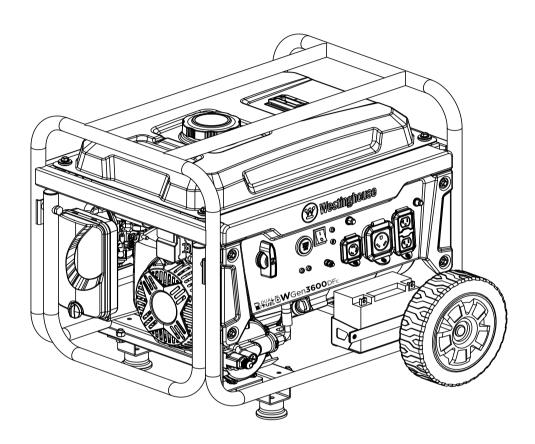


## **USER MANUAL**



## WGen3600DFc

### **Dual Fuel Portable Generator**

Gasoline: 3600 Running Watts | 4650 Peak Watts Propane: 3240 Running Watts | 4180 Peak Watts

#### DO NOT RETURN THIS PRODUCT TO THE STORE

If you have questions or need assistance, please call customer service at 855-944-3571.

### INTRODUCTION

### INTRODUCTION

TABLE OF CONTENTS
NTRODUCTION DISCLAIMERS2
UPDATES2
SPECIFICATIONS
SPECIFICATIONS3
PRODUCT REGISTRATION3
SAFETY
SAFETY DEFINITIONS4
SAFETY INSTRUCTIONS5
SAFETY LABELS AND DECALS8
CO SENSOR9
COMPONENTS
CONTROL PANEL COMPONENTS10
GENERATOR COMPONENTS11
ASSEMBLY
CARTON CONTENTS12
INSTALL FEET AND WHEELS12
INITIAL OIL FILL
FUEL13
CONNECT THE BATTERY14
CONNECT AN LPG/PROPANE TANK14

⚠ WARNING: Operating, servicing, and maintaining this equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, and wear gloves or wash your hands frequently when servicing this equipment. For more information go to www. P65warnings.ca.gov.

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#### **A DANGER**



**OPERATION** 

Read this manual before using or performing maintenance on this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death.

STARTING THE ENGINE: PROPANE	18
SWITCHING FUEL SOURCES	18
STOPPING THE ENGINE	19
AC CIRCUIT BREAKERS	19
GENERATOR CAPACITY	19
POWER MANAGEMENT	20
EXTENSION CORDS	20
TRANSPORTING	21
MAINTENANCE	
MAINTENANCE SCHEDULE	22
AIR FILTER MAINTENANCE	22
ENGINE OIL LEVEL CHECK	23
ENGINE OIL CHANGE	
SPARK PLUG MAINTENANCE	24
SPARK ARRESTOR SERVICE	24
STORAGE	25
VALVE CLEARANCE	26
TROUBLESHOOTING	
TROUBLESHOOTING	27
EXPLODED VIEWS AND PARTS LISTS	
ENGINE EXPLODED VIEW	29
ENGINE PARTS LIST	30
GENERATOR EXPLODED VIEW	32
GENERATOR PARTS LIST	33
SCHEMATICS	
SCHEMATICS	35
ESPAÑOL	36
FRANÇAIS	
3	

#### SAVE THESE INSTRUCTIONS

#### **DISCLAIMERS**

All information, illustrations, and specifications in this manual were in effect at the time of publishing. The illustrations used in this manual are intended as representative reference views only. We reserve the right to make any specification or design change without notice.

#### **UPDATES**

The latest User Manual for your Westinghouse generator can be found under our support tab. https://westinghouseoutdoorpower.com/pages/manuals

Or scan the following QR code with your smartphone camera to be directed to the link.



## **SPECIFICATIONS**

#### **SPECIFICATIONS**

SPECIFICATIONS	
SPECIFICATIONS	3600 Gasolina
Running Watts:	3600 Gasoline 3240 LPG
	4650 Gasoline
Peak Watts:	4180 LPG
Rated Power @1.0 Power	3.6 kW Gasoline
Factor:	3.24 kW LPG
Peak Power:	4.65 kVA Gasoline
Peak Power:	4.18 kVA LPG
Rated Voltage:	120V
Rated frequency:	60 Hz @ 3600 RPM
Phase:	Single phase
Total Harmonic Distortion:	≤ 23%
Engine Displacement:	212 cc
Starting Type:	Recoil, Electric Start,
Starting Type:	Remote
Fuel Capacity:	4.0 Gallons (15 Liters)
Fuel Type:	Unleaded gasoline
т ист турс.	87-93 octane*
Oil Capacity:	0.63 Quart (0.6 Liter)
Oil Type:	SAE 10W-30
Spark Plug:	97108 (F7TC)
Spark Plug Gap:	0.024 – 0.032 in.
	(0.60 – 0.80 mm)
Valve Intake	0.0031 – 0.0047 in.
Clearance:	(0.08 – 0.12 mm)
Valve Exhaust Clearance:	0.0051 – 0.0067 in.
	(0.13 – 0.17 mm)  Neutral floating
AC Grounding System:	
Voltage Regulator:	AVR Brushed
Alternator Type:	Drusneu
Maximum Ambient Temperature:	104°F (40°C)
-	• EPA
Certifications:	· CARB
	· ·

<sup>\*</sup>Ethanol content of 10% or less. DO NOT use E15 or E85.

#### **NOTICE**

This product is designed and rated for continuous operation at ambient temperatures up to 104°F (40°C). If needed, this product can be operated at temperatures ranging from 5°F (15°C)–122°F (50°C) for short periods. If the product is exposed to temperatures outside of this range during storage, it should be brought back within this range before operation. This product must **ALWAYS** be operated outdoors in a well-ventilated area and far away from doors, windows, and other vents.

Maximum wattage and current are subject to and limited by such factors as fuel BTU content, ambient temperature, altitude, engine conditions, etc. Maximum power decreases about 3.5% for each 1,000 feet above sea level, and will also decrease about 1% for each 10°F (6°C) above 60°F (16°C) ambient temperature.

#### PRODUCT REGISTRATION

For trouble-free warranty coverage, it is important to register your Westinghouse generator.

You can register by:

- Completing and mailing the product registration card included in the carton.
- Registering your product online at: https://westinghouseoutdoorpower.com/pages/ warranty-registration
- Scan the following QR code with your smartphone camera to be directed to the mobile registration link.



• Sending the following product information to:

Westinghouse Outdoor Power Warranty registration 777 Manor Park Drive Columbus, OH 43228

#### For Your Records

Date of Purchase:	
Model Number:	
Serial Number:	
Place of Purchase:	

**IMPORTANT:** Keep your purchase receipt for trouble-free warranty coverage.

### SAFETY

#### **SAFETY**

#### **SAFETY DEFINITIONS**

The words DANGER, WARNING, CAUTION, and NOTICE are used throughout this manual to highlight important information. Make sure that the meanings of this safety information is known to all who operate, perform maintenance on, or are near the generator.



This 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 alerts symbol.

#### **A DANGER**

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

#### **AWARNING**

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

#### **A 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 for the generator to function in the manner intended.

#### **SAFETY SYMBOLS**

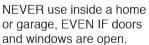
Follow all safety information contained in this manual and on the generator.

and on the generator.			
Symbol	Description		
<u> </u>	Safety Alert Symbol		
	Electrocution Hazard		
	Asphyxiation Hazard		
	Burn Hazard. <b>DO NOT</b> touch hot surfaces.		
A	Electrical Shock Hazard		
	Fire Hazard		
4 · · · ·	Maintain Safe Distance		
₹±'n	Lifting Hazard		
(Sp)	Read Manufacturer's Instructions		
	DO NOT Operate in Wet Conditions		
	Ground. Consult with electrician to determine grounding requirements before operation.		

### A DANGER

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





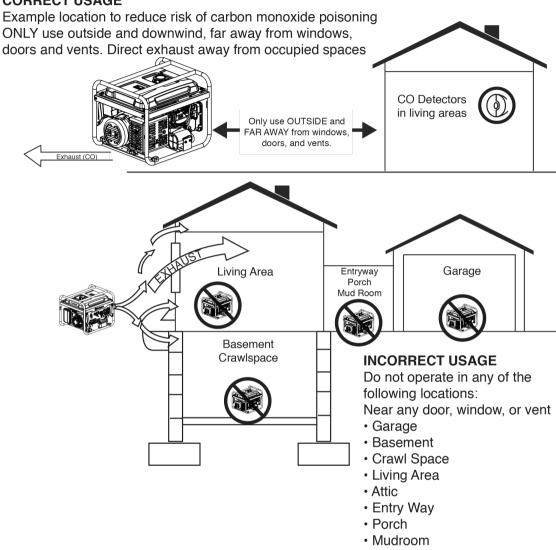




Only use OUTSIDE and far away from windows, doors, and vents.

#### SAFETY INSTRUCTIONS





#### **NOTICE**

Install battery-powered carbon monoxide detectors or plug-in carbon monoxide detectors with battery back-up in living areas.

#### **A DANGER**

Fire and electrocution hazard. **DO NOT** connect to a building's electrical system unless the generator and transfer switch have been properly installed and the electrical output has been verified by a qualified electrician. The connection must isolate the generator power from utility power and must comply with all applicable laws and electrical codes.

#### **A DANGER**

Electrocution hazard. **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 circuit.

