factory set to provide safe operation. Tampering with the engine speed adjustment could result in overheating of attachments and could cause a fire. Never attempt to "speed-up" the engine to obtain more performance. Both the output voltage and frequency will be thrown out of standard by this practice, endangering attachments and the user.
- Do not parallel connect this generator with another generator, or any other power supply.

**You MUST unplug any load from the generator before starting and stopping to prevent permanent damage to any appliances.**



- Persons who are fitted with a heart pacemaker, or similar medical conditions should take care when using this device.

Risk of electrocution and fire		
Hazard	What could happen	How to prevent it
<b>Improper storage of extension cord.</b>	Extension cord can come into contact with hot engine parts resulting in damage. Using a damaged extension cord can result in electrocution or death.	Remove extension cord from the generator and store separately away from generator.
<b>Operation of generator in rain, wet, icy, or flooded conditions.</b>	Water is an excellent conductor of electricity! Water which comes in contact with electrically charged components can transmit electricity to the frame and other surfaces, resulting in electrical shock to anyone contacting them.	Operate generator in a clean, dry, well ventilated area. Make sure hands are dry before touching unit.
<b>Placing generator on or against highly conductive surface, such as a steel walkway or metal roof.</b>	Accidental leakage of electrical current could charge conductive surfaces in contact with the generator.	Place generator on low conductivity surface such as a concrete slab. <b>ALWAYS</b> operate generator a minimum of 2 meters from any conductive surface.
<b>Use of worn, damaged or ungrounded extension cords.</b>	Contact with worn or damaged extension cords could result in electrocution. Use of ungrounded cordsets could prevent operation of circuit breakers and result in electrical shock.	Inspect extension cords before use and replace with new cord if required. Always use a cordset having a grounding wire with an appropriate grounding plug. DO NOT use an ungrounded plug.
<b>Operation of unit when damaged, or with guards or panels removed.</b>	Attempting to use the unit when it has been damaged, or when it is not functioning normally could result in fire or electrocution. Removal of guarding could expose electrically charged components and result in electrocution.	Do not operate generator with mechanical or electrical problem. Have unit repaired by an Authorised Service Centre. Do not operate generator with protective guarding removed.

Risk of fire		
Hazard	What could happen	How to prevent it
<b>Attempting to fill the fuel tank while the engine is running.</b>	Fuel and fuel vapours can become ignited by coming in contact with hot components such as the muffler, engine exhaust gases, or from an electrical spark.	Turn engine off and allow it to cool before adding fuel to the tank. Equip area of operation with a fire extinguisher certified to handle gasoline or fuel fires.
<b>Sparks, fire, hot objects</b>	Cigarettes, sparks, fires, or other hot objects can cause fuel or fuel vapours to ignite.	Add fuel to tank in well ventilated area. Make sure there are no sources of ignition near the generator.
<b>Improper storage of fuel</b>	Improperly stored fuel could lead to accidental ignition. Fuel improperly secured could get into the hands of children or other unqualified persons.	Store fuel in an approved container designed to hold fuel. Store container in secure location to prevent use by others.
<b>Tampering with factory set engine speed settings.</b>	Engine speed has been factory set to provide safe operation. Tampering with the engine speed adjustment could result in overheating of attachments and could cause a fire.	Never attempt to "speed-up" the engine to obtain more performance. The output of this generator is electronically controlled and the change to the speed setting will not alter the electrical output.
<b>Inadequate ventilation for generator</b>	Materials placed against or near the generator or operating the generator in areas where the temperature exceeds 40°C. ambient (such as storage rooms or garages) can interfere with its proper ventilation features causing overheating and possible ignition of the materials or buildings.	Operate generator in a clean, dry, well ventilated area. <b>DO NOT OPERATE UNIT INDOORS OR IN ANY CONFINED AREA.</b>
<b>Overfilling the fuel tank – fuel spillage.</b>	Spilled fuel and its vapours can become ignited from hot surfaces or sparks.	Use care in filling the tank to avoid spilling fuel. Make sure fuel cap is secured tightly and check engine for fuel leaks before starting engine. Move generator away from refuelling area or any spillage before starting engine. Allow for fuel expansion. Never refuel with the engine running.

Risk of injury and property damage when transporting generator		
Hazard	What could happen	How to prevent it
<b>Fire, inhalation, damage to vehicle surfaces</b>	Fuel or oil can leak or spill and could result in fire or breathing hazard, serious injury or death can result. Fuel or oil leaks can damage carpet, paint or other surfaces in vehicles or trailers.	The generator is equipped with a fuel drain valve, turn the valve to the off position before transporting to avoid fuel leaks. Transport fuel only in an approved fuel container. Always place generator on a protective mat when transporting to protect against damage to vehicle from leaks. Remove generator from vehicle immediately upon arrival at your destination.

Risk of breathing – inhalation hazard		
Hazard	What could happen	How to prevent it
<b>Gasoline engines produce toxic carbon monoxide exhaust fumes.</b>	Breathing exhaust fumes will cause serious injury or death.	Operate generator in clean, dry, well ventilated area. Never operate unit in enclosed areas such as garages, basements, storage, sheds, or in any location occupied by humans or animals. Keep children, pets and others away from area of operating unit.

Risk of unsafe operation		
Hazard	What could happen	How to prevent it
<b>Operation of generator in careless manner.</b>	All sources of energy include the potential for injury. Unsafe operation or maintenance of your generator could lead to serious injury or death to you or others.	<ul style="list-style-type: none"> <li>Review and understand all of the operating instructions and warnings in this manual.</li> <li>Become familiar with the operation and controls of the generator. Know how to shut it off quickly.</li> <li>Equip area of operation with a fire extinguisher certified to handle gasoline or fuel fires.</li> <li>Keep children or others away from the generator at all times.</li> </ul>
<b>Operating generator while suspended</b>	Generator will not operate properly and will cause damage to the generator and could cause serious injury or death to you or others.	Never operate generator while suspended or in an unlevel position. Always operate generate on a flat, level surface.

