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Honda EM3100CX·EM4500CX·EM5500CX
EM4500CXS·EM5500CXS

OWNER'S MANUAL



ECOLOGY CONSCIOUS TECHNOLOGY

The "e-SPEC" mark symbolizes environmentally responsible technologies applied to Honda power equipment, which contains our wish to "preserve nature for generations to come."

Thank you for purchasing a Honda generator.

This manual covers operation and maintenance of the EM3100CX·EM4500CX·EM5500CX·EM4500CXS·EM5500CXS generators.

All information in this publication is based on the latest product information available at the time of approval for printing.

Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

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

Pay special attention to statements preceded by the following words:

▲WARNING Indicates a strong possibility of severe personal injury or death if instructions are not followed.

CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

If a problem should arise, or if you have any questions about the generator, consult an authorized Honda dealer.

▲WARNING

Honda generator is designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.

- The illustration may vary according to the type.

1. SAFETY INSTRUCTIONS

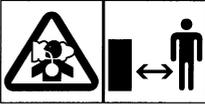
▲WARNING

To ensure safe operation —



- Honda generator is designed to give safe and dependable service if operated according to instructions.

Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.



- Exhaust gas contains poisonous carbon monoxide. Never run the generator in an enclosed area. Be sure to provide adequate ventilation.

When installed inside, adequate ventilation should be provided.



- 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 indoors.

- The engine exhaust system will be heated during operation and remain hot immediately after stopping the engine.

To prevent scalding, pay attention to the warning marks attached to the generator.

⚠ WARNING

To ensure safe operation —

	ⓄSTOP THE ENGINE BEFORE REFUELING.
	ⓄARRÊTEZ LE MOTEUR AVANT DE REFAIRE LE PLEIN.
	ⓄVOR AUFTANKEN MOTOR ABSTELLEN.
	ⓄARRESTARE IL MOTORE PRIMA DI FARE RIFORNIMENTO.
	ⓄSTOP DE MOTOR ALVORENS BIJ TE TANKEN.
	ⓄPARE EL MOTOR ANTES DE REPOSTAR.
	ⓄDESLIGUE O MOTOR ANTES DE ABASTECER.
	ⓄΣΤΑΜΑΤΕ ΤΗ ΜΗΧΑΝΗ ΠΡΙΝ ΤΟΝ ΑΝΕΘΑΓΙΑΣΜΟ ΜΕ ΚΑΥΣΙΑ.
	ⓄSTING AV MOTORN FÖRE BRNSLEPPFYLNING.
	ⓄSTOP MOTOREN FÖR BRÄNSLETTOPPFYLNING.
	ⓄSL AV MOTOREN FÖR FÖYLLING.
	ⓄSAMMUTA MOOTTORI ENNEN TANKKAUSTA.

- Gasoline is extremely flammable and explosive under certain conditions. Refuel in a well ventilated area with the engine stopped.
- Keep away from cigarette, smoke and sparks when refueling the generator. Always refuel in a well-ventilated location.
- Wipe up spilled gasoline at once.



- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections can allow electrical current from the generator to back feed into the utility lines. Such back feed may electrocute utility company workers or others who contact the lines during a power outage, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.

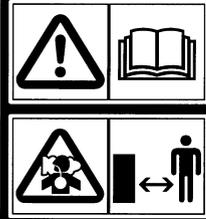
- Always make a pre-operation inspection (page 11) before you start the engine. You may prevent an accident or equipment damage.
- Place the generator at least 1 m (3 ft) away from buildings or other equipment during operation.
- Operate the generator on a level surface.
If the generator is tilted, fuel spillage may result.
- Know how to stop the generator quickly and understand operation of all the controls. Never permit anyone to operate the generator without proper instructions.
- Keep children and pets away from the generator when it is in operation.
- Keep away from rotating parts while the generator is running.
- The generator is a potential source of electrical shocks when misused; do not operate with wet hands.
- Do not operate the generator in rain or snow and do not let it get wet.

2. SAFETY LABEL LOCATIONS

These labels warn you of potential hazards that can cause serious injury. Read the labels and safety notes and precautions described in this manual carefully.

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

READ OWNER'S MANUAL



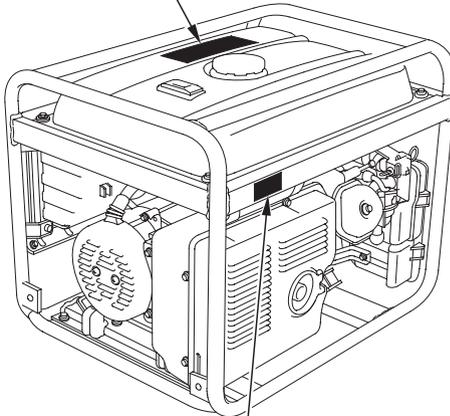
CONNECT CAUTION

FUEL CAUTION



- ⓐ STOP THE ENGINE BEFORE REFUELING.
- ⓑ ARRÊTEZ LE MOTEUR AVANT DE REFAIRE LE PLEIN.
- ⓒ VOR AUFTANKEN MOTOR ABSTELLEN.
- ⓓ ARRESTARE IL MOTORE PRIMA DI FARE RIFORMENTO.
- ⓔ STOP DE MOTOR ALVORENS BIJ TE TANKEN.
- ⓕ PARE EL MOTOR ANTES DE REPOSTAR.
- ⓖ DESLIGUE O MOTOR ANTES DE ABASTECER.
- ⓗ ΣΤΑΜΑΤΕ ΤΗ ΜΗΧΑΝΗ ΠΡΙΝ ΤΟΝ ΑΝΕΦΟΔΙΑΣΜΟ ΜΕ ΚΑΥΣΙΜΑ.
- ⓘ STÄNG AV MOTORN FÖRE BRÄNSLEPÅFYLNING.
- ⓙ STOP MOTOREN FÖR BRÄNDSTOFFPÅFYLDNING.
- ⓚ SLÅ AV MOTOREN FÖR PÅFYLNING.
- ⓛ SAMMUTA MOOTTORI ENNEN TANKKAUSTA.

EXHAUST CAUTION



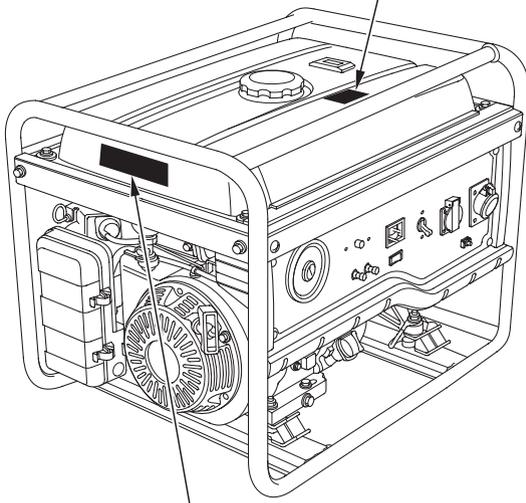
HOT CAUTION

CE mark and noise label locations

NOISE LABEL



[Example:EM4500CX/CXS]



CE MARK

CE	Generating set		EM4500CXS		G1
	ISO 8528		Honda Motor Co., Ltd.		
	Rated power COP	4.0 kW	50 Hz	Max. 40 °C	IP23S
	Rated power factor	1.0	230 V	Max. 1000 m	
Year of Mfg.		17.4 A	Mass 94 kg	MADE IN CHINA	

[Example:EM4500CXSb]

Manufacturer and address

Maximum ambient temperature

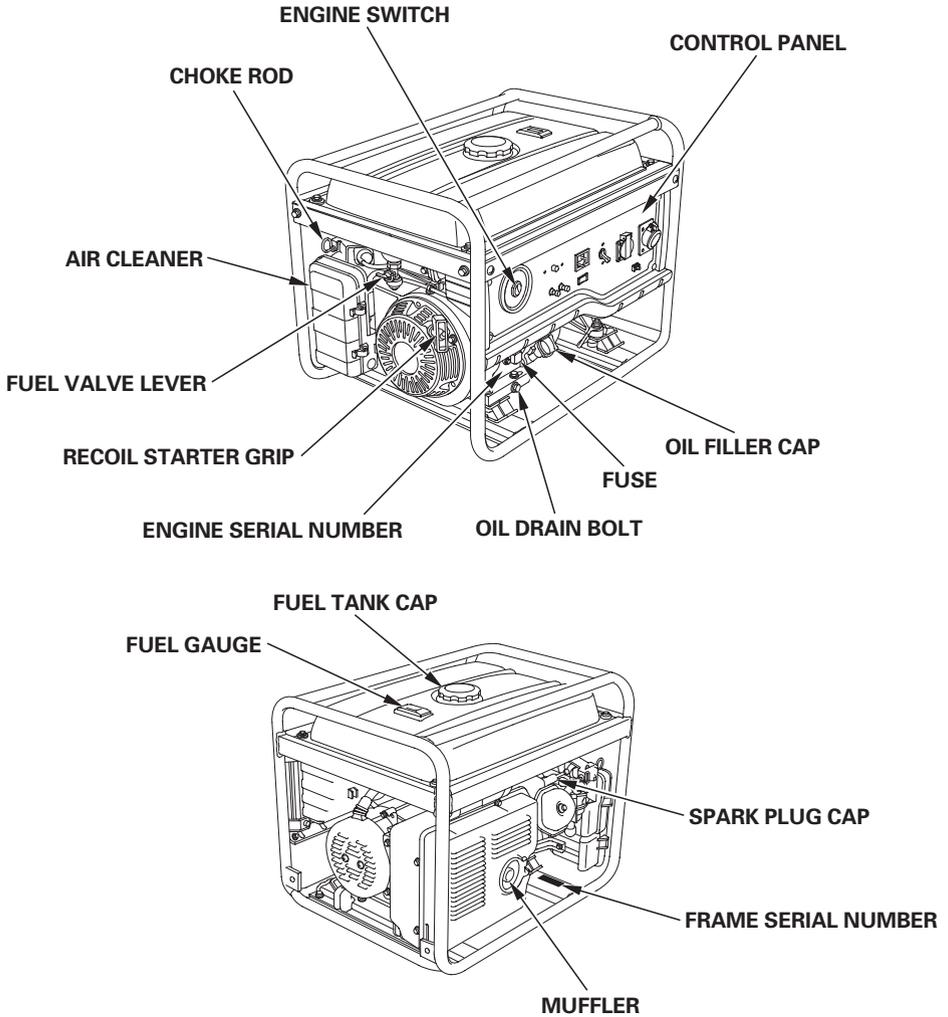
Performance class

IP code

Maximum altitude

Dry weight

3. COMPONENT IDENTIFICATION

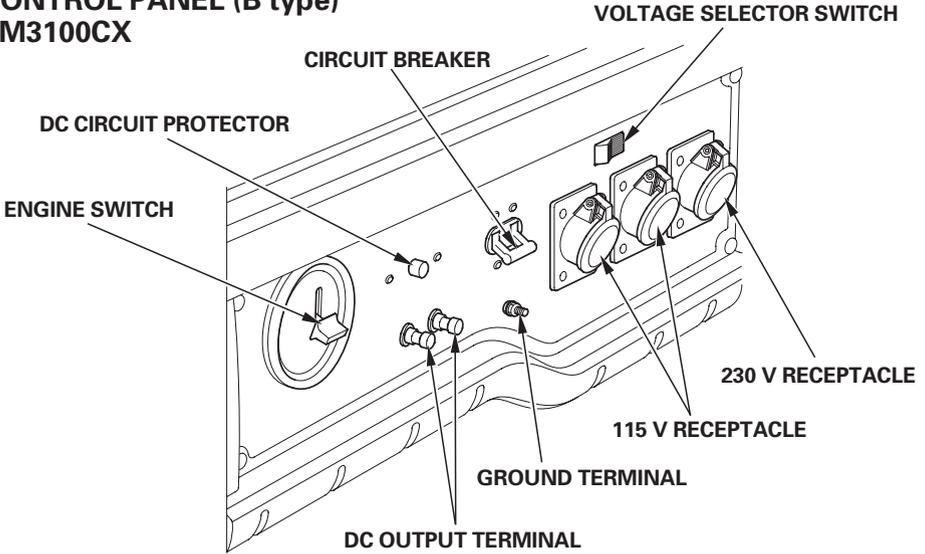


Record the frame serial number and the engine serial number in the space below. You will need these numbers when ordering parts.

