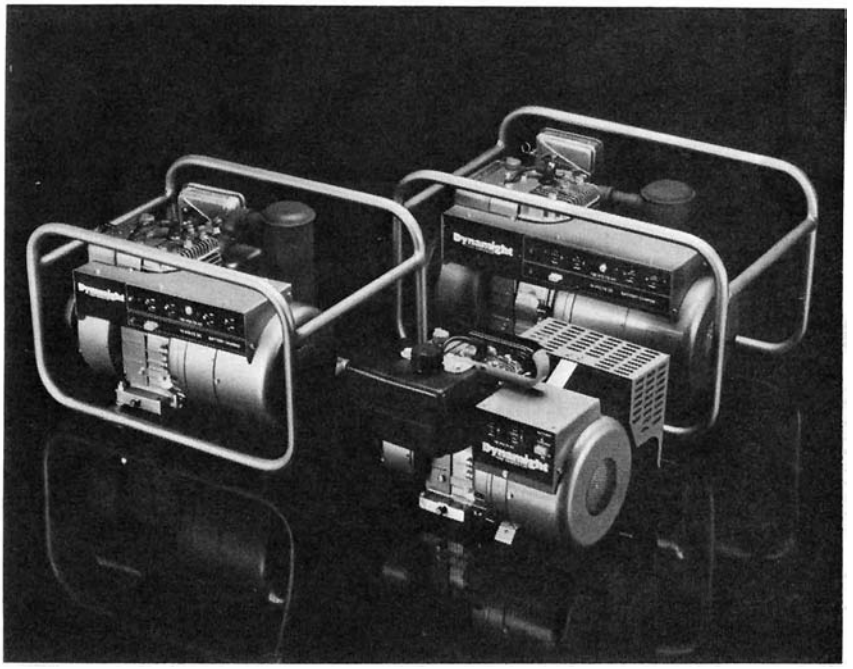
# Dynamight™

WINCO GENERATORS

## OWNERS OPERATION MANUAL



***Attention:*** Read all instructions in this manual before attempting to install, operate, or service the generator.

EGSMA

WINCO® ***POWER PLANTS—over 55 Years of Leadership***

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## TESTING POLICY

Before any generator is shipped from the factory, it is fully checked for performance. The generator is loaded to its full capacity, and the voltage, current, and frequency are carefully checked. A test card with this data is filed by unit serial number for permanent record of performance.

Rated output of generators is based on factory tests of typical units, and is subject to, and limited by, the temperature, altitude, fuel, and other conditions specified by the manufacturer of the applicable engines.

**NOTE**

This instruction book covers only the generator, **not** the engine. See the engine manufacturer's operator's manual regarding any problems pertaining to the engine.

### Limited Warranty

Winco Division of Dyna Technology, Inc., warrants that for one year from date of shipment it will repair or replace for the original user the whole or any part of the product found upon examination by Winco at its factory at 225 South Cordova Street, LeCenter, Minnesota, or by any Factory-Authorized Service Station to be defective in material or workmanship under normal use and service.

For warranty service, please return the product within one year from date of shipment, transportation charges prepaid, to the Winco factory or to your nearest Factory-Authorized Service Station as listed in the 'Yellow Pages' under Generator-Electric.

**THERE IS NO OTHER EXPRESS WARRANTY. TO THE EXTENT PERMITTED BY LAW, ANY AND ALL IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM DATE OF SHIPMENT, AND LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES IS EXCLUDED.** Some states do not allow limitations on the duration of an implied warranty, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights; you may have other rights which vary from state to state.

Winco does not warrant engines, batteries, or certain other component parts of the product since such items are warranted by their manufacturers.

Winco does not warrant alterations or repairs which were made by someone other than the Winco factory or a Factory-Authorized Service Station and which affect the stability or reliability of the product.

Winco does not warrant products which have been exposed to misuse and/or negligence or have been involved in an accident.

