

**TORO**

MODEL NO. 62040 - 4000001 : UP

**OPERATOR'S  
MANUAL****T4000D GENERATOR**

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**The Toro Company — 1983**

MINNEAPOLIS, MN 55420 — U.S.A.



## IMPORTANT NOTICE

Please read this manual and follow its instructions carefully.

To emphasize special information the words **WARNING**, **IMPORTANT** and **NOTE** carry special meanings and should be carefully reviewed.

### **WARNING:**

The personal safety of the operator may be involved. Disregarding this information could result in injury to the operator.

### **IMPORTANT:**

These instructions point out special service procedures or precautions that must be followed to avoid damaging the machine.

### **NOTE:**

Special information to make maintenance easier or important instructions clearer.

All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication. Due to improvements or other changes, there may be some discrepancies in this manual. TORO reserves the right to make changes at any time.

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## FOREWORD

The TORO ® generator T4000D uses a forced air-cooled, 4-cycle engine with side valves. This features quiet operation, excellent durability and stable performance. The revolving field type self-exciting generator produces an AC voltage which is controlled at a constant level by an A.V.R. (automatic voltage regulator).

This manual provides the technical information required for the operating handling and routine care of the TORO Generator T4000D.

We hope that you will use the generator in the correct manner, according to the instructions given in this manual and you will keep the machine at top performance for many years.

**The Toro Company**  
*Publications Department*

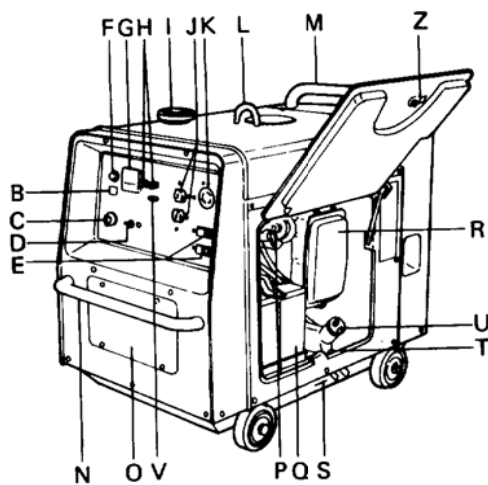
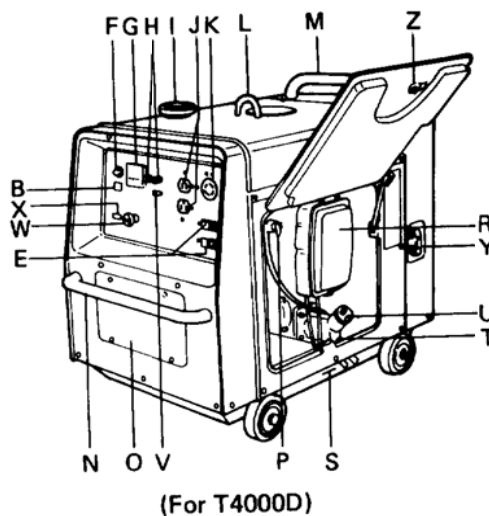
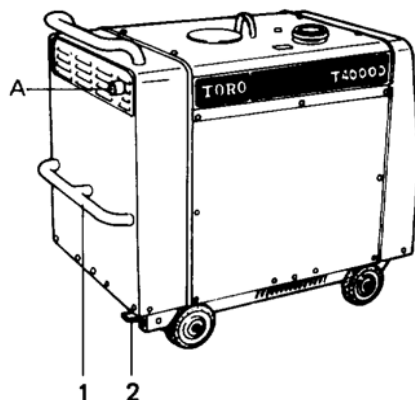
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### WARNING:

- Read owner's manual before operating this generator.
- This generator is intended to be assembled, serviced, and inspected by your authorized TORO Generator Dealer prior to sale. You should depend on him to perform these very important operations, as failure to do so could result, in damage to the generator and injury to the operator.

# LOCATION OF PARTS



(For T4000DE)

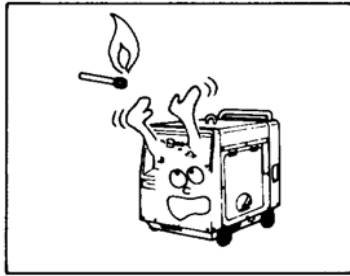
A : Muffler  
 B : Oil lever alarm lamp  
 C : Ignition switch (For T4000DE)  
 D : Auto-IDLE switch (For T4000DE)  
 E : AC circuit breaker  
 F : Pilot light  
 G : Volt meter  
 H : DC terminal  
 I : Tank cap (with the fuel gauge)  
 J : AC receptacle (120V)  
 K : AC receptacle (120/240V)  
 L : Hook  
 M : Carrying handle  
 N : Front grip

O : Checking lid  
 P : Fuel cock lever  
 Q : Battery (For T4000DE)  
 R : Air cleaner  
 S : Earth terminal  
 T : Oil drain plug  
 U : Oil filter cap  
 V : DC circuit breaker  
 W : Choke knob (For T4000D)  
 X : Engine switch (For T4000D)  
 Y : Starter grip (For T4000D)  
 Z : Door handle  
 1 : Rear grip  
 2 : Wheel stopper

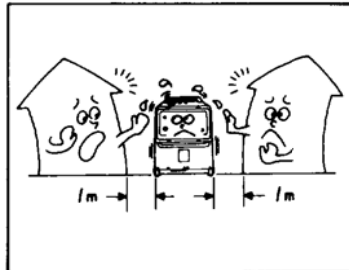
## PRECAUTIONS

### WARNINGS:

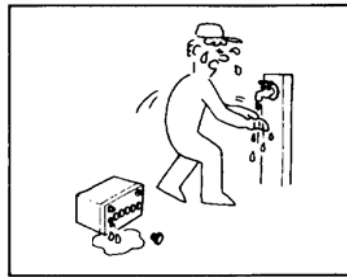
- ① To avoid fire, never use the generator near spark, flame or other heat source.



- ② To prevent fire, keep the generator at least 1m (3 ft.) from any combustible materials.



- ③ Handling instructions for battery
- 1) Use care not to spill electrolyte.
    - The electrolyte, a strong acid, must not be given any chance to touch the operator's eyes, skin or clothing or the generator's painted surfaces.
    - If the electrolyte contacts the eye(s), immediately wash it away with water for approx. 15 minutes before consulting physician.
    - If the skin or painted surfaces is contaminated, immediate flushing is also necessary.
  - 2) Explosion-prone hydrogen gas occurs throughout the charging operation. Therefore, select a place of good ventilation for the operation. Also, during that operation, refrain from smoking cigarets, using flames or jumping sparks in the vicinity of a battery.
  - 3) Do not allow children to approach the battery.



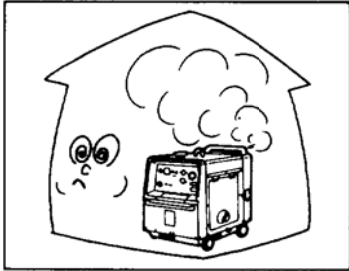
- ④ To prevent electrical shock, do not touch with wet hands.



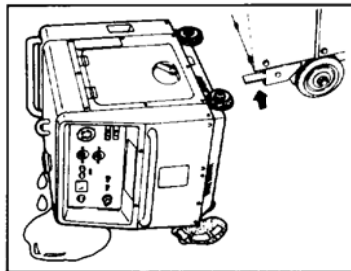
- ⑤ When filling with gasoline, always stop the engine to avoid fire. Do not overfill. If gasoline overflows, wipe off before operation.



- ⑥ Exhaust gas contains components harmful to people and animals. Avoid breathing exhaust gases and never use the generator indoors or in tunnels.

