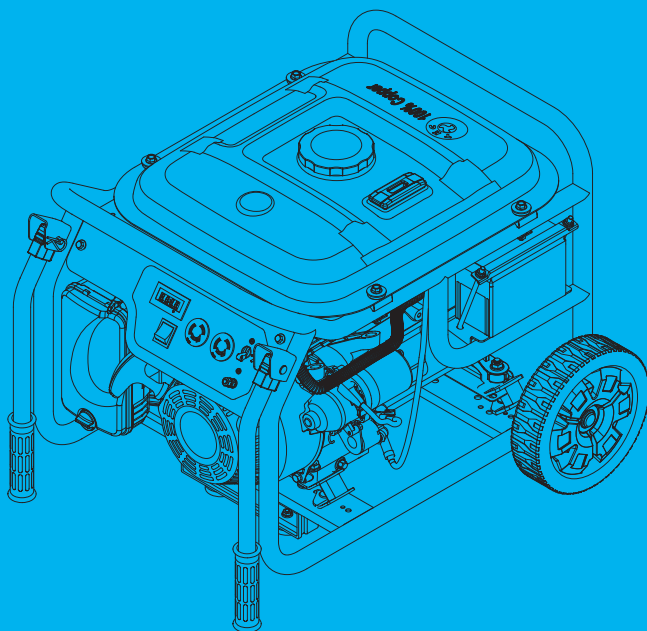




THERMOCOOL
ENGINEERING COMPANY

OWNER'S MANUAL

GASOLINE GENERATOR



◆ **TEC-OPT3500ES**
ELECTRIC START

THANK YOU

Thank you for choosing “TEC” Gasoline generator. This product has been built in ISO-9001 certified factory and has passed stringent quality test in order to ensure trouble free operation.

We want to help you get the best result from your generator and operate it safely. This manual contains information on how to do that. Please read it carefully.

This instruction manual describes the operation and maintenance of the generator. All information in this publication is based on the latest product information available at the time of printing. We reserve right to make any changes at anytime without notice, and without incurring any obligation. No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the generator and should remain with it all the time.


A FEW WORDS ABOUT SAFETY

Your safety and safety of others are very important. And using this generator safely is an important responsibility.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a generator. You must use your own good judgment.

You will find important safety information in a variety of forms, including:

- Safety Labels—on the generator.
- Safety Messages—preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION.

This signal words mean:

DANGER

You could be SERIOUSLY HURT if you don't follow instructions.

WARNING

You could be SERIOUSLY HURT if you don't follow instructions.

CAUTION

You could be HURT if you don't follow instructions.

- Safety Headings—such as IMPORTANT SAFETY INFORMATION.
- Safety Section—such as GENERATOR or SAFETY.
- Instruction—how to use this generator correctly or safely.

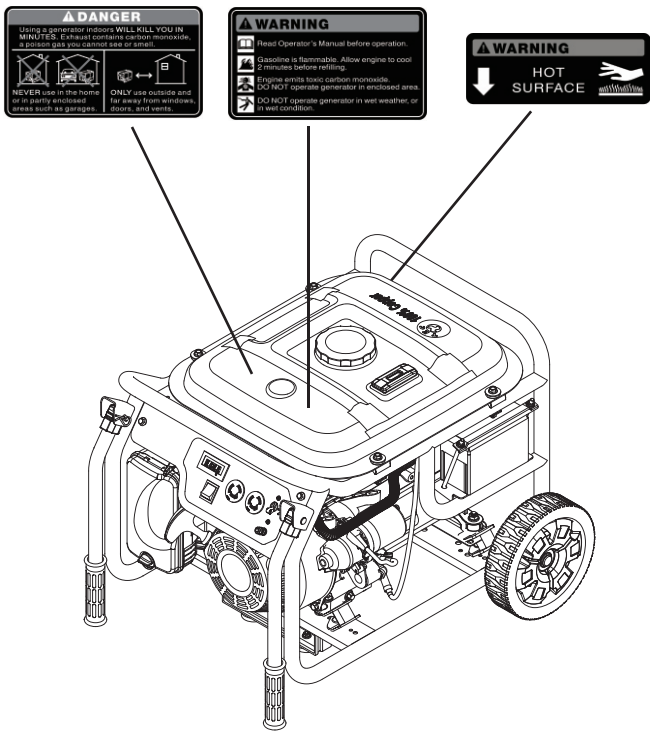
This entire book is filled with important safety information—please read it carefully.

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SAFETY LABEL LOCATION

These labels warn you of potential hazards that can cause serious injuries. Read them carefully.



SAFETY INFORMATION

The generators are designed to give safe and dependable service if operated according to instructions. Read and understand this owner's manual before operating your generator. You can help prevent accidents by being familiar with your generator's controls, and by observing safe operating procedures.

Operator Responsibility

- Know how to stop the generator quickly in case of emergency.
- Understand the use of all generator controls, output receptacles, and connections.
- Be sure that anyone who operates the generator receives proper instructions. Do not let children operate the generator without parental supervision.

Carbon Monoxide Hazards

- Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust directly can cause loss of consciousness and may lead to death.
- If you run the generator in an area that is confined, or even partially enclosed, the air you breathe could contain amount of dangerous exhaust gas. To keep exhaust gas from accumulating, provide adequate ventilation.

GENERATOR SAFETY WARNING

To ensure safe operation—

- * Know how to stop the generator quickly and understand operation of all the controls. Never permit any one to operate the generator without proper instruction.
- * Keep children and pets away from the generator when operation.
- * The generator is a potential source of electrical shock when misused. Do not operate with wet hands. Do not operate in the rain or snow.



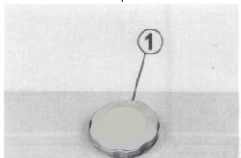
Warning

- * Exhaust gas contains poisonous carbon monoxide.
- * Never run the generator in an enclosed area.
- * Be sure to provide adequate ventilation.
- * Operate the generator on a level surface. If the generator is tilted, fuel spillage may result.
- * Keep away from rotating parts while the generator is running.

Warning

- * Gasoline is extremely flammable and explosive under certain condition: Refuel in a well ventilated area with engine stopped.
- * Do not open or allow open flames or sparks in the area where the generator is refueled or where gasoline stored.
- * Do not overfill the tank.
- * Be careful not to spill fuel when refueling. Fuel vapor or spilled fuel may ignite. Wipe up any spilt gasoline and let the area dry before starting the engine.
- * Make sure the filter cap is securely closed after refueling.

