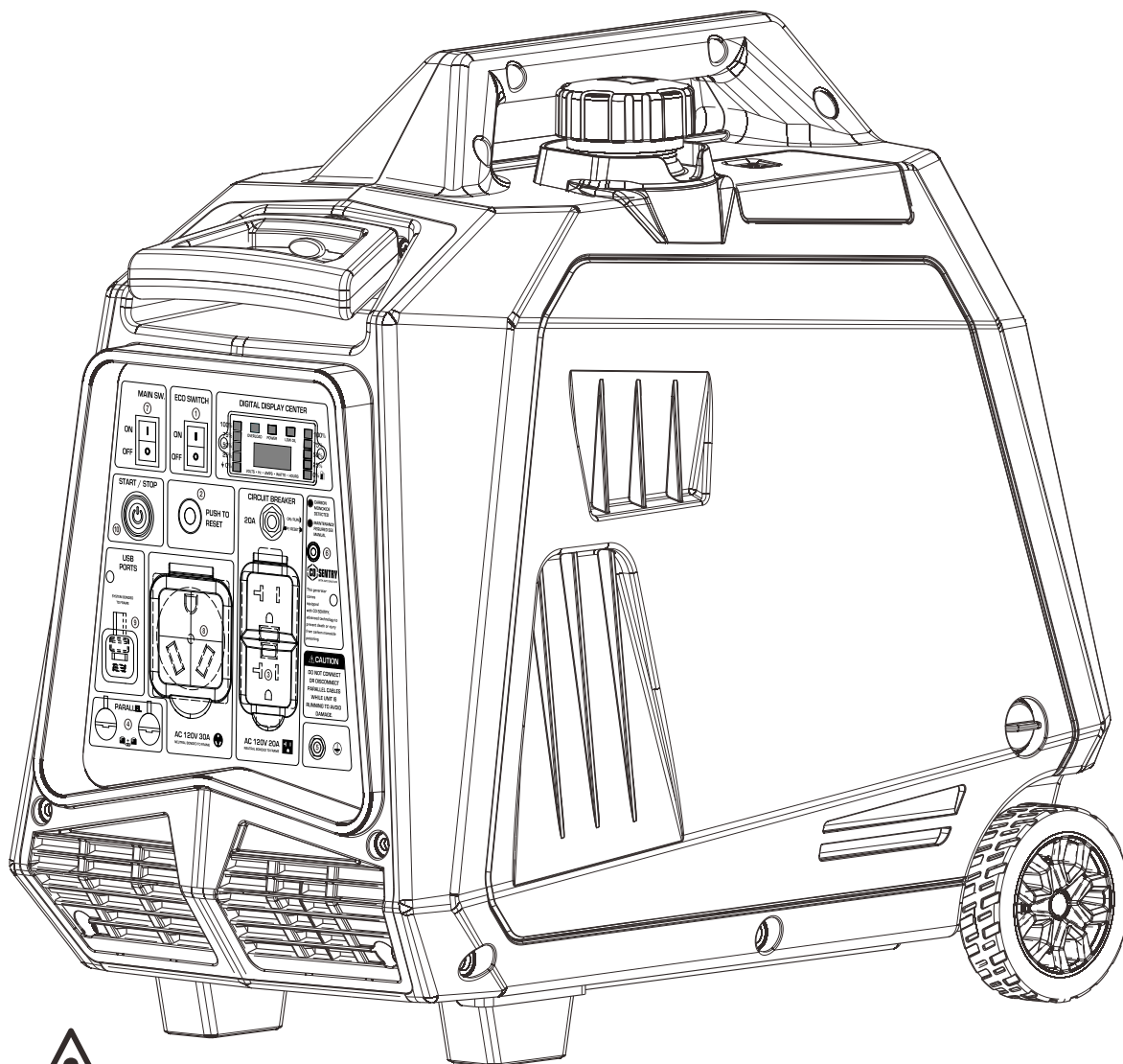


# DieHard®

Model No. DHD5000BiSRCO

## 5000 WATT DUAL FUEL INVERTER GENERATOR OPERATOR'S MANUAL



Warning: The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



**DO NOT RETURN TO STORE!**

HAVE QUESTIONS OR NEED SERVICE?

 **866-591-8921**

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## Introduction

Thank you for choosing DieHard!

This manual provides instruction on how to operate and use your generator safely and correctly; be sure to read and understand this manual before using your generator.

If you have ANY questions, please call 866.591.8921 M-F BEFORE using your generator. All details and images in this manual are believed to be accurate at the time of publication.

If the generator is resold, kindly include this manual with the generator

## Safety Warnings and Notices

### **DANGER**

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

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

### **CAUTION**

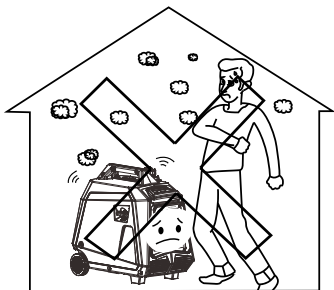
CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

### **NOTICE**

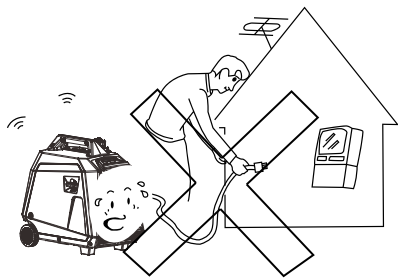
Failure to follow the instruction may result in the damage to your generator and other property.

# Safety Instructions

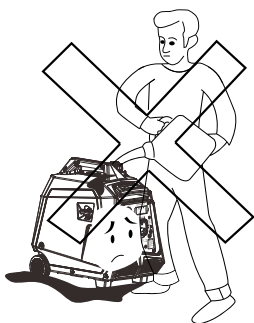
Before operating your generator, you must read and understand the Operator's Manual and familiarize yourself with the safe operation practices.



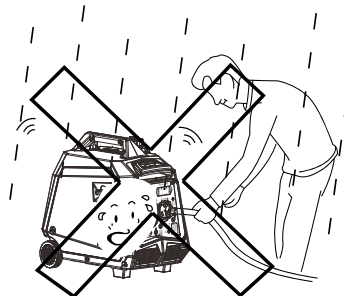
**NEVER** use a generator indoors! Exhaust and Carbon Monoxide can KILL YOU in minutes.



This is a portable generator, DO NOT attempt to connect it to any mains panel.



