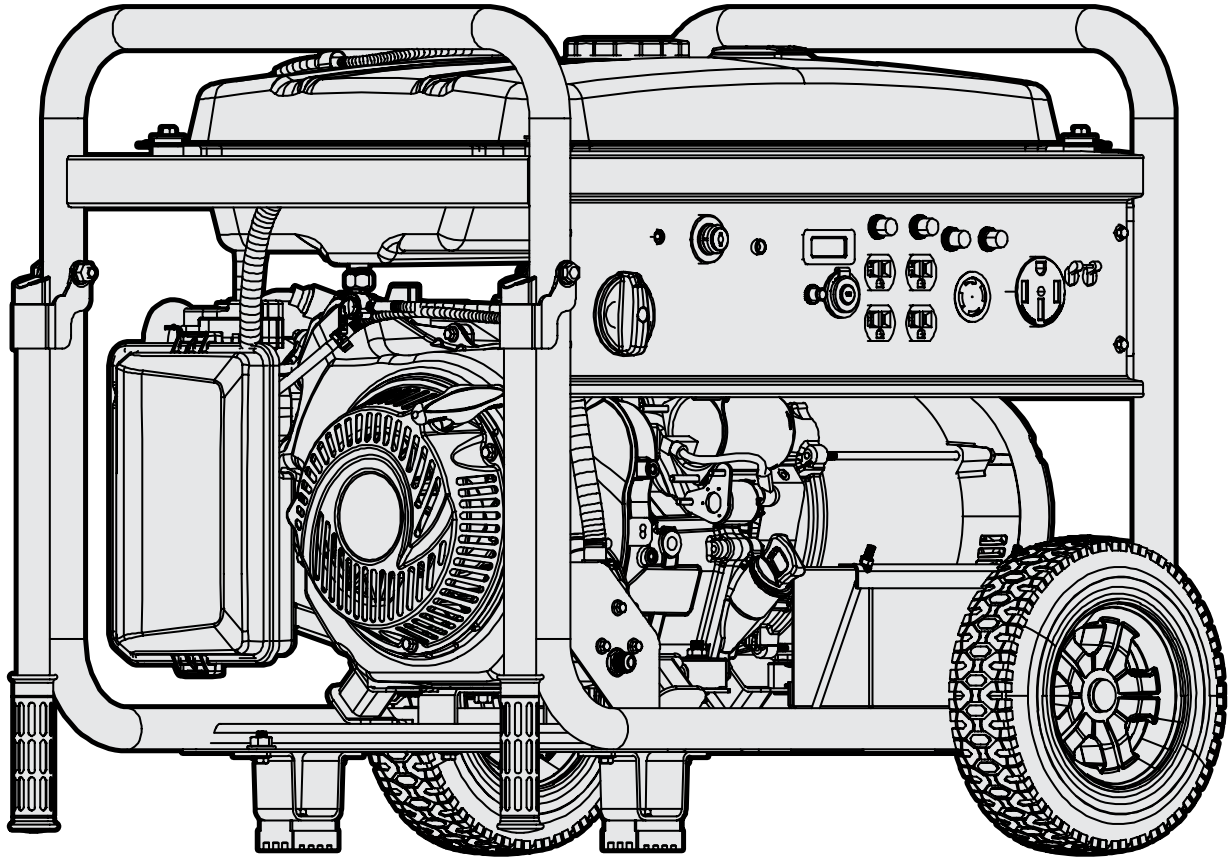




MODEL TF1450X, TF-1450X

14500-WATT TRI FUEL GENERATOR

Instruction Manual



NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:



1-847-429-9263 (M-F 8AM-5PM CST)



TECHSUPPORT@WENPRODUCTS.COM

IMPORTANT: Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

For replacement parts and the most up-to-date instruction manuals, visit ***WENPRODUCTS.COM***

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To purchase accessories and replacement parts for your tool, visit ***WENPRODUCTS.COM***

Extra-Large Magnetic Oil Dipstick (Model GNA273)

Universal Weatherproof Generator Cover (Model 56413)

Extension Cords & Outlet Adapters

(Models PC2514, PC3025, PC3040, PC1550, PC1405, PC1430, GNA430, and GNA650)

25-Foot 1/2-inch NG Hose with Quick-Connector (part no. TF1450X-1431)

12V Deluxe Battery Maintainer and Float Charger (Model GNA12C)

SPECIFICATIONS

GENERATOR

Model Number	TF1450X, TF-1450X
Surge (Starting) Wattage	Gasoline: 14500W
	Propane: 12500W
	Natural Gas: 10500W
Rated (Running) Wattage	Gasoline: 11500W
	Propane: 10300W
	Natural Gas: 8750W
Rated Voltage	AC: 120V / 240V
	DC: 12V
Rated Amperage	AC: 47.9A (Gas), 42.9A (LPG), 36.4A (NG)
	DC: 8.3A
Phase	Single
Frequency	60 Hz
Recommended LPG Tank Size	20 - 40 lbs
Product Weight	With Wheel Kit: 224.9 lbs
	Without Wheel Kit: 218.3 lbs
Product Dimensions	With Wheel Kit: 28.8 in. x 28.3 in. x 25.8 in.
	Without Wheel Kit: 27.4 in. x 22.3 in. x 22.8 in.

ENGINE

Engine Type	OHV, 4 Stroke, Single Cylinder
Engine Displacement	500cc
Fuel Tank Capacity	8.2 US Gallons (31.0 L), 87 Octane Minimum
Oil Capacity	44.0 fl. oz. (1.3 L)
Half-Load Runtime	Gasoline: 12 Hours
	Propane: 6 Hours (20-Pound Tank)
No-Load Speed	3600 RPM
Lubrication System	Splash Lubrication
Spark Plug Type	LG F7RTJC (NGK BP6ET)
Spark Plug Gap	0.8mm to 1mm (0.031 in. to 0.039 in.)
Spark Plug Torque	15 - 17.5 ft-lb (20 - 24 Nm)
Battery	12V 14Ah Lead-Acid AGM

INTRODUCTION

Thanks for purchasing the WEN 14500-Watt Tri Fuel Generator. Refer to the illustration below for the location of the serial number on the specifications label. Record the generator information in the spaces provided below. If assistance for information or service is required, please contact customer service by calling **1-847-429-9263**, M-F 8-5 CST; you will be asked to provide the following generator information when calling.

Generator Model Number: TF1450X

Date of Purchase: _____

Purchased From: _____

Serial Number: _____

MODEL	TF1450X	OPERATION SUMMARY 1. Move the switch to the ON position. 2. Turn the fuel valve to the ON position. 3. Move the choke lever to the start position. 4. Pull the start cord to start the engine. 5. If the engine fails to start, adjust the choke and try again. 6. Run the generator for several minutes before connecting devices.	CAUTION! DO NOT OVERLOAD GENERATOR (SEE MANUAL) DO NOT CONNECT DIRECTLY TO ANY BUILDING ELECTRICAL SYSTEM
RATED WATTAGE	11500W (Gas), 10300W (LPG), 8750W (NG)		
SURGE WATTAGE	14500W (Gas), 12500W (LPG), 10500W (NG)		
RATED VOLTAGE	120V/240V AC, 12V DC		
RATED AMPERAGE	AC: 47.9A (Gas), 42.9A (LPG), 36.4A (NG), DC: 8.3A		
RATED FREQUENCY	60 Hz		
PHASE	SINGLE	1-847-429-9263 WENPRODUCTS.COM Great Lakes Technologies LLC • 1101 Wesemann Drive • West Dundee, IL 60118	TYPE 1 MADE IN VIETNAM
SERIAL NUMBER			
ENGINE SERIAL NUMBER			

SERIAL NUMBER

SERVICE RECORD

Record the service dates of your generator in the chart below. Please perform maintenance checks and operations according to the "Maintenance" section of the manual.

Service Record	Date	Date	Date	Date	Date	Date
Change Oil						
Change Spark Plug						
Clean Fuel Tank						
Clean Air Cleaner						
Clean Spark Arrestor						

TO MAXIMIZE THE LIFESPAN OF YOUR GENERATOR: We recommend running your generator at least once a month for 20 to 30 minutes. Start the generator according to the instructions and plug a small load in to make sure the outlet is producing electricity.

GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE SAFETY INSTRUCTIONS.

WORK AREA SAFETY

- 1. Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- 1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- 2. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- 3. Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- 5. When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

- 6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

PERSONAL SAFETY

- 1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- 2. Use personal protective equipment. Always wear eye protection.** Protective equipment such as a respiratory mask, non-skid safety shoes and hearing protection used for appropriate conditions will reduce the risk of personal injury.
- 3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- 4. Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- 5. Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- 6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE SAFETY INSTRUCTIONS.

7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

POWER TOOL USE AND CARE

1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

2. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

5. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

8. Use clamps to secure your workpiece to a stable surface. Holding a workpiece by hand or using your body to support it may lead to loss of control.

9. KEEP GUARDS IN PLACE and in working order.

SERVICE

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

GENERATOR SAFETY WARNINGS

DANGER! CARBON MONOXIDE

Using a generator indoors **CAN KILL YOU IN MINUTES**. Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.



NEVER use a generator inside homes, garages, crawl spaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. **ONLY** use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. **ALWAYS** use a battery-powered or battery-backup CO alarm in the home. If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air **RIGHT AWAY**. See a doctor. You may have carbon monoxide poisoning.

 **WARNING! RISK OF EXPLOSION. HIGHLY FLAMMABLE:** This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death, if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

- Do not operate near open flame, heat, or any other ignition source. Do not smoke near the generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion. Always check for spilled fuel before operating.
- If fuel spills, move the generator at least 30 feet away from the spill and wipe clean any spilled fuel before starting the engine.
- Empty fuel tank before storing or transporting the generator.

 **WARNING!** If this generator is used as a supply for a building's 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 all applicable laws and electrical codes and the National Electrical Code, NFPA 70. The generator shall be connected to a transfer switch that switches all conductors excluding the equipment grounding conductor. The frame of the generator shall be connected to an approved grounding electrode.

 **CALIFORNIA PROPOSITION 65 WARNING:** This product contains chemicals and produces exhaust known to the State of California to cause cancer, birth defects and other reproductive harm. For more information, visit www.P65Warnings.ca.gov

GENERATOR SAFETY WARNINGS

⚠ WARNING! Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

⚠ WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH** of **CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



BUTTON OR COIN CELL BATTERY SAFETY INFORMATION

PLEASE READ THE FOLLOWING CAREFULLY:

1. Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
2. Even used batteries may cause severe injury or death.
3. Call a local poison control center for treatment information.
4. The compatible battery type is CR2032 and the nominal battery voltage is 3V.
5. Non-rechargeable batteries are not to be recharged.
6. Do not force discharge, recharge, disassemble, heat above 158°F, or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.

NOTE: THIS PRODUCT CONTAINS NON-REPLACEABLE BATTERIES.

OPERATING ENVIRONMENT

1. **Using a generator indoors can kill you in minutes.** Only use a generator outside and far away from windows, doors and vents.
2. **Do not smoke near the generator.**
3. **Do not operate near open flame, heat, or flammable materials.** This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to an explosion even if it isn't directly in contact with gasoline.
4. **Do not expose the generator to rainy or wet conditions; doing so significantly increases the risk of electrical shock.** Never handle the generator, electronic devices, or any cord while standing in water, while barefoot, or when hands or feet are wet.
5. **Always operate the generator on a dry, firm, level surface.**
6. **The generator should have at least 5 feet of clearance from buildings or other equipment during operation.**
7. **Do not allow children or non-qualified persons to operate the generator.**

GENERATOR SAFETY WARNINGS

 **WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

TO MAXIMIZE THE LIFESPAN OF YOUR GENERATOR: We recommend running your generator at least once a month for 20 to 30 minutes. Start the generator according to the instructions and plug a small load in to make sure the outlet is producing electricity. If you do not run it often, it will greatly shorten the generator's lifespan and void the warranty.

GENERATOR PREPARATION

1. **Always ground the generator before using it to maximize safety** (see "Ground the Generator" section).
2. **Do not overfill fuel tank, as gasoline may expand during operation.** Do not fill to the very top of the tank. Leave room for gasoline expansion. Always check for spilled fuel before operating.
3. **If any part of the generator, electrical device or power cord is broken, damaged, or defective, make sure it is repaired or replaced before operation.** Service should only be performed by a qualified technician. Do not use receptacles or cords that show signs of damage, such as broken or cracked insulation.
4. **Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work.** Extension cords with in-line GFCIs are recommended for these operations to maximize safety.
5. **If connecting the generator to a building's electrical system for standby power, you MUST consult a qualified electrician and install a transfer switch.** Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.
6. **Never modify the generator in any way.** Modifying or using the machine for any other purpose for which it is not designed may result in serious injuries, machine damage and voiding of the warranty.

GENERATOR OPERATION

1. **Only use the generator for its intended purposes.** Modifying or using the generator for operations for which it was not designed may cause hazards and personal injury.
2. **Do not touch bare wires or receptacles (outlets).**
3. **Do not turn on electrical devices until after they are connected to the generator.**

4. **Do not exceed the wattage capacity of the generator by plugging in more electrical devices than the unit can handle.** This could damage the generator and/or connected electrical devices. Check the operating voltage and frequency requirements of all electrical devices prior to plugging them into the generator.

5. **Allow generator to run for several minutes before connecting electrical devices.** Do not start or stop engine with electrical devices plugged in to the receptacles. Failure to do so could damage the generator and/or connected electrical devices.

6. **Generators vibrate in normal use.** During and after the use of the generator, inspect both the generator as well as extension and power supply cords for damage resulting from vibration.

7. **Do not touch hot parts.** This generator produces heat when running. Temperatures near exhaust can exceed 150°F (65°C). Allow generator to cool down after use before touching engine or areas of the generator that become hot during use.

8. **Turn off all connected electrical devices before stopping the generator.**

9. **Always turn generator off before refueling.** Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.

10. **Turn the engine switch and fuel selector knob to "OFF" or "STORAGE" position when the engine is not running.**

11. **Empty fuel tank before storing or transporting the generator.** Do not store generator or gasoline near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions. Store the generator and fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.

