PORTABLE GENERATORS

FOR MODELS:
- WGen2000
- WGen3600
- WGen5500
- WGen6500st
- WGen7500
- WGen8300st
DISCLAIMERS:
All information, illustrations and specifications in this manual are based on the latest information available at the time of publishing. The illustrations used in this manual are intended as representative reference views only. Moreover, because of our continuous product improvement policy, we may modify information, illustrations and/or specifications to explain and/or exemplify a product, service or maintenance improvement. We reserve the right to make any change at any time without notice. Some images may vary depending upon which model is shown.

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DANGER
This manual contains important instructions for operating this generator. For your safety and the safety of others, be sure to read this manual thoroughly before operating the generator. Failure to properly follow all instructions and precautions can cause you and others to be seriously hurt or killed.

WGen TECHNICAL SPECIFICATIONS

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<th>Model Number</th>
<th>Running Watts</th>
<th>Peak Watts</th>
<th>Fuel Tank Size (L/G)</th>
<th>Rated Speed (RPM)</th>
<th>Ignition Type</th>
<th>Spark plug</th>
<th>Engine Disp (cc)</th>
<th>Stroke X Bore</th>
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<td>TCI</td>
<td>F7TC</td>
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<td>F7TC</td>
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<td>66X90</td>
<td>1.10</td>
<td>10W30</td>
<td>&lt;23%</td>
</tr>
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NOTICE
Even with a carburetor modification, engine horsepower will decrease about 3.5% for each 300 meter (1,000 foot) increase in altitude. The effect of altitude on horsepower will be greater if no carburetor modification is made. A decrease in engine horsepower will decrease the power output of the generator.

HAVE QUESTIONS?  
Email us at service@wpowereq.com  
or call 1-855-944-3571
FOR YOUR RECORDS:

Date of Purchase: ________________________________

Generator Model Number: __________________________

Purchased from Store/Dealer: _______________________

Generator Serial Number: __________________________

IMPORTANT: KEEP YOUR PURCHASE RECEIPT TO ENSURE TROUBLE-FREE WARRANTY COVERAGE.

PRODUCT REGISTRATION

To ensure trouble-free warranty coverage, it is important you register your Westinghouse generator. You can register your generator by either:

1. Filling in the product registration form below and mailing to:
   
   **Product Registration**
   
   MWE Investments LLC
   
   777 Manor Park Drive
   
   Columbus, Ohio 43228

2. Registering your product Online at www.westinghouseportablepower.com/register-your-product/

To register your generator you will need to locate the following information:

WESTINGHOUSE PRODUCT REGISTRATION FORM

PERSONAL INFORMATION  GENERATOR INFORMATION

First Name: ___________________________ Model Number: ___________________________

Last Name: ___________________________ Serial Number: _____________________________

Street Address: ______________________ Date Purchased: ____________________________

Street Address: ______________________ Purchased From: ____________________________

City, State, ZIP: ______________________

Country: _____________________________

Phone Number: _______________________

E-Mail: ______________________________

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SAFETY DEFINITIONS
The words DANGER, WARNING, CAUTION and NOTICE are used throughout this manual to highlight important information. Be certain that the meanings of these alerts are known to all who work on or near the equipment.

This safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Please read and abide by the message that follows the safety alerts symbol.

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

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

**CAUTION**
Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**NOTICE**
Indicates a situation which can cause damage to the generator, personal property and/or the environment, or cause the equipment to operate improperly.

**NOTE:** Indicates a procedure, practice or condition that should be followed in order for the generator to function in the manner intended.
# GENERAL SAFETY RULES

## DANGER

Never use the generator in a location that is wet or damp. Never expose the generator to rain, snow, water spray or standing water while in use. Protect the generator from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical circuit.

Never operate the generator in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the generator outside and away from windows, doors and vents.

## WARNING

Voltage produced by the generator could result in death or serious injury.
- Never operate the generator in rain or a flood plain unless proper precautions are taken to avoid being subject to rain or a flood.
- Never use worn or damaged extension cords.
- Always have a licensed electrician connect the generator to the utility circuit.
- Never touch an operating generator if the generator is wet or if you have wet hands.
- Never operate the generator in highly conductive areas such as around metal decking or steel works.
- Always use grounded extension cords. Always use three-wire or double-insulated power tools.
- Never touch live terminals or bare wires while the generator is operating.
- Be sure the generator is properly grounded before operating.

Gasoline and gasoline vapors are extremely flammable and explosive under certain conditions.
- Always refuel the generator outdoors, in a well-ventilated area.
- Never remove the fuel cap with the engine running.
- Never refuel the generator while the engine is running. Always turn engine off and allow the generator to cool before refueling.
- Only fill fuel tank with gasoline.
- Keep sparks, open flames or other form of ignition (such as match, cigarette, static electric source) away when refueling.
- Never overfill the fuel tank. Leave room for fuel to expand. Overfilling the fuel tank can result in a sudden overflow of gasoline and result in spilled gasoline coming in contact with HOT surfaces. Spilled fuel can ignite. If fuel is spilled on the generator, wipe up any spills immediately. Dispose of rag properly. Allow area of spilled fuel to dry before operating the generator.
- Wear eye protection while refueling.
- Never use gasoline as a cleaning agent.
- Store any containers containing gasoline in a well-ventilated area, away from any combustibles or source of ignition.
- Check for fuel leaks after refueling. Never operate the engine if a fuel leak is discovered.

Never operate the generator if powered items overheat, electrical output drops, there is sparking, flames or smoke coming from the generator, or if the receptacles are damaged.

Never use the generator to power medical support equipment.