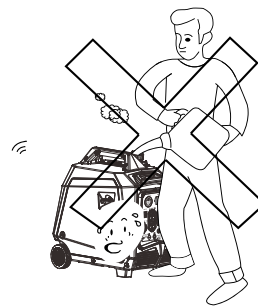
Take care not to spill any gasoline and wipe up any accidental spills at once.



Avoid running the generator in the rain or very high, condensing humidity.



Never smoke or allow any heat source near the generator while refueling it.



Always shut down the generator and allow it to cool before refueling!

# Safety Instructions

## NOTE

Improper treatment of the generator could damage it and shorten its life.

- Use generator only for intended applications.
- Operate generator only on solid, level surfaces.
- DO NOT expose the generator to excessive moisture, dust, dirt, or corrosive vapors.
- DO NOT insert any objects through cooling slots.
- If connected devices overheat, turn them off and disconnect them from the generator.

Shut off the generator if:

- Electrical output is lost.
- Equipment sparks, smokes, or emits flames.
- Unit vibrates excessively.

## Parallel Kit Precautions



To prevent serious injury, death, and generator and/or equipment damage from electric shock and fire:

1. Follow Parallel Kit instructions provided with it for connection and use of a Parallel Kit.
2. Only connect two identical Inverter Generators together using a Parallel Kit.
3. Connect Parallel Kit only to terminals marked "Parallel" on the front of the Generator.
4. Do not remove or connect a Parallel Kit while the Generator is running.
5. Do not use a Parallel Kit that is attached to only one Generator.

## Carbon Monoxide Safety

### Carbon Monoxide

Generators are very convenient, but they can also be very dangerous. All fuel-burning appliances and equipment release a poisonous gas called carbon monoxide. Carbon monoxide (also known as CO) can be dangerous for humans and pets, even in small amounts, because it blocks oxygen from getting into your body. Carbon monoxide poisoning can lead to death in a very short time. It is odorless, tasteless and invisible, so you may be exposed without knowing it. That is why carbon monoxide is sometimes called "the silent killer."

## CO Sentry

The CO Sentry system was created to protect from dangerous carbon monoxide. Just like the detector for your home the CO Sentry tests the air for dangerous levels of carbon monoxide. If dangerous levels of carbon monoxide are detected this generator will automatically shutoff.



Automatic shutoff accompanied with a flashing RED light in the CO Sentry 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.

## CO Sentry Indicator Lights

### RED

Carbon monoxide has accumulated around the generator. After shut-off, the RED indicator light in the CO Sentry area of the control panel will flash to provide notification that the generator was shutoff due to an accumulating CO hazard. The RED light will flash for at least five minutes after a CO shut-off. 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.

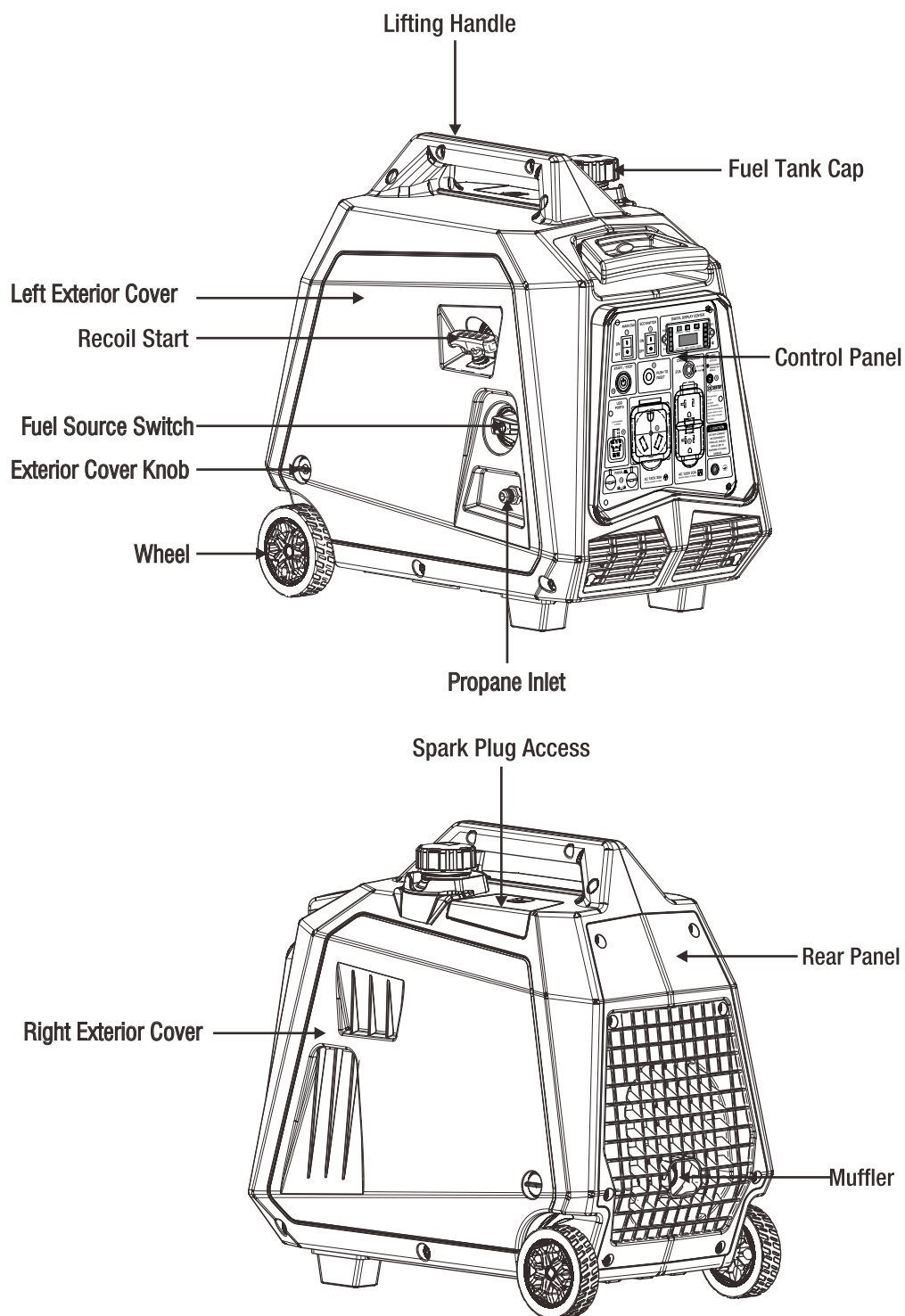
### YELLOW

A CO Sentry system fault occurred. When a system fault occurs, the generator is automatically shut down and the YELLOW indicator light in the CO auto-shutoff area of the control panel will flash to provide notification that a fault has occurred. The YELLOW light will flash for at least five minutes after a fault. The generator can be re-started, but may continue to shutoff.

