

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Dayton® Professional-Duty Electric Generators

Description

Dayton professional-duty generators are rugged and compact to provide dependable, trouble-free service. The alternators are brushless with revolving fields. Honda gasoline engines provide long life under heavy use. Overhead valves (OHV) provide high performance with lower fuel consumption. These engines are governed to maintain engine speed of 3600 RPM under load. 3600 RPM engine speed provides 120/240V, 60 Hz power. Additional features include circuit breaker protection, spark-arresting muffler (except Model 3WY47), large fuel tank, and oil alert system. Models 3WY45, 3WY46, and 3WY47 include electric starter.

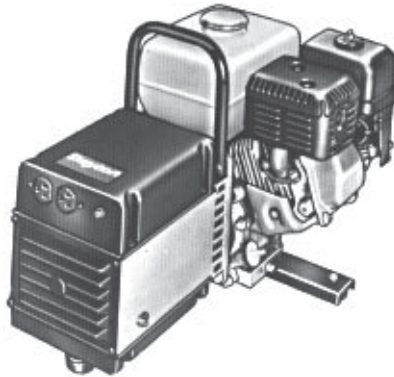


Figure 1 – Model 3W735B

Unpacking

1. Remove generator from carton.
2. Remove any protective packaging applied to generator for shipment.
3. Check for loose or missing parts. Check for shipping damage. If any parts are missing or damaged, promptly inform dealer where you bought generator.
4. Battery cables are supplied for Models 3WY45, 3WY46, and 3WY47 only. These cables are in a separate bag inside generator carton. You must install these cables to engine. See "Battery," page 8 for installation instructions.

Model 3WY47 only: handles and top cover packaged separately inside generator carton. You must install these parts.



Figure 2 – Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45



Figure 3 – Model 3WY47

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Specifications

ELECTRICAL SPECIFICATIONS

Model	Rated Wattage*	Rated Amperage 120V	Rated Amperage 240V
3W735B	2,200	18.3	—
3W736C	4,000	33.3	16.7
3WY44	5,000	41.7	20.8
3WY46	5,000	41.7	20.8
3TE27A	6,000	50	25
3WY45	7,000	60	30
3WY47	10,000	83.3	41.7

* Single-phase, 1.0 power factor

NOTE: Ratings apply to SAE standard conditions. Reduce ratings 3 1/2% for each 1000 feet above sea level and 1% for each 10°F rise above 60°F.

GENERAL SPECIFICATIONS

Model	Honda Engine H.P.	Honda Model	Fuel Type	Fuel Tank Capacity	Oil Alert System	Electric Start	Weight (pounds)
3W735B	5.5	GX160K1VX	Gasoline	3.9 qt.	Yes	No	85
3W736C	8	GX240K1VA	Gasoline	5 gal.	Yes	No	139
3WY44	9	GX270VA	Gasoline	8 gal.	Yes	No	173
3WY46	9	GX270VDE	Gasoline	8 gal.	Yes	Yes	175
3TE27A	11	GX340K1VA	Gasoline	8 gal.	Yes	No	191
3WY45	13	GX390K1VXE	Gasoline	8 gal.	Yes	Yes	247
3WY47	20	GX620VXA3	Gasoline	13 gal.	Yes	Yes	347

RECEPTACLE SPECIFICATIONS

Model	120V Duplex	120V, 30-Amp Twist-Lock	120/240V, 20-Amp Twist-Lock	120/240V, 30-Amp Twist-Lock	120/240V, 50-Amp Receptacle	120V Full Power Switch
3W735B	Yes	No	No	No	No	No
3W736C	Yes	Yes	Yes	No	No	Yes
3WY44	Yes	Yes	Yes	No	No	Yes
3WY46	Yes	Yes	Yes	No	No	Yes
3TE27A	Yes	Yes	Yes	No	No	Yes
3WY45	Yes	Yes	No	Yes	No	No
3WY47	Yes	Yes	No	Yes	Yes	No

ELECTRICAL COMPONENT SPECIFICATIONS

Model	Resistance in Ohms				Capacitor, MFD 450 Volt	Diodes (2) 800 Volt
	Stator Main Winding *	Stator Auxiliary Winding Δ	Rotor Primary Winding †	Rotor Secondary Winding †		
3W735B	1.95	5.2	6.79	1.31	16	6 Amp
3W736C	0.71	2.17	0.54	2.07	40	70
3WY44	0.54	1.38	0.61	2.29	50	70
3WY46	0.54	1.38	0.61	2.29	50	70
3TE27A	0.37	1.01	0.68	2.57	60	70
3WY45	0.28	0.78	0.77	2.9	70	70
3WY47	0.40	0.90	0.37	0.50	80	70

(*) Connect T2 (Green) and T3 (Black). Measure resistance between T1 (Red) and T4 (Yellow).

(Δ) Resistance between brown and white leads.

(†) Remove diodes to check resistance.

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Product Identification

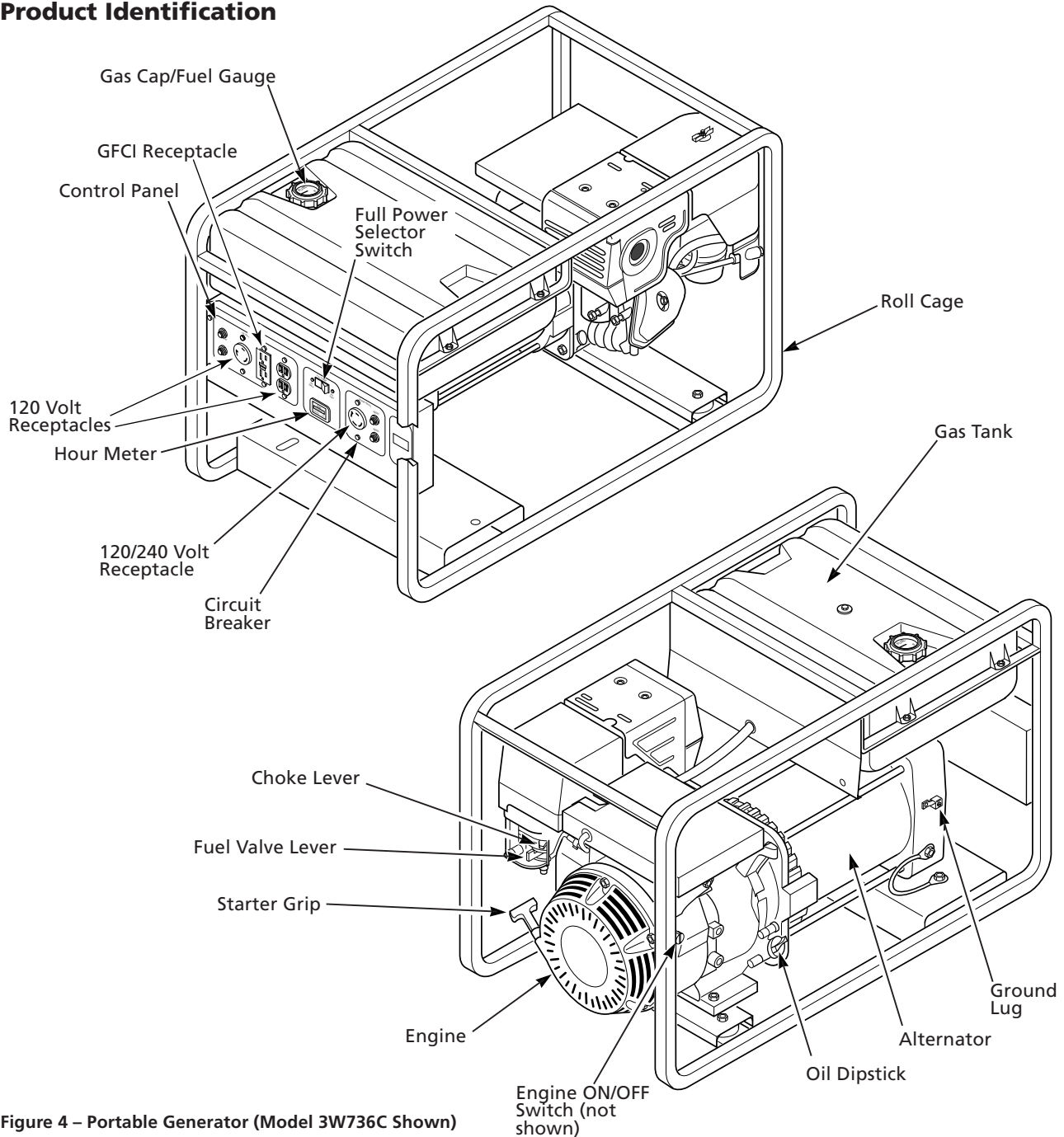


Figure 4 – Portable Generator (Model 3W736C Shown)

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General Safety Information

IMPORTANT: Read these instructions and engine owner's manual carefully. Become familiar with generator before trying to operate or service it. Know its uses, limitations, and any hazards involved. Improper use of generator can cause severe injury or death from explosion, fire, burns, electrical shock, or carbon monoxide poisoning.

Make certain you read and understand all warnings. Keep these instructions for reference. They are your guide to safe and proper operation of this generator.

Safety information appears throughout these instructions. Pay close attention to them. Below are definitions for the safety information listed throughout this manual.

IMPORTANT: Every possible circumstance that might involve a hazard cannot be anticipated. The warnings in this manual and on tags or decals affixed to the unit are therefore not all-inclusive. If a procedure, work method, or operating technique not specifically recommended by Dayton is used, you must make sure it is safe for you and others. You should also ensure that equipment will not be damaged or made unsafe by the operating or maintenance method you choose.

NOTE: Under this heading statements will be found emphasizing installation, operation and maintenance procedures that either simplify procedures or increase efficiency.

▲ DANGER Under this heading, installation, operating, and maintenance procedures or practices will be found that, if not carefully followed, WILL result in IMMEDIATE serious personal injury or death.

▲ WARNING Under this heading, installation, operating, and maintenance procedures or practices will be found that, if not carefully followed, COULD result in severe personal injury or death.

▲ CAUTION Under this heading, installation, operating, and maintenance procedures or practices will be found that, if not carefully followed, MAY result in minor personal injury, product or property damage.

▲ DANGER *Engine exhaust contains poisonous carbon monoxide gas. Overexposure will cause loss of consciousness and will lead to death. Use only in well-vented areas. Make sure area has plenty of free-moving, fresh, outside air. Never run generator in an enclosed or confined area. Never run generator inside occupied building.*

Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, get fresh air at once! Some people are more affected by carbon monoxide than others. These include pregnant women, persons with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

▲ WARNING *Gasoline presents a hazard of fire or explosion. Gasoline is flammable. Its vapor is explosive.*

- *Keep fuel out of children's reach.*
 - *Refuel generator in a well-vented area. Do not fill fuel tank in the dark. Do not refuel while engine is running. Unhook all electrical loads and shut off engine before refueling.*
 - *Do not overfill fuel tank. Always allow room for fuel to expand. If you overfill tank, fuel can overflow onto hot generator or engine surface. This can cause fire or explosion. After refueling, tightly close fuel tank cap.*
 - *Do not spill fuel. Fuel or fuel vapor may ignite. If fuel spills, make sure area is dry before starting engine.*
 - *Never smoke in refueling area. Never allow open flames or sparks in area.*
- *Store fuel in approved container. Store fuel in a well-vented area free of open flames or sparks.*
- ▲ WARNING** *Guard against fire hazard. Keep operation area well-vented. Keep generator at least three feet away from any object. Do not place flammable objects near generator.*
- *Do not use generator where flammable vapors are present. Some vapors are heavier than air. These vapors settle in low-lying places.*
 - *Do not use generator in enclosed spaces. This includes motor home or RV generator compartments.*
- ▲ WARNING** *Guard against electric shock. Generator produces high voltage. This high voltage can cause severe electric shock. Only responsible adults should use the generator.*
- *Properly ground generator before starting.*
 - *Never let anyone operate or service generator without proper instructions.*
 - *Avoid contact with live terminals or bare wires.*
 - *Do not use generator outdoors in rain or snow.*
 - *Do not use generator near standing water or snow.*
 - *Do not use if generator is wet or damp.*
 - *Do not use generator in highly conductive areas. These areas include metal decking and steelwork.*
 - *Only use grounded extension cords.*
 - *Do not use any worn or damaged electric cords. Electric shock or damage to generator may result.*
 - *On construction sites, you must use a Ground Fault Circuit Interrupter (GFCI). This helps guard against electric shock. OSHA and the National Electrical Code requires this in the United States.*
 - *Do not wear damp clothing or wet shoes when using generator.*

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

General Safety Information (Continued)

▲ WARNING Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.

▲ WARNING Guard against burns. Hot engine parts can cause severe injury. Use caution and remain alert when using generator.

- Keep children and animals away from generator while it is running or hot.
- Keep all covers and shields in place. Keep them tightly secured.
- The muffler becomes very hot during operation. The muffler remains hot for a while after shutdown. Do not touch muffler while it is hot. Do not let muffler touch anything flammable. Let engine cool before transporting or storing.

▲ WARNING Have standby installation to home or building performed by a licensed electrician. Do not let anyone else wire into a utility circuit. Personal injury, equipment damage, or damage to home could occur.

▲ WARNING Never connect generator to any existing electrical circuits. The generator output will back-feed into the utility power line. This may electrocute a power company line repair person. Also, if generator is powering electrical circuits, the chance of an electrical fire exists.

▲ WARNING Battery gives off explosive gases. Keep sparks, flames, and cigarettes away. Do not remove or install battery cables when engine is cranking or running. Only service or use battery in a well-vented area.

▲ WARNING Battery contains sulfuric acid. Battery acid is poisonous if swallowed. Contact with skin or eyes may cause severe burns. Do not tilt generator with battery installed. Tilting could cause battery acid to spill. Wear protective clothing and face shield when servicing. Keep out of children's reach.

▲ WARNING Only a qualified electrical service person should service and repair generator.

- Generator produces high voltage. Use extreme caution when working on electrical parts.
- Always remove spark plug wire from spark plug before servicing. This will prevent accidental starting.
- When working on generator, avoid hot muffler, exhaust manifold, and engine parts. Severe burns may occur.
- Do not work on generator when tired.
- Use only factory approved repair parts.

▲ WARNING Store generator in a well-vented area. Make sure fuel tank is empty. Never store with fuel in tank. Vapors may reach an open flame or spark. Fire or explosion may result.