Always remove any tools or other service equipment used during maintenance from the generator before operating.

## NOTICE

Never modify the generator.

Never operate the generator if it vibrates at high levels, if engine speed changes greatly or if the engine misfires often.

Always disconnect tools or appliances from the generator before starting.
SAFETY

SAFETY LABELS AND DECALS

1. MAINTAIN AIR CLEANER
   - Washes with cleaning solvent and dry once every 50 hours (every 10 hours if operating in dusty conditions) and then immerse in clean engine oil until saturated. Squeeze out excess oil.

2. CHoke
   - CHoke • ON • OFF
   - Indicates the position of the choke lever. Always engage the choke when starting the generator. Never add fuel to generator when the engine is hot or running. Never allow fuel to come in contact with hot engine parts or in the presence of sparks or flames. Never connect a battery's electrical system unless a transfer switch has been installed by a qualified electrician.

3. X
   - Indicates the position of the kill switch. Always remove the key from the kill switch when the engine is not in use to prevent unauthorized use.

4. FUEL
   - ON • OFF
   - Indicates the position of the fuel valve. Always turn the fuel valve to the OFF position when the generator is not in use.

5. DANGER
   - Read the owner’s manual and follow all safety procedures prior to operating the generator.

6. PELIGRO
   - Use the manual del propietario y siga todas las procedimientos de seguridad antes de hacer funcionar el generador.

7. FOR TECHNICAL ASSISTANCE or SERVICE CALL TOLL FREE
   - Para la ayuda técnica y servicio llamada
   - 1-855-944-3571

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SAFETY LABELS AND DECALS

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WARNING/AVERTISSEMENT

TOXIC FUMES HAZARD. Running engines gives off carbon monoxide, an odorless poisonous gas that can cause nausea, fainting, or death. Do not start engine indoors or in an enclosed area, even if the windows and doors are open.

DANGER TOXIQUE. Faire fonctionner un moteur dégage de l’oxyde de carbone, un gaz inodore toxique qui peut provoquer la nausée, évanouissement ou la mort. Ne démarrer pas le moteur à l’intérieur ou dans une espace clos, même si les fenêtres et les portes sont ouvertes.

WGen5500
WGen3600
WGen2000

WGen7500
WGen6500st
WGen8300st

EZ Start instructions
Tools required – box cutter or similar device.
1. Carefully cut the packing tape on top of the carton.
2. Fold back top flaps to reveal the manual.
3. Remove the Wheel Kit Accessories cardboard box.
4. Carefully cut two sides of the carton to remove the generator.

WHEEL KIT ACCESSORIES BOX
Open the Wheel Kit Accessories box and verify the contents against the list below. If any parts are missing, please locate an authorized Westinghouse Generator dealer at service@wpowereq.com or call 1-855-944-3571.

WGen2000 Components:
Tool Bag (1)
Spark Plug Socket Wrench (1)
0.6 Liter Bottle of SAE 10W30 Oil (1)
Oil Funnel (1)

WGen3600 Components:
Wheels (2)
Tool Bag (1)
Spark Plug Socket Wrench (1)
0.6 Liter Bottle of SAE 10W30 Oil (1)
Mounting Foot (2)
Oil Funnel (1)

WGen5500, WGen7500, WGen6500st & WGen8300st Components:
Wheels (2)
Tool Bag (1)
Spark Plug Socket Wrench (1)
1.1 Liter Bottle of SAE 10W30 Oil (1)
Mounting Foot (2)
Oil Funnel (1)
INSTALLING WHEELS AND FEET
(NOT APPLICABLE TO WGEN2000)

BEFORE ASSEMBLING THE GENERATOR, REVIEW THE SAFETY SECTION STARTING ON PAGE 5.

**CAUTION**

Never lift the generator without assistance. The generator is heavy and lifting without assistance could result in personal injury.

Never use the handles as a lifting point to support the entire weight of the generator. Only use the handles to move the generator by lifting the handles and using the wheels to move the generator.

Use caution when collapsing the handles. Hands and fingers could get caught and pinched.

**NOTICE**

Assembling the generator will require lifting the unit on one side. Make sure all engine oil and fuel are drained from the unit prior to assembling. Once assembled, the wheel kit is not intended for on-road use. The wheel kit is designed for use on this generator only.

Tools Required - tool bag (included)

**INSTALLING FEET TO FRAME**

1. Place generator on a flat surface.

2. Place a piece of cardboard or other soft material to tip the generator onto, to protect the frame paint and prevent the generator from sliding. Tip the generator onto its side as shown in Figure 2 (engine should be on the bottom).

**INSTALLING WHEELS TO FRAME**

1. Insert axle pin through washer and wheel.

2. Install the wheel with axle pin through the axle bracket on the frame. The eye of the bolt should be facing toward the inside of the generator.

3. Install the mounting foot to the frame using M8 flange bolts and nuts.

4. Repeat previous steps on other wheel.

---

Figure 2

Figure 3 - Assemble Mounting Feet to Frame

Figure 4 - Assemble Wheel to Frame
**INSTALLING THE BATTERY (ELECTRIC START GENERATORS ONLY)**

**WARNING**

To avoid electrics hock:
- ALWAYS connect the positive (+) battery cable (red boot) first when connecting battery cables.
- ALWAYS disconnect the negative (-) battery cable (black boot) first when disconnecting battery cables.
- NEVER connect the negative (-) battery cable (black boot) to the positive (+) post on the battery.
- NEVER connect the positive (+) battery cable (red boot) to the negative (-) post on the battery.
- NEVER touch both battery posts simultaneously.
- NEVER place a metal tool across both battery posts.
- ALWAYS use insulated or nonconducting tools when installing the battery.