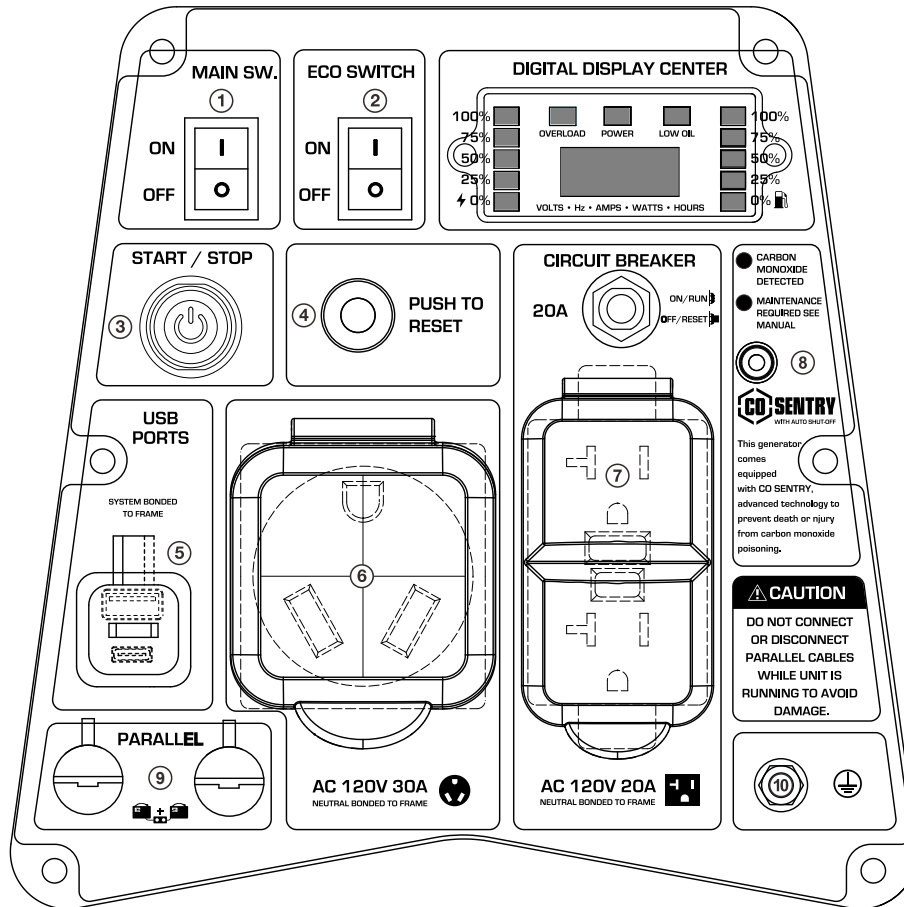


# Names of Components

Before operating your generator, you must read and understand the manual and familiarize yourself with the safe operation practices.



# Control Panel



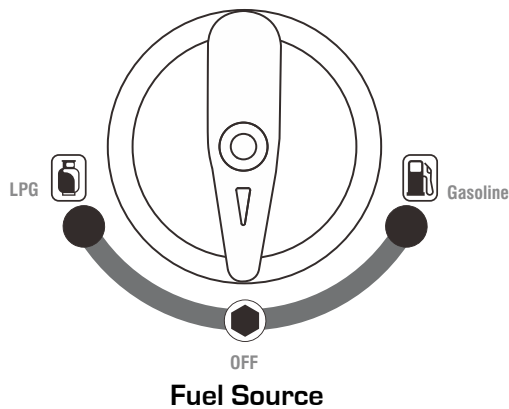
## Control Panel Features

- ① **Main Switch:** Manage battery power and shutdown. Tip: If you do not use the generator for more than 120 hours, please press the main switch to the "OFF" position, which can prevent the battery from running out.
- ② **ECO Switch:** When turned to the ON position, the engine will sense the load needed and run at a slower RPM to save fuel.
- ③ **One Push Start:** Press this button, the engine can start or stop.
- ④ **Reset:** If the inverter is overloaded, the reset breaker will trip. The engine will continue to run, but there will be no output from the inverter. Unplug the devices and reduce the load. Push in the reset breaker to reset it.
- ⑤ **USB Duplex:** 5V DC, type-A and type-C connectors.
- ⑥ **120V AC 30A TT-30R Outlet:** The outlet is capable of carrying a maximum of 30 amps.
- ⑦ **120V AC 20A 5-20R Outlet:** The outlet is capable of carrying a maximum of 20 amps.
- ⑧ **CO Alarm:** Flashing red light: dangerous levels of carbon monoxide gas have built up leave immediately until area has aired out. Move generator to well-ventilated area before operation. Flashing yellow light: carbon monoxide sensor malfunction. Sensor needs service.
- ⑨ **Parallel capability:** Two inverter generators are connected together to provide dual power to meet higher power requirements.
- ⑩ **Ground Terminal:** The ground terminal is used to externally ground the inverter.

# Control Functions

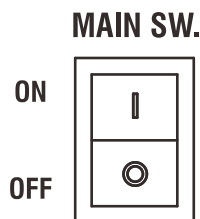
## Fuel Source Switch

Gasoline - Use gasoline as a fuel for the generator.  
LPG - Use Propane as a fuel for the generator.  
OFF - Shut down the fuel source and the generator stops running.



## Main Switch

Manage battery power and shutdown.



## Start Up

Press this button, the engine can start and stop.

START / STOP



## Remote Control

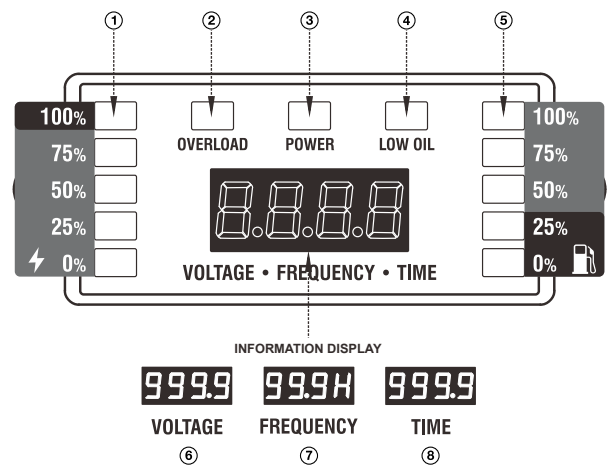
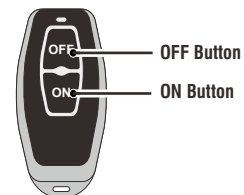
OFF  
ON

### Remote Control Pairing:

1. Long press the start button for 5 seconds until the green light is steady on.
2. Press the remote control ON or OFF, the start button turns OFF the green light, and the remote control is paired successfully.

