

**HONDA**

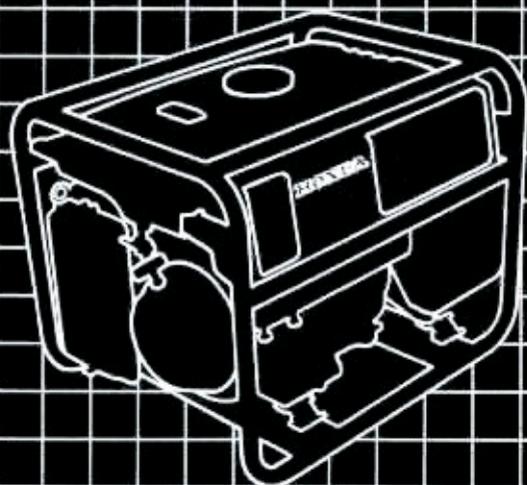
**Power**

**Equipment**

# Owner's Manual

## GENERATOR/WELDER

### EW171



**⚠ WARNING** The generator is a potential source of electrical shock if misused. Do not expose the generator to moisture, rain or snow. Do not let the generator get wet, and do not operate it with wet hands.

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Thank you for purchasing a Honda generator/welder. We want to help you get the best results from your new generator/welder and to operate it safely. This manual contains the information on how to do that; please read it carefully.

This owner's manual describes the operation and maintenance of the EW171 Honda generator/welder. All information in this publication is based on the latest product information available at the time of printing. Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the generator/welder and should remain with it if it is resold.

### **Safety Messages**

Your safety and the safety of others is very important. We have provided important safety messages in this manual and on the generator/welder. Please read these messages carefully.

A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol  and one of three words: DANGER, WARNING, or CAUTION.

These mean

 **DANGER** You **WILL** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

 **WARNING** You **CAN** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

 **CAUTION** You **CAN** be **HURT** if you don't follow instructions.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

### **Damage Prevention Messages**

You will also see other important messages that are preceded by the word NOTICE.

This word means:

 **NOTICE** Your generator/welders or other property could be damaged if you don't follow instructions.

The purpose of these messages is to help prevent damage to your generator/welder, other property, or the environment.

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# SAFETY

## SAFETY LABEL LOCATION

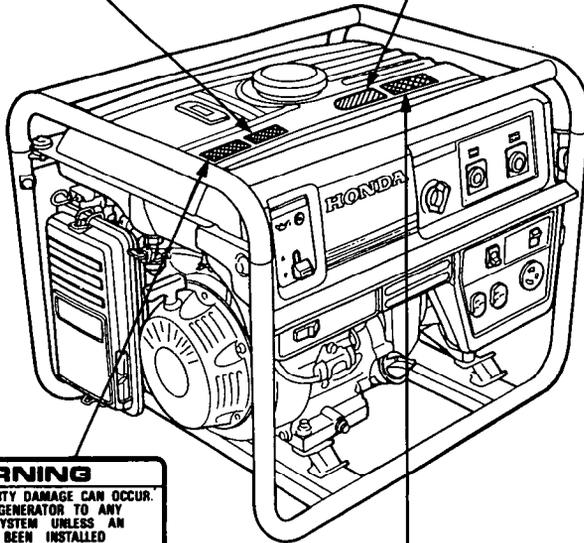
These labels warn you of potential hazards that can cause serious injury. Read them carefully.

If a label comes off or becomes hard to read, contact your Honda Generator dealer for a replacement.

**⚠ WARNING**  
USING THE GENERATOR IN RAIN, SNOW OR NEAR WATER CAN LEAD TO DEATH FROM ELECTRIC SHOCK. KEEP GENERATOR DRY.



■ CHECK FOR SPILLED FUEL OR FUEL LEAKS. STOP ENGINE BEFORE REFUELING.  
■ CONTRÔLER QU'IL N'Y A NI FUITE NI ESSENCE RÉPANDUE SUR L'APPAREIL. ARRÊTER LE MOTEUR AVANT DE REFAIRE LE PLEIN.  
■ INSPECCIONAR PARA COMBUSTIBLE DERRAMADO O ESCAPE. PARAR MOTOR ANTES DE ECHAR.



**⚠ WARNING**  
ELECTROCUTION OR PROPERTY DAMAGE CAN OCCUR. DO NOT CONNECT THIS GENERATOR TO ANY BUILDING'S ELECTRICAL SYSTEM UNLESS AN ISOLATION SWITCH HAS BEEN INSTALLED BY A LICENSED ELECTRICIAN. READ OWNER'S MANUAL CAREFULLY.

<b>WARNING</b>	DO NOT USE INDOORS. EXHAUST GAS CONTAINS POISONOUS CARBON MONOXIDE.
<b>ATTENTION</b>	NE PAS UTILISER DANS UN ENDROIT FERME A CAUSE DU RISQUE D'EMPOISONNEMENT DU GAZ.
<b>ATENCION</b>	NO LO USE EN LUGARES CERRADOS PORQUE EL MONOXIDE DE CARBONO ES VENENOSO.

**EW171 HONDA MOTOR CO., LTD.**

MAD IN JAPAN (A)

**CAUTION**

■ BE SURE TO FILL CRANKCASE WITH RECOMMENDED OIL BEFORE USING.  
FOR DETAILED EXPLANATION. SEE THE OWNER'S MANUAL.

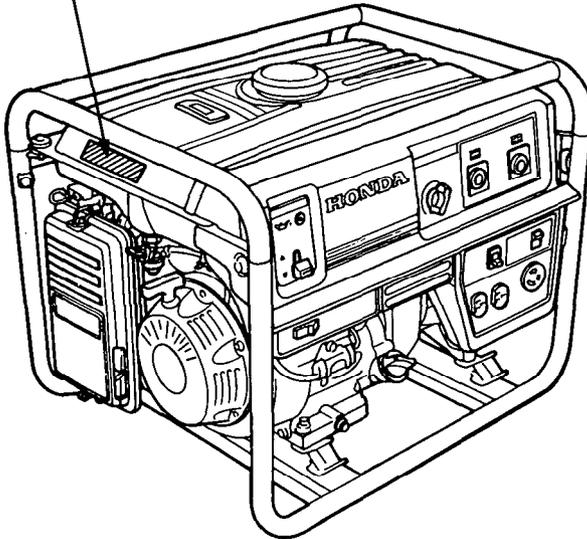
**WELDER OUT PUT**

CURRENT RANGE  
50 – 170 Amps DC  
RATED CURRENT  
130 A –26.5 V-DC  
DUTY CYCLE 50% – 130 A

**AC OUTPUT**

VOLTAGE 120 V  
FREQUENCY 60 Hz  
OUTPUT 4.0 KVA

FUEL GASOLINE (PETROL)



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## **SAFETY INFORMATION**

Honda generator/welder are designed to give safe and dependable service if operated according to instructions. Read and understand this owner's manual before operating your generator/welder. You can help prevent accidents by being familiar with your generator's controls, and by observing safe operating procedures.

### **Operator Responsibility**

- Know how to stop the generator/welder quickly in case of emergency.
- Understand the use of all generator/welder controls, output receptacles, and connections.
- Be sure that anyone who operates the generator/welder receives proper instruction. Do not let children operate the generator/welder without parental supervision.

### **Carbon Monoxide Hazards**

- Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.
- If you run the generator/welder in an area that is confined, or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.

### **Electric Shock Hazards**

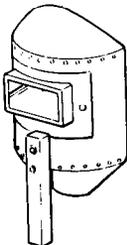
- The generator/welder produce enough electric power to cause a serious shock or electrocution if misused.
- Using a generator/welder or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution. Keep the generator/welder dry.
- If the generator/welder is stored outdoors,unprotected from the weather, check all electrical components on the control panel, before each use. Moisture or ice can cause a malfunction or short circuit in electrical components which could result in electrocution.
- Do not connect to a building's electrical system unless an isolation switch has been installed by a qualified electrician.

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## Fire and Burn Hazards

- The exhaust system gets hot enough to ignite some materials.
  - Keep the generator/welder at least 1 meter (3 feet) away from buildings and other equipment during operation.
  - Do not enclose the generator/welder in any structure.
  - Keep flammable materials away from the generator/welder.
- The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the generator/welder indoors.
- Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks where the generator/welder is refueled or where gasoline is stored. Refuel in a well-ventilated area with the engine stopped.
- Fuel vapors are extremely flammable and may ignite after the engine has started. Make sure that any spilled fuel has been wiped up before starting the generator/welder.
- Use adequate eye protection. Eye protection is of the utmost importance, not only for the operator, but also for any other personnel in the vicinity while welding is being done. Eye hazards include arc glare, reflected glare, stray flashes, sparks, and flying bits of molten metal.
- Looking at a welding arc with unprotected eyes may produce severe pain and even temporary blindness.
- Use a helmet or hand-held shield with a #10 or darker filter lens. Filter lenses eliminate the harmful effects of infrared and ultraviolet radiation from the arc and reduce the glare from the arc light as well.
- Wear protective clothing such as leather gloves, cap, sleeves, jacket, apron, and high-top safety shoes. All outer clothing must be free of oil and grease.