## **SAFETY**

#### **GENERAL SAFETY PRECAUTIONS**

- NEVER use the generator to power medical support equipment.
- **DO NOT** operate the generator when you are tired or under the influence of drugs, alcohol, or medication.
- DO NOT use generator with electrical cords which are worn, frayed, bare, or otherwise damaged.
- All electrical tools and appliances operated from this generator must be properly grounded by use of a third wire or be double-insulated.
- When this generator is used to supply a building wiring system the generator must be installed by a qualified electrician and connected to a transfer switch as a separately derived system in accordance with NFPA 70, National Electrical Code.
- If you begin to feel sick, dizzy, or weak while using the generator, move to fresh air IMMEDIATELY. See a doctor, as you can have carbon monoxide poisoning.
- Only use OUTSIDE and far away from windows, doors, and vents as recommended by the US Department of Health and Human Services Centers for Disease Control and Prevention. Your specific home and/or wind conditions may require additional distance.
- While operating and storing, keep at least five feet of clearance on all sides of the generator, including overhead. Allow the generator to cool a minimum of 30 minutes before storage. Heat created by the muffler and exhaust gases could be hot enough to cause serious burns and/or ignite combustible objects.
- DO NOT touch the muffler or engine. They are very HOT and will cause severe burns. DO NOT put body parts or any flammable or combustible materials in the direct path of the exhaust.
- ALWAYS remove any tools or other service equipment used during maintenance away from the generator before operating.
- Avoid skin contact with engine oil or gasoline. Wear protective clothing and equipment. Wash all exposed skin with soap and water.
- A transfer switch must be installed by a licensed electrician approved by the authority having jurisdiction.
   The installation must comply with all applicable laws and electrical codes.

#### **FUEL SAFETY**

- · Store fuel in a container approved for gasoline.
- DO NOT smoke when filling the generator with gasoline.
- DO NOT allow the generator's gas tank to overflow when filling.
- Shut down the engine and allow it to cool for two minutes before adding gasoline or oil to the generator.
- NEVER remove the fuel cap when the generator is running. Shut off the engine and allow the unit to cool at least two minutes. Remove the fuel cap slowly to release pressure, keep fuel from escaping around the cap, and to avoid the heat from the muffler igniting fuel vapors. Tighten the fuel cap securely after refueling.
- · Wipe spilled fuel from the unit.
- NEVER attempt to burn off spilled fuel.
- NEVER overfill the fuel tank. Leave room for fuel to expand. Overfilling the fuel tank can result in a sudden overflow of gasoline and result in spilled gasoline coming in contact with HOT surfaces.
- Spilled fuel can ignite. If fuel is spilled on the generator, wipe up any spills immediately. Dispose of rag properly. Allow area of spilled fuel to dry before operating the generator.
- · Wear eye protection while refueling.
- · NEVER use gasoline as a cleaning agent.
- Store any containers containing gasoline or LPG/ propane in a well-ventilated area, away from any combustibles or source of ignition.

#### **GASOLINE AND GASOLINE VAPOR (GAS)**

#### **A DANGER**

Fire and explosion hazard. Gasoline and LPG/propane are highly explosive and flammable and can cause severe burns or death.

- In case of a gas fire, DO NOT attempt to extinguish the flame if the fuel tank valve is in the ON position. Introducing an extinguisher to a generator with an open fuel valve could create an explosion hazard.
- Gas has a distinctive odor, this will help detect potential leaks quickly.
- · Gas vapors can cause a fire if ignited.
- Gasoline is a skin irritant and needs to be cleaned up immediately if it comes in contact with the skin.

#### LIQUID PETROLEUM GAS (LPG/PROPANE)

#### **AWARNING**

Fire and explosion hazard. **NEVER** use a gas container, LPG/propane connector hose, LPG/propane tank or any other fuel item that appears to be damaged.

#### **A CAUTION**

Fire and explosion hazard. Only use approved LPG/propane tanks with an Overfilling Prevention Device (OPD) valve. **ALWAYS** keep the tank in a vertical position with the valve on top and placed at ground level on a flat surface. **DO NOT** allow tanks to be near any heat source. When transporting and storing, turn the propane tank valve to the fully closed position and disconnect the tank. Make sure to **ALWAYS** cover the generator inlet and tank outlet with protective plastic caps.

- LPG/Propane is highly flammable and explosive.
- Flammable gas under pressure can cause a fire or explosion if ignited.
- LPG/Propane can settle in low places because it is heavier than air.
- LPG/Propane has a distinctive odor added to help detect potential leaks.
- ALWAYS keep a LPG/Propane tank in an upright position.
- When exchanging LPG/propane tanks, be sure the tank valve is the same type.
- In case of a LPG/propane fire, DO NOT attempt to extinguish unless the fuel supply can be shut off safely.
- LPG/propane will burn the skin. Prevent skin contact at all times.
- Keep the propane tank away from the generator exhaust.
- A step-down regulator is required when using LPG/ propane tanks over 100 gallons. The pressure as measured at the regulator mounted to the generator must be 7" to 14" of water column.
- Large (500–1000 gallon) LPG/propane tanks will require a certified plumber to install the fuel line to the generator and the loose regulator is not used (the regulator that is attached to the fuel tank). The pressure as measured at the regulator mounted to the generator must be 7" to 14" of water column. A certified plumber must ensure that the pressure is correct or install a step down regulator if needed.

#### **AWARNING**

Fire and explosion hazard. If there is a strong smell of propane while operating the generator, fully close the LPG/propane tank valve immediately. Once the propane is off, use soapy water to check for leaks on the hose and connections on the tank valve and the generator. **DO NOT** smoke or light a cigarette or check for leaks using any open flame source such as a match or lighter. If a leak is found, contact a qualified technician to inspect and repair the LPG/propane system before using the generator.

#### When starting the generator:

- Make sure that the fuel cap, air filter, spark plug, fuel lines, and exhaust system are properly in place.
- If you spill any gasoline on the tank, allow it to fully evaporate before operating.
- Make sure the generator and LPG/propane tank are on a flat surface before operating.
- If there is a propane odor DO NOT start the unit because there may be a potential leak. NEVER place a LPG/ propane tank near the engine exhaust.

#### When transporting or servicing the generator:

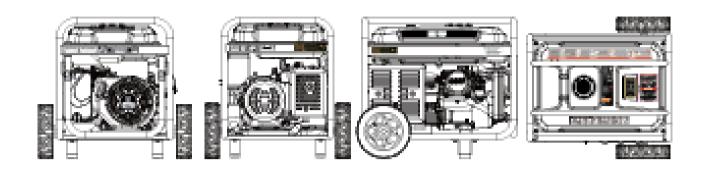
- Make sure the LPG/propane tank and LPG/propane hose are not attached to the generator.
- · Disconnect the spark boot to prevent accidental starting.

#### When storing the generator:

- Store away from sparks, open flames, pilot lights, heat, and other sources of ignition.
- DO NOT store gas or a LPG/propane tank near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions.

## **SAFETY**

#### **SAFETY LABELS AND DECALS**

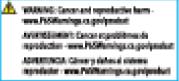




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#### CO SENSOR

The CO Sensor monitors for the accumulation of poisonous carbon monoxide gas around the generator when the engine is running. If increasing levels of CO gas are detected, the CO Sensor automatically shuts down the engine.

The CO Sensor will also detect the accumulation of carbon monoxide from other fuel burning sources used in the area of operation. For example, if the exhaust of fuel burning tools is pointed at a CO Sensor-equipped generator, a shut-off may be initiated due to rising CO levels. This is not an error. Hazardous carbon monoxide has been detected. Move and redirect any additional fuel burning sources to dissipate carbon monoxide away from personnel and occupied buildings.

**Note:** Remote start-equipped generators must be restarted with the START/STOP button on the control panel after an automatic shut-down occurs.

Generators are intended to be used outdoors, far from occupied buildings and the exhaust pointed away from personnel and buildings. If misused and operated in a location that results in the accumulation of CO, like in a partially enclosed area, the CO Sensor shuts off the engine, notifies the user with a RED indicator light, and directs the user to read the Action Label for steps to take. The CO Sensor **DOES NOT** replace carbon monoxide alarms. Install battery-powered carbon monoxide alarm(s) in your home.

#### **A WARNING**

Automatic shutoff accompanied with a flashing RED light in the CO Sensor portion of the control panel is an indication that the generator was improperly located. If you start to feel sick, dizzy, weak, or carbon monoxide detectors in your home indicate an alarm, get to fresh air immediately. Call emergency services. You may have carbon monoxide poisoning.

#### **ACTION LABEL**

#### CONTROL PANEL CO AUTO-SHUTOFF

CARBON MONOXIDE AUTO-SHUTOFF







REALICE UN SERVICIO
DEL GENERADOR

AUTOMATIC SHUTOFI SEE MANUAL CORTE AUTOMÁTICO LEER EL MANUAL

#### CO SENSOR INDICATOR LIGHTS

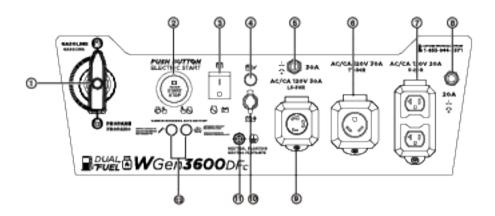
Color	Description
RED	Carbon monoxide accumulated around the generator. After shut-off, the RED indicator light in the CO Sensor area of the control panel will flash to provide notification that the generator was shut-off due to an accumulating CO hazard. The RED light will flash for at least five minutes after a CO shut-off.
TIED	Move the generator to an open, outdoor area far away from occupied spaces with exhaust pointed away. Once relocated to a safe area, the generator can be restarted. Introduce fresh air and ventilate the area where the generator had shut down.
had shut down.  A CO sensor system fault occur generator is automatically shut and the YELLOW indicator light CO auto-shutoff area of the contro will flash to provide notification the fault has occurred. The YELLOV will flash for at least five minutes fault. The generator can be resolut may continue to shutoff. A CO fault can only be diagnosed and re by an authorized Westinghouse center.	



