GT2500i POWER INVERTER GENERATOR

2400W

Please ensure that you read this manual in full before using your machine and follow the maintenance and operation instructions carefully.

OPERATING INSTRUCTIONS

Congratulations on your new GT Power product!

The GT Power range from Euroquip uses latest technology design and engineering to produce generator products that combine market leading value and features with durability. Designed for discerning operators who seek professional results and product quality. Design emphasis is placed on simple, functional design and operation. GT Power products are subject to stringent quality control and designed and manufactured to NZ & Australian standards.

Euroquip is a market leading provider of innovative power equipment solutions to a wide range of industries across New Zealand and Australia. Key product categories are; welding equipment, air compressors, power generators and cleaning equipment.

Euroquip's slogan is 'empowering industries', find out more about the advantage Euroquip brings at www.euroquip.co.nz.

Providing exceptional product support is a key component of Euroquip's market leading customer advantage focus. As part of this program, it is required for all products to be registered with Euroquip to qualify for product support and the extended 24 month warranty. Products not registered with Euroquip are supported by a base 12 month warranty only. Spare parts and technical support will not be available for an unregistered product outside of this base warranty period. If a Euroquip dealer has not already registered your product, please register it online at www.euroquip.co.nz. To request a physical registration form, please download one at www.euroquip.co.nz under the 'Contact Us' tab.

⚠ WARNING!

READ AND UNDERSTAND ALL SAFETY PRECAUTIONS IN THIS MANUAL BEFORE OPERATING. FAILURE TO COMPLY WITH INSTRUCTIONS IN THIS MANUAL COULD RESULT IN PERSONAL INJURY, PROPERTY DAMAGE, AND/ OR VOIDING OF YOUR WARRANTY. GT POWER WILL NOT BE LIABLE FOR ANY DAMAGE BECAUSE OF FAILURE TO FOLLOW THESE INSTRUCTIONS.

Table Of Contents

Safety Definitions

The words DANGER, WARNING, CAUTION and NOTICE are used throughout this manual to highlight important information. Be certain that the meanings of these alerts are known to all who work on or near the equipment.

The above safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Please read and abide by the message that follows the safety alert symbol.

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

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

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

NOTICE: *Indicates a situation which can cause damage to the generator, personal property and/or the environment, or cause the equipment to operate improperly.*

NOTE: *Indicates a procedure, practice or condition that should be followed in order for the generator to function in the manner intended.*

General Safety Precautions

DANGER!
Never use the generator in a location that is wet or damp. Never expose the generator to rain, snow, water spray or standing water while in use. Protect the generator from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical system.

Never operate the generator in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the generator outside and away from windows, doors and vents.

WARNING!
Voltage produced by the generator could result in death or serious injury.

- Never operate the generator in rain or a floodplain unless proper precautions are taken to avoid being subject to rain or flood.
- Never use worn or damaged extension cords.
- Always have a licensed electrician connect the generator to any fixed electrical installation.
- Never touch an operating generator if the generator is wet or if you have wet hands.
- Never operate the generator in highly conductive areas such as around metal decking or steel works.
- Always use earthed extension cords.
- Always use three-wire or double insulated power tools.

- Never touch live terminals or bare wires while the generator is operating.
- Keep animals and children away from the generator at all times.

⚠ **WARNING!**
Petrol fuel liquid and vapours are extremely flammable and explosive under certain conditions.

- Always refuel the generator outdoors, in a well-ventilated area.
- Never remove the fuel cap while th engine is running.
- Never refuel the generator while the engine is running. Always turn engine off and allow the generator to cool before refuelling.
- Only fill fuel tank with unleaded petrol.
- Keep away from sparks, open flames or other forms of ignition such as matches, cigarettes, CB radios and mobile phones when refuelling.
- Never overfill the fuel tank. Leave room for fuel to expand. Overfilling the fuel tank can result in a sudden overflow of fuel and result in spilled fuel coming in contact with hot surfaces. Spilled fuel can ignite. If fuel is spilled on the generator, wipe it up immediately and dispose of rags properly. Allow area of spilled fuel to dry before operating the generator.
- Wear eye protection while refuelling.
- Never use fuel as a cleaning agent.
- Store any fuel containers in a well ventilated area, away from any combustibles or source of ignition.
- Check for fuel leaks after refuelling.
- Never operate the engine if a fuel leak is discovered.
- Equip the operating area with a Class ABE or BE portable fire extinguisher.

⚠ **WARNING!**
Never operate the generator if powered items overheat; electrical output drops; there are sparks, flames or smoke coming from the generator; or if the receptacles are damaged.

- Never attempt to connect more than one generator to the same electrical device, extension cord or fixed electrical installation.
- Never use the generator to power medical support equipment.
- Always remove any tools or other service equipment used during maintenance before operating the generator.

⚠ **WARNING!**
You must take reasonable care for the health and safety both of yourself and any others who may be affected by your actions. You must understand and follow all of the safety rules and working instructions described herein. You must also use your own good judgement and common sense.

NOTE: *Never modify the generator.*

- Never operate the generator if it vibrates at high levels, if the engine speed changes greatly or if the engine misfires often.
- Always disconnect electric tools or appliances from the generator before starting.

Safety Labels

The safety labels have specific positions and must be replaced if they are unreadable, damaged or missing.

(Fig. 1) Safety Labels

1

⚠ DANGER

Hazardous Voltage

Explosion Hazard

Asphyxiation Hazard

Fire Hazard

⚠ WARNING!

Read the Operator Instruction Manual before operating

Use Unleaded Petrol Only

2

⚠ 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.

The output of this generating set is potentially **lethal**. The set should not be connected to a fixed electrical installation except by an appropriately licensed person.

3

⚠ WARNING!

DO NOT TOUCH HOT SURFACES

HOT

This generator produces extreme heat. The muffler and surrounding areas get very hot and severe burning will occur if in contact with skin.

4

400 ml
SAE 15W-40
API SG

5

GT POWER INVERTER GENERATOR

Model Number:	GT2500i	Power Factor:	1.0	Serial Number	
Rated Power:	2100W	AC Outlet:	15A		
Starting Power:	2400W	IP Rating:	23		
AC Voltage:	230V	Fuel:	Unleaded Petrol		
AC Frequency:	50Hz				

Made in China

Unpacking the Generator

WARNING!
Always have assistance when lifting the generator. The generator is heavy; lifting it could cause bodily harm. Avoid cutting on or near staples to prevent personal injury.

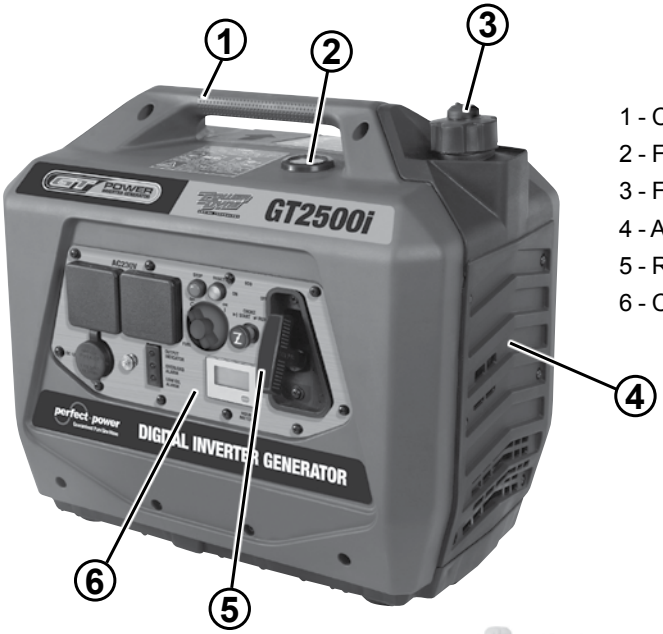
1. Carefully cut packing tape on top of carton.
2. Fold back top flaps to reveal instruction manual on top of the upper packing tray. Remove manual and save it for reference.
3. Remove and save oil bottle, oil fill bottle, screwdriver, spark plug socket wrench and generator cover from upper packing tray.
4. Remove and discard upper packing tray.
5. Unfold top of the plastic bag enclosing the generator.
6. Lift generator out of plastic bag and carton.
7. Recycle or dispose of packaging materials properly.

Accessories

Check the accessories against those listed below. If any parts are missing, please contact your local GT Power dealer.

- 400 ml Bottle of SAE 15W-40 Engine Oil
- Oil Fill Bottle
- Screwdriver
- Spark Plug Socket Wrench
- Generator Cover
- Instruction Manual

Generator Controls and Features

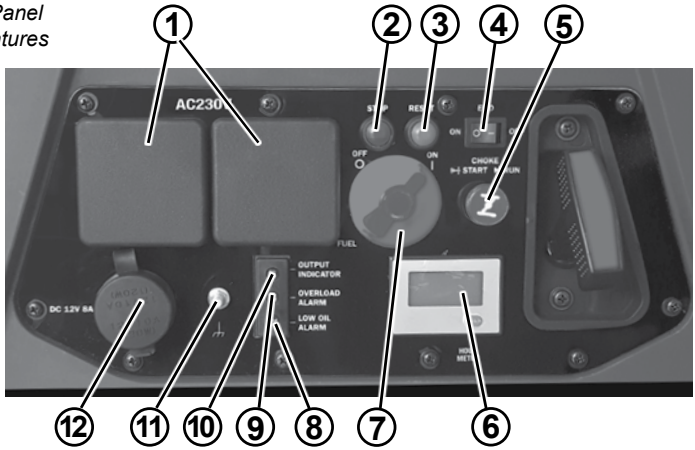


1 - Carry Handle
2 - Fuel Gauge
3 - Fuel Cap and Vent
4 - Air Filter Access Cover
5 - Recoil Starter Handle
6 - Control Panel

(Fig. 2) Generator Controls and Features

1 - Spark Plug Access Cover
2 - Muffler Access Cover
3 - Spark Arrester
4 - Oil Access Cover
5 - Fuel Drain Hose
6 - Fuel Drain Access Cover

(Fig. 3) Front Panel Controls & Features



1. **230-Volt AC, 15-Amp Outlets**
   Each outlet is capable of delivering generator peak output of 2400W (i.e. 10A @ 230V).