**NOTE: THE GENERATOR COMES EQUIPPED WITH THE POSITIVE BATTERY CABLE (RED BOOT) ALREADY ATTACHED.**

1. Verify the positive (+) battery cable (red boot) is securely tightened to the positive (+) battery post. Make sure boot is over battery post.

2. Carefully remove the protective wrapping around the lug of the negative (-) battery cable (black boot).

3. Locate negative (-) cable attached to alternator cable, remove tie and route to the negative (-) battery post. See figure 5 below for location of negative (-) cable.

4. Pull back the black boot and securely attach the negative (-) battery cable (black boot) to the negative (-) battery post as shown in Figure 15. Replace the black boot so it protects the cable lug and battery post.

**NOTE: The electric start generator is equipped with a battery charging feature. Once the engine is running, a small charge is supplied to the battery via the battery cables and will slowly recharge the battery.**
1. **Engine Control Switch**: Allows fuel to flow to engine and energizes the ignition system.

2. **Push Button Electric Start**: Starts and stops the engine. Only on electric start models.

3. **Fuel Cap**: Close until clicking sound is heard.

4. **Battery Disconnect**: Stops engine and disconnects battery for storage. Only on electric start models.

5. **Control Panel**: Contains the circuit breakers and outlets

6. **Battery**: For electric start models only

7. **Oil Fill Plug/Dipstick**: Must be removed to add and check oil.

8. **Oil Drain Plug**: Must be removed to drain engine oil

9. **Never Flat Wheels**: Not available with WGen2000

10. **Air Cleaner Cover**: Must remove to service the air cleaner.

11. **Fuel Shut off Valve**: Controls the flow of fuel to the engine.

12. **Choke Lever**: Must be put in the ON position to start the engine and returned to the OFF position once the engine is running. (Not included on WGen7500)
1. **Fuel Gauge**: Indicates fuel level.

2. **Spark Plug Boot (Wire)**: Must be removed when servicing the engine or the spark plug.

3. **CARB Canister**: Required for models sold into and used in California.

4. **Muffler and Spark Arrester**: Avoid contact until engine is cooled down. Spark arrestor prevents sparks from exiting the muffler. It must be removed for servicing.
Engine Control Switch (RUN/STOP for Manual Start Units):
- **RUN** - In the RUN position, the switch allows the generator to be started (for manual start models).
- **STOP** - In the STOP position, the switch stops the engine.

Main Circuit Breaker: The main circuit breaker controls total output of all outlets to protect the generator.

120-Volt 30 Amp TT-30 Outlet: Travel Trailer outlet can supply a maximum of 30 amps and 120 volts.

120-Volt, 30 - Amp Twistlock Outlet (L5-30R): Outlet can supply 120V output.

120-Volt, 20-Amp Duplex Outlets (NEMA 5-20R): Each outlet is capable of carrying a maximum of 20 amps on a single receptacle or a combination of both receptacles.

20-Amp Circuit Breakers: This circuit breaker limits the current that can be delivered through the 120-volt duplex outlets to 20amps.

Ground Terminal: The ground terminal is used to ground the generator.
**CONTROL PANEL FEATURES**

1. **One Push Start Button (for One Push Start Units):**
   - Push once to automatically start the engine. Green light shows when unit is on.
   - Push again to stop the engine.

2. **Battery Disconnect:** Push anytime to stop the engine. When pressed it prevents the unit from drawing power from the battery. Twist to unlock.

3. **Hour Meter:** Displays how many hours the generator has been run when under load.

4. **Main Circuit Breaker:** The main circuit breaker controls total output of all outlets to protect the generator.

5. **120/240-Volt, 30-Amp Twist Lock Outlet (NEMA L14-30R):** Outlet can supply either 120V or 240V output.

6. **120-Volt, 20-Amp Duplex GFCI Outlets (NEMA 5-20R):** Each outlet is capable of carrying a maximum of 20 amps on a single receptacle or a combination of both receptacles.

7. **20-Amp Circuit Breakers:** Each circuit breaker limits the current that can be delivered through the 120-volt duplex outlets to 20amps.

8. **Battery Charge Port:** Used in conjunction with the ATS when the generator is in standby mode to charge the battery (battery charger not included).

9. **Battery Indicator Light:** When light is illuminated, the battery is connected and providing power to the electronics.

10. **ATS Outlet:** Connects the Automatic Switch to the control panel (ATS not included).

11. **Ground Terminal:** The ground terminal is used to ground the generator.
Weather – Never operate your generator outdoors during rain, snow or any combination of weather conditions that could lead to moisture collecting on, in or around the generator.

Dry Surface – Always operate the generator on a dry surface free of any moisture.

No Connected Loads – Make sure the generator has no connected loads before starting it. To ensure there are no connected loads, unplug any electrical extension cords that are plugged into the control panel receptacles.

NOTICE

Starting the generator with loads already applied to it could result in damage to any appliance being powered off the generator during the brief start-up period.

Grounding the Generator – The National Electric Code (NEC), as well as many local electrical codes, may require the generator to be connected to earth ground. The most common application that requires a ground rod is when you are using the generator as a separately derived system to provide back up power to your house. Typically this is when a transfer switch has a switched neutral.

As the generator application has many variables that cannot be determined by the manufacturer of the generator, a licensed electrician will need to determine if a grounding rod is needed.

If a licensed electrician has determined the application requires a ground rod, make sure it is connected to earth ground by connecting the ground terminal on the control panel to earth ground using copper wire (minimum 10 AWG). Consult a qualified electrician for local grounding requirements.