FACE SHIELD



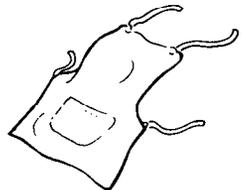
GLOVES



SAFETY SHOES

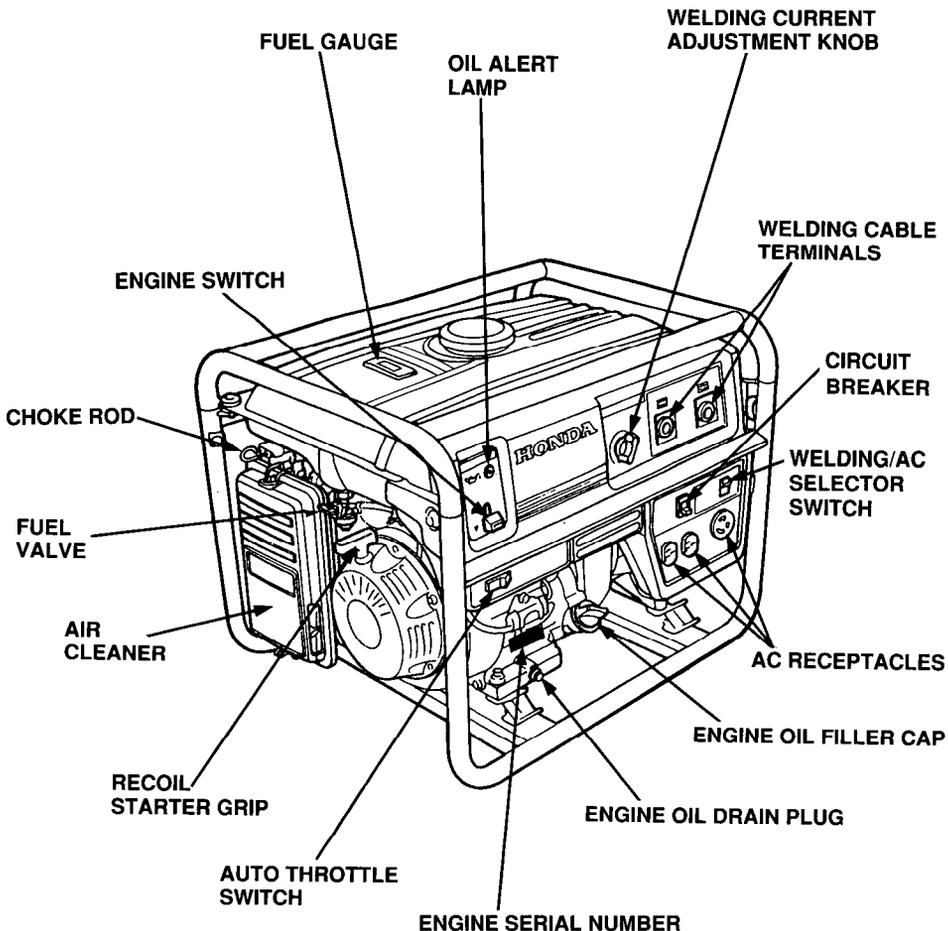


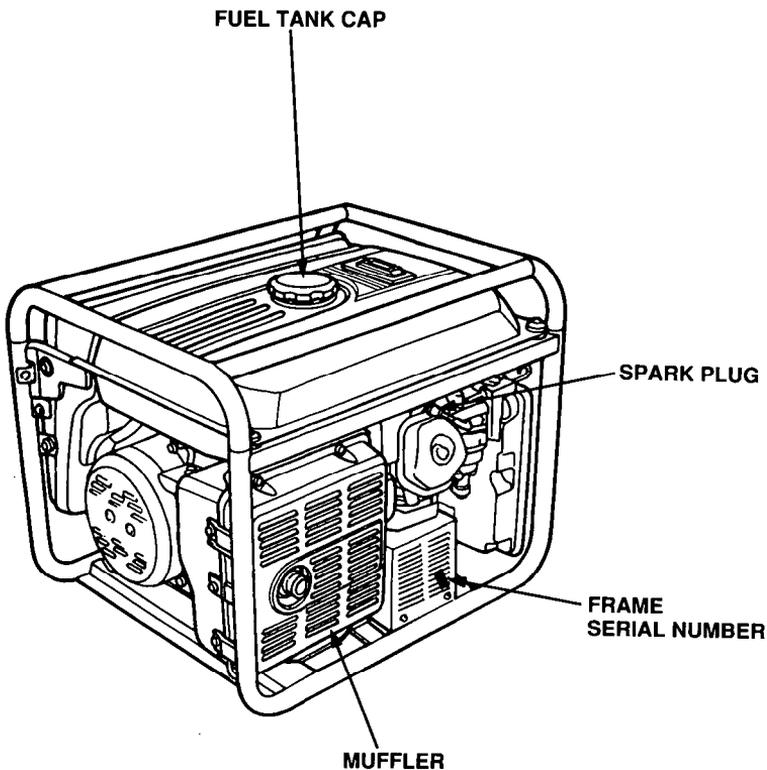
APRON



# COMPONENT IDENTIFICATION

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- Record the engine and frame serial numbers for your future reference. Refer to these serial numbers when ordering parts, and when making technical or warranty inquiries (see page 41)

Frame serial number: \_\_\_\_\_

Engine serial number: \_\_\_\_\_

# CONTROLS

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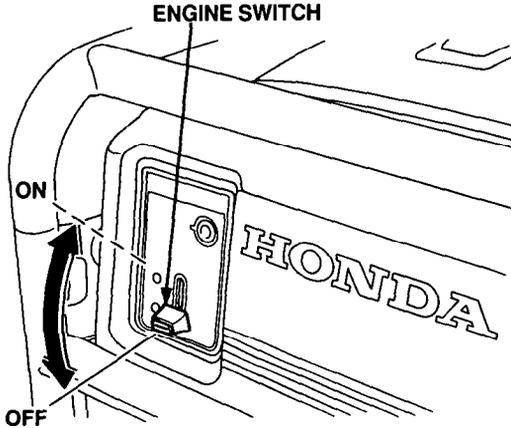
## Engine Switch

To start and stop the engine.

### Switch position:

**OFF:** To stop the engine.

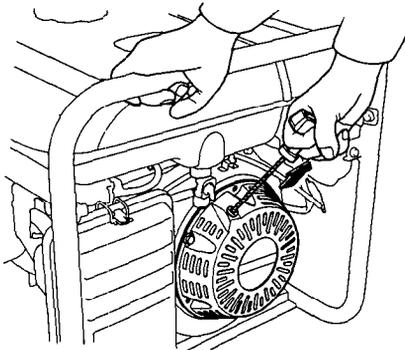
**ON:** To run the engine.



## Recoil Starter

To start the engine, pull the starter grip lightly until resistance is felt, then pull briskly.

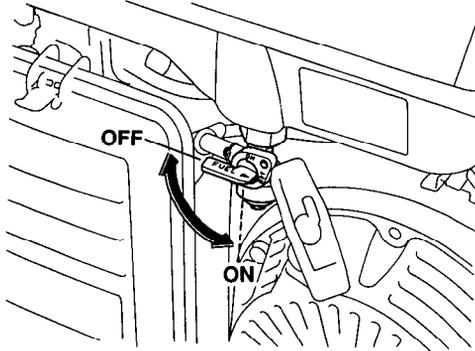
**NOTICE** Do not allow the starter to snap back against the engine. Return it gently to prevent damage to the starter.



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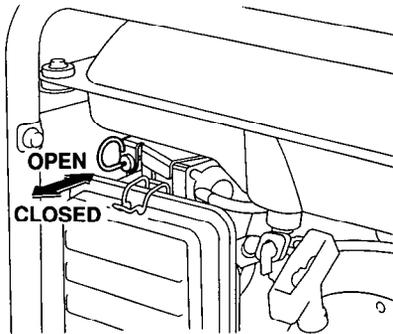
## Fuel Valve

The fuel valve is located between the fuel tank and carburetor. When the valve fuel lever is in the ON position, fuel is allowed to flow from the fuel tank to the carburetor. Be sure to return the fuel lever to OFF position after stopping the engine.



## Choke Rod

The choke is used to provide an enriched fuel mixture when starting a cold engine. It can be opened and closed by operating the choke rod manually. Pull the rod out toward CLOSED to enrich the mixture.

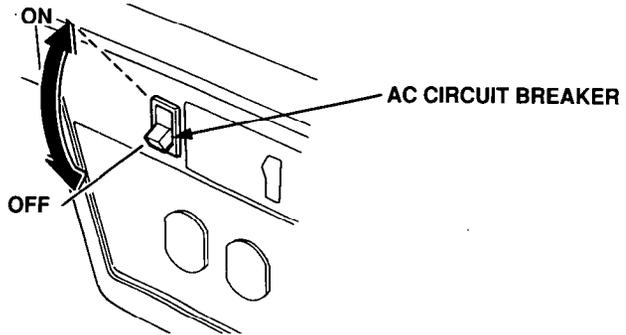


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## Circuit Breaker

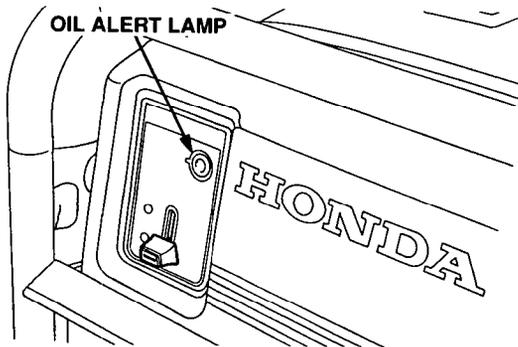
The circuit breaker will automatically switch OFF if there is a short circuit or a significant overload of the generator at the receptacle. If the circuit breaker is switched OFF automatically, check that the appliance is working properly and does not exceed the rated load capacity of the circuit before switching the circuit breaker ON again.