2. **Engine Stop Button**
   Press and hold down to stop the engine.

3. **Generator Reset Button**
   Press and hold down to reset generator's electrical output when safe to do so, after reducing the applied load or rectifying the electrical fault that has caused an overload trip.

4. **ECO Throttle Switch**
   Move switch to ON position when powering small resistive loads such as a computer or electric light; the engine speed will automatically be kept to a minimum, thereby reducing fuel consumption. Select the OFF position when powering large inductive loads such as an air conditioner or electric pump; the engine speed will be kept higher for maximum electrical starting power.

5. **Choke**
   Pull choke knob out to START position if starting a cold engine. To re-start a warm engine, leave choke knob pushed in to RUN position.

6. **Hour Meter**
   (Voltage, Engine Speed and Run Time)
   Continuously displays generator's AC output voltage when generator is running. Press the switch on its fascia to illuminate the meter and then cycle through the engine speed and cumulative running hour values.

7. **Fuel Control Switch**
   Turn knob to ON position before starting the generator. Select OFF position after stopping engine with engine stop button for routine shut down. Or select OFF position and allow engine to run out of fuel prior to long-term shut down.

8. **Low Oil Alarm**
   The red warning light will illuminate and engine will automatically shut down if oil level becomes too low. Add oil to the correct level before re-starting the engine.

9. **Overload Alarm**
   The red warning light will illuminate if generator's AC output is overloaded or short-circuited. A brief small overload may be tolerated, but connected load should be reduced. An extended large overload or short circuit will trip overload protection feature and disconnect generator's AC output even though engine is still running; reduce connected load or rectify electrical fault before pressing generator reset button to restore AC output.

10. **Output Indicator**
    The green status light will illuminate whenever

the engine is running and there's AC output available from the generator.

11. Frame Terminal
The frame terminal can be used by a licensed electrician to earth the generator if necessary.

12. 12-Volt DC Accessory Socket
Can be used for 12V DC powered devices up to a maximum demand of 100W (i.e. 8A).

Before Starting the Generator

NOTE: Before starting the generator, review Safety on page 4.

Location Selection

Before starting the generator, avoid exhaust and location hazards by verifying:

- You have selected a location to operate the generator that is outdoors and well ventilated.
- You have selected a location with a level and solid surface on which to place the generator.
- You have selected a location that is at least 1.8 m away from any building, other equipment or combustible material.
- If the generator is located close to a building, it is not located near any windows, doors or vents.

⚠ **WARNING!**
Always operate generator on a level surface. Placing generator on a non-level surface can cause it to tip over, causing fuel and oil to spill. Spilt fuel can ignite if it comes into contact with an ignition source such as a very hot surface.

NOTICE: *Only operate the generator on a solid, level surface.*

Operating the generator on a surface with loose material such as sand or grass clippings can cause debris to be ingested by the generator that could:

- Block cooling vents
- Block air intake system

Weather

Never operate your generator outdoors during rain, snow or any combination of weather conditions that could lead to moisture collecting on, in or around the generator.

Dry Surface

Always operate the generator on a dry surface free of any moisture.

No Connected Loads

Make sure the generator has no connected loads before starting it. To ensure there are no connected loads, unplug any electrical cords or devices from the 230VAC and 12V DC receptacles on the control panel.

NOTICE: *Starting the generator with loads already connected to it could result in damage to any device being powered by the generator during the brief start-up period.*

Earthing the Generator

The generator's equipotential bonding system including the frame terminal on the control panel should not be connected to the general mass of earth through a separate earth electrode. For more information, refer to: AS/NZS 3010:2005 Electrical Installations - Generating Sets or consult a licensed electrician.

WARNING!
Be sure the generator is properly installed to reduce the possibility of electric shock. Any connection to an electrical installation such as in a building, for example, must be carried out by a licensed electrician.

Checking & Adding Engine Oil and Fuel

NOTE: Before adding fuel or oil to the generator, review Safety on page 4.

DANGER!
Filling the fuel tank with fuel while the generator is running can cause fuel to spill and come in contact with hot surfaces that can ignite the fuel.

Before starting the generator, always check the engine oil and fuel levels. After starting the generator, it is not safe to add fuel to the fuel tank or engine oil to the engine while the engine is running or immediately after stopping while the engine and muffler are still hot.

Checking and Adding Engine Oil

Internal pressure can build up in the engine crankcase while the engine is running. Removing the oil fill plug while the engine is hot can cause hot oil to spray out of the crankcase and cause severe skin burns. Allow engine oil to cool for several minutes before removing the oil fill plug.

The generator as shipped does not contain oil in the engine. You must add engine oil before starting the generator for the first time.

See Engine Oil Maintenance on pages 22 - 24 for more information

NOTICE: The generator does not contain engine oil as shipped. Attempting to start the engine before adding engine oil can permanently damage internal engine components.

Checking and Adding Fuel

WARNING!
Never refuel the generator while the engine is running. Always turn the engine off and allow
the generator to cool before refuelling.

With the generator switched off and stationary on a horizontal surface, check the fuel level as indicated on the fuel gauge. It is good practice to always fill the fuel tank before operating the generator.

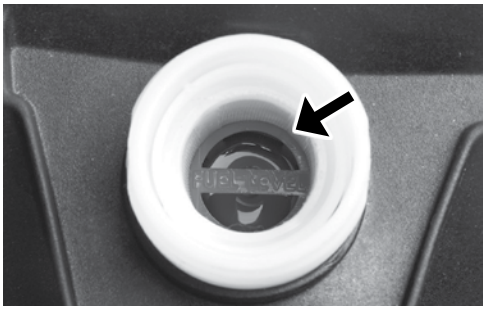
Required Fuel
Use only unleaded petrol with an octane rating not less than 91 and ethanol content not greater than 10%. Where possible it is preferable to use regular unleaded petrol without ethanol.

Filling the Fuel Tank

Follow the steps below to fill the fuel tank:

1. Stop the generator, if running.
2. Allow the generator to cool down until the muffler access cover is cool to the touch.
3. Move the generator to a flat surface.
4. Clean area around the fuel cap.
5. Turn the fuel cap vent clockwise to the ON position.

6. Remove the fuel cap by unscrewing it anticlockwise.
7. Slowly add fuel into the fuel tank. Be careful not to overfill the tank. The fuel level should NOT be higher than the red ring inside the fuel strainer (see Figure 6).
8. Replace the fuel cap by screwing it on clockwise and turn the fuel cap vent anticlockwise to the OFF position.



(Fig. 4) Maximum Fuel Fill Level

CAUTION!
Avoid prolonged skin contact with fuel. Avoid prolonged inhalation of fuel vapours.

NOTICE: *Do not overfill the fuel tank. Spilt fuel may damage some plastic parts.*

Starting the Generator

Before attempting to start the generator, verify the following:

- The engine is filled with engine oil (see pages 22- 24).
- The generator is situated in a proper location (see Location Selection on page 10).
- The generator is on a dry surface (see Weather and Dry Surface on page 10).
- All loads are disconnected from the generator (see No Connected Loads on page 10).

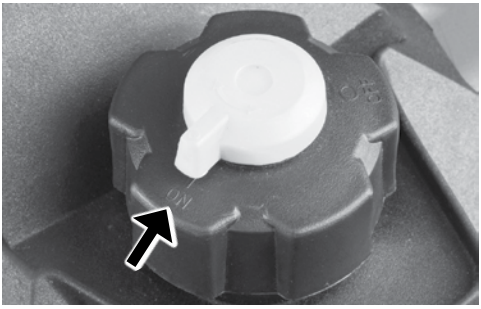
Never use the generator in a location that is wet or damp. Never expose the generator to rain, snow, water spray or standing water while in use. Protect the generator from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical system.

Never operate the generator in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the generator outside and away from windows, doors and vents.

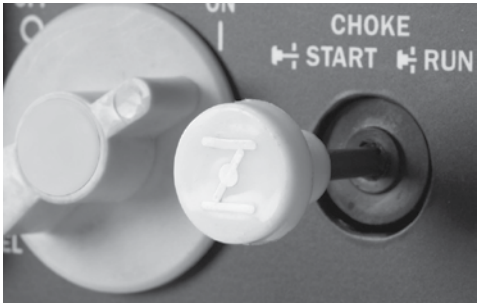
NOTICE: *The generator is equipped with a low oil shutdown switch. If the oil level becomes too low, the engine will shut down automatically and cannot be restarted until the oil is filled to the proper level.*

Be sure the engine has the proper oil level before using. Failure to verify that the engine has the proper oil level could result in severe engine damage or shorten the engine life.

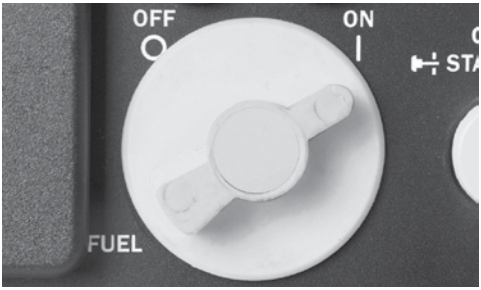
Disconnect all loads from generator before starting. Failure to verify all loads are disconnected prior to starting generator could result in damage to connected electrical devices.