Floating Neutral (WGen2000 & WGen3600): The generator (stator winding) is isolated from the frame and from the AC receptacle ground pin.

Neutral Bonded (WGen5500, WGen7500, WGen6500st and WGen8300st): There is a permanent conduct or between the generator (stator winding) and the frame.

WARNING

Be sure the generator is properly connected to earth ground before operating. The generator must be grounded to prevent electrical shock due to faulty appliances.
POWERCORD

Using Extension Cords
Westinghouse Portable Power assumes no responsibility for the content within this table. The use of this table is the responsibility of the user only. This table is intended for reference only. The results produced by using this table are not guaranteed to be correct or applicable in all situations as the type and construction of cords are highly variable. Always check with local regulations and a licensed electrician prior to installing or connecting an electrical appliance.

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<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>25</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>30</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>35</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Using Westinghouse Power Cord
Use the extension cord chart to determine the size of the conductor for extension cord applications. Determine the distance of the generator to the appliance on the top line of the chart. Then select the rated amperage of the generator on the left side of the chart. Where the two meet is the size of the conductor required for the application.

The WCG25 power cord is connected to the generator at the 120/240 plug. The opposite end of the power cord is a fan tail receptacle with 2 green receptacles and 2 red receptacles. Each receptacle is rated at 120 volts AC. To balance the load on the generator’s alternator, use the red and green identifiers on the fan tail receptacle. To keep the load balanced, connect the loads so that both color receptacles are used. An example is one in red and one in green. Do not connect 2 in red and none in green, or 2 in green and none in red. If only one color receptacle is used with multiple loads, the alternator may experience an unbalanced load, causing undue vibration to generator.

- WCG25 Extension Cord
ADDING / CHECKING ENGINE FLUIDS AND FUEL

BEFORE ADDING/CHECKING ENGINE FLUIDS AND FUEL, REVIEW SAFETY SECTION STARTING ON PAGE 5.

DANGER
Filling the fuel tank with gasoline while the generator is running can cause gasoline to leak and come in contact with hot surfaces that can ignite the gasoline.

Before starting the generator, always check the level of:
• Engine oil
• Gasoline in the fuel tank

Once the generator is started and the engine gets warm, it is not safe to add gasoline to the fuel tank or engine oil to the engine while the engine is running or the engine and muffler are hot.

CHECKING AND / OR ADDING ENGINE OIL

WARNING
Internal pressure can build in the engine crankcase while the engine is running. Removing the oil fill plug/dipstick while the engine is hot can cause extremely hot oil to spray out of the crankcase and can severely burn skin. Allow engine oil to cool for several minutes before removing the oil fill plug/dipstick.

The unit as shipped does not contain oil in the engine. You must add engine oil before starting the generator for the first time. See Checking Engine Oil and Adding Engine Oil on page 24 for instructions on checking engine oil level and the procedure for adding engine oil.

NOTICE
The engine does not contain engine oil as shipped. Attempting to start the engine can damage engine components. The owner of the generator is responsible to ensure the proper oil level is maintained during the operation of the generator. Failure to maintain the proper oil level can result in engine damage.
ADDING GASOLINE TO THE FUEL TANK

**WARNING**

Never refuel the generator while the engine is running.

Always turn the engine off and allow the generator to cool before refueling.

**Required Gasoline** – Only use gasoline that meets the following requirements:
- Unleaded gasoline only
- Gasoline with maximum 10% ethanol added
- Gasoline with an 87 octane rating or higher

**Filling the Fuel Tank** – Follow the steps below to fill the fuel tank:
1. Shut off the generator.
2. Allow the generator to cool down so all surface areas of the muffler and engine are cool to the touch.
3. Move the generator to a flat surface.
4. Clean area around the fuel cap.
5. Remove the fuel cap by rotating counterclockwise.
6. Slowly add gasoline into the fuel tank. Be very careful not to overfill the tank. The gasoline level should NOT be higher than the filler neck (see Figure 12).
7. Install the fuel cap by rotating clockwise until you hear a click, indicating the cap is completely installed.

**BEFORE STARTING THE GENERATOR**

BEFORE STARTING THE GENERATOR, REVIEW SAFETY SECTION STARTING ON PAGE 5.

Before attempting to start the generator, verify the following:
- The engine is filled with engine oil. See Checking Engine Oil on page 24.
- The generator is situated in a proper location (Location Selection on page 16).
- The generator is on a dry surface (Weather and Dry Surface on page 16).
- All loads are disconnected from the generator (No Connected Loads on page 16).
- The generator is properly grounded the Generator (page 16).

**DANGER**

Never use the generator in a location that is wet or damp. Never expose the generator to rain, snow, water spray or standing water while in use. Protect the generator from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical circuit.

Never operate the generator in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the generator outside and away from windows, doors and vents.

**NOTICE**

The engine is equipped with a low oil shutdown switch. If the oil level becomes low, the engine may shut down and not start until the oil is filled to the proper level. Poor oil quality may interfere with the operation of the low oil shutdown switch.

The owner of the generator is responsible to ensure the proper oil level is maintained during the operation of the generator. Failure to maintain the proper oil level can result in engine damage.

---

*Figure 12 - Maximum Gasoline Fill Level*
MANUALLY STARTING A GENERATOR

NOTE: This procedure can also be used on an electric start generator.