The circuit breaker may be used to switch the generator power ON or OFF.



## Oil Alert System

The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert system will automatically shut down the engine (the engine switch will remain in the ON position). If the Oil Alert system shuts down the engine, the Oil Alert lamp will flash when you operate the starter, and the engine will not start. If this occurs, add engine oil (p. 21).



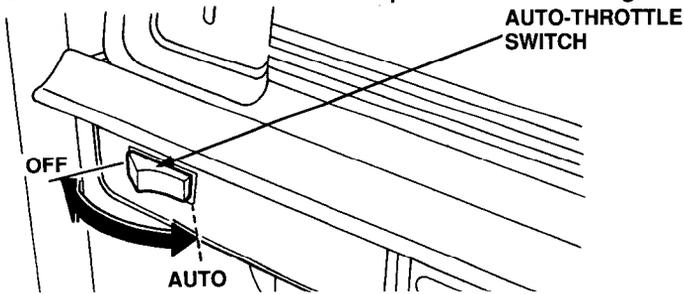
## Auto-throttle System

The auto-throttle system automatically reduces engine speed when AC loads are turned off or disconnected, or DC welding is discontinued. When AC loads are turned on or reconnected, or DC welding is resumed, the engine returns to the rated speed.

**AUTO:** Recommended to minimize fuel consumption and further reduce noise levels when no load is applied to the generator/welder.

**OFF:** The auto-throttle system does not operate.

Recommended to minimize warm up time when the engine is started.

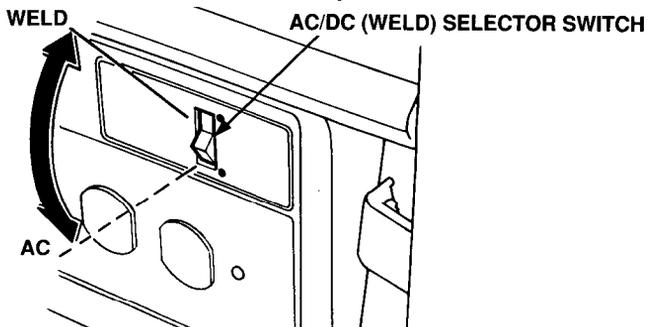


## AC/DC (Weld) Selector Switch

A AC/DC (Weld) selector switch is located on the control panel.

### NOTICE

- To avoid accidental arcing, one cable end should be firmly attached to the object to be welded, and the electrode holder at the end of the other cable should be held in the operator's hand when the DC (WELD) selector is turned on.
- Under no circumstances should any type of electrical appliance be plugged into any of the AC receptacles when the selector is in the DC (WELD) position. AC voltage is present at the AC receptacle at all times, regardless of the position of the AC/DC (WELD) selector. However, when this selector is in the DC (WELD) position, the AC voltage is unregulated and fluctuates considerably.

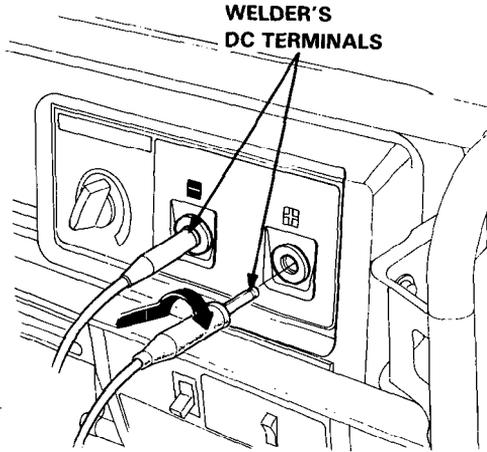


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## Welding Cable Terminal

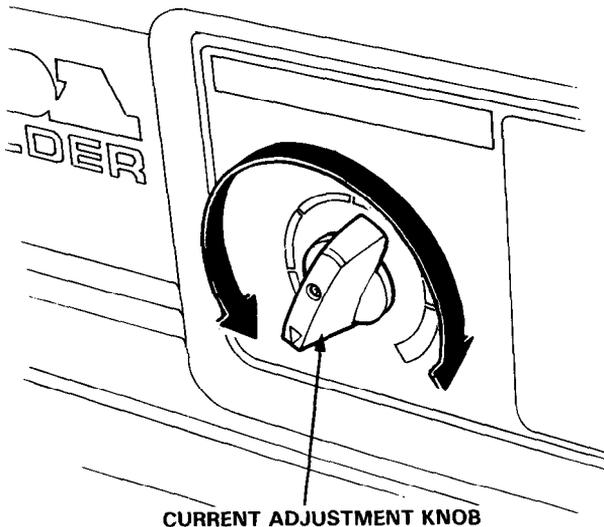
A separate terminal is provided for connection to the welding cable.

**⚠ CAUTION** Failure to use the proper gauge cable may lead to painful burns and/or damage to equipment. See table on page 18.



## Welding Current Adjust System

For best results, it is essential that current be adjusted properly according to the thickness of the materials to be welded and the method of welding. (See page.17)



## Connections to a Building's Electrical System

Connections for standby power to a building's electrical system must be made by a qualified electrician. The connection must isolate the generator power from utility power, and must comply with all applicable laws and electrical codes.

**⚠ WARNING** Improper connections to a building's electrical system can allow electrical current from the generator to backfeed into the utility lines. Such backfeed may electrocute utility company workers or others who contact the lines during a power outage. Consult the utility company or a qualified electrician

**⚠ CAUTION** Improper connections to a building's electrical system can allow electrical current from the utility company to backfeed into the generator. When utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.

In some areas, generators are required by law to be registered with local utility companies. Check local regulations for proper registration and use procedures.

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## AC operation

1. Start the engine.
2. Turn the AC/DC (Weld) selector switch to AC position.

**NOTICE** Under no circumstances should any type of electrical appliance be plugged into any of the AC receptacles when the selector is in the DC (WELD) position. AC voltage is present at the AC receptacles at all times regardless of the position of the AC/DC (WELD) selector. However, when this selector is in the DC (WELD) position, the AC voltage is unregulated and fluctuates considerably which could damage AC appliances.

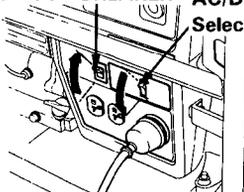
3. Switch on the AC circuit breaker.
4. Plug in the appliance.

### **NOTICE**

- Do not connect the generator/welder to a household circuit. This could cause damage to the generator or to electrical wiring and appliances in the house.
- For continuous operation, do not exceed the rated load capacity (EW171: 4.0 KVA). In either case, be sure to consider the total power requirements of all connected appliances. Do not exceed the current limit specified for any one receptacle. Substantial overloading will switch off the circuit breaker. Marginal overloading may not switch off the circuit breaker, but it will shorten the service life of the generator/welder.
- If an overloaded circuit causes the AC circuit breaker to switch off, reduce the electrical load on the circuit, and wait a few minutes before resetting the circuit breaker.
- Be sure that all appliances are in good working order before connecting them to the generator. If an appliance begins to operate abnormally, becomes sluggish, or stops suddenly, turn off the circuit breaker and the engine switch immediately. Then disconnect the appliance and examine it for signs of malfunction.
- Most appliance and power tool motors require more than the rated operating current for start-up. To match appliance power needs to generator capability, allow a sufficient generator power reserve to accommodate motor start-up requirements.

**NOTICE** Appliance and power tool manufacturers usually list rating information near the model number or serial number.

AC CIRCUIT BREAKER AC/DC (WELD)  
Selector



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## Welding

**⚠ WARNING** Welding is potentially a very hazardous activity. It should only be attempted by a trained welder with a thorough knowledge of proper welding techniques and safety procedures. Be sure to read and follow the safety rules on pages 3,4 and 5 of this manual.

1. Put the Engine Switch in the OFF position. Turn the AC circuit breaker off and remove any plugs from the AC receptacles.

**NOTICE** Voltage is present at the welding terminals whenever the engine is running regardless of the position of the AC/DC (WELD) selector.

2. Connect the welding cables to the welder's DC terminals (See page 18 and 19).

**NOTICE** Failure to use the proper gauge cable may lead to painful burns and/or damage to equipment. See table on page 18.

3. Start the engine and when it has warmed up fully, turn the Auto-Throttle Switch to the AUTO position.
4. Turn the AC/DC (WELD) selector to the DC (WELD) position.
5. Set the current adjustment knob to the proper current level for the job being done (See page 18).

### Selecting the Correct Welding Current

Measure the thickness of the metal you are welding and then refer to the table below to select the proper electrode size and current setting

PLATE THICKNESS IN INCHES	ELECTRODE DIAMETER IN INCHES	CURRENT SETTING
UP TO 3/16	1/16	50 – 100
UP TO 1/4	3/32	100 – 150
ABOVE 1/8	1/8	125 – 175
ABOVE 1/4	5/32	150 – 200

**NOTICE** Always make a sample weld on a piece of scrap material to be sure you have chosen the correct electrode and current setting.

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## Welding Cable Selection

The table below shows the current carrying capacity of various lengths and gauges of standard copper welding cable. Whenever possible, refer to the cable manufacturer's recommendations.

Always allow a considerable safety margin when selecting welding cables. The cable's length and gauge (diameter), along with the material it is made from, all combine to determine how much current it can safely carry.

**NOTICE** An undersize welding cable will offer unacceptably high resistance to current flow. This high resistance will shorten the service life of the generator/welder, and can even make the welding cables become hot enough to cause painful burns.