▲ CAUTION Never operate generator

- if engine speed changes greatly
- if engine misfires often
- if powered items overheat
- if electrical output drops
- if it is sparking
- if it produces smoke or flames
- if it vibrates at high levels
- if it has a damaged receptacle

▲ CAUTION Keep generator and nearby areas clean.

- Keep generator free of oil, mud, and other foreign matter.
- Remove anything that creates slippery areas around generator.
- Remove oily rags and other items that create fire hazards.
- Keep a fire extinguisher nearby. Make sure it is rated ABC by the NFPA. They are good for all uses. Consult your local fire department.
- Keep fire extinguisher well maintained. Be familiar with its use.

▲ CAUTION Know how to stop engine quickly. Know how to use all controls.

▲ CAUTION Prolonged exposure to loud noise can cause hearing loss.

- When working around generator, wear approved hearing protection.
- Remember neighbors when using generator.

Generator Features OIL ALERT SYSTEM

The oil alert system protects the engine from low oil damage. This system automatically shuts down the engine and prevents engine restarting if the oil level falls too low.

NOTE: When this happens, the engine switch remains in the ON position. The oil alert system is wired into the ON/OFF switch.

If this system shuts down the engine, the engine will not start until you add oil. Add oil to engine (see "Engine Oil", page 10).

NOTE: Operate generator on a level surface. If not level, the oil may flow away

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Generator Features (Continued)

from the oil level sensing device. This will cause the oil alert system to shut down engine.

See engine owner's manual for more information.

FULL POWER SELECTOR SWITCH

All models except 3W735B, 3WY47, and 3WY45 have a full power selector switch on the control panel. The switch has two positions: 120 VOLT ONLY, and 120/240 VOLT.

120 VOLT ONLY: This position sends full power to the 120V receptacles only. 240V power is not available. Use this position when powering 120V items only.

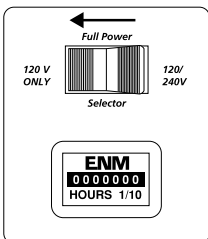


Figure 5 – Full Power Selector Switch in 120 Volt Only Position

120/240 VOLT: This position sends full power to the 120/240V receptacle. It also powers the 120V receptacles at reduced wattage capacity.

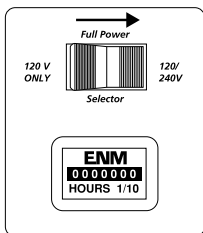


Figure 6 – Full Power Selector Switch in 120/240 Volt Position

IMPORTANT: Do not move the full power selector switch while powering electrical items. Unplug all items before moving switch. Failure to do so can damage switch.

Models 3W735B, 3WY45, and 3WY47 do not have this switch. These models provide full power to all receptacles.

HOURLY METER

All models except 3W735B have an hour meter. The hour meter is on the control panel. The hour meter shows the total generator run time, including all idle time (See Figure 7). Hour meter is accurate up to 1/10 of an hour.

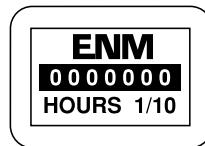


Figure 7 – Hour Meter

AUTO-IDLE SYSTEM

The auto-idle system allows the engine to idle down or run at a slower speed when the generator is not being used to supply power. The auto-idle system can be turned ON or OFF by a rocker switch on the control panel. When the switch is in the OFF position, the engine runs at full speed all of the time. When the switch is in the ON position, the engine slows down to idle speed until an electrical load is applied. When a load is applied to the generator (an electrical item is plugged in and turned on) the engine speeds up to the preset speed required to produce the correct voltage.

IMPORTANT: A minimum current load of 1 Amp is required to disengage the auto idle solenoid and cause the engine to come up to speed for correct voltage.

Powering items at reduced engine speed will damage generator and powered items.

ELECTRIC START (MODELS 3WY46, 3WY45, AND 3WY47 ONLY)

Models 3WY46, 3WY45, and 3WY47 have an electric starter. A battery is not supplied with generator. You must provide a 12-volt, 32-amp-hour battery. For more battery information, see "Battery," page 8.

GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE

All models have a 120-volt ground fault circuit interrupter (GFCI) receptacle. The GFCI receptacle is on the control panel or top cover of alternator (Model 3W735B only). The GFCI protects you against hazardous electrical shock caused when your body becomes a path through which electricity travels to reach ground. This could happen when you touch an appliance or cord that is 'live' through faulty mechanism, damp or worn insulation, etc.

When protected by the GFCI, you may still feel a shock, but the GFCI should cut it off quickly. A person in normal health should not receive serious injury.

NOTE: Infants and very small children may still be affected.

TEST PROCEDURE

Check the GFCI receptacle every month. This insures it is working right.

1. Push black TEST button. Red RESET button should pop out. This should trip GFCI, resulting in no electrical power at receptacle. Verify this by plugging test lamp with good bulb into receptacle. If lamp does not work, GFCI receptacle is good.

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Generator Features (Continued)

⚠ WARNING If **RESET** button does not pop out, do not use the GFCI receptacle. Contact a qualified electrician for repairs.

2. If the GFCI receptacle tests okay, restore power by pushing the RESET button back in. The test lamp should work at this time.

IMPORTANT: You must press the RESET button firmly and fully. It should lock into place. If the GFCI does not lock into place, do not use receptacle. Contact a qualified electrician for repairs.

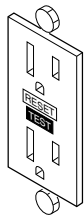


Figure 8 - GFCI Receptacle ENGINE CIRCUIT BREAKER (MODELS 3WY46 AND 3WY45 ONLY)

This circuit breaker protects the battery charging circuit. A short circuit will trip the circuit breaker. The circuit breaker will also trip if you install battery wrong. Push circuit breaker button to reset. Model 3WY47: Fuse located inside keyswitch box.

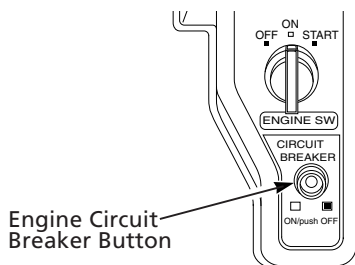


Figure 9 – Engine Circuit Breaker

RECEPTACLE CIRCUIT BREAKER

Model 3W735B has only one receptacle circuit breaker. All other models have four, except Model 3WY47 which has six. The circuit breakers protect the receptacles and alternator. Overloading generator will trip circuit breaker. A short circuit in item being powered will also trip breaker. If this occurs, unplug electrical load from receptacle. Let circuit breaker cool down. Push circuit breaker button to reset.

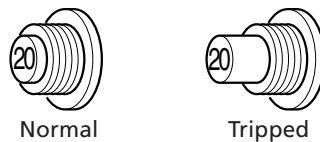


Figure 10 – Receptacle Circuit Breaker Button

Electric motors need higher starting current. They require up to 3 to 6-times their rated full-load wattage to start. The starting current needed may be too high. This can cause nuisance circuit breaker tripping. To help prevent this, start electric motors first. Connect additional items to generator after starting motors. If this continues to happen, reduce the total generator load.

NOTE: High ambient temperatures will cause nuisance tripping.

Assembly HANDLE AND TOP COVER ASSEMBLY (MODEL 3WY47 ONLY)

1. Remove the two bolts, lock nuts, and washers holding side panels to control panel end of roll cage. Insert bolts with washers through two holes in the handle and then back through roll cage and side screen panels (See Figure 11). Tighten the lock nuts against the side screen panels.

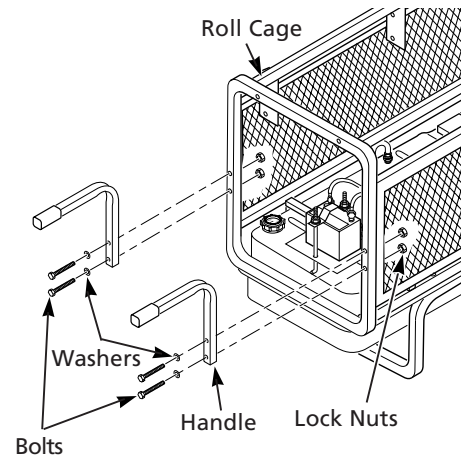


Figure 11 – Attaching Handles to Roll Cage

2. Place top cover on top of generator roll cage with notch on control panel side. Use four #8 SEMS screws provided to attach cover to roll cage (See Figure 12).

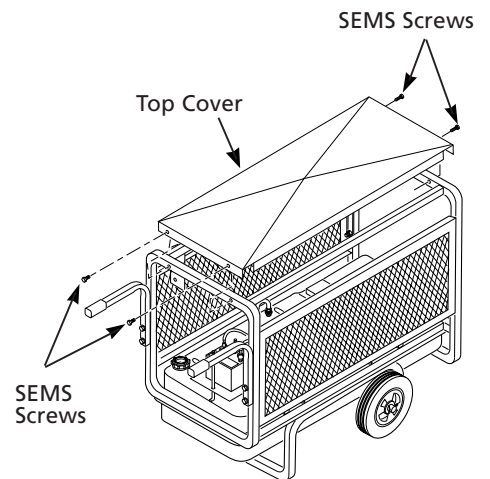


Figure 12 – Attaching Top Cover to Roll Cage

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Assembly (Continued)

BATTERY (MODELS 3WY46, 3WY45, AND 3WY47 ONLY)

▲ WARNING *Battery gives off explosive gases. Keep sparks, flames, and cigarettes away. Do not remove or install battery cables when engine is cranking or running. Only service or use battery in a well-vented area.*

▲ WARNING *Battery contains sulfuric acid. Contact with skin or eyes may cause severe burns. Do not tilt generator with battery installed. Tilting could cause battery acid to spill. Wear protective clothing and face shield when servicing. Keep out of children's reach.*

- If battery acid gets on your skin, wash with water.
- If battery acid gets in your eyes, flush with water at least 15 minutes. Call a doctor at once.

Battery acid is poisonous.

- If swallowed, drink large amounts of water or milk. Follow with milk of magnesia or vegetable oil. Call a doctor at once.

▲ CAUTION *If you remove battery, insulate the red, positive (+) battery cable terminal. Insulate with electrical tape. Exposed terminal may spark when generator runs.*

IMPORTANT: Make sure battery connections are the correct polarity. Electric start generators use negative ground, 12-volt DC starting system.

Models 3WY46, 3WY45, and 3WY47 have an electric starter. A battery is not supplied with generator. You must provide a 12-volt, 32-amp-hour battery. The positive and negative battery cables are supplied with generator. You must install these cables before mounting battery.

Always wear safety glasses when working with battery. Make sure battery terminals are clean. Make sure cable connections are tight.

Always shut down engine before removing or attaching battery cables. Always remove the negative (-) cable first. Always attach negative (-) cable last.

INSTALLING BATTERY CABLES TO ENGINE

1. Attach the red, positive (+) battery cable to the starter solenoid on engine (See Figure 13). The starter solenoid is located directly above the starter on Model 3WY47. This cable is factory installed.

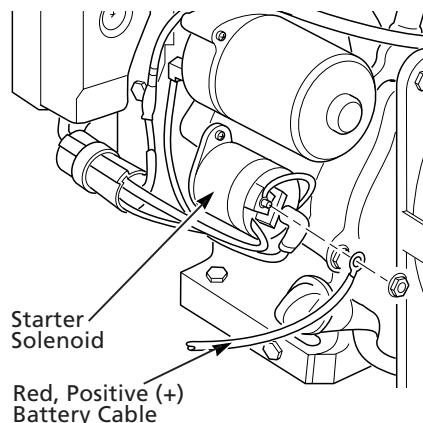


Figure 13 – Connecting Red, Positive (+) Battery Cable to Starter Solenoid on Engine (Model 3WY45 Shown)

2. Attach the black, negative (-) battery cable to the engine block. Use the bolt, nut, and two washers provided with the battery cables. Use long mounting hole on opposite side of engine from starter solenoid. Attach cable as shown in Figure 14.

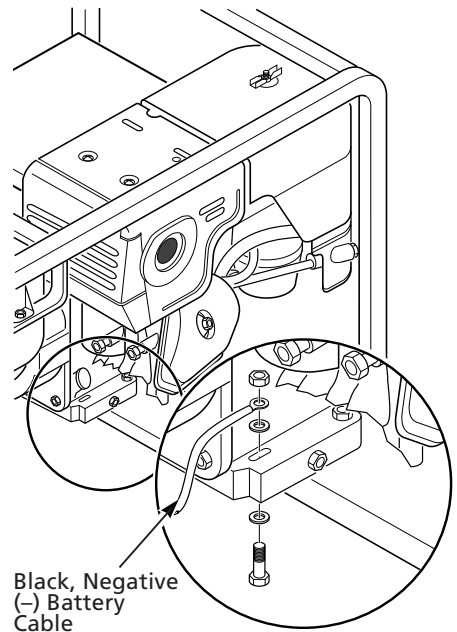


Figure 14 – Connecting Black, Negative (-) Battery Cable to Engine Block

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Assembly (Continued)

MOUNTING BATTERY TO GENERATOR

▲WARNING Do not over tighten positive terminal on starter solenoid. Positive terminal could rotate and cut into negative terminal, causing a short.

NOTE: Model 3WY47 battery is located on opposite side as shown (See Figure 16).

1. Secure battery to generator by battery hold-down system. This system consists of the battery mounting bracket, hook bolt, and nut (See Figures 15 and 16).