Tip: The remote control delivered with the generator has been paired successfully.

## Remote Control



### ① POWER OUTPUT

② OVERLOAD: Red light indicates an electrical overload.

③ POWER: Indicates the inverter is ready to be used.

④ LOW OIL: Yellow light means the amount of oil is too low.

⑤ GASOLINE FUEL METER

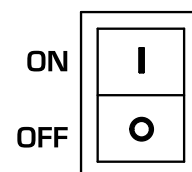
⑥ VOLTAGE

⑦ FREQUENCY

⑧ TIME: Represents total operation time of the generator.

## ECO Switch

ECO SWITCH



## Control Functions

### 1) "ON"

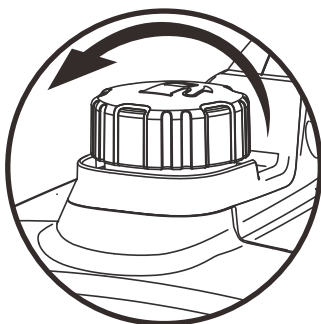
When energy saving switch is switched to "ON" position engine speed is reduced when the generator is under light load. This feature will reduce fuel consumption and noise.

### 2) "OFF"

When the energy saving switch is set to the "OFF" position, the engine will run at rated speed, regardless of connected load.

## Fuel Tank Cap

Remove fuel tank cap by unscrewing it counterclockwise.



## Reset

If the inverter is overloaded, the reset breaker will trip. The engine will continue to run, but there will be no output from the inverter. Unplug the devices and reduce the load. Push in the reset breaker to reset it.



## Grounding Terminal

If grounding is required by code or application, follow the guidelines on page 13.



## Preparing Your Generator

### Engine Oil

#### ⚠ CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the generator because of failing to follow these instructions will void your warranty.

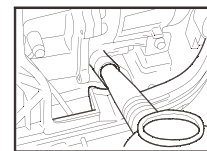
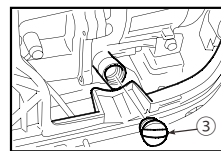
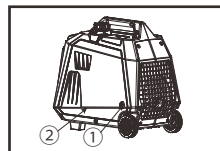
#### NOTICE

Failure to follow the instruction may result in the damage to your generator and other property.

If running the generator in extreme temperatures, refer to the following chart for recommended oil type.

Recommended Engine Oil Type										
		10W-30								
		5W-30					10W-40			
		5W-30 Full Synthetic								
°F	-20	0	20	40	60	80	100	120		
°C	-28.9	-17.8	-6.7	4.4	15.6	26.7	37.8	48.9		
Ambient temperature										

- 1) Place your generator on a flat, stable surface.
- 2) Loosen the knob on the right cover ① and remove the right cover ②.
- 3) Unscrew oil dipstick ③.



- 4) Use a funnel to add 15 fluid ounces (0.45 L) of 10W-30 engine oil to the crankcase, verify oil level with the dipstick.
- 5) Reassemble oil access cover and tighten the knob.

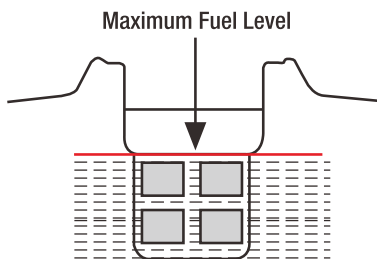
### Fuel

#### ⚠ DANGER

Gasoline is highly flammable and toxic. You must read and understand ALL safety instructions before fueling your generator.

# Preparing Your Generator

Remove fuel tank cap and add gasoline to the red horizontal line.



## NOTICE

Do not overfill the fuel tank! Heat and vibration can cause fuel to leak from an overfilled fuel tank.

After refueling, confirm that the fuel tank cap has been tightened.

After fueling, wipe up any gasoline residue with a soft cloth to prevent damage to the plastic enclosures.

Fuel tank capacity: 1.53 US gallon(5.8L)

## Connecting an LPG Tank

## NOTICE

- Propane tanks that use liquid withdrawal system can not be used on these models.
- Confirm that the re-qualification date on the tank has not expired.
- DO NOT use included LPG hose for any other appliances.

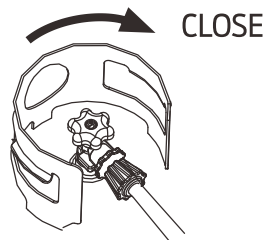
## NOTICE

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

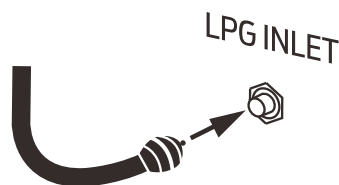
## ⚠ DANGER

Explosion hazard. DO NOT start generator if you smell propane. ALWAYS fully close the propane tank valve and disconnect the LPG 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.



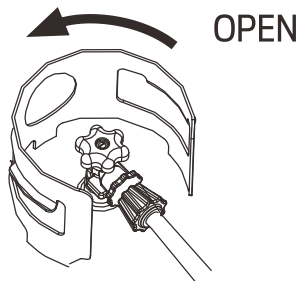
3. Remove the cover on the generator propane inlet.
4. Use your fingers to hand tighten the LPG hose (included) to the propane inlet on the generator.



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

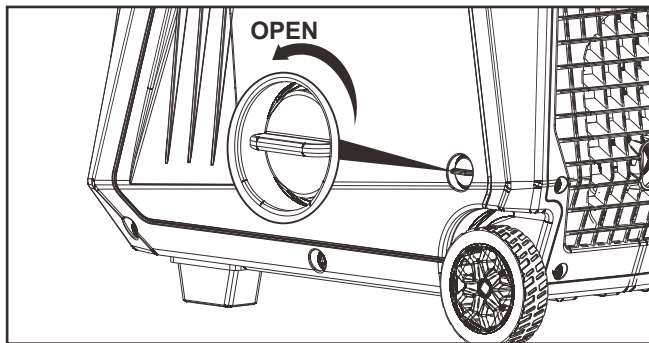
5. Tighten the LPG hose connector with an adjustable wrench until it is snug. DO NOT overtighten.
6. Remove the safety plug or cap from the propane tank valve and attach the other end of the hose to the LPG connector on the tank. Hand-tighten.
7. Turn the propane tank valve to the fully open position. 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 an authorized Pulsar service center.