### COMPONENTS

#### **COMPONENTS**

#### **CONTROL PANEL COMPONENTS**

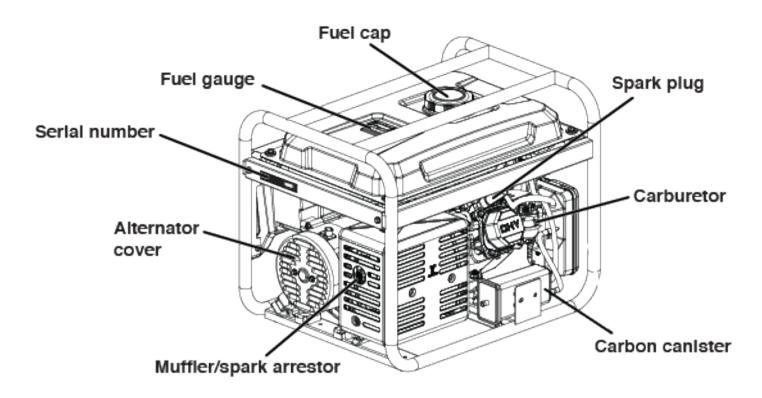


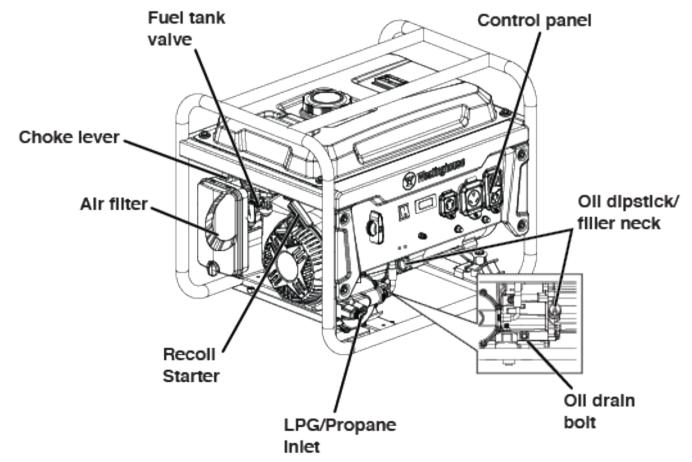
- **1. Fuel Selector Switch:** Used to select gas or propane operation.
- Push-Button START/STOP: Push once to automatically start the engine. Push again to stop the engine.
- **3. Battery Switch:** Turns battery ON and OFF. Must be ON before electric or remote start.
- **4. Battery Indicator:** Indicates that power is ON. Light will remain illuminated while the unit is ON.
- 5. 30 Amp AC Circuit Breaker: Circuit breaker limits the current that can be delivered through the NEMA L5-30R and TT-30R receptacles to 30 Amps.
- 6. 120 Volt AC, 20 Amp Duplex NEMA 5-20R Receptacles: Receptacles can supply a maximum of 20 Amps.

- 7. 20 Amp AC Circuit Breaker: Circuit breaker limits the current that can be delivered through the NEMA 5-20R receptacles to 20 Amps.
- 8. 30 Amp AC Circuit Breaker: Circuit breaker limits the current that can be delivered through the NEMA L5-30R and TT-30R receptacles to 30 Amps.
- 9. 120 Volt AC, 30 Amp NEMA TT-30R Receptacle: Receptacle can supply a maximum of 30 Amps.
- **10. Battery Charging Port**: Used to charge the battery with the included battery charger.
- **11. Ground Terminal:** The ground terminal is used to externally ground the generator.
- 12. CO Sensor indicator lights: The CO Sensor monitors for the accumulation of poisonous carbon monoxide gas. If increasing levels of CO gas are detected, the CO Sensor automatically shuts down the engine.

## **COMPONENTS**

#### **GENERATOR COMPONENTS**





## **ASSEMBLY**

#### **ASSEMBLY**

#### **CARTON CONTENTS**

#### **A** CAUTION

Weight hazard. **ALWAYS** have assistance when lifting the generator.

- 1. Carefully open the carton.
- 2. Remove and save the carton contents.
- 3. Remove and discard the packing tray.
- 4. Unfold the top of the plastic bag enclosing the generator.
- **5.** Carefully cut the vertical corners of the carton to access the generator.
- 6. Recycle or dispose of the packaging materials properly.

#### **CARTON CONTENTS**

- · User manual
- · Quick Start Guide
- · LPG/propane hose with regulator
- · Bottle of SAE 10W-30 Oil
- · Spark plug socket wrench
- Wrench
- · Battery Charger
- Oil Funnel

Item		Quantity
• N	lounting foot	2
• F	lange bolt, M8	4
• V	/heel	2
• A	xle pin	2
• V	<i>l</i> asher	2
· C	otter pin	2

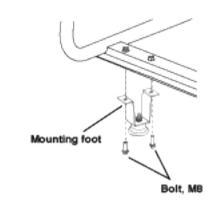
If any parts are missing, contact our service team at service@wpowereq.com or call 1-855-944-3571.

#### **INSTALL FEET AND WHEELS**

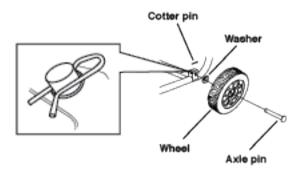
#### **NOTICE**

Assembling the generator will require lifting the unit on one side. Install the mounting feet and wheel before adding fuel or oil.

- 1. Place generator on a flat surface.
- Tip the generator on a piece of cardboard or other soft material to protect the frame paint and prevent the generator from sliding.
- **3.** With the included wrench, install the mounting feet to the frame as shown.



4. Install the wheels as shown.



**Note:** The wheels are only intended for hand transport. The wheels are not suitable for towing the generator either on or off-road.

#### INITIAL OIL FILL

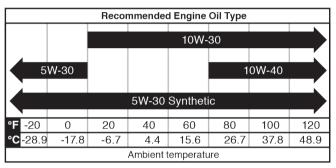
#### **NOTICE**

THIS GENERATOR HAS BEEN SHIPPED WITHOUT OIL. DO NOT attempt to crank or start engine before it has been properly serviced with recommended oil. Failure to add engine oil before starting will result in serious engine damage.

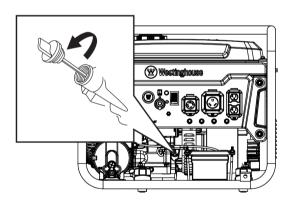
#### **NOTICE**

Use of 2-stroke/cycle oil or other unapproved oil types can cause severe engine damage that is not covered under warranty.

The included, recommended oil type for typical use is 10W-30 engine oil. If running the generator in extreme temperatures, refer to the following chart.



1. On a level surface, remove the oil dipstick.



2. Using the supplied funnel and oil, add oil into oil filler

**Note:** As residual oil from the factory may remain in the engine, add the oil incrementally near the end of the bottle to prevent overfilling the engine. See Engine Oil Level Check in the Maintenance section.

3. Replace the oil dipstick and hand-tighten.

#### **FUEL**

#### **A WARNING**

Fire and explosion hazard. **NEVER** use a gasoline container, gasoline tank, propane connector hose, propane tanks, or any other fuel item that is broken, cut, torn or damaged.

#### **A DANGER**

Fire and explosion hazard. **DO NOT** overfill fuel tank. Fill only to the red fill ring located in the in-tank fuel screen filter. Overfilling may cause fuel to spill onto engine causing a fire or explosion hazard.

#### **A DANGER**

Fire and explosion hazard. **NEVER** refuel the generator while the engine is running. **ALWAYS** turn the engine off and allow the generator to cool for two minutes before refueling.

#### **NOTICE**



**DO NOT** use E15 or E85 fuel in this product. Engine or equipment damage caused by stale fuel or the use of unapproved fuels (such as E15 or E85 ethanol blends) is not covered by warranty. Only use unleaded gasoline containing up to 10% ethanol.

#### **FUEL REQUIREMENTS**

- CLEAN, FRESH, unleaded gasoline, 87-93 octane.
- Up to 10% ethanol (gasohol) is acceptable (where available; non-ethanol fuel is recommended).
- **DO NOT** use E85 or E15.
- DO NOT use a gas oil mix.
- **DO NOT** modify the engine to run on alternate fuels.
- · DO NOT fuel indoors.
- DO NOT create a spark or flame while fueling.

#### **USING FUEL STABILIZER**

Adding a fuel stabilizer (not included) extends the usable life of fuel and helps prevent deposits from forming that can clog the fuel system. Follow the manufacturer's instructions for use.

**ALWAYS** mix the correct amount of fuel stabilizer to gasoline in an approved gasoline container before fueling the generator. Run the generator for five minutes to allow the stabilizer to treat the entire fuel system.

## **ASSEMBLY**

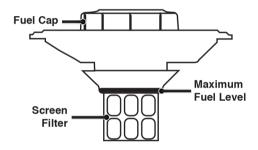
#### **FILLING THE FUEL TANK**

- **1.** Turn the generator OFF and allow to cool for a minimum of two minutes before fueling.
- Place the generator on level ground in a well-ventilated area.
- 3. Clean area around fuel cap and remove the cap slowly.

#### **NOTICE**

Only fill the tank from an approved gasoline container. Make sure the gasoline container is internally clean and in good condition to prevent fuel system contamination.

4. Slowly add the recommended fuel. DO NOT overfill. Fill only to the red maximum fill ring on the fuel screen filter visible in the filler neck.



5. Install the fuel cap.

#### **NOTICE**

Fuel can damage paint and plastic. Use caution when filling the fuel tank. Damage caused by spilled fuel is not covered under warranty.

#### **NOTICE**

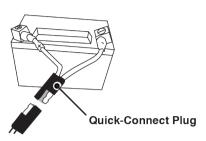
Clean the fuel screen filter of debris before and after each fueling. Remove the fuel screen filter by slightly compressing it while removing it from the fuel tank.

#### NOTICE

Clean the fuel screen filter of debris before and after each fueling. Remove the fuel screen filter by slightly compressing it while removing it from the fuel tank.

#### **CONNECT THE BATTERY**

A quick-connect battery plug is pre-installed on the battery. Remove the cable tie securing the plugs then push firmly to connect them.