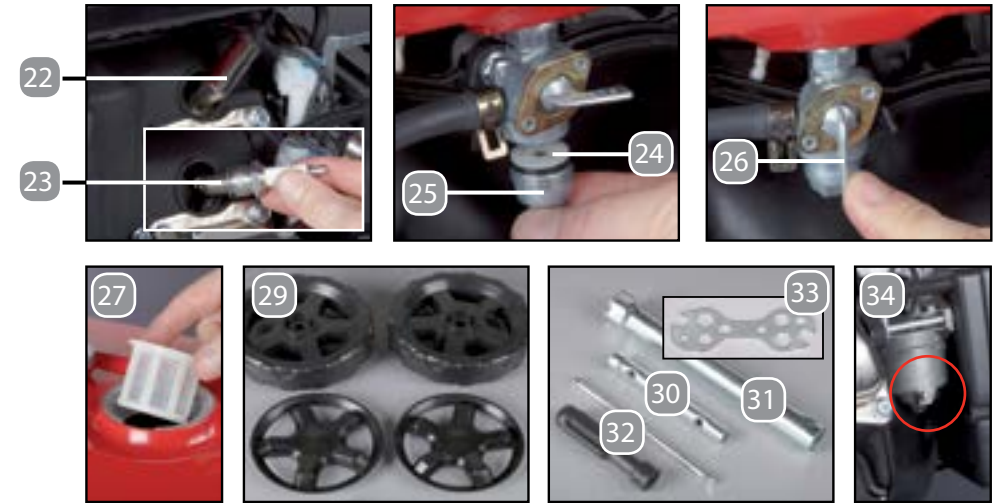
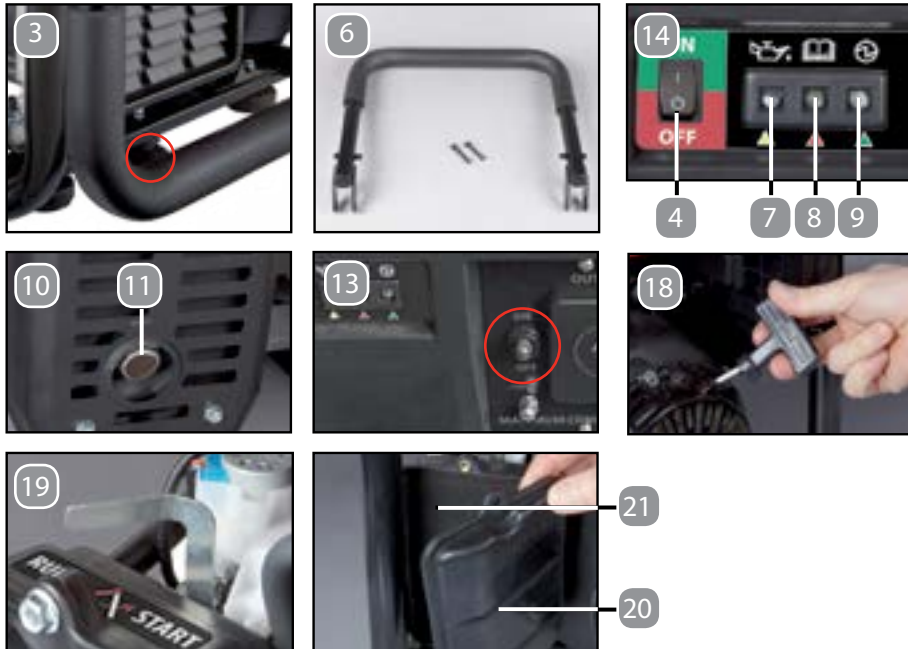
Risk of hot surfaces		
Hazard	What could happen	How to prevent it
<b>Contact with hot engine and generator components.</b>	Contact with hot surfaces, such as engines exhaust components, could result in serious burns.	During operation, touch only the control surfaces of the generator. Keep children away from the generator at all times. They may not be able to recognize the hazards of this product.

Risk of moving parts		
Hazard	What could happen	How to prevent it
<b>Contact with moving parts can result in serious injury.</b>	The generator contains parts which rotate at high speed during operation. These parts are covered by guarding to prevent injury.	Never operate generator with guarding or cover plates removed. Avoid wearing loose fitting clothing or jewellery which could be caught by moving parts.

Risk from lifting		
Hazard	What could happen	How to prevent it
<b>Lifting a very heavy object.</b>	Serious injury can result from attempting to lift too heavy an object.	When lifting, always keep the object you are lifting near the vertical axis of your body. DO NOT use you back to lift heavy loads. Both people should crouch down, grab the underside of unit and use your legs to carry the weight. Keep the object as near the centre of your body's gravity as possible. Avoid twisting your bodies when carrying the unit; instead, turn your whole body using your feet.