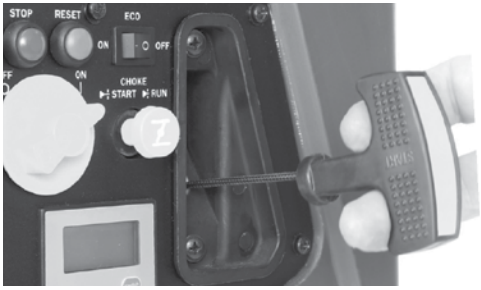
(Fig. 5) Fuel Cap Vent in ON Position



(Fig. 7) Choke Knob in START Position



(Fig. 6) Fuel Control Switch in ON Position



(Fig. 8) Recoil Starter Handle Operation

1. Turn the fuel cap vent clockwise to the ON position. (See Fig 5.)

2. Turn the fuel control switch clockwise to the ON position. (See Fig 6.)

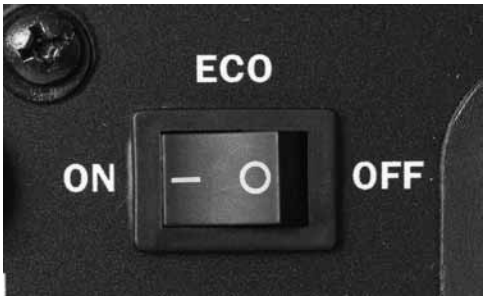
3. Pull choke knob out to START position if starting a cold engine. To re-start a warm engine, leave choke knob pushed in to RUN position. (See Fig 7.)

4. Whilst holding the generator down with one hand, firmly grasp the recoil starter handle with your other hand and pull it slowly until you feel increased resistance. At this point, pull it briskly up and away from the generator (see Fig.8).

   Do not allow the starter handle to snap back against the engine, but instead return it gently to prevent starter damage. Do not allow the starter cord to rub against other parts of the generator.

5. As the engine starts running and warms up, gradually push the choke back into the RUN position.

6. Connect electrical cords or devices into the 240V AC and/or 12V DC outlets, as required.



(Fig. 9) ECO Throttle Switch in ON Position

Eco Throttle Control

The generator is equipped with ECO Throttle Control to minimise fuel consumption. In ECO mode, the generator senses the electrical load demand and adjusts the engine speed and power output to match it; if there is no electrical load connected, the engine speed drops down to idle. ECO mode should only be used once the generator has reached normal operating temperature after running for at least five minutes. When starting large inductive loads such as an air conditioner, compressor or pump, ECO mode should be switched off so that the engine speed will be kept higher for maximum electrical starting power availability.

To activate ECO mode, move the ECO throttle switch to the ON position (see Fig. 9). To deactivate ECO mode, move the ECO throttle switch to the OFF position.

Overload Reset

An electrical overload or short circuit will trip the overload protection system by disconnecting the generator's AC output even though the engine is still running. If this occurs, the overload alarm light will be illuminated red and the output indicator light will be off. The AC output can be restored as follows:

1. Turn off and unplug any electrical devices or cords from the 230V AC and 12V DC receptacles on the control panel.

2. Press the generator reset button on the control panel until the overload alarm light goes off and the output indicator light is illuminated green.

3. Check that the intended electrical running and starting loads do not exceed the generator's capacity or have a licensed electrician rectify any fault causing a short circuit in the load.

4. Reconnect any electrical devices or cords to the 230V AC and 12V DC receptacles on the control panel and then turn on the electrical loads as required.

Stopping the Generator

Normal Operation

During normal operation, use the following steps to stop the generator:

1. Unplug any electrical cords or devices from the 230V AC and 12V DC receptacles on the control panel.

2. Allow the generator to run unloaded for at least one minute to cool and stabilise the engine and alternator temperatures.

3. Press and hold down the engine stop button until the generator has ceased operating.

4. Turn the fuel control switch to the OFF position.

5. Turn the fuel cap vent anti-clockwise to the OFF position.

During an Emergency

If there is an emergency and the generatormust be stopped quickly, press and hold down the engine stop button immediately.

Application & Duty Cycle

All models within this range of GT Power generators are portable, air-cooled, petrolengine driven, self-contained units designed for independent supply of electrical power. They are ideal as a back-up power supply in the event of mains power failure or as a remote area power supply for use when camping, caravanning or working out in the field.

For most common applications, connect as described in this manual.

Ambient Conditions

The generator is designed to operate within the following range of ambient conditions:

- Temperature: -5 to +40°C
- Altitude: Up to 1,000 m

Where possible, the generator should be operated in the shade to prevent additional heat load due to solar radiation.

The engine's power output will decrease by approximately 3.5% for each 300 m increase in altitude above sea level. This is normal for spark ignition engines and is attributable to the decrease in atmospheric pressure (and thus the available air for combustion) as altitude increases.

Connecting Electrical Loads

The generator can only be used to power 230V AC, 50 Hz, single phase or 12V DC electrical devices.

230 Volt AC Loads

230V AC devices can be connected either directly or via electrical extension cords into the 230V AC outlet(s) on the generator's control panel. Lift up the spring-loaded weather resistant cover on each outlet for access to connect the electrical device or cord.

230V AC devices may be fitted with either a three-pin 15A plug or a three-pin 10A plug.

Certain double-insulated devices may be fitted with a two pin 10A plug that doesn't have an earth pin (which is the longer, vertical pin).

NOTICE: *DO NOT connect any 230V AC device that is fitted with a three-pin 20A plug. This can overload the generator.*

See 230V AC Extension Cords on page 17 for detailed instructions concerning their selection and use.

12-Volt DC Loads

12V DC devices can be connected either directly or via an electrical extension cord not exceeding 3.5 m in length into the 12V DC outlet on the generator's control panel. Pull out the weather resistant stopper on the outlet for access to connect the electrical device or cord, and re-insert it after use.

NOTICE: *The generator's 12V DC electrical output is unregulated. DO NOT connect any 12V DC device that may be damaged by voltage fluctuations.*

12V DC devices or extension cords must be fitted with a cigarette lighter plug for connection to the generator.

⚠ **WARNING!**
Never insert an automotive cigarette lighter into the 12V DC outlet. The heated lighter may ignite the fuel causing an explosion or fire.

Power Output and Demand

There are two limits to the amount of electric power that the generator can usefully provide: (a) its total 230V AC or 12V DC electric power generating capacity or power output and (b) the electric current or power output capacity of each individual 230V AC or 12V DC outlet.

The generator's total power output measured in Watts is listed in the Specifications (see page 37).

Two 230V AC power outputs are specified for the generator, namely the running power and the starting power. A single 12V DC power output is also specified.

NOTICE: *DO NOT overload the generator's 230V AC or 12V DC circuits beyond their rated capacities. This can result in damage to the generator or to the connected devices.*

The generator should not be run completely unloaded for extended periods otherwise the engine may be damaged. It is recommended that the generator should always be operated with at least one-third of its rated 230V AC power output.

230V AC devices have two different electric power demands that must be taken into consideration, namely the running power and the starting power. Both are measured in Watts (typically abbreviated as "W").

The steady state continuous load is the running power demand and this is often marked on the device near its model number or serial number. Sometimes the device might only be marked with its voltage (i.e. 230 Volt or 230 V) and current draw (e.g. 6 Ampere or 6 Amp or 6 A), in which case the running power demand in Watts can be obtained by multiplying the voltage times the current, e.g. 230V × 6 A = 1380W.

Simple resistive 230V AC devices such as incandescent bulbs, toasters, heaters, etc. have no extra power demand when starting, and so their starting power demands are the same as their running power demands. More complex 230V AC devices containing induc-

tive or capacitive elements such as electric motors have a momentary extra power demand when starting, which can be up to seven times the running power demand or more.

Manufacturers of such devices rarely publish this starting power demand and so it's often necessary to estimate it.

A rule of thumb for devices fitted with an electric motor is to apply a starting power multiplier of 1.2 for small hand-held or portable devices and a value of 3.5 for larger stationary devices. For example, a 900W angle grinder can be assumed to have a starting power demand of at least 1.2 × 900W, which equals 1080W. Similarly, a 1650W air compressor can be assumed to have a starting power demand of at least 3.5 × 1650W, which equals 5775W.

To prevent overloading of the generator's 230V AC system:

1. Add up the running power demand of all the 230V AC devices that will be connected to the generator at one time. This total must not be greater than the generator's specified running power output.

2. Add up the running power demand again, but for the largest motor-driven device use the value of its starting power demand instead of its running power demand. This total must not be greater than the generator's specified starting power output.

3. The total running power demand of all the devices that will be connected to any one of the generator's outlets must not exceed 2100W for the GT2500i.

The above guidelines serve as approximations only of determining the running and starting power demands of 230V AC devices.

If in doubt, always err on the conservative side to avoid overloading the generator. In the absence of any power demand information whatsoever, one can assume that any device fitted with a standard domestic 10A plug has a maximum running power demand of 2300W (i.e. 230V x 10 A = 2300W). Similarly a device fitted with a heavy duty 15A plug can be assumed to have a maximum running power demand of 3450W
(i.e. 230V x 15A = 3450W). And then apply the appropriate multiplying factor for starting power demand if the device has an electric motor.

NOTICE: *To prevent overloading of the generator's 12V DC system, do not connect any 12V DC device(s) with a total running power demand greater than 100W or a total current draw of more than 8A.*

230V AC Extension Cords

Wherever possible, it is recommended to connect 230V AC devices directly to the generator's 230 V AC outlet(s). This ensures that the device is supplied with the best quality electricity.