**Note:** The generator is equipped with a battery charging feature. Once the engine is running, a small charge will slowly recharge the battery.

#### **CONNECT AN LPG/PROPANE TANK**

#### **NOTICE**

- The LPG/propane tank can be of any capacity but the tank must conform to the standard as listed in Fuel Safety section.
- Propane tanks that use liquid withdrawal system can not be used on these models.
- Verify the re-qualification date on the tank has not expired.
- DO NOT use included LPG/propane hose for any other appliances.

#### **NOTICE**

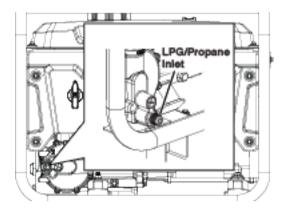
- All new tanks must be purged of air and moisture prior to filling. Used tanks that have not been plugged or kept closed must also be purged. The purging process should be done by a propane supplier (Tanks from an exchange supplier should have been purged and filled properly).
- ALWAYS position the tank so the connection between the valve and the gas inlet will not cause sharp bends or kinks in the hose.

#### **A WARNING**

Explosion hazard. **DO NOT** start generator if you smell propane. **ALWAYS** fully close the propane tank valve and disconnect the LPG/propane hose from the generator when not in use.

- 1. Turn the generator OFF and place on a flat surface in a well ventilated area.
- **2.** Verify that the propane tank valve is in the fully closed position.
- **3.** Remove the cover on the generator propane inlet valve.

**4.** Use your fingers to hand thread the LPG/propane hose (included) to the propane inlet on the generator.



**IMPORTANT: DO NOT** use thread seal tape or any other type of sealant to seal the LPG/propane hose connection.

**5.** Tighten the LPG/propane hose connector to the generator with a 19 mm or adjustable wrench. **DO NOT** over-tighten.

Torque: 5-10 lb-ft.

- **6.** Remove the safety plug or cap from the propane tank valve and attach the other end of the hose to the LPG/ propane connector on the tank. Hand-tighten.
- 7. Turn the propane tank valve to the fully open position. Check all connections for leaks by wetting the fittings with a solution of soap and water. Bubbles which appear or bubbles which grow indicate that a leak exists. If a leak exists at a fitting, turn the propane tank valve to the fully closed position and tighten the fitting. Open the propane tank valve and recheck the fitting with the soap and water solution. If the leak continues or if the leak is not at a fitting then DO NOT use the generator and contact customer service.

**IMPORTANT:** Keep the propane tank valve in the fully closed position unless in use.

#### **OPERATION**

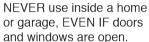
#### **GENERATOR LOCATION**

Read and understand all safety information before starting the generator.

### **A DANGER**

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









Only use OUTSIDE and far away from windows, doors, and vents.

**NEVER** operate the generator inside any building, including garages, basements, crawlspaces, sheds, enclosure, or compartment, including the generator compartment of a recreational vehicle.

#### **A DANGER**

Electrocution hazard. **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 circuit. 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, could result in electrocution

#### **AWARNING**

Fire hazard. 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 or the air intake system. Allow the generator to cool for 30 minutes before transport or storage.

The generator should be on a flat, level surface at all times (Even while not in operation). The generator must have at least 5 ft. (1.5 m) of clearance from all combustible material.

**DO NOT** operate the generator in the back of a SUV, camper, trailer, truck bed (regular, flat, or otherwise), under stairs, next to walls or buildings, or in any other location that will not allow for adequate cooling of the generator and/or the muffler. **DO NOT** contain generators during operation.

#### **A DANGER**

Asphyxiation hazard. Place the generator in a well-ventilated area. **DO NOT** place the generator near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning the generator.

#### **GROUNDING**

#### **AWARNING**

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

#### **NOTICE**

Only use grounded 3-prong extension cords, tools, and appliances, or double-insulated tools and appliances.

The generator neutral is floating. 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. The generator (stator winding) is isolated from the frame and from the AC receptacle ground pin. Electrical devices that require a grounded receptacle pin connection may not function properly.

If this generator will be used only with cord and plug equipment connected to the receptacles mounted on the generator, National Electric Code does not require that the unit be grounded. However, other methods of using the generator may require grounding to reduce the risk of shock or electrocution.

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.

#### HIGH ALTITUDE OPERATION

Engine power is reduced the higher you operate above sea level. Output will be reduced approximately 3.5% for every 1000 feet of increased altitude from sea level.

High altitude adjustment is required for operation at altitudes over 2000 ft. (762 m). Operation without this adjustment will cause decreased performance, increased fuel consumption, and increased emissions.

#### **NOTICE**

**DO NOT** operate the generator at altitudes below 2000 ft. (762 m) with the high altitude kit installed. Engine damage may occur.

High Altitude Carburetor Kit Part# 518071 High Altitude DF Regulator: Part# 518043-1

**Note:** You must purchase both the Dual Fuel Regulator and Carburetor Kit for proper high altitude operation.

#### REMOTE START

#### **A WARNING**

Verify that the area around the generator is clear before remote starting the generator.

The remote start key fob included with the generator should be attached to the recoil handle or control panel. If your unit was shipped without a key fob, contact Westinghouse customer service.

The generator can be started remotely from up to 99 feet (30 meter) using the remote start key fob.

**Note:** As the batteries in the remote start key fob drain, operational distance will decrease.

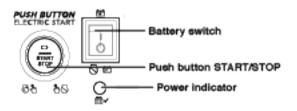
#### PAIRING THE REMOTE START

Remote replacement batteries: (2) CR2016

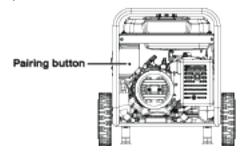
Replacement remote: # 100714A

If the remote start key fob is replaced or needs re-paired to the generator, follow this procedure.

**1.** Turn the generator battery switch to the ON position. The power indicator light will illuminate.



**2.** Push and hold the red Pairing button on the side of the control panel until the START/STOP button illuminates.



**3.** Push and hold the STOP button on the key fob until the START/STOP button illumination turns OFF. Release the button. The START/STOP button will illuminate after the button is released.



- **4.** Push and hold the START button on the key fob until the START/STOP button illumination turns OFF. Release the button. The START/STOP button will illuminate after the button is released.
- **5.** Push the Pairing button on the side of the control panel until the START/STOP button illumination turns OFF. Release the button.
- **6.** Turn the generator battery switch to the OFF position. The remote is now paired.

#### **FUEL SELECTOR SWITCH**

Position the fuel selector switch on the front control panel to the desired fuel choice.

Turn the fuel selector switch fully upward for gasoline operation.



Turn the fuel selector switch fully downward for propane operation.



#### **BREAK-IN PERIOD**

For proper break-in, **DO NOT** exceed 50% of the rated running watts (3750 watts) during the first five hours of operation.

Vary the load occasionally to allow stator windings to heat and cool and help seat the piston rings.

#### BEFORE STARTING THE GENERATOR

Verify that:

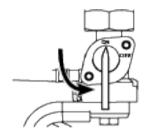
- The generator is placed in an safe, appropriate location.
- · The generator is on a dry, flat, and level surface.
- · The engine is filled with oil.
- · All loads are disconnected.

#### **A DANGER**

Fire and explosion hazard. **DO NOT** move or tip the generator during operation.

#### STARTING THE ENGINE: GASOLINE

- 1. Verify that fuel is in the gas tank.
- **2.** Turn the fuel selector switch on the control panel to gasoline operation.
- 3. Turn the fuel tank valve to the ON position.



- 4. Push the battery switch to the ON position.
- 5. Choose the starting method:
  - a. Remote Start: Push and hold the START button on the remote start key fob for one second.

**Note:** Remote start-equipped generators must be restarted with the START/STOP button on the control panel after an automatic shut-down occurs.

- b. Push-Button Start: Push and hold the engine START/STOP button for two seconds.
- c. Recoil Start: Manually close the choke if the engine is cold. Firmly grasp and pull the recoil handle slowly until you feel increased resistance, then pull rapidly.

**Cold start:** Close the choke by moving it right toward the front handle of the generator.





#### STARTING THE ENGINE: PROPANE

#### **A DANGER**

Fire and explosion hazard. **ALWAYS** turn the propane tank valve to the fully closed position if not running the generator on propane.

- **1.** Make sure the LPG/propane hose is correctly connected to the generator and propane tank.
- 2. Turn the fuel selector switch to propane operation.
- 3. Fully open the valve on the propane tank.
- 4. Push the battery switch to the ON position.
- 5. Choose the starting method:
  - **a. Remote Start:** Push and hold the START button on the remote start key fob for one second.

**Note:** Remote start-equipped generators must be restarted with the START/STOP button on the control panel after an automatic shut-down occurs.

- b. Push-Button Start: Push and hold the engine START/STOP button for two seconds.
- c. Recoil Start: Manually close the choke if the engine is cold. Firmly grasp and pull the recoil handle slowly until you feel increased resistance, then pull rapidly.
- **d. Cold start:** Close the choke by moving it right toward the front handle of the generator.





**Note:** During Push-Button or Remote Start the engine will automatically set the choke and begin the start sequence. If the engine fails to start, the generator will attempt to start the engine two more times.

#### **SWITCHING FUEL SOURCES**

#### **▲ DANGER**

Fire and explosion hazard. **DO NOT** add gasoline to the fuel tank or connect the LPG/propane hose to the generator while the generator is in operation.

The fuel source can be switched while the engine is running if a propane tank is connected to the generator BEFORE operation.

#### **GASOLINE TO PROPANE**

**IMPORTANT:** Load capacity is reduced when running on propane. Make sure the generator can supply enough (running) and surge (starting) watts for the items you are powering before switching to propane.

- 1. Fully open the valve on the propane tank.
- 2. Turn the fuel selector switch to propane operation.
- 3. Turn the fuel tank valve to the OFF position.