**Parts List**

- |                                 |                                                  |
|---------------------------------|--------------------------------------------------|
| 1. Fuel tank                    | 18. Recoil starter                               |
| 2. Fuel tank cap                | 19. Choke lever                                  |
| 3. Wheel foot                   | 20. Air filter cover                             |
| 4. On/Off switch                | 21. Air Filter                                   |
| 5. Side carry handles (2)       | 22. Spark plug lead / cover                      |
| 6. Folding carry handle         | 23. Spark Plug                                   |
| 7. Low oil indicator light      | 24. Tap outlet                                   |
| 8. Load Status indicator light  | 25. Fuel tap sediment cap                        |
| 9. Power Supply indicator light | 26. Fuel tap / lever                             |
| 10. Muffler                     | 27. Fuel tank inlet filter                       |
| 11. Exhaust / spark arrestor    | 28. Feet (x4)                                    |
| 12. AC sockets (X3)             | 29. Wheel (x2)                                   |
| 13. Master 240Va.c switch       | 30. 10mm Tube Spanner                            |
| 14. Control panel               | 31. 21mm Spark Plug Tube Spanner                 |
| 15. Oil Filler cap/dipstick     | 32. Double Ended Screwdriver (Phillips and flat) |
| 16. Oil drain plug              | 33. Multi Size Spanner                           |
| 17. Ground (frame) terminal     | 34. Fuel drain                                   |





## Inverter technology

This generator has been developed with inverter technology providing regulated, clean and "pure" electricity for a continuous uninterrupted stable power supply.

Inverter technology provides confidence as a power source for camping applications, outdoor lights, sound systems, televisions, microwaves and power tools.

Ideal for domestic emergency power applications and camping or caravanning where power may be required for higher wattage appliances such as caravan air conditioners. Can also be used for large electric motors, power tools such as drills, jigsaws and grinders, appliances like toasters, microwave ovens or TVs, heating/lighting applications and small to medium fridges.

**NOTE:** Maintain normal safety precautions with appliances and accessories as for use on normal reticulated mains supply.

## Operating Periods

**NOTE:** This product is for domestic DIY use only.

Maximum daily operational use should not exceed 10 hours a day.

It is not recommended to continually use the generator day after day.

APPLIANCE	WATTS	STARTING WATTS	
Caravan Air Conditioner	1500	2200-3200	✓
Caravan Fridge	100-200	800	✓
Caravan Hot Water Heater	1500-2000	1500-2000	✓
Laptop Computer	250	250	✓
Television	200	200	✓
Toaster	800-1600	1200-1600	✓
9" Angle Grinder	1500-2000	2800	✓
Power Saw	500-700	2400	✓
Drill 3/8"	1100	2000	✓
Globe	60	60	✓
Hair Dryer	1000-1600	1600	✓
Microwave	1500+	2000	✓
Kettle	2000+	2200-2400	✓

**NOTE:** These figures are indicative only. Ensure you check the total rating of the appliance to be used before connecting to the generator.


For more details on what appliance/s can be run with this unit, refer to page 24

## Assembly

This generator has been designed to be used as a stand alone / compact generator or a larger portable / wheeled type generator.

## Compact Stand Alone Assembly Assembly of the Feet

**NOTE:** These 4 feet (28) can be fitted even if the generator will be fitted with the wheeled option.

 **WARNING:** Ensure the engine is switched off while undertaking this task.

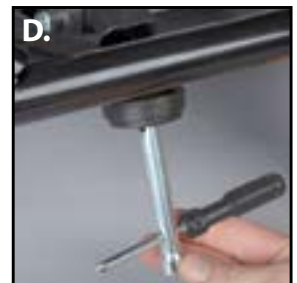
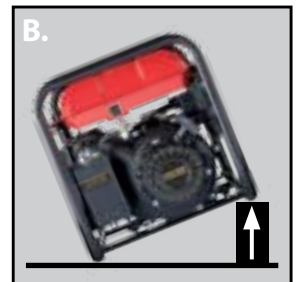
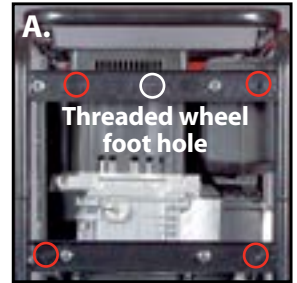
This generator is supplied with 4 feet (28) which require the following assembly on the generator (within red markers) (Fig A):

1. Place the generator on a flat and level surface and then raise one side of the generator by placing a wooden block (or something similar) underneath the frame (Fig B) so the generator is slightly raised and allows you access to be able to add the feet (28).

**WARNING:** Do not turn the generator upside down or place the generator on its side. Ensure the generator is stable and cannot topple.

2. Insert the supplied hex head screw through the bottom of the foot so it comes out the opposite side.

Insert the supplied 10mm tube spanner (30), into the bottom of the foot to securely hold the hex head screw in place, (Fig C) then place the foot underneath the hole in the bottom frame and push through to the upper side (Fig D).



3. With the supplied 10mm tube spanner (30) still holding the hex head screw securely in place, apply the flat washer, spring washer, then the nut to the top of the hex head screw and tighten in a clockwise direction using the supplied multi-size spanner (33) (Fig E).
4. Repeat the same process for the other 3 feet (28). The generator can now be operated with the generator sitting on the ground or operating surface on the four rubber feet (28).



### Portable Wheeled Type Generator Assembly

This generator is supplied with 2 wheels to assist with transportation, which require the following assembly:

1. Remove the cover of the wheel by holding one of the spokes of the outside cover on the wheel, and pulling towards you until the cover disengages and can be removed.
2. Insert the bolt through the outside of the wheel through to the other side, then follow the bolt through the hole in the corner frame of the generator (Fig F).
3. Using the 21mm spark plug tube spanner (31) to secure the bolt head in position, apply the nut onto the end of the bolt and tighten in a clockwise direction using the multi size spanner (33) (Fig G). Repeat for the second wheel.

Following assembly of the wheels, it is recommended to assemble the additional wheel foot (3) for stability and to keep the generator on a level surface.