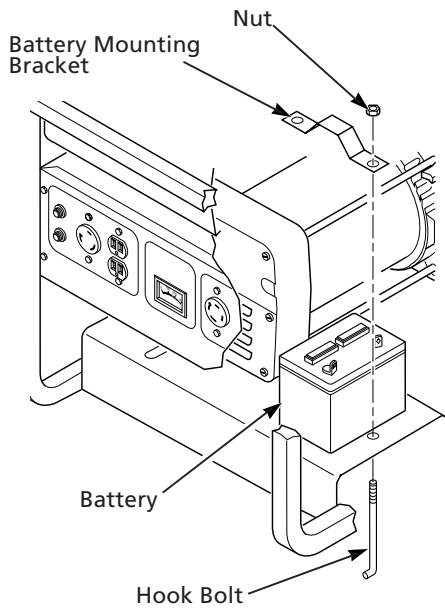


Figure 15 – Battery Hold-Down System (Model 3WY45 Shown)

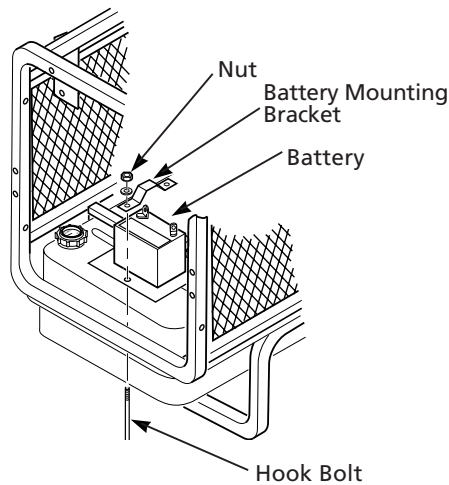


Figure 16 – Battery Hold-Down System (Model 3WY47 Shown)

2. Locate the red, positive (+) battery cable from starter solenoid. Connect it to the positive (+) battery terminal (See Figures 17 and 18).

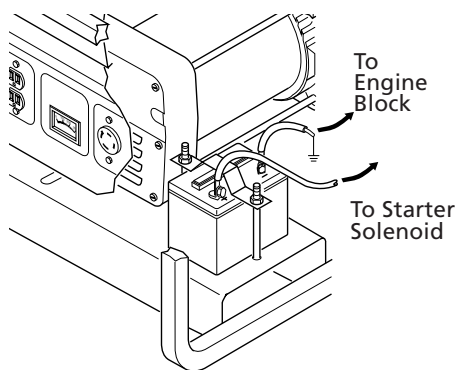


Figure 17 – Connecting Positive and Negative Cables to Battery (Model 3WY45 Shown)

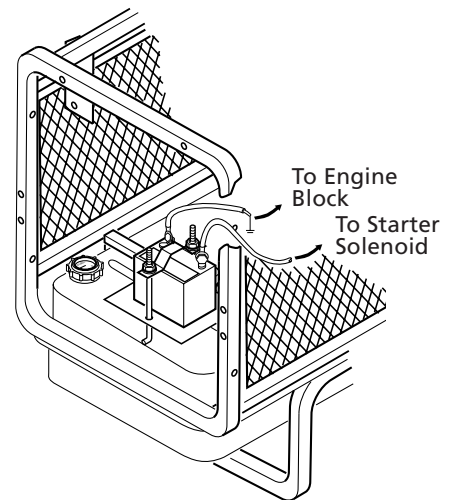


Figure 18 – Connecting Positive and Negative Cables to Battery (Model 3WY47 Shown)

3. Locate the black, negative (-) battery cable attached to engine block. Connect it to the negative (-) battery terminal (See Figure 16).

4. Check battery before starting engine. Make sure fluid levels are full. Make sure battery is charged.

See engine owner's manual for more information.

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Installation

FUEL

⚠ WARNING

Gasoline presents a hazard of fire or explosion. Gasoline is flammable. Its vapor is explosive.

- **Keep fuel out of children's reach.**
- **Refuel generator in a well-vented area. Do not fill fuel tank in the dark. Do not refuel while engine is running. Unhook all electrical loads and shut off engine before refueling.**
- **Do not overfill fuel tank. Always allow room for fuel to expand. If you overfill tank, fuel can overflow onto hot engine. This can cause fire or explosion. After refueling, tightly close fuel tank cap.**
- **Do not spill fuel. Fuel or fuel vapor may ignite. If fuel spills, make sure area is dry before starting engine.**
- **Never smoke in refueling area. Never allow open flames or sparks in area.**
- **Store fuel in approved container. Store fuel in a well-vented area free of open flames or sparks.**

Use clean, fresh, unleaded gasoline. Use gasoline with octane rating of 86 or higher. Service station gasoline pumps should display the octane rating. Using gasoline with lower octane level could damage engine. Avoid getting dirt, dust, or water in fuel tank. Do not mix oil with gasoline. See engine owner's manual for more information.

ENGINE OIL

We ship the generator without oil in the engine crankcase. You must add oil before starting engine. See engine owner's manual for specific oil type.

CHECKING OIL LEVEL AND ADDING OIL

Follow steps below to check oil level. Make sure engine is level and stopped.

1. Remove dipstick (See Figure 19). Wipe dipstick clean.
2. Insert dipstick into oil filler neck. Do not screw it in. Oil level should be at top of filler neck. Oil should cover most of dipstick. For Model 3WY47 only, oil level should be between two dots on dipstick.
3. If level is low, fill to top of oil filler neck (See Figure 19). Only use oil recommended in engine owner's manual. For Model 3WY47 only, fill to top dot on dipstick.

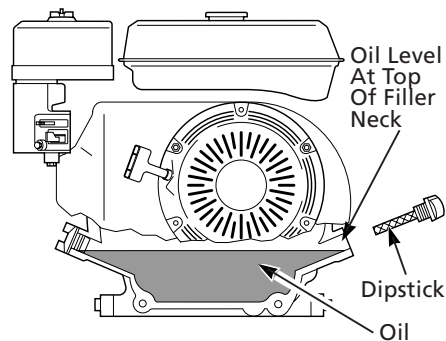


Figure 19 – Checking Oil Level (Model 3W735B Shown)

NOTE: If oil level is too low, oil alert system will shutdown engine and prevent engine from restarting.

VENTILATION

⚠ DANGER

Use only in well-vented areas. Make sure area has plenty of free-moving, fresh, outside air. Never run generator in an enclosed or confined area. Never run generator inside occupied building. Engine exhaust contains poisonous carbon monoxide gas. Overexposure will cause loss of consciousness and will lead to death.

This generator needs cooling air to run properly. Never block free-flowing, cooling air to generator. Overheating will occur without cooling air. This will damage the

generator. Keep generator at least three feet away from any object.

GENERATOR GROUNDING

⚠ WARNING

You must properly earth-ground generator before starting. This will help guard against deadly electric shock. Only use grounded plugs with generator. Only use grounded extension cords. Only use three-wire or double-insulated power tools.

Grounding generator helps prevent electric shock from a ground fault condition.

Locate ground lug on end of generator housing (See Figure 20). Attach a #10 stranded-copper ground wire to ground lug. Drive grounding point into ground. Grounding point can be a stake, grounding rod, or pipe. Grounding point should be copper or brass. Attach ground wire to grounding point. You must supply the ground wire and grounding point. These do not come with generator. Follow the National Electrical Code and all state and local codes. Consult your power company or a licensed electrician.

⚠ WARNING

For a grounding point, do not use metal pipe being used to carry combustible materials or gases.

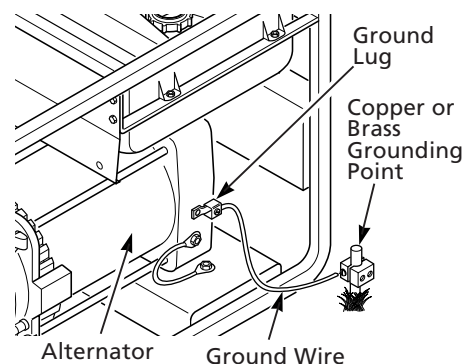


Figure 20 – Grounding Generator (Model 3WY45 Shown)

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Installation (Continued)

DUST, DIRT, RAIN, AND SNOW

▲ WARNING *Do not use generator outdoors in rain or snow. Do not use generator near standing water or snow. Do not use if generator is wet or damp. Operating generator in these conditions increases the risk of electrocution. Severe injury or death can occur.*

Do not use generator in extremely dusty or dirty conditions. This will severely affect its life. Keep generator clean. Do not allow dust, dirt, rain, or snow to collect on it. Protect generator from outdoor elements.

EXTENSION CORDS

Only use grounded extension cords. Be sure to use extension cord with proper wire gauge size. See chart below.

RECOMMENDED MINIMUM WIRE GAUGES (AWG) FOR EXTENSION CORDS

Ampere Load	AWG for 50' Cord	AWG for 100' Cord	AWG for 150' Cord
2	18	18	18
3	18	18	18
4	16	16	16
5	16	16	16
6	16	16	14
8	16	14	12
10	16	14	12
12	14	14	12
14	14	12	10
16	12	12	10
20	10	10	8

GROUND FAULT PROTECTION

Ground Fault Circuit Interrupter (GFCI) helps guard against electric shock. On

construction sites, you must use a GFCI. United States OSHA and the National Electric Code requires this.

You may need to provide the GFCI device. Purchase GFCI at any electrical supply house. Check the Yellow Pages for the nearest supply house.

STANDBY INSTALLATION TO HOME OR BUILDING

▲ WARNING *Have standby installation performed by a skilled, licensed electrician. Do not let anyone else wire into a utility circuit. Personal injury, equipment damage, or damage to home could occur.*

IMPORTANT: This generator will not power your entire home. Most home utility electric service is more than 60 amps. This will exceed generator output. Only power needed items during a power outage. Make sure total wattage of electrical load does not exceed rated wattage of generator.

You can use this generator as a standby power source. During a power outage, the generator will power selected items in a building. Have generator and additional wiring installed by a skilled, licensed electrician. This is not a do-it-yourself job. Follow all local codes.

▲ WARNING *The electrician must install a double-throw transfer switch. This isolates existing electrical circuits from the utility power line. If not isolated, generator output will back-feed into utility power line. This may electrocute a power company line repair person.*

DETERMINING ELECTRICAL LOAD FOR GENERATOR

You must decide what electrical load your generator can power. Do this before using

generator. Use the following four-step method. It will help you select a load that is not too large. Make sure total wattage of all electrical loads does not exceed rated wattage of generator. For rated wattage of your generator, see "Electrical Specifications," page 2. Electric motors present a special problem when figuring load. Read Step 3 carefully.

1. Make two lists of items you want powered by generator. List all motors and motor powered appliances in one. List all lights, small appliances, etc. in the other. For standby service to home or building, only include items you must power.
2. Enter running watts of each item except motors. The light bulb or appliance nameplate lists its wattage. Remember, 1KW = 1000 watts.

NOTE: The nameplate may not list wattage. It may only list volts and amps. The formula for finding wattage is: Volts x Amps = Watts. For example: An appliance nameplate states 3 amps at 120 volts. 3 amps x 120 volts = 360 watts.

3. Electric motors present a special problem. They require 3 to 6 times their rated full load wattage to start. Chart 1, on page 12, shows starting watts (maximum volt-amperes [VA]) for different size motors. For example: an electric motor nameplate states 5 amps at 120 volts. 5 amps x 120 volts = 600 watts running. Multiply this figure by 3. This will show the starting watts (maximum VA) needed. 600 watts x 3 = 1800 watts (VA) to start. When figuring the generator load for motors, you must use the starting watts (maximum VA) figure. Do not use the running watts figure.

Dayton® Professional-Duty Electric Generators

Installation (Continued)

NOTE: Some motors require nearly the same wattage to run as to start. These items include saws, drills, hair dryers, and food mixers. See Chart 2 for typical appliance wattage examples.

4. Add watts and starting watts (maximum VA) of all items. This total must not be larger than the rated wattage of your generator. It is a good idea to have up to 25% extra capacity for future needs or extra equipment.

TYPICAL ELECTRIC APPLIANCE WATTAGES

Chart to be used as reference. Data may vary with size, make, and/or model.

CHART 2

Equipment	Running Watts	Starting Watts (Max. VA)
Light bulb (100W)	100	100
Radio	150	150
Fan	200	600
Television	400	400
Furnace fan—1/3 HP with blower	600	1800-2400
Vacuum cleaner	600	750
Sump pump—1/3 HP	700	2100-2800
Refrigerator/freezer	800	5000
6" Circular saw	800	1000
Floodlight	1000	1000
1/2" Drill	1000	1250
Toaster/coffeemaker	1200	1200
Skillet	1200	1200
14" Chain saw	1200	1500
Water well pump—1/2 HP	1000	3000-6000
Hot plate/range (per burner)	1500	1500
10" Table saw	2000	6000
Water heater (storage-type)	5000	5000

CHART 1

Motor HP Rating	Approximate Running Watts	Approximate Starting Watts* (Max. VA) Universal Motors (small appliance)	Approximate Starting Watts* (Max. VA) Repulsion Induction Motors	Approximate Starting Watts* (Max. VA) Capacitor Motors	Approximate Starting Watts* (Max. VA) Split Phase Motors
1/8	275	400	600	850	1200
1/4	400	500	850	1050	1700
1/3	450	600	975	1350	1950
1/2	600	750	1300	1800	2600
3/4	850	1000	1900	2600	†
1	1000	1250	2300	3000	†
1½	1600	1750	3200	4200	†
2	2000	2350	3900	5100	†
3	3000	†	5200	6800	†

(*) Always use starting watts (maximum VA), not running watts, when figuring correct electrical load.

(†) Motors of higher horsepower are not generally used.

Please check with appliance manufacturer for maximum wattage required.

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Operation

HIGH AND LOW TEMPERATURE OPERATION

Air temperature affects generator output. Output drops 1% for each 10° temperature rise above 60° F. Very low temperatures may make the engine hard to start. See engine owner's manual for more information.

GENERAL INFORMATION

This generator is not large enough to power your entire home. Do not connect generator to any existing electrical circuits. Plug items directly into generator receptacles. Do not exceed amperage rating of receptacles. Only use grounded cords.

⚠ DANGER Use only in well-vented areas. Make sure area has plenty of free-moving, fresh, outside air. Never run generator in an enclosed or confined area. Never run generator inside occupied building. Engine exhaust contains poisonous carbon monoxide gas. Overexposure will cause loss of consciousness and will lead to death.

⚠ DANGER Never connect generator to any existing electrical circuits. The generator output will back-feed into the utility power line. This may electrocute a power company line repair person. Also, if generator is powering electrical circuits, the chance of an electrical fire exists.

NOTE: We supply the engine owner's manual with generator. Refer to that manual for questions concerning engine operation.

USING RECEPTACLE

NOTE: Do not exceed amperage rating of receptacles. Exceeding rating will trip receptacle circuit breaker.

Use receptacles properly. Improper use could damage generator. Use only grounded extension cords. Power only grounded or double-insulated items. Do not overload receptacles. Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45 have the following receptacles (See Figure 21):

- 120V, 15-amp duplex receptacle
- 120V, 15-amp duplex GFCI receptacle
- 120V, 30-amp twist-lock receptacle
- 120/240V, 20 or 30-amp twist-lock receptacle

Model 3W735B has only the 120V duplex receptacle.