# Preparing Your Generator

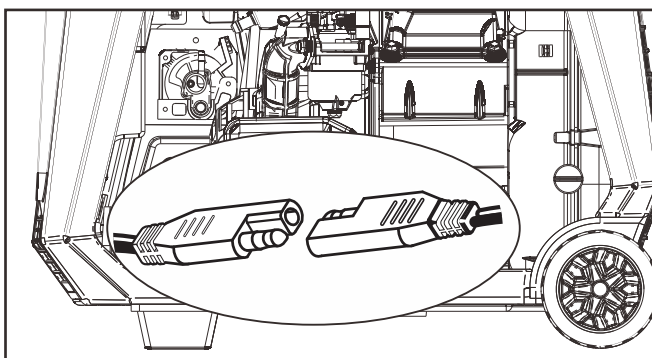


## Connecting The Battery

1. Loosen the knob on the right exterior cover and remove the right exterior cover.



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



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

## Grounding The Generator

Attach grounding wire (if required by code)

- Ground the generator by tightening the grounding nut against a grounding wire.
- Connect the other end to a copper or brass grounding rod that's driven into the earth.

A generally acceptable grounding wire is a No. 12 AWG (American Wire Gauge) stranded copper wire.

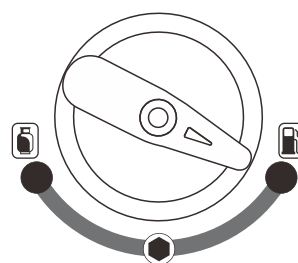
Grounding codes can vary by location. Please contact a local electrician to check the grounding regulations for your area.



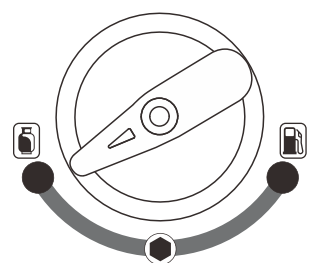
Failure to properly ground the generator can result in electrocution.

## Starting The Generator

1. Make sure the generator is on a solid, flat, level surface.
2. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in.
3. Turn the fuel switch to desired fuel source. When the switch is in the Gasoline position, the generator is ready to start with Gasoline. When the switch is in the LPG position, the generator is ready to start with propane.



STARTING ON GASOLINE

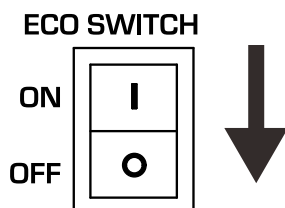


STARTING ON LPG



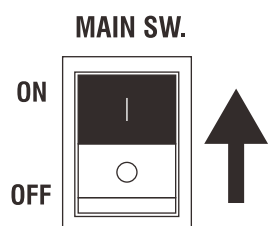
# Starting The Generator

4. Move the switch to "OFF" when starting the generator.



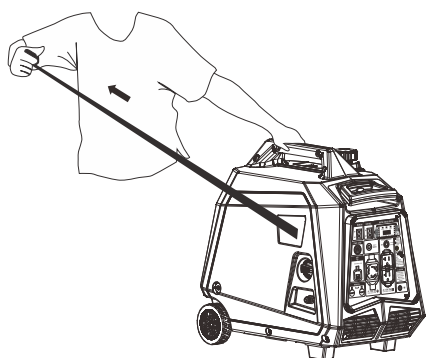
5. Turn the Main Switch ON

Press the main switch up to the start position to start the generator.

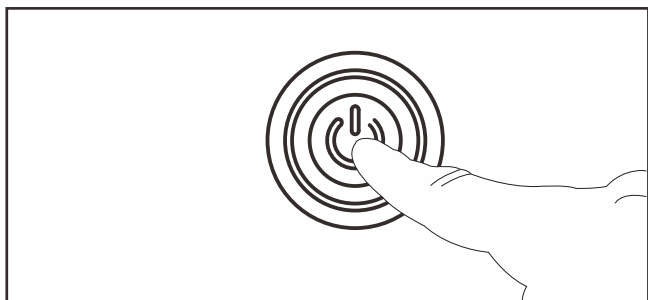


6. Choose the starting method

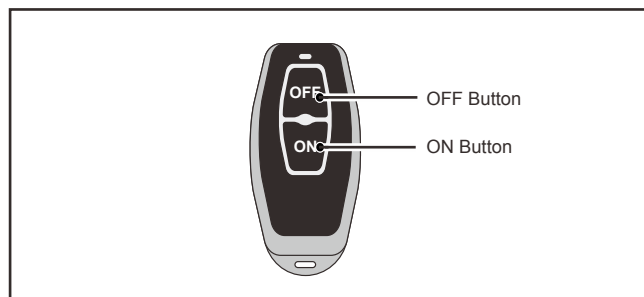
**Recoil Start:** Firmly grasp and pull the recoil handle slowly until you feel resistance, let it retract then pull swiftly.



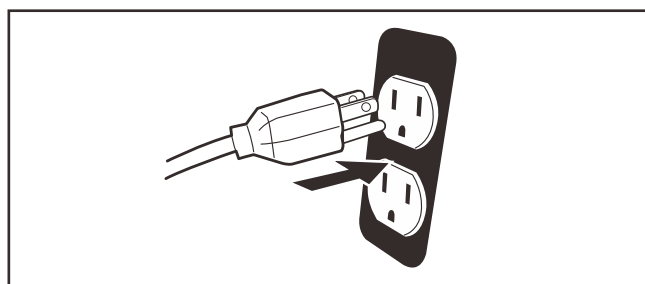
**Button Start:** Press the start button down for 1-3 seconds, then release, to start the generator.



**Remote Start:** Push and hold the ON button on the remote start key fob for one second.



7. Plug in devices



## ⚠ DANGER

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

## NOTICE

To prevent battery drain, your Pulsar model DHD5000BISRCO remote control feature will enter 'sleep mode' after 120 hours of inactivity. To reset the remote feature, simply cycle the power switch off then on again.