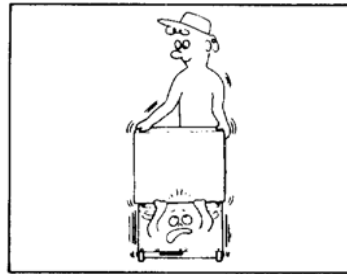


- ⑦ Keep the generator upright at all times to prevent spillage of gasoline and oil which may result in fire. Also, be sure to securely apply a chock to the wheel.

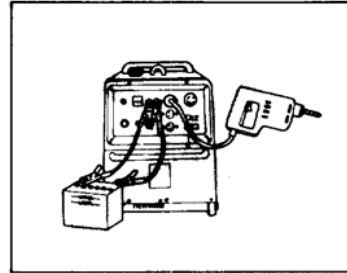


#### CAUTIONS:

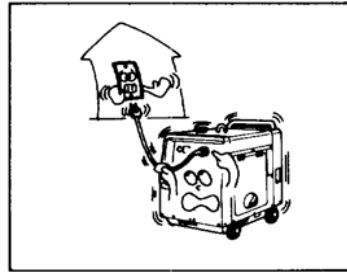
- ① To avoid overheating, do not cover during operation.



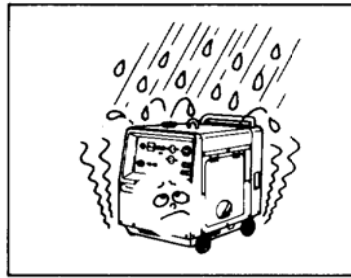
- ② Do not use both AC and DC simultaneously. Doing so will damage the generator.



- ③ Never connect the generator to a wall socket. Doing so may damage the generator and connect electric appliance, injure the operator or result in fire.



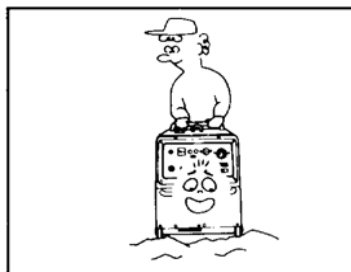
- ④ Never use the generator in rain, snow or near water. Doing so will damage the generator or connected electric appliance and could cause electrical shock.



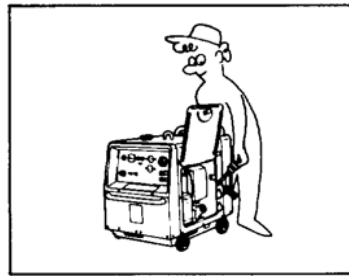
- ⑤ Do not wash the generator with water. Doing so will damage the generator.



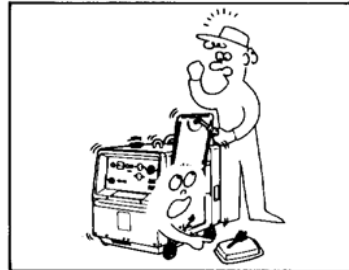
- ⑥ Never operate the generator on unstable or uneven ground. Doing so may cause fuel spillage and cause the generator to fall down or shift.



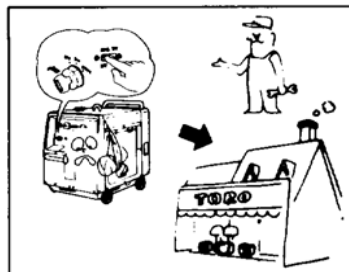
- ⑦ To prevent engine damage, make sure to check the engine oil level prior to operation.



- ⑧ To prevent injury, do not operate the generator with covers, etc. detached.



- ⑨ If the generator should encounter troubles, immediately stop the generator. You should consult your TORO dealer immediately.



## PRE-OPERATION CHECK

### CAUTION:

- \* This generator has been shipped from the factory without oil. Therefore, be certain to fill the generator with oil according to the following instructions before use.
- \* Make sure to check oil level and add oil as necessary before use everyday.

### 1. Filling engine oil

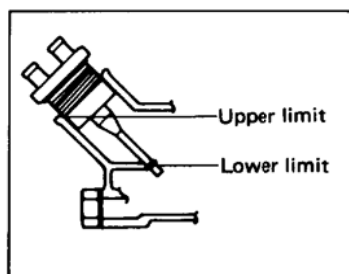
	Oil capacity
T4000D T4000DE	2.11 pt. (1.0L)

### CAUTION:

Oil replacement; First 20 hr  
Every 100 hr

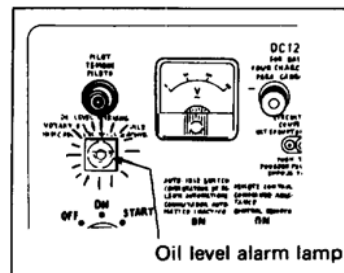
### 2. Check the engine oil level.

Remove the dipstick, wipe clean, insert but do NOT screw in. Pull dipstick out and read the level.



### CAUTION:

When the engine oil level comes down to below the lower level line, the alarm lamp turns on and the engine stops automatically. Add the engine oil up to the specified line and start the engine again.



### 3. Engine oil replacement

#### Draining the engine oil

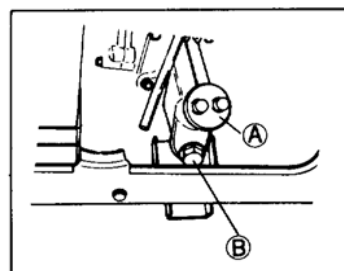
While the engine is still warm, remove the oil filler cap (A) and remove the drain plug (B).

#### Refilling with engine oil

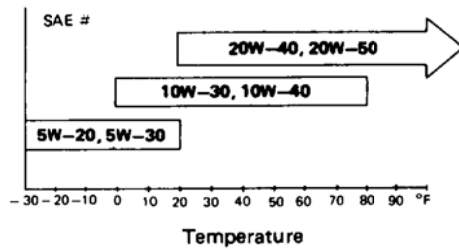
Firmly tighten the drain plug (B) and add the engine oil through the filler up to the upper limit line on the dipstick.

### CAUTION:

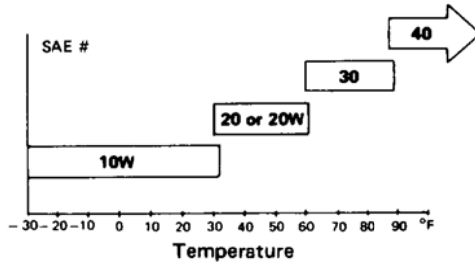
Check the oil with the generator on level ground.



**Oil viscosity:  
(Multi-grade)**



**(Single grade)**



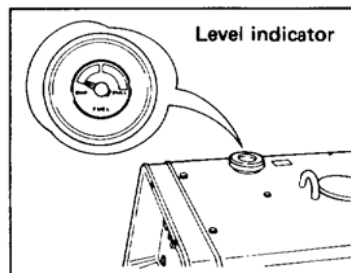
**4. Filling gasoline**

	Tank capacity
T4000D T4000DE	3.43 gal. (13 L)

**5. Check the fuel level**

**CAUTION:**

Check the fuel level with the generator on level ground. Be sure to check the fuel level before refueling. If the level is low, add gasoline.



**WARNING:**

- Gasoline is very dangerous!
- Use unlead or regular gasoline.
- Minors should not refill the fuel tank.
- Refuel in a well ventilated area with the engine stopped.
- When filling gasoline, take care so that no dust or water enters the tank.
- Do not fill fuel tank near spark, flame or other heat source.
- Do not fill the fuel tank more than the red line in the fuel inlet.