1. Raise the opposite end of the generator that the wheels have been assembled on by placing a wooden block (or something similar) underneath the bracket that the feet have been assembled on (Fig B).

2. Insert the supplied hex head screw through the bottom of the foot so it comes out the opposite side (Fig H).

Using the supplied 10mm tube spanner (30), insert into the foot and engage the head on the hex head screw. Thread the hex head screw into the large boss on the base frame cross member on the handle end of the generator (Fig I). Tighten firmly.

### Assembly of the Folding Carry Handle

This generator is supplied with a folding carry handle (6) to assist with transportation when wheeling the generator around on the wheels.

1. Align the holes on each bracket of the carry handle with the holes on each side of the generator frame (Fig J).

2. With the handle in position, insert each screw through the outer bracket of the handle, then through the holes in the generator frame, and through to the opposite side of the internal bracket of the handle.

3. Secure the handle into position by applying the nyloc nuts onto the screws and securing finger tight.

Using the supplied double ended screwdriver (phillips head) (32) to hold the screw, then use the multi size spanner (33) in a clockwise direction to secure the nyloc nut in place (Fig K).



## Indicators

This generator has three main LED indicators to indicate to the operator various conditions as follows:

### 1. Low oil indicator (Fig L)

The low oil indicator light (7) is a yellow LED and will illuminate when the oil level of the generator is too low. The generator will stop operating within 10 seconds if the yellow light comes on. If the oil level is on the extreme low level the LED may flash on and off quickly and the generator will run unevenly. The yellow LED will illuminate when the generator is being attempted to start if the oil is low, i.e. when the cord is being pulled, the yellow LED will glow if there is insufficient oil. In this condition, the generator will not start. In this condition you need to add oil for the generator to operate.

### 2. Load Status indicator (Fig M)

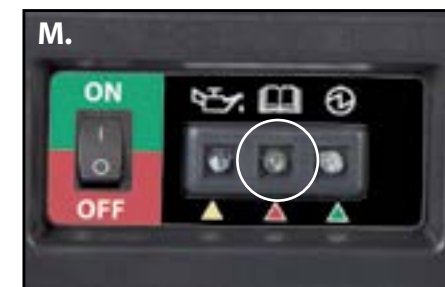
The red load status indicator light (8) advises the operator that a fault has been detected and the power supply to the control panel has been interrupted. When the red load status indicator is operating red, there is NO 240Va.c. available to the control panel.

When the engine is running the load status indicator light (8) flashes under the following conditions:

- Flashing once indicates low voltage protection, caused by the engine rotation speed not meeting the specified requirements.
- Flashing twice indicates the engine is overheated, caused by high temperature.
- Flashing 3 times indicates overload protection caused by an excessive electrical overload.
- Flashing 4 times indicates there is an electrical problem most likely caused by a short circuit.

In any of the above instances, when the red load status indicator light (8) turns on, the power supply to the control panel will be disconnected automatically.

**NOTE:** The engine must be stopped and the issue resolved before the power supply will be restored.



### 3. Power Supply indicator (Fig N)

The power supply indicator light (9) is a green LED. It will only display green when there is a 240V output available, thus the generator must be operating. This indicator will remain on when the generator is operating and has 240Va.c. available to the control panel, with or without appliances connected to the AC sockets (12).



In an overload condition, there is no 240Va.c. available to the panel so the green indicator will not operate.

## Preparing the Generator

It is important to check the generator before you commence operating the unit.

**IMPORTANT.** Ensure that the engine has oil. When leaving the factory, this generator has NO OIL in the engine.

**NOTE.** The engine will not start if the generator has no oil.

## Checking the Engine Fuel

**IMPORTANT:** Fuel goes off after about 3-4 months. If you find your generator does not start, first change the fuel in the tank with newly purchased fresh unleaded fuel. Do not use ethanol based fuels.

### WARNING.

- Do not refill fuel tank (1) while engine is running or is hot.

- Check to ensure that the fuel drain (34) has been tightened and that fuel is not leaking.
- Be careful not to admit dust, dirt, water or other foreign objects into the fuel.
- Wipe off spilt fuel thoroughly before starting engine.
- Ensure you DO NOT fuel the generator in close proximity to any open flames, lit cigarettes, or hot objects.
- The generator should also be located in an open area with fresh air and NOT in a confined area.

**WARNING:** Ensure the engine is switched off while undertaking this task.

1. Remove the fuel tank cap (2) by rotating in an anticlockwise direction.
2. Remove the fuel tank inlet filter (27) and ensure it is clean and free of debris. Check the level of fuel is sufficient.
3. If the fuel tank inlet filter (27) was removed to check the fuel level, ensure it is replaced back before adding fuel.
4. To add fuel, pour the unleaded fuel from an approved fuel container into the fuel tank (1). As fuel expands, DO NOT FILL to the lip of the tank. Maximum fill is to the top of the fuel tank inlet filter (27) rim.
5. Replace fuel tank cap (2) turning in a clockwise direction to lock.

## Checking the Engine Oil

The engine of this generator is NOT filled with oil when unpacked.

Prior to starting the engine ensure the oil tank is filled with SAE 10W-30 4 stroke oil. For the first time fill the engine should be filled with 600ml of SAE 10W-30 oil.

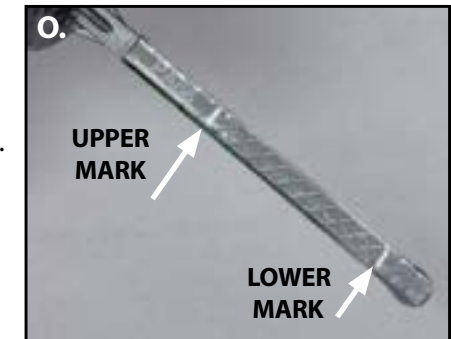
**NOTE:** Damage to the engine is not covered under warranty if the engine is run with insufficient oil.