1. Check oil levels (see Adding Engine Oil page 24)

2. Make sure the circuit breakers are properly set (see Figure 13 below).

   ① 240/120V Main Circuit Breaker Operating Position
   ② 240/120V Main Circuit Breaker Tripped Position
   ③ 120V Circuit Breaker Operating Position
   ④ 120V Circuit Breaker Tripped Position

3. Move the fuel shut off valve to the ON position (see Figure 14 below).

   Figure 14 - Fuel Shut Off - ON

4. Push the engine control switch into the RUN position (see Figure 16 below).

   Figure 16 - Engine Control Switch - RUN

5. Firmly grasp and pull the recoil handle slowly until you feel increased resistance. At this point, apply a rapid pull while pulling up and slightly away from the generator (see Figure 20).

   Figure 17 - Engine Recoil Handle - PULL

6. As the engine starts and stabilizes, gradually move the choke lever back to the OFF position. (Figure 18)

   Figure 18 - Choke - OFF
STARTING ONE
PUSH START GENERATOR

1. Verify the battery is properly installed and both battery cables are attached (see *Installing the Battery (Electric Start Generators Only)* on page 11).

2. Make sure the circuit breakers are properly set (see Figure 13 on page 20).

3. Move the fuel shutoff valve to the ON position (see Figure 19 below).

4. Rotate the red Battery Disconnect button clockwise until the button pops out (see 1 below).

5. Push and hold the engine start push button for 1 second and release (see Figure 22).
   - The engine will automatically set the choke and begin the start sequence.
   - If the engine has started successfully the light indicator on the engine start button will turn green.
   - If the engine fails to start, the generator controls will attempt to start the engine two more times for a total of three attempts.
   - If the third attempt fails, the light on the engine start button will turn red.
   - If the engine has failed to start after three attempts the engine start button can be pushed again to begin the automatic start sequence.
   - The red engine stop button can be pushed at any time during the automatic start sequence to abort the engine start attempt.

NOTE: If the cranking speed drops after each unsuccessful attempt, then the battery may not be adequately charged. You can alternatively start the generator using the recoil start as instructed in *Manually Starting a Generator* on page 20.
STOPPING THE GENERATOR

Normal Operation
During normal operation, use the following steps to stop your generator:

1. Remove any connected loads from the control panel receptacles.
2. Allow the generator to run at “no load” to reduce and stabilize engine and alternator temperatures.
3. Position the engine control switch to STOP or if you plan to store the generator after use, turn the fuel shutoff valve to the OFF position and allow the fuel to be consumed from the carburetor.
4. For Push Button Start models if you plan to store the generator after use push the Battery Disconnect button in so it stops drawing power from the battery.

During an Emergency
If there is an emergency and the generator must be stopped quickly, position the engine control switch to the OFF position immediately.

WARNING
Internal pressure can build in the engine crankcase while the engine is running. Removing the oil fill plug/dipstick while the engine is hot can cause extremely hot oil to spray out of the crankcase and can severely burn skin. Allow engine oil to cool for several minutes before removing the oil fill plug/dipstick.

WARNING
Always perform maintenance in a well-ventilated area. Gasoline fuel and fuel vapors are extremely flammable and can ignite under certain conditions.

MAINTENANCE

BEFORE PERFORMING MAINTENANCE ON THE GENERATOR, REVIEW THE SAFETY SECTION STARTING ON PAGE 5, AS WELL AS THE FOLLOWING SAFETY MESSAGES.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid accidentally starting the generator during maintenance by removing the spark plug boot from the spark plug. For electric start generators, also disconnect the battery cables from the battery (disconnect the black negative (-) cable first) and place the cables away from the battery posts to avoid arcing.</td>
</tr>
<tr>
<td>Allow hot components to cool to the touch prior to performing any maintenance procedure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal pressure can build in the engine crankcase while the engine is running. Removing the oil fill plug/dipstick while the engine is hot can cause extremely hot oil to spray out of the crankcase and can severely burn skin. Allow engine oil to cool for several minutes before removing the oil fill plug/dipstick.</td>
</tr>
<tr>
<td>Always perform maintenance in a well-ventilated area. Gasoline fuel and fuel vapors are extremely flammable and can ignite under certain conditions.</td>
</tr>
</tbody>
</table>
MAINTENANCE SCHEDULE

WARNING
Failure to perform periodic maintenance or not following maintenance procedures can cause the generator to malfunction and could result in death or serious injury.

NOTICE
Periodic maintenance intervals vary depending on generator operating conditions. Operating the generator under severe conditions, such as sustained high-load, high-temperature, or unusually wet or dusty environments, will require more frequent periodic maintenance. The intervals listed in the maintenance schedule should be treated only as a general guideline.

TABLE 1: MAINTENANCE SCHEDULE - OWNER PERFORMED

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>Before Every Use</th>
<th>After First 20 Hours or First Month of Use</th>
<th>After 50 Hours of Use or Every 6 Months</th>
<th>After 100 Hour of Use or Every 6 Months</th>
<th>After 300 Hours of Use or Every Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Oil</td>
<td>Check Level</td>
<td>Change</td>
<td>Change</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cooling Features</td>
<td>Check/Clean</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Air Filter</td>
<td>Check</td>
<td>-</td>
<td>Clean*</td>
<td>-</td>
<td>Replace</td>
</tr>
<tr>
<td>Spark Plug</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Check/Clean</td>
<td>Replace</td>
</tr>
<tr>
<td>Spark Arrestor</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Check/Clean</td>
<td>-</td>
</tr>
</tbody>
</table>

*Service more frequently if operating in dry and dusty conditions

TABLE 2: MAINTENANCE SCHEDULE - AUTHORIZED WESTINGHOUSE SERVICE DEALER PERFORMED

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>Before Every Use</th>
<th>After First 20 Hours or First Month of Use</th>
<th>After 50 Hours of Use or Every 6 Months</th>
<th>After 100 Hour of Use or Every 6 Months</th>
<th>After 300 Hours of Use or Every Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve Clearance</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Check/Adjust</td>
<td>-</td>
</tr>
<tr>
<td>Fuel Filter</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Check/Clean</td>
<td>-</td>
</tr>
<tr>
<td>Idle Speed</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Check/Adjust</td>
</tr>
</tbody>
</table>

CAUTION
Avoid skin contact with engine oil or gasoline. Prolonged skin contact with engine oil or gasoline can be harmful. Frequent and prolonged contact with engine oil may cause skin cancer. Take protective measures and wear protective clothing and equipment. Wash all exposed skin with soap and water.