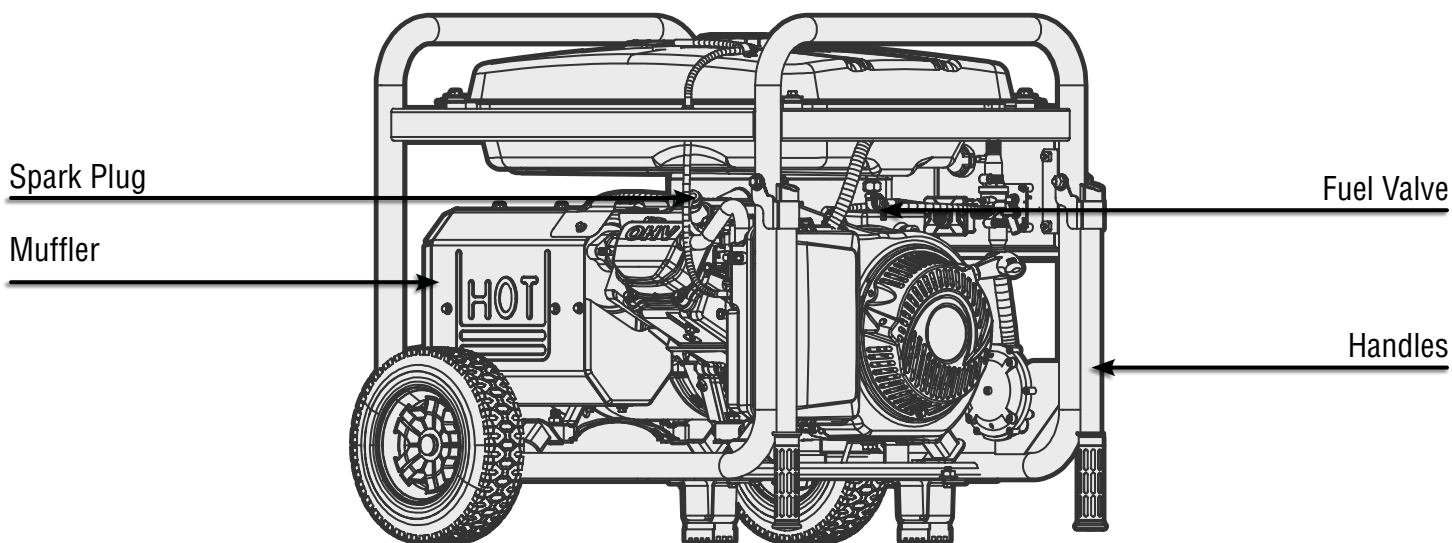
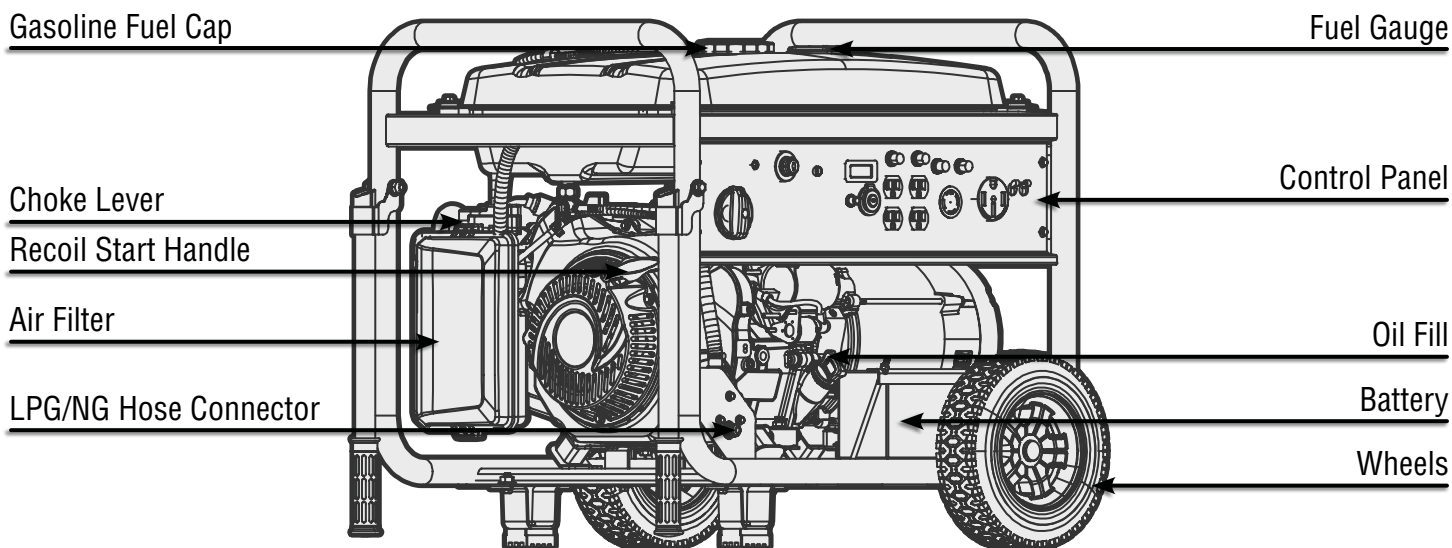
12. **Always wash hands after handling generator.**

KNOW YOUR GENERATOR

TOOL PURPOSE

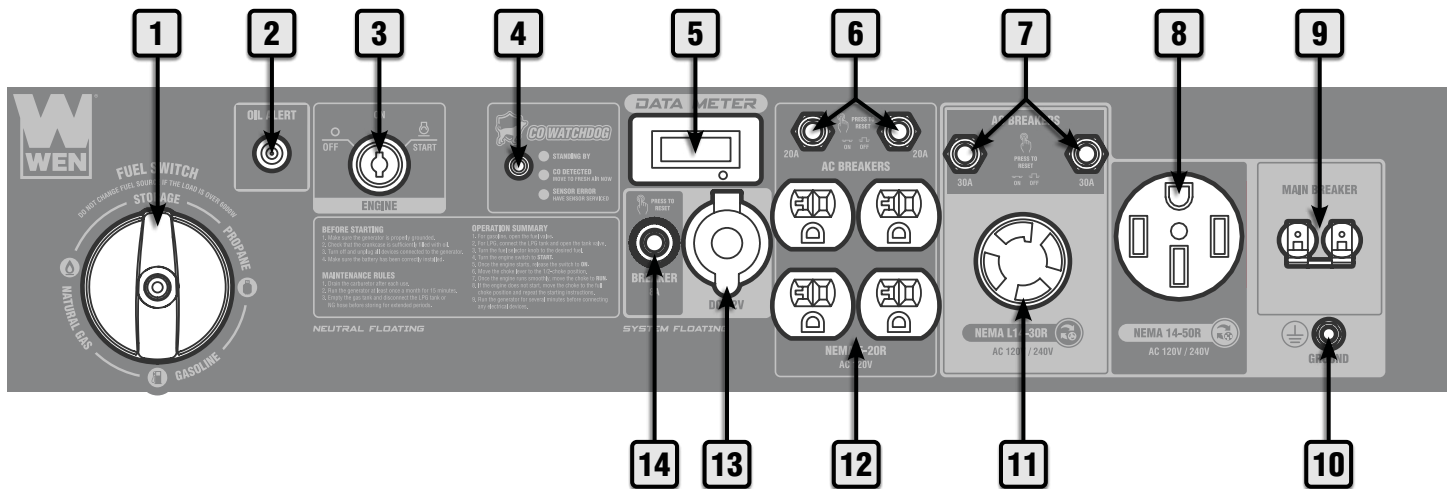
Generators provide you with power when and where you need it most. Refer to the following diagrams to become familiarized with all the parts and controls of your Generator. The components will be referred to later in the manual for assembly and operation instructions.

GENERATOR



KNOW YOUR GENERATOR

CONTROL PANEL



1. Fuel Selector Switch

Turn the dial to easily switch between gasoline, propane, and natural gas before operation.

1. Low Oil Alert

Illuminates if the oil level is too low.

3. Engine Key Switch

Start and shut off the engine.

4. CO WATCHDOG Carbon Monoxide Monitor

Measures the accumulation of poisonous CO gas while the generator is running. If the level of CO gas gets too high, the CO Watchdog system will automatically shut down the generator. See p. 26 for more details.

5. Data Meter

Displays voltage (e.g. V240), frequency (e.g. F-60), total runtime (HHHH), and session runtime (HH:MM). Press the MODE button to switch between displays.

6. AC 20A Circuit Breakers

Thermal protector that protects the 5-20R receptacles from overload.

7. AC 30A Circuit Breakers

Thermal protector that protects the L14-30R receptacle from overload.

8. NEMA L14-50R 120V/240V 50A Receptacle

AC 120V/240V split-phase.

9. Main Circuit Breaker

Flip the lever to reset the circuit.

10. Grounding Nut

Connection point for grounding the generator to the earth. See p. 20 for more information.

11. NEMA L14-30R Receptacle

AC 120V/240V split-phase.

12. NEMA 5-20R Duplex Receptacle

Connect electrical devices that run on 120V, 60 Hz, single phase, AC current.

13. DC 12V Receptacle

Cigarette lighter style receptacle, 12V DC, 8A.

14. DC Circuit Breaker

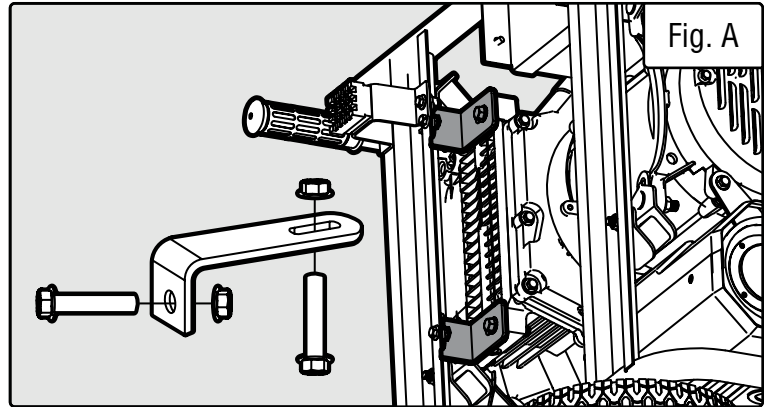
Thermal protector that protects the DC circuit from overload.

UNPACKING & PACKING LIST

UNPACKING

With the help of a friend or trustworthy foe, such as one of your in-laws, carefully remove the generator from the packaging and place it on a sturdy, flat surface. Make sure to take out all contents and accessories. Do not discard the packaging until everything is removed. Check the packing list below to make sure you have all of the parts and accessories. If any part is missing or broken, please contact customer service at **1-847-429-9263** (M-F 8-5 CST), or email techsupport@wenproducts.com.

IMPORTANT: Two red shipping brackets have been added to the bottom of your generator to protect the generator during shipping. Please make sure to remove BOTH shipping brackets before operation. Make sure there is no gasoline or oil in the generator, and carefully tip the generator on its end for easier access to the brackets.



PACKING LIST

Components	Qty.
Generator	1

Foot Assembly	Qty.
Feet	2
Foot Brackets	2
M8x16 Bolts	4
M8 Hex Nuts	4

Handle Assembly	Qty.
Handles	2
M8x50 Bolts	2
M8 Lock Nuts	2

Wheel Assembly	Qty.
Wheels	2
Wheel Axles	2
17mm Flat Washers	2
Cotter Pins	2

Tools & Accessories	Qty.
Oil Bottle	1
LPG Regulator Hose	1
Funnel	1
Spark Plug Socket	1
10mm x 13mm Wrench	1
13mm x 15mm Wrench	1
22mm x 24mm Wrench	1
Quick-Connector Adapter	1

ASSEMBLY & ADJUSTMENTS

TO INSTALL THE FEET:

1. Insert two M8x16 bolts (1) through the foot support assembly (2) and frame. Tighten with two M8 nuts (3).
2. Repeat step 1 for the other foot.

TO INSTALL THE WHEELS:

1. Slide the wheel axle (4) through the wheel (5), flat washer (6), and wheel bracket on the frame.
2. Insert cotter pin (7) through the hole on the end of the axle to keep the wheel in place.
3. Repeat steps 1-2 for the other wheel.

TO INSTALL THE HANDLE ASSEMBLIES:

1. Slide the M8x50 bolt (8) through the handle (9) and generator frame.
2. Tighten with an M8 lock nut (10).
3. Repeat steps 1-2 for the other handle.

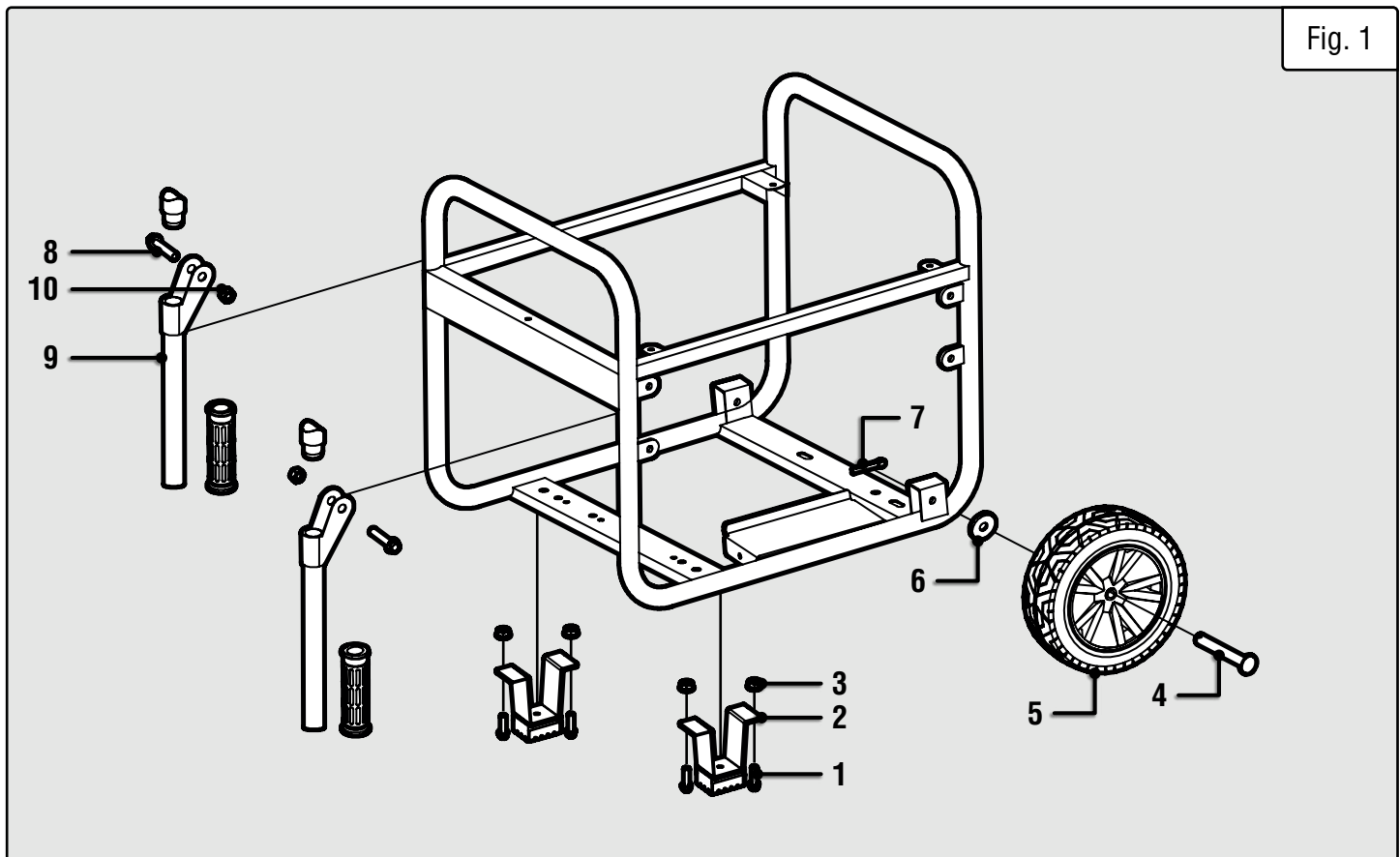


Fig. 1

NOTE: Only the generator frame is shown to maximize clarity for assembly.

GENERATOR PREPARATION

The following section describes the necessary steps to prepare the generator for use. If you are unsure about how to perform any of the steps please call **1-847-429-9263** (M-F 8-5 CST) for customer service. Failure to perform these steps properly can damage the generator or shorten its life.

STEP 1 - ADD/CHECK OIL

The generator is shipped without oil. User must add the proper amount of oil before operating the generator for the first time. The oil capacity of the engine's crankcase is **44 fl. oz.** (1.3 L).

ENGINE OIL RECOMMENDATIONS

Select good quality detergent oil bearing the American Petroleum Institute (API) service classifications SJ, SL, or SM (synthetic oils may be used). Select the SAE viscosity grade of oil that matches the expected operating temperature.

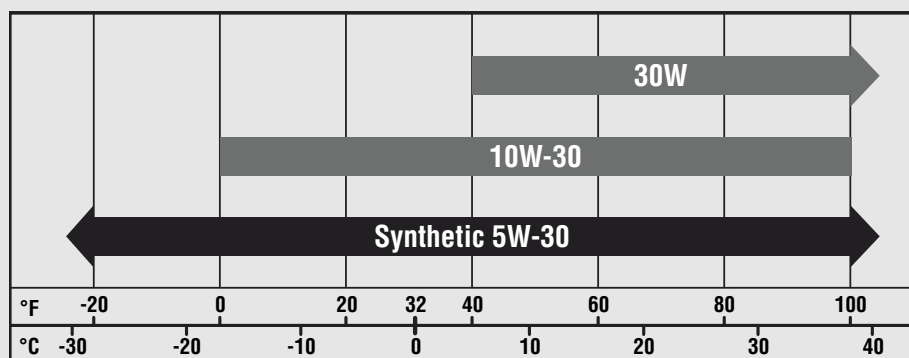


Fig. 2

- **30W Engine Oil**
Temperatures above 40°F
- **10W-30 Engine Oil**
Temperatures between 0°F - 100°F
- **Synthetic 5W-30 Engine Oil**
All temperature ranges

TO ADD OIL:

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking oil.