1. Before checking or refilling oil, be sure the generator is put on a stable and level surface, ensuring the engine has been switched OFF.
2. Remove the oil filler cap (15) by rotating the cap in an anti-clockwise direction, and wipe all oil residue off the oil dipstick (15) with a clean rag. Re insert the oil filler cap / dipstick (15) and thread the cap fully in position.

Then remove the oil filler cap / dipstick (15) by rotating in an anti clockwise direction and view the oil level on the oil dipstick (15).

3. If the oil level is close to or below the lower level line, refill with 4 stroke oil to the upper level line (Fig O).  
Do not use the generator when the oil level is close to the low level. Fill the oil tank before use each time.
4. If the oil is contaminated or has discoloured, ensure you change the oil. Replace the oil dipstick (15). DO NOT start the generator with the oil dipstick (15) not firmly replaced.

**NOTE:** This engine is fitted with a low oil indicator light (7). If the oil level is too low the engine will stop operating or the engine will not start. It is advised to check the oil level each time the generator is used and fill to the upper mark on the oil dipstick (15) by the above method. Do NOT over fill.



## Engine oil replacement

1. Place the generator on a flat and level surface and warm up the engine for several minutes. Then stop the engine.
2. Place an oil pan under the generator and commence removing the oil drain plug (16) by using a 10mm socket (not supplied), and rotating in an anti clockwise direction to remove, so that the oil can be completely drained from the oil tank (Fig P).

**NOTE:** Do not loose the small aluminium sealing washer on the thread of the oil drain plug.

3. Check the oil drain plug (16), gasket washer, oil filler cap (15) and O-ring. If these are damaged, have these replaced.
4. Reinstall the oil drain plug (16), and gasket washer using a 10mm socket (not supplied), and rotating in a clockwise direction until secure.
5. Refill with 4 stroke oil to the upper level line of the oil dipstick (15) as detailed above.

**CAUTION.** Check that no foreign material, debris, dust enters the crankcase.

6. Ensure to replace the oil filler cap (15).



## Starting the Engine

**NOTE:** Before starting the engine, ensure you have filled the oil tank to the correct level with oil and fuel has been added to the fuel tank.

**NOTE:** The oil tank is NOT filled with oil from the factory.

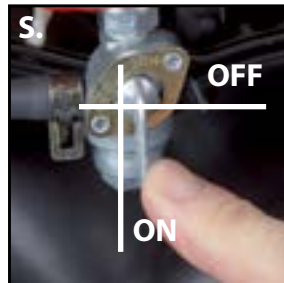
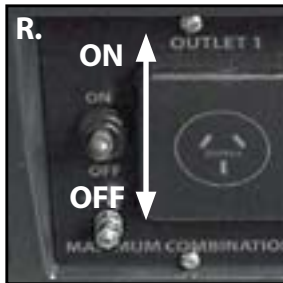
1. Before starting, TURN OFF the master 240Va.c switch (13) to ensure that no electrical apparatus is electrically connected to the generator (Fig. Q/R).
2. Turn the fuel tap / lever (26) clockwise to the 'on' position (Fig. S).
3. Push the choke lever (19) forwards (towards the front of the generator) to the full choke "START" position (Fig. T). This is not necessary if the engine is already warm.

**NOTE:** The direction for the choke is also indicated below the choke lever (19) on the air filter cover (20).

4. Press the petrol motor On/Off switch (4) to the 'On' position as indicated by an "I" (Fig. U).

**NOTE:** When the engine is started for the very first time, it may require a number of attempts to start until the fuel has travelled from the tank to the engine. Slowly pull the recoil starter (18) to full extent 2 or 3 times to assist an enriched fuel mixture to enter the carburettor.

5. Slowly pull the recoil starter (18) until you feel it engage and then pull it briskly (Fig. W).
6. Once you hear the engine operating, move the choke lever (19) backwards slowly (towards the rear of the generator) to the "RUN" position (Fig. T). Allow the generator to run for a few minutes unloaded to warm up before connecting appliances to the output of the generator.



## Stopping the Engine

1. Before stopping, ensure that no electrical apparatus is electrically connected to the generator. TURN OFF the master 240Va.c switch (13) to turn off the power to the 3 AC sockets (12). You can also then remove any plugs in any of the 3 AC sockets (12) on the control panel (14) (Fig Q/R).
2. Allow the petrol motor to slow down and idle for approx 30 seconds.
3. Press the On/Off switch (4) to the 'Off' position as indicated by an "O" (Fig. U).
4. Turn the fuel lever / tap (26) anti clockwise to the 'off' position (Fig. V).

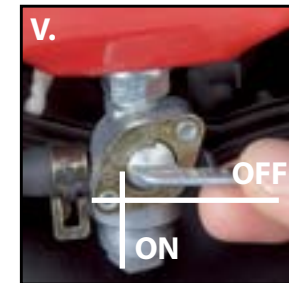
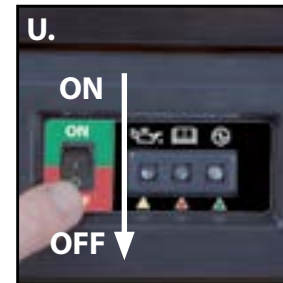
### Failure of the motor On/Off Switch

In the unusual event the motor On/Off switch (4) does not stop the petrol motor of the generator, follow the following procedure to shut down the generator:

1. Turn off the master 240Va.c switch (13) (Fig R), and remove all plugs from the AC sockets (12) (Fig Q).
2. Ensure the On/Off switch (4) is in the "OFF" position (Fig U).
3. Move the fuel tap (26) to the OFF position (Fig V).