Following the maintenance schedule is important to keep the generator in good operating condition. The following is a summary of maintenance items by periodic maintenance intervals.
ENGINE OIL MAINTENANCE

Engine Oil Specification

1. Only use the engine oil specified in Figure 25.
2. Only use 4-stroke/cycle engine oil. **NEVER USE 2-STROKE/CYCLE OIL.** Synthetic oil is an acceptable substitute for conventional oil.

![Figure 25 - Recommended Oil](image)

CHECKING ENGINE OIL

**NOTICE**
Always maintain proper engine oil level. Failure to maintain proper engine oil level could result in severe damage to the engine and/or shorten the life of the engine. Always use the specified engine oil. Failure to use the specified engine oil can cause accelerated wear and/or shorten the life of the engine.

Engine oil level should be checked before every use.

1. Always operate or maintain the generator on a flat surface.
2. Stop engine if running.
3. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
4. With a damp rag, clean around the oil fill plug/dipstick.
5. Remove oil fill plug/dipstick (see Figure 26 below).

![Figure 26 - Oil Fill Plug/Dipstick](image)

6. Check oil level: When checking the engine oil, remove the oil fill plug/dipstick and wipe it clean. Thread the oil fill plug/dipstick all the way back in and then remove and check the oil level on the oil fill plug/dipstick.
   - **Acceptable Oil Level** – Oil is visible on the crosshatches between the H and L lines on the oil fill plug/dipstick (see Figure 27).
   - **Low Oil** – Oil is below the L line on the oil fill plug/dipstick.

![Figure 27 - Checking Oil Level](image)

ADDING ENGINE OIL

1. Always operate or maintain the generator on a flat surface.
2. Stop engine if running.
3. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
4. Thoroughly clean around the oil fill plug/dipstick.
5. Remove oil fill plug/dipstick and wipe clean.
6. Select the proper engine oil as specified in Figure 25.
7. Using the supplied funnel and tube, slowly add engine oil to the engine. Stop frequently to check the level to avoid overfilling.
8. Continue to add oil until the oil is at the correct level. See Figure 27.
CHANGING ENGINE OIL

1. Stop the engine.
2. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
3. Place oil pan (or suitable container) under the oil drain plug (see Figure 28).
4. With a damp rag, thoroughly clean around the oil drain plug.
5. Remove the oil drain plug (see Figure 28). Once removed, place the oil drain plug on a clean surface.
6. Allow oil to completely drain.
7. Replace oil drain plug.
8. Fill crankcase with oil following the steps outlined in Adding Engine Oil on page 24.

NOTICE

Never dispose of used engine oil by dumping the oil into a sewer, on the ground, or into ground water or waterways. Always be environmentally responsible. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

Cleaning the Air Filter

The air filter must be cleaned after every 50 hours of use or 3 months (frequency should be increased if generator is operated in a dusty environment).

1. Turn off the generator and let it cool for several minutes if running.
2. Move the generator to a flat, level surface.
3. Unclip the clips on the top and bottom of the air filter cover (Figure 29) or turn the small knob on the bottom (Figure 30) and remove the air filter cover.
4. Remove the black coarse air filters (see Figure 30).
5. Wash the foam air filter elements by submerging the elements in a solution of household detergent soap and warm water. Slowly squeeze the foam to thoroughly clean.

AIR FILTER MAINTENANCE

WARNING

Never use gasoline or other flammable solvents to clean the air filter. Use only household detergent soap to clean the air filter.
Cleaning the Air Filter - Continued from Page 25

NOTICE
NEVER twist or tear the foam air filter element during cleaning or drying. Only apply slow but firm squeezing action.

6. Rinse in clean water by submerging the air filter elements in fresh water and applying a slow squeezing action.

NOTICE
Never dispose of soap cleaning solution used to clean the air filter by dumping the solution into a sewer, on the ground, or into ground water or waterways. Always be environmentally responsible. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

7. Dispose of used soap cleaning solution properly.

8. Dry the air filter elements by again applying a slow firm squeezing action.

9. Once the air filters are dry, coat the air filters with clean engine oil (see Figure 31 below).

10. Squeeze the filters to remove any excess oil (see Figure 32 below).

11. Install the filters back into the unit. If there are two filters make sure the gray (fine) air filter goes in first followed by the black (coarse) air filter on the outside.

12. Install the air filter cover and secure the air filter assemble.

SPARK PLUG MAINTENANCE
The spark plug must be checked and cleaned after every 100 hours of use or 6 months and must be replaced after 300 hours of use or every year.

1. Stop the generator and let it cool for several minutes if running.

2. Move the generator to a flat, level surface.

3. Remove the spark plug boot by firmly pulling the plastic spark plug boot handle directly away from the engine (see Figure 33).

NOTICE
Never apply any side load or move the spark plug laterally when removing the spark plug. Applying a side load or moving the spark plug laterally may crack and damage the spark plug boot.
4. Clean area around the spark plug.