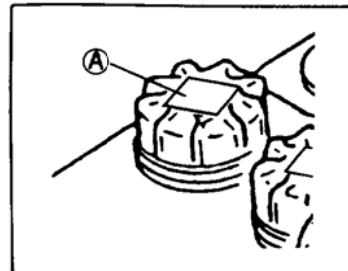
**6. Handling instructions for dry-charge lead-acid batteries**

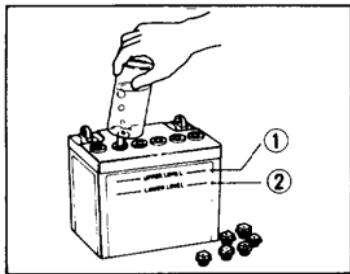
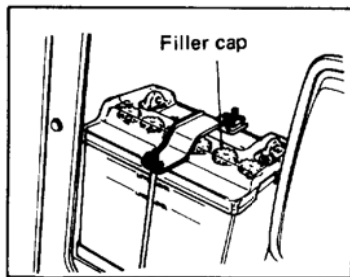
**CAUTION:**

This generator has been shipped from factory without electrolyte. Fill electrolyte at your TORO dealer. Electrolyte should be filled according to the procedure as follows.

**1. INITIAL CHARGE**

- 1) Remove the battery from the generator.
- 2) Electrolyte (Dilute Sulfuric Acid) Filling. Gently and carefully fill each cell with 1.260 (at 20°C) sp. gr. electrolyte between upper limit and lower limit lines, after unsealing the red colored vinyl sealing tape (A) put on the top of the filler cap and removing the cap. When allowing the battery the 2 – 3 hour stand after filling, the level falls since electrolyte is absorbed into plates and separators. Therefore, add the same electrolyte to the proper level once again. Further, place the unscrewed filler caps on the filler openings respectively. Yet, NEVER recap the filling opening securely.



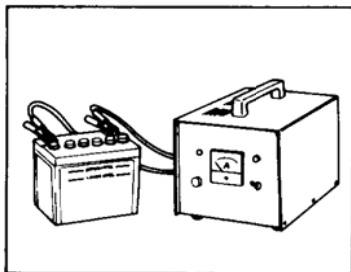


- ① Upper limit  
② Lower limit

- 3) Connecting battery to charger.  
Check to see if the positive terminal of the battery and the positive terminal of the charger are connected properly.

**CAUTION:**

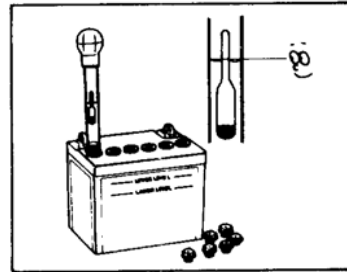
Charge the battery with a 12 volt battery charger for a minimum of ten hours limiting the maximum charging current 2.4 amperes.



**CAUTION:**

A higher ampere charging rate can drastically reduce battery life and efficiency due to damage to the battery plates. Charging the battery for a shorter period of time than the specified will also drastically shorten the service life of the battery and limit its potential power to maximum. On all subsequent battery service use nothing but distilled water and not tap water.

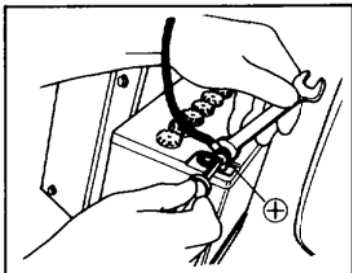
- 4) The standard specific gravity of the proper electrolyte should be 1.26 sp. gr. at 20°C (68°F).



**2. PROCEDURE AFTER COMPLETION OF INITIAL CHARGE**

- 1) Tighten the filler cap securely after the end of the initial charge. In this case, check to see if the red colored vinyl sealing tape is unsealed from the vent hole of the filler cap. Otherwise; when the battery is put into service keeping the sealing tape intact, the battery will explode. Exercise extreme care to check the battery to ensure that its vent hole is unsealed.
- 2) During initial charge, keep the top of the cells clean well wiping with a water-moistened cloth, when acid is spilled.

- 3) After charging correctly, install the battery to the generator, as follows:  
When mounting the battery to the generator, connect the terminal  $\oplus$  first and the terminal  $\ominus$  last, where the rubber caps should be used.

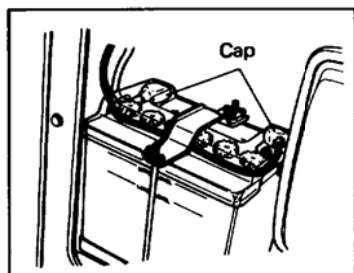


### 3. CAUTION DURING INITIAL CHARGE

#### WARNING:

- 1) During gassing, especially when near the end of the charge and the cell begins to gas freely, keep the charging area well ventilated and keep, **UNDER ANY CIRCUMSTANCES**, open flames, lighted cigarettes and sparks of welding torches, etc. away from the battery. If a spark or flame has ignited the mixture of hydrogen and oxygen gases, it can cause an explosion. This leads to not only injuries to personnel but also to batteries and equipment. Extreme care must be taken in handling during gassing.
- 2) Wear protective rubber gloves, when handling.

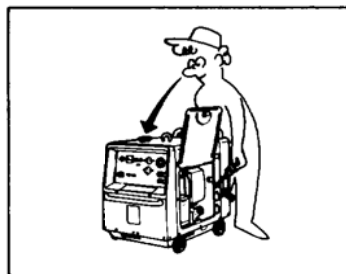
Finally with the battery cover being put on the battery, tighten the inner wing nut of the battery mounting stay first and the outer wing nut last to secure the battery to the generator.



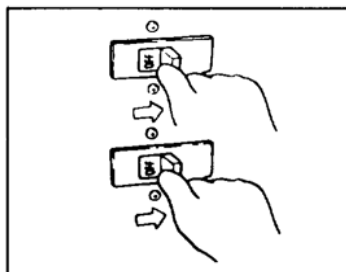
## OPERATION

### Starting the Engine

1. Check the oil and fuel levels.



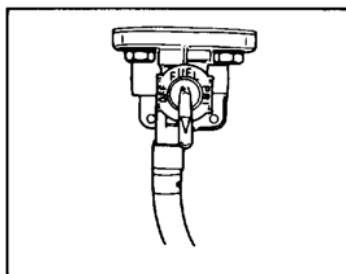
2. Turn the AC switch "OFF".



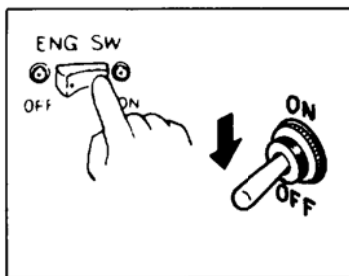
3. Turn the fuelcock lever "ON".

#### CAUTION:

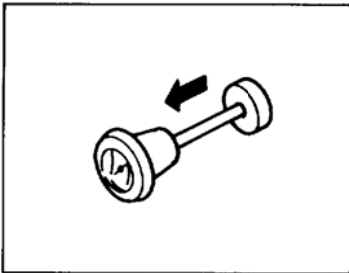
When the generator is operated with its fuel tank and carburetor which have once been emptied with fuel, fill the fuel tank with fuel, turn the fuelcock level to "PRI" position and wait for about 30 seconds to turn to "ON" position.



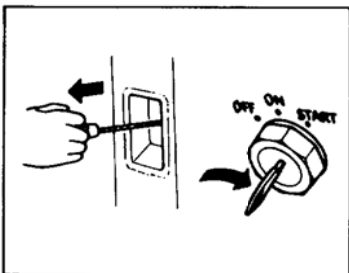
- 4-1. Turn the engine switch "ON"  
(For T4000D)
- 4-2. Set the AUTO-IDLE switch "OFF"  
(For T4000DE)



5. Pull the choke knob. (For T4000D)



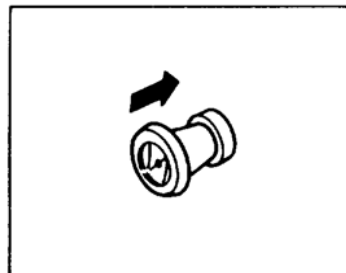
- 6-1. Pull the starter rope. (For T4000D).
- 6-2. Turn the ignition switch to the "START" position. (T4000DE)



7. Push the choke knob. (For T4000D)

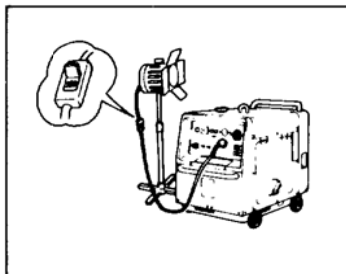
**CAUTION:**

Do not operate the generator more than 30 minutes at maximum output.

