POWERTEC
PORTABLE POWER SOLUTIONS

PT8600D 7.9KVA DIESEL GENERATOR

Diesel Generator



ATTENTION! You must not start up this machine before you've read the operating manual, adhered to all instructions and the machine is fully assembled according to the instructions!

OPERATING INSTRUCTIONS

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Introduction

Your new POWERTEC Generator will more than satisfy your expectations. It has been manufactured under stringent quality standards to meet superior performance criteria. You will find your new tool easy and safe to operate, and, with proper care, it will give you many years of dependable service.

Carefully read through this entire Instruction Manual before using your new POWERTEC Generator. Take special care to heed the cautions and warnings.

Your generator has many features that will make your job faster and easier. Safety, performance, and dependability have been given top priority in the development of this tool, making it easy to maintain and operate.

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.



Scope Of Product

This product is suited for home, camping and emergency power applications. It will operate most powertools, appliances and lighting.

Description Of Symbols

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



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



Conforms to relevant standards for electromagnetic compatibility.

Chapter 1 Main Technical Specifications and Data

GENERATOR		PT8600D
Frecuency	Hz	50
Rated Power		5.5 kW
Max. Power		6.3 kW
Voltage	V	230
Current	A	27.4
Plugs		15A & 32A
Display		LED
Fuel tank capacity	L	30
Running time @75% load	H	13
Sound level @ 7m	dBA	72
DC output	V/A	12 / 8.3
Battery	V/Ah	12 / 30
ENGINE		PT500E
Engine type		Diesel
Power	hp	12
Start		Electric
Displacement	CC	498
Oil Capacity	L	1.75
ALTERNATOR		AL6-3
Power	Kw	6
Power Factor		0.8
Voltage Regulation		Brush / AVR
DIMENTIONS & WEIGHT		
Net Weight	Kg	164
Gross Weight	Kg	172
machine size	mm	920×520×865
Diemntions Package	mm	960×560×910

- Specifications subject to change without prior notice.

Chapter 2 Use for the Generator Set

2.1 Use Essentials and Cautions

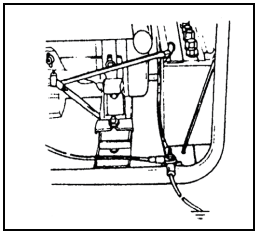
In order to ensure that you safely operate the generator set, be sure that you read and understand the operation manual. Especial attention should be paid to the use of main points listed below. Otherwise personal accidents and the equipment damages may be caused.

2.1.1 Fire prevention

- ✧ The combustion oil used in the diesel engine is light diesel oil. Gasoline, kerosene and other oils must not be used.
- ✧ Use a clean cloth to wipe off the overflowed oil. Gasoline, kerosene, match or other inflammable and explosive matters should not be place near the set because the temperature for the place around the exhaust is very high while the diesel engine is running and can cause explosion .
- ✧ For the purpose to prevent the fire and to supply the sufficient ventilation condition, during the operation, at least 1.5m distance between the set and the building or other equipment must be kept.
- ✧ Operating the welder and generator set should be carried out on a flat floor. If the set is oblique, the oil can overflow.

2.1.2 Prevent the suction of the exhausted gas.

- ✧ At the places with poor ventilation, the welder and generator set should not be used. If it is necessary to operate the set indoors, a suitable ventilation condition should be supplied to prevent the personnel and livestock from the affection of carbon monoxide of burning.



2.1.3 Prevent of burning.

- ✧ When the diesel engine is running and is hot, it is not allowed to touch the noise suppressor and its housing.

2.1.4 Electric shock and short-circuit.

- ✧ In order to avoid the electric shock or the short-circuit, when the welder and generator set is wet or when your hand is wet, contacting the welder and generator set is not allowed. This welder and generator set is not waterproof so that it should not be used at the places in rain, snow and water mist.
- ✧ In order to prevent the electric shock, the welder and generator set should be grounded. Connect the grounding terminal of the generator with the external grounding device by using a conductor. Don't connect the other equipment with the welder and generator set.

2.1.5 Other safety main points.

✧ In order to know how to quickly stop the set, the operators should be familiar with operating all the switches. Anyone without passing through the correct guidance should not carry out the operation. The operators should wear the safety shoes and the suitable clothes. The children and livestock should be kept far from the welder and generator set.

2.1.6 Charge the battery.

✧ The electrolyte of the battery contains sulphuric acid. In order to protect your eyes, skin and clothes, if you touch it, it is necessary to use water for wash. If your eyes touch it, you should go to a clinic for wash.