In those instances where it's not practicable or safe to directly plug an electrical device into the generator, the use of an electrical extension cord is necessary.

1. Use only the shortest possible extension cord for the task. Voltage drop increases proportionately with the length of an ex-

tension cord and may result in damage to the powered device.

2. Use only a single extension cord and not multiple cords joined together. This will minimize voltage drop and prevent any hazard or inconvenience arising from the joint(s) becoming disconnected.

3. Use only extra heavy duty 15A extension cords made from 3-core cable of at least 1.5 mm2 conductor size and fitted with 15 A plugs and sockets.

   A 15A plug cannot be inserted into a standard domestic 10A socket.

4. Extension cords with conductor size of 1.5 mm2 or 2.5 mm2 should not exceed 25m or 40m in length, respectively, for general use in accordance with AS/NZS 3199:2007.

NOTICE: *DO NOT use extension cords with only 2-pin (active and neutral) plugs and sockets. These extension cords lack the earth connection that is provided by a 3-pin plug and socket joined with a 3-core cable; the vertical pin is the earth connection.*

5. DO NOT use extension cords with any visible signs of damage to the plug, socket or cable.

6. DO NOT use extension cords that are rolled up or knotted as they may overheat.

12V Battery Charging

There are two methods by which the generator can be used to charge an external 12V battery:

A. By direct connection to the generator's 12V DC electrical outlet; or

B. By using a mains-powered 12 Volt battery charger connected to one of the generator's 230V AC outlets.

Wet cell batteries produce explosive hydrogen gas while charging. If ignited, the hydrogen gas mixture can explode the battery and cause serious injury or blindness. Only charge a battery in a well-ventilated area away from any sources of ignition such as sparks, open flames, matches, cigarettes, CB radios and mobile phones.

The electrolyte fluid inside a battery contains highly corrosive sulphuric acid, which upon contact with the skin or eyes can cause severe burns or blindness. Always wear protective glasses and clothing - including gloves - when working on a battery.

Any electrolyte spill should be thoroughly flushed clean with water.

Charging by Direct Connection

This method is NOT RECOMMENDED and should only be used in an emergency. The generator's 12V DC electrical output is unregulated and may damage the battery due to overcharging.

Tools required (not incl.) - 12V DC, 10A minimum battery charging cable with cigarette lighter plug for connection to the generator and alligator clips (both positive and negative) for connection to the battery.

1. Prepare the battery for charging if it is a user maintainable type by removing the vent caps and adding demineralized or distilled water until the electrolyte level is

just above the internal battery plates. This may not be possible with a maintenance-free battery.

2. Connect the positive (+) alligator clip (red) to the positive (+) terminal on the battery.

3. Connect the negative (-) alligator clip (black) to the negative (-) terminal on the battery.

4. Start the generator.

5. Insert the cigarette lighter plug into the generator's 12V DC accessory socket. The battery is now charging. Keep battery as far away as possible from the generator due to the explosive gas hazard.

6. Monitor battery; stop charging if battery gets hot to touch and electrolyte boils violently.

7. Variables such as battery size and initial state of charge make it impossible to definitively recommend the charging period. Some batteries have a state of charge indicator that can be visually checked. Otherwise a voltmeter or hydrometer is necessary to accurately determine the battery's condition. A fully charged battery will have an open circuit voltage of at least 12.6V and an electrolyte specific gravity of at least 1.265. In the absence of any state of charge tools, stop the charging after 3 hours and check whether the battery is capable of powering the required application, e.g. to start a car's engine.

8. Remove the cigarette lighter plug from the generator's 12V DC accessory socket.

9. Stop the generator unless it's being used to power some other 230V AC device(s).

10. Disconnect the negative (-) alligator clip (black) from the negative (-) terminal on the battery.

11. Disconnect the positive (+) alligator clip (red) from the positive (+) terminal on the battery.

12. Re-fit the battery's vent caps, if applicable. The battery can now be used.

Battery Charging by a Mains Powered Charger

This method is RECOMMENDED. Using a proper mains-powered 12 Volt battery charger will ensure that the battery is optimally charged and without risk of damage due to overcharging.

Tools required (not incl.) - 230V AC powered 12 V DC battery charger.

1. Prepare the battery for charging if it is a user maintainable type by removing the vent caps and adding demineralized or distilled water until the electrolyte level is just above the internal battery plates. This may not be possible with a maintenance-free battery.

2. Connect the battery charger's positive (+) alligator clip or terminal clamp (red) to the positive (+) terminal on the battery.

3. Connect the battery charger's negative (-) alligator clip or terminal clamp (black) to the negative (-) terminal on the battery.

4. Start the generator.

5. Make any necessary pre-charging adjustments or settings on the battery charger

in accordance with its operating instructions.

6. Insert the battery charger's power supply plug into one of the generator's 240-Volt AC outlet sockets and then switch the battery charger ON.

   The battery is now charging. Keep the battery as far away as possible from the generator due to the explosive gas hazard.

7. Monitor the battery; stop charging if the battery gets hot to the touch and the electrolyte boils violently.

8. Monitor the battery charger in accordance with its operating instructions and switch it off when indicated to do so.

9. Switch the battery charger OFF and unplug its power supply cord from the generator.

10. Stop the generator unless it's being used to power some other 230V AC device(s).

11. Disconnect the battery charger's negative (-) alligator clip or terminal clamp (black) from the negative (-) terminal on the battery.

12. Disconnect the battery charger's positive (+) alligator clip or terminal clamp (red) from the positive (+) terminal on the battery.

13. Re-fit the battery's vent caps, if applicable. The battery is now charged and ready for use.

Transporting the Generator

The generator should be stopped and both the fuel control switch and fuel cap vent should be turned to the OFF position before transporting the generator.

Keep the unit level during transport to minimise the possibility of fuel leakage or, if practicable, drain out the fuel prior to transport as described in Draining the Fuel on page 30.

If the generator has been operating, allow the unit to cool down before loading it onto the transport vehicle.

Use only the generator's handle for lifting the unit or attaching any load restraints such as ropes or tie-down straps. Do not attempt to lift or secure the generator by holding onto any of its other components.

Maintenance Precautions

NOTE: *Before performing maintenance on the generator, review Safety on page 4 and the following safety messages.*

WARNING!
Avoid accidentally starting the generator during maintenance by removing the spark plug boot from the spark plug. Allow hot components to cool to the touch prior to performing any maintenance procedure.

WARNING!
Internal pressure can build in the engine crankcase while the engine is running. Removing the oil fill plug

while the engine is hot can cause hot oil to spray out of the crankcase and cause severe skin burns. Allow engine oil to cool for several minutes before removing the oil fill plug.

WARNING!
Always perform maintenance in a well ventilated area. Fuel and fuel vapours are extremely flammable and can ignite under certain conditions.

CAUTION!
Avoid skin contact with engine oil or fuel. Prolonged skin contact with engine oil or fuel can be harmful. Frequent and prolonged contact with engine oil may cause skin cancer. Take protective measures and wear protective clothing and equipment. Wash all exposed skin with soap and water.

Maintenance Schedule

NOTE: *Failure to perform periodic maintenance or not following maintenance procedures can cause the generator to malfunction and could result in death or serious injury.*

NOTICE: *Periodic maintenance intervals vary depending on generator operating conditions. Operating the generator under severe conditions, such as sustained high-load, high-temperature, or unusually wet or dusty environments, will require more frequent periodic maintenance. The intervals listed in the maintenance schedule should be treated only as a general minimum guideline. Use only genuine GT Power spare parts or others as specified herein. Non-genuine spare parts may be of inferior quality and cause damage to the generator.*

Maintenance Item	Before Every Use	After First 20Hrs or First Month*	After First 50Hrs or Every 3 Months*	After 100Hrs or Every 6 Months*	After 250Hrs or Every Year*
Engine Oil	Check / Add	Change	-	Change	-
Air Filter	Check / Clean	-	Clean ^	-	-
Spark Plug	-	-	-	Check / Clean	Replace
Fuel Strainer	-	-	-	Clean	-
Spark Arrester	-	-	-	Clean	-
Exterior Surfaces	Check / Clean	-	-	-	-

• Whichever occurs first. ^ Service more frequently if operating in dusty conditions

Following the maintenance schedule is essential to keep the generator in good operating condition. The table above provides a summary of routine inspection procedures and simple maintenance tasks that can be performed by someone with mechanical competence using commonly available hand tools. Alternatively, an authorised GT Power service dealer can carry out this work for a fee.

The following table lists the more complicated maintenance tasks that are best performed by a qualified mechanic using specialised tools. It is recommended to engage an authorised GT Power service dealer to carry out this work.

Maintenance Item	After 250 Hours or Every Year*	After 500 Hours or Every 2 Years*
Valve Clearance	Check / Adjust	-
Combustion Chamber	-	Clean

* Whichever occurs first

Engine Oil Maintenance

Engine Oil Specification

Use premium quality 4-stroke engine oil with an API Service Classification of at least SG. A SAE multigrade viscosity of 10W-30 is suitable for use in ambient temperatures of up to 40°C. For temperatures above 40°C, a multigrade viscosity of 15W-40 is recommended.

NEVER use 2-stroke engine oil either directly in the engine or mixed with the fuel.
Mineral based, semi-synthetic or fully synthetic oils may be used, but different types of oils should not be mixed together. The engine oil supplied originally with the generator is a mineral type with SAE 1 5W- 40 viscosity.
Checking Engine Oil

NOTICE: *Always maintain proper engine oil level. Failure to maintain proper engine oil level can result in severe damage to the engine and/or shorten the life of the engine.*

Always use the specified engine oil. Failure to use the specified engine oil can cause accelerated wear and/or shorten the life of the engine.