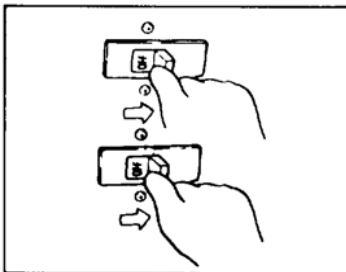


**Stopping the Engine**

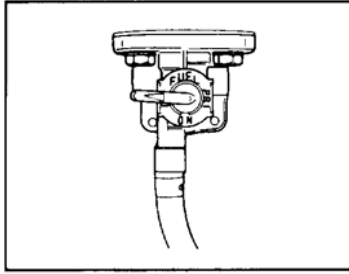
1. Turn off any connected electric appliance.



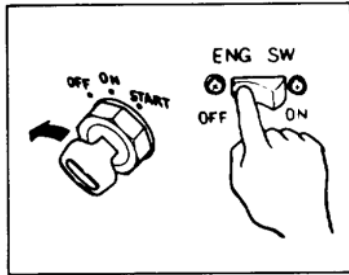
2. Turn the AC switch "OFF".




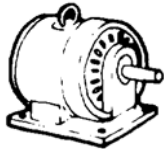
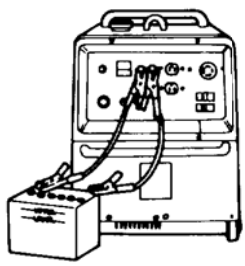
3. Turn the fuelcock lever "OFF".



- 4-1. Turn the ignition switch "OFF".  
(For T4000DE).
- 4-2. Turn the engine switch to the "OFF" position. (For T4000D).



# RANGE OF APPLICATIONS

	Appliance	Scope of application	When malfunctions or more current is required than the capacity of the generator.
		T4000D/ T4000DE	
AC	 <p>120V } 240V }      60Hz</p>	3.6KVA	Circuit breaker will automatically be turned off.
	<p>Single-phase motor</p>  <p>120V } 240V }      60Hz</p>	Up to 950W	Those electric appliance incorporating a motor require usually a power three times the minimum rated input. Hence, those appliance whose wattage is within the ranges listed on the left can be connected to the generator. However, there are instances where some product can not be operated, depending upon the type of motor windings.
DC		Up to 8.3A (12V)	<p>DC fuse will burn out when more current is required than the capacity of the generator.</p> <div style="border: 1px solid black; padding: 5px;"> <p><b>CAUTION:</b> Never use this generator for charging batteries with a capacity of less than 12-24AH.</p> </div>

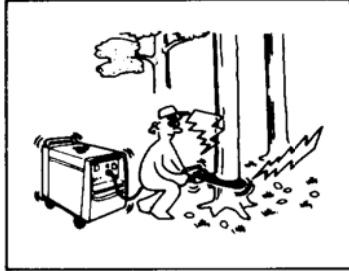
## APPLICATIONS

The TORO generator has a wide range of applications. The following examples are but a few of them.

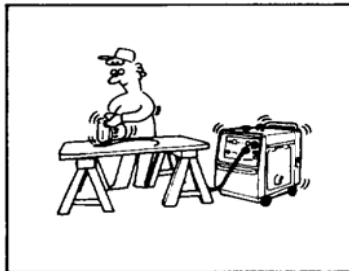
### CAUTION:

The power requirement of various electrical equipment varies. Check the rating before use.

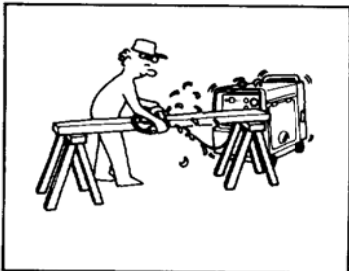
- ① Power source for chain saws.



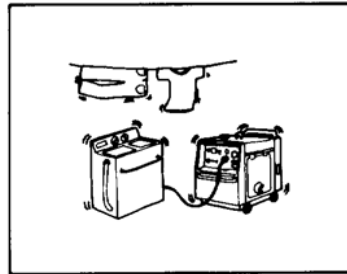
- ② Power source for motor-driven tools.



- ③ Power source for electric plane.



- ④ Power source for washing machine.



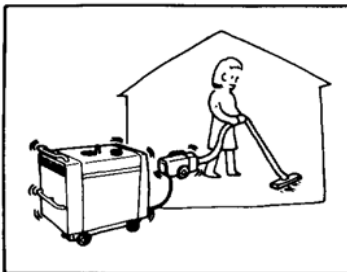
- ⑤ Power source for mowing machine.



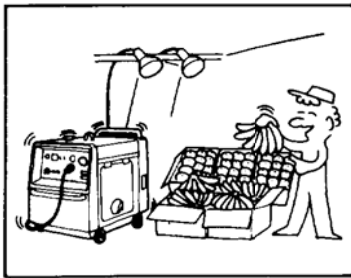
- ⑥ Power source for spray machine.



- ⑦ Power source for vacuum cleaner.



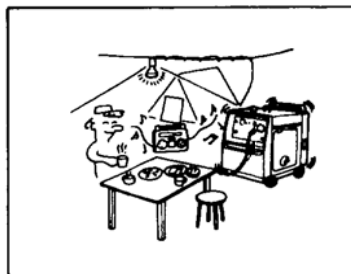
⑧ Illumination for mobile sales.



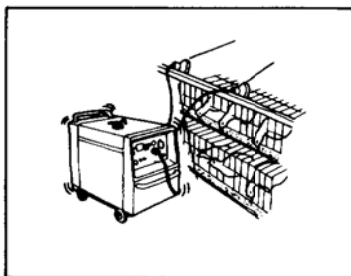
⑨ Power source at times of disasters.



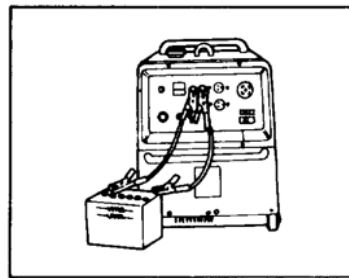
⑩ For use in recreational activities.



⑪ Power source for heater for live-stock.

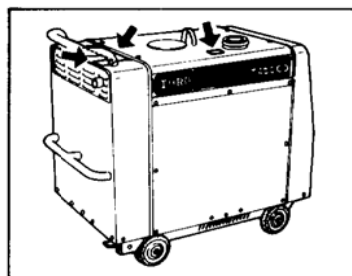
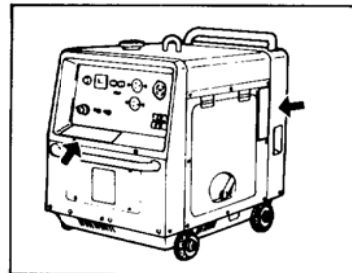


⑫ For charging battery.



**CAUTION:**

Before starting operation, read the labels and tags attached to the generator carefully and thoroughly.



**CAUTION:**

Before you start operating electric appliance, be sure to check specifications as posted in the label affixed on the equipment. Make sure that specifications of the electric appliance match with those of the generator.

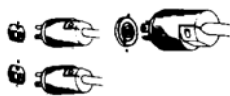
Models		T4000D/ T4000DE	
AC	Rated voltage (V)	120	240
	Rated frequency (Hz)	60	
	Rated current (A)	30.0	15.0
	Rated output (KVA)	3.6	
DC	Rated output	12V, 8.3A	

## HOW TO CONNECT POWER CORDS

### A.C. Applications

**NOTE:**

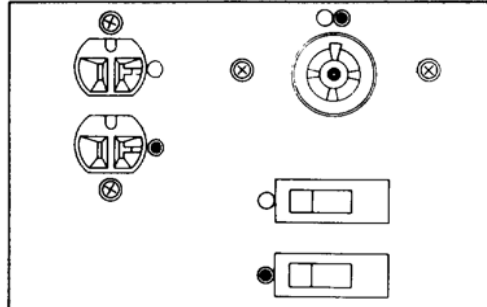
- Make sure the pilot light is on.
- Be sure to plug the cord in completely.