CABLE GAUGE	CABLE DIA.	LENGTH IN FEET*		
		0 — 50 FT.	50 — 100 FT.	100 — 250 FT.
		CURRENT CAPACITY AMPERES		
1	.644	250	200	170
2	.604	200	195	—

NOTE: The cable lengths given in the table above are the combined lengths of the negative and positive cables.

## Welding Duty Cycle

The duty cycle is the percentage of time that the welder can be operated in a given 10 minute period.

For example, at a rated output of 130 amperes, the EW171's duty cycle is 50%. This means that at 130 amperes, welding can be performed for a total of 5 minutes out of every 10 minute period. The duty cycle is longer at lower operating currents, and shorter at higher currents.

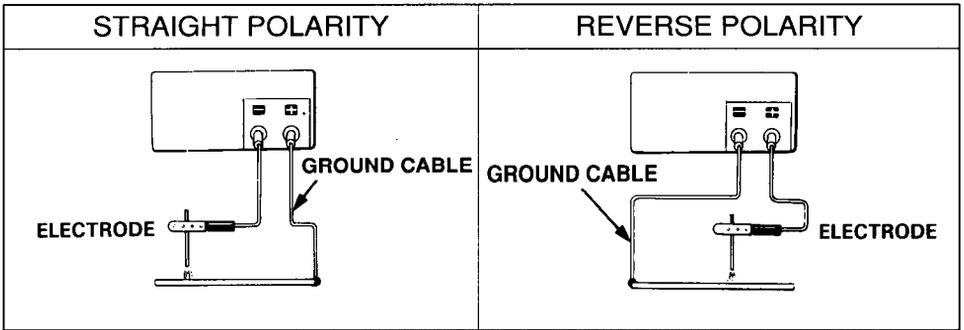
Current	170A	150A	130A	110A	Below 90A
Rate	15%	25%	50%	65%	100%

**NOTICE** Do not operate the welder beyond its duty cycle; doing so will decrease the performance and service life of the generator/welder.

## Polarity Selection

The welding terminals are labeled “+” (positive) and “-” (negative). Changing the polarity of the cables will affect the weld. The correct polarity selection is dependent on the type of electrode you are using and the type of material you are welding; refer to the electrode manufacturer’s recommendations for best results.

For straight polarity, attach the electrode cable to the negative terminal, and attach the ground cable to the positive terminal. To change to reverse polarity, reverse the cables.



## High Altitude Operation

At high altitude, the standard carburetor air-fuel mixture will be excessively rich. Performance will decrease, and fuel consumption will increase.

High altitude performance can be improved by installing a smaller diameter main fuel jet in the carburetor and readjusting the pilot screw. If you always operate the engine at altitudes higher than 6,000 feet above sea level, have an authorized Honda generator dealer perform this carburetor modification.

Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5% for each 1,000 foot increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

**NOTICE** If a generator/welder jetted for high altitude is used at a lower altitude the air fuel mixture will reduce performance and may overheat or seriously damage the engine.

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## Auto-throttle system

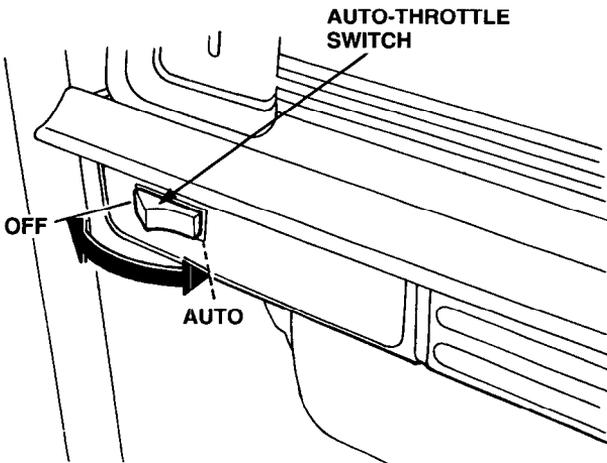
With the switch in the AUTO position, engine speed is automatically reduced when ALL loads are turned OFF or disconnected. When appliances are turned ON or reconnected, the engine returns to rated speed. In the OFF position, the auto-throttle system does not operate.

The auto-throttle system will not respond to electrical loads of less than 1 ampere. Turn the auto-throttle to the OFF position to operate loads of less than 1 amp.

Appliances with large start-up power demands may not allow the engine to reach normal operating rpm when they are connected to the generator. Turn the auto-throttle to the OFF position and connect the appliance to the generator. If the engine still will not reach normal operating speed, check that the appliance does not exceed the rated load capacity of the generator/welder.

To avoid extended warm-up periods, keep the switch OFF until the engine reaches operating temperature.

The auto-throttle system is not effective for use with appliances that require only momentary power. If the tool or appliance will be turned ON and OFF quickly, the auto -throttle switch should be in the OFF position.



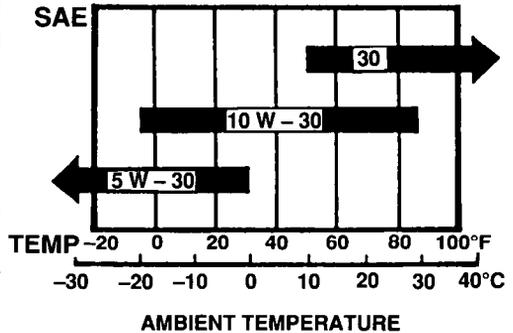
# PRE-OPERATION CHECK

## Engine oil

**NOTICE** Engine oil is a major factor affecting engine performance and service life. Non-detergent and 2-stroke engine oils will damage the engine and are not recommended.

Check the oil level **BEFORE EACH USE** with the generator on a level surface with the engine stopped.

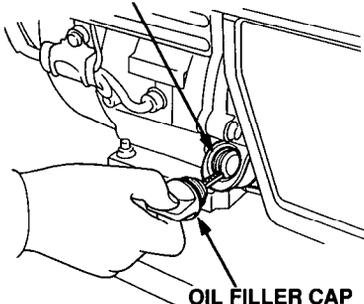
Use Honda 4-stroke oil, or an equivalent high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for Service Classification SG, SF/CC, CD. Motor oils classified SG, SF/CC, CD will show this designation on the container.



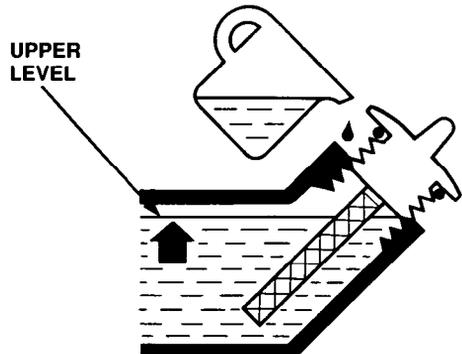
SAE 10W-30 is recommended for general, all-temperature use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.

1. Remove the oil filler cap and wipe the dipstick clean.
2. Check the oil level by inserting the dipstick into the filler neck without screwing it in.
3. If the level is low, fill to the top of the oil filler neck with the recommended oil.

OIL FILLER HOLE



UPPER LEVEL



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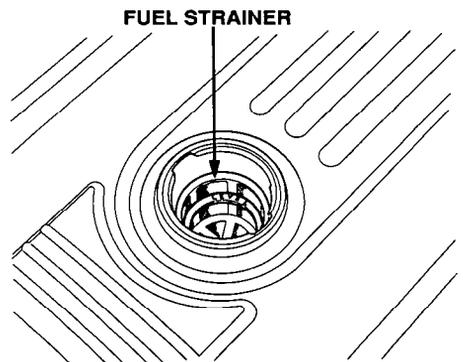
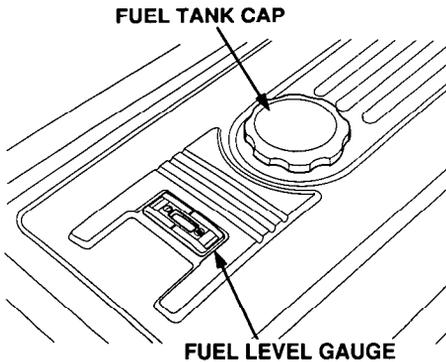
## Fuel Recommendation

1. Check the fuel level gauge.
2. Refill the tank if the fuel level is low. Do not fill above the shoulder of the fuel strainer.

### **⚠ WARNING**

- Gasoline is extremely flammable and is explosive under certain conditions.
- Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.
- Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely. Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor.
- **KEEP OUT OF REACH OF CHILDREN.**

**Fuel tank capacity:** 17.0 ℓ (4.50 US gal, 3.74 Imp gal)



Use gasoline with a pump octane rating of 86 or higher.

We recommend unleaded gasoline because it produces fewer engine and spark plug deposits and extends exhaust system life.

Never use stale or contaminated gasoline or oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

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Occasionally you may hear light “spark knock” or “pinging” (metallic rapping noise) while operating under heavy loads. This is no cause for concern.

If spark knock or pinging occurs at a steady engine speed, under normal load, change brands of gasoline. If spark knock or pinging persists, see an authorized Honda generator dealer.

**NOTICE** Running the engine with persistent spark knock or pinging can cause engine damage.

Running the engine with persistent spark knock or pinging is misuse, and the Distributor’s Limited Warranty does not cover parts damaged by misuse.

### **Oxygenated Fuels**

Some gasolines are being blended with alcohol or an ether compound to increase the octane. These gasolines are collectively referred to as oxygenated fuels. Some areas of the United States use oxygenated fuels to help meet clean air standards.

If you use an oxygenated fuel, be sure its pump octane rating is 86 or higher.