CAUTION! Keep the generator level. Tilting the generator to assist in filling will cause oil to flow into the wrong areas of the engine and cause damage.

2. Unscrew the oil dipstick (Fig. 3) from the engine.

3. Using an oil funnel or appropriate dispenser, slowly add oil into the oil fill, being careful not to overfill the unit. Fill the crankcase to the upper fill line so you can visually see the oil coming halfway up the oil fill threads. See Fig. 4.

4. Reinstall the oil dipstick and firmly tighten it. Wipe clean any spilled oil.

NOTE: Extend the lifespan of your generator by catching the loose metal filaments that naturally build up inside the crankcase with the WEN Magnetic Dipstick (**Model GNA273**), available for purchase at wenproducts.com.

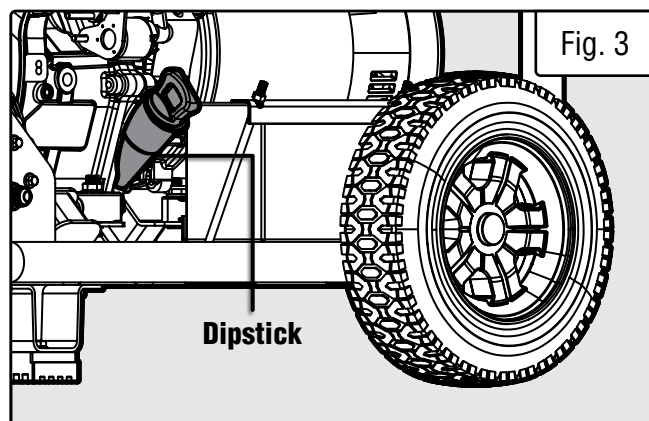


Fig. 3

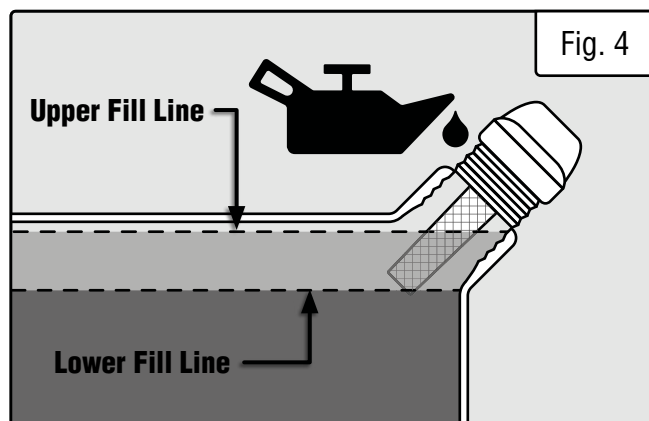
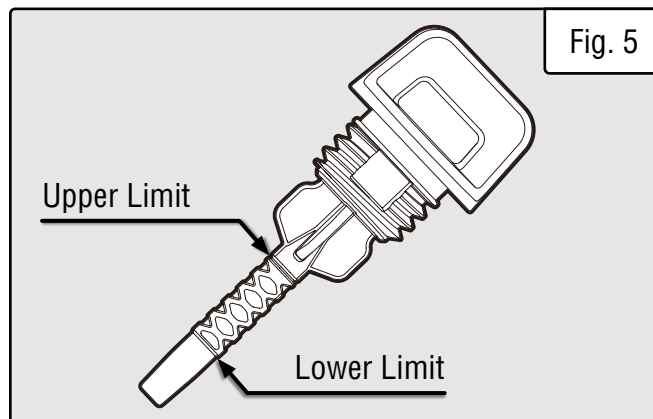


Fig. 4

GENERATOR PREPARATION

TO CHECK OIL LEVEL (before every subsequent start):

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking oil.
2. Remove and wipe the dipstick with a clean rag.
3. Insert the dipstick into the oil fill without screwing it in. Remove the dipstick to check the oil mark.
4. If the oil mark covers **less than one half** of the dipstick, slowly **add oil** until the oil mark reaches the top of the dipstick (or when you can see the oil coming halfway up the oil fill threads). See Fig. 5.



OIL LEVEL SHUTDOWN

To protect the unit from damage, the generator is equipped with a low-oil-pressure shutoff that will automatically shut down the engine when the oil level is too low. The oil level of the engine should be checked before each start to ensure that the engine crankcase contains sufficient lubricant.

STEP 2 - ADD/CHECK FUEL

FUEL OPTION A: GASOLINE

⚠ WARNING: RISK OF EXPLOSION. HIGHLY FLAMMABLE: This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death, if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

- Do not operate near open flame, heat, or any other ignition source. Do not smoke near the generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion. Always check for spilled fuel before operating.
- If fuel spills, move the generator at least 30 feet away from the spill and wipe clean any spilled fuel before starting the engine.
- Empty fuel tank before storing or transporting the generator.

ONLY use fresh (within 30 days from purchase), lead-free gasoline with a **minimum of 87 octane rating**. The generator performs best with ethanol-free gasoline. **DO NOT** use gasoline with over 10% ethanol.

The capacity of the fuel tank is **8.2 US gallons**. Do not mix oil with gasoline.

Follow the instructions on the next page to add gasoline.

IMPORTANT:

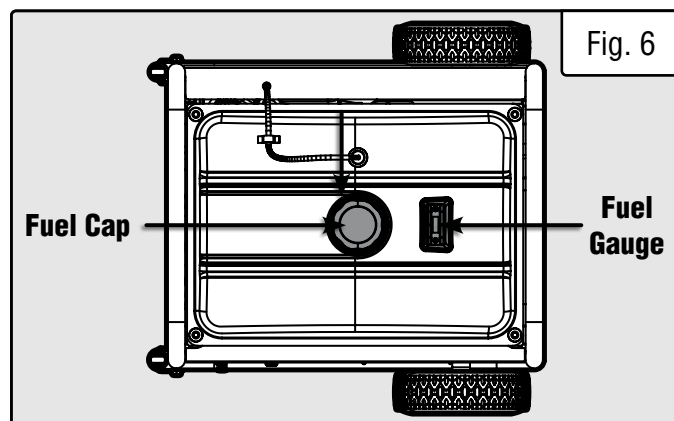
- Avoid getting dirt or water into the fuel tank.
- Keep gasoline away from sparks, open flames, pilot lights, heat, and other sources of ignition.
- Gasoline can age in the tank and make starting difficult. Never store the generator for more than 2 months with fuel in the tank.
- Never use an oil/gasoline mixture.
- Never use old gasoline.

GENERATOR PREPARATION

TO ADD GASOLINE:

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking the fuel.
2. Unscrew the fuel cap (Fig. 6) and set it aside. The fuel cap may be tight and hard to unscrew.
3. Slowly add unleaded gasoline to the fuel tank. Be careful not to overfill. Reinstall fuel cap and wipe clean any spilled gasoline with a dry cloth.

NOTE: Do not fill the fuel tank to the very top. If you do so, gasoline will expand and spill during use, even with the fuel cap in place.



TO CHECK GAS LEVEL (before every subsequent start):

1. Before starting the generator, check the fuel gauge (Fig. 6) to see if there is sufficient fuel inside the tank:
 - **E** = Empty
 - **F** = Full
2. If the tank is empty, add gasoline to the fuel tank. See above section, "To Add Gasoline".

⚠ WARNING! If using gasoline, the LPG tank must be shut OFF. If using LPG, the fuel valve on the generator must be turned to the OFF position.

FUEL OPTION B: LIQUID PETROLEUM GAS (LPG)

⚠ DANGER! Explosion and fire. LP vapors are extremely flammable and explosive. Do not use or store LP cylinder in a building, garage or enclosed area. Failure to do so will result in death or serious injury.

⚠ WARNING! Explosion and fire. The cylinder valve should be turned OFF (closed) when generator is not in use. Failure to do so could result in death or serious injury.

- Always keep the LPG cylinder in an upright position.
- When transporting and storing, keep cylinder secured in an upright position with cylinder valve turned off. Keep cylinders ventilated and away from heat when in a vehicle.
- Liquid Petroleum Gas (LPG) is highly flammable and explosive. Flammable gas under pressure can cause a fire or explosion if ignited.
- In any petroleum gas fire, flames should not be extinguished unless the fuel supply valve is turned OFF. If a fire is extinguished and a supply of fuel is not turned OFF, an explosion hazard could be created.
- **RISK OF BURNS.** Contact with liquid contents of cylinder will cause freeze burns to the skin. If liquid contents contacts skin or eyes, seek immediate medical attention.
- When exchanging LPG cylinders, be sure the cylinder valve is of the same type.

GENERATOR PREPARATION

FUEL OPTION B: LIQUID PETROLEUM GAS (LPG) (CONT.)

NOTE: LPG regulator inlet pressure is approximately 30 PSI at 0 °F, and 218 PSI at 100 °F.

- You can use LPG tanks with Type 1, right hand Acme threads with this generator. Verify that the qualification date on tank has not expired. Do not use rusted or damaged cylinders.
- All new cylinders must be purged of air and moisture prior to filling. Used cylinders that have not been plugged or kept closed must also be purged.
- The purging process should be done by the propane gas supplier. (Cylinders from an exchange supplier should have been purged and properly filled by supplier).

To connect your generator to an LPG cylinder:

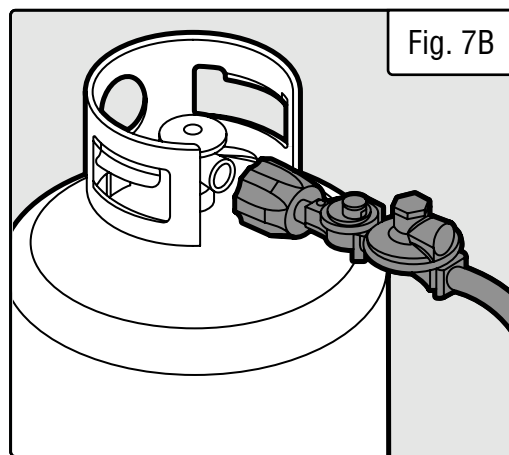
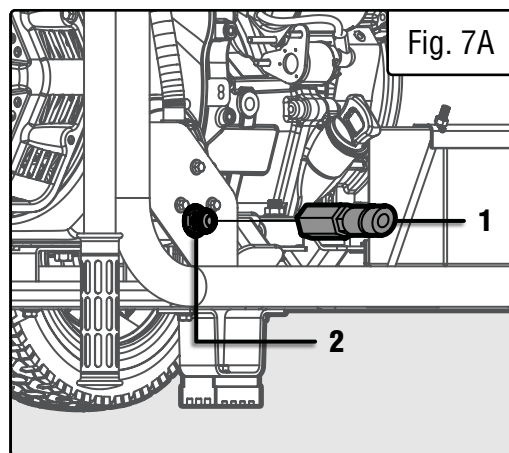
1. Take off the safety caps from the cylinder valve, generator-mounted regulator, and regulator connecting hose ends.

2. Screw the female threaded end of the quick-connect adapter (Fig. 7A - 1) onto the male threaded fitting on the generator (Fig. 7A - 2). DO NOT use Teflon or other PTFE tape on this connection. Tighten it with the included 22mm wrench.

3. With the LPG tank closed, attach the first-stage regulator to the valve. Turn the regulator's plastic coupling right (clockwise) to tighten the assembly onto the LPG tank (Fig. 7B).

3. Pull back the collar on the quick-connector on the LPG hose. Push it fully over the male end of the adapter, then release the collar. Lightly pull on the hose to ensure it is securely attached to the generator.

4. Turn the LPG tank valve ON and check for leaks by spraying soapy water on all connections. If bubbles appear, become larger in size, or increase in number, a leak exists. Recheck all connections and perform the test again. If the leak persists, it must be corrected before using the generator. Contact a professional, certified LPG plumber for assistance.



⚠ CAUTION! Always position the LPG cylinder so the connection between the valve and regulator won't cause sharp bends or kinks in hose.

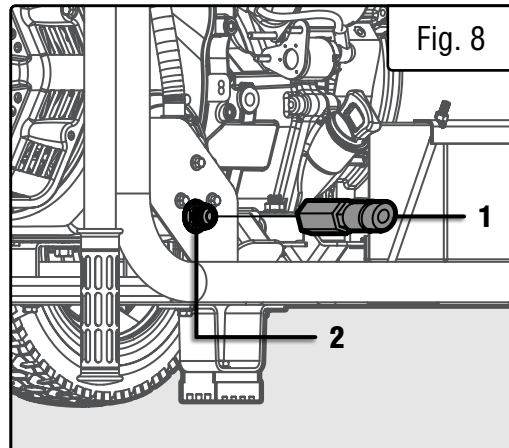
⚠ WARNING! Risk of burns. Contact with liquid contents of cylinder will cause freeze burns to the skin. If liquid contents contacts skin or eyes, seek immediate medical attention.

⚠ WARNING! When transporting and storing, keep cylinder secured in an upright position with cylinder valve turned off. Keep cylinders ventilated and away from heat when in a vehicle.

GENERATOR PREPARATION

FUEL OPTION C: NATURAL GAS (NG)

1. We recommend using Teflon or other PTFE tape when securing the threaded male end of the NG hose (not included) to the supply line. A 25-foot 1/2-inch NG hose with quick-connector is available for purchase at **wenproducts.com** (part no. **TF1450X-1431**).
2. Screw the female threaded end of the quick-connect adapter (Fig. 8 - 1) onto the male threaded fitting on the generator (Fig. 8 - 2). DO NOT use Teflon or other PTFE tape on this connection. Tighten it with the included 22mm wrench.
3. Pull the rubber cover off the female quick-connector on the NG hose.
4. Pull back the collar on the quick-connector on the NG hose. Push it fully over the male end of the adapter, then release the collar. Lightly pull on the hose to ensure it is securely attached to the generator.
5. Turn the NG supply ON and check for leaks by spraying soapy water on all connections. If bubbles appear, become larger in size, or increase in number, a leak exists. Recheck all connections and perform the test again. If the leak persists, it must be corrected before using the generator. Contact a professional, certified NG plumber for assistance.
6. Turn the NG supply OFF until you are ready to start the generator.



NG System Requirements	
Minimum nominal fuel rating (energy content)	$\geq 1000 \text{ BTU/ft}^3$
Minimum NG supply pressure	6 - 16 in. WC (1.5 - 4.0 kPa)
Minimum NG supply flow rate	155,000 BTU/hr

GENERATOR PREPARATION

STEP 3 - CONNECT THE BATTERY

⚠ WARNING! BATTERY GIVES OFF EXPLOSIVE HYDROGEN GAS.

- Keep battery away from spark, flame, or cigarette.
- Do not connect or disconnect battery while generator is running.
- Service or use battery only in well ventilated areas.

⚠ WARNING! Battery contains sulfuric acid. Battery acid is poisonous. Tilting the generator with the battery installed can cause battery acid to spill.

- Wear protective clothing and eye wear when servicing battery.
- Keep out of reach of children.
- Do not tilt generator with battery installed.
- If battery acid gets on your skin, wash with water immediately.
- If battery acid gets in your eyes, flush with water for at least 15 minutes and call a doctor immediately.

If battery acid is swallowed, call a doctor immediately. Drink a large amount of water or milk. Then drink milk of magnesia or vegetable oil.

The generator comes with the battery disconnected for safety. When using LPG or NG to run the generator, the battery must be connected whether using electric or recoil start. The battery must also be connected for electric start when using gasoline, but the battery does not need to be connected for recoil start on gasoline.

For a video of this procedure, please visit <http://bit.ly/44sb6C2>.

To connect the battery:

1. Remove the rubber quick-connector covers.
2. Connect the two ends of the quick-connector on the battery (Fig. 9) to the ends of the quick-connector on the starter motor.

IMPORTANT: If you do not plan to use the generator for an extended period of time, we recommend DISCONNECTING the quick connector. This will protect the battery from losing its charge. Cover the ends with the rubber covers. Alternatively, you can use a trickle charger (not included) to maintain battery charge. A smart trickle / float charger is available for purchase at wenproducts.com (model no. **GNA12C**).