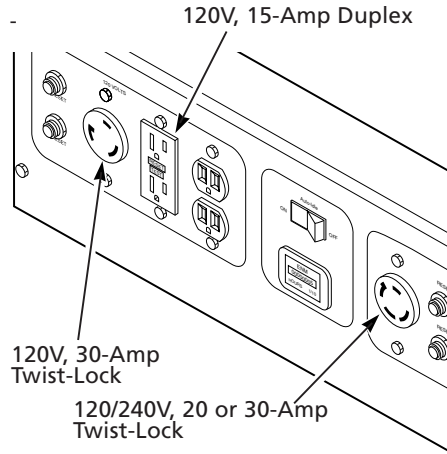


Figure 21 – Receptacle Locations (Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45)

Model 3WY47 has the following receptacles (See Figure 22):

- 120V, 15-amp duplex GFCI receptacle
- 120V, 15-amp duplex receptacle
- 120V, 30-amp twist-lock receptacle
- 120/240V, 30-amp twist-lock receptacle
- 120/240V, 50-amp receptacle

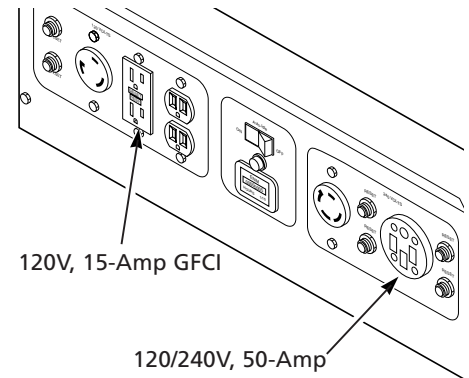


Figure 22 – Receptacle Locations (Model 3WY47 only)

POWER CORD AND PLUG REQUIREMENTS

- 120V, 30-amp twist-lock receptacle
- NEMA L5-30P plug
 - Three-wire, 30-amp cord
- 120/240V, 20 or 30-amp twist-lock receptacle
- NEMA L14-20P (20-amp) or L14-30P (30-amp) plug
 - Four-wire, 20-amp or 30-amp cord
- 120V/240V, 50-amp twist-lock receptacle
- NEMA L14-50P plug
 - Four-wire, 50-amp cord

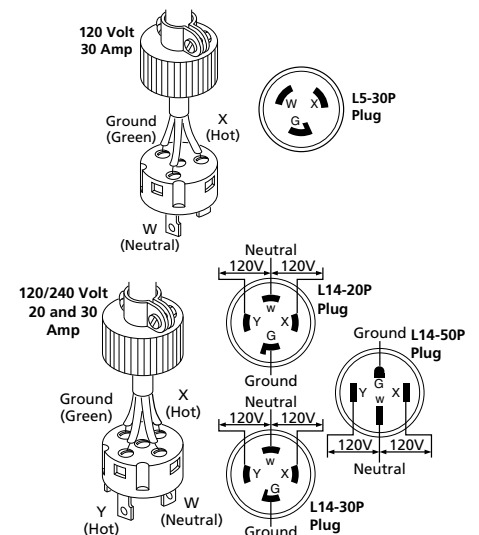


Figure 23 – Cord and Plug Configurations

Dayton® Professional-Duty Electric Generators

Operation (Continued)

PRESTART

Operate generator on a firm, dry, and clean surface. The surface must be level. Protect generator from heavy dust, sand, dirt, rain, or snow. Do not locate generator near standing water and snow. Make sure area is well-vented.

▲ WARNING Only responsible adults should use generator. Never let anyone operate generator without proper instructions.

NOTE: If oil level is too low, oil alert system will keep engine from starting (See "Oil Alert System," page 5). Make sure oil level is full before starting. See "Engine Oil," page 10.

Before starting the engine, disconnect all electric loads from generator.

STARTING

IMPORTANT: The engine speed is preset. The throttle is locked in preset position. Do not adjust throttle. Preset position lets engine run at 3600 RPM under load. The engine must maintain 3600 RPM for generator to create correct voltage. Running engine at lower speeds will damage generator and powered items.

IMPORTANT: Never start generator with electrical loads connected. Start engine before adding electrical loads.

1. Make sure gasoline tank is full. See "Fuel," page 10 for fuel information.
2. Move fuel valve lever to the ON position (See Figure 24).
3. Move choke lever fully to the left (See Figure 24) or pull choke button out (Model 3WY47 only, See Figure 25). This closes the choke.

NOTE: You may not need to close choke if engine is warm or air temperature is high.

4. Start the engine.

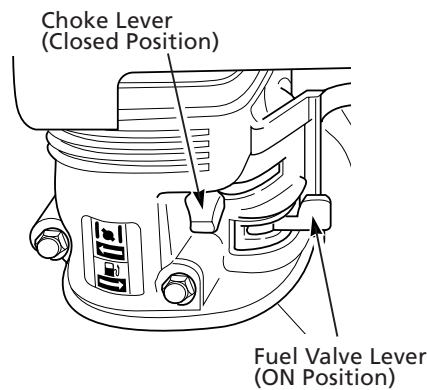


Figure 24 – Fuel Valve Lever On, Choke Lever Closed (Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45)

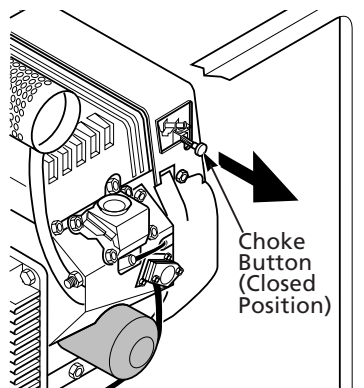


Figure 25 – Choke Button Closed (Model 3WY47 Only)

RECOIL STARTER (NOT AVAILABLE ON MODEL 3WY47)

Turn engine switch to the ON position (See Figures 26 and 27). Remove slack from starter rope by lightly pulling starter grip. Next, pull starter rope briskly.

IMPORTANT: Do not let starter grip snap back against engine. Return it gently. This will prevent damage to starter.

NOTE: If engine does not start, check the oil level in the crankcase. Add oil as needed. Be sure engine is on a level surface. See "Oil Alert System," page 5.

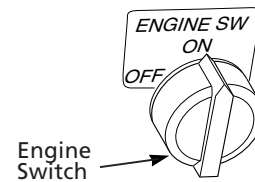


Figure 26 – Engine Switch in ON Position (All Models Except 3WY46, 3WY45, and 3WY47)

ELECTRIC STARTER (MODELS 3WY46, 3WY45, AND 3WY47 ONLY)

Turn the engine switch to the START position (See Figure 27). Hold it there until engine starts. When engine starts, let switch return to the ON position.

IMPORTANT: Do not use electric starter more than five seconds. Starter motor damage may occur. If engine fails to start, release the switch and wait ten seconds. After ten seconds, try starting again.

NOTE: If engine does not start, check the oil level in the crankcase. Add oil as needed. Be sure engine is on a level surface. See "Oil Alert System," page 5.

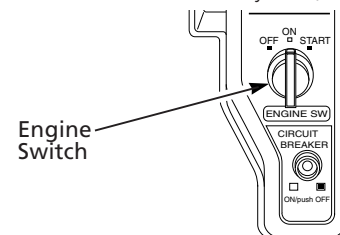


Figure 27 – Engine Switch (Models 3WY46, 3WY45, and 3WY47 Only)

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Operation (Continued)

5. As engine warms up, slowly move choke lever fully to the right (See Figure 28). This opens the choke. On Model 3WY47, the choke will automatically open (See Figure 29).

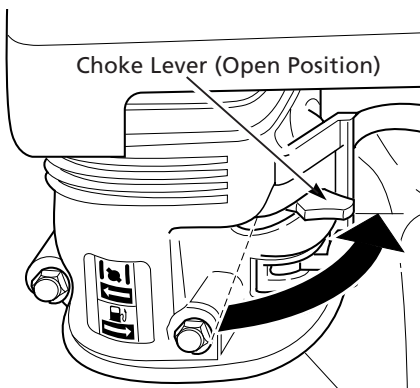


Figure 28 – Choke Lever Opened

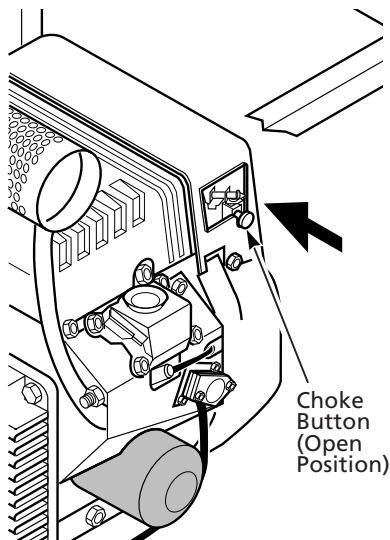


Figure 29– Choke Lever Opened (Model 3WY47 Only)

AUTO-IDLE OPERATION

IMPORTANT: Never start engine with electrical loads connected. Start engine before adding electrical loads.

1. If engine is cold, turn the auto-idle switch OFF.
2. Start engine. Allow engine to warm up with no load for five minutes.
3. Turn auto-idle switch ON. Engine will slow to idle speed. Engine idle speed is preset. Idle speed adjustment should not be necessary.
4. Operate generator according to specifications outlined in owner's manual.
5. Engine will automatically increase to normal operating speed when you plug load into any generator outlet.

NOTE: The 250 Volt/50 Amp receptacle is not connected through the auto-idle circuit. The auto-idle switch must be turned off to get full power out of this receptacle (See Figure 30).

6. The auto-idle system should be turned OFF when generator is shut down.

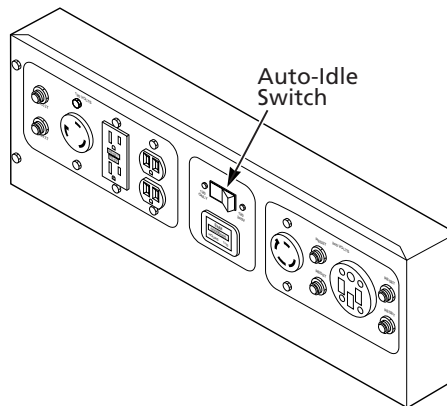


Figure 30 - Auto-Idle Switch Location on Control Panel

ADJUSTING THE IDLE SPEED

IMPORTANT: Adjust the idle speed only:

- If the idle speed becomes too high.
- If the engine idle speed will not regulate (engine idles and speeds up again and again).

1. Turn auto-idle switch OFF. Start engine. Allow engine to warm up with no load for five minutes.
2. Remove engine linkage cover (Models 3WY46 and 3WY45 only).
3. Push plunger into solenoid body to manually engage solenoid and set idle speed.
4. Loosen the M8 nut that holds the solenoid mounting bracket to the generator (Models 3WY46 and 3WY45 only, See Figure 31). Do not loosen bolt that holds the solenoid mounting bracket to the generator on Model 3WY47, See Figure 32).

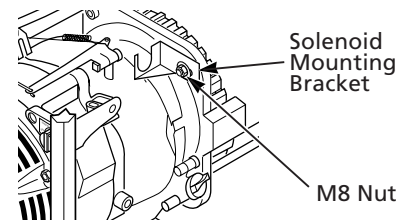


Figure 31 - Solenoid Bracket Location (Models 3WY46 and 3WY45 Only)

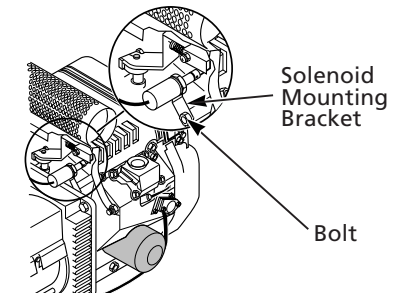


Figure 32 - Solenoid Bracket Location (Model 3WY47 Only)

Dayton® Professional-Duty Electric Generators

Operation (Continued)

▲ WARNING *Always set the idle speed before turning on the auto-idle. If idle speed is not set, the larger resistor on the control board may become hot. Heat from the resistor may damage the protective coating on the control board.*

- Slowly pull solenoid bracket away from engine (on Model 3WY47 this will require bending the bracket slightly).
- With a volt meter, check the no-load output voltage at the 120-volt duplex receptacle. At proper idle speed (2680 minimum RPM) the meter should read 50-60 volts. Lower settings will cause the auto-idle to not operate properly.
- After reaching proper idle speed, tighten M8 nut to secure solenoid mounting bracket (Models 3WY46 and 3WY45 only).
- Turn auto-idle switch ON. Make sure solenoid is engaged. When engaged, the plunger is pulled back into the solenoid.
- If the engine speed is too slow, the engine will want to "hunt" or speed up and slow down repeatedly. When this occurs, increase engine speed by adjusting throttle stop screw on carburetor (refer to Carburetor Adjustment in Honda Engine Manual).
- Replace the engine linkage cover (Models 3WY46 and 3WY45 only).

HIGH ALTITUDE OPERATION

This generator will not perform well at high altitudes without proper adjustment. See engine owner's manual for details.

ADDING ELECTRICAL LOADS

IMPORTANT: Do not overload generator. Make sure total wattage of all electrical loads does not exceed rated wattage of generator. Overloading may shorten generator life. It could also cause internal damage to generator. Overloading will trip circuit breaker.

IMPORTANT: Keep full power selector switch in the 120 VOLT ONLY position if only powering 120V items. Only move switch to 120/240 VOLT position if powering 240V items.

- Check items to be powered. Their nameplate lists their wattage ratings.

NOTE: The wattage ratings for some electrical motors are misleading. They may require 3 to 6 times their rated wattage to start. You must figure total electrical load wattage. Make sure total wattage of all electrical loads does not exceed rated wattage of generator. See "Determining Electrical Load for Generator," page 11.

- Start engine. Let engine reach full speed.
- Connect electrical loads one at a time. If the load consists of electric motors, start them first. Always start the largest first. Start each motor individually.

DISCONNECTING ELECTRIC LOADS

Remove electrical loads one at a time. Remove voltage sensitive items first. Voltage sensitive items include TVs, VCRs, and other home electronic items.

STOPPING ENGINE

IMPORTANT: The engine speed is preset. The throttle is locked in preset position. Do not adjust throttle.

Follow the steps below to stop engine.