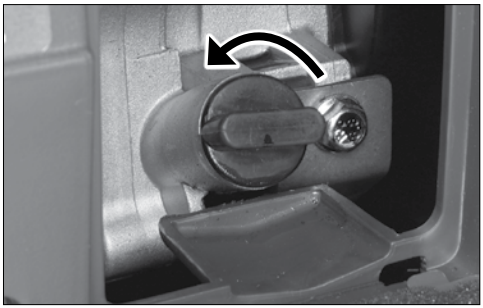
Engine oil level should be checked before every use.

1. Always operate or maintain the generator on a flat surface.
2. Stop engine if running.
3. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
4. Remove the oil access cover on the rear of the generator (see Fig. 10). With a damp rag, clean around the oil fill plug.
5. Remove oil fill plug by unscrewing it anticlockwise (see Fig. 11).
6. Check oil level (See Fig. 12).

(Fig. 10) – Removing the Oil Access Cover

Low Oil Level – Oil surface is below the bottom lip of the oil fill plug opening. Add oil as required.

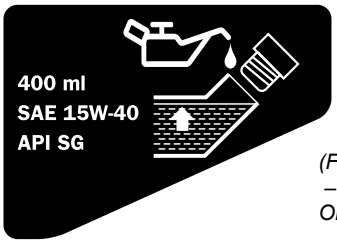
Too High Oil Level - Oil flows out when the oil fill plug is removed. Allow the excess oil to drain out into a waste oil container.



(Fig. 11) – Removing the Oil Fill Plug

Low Oil Level – Oil surface is below the bottom lip of the oil fill plug opening. Add oil as required.

Too High Oil Level - Oil flows out when the oil fill plug is removed. Allow the excess oil to drain out into a waste oil container.



(Fig. 12) – Checking Oil Level

Adding Engine Oil

1. Always operate or maintain the generator on a flat surface.

2. Stop the engine, if running.

3. Let engine cool down for several minutes allowing crankcase pressure to equalise.

4. Remove the oil access cover on the rear of the generator (see Fig. 10).

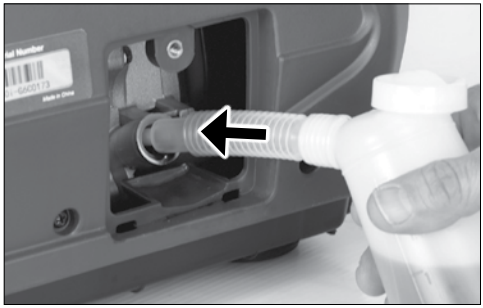
5. Thoroughly clean around the oil fill plug.

6. Remove oil fill plug.

7. Select the proper engine oil as explained in Engine Oil Specification on page 22.

8. Using the supplied oil fill bottle, slowly add engine oil to the engine (see Fig. 13). Check the oil level periodically to avoid overfilling.

9. Continue to add oil until oil is at correct level (See Fig. 12).



(Fig. 13) – Adding Engine Oil

A simple visual guide is to observe the oil level relative to the bottom lip of the oil filler neck in the engine (into which the oil fill plug is screwed). If the oil reaches the bottom lip, then it's at the high level. If the oil is above the bottom lip and flows out of the hole, then it's too full and the excess must be drained out.

10. Reinstall the oil fill plug and oil access cover.

Changing Engine Oil

1. Stop the engine, if running.

2. Let engine cool down for several minutes allowing crankcase pressure to equalise.

3. Remove the oil access cover on the rear of the generator (see Fig. 10).

4. Place oil pan or other suitable container under the oil fill plug.

5. With a damp rag, thoroughly clean around the oil fill plug.

6. Remove the oil fill plug. Once removed, place the oil fill plug on a clean surface.

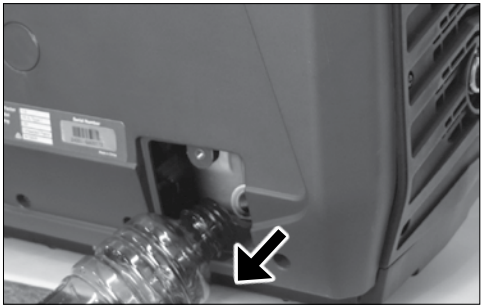
7. Tilt the generator over to drain oil into a waste oil pan or container (see Fig. 14).

8. Allow oil to drain completely.

9. Fill crankcase with new oil following the steps outlined in Adding Engine Oil.

10. Re-install the oil fill plug and oil access cover. An alternate and superior method for draining is to use an oil extractor vacuum pump to remove the used oil via the oil fill plug hole.

NOTICE: *Never dispose of used engine oil by dumping the oil into a sewer, on the ground, or into groundwater or waterways. Always be environmentally responsible. Follow the guidelines of the government agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.*



(Fig. 14) – Draining Engine Oil

Air Filter Maintenance

WARNING!
Never use fuel or other flammable solvents to clean the air filter. Use only household detergent and warm water or a non-flammable solvent.

NOTICE: *Do not operate the generator without an air filter element or with a damaged air filter element. This will allow dirt to enter the engine and cause accelerated wear or shorten the engine life.*

Cleaning the Air Filter

The air filter must be cleaned after every 50 hours of use or 3 months (frequency should be increased if generator is operated in a dusty environment).

1. Turn off the generator and let it cool for several minutes if it's been running.

2. Move the generator to a flat, level surface.

3. Remove the air filter access cover by undoing the six screws affixing it to the generator casing (see Fig. 15). Clean the cover and especially its vent holes with a rag or brush and place it aside.

4. Remove the air filter cover by undoing the central fixing screw (see Fig. 16). Clean the air filter cover with a rag and place it aside.

Figure 15 – Removing the Air Filter Access Cover

Figure 16 – Removing the Air Filter Cover

5. Remove the foam air filter element while taking care to note the position of the bevelled corner (see Fig. 17). The air filter element must be re-installed later in the same position.

6. Wash air filter element in a solution of household detergent and warm water or alternatively in non-flammable solvent. Slowly squeeze the foam in the liquid for a thorough cleaning action. Then remove foam and squeeze out liquid.

NOTICE: *NEVER twist or tear the air filter element during cleaning or drying. Apply only a slow and firm squeezing action.*

7. Rinse air filter element by immersing it in fresh water and applying a slow squee zing action.

NOTICE: *Never dispose of the used cleaning solution or solvent by dumping it into a sewer, on the ground, into groundwater or into a waterway. Always be environmentally responsible. Follow the guidelines of the governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.*

8. Dry ir filter element by repeatedly applying a slow firm squeezing action.

9. Coat air filter element in clean engine oil and then thoroughly squeeze out excess liquid.

10. Re-install air filter element inside air filter housing with bevelled corner of the foam correctly located (see Fig. 17).

11. Re-install the air filter cover and air filter access cover.

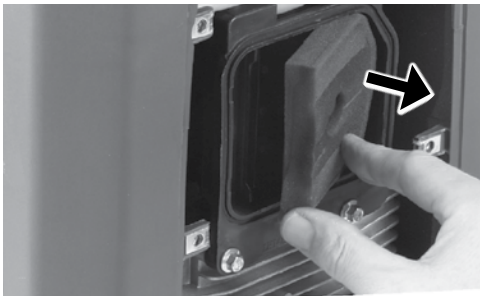


Figure 17 – Removing the Air Filter Element

Fuel Strainer Maintenance

Check and clean the fuel strainer after every 100 hours of use or 6 months. It is recommended that this maintenance task also be performed each time when filling with fuel from any source other than directly from a service station bowser.

1. Stop the generator, if running.
2. Allow the generator to cool down until the muffler access cover is cool to the touch.
3. Remove the generator to a flat surface.
4. Clean area around the fuel cap.
5. Turn the fuel cap vent clockwise to the ON position.
6. Remove the fuel cap by unscrewing it anti-clockwise and set it aside on a clean surface.
7. Remove the fuel strainer by hand from inside the filter hole on top of the fuel tank (see Fig. 18) taking care not to tear or otherwise damage the fine mesh screen.

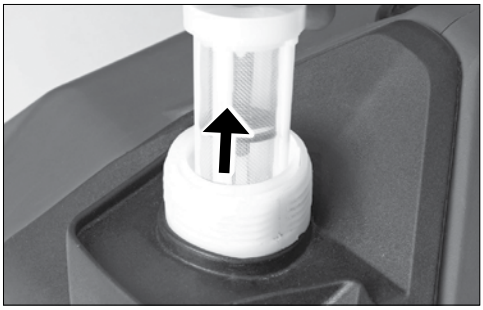


Figure 18 – Removing the Fuel Strainer

Keep the fuel strainer vertical so that any trapped liquid or solids do not spill onto the generator.

8. Pour the contents of the fuel strainer into a suitable waste receptacle. Low pressure compressed air can be used if necessary for blowing onto the outside of the strainer mesh to remove any trapped fine grit.

NOTICE: *Never dispose of fuel or fuel contaminants by dumping either of them into a sewer, on the ground, or into groundwater or waterways. Always be environmentally responsible. Follow the guidelines of the government agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.*

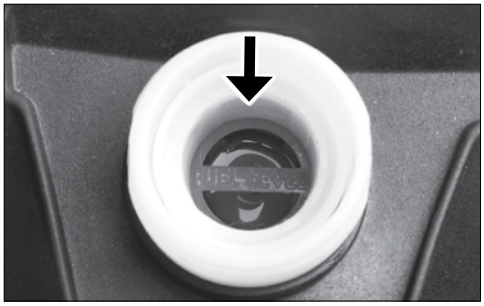


Figure 19 – Re-installing the Fuel Strainer

9. Re-install the fuel strainer by hand inside the filter hole on top of the fuel tank (see Fig. 19). Make sure it is fully inserted into the opening.
10. Re-install the fuel cap on the fuel tank by screwing it on clockwise.