### **Ethanol (ethyl or grain alcohol)**

Gasoline containing more than 10% ethanol by volume may cause starting and/or performance problems. Gasoline containing ethanol may be marketed under the name “Gasohol”.

### **Methanol (methyl or wood alcohol)**

Gasoline containing methanol must contain cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems and may damage metal, rubber and plastic parts of your fuel system.

### **MTBE (methyl tertiary butyl ether)**

You may use gasoline containing up to 15% MTBE by volume.

Before using an oxygenated fuel, try to confirm the fuel’s contents. Some states (provinces in Canada) require this information to be posted on the pump. If you notice any undesirable operating symptoms, switch to a conventional unleaded gasoline. Fuel system damage or performance problems resulting from the use of an oxygenated fuel are not the responsibility of Honda and are not covered under warranty.

**NOTICE** Oxygenated fuels can damage paint and plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered under warranty.

# **STARTING THE ENGINE/STOPPING THE ENGINE**

## **Starting the Engine**

1. Make sure that the AC circuit breaker is in the OFF position, and that there are no welding cables attached to the DC terminals. The generator may be hard to start if a load is connected.
2. Turn the fuel valve to the ON position.
3. Pull the choke rod to the CLOSE position.
4. Make sure the auto-throttle switch is in the OFF position, or more time will be required for warm-up.
5. Move the engine switch to the ON position.
6. Pull the starter grip lightly until resistance is felt, then pull briskly.

**NOTICE** Do not allow the starter grip to snap back against the engine.

Return it gently to prevent damage to the starter or housing.

7. Push the choke rod to the OPEN position as the Engine warms up.
8. If you wish to use the auto-throttle system, turn the auto-throttle switch to the AUTO position after the engine has warmed up for 2 or 3 minutes.

## **Stopping the Engine**

### **In an emergency:**

1. To stop the engine in an emergency, turn the engine switch to the OFF position.

### **In normal use:**

1. Turn the AC circuit breaker to the OFF position.
2. Move the engine switch to the OFF position.
3. Turn the fuel valve to the OFF position.

# MAINTENANCE

Periodic maintenance and adjustment is necessary to keep the generator/welder in good operating condition. Perform the service and inspection at the intervals shown in the Maintenance schedule below.

**⚠ WARNING** Exhaust gas contains poisonous carbon monoxide. Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated.

**NOTICE** Use only genuine HONDA parts or their equivalent for maintenance or repair. Replacement parts which are not of equivalent quality may damage the generator.

## MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD Performed at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 20 Hrs. (3)	Every 3 months or 50 Hrs. (3)	Every 6 months or 100 Hrs. (3)	Every year or 300 Hrs. (3)
ITEM						
Engine oil	Check level	o				
	Change		o		o	
Air cleaner	Check	o				
	Clean			o (1)		
GFCI receptacle	Check					
Sediment Cup	Clean				o	
Spark plug	Check-Clean				o	
Spark Arrester	Clean				o	
Valve clearance	Check-Adjust					o (2)
Fuel tank and strainer	Clean					o (2)
Fuel line	Check (Replace if necessary)	Every 2 years (2)				

- (1) Service more frequently when used in dusty areas.
- (2) These items should be serviced by an authorized Honda generator dealer, unless the owner has the proper tools and is mechanically proficient. See the Honda Shop Manual.
- (3) For professional commercial use, log hours of operation to determine proper maintenance intervals.

---

## Tool kit

The tools supplied with the generator will help you to perform the owner maintenance procedures listed on the following page. Always keep this tool kit with the generator/welder.



**10 × 12 mm WRENCH**



**SCREW DRIVER**



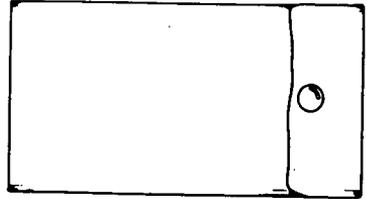
**PLUG WRENCH**



**DRIVER HANDLE**



**HANDLE BAR**



**TOOL BAG**

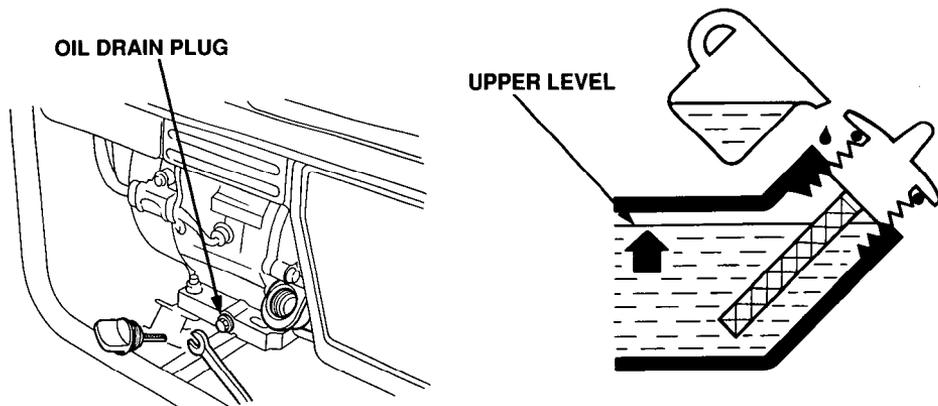
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## Engine oil change

Drain the oil while the engine is warm to assure complete and rapid draining.

1. Remove the drain plug and sealing washer, oil filler cap, and drain the oil.
2. Install the drain plug and sealing washer. Tighten the plug securely.
3. Refill with the recommended oil (see page 21) and check the level.

**Oil capacity:** 1.1 ℓ (1.16 US qt, 0.97 Imp qt)



**⚠ CAUTION** Used motor oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station or recycling center for reclamation. Do not throw it in the trash or pour it on the ground.

## Air cleaner service

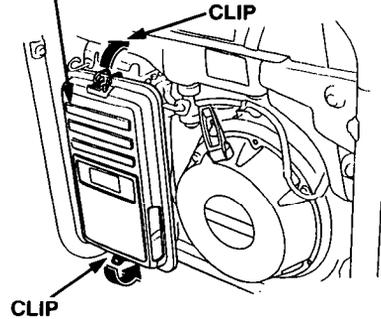
A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the generator/welder in extremely dusty areas.

**⚠ WARNING** Using gasoline or flammable solvent to clean the filter element can cause a fire or explosion. Use only soapy water or nonflammable solvent.

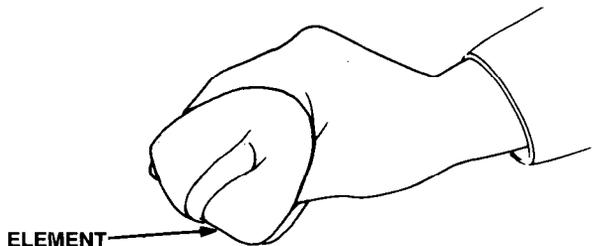
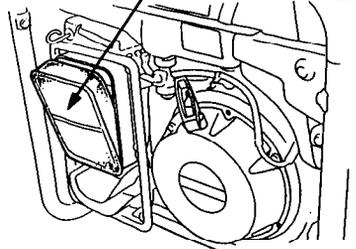
**NOTICE** Never run the generator/welder without the air cleaner. Rapid engine wear will result.

1. Unsnap the air cleaner cover clips, remove the air cleaner cover, and remove the element.
2. Wash the element in a solution of household detergent and warm water, then rinse thoroughly, or wash in nonflammable or high flash point solvent. Allow the element to dry thoroughly.
3. Soak the element in clean engine oil and squeeze out the excess oil. The engine will smoke during initial start-up if too much oil is left in the element.
4. Reinstall the air cleaner element and the cover.

AIR CLEANER COVER



AIR CLEANER ELEMENT

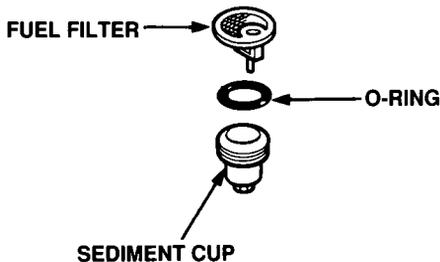
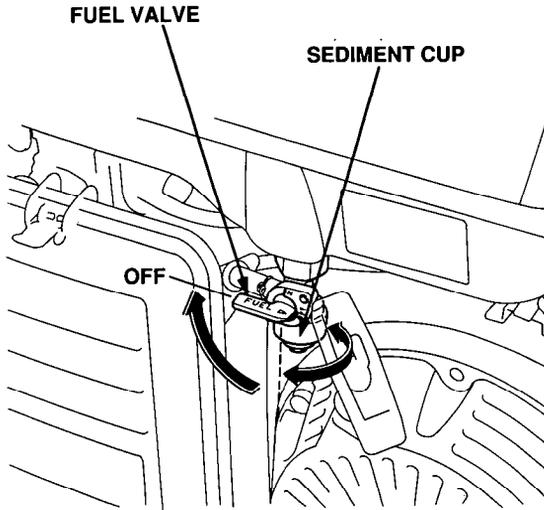


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## Fuel Sediment Cup Cleaning

The sediment cup prevents dirt or water which may be in the fuel tank from entering the carburetor. If the engine has not been run for a long time, the sediment cup should be cleaned.

1. Turn the fuel valve to the OFF position. Remove the sediment cup, O-ring, and filter.
2. Clean the sediment cup, O-ring, and filter in nonflammable or high flash point solvent.
3. Reinstall the filter, O-ring, and sediment cup.