#### PROPANE TO GASOLINE

- 1. Turn the fuel tank valve to the ON position.
- 2. Turn the fuel selector switch to gasoline operation.
- 3. Turn the propane tank valve to the fully closed position.

**Note:** When switching to propane operation the engine may run rough for a few seconds while it purges gasoline in the carburetor.

If the engine stops when switching fuel sources, disconnect all loads then restart the unit on the fuel source of choice.

#### STOPPING THE ENGINE

**1.** Turn off and unplug all connected electrical loads.

**IMPORTANT: NEVER** start or stop the generator with electrical devices connected.

- **2.** Let the generator run with no load for several minutes to stabilize internal temperatures of the engine.
- Push and hold the START/STOP button for one second or push STOP on the remote start key fob for one second.

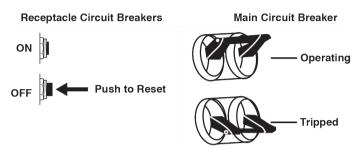
**Note:** Alternately, if the generator is used infrequently, turn the fuel tank valve to the OFF position to limit the residual fuel remaining in the carburetor float bowl. The engine will stop when fuel in the carburetor and fuel line is exhausted.

- 4. Push the battery switch to the OFF position.
- **5.** If operating on LPG, turn the propane tank valve to the fully closed position.

#### **AC CIRCUIT BREAKERS**

The circuit breakers will automatically switch OFF if there is a short circuit or a significant overload of the generator at each receptacle.

If an AC circuit breaker switches OFF automatically, check that the appliance is working correctly and it does not exceed the rated load capacity of the circuit before resetting the AC circuit breaker ON.



#### GENERATOR CAPACITY

#### **NOTICE**

**DO NOT** overload the generator's capacity. Exceeding the generator's wattage/amperage capacity can damage the generator and/or electrical devices connected to it.

Make sure the generator can supply enough continuous (running) and surge (starting) watts for the items you will power at the same time.

The total power requirements (Volts x Amps = Watts) of all appliances connected must be considered. Appliance and power tool manufacturers usually list rating information near the model or serial number.

To determine power requirements:

- 1. Select the items you will power at the same time.
- Total the continuous (running) watts of these items. This is the amount of power the generator must produce to keep the items running. See the wattage reference chart on the next page.
- 3. Estimate how many surge (starting) watts you will need. Surge wattage is the short burst of power needed to start electric motor-driven tools or appliances such as a circular saw or refrigerator. Because not all motors start at the same time, total surge watts can be estimated by adding only the item(s) with the highest additional surge watts to the total rated watts from step 2.

#### **Example:**

Tool or Appliance	Running Watts*	Starting Watts*
RV Air Conditioner (11,000 BTU)	1010	1600
TV (Tube Type)	300	0
RV Refrigerator	180	600
Radio	200	0
Light (75 Watts)	300	0
Coffee Maker	600	0
Totals	2590	1600
Total Running Watts* 2590		
Highest St	Highest Starting Watts* + 160	
Total Starting Watts Needed 419		

<sup>\*</sup>Wattages listed are approximate. Verify actual wattage.

#### **POWER MANAGEMENT**

To prolong the life of the generator and attached devices, use care when adding electrical loads to the generator. There should be nothing connected to the generator outlets before starting the engine. The correct and safe way to manage generator power is to sequentially add loads as follows:

- **1.** With nothing connected to the generator, start the engine as described in this manual.
- **2.** Plug in and turn on the first load, preferably the largest load you have.
- **3.** Permit the generator output to stabilize (engine runs smoothly and attached device operates properly).
- 4. Plug in and turn on the next load.
- 5. Again, permit the generator to stabilize.
- 6. Repeat steps 4 and 5 for each additional load.

#### **Wattage Reference**

Tool or Appliance	Estimated Running Watts*	Estimated Starting Watts*
Incandescent Lights (4 Quantity x 75 Watts)	300	0
TV (Tube Type)	300	0
Sump Pump (1/3 hp)	800	1300
Refrigerator or Freezer	700	2200
Well Pump (1/3 hp)	1000	2000
Furnace (1/2 hp)	800	2350
Radio	200	0
Drill (3/8", 4 amps)	440	600

Circular Saw (Heavy Duty, 7-1/4")	1400	2300
Miter Saw (10")	1800	1800
Table Saw (10")	2000	2000

<sup>\*</sup>Wattages listed are approximate. Verify actual wattage.

#### **EXTENSION CORDS**

#### **A WARNING**

Asphyxiation hazard. Extension cords running directly into the home increase the risk of carbon monoxide poisoning through any openings. If an extension cord running directly into your home is used to power indoor items, there is a risk of carbon monoxide poisoning to people inside the home. **ALWAYS** use battery-powered carbon monoxide detector (s) that meet current UL 2034 safety standards when running the generator. Regularly check the detector (s) battery.

#### **A WARNING**

Asphyxiation hazard. When operating the generator with extension cords, make sure the generator is located in an open, outdoor area, far away from occupied spaces with exhaust pointed away.

#### **A WARNING**

Fire and electrocution hazard. **NEVER** use worn or damaged extension cords. Damaged or overloaded extension cords could overheat, arc, and burn resulting in death or serious injury.

Before connecting an AC appliance or power cord to the generator:

- Use grounded 3-prong extension cords, tools, and appliances, or double-insulated tools and appliances.
- Make sure the tool or appliance is in good working order. Faulty appliances or power cords can create a potential for electric shock.
- Make sure the electrical rating of the tool or appliance does not exceed the rated power of the generator or the receptacle being used.

#### **EXTENSION CORD SIZING**

Only use grounded 3-prong extension cords marked for outdoor use that are rated for the electrical load.

Total	Minimum Gauge, Outdoor Rated		
Amperage	Up to 50 FT (15 M)	Up to 100 FT (30 M)	
Up to 10A	12	8	
Up to 15A	10	8	
Up to 20A	10	6	
Up to 30A	8	6	
Up to 35A	6	6	

#### **TRANSPORTING**

#### **A CAUTION**

Weight hazard. **ALWAYS** have assistance when lifting the generator.

- Allow the generator to cool a minimum of 30 minutes before transporting.
- If operating on propane, turn the propane tank valve to the fully closed position.
- Disconnect the LPG/propane hose from the generator and propane tank.
- Replace all protective covers on the generator control panel.
- Only use the generator's fixed frame to lift the unit or attach 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.
- Keep the unit level during transport to minimize the possibility of fuel leakage or, if possible, drain the fuel or run the engine until the fuel tank is empty before transport.
- The generator wheels (if equipped) are only intended for hand transport. The wheels are not suitable for towing the generator either on or off-road.
- Use the extendable handle for one-person, hand transport. Only use the handle while the generator is OFF, stationary, and resting on a horizontal surface. Do not use the handle to lift the generator entirely off the ground, tow it, or up-end it.

#### **A** CAUTION

Fire hazard. **DO NOT** up-end the generator or place it on its side. Fuel or oil can leak and damage to the generator may occur.

#### **MAINTENANCE**

#### **A WARNING**

Accidental start-up. Disconnect the spark plug boot from the spark plug when performing maintenance on the generator.

#### **MAINTENANCE SCHEDULE**

Regular maintenance will improve performance and extend the service life of the generator. Follow the hourly or calendar intervals, whichever occurs first. More frequent service is required when operating in adverse conditions as noted below.

#### **Before Each Use**

Check engine oil

#### **After First 25 Hours or First Month**

Change engine oil

#### After 50 Hours or Every 6 Months

Change engine oil<sup>1</sup> Clean air filter<sup>2</sup>

#### After 100 Hours or Every 6 Months

Inspect/clean spark arrestor
Inspect/clean spark plug
Fuel valve maintenance
Replace fuel filter
Inspect/adjust valve clearance<sup>3</sup>

#### After 300 Hours or Every Year

Replace spark plug Replace air filter

- Change oil every month when operating under heavy load or in high temperatures.
- <sup>2</sup> Clean more often under dirty or dusty conditions. Replace air filter if it cannot be adequately cleaned.
- Recommend service to be performed by authorized Westinghouse service dealer.

#### **MAINTENANCE REMINDERS**

Maintenance reminder codes will be shown on the Data Display based on unit Lifetime Hours. The maintenance codes will be displayed until the unit is turned off. Refer to the Maintenance section for specific procedures.

Maintenance Code	Required Maintenance
P25	Change engine oil
P50	Change engine oil     Clean air filter
P100	<ul> <li>Change engine oil</li> <li>Clean air filter</li> <li>Fuel valve maintenance</li> <li>Inspect/adjust valve clearance</li> </ul>

#### MAINTENANCE REPLACEMENT PARTS

Description	Part Number
Air filter	5206
Oil drain plug crush washer	94007
Spark arrestor	6789
Spark plug	97108 (F7TC)

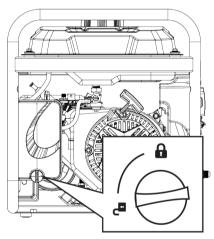
#### AIR FILTER MAINTENANCE

#### **AWARNING**

Fire hazard. **NEVER** use gasoline or other flammable solvents to clean the air filter. Use only household detergent soap to clean the air filter.

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

- **1.** Place the generator on a level surface and allow the engine to cool for several minutes.
- **2.** Turn the knob on the air cleaner cover to the unlocked position then remove the air filter cover.



**Note:** The foam air filter element is oil soaked. Use an appropriate cleaning container.

#### **NOTICE**

Avoid skin contact with engine oil. Wear protective clothing and equipment. Wash all exposed skin with soap and water.

3. Remove the foam air filter and wash it by submerging the element in a solution of household detergent soap and warm water. Slowly squeeze the foam to thoroughly clean.

#### **NOTICE**

**DO NOT** twist or tear the foam air filter element during cleaning or drying. Only apply slow but firm squeezing action.