Spark Plug Maintenance

Tools required - Spark plug socket wrench (included), spark plug gap tool or feeler gauge (not included) and wire brush (not included).

The spark plug should be checked and cleaned after every 100 hours of use or 6 months and then replaced after 250 hours of use or every year.

1. Stop the generator and let it cool for several minutes if it's been running.

2. Move generator to a flat, level surface.

3. Slide open and remove spark plug access cover (see Fig. 20).

4. Remove spark plug boot by firmly pulling it up and away from the engine (see Fig. 21).

NOTICE: *Never apply any side load or move the spark plug laterally when removing the spark plug. Applying a side load or moving the spark plug laterally may crack and damage the spark plug insulator.*

5. Clean area around the spark plug.

Fig. 20 – Removing the Spark Plug Access Cover

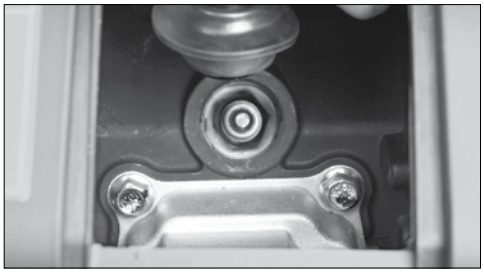


Figure 21 – Removing the Spark Plug Boot

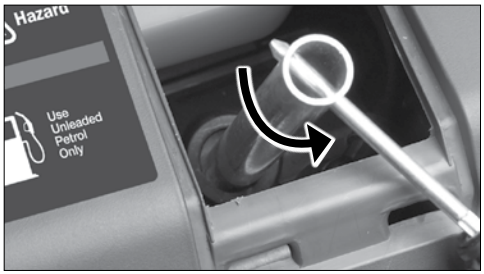


Figure 22 – Removing the Spark Plug

6. Use a spark plug socket wrench to remove the spark plug from the cylinder head by unscrewing it anti-clockwise (see Fig. 22).

7. Place a clean rag over the opening created by the removal of the spark plug to make sure no dirt can get into the combustion chamber.

8. Inspect the spark plug for:

   Cracked or chipped insulator
   - Replace the spark plug.

   Excessive wear of the electrodes
   - Replace the spark plug.

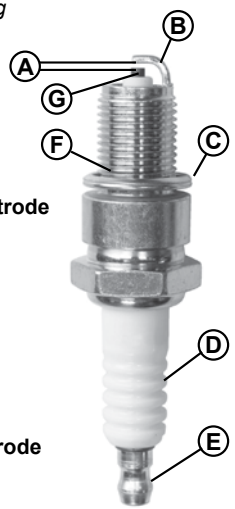
   Excessive carbon or oil fouling of the electrodes
   - Clean the electrodes with a wire brush or replace the spark plug.

Spark plug gap within the acceptable limits of 0.6 - 0.7mm or 0.024 - 0.028 inch (see Fig. 23).
- After cleaning with a wire brush, check using a spark plug gap tool or feeler gauge and adjust by carefully bending the ground electrode. Always check the gap of a new spark plug before installing it.

When replacing the spark plug, use only a Torch A5RTC or equivalent such as NGK CR5HSA, Denso U16FSR-U, Champion RZ11Y or Bosch UR4AS.

NOTICE: *Use only the recommended spark plug (NGK CR5HSA) or equivalent. The use of a non-recommended spark plug can damage the engine.*

Fig. 23 - Spark Plug



A - Gap
B - Ground Electrode
C - Gasket
D - Insulator
E - Terminal
F - Thread
G - Centre Electrode

9. Install the spark plug as below:

   a - Carefully insert spark plug back into the cylinder head. Hand screw sparkplug clockwise until it bottoms out (seats).

   b - Use a spark plug socket wrench to finish tightening the spark plug. If re-installing a used spark plug, tighten 1/8 to 1/4 of a turn after the spark plug seats. If installing a new spark plug, tighten 1/2 turn after the spark plug seats. The tightening torque should not exceed 12 Nm (9 lb-ft).

   c - Replace the spark plug boot, making sure the boot fully engages onto the spark plug's terminal.

10. Re-install the spark plug access cover.

Spark Arrester Maintenance

Tools required - Phillips head screwdriver (included) and wire brush (not included).
Check and clean the spark arrester after every 100 hours of use or 6 months.

1. Stop the generator and let it cool for several minutes if it's been running.

2. Move the generator to a flat, level surface.

3. Remove the muffler access cover by undoing the eight screws affixing it to the

Figure 24 - Removing the Muffler Access Cover

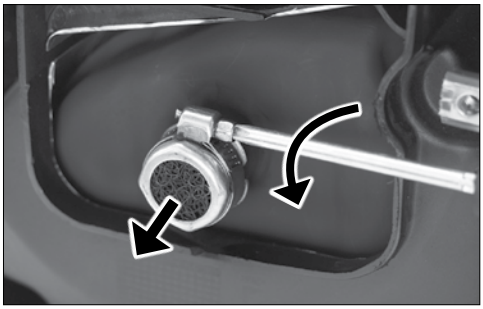


Figure 25 - Removing the Spark Arrester

generator casing (see Fig. 24). Clean the cover and especially its vent holes with a rag or brush and then place it aside.

4. Loosen the spark arrester band clamp by turning the adjusting screw anti-clockwise and slide the spark arrester band clamp off the spark arrester screen (see Fig. 25).

5. Pull the spark arrester screen off the muffler exhaust pipe.

6. Use a wire brush to remove any dirt and debris that may have collected on the spark arrester screen.

7. If the spark arrester screen shows signs of wear such as rips, tears or large openings, it should be replaced.

8. Re-install the spark arrester components in the following order:

   a - Place spark arrester screen over the muffler exhaust pipe. Push on the screen until it fully bottoms out.
   b - Place the spark arrester band clamp over the screen and tighten the adjusting screw clockwise.

9. Re-install the muffler access cover.

Cleaning the Generator

The generator should be kept clean and dry at all times to ensure its reliable and safe operation.This must be checked each time before using the generator.

Use a damp cloth which has been soaked in a mixture of household detergent and warm water and then wrung out to remove excess liquid. Wipe the exterior surfaces of the generator clean and then repeat with a damp cloth which has been rinsed in clean water and wrung out. Finish by wiping off all moisture with a dry cloth. Do not use abrasive or solvent cleaners.

Fig. 26 - Cooling Air Inlet Ports

A soft, non-metallic bristle brush and/or a vacuum cleaner may be used to loosen and remove any built-up dirt, mud or other debris. Low pressure compressed air may also be used to blow off any dirt or dust.

Make sure all of the engine and alternator cooling air ports are clean of any dirt or other debris (see Fig. 26 and 27) otherwise the generator may overheat and be damaged.

Fig. 27 - Cooling Air Outlet Ports

NOTICE: *NEVER use a water hose or pressure washer to clean the generator. Water may enter the fuel or electric systems and damage the generator. The risk of electric shock is also possible.*

Draining the Fuel

Occasionally it may be necessary to drain all of the fuel out of the generator. For example, to remove contaminated or stale fuel or to prepare the generator for transport or storage.

Tools required - Flat blade screwdriver (included), Phillips head screwdriver (included), fuel siphon hand pump (not included) and fuel storage container (not included).

1. Turn the fuel cap vent clockwise to the ON position (see Fig. 5).

2. Remove the fuel cap by unscrewing it anticlockwise.

3. Clean the fuel strainer (see Fuel Strainer Maintenance on page 26), but do not reinstall it.

4. Pour or siphon contents of the fuel tank into a fuel storage container

5. Turn the fuel control switch clockwise to the ON position (see Figure 6).

6. Using a flat blade screwdriver, remove the fuel drain access cover (see Fig 33)

7. Position a fuel storage container to collect fuel discharged from the drain hose (see Fig. 34).

8. Using a Phillips head screwdriver, loosen the fuel drain screw by turning it anticlockwise (see Fig. 35).

9. Carefully drain the fuel into a storage container. Take care to wipe up any spills immediately.

10. When all of the fuel has been drained out, tighten the fuel drain screw by turning it clockwise. Move the storage container and any fuel soaked rags away from the generator.

Fig. 28 Removing the Fuel Drain Access Cover

It is preferable to consume the fuel in another engine-powered device straight away or dispose of it properly rather than storing it for a long time with fuel stabiliser for later re-use.

Figure 29 – Collecting Drained Fuel

Figure 30 – Fuel Drain Screw

NOTICE: *Never dispose of fuel or fuel contaminants by dumping either of them into a sewer, on the ground, or into groundwater or waterways. Always be environmentally responsible. Follow the guidelines of the governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.*

11. Re-install the fuel drain access cover.

12. Turn the fuel control switch anti-clockwise to the OFF position.

13. Re-install the fuel cap.

14. Turn the fuel cap vent anti-clockwise to the OFF position.

Long-Term Storage

WARNING!

Never store a generator with fuel in the tank indoors or in a poorly ventilated area where fumes can come in contact with an ignition source such as: a pilot light of a stove, water heater, clothes dryer or any other gas appliance; or a spark from an electric appliance.