If the battery is dead or disconnected, the generator will not start when using electric start on gasoline. The generator will also not start when using LPG or NG, regardless of starting method. The battery receives charge when the generator is running. To help maximize your battery's lifespan, and ensure it's ready when needed, run your generator once a month, disconnect the quick connectors as outlined above, or connect the battery to a trickle charger.

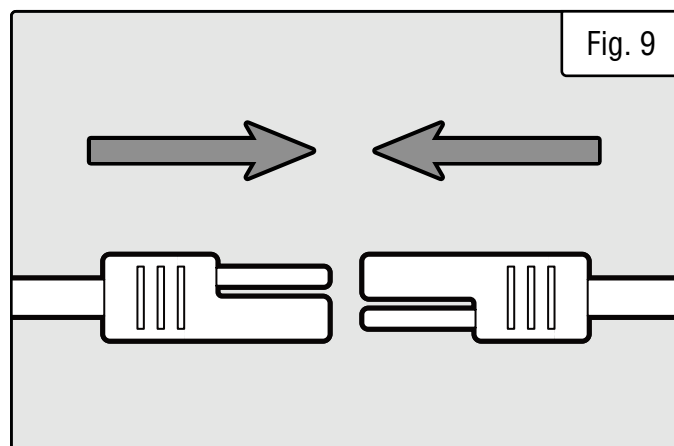


Fig. 9



For more information on your battery quick-connectors, scan the QR code or visit the link below:
<http://bit.ly/44sb6C2>

GENERATOR PREPARATION

STEP 4 - GROUND THE GENERATOR

To reduce the risk of electric shock and to maximize safety, the generator should be properly grounded.

Ground the generator by tightening the grounding nut on the front control panel (Fig. 10) against a grounding wire. A generally acceptable grounding wire is a **No. 12 AWG (American Wire Gauge) stranded copper wire**.

This grounding wire should be connected at the other end to a copper, brass, or steel-grounding rod that is driven into the earth. Wire and grounding rods are not included with the generator.



NOTE: Grounding codes can vary by location. Contact a local electrician to check the area codes.

⚠ WARNING! Failure to properly ground the generator increases your risk of electric shock.

HIGH ALTITUDE OPERATION ABOVE 3000 FEET

The fuel system on this generator may be affected by operation at high altitudes. Proper operation can be ensured by installing an altitude kit at altitudes higher than 3000 feet above sea level. At elevations above 8000 feet, the engine may experience a decrease in performance, even with the proper altitude kit. Operating this generator without said kit may increase the engine's emissions and decrease both fuel economy and performance.

This kit should be installed by a qualified mechanic. You can order the kit at **wenproducts.com** by searching part number **TF1450X-HA36 (3000 - 6000 ft) and TF1450X-HA68 (6000 - 8000 ft)**. Refer to the instructions included with your altitude kit for more information about installation.

⚠ WARNING! To prevent serious injury from fire, follow the kit installation procedures in a well-ventilated area away from ignition sources. If the engine is hot from use, shut the engine off and wait for it to cool before proceeding. Do not smoke near the generator. Warranty will be void if adjustments are not made for high altitude use.

CAUTION: Engines with the high-altitude kit installed operated at lower altitudes could cause severe engine damage and affect emissions compliance. Be sure to uninstall the high altitude kit when operating at altitudes below 3000 feet.

After completing the above preparation, the generator is ready to be started.

STARTING YOUR GENERATOR

Before starting the generator, make sure you have read and performed the steps in the “Generator Preparation” section of this manual. If you are unsure about how to perform any of the steps in this manual please call **1-847-429-9263** (M-F 8-5 CST) for customer service.

DANGER: CARBON MONOXIDE

Using a generator indoors **CAN KILL YOU IN MINUTES**. Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a generator inside homes, garages, crawl spaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. **ONLY** use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. **ALWAYS** use a battery-powered or battery-backup CO alarm in the home. If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air **RIGHT AWAY**. See a doctor. You may have carbon monoxide poisoning.

 **WARNING:** The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

 **WARNING:** Do not operate generator near open flame or flammable materials. This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline. Do not smoke near the generator.

 **WARNING:** This generator produces powerful voltage, which can result in electrocution.

 **WARNING:** Do not use in rainy or wet conditions. Do not touch bare wires or receptacles (outlets). Do not allow children or non-qualified persons to operate.

 **WARNING:** Generator should only be connected to electrical devices, either directly or with an extension cord. **NEVER** connect to a building electrical system unless a qualified electrician has connected the generator to a transfer switch as a separately derived system. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

To maximize safety, **ALWAYS** ground the generator before using it. Refer to “Step 4 - Ground the Generator.”

Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. GFCIs are available in-line with some extension cords.

CAUTION! Disconnect all electrical loads from the generator before attempting to start it.

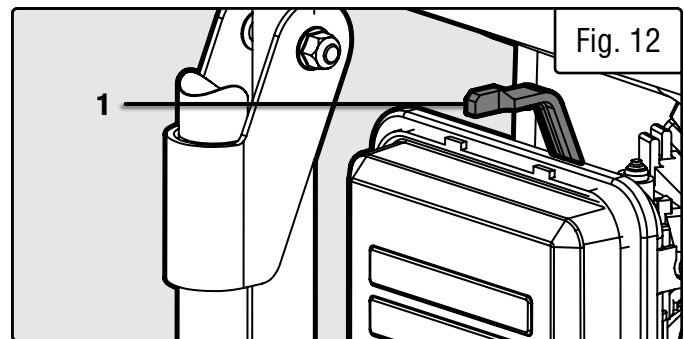
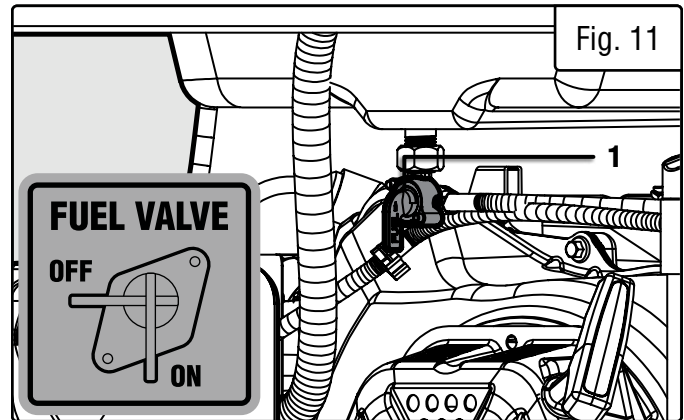
Follow the instructions on the next page to start your generator.

STARTING YOUR GENERATOR

BEFORE STARTING THE GENERATOR

1. Verify that the generator is outside on a dry, level surface. Allow at least two feet of clearance on all sides of the generator.
2. To maximize safety, check that the generator is properly grounded (see “Ground the Generator”).
3. Check there is sufficient level of oil in the crankcase. Add oil if necessary (see “Add/check Oil”).
4. Verify the fuel selection dial is turned to the desired fuel (gasoline, propane, or natural gas). Check that there is adequate supply of the selected fuel.
5. Make sure all electrical devices are unplugged from the generator during ignition. Otherwise it will be difficult for the engine to start.

⚠ WARNING! The LPG cylinder valve or NG supply valve must be shut OFF when using gasoline. The generator's fuel valve must be shut OFF when using LPG or NG.



STARTING THE GENERATOR

1. To use gasoline, turn the fuel valve (Fig. 11 - 1) to ON. To use LPG or NG, make sure all of the connectors and hoses are well connected and sealed. Close the fuel valve, then open the LPG tank valve or NG line.
2. Turn the fuel selector switch to the desired fuel option.
3. Move the choke lever (Fig. 12 - 1) to the CLOSED/START position.
4. Make sure the battery is connected. See p. 19 for more information.

a. To start the engine with electric starter:

4. Insert the key and turn the engine switch to the START position for 2-3 seconds. **NOTE:** If the engine does not start, release the switch and try again. Keeping the switch in the START position too long can damage the starter.
5. When engine starts, release the switch to the ON position.
6. Slowly move the choke lever to the OPEN/RUN position. If engine fires, but does not continue to run, move choke lever to CLOSE/START position and repeat starting instructions.
7. Allow the engine to run for several minutes before attempting to connect any electrical devices. This allows the generator to stabilize its speed and temperature. Follow the instructions in the next section for properly connecting your electrical devices.

b. To start the engine with recoil starter:

4. Turn the engine switch to the ON position.
 5. Pull on the recoil starter handle slowly until a slight resistance is felt, then pull quickly to start the engine. Return cord gently into the recoil starter. Never allow the cord to snap back.
- If engine fails to start, repeat this step.
6. Once the engine has started, slowly return the choke lever all the way to the OPEN/RUN position.

NOTE: In case you have had repeated failed attempts to start the engine, please consult the troubleshooting guide before attempting to start the generator. If problems persist please call **1-847-429-9263, M-F 8-5 CST.**

USING YOUR GENERATOR

CALCULATING THE WATTAGE OF YOUR DEVICE(S)

Connect electrical devices running on AC current according to their wattage requirements. Calculate the total running wattage and starting wattage of the device(s) you wish to connect, and **MAKE SURE** that they are within the capacity of your generator and the capacity of each individual outlet.

	Generator Running (Rated) Watts	Generator Starting (Surge) Watts
	Gasoline: 11500W	Gasoline: 14500W
	LPG: 10300W	LPG: 12500W
	NG: 8750W	NG: 10500W
Generator Wattage Capacity	What this means: The generator can produce a maximum of 11500W / 10300W / 8750W on a continuous basis to supply ongoing power to your electronic devices. NOTE: Also check the rated amperage for each outlet and make sure not to overload the individual outlets.	What this means: Some devices such as box fans require short bursts of extra power in addition to the rated wattage listed by the device to start their motors. The generator can produce a maximum wattage of 14500W / 12500W / 10500W for a short period of time (seconds) to cover the extra starting power required by your electronic devices.
Electronic Device Wattage Calculation	Find the wattage information of each device you plan to connect. The information should be listed on the device or in its instruction manual. The wattage can be calculated using this equation: Watts = Volts x Amperes	
	To calculate the total running watts of your devices: + Add up the running wattages of all the device(s) you plan to connect = The total running wattage This wattage should NOT exceed the running wattage of 11500W / 10300W / 8750W. It is recommended to maintain a load at or below 10350W / 9270W / 7875W (90% of the rated output) to ensure steady voltage output and to prolong the generator's lifespan.	To calculate the total starting watts of your devices: + Add up the total running wattage of all the device(s) you plan to connect + Add the single highest ADDITIONAL starting wattage out of the device(s) you plan to connect = The total surge (starting) wattage This wattage should NOT exceed the starting wattage of 14500W / 12500W / 10500W.
	If any of either of the total calculated running watts or starting watts is higher than the capacity of your generator, adjust the load until both wattage requirements are met. Otherwise you will overload the generator, and cause damage to the engine and your electrical device(s).	

Table 1 - How to Calculate Wattages

USING YOUR GENERATOR

CALCULATING THE WATTAGE OF YOUR DEVICE(S) - CONTINUED

The chart below serves as a reference for the estimated wattage requirements of common electrical devices. However, do not solely rely on this chart - all electronics and appliances are built differently. Always check the wattage listed on the electrical device before consulting this chart.

Tool or Appliance	Rated (Running) Watts	Surge (Starting) Watts
Hot Plate	2500	0
Saw - Radial Arm	2000	2000
Electric Stove (Each Element)	1500-2800	0
Saw - Circular	1500	1500
Air Compressor (1 HP)	1500	3000
Window Air Conditioner	1200	1800
Saw - Miter	1200	1200
Microwave	1000	0
Well Water Pump	1000	1000
Sump Pump	800	1200
Refrigerator Freezer	800	1200
Furnace Blower	800	1300
Computer	800	0
Electric Drill	600	900
Television	500	0
Deep Freezer	500	500
Garage Door Opener	480	0
Stereo	400	0
Box Fan	300	600
Clock Radio	300	0
Security System	180	0
DVD Player / VCR	100	0
Common Light Bulb	75	0

Table 2 - Estimated Wattages of Common Electrical Appliances

NOTE: Become familiar with the functions and capacity of each component on the control panel before connecting electrical devices. See page 11 for more information about the components of the control panel. Do not overload generator or individual panel receptacles. Do not connect 50Hz or 3-phase loads to the generator.

USING YOUR GENERATOR

CONNECTING ELECTRICAL DEVICES

CAUTION: Become familiar with the functions and capacity of each component on the control panel (page 11) before connecting electrical devices. Do not overload generator or individual panel receptacles. Do not connect 50Hz or 3-phase loads to the generator.

Follow the steps below to properly connect your device(s) to the generator:

1. Before connecting electrical devices, allow the generator to run for a few minutes to stabilize the speed and voltage output.
2. Select the device with the highest wattage, and make sure it is turned off. Plug the device into the matching generator outlet and then turn the device on. Allow the engine to stabilize.
3. Repeat step 2 to plug in each additional device. Do not attempt to plug in or start multiple devices at the same time.

IN CASE OF OVERLOAD

If your generator becomes overloaded from too much drawn wattage, the push-to-reset circuit breaker(s) on your control panel will activate and cut off the output. When an overload occurs, reduce the load by turning off and unplugging your electronic device(s), then press the activated circuit breaker to reset your generator. If the circuit breaker does not reset, wait several minutes and try again. If no power is produced after resetting, restart your generator.

SOME NOTES ABOUT POWER CORDS

Long or thin extension cords can drain the power provided to your electrical devices. Refer to the following chart in determining the necessary gauge extension cord for each of your devices. Round up to the higher amperage in the chart to maximize safety.

ENGINE BREAK-IN PROCEDURE

The procedure below should be followed when you receive your generator in order to prolong the engine's service life. This procedure helps to seat the piston rings properly in the cylinder, and will reduce overall wear on the engine. For the first 8 hours of operation, vary the load, but keep it at or below 50% of the generator's rated wattage, if possible. If your generator is equipped with an Eco-mode switch (only applicable for certain inverter generators), engage Eco-mode periodically during the first 8 hours. After the first 8 hours, change the oil, then change it again after the first 25 hours. You may run the generator at full load after the 8-hour oil change. Refer to the Recommended Maintenance Schedule in Table 4 for the full maintenance schedule.

Device Requirements			Max. Cord Length (ft) by Wire Gauge				
Amps	Watts (120V)	Watts (240V)	#8 wire	#10 wire	#12 wire	#14 wire	#16 wire
2.5	300	600	NR	NR	NR	375	250
5	600	1200	NR	NR	300	200	125
7.5	900	1800	NR	350	200	125	100
10	1200	2400	NR	250	150	100	50
15	1800	3600	NR	150	100	65	NR
20	2400	4800	175	125	75	50	NR
25	3000	6000	150	100	60	NR	NR
30	3600	7200	125	65	NR	NR	NR
40	4800	9600	90	NR	NR	NR	NR

*NR = Not Recommended

Table 3 - Power Cord Requirement Guide

⚠ WARNING! Generator should **only** be connected to electrical devices, either directly or with an extension cord. NEVER CONNECT TO A BUILDING ELECTRICAL SYSTEM unless a qualified electrician has connected the generator to a transfer switch as a separately derived system. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death.

USING YOUR GENERATOR

CO SENSOR INFORMATION

The CO Watchdog carbon monoxide monitoring system (Fig. 13 - 1) measures the accumulation of poisonous CO gas while the generator is running. If the level of CO gas gets too high, the CO Watchdog system will automatically shut down the generator. **This system is not a substitute for an indoor CO alarm.**

Whenever the CO Watchdog system shuts down the generator, the LED on the generator control panel (Fig. 13 - 1) will **blink red** for at least 5 minutes after the generator is shut down. **If you notice that the LED is blinking red, vacate the area immediately.** Go to an open, outdoor area. Ventilate the area around the generator thoroughly before returning. Let the generator stay shut down for a few minutes before restarting the engine. This should allow carbon monoxide to dissipate from the area. If you restart the generator and the CO Watchdog detects that CO levels are still too high, it will shut down the generator again. If CO levels are low enough, the generator will run normally.