**4.** Rinse the air filter element by submerging it in fresh water and applying a slow squeezing action. Allow the filter to dry thoroughly.

#### **NOTICE**

**DO NOT** pollute. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

- **5.** Dip the foam air filter in clean engine oil then squeeze out all excess oil. The engine will smoke when started if too much oil is left in the filter.
- **6.** Reinstall the air filter and air filter cover. Turn the knob to lock the air cleaner cover in place.

#### **ENGINE OIL LEVEL CHECK**

#### **A CAUTION**

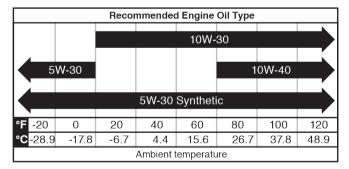
Avoid skin contact with engine oil. Wear protective clothing and equipment. Wash all exposed skin with soap and water.

#### **NOTICE**

**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.

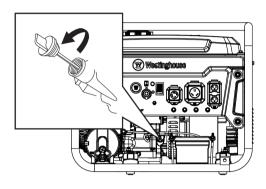
When using the generator under dirty, dusty conditions or in extremely hot weather, change the oil more frequently.

Ambient air temperature will affect engine oil performance. Change the type of engine oil used based on weather conditions.

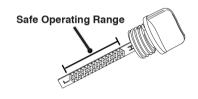


Check the engine oil level before each use or every 8 hours of operation.

- **1.** Place the generator on a level surface and allow the engine to cool for several minutes.
- 2. With a damp rag, clean around the oil dipstick.
- 3. Remove the oil dipstick and wipe the dipstick clean.



4. Insert the dipstick into the oil filler neck without screwing it in. Remove the dipstick and verify that the oil level is within safe operating range between the low (L) and high (H) marks on the dipstick.



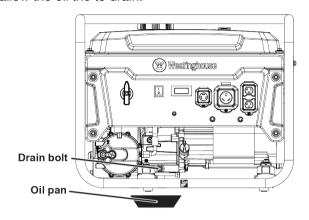
- 5. If low, add recommended engine oil incrementally and recheck until the level is between the L and H marks on the dipstick. DO NOT overfill. If over the H mark on the dipstick, drain the oil to reduce the oil level to the full mark.
- 6. Replace the oil dipstick and hand-tighten.

#### **ENGINE OIL CHANGE**

When using the generator under dirty, dusty conditions or in extremely hot weather, change the oil more frequently. Change the oil while the engine is still warm from operation.

- **1.** Place the generator on a level surface and allow the engine to cool for several minutes.
- 2. With a damp rag, clean around the oil dipstick. Remove the dipstick and wipe clean.
- Place an oil pan (or suitable container) under the oil drain bolt.

**4.** Using a 10mm wrench, remove the oil drain bolt and allow the oil the to drain.



5. Install the oil drain bolt and tighten securely.

**Note:** A new oil drain plug crush washer is recommended at each oil change.

**6.** Slowly pour oil into the oil filler neck until oil the level is between the L and H marks on the dipstick. Stop frequently to check the oil level. **DO NOT** overfill.

#### Maximum oil capacity: 0.63 Quart (0.6 Liter)

7. Install the oil dipstick and hand-tighten.

#### **NOTICE**

**DO NOT** pollute. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

#### **SPARK PLUG MAINTENANCE**

Inspect and clean the spark plug after every 100 hours of use or six months. Replace the spark plug after 300 hours of use or every year.

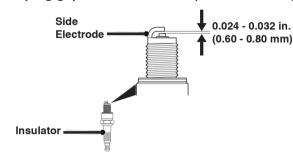
- **1.** Place the generator on a level surface and allow the engine to cool.
- **2.** Remove the spark plug boot by firmly pulling the spark boot directly away from the engine.
- 3. Clean the area around the spark plug.
- Remove the spark plug with the included spark plug socket wrench.

#### **NOTICE**

**NEVER** apply any side load or move the spark plug laterally when removing the spark plug.

- **5.** Inspect the spark plug. Replace if electrodes are pitted, burned, or the insulator is cracked. Only use a recommended replacement plug.
- 6. Measure the spark plug electrode gap with a wire-type feeler gauge. If necessary, correct the gap by carefully bending the side electrode.

Spark plug gap: 0.024 - 0.032 in. (0.60 - 0.80 mm)

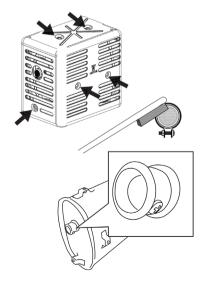


- 7. Carefully install the spark plug finger tight, then tighten as additional 3/8 to 1/2 turn with the spark plug wrench.
- 8. Attach the spark plug boot.

#### SPARK ARRESTOR SERVICE

Allow the muffler to cool completely before servicing the spark arrestor. Check and clean the spark arrestor after every 100 hours of use or six months. Failure to clean the spark arrestor will result in degraded engine performance.

- 1. Place the generator on a level surface.
- 2. Remove the cover screws, muffler cover, and spark arrestor.

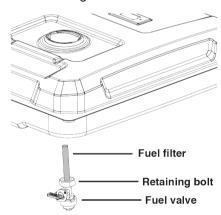


- 3. Carefully remove the carbon deposits from the spark arrestor screen with a wire brush. The spark arrestor must be free of breaks and tears. Replace the spark arrestor if damaged.
- 4. Reinstall the spark arrestor and muffler cover.

#### **FUEL VALVE MAINTENANCE**

The fuel valve is equipped with an inline fuel filter. The fuel valve filter does not require servicing if the unit is properly maintained with fresh, clean fuel. If fuel-related troubleshooting is required, perform fuel valve maintenance.

- 1. Allow the generator to cool completely.
- **2.** Place an appropriate gasoline container under the carburetor drain bolt to catch the drained fuel.
- **3.** Remove the drain bolt on the bottom of the carburetor and allow the fuel tank to drain completely. Install and tighten the drain bolt securely.
- **4.** Remove the fuel line from the fuel valve. Be prepared to capture the remaining fuel from the fuel line.



- **5.** Loosen the retaining bolt. Unscrew and remove the fuel valve from the fuel tank. Be prepared to capture any remaining fuel from the fuel tank.
- **6.** Open the fuel valve. Use compressed air to clean the fuel filter and the fuel passage from the fuel line side of the passage.
- 7. Install and tighten the fuel valve until it has a few threads remaining and is facing outward.
- **8.** Hold it in place and tighten the retaining bolt. **DO NOT** overtighten.
- **9.** Replace the fuel line and secure with the clamp.

#### STORAGE

Proper storage preparation is required for trouble-free operation and generator longevity.

#### **NOTICE**

Gasoline stored for as little as 30 days can deteriorate, causing gum, varnish, and corrosive buildup in fuel lines, fuel passages, and the engine. This corrosive buildup restricts the flow of fuel, which can prevent the engine from starting after a prolonged storage period. The use of fuel stabilizer significantly increases the storage life of gasoline. Full-time use of fuel stabilizer is recommended. Follow the manufacturer's instructions for use.

STORAGE TIME	RECOMMENDED PROCEDURE
Less than 1 month	No service required.
2 to 6 months	Fill with fresh gasoline and add gasoline stabilizer. Drain the carburetor float bowl.
6 months or longer	Drain the fuel tank and carburetor float bowl.

#### **SHORT TERM STORAGE**

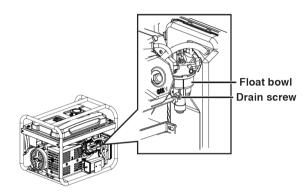
- Allow the generator to cool a minimum of 30 minutes before storage.
- If operating on propane, turn the propane tank valve to the fully closed position and disconnect the LPG/ propane hose from the generator and propane tank.
- Replace all protective covers on the generator control panel.
- Wipe the generator with a moist cloth. Clean any debris from the muffler cooling vents.
- Store the generator in a well-ventilated, dry location away from sparks, open flames, pilot lights, heat, and other sources of ignition such as areas with a sparkproducing electric motor or where power tools are operated.
- **DO NOT** store the generator, gasoline, or propane tanks near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions.
- With the engine and exhaust system cool and all surfaces dry, cover the generator to keep out dust. DO NOT use a plastic sheet as a dust cover. Non-porous materials trap moisture and promote rust and corrosion.

#### LONG TERM STORAGE

Even properly stabilized fuel can leave residue and cause corrosion if left long term. If storing the generator for two to six months, drain the float bowl to prevent gum and varnish buildup in the carburetor.

#### DRAINING THE FLOAT BOWL

- 1. Turn the fuel tank valve to the OFF position.
- Locate the drain screw on the bottom of the carburetor float bowl.



- **3.** Place an appropriate gasoline container under the drain screw to catch the drained fuel.
- **4.** Loosen the float bowl drain screw and allow the fuel to drain. Tighten the float bowl drain screw.

#### DRAINING THE FUEL TANK

If storing the generator for longer than six months, drain the fuel tank to prevent fuel separation, deterioration, and deposits in the fuel system.

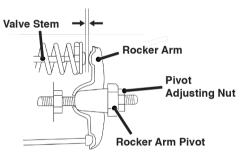
- Unscrew the fuel tank cap. Remove the fuel screen filter by slightly compressing it while removing it from the tank.
- Using a commercially available gasoline hand pump (not included), siphon the gasoline from the fuel tank into an approved gasoline container. DO NOT use an electric pump.
- 3. Reinstall the fuel screen filter and the fuel tank cap.
- **4.** Start the generator and allow it to run until the generator engine stops.
- **5.** Push the Run/Stop switch to the Stop position.
- 6. Remove the spark plug.
- 7. Put a teaspoon of engine oil into the cylinder and pull the recoil handle until resistance is felt. At this position the piston is coming up on its compression stroke and both valves are closed. Storing the engine in this position will help prevent internal corrosion. Return the recoil handle gently.
- **8.** Reinstall the spark plug. Leave the spark plug boot disconnected to prevent accidental starting.