The generator will run for approximately 1 minute and then stop.

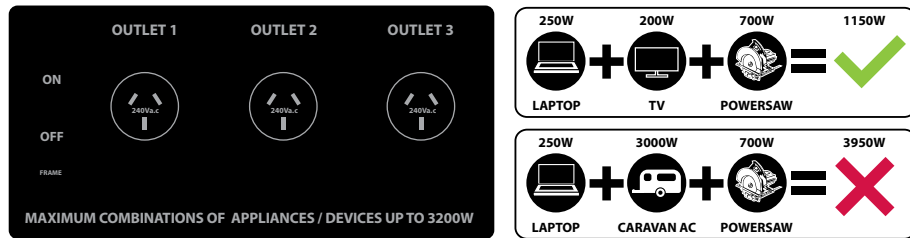
Do not use the generator again until the generator is serviced and the fault corrected.



### 240V AC Connection

This generator provides a clean digital output suitable for most electrical appliance/s including televisions, computers, laptops, caravans etc.

It comes fitted with 3 x 240V AC outlets, giving you the ability to run 3 x electrical appliances at the one time, as long as the combination of the maximum rating of each appliance does not exceed the maximum rated power of the generator.



### Other combinations:

Caravan fridge (200w)	+ toaster (1600w)	+ drill (1100w)	= 2900w	✓
Caravan water heater (1500w)	+ globe (60w)	+ TV (200w)	= 1760w	✓
Angle grinder (2000w)	+ TV (200w)	+ Caravan Fridge (200w)	= 2400w	✓
Hair dryer (1600w)	+ caravan fridge (200w)	+ laptop (250w)	= 2050w	✓

### Connecting apparatus to the Generator

Start the generator and allow the generator to run for a few minutes to warm up.

- Check the green LED power supply indicator (9) is glowing green.
- Check the total rating of the appliance/s to be connected and ensure the rating of the appliance/s does not exceed the rating of the generator.
- Check the appliance/s to be connected are turned 'OFF'.
- Check the master 240Va.c switch (13) is turned OFF (Fig R).
- Maintain normal safety precautions with appliances and accessories as for use on normal reticulated mains supply.



- Insert the 3 pin plug of the appliance/s into the 240V AC outlet socket/s (12) of the generator (Fig. X).
- Turn on the master 240Va.c switch (13) so 240Va.c. power is available to the 3 AC output sockets (12).

The connected individual appliances can now be switched on.

**WARNING.** Prior to connecting any appliance to the generator, check the rating label of the appliance. The appliances connected to this generator must indicate an input voltage of 220 - 240Va.c. The generator has a rated value and is shown on the generator label, so if the addition of the appliances being connected is higher than the rated value on the generator, the protective cut out on the generator may operate to prevent over load damage to the generator. The generator will withstand short operation and spikes up to the peak value as shown on the generator label, but exceeding this peak value will cause the generator to go into overload.

**NOTE:** The values as indicated on the appliances rating label will show rated wattages and does not include start up power.

### Overload condition

If the AC side of the generator is overloaded, the red load status indicator (8) LED will illuminate. The generator will continue to supply 240V output for a short time, but if the load is not reduced, the 240V supply will be automatically shut down.

For details on the various conditions of overload refer to pages 14 and 24. To reset an over load condition, shut down the motor of the generator BUT ENSURE to follow the procedure on page 23 "Stopping the engine". Restart the engine after the load being applied to the generator has been reduced.

### Carbon build up

Carbon build up can be a problem on generators as the loading on the engine can vary considerably. Running the generator at low loading for extended periods can cause carbon build up.

Carbon build up in the engine can be reduced by operating the generator at approximately 75% of rated load for 25% of the time the generator is used. i.e, if the generator is used for 4 hours on low load i.e 800W or less, run the generator for 1 hour at around 75% of rating. This is only required if the generator has been used for less than 25% of rated load for extended periods. i.e 2 hrs or more.

**NOTE:** Use unleaded fuel without ethanol.

## Periodic Maintenance

Periodic maintenance						
Item	Remarks	Pre-operation check (daily)	Initial 1 months or 20Hr	Every 3 months or 50Hr	Every 6 months or 100Hr	Every 12 months or 300Hr
Spark plug	Check condition, adjust gap and clean. Replace if necessary.			.		
Engine oil	Check oil level.	.				
	Replace.		.	.		
Air filter	Clean. Replace if necessary.			.		
Fuel filter	Clean fuel drain filter. Replace if necessary.				.	
Valve clearance	Check and adjust when engine is cold.					.
Fuel line	Check fuel hose for crack or damage. Replace if necessary.	.				
Exhaust system	Check for leakage. Retighten or replace gasket if necessary.	.				
	Check muffler screen. Clean/replace if necessary.				.	
Carburettor	Check choke operation.	.				
Starting system	Check On/Off switch ignition operation.	.				
Decarbonisation	More frequently if necessary.					.
Fittings/ fasteners	Check all fittings and fasteners correct if necessary.				.	

Regular maintenance is most important for the best performance and safe operation.

## Generator Maintenance

Your generator should be kept clean and dry at all times. The generator should not be stored or operated in environments that includes excessive moisture, dust or any corrosive vapours. If these substances are on the generator, clean with a cloth or soft bristle brush. Do not use a garden hose or anything with water pressure to clean the generator. Water may enter the cooling air slots and could possibly damage the rotor, stator and the internal windings of the generator head.