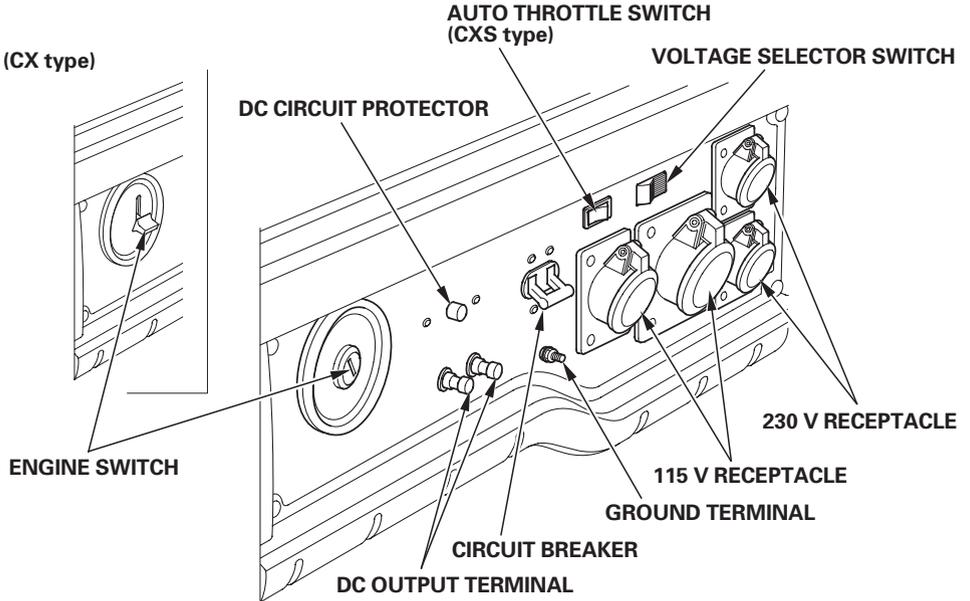
Frame serial number: _____

Engine serial number: _____

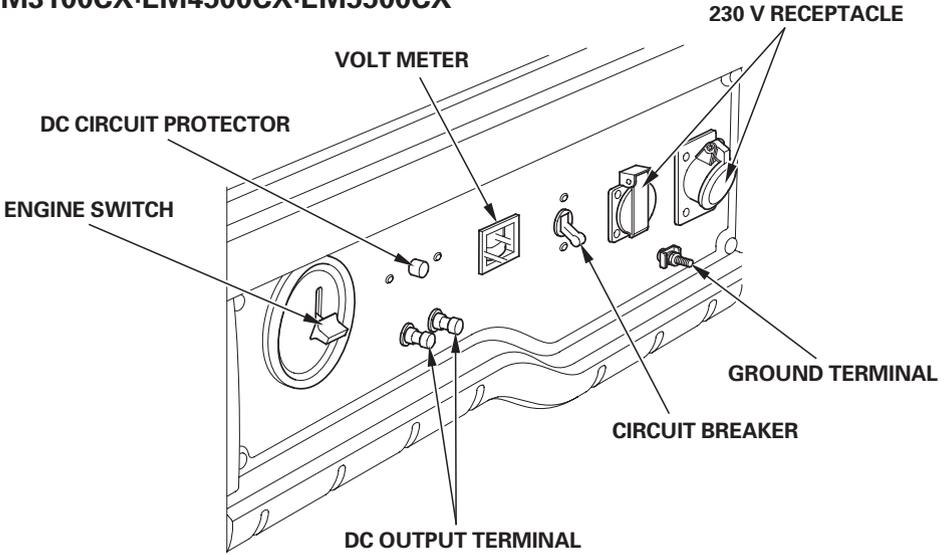
**CONTROL PANEL (B type)
EM3100CX**



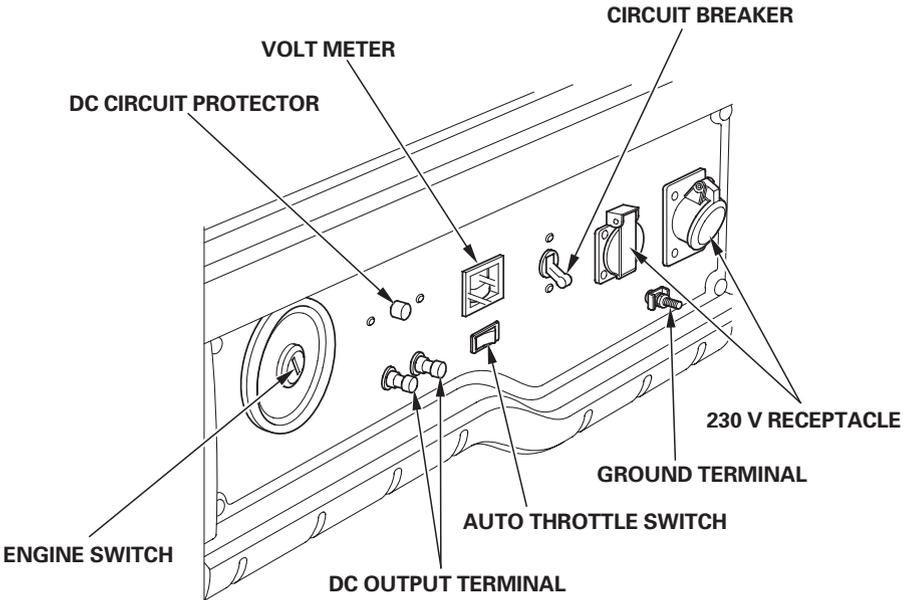
**EM4500CX·EM5500CX
EM4500CXS·EM5500CXS**



(F, G, GW types)
EM3100CX·EM4500CX·EM5500CX



EM4500CXS·EM5500CXS



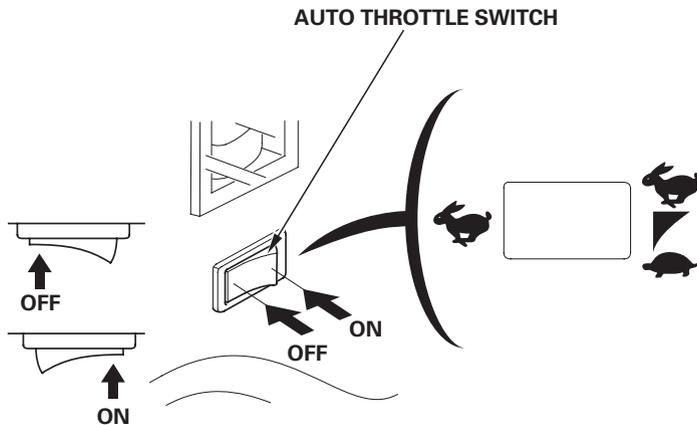
Auto Throttle System (CXS Type)

The auto throttle system automatically reduces engine speed when all loads are turned off or disconnected. When appliances are turned on or reconnected, the engine returns to the rated speed.

ON: Recommended to minimize fuel consumption and further reduce noise levels when no load is applied to the generator.

OFF: The auto throttle system does not operate. Recommended to minimize warm-up time when the generator is started.

Leave the switch in the OFF position when using appliances that require only momentary power, that have a power demand of less than 1 ampere, or that have large startup power demands.



4. PRE-OPERATION CHECK

CAUTION:

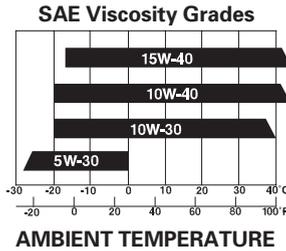
Be sure to check the generator on a level surface with the engine stopped.

1. Check the engine oil level.

CAUTION:

Engine oil is a major factor affecting engine performance and service life. Non-detergent oil and 2-stroke engine oil are not recommended.

Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SG, SF. Always check the API SERVICE label on the oil container to be sure it includes the letter SG, SF.



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 in the filler hole without screwing it in.
3. If the level is low, fill to the upper limit of the oil filler neck with the recommended oil.

CAUTION:

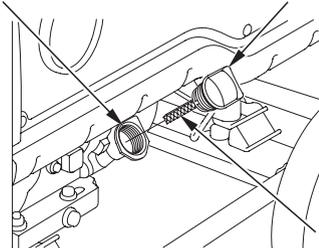
Running the engine with insufficient oil can cause serious engine damage.

NOTE:

The Oil Alert System will automatically stop the engine before the oil level falls below the safe limit. However, to avoid the inconvenience of an unexpected shutdown, it is still advisable to visually inspect the oil level regularly.

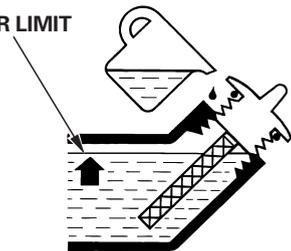
OIL FILLER HOLE

OIL FILLER CAP



DIPSTICK

UPPER LIMIT



2. Check the fuel level.

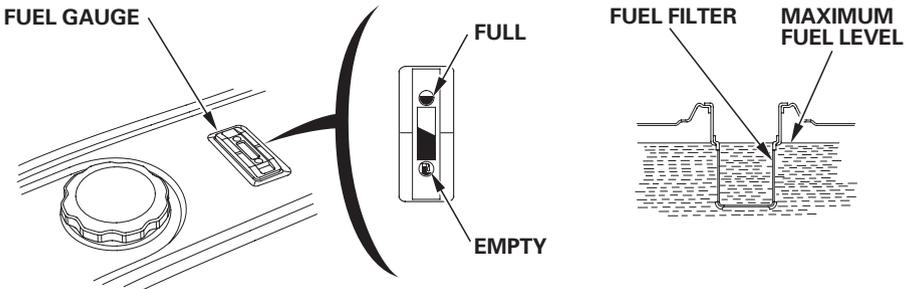
Use automotive unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher).

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

▲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.



NOTE:

Gasoline spoils very quickly depending on factors such as light exposure, temperature and time.

In worst cases, gasoline can be contaminated within 1 month.

Using contaminated gasoline can seriously damage the engine (carburetor clogged, valve stuck).

Such damage due to spoiled fuel is disallowed from coverage by the warranty.

To avoid this please strictly follow these recommendations:

- Only use specified gasoline.
- To slow deterioration, keep gasoline in a certified fuel container.
- If long storage (more than 1 month) is foreseen, drain fuel tank and carburetor (page 43).

Gasolines containing alcohol

If you decide to use a gasoline containing alcohol (gasohol), be sure its octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol.

Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use gasoline containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

NOTE:

- Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty.

Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.

- Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol, if it does, confirm the type and percentage of alcohol used.

If you notice any undesirable operating symptoms while using a gasoline that contains alcohol, or one that you think contains alcohol, switch to a gasoline that you know does not contain alcohol.

3. Check the air cleaner.

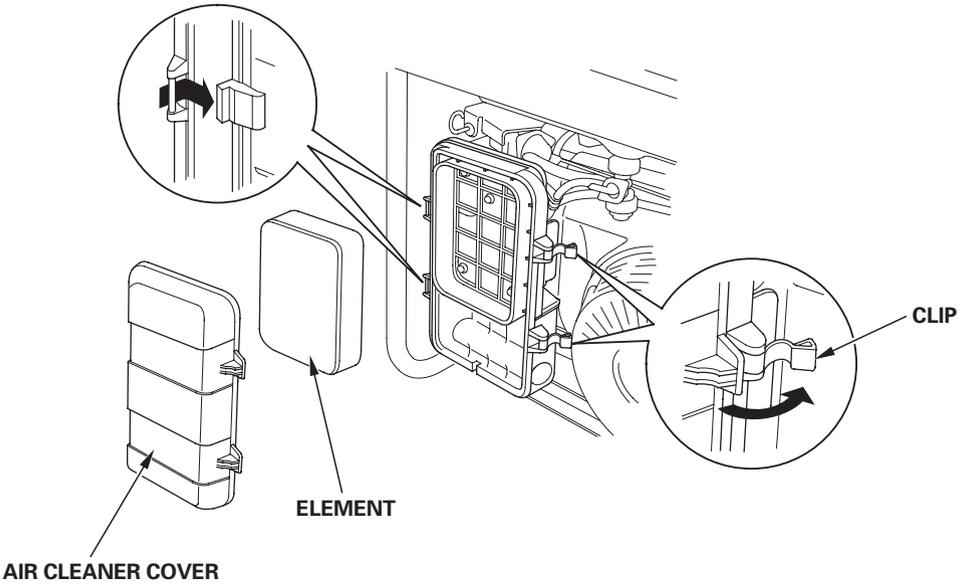
Unsnap the air cleaner cover clips, remove the air cleaner cover, and check the element.

Check the air cleaner elements to be sure they are clean and in good condition.

Clean or replace the element if necessary. (see page 37).

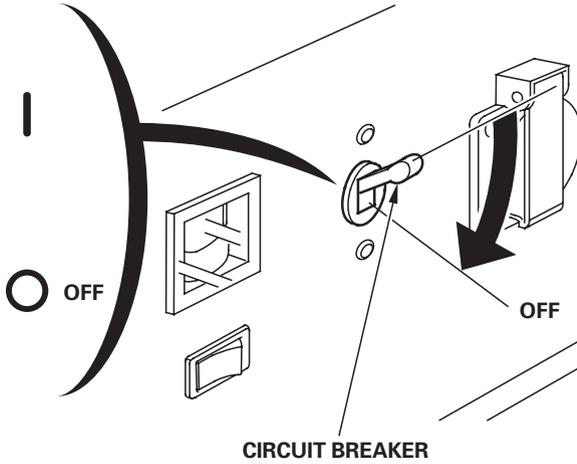
CAUTION:

Never run the engine without the air cleaner element. Rapid engine wear will result from contaminants, such as dust and dirt, being drawn through the carburetor, into the engine.



5. STARTING THE ENGINE

Make sure that the circuit breaker is OFF.
The generator may be hard to start if a load is connected.



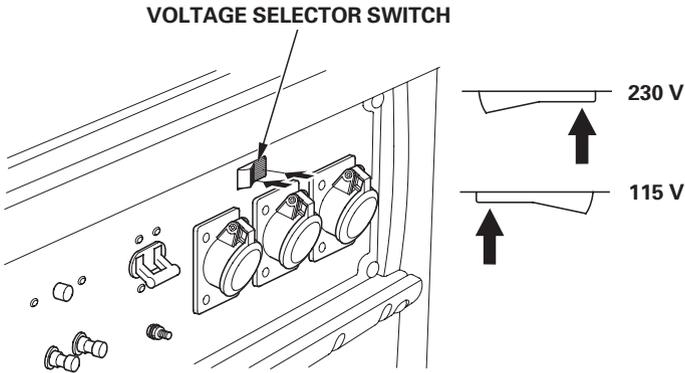
Electric starting (CXS type)

CAUTION:

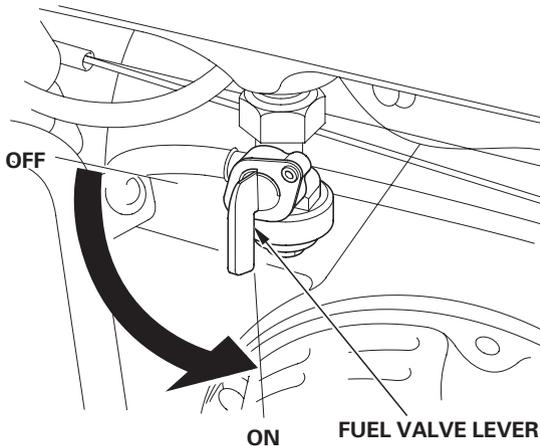
When starting the generator after adding fuel for the first time, after long-term storage, or after running out of fuel, turn the fuel valve lever to the "ON" position, then wait for 10 to 20 seconds before starting the engine.

1. B type:

Set the Voltage Selector Switch to match the voltage requirements for the application.

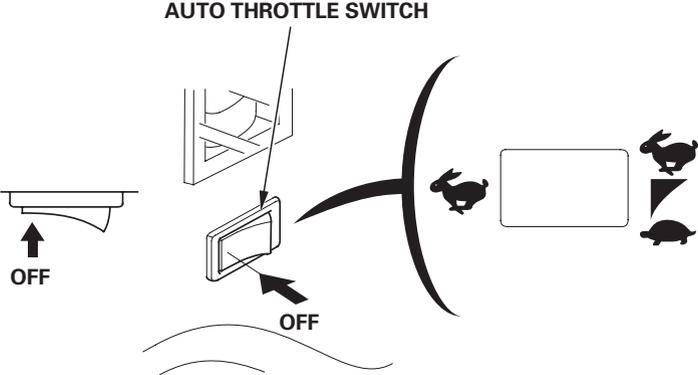


2. Turn the fuel valve lever to the ON position.

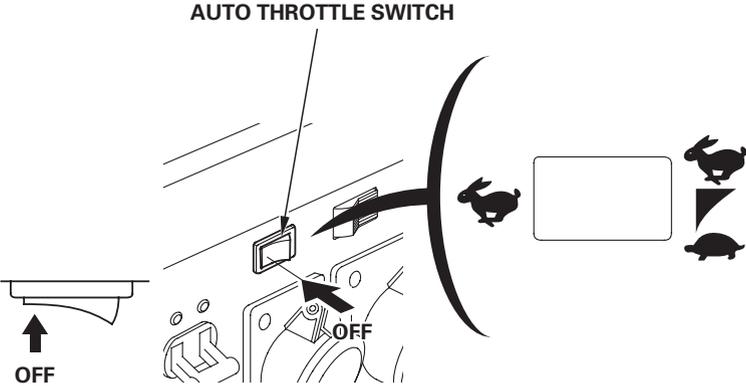


3. Make sure the auto throttle switch is in the OFF position, or more time will be required for warm up.

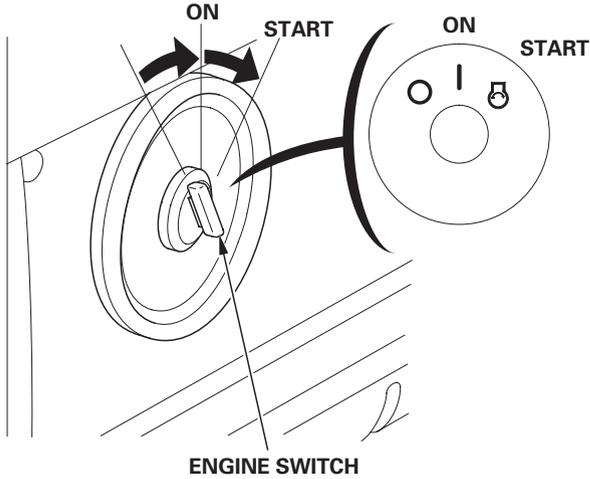
(F, G, GW types)



(B type)



-
4. Turn the engine switch to the START position and hold it there for 5 seconds or until the engine starts.
After the engine starts, let the engine switch return to the ON position.



CAUTION:

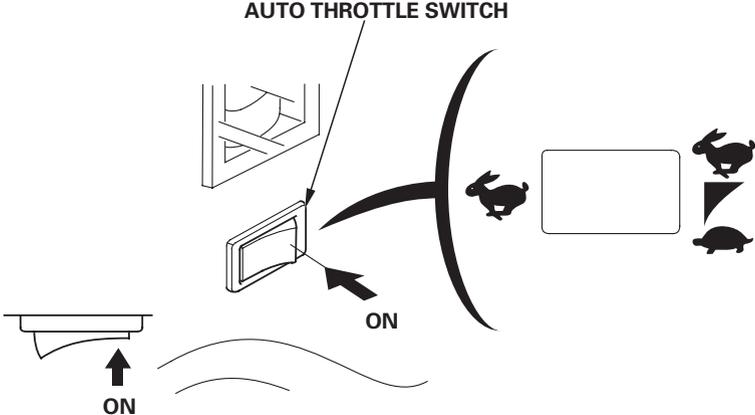
Do not use the electric starter for more than 5 seconds at a time. If the engine fails to start, release the switch and wait 10 seconds before operating the starter again.

NOTE:

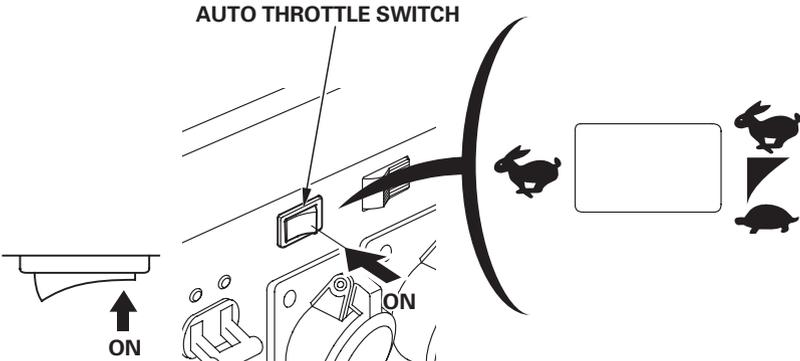
When the speed of the starter motor drops after a period of time, it is an indication that the battery should be recharged.

5. If you wish to use the auto throttle system, turn the auto throttle switch to the ON position after the engine has warmed up for 2 or 3 minutes.