#### **VALVE CLEARANCE**

#### **NOTICE**

Checking and adjusting valve clearance must be done when the engine is cold.

- Remove the rocker arm cover and carefully remove the gasket. If the gasket is torn or damaged, it must be replaced.
- **2.** Remove the spark plug so the engine can be rotated more easily.
- Rotate the engine to top dead center (TDC) by pulling the recoil handle slowly. Looking through the spark plug hole, the piston should be at the top (both valves are closed).
- **4.** Both the rocker arms should be loose at TDC on the compression stroke. If they are not, rotate the engine 360°.
- **5.** Insert a feeler gauge between the rocker arm and the valve stem to measure valve clearance.



	Intake Valve	Exhaust Valve
Valve Clearance	0.0031 – 0.0047 in (0.08 – 0.12 mm)	0.0051 – 0.0067 in (0.13 – 0.17 mm)
Torque	8-12 N•m	8-12 N•m

- **6.** If an adjustment is necessary, hold the rocker arm pivot and loosen the pivot adjusting nut.
- **7.** Turn the rocker arm pivot to obtain the specified clearance. Hold the rocker arm pivot and re-tighten the pivot adjusting nut to the specified torque.

#### Torque: 106 inch-pound (12 N·m)

- **8.** Perform this procedure for the other valve.
- 9. Install the gasket, rocker arm cover, and spark plug.

26 I Westinghouse Outdoor Power Equipment, LLC

## **TROUBLESHOOTING**

#### **TROUBLESHOOTING**

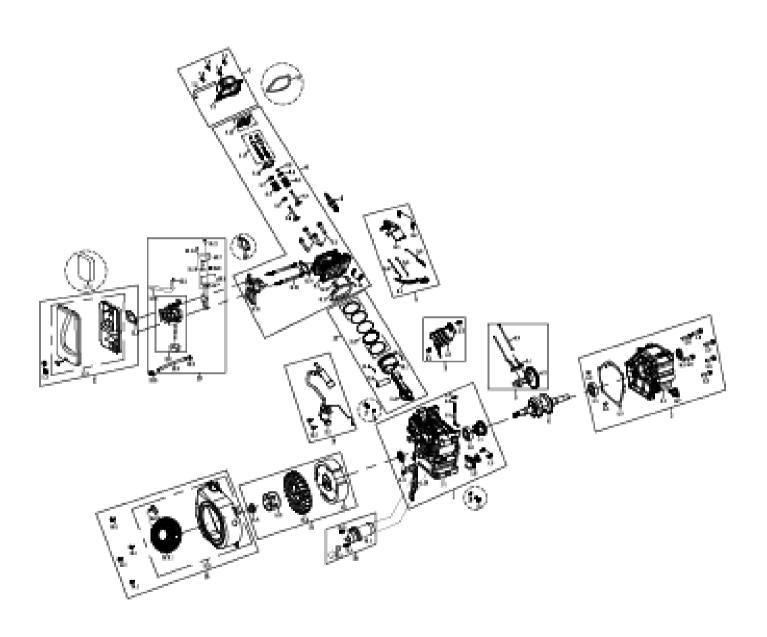
#### **TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSE	CORRECTION
	Out of fuel.	Refuel.
	Bad fuel, generator stored without treating or draining gasoline, or refueled with bad gasoline.	Drain the fuel tank. Refuel with fresh gasoline.
	Dirty air filter.	Clean the air filter.
	Low engine oil level stopped generator.	Check engine oil level. Add engine oil if low.
Engine will not start	Spark plug wet with fuel (flooded engine).	Wait five minutes. Turn Run/Stop switch to the OFF position. Pull recoil handle rapidly several times. If the generator does not start, remove spark plug and dry.
	Spark plug faulty, fouled, or improperly gapped.	Gap or replace the spark plug. Reinstall.
	Fuel system malfunction, fuel pump failure, ignition malfunction, valves stuck, etc.	Contact Westinghouse customer service toll-free at 1 (855) 944-3571.
	Choke partially open or closed.	Fully open or close the choke.
	CO sensor removed or modified.	Return to original configuration.
	CO sensor activated or system fault occurred.	Relocate generator / Contact Westinghouse customer service toll-free at 1 (855) 944-3571.
	Out of fuel.	Refuel.
	Incorrect engine oil level.	Check engine oil level.
Engine starts, then shuts down	Dirty air filter.	Clean the air filter.
	Contaminated fuel.	Drain the fuel tank. Refuel with fresh gasoline.
	Defective low oil level switch.	Contact Westinghouse customer service toll-free at 1 (855) 944-3571.
	Air filter restricted.	Clean or replace air filter.
Engine lacks power	Bad fuel, generator stored without treating or draining gasoline, or refueled with bad gasoline.	Drain the fuel tank. Refuel with fresh gasoline.
	Fuel system malfunction, fuel pump failure, ignition malfunction, valves stuck, etc.	Contact Westinghouse customer service toll-free at 1 (855) 944-3571.
	Dirty air filter.	Clean the air filter.
	Generator overloaded.	Unplug some devices.
Engine runs rough or bogs when load applied	Faulty power tool or appliance.	Replace or repair tool or appliance. Stop and restart the engine.
	Fuel system malfunction, fuel pump failure, ignition malfunction, valves stuck, etc.	Contact Westinghouse customer service toll-free at 1 (855) 944-3571.
	AC circuit breaker/s tripped.	Check AC loads and reset circuit breaker/s.
No power at AC receptacles	Faulty power tool or appliance.	Replace or repair tool or appliance. Stop and restart the engine.
	Faulty generator.	Contact Westinghouse customer service toll-free at 1 (855) 944-3571.
	If the temperature of the propane tank drops below the dew point, condensation on the tank may turn to frost or ice. This typically occurs in humid conditions.	Providing all the propane fuel handling equipment is functioning normally, no correction is needed.
Frost on the propane tank or regulator	The Propane tank is not equipped with an Overfilling Prevention Device (OPD).	If you suspect your propane fuel tank is not equipped with an OPD device, discontinue operation immediately and replace the propane fuel tank with a propane tank equipped with a an OPD.
	Propane fuel tank overfilled.	If you suspect your propane fuel tank has been overfilled, discontinue operation immediately and return the propane fuel tank to the place of purchase or refilling.

## **TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSE	CORRECTION
	Fuel regulator or fuel hose and fittings not securely sealed.	Using a soap solution check each connection and tighten as needed.
Propane fuel smell	Propane fuel regulator vent active.	The propane fuel regulator is equipped with a vent that will allow a small amount of propane fuel vapor to escape from the regulator when the propane tank valve is opened. This can be normal providing the venting of the propane is brief. If you suspect that this is abnormal, immediately discontinue use and have the propane regulator inspected by a qualified technician.
	Residual fuel from the carburetor dispersing after operation.	Normal, no correction is needed.
	Propane fuel line kinked or crushed.	Inspect propane fuel line and remove kinks or other obstructions.
Poor performance or engine stalling on	Fuel selector valve not properly positioned.	Rotate the fuel valve fully until the pointer is directly in line with the desired fuel.
Propane	Gasoline not purged from the carburetor before switching to propane.	Close the propane fuel tank valve. Move the fuel selector switch to gas. Start the engine and allow the engine to run until the gasoline has been consumed in the carburetor. Begin propane start up procedure.

# **EXPLODED VIEWS AND PARTS LISTS ENGINE EXPLODED VIEW**



#### **ENGINE PARTS LIST**

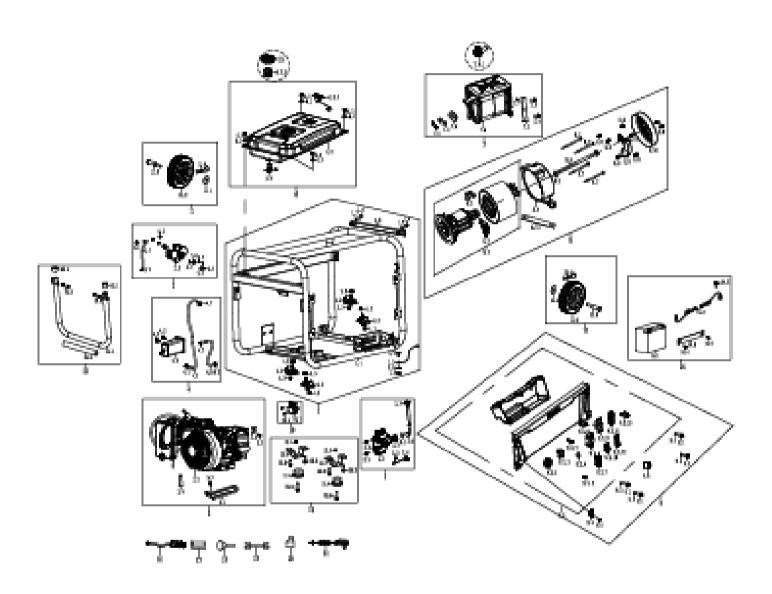
NO.	Code	Description
1		CRANKCASE ASSEMBLY
1.1	240214	CRANKCASE
1.2	93009	BEARING
1.3	93507	CRANKCASE OIL SEAL
1.4	244302	CENTRIFUGAL GOVERNOR GEAR
1.5	243901	SWINGING ROD
1.6	96804	SWINGING ROD GASKET
1.7	243902	RETAINING CLIP
1.8	245102	OIL SENSOR
1.9	91329	BOLT M6
1.10		WINDSHIELD
1.11	91330	BOLT M6
2		WIND-LEAD-COVER ASSEMBLY
2.1	240501	WIND-LEAD-COVER
2.2	91325	BOLT M6
3		CAMSHAFT ASSEMBLY
3.1	246102	VALVE LIFTER
3.2	242003	CAMSHAFT ASSEMBLY
3.3	241901	PUSH ROD
4	248001	CRANKSHAFT
5		CRANKCASE COVER ASSEMBLY
5.1	93009	BEARING
5.2	93507	CRANKCASE OIL SEAL
5.3	240904	CRANKCASE LOCATING PIN
5.4	240113	CRANKCASE COVER
5.5	96041	CRANKCASE GASKET
5.6	91347	BOLT M8
5.7	245601- 295	DIPSTICK ASSEMBLY
6		SPEED GOVERNOR ASSEMBLY
6.1	244001	SPEED REGULATING ARM
6.2	91325	BOLT M6
6.3	242701	THROTTLE LEVER
6.4	244201	SPRING C
6.5	244405	SPEED CONTROLLER
6.6	244101	SPRING B
7		CYLINDER HEAD COVER ASSEMBLY
7.1	241107	CYLINDER HEAD COVER
7.2	91325	BOLT M6
7.3	95604	BREATHER TUBE
8	50020042	CYLINDER HEAD KIT ASSEMBLY
8.1	241012	CYLINDER HEAD
8.2	91359	BOLT M8
8.3	241704	INTAKE VALVE
8.4	245905	EXHAUST VALVE
8.5	241806	INTAKE VALVE SPRING LOWER SEAT
8.6	246001	VALVE SPRING