(1) Fuel filler cap



(2) Fuel filler hole



Electric shock hazards

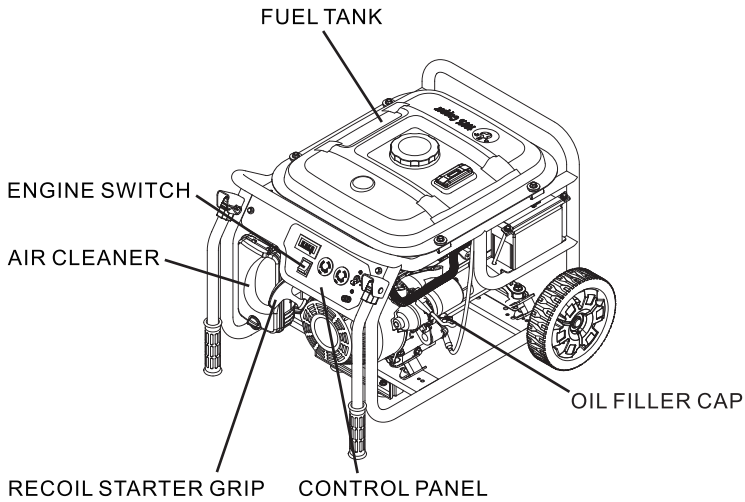
- The generator produces enough electric power to cause a serious shock or electrocution if misused.
- Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, it could result in electrocution. Keep the generator dry.
- If the generator is stored outdoors, unprotected from the weather, check all electrical components on the control panel before each use. Moisture or ice can cause a malfunction or short circuit in electrical components which could result in electrocution.
- Do not connect to a building electrical system unless an isolation switch has been installed by a qualified electrician.

Fire and Burn Hazards

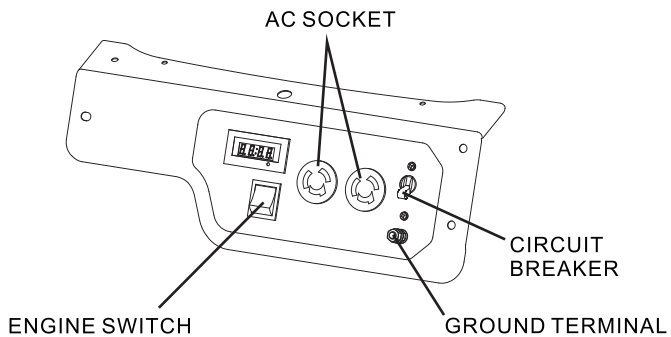
- The exhaust system gets hot enough to ignite some materials.
 - Keep the generator at least 3 feet (1 meter) away from buildings and other equipment during operation.
 - Do not enclose the generator in any structure.
 - Keep flammable materials away from the generator.
- The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the generator indoors.
- Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks where the generator is refueled or where gasoline is stored. Refuel in a well-ventilated area with the engine stopped.
- Fuel vapors are extremely flammable and may ignite after the engine has started. Make sure that any spilled fuel has been wiped up before starting the generator.

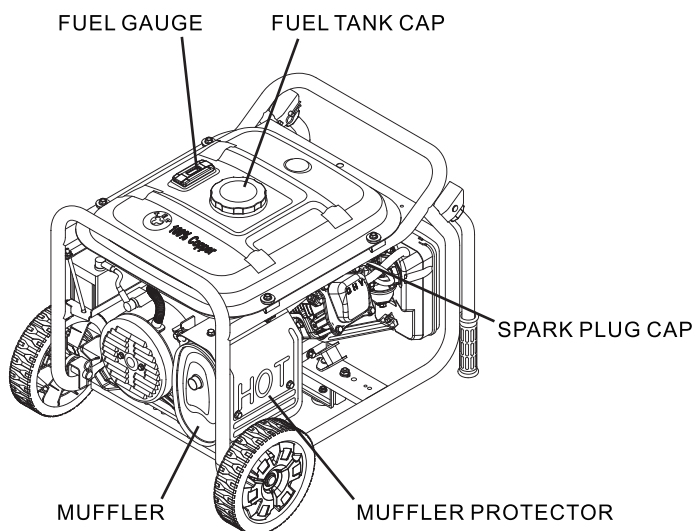
COMPONENT IDENTIFICATION

TEC-OPT3500ES



CONTROL PANEL





Record the engine numbers for your future reference. Refer to these series numbers when ordering parts, and when making technical inquiries.

Engine series number: _____

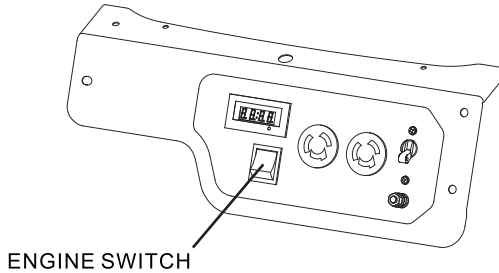
Engine Switch

To start and stop the engine.

Switch Operation

Turn down the engine switch to “OFF” position to stop the engine.

Turn up the engine switch to “ON” position to start the engine.

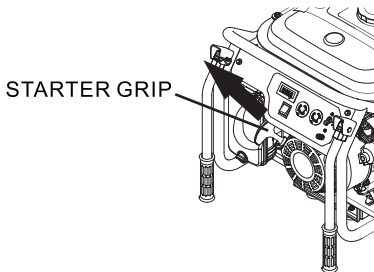


Recoil Starter

To start the engine, pull the starter grip lightly until resistance is felt, then pull briskly.

⚠ CAUTION

Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

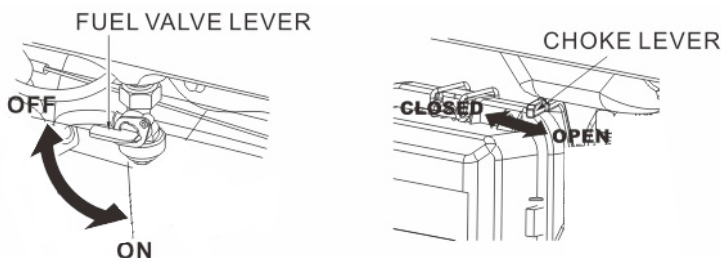


Fuel Valve Lever

The fuel valve is located between the fuel tank and carburetor. When the valve lever is in the **ON** position, fuel is allowed to flow from the fuel tank to the carburetor. Be sure to return the fuel valve lever to the **OFF** position after stopping the engine.

Choke Lever

The choke is used to provide an enriched fuel mixture when starting a cold engine. It can be opened and closed by operating the choke lever manually. Pull the lever out toward **CLOSED** to enrich the mixture for cold starting.