✧ The hydrogen produced from the battery is an explosive gas. Don't smoke particularly at the charge time. Any spark should not be splashed to the places near the battery.

✧ Charge the battery at the places with good ventilation.

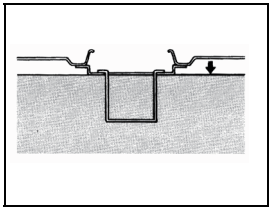
2.2 Preparation before the Start

2.2.1 Select and treat with the combustion oil.

Only use the light diesel oil. The combustion oil should filtered cleanly. Attention should be paid so don't let any dust and water to be mixed into the combustion oil and the oil tank. Otherwise the High-pressure pump and the oil nozzle may be blocked up.

ATTENTION:

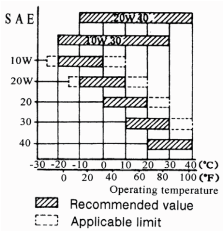
- Overflowing the oil is very dangerous. Filling the oil into the oil tank should not exceed the top of the red cock inside the filler.
- At the places of filling the oil into the diesel engine or of storing the diesel oil, don't smoke. Don't let any spark go into this area. At the time of filling the oil, the oil should not be overflowed. After the oil filling, be sure fastening the cover nut on the oil inlet.

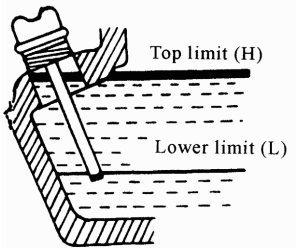


2.2.2 Filling the Machinery Oil

Put the generator set in a level state. Fill the oil into the oil-filling inlet. At the time of checking the oil level, it is necessary only to lightly insert the oil ruler. Please pay attention to that you should not rotate the oil ruler.

Type	PT500E
Volume (L)	1.65

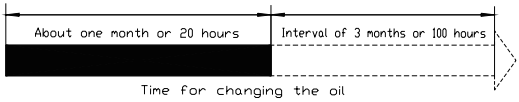




A.P.I. Diesel engine maintenance classification.

The lubrication oil should be CC or CD grade.

The factor of the affection, to the performance and reliability of the diesel engine, caused by your lubrication oil, is bigger than other factors. If you use any poor quality machinery oil or if you do not change the oil for your diesel engine according to the stipulation, it is easy to block up the piston. It is also to quicken the wearing of the cylinder, bearings, and other moving components so that the life of your diesel engine is reduced.



Although there are the low oil pressure alarm system-the stop device. At the time of starting the set, it is necessary to check the oil quantity is not sufficient, please add some oil. Discharging the machinery oil should be carried out while the diesel engine is hot. After the cooling, it is very difficult to discharge the oil cleanly.

WARNING!

Don't fill the machinery oil into the diesel engine when the diesel engine is running

2.2.3 Check the air filter

✧ Unfasten the butterfly nut, open the filter cover, and take out the filter core. Never wash the filter core by using any detergents. When the output is reduced or the color of the exhausted gas is not good, change the filter core. Never start the generator set without the air filter core. Otherwise the diesel engine will soon be worn out.

✧ After mounting the filter core, cover the air filter housing and fasten the butterfly nut.

2.2.4 Inspection for the generator set

✧ Before starting the set, be sure that the air switch should be turned to "OFF" state. If the switch is not turned to "OFF" state, when starting the diesel engine, suddenly loading is very dangerous.

✧ The generator should be grounded to prevent the electric shock.

✧ Blow the dust out of the generator control box inside and surface by using dry compressed air (air pressure should be less than 1.96×105Pa) or manual. Check the clean condition on the slide rings, check the carbon brush pressure, check whether the position on the slide rings are correctly fitted. Check whether the fixing is reliable and whether the contact is good.

✧ According to the electric wiring diagram, check whether the wiring lines are correct and whether the connection joints are firm.

2.2.5 Before delivering the diesel engine from the factory, the fuel oil and the machinery oil had been discharged.

✧ Before filling the fuel oil and starting the diesel engine, it is necessary to check whether there is any air mixed into the oil circuit. If there is any, the air should be discharged. The concrete method is to unfasten the connecting nut between the oil injection pump and the oil transmission pipe so discharge the air in the fuel oil until no air bubble appear. Then faster the connecting nut again.