(F, G, GW types)



(B type)



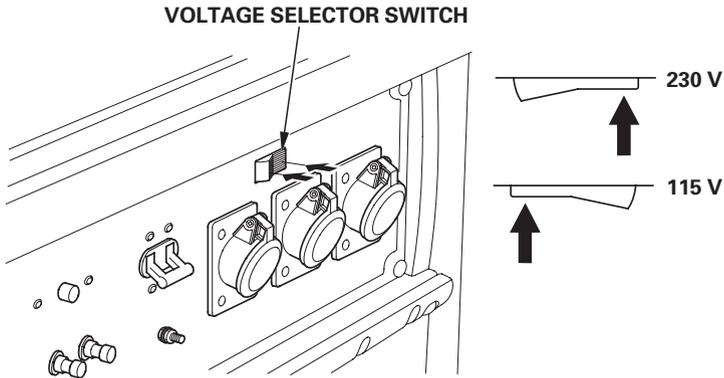
Manual starting

CAUTION:

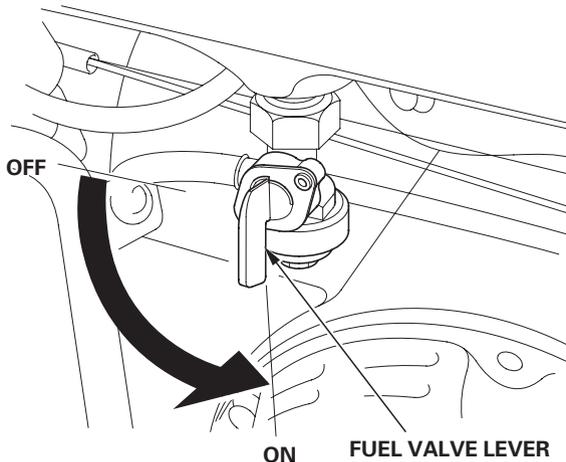
When starting the generator after adding fuel for the first time, after long-term storage, or after running out of fuel, turn the fuel valve lever to the "ON" position, then wait for 10 to 20 seconds before starting the engine.

1. B type:

Set the Voltage Selector Switch to match the voltage requirements for the application.



2. Turn the fuel valve lever to the ON position.

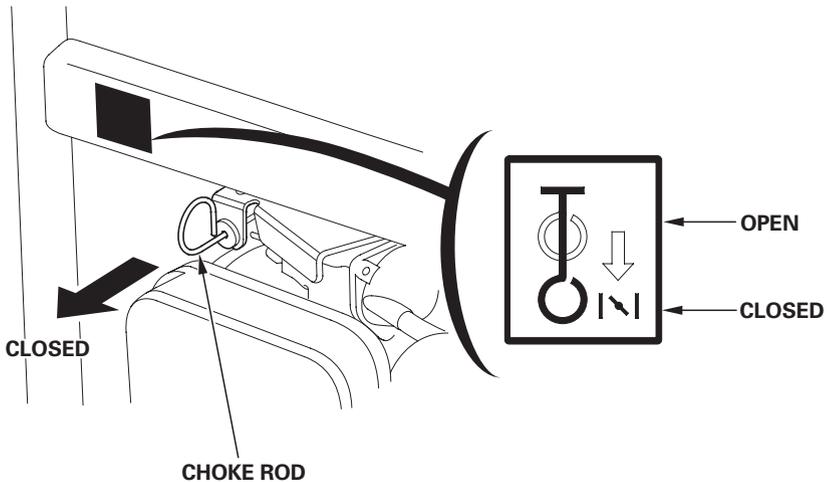


3. CX type:

Pull the choke rod to the **CLOSED** position to start a cold engine.
Push the choke rod in the **OPEN** position to start a warm engine.

CXS type:

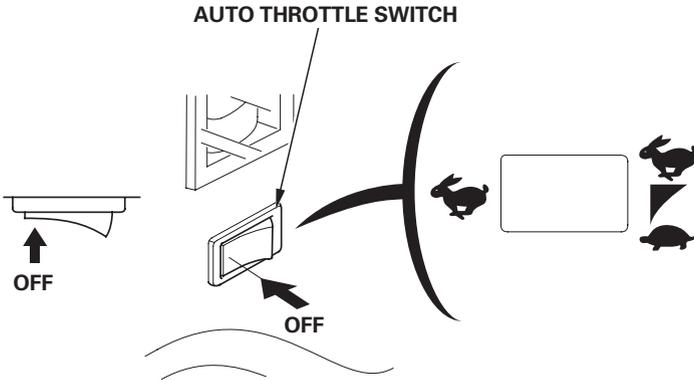
The auto choke will be closed if the engine is cold. If you want to operate the choke manually, pull the choke rod out to the **CLOSED** position.



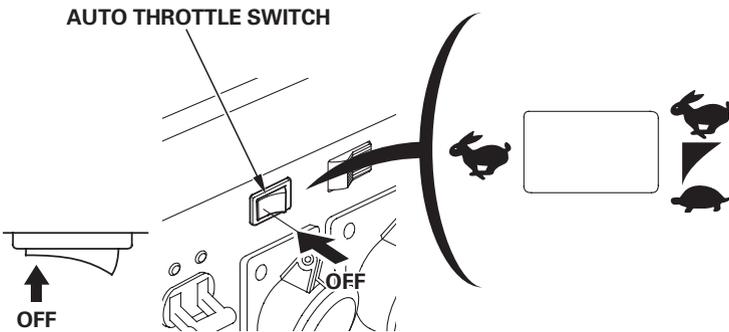
4. CXS type:

Make sure the auto throttle switch is in the OFF position, or more time will be required for warm up.

(F, G, GW types)

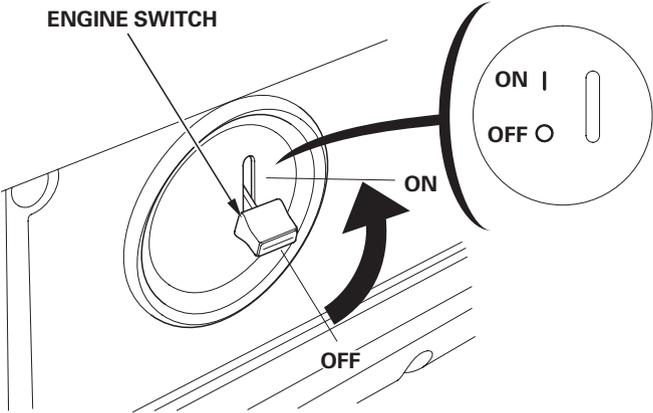


(B type)

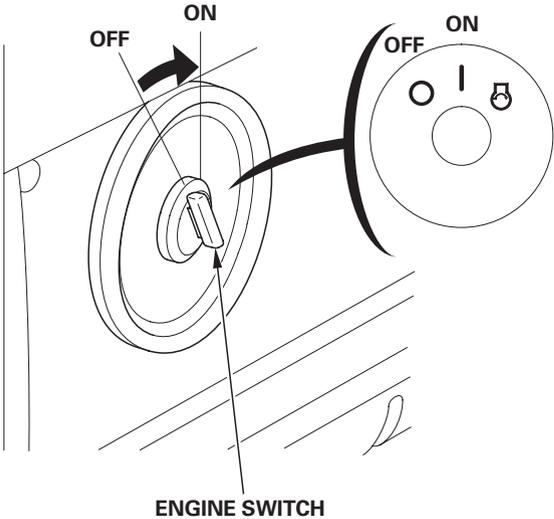


5. Turn the engine switch to the ON position.

(CX type)



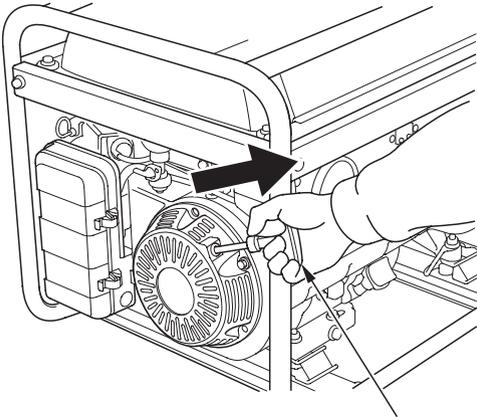
(CXS type)



6. Pull the starter grip lightly until you feel resistance, then pull the starter grip briskly toward the arrow as shown below.

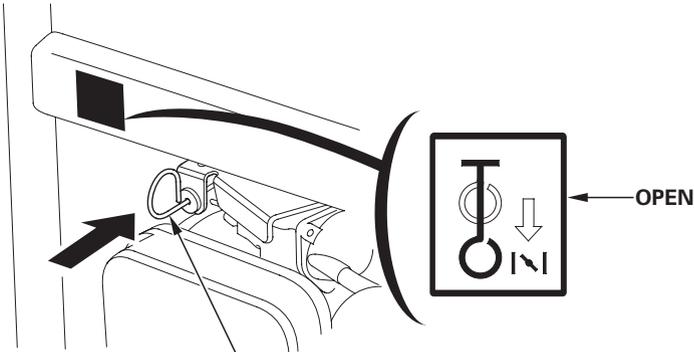
CAUTION:

- Do not allow the starter grip to snap back. Return it slowly by hand.
- Do not let the starter rope rub against the generator body or the rope will wear out prematurely.



RECOIL STARTER GRIP

7. Push the choke rod to the OPEN position as the engine warms up.

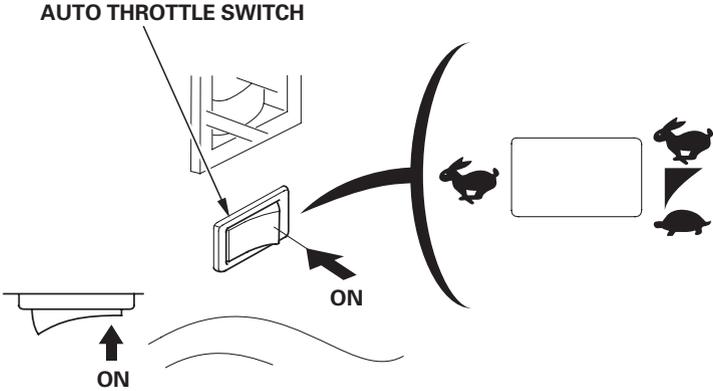


CHOKE ROD

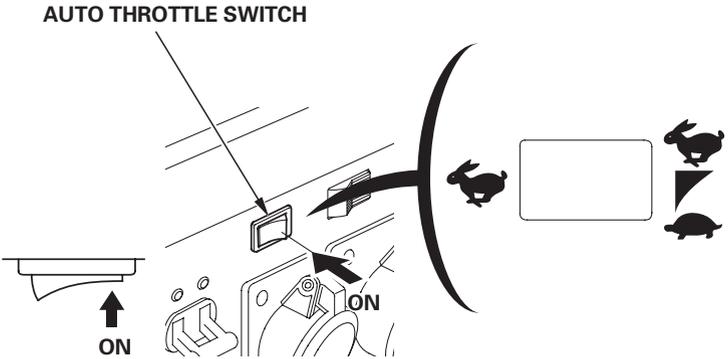
8. CXS type:

If you wish to use the auto throttle system, turn the auto throttle switch to the ON position after the engine has warmed up for 2 or 3 minutes.

(F, G, GW types)



(B type)



- **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 specific modifications to the carburetor. If you always operate the generator at altitudes higher than 1,500-meter (5,000 feet) above sea level, have your authorized Honda dealer perform these carburetor modifications.

Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5% for each 300-meter (1,000-foot) increase in altitude. The affect of altitude on the horse power will be greater than this if no carburetor modification is made.

CAUTION:

Operation of the generator at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

6. GENERATOR USE

Be sure to ground the generator when the connected equipment is grounded.

▲ WARNING

Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections 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, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.