## Storage

- Never store generator with fuel in the tank indoors or in enclosed, poorly ventilated areas, where fumes can reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or other gas appliances.
- Ensure the fuel tank and carburettor are BOTH fully drained of fuel. Open the fuel drain (25) on the carburettor to drain the fuel totally from the fuel tank (1).
- Check the fuel tap / lever (26) is turned off (Fig V).
- Drain and replace the engine oil.
- Clean the generator with a damp soft cloth with mild detergent.
- Do not clean the generator with water.
- Check all nuts bolts and fasteners. Ensure they are tightened if needed before storage.

## Spark Plug

To ensure the engine is operating correctly, the spark plug must be properly gapped and free of carbon deposits. Always check the spark plug cable is firmly fitted to the top of the spark plug.



**WARNING:** Ensure the engine is switched off while undertaking this task.

1. Pull the spark plug lead (22) off the spark plug (23) and then remove spark plug (23) from the generator using the supplied 21mm Spark Plug Tube Spanner (31) by rotating in a clockwise direction (Fig Y).
2. Remove carbon deposits using a wire brush.
3. Check for discoloration on the top of the spark plug (23). The standard colour should be a tan colour.
4. Check the spark plug gap. The acceptable gap should be between 0.6 – 0.8mm (Fig. Z).
5. The recommended spark plugs are as follows:  
BPR6ES (NGK) RN11YC (Champion) WR6DC (Bosch)

**CAUTION:** Check that no foreign material, debris, or dust enters the crankcase.

Replacement spark plugs are available from purchase from lawn mower or small engine repair shops.



## Air Filter

It is very important to maintain an air filter (21) in proper condition. Damage to the generator may arise if the filter has:

- Improperly been serviced.
- Dirt and other foreign elements adhering to the filter due to improper installation and engine wear.

It is recommended the air filter (21) is cleaned every 50 hours (every 10 hours under dusty conditions).

ALWAYS keep the filter clean at all times.



**WARNING:** Ensure the engine is switched off while undertaking this task.

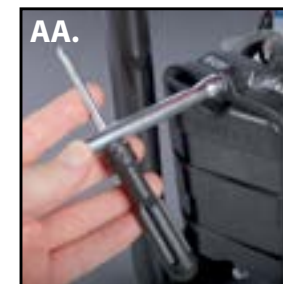
1. Remove the air filter cover (20) on the side of the generator using the supplied 10mm tube spanner (30) by removing (unscrewing) the two screws on the face of the cover, in an anti-clockwise direction (Fig AA).
2. Remove the air filter (21) (Fig AB).
3. Wash the air filter (21) in hot soapy water and allow to dry.
4. Lubricate the air filter (21) using engine oil (SAE 10W-30).
5. Thoroughly squeeze the air filter (21) removing any excess oil.
6. Replace the air filter (21).
7. Secure the air filter cover (20) back on to the side panel of the air filter housing using the supplied 10mm Tube Spanner (30) by screwing back in the two screws in a clockwise direction until secure.

**IMPORTANT.** Never run the engine without the air filter element in place.

**CAUTION:** Never use fuel or low burning paint solvents to clean the air filter (21). A fire or explosion could result.

**CAUTION:** Ensure the air filter (21) is dry before re fitting.

Replacement air filters are available from [www.extrabattery.com.au](http://www.extrabattery.com.au) or by calling Customer Service on 1800 909 909.

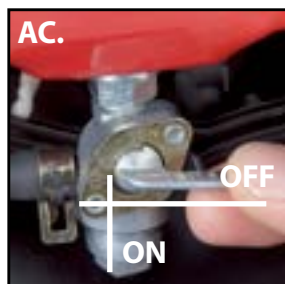




## Fuel Tank Inlet Filter

**WARNING:** Ensure the engine is switched off while undertaking this task.

1. Turn the fuel tap/ lever (26) to the 'off' position (Fig AC).
3. The fuel tank inlet filter (27) is located directly under the fuel tank cap (2) and protects impurities entering the fuel tank (1) during refuelling. Remove the fuel tank cap (2) by turning in an anti-clockwise direction (Fig AD).
4. Remove the fuel tank inlet filter (27) (Fig AE) and wash thoroughly in petrol.
5. Re-assemble by putting the fuel tank inlet filter (27) back, and then securing the fuel tank cap (2) in a clockwise direction until firmly secured



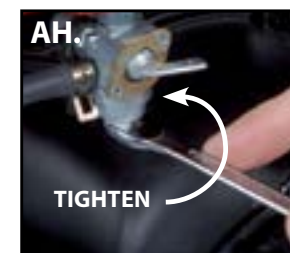
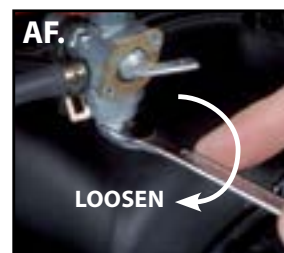
## Tap Outlet Fuel Filter

**WARNING:** Ensure the engine is switched off while undertaking this task.

**NOTE:** The following procedure should be performed in a well ventilated area, with no naked flames, sparks, or cigarettes.