Models	Voltage & Hz	Total Wattage
<b>T4000D/T4000DE</b>		
	120V } 60Hz 240V }	3.6KVA

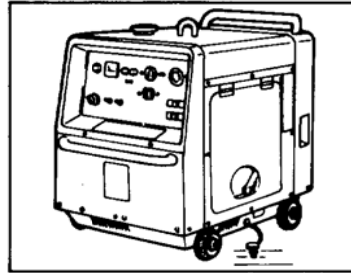
**CAUTION:**

AC receptacles and circuit breakers are connected with each other respectively, the ○ -marked with the ○ -marked and the ⊙ - marked with the ⊙ - marked, as illustrated below.

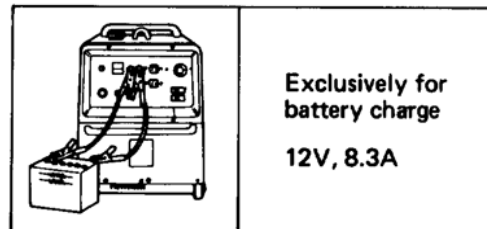
When taking out power supply from those AC receptacles, sufficiently check these marks to make sure the correct power supply can be obtained, before setting ON the required circuit breaker.

**CAUTION:**

Never connect the generator to a wall socket. This could cause an overload and seriously damage the generator.



### D.C. Applications



Exclusively for  
battery charge

12V, 8.3A

#### To charge battery

1. Turn off generator.
2. Connect battery to generator.
3. Start generator.

#### After battery is charged

1. Turn off generator before disconnecting battery.
2. Disconnect battery by removing leads from battery first.

#### WARNING:

Charge battery in a well-ventilated area because gases are produced while battery is being charged. Do not inhale the gases because nausea may result. Also, the gases are explosive. Therefore, do not charge battery near open flame or electrical spark, and do not smoke in the area of the battery when it is being charged. And most importantly, turn off the generator connecting or disconnecting the generator from the battery.

#### CAUTION:

- Use the D.C. terminals for charging 12V automotive type batteries only.
- Never use this generator for charging batteries with capacity of less than 12V-24AH.
- Before connecting the generator to the battery, make sure all wires are disconnected from the battery.
- Don't insert the plug of any other electric appliance to this D.C. plug socket.
- Don't use both A.C. and D.C. simultaneously.
- When the electric appliance is grounded, it is advisable to ground the generator as well.
- Observe the connect polarity when connecting the battery to the generator otherwise the generator may be damaged.

## FREQUENCY ADJUSTMENT

#### CAUTION:

Voltmeter-attached T4000 series can not be adjust unless using a tachometer. Accordingly, when they have to be adjusted, consult your TORO dealer.

#### NOTE:

A vast majority of the AC power and appliance in the United States operate at 60Hz. For this reason your generator comes adjusted to this frequency.

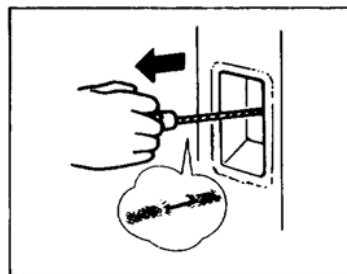
## DAILY INSPECTION

Prior to starting daily operation, be sure to check the generator for proper functions and evidence of damage, etc., as follows.

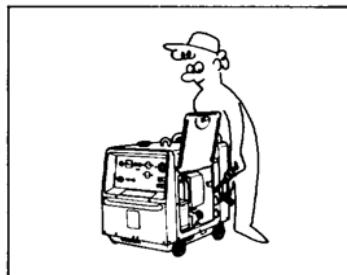
#### WARNING:

**NEVER** start the engine without performing these checks.

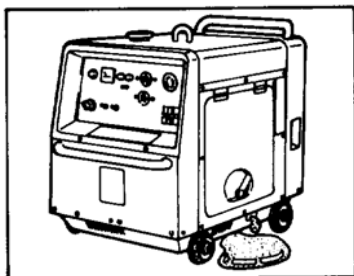
1. Starter rope (T4000D)



2. Engine oil capacity



### 3. Leakage of engine oil



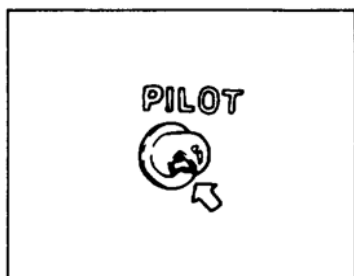
### 4. Battery (For T4000DE)

Check the following

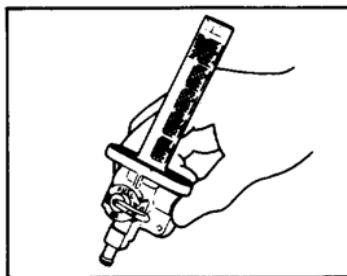
- ① The battery is securely installed.
- ② The battery cords have no looseness in the (+) and (-) terminals respectively.
- ③ The battery is free from crack or chip.
- ④ The battery terminals have neither looseness nor white powder adherence.
- ⑤ Check the electrolyte for proper level.



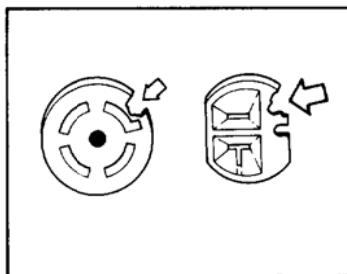
### 5. Pilot light



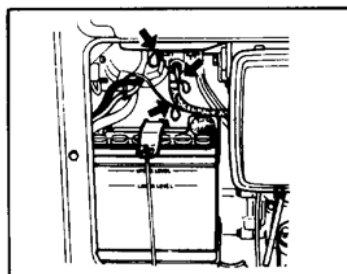
### 6. Fuel strainer



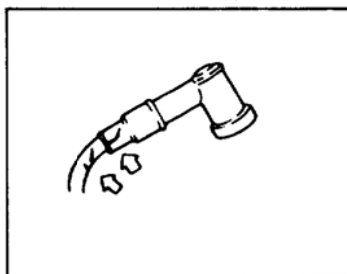
### 7. Receptacles



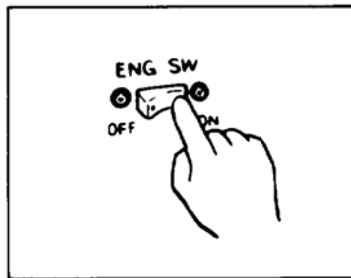
### 8. Fuel leakage



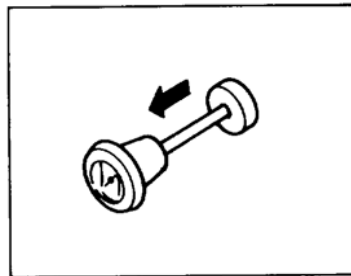
### 9. High tension cord damage



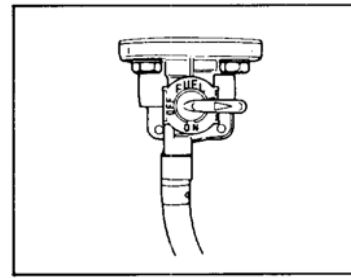
10. Switch



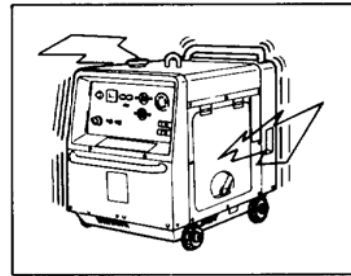
11. Choke knob



12. Fuelcock lever



13. Abnormal noises and vibrations



PERIODIC INSPECTION

	Interval	Initial 20Hrs.	Every 50Hrs.	Every 100Hrs.	Every 300Hrs. or one year
1	Engine oil replacement	*○		*○	
2	Clean the spark plug			○	
3	Clean the spark arrester			○	
4	Clean the air cleaner element		**○		
5	Clean the fuel strainer		○		
6	Check tightness of bolts and nuts		○		
7	Check specific gravity			***○	
8	Combustion chamber cleaning				***○
9	Tappet clearance adjustment				***○
10	Valve maintenance				***○