CAUTION:

- Limit operation requiring maximum power (see pages 47 – 51) to 30 minutes.
For continuous operation, do not exceed the rated power (see pages 47 – 51).
In either case, the total wattage of all appliances connected must be considered.
- Most appliance motors require more than their rated wattage for startup.
- Do not exceed the current limit specified for any one receptacle.
- Do not connect the generator to a household circuit. This could cause the damage to the generator or to electrical appliances in the house.
- Do not modify or use the generator for other purposes than it is intended for. Also observe the following when using the generator.
 - Do not connect an extension to the exhaust pipe.
- When an extension cable is required, be sure to use a tough rubber sheathed flexible cable (IEC 245 or equivalent).
- Limit length of extension cables; 60 m for cables of 1.5 mm² and 100 m for cables of 2.5 mm². Long extension cables will lower usable power due to resistance in the extension cable.
- Keep the generator away from other electric cables or wires such as commercial power supply lines.

AC Applications (B type)

Before connecting an appliance or power cord to the generator:

- Make sure that it is in good working order. Faulty appliances or power cords can create a potential for electrical shock.
- If an appliance begins to operate abnormally, becomes sluggish or stops suddenly, turn it off immediately. Disconnect the appliance, and determine whether the problem is the appliance, or if the rated load capacity of the generator has been exceeded.
- Make sure that the electrical rating of the tool or appliance does not exceed that of the generator. Never exceed the maximum power rating of the generator. Power levels between rated and maximum may be used for no more than 30 minutes.

NOTE:

Substantial overloading will open the main breaker. Exceeding the time limit for maximum power operation or slightly overloading the generator may not switch the main breaker or DC circuit protector OFF, but will shorten the service life of the generator.

Limit operation requiring maximum power to 30 minutes.

Maximum power is:

EM3100CX: 3,100 VA

EM4500CX-4500CXS: 4,500 VA

EM5500CX-5500CXS: 5,500 VA

For continuous operation (longer than 30 minutes), do not exceed the rated power.

Rated power is:

EM3100CX: 2,800 VA

EM4500CX-4500CXS: 4,000 VA

EM5500CX-5500CXS: 5,000 VA

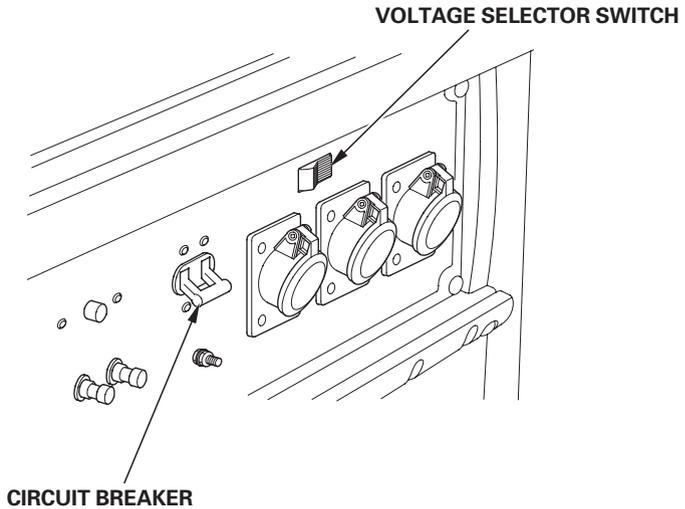
The total power requirements (VA) of all appliances connected must be considered. Appliance and power tool manufacturers usually list rating information near the model number or serial number.

CAUTION:

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 generator engine switch immediately. Then disconnect the appliance, and examine it for signs of malfunction.

-
1. Set the Voltage Selector Switch to match the voltage requirements for the appliance.
 2. Start the engine (see page 15).
 3. Switch the circuit breaker ON.
 4. Plug in the appliance.

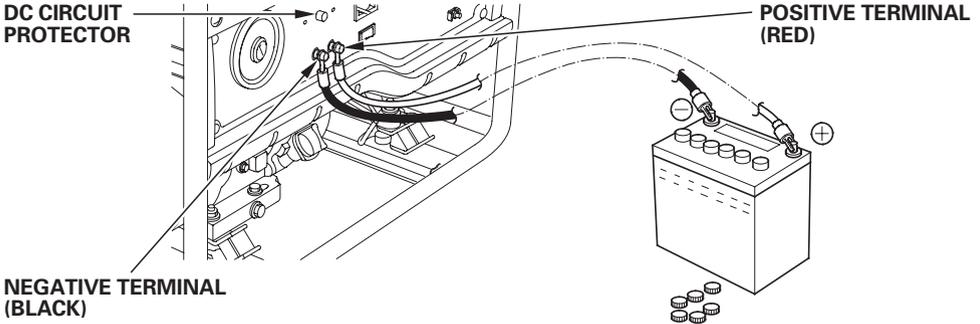
Most motorized appliances require more than their rated power for startup.



DC Application

The DC output terminals may ONLY be used for charging 12 volt automotive type batteries.

1. Connect the positive (+) battery cable to the generator positive (+) terminal.
2. Connect the other end of the positive (+) battery cable to the battery positive (+) terminal.



3. Connect the negative (-) battery cable to the generator negative (-) terminal.
4. Connect the other end of the negative (-) battery cable to the battery negative (-) terminal.
5. Start the engine (see page 15).

⚠ WARNING

- To prevent the possibility of creating a spark near the battery, connect charging cable first to the generator, then to the battery. Disconnect cable first at the battery.
- Before connecting charging cable to a battery that is installed in a vehicle, disconnect the vehicles grounded battery cable. Reconnect the vehicle's grounded battery cable after the charging cables are removed. This procedure will prevent the possibility of a short circuit and sparks if you make accidental contact between a battery terminal and the vehicle's frame or body.

CAUTION:

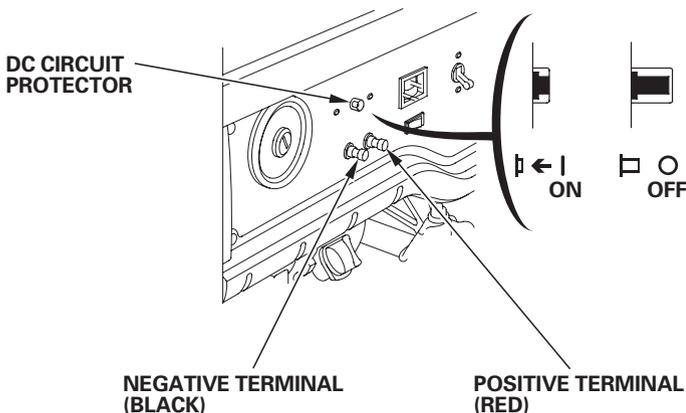
- Do not attempt to start an automobile engine with the generator still connected to the battery. The generator may be damaged.
- Connect the positive battery terminal to the positive charging cord. Do not reverse the charging cables, or serious damage to the generator and/or battery may occur.

▲ WARNING

- Batteries produce explosive gases: If ignited, and explosion can cause serious injury or blindness. Provide adequate ventilation when charging.
- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.
- Keep flames and sparks away, and do not smoke in the area.
ANTIDOTE: If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.
- **POISON:** Electrolyte is poison.
ANTIDOTE
 - External: Flush thoroughly with water.
 - Internal: Drink large quantities of water or milk.
Follow with milk of magnesia or vegetable oil, and call a physician immediately.
- **KEEP OUT OF REACH OF CHILDREN.**

NOTE:

- The DC terminal may be used while the AC power is in use.
- An overloaded DC circuit will trip the DC circuit protector (the yellow indicator inside the clear circuit protector button will pop out). If this happens, wait a few minutes before pushing in the circuit protector to resume operation.



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 falls below a safe limit, the Oil Alert system will automatically shut down the engine (the engine switch will remain in the ON position).

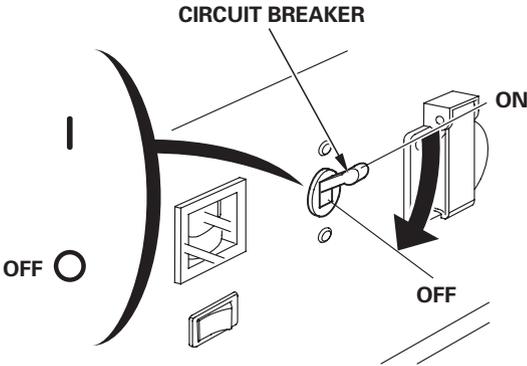
If the engine stops and will not restart, check the engine oil level (see page 11) before troubleshooting in other areas.

7. STOPPING THE ENGINE

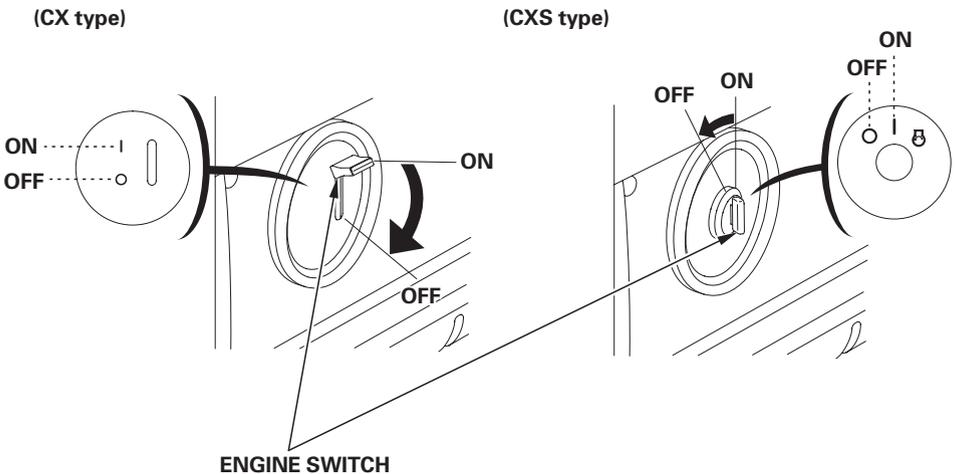
Stopping the Engine

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

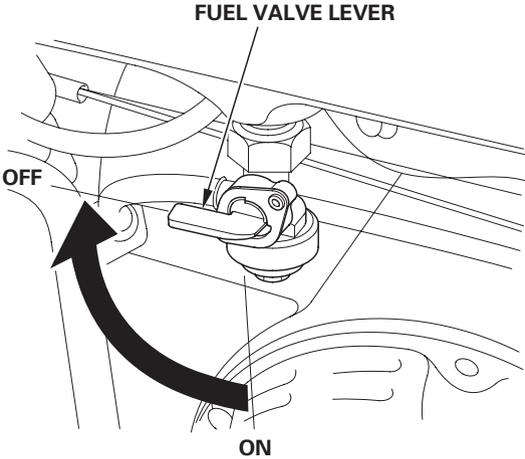
1. Turn the circuit breaker to the OFF position.



2. Turn the engine switch to the OFF position.



3. Turn the fuel valve lever to the OFF position.



8. MAINTENANCE

The purpose of the maintenance and adjustment schedule is to keep the generator in the best operating condition. Inspect or service as scheduled in the table below.

▲ WARNING

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

CAUTION:

Use genuine Honda parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the generator.

Maintenance Schedule

REGULAR SERVICE PERIOD (3) Performed at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 20 Hrs.	Every 3 months or 50 Hrs.	Every 6 months or 100 Hrs.	Every year or 300 Hrs.
ITEM						
Engine oil	Check Level	○				
	Change		○		○	
Air filter	Check	○				
	Clean			○ (1)		
Sediment cup	Clean				○	
Spark plug	Check-adjust				○	
	Replace					○
Valve clearance	Check-adjust					○ (2)
Combustion chamber	Clean	After every 500 Hrs. (2)				
Fuel tank and filter	Clean				○ (2)	
Fuel tube	Check	Every 2 years (Replace if necessary) (2)				

(1) Service more frequently when used in dusty areas.