NO.	Code	Description
8.7	241801	INTAKE VALVE SPRING SEAT
8.8	241802	EXHAUST VALVE SPRING SEAT
8.9	241804	TOP CAP
8.10	242202	VALVE RETAINER ASSEMBLY
8.11	91818	ROCKING ARM WITH TIGHT BOLT
8.12	242101	ROCKING ARM
8.13	91022	AIR INLET STUD STUD BOLT
8.14	96047	INTAKE GASKET
8.15	91007	AIR EXHAUST STUD STUD BOLT
8.16	240905	CYLINDER HEAD LOCATING PIN
8.17	96058	CYLINDER HEAD GASKET
8.18	242301	CARBURETOR CONNECTION BLOCK
9	97108	SPARK PLUG
10		CARBURETOR ASSEMBLY
10.1	247606	CARBURETOR ASSEMBLY
10.2	95491L	FUEL LINE
10.3	94403	FUEL LINE CLAMP
10.4	94401	FUEL LINE RUBBER SLEEVE
10.5	599302	LOW PRESSURE HOSE HOOP
10.6	517331	LOW PRESSURE HOSE
10.7	249904	STEPPER MOTOR
10.8	249906	STEPPER MOTOR BRACKET
10.9	244202	SPRING
10.10	249905	STEPPER MOTOR DRIVE SHAFT
10.11	92007	CROSS SCREW STUD M4
11		AIR FILTER ASSEMBLY
11.1	90016	NUT M6
11.2	94229	STEEL WASHER
11.3	242923	AIR FILTER
11.3.1	5206	AIR FILTER
12		IGNITER ASSEMBLY
12.1	97552	IGNITER
12.2	91331	BOLT M6
13		PISTON & PISTON RING ASSEMBLY
13.1	241208	PISTON
13.2	241606	PISTON RIN
13.3	241503	CONNECTING ROD
13.4	245503	PISTON PIN
13.5	241301	PISTON PIN RING
14		FLYWHEEL ASSEMBLY
14.1	240413	FLYWHEEL
14.2	244601	IMPELLER
14.3	244502	STARTER PULLEY
14.4	90003	FLYWHEEL NUT
15		RECOIL STARTER ASSEMBLY
15.1	91325	BOLT M6

#### **ENGINE PARTS LIST CONTINUED**

NO.	Code	Description
15.2	247417- 221B	RECOIL STARTER
15.2.1	5962-221	RECOIL COVER
15.2.2	5943	RECOIL HANDLE
16		STARTER MOTOR ASSEMBLY
16.1	97425	STARTING MOTOR
16.2	240503	DUST BOARD
16.3	91333	BOLT M6
16.4	91334	BOLT M6
17	91816	OIL DRAIN BOLT
18	94007	OIL DRAIN BOLT WASHER
19	96045	CYLINDER HEAD COVER GASKET
20	96051	CARBURETOR GASKET

#### **GENERATOR EXPLODED VIEW**



#### **GENERATOR PARTS LIST**

NO.	Code	Description
1		FRAME ASSEMBLY
1.1	774081-116	FRAME
1.2	531317	ISOLATION SUPPORT
1.3	90018	NUT M8
1.4	91327	BOLT M6
1.5	544307	FRAME WIRE
1.6	94009	TOOTH WASHER
1.7	96120	PAPER WASHER
1.8	530312-116	MOVABLE RECTANGLE PIPE
1.9	91343	BOLT M8
2	60490012	PRESSURE REDUCING VALVE ASSEMBLY
2.1	96120	PAPER WASHER
2.2	599302	LOW PRESSURE HOSE HOOP
2.3	91325	BOLT M6
2.4	519387	PROTECTIVE CASE
2.5	50280032	PRESSURE REDUCING VALVE
2.6	517333	LOW PRESSURE HOSE
3	60590015	ENGINE KIT ASSEMBLY
3.1	540201	AIR FILTER BRACKET
	1148212	
3.2	220019	ENGINE DHLG212
3.3	549201	DUST BOARD
3.4	599601	METAL CLIP
3.5	91325	BOLT M6
4		CARBON CANNISTER ASSEMBLY
4.1	95150	CARBON CANISTER AND FUEL TANK
		CONNECTING PIPE
4.2	91327	BOLT M6
4.3	94408	FUEL LINE CLAMP
4.4	543301L	CARBON CANISTER ASSEMBLY
4.5	94411	FUEL LINE CLAMP
4.6	95122	CARBON CANISTER AND AIR FILTER CONNECTING PIPE
4.7	94402	FUEL LINE CLAMP
5		DUAL FUEL SELECTOR SWITCH
5.1	94403	FUEL LINE CLAMP
5.2	50280010	FUEL SELECTOR SWITCH ASSEMBLY
5.3	90015	NUT M5
5.4	95560L	FUEL LINE
5.5	95551L	FUEL LINE
5.6	516401	FILTER
5.7	503034	FUEL LINE CLAMP
6		FUEL TANK ASSEMBLY
6.1	96801	FUEL TANK GASKET
6.2	700254L-116	FUEL TANK
6.2.1	518801	FUEL TANK FILTER

NO.	Code	Description
6.2.2	6516	FUEL GAUGE
6.3	91307	BOLT M6
6.4	518208	FUEL SWITCH
7		EXHAUST MUFFLER ASSEMBLY
7.1	90011	NUT M8
7.2	520302	MUFFLER MOUNTING BRACKET
7.3	91343	BOLT M8
7.4	96055	MUFFLER CONNECTING PIPE GASKET
7.5	94206	SPRING WASHER
7.6	705321	MUFFLER
7.6.1	6789	SPARK ARRESTER
7.7	91325	BOLT M6
8		ALTERNATOR ASSEMBLY
8.1	753412	ALTERNATOR ASSEMBLY
8.2	599020	CARBON BRUSH
8.3	6079	TERMINAL ASSEMBLY
8.4	532103	ALTERNATOR TAIL BRACKET
8.5	96812	GASKET
8.6	91709	BOLT M8
8.7	91610	BOLT M6
8.8	91322	BOLT M5
8.9	534106	AVR
8.10	533105-221	ALTERNATOR TAIL COVER
8.11	91323	BOLT M5
8.12	532305-052	TAIL BRACKET FIXING PLATE
9		PANEL ASSEMBLY
9.1	91327	BOLT M6
9.2	714394	PANEL ASSEMBLY
9.2.1	6498	ONE PUSH BOTTON SWITCH
9.2.2	6502	ROCKER SWITCH
9.2.3	6386	GROUND BOLT ASSEMBLY
9.2.4	6387	CHARGING SOCKET
9.2.5	6393	INDICATOR LIGHT
9.2.6	6383	L5-30R RECEPTACLE
9.2.7	6847	DUST COVER
9.2.8	6441-30	THERMAL PROTECTOR
9.2.9	6015	RV SOCKET
9.2.10	6849	DUST COVER
9.2.11	6454	L5-20R RECEPTACLE
9.2.12	6846	DUST COVER
9.2.13	6441-20	THERMAL PROTECTOR
9.3	96120	PAPER WASHER
9.4	599035	SWITCH TURNTABLE ASSEMBLY
9.5	92083	HEXAGON SOCKET PAN HEAD SCREWS
9.6	599065	CO FLAMEOUT ACTUATOR
10		CO MODULE ASSEMBLY

#### **GENERATOR PARTS LIST CONTINUED**

NO.	Code	Description
10.2	92270	BOLT M4
11		WHEEL ASSEMBLY
11.1	94224	FLAT WASHER
11.2	523308	WHEEL
11.3	524320	AXLE
12		HANDLE WELDING ASSEMBLY
12.1	527613	HANDLE PLUG
12.2	527611	HANDLE MOUNTING BOLT
12.3	526319-116	HANDLE
12.4	528404	HANDLE RUBBER SLEEVE
13		FOOT BRACKET ASSEMBLY
13.1	90023	NUT M6
13.2	91343	BOLT M8
13.3	525314-116	FOOT BRACKET ASSEMBLY
13.4	531115	FOOT BRACKET ISOLATION SUPPORT
13.5	91333	BOLT M6
14		BATTERY BRACKET ASSEMBLY
14.1	511007	BATTERY
14.2	512053	BATTERY WIRING
14.3	542211-116	BATTERY HOLDER
14.4	91327	BOLT M6
14.5	91325	BOLT M6
15	519215	FUEL CAP
16	545331	PRESSURE REDUCING VALVE
17	99010	SPARK PLUG SLEEVE
18	500942	FUNNEL
19	99025	WRENCH
20	99547	OIL BOTTLE
21	511043	CHARGER

## **SCHEMATICS**

#### **SCHEMATICS**