**CAUTION:**

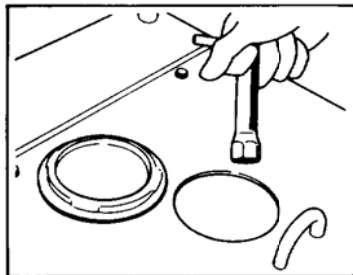
- \* Check oil level and add oil as necessary everyday.
- \*\* When used in dusty areas, the air cleaner should be serviced more frequently.
- \*\*\* For these check-ups, ask your TORO dealer. Don't make these check-ups by yourself.

**1. Engine oil replacement**  
See page 7.

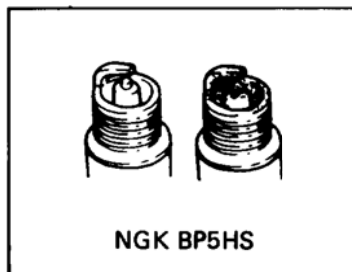
**2. Clean the spark plug**

A dirty, oily or sooty spark plug will adversely affect engine performance.

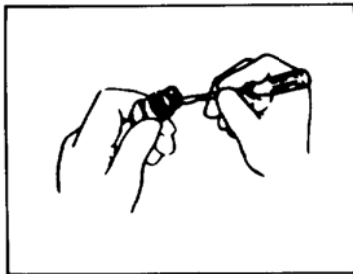
**① Remove the spark plug.**



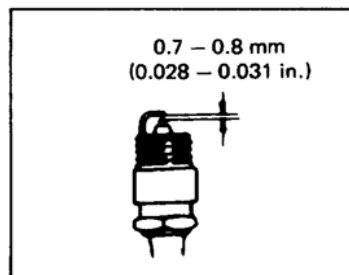
**② Check for carbon deposits or discoloration (burning.)**



**③ Remove the carbon.**



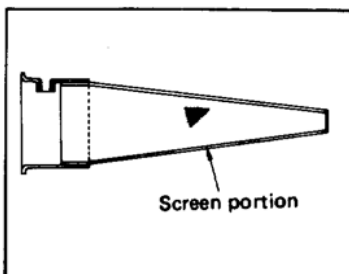
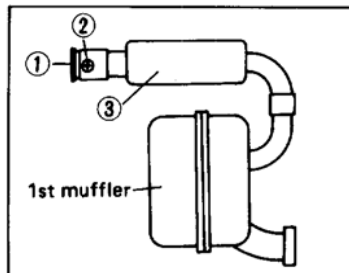
**④ Adjust the spark plug gap.**



**3. Clean the spark arrester**

The exhaust system muffler assembly contains a spark arrester that must be cleaned periodically to remove accumulated carbon particles.

- ① Remove the screw ② and pull the screen comp. ① out.
- ② Start the engine and dislodge the accumulated carbon particles inside the 2nd muffler ③.
- ③ If the screen is clogged with soot or carbon, use a screwdriver or the like to scrape it away. At this time, care should be exercised that the screen be neither indented nor reformed.
- ④ After cleaning, install the screen comp. ① with the screw ②.

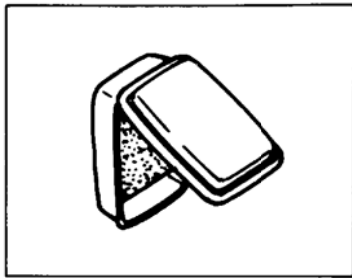


Sectional view of screen comp.

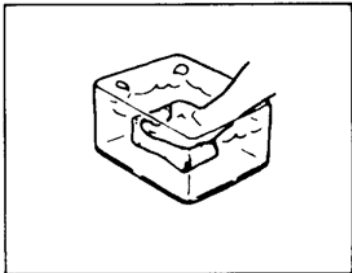
#### 4. Clean the air cleaner element

A dirty or clogged air cleaner will result in engine power loss. Clean it periodically.

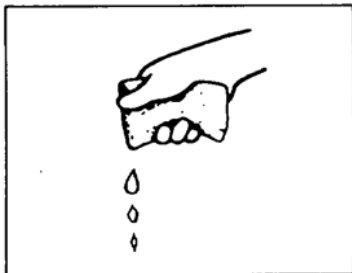
- ① Remove the air cleaner element.



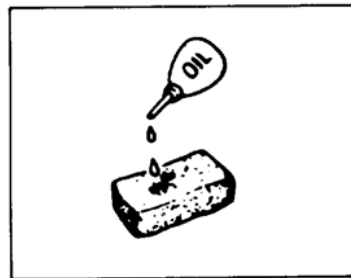
- ② Wash the element in nonflammable cleaning solvent.



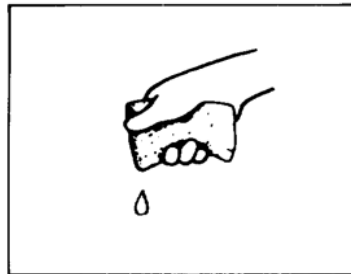
- ③ Squeeze the element dry.



- ④ Oil the element with engine oil.



- ⑤ Squeeze excess oil from the element. Install the element carefully.



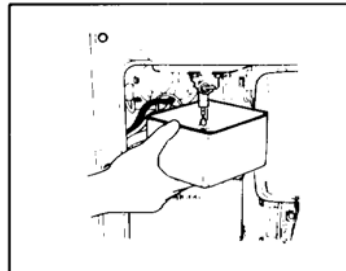
#### CAUTION:

- When used in dusty area, the air cleaner should be serviced more frequently.
- When installing the element, make sure that the element seals all of the way around its edge.

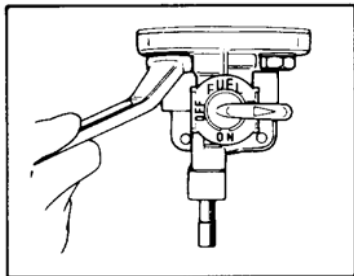
#### 5. Clean the fuel strainer

#### CAUTION:

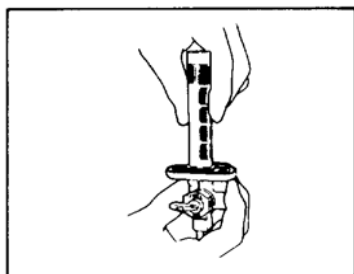
Place the fuelcock lever in "PRI" position and drain all the fuel off from the tank. Then, follow the procedure below to clean the fuel strainer.



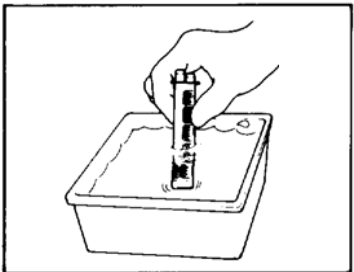
- ① Remove the fuelcock assembly.



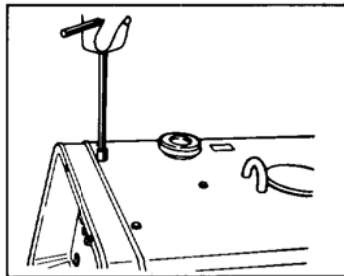
- ② Separate the fuel filter from the fuelcock assembly.