(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to Honda shop manual for service procedures.

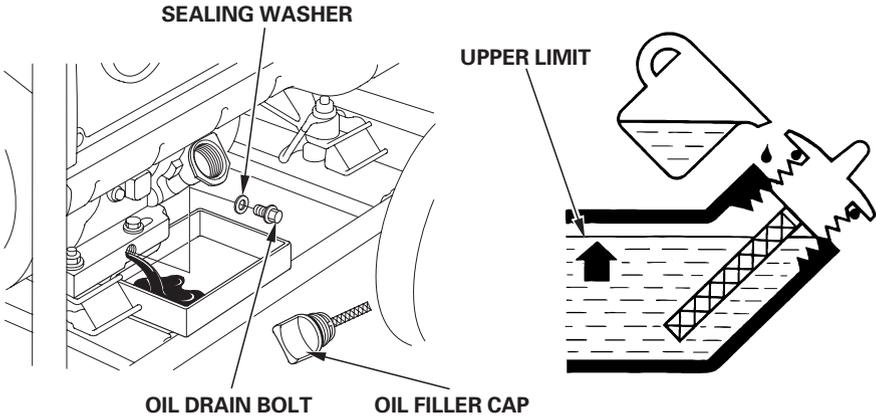
(3) For commercial use, log hours of operation to determine proper maintenance intervals.

1. CHANGING OIL

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

1. Remove the drain bolt and sealing washer, remove the oil filler cap, and drain the oil.
2. Reinstall the drain bolt and sealing washer. Tighten the bolt securely.
3. Refill with the recommended oil (see page 11) and check the oil level.

Oil capacity: 1.10 l (1.16 US qt , 0.97 Imp qt)



Wash your hands with soap and water after handling used oil.

NOTE:

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 for reclamation. Do not throw it in the trash or pour it on the ground.

2. 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 in extremely dusty areas.

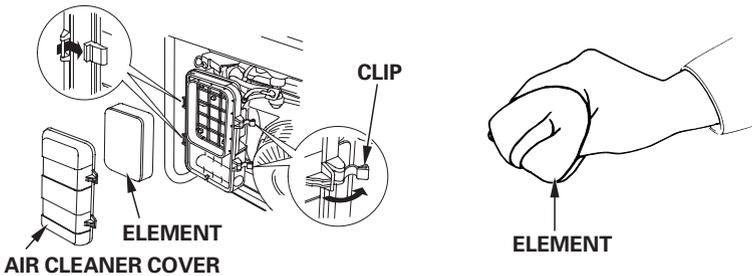
▲WARNING

Do not use gasoline or low flash point solvents for cleaning. They are flammable and explosive under certain conditions.

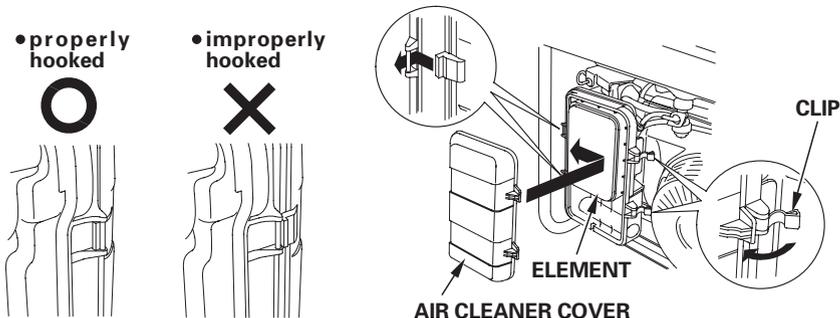
CAUTION:

Never run the engine without the air cleaner element. Rapid engine wear will result from contaminants, such as dust and dirt, being drawn through the carburetor, into the engine.

1. Unsnap the air cleaner cover clips, remove the air cleaner cover, and remove the element.



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



3. FUEL SEDIMENT CUP SERVICE

⚠ WARNING

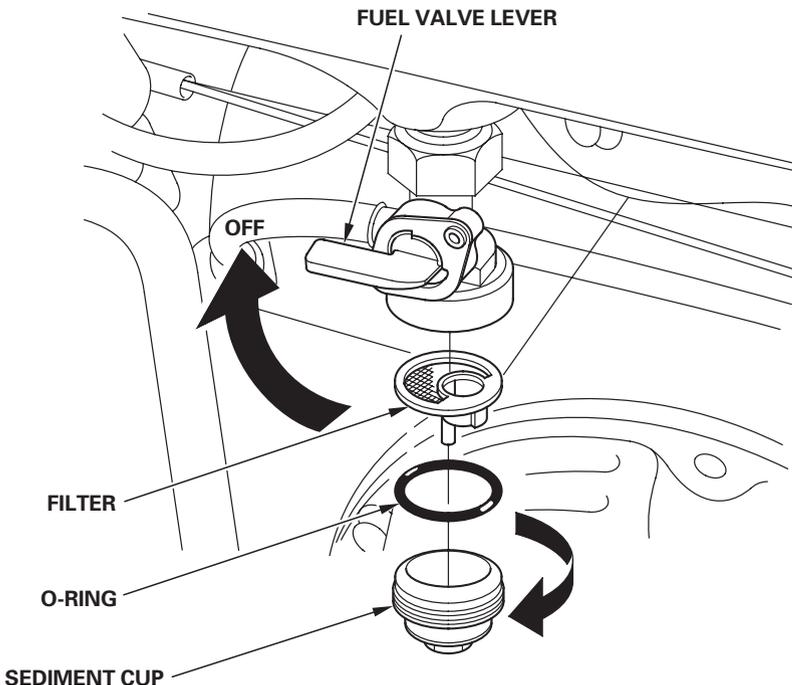
Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in the area.

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

⚠ WARNING

After installing the sediment cup, be sure to tighten it securely. Check for fuel leaks and make sure the area is dry before starting the engine.



4. SPARK PLUG SERVICE

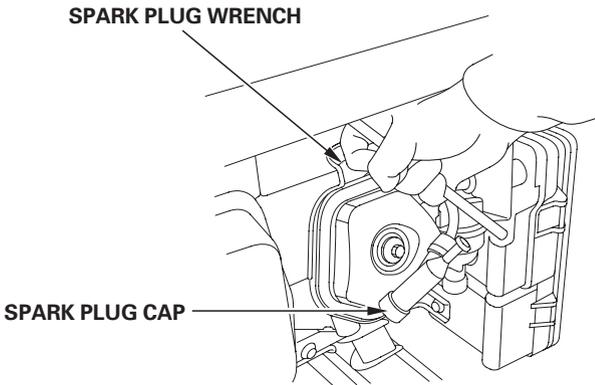
Recommended spark plugs: BPR5ES (NGK)
W16EPR-U (DENSO)

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

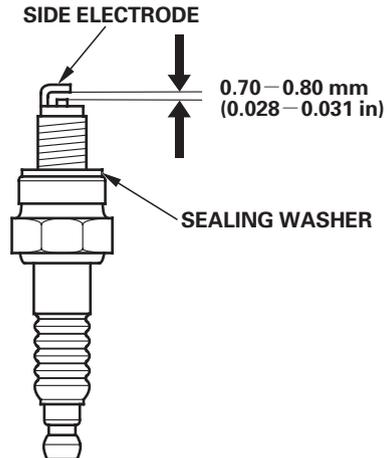
CAUTION:

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 any dirt from around the spark plug base.
3. Use a spark plug wrench to remove the spark plug.



4. Visually inspect the spark plug. Discard it if the insulator is cracked, chipped or fouled.
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)



-
6. Make sure that the sealing washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.
 7. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

NOTE:

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 to 1/4 turn after the spark plug seats.

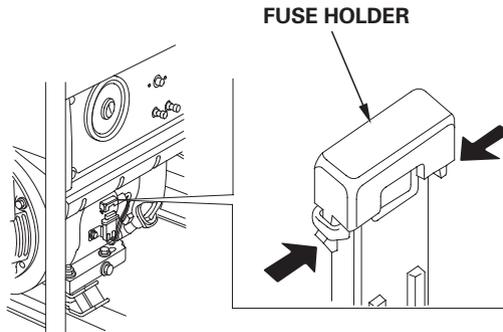
CAUTION:

- **The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the generator.**
- **Never use a spark plug with an improper heat range.**

5. FUSE REPLACEMENT (CXS type)

If the fuse is blown, the starter motor will not work until it is replaced.

1. Turn the engine switch to the OFF position.
2. Remove the fuse holder cover and replace the fuse.
The specified fuse is 10A.



CAUTION:

- If frequent fuse failure occurs, determine the cause and correct the problem before attempting to operate the generator further.
- Never use a fuse with a different rating from that specified. Serious damage to the electrical system or fire may result.

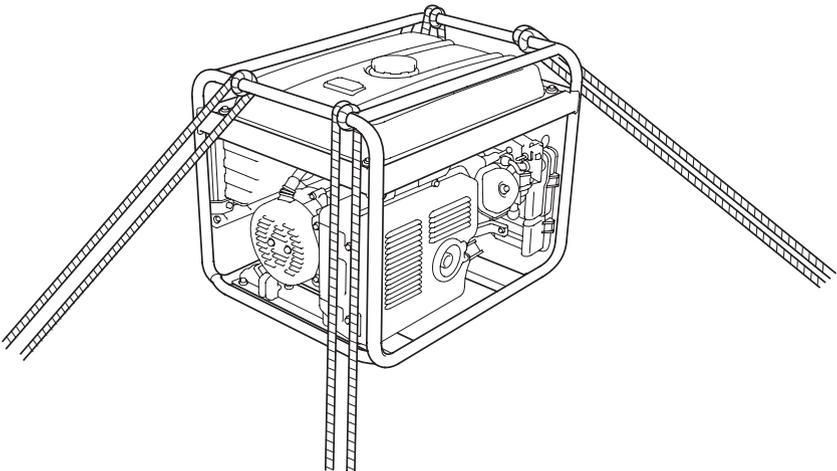
9. TRANSPORTING/STORAGE

▲WARNING

- **When transporting the generator:**
 - **Do not overfill the tank.**
 - **Do not operate the generator while it is on a vehicle. Take the generator off the vehicle and use it in a well ventilated place.**
 - **Avoid a place exposed to direct sunlight when putting the generator on a vehicle. If the generator is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.**
 - **Do not drive on a rough road for an extended period with the generator on board. If you must transport the generator on a rough road, drain the fuel from the generator beforehand.**

Take care not to drop or strike the generator when transporting. Do not place heavy object on the generator.

When transporting the generator by loading it on to a vehicle, secure to the generator frame as shown.

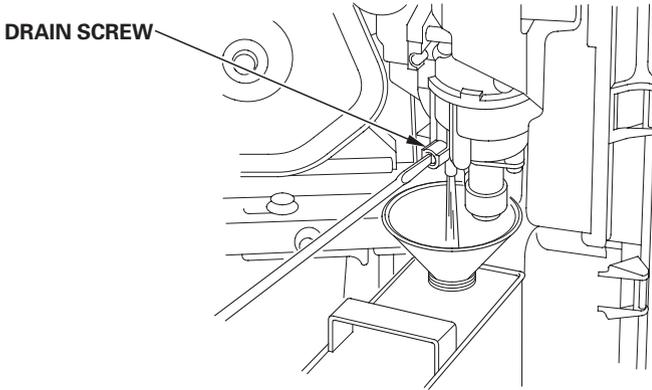


Storage

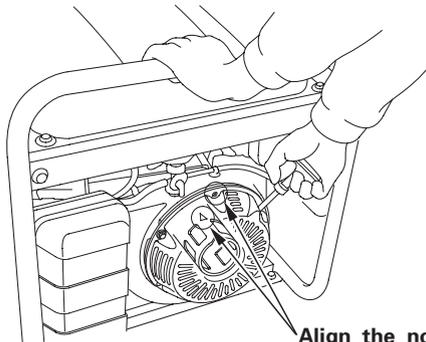
1. Drain the carburetor by loosening the drain screw. Drain the gasoline into a suitable container.