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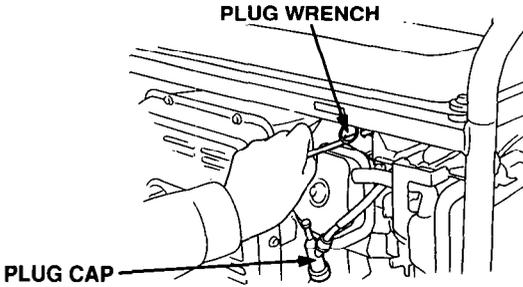
## Spark Plug Service

**Recommended spark plugs:** BPR5ES (NGK)  
W16EPR-U (NIPPONDENSO)

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

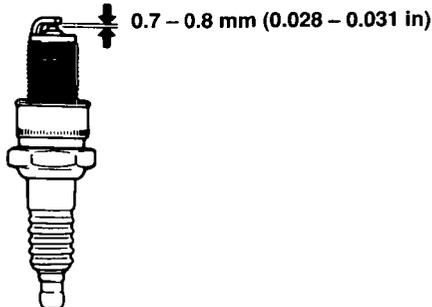
If the engine has been running, the muffler will be very hot. Be careful not to touch the muffler.

1. Remove the spark plug cap.
2. Clean and dirt from around the spark plug base.
3. Use the wrench supplied in the tool kit to remove the spark plug.



4. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
5. Measure the plug gap with a feeler gauge.  
Correct as necessary by carefully bending the side electrode.

**The gap should be:** 0.70–0.80 mm (0.028–0.031 in)



- 
7. Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.
  8. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.
    - If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer. If reinstalling a used spark plug, tighten 1/8-1/4 turn after the spark plug seats to compress the washer.

**NOTICE** The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and could damage the engine. Never use spark plugs which have an improper heat range. Use only the recommended spark plugs or equivalent.

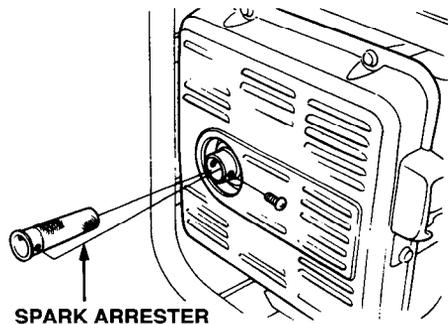
### Spark Arrester Maintenance

If the generator/welder has been running, the muffler will be very hot. Allow it to cool before proceeding.

**NOTICE** The spark arrester must be serviced every 100 hours to maintain its efficiency.

#### Clean the spark arrester as follows:

1. Loosen the screw by the exhaust port of the muffler and remove the spark arrester.
2. Use a brush to remove carbon deposits from the spark arrester screen. Inspect the screen for breaks or tears and replace it if necessary.
3. Install the spark arrester in the reverse order of removal.



# TRANSPORTING/STORAGE

When transporting the generator/welder, turn the engine switch and the fuel valve OFF and keep the generator/welder level to prevent fuel spillage. Fuel vapor or spilled fuel may ignite.

**⚠ WARNING** Contact with a hot engine or exhaust system can cause serious burns or fires. Let the engine cool before transporting or storing the generator/welder.

Take care not to drop strike the generator/welder when transporting. Do not place heavy objects on the generator/welders.

Before storing the unit for an extended period:

1. Be sure the storage area is free of excessive humidity and dust.
2. Service according to the table below:

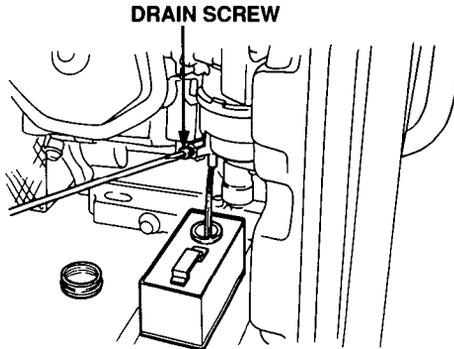
STORAGE TIME	RECOMMENDED SERVICE PROCEDURE TO PREVENT HARD STARTING
Less than 1 month	No preparation required
1 to 2 months	Fill with fresh gasoline and add gasoline conditioner*.
2 months to 1 year	Fill with fresh gasoline and add gasoline conditioner*. Drain the carburetor float bowl. Drain the fuel sediment cup.
1 year or more	Fill with fresh gasoline and add gasoline conditioner*. Drain the carburetor float bowl. Drain the fuel sediment cup. Remove the spark plug. Put a tablespoon of engine oil into the cylinder. Turn the engine slowly with the pull rope to distribute the oil. Reinstall the spark plug. Change the engine oil. After removal from storage, drain the stored gasoline into a suitable container, and fill with fresh gasoline before starting.

\* Use gasoline conditioners that are formulated to extend storage life. Contact your authorized Honda generator dealer for conditioner recommendations.

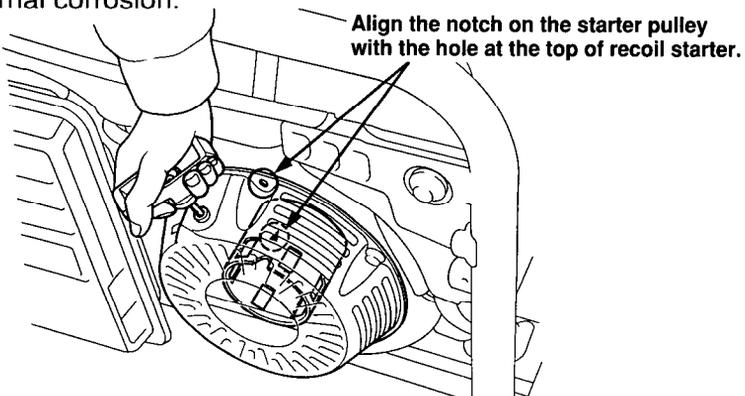
- 
1. Drain the carburetor by loosening the drain screw. Drain the gasoline into a suitable container.

**⚠ WARNING**

Gasoline is extremely flammable and is explosive under certain conditions. Perform this task in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area during this procedure.

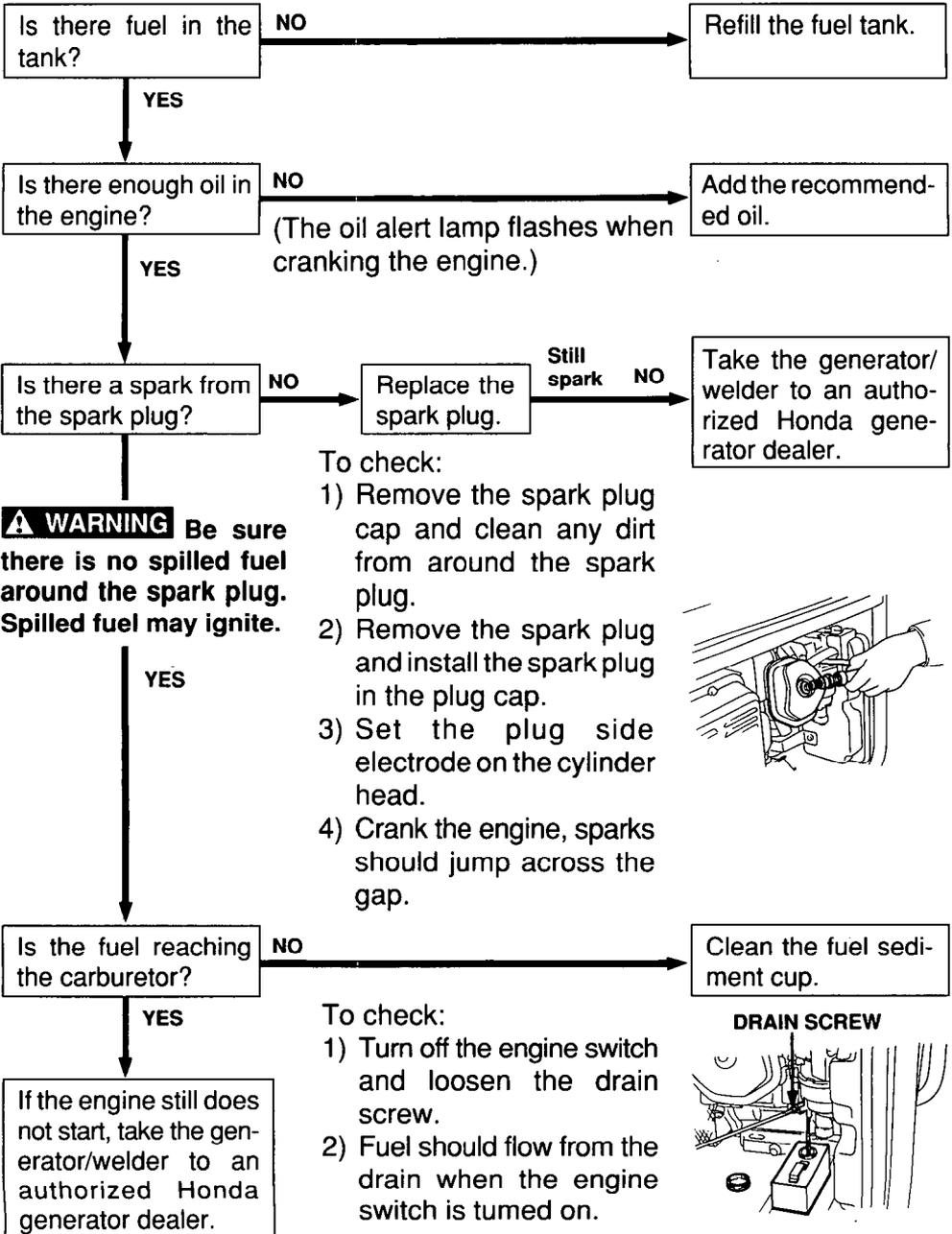


2. Change the engine oil.
3. Remove the spark plug, and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug.
4. Slowly pull the starter grip until resistance is felt. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect it from internal corrosion.