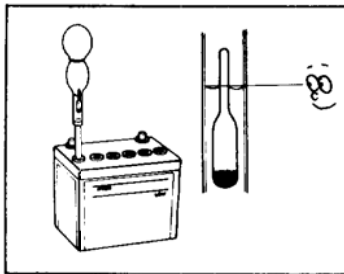
- ③ Wash the fuel filter with non-flammable cleaning solvent.



6. Check tightness of bolts and nuts



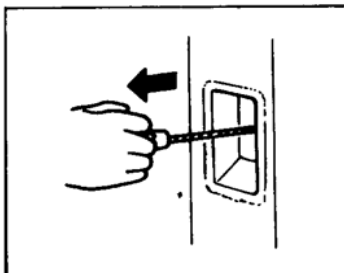
7. Check specific gravity



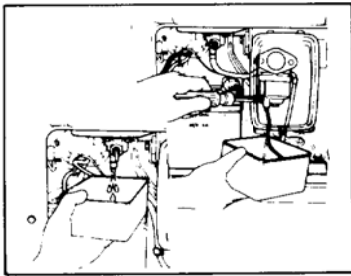
## LONG-TERM STORAGE

1. Gently pull the recoil starter, until you start feeling a drag. Then, stop pulling of the recoil starter.

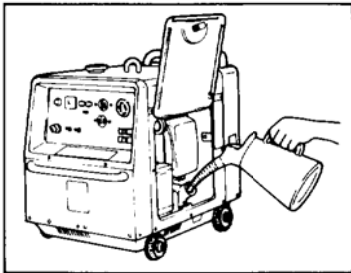
This is done so that valve comes to a closed position. (For T4000D)



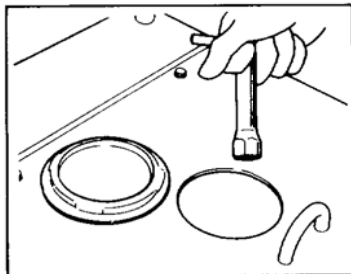
2. Drain all gasoline from the fuel tank and carburetor.  
Follow all gasoline handling warnings.



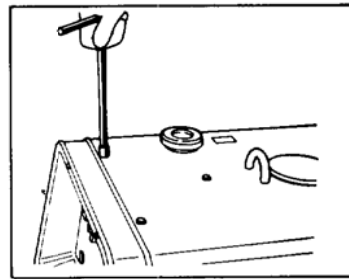
3. Drain the existing engine oil and refill with new oil.



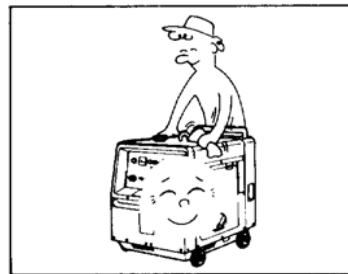
4. Remove the spark plug and pour 1 or 2 tablespoons of engine oil into spark plug hole. Reinstall the spark plug.



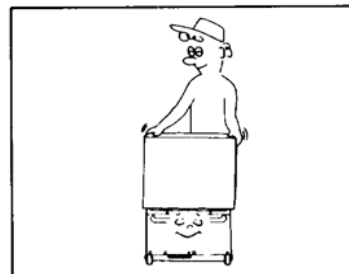
5. Retighten the bolts and nuts.



6. Clean air cleaner element.  
See page 21.
7. Clean the fuel strainer.  
Wash the fuel strainer parts in non-flammable cleaning solvent.  
See page 21.
8. Thoroughly wipe off dust or dirt from the top of the generator body.

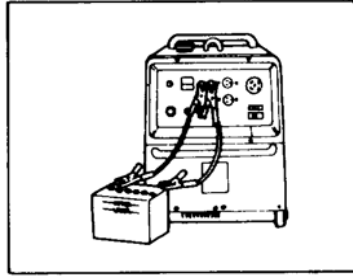


9. Cover the generator body with a cardboard box or vinyl cover, etc.



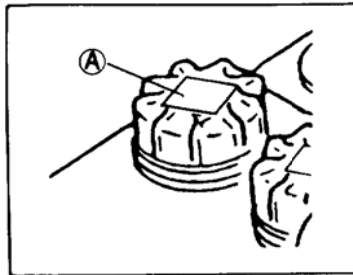
10. Battery is discharged naturally even when not used.

This makes it necessary to give additional charging to the battery at least once a month.

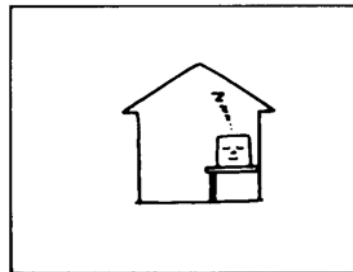


**CAUTION:**

A red colored vinyl sealing tape (A) is put on the top of the filler cap in order to protect the plates from oxidation in storage. Therefore, care must be taken not to seal the sealing tape and/or filler cap.



11. As a storage site, select a place free from dust, with low humidity.



# TROUBLESHOOTING

## Symptoms and possible causes

Symptoms		Output voltage or other reading	Possible causes
No output voltage	AC output	Pilot lamp lights but AC output is dead	0V Contact failure in outlet Disconnection in main coil (red lead) Contact failure in circuit breaker
		Pilot lamp does not light and AC output is dead	1 ~ 3V (AC) Disconnection in rotor coil Contact failure or wear of brushes Disconnection in auxiliary coil AVR malfunction Disconnection in main coil
	DC output	AC output is alive but DC output is not (pilot lamp is ON)	0V (about 6V) Diodes defective Lead disconnected (One of diodes defective)
		Both AC and DC output are dead	0V Disconnection in DC coil
Wrong output voltage or load	AC output	Pilot lamp blows or is too bright Lamp (load) is too bright or blows	260V (For 240V) or more 160V (For 120V) or less AVR malfunction
		Lamp (load) is dark or motor (load) runs slowly	Output voltage is less than 0.8 times the rated voltage Stator coil (or auxiliary coil) shorted
		Rated output is not attainable	Engine speed is fixed (frequency is fixed) AVR malfunction or contact failure of connector
			Engine speed varies (frequency falls) Engine malfunction Governor defective Lowered output
		Circuit breaker goes out	Output voltage is proper (frequency is fixed) Excessive load