▲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.



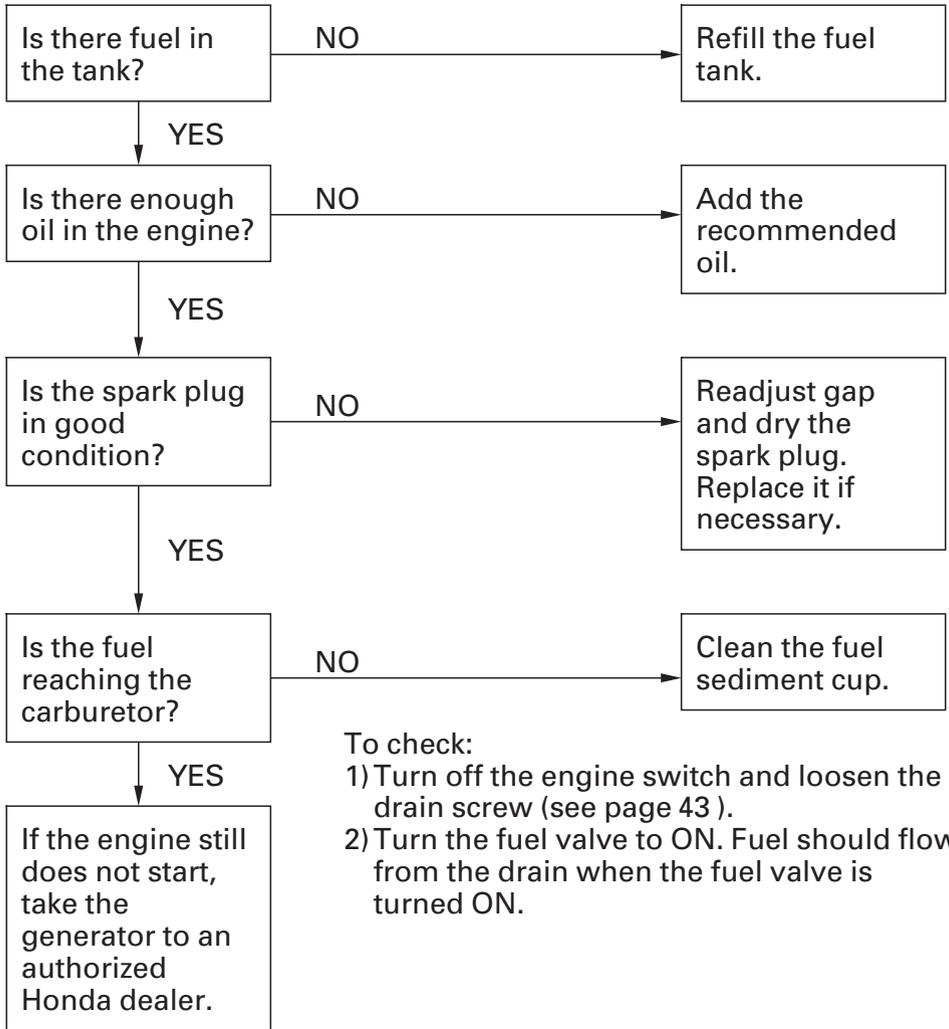
2. Change the engine oil (refer to page 36).
3. Remove the spark plug, and pour about a tablespoon of clean engine oil into the cylinder. Turn the engine several revolutions slowly with the recoil starter to distribute the oil, then reinstall the spark plug.
4. Slowly pull the starter grip until resistance 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.



Align the notch on the starter pulley with the hole at the top of recoil starter.

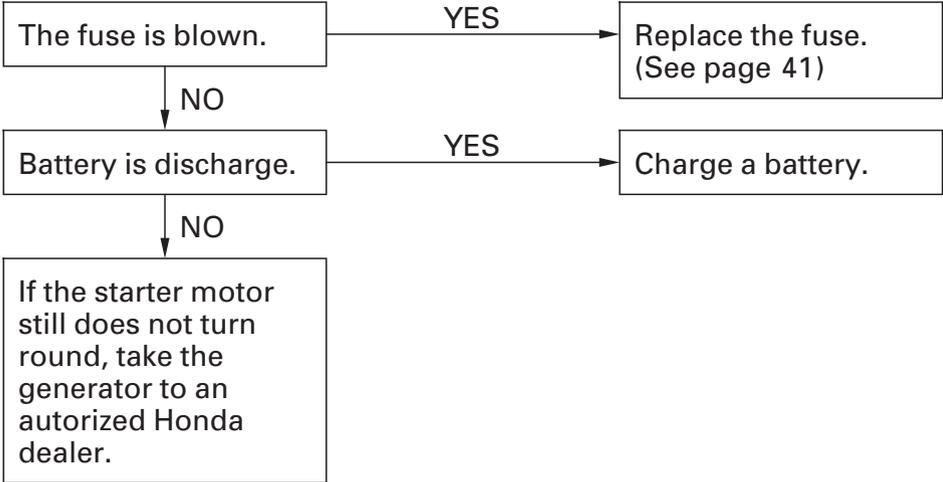
10. TROUBLESHOOTING

When the engine will not start:

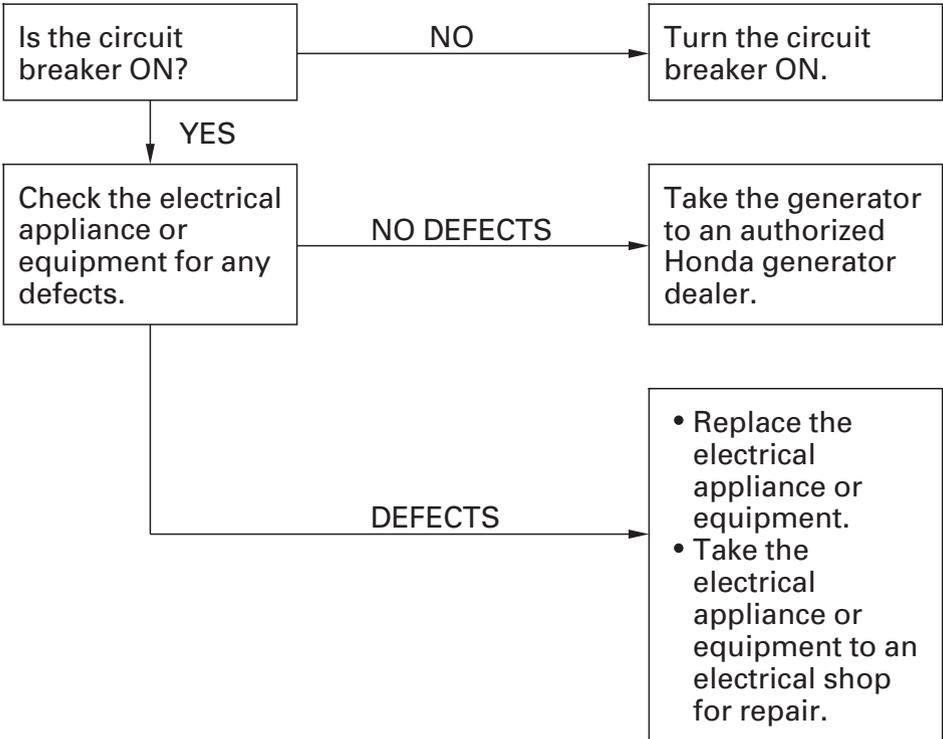


[CXS Type]

Starter motor does not turn round;



No electricity at the AC receptacles:



11. SPECIFICATIONS

Dimensions and Weight

Model	EM3100CX
Description code	EARC
Length	680 mm (26.8 in)
Width	530 mm (20.9 in)
Height	545 mm (21.5 in)
Dry weight	73.0 kg (160.9 lbs)

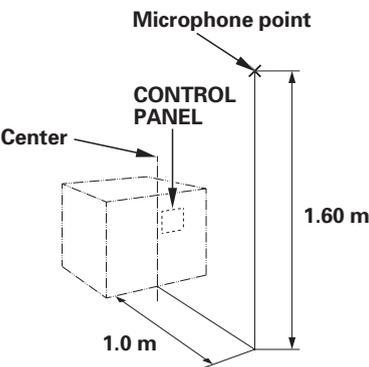
Engine

Model	GX240K1
Engine type	4-stroke, overhead valve, single cylinder
Displacement	243 cm ³ (14.8 cu-in)
Bore × Stroke	73 × 58 mm (2.9 in × 2.3 in)
Compression ratio	8.2:1
Engine speed	3,000 rpm
Cooling system	Forced air
Ignition system	Transistorized magneto
Oil capacity	1.10 ℓ (1.16 US qt , 0.97 Imp qt)
Fuel tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Spark plug	BPR5ES (NGK) W16EPR-U (DENSO)

Generator

Model	EM3100CX	
Type	B	F, G, GW
AC output	Rated Voltage (V)	115/230 230
	Rated Frequency (Hz)	50
	Rated Ampere (A)	24.3/12.2 12.2
	Rated Output (kVA)	2.8
	Max. Output (kVA)	3.1
DC rated output	Only for charging 12 V automotive batteries. 12 V, 8 A	

Noise

Model	EM3100CX
Type	B, F, G, GW
Sound pressure level (LpA) According to 98/37/EC	78 dB
 <p>The diagram illustrates the noise measurement setup. It shows a 3D perspective of a rectangular control panel. A vertical double-headed arrow on the right indicates a height of 1.60 m from the base to the top edge. A horizontal double-headed arrow at the bottom indicates a width of 1.0 m. A dashed line extends from the center of the panel to a point labeled 'Microphone point' at the top edge. An arrow labeled 'Center' points to the center of the panel, and an arrow labeled 'CONTROL PANEL' points to the panel itself.</p>	
Guaranteed sound power level (LWA) Tested by 2000/14/EC	96 dB

NOTE:
Specifications are subject to change without notice.