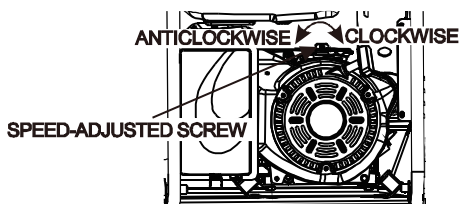


Speed-Adjusted Screw

Drive the speed-adjusted screw clockwise or anticlockwise can make the engine run faster or slower.

⚠ CAUTION

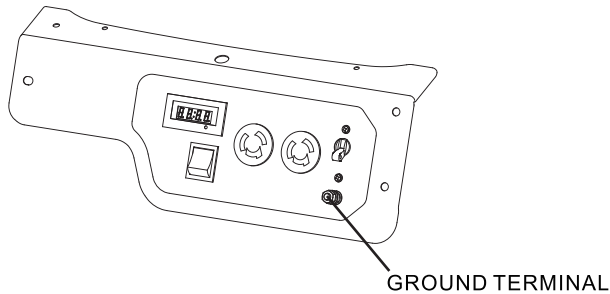
- **DO NOT TAMPER ENGINE SPEED**, as this will result in damage to the engine.
- Please check the engine speed at every 30-50 hrs, if it is lower than 3000-3200 RPM, consult qualified technician.
- **DO NOT OVERLOAD THE ENGINE** as this will result in lowering the performance of the appliance.



Ground Terminal

The generator ground terminal is connected to the frame of the generator, the metal non-current-carrying parts of the generator, and the ground terminals of each receptacle.

Before using the ground terminal, consult a qualified electrician, electrical inspector or local agency having jurisdiction for local codes or ordinances that apply to the intended use of the generator.



Oil Alert System

The Oil Alert System is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert System will automatically stop the engine (the engine switch will remain in the ON position). The Oil Alert System should not take the place of checking the oil level before each use. If the engine stops and will not restart, check the engine oil level before troubleshooting in other areas.

Circuit Breaker

The circuit breaker will automatically switch OFF if there is a short circuit or a significant overload of the generator at the receptacle. If the circuit breaker is switched OFF automatically, check that the appliance is working properly and does not exceed the rated load capacity of the circuit before switching the circuit breaker ON again.

The circuit breaker may be used to switch the generator power on or off.

GENERATOR USE

Connections to a building electrical system

Connections for standby power to building electrical system must be made by a qualified electrician. The connection must isolate the generator power from utility power, and must comply with all applicable laws and electrical codes.

⚠ WARNING

Improper connections to a building electrical system can allow electrical current from the generator to back-feed into the utility lines.

Such back-feed may electrocute anybody who comes into contact with the lines during a power outage, and the generator may explode, burn, or cause fires when utility power is restored. Consult a qualified electrician.

Ground System

The portable generators have a ground system that connects generator frame components to the ground terminals in the AC output receptacles. The ground system is not connected to the AC neutral wire.

Local regulations, codes or laws may require that the ground system be connected to the AC neutral wire. If the generator is tested by a receptacle tester, it will show the same ground circuit condition as for a home receptacle.

If local regulations, codes or laws may require that the ground system to be connected to the AC neutral wire, consult a qualified electrician or electrical inspector. Provide him with the electrical wiring diagram in this manual.

The ground terminal can be used to earth the generator or bond the frame of the generator to the frame of a vehicle, but only if it is required by local law or electrical code. Before using the ground terminal consult a qualified electrician or electrical inspector for regulations in your area.

AC Applications

Before connecting an appliance or power cord to the generator:

- Make sure that it is in good working order. Faulty appliances or power cords can create a potential for electrical shock.
- If an appliance begins to operate abnormally, becomes sluggish or stops suddenly, turn it off immediately. Disconnect the appliance, and determine whether the problem is the appliance, or if the rated load capacity of the generator has been exceeded.
- Make sure that the electrical rating of the tool or appliances does not exceed that of the generator. Never exceed the maximum power rating of the generator. Power levels between rated and maximum may be used for no more than 5 minutes.

⚠ CAUTION

Substantial overloading will open the circuit breaker. Exceeding the time limit for maximum power operation or slightly overloading the generator may not switch the circuit break OFF, but will shorten the service life of the generator.

Limit operation requiring maximum power to 5 minutes.

Maximum power is: See the following chart.

For continuous operation, do not exceed the rated power.

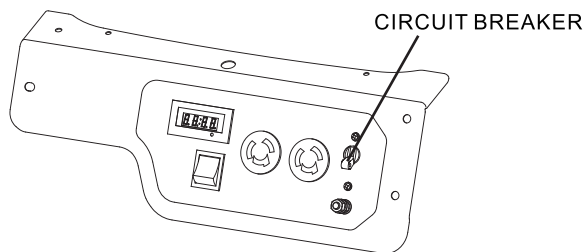
Rated power is: See the following chart.

MODELS	TEC-OPT3500ES
Rated Frequency (Hz)	50
Maximum Power (kW)	3.3
Rated Power (kW)	3.0

In either case, the total power requirements (VA) of all appliances connected must be considered. Appliance and power tool manufacturers usually list rating information near the model number or serial number.

AC Operation

1. Start the engine.
2. Switch ON the AC circuit breaker.



3. Plug in the appliance.

Most motorized appliances require more than their rated power for startup.

Do not exceed the current limit specified for any one receptacle. If an overloaded circuit causes the AC circuit breaker or circuit protector to switch **OFF**, reduce the electrical load on the circuit, wait a few minutes and then reset the circuit breaker or circuit protector.

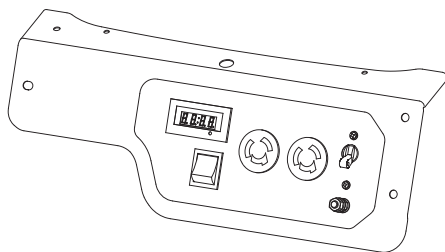
Connecting the battery cables:

1. Before connecting charging cables to a battery that is installed in vehicle, disconnect the vehicle's ground battery cables.

⚠ WARNING

The battery gives off explosive gases, keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using batteries.

2. Connect the positive (+) battery cable to the battery positive (+) terminal.
3. Connect the other end of the positive (+) battery cable to the generator positive (+) terminal.



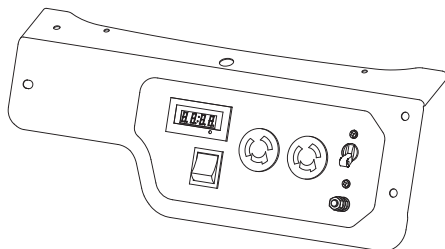
4. Connect the negative (-) battery cable to the battery negative (-) terminal.
5. Connect the other end of the negative (-) battery cable to the generator negative (-) terminal.