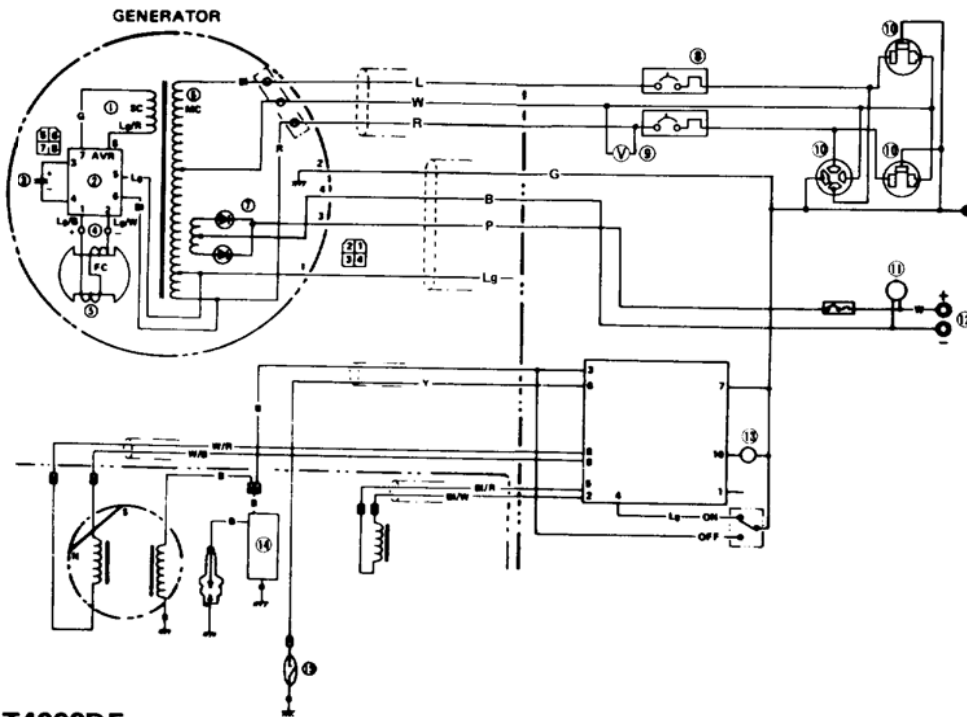
# SPECIFICATIONS

ITEM		T4000D/T4000DE	
Generator	AC	Rated voltage (V)	120      240
		Frequency (Hz)	60
		Rated current (A)	30.0      15.0
		Rated output (KVA)	3.6
		Maximum output (KVA)	4.0
		Rated revolution (r/min)	3600
Engine	DC	Rated output	12V, 8.3A
	Type		Forced air-cooled, 4-cycle, gasoline
	Piston displacement [cm <sup>3</sup> (cu. in.)]		343 (20.9)
	Bore x Stroke [mm (in.)]		82 x 65 (3.23 x 2.56)
	Continuous output [kW (HP/r/min)]		50Hz : 5.1 (6.8)/3000 60Hz : 5.8 (7.8)/3600
	Ignition system		Transistorized ignition
	Starting system		Recoil starter or Electric starter
	Governor type		Centrifugal fly weight
	Fuel used		Unleaded gasoline or regular gasoline
	Oil capacity [ml (US/Imp. pt.)]		1000 (2.11/1.76)
	Fuel tank capacity [L (US/Imp. gal.)]		13 (3.43/2.86)
	Dry weight [kg (lbs)]		T4000D : 105 (231.5) T4000DE : 110 (242.5)
	Dimension (L x W x H), [ mm (in.)]		847 x 508 x 682 (33.3 x 20.0 x 26.9)
Fuse	AC circuit breaker (A)		30      15
	DC (A)		15
Standard spark plug		NGK BP5HS	

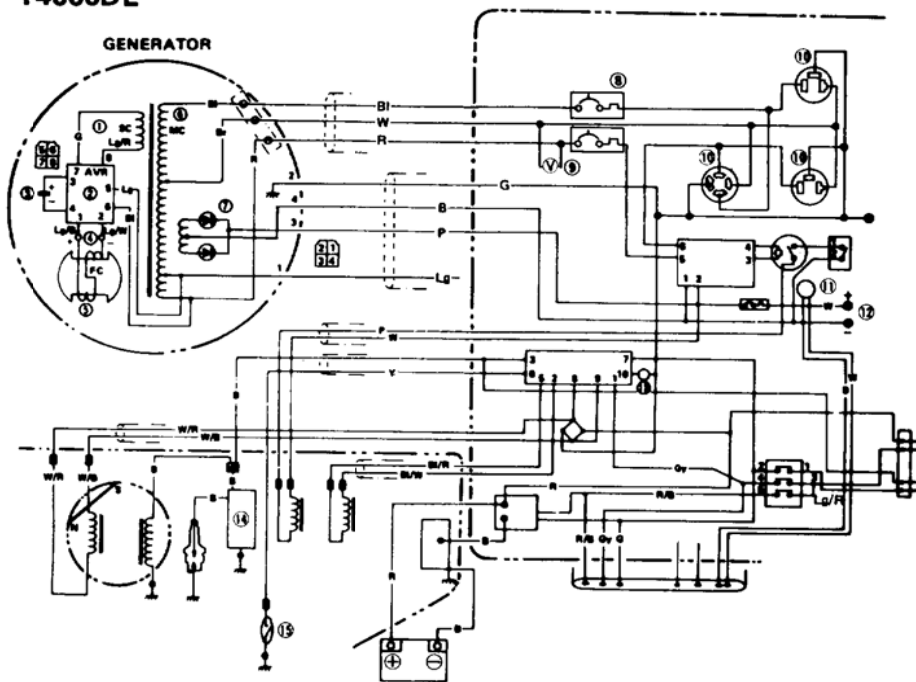
\* Specifications are subject to change without notice.

# WIRING DIAGRAM

## T4000D



## T4000DE



**Part Name:**

1. Sub coil
2. AVR (Automatic voltage regulator)
3. Condenser
4. Brushes
5. Field coil
6. Main coil
7. Diode
8. AC switch  
(No fuse breaker)
9. Voltmeter
10. Output receptacle
11. Pilot light
12. DC terminal
13. Oil level alarm light
14. Transistor control unit
15. Oil level sensor
16. Aut idle solenoid
17. Fuel gauge solenoid
18. Rectifier
19. Auto idle relay
20. Ignition switch

**Wire color:**

Gy . . . Gray  
P . . . . Pink  
B . . . . Black  
G . . . . Green  
R . . . . Red  
W . . . . White  
Y . . . . Yellow  
Lg . . . Light green  
Br . . . Brown  
Bl . . . Blue  
Lg/R . . Light green/Red  
Lg/B . . Light green/Black  
Lg/W . . Light green/White  
R/B . . Red/Black  
W/R . . White/Red  
W/B . . White/Black  
Bl/W . . Blue/White  
Bl/R . . Blue/Red



# The Toro Promise

## A ONE YEAR LIMITED WARRANTY

*The Toro Company promises to repair any TORO Product if defective in materials or workmanship. The following time periods from the date of purchase apply:*

Residential Product . . . . . 1 Year  
Residential Products Used Commercially . . . 45 Days

*The costs of parts and labor are included, but the customer pays the transportation costs. Just return any residential product to an Authorized TORO Service Dealer or TORO Distributor.*

Should you feel your TORO Product is defective and wish to rely on The Toro Promise, the following procedure is recommended:

1. Contact any Authorized TORO Service Dealer, TORO Master Service Dealer, or TORO Distributor (the Yellow Pages of your telephone directory is a good reference source).
2. He will either instruct you to return the product to him or recommend another Authorized TORO Service outlet which might be more convenient.
3. Bring the product along with your original sales slip, or other evidence of purchase date, to the service dealer.
4. The servicing dealer will inspect the unit, advise you whether the product is defective and, if so, make all repairs necessary to correct the defect without extra charge to you.

If for any reason you are dissatisfied with the dealer's analysis of the defect or the service performed, you may contact us.

Write:

TORO Consumer Service Department  
8111 Lyndale Avenue South  
Minneapolis, Minnesota 55420

The above remedy of product defects through repair by an Authorized TORO Service Dealer is the purchaser's sole remedy for any defect.

THERE IS NO OTHER EXPRESS WARRANTY. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty applies only to parts or components which are defective and does not cover repairs necessary due to normal wear, misuse, accidents, or lack of proper maintenance. Regular, routine maintenance of the unit to keep it in proper operating condition is the responsibility of the owner.

All warranty repairs reimbursable under The Toro Promise must be performed by an Authorized TORO Service Dealer using Toro approved replacement parts.

Repairs or attempted repairs by anyone other than an Authorized TORO Service Account are not reimbursable under The Toro Promise. In addition, these unauthorized repair attempts may result in additional malfunctions, the correction of which is not covered by warranty.

THE TORO COMPANY IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT INCLUDING ANY COST OR EXPENSE OF PROVIDING SUBSTITUTE EQUIPMENT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.

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, and you may also have other rights which vary from state to state.

### COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased TORO products exported from the United States or Canada should contact their TORO Distributor (Dealer) to obtain guarantee policies for your country, province or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact

the TORO importer. If all other remedies fail, you may contact us at The Toro Company.

International Group  
Service Department  
One Corporate Center  
7401 Metro Boulevard  
Minneapolis, Minnesota 55435 U.S.A.

Compliance with Radio Interference Regulations Certified.  
Certifié Conforme au Règlement sur le Brouillage Radioélectrique.

Litho in U.S.A.