Winco reserves the right to change or improve its products without incurring any obligations to make such changes or improvements on products purchased previously.

Congratulations on your purchase of a fine air cooled engine generator set. This lightweight portable generating set has been engineered and produced by one of the world's leading generator manufacturers—with over 50 years of excellence in generator design, high standards of performance and quality—to ensure your full satisfaction.

The engine generator set incorporates a number of features for your convenience, comfort and safety...

including a quiet, compact, efficient engine. The engine incorporates a C.D.I. (Capacitive Discharge Ignition) ignition system and a *super quiet* muffler for years of quiet, reliable operation.

and a *powerful*, compact generator incorporating WINCO's exclusive *super maxi-watt* motor starting circuit. The generator has both A.C. and D.C. voltage outputs. The A.C. voltage is available at the convenience receptacles. The generator boost *(super maxi-watt)* circuit insures starting of typical residential motor loads that cannot be started by ordinary generators or lightweight "alternators". The attractive control panel also has a D.C. voltage outlet receptacle for recharging standard 12 volt (automotive type) batteries. This handy feature could save the day if you found your vehicle headlights on overnight on a camping trip! The generator has power output monitoring light(s) to indicate the internal operation of the generator. Protection against a short circuit or incorrect connection to the battery is provided automatically by an internal self-resetting circuit breaker. The L.E.D. circuit indicator will tell you when there is a problem in the connection.

## FOR SAFETY'S SAKE

**CAUTION**

Read all instructions before attempting to operate unit.

**WARNING**

Despite the safe design of this generator, operating it imprudently, neglecting its maintenance, or being careless with its operation can cause serious injury, or death. This generator is powerful enough to deliver a fatal electric shock. Allow only a responsible and capable person to operate this generator.

**DO NOT:**

1. Allow anyone to operate the engine generator without proper instruction.
2. Remove generator end-cover with the engine running.
3. Remove the receptacle panel cover with engine running.
4. Operate unprotected in rain and snow.
5. Operate indoors or in a poorly ventilated place. Engine exhaust fumes are deadly!!!
6. Refuel engine while running.


7. Refuel a hot engine. Spilled fuel can ignite causing serious or fatal burns.
8. Make or break electrical connections under load.

**DO:**

1. Keep hands and feet away from moving parts.
2. Keep hands, feet and clothing away from hot parts.
3. Use extreme caution when working with electrical components as output voltage can cause injury.
4. Keep area around the engine generator clear of all flammable material.
5. Keep a fire extinguisher near the generator. Extinguishers rated ABC by NFPA are appropriate for this use.

6. Keep area around the generator clear of all materials such as water, oil and ice, which can cause the operator to slip and fall against the unit.
7. Use power cords of sufficient size to eliminate the risk of overheating.