⚠ WARNING

Do not start the vehicle while the battery charging cables are connected and the generator is running. The vehicle or the generator may be damaged.

Disconnecting the battery cables:

1. Stop the engine.
2. Disconnect the negative (-) battery cable from the generator negative (-) terminal.
3. Disconnect the other end of the negative (-) battery cable from the battery negative (-) terminal.
4. Disconnect the positive (+) battery cable from the generator positive (+) terminal.
5. Disconnect the other end of the positive (+) battery cable to battery positive (+) terminal.
6. Disconnect the vehicle ground cable to the battery negative (-) terminal.
7. Reconnect the vehicle grounded battery cable.



High Altitude Operation

At high altitude, the standard carburetor air/fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting. Operation at an altitude that differs from that at which this engine was certified, for extended periods of time, may increase emissions.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your generator at altitudes with the carburetor modifications for high altitude use, it will meet each emission standard throughout its useful life.

Even with carburetor modification, engine horsepower will decrease about 3.5% for each 1000-foot (300-meter) increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

⚠ CAUTION

When the carburetor has been modified for high altitude operation, the air/fuel mixture will be too lean for low altitude use. Operation at altitudes below 5000 feet (1500 meters) with a modified carburetor may cause the engine to overheat and result in serious engine damage. For using at low altitudes, have your servicing dealer return the carburetor to original factory specifications.

PRE-OPERATION CHECK

Engine Oil

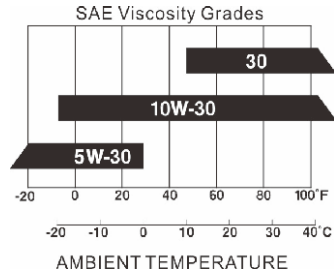
⚠ CAUTION

Engine oil is a major factor affecting engine performance and service life. Non detergent an 4-stroke engine oils will damage the engine and are not recommended.

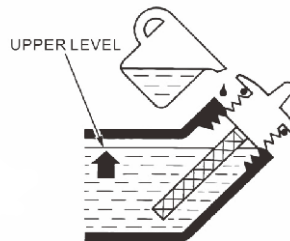
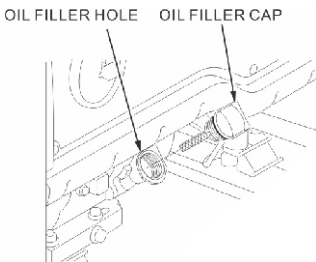
Check the oil level BEFORE EACH USE with the generator on a level surface and the engine stopped.

Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SJ. Always check the API SERVICE label on the oil container to be sure it includes the letters SJ.

SAE 10W-30 is recommended for general, all-temperature use. Other viscosities shown in the chart may be used when the average temperature in your areas is within the indicated range.



1. Remove the oil filler cap and wipe the dipstick clean.
2. Check the oil level by inserting the dipstick into the filler neck without screwing it in.
3. If the level is low, fill to the top of the oil filler neck with the recommended oil



Fuel

Check the fuel gauge, and refill the tank if the fuel level is low.

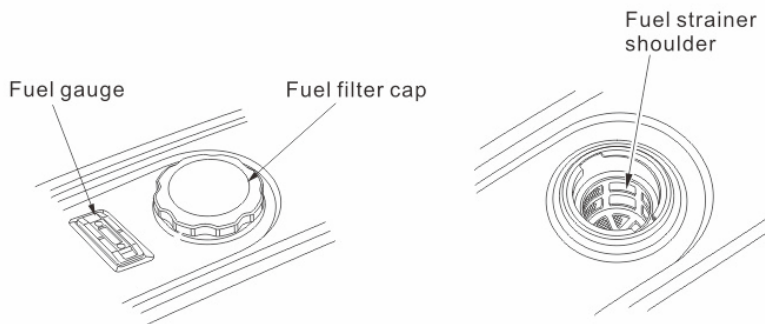
Refuel carefully to avoid spilling fuel. Do not fill above the shoulder of the fuel strainer.

⚠ WARNING

Gasoline is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- **Stop engine and keep heat, sparks and flames away.**
- **Refuel only outdoors.**
- **Wipe up spills immediately.**

Fuel tank capacity: 11 litres



⚠ CAUTION

Fuel can damage paint and plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilling fuel will not be considered as manufacturing defect.

Use unleaded gasoline with a pump octane rating for 86 or higher.

This engine is certified to operate on unleaded gasoline. Unleaded gasoline produces fewer engine and spark plug deposits and extends exhaust system life.

Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

Occasionally you may hear a light “spark knock” or “pinging” (metallic rapping noise) while operating under heavy loads. This is no cause for concern. If spark knock or pinging occurs at a steady engine speed, under normal load, change brands of gasoline. If spark knock or pinging persists, see your generator dealer please.

⚠ CAUTION

Running the engine with persistent spark knock or pinging can cause engine damage.

Running the engine with persistent spark knock or pinging is misuse.

STARTING THE ENGINE/STOPPING THE ENGINE

If you notice any undesirable operating symptoms, try another service station or switch to another brand of gasoline. Fuel system damage caused by bad fuel will not be considered as manufacturing defect.

Starting the Engine

1. Make sure that the AC circuit breaker is in the **OFF** position. The generator may be hard to start if a load is connected.
2. Turn the fuel valve lever to the **ON** position.
3. Pull the choke lever to the **CLOSE** position.
4. Move the engine switch to the **ON** position.
5. Pull the starter grip lightly until resistance is felt, then pull briskly.

⚠ CAUTION

Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

6. Push the choke lever to the **OPEN** position as the engine warms up.

Stopping the Engine

In an emergency:

To stop the engine in an emergency, move the engine switch to the **OFF** position.

In normal use:

1. Turn the AC circuit breaker to the **OFF** position.
2. Move the engine switch to the **OFF** position.
3. Turn the fuel valve to the **OFF** position.

The Importance of Maintenance

Good maintenance is essential for safe, economical, and trouble-free operation. It will also help reduce air pollution.

⚠ WARNING

Improper maintenance, or failure to correct a problem before operation, can cause malfunction in while you can be seriously hurt.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

To help you properly care for your generator, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools, are best handled by professionals and normally performed by a technician or other qualified mechanics.

The maintenance schedule applies to normal conditions. If you operate your generator under severe conditions, such as sustained high-load or high-temperature operation, or use it in unusually wet or dusty conditions, consult your servicing dealer for recommendations applicable to your individual needs and use.