2.3 Inspection and Operation of the Diesel Engine

2.3.1 Low oil pressure alarm system/ breaking device

✧ Diesel engine possesses the low oil pressure alarm system/breaking device. When the oil pressure goes down, the device will automatically stop the diesel engine to avoid the blocking-up of the diesel engine because the oil pressure is too low and the lubrication is insufficient.

✧ If the diesel engine is running under the condition that the lubrication oil is insufficient, the oil temperature will go up too high. On the other hand, it is also dangerous if there is too much oil. Because the machinery oil may be burned, this will make that the revolution speed of the engine increases suddenly and results in "abnormal fast running". For this purpose, it is necessary to check the machinery oil and the oil level reach the stipulated lever.

2.3.2 Trial run operation

When your diesel engine is a new set, a large loading will reduce the engine's life. Within the first 20 hours, it is necessary to carry out the trial run.

- ✧ Avoid the overload. During the trial run stage, it is necessary to avoid the large load. It uses only 75% of the rated load.
- ✧ Change the machinery oil of the engine according to the stipulation. At the beginning of the use, change the oil once each 20-hours or once a month. After this, change the oil once each 3-months or once for each 100-hours.

2.4 Starting the Generator Set

2.4.1 Recoil start (manual start)

Start the engine according to the following procedures:



(1) Switch on the fuel oil switch (in "ON" position).

(2) Set the speed handle of the engine at "run" position.

(3) Draw out the buffer start handle.

- ✧ Draw out the handle till you feel your hand has the resistance force. Then relieve it and let it restore to the initial position.
- ✧ Press down the pressure reduction handle (when the buffer starter is drawn, it will automatically be restored.).
- ✧ Quickly draw out the buffer start handle by two hands. While operating (or after the start), don't let the handle fly out of your hand to avoid that it smashes onto the diesel engine. Slowly and lightly let the handle return its position to avoid damaging the starter.

CAUTION:

When the diesel engine is running, never draw out the start handle otherwise it will damage the diesel engine**.**

- ✧ In the cold days, when it is difficult to start the diesel engine, unplug the rubber cock on the rocker arm of the diesel engine and fill in 2ml machinery oil.

Plug the rubber cock before the start.

The rubber cock should be plugged except filling in the oil. Otherwise the rain, water, dust and other dirt may enter into the diesel engine to cause the fast wearing of the inside components. This will result in serious problem.

2.4.2 Electric start

1. Start (The preparation for this start is the same as the hand start.)

- ✧ Insert the electric door key and make it in “OFF” position.
- ✧ Set the speed handle of the diesel engine in “RUN” position.
- ✧ Turn the start switch to “START” position .
- ✧ After the diesel engine starts, your hand should relieve the switch handle. Let the switch restore to “ON” position automatically.
- ✧ If the diesel engine doesn’t start after 10 seconds, please wait for anther 15 seconds and make the start again.

CAUTION:

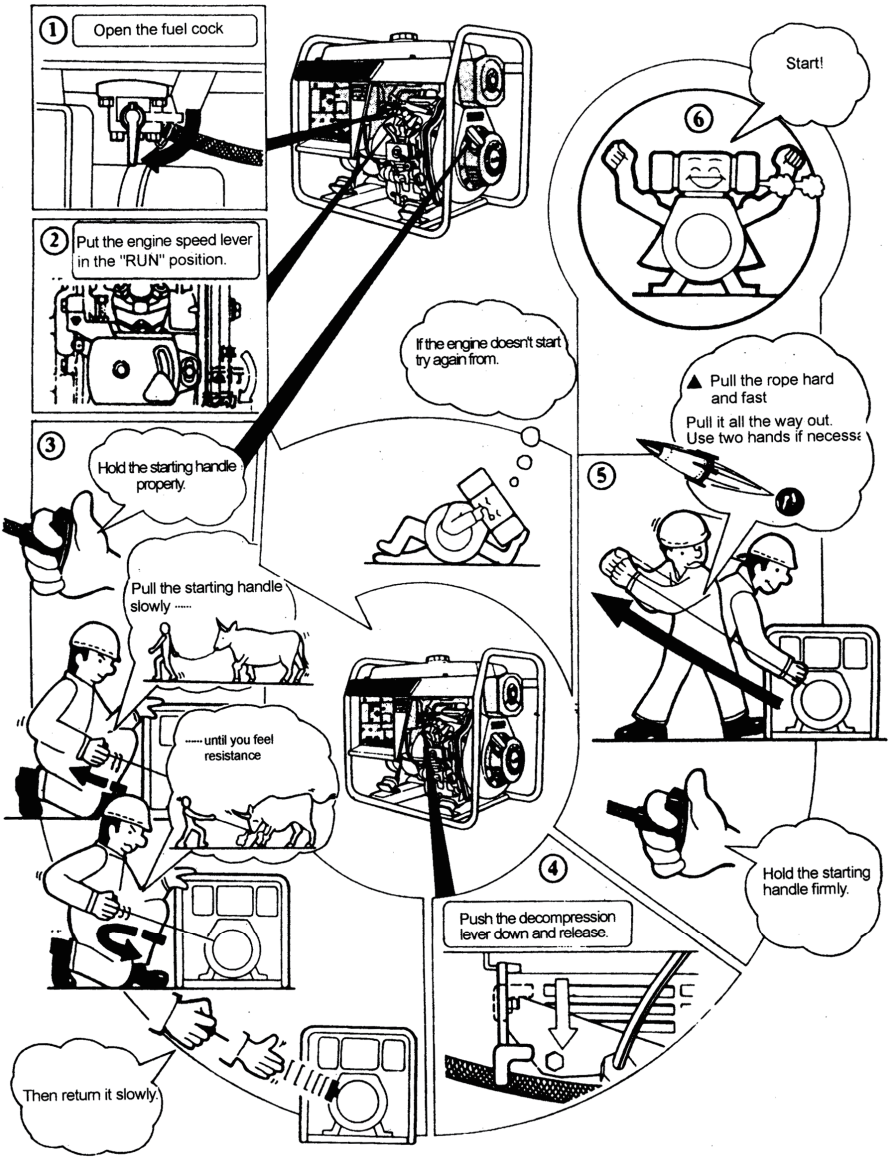
- If the start motor rotates for a long time and the voltage of the battery will go down to cause the start motor running hysteresis.
- When the diesel engine is in operation, always leave the start key in “ON” position.

2. Battery

- ✧ Check the electrolyte level height of the battery once a month. When the liquid level goes down to a lower mark, add some distilled water to make that the liquid level goes up to the higher mark.
- ✧ If the electrolyte in the battery is too less, the diesel engine will not start. Because the electric power is insufficient at this time, it is necessary to keep the liquid is at a place between the higher limit and the lower limit.
- ✧ If the electrolyte in the battery is too much, the liquid may overflow and this may corrode its surrounding components.
- ✧ Attention should be paid to avoiding that the electrolyte is too much or is too less.
- ✧ Charge the battery once a month.

2.5. Operation Procedure for Starting the Generator Set

This operation procedure is suitable series recoil hand drawing start mode.



2.6. How to Operate the Generator Set

2.6.1 Operating the Diesel Engine

- ✧ Preheat the diesel engine for three minutes under the condition without any load.
- ✧ For the diesel engine having the low oil pressure alarm system, it is necessary to check whether the oil pressure signal indicator lights up. For the diesel engine having the low oil pressure alarm system, the lubrication oil alarm indicator will light up when the oil pressure is low or the lubrication oil is insufficient, and the diesel engine will stop automatically. If no lubrication oil is added and you do not make a restart, the diesel engine will still stop immediately. It is necessary to check the oil height and add some oil.
- ✧ Do not unfasten the adjustment bolt used for adjusting the speed limit of the diesel engine or do not unfasten the high-pressure pump limit bolt (They were adjusted well when delivered from the factory.). otherwise their performance will be affected.

2.6.2 Inspection during the Operation

- ✧ Check whether there is any abnormal sound or vibration.
- ✧ Check whether the diesel engine does not start or the operation is not good.
- ✧ Check the exhausted gas color (Is it black or is it too white?). If you find one of the above-mentioned phenomena, it is necessary to brake the set, to find out the trouble cause and shoot the trouble. If the settlement can not be made, please contact agency of our company nearby, or contact our company directly.

2.7. Loading

2.7.1 Load

- ✧ Load according to the stipulated parameters. For the electric principle diagram of the generator set, please see the following figure.

2.7.2 AC Application

- ✧ Be sure that the revolution speed of the generator set be increased to the rated speed (the speed handle of the diesel engine should be turned to the top.). please see Main Technical Specifications and Data in Chapter 1.
- ✧ After switching on the air switch, observe the voltmeter on the panel of the control cabinet and the voltmeter should point to the single phase set 220V±5% (50Hz), then the loading can be carried out.
- ✧ When the double voltage generator set charges over the voltage, the air switch should be set at “OFF” state. Otherwise the generator set and the electric devices may be burned out and damaged.