Ensure that the generator is located in an open outdoor area, with the exhaust pointing away from occupied structures, and pointing away from the prevailing winds, such that those winds do not blow engine exhaust towards the sensor module. If anyone experiences dizziness, headaches, nausea, fatigue, or other symptoms of CO poisoning, get to fresh air immediately and seek the attention of a qualified medical professional. Follow all other directions in this manual regarding the connection and disconnection of electrical devices when starting or shutting down the generator.

When starting the generator, the CO Watchdog LED on the panel may flash. This indicates that the system is running a self-test procedure, and does not indicate a problem.

If the CO Watchdog LED on the panel is **yellow**, a system error has occurred, or the CO sensor has reached the end of its life. Contact WEN customer service (**1-847-429-9263**, M – F 8 – 5 CST, or techsupport@wenproducts.com) for assistance.

When operating your generator, please note the following:

- The CO Watchdog does not discriminate in its input; any source of carbon monoxide in the area around the generator could cause it to activate. If the CO Watchdog LED is blinking red, safety measures should be taken immediately.
- Tampering with, disconnecting, or bypassing the CO sensor could cause hazardous conditions, including but not necessarily limited to injury or death, and will void your warranty. The generator will not run with the CO sensor disconnected or bypassed, or if the CO sensor indicates an error.
- The CO sensor has a lifetime of about 7 years, and is capable of monitoring its lifetime. If your generator shows an error light several years after purchase, it may be time to replace the CO sensor. Contact WEN customer service for assistance.

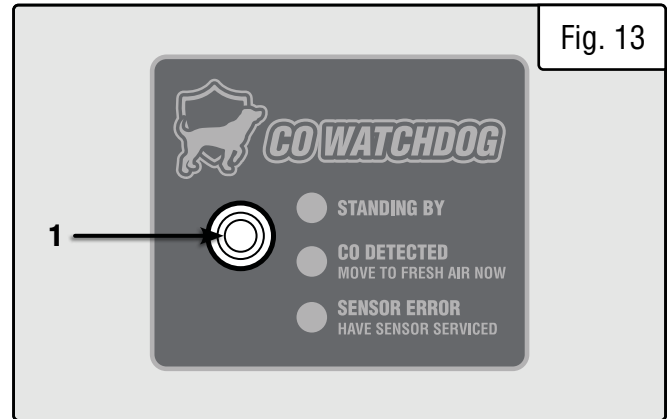


Fig. 13

NOTE: if the generator is oriented so that the engine exhaust is blown towards the CO sensor, the generator may shut down.

USING YOUR GENERATOR

CHANGING FUELS

1. Before changing the fuel source, make sure the generator is turned OFF or running under half-load. Do not change fuel when the generator is over half-load.

2. If switching from LPG / NG to gasoline, turn off the LPG tank valve or close the NG line and disconnect the LPG hose or NG hose from the generator. Then turn the fuel valve to ON.

If switching from gasoline to LPG / NG, turn the fuel valve OFF. Then follow the LPG / NG connecting procedure in sections “FUEL OPTION B: Liquid petroleum gas (LPG)” or “FUEL OPTION C: Natural Gas (NG)”.

3. Check the fuel level of the selected fuel and make sure there is an adequate amount.

4. Turn the fuel selection dial to the desired fuel.

SHUTTING OFF YOUR GENERATOR

TO STOP THE GENERATOR

1. Turn OFF all electrical devices prior to unplugging them from the generator. Unplugging running devices can cause damage to the generator. Never start or stop the generator with electrical devices plugged in or turned on.

2. Let engine run at no-load for several minutes to stabilize internal temperatures of engine and generator.

3a. If using **LPG / NG**, close the LPG valve or NG fuel line.

3b. If using **gasoline**, turn the fuel valve to the OFF (horizontal) position. Let the generator run until the fuel is used up. Continue on to step 4.

4. Turn the engine key to the OFF position.

5. Turn the fuel selection knob to STORAGE.

6. Drain the carburetor (See “Draining the Carburetor”).

7. In case you are in a hurry and do not want to wait for the generator to automatically shut down, turn the engine key to the OFF position and the generator will shut off right away. However, this method will leave stagnant fuel in the carburetor, possibly causing blockages, a shortened lifespan, and other maintenance issues. If this approach is frequently taken, make sure to drain your carburetor before any long storage periods.

IMPORTANT: Always ensure that the fuel valve and the engine switch are in the OFF or STORAGE position when the generator is not in use.

 **WARNING!** Allow the generator to cool down before touching areas that become hot during use.

CAUTION: Allowing gasoline to sit in the fuel tank for long periods of time can make it difficult to start the generator in the future. Never store the generator for extended periods of time (over 2 months) with fuel in the fuel tank. Refer to “Storing the Generator”.

MAINTENANCE

RECOMMENDED MAINTENANCE SCHEDULE

Proper routine maintenance of the generator will help prolong the life of the machine. Please perform maintenance checks and operations according to the maintenance schedule below, Table 4. If there are any questions about the maintenance procedures listed in this manual, please contact customer service at **1-847-429-9263** (M-F 8-5 CST), or email **techsupport@wenproducts.com**.

⚠ WARNING! Never perform maintenance operations while the generator is running. Before maintaining or servicing the generator, turn OFF the generator, disconnect all devices and allow the generator to cool down.

Recommended Maintenance Schedule		Every 8 Hours or Daily	Every 25 Hours	Every 3 Months or 50 Hours	Every 6 Months or 100 Hours	Before Storage	As Necessary
Engine Oil	Check Level	x					
	Replace	x**	x**	x*			x
Air Filter	Check			x*			
	Clean			x*			
Spark Plug	Check/Clean/Regap				x		
	Change				x		x
Fuel	Check Level	x					
	Drain					x	x
Carburetor	Drain	x					x
Spark Arrestor	Check/Clean				x		

* Clean/change more often under dusty conditions or operating under heavy load. Table 4 - Recommended Maintenance Schedule

** Change the oil after the first 8 hours of operation, after the first 25 hours of operation, and every 50 hours after that.

IMPORTANT GENERATOR MAINTENANCE TIPS:

- Drain your carburetor after each use and before storage to prevent it from clogging.
- Do not store the generator with fuel inside the tank for more than 2 months - the fuel will go bad.
- Run the generator for 20 to 30 minutes every month to maximize its lifespan.

NOTE: Failure to properly maintain the generator will void the warranty.

MAINTENANCE

CLEANING THE GENERATOR

Keep the generator clean to prevent improper operation or machine damage from dirt and debris. Inspect all ventilation openings on the generator. These openings must be kept clean and unobstructed.

If the generator becomes dirty, use a damp cloth to wipe exterior surfaces. Use a soft bristle brush to loosen dirt and oil and use a vacuum to pick up loose dirt. Use low pressure air (not to exceed 25 PSI) to blow away dirt.

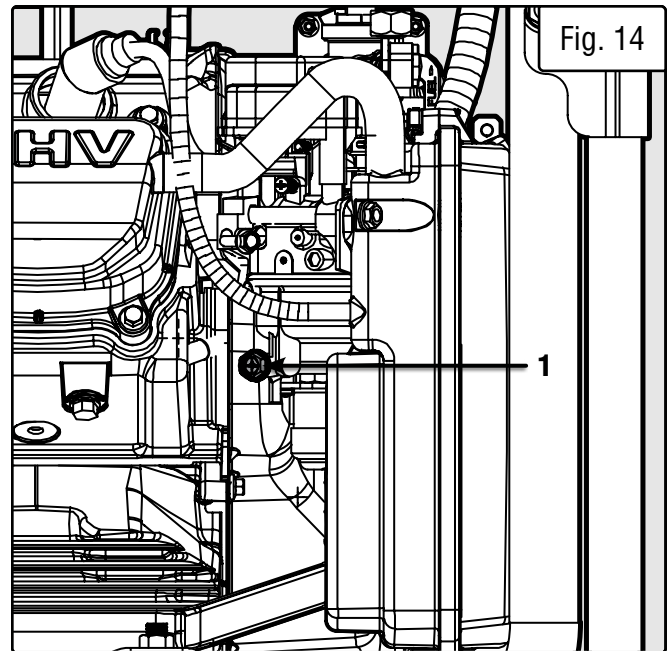
⚠ WARNING! Never clean the generator when it is running! Never clean with a bucket of water or a hose. Water can get inside the working parts of the generator and cause corrosion or a short circuit.

DRAINING THE CARBURETOR

We recommend draining the carburetor after every use and before storing the generator. Draining the carburetor can help prevent build-up and blockages caused by stagnant fuel inside of the carburetor.

1. Prepare an approved gasoline-storage container under the carburetor to collect the drained fuel.
2. The carburetor can be accessed from the backside of the generator between the engine and the air filter. To drain the carburetor, open up the carburetor drain screw (Fig. 14 - 1) with a Phillips-head screwdriver (not included) and drain out any gasoline that has built up inside.
3. Once the fuel has drained, close the drain screw.

NOTE: Make sure to drain your carburetor before storing the generator for long periods of time.



CHECKING/ADDING OIL

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

The oil capacity of the generator engine is 44 fl. oz. Add oil when the oil level is low. For proper type and weight of oil refer to “add oil” portion of the “Generator Preparation” section. This is a critical step for proper engine starting. The generator is equipped with an automatic shutoff to protect it from running on low oil.

To check the oil level and add oil:

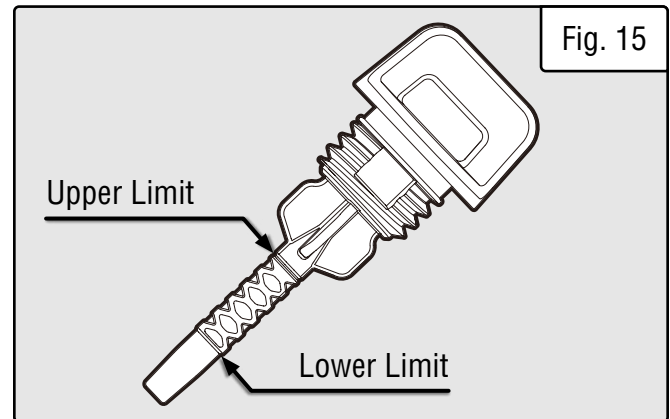
1. Make sure the generator is on a level surface. Do not tilt the generator, as oil will flow into engine areas and cause damage. Keep generator level!

2. Clean around the oil fill. Remove the dipstick and wipe the it with a clean rag.

3. Insert the dipstick into the oil fill opening without screwing in. Remove the dipstick to check the oil mark (Fig. 15). Add oil if the oil mark covers less than one half of the dipstick.

4. Using a funnel or appropriate dispenser, slowly add more oil. Repeat step 3 until the oil mark reaches the top of the dipstick (you can see oil coming up the threads of the oil fill). Do not over fill.

5. Reinstall dipstick and wipe clean any spilled oil with a rag. Reinstall the oil access cover.



DRAINING/CHANGING OIL

Change the oil according to the Recommended Maintenance Schedule.

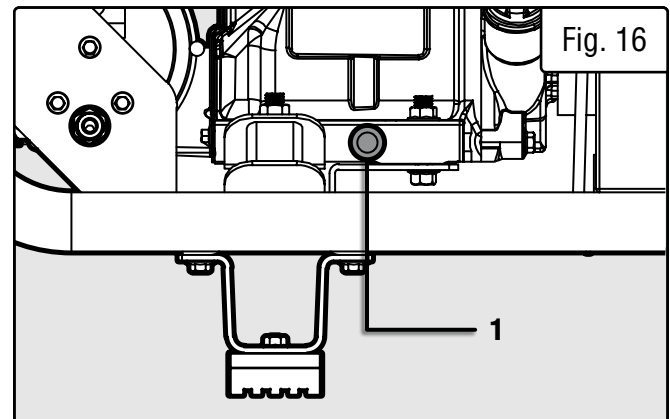
Change the oil more often if operating under heavy load or high ambient temperatures. It is also necessary to drain the oil from the crankcase if it has become contaminated with water or dirt. Changing the oil when the engine is warm allows for complete drainage.

To drain the oil from the generator:

1. Place generator on elevated platform. Prepare an approved gasoline-storage container underneath the oil drain bolt next to the oil dipstick to catch the oil as it drains.

2. Unscrew the oil drain bolt (Fig. 16 - 1) using the included 10mm/13mm wrench and allow oil to drain from the engine completely.

3. Reinstall the oil drain bolt and tighten it securely. Wipe clean any oil spillage.



NOTE: Never dispose of used engine oil in the trash or down a drain. Please call a local recycling center or auto garage to arrange proper oil disposal.

MAINTENANCE

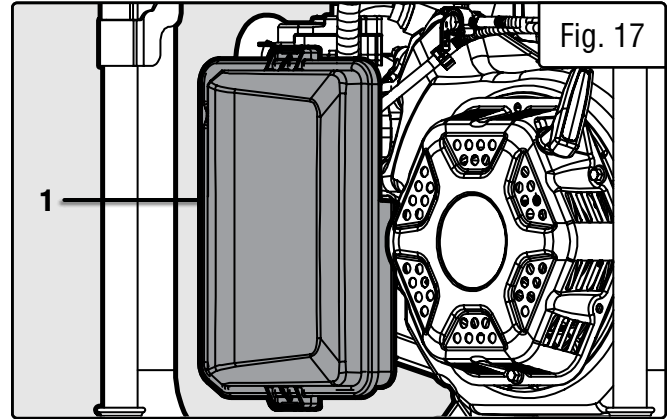
AIR FILTER MAINTENANCE

Check every 50 hours of operation (refer to Recommended Maintenance Schedule).

Routine maintenance of the air filter helps maintain proper airflow to the carburetor. Occasionally check that the air filter is free of excessive dirt. Clean air filter more frequently in dirty or dusty conditions

To inspect and clean the air filter:

1. Remove the air filter cover (Fig 17 - 1) by undoing the clasps at the top and bottom of the air filter cover.
2. Remove the sponge-like air filter elements from the casing. Wipe excessive oil and any dirt from inside of the air filter casing.
3. Check and clean the foam air filter elements. Good elements can be washed in soapy water. Dry the elements in clean cloth (do not twist them). A small amount of oil left in the elements is normal and necessary for the engine to work properly.



If either of the air filter elements have been damaged, replace them with new ones. Replacement air filter elements can be ordered from **wenproducts.com** by searching **part no. TF1450X-1103 and TF1450X-1104**.

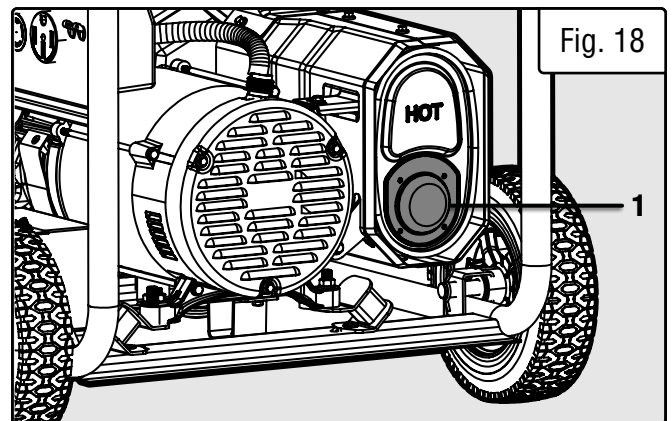
4. Reinstall the air filter elements and air filter cover.

⚠ WARNING! Running the engine with a dirty, damaged or missing air filter element can result in danger to the operator and cause the engine to wear out prematurely.

SPARK ARRESTOR MAINTENANCE

The spark arrestor is located outside the muffler, which gets very hot during operation. Allow the engine to cool completely before servicing the spark arrestor. To inspect and clean the spark arrestor:

1. Remove the four Phillips-head screws holding the spark arrestor to the muffler (Fig. 18 - 1).
2. Remove the spark arrestor.
3. Carefully clean and remove the carbon deposits from the spark arrestor screen with a wire brush. Replace the spark arrestor if it is damaged. Replacement spark arrestors can be purchased from **wenproducts.com** (**part. no. DF1200X-1303.1**).
4. Reinstall the spark arrestor in the muffler and secure it in place with the screws.