Maintenance safety

Some of the most important safety precautions are as follows. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only can you decide whether or not you should perform a given task.

WARNING

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt.

Always follow the procedures and precautions in the owner's manual.

Exhaust gas contains poisonous carbon monoxide. Shutoff the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated.

Safety Precautions

- Make sure the engine is off before you begin any maintenance or repairs. This will eliminate several potential hazards:

—Carbon monoxide poisoning from engine exhaust.

Be sure there is adequate ventilation whenever you operate the engine.

—Burns from hot parts.

Let the engine and exhaust system cool before touching.

—Injury from moving parts.

Do not run the engine unless instructed to do so.

- Read the instructions before you begin, and make sure you have the tools and skills required.
- To reduce the possibility of fire or explosion, be careful when working around gasoline. Use only a nonflammable solvent, not gasoline, to clean parts. Keep cigarettes, sparks, and flames away from all fuel-related parts. Remember that your servicing technician knows your generator best and is fully equipped to maintain and repair it.
To ensure the best quality and reliability, use only new, genuine parts or their equivalents for repair or replacement.

Maintenance Schedule

REGULAR SERVICE PERIOD Performed at every indicated month or operating hour interval, whichever comes first		Each use	First month or 20Hrs. (3)	Every 3 months or 50Hrs.(3)	Every 6 months or 100Hrs.(3)	Every year or 300Hrs. (3)
ITEM						
Engine oil	Check level	<input type="radio"/>				
	Change		<input type="radio"/>		<input type="radio"/>	
Air cleaner	Check	<input type="radio"/>				
	Clean			<input type="radio"/> (1)		
Sediment Cup	Clean				<input type="radio"/>	
Spark plug	Check-Clean				<input type="radio"/>	
Valve clearance	Check-Adjust					<input type="radio"/> (2)
Fuel tank and strainer	Clean					<input type="radio"/> (2)
Fuel tube	Check (Replace if Necessary)	Every 2 years (2)				

(1) Service more frequently when used in dusty areas.

(2) These items should be handled by a qualified technician, unless the owner has the proper tools and is mechanically proficient.

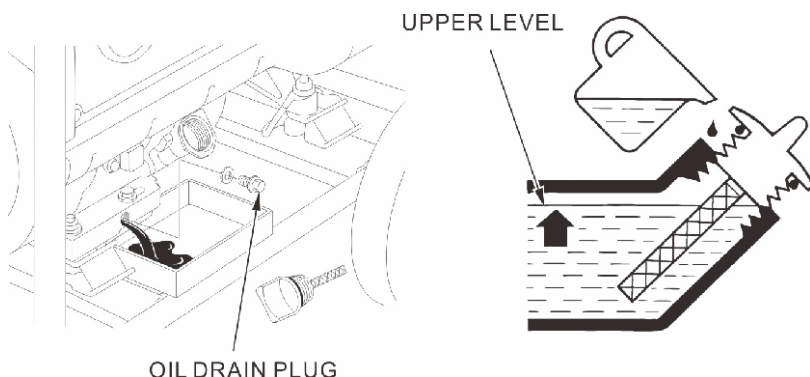
(3) For professional commercial use, log hours of operation to determine maintenance intervals.

Engine Oil Change

Drain the oil while the engine is warm to assure rapid and complete draining.

1. Remove the drain plug and sealing washer, remove the oil filler cap, and drain the oil.
2. Reinstall the drain plug and sealing washer. Tighten the plug securely.
3. Refill with the recommended oil and check the oil level.

Oil capacity: 0.6 Litres



Wash your hands with soap and water after handling used oil.

Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local services station or recycling center for reclamation. Do not throw it in the trash, pour it on the ground, or down a drain.

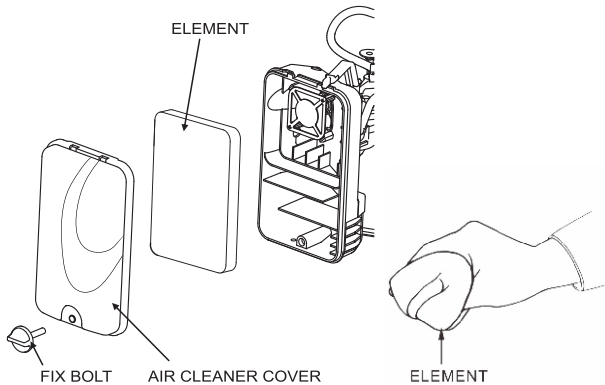
Air Cleaner Service

A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the generator in extremely dusty areas.

⚠ CAUTION

Never run the generator without the air filter. Rapid engine wear will result.

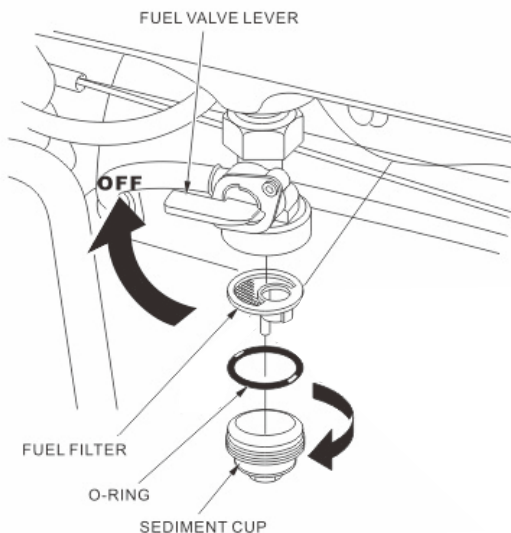
1. Unscrew the bolt, remove the air cleaner cover, and remove the element.
2. Wash the air cleaner element in a solution of household detergent and warm water, then rinse thoroughly, or wash in nonflammable or high flashpoint solvent. Allow the air cleaner element to dry thoroughly.
3. Soak the air cleaner element in clean engine oil and squeeze out the excess oil. The engine will smoke during initial startup if too much oil is left in the air cleaner element.



Fuel Sediment Cup Cleaning

The sediment cup prevents dirt or water which may be in the tank from entering the carburetor. If the engine has not been run for a long time, the sediment cup should be cleaned.

1. Turn the fuel valve lever to the **OFF** position, remove the sediment cup, o-ring and filter.
2. Clean the sediment cup, o-ring and filter in nonflammable or high flash point solvent.
3. Reinstall the filter, o-ring and sediment cup.
4. Turn the fuel valve lever **ON** and check for the leaks.