CAUTION:

Do not start more than two machines at the same time. The machines should be started one by one. Do not use the floodlight at the same time of using other machines.

- ✧ At the time of connecting with the generator, all kinds of equipment should be connected in order. For the matter of the motor load, firstly the large power motors should be connected. After the operation is normal, then the small power motors can be connected. If the operation is incorrect, the generator will cause the running hysteresis or will brake suddenly. It is necessary to unload immediately and to turn off the generator switch. Check where the trouble appears.

If the circuit overload makes that the air switch of AC circuit trips, it is necessary to reduce the circuit load. It is not allowed that the set runs under the overload condition. Maximum output power of the generation for the set should not exceed the stipulation .It is necessary to wait for several minutes before restoring the operation. If the indication on the voltmeter is too low or too high, the revolution speed can be adjusted. If there is any trouble and any abnormal running condition, it is necessary to stop the generator for check.

2.7.3 DC application

- ✧ DC terminals are used only for charging 12V battery.
- ✧ At the time of using 12Vfor charge, the air switch should be set at "OFF" state. On the 12Voutput terminals, a charge switch can be connected so the switch can be used for on-and-off purpose.
- ✧ At the time of using the automatic type battery with the battery conductors, be sure that the battery negative conductor should be disconnected at the time of charge.
- ✧ Connect the positive and negative poles of the battery with the positive and negative poles of DC terminals separately. Do not misconnect the positive and negative poles of the battery. Otherwise it will damage the generator and the battery.
- ✧ Do not connect the positive pole of the battery with its negative pole. Otherwise it will damage the battery.
- ✧ Do not let the positive and negative poles of the DC contact to each other. Otherwise it will damage the generator.
- ✧ At the time of charging the large capacity battery, because the current is too big (the charge current should not be more than 10A). Otherwise the fuse of the DC power supply will be burned off and broken easily.

- ✧ Charging the battery will produce the flammable gas. Do not let any spark, flame and cigarette approaching the place. In order to avoid producing the spark near the battery. Firstly connect the charging conductors with the battery, then with the generator. At the time of disconnection, firstly disconnect the motor cable.
- ✧ Charging the battery should be at a place with good ventilation. Before turning on, open the battery cover. If the electrolyte temperature exceeds 45℃, terminate the charge.
- ✧ In order to protect the motor, at the terminals of the generator, the generator set has a fuse. When the user find that the circuit is normal and there is no DC output, please open the back cover of the motor. If the fuse is burned out, please check whether the rectification-bridge is normal and change the fuse in time. If the generator set is not in use for a time, the battery connection lines should be removed to prevent the electric leakage of the battery.

2.8 Braking the Generator Set

2.8.1 Remove the load of the generator set.

2.8.2 Turn off the air switch of the generator set.

2.8.3 Set the speed handle of the engine to "RUN" position. Carry out the unload operation of the diesel engine for 3 minutes. Do not brake the diesel engine suddenly because this may make that the temperature goes up abnormally and cause the blocking-up of the oil nozzle and the damage of the diesel engine.

- ✧ Press the braking handle downwards.
- ✧ When using the electric starter ,turn the key to "OFF"
- ✧ Set the fuel switch handle to "S" position.
- ✧ Slowly draw out the recoil handle till you feel the pressure (i.e., at this point of the compression stroke, the suction and exhaust valves are close.). Stop the handle at this position. In such a way, when the engine is not in use, the rusting can be prevented.

CAUTION:

- When the speed handle is set at "STOP" position and the diesel engine is still in operation, it is possible to stop the diesel engine either by setting the fuel switch to "OFF" position or by unfastening the high pressure oil pipe nut. Do not brake the diesel engine by using the pressure reduction handle.
- It is not allowed that the set stops with load. It is necessary to firstly remove the load and then stop the set.