SPARK PLUG MAINTENANCE

Refer to Recommended Maintenance Schedule for maintaining the spark plug.

The spark plug is important for proper engine operation. Check the spark plug regularly to maintain proper engine operation. A good spark plug should be intact, free of deposits, and properly gapped.

To inspect or replace the spark plug:

1. Pull on the spark plug boot to remove it (Fig. 19 - 1). Be careful not to tear insulation or wire.

2. Remove the spark plug rubber boot and unscrew the spark plug from the engine using the spark plug wrench provided.

TIP: There is limited space for the wrench to turn. Use both rows of holes in the spark plug wrench to gain leverage to loosen the plug.

3. Visually inspect the spark plug. If it is cracked or chipped, or if the electrodes are worn or burned, discard it and replace with a new spark plug.

We recommend replacing with a LG F7RTJC (NGK BP6ET) spark plug (**part no. TF1450X-0310**), available for purchase at wenproducts.com.

4. If re-using the spark plug, use a wire brush to clean any dirt from around the spark plug base, then re-gap the spark plug.

5. Measure the plug gap with a spark plug gap gauge. The gap should be **0.8mm to 1mm (0.031 in. to 0.039 in.)** (Fig. 20). Carefully adjust the gap if necessary.

6. Screw the spark plug back into the spark plug hole using the spark plug wrench. Do not over-tighten spark plug. Recommended tightening of spark plug is $\frac{1}{2}$ to $\frac{3}{4}$ of a turn (14.5 - 17 ft-lbs, or 20 - 24Nm) after spark plug gasket contacts spark plug hole.

7. Reinstall the spark plug boot over the spark plug.

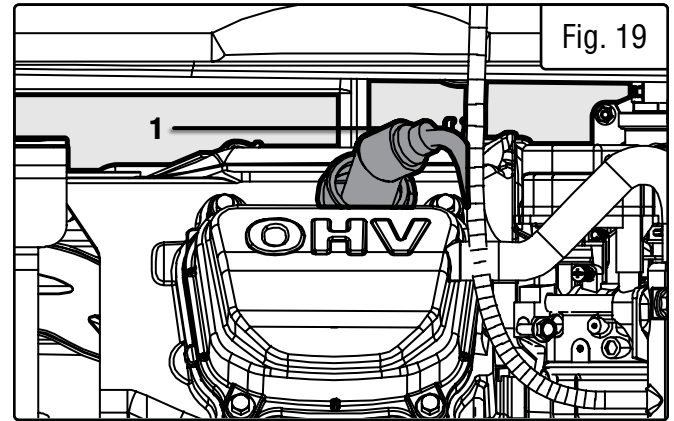


Fig. 19

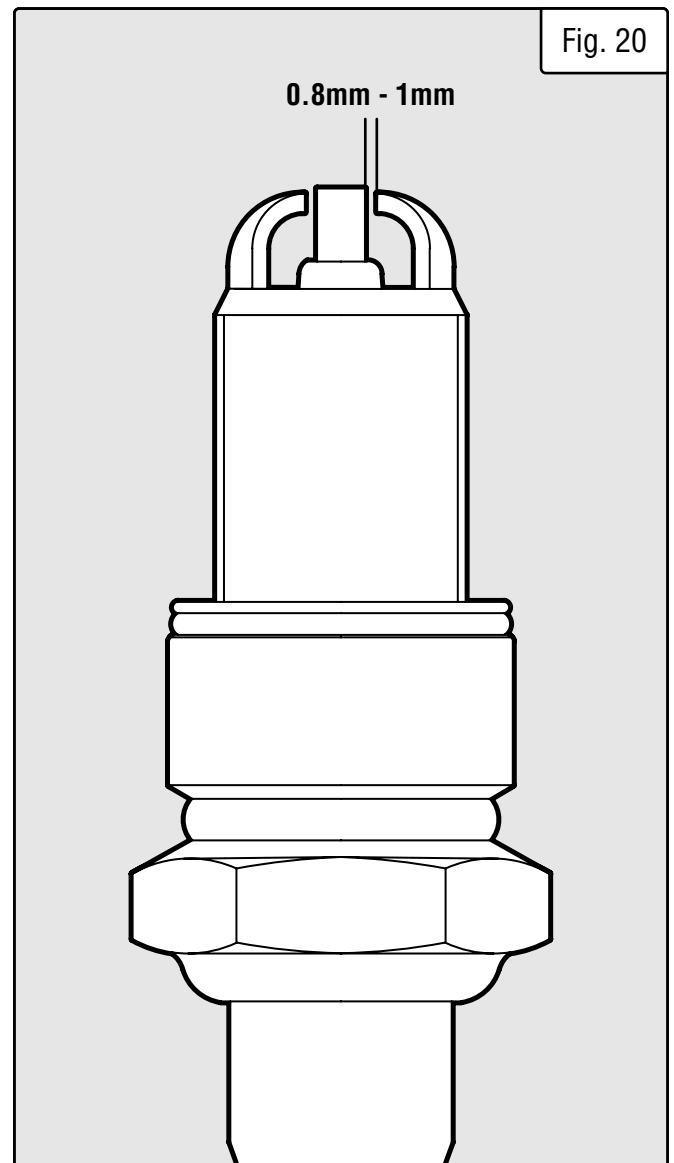


Fig. 20

BATTERY MAINTENANCE/STORAGE

The battery (**part no. DF1200X-1526**) shipped with the generator has been fully charged. The battery will receive charge when the engine is running. Remember to run the generator once a month for 20-30 minutes to charge the battery. A charged battery will allow you to start the generator using the electric start switch during your next time of need.

If the battery is out of charge, you can still manually start the generator using the recoil start with gasoline as your fuel source.

IMPORTANT: If the generator is not used for a long period, it is recommended to disconnect the quick connectors to prevent the battery from losing charge. After disconnecting the cable, cover the free end with the rubber covers, or with an insulator such as electrical tape. You may also connect the battery to an automatic trickle charger to keep the battery charged. A smart trickle / float charger is available for purchase at **wenproducts.com (model no. GNA12C)**.

To reinstall/replace the battery:

1. Disconnect the quick connector ends from each other.
2. Remove the hold down bracket.
3. Remove the quick connectors from the battery terminals.
4. Install the quick connectors on the new battery's terminals. Connect the red (positive, +) wire to the red (positive, +) battery terminal first. Then connect the black (negative, -) wire to the black (negative, -) battery terminal.
5. Connect the ends of the quick connectors.

NOTE: Always recycle used batteries in accordance with local laws and regulations. Contact your local solid waste collection site or recycling facility to obtain information on local recycling processes.

DRAINING THE FUEL TANK

Drain and clean the fuel tank each year, or before storing the generator for longer than two months.

To drain the fuel tank:

1. Prepare an approved gasoline-storage container to collect the drained fuel. Place it near the fuel valve.
2. Turn the fuel valve to the OFF position.
3. Locate the fuel line between the fuel valve and back of control panel. Disconnect the fuel line from the fuel valve. **NOTE:** A small amount of fuel may leak from the fuel line during removal.
4. Place a funnel below the fuel valve opening, and direct the other end of the funnel over the prepared container. Turn the fuel valve to ON to start draining the fuel from the fuel valve opening.
5. Once the fuel is drained, shut OFF the fuel valve.
6. Start and run the engine until the fuel runs out.
7. Drain the carburetor.
8. Store the emptied gasoline in a suitable place. DO NOT store flammable materials near the gasoline. Do not store fuel for more than 3 months.

CAUTION: Store the emptied gasoline in a suitable place. Never store fuel for more than 2 months.

NOTE: You can also drain the fuel tank through the carburetor. Follow the procedures in "Draining the Carburetor", and turn the fuel valve ON. It may take a while for the fuel tank to drain, depending on the amount of fuel in the tank.

TRANSPORTATION & STORAGE

TRANSPORTING THE GENERATOR

To prevent fuel spillage when transporting, be sure to perform the following to your generator:

1. Tighten the fuel cap and make sure the fuel valve is turned OFF.
2. Make sure the engine switch is in the OFF position.
3. Drain the fuel tank if possible (see “Draining the Fuel Tank”).
4. Keep the generator upright. Never place the generator on its side or upside down - doing so could damage the internal components of the generator and make it difficult to start.
5. Remove the LPG/NG quick connector adapter for transport, and reinstall it on the generator afterwards to prevent damage.

 **WARNING!** Avoid direct sunlight inside a vehicle. If the generator is left in an enclosed vehicle for many hours, the high temperature could cause the fuel to vaporize and result in a possible explosion.

STORING THE GENERATOR

Shut off the generator and allow the unit to cool to room temperature before storing it. Never place any type of storage cover on the generator while it is still hot. Do not obstruct any ventilation openings.

Follow the procedures below for properly storing your generator. We highly recommend running your generator once a month for 20 to 30 minutes. Plug in a small load in to ensure there is proper power output.

For Short Periods (30 to 60 Days):

- Drain the carburetor (see page 29).
- Disconnect the battery quick connectors (see p. 33).
- **Add fuel stabilizer:**

Follow the suggested portions and instructions of your preferred stabilizer. Run the engine for 15 to 20 minutes, allowing the fuel stabilizer to mix with the gasoline and circulate through the carburetor, and then top off with fuel. Filling the fuel tank full reduces the amount of air in the tank and helps fight deterioration of fuel.

For Extended Periods (Over 60 Days):

- Disconnect the battery quick connectors (see page 33) .
- Drain the fuel tank and carburetor (see “DRAINING THE FUEL TANK”). NEVER store generator with fuel in the tank for more than two months.
- Change the engine oil (see “CHANGING OIL”).

 **WARNING!** Store the generator upright in a cool and dry location, away from sources of heat, open flames, sparks or pilot lights.

PRODUCT DISPOSAL

Do not dispose of used generator or parts with your household waste. This product contains electrical or electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal to minimize its environmental impact.

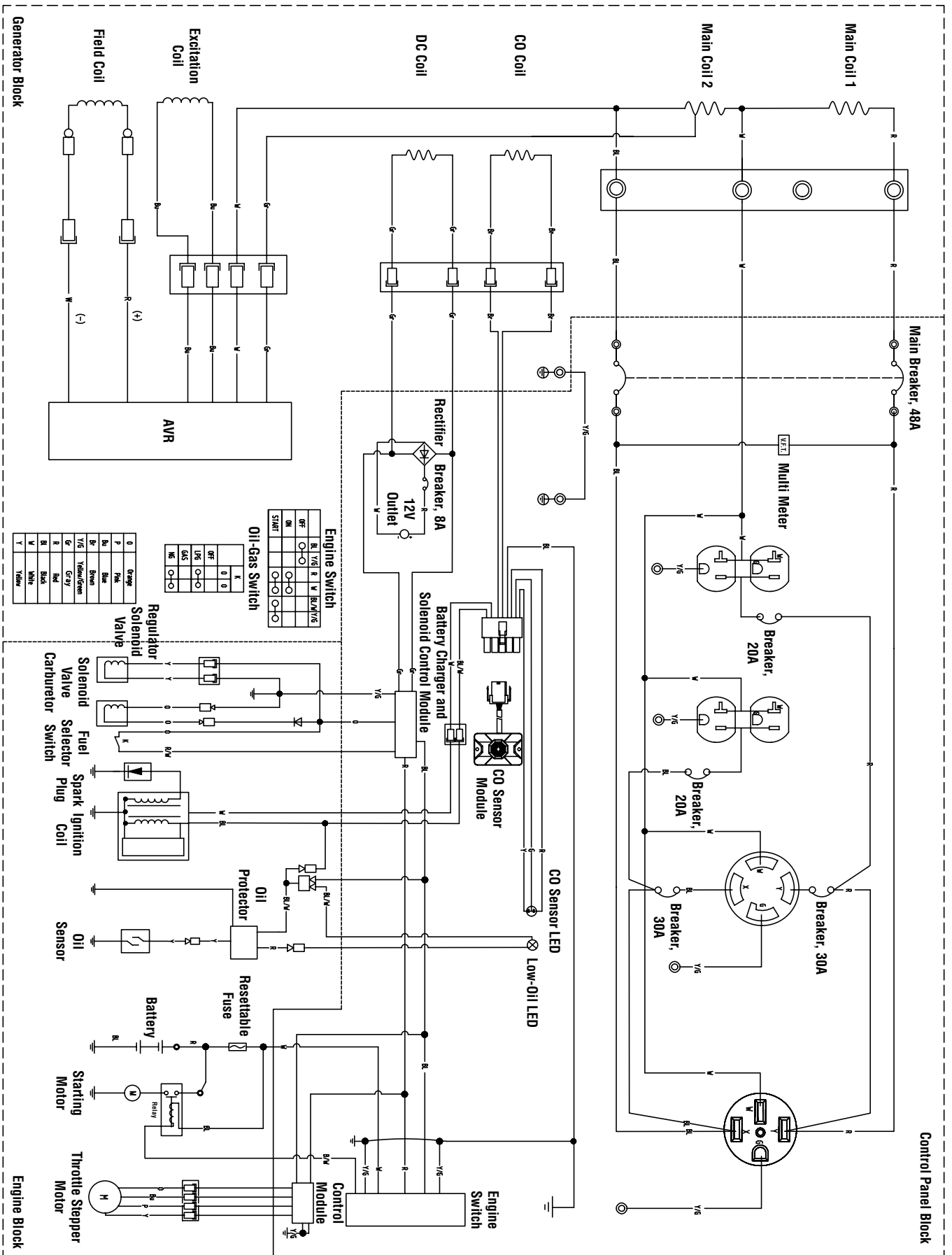
Do not dispose of used oil or fuel in the trash or down a drain. Please contact your local recycling center or auto garage to arrange proper oil/fuel disposal.

TROUBLESHOOTING GUIDE

⚠ WARNING! Stop using the generator immediately if any of the following problems occur or risk serious personal injury. If you have any questions, please contact customer service at **1-847-429-9263** (M-F 8-5 CST), or email **techsupport@wenproducts.com**.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine will not start.	Engine switch is set to OFF.	Set engine switch to ON.
	Fuel valve is turned to OFF.	Turn fuel valve to ON.
	Fuel selector switch is set to wrong fuel.	Turn fuel selector switch to correct fuel.
	Oil is low.	Add or replace oil.
	Engine is out of fuel.	Add fuel.
	Engine is filled with contaminated or old fuel.	Drain fuel in the tank. Fill with fresh fuel.
	Spark plug is dirty or broken.	Clean or replace the spark plug.
	Carburetor is air locked.	Shut off the fuel valve. Remove the bolt from the bottom of the carburetor. Take off the carburetor bowl to allow it to reset. Replace carburetor bowl and reinstall the bolt.
	Propane tank or NG supply line is OFF.	Turn tank or supply line ON.
	Regulator is stuck.	Turn OFF propane tank or NG line. Disconnect hose from onboard regulator. Spray a small amount of penetrating oil into regular inlet, then gently insert a pin into inlet to break valve free.
	CO levels too high.	Refer to "CO Sensor Information" on p. 26.
	CO sensor disconnected, removed, or faulty.	Connect or install the CO sensor. If an error is shown, contact WEN customer service for assistance. Also refer to "CO Sensor Information" on p. 25.
Engine runs but there is no electrical output whatsoever.	Circuit breaker has been tripped due to overload.	Turn off and unplug electrical device(s). Wait 5 minutes, then press the circuit breaker to reset. Check the total wattage of the devices and reduce the load if it exceeds the capacity of the generator. Then plug the loads back in one by one.
	Bad connecting cords/wires.	Check the power cords and extension cords. Do not use if any cord is damaged. Replace damaged cords immediately.
	Bad electrical device connected to the generator.	Try connecting a different device.
	Voltage regulator is bad.	Check voltage regulator with a multimeter, replace if necessary.
	Carbon brushes worn or need adjustment.	Check carbon brushes, adjust so that both brushes extrude the same length, or replace if worn.
Generator runs but does not support all electrical devices connected.	Generator is overloaded.	Turn off and unplug all electrical devices. Wait 5 minutes, then press the circuit breaker to reset. Reduce load as necessary, then plug devices back in one by one.
	Short circuit in one of the devices.	Try disconnecting any faulty or short-circuited electrical loads.
	Air filter is dirty.	Clean or replace the air filter element.
Engine is "hunting" during operation (engine RPM is fluctuating).	- The fuel isn't running through the fuel valve. - The air filter is clogged. - The muffler or spark arrestor is blocked. - There is gunk in the carburetor preventing a consistent fuel/air mixture.	Turn off the generator and wait for it to cool down. Perform the following steps: - Check if the fuel is properly and consistently going through the fuel valve - Check for any blockage in the air filter. Check and clean the air filter as necessary. - Check if the spark arrestor is blocked. Clean with metal brush as necessary. - Use "gunk remover" spray on the carburetor jets.