Spark Plug Service

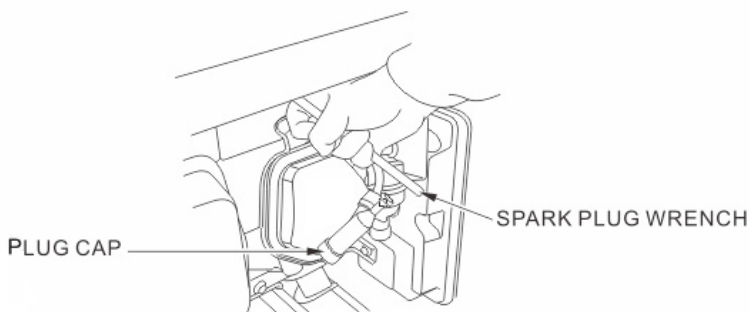
In order to service the spark plug, you will need a spark plug wrench (commercially available).

Recommended spark plug: F7TC

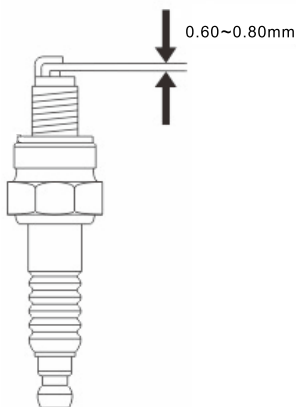
To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

If the engine has been running, the spark plug will be very hot. Be careful not to touch the spark plug.

1. Remove the spark plug cap.
2. Clean any dirt from around the spark plug base.
3. Use a spark plug wrench to remove the spark plug.



4. Visually inspect the spark plug. Discard it if the insulator is cracked, chipped or fouled.
5. Measure the plug gap with a feeler gauge. Correct as necessary by carefully bending the side electrode. The gap should be: 0.60~0.80mm.



-
6. Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.
 7. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer. If reinstalling a used spark plug, tighten 1/8~1/4 turn after the spark plug seats to compress the washer.

⚠ CAUTION

The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and could damage the engine. Never use spark plugs which have an improper heat range. Only use the recommended spark plugs or equivalent.

When transporting the generator, turn the engine switch and the fuel valve **OFF**. Keep the generator level to prevent fuel spillage. Fuel vapor or spilled fuel may ignite.

⚠ WARNING

Contact with a hot engine or exhaust system can cause serious burns or fires. Let the engine cool before transporting or storing the generator.

Take care not to drop or strike the generator when transporting. Do not place heavy objects on the generator.

When transporting the generator by loading it on to a vehicle, secure to the generator frame.

Before storing the unit for an extended period:

1. Be sure the storage area is free of excessive humidity and dust.
2. Service according to the table below:

Before storing the unit for an extended period:

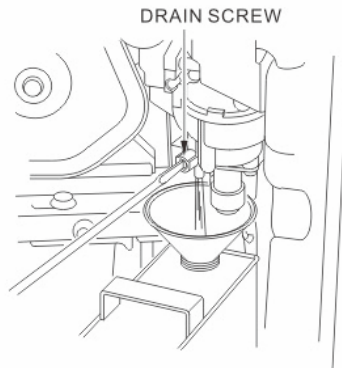
STORAGE TIME	RECOMMENDED SERVICE PROCEDURE TO PREVENT HARD STARTING
Less than 1 month	No preparation required.
1 to 2 months	Fill with fresh gasoline and add gasoline conditioner.
2 months to 1 year	Fill with fresh gasoline and add gasoline conditioner. Drain the carburetor float bowl. Drain the fuel sediment cup.
1 year or more	Fill with fresh gasoline and add gasoline conditioner. Drain the carburetor float bowl. Drain the fuel sediment cup. Remove the spark plug. Put a tablespoon of engine oil into the cylinder. Turn the engine slowly with the pull rope to distribute the oil. Reinstall the spark plug. Change the engine oil. After removal from storage, drain the stored gasoline into a suitable container, and fill with fresh gasoline before starting.
Use gasoline conditioners that are formulated to extend storage life.	

Storage

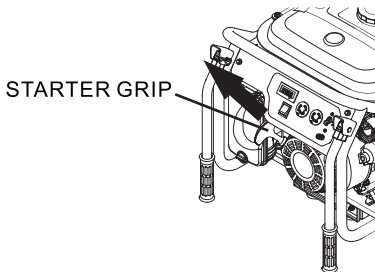
1. Drain the carburetor by loosening the drain screw. Drain the gasoline into a suitable container.

⚠ WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Perform this task in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area during this procedure.

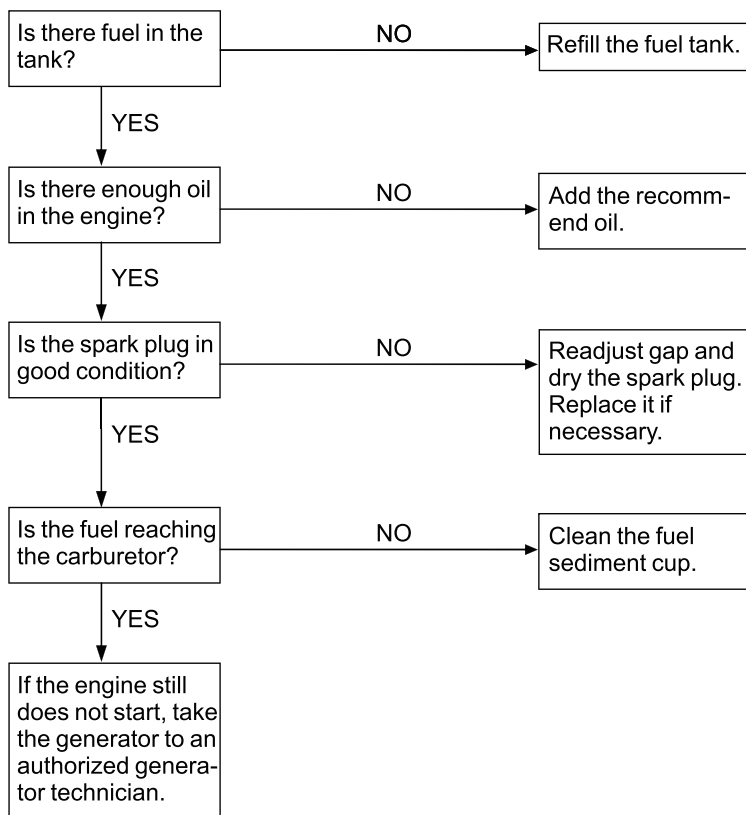


2. Change the engine oil.
3. Remove the spark plug, and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug.
4. Slowly pull the starter grip until resistance is felt. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect it from internal corrosion.