Chapter 3 Maintenance of the Generator Set

3.1 Regular Maintenance

Service period regular / Item	Daily check	First month or 20 Hrs	Every 3 months or 100 Hrs	Every 6 months or 500 Hrs	Every year or 1000 Hrs
Check and replenish fuel	○				
Drain fuel from F.O. tank		○			
Check and replenish lube oil	○				
Check for oil leakage	○				
Check and tighten each parts engine	○			● tighten head bolts	
Chang lube oil		○ 1st time	○ 2nd and thereafter		
Clean oil filter				○ (replace if necessary)	
Air cleaner element replacement	(Service more frequently when used in dusty areas)			○ (replace)	
Clean fuel filter				○	● (replace)
Check fuel injection pump				●	
Check fuel injection nozzle				●	
Check fuel pipe				● (replace if necessary)	
Adjust valve clearance for intake and exhaust valves		● (1st time)		●	
Lap intake and exhaust valves					●
Replace piston rings					●
Check battery fluid	(monthly)				

"●" The chart above indicates which checks to make and when to make them, the mark (●) Indicates that special tools and skills one required, consult your dealer.

In order to keep the welder and generator sets in a good state, the regular inspection and maintenance is very important. The set is composed of the diesel engine, welder generator, control cabinet, frame and so on. For the details about the inspection and maintenance, please read the operation and maintenance manual for each assembling section.

Before carrying out the maintenance to the set, please turn off the diesel engine. If it is necessary to run the diesel engine, its surrounding should be in good ventilation to discharge the gas that contains the poison carbon monoxide.

After using the set, it is necessary to wipe off dirt by using a clean cloth to prevent the corrosion and remove the sink materials.

3.1.1 Changing engine oil (every 100Hrs)

Remove the oil filler cap. Remove the drain plug and drain the old oil while the engine is still warm. The plug is located on the bottom of the cylinder block. Tighten the drain plug and refill with recommended oil.

3.1.2 Cleaning the oil filter

Clean	Every 6 months or 500 hours.
Replace	Replace if necessary.

3.1.3 Changing the air cleaner element

Do not wash the air cleaner element with detergent because this is a wet type element.

Change	Every 6 months or 500 hours. (or earlier if dirty)

CAUTION:

Never start the engine without the element, or with a defective element. Change the element in time.

3.1.4 Cleaning and replacing the fuel filter

The fuel filter also has to be cleaned regularly to insure maximum engine output.

Clean	Every 6 months or 500 hours.
Replace	Every year or 1000 hours.

✧ Drain the fuel oil from the fuel tank.

✧ Loosen the small screws of the fuel cock and pull out the filter from the F.O. tank. Wash the filter thoroughly with diesel fuel.

Remove the lock nut, end cap and diffuser discs and clean the carbon deposit.

Clean time	Every 3 months or 100 hours.

3.1.5 Tightening cylinder head bolts (refer to the manual of diesel engine) requires a special tool. Don't try it yourself.

3.1.6 Checking the injection nozzle, injection pump, etc.

✧ Adjusting the valve head clearance for the intake and exhaust valves.

✧ Lapping of intake and exhaust valves.

✧ Replacing piston ring.

All these require special tools and skills. Do not perform the injection nozzle test near an open fire or any other kind of fire. The fuel spray may ignite. Do not expose bare skin to the fuel spray. The fuel may penetrate the skin and cause injury to the body. Always keep your body away from the nozzle.

3.1.7 Checking and replenishing battery fluid and charging the battery.

This diesel engine uses a 12V battery. The battery fluid will be lost through continuous charging and discharging.

Before starting, check for physical damage to the battery and also the electrolyte level, and replenish with distilled water up to the upper mark if necessary, when actual damage is discovered, replace the battery.

Battery fluid check	monthly

3.2 Maintenance for a long time storage

If your generator should be storage in a long time, the following preparation should be made:

3.2.1 Operate the diesel engine about 3 minutes, the stop it.

3.2.2 Close the diesel engine when the diesel engine is still hot, drain old lubricate of diesel engine oil out, then refill new one.

3.2.3 Pull out the rubber plug at the cover of diesel engine and add 2ml of lubricate in cylinder, and finally put the plug on its original place.

3.2.4 Maintenance of starting position.

✧ Manual starting

Press the pressure-reduce handle (non-compression position), pull the recoil handle 2~3 times. (Don't start the diesel engine).

✧ Electric starting

When the starting handle is in the position of non-compression position, operate the diesel engine 2~3 seconds. When the switch is in the position of start, don't start the diesel engine.

3.2.5 Pull the pressure-reduce handle out, pull the recoil starter slowly.

When full it is fasten, then stop. (At this time the intake and drain valve is at the status of close, it is suitable to prevent from rust.).