WIRING DIAGRAM



EXPLODED VIEW & PARTS LIST

NOTE: Replacement parts can be purchased from wenproducts.com, or by calling our customer service at **1-847-429-9263**, M-F 8-5 CST. Parts and accessories that wear down over the course of normal use are not covered by the three-year warranty. Not all parts may be available for purchase.

FIG. 1. CRANKCASE

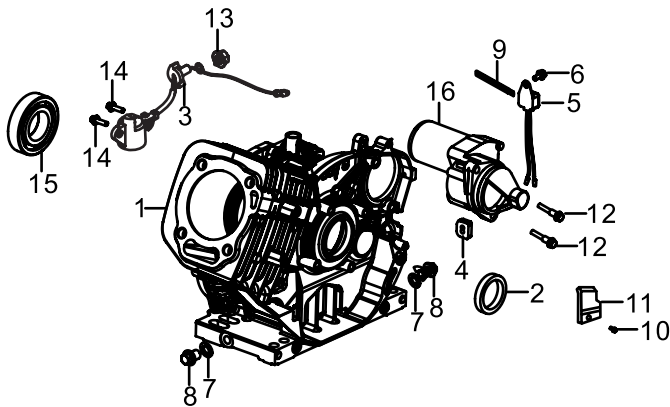
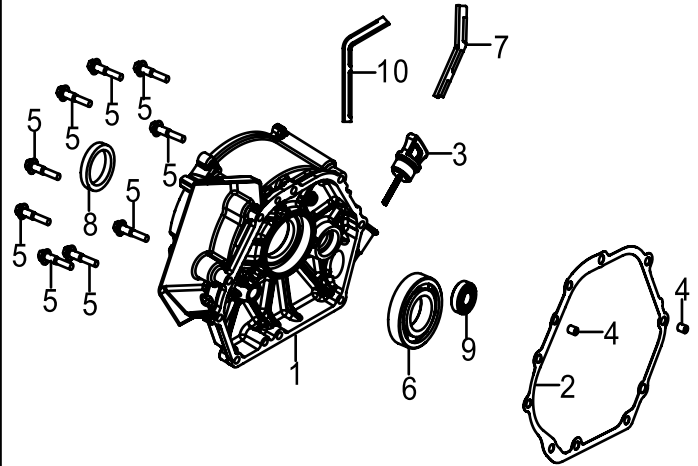


FIG. 2. CYLINDER HEAD COVER

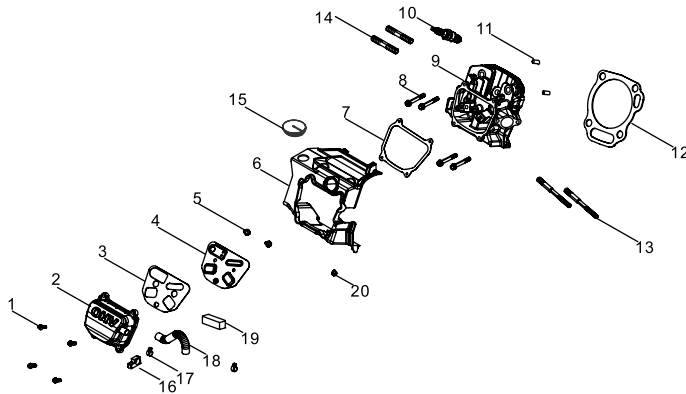


No.	Part No.	Description	Qty.
1	TF1450X-0101	Crankcase	1
2	DF1200X-0102	Oil Seal 1	1
3	TF1450X-0103	Engine Oil Sensor	1
4	TF1450X-0104	Rubber Plug	1
5	DF1200X-0105	Engine Oil Switch	1
6	56380i-0313	Bolt, M6x12	1
7	GN625i-0204	Flat Washer, 12mm	2
8	5613K-0207	Drain Plug Bolt, M12-1.5x18	2
9	TF1450X-0109	Wire Clip	1
10	GN400i-1209	Bolt, M6x25	1
11	DF1200X-0120	Oil Switch Cover	1
12	GN400i-1310	Bolt, M8x35	2
13	56310i-0210	Flanged Hex Nut, M10	1
14	56310i-1201	Bolt, M6x16	2
15	TF1450X-0115	Ball Bearing, P5C3 6202	1
16	TF1450X-0116	Starter Motor Assembly	1

No.	Part No.	Description	Qty.
1	TF1450X-0201	Crankcase Cover	1
2	TF1450X-0202	Crankcase Cover Gasket	1
3	TF1450X-0203	Oil Dipstick Subassembly	1
4	GN875i-0304	Pin	2
5	56310i-1412	Bolt, M8x40	9
6	TF1450X-0206	Ball Bearing, P53 6208	1
7	TF1450X-0207	Seal Strip 1	1
8	DF1200X-0102	Oil Seal 1	1
9	TF1450X-0115	Deep Groove Ball Bearing - P53 6202	1
10	TF1450X-0210	Seal Strip 2	1

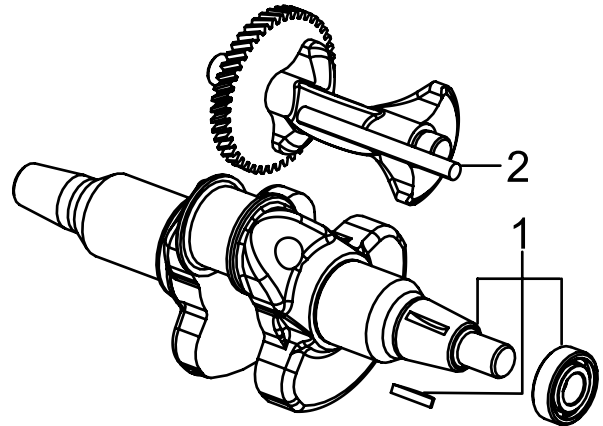
EXPLODED VIEW & PARTS LIST

FIG. 3. CYLINDER HEAD, SPARK PLUG



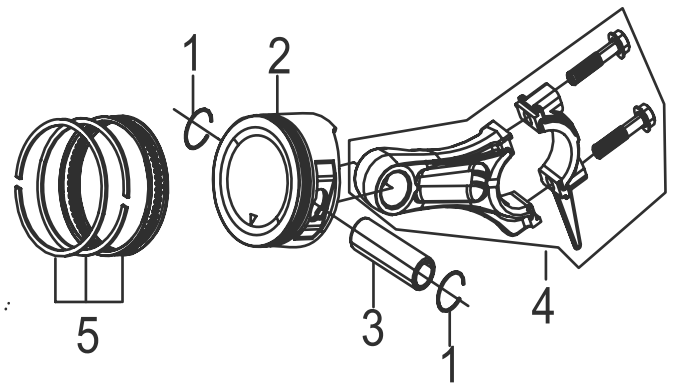
No.	Part No.	Description	Qty.
1	GN625i-0701	Bolt, M6x20	4
2	TF1450X-0302	Cylinder Head Cover Subassembly	1
3	TF1450X-0303	Breather Plate Gasket	1
4	TF1450X-0304	Breather Plate	1
5	56380i-0313	Bolt, M6x12	2
6	TF1450X-0306	Cylinder Shroud	1
7	TF1450X-0307	Cylinder Head Cover Gasket	1
8	TF1450X-0308	Cylinder Head Bolt, M12x90	4
9	TF1450X-0309	Cylinder Head Subassembly	1
10	TF1450X-0310	Spark Plug, LG F7RTJC (NGK BP6ET)	1
11	TF1450X-0311	Pin	2
12	TF1450X-0312	Cylinder Head Gasket	1
13	TF1450X-0313	Stud Bolt, M6/8x114	2
14	TF1450X-0314	Stud Bolt, M8x47	2
15	TF1450X-0315	Plug	1
16	TF1450X-0316	Limit Block	1
17	TF1450X-0317	Clamp	2
18	TF1450X-0318	Breather Tube	1
19	TF1450X-0319	Breather Plate Filter	1
20	56200-0502	Bolt, M6x14	1

FIG. 4. CRANKSHAFT AND BALANCE SHAFT



No.	Part No.	Description	Qty.
1	TF1450X-0401	Crankshaft Assembly	1
2	DF1200X-0404	Balance Shaft Assembly	1

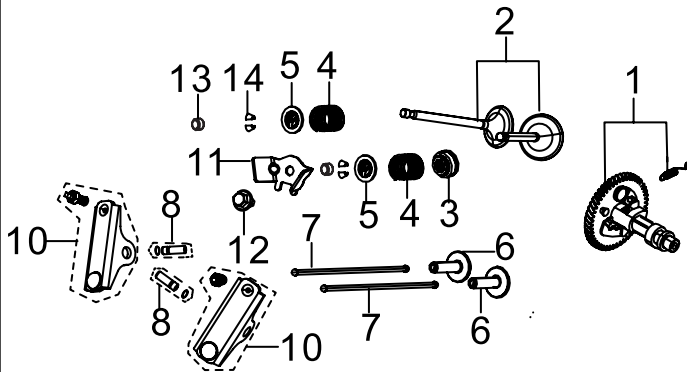
FIG. 5. PISTON, CONNECTING ROD



No.	Part No.	Description	Qty.
1	GN875i-0405	Piston Pin Clip	2
2	TF1450X-0502	Piston	1
3	TF1450X-0503	Piston Pin	1
4	TF1450X-0504	Connecting Rod	1
5	TF1450X-0505	Piston Ring Set	1

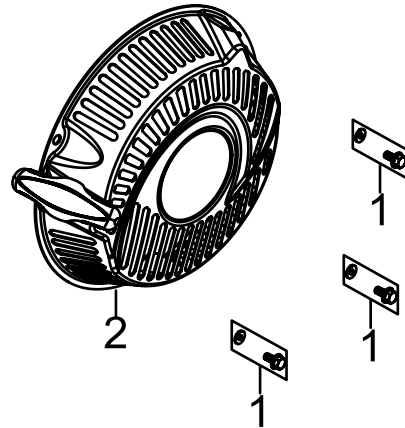
EXPLODED VIEW & PARTS LIST

FIG. 6. VALVE TRAIN, CAMSHAFT



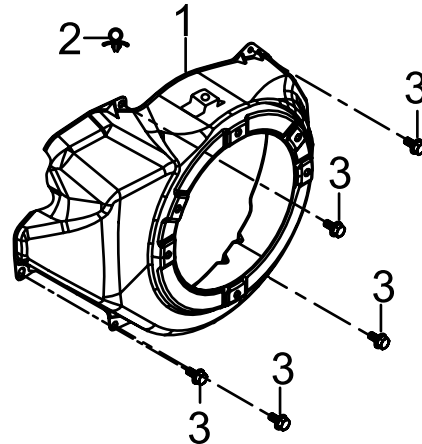
No.	Part No.	Description	Qty.
1	TF1450X-0601	Camshaft Assembly	1
2	TF1450X-0602	Valve Set	1
3	TF1450X-0603	Guide Seal	1
4	TF1450X-0604	Valve Spring	2
5	TF1450X-0605	Valve Spring Seat	2
6	GN875i-0510	Valve Tappet	2
7	TF1450X-0607	Valve Lifter Subassembly	2
8	TF1450X-0608	Valve Rocker Shaft	2
10	TF1450X-0610	Valve Rocker	2
11	56380i-0312	Cylinder Head Cover Pin Limit Plate	1
12	56380i-0313	Bolt, M6x12	1
13	TF1450X-0613	Valve Rotator	2
14	TF1450X-0614	Valve Lock Clamp	4

FIG. 7. RECOIL STARTER



No.	Part No.	Description	Qty.
1	TF1450X-0701	Bolt and Washer, M6x8	3
2	TF1450X-0702	Recoil Starter Assembly	1

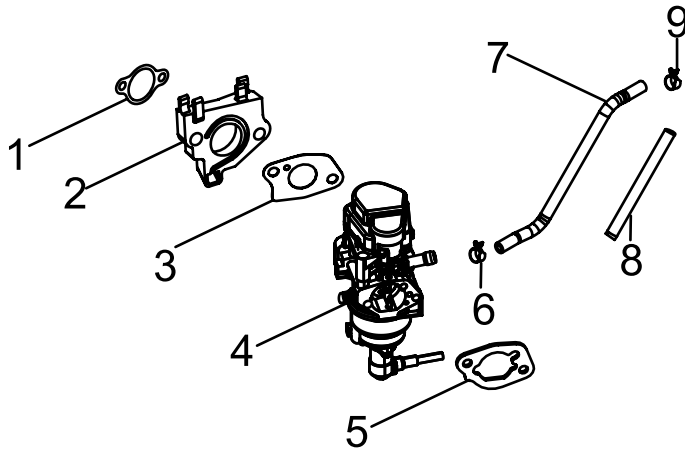
FIG. 8. RECOIL STARTER SHROUD



No.	Part No.	Description	Qty.
1	TF1450X-0801	Shroud	1
2	TF1450X-0802	Wire Clip	1
3	56380i-0313	Bolt, M6x12	5

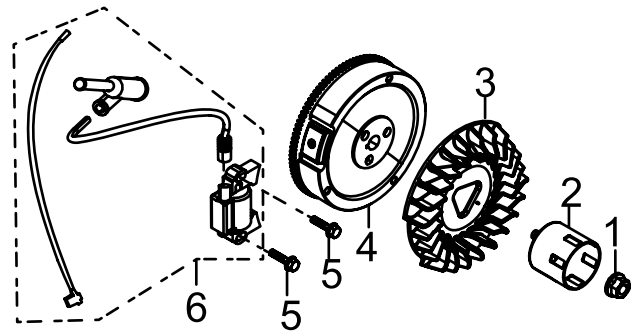
EXPLODED VIEW & PARTS LIST

FIG. 9. CARBURETOR



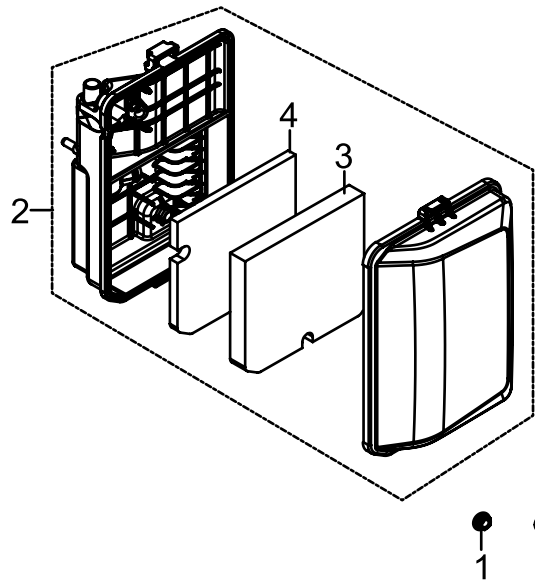
No.	Part No.	Description	Qty.
1	TF1450X-0901	Carburetor Insulator Gasket	1
2	TF1450X-0902	Carburetor Insulator Plate	1
3	GN875i-0805	Carburetor Gasket	1
4	TF1450X-0904	Carburetor Assembly	1
5	TF1450X-0905	Air Filter Gasket	1
6	GN625i-0907	Hose Clamp 1	1
7	TF1450X-0907	Fuel Tube	1
8	TF1450X-0908	Rubber Jacket	1
9	56380i-1435	Hose Clamp 2	1
N.P.	TF1450X-HA36	High-Altitude Kit, 3000 - 6000 ft	1
N.P.	TF1450X-HA68	High-Altitude Kit, 6000 - 8000 ft	1