TROUBLE SHOOTING

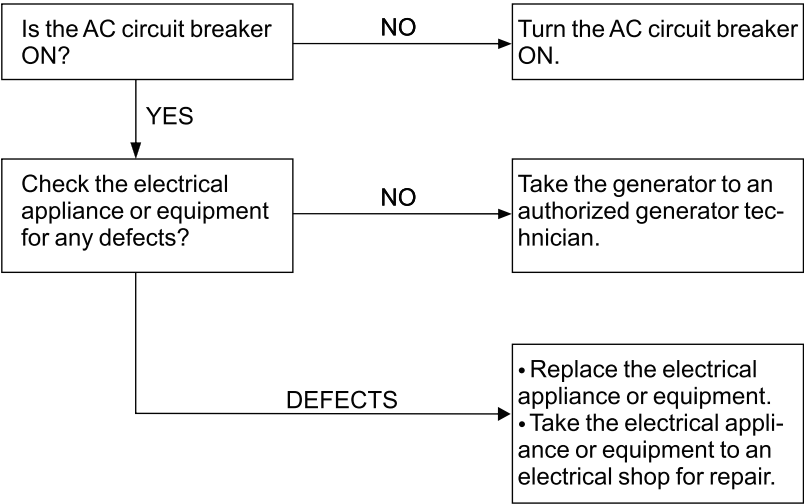
When the engine will not start:

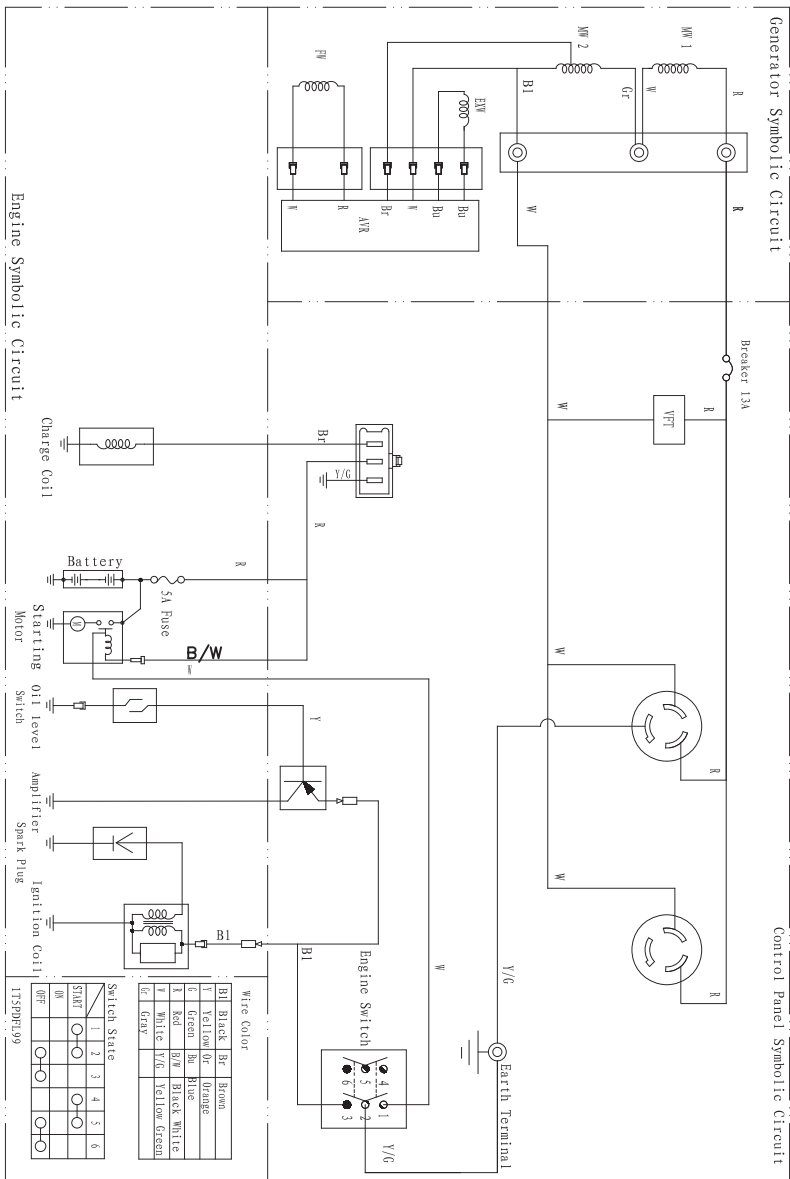


To check:

- 1) Turn off the engine switch and loosen the drain screw.
- 2) Turn the fuel valve to **ON**, fuel should flow from the drain when the fuel value is turned **ON**.

No electricity at the AC receptacles:





Dimensions

Model	TEC-OPT3500ES
Length (mm)	590
Width (mm)	430
Height (mm)	437
Dry weight (KGS)	52

Engine

Model	170FE/P-2
Engine Type	4-stroke, OHV, single cylinder
Displacement	208 cc
Bore×Stoke	70mm × 54mm
Compression Ratio	8.7:1
Engine Speed	3600 rpm
Cooling System	Forced air cooling
Ignition System	Transistorized magneto
Oil Capacity	0.6 Litres
Full Tank Capacity	13 Litres
Recommend Tank Volume	11 Litres
Spark Plug	F7TC

Generator

Model		TEC-OPT3500ES
AC	Rated Voltage	230V
	Rated Frequency	50Hz
	Rated Current	13.0A
	Rated Output	3.0kW
	Maximum Output	3.3kW

Turn-up Specifications:

1. Spark plug gap: 0.60~0.80mm
2. Valve clearance: IN: 0.1~0.15 mm (cold)
EX: 0.15~0.2 mm (cold)

NOTE:

Specifications may vary according to the types, and are subject to change without notice.

ASSEMBLY

The Importance of Proper Assembly

Proper assembly is essential to the operator safety and the reliability of the machine. Any error or oversight made by the person assembling and servicing a unit can easily result in faulty operation, damage to the machine, or injury to the operator.

⚠ WARNING

Improper assembly can cause an unsafe condition that can lead to serious injury or death.

Follow the procedures and precautions in the assembly instructions carefully.

Some of the most important safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing this assembly. Only can you decide whether or not you should perform a given task.

⚠ WARNING

Failure to properly follow instructions and precautions can cause you to be seriously hurt.

Follow the procedures and precautions in this manual carefully.