- Remove all electrical loads from generator (See "Disconnecting Electrical Loads," above). Remove electrical loads one at a time.
- Let engine run for two or three minutes after removing electrical loads. This lets engine cool slightly.
- Turn engine switch to the OFF position (See Figures 33 and 34).

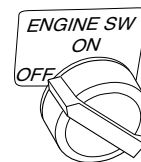


Figure 33 – Engine Switch In OFF Position, All Models Except 3WY46, 3WY45, and 3WY47

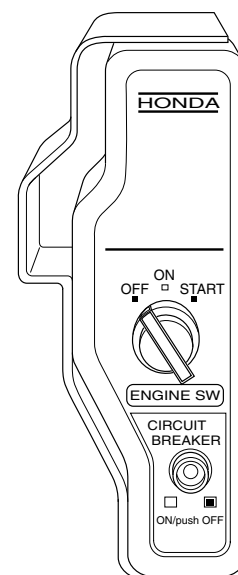


Figure 34 – Engine Switch in OFF Position, Models 3WY46, 3WY45, and 3WY47

Models 3WY47, 3W735B, 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Operation (Continued)

4. Turn fuel valve lever off. Do this by moving valve lever fully to the left (See Figure 35).

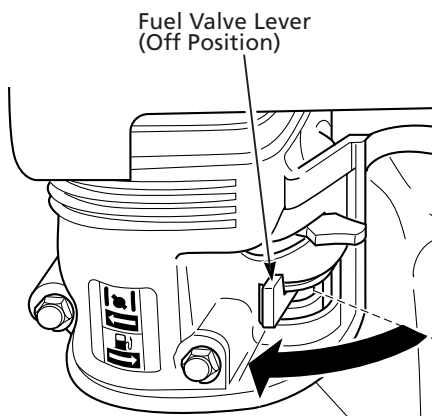


Figure 35 – Fuel Valve Lever Off (All Models except 3WY47)

Maintenance and Repairs

▲ WARNING Only a qualified electrical service person should service and repair the alternator on this generator. Use only factory approved repair parts.

▲ CAUTION The engine speed is preset. The throttle is locked in preset position. Do not adjust throttle. Preset position lets engine run at 3600 RPM under load. The engine must maintain 3600 RPM for generator to create correct voltage. Running engine at lower speeds will damage generator and powered items.

▲ CAUTION Shut off generator before performing maintenance.

IMPORTANT: Keep generator level when servicing. Never turn generator upside down or stand it on end to service.

NOTE: We supply the engine owner's manual with generator. Refer to that manual for questions concerning engine maintenance and repairs.

Non-engine parts require little maintenance. Keep generator clean. Use a damp cloth to clean outside surfaces. Never use water to clean generator. Water can cause damage to internal parts. Use vacuum to clean air inlet and outlet louvers of alternator.

SERVICING THE ENGINE

Honda parts and services should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing: Engines Gasoline, Honda

Storage

▲ WARNING Remove all fuel from fuel tank before storing generator. Store fuel in approved container. Store fuel in a well-vented area free of open flames or sparks.

▲ WARNING The muffler becomes very hot during operation. The muffler remains hot for a while after shutdown. Let engine cool before storing.

IMPORTANT: Keep generator level while in storage. Never store generator upside down or standing on end.

NOTE: We supply the engine owner's manual with generator. Refer to that manual for questions concerning engine storage.

Cover and store generator in a clean, dry place. Do not expose generator to extreme high or low temperatures during storage.

Dayton® Professional-Duty Electric Generators

Troubleshooting Chart

NOTE: See engine owner's manual for engine troubleshooting.

▲WARNING

Only a qualified electrical service person should service and repair generator. Use only factory approved repair parts.

Symptom	Possible Cause(s)	Corrective Action
Engine will not start	<ol style="list-style-type: none"> 1. Insufficient fuel 2. Oil level low 	<ol style="list-style-type: none"> 1. Fill tank with fresh fuel 2. Fill engine crankcase with oil to the full mark on dip stick
No voltage when starting generator with no electrical load	<ol style="list-style-type: none"> 1. Defective capacitor 2. Winding short circuit or loose connections 3. Defective rotor diode 4. Loss of residual magnetism 	<ol style="list-style-type: none"> 1. Replace capacitor 2. Check resistance of coils (see "Electrical Component Specifications," page 2) 3. Replace both diodes on rotor 4. Apply 12-volt battery to capacitor terminals for 2-3 seconds
Voltage is less than normal voltage with no electrical load	<ol style="list-style-type: none"> 1. Engine speed too low 2. Defective rotor diode 3. Partial short circuit in winding 4. Defective capacitor 	<ol style="list-style-type: none"> 1. Set engine speed to 3720 RPM (62 Hz) with no load 2. Replace both diodes on rotor 3. Check resistance of coils (see "Electrical Component Specifications," page 2) 4. Replace capacitor
Voltmeter reading more than 10% high with no electrical load	Engine speed too high	Set engine speed to 3720 RPM (62 Hz) with no load
Voltmeter reading correct with no electrical load, but more than 10% low when electrical load is added	<ol style="list-style-type: none"> 1. Defective rotor diode 2. Electrical load too high 3. Engine not running properly 	<ol style="list-style-type: none"> 1. Replace both diodes on rotor 2. Do not overload generator 3. Contact an authorized engine service center

Dayton® Professional-Duty Electric Generators

Wiring Diagrams

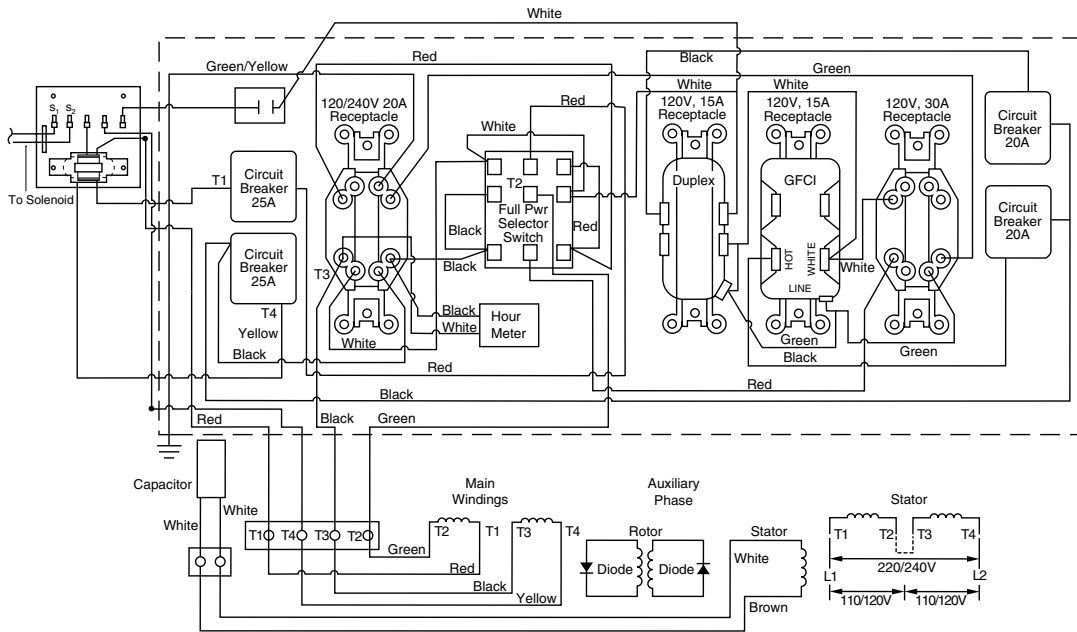


Figure 38 – Wiring Diagram, Models 3WY45 and 3WY46

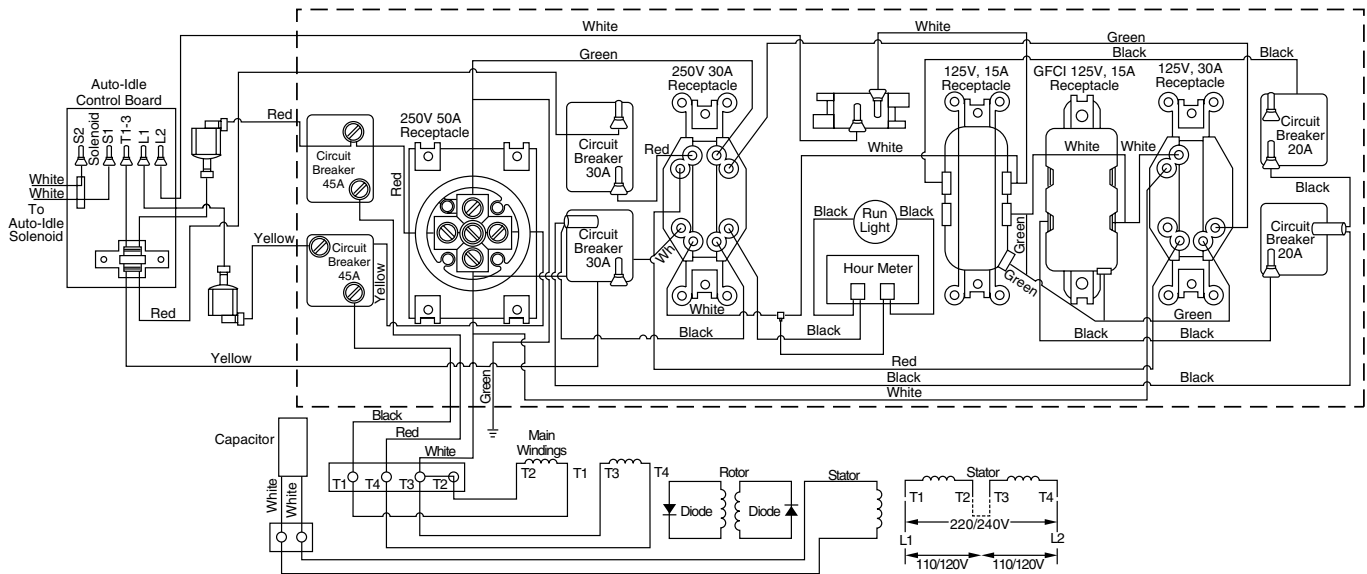


Figure 39 – Wiring Diagram, Model 3WY47

For Repair Parts, call 1-800-323-0620

24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
P.O. Box 3074
1657 Shermer Road
Northbrook, IL 60065-3074 U.S.A.

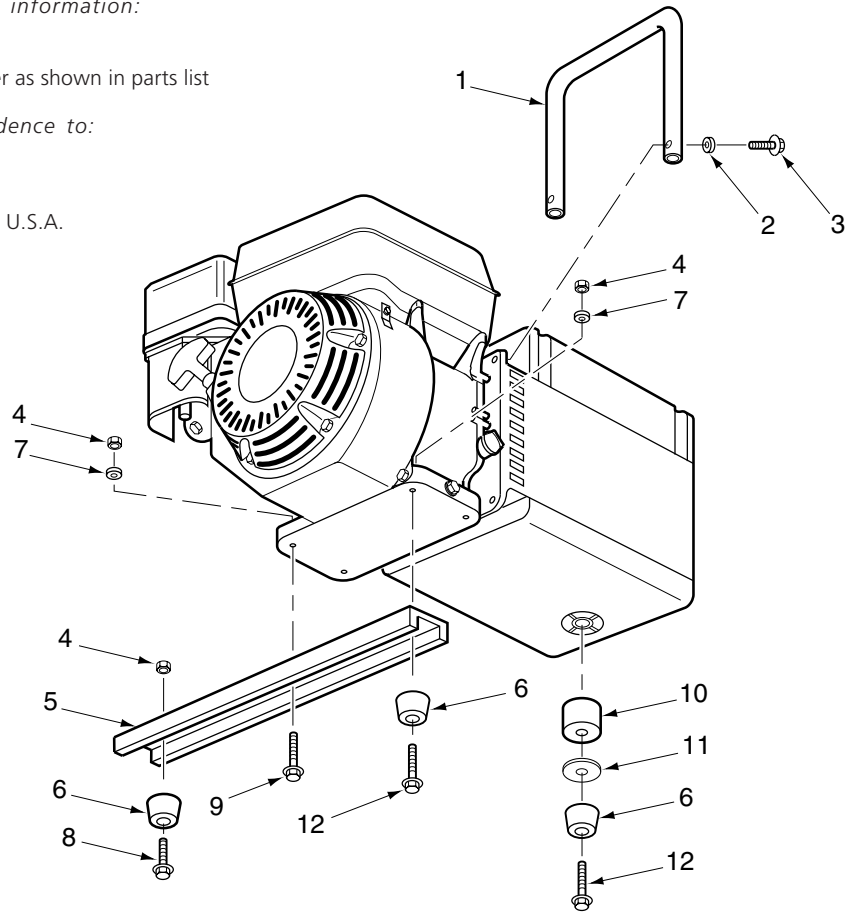


Figure 40 – Repair Parts Illustration for Model 3W735B Handle and Base Assembly

Repair Parts List

Reference Number	Description	Part No. for Model 3W735B	Quantity
1	Handle (includes 2 spacers)	099831-01	1
2	1/4" Lock washer	WLE-4	2
3	M6 x 35 Screw	099769-01	2
4	5/16-18 Nut	NEC-5C	3
5	Engine Spreader	099754-01	1
6	Rubber bumper	13401000	3
7	5/16" Flat washer	WP-5C	2
8	5/16-18 x 1" Screw	19165004	1
9	5/16-18 x 1 1/2" Screw	*	1
10	Isolator spacer	099767-01	1
11	5/16 x 1 1/2" Washer	21834000	1
12	5/16-18 x 2" Screw	19166004	2

NOTE: Fuel tank is available from Engine Mfg. Co. only.

(*) Standard hardware item, available from local hardware store.