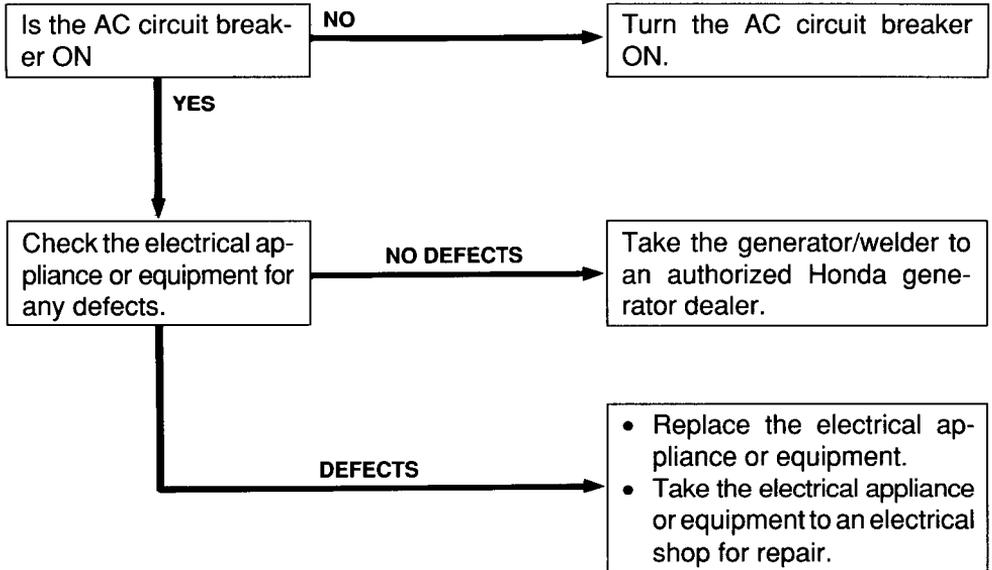
# TROUBLESHOOTING

When the engine will not start:

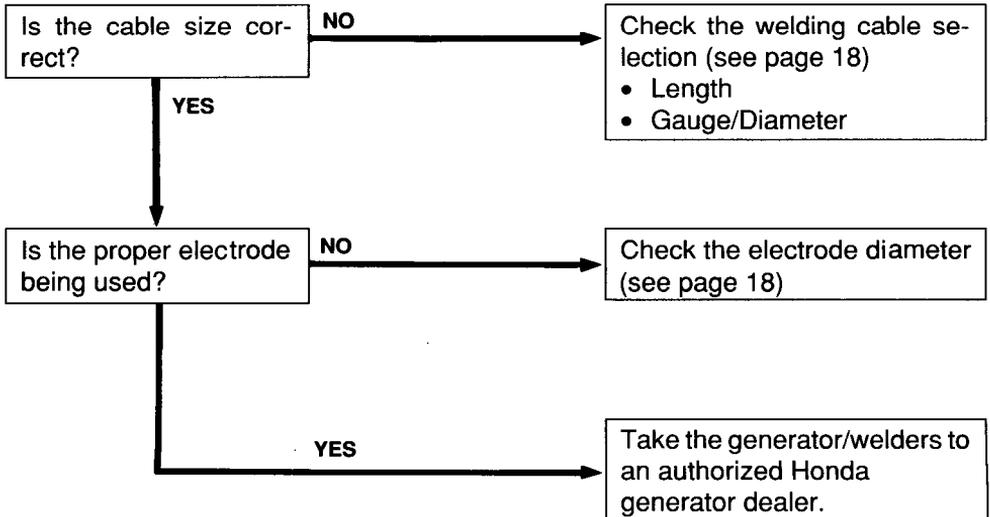


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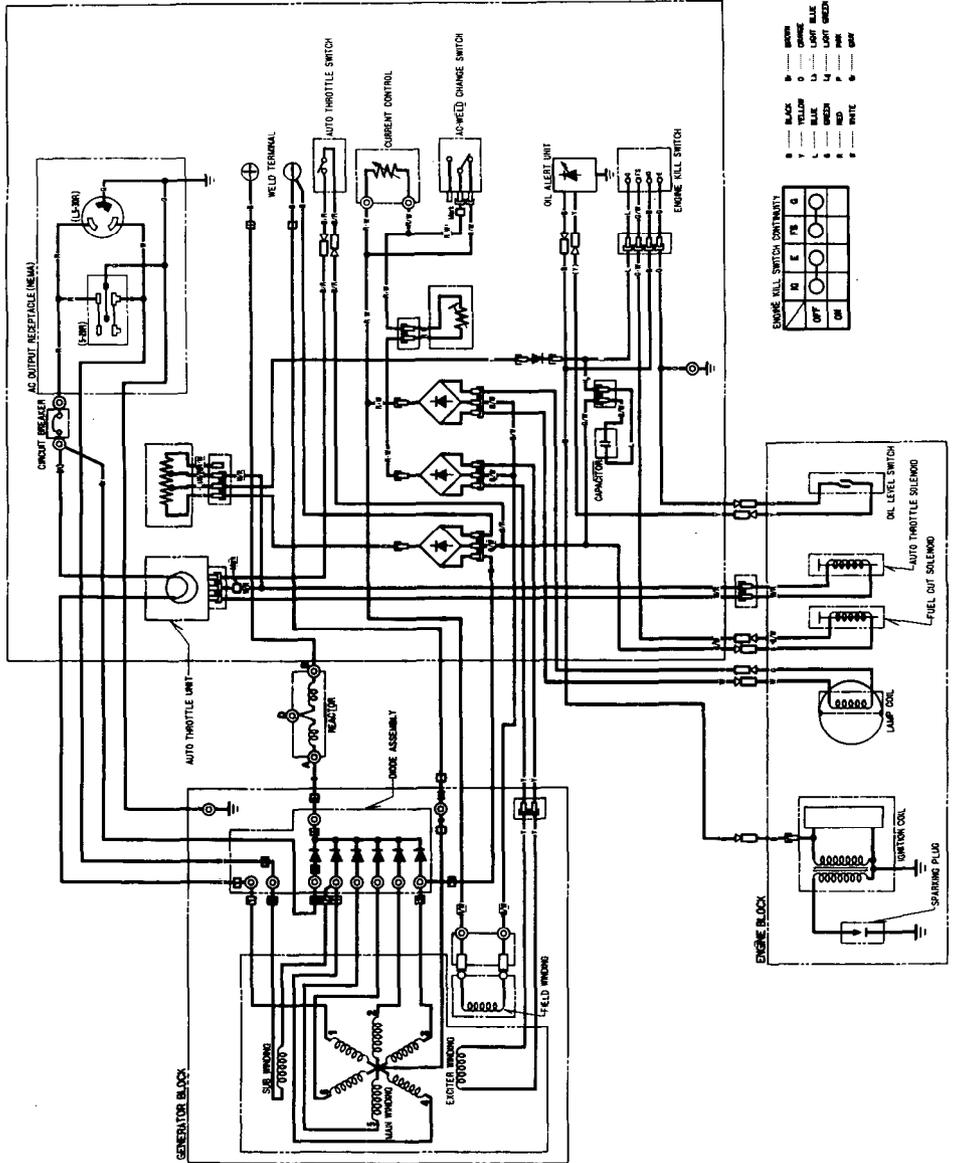
No electricity at the AC receptacles:



When the welding arc is weak:



# WIRING DIAGRAM



# SPECIFICATIONS

## Dimensions

Model	EW171
Power equipment description code	EB1
Length × Width × Height	675 × 510 × 490 mm (26.6 × 20.1 × 19.3 in)
Dry weight	92 kg (202.8 lb)

## Engine

Model	GX340K1
Engine type	4-stroke, overhead valve, single cylinder
Displacement (Bore × Stroke)	337 cc (20.6 cu in) [82 × 64 mm (3.2 × 2.5 in)]
Compression ratio	8.0 : 1
Engine speed	3,600 r.p.m.
Cooling system	Forced air
Ignition system	Transistorized magneto
Oil capacity	1.1 ℓ (1.16 US qt, 0.97 Imp qt)
Fuel tank capacity	17.0 ℓ (4.5 US gal, 3.74 Imp gal)
Spark plug	BPR5ES (NGK), W16EPR-U (NIPPONDENSO)

## Generator

DC (WELDING) output	Rated current	130 A
	Rated voltage	26.5 V
	Welding current	50–170 A
	Duty cycle	50% 130A
	Electrode diameter	$\frac{3}{32}$ , $\frac{1}{8}$ , $\frac{5}{32}$ in (2.6–4.0 mm)
AC output	Rated Voltage	120 V
	Rated Frequency	60 Hz
	Rated Ampere	33.3 A
	Rated Output	4.0 KVA

NOTE: Specifications are subject to change without notice.