**NOTE:** Safety glasses should also be worn and on/off switch (4) set to the OFF position.

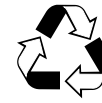
1. Ensure the fuel tap / lever (26) is in the OFF position (Fig AC).
2. Hold the tap housing and loosen the bottom sediment cup using an 11mm spanner (not supplied), and remove the sediment cup from the bottom of the fuel tap / lever (26) (Fig AF). Be careful not to move the tap housing. Do not lose the small seal on the thread of the sediment cap.
3. The filter inside the sediment cup can be cleaned in petrol to remove any build-up of dirt on the outside of the filter. Do not operate the generator without this filter in place.
4. After cleaning the filter, replace the seal, then the filter, on top of the sediment cap and then insert the assembly back on the bottom of the fuel tap / lever (26) (Fig AG), and secure finger tight in an anti-clockwise direction. Using an 11mm spanner (not supplied), secure the sediment cap until tight (Fig AH).
5. Refill the tank with fuel and ensure there are no leaks between the tap and the tank, the tap and the sediment cap, and with the fuel tap / lever (26) turned on, ensure there are no leaks where the fuel hose is fitted to the outlet of the tap.



## Cleaning

1. Keep your machine clean. The outside of the machine can be cleaned using a damp soft cloth with a mild detergent if required. Never use water to clean the generator as it may cause damage to internal parts.
2. Some maintenance products and solvents may damage the plastic parts; these include products containing benzene, trichloroethylene, chloride and ammonia.
3. Use a vacuum to clean air inlet and outlet louvres of the alternator.
4. Take special care to keep the ventilation inlets/outlets free from obstruction; cleaning with a soft brush followed by a compressed air jet will usually be sufficient to ensure acceptable internal cleanliness.
5. Wear eye protection when carrying out cleaning.

## Environmental protection



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.

Dispose of used motor oil in a manner that is compatible with the environment.

We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it into the earth.

## Service Support

If you are having difficulty in using your product, you can find instructional Know How videos on our website, [www.powertoolsupport.com](http://www.powertoolsupport.com), by clicking on the Product Assistance tab > How To product Videos.

If you have any issues with the operation of your product, please take it with a copy of your receipt to one of our National Service Agents for repair or call us 1800 909 909 for advice.

A listing of our Service Agents is included with your product, however, you can also find our most updated listing on our website [www.powertoolsupport.com](http://www.powertoolsupport.com), by clicking on the Service Agent link.

Trouble	Possible cause	Suggested remedy
<b>Engine will not start</b>	1. Low on fuel or oil content	1a Fully fill tank. Ensure fuel is fresh 1b Ensure oil is at the the correct level. Refer page 20-21 of this manual. 1c Ensure the generator is horizontal and not on an angle 1d Turn Off the fuel tap / lever (26). Loosen the carburettor drain screw. Allow the fuel in the carburettor bowl to totally drain. When the fuel has stopped draining, open the fuel tap / lever (26) on the tank and fuel starts running out of the carburetor drain. If so, tighten the screw on the drain and allow the carburetor to fill with petrol. 1e If the fuel from the tank does not pass through the carburetor drain above, turn off the fuel tap / lever (26) and clean the fuel filter in the bottom of the fuel tap. Refer to page 30-31.
	2. On/Off switch (4) in "Off" position	2. Press the On/Off switch (4) to the 'On' position as indicated by an "I" .
	3. Faulty spark plug (23)	3. Replace or clean spark plug (23)
	4. Choke lever (19) in wrong position	4. Adjust choke lever (19) accordingly Refer to page 22.
	5. Fuel shut-off valve in closed position	5. Open fuel shut-off valve
	6. Unit loaded during start-up	6. Remove load from unit
	7. Spark plug (23) wire loose	7. Attach wire to spark plug (23)
	8. Old fuel in carburetor	8. Fuel will deteriorate in the carburetor fuel bowl very quickly. Open the drain screw in the bowl of the carburetor until fresh fuel runs through.
<b>No electrical output</b>	1. Faulty receptacle	1. Have service centre replace receptacle
	2. Overload has been triggered (red Overload light on).	2. Remove all appliances. Stop the generator, and restart. Reconnect appliances but with reduced load.
	3. Faulty power cord	3. Have an electrician replace cord.
	4. Master 240Va.c switch (13) turned off.	4. Check the master 240Va.c switch (13) is ON.
<b>Repeated overload</b>	1. Overload	1. Reduce load
	2. Faulty cords or equipment	2. Check for damaged, bare, or frayed wires on equipment. Replace.
<b>Generator overheating</b>	1. Generator overloaded	1. Reduce load
	2. Insufficient ventilation	2. Move to adequate supply of fresh air
<b>Generator keeps stopping, or is operating rough</b>	1. Check oil level	1. Add oil so oil is at the correct level. Refer page 20-21 of this manual.
	2. Generator not sitting on flat and level surface	2. Move generator to a level and flat surface
	3. Motor needs to be cleaned of carbon	3. Remove, check and clean spark arrestor (11) if needed. Remove, clean or replace spark plug (23)

For other issues not covered in this chart, please call Customer Service on 1800 909 909.

## Specifications

AC output:	240Vac ~ 50Hz
Rated power:	3200W
Peak power:	3500W
Phase:	Single
Power factor:	cosφ =1
Displacement:	182cc
Motor:	4 stroke
No load speed:	3000 RPM
<b>Approximate Generator</b>	
Run time:	(Hours per full tank)
Full Load:	5.5 Hours
50% Load:	9 Hours
25% Load:	12 Hours
Fuel tank capacity:	10.5L
Fuel type:	Unleaded
Oil tank capacity:	600ml
Oil type:	4 Stroke (SAE 10W-30)
Net weight:	31kg
(with wheels and handle)	
Spark plug:	NGK BPR6ES
Product Dimensions:	
(without wheels or carry handle)	52cm x 41cm x 46cm (L x W x H) +/- 10%
Noise rating:	69 dB (A) (taken at 7.5 metres) You must wear ear protection at all times.
This product complies with:	Safety – AS 2790-1989/Amendment 1-1989 CISPR12:2009 ed6

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