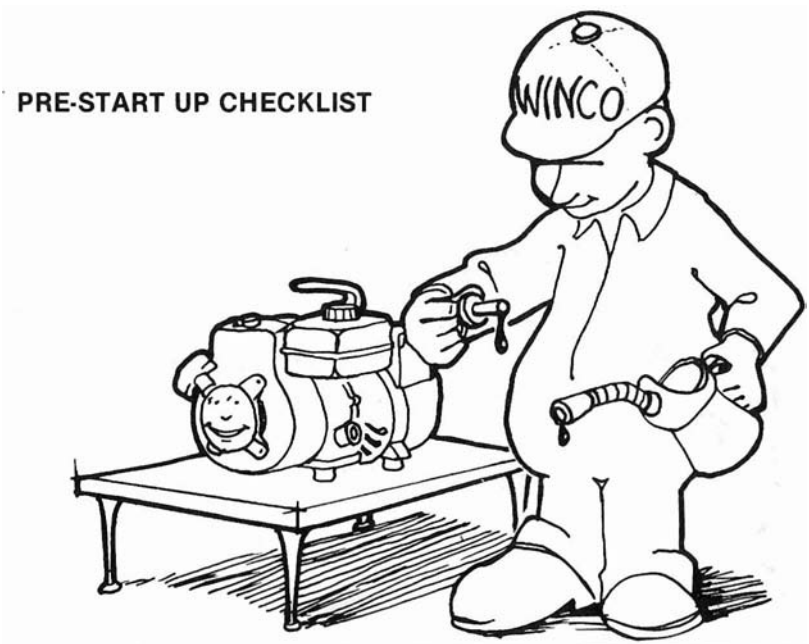
## UNPACKING

When unpacking the generator set, be sure to inspect it carefully for freight loss or damage. If loss or damage is noted at the time of delivery, contact the carrier for claim procedures.

When loss or damage is noted after delivery, segregate the damaged material and contact the carrier for claim procedures. The carrier or carriers are responsible for merchandise lost or damaged in transit.

### Unpacking Procedure

1. Remove the staples and open the top flaps.
2. Lift off the top foam pad.
3. Lift out the unit.
4. Carefully remove the bottom foam pad.
5. Inspect the unit for damage.
6. Retain packaging and carton for storage or future use.




**CAUTION**

This unit has been shipped without oil.

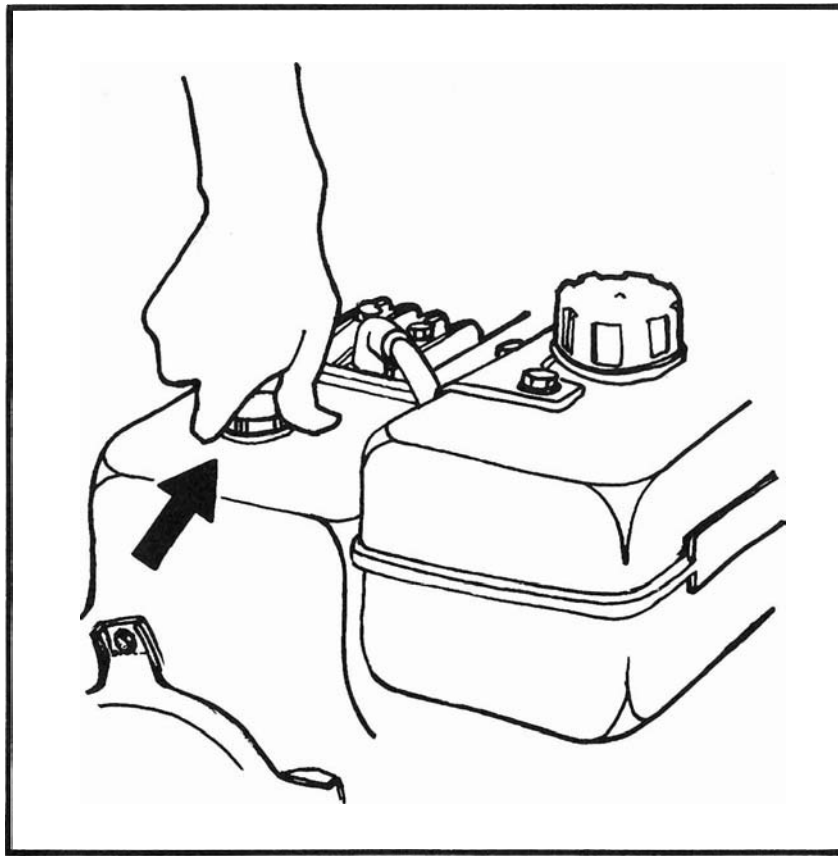
See Operator's Engine Manual for recommended oil requirement.

For best performance and maximum useful life of this generator set, always complete the following checklist before starting the generator.