5. Using the 13/16” spark plug socket wrench provided, remove the spark plug from the cylinder head (see Figure 34 below).

6. Place a clean rag over the opening created by the removal of the spark plug to make sure no dirt can get into the combustion chamber.
   • Inspect the spark plug for:
     • Cracked or chipped insulator
     • Excessive wear
     • Spark plug gap (the acceptable limit of 0.027–0.032 in. [0.70 – 0.80 mm]) (see Figure 35).

   ![Figure 35](image)

   **NOTICE**

   Use only recommended spark plugs when servicing. The manufacturer is not responsible for engine damage when using spark plugs not recommended by the manufacturer.

7. Install the spark plug by carefully following the steps outlined below:
   a. Carefully insert the spark plug back into the cylinder head. Hand-thread the spark plug until it bottoms out.
   b. Using the 13/16” spark plug socket wrench provided, turn the spark plug to ensure it is fully seated.
   c. Replace the spark plug boot, making sure the boot fully engages the spark plug’s tip.

   **Recommended Spark Plug Replacement:**
   - AC Delco: 4EXLS
   - Autolite: 52
   - Champion: N9YC
   - Bosch: W7DC
   - Torch: F7TC
TESTING GFCI OUTLETS

1. Start the generator and allow it to warm up.

2. Press the test button on the GFCI outlet.

3. The reset button should pop out and there will be no power from the outlets. If the reset button does not pop out, the GFCI outlet is not working correctly and must be repaired before the generator can be operated.

4. Press the reset button to restore power to the outlet.

BATTERY SERVICE

To ensure the battery remains charged, the generator should be started every 2 to 3 months and run for a minimum of 15 minutes. If the generator is stored more than a year without running, a battery charger may be needed to recharge the battery.

Battery Replacement

1. Remove the spark plug wire from spark plug.

2. Loosen and remove the bolt on the battery hold down plate and swing the plate out (see Figure 36).

3. Tip the battery forward slightly to access battery cables.

4. Disconnect the black negative (−) battery cable from the battery first.

5. Disconnect the red positive (+) battery cable second and remove the battery.

NOTICE

Dispose of the used battery properly according to the guidelines established by your local or state government.

6. Install the new battery into the generator frame.

7. Connect the red positive (+) battery cable to the battery first.

8. Connect the black negative (−) battery cable to the battery second.

9. Install the battery hold-down plate using the nuts removed in step 2.

10. Install the spark plug wire onto spark plug.

See below for the battery specification when replacing the battery.

<table>
<thead>
<tr>
<th>Westinghouse Part No.</th>
<th>100557</th>
</tr>
</thead>
<tbody>
<tr>
<td>After Market Battery Model</td>
<td>YT9A</td>
</tr>
<tr>
<td>Volts</td>
<td>12</td>
</tr>
<tr>
<td>Amp Hr</td>
<td>9</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5 5/16in by 3in by 5 3/8in</td>
</tr>
</tbody>
</table>
CLEANING THE GENERATOR

It is important to inspect and clean the generator before every use.

Clean All Engine Air Inlet and Outlet Ports – Make sure all engine air inlet and outlet ports are clean of any dirt and debris to ensure the engine does not run hot (see Figure 38).

![Figure 38 - Engine Air Inlet and Outlet Ports](image)

Clean All Engine Cooling Fins – Use a damp rag and a brush to loosen and remove all dirt on or around the engine’s cooling fins (see Figure 39).

![Figure 39 - Engine Cooling Fins](image)

Clean All Alternator Cooling Air Inlets and Exhaust Ports – Make sure the cooling air inlets and exhaust ports of the alternator are free of any debris and obstructions. Use a vacuum cleaner to remove dirt and debris stuck in the cooling air inlets and exhaust ports (see Figure 40 and Figure 41).

![Figure 40](image)  ![Figure 41](image)

General Cleaning of the Generator – Use a damp rag to clean all remaining surfaces.

CLEANING THE SPARK ARRESTOR

Check and clean the spark arrestor after every 100 hours of use or 6 months.

1. Stop the generator and let it cool for several minutes if running.
2. Move the generator to a flat, level surface.
3. Remove heat shield around the spark arrestor.
4. Using a flat head screw driver remove the screw holding in the spark arrestor.
5. Using a wire brush, remove any dirt and debris that may have collected on the spark arrestor screen.
6. If the spark arrestor screen shows signs of wear (rips, tears or large openings in the screen), replace the spark arrestor screen.
7. Place spark arrester back over muffler tip and secure screw.
STORING GENERATOR

**WARNING**

Never store a generator with fuel in the tank indoors or in a poorly ventilated area where the fumes can come in contact with an ignition source such as a: 1) pilot light of a stove, water heater, clothes dryer or any other gas appliance; or 2) spark from an electric appliance.

**NOTICE**

Gasoline stored for as little as 60 days can go bad, causing gum, varnish and corrosive buildup in fuel lines, fuel passages and the engine. This corrosive buildup restricts the flow of fuel, preventing an engine from starting after a prolonged storage period.

Proper care should be taken to prepare the generator for any storage.

1. For electric start units make sure the Battery Disconnect button is pressed in so the generator does not draw power from battery.
2. Clean the generator as outlined in Cleaning the Generator on page 29.
3. Drain all gasoline from the fuel tank as best as possible.
4. With the fuel shut off valve open, start the engine and allow the generator to run until all the remaining gasoline in the fuel lines and carburetor is consumed and the engine shuts off.
5. Close the fuel shut off valve.
6. Change the oil (see Changing Engine Oil on page 25).
7. Remove the spark plug (see Spark Plug Maintenance on page 26) and place about 1 tablespoon of oil in the spark plug opening. While placing a clean rag over the spark plug opening, slowly pull there coil handle to allow the engine to turn over several times. This will distribute the oil and protect the cylinder wall from corroding during storage.
8. Replace the spark plug (see Spark Plug Maintenance on page 26).
9. Move the generator to a clean, dry place for storage.