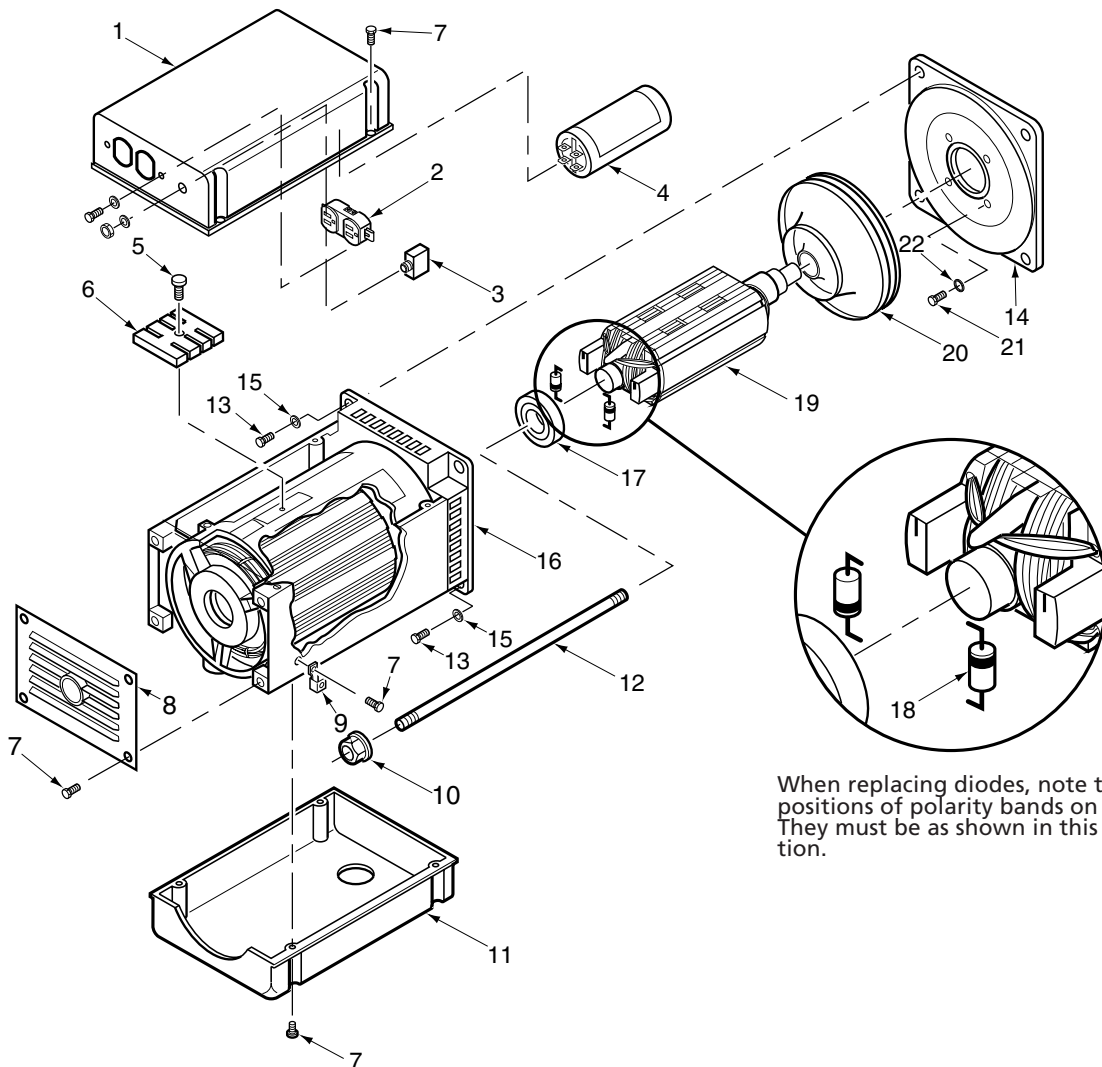
For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
 P.O. Box 3074
 1657 Shermer Road
 Northbrook, IL 60065-3074 U.S.A.



When replacing diodes, note the positions of polarity bands on each. They must be as shown in this illustration.

Figure 41 – Repair Parts Illustration for Model 3W735B Alternator Assembly

Repair Parts List for Model 3W735B Alternator Assembly

Reference Number	Description	Part No. for Model 3W735B	Quantity
1	Top cover	099849-01	1
2	120V, 15A Duplex receptacle	15324000 †	1
3	20 Amp Circuit breaker	22616009 †	1
4	Capacitor	27002002S	1
5	M4 x 20 Screw	26333000	1
6	Terminal block	099863-01	1
7	M5 x 13 Screw	099701-01	13
8	End plate	099848-01	1
9	Ground lug	††	1
10	8mm Flanged nut	099891-01	1
11	Bottom cover	099861-01	1
12	Draw bolt	099842-01	1
13	M6 x 16 Screw	*	4
14	Engine flange	27001005S	1
15	1/4" Lock washer	WLE-4	4
16	Stator	††	1
17	Bearing	27001002	1
18	Diode	27001009S	2
19	Rotor	††	1
20	Fan	27001006	1
21	5/16-24 x 5/8" Bolt	26327006	4
22	5/16" Lock washer	WLE-5	4
▲	Alternator assembly	099722-01	1
Δ	Safety information decal	099866-03	1
Δ	Safety information decal	099866-04	1
Δ	Operation decal	099867-02	1

(▲) Includes reference numbers 1 through 22.

(Δ) Not shown.

(†) Includes fastening hardware.

(††) Parts not available. Included in alternator assembly.

(*) Standard hardware item, available from local hardware store.

For Repair Parts, call 1-800-323-0620**24 hours a day - 365 days a year**

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
P.O. Box 3074
1657 Shermer Road
Northbrook, IL 60065-3074 U.S.A.

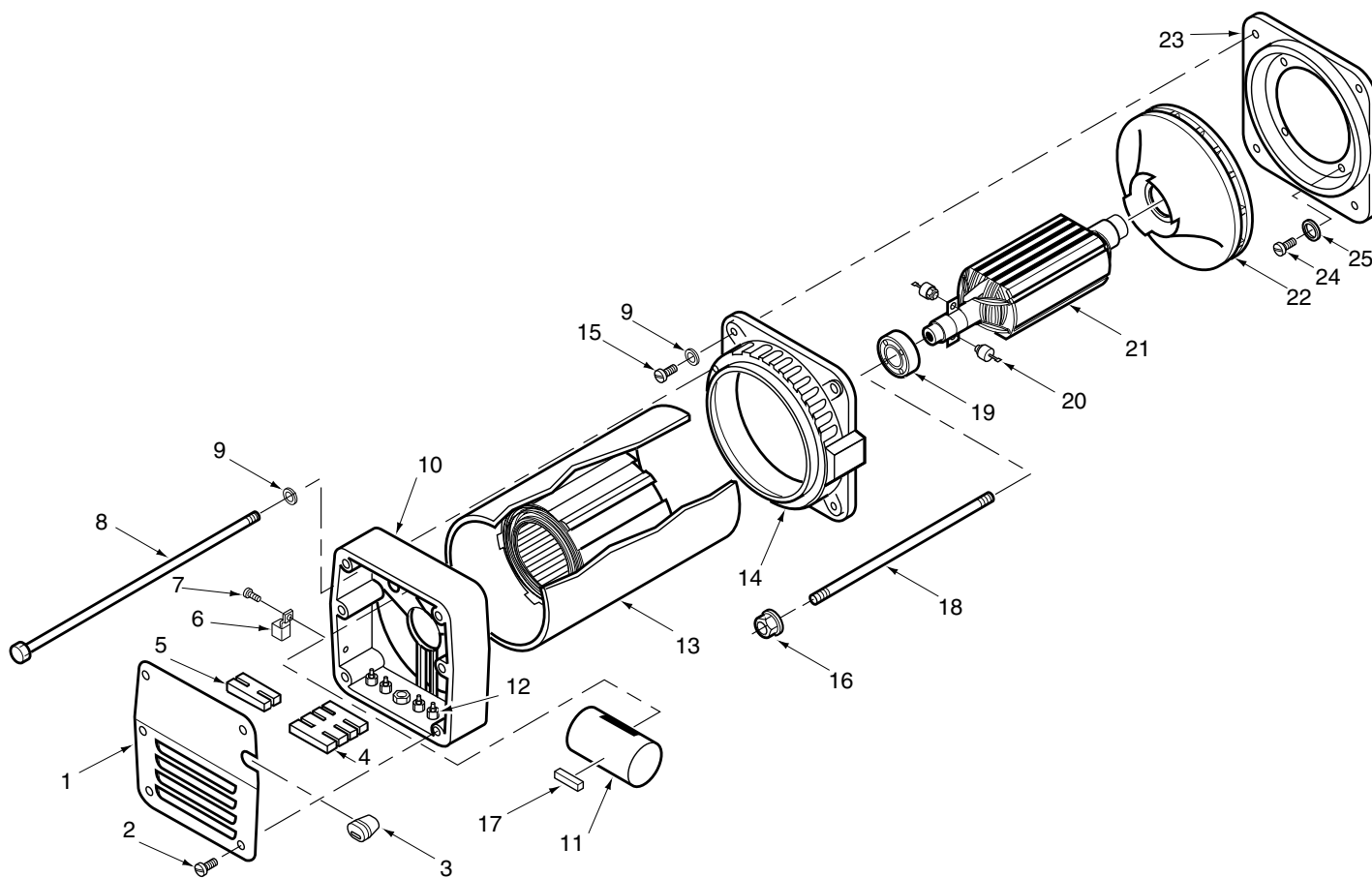


Figure 42 – Repair Parts Illustration for Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45 Alternator Assembly

Repair Parts List for Models 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46 Alternator Assembly

Reference Number	Description	Part No. for Models:					Quantity
		3W736C	3WY44	3WY46	3TE27A	3WY45	
1	End cover	099844-01	099844-01	099844-01	099844-01	099844-01	1
2	M5 x 13 Screw	099701-01	099701-01	099701-01	099701-01	099701-01	6
3	Bushing	099760-01	099760-01	099760-01	099760-01	099760-01	1
4	Terminal block (4-block)	099863-01	099863-01	099863-01	—	—	1
5	Terminal block (2-block)	099863-02	099863-02	099863-02	099863-02	099863-02	1
6	Ground lug	†	†	†	†	†	1
7	#10-16 x 3/8" Screw	M11084-26	M11084-26	M11084-26	M11084-26	M11084-26	1
8	Stator bolt	099847-01	099847-02	099847-02	099847-03	099847-04	4
9	5/16" Lock washer	WLE-5	WLE-5	WLE-5	WLE-5	WLE-5	4
10	Bearing housing	099843-01	099843-01	099843-01	099843-01	099843-01	1
11	Capacitor	27004002S	27005003S	27005003S	099845-01	27007004S	1
12	Terminal post	—	—	—	100054-01	100054-01	4
13	Stator	†	†	†	†	†	1
14	Fan bracket	†	†	†	†	†	1
15	M8 x 20 Screw	*	*	*	*	*	4
16	8mm Flanged rotor nut	099891-01	099891-01	099891-01	099891-01	099891-01	1
17	Foam pad	099892-01	099892-01	099892-01	099892-01	099892-01	1
18	Draw bolt	099842-01	099842-02	099842-02	099842-03	099842-04	1
19	Bearing	27003003	27003003	27003003	27003003	27003003	1
20	Diode	27003012S	27003012S	27003012S	27003012S	27003012S	2
21	Rotor	†	†	†	†	†	1
22	Fan	27003008	27003008	27003008	27003008	27003008	1
23	Engine flange	27003007S	27003007S	27003007S	27003007S	27003007S	1
24	3/8-16 x 5/8" Bolt	*	*	*	*	*	4
25	3/8" Lock washer	*	*	*	*	*	4
▲	Alternator assembly	099723-01	099723-02	099723-02	099723-03	099723-04	1

(▲) Includes reference numbers 1 through 25.

(†) Parts not available. Included in alternator assembly.

(*) Standard hardware item, available from local hardware store.

For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

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 P.O. Box 3074
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 Northbrook, IL 60065-3074 U.S.A.