NOTICE: *Fuel stored for as little as 30 days can go bad, causing gum, varnish and corrosive build-up in fuel lines, fuel passages and the engine. This corrosive build-up restricts the flow of fuel, preventing an engine from starting after a prolonged period of storage. The most commonly experienced faults with portable generators are directly attributable to stale fuel. Such faults are not covered by the generator's warranty.*

The generator should be run at least once per month for 30 mins under no less than one-third load. If this is not possible, the generator should be prepared for long-term storage as described hereunder.

Proper care should be taken to prepare generator for any long-term storage. This protects the generator's function and appearance, and makes it easier to start when required on the next occasion.

Storage Procedure for 1 - 3 Months

1. Clean generator as outlined on page 29.

2. Add GT Power Fuel Set or another fuel stabiliser to the fuel tank and then add fresh fuel up to the tank's maximum ca-

pacity (see checking and Adding Fuel on page 11).

3. Start generator and run it for 10 minutes to ensure that treated fuel is distributed throughout the engine's fuel system.

4. Press and hold down the engine stop button until the generator has ceased operating.

5. Turn the fuel control switch to the OFF position.

6. Turn the fuel cap vent anti-clockwise to the OFF position.

7. Allow the unit to cool down and then move it to a clean, dry place for storage with the supplied cover fitted.

Storage Procedure for Greater than 3 Months

1. Clean the generator as outlined in Cleaning the Generator on page 29.

2. Drain the fuel (see page 30).

3. Start the generator, if possible, and run the engine without load until it stops when the last remnants of fuel have been used. (See Starting the Generator on page 12 and Stopping the Generator on page 14.)

4. Change the engine oil (see Changing Engine oil on page 23).

5. Remove the spark plug (see Spark Plug Maintenance on page 27) and pour a tablespoon of clean engine oil into the spark plug opening. While placing a clean rag over the spark plug opening, slowly pull the recoil starter handle to rotate the engine several times. This will distribute the oil and protect the cylinder wall from corrosion during storage.

6. Re-install the spark plug (see Spark Plug Maintenance on page 27).

7. Slowly pull the recoil starter handle until resistance is felt, at which point the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to prevent internal corrosion.

8. Fit the supplied cover over the generator and move the unit to a clean, dry place for storage.

Removal from Storage

Follow the normal procedures for pre-operation checks and starting (see Before Starting the Generator on page 10).

Use only fresh fuel to re-fill the tank, if necessary, rather than re-using any old fuel. If oil was inserted into the cylinder prior to storage, the exhaust may smoke for a short while after starting the generator; this is normal and will cease within a minute or so of running time.

Dismantling and Disposal

There is no requirement for the generator to be dismantled during normal operation other than for major repair / overhaul or prior to final disposal at the end of its service life.

Dismantling should only be carried out by a mechanically proficient person with access to proper tools or alternatively by your authorised GT Power service dealer.

Before dismantling:

1. Stop the generator (see Stopping the Generator on page 14).
2. Drain the engine oil (see Changing Engine Oil on page 23).
3. Drain the fuel (see Draining the Fuel on page 30).

NOTICE: *Do not pollute the environment by improper or illegal disposal of the waste fluids. Dispose of these hazardous items only at an authorised waste collection / recycling facility.*

Do not pollute the environment by improper or illegal disposal of the generator either as a whole or in parts. Take the unwanted unit or components to your local recycling centre instead. The generator is made almost entirely of metal that can be recycled.

Troubleshooting

⚠ **WARNING!**
Before attempting to service or troubleshoot the generator, the owner or service technician must first read and understand this instruction manual and comply with all safety instructions. Failure to follow all instructions may result in conditions leading to voiding of the product warranty, serious personal injury, property damage or even death.

PROBLEM	POTENTIAL CAUSE	SOLUTION
Engine will not start or starts and runs rough.	1. Low oil level.	1. Check oil level and add oil if necessary.
	2. Generator is out of fuel.	2. Check fuel level and add fuel if necessary.
	3. Fuel is stale or contaminated with water or other foreign substance.	3. Drain fuel and refill with fresh fuel.
	4. Electrical load connected to generator	4. Unplug any electrical cords or devices from the 230-Volt AC receptacles.
	5. Fuel cap vent is in the OFF position.	5. Move fuel cap vent to the ON position.

PROBLEM	POTENTIAL CAUSE	SOLUTION
...cont'd. Engine will not start or starts and runs rough.	6. Fuel control switch is in the OFF position.	6. Move fuel control switch to the ON position.
	7. Engine is not choked (if cold).	7. Move choke knob to the START position.
	8. Engine is over choked (if hot).	8. Move choke knob to between START and RUN positions or fully to RUN position.
	9. Spark plug boot is not properly connected onto spark plug terminal.	9. Push spark plug boot firmly onto spark plug.
	10. Spark plug is dirty or faulty.	10. Clean or replace spark plug.
	11. Air filter is dirty or blocked.	11. Check air filter element - clean if necessary.
	12. Spark arrestor is dirty or blocked.	12. Check spark arrestor - clean if necessary.
	13. If above possible causes are checked and eliminated, generator may be faulty.	13. Take generator to an authorised GT Power service dealer.
Engine is running, but no 230V AC output is available.	1. If output indicator light is green, 230V AC output should be available.	1. Check connected electrical cord(s) or appliance(s) as described below.
	2. Connected electrical cord or appliance plug is not properly inserted into 230V AC outlet socket.	2. Check connected electrical cord or appliance plug is fully inserted into 230V AC outlet socket.
	3. Connected electrical cord or appliance is faulty.	3. Connect known functioning appliance directly into generator's 230V AC outlet socket to verify electrical output.
	4. If output indicator light is not lit no 230V AC output is available. • If overload alarm light is not illuminated, generator may be faulty. • If overload alarm light is red, there is an overload or short circuit in the connected 230V AC load.	• Disconnect all electrical cords and devices from generator and press reset button. If unresolved, stop and re-start engine with ECO throttle switch in the OFF position. For an overload or short circuit, reconnect and test run 230V AC loads individually; any single cord or device that trips overload alarm is either faulty or too great a load for the generator. Any faulty device must not be used further until checked and approved by a license electrician. Check running and starting power demands of total connected electrical load versus generator's rating.
	5. If above possible causes are checked and eliminated, generator may be faulty.	5. Take generator to an authorised GT Power service dealer.

PROBLEM	POTENTIAL CAUSE	SOLUTION
Engine is running, but no 12V DC output is available.	1. Connected electrical cord or appliance plug is not properly inserted into 12V DC outlet socket.	1. Check connected electrical cord or appli ance plug is fully inserted into 12V DC outlet socket.
	2. Connected electrical cord or appliance is faulty.	2. Connect known functioning appliance to generator's 12V DC outlet socket to verify electrical output.
	3. Overload or short circuit in the connected 12V DC load	3. Disconnect all electrical cords and devices from generator. Re-start engine with ECO throttle switch in OFF position. Check 12V DC device(s) total load is not more than 100W or total current draw is more than 8A. Check 12V DC device(s) are not faulty, e.g. short circuit. Damage caused to generator by excessive or faulty 12V DC loads is not covered by warranty.
	4. If above possible causes are checked and eliminated, generator may be faulty.	4. Take generator to an authorised GT Power service dealer.
Engine runs erratically or does not hold steady speed.	1. Generator is out of fuel.	1. Check fuel level and add fuel if necessary.
	2. Fuel is contaminated with water or other foreign matter.	2. Drain fuel and refill with fresh fuel.
	3. Fuel cap vent is in OFF position.	3. Move fuel cap vent to the ON position.
	4. Fuel control switch is in the OFF position.	4. Move fuel control switch to the ON position.
	5. Low oil level.	5. Check oil level and add oil if necessary.
	6. Spark plug boot not properly connected to spark plug terminal.	6. Push spark plug boot firmly onto spark plug.
	7. Overload or short circuit in the connected 230V AC load. are checked and eliminated, generator may be faulty.	7. Disconnect all electrical cords and devices from generator. Re-start generator with ECO throttle switch in the OFF position and then re-connect electrical loads individually if possible. If only single load, check running and starting power demands versus generator's rating.
	8. If above possible causes are checked and eliminated, generator may be faulty.	8. Take generator to an authorised GT Power service dealer.

PROBLEM	POTENTIAL CAUSE	SOLUTION
Engine stops during operation.	1. Generator is out of fuel.	1. Check fuel level and add fuel if necessary.
	2. Fuel is contaminated with water or other foreign substance.	2. Drain fuel and refill with fresh fuel.
	3. Fuel cap vent is in the OFF position.	3. Move fuel cap vent to the ON position.
	4. Fuel control switch is in the OFF position.	4. Move fuel control switch to the ON position.
	5. Low oil level.	5. Check oil level and add oil if necessary.
	6. Push spark plug boot firmly onto spark plug.	6. Spark plug boot is not properly connected onto spark plug terminal.
	7. Overload or short circuit in the connected 230V AC load.	7. Disconnect all electrical cords and devices from generator. Re-start generator with ECO throttle switch in the OFF position and then re-connect electrical loads individually if possible. If only single load, check running and starting power demands versus generator's rating.
	8. If above possible causes are checked and eliminated, generator may be faulty.	8. Take generator to an authorised GT Power service dealer.

Calculating Your Power Needs

1. Using the chart on the following page as a guide, list all items requiring power simultaneously.
2. Then add up all the "running wattage" requirements for all items.
3. Add to that total the highest of the "starting wattages" you listed down. Now you know approximately how much power you need to start and run your appliances and equipment.