RECOMMENDED SERVICE SCHEDULES

Daily maintenance checks & running in procedures are essential for trouble free operation. Please refer to the owner's manual for details.

Gasoline Generators

Initial Service (Running in Period) 50 hrs/1 week

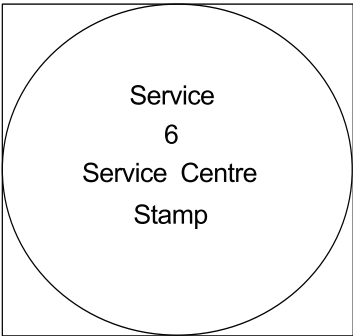
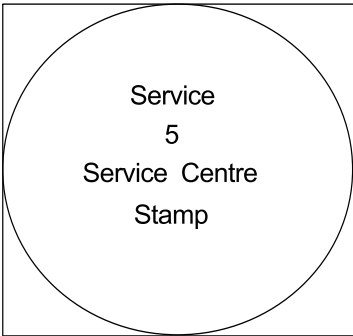
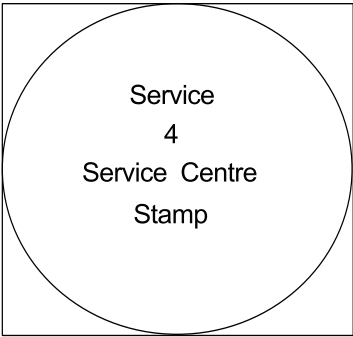
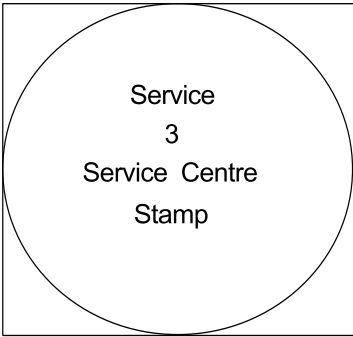
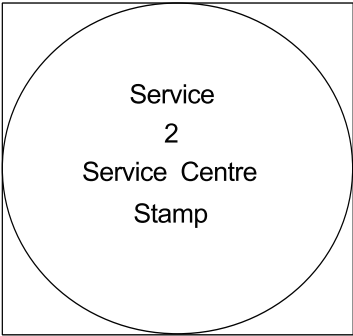
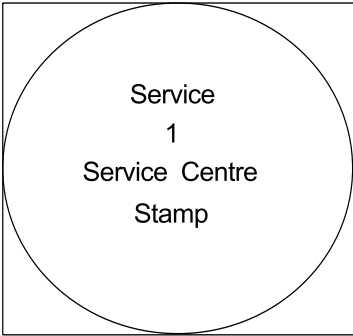
Main Service 100 hrs/1 month

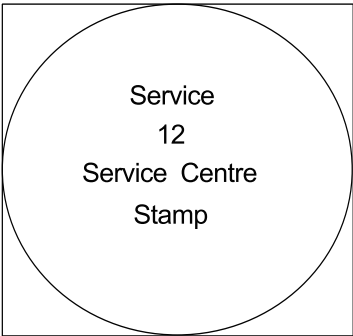
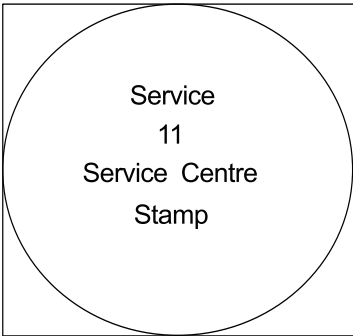
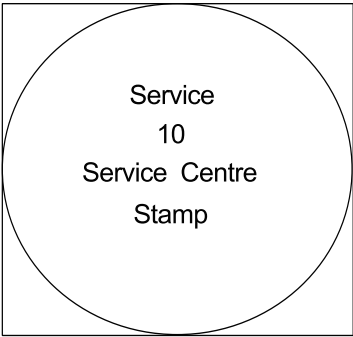
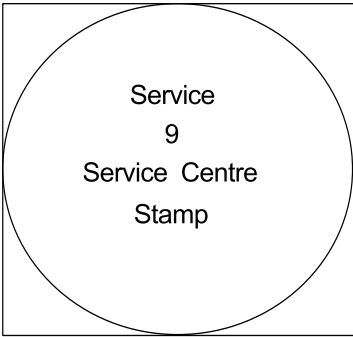
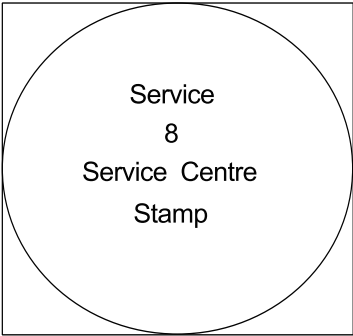
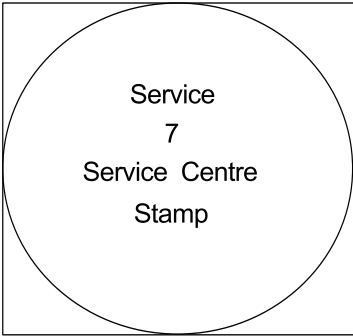
Quick Guide Oil change Frequency

Total daily hours run	1 time/month	2 times/month	3 times/month	4 times/month
1-3hrs	x			
3-6hrs		x		
6-10hrs			x	
10hrs or over				x

It is recommended engine oil change is carried out once a month minimum.

MAINTENANCE RECORD



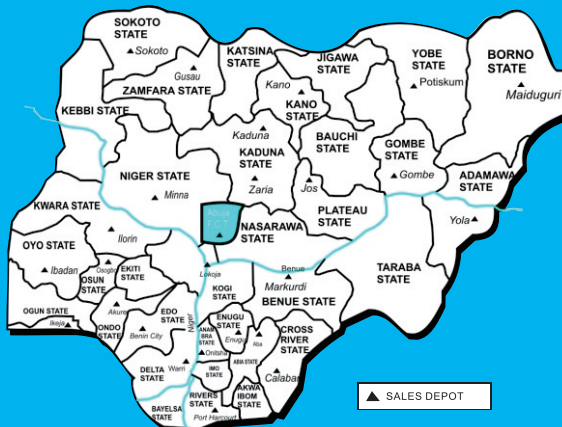




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TEC produces high quality generators which are strong, reliable, elegantly styled-yet practical and long lasting.

TEC new generation generators are convenient to use, highly efficient, with auto display for volt, amps & Hz and are built for quiet running.



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45/47, Town Planning Way, Ilupeju
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For Sales Enquires: Tel 01-2717153-4, Fax: 01-2702876,
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