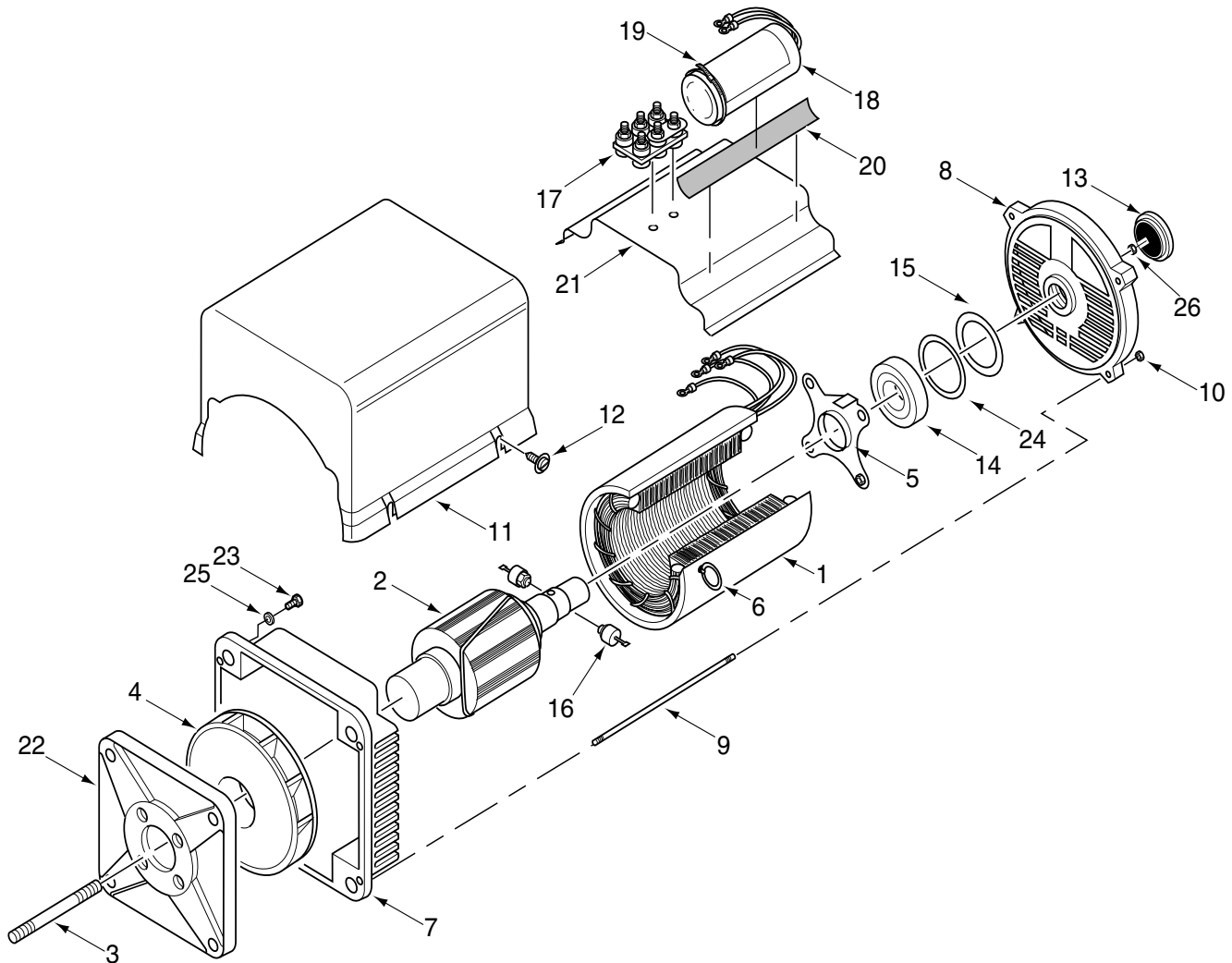


Figure 43 – Repair Parts Illustration for Model 3WY47 Alternator Assembly

Repair Parts List for Model 3WY47 Alternator Assembly

Reference Number	Description	Part No. for Model 3WY47	Quantity
1	Stator	†	1
2	Rotor	†	1
3	Draw bolt	103188-01	1
4	Fan	103191-01	1
5	Balancing disc	103192-01	1
6	Lifting eyes	103193-01	2
7	D.E. Bracket	103194-01	1
8	N.D.E. Bracket	103195-01	1
9	Mounting bolts	099847-05	4
10	Nuts	099891-01	4
11	Top box	103189-01	1
12	Screw and washer	099701-01	6
13	Plastic cap	103198-01	1
14	Bearing	103199-01	1
15	Borelly washer	103200-01	1
16	Diode	27003012S	2
17	Terminal block	103201-01	1
18	Capacitor	099845-02	1
19	Tie wrap	103204-01	1
20	Foam pad	099892-02	1
21	Capacitor bracket	103202-01	1
22	Engine flange	103190-01	1
23	M8 x 20 Screw	*	4
24	'O' Ring	103203-01	1
25	Washer	WLE-5	2
26	Hex head nut	099891-01	1
▲	Alternator assembly	102938-01	1

(▲) Includes reference numbers 1 through 26.

(†) Parts not available. Included in alternator assembly.

(*) Standard hardware item, available from local hardware store.

For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
 P.O. Box 3074
 1657 Shermer Road
 Northbrook, IL 60065-3074 U.S.A.

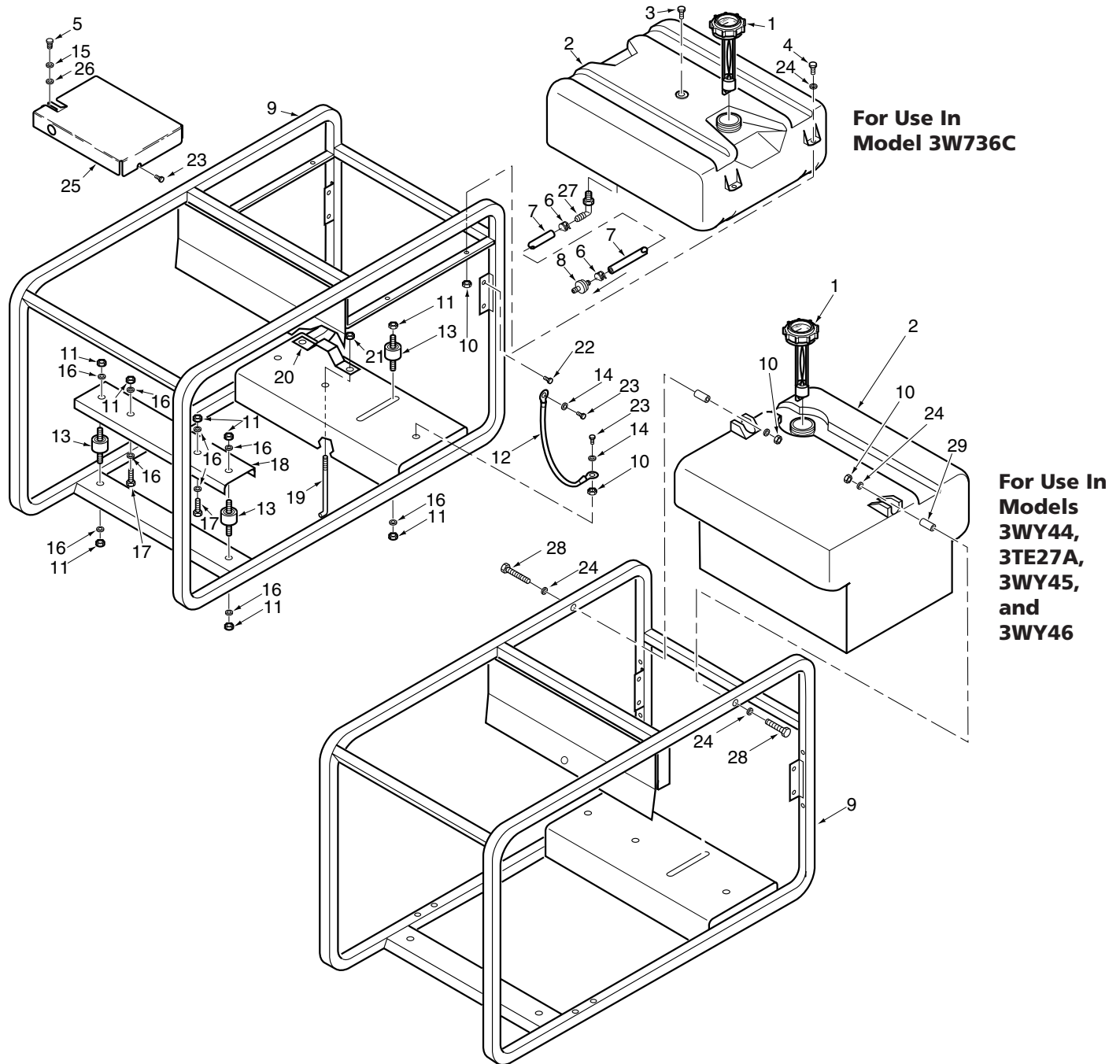


Figure 44 – Repair Parts Illustration for Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45 Fuel Tank and Roll Cage

Repair Parts List for Models 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46 Fuel Tank and Roll Cage

1	Gas cap/fuel gauge	25954000	25954001	25954001	25954001	25954001	1
2	Gas tank (with 90° fitting)	099832-01	107021-01	107021-01	107021-01	107021-01	1
3	Breather assembly	25978000	—	—	—	—	1
4	1/4-20 x 1" Screw	HC4-8C	—	—	—	—	4
5	M5 x 10 Screw	099701-01	099701-01	099701-01	099701-01	099701-01	1
6	Gas line clamp	19508001	19508001	19508001	19508001	19508001	2
7	Fuel line	25985005	25985005	25985005	25985005	25985005	1
8	Fuel filter	099743-01	099743-01	099743-01	099743-01	099743-01	1
9	Roll cage	099752-02	106063-01	106063-01	106063-01	106063-01	1
10	1/4-20 Lock nut	103880-01	—	—	—	—	5
		—	103880-01	103880-01	103880-01	103880-01	3
11	5/16-18 Lock nut	NEC-5C	—	—	—	—	8
		—	NEC-5C	NEC-5C	NEC-5C	NEC-5C	10
12	Ground strap	14138000	14138000	14138000	14138000	14138000	1
13	Shock mounts	099853-02	099853-02	099853-02	099853-02	099853-02	3
14	5/16" Lock washer	WLE-5	WLE-5	WLE-5	WLE-5	WLE-5	3
15	Lock washer	WLI-3	WLI-3	WLI-3	WLI-3	WLI-3	1
16	5/16" Flat washer	WP-5C	—	—	—	—	9
		—	WP-5C	WP-5C	WP-5C	WP-5C	13
17	5/16-18 x 1 ³ / ₄ " Bolt	HC5-14C	HC5-14C	HC5-14C	HC5-14C	HC5-14C	2
18	Engine spreader	099756-01	099756-01	099756-01	099756-01	099756-01	1
19	5/16-18 Hook bolt	—	—	099750-01	—	099750-01	2
20	Battery mounting bracket	—	—	099749-01	—	099749-01	1
21	5/16-18 Lock nut	—	—	NEC-5C	—	NEC-5C	2
22	#8-18 x 1/2" Sems screw	100410-01	100410-01	100410-01	100410-01	100410-01	4
23	1/4-20 x 1/2" Screw	M10908-74	M10908-74	—	M10908-74	—	3
		—	—	M10908-74	—	M10908-74	2
24	1/4" Washer	WP-4C	WP-4C	WP-4C	WP-4C	WP-4C	4
25	Linkage cover	099965-01	099965-01	099965-01	099965-01	099965-01	1
26	#10 Washer	WP-3C	WP-3C	WP-3C	WP-3C	WP-3C	1
27	90° Elbow	103676-01	103676-01	103676-01	103676-01	103676-01	1
28	1/4-20 x 2" Bolt	—	HC4-16C	HC4-16C	HC4-16C	HC4-16C	2
29	Spacer	—	107110-01	107110-01	107110-01	107110-01	2
Δ	Safety information decal	099866-02	—	—	—	—	1
Δ	Operation decal	100003-01	100003-01	100003-02	100003-01	100003-02	1
Δ	Red battery cable (Positive)	—	—	099873-01	—	099873-01	1
Δ	Black battery cable (Negative)	—	—	099873-02	—	099873-02	1
Δ	Fuel line grommet	03175000	03175000	03175000	03175000	03175000	3

(Δ) Not shown.

For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts
 P.O. Box 3074
 1657 Shermer Road
 Northbrook, IL 60065-3074 U.S.A.

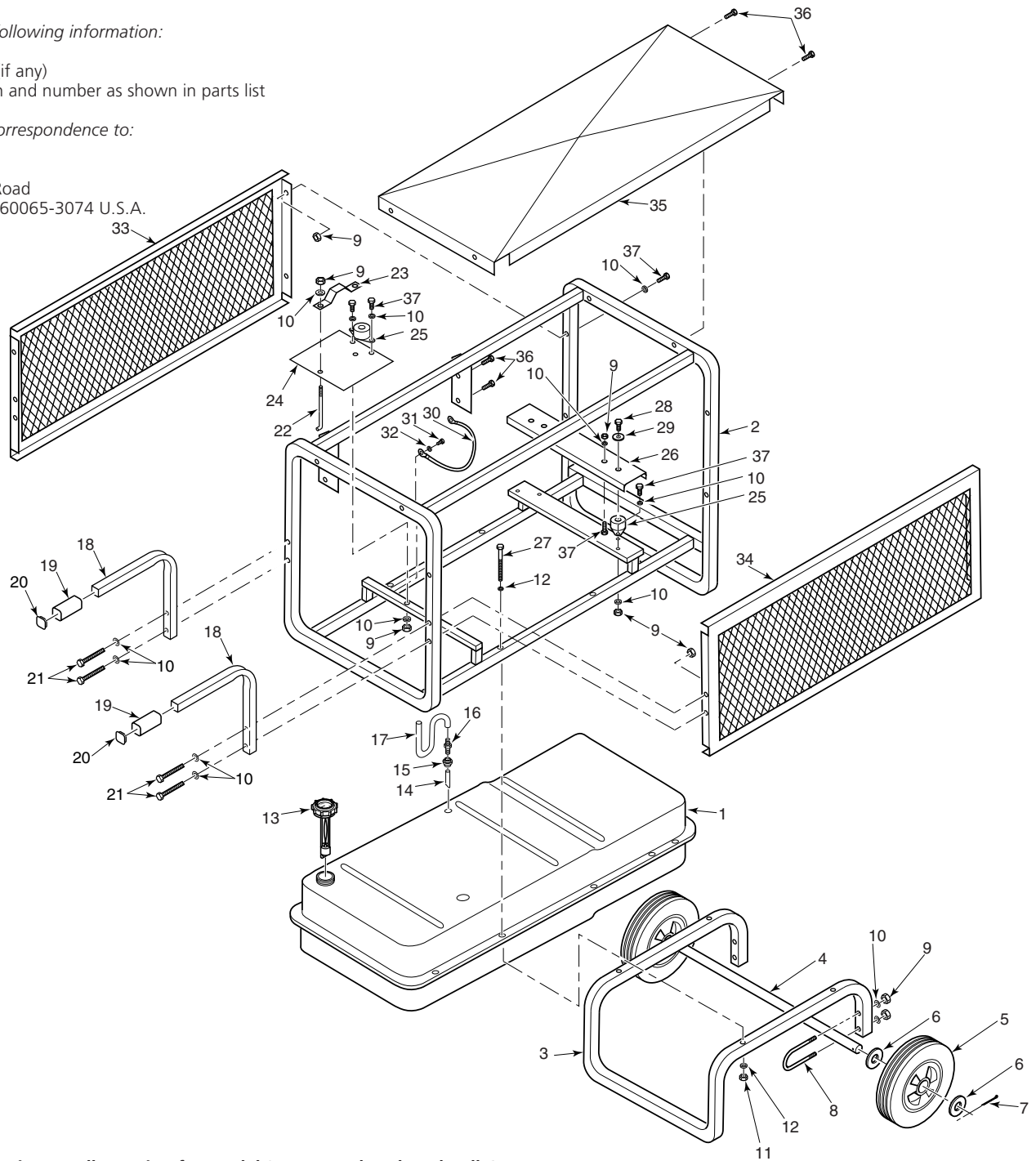


Figure 45 – Repair Parts Illustration for Model 3WY47 Fuel Tank and Roll Cage

Repair Parts List for Model 3WY47 Fuel Tank and Roll Cage

Reference Number	Description	Part No. for Models: Model 3WY47	Quantity
1	Gas tank assembly	079503-25AA	1
2	Roll cage	105905-01	1
3	Axle mount	105906-01	1

Repair Parts List for Model 3WY47 Fuel Tank and Roll Cage (Continued)

Reference Number	Description	Part No. for Models: Model 3WY47	Quantity
4	Axle	102933-03	1
5	Wheels	102932-01	2
6	1" Flat washer	WP-16C	4
7	Cotter pin	C4-12C	2
8	U-bolt	100135-01	2
9	5/16-18" Lock nut	NEC-5C	22
10	5/16" Flat washer	WP-5C	30
11	1/4-20" Lock nut	103880-01	4
12	1/4" Flat washer	WP-4C	8
13	Gas cap with gage	097190-06	1
14	Fuel line	M51151-02	1
15	Bushing	M10990-3	1
16	1/4" Barbed connector	106988-01	1
17	Fuel line	25985008	1
18	Handle	105035-01	2
19	Grip	103046-01	2
20	Plug	103057-01	2
21	5/16-18 x 2.5" Bolt	H8C5-20C	4
22	5/16-18 J-hook bolt	099750-01	2
23	Battery bracket	099749-01	1
24	Battery mount	105908-01	1
25	Shock mount	17529000	3
26	Spreader	102962-02	1
27	1/4-20 x 3.0" Bolt	H5C4-24C	4
28	1/2-10 x 1.0" Bolt	26302006	2
29	Internal tooth lockwasher	WLI-8	2
30	Ground strap	14138000	1
31	1/4-20 x .5" Tapping screw	M10908-74	1
32	External tooth lockwasher	WLE-5	1
33	Side panel	106775-02	1
34	Side panel	106775-01	1
35	Top cover	106776-01	1
36	8-18 Sems screws	100410-01	8
37	5/16-18 x 1.75" Bolt	HC5-14C	12
Δ	Safety information decal	099866-05	1
Δ	Operation decal	100003-04	1
Δ	Red battery cable (Positive)	099873-01	1
Δ	Black battery cable (Negative)	099873-05	1
Δ	1/4-20 x .75" Screw	HC4-6C	2
Δ	Muffler	105951-01	1

(Δ) Not shown.