Tool or Appliance	Running Watts	Starting Watts
1.		
2.		
3.		
4.		
5.		
Total Running Watts		
Highest Starting Watts		
= Generator Power Needs		

Wattage Reference Guide

Appliances	Approx Run (W)	Approx Start (W)	Appliances	Approx Run (W)	Approx Start (W)
Microwave 750W	750	1200	Central Air Conditioner:		
Coffee Maker	1750	1750	10,000 BTU	1500	2200
Electric Clothes Drier	5750	5750	24,000 BTU	3800	5000
Washing Machine	1150	2300	32,000 BTU	5000	6500
Refrigerator	700	2200	Room Air Conditioner		
Lights	100	100	10,000 BTU	1500	2200
Colour Television	350	350	Circular Saw 7 1/4"	1400	2300
Electric Frypan	1500	1500	Chainsaw 2HP	1100	2500
Dehumidifier	400	400	Portable Air Compressor	1200	3600
Computer - Desktop	700	700	Hand Drill 1/2"	600	900
VCR	50	50	Drill 1/2"	600	900
Dishwasher - Cool Dry	700	1400	Battery Charger - 15 amp	500	700
- Hot Dry	1450	2000	Electric Welder - 200 amp AC	9000	9000
Toaster - 2 Slice	1250	1250	Jigsaw	300	400
- 4 Slice	1600	1600	Electric Weed Trimmer	500	650
Freezer	2200	2500	Router	1000	1300
Hair Dryer	800-1700	800-1700	Belt Sander	1000	1300
Steam Iron	1800	1800	Table Saw 10"	1750	4250
Garage Door Opener - 1/4 HP	550	1100	Bench Grinder	1400	2450
- 1/3 HP	725	1400	Concrete Mixer 3.5c/f	1900	2500
Radio	200	200	Band Saw	1100	1350
Blender	375	500	Power Drill - Medium	1000	1200
Sump Pump 1/2 HP	1050	2150	- Heavy Duty	1500	1800
Well Pump 1/2 HP	1000	2100	Angle Grinder - 100mm	1000	1200
Household Water Pump	1200	2700	- 230mm	2400	2700

This chart lists average power requirements. Your particular tool or appliance may require more or less than the listed wattage. For exact wattages, check the data plate or owner's manual on the item you wish to power. Where START wattage is the same as RUN wattage, this signifies no additional power is required for starting.

Total Running Watts +
Highest Starting Watts

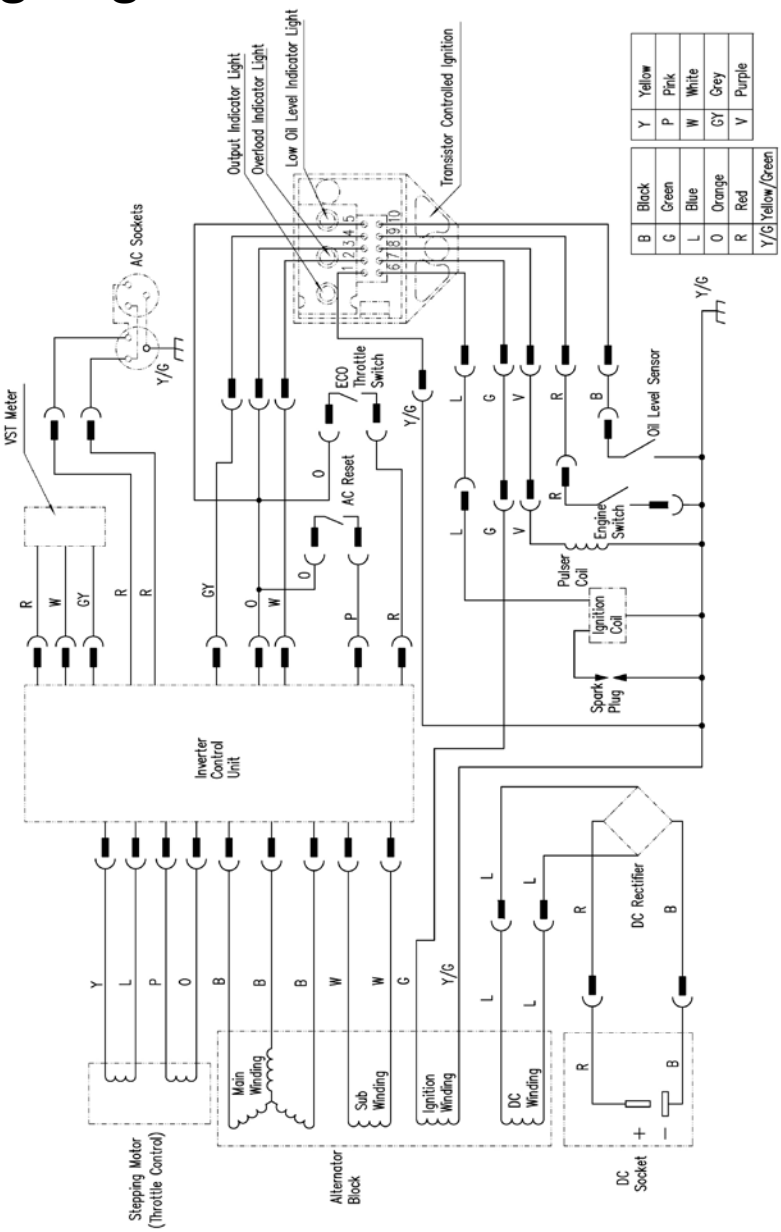
= Generator Power Needs

CAUTION!
Operating voltage and frequency requirement of all electronic equipment should be checked prior to plugging them into this generator. Damage may result if the equipment is not designed to operate within a +/- 10% voltage variation, and +/- 3 Hz frequency variation from the generator specification ratings.

Specifications

ENGINE:	
Type	1-Cylinder, 4-Stroke, Overhead Valve, Air Cooled
Displacement (cm3)	79
Speed (rpm)	3200 ~ 5000
Rated Power (kW / hp)	2.6 / 3.5
Oil Capacity (mL)	400
Low Oil Shutdown	Yes
Spark Plug	Torch A5RTC
Fuel	NGK CR5HSA
Fuel Tank Capacity (L)	5.0
Fuel Gauge	Yes
Starting Method	Recoil
230 V AC ELECTRICAL:	
Voltage (V)	230
Frequency (Hz)	50
Maximum Running Current @ 1.0 PF (A)	8.8
Maximum Starting Current @ 1.0 PF (A)	10.0
Number of Phases	1
Voltage & Waveform Control	Digital Inverter, Pure Sine Wave Output
Running Power (W)	2100
Starting Power (W)	2400
Outlets	2 x 15 A, IP44
Overload Protection	Electronic
Alternator	Brushless, Permanent Magnet
Voltage-Speed-Time Digital Meter	Yes
12 V DC ELECTRICAL:	
Voltage (V)	12
Maximum Current (A)	8
Maximum Power (W)	100
Outlet	1 × 8 A, IP44
DIMENSIONS & WEIGHT:	
L x W x H (mm)	500 x 340 x 440
Weight - Dry (kg)	20
Weight - Wet (kg)	24

Wiring Diagram



Warranty

As part of an on-going commitment to excellence in product support, Euroquip offers a comprehensive product warranty program.

In order to qualify for full warranty support, your product must be registered. Product not registered with Euroquip is supported by a base 12 month warranty only. Spare parts and technical support will not be available for an unregistered product outside of this base warranty period. If a Euroquip dealer has not already registered your product, please register it online or download a physical registration form at www.euroquip.co.nz.

Registered warranty period for the GT2500i

Commercial Use: 24 Months

Domestic Use: 24 Months

Warranty covers failure caused by manufacturing and material defects in the product, during the warranty period specified. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Warranty does not cover parts that are subject to wear and tear from usage.

Warranty covers failure of a product caused by defective materials and/or manufacturing for the period given and the usage specified by Euroquip. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Warranty also does not cover failure caused by the untimely replacement or service of the above wearing parts. Evidence must be provided that the product has been maintained and serviced suitably for a claim to be considered under warranty.

Failure caused by incorrect operation of the product, lack of proper care and maintenance of the product, external damage, external circumstances such as contaminated fuel or poor water supply, modifications to the product, attempted repair/ service by a party other than an Approved Service Agent, is not covered under warranty.

Warranty does not cover pre delivery service and adjustment, or failure that may occur as a result of lack of/ incorrect pre delivery service and adjustment.

Warranty does not cover any incidental, indirect or consequential loss, damage or expense that may result from any defect, failure or malfunction of a product.

Should any issue be found to be a combination of a warranty failure and a non-warranty issue, the repair cost component to rectify and repair the non-warranty failure is the customers' full responsibility.

The decision that an issue with a product qualifies as a warranty claim is made at the sole jurisdiction of Euroquip.

No costs incurred will be considered under warranty if repairs are carried out by a party other than a Euroquip Approved Service Agent, unless with prior consent in writing from Euroquip.

It is the responsibility of the purchaser to deliver a product under warranty to the nearest relevant service agent or product reseller. Warranty does not cover call outs, mileage and freight costs.

If a product is repaired under warranty, parts and labour required for the repair will be supplied at no charge. Warranty assessment and repair will be scheduled and executed according to the normal work flow at the service location and depending on the availability of suitable replacement parts.

This warranty policy is an additional benefit and does not affect the legal rights of any end user, reseller or service agent.

Serial Number: _____

Model:_____

Date Purchased:_____

Retailer Purchased From:_____

Scan here to register your product

www.gtpower.co.nz

Please attach your proof of purchase here.

Notes

Congratulations on your new GT POWER product. We are proud to have you as our customer and will strive to provide you with the best service and reliability in the industry. This product is backed by our extensive warranty and service network. To locate your nearest distributor or service agency visit www.euroquip.co.nz, or email us at customerservice@euroquip.co.nz.