3.2.6 Clean and store it in a dry place.

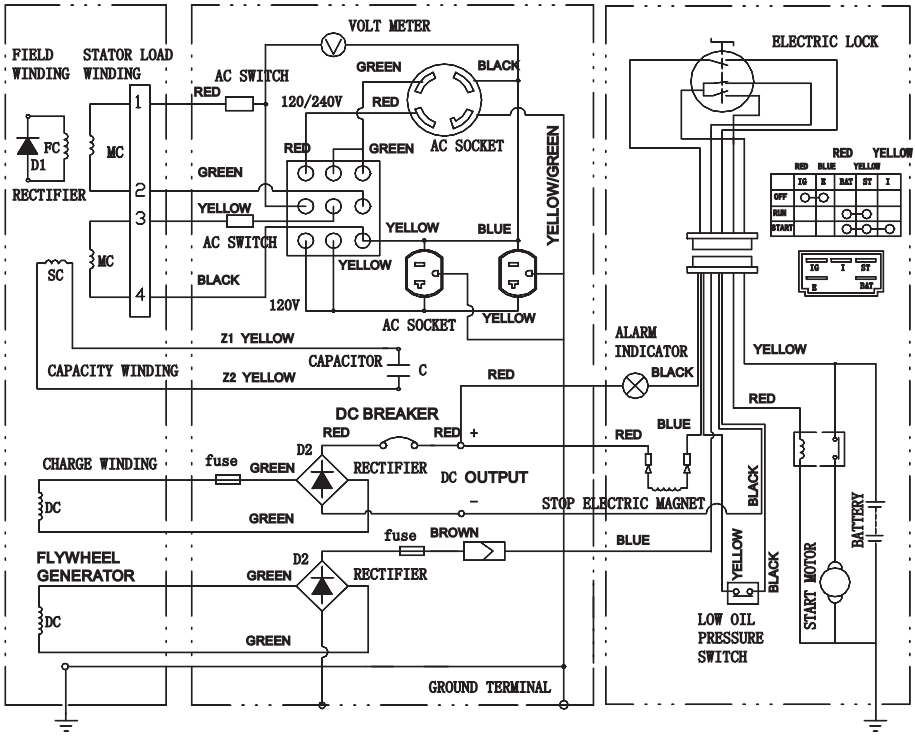
Chapter 4 Maintenance and remedy of generator set

Cause		Remedy
The diesel engine can no start	Oil fuel is not enough	Add oil fuel
	The switch is not at "ON" position	Turn it to "ON" position
	The pump of high pressure and oil nozzle can not inject oil or the oil amount is not enough	Remove the oil nozzle out and repair it at test table
	The control lever of speed is not at "RUN" position	Put the control level to "RUN" position
	Check the level of lubricant	The specified oil level should be between upper level "H" and lower level "L"
	The speed and force to pull the recoil starter is not enough	Start the diesel engine according to the requirements of operating procedure of start
	The oil nozzle has dirty	Clean the nozzle
	The battery has no electricity	Charge it or replace it with a new one
The generator can not generate	Main switch (AC SW) is not closed	Put the main switch to the "ON" position
	Capacitor damage	Change capacitor
	The contact of socket is not closed	Adjust the feet of socket
	The rated speed of generator can not be reached	Adjust it according to the requirement

If electricity is still not generated, take the generator to a dealer.

Appendixes

Generator Control Box



Warranty

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

1. THIS WARRANTY:

The benefits provided to the consumer in this warranty are in addition to other rights and remedies of a consumer under the New Zealand Consumer Guarantees Act 1993 and any other laws in relation to the products to which this warranty relates. This warranty:

- Covers the product against faulty materials or workmanship; and
- Covers the replacement of parts, the repair labour used, a refund of the price of the product or replacement of the machine, or other compensation for the remainder of the warranty period.

This product warranty is only applicable to the original purchaser of the machine and only purchases made from Euroquip Authorized Retailers.

2) WARRANTY PERIODS:

Domestic/Commercial: 12 Months

Or

1000 hours of operation – whichever occurs first.

Domestic Warranty applies to domestic use of the product: Personal, residential, or household use only. Commercial Warranty applies to commercial or business use of the product: All uses other than domestic use, including use for income-producing (including farming) or rental purposes.

*These Powertec Warranty periods are for products that are:

- Serviced by a Powertec Dealer in accordance with the Powertec service schedule, using genuine parts and the correct grade of oil (proof required)
- Meeting all other warranty requirements

NOTE: These warranty conditions apply to New Zealand only.