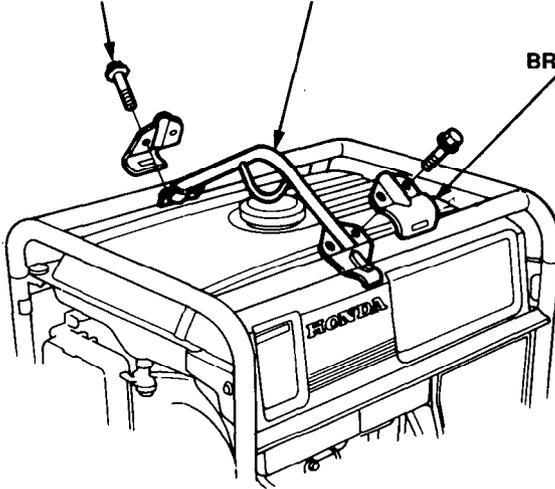
# INSTALLATION OF OPTIONAL PARTS

## Hanger Kit Installation

8 × 16 mm FLANGE BOLT (4)

HANGER

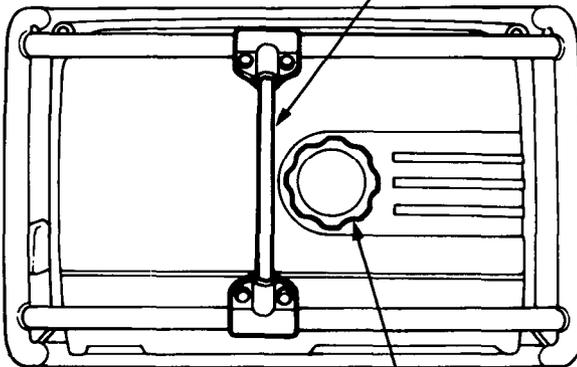
BRACKET



### **⚠ CAUTION**

- Position the hanger at the generator's balance point, in the middle of the fuel tank.
- Fit the end tabs of the hanger through the bracket slots, and bolt the brackets to the hanger.

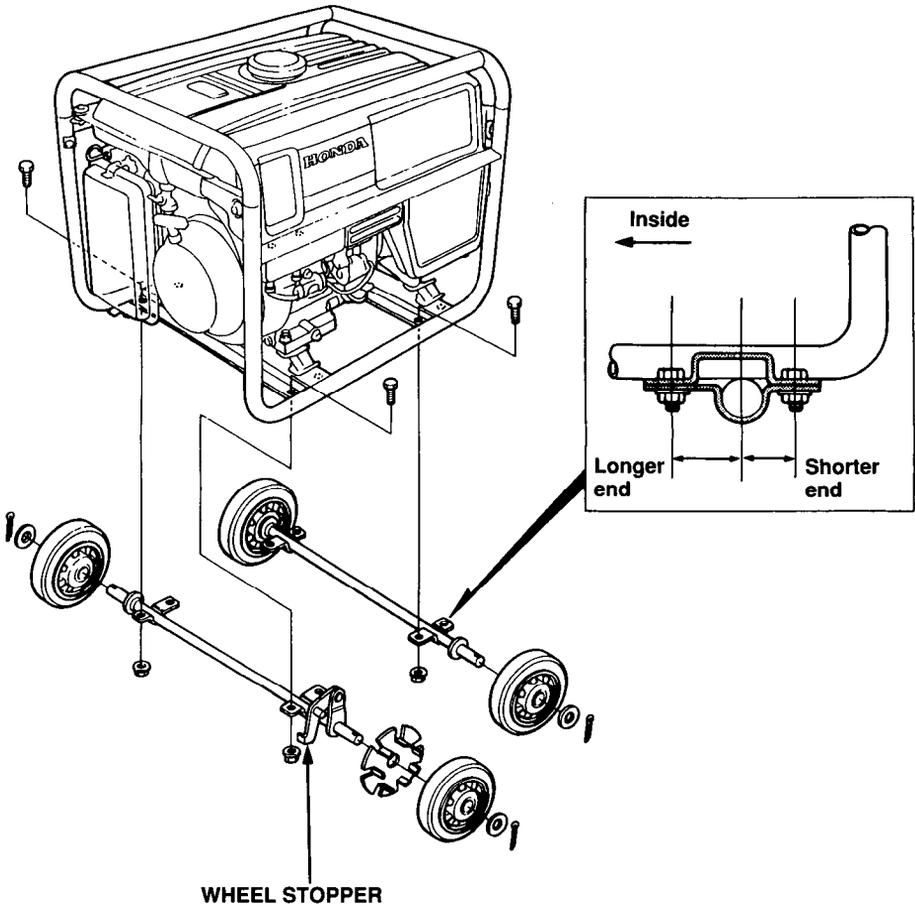
HANGER



FUEL TANK CAP

## 4 Wheel Kit Installation

1. Install the four wheels on the axle shaft.
2. Install the axle assembly on the generator using four bolts and nuts.

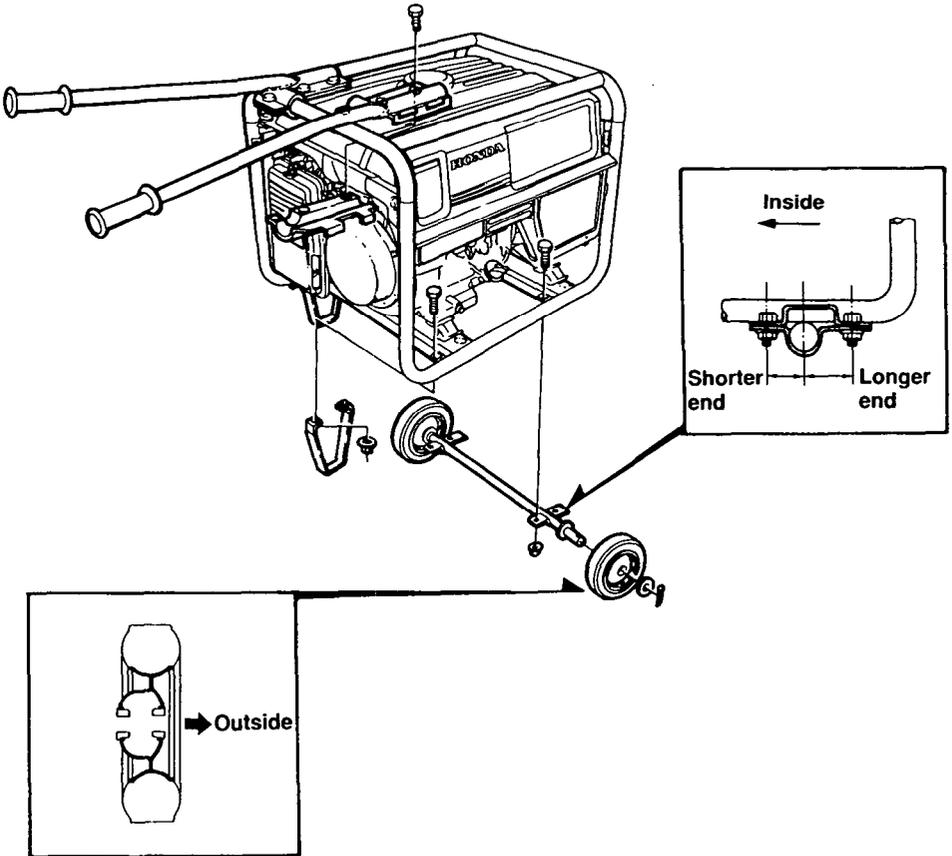


**NOTE:** Install the shaft with wheel stopper facing engine side.

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## 2 Wheel kit Installation

1. Install the two wheels on the axle shaft.
2. Install the axle assembly on the generator using four bolts and nuts.
3. Install the two stands using four bolts and nuts.
4. Install right and left handles on the generator upper frame using brackets and six bolts.



## Owner satisfaction

Your satisfaction and goodwill are important to your dealer and to us. All Honda warranty details are explained in the Distributor's Limited Warranty. Normally, any problems concerning the product will be handled by your dealer's service department. If you have a warranty problem that has not been handled to your satisfaction, we suggest you take the following action:

- Discuss your problem with a member of dealership management. Often complaints can be quickly resolved at that level. If the problem has already been reviewed with the Service Manager, contact the owner of the dealership or the General Manager.
- If your problem still has not been resolved to your satisfaction, contact the Power Equipment Customer Service Department of American Honda Motor Co., Inc.

American Honda Motor Co., Inc  
Power Equipment Customer Service  
4475 River Green Parkway  
Duluth, Georgia 30136-9420  
Telephone: (404) 497-6400

We will need the following information in order to assist you:

- Your name, address, and telephone number
- Product model and serial number
- Date of purchase
- Dealer name and address
- Nature of the problem

After reviewing all the facts involved, you will be advised of what action can be taken. Please bear in mind that your problem will likely be resolved at the dealership, using the dealer's facilities, equipment, and personnel, so it is very important your initial contact be with dealer.

Your purchase of a Honda product is greatly appreciated by both your dealer and American Honda Motor Co., Inc. We want to assist you in every way possible to assure your satisfaction with your purchase.

## **Current customer service contact information:**

### **United States, Puerto Rico, and U.S. Virgin Islands:**

Honda Power Equipment dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Power Equipment Customer Relations Office. You can write:

American Honda Motor Co., Inc.  
Power Equipment Division  
Customer Relations Office  
4900 Marconi Drive  
Alpharetta, GA 30005-8847

Or telephone: (770) 497-6400 M-F, 8:30 am - 7:00 pm EST

When you write or call, please provide the following information:

- Model and serial numbers
- Name of the dealer who sold the Honda power equipment to you
- Name and address of the dealer who services your equipment
- Date of purchase
- Your name, address, and telephone number
- A detailed description of the problem

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**MEMO**



**HONDA**

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