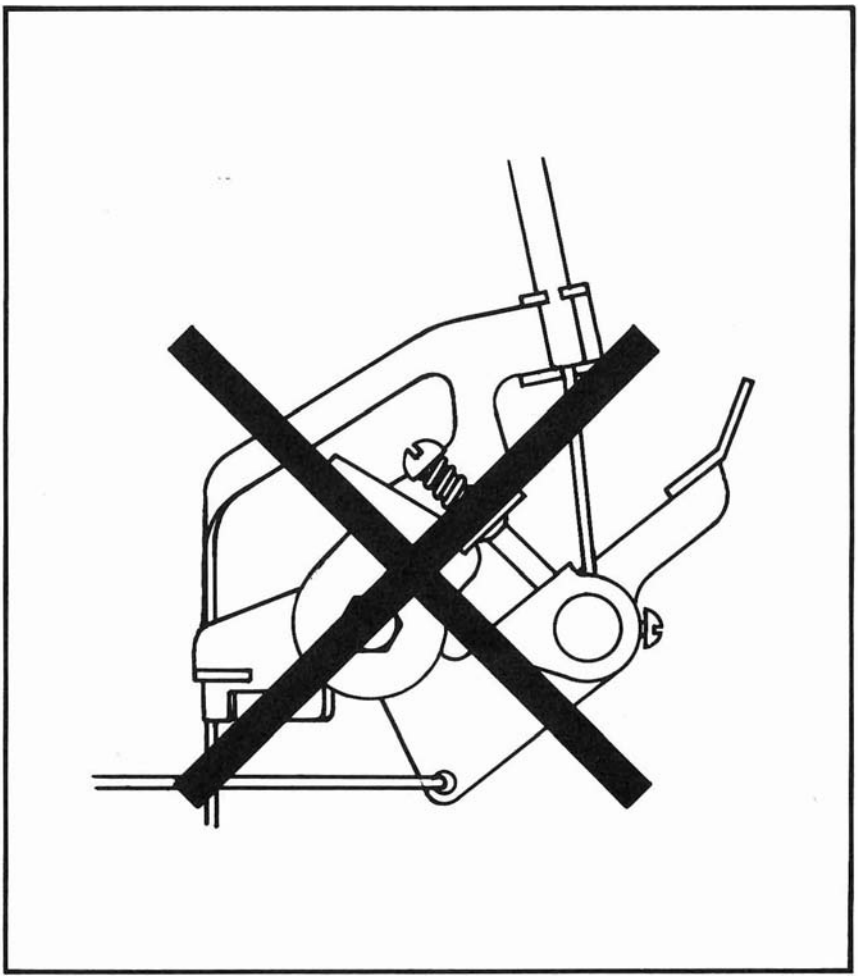
1. Check oil each time the unit is started. Refer to engine operator's manual for proper level.
2. Check fuel level.
3. Visually check unit for any loose parts.
4. If extension cords are used, ensure they are large enough to handle the load.
5. If the battery charging circuit is to be used, be sure connector is plugged in.

**STARTING**

1. Turn the red engine stop/run switch on the shroud above the recoil handle to "RUN" position.



2. Close the choke lever completely to start a cold engine. When restarting a warm engine, close the choke halfway. Refer to engine operator's manual for location of choke.
3. Pull the recoil starter slightly and when compression is felt, give the starter a sharp, vigorous pull.



**CAUTION**

Do not change engine speed settings. The engine speed has been preset at the factory for 3600 rpm operation and the governor speed control tightened to prevent slipping. Operating at higher or lower speeds can result in engine/generator or other equipment damage.

## ELECTRICAL CONNECTIONS

Your generator has been equipped with a duplex receptacle for 120V AC power and a nylon connector for 12V DC power.

Enclosed with your new generator set you will find a 12V DC connector, lead wire and battery clip assembly. This connector is provided for your use in charging 12 volt batteries. The front of the receptacle panel has a small L.E.D. indicator that will be lighted any time the generator is producing voltage. If the positive and negative battery leads are accidentally shorted, or are incorrectly connected to the battery, the automatic resetting DC circuit breaker in the generator will trip to protect the generator *and the battery!* When this breaker is tripped, the L.E.D. light will go out. The breaker will reset automatically, restoring the voltage. The L.E.D. will re-light about 5 seconds after the problem has been corrected.