TROUBLESHOOTING

**WARNING**

Before attempting to service or troubleshoot the generator, the owner or service technician must first read the owner’s manual and understand and follow all safety instructions. Failure to follow all instructions may result in conditions that can lead to voiding of the EPA certification or product warranty, serious personal injury, property damage or even death.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POTENTIAL CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine is running, but no electrical output</td>
<td>1. Circuit breakers are tripped.</td>
<td>1. Reset the circuit breakers and check for overload condition.</td>
</tr>
<tr>
<td></td>
<td>2. The power cord’s plug connector is not fully engaged in the generator’s outlet.</td>
<td>2. Verify plug connector is firmly engaged in the generator’s outlet. If using the 240V outlet, make sure plug connector is rotated 1/4 turn in the clockwise direction.</td>
</tr>
<tr>
<td></td>
<td>3. Faulty or defective power cord</td>
<td>3. Replace power cord.</td>
</tr>
<tr>
<td></td>
<td>4. Faulty or defective electrical appliance</td>
<td>4. Try connecting a known good appliance to verify the generator is producing electrical power.</td>
</tr>
<tr>
<td></td>
<td>5. GFCI outlet is tripped</td>
<td>5. Press the reset button on the GFCI outlet (see page 28).</td>
</tr>
<tr>
<td></td>
<td>6. If trying 1-5 above does not solve the problem, the cause might be the generator has a fault.</td>
<td>6. Take the generator to your nearest authorized service dealer.</td>
</tr>
</tbody>
</table>
## TROUBLESHOOTING

### Engine will not start or remain running while trying to start.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POTENTIAL CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine will not start or remain running while trying to start.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Fuel shutoff valve is in the OFF position.</td>
<td>1. Move the fuel shut off valve to the ON position (see Figure 14 page 20).</td>
<td></td>
</tr>
<tr>
<td>2. Generator is out of gasoline.</td>
<td>2. Add gasoline to the generator (see page 19).</td>
<td></td>
</tr>
<tr>
<td>3. Fuel flow is obstructed.</td>
<td>3. Inspect and clean fuel delivery passages.</td>
<td></td>
</tr>
<tr>
<td>4. Unit is over choked.</td>
<td>4. Move the choke lever halfway between the ON and OFF positions.</td>
<td></td>
</tr>
<tr>
<td>5. Starting battery may have insufficient charge</td>
<td>5. On electric start models only. Check battery output and charge battery as necessary.</td>
<td></td>
</tr>
<tr>
<td>6. Dirty air filter</td>
<td>6. Check and clean the air filter (see page 25).</td>
<td></td>
</tr>
<tr>
<td>7. Low oil level shut down switch is preventing the unit from starting.</td>
<td>7. Check oil level and add oil if necessary (see page 24).</td>
<td></td>
</tr>
<tr>
<td>8. Spark plug boot is not fully engaged with the spark plug tip.</td>
<td>8. Firmly push down on the spark plug boot to ensure the boot is fully engaged</td>
<td></td>
</tr>
<tr>
<td>9. Spark plug is faulty.</td>
<td>9. Remove and check the spark plug. Replace if faulty (see page 27).</td>
<td></td>
</tr>
<tr>
<td>10. Dirty/plugged spark arrestor</td>
<td>10. Check and clean the spark arrestor (see page 29).</td>
<td></td>
</tr>
<tr>
<td>11. Stale fuel</td>
<td>11. Drain fuel and replace with fresh fuel (see page 19).</td>
<td></td>
</tr>
<tr>
<td>12. If trying 1-11 above does not solve the problem, the cause might be the generator has a fault.</td>
<td>12. Take the generator to your nearest authorized service dealer.</td>
<td></td>
</tr>
</tbody>
</table>

### Generator suddenly stops running.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POTENTIAL CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generator suddenly stops running.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Generator is out of fuel.</td>
<td>1. Check fuel level (see page 19). Add fuel if necessary.</td>
<td></td>
</tr>
<tr>
<td>2. The low oil shut down switch has stopped the engine.</td>
<td>2. Check oil level and add oil if necessary (see page 24).</td>
<td></td>
</tr>
<tr>
<td>3. Too much load</td>
<td>3. Restart the generator and reduce the load.</td>
<td></td>
</tr>
<tr>
<td>4. If trying 1-3 above does not solve the problem, the cause might be a fault in the generator.</td>
<td>4. Take the generator to your nearest authorized service dealer.</td>
<td></td>
</tr>
</tbody>
</table>

### Engine runs erratic; does not hold a steady RPM.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POTENTIAL CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine runs erratic; does not hold a steady RPM.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Choke was left in the ON position.</td>
<td>1. Move choke to the OFF position</td>
<td></td>
</tr>
<tr>
<td>2. Dirty air filter</td>
<td>2. Clean the air filter (see pages 26-29).</td>
<td></td>
</tr>
<tr>
<td>3. Applied loads maybe cycling on and off</td>
<td>3. As applied loads cycle, changes in engine speed may occur; this is a normal condition.</td>
<td></td>
</tr>
<tr>
<td>4. If trying 1-3 above does not solve the problem, the cause might be a fault in the generator</td>
<td>4. Take the generator to your nearest authorized service dealer.</td>
<td></td>
</tr>
</tbody>
</table>