FIG. 10. FLYWHEEL, IGNITION COIL



No.	Part No.	Description	Qty.
1	TF1450X-1001	Flywheel Nut, M16-1.5	1
2	TF1450X-1002	Starter Pulley	1
3	TF1450X-1003	Impeller	1
4	TF1450X-1004	Flywheel	1
5	56380i-0117	Bolt, M6x28	2
6	TF1450X-1006	Ignition Coil	1

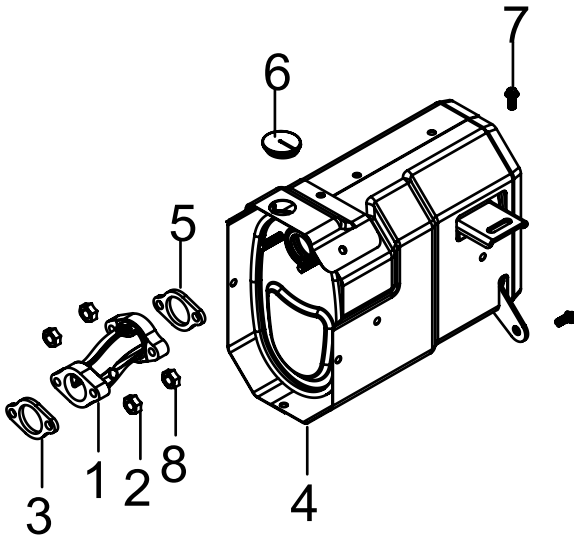
FIG. 11. AIR FILTER



No.	Part No.	Description	Qty.
1	56200-0506	Flanged Hex Nut, M6	2
2	TF1450X-1102	Air Filter Assembly	1
3	TF1450X-1103	Air Filter Element 1	1
4	TF1450X-1104	Air Filter Element 2	1

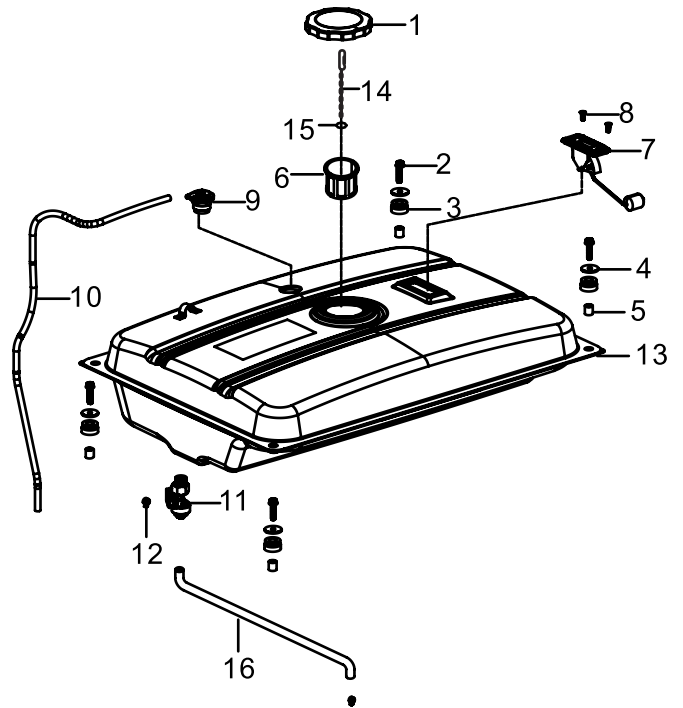
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FIG. 12. MUFFLER



No.	Part No.	Description	Qty.
1	TF1450X-1201	Exhaust Pipe	1
2	56310i-1010	Nut, M8	2
3	TF1450X-1203	Muffler Gasket 1	1
4	TF1450X-1204	Muffler Assembly	1
5	DF1200X-1306	Exhaust Pipe Gasket	1
6	TF1450X-0315	Plug	1
7	GN400i-1104	Bolt, M8x16	2
8	TF1450X-1208	Nut, M8	2
N.P.	DF1200X-1303.1	Spark Arrestor	1

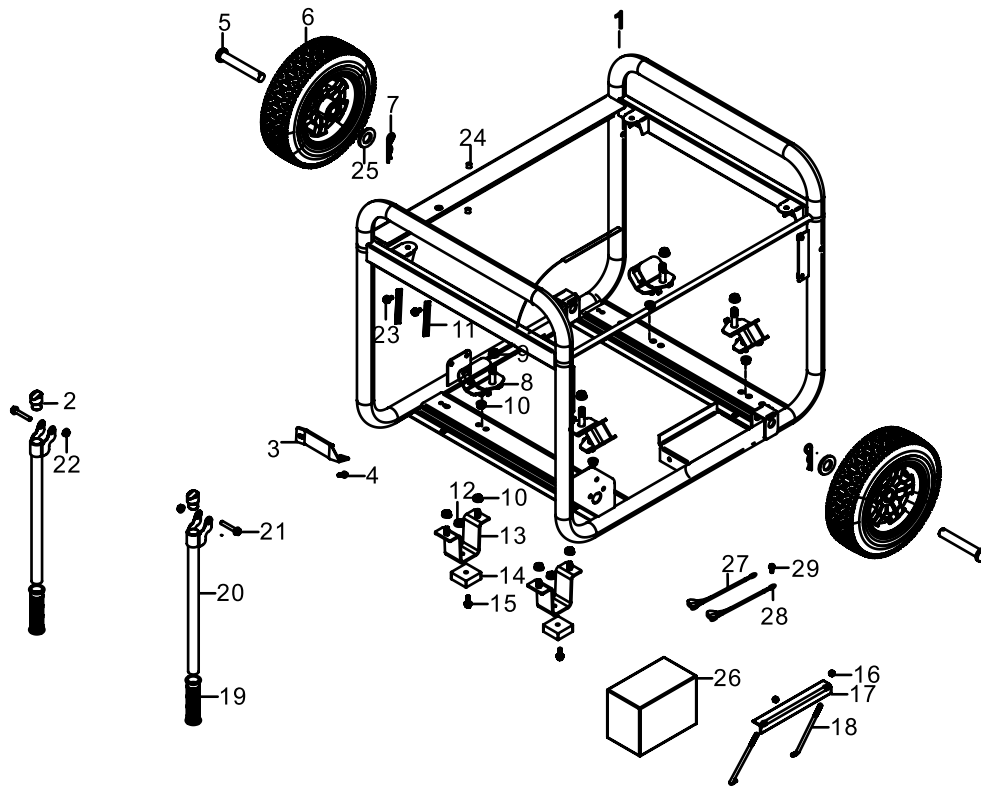
FIG. 13. FUEL TANK ASSEMBLY



No.	Part No.	Description	Qty.
1	TF1450X-1301	Fuel Tank Cap	1
2	TF1450X-1302	Bolt, M6x25	4
3	56380i-1207	Bushing	4
4	GN400i-1210	Flat Washer, 6mm	4
5	TF1450X-1305	Bushing	4
6	GN400i-1203	Fuel Strainer	1
7	DF1200X-1407	Fuel Gauge Assembly	1
8	TF1450X-1308	Screw, M5x12	2
9	GN400i-1205	Breather Valve	1
10	TF1450X-1310	Breather Hose	1
11	TF1450X-1311	Fuel Valve Assembly	1
12	56200-0103	Hose Clamp 1	2
13	TF1450X-1313	Fuel Tank	1
14	GN400i-1214	Chain	1
15	GN400iX-1219	Clip	1
16	TF1450X-1316	Fuel Tube	1

EXPLODED VIEW & PARTS LIST

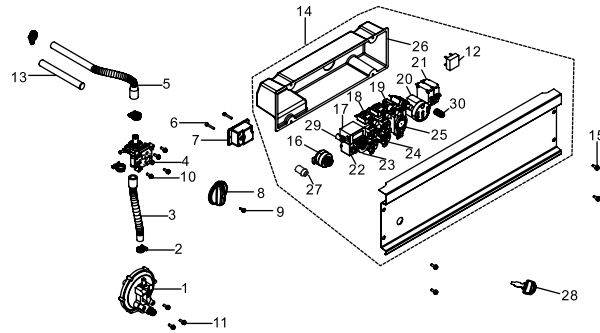
FIG. 14. FRAME



No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	TF1450X-1401	Frame Assembly	1	20	DF1200X-1520	Handle	2
2	DF1200X-1530	Handle Bumper	2	21	DF1200X-1521	Bolt, M8x50	2
3	TF1450X-1403	Air Filter Bracket	1	22	DF1200X-1522	Nut, M8	2
4	TF1450X-1404	Bolt, M6x12	1	23	56200-1202	Bolt, M6x12	2
5	DF1200X-1505	Wheel Axle	2	24	GN400i-1316	Sleeve	1
6	DF1200X-1506	Wheel	2	25	DF1200X-1525	Flat Washer, 17mm	2
7	DF1200X-1507	Cotter Pin	2	26	DF1200X-1526	Battery, 12V, 14Ah	1
8	TF1450X-1408	Engine Frame Damper	4	27	TF1450X-1427	Starter Motor Quick-Connector Wiring Harness	1
9	TF1450X-1409	Nut, M10-1.25	4	28	TF1450X-1428	Battery Quick-Connector Wiring Harness	1
10	GN625i-1432	Nut, M8	8	N.P	TF1450X-1429	Primary LPG Regulator and Hose	1
11	TF1450X-1411	Wire Clip	2	N.P	TF1450X-1430	LPG / NG Quick-Connector Adapter, 3/4" to Q3	1
12	GN400i-1303	Nut, M6	2	N.P	TF1450X-1431	NG Hose, 25 ft x 1/2 inch ID with Quick-Connector	1
13	DF1200X-1513	Foot Bracket	2				
14	DF1200X-1514	Foot Pad	2				
15	TF1450X-1415	Bolt, M6x25	2				
16	GN400i-1303	Nut, M6	2				
17	DF1200X-1517	Battery Clamp	1				
18	DF1200X-1518	Battery Bolt	2				
19	DF1200X-1519	Handle Sleeve	2				

EXPLODED VIEW & PARTS LIST

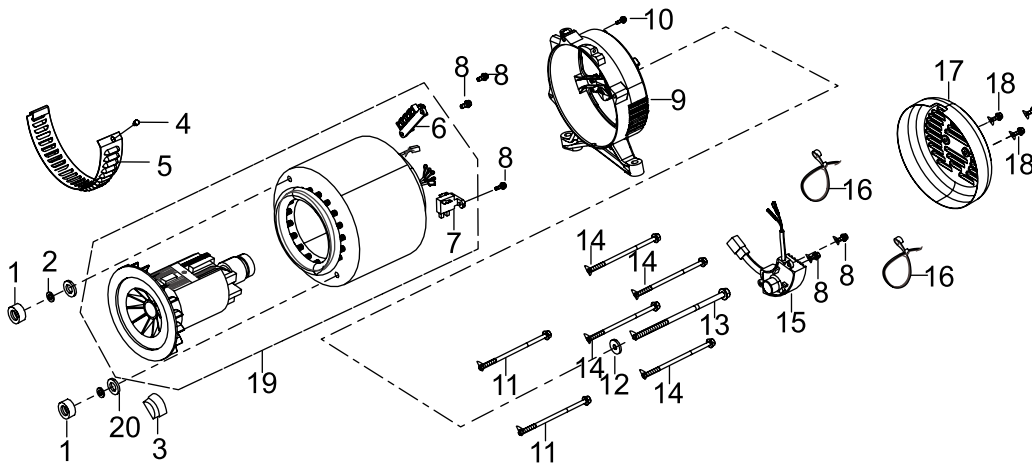
FIG. 15. CONTROL PANEL



No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	TF1450X-1501	Secondary LPG/NG Regulator	1	18	GN400i-1415	Breaker, 20A	2
2	TF1450X-1502	Hose Clamp	4	19	DF1200X-1604	Breaker, 30A	2
3	TF1450X-1503	Hose	1	20	TF1450X-1520	NEMA 14-50R Outlet	1
4	TF1450X-1504	Secondary LPG/NG Regulator Bracket	1	21	TF1450X-1521B	48A AC Breaker	1
5	TF1450X-1505	Breather Tube	1	22	TF1450X-1522	DC Breaker, 8A	1
6	56400iX-1329	Screw, M4x25	2	23	56380i-1425	12V DC Automotive Outlet Subassembly	1
7	TF1450X-1507	CO Sensor Module	1	24	56380i-1421	NEMA 5-20R Duplex Outlet Subassembly	2
8	TF1450X-1508	Knob	1	25	GN625i-1524	NEMA L14-30R Outlet Subassembly	1
9	TF1450X-1509	Screw, M4x14	1	26	TF1450X-1526	Rear Panel Cover	1
10	TF1450X-1510	Screw, M4x16	4	27	TF1450X-1527	Oil Sensor LED	1
11	56200-1202	Bolt, M6x12	3	28	DF475-029.1A	Engine Key	1
12	56380i-1432	Rectifier Bridge	1	29	56400iX-1436	CO Indicator Light	1
13	TF1450X-1513	Rubber Jacket	1	30	TF1450X-1530	Grounding Terminal	1
14	TF1450X-1514B	Control Panel Subassembly	1	N.P.	TF1450X-1531	Battery Charger and Solenoid Control Module	1
15	56200-1202	Bolt, M6x12	4	N.P.	TF1450X-1532	Stepper Motor Control Module	1
16	TF1450X-1516	Engine Switch	1				
17	DF1200X-1606	Multi-meter	1				

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FIG. 16. ALTERNATOR



No.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	DF1200X-1701	Nut, M5	2	11	DF1200X-1711	Stator Bolt, M5x235	2
2	DF1200X-1702	Spring Washer, 5mm	2	12	DF1200X-1712	Flat Washer, 10mm	1
3	TF1450X-1603	Cover Stopper	1	13	DF1200X-1713	Rotor Bolt, M10-1.25x285	1
4	GN875i-0904	Bolt, M5x10	1	14	DF1200X-1714	Stator Bolt, M6x199	4
5	TF1450X-1605	Shroud	1	15	TF1450X-1615	Voltage Regulator	1
6	TF1450X-1606	Terminal Block	1	16	TF1450X-1616	Wire Loop	2
7	DF1200X-1707	Carbon Brush Subassembly	1	17	TF1450X-1617	Alternator Cover	1
8	56310i-1106	Bolt, M5x16	5	18	TF1450X-1618	Bolt, M5x12	3
9	TF1450X-1609	Alternator Bracket	1	19	TF1450X-1619	Alternator Subassembly	1
10	DF1200X-1710	Bolt, M5x12	1	20	56400iX-1332	Flat Washer, 5mm	2

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GREAT LAKES TECHNOLOGIES, LLC ("Seller") warrants to the original purchaser only, that this WEN consumer product will be free from defects in material or workmanship during personal use for a period of three (3) years from date of purchase or 500 hours of use; whichever comes first. Ninety days for all WEN products if the tool is used for professional or commercial use. Purchaser has 30 days from the date of purchase to report missing or damaged parts. Parts and labor are covered for one (1) year under this limited warranty; parts only are covered for three (3) years under this limited warranty.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the replacement of parts, without charge, which are defective in material or workmanship and which have not been subjected to misuse, alteration, careless handling, misrepair, abuse, neglect, normal wear and tear, improper maintenance, improper storage, incorrect lubricants / fuels, or other conditions adversely affecting the Product or the component of the Product, whether by accident or intentionally, by persons other than Seller. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of Purchase must be a direct vendor of Great Lakes Technologies, LLC. Purchasing through third party vendors, including but not limited to garage sales, pawn shops, resale shops, or any other secondhand merchant, voids the warranty included with this product. Contact techsupport@wenproducts.com or 1-847-429-9263 with the following information to make arrangements: your shipping address, phone number, serial number, required part numbers, and proof of purchase. Damaged or defective parts and products may need to be sent to WEN before the replacements can be shipped out.

Upon the confirmation of a WEN representative, your product may qualify for repairs and service work. When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge for addresses within the contiguous United States.

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