Euroquip warrants each new Powertec machine free from defect in material and workmanship under normal use and routine servicing, for the warranty periods specified. Conditional to the limitations and exclusions list below. 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.

Proof of purchase documentation with product serial number must be provided. If it has been lost and Euroquip does not have a record of the purchaser's details, the warranty period shall be calculated from the appropriate dealer wholesale sale date.

The purchaser must keep a record of all service and maintenance history as proof of servicing history. This may be requested when assessing any future warranty claims. 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 or maintenance are carried out by any party other than a Euroquip Approved Service Agent, unless with prior consent in writing from Euroquip.

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

Customers are responsible for the care and cleaning of their product prior to sending it to our service centre. Any product being sent us must be thoroughly cleaned. Depending on what the product has come into contact with, it could pose an Occupational/ Work Health and Safety risk for our staff and or/service agents to inspect, repair or service a product that has come into contact with a hazardous substance. If we are asked to inspect, repair or service a product that has come into contact with a hazardous substance such as chemicals, asbestos or silica dust, we may not be able to inspect, service or repair the product. If this is the case, we will inform the purchaser and the product will be returned.

If a product is repaired under warranty, parts and labour required for the repair will be supplied at no charge. All defective parts replaced under warranty become property of Euroquip. Consumable items such as, but not limited to, oils, coolants, filter and spark plugs shall be the responsibility of the owner. 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 supersede the legal rights of any customer, reseller or service agent.

Should any issue be found to be a combination of a warranty failure and a non-warranty issue such as incorrect charging techniques, the repair cost component to rectify and repair the non-warranty failure is the **customer's** full responsibility.

3) EXCLUSIONS:

- Warranty does not cover parts that are subject to wear and tear from usage and/or damage which results from neglect of periodic maintenance.
- Evidence must be provided that the product has been maintained and serviced suitably for a claim to be considered under warranty.
- Batteries supplied with your product are warrantied against defect for 3 months and does not include lack of charge due to non-use. Consumable items such as, but not limited to, oils, coolants, filters, spark plugs and batteries shall be the responsibility of the purchaser.
- Failure caused by incorrect operation of the product as specified in the manual either intentionally or by error.
- Lack of proper care and maintenance of the product.
- Any damage which results from unavoidable natural disasters, fire, collision, theft, etc.
- Any normal wear or deterioration, such as that of sliding or rotating parts caused under normal operating conditions.
- Any damage that results from misuse or use beyond the imitations of the products intended purpose (such as overloading or use under abnormal conditions).
- External circumstances such as product deterioration or corrosion due to environmental conditions like heat, cold, salt spray , sand or due to the passage of time
- Normal phenomena such as noise, vibration or oil seepage which are considered by Euroquip as not affecting the quality, function or performance of the product.
- Any damage due to improper storage or transport.
- Consumable replacement items: Spark plugs, contact points, shear pins, fuel strainers, oil filter elements, air cleaner elements, brake shoes or pads, clutch components, fuses, motor brushes, gaskets, tube or hoses, belts, cutting blades, light bulbs, serviceable bearings. Petroleum and others fluids: Oil, grease, battery electrolyte, and radiator coolant. Other items specified by Euroquip.
- Periodical maintenance items such as cleaning, inspection and adjustments.
- Contaminated fuel
- Modifications or installations of other products to the product
- Damage that results from the use of non-genuine parts, lubricant or fluid not approved by Euroquip
- Any repair and/or adjustment to correct improper or poor quality work previously performed.
- Attempted repair/ service by a party other than an Approved Service Agent, or any repair undertaken prior to approval of warranty be Euroquip 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, personal injury, or expense that may result from any defect, failure, malfunction, or misuse of a product.
- Any product that is found to have come into contact with hazardous substances such as chemicals,asbestos or silica dust and NOT been industrially cleaned prior to servicing.

4) HOW TO CLAIM WARRANTY:

In the event you are faced with a manufacturing fault with your Powertec product, you can claim a repair or part replacement under warranty if the following conditions are fulfilled:

- The problem is related to production quality or specifications of the machine
- The machine is within the warranty period outlined in schedule
- The issue does not fall within the warranty exclusions listed

If the criteria above is met, and you would like to request a warranty, then please go online to https://www.euroquip.co.nz/Service-Request-End-User and log your warranty claim.



Congratulations on your new **POWERTEC** 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. Please contact your local agent or submit a service case online for fast response at **www.powertec.net.nz**