For Repair Parts, call 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

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 P.O. Box 3074
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 Northbrook, IL 60065-3074 U.S.A.

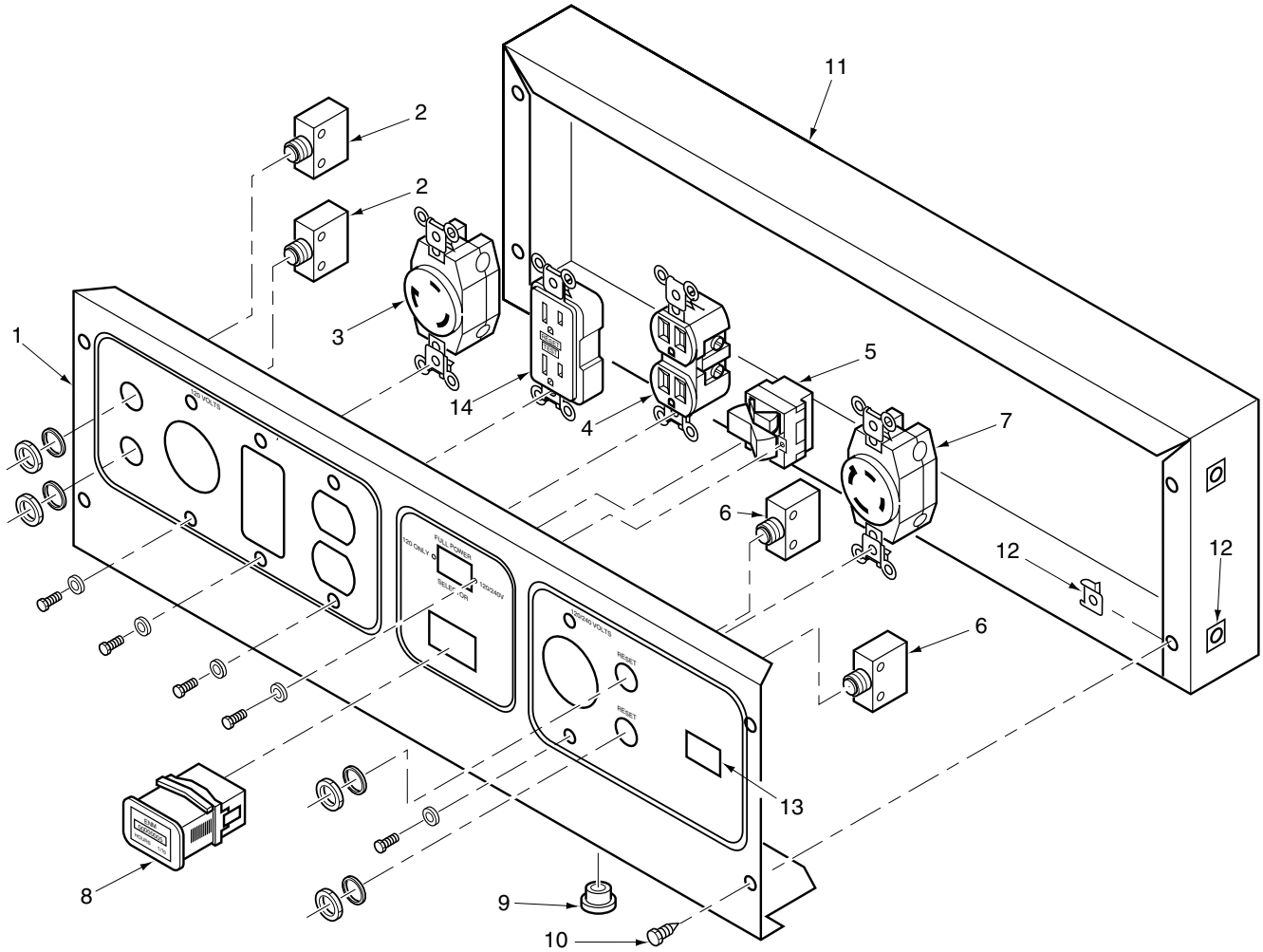


Figure 46 – Repair Parts Illustration for Models 3W736C, 3WY44, 3WY46, 3TE27A, and 3WY45 Control Panel

Repair Parts List for Models 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46 Control Panel

Reference Number	Description	Part No. for Models:					Quantity
		3W736C	3WY44	3WY46	3TE27A	3WY45	
1	Front control panel	103349-01	103349-02	103349-02	103349-03	103349-04	1
2	20 Amp circuit breaker *	22616009	22616009	22616009	22616009	22616009	2
3	120V, 30A Twist-lock receptacle *	099833-01	099833-01	099833-01	099833-01	099833-01	1
4	120V, 15A Duplex receptacle *	15324000	15324000	15324000	15324000	15324000	1
5	Full power selector switch *	099956-01	099956-01	099956-01	099956-01	—	1
6	20 Amp circuit breaker *	22616009	—	—	—	—	2
	25 Amp circuit breaker *	—	22616011	22616011	—	—	2
	30 Amp circuit breaker *	—	—	—	22616010	22616010	2
7	120/240V, 20A Twist-lock receptacle *	099834-01	099834-01	099834-01	099834-01	—	1
	120/240V, 30A Twist-lock receptacle *	—	—	—	—	099835-01	1
8	Hour meter	101350-01	101350-01	101350-01	101350-01	101350-01	1
9	Bushing	099760-01	099760-01	099760-01	099760-01	099760-01	1
10	#8-18 x 1/2" Sems screw	100410-01	100410-01	100410-01	100410-01	100410-01	4
11	Control box	100149-01	100149-01	100149-01	100149-01	100149-01	1
12	U-Nut	22261000	22261000	22261000	22261000	22261000	8
13	Switch plug	099997-01	099997-01	099997-01	099997-01	099997-01	1
14	120V, 15A Duplex (GFCI) receptacle	100445-01	100445-01	100445-01	100445-01	100445-01	1
▲	Control panel assembly	103348-01	103348-02	103348-06	103348-03	103348-08	1
Δ	Panel schematic decal	100177-07	100177-07	100177-06	100177-07	100177-06	1

(▲) Includes reference numbers 1 through 14.

(Δ) Not shown.

(*) Includes fastening hardware.

Repair Parts List for Model 3WY47 Control Panel

Reference Number	Description	Part No. for Model 3WY47	Quantity
1	Control panel	103182-01	1
2	20 Amp circuit breaker	22616009	2
3	120V, 30A Twist-lock receptacle	099833-01	1
4	#8-18 x 1/2" Sems screw	100410-01	16
5	U-nut	22261000	20
6	120V, 15A Duplex (GFCI) receptacle	100445-01	1
7	125/250V, 50A Receptacle	103183-01	1
8	45 Amp circuit breaker	103184-01	2
9	Run light	26299000	1
10	Hour meter	101350-01	1
11	120/240V, 20A Twist-lock receptacle	099834-01	1
12	30 Amp circuit breaker	22616010	2
13	Bushing	099760-01	1
14	Control box	103185-01	1
15	Rocker switch	100366-01	1
16	120V, 15A Duplex receptacle	15324000	1
▲	Control panel assembly	102927-01	1
Δ	Panel schematic diagram	100177-05	1
Δ	Auto-idle PC board kit	103257-01	1
Δ	Solenoid assembly kit (with bracket)	103258-02	1

(▲) Includes reference numbers 1 through 16.

(Δ) Not shown.

For Repair Parts, call 1-800-323-0620

24 hours a day - 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

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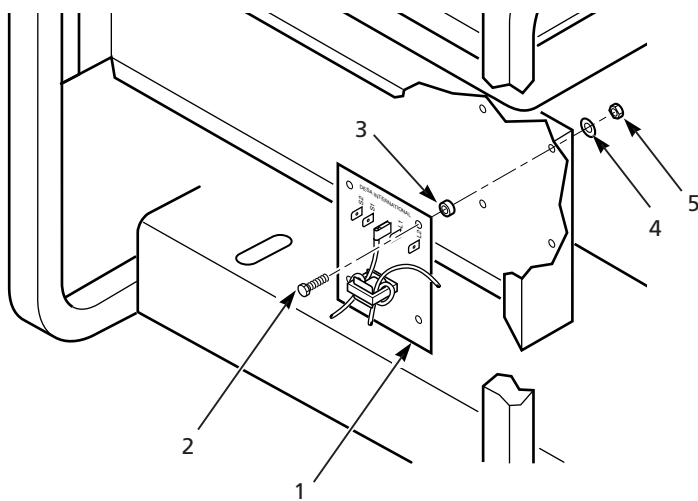
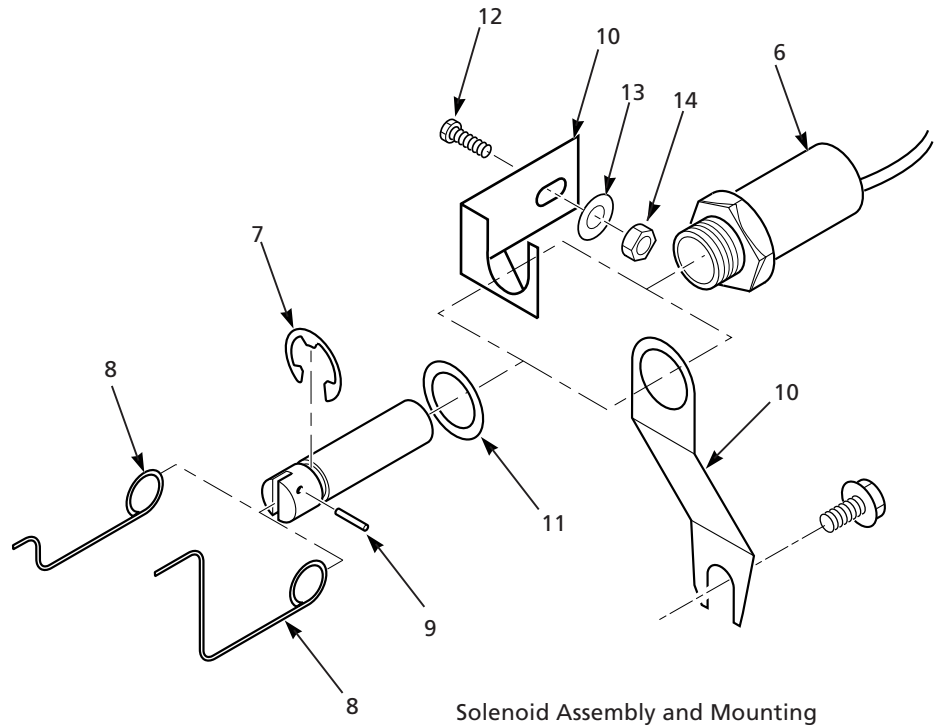


Figure 48 – Repair Parts Illustration for Solenoid and Control Board Assemblies and Mounting

Repair Parts List for Solenoid and Control Board Assemblies and Mounting for Models 3W736C, 3WY44, 3TE27A, 3WY45, and 3WY46

Reference Number	Description	Part No.	Quantity
1	Control board assembly	100105-01	1
2	10-32 x 3/4 " Hex head screw	26499000	4
3	Nylon spacer	100321-01	4
4	#10 Flat washer	WP-3C	4
5	10-32 Lock nut	26514000	4
6	Solenoid assembly (includes plunger, nut, and lock washer)	100324-03	1
7	Retaining ring*	103812-01	1
8	Linkage rod	100755-01	1
	Linkage rod*	100755-02	1
9	Roll pin	22822000	1
10	Solenoid mounting bracket*	102939-01	1
	Solenoid mounting bracket	100756-01	1
11	Nylon washer*	103811-01	1
12	M8 x 25mm Bolt	100328-01	1
13	5/16" Flat washer	02407002	1
14	M8 Lock nut	100329-01	1
Δ	Yellow wire	100320-01	1
Δ	White wire (with 2 flags)	100322-01	1
Δ	White wire (with 1 flag and 1 spade)	100322-02	1
Δ	Rocker switch	100366-01	1
Δ	Auto-idle decal	100334-01	1

(*) Model 3WY47 only.

(Δ) Not shown.

Dayton Professional-Duty Electric Generators

NOTE: The five-year limited warranty below covers all non-engine parts of this generator including the alternator. Honda warrants the engine. See engine owner's manual for engine warranty information.

LIMITED WARRANTY

DAYTON FIVE-YEAR LIMITED WARRANTY. Dayton Professional-Duty Electric Generators, Models covered in this manual, are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to, and shall not exceed, the purchase price paid.

WARRANTY DISCLAIMER. Dayton has made a diligent effort to provide product information and illustrate the product in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are MERCHANTABILITY, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions.

Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in "LIMITED WARRANTY" above is made or authorized by Dayton.

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PROMPT DISPOSITION. Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.