The open circuit charging voltage as measured with a DC meter or a volt-ohm meter will read approximately seven volts. The peak voltage will be over 16 volts in order to charge the battery. When the charger is connected to a 12 volt battery the battery voltage will immediately increase about 0.5 volts showing that the battery is being charged. A DC ammeter in series with the charger output will indicate a current reading approximately equal to the DC nameplate rating if the battery is discharged.

## OPERATION

### Running

It is a good practice to allow the engine to warm up for 2 to 3 minutes before applying a load to the generator. This time enables the engine to warm up and allows the oil to thoroughly circulate throughout the engine. This short warm up time will allow the engine to work more efficiently when the load is applied and will create less wear on the engine, extending the engine life.

### Stopping

1. **During frequent use**—simply turn the red switch on the engine shroud above the recoil to 'STOP' position.
2. **Before extended storage**—When the generator is not going to be used for several months, certain precautions must be taken to ensure the impurities in the fuel do not clog the fuel system.
   a. Drain the fuel tank.
   b. Start engine and allow to run until all the fuel in the carburetor has been used up and the engine stops.

## Refueling

**WARNING**

NEVER refuel a running engine or allow raw fuel to be spilled on a hot engine or muffler!

1. Always use clean, fresh fuel. Gasoline which has been stored for several months loses its volatile properties due to evaporation, leaving behind a varnish like residue. This residue, although burnable, will clog the fuel system and cause sticking valves after a short time.
2. Do not remove the fuel strainer from the fuel tank to refuel. This filter will help to remove any foreign material, i.e. rust and dirt, which may be in the fuel. Remove and clean the filter each time after refueling.
3. Always wipe up any spilled fuel and allow sufficient time for the residue to evaporate before starting the generator set.

**WARNING**

NEVER refuel an engine near or in close proximity to any open flame.

## GLOSSARY OF ELECTRICAL TERMS

**A.C.**—Alternating Current, standard household electricity supplied by the power company, alternates from positive to negative 60 times (cycles) each second. Alternating current frequency is measured in HERTZ (Hz.) with a vibrating reed, digital, or analog AC frequency meter.

**Ampere**—The unit of electric current flow. One ampere will flow when one volt is applied across a resistance of one ohm. Amperes are measured with an ammeter.

**Armature**—An armature consists of an armature winding and an armature core.

**Brush**—A conducting element which maintains sliding electric contact between a stationary brush holder and the collector rings on the armature. It conducts AC current to the receptacle in the control panel.

**Collector Rings**—The continuous copper rings on the end of the armature on which the brushes slide.

**Diode**—Conductor device that allows electrical current to pass in one direction only and blocks AC current in the reverse direction.

**D.C.**—Direct Current flows in only one direction. This is the same type of current produced by batteries and rectifier assemblies.

**Field Coils**—The stationary coils mounted in the metal shell which is being supplied with D.C. current for excitation.

**Generator**—An electromagnetic machine which transforms mechanical energy into electrical energy. Generators can be either AC or DC or both simultaneously.

**L.E.D.**—A Light Emitting Diode is a lamp device used primarily as an indicator to show that some function is operating properly.

**Ohm**—A unit of electrical resistance. One volt will cause a current of one ampere to flow through a resistance of one ohm.

**Rectifier**—An assembly of diodes. Primary use for this device is to change alternating current into direct current for battery charging and field excitation.

**Volt**—A unit of electrical potential measured with a voltmeter. This unit produces AC and DC voltage, normally 120 volts AC and 12 volts DC.

**Watt**—A unit of electric power. In direct current, the number of watts equals volts times amperes. In alternating current, the number of watts equals volts times amperes for single phase power. 1000 watts equals 1 kilowatt.