## Gasoline To LPG

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

1. Turn the LPG tank valve to the fully open position.
2. Turn the fuel selector switch to propane operation.



# Starting The Generator

## LPG To Gasoline

1. Turn the fuel selector switch to gasoline operation.
2. Turn the LPG tank valve to the fully closed position.

NOTE: When switching to LPG operation the engine may run rough for a few seconds while it purges gasoline from the carburetor.

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

## Parallel Operation

The parallel connection ports allow you to connect two generators to increase the total available electrical power. Follow the instructions included with your parallel connection kit for proper installation and operation.

## Overload Indicator

Note: The OVERLOAD light may turn on for a few seconds as a large device starts. This is normal for loads approaching the capacity of this generator.

1. The total load of each generator outlet should not exceed the operating power of the generator.
2. If the OVERLOAD light turns on and the generator stops producing power, it has been overloaded.
3. Turn off and disconnect all electrical devices and stop the engine. Compare device requirements to generator rating and reduce the total wattage of connected devices if necessary. Move anything that may be limiting generator ventilation away.
4. Check if any circuit breakers have tripped and make sure that ALL circuit breakers are reset before starting the generator again.
5. Restart the engine and reconnect devices while being careful to not overload the generator.

## Low Oil Indicator

1. If the engine oil level is too low, the LOW OIL light turns on and the engine will automatically shut off.
2. The engine cannot be restarted until the proper amount of oil has been added. Add the appropriate type of oil until the oil level is at the proper level. SAE 10w-30 oil is recommended for general use.

## NOTICE

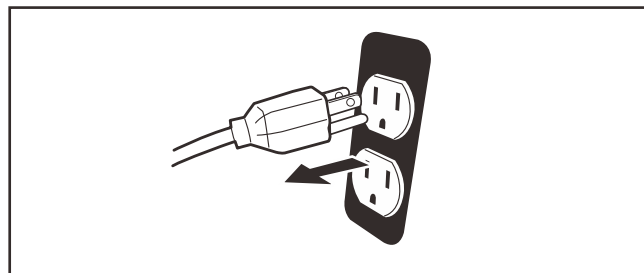
Do not run the engine with too little oil. Engine will shut off if engine oil level is too low.

## ECO Switch

1. Turn the ECO Switch ON to limit noise and fuel consumption for lighter generator loads.
2. Switch ECO OFF to operate engine at full speed when:
  - Starting the generator
  - A heavy load is applied

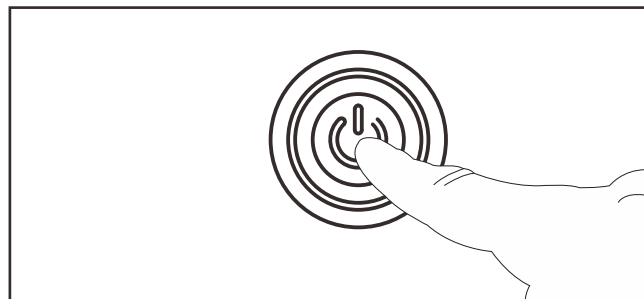
# Shutting Down The Generator

1. Turn off and unplug all connected electrical loads. Never start or stop the generator with electrical devices plugged in.



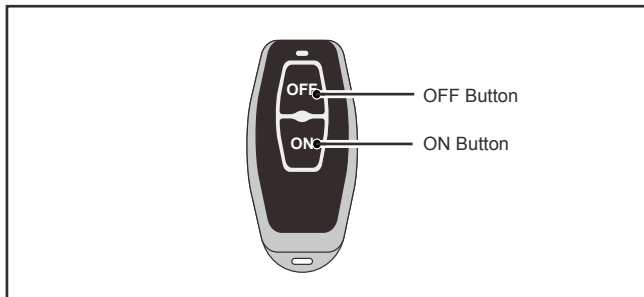
## 2. Stop the generator

- a. **Button Stop:** Press the button to turn off the generator.

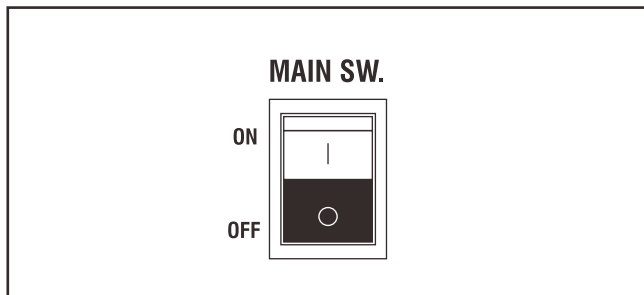


# Shutting Down The Generator

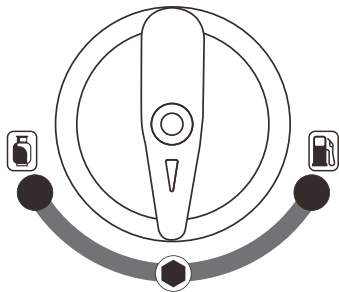
b. Remote Stop: Hold down the OFF button on the remote start key for one second.



3. Turn the main switch down to the off position.



4. Turn the fuel selector knob to the off position.



5. After the generator has completely cooled down, remove propane hose if applicable and store the generator in a cool, dry, sheltered storage area.

6. Remove or consume all untreated gasoline if you plan to store the generator longer than 3 months.

# Using The Generator

## Operating Range Of The Generator

- Ambient air temperature: 23F–104F (-5 ~ 40°C)
- Relative humidity <95%
- Recommended elevation <5,000 feet (1,500m) reduced power at >3,300 feet (1,000 m)

## Ideal Atmospheric Conditions

- Ambient air temperature: 77F (25°C)
- Relative humidity: 30%
- Atmospheric pressure: 1,000 millibars

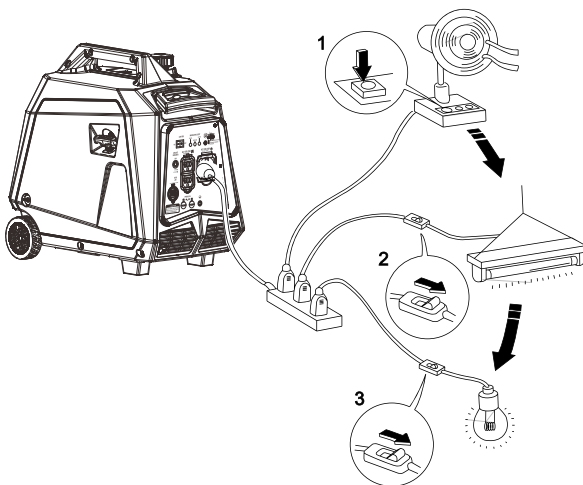
## Standard Deration:

- Every 9°F (5°C) increase in ambient air temperature will reduce generator output by about 2%
- Every 30% of increase in relative humidity of air will reduce generator output by about 1.5%
- Every 1,000 feet, (300m) elevation increase will reduce generator output by about 4.5%

## Connecting Loads To The Generator

- ① Start the engine
- ② Move Energy Saving switch to "OFF"
- ③ Insert the plug(s) into AC outlet(s)
- ④ Make sure that AC indicator is illuminated
- ⑤ Switch on electrical equipment

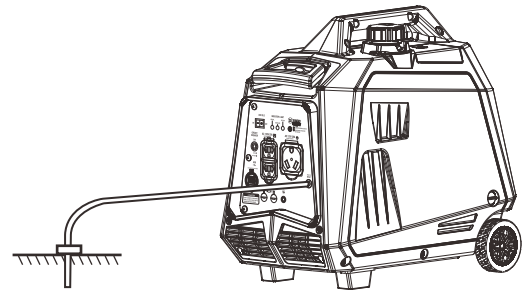
**Tip:** If total load is less than half rated capacity, move the ECO Switch to 'ON'. If the generator supplies power to multiple devices plug-in those devices in from large to small according to rated electrical load.



## Connecting Grounding

If grounding is required by code or application, follow the guidelines below. If you have ANY doubt, contact a licensed electrician.

- ① Use grounding wire of minimum 12 gauge
- ② Connect one end of grounding wire to the grounding bolt on the control panel.
- ③ Connect the other end of the grounding wire to a suitable ground point.



## Range Of Application

Before using the generator, please make sure that total load is within rated load range of the generator, otherwise the generator may be damaged.

## Service and Maintenance

Good maintenance is essential for safe, economical operation and long service life. The maintenance schedule is below:

Maintenance Cycle		Each Week	Break-In Maintenance at 1 Month or 20 Hours Use	Quarterly Maintenance is every 90 Days or 50 Hours Use	Annual Maintenance or 100 Hours Use
Item					
Engine oil	Check - Fill	√			
	Replace		√	√	√
Air Cleaner Element	Inspection	√			
	Clean		√		
	Replace			√	√
Carburetor Float Bowl	Clean				√
Spark Plug	Clean - Adjust				√*
Spark Arrester	Clean			√	
Idle Speed	Check - Adjust				√
Valve Clearance **	Check - Adjust				√
Fuel Tank and Fuel Filter **	Clean				√
Fuel Hose	Inspection	Every Two Years			
Cylinder Head, Piston	Remove Carbon Deposit **	Displacement <225cc, every 125 hours; displacement ≥225cc, every 250 hours.			
** These tasks should be completed by an authorized DieHard service center.					

# Service and Maintenance

## NOTICE

If the generator is used in high temperature or under high load, change the oil every 25 hours.

If the generator is used in a dusty or abrasive environment, service the air filter element every 10 hours; replace it every 25 hours.

If you miss a maintenance cycle, perform the maintenance as soon as possible per the table above.

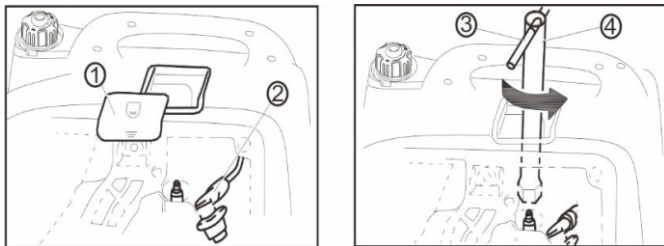
## ⚠ DANGER

Shut down the engine and allow it to cool before performing any service. Place the generator on a flat, stable surface. Remove the spark plug boot to prevent accidental engine start.

NEVER USE ANY GENERATOR INDOORS or in any poorly ventilated area. Engine exhaust contains carbon monoxide which can KILL you and others in the area.

### Spark Plug

- ① Remove access cover and spark plug boot.
- ② Use the (included) thin-wall T-socket wrench to remove the spark plug by turning it counter-clockwise.



- ③ Inspect spark plug for discoloration and remove carbon deposits; replace if necessary.
- ④ Adjust the gap 0.7~0.8mm.

Spark Plug # A5RTC  
Gap: 0.7-0.8mm



- ⑤ Install new or serviced spark plug in reverse order.

Spark Plug torque: 13~15 Nm; 115~133 in lbs.

**Tip:** If no torque wrench is available turn the spark plug ¼ - ½ turn after the gasket contacts the cylinder head.

### Adjustment Of The Carburetor

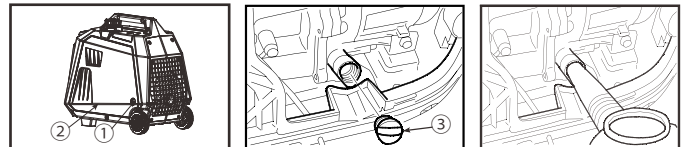
This carburetor is not adjustable, only maintenance and cleaning are possible. We strongly recommend leaving this work to an authorized DieHard Service center.

### Oil Change

## ⚠ WARNING

Do not drain the oil immediately after turning off the generator; allow it to cool completely before servicing it.

- 1) Raise the generator up on support blocks on a flat, stable surface
- 2) Loosen the knob on the right cover ① and remove the right cover ②.
- 3) Unscrew oil dipstick ③
- 4) Place an oil pan under the engine, tilt the generator toward the oil pan until all oil has drained; wipe up any spills.



- 5) Refill crankcase with 15 ounces (0.45L) 10w-30 engine oil; check with dipstick.
- 6) Tighten oil dipstick, replace oil access cover, and tighten the knob.

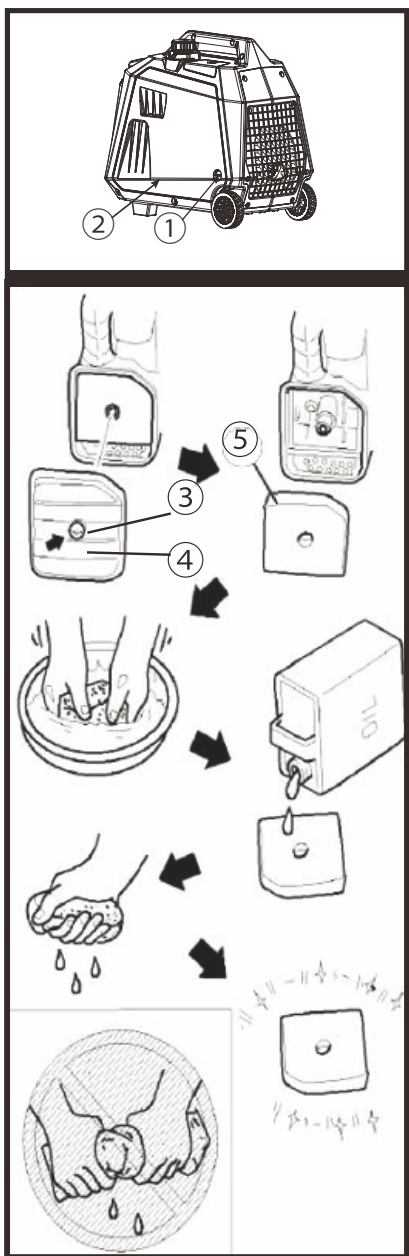
### Air Filter

A dirty air filter can cause poor performance and engine damage. Perform inspection and cleaning per the maintenance schedule on page 14.

## Service and Maintenance

### Air Filter

- 1). Loosen the knob on the right cover ① and remove the right cover ②.
- 2). Remove screws ③, to remove air filter housing ④;
- 3). Remove foam filter element ⑤;
- 4). Clean foam filter element with a mild soap solution, rinse well and let it dry
- 5). Place a few drops of engine oil on the foam filter element and squeeze gently to distribute the oil film evenly
- 6). Reinstall the air filter element in reverse order.

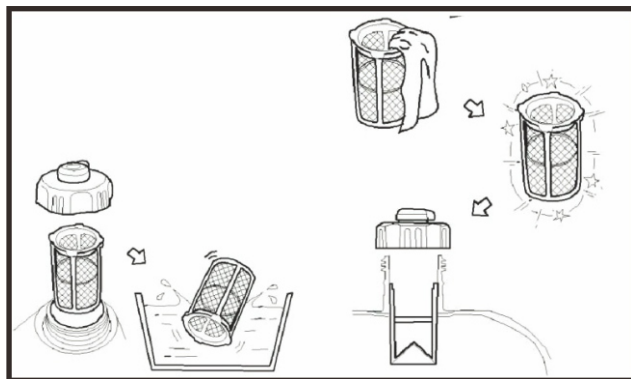


### Fuel Filter Screen

**! DANGER**

NEVER approach the generator while smoking or with any ignition source!

1. Remove fuel tank cap and fuel tank filter screen.
2. Clean fuel tank filter screen with mild soap and hot water.
3. Allow filter screen dry thoroughly and replace it in the fuel tank.
4. Replace fuel cap tightly.



## Storage and Transport

### Generator Long Term Storage

- 1). Turn off the generator and allow it to cool completely.
- 2). Remove the spark plug boot to prevent accidental engine start.
- 3). Remove bolts and right service access panel
- 4). Using a Phillips screwdriver, open fuel drain valve on the carburetor, and drain remaining fuel into an approved gasoline container.
- 5). Tighten fuel drain valve.
- 6). Change engine oil per page 14.
- 7). Remove spark plug and instill one teaspoon (5ml) new engine oil into combustion chamber. Pull the recoil a few times, to distribute oil, then reinstall the spark plug.
- 8). Replace right service access panel.
- 9). Gently pull recoil handle until you feel resistance, indicating the intake and exhaust valves are closed.
- 10). Store the generator in a clean and dry area.

# Storage and Transport

## Generator Transport

Pulsar Products recommends that the generator should be empty of fuel when transported unless the generator is secured in an open truck bed and secured from tipping. In this case, follow the guidelines below:

- Do not completely fill the fuel tank, leave some expansion space.
- Do not run the generator while transporting.
- Protect from direct sunlight.
- Do not transport the generator across rough terrain.

## Troubleshooting

### Engine No-Start

#### Fuel System

- 1) There is no fuel.
- 2) Fuel doesn't reach combustion chamber.
- 3) Contaminated or old fuel.
- 4) There is debris in the fuel valve.
- 5) Carburetor is fouled, service carburetor.

### Insufficient Engine Oil

Oil level is too low.

### Ignition System

- 1) Make sure the generator is off.
- 2) No spark from ignition coil failure.
- 3) Spark plug is fouled, service it per page 15.

## Low Compression

- 1) Worn out engine.
- 2) Cylinder head bolts have loosened, have an authorized Pulsar Service Center re-torque them properly.
- 3) Head gasket leak.

## Engine Runs, No Power Output

- 1) Ensure all circuit breakers are pushed in.
- 2) If generator was exposed to moisture or rain, move it to a dry location for several hours.
- 3) Vibration may have caused one or more connectors to loosen over time, check with DieHard Technical Support for guidance.
- 4) Check electrical receptacles for damage.
- 5) Generator may be overloaded. Remove load, shut down, then restart the engine.



## Technical Parameters

Item		Parameter
Engine	Engine Model	165F/P-1
	Engine Type	Single-cylinder, four-stroke, air-cooled, overhead valve
	Bore size × Stroke (mm)	65×48
	Displacement (cc)	160
	Compression Ratio	8.5:1
	Cylinder Head	OHV
	Cooling Mode	Forced Air
	Output Power (kW/r/min)	4.8/4500
	Starting Method	Electric and Manual Recoil
	Fuel Tank Volume	1.53 Gallon (5.8L)
	Fuel Type	Unleaded Gasoline / LPG (Propane)
	Engine Oil Capacity	15 Ounces (0.45L)
	Oil Type	SAE 10w-30
	Lubrication Mode	Splash Lubrication
	Noise dB (@ 7m)(1/4 load)	60
Generator	Rated Power (kW)	4.0(Gasoline)/3.6(Propane)
	Max Power (kW)	5.0(Gasoline)/4.5(Propane)
	Rated Voltage (V)	120
	Rated Frequency (Hz)	60
	Rated Power Factor	1
	Phase Number	Single Phase
Configuration	Motor	Brushless (Permanent Magnet)
	Voltage Regulation	Inverter Regulation
	Frequency Regulation	Inverter Regulation
Overall Dimension		20.9"x12.2"x19.7"
Net Weight		59.5lbs.(27kg)

# Electrical Schematic

60Hz, 120V Electrical Schematic Diagram.