Dimensions and Weight

Model	EM4500CX	EM4500CXS
Description code	EASC	EATC
Length	680 mm (26.8 in)	880 mm (34.6 in)
Width	530 mm (20.9 in)	530 mm (20.9 in)
Height	545 mm (21.5 in)	545 mm (21.5 in)
Dry weight	86.0 kg (189.6 lbs)	94.0 kg (207.2 lbs)

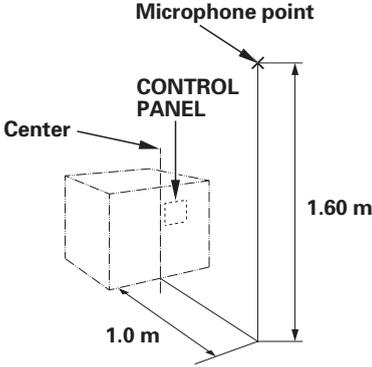
Engine

Model	GX340K1
Engine type	4-stroke, overhead valve, single cylinder
Displacement	338 cm ³ (20.6 cu-in)
Bore × Stroke	82 × 64 mm (3.2 in × 2.5 in)
Compression ratio	8.0:1
Engine speed	3,000 rpm
Cooling system	Forced air
Ignition system	Transistorized magneto
Oil capacity	1.10 ℓ (1.16 US qt , 0.97 Imp qt)
Fuel tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Spark plug	BPR5ES (NGK) W16EPR-U (DENSO)

Generator

Model		EM4500CX·EM4500CXS	
Type		B	F, G, GW
AC output	Rated Voltage (V)	115/230	230
	Rated Frequency (Hz)	50	
	Rated Ampere (A)	34.8/17.4	17.4
	Rated Output (kVA)	4.0	
	Max. Output (kVA)	4.5	
DC rated output	Only for charging 12 V automotive batteries. 12 V, 8 A		

Noise

Model	EM4500CX·EM4500CXS
Type	B, F, G, GW
Sound pressure level (LpA) According to 98/37/EC	80 dB
 <p>The diagram illustrates the noise measurement setup. It shows a 3D perspective of a rectangular object representing the control panel. A vertical line indicates the distance from the top surface of the panel to a microphone point, labeled as 1.60 m. A horizontal line indicates the distance from the center of the panel to the microphone point, labeled as 1.0 m. Labels include 'Microphone point', 'CONTROL PANEL', and 'Center' with arrows pointing to their respective locations.</p>	
Guaranteed sound power level (LWA) Tested by 2000/14/EC	97 dB

NOTE:
Specifications are subject to change without notice.

Dimensions and Weight

Model	EM5500CX	EM5500CXS
Description code	EAUC	EAVC
Length	680 mm (26.8 in)	880 mm (34.6 in)
Width	530 mm (20.9 in)	530 mm (20.9 in)
Height	545 mm (21.5 in)	545 mm (21.5 in)
Dry weight	88.0 kg (194.0 lbs)	96.0 kg (211.6 lbs)

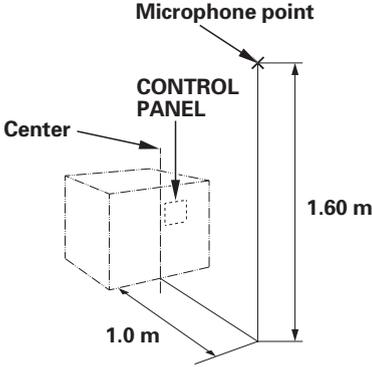
Engine

Model	GX390K1
Engine type	4-stroke, overhead valve, single cylinder
Displacement	389 cm ³ (23.7 cu-in)
Bore × Stroke	88 × 64 mm (3.5 in × 2.5 in)
Compression ratio	8.0:1
Engine speed	3,000 rpm
Cooling system	Forced air
Ignition system	Transistorized magneto
Oil capacity	1.10 ℓ (1.16 US qt , 0.97 Imp qt)
Fuel tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Spark plug	BPR5ES (NGK) W16EPR-U (DENSO)

Generator

Model		EM5500CX·EM5500CXS	
Type		B	F, G, GW
AC output	Rated Voltage (V)	115/230	230
	Rated Frequency (Hz)	50	
	Rated Ampere (A)	43.5/21.7	21.7
	Rated Output (kVA)	5.0	
	Max. Output (kVA)	5.5	
DC rated output	Only for charging 12 V automotive batteries. 12 V, 8 A		

Noise

Model	EM5500CX·EM5500CXS
Type	B, F, G, GW
Sound pressure level (LpA) According to 98/37/EC	80 dB
 <p>The diagram illustrates the noise measurement setup. It shows a rectangular object representing the control panel. A vertical line indicates the microphone point is located 1.60 m above the top surface of the panel. A horizontal line indicates the microphone point is positioned 1.0 m from the center of the panel. The center of the panel is also indicated by a vertical line.</p>	
Guaranteed sound power level (LWA) Tested by 2000/14/EC	97 dB

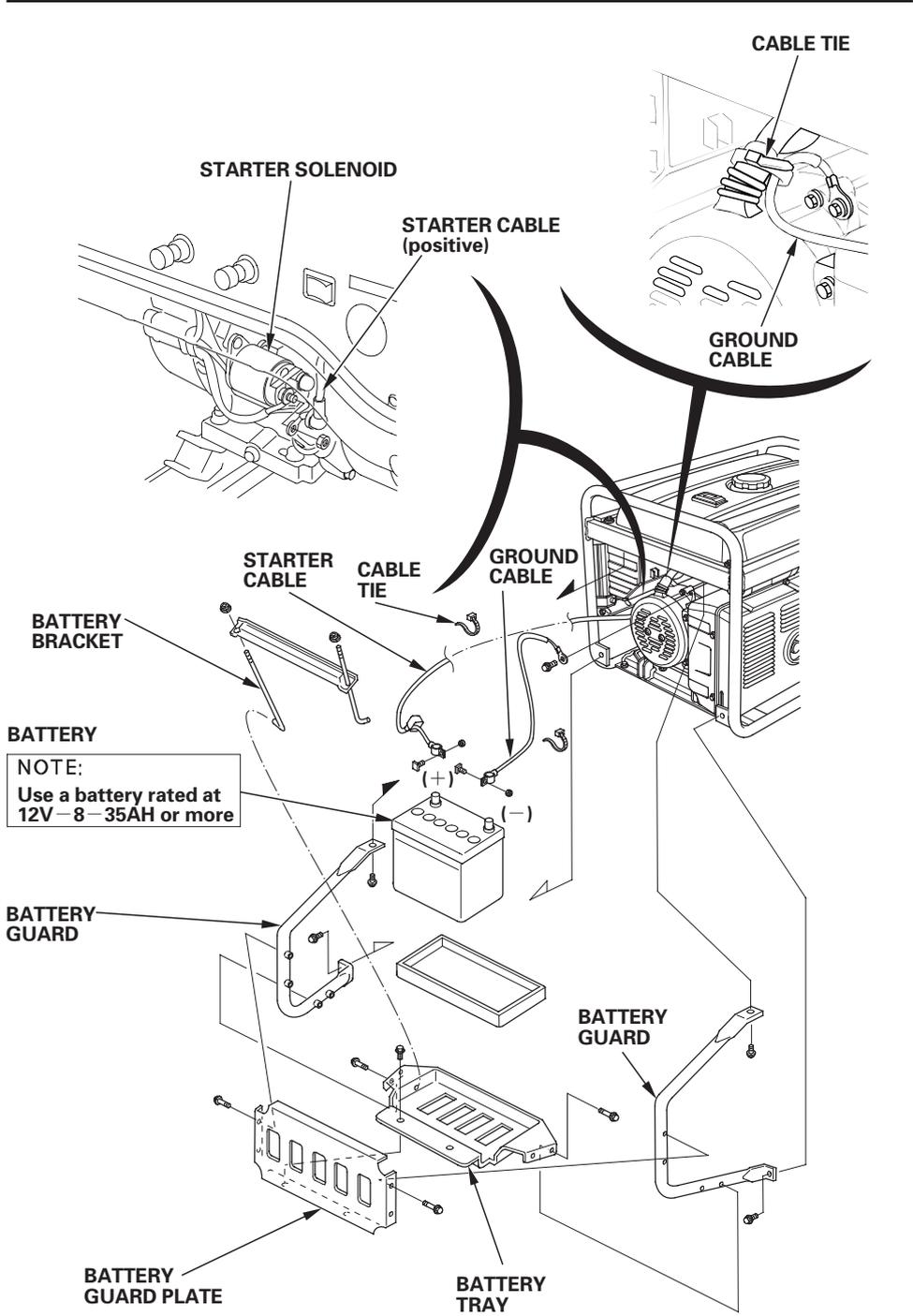
NOTE:
Specifications are subject to change without notice.

12. INSTALLATION OF KIT PARTS

STANDARD KIT PARTS

Battery Tray Kit (CXS type)

1. Install the battery guard on the frame.
Set the battery tray on the battery guard and tighten the bolts.
2. Route the starter cable under the tank and connect it to the starter solenoid.
3. Connect the ground cable to the generator rear housing.
4. Set the battery on the battery tray and secure with the battery bracket.
Connect the starter cable to the battery positive (+) terminal first, then to the negative (−) terminal. When disconnecting, disconnect at the battery negative (−) terminal first.
5. Install the battery guard plate on the battery guard.



OPTIONAL KIT PARTS

2 Wheel Type

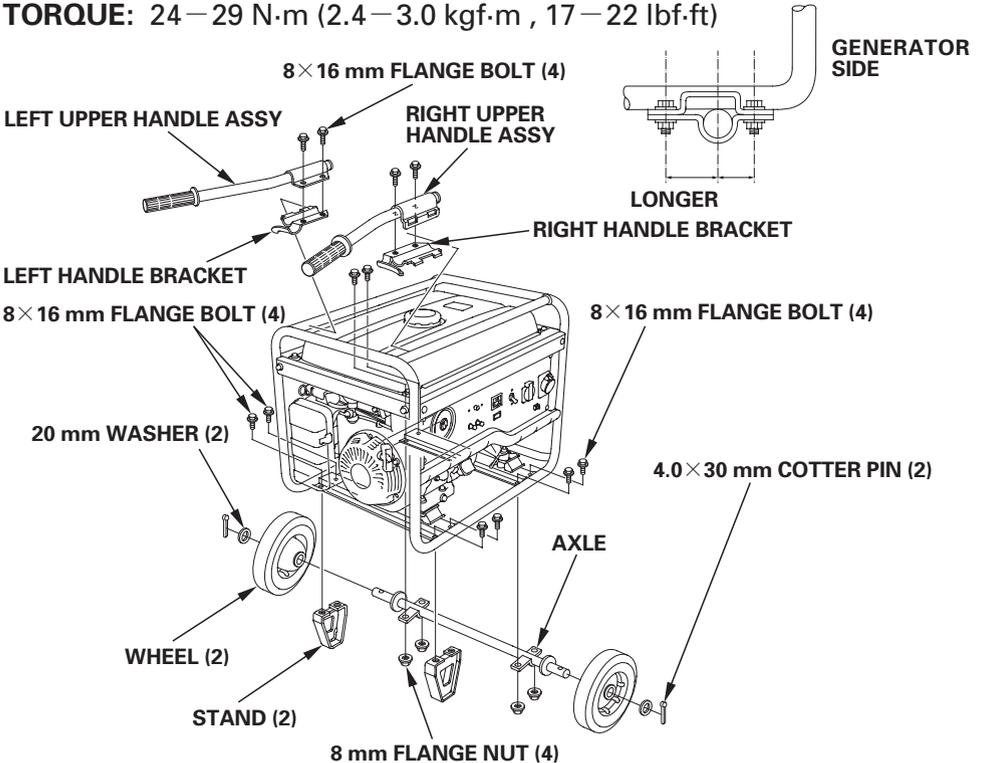
Handle Installation

Install the right and left handles on the generator upper frame using the brackets and 4 flange bolts.

Wheel Kit Installation

1. Install the two wheels on the axle shaft using the washers and cotter pins.
2. Install the axle assembly on the generator using four 8 × 16 mm flange bolts and 8 mm flange nuts.
3. Install the two stands on the under frame using four 8 × 16 mm flange bolts.

TORQUE: 24–29 N·m (2.4–3.0 kgf·m , 17–22 lbf·ft)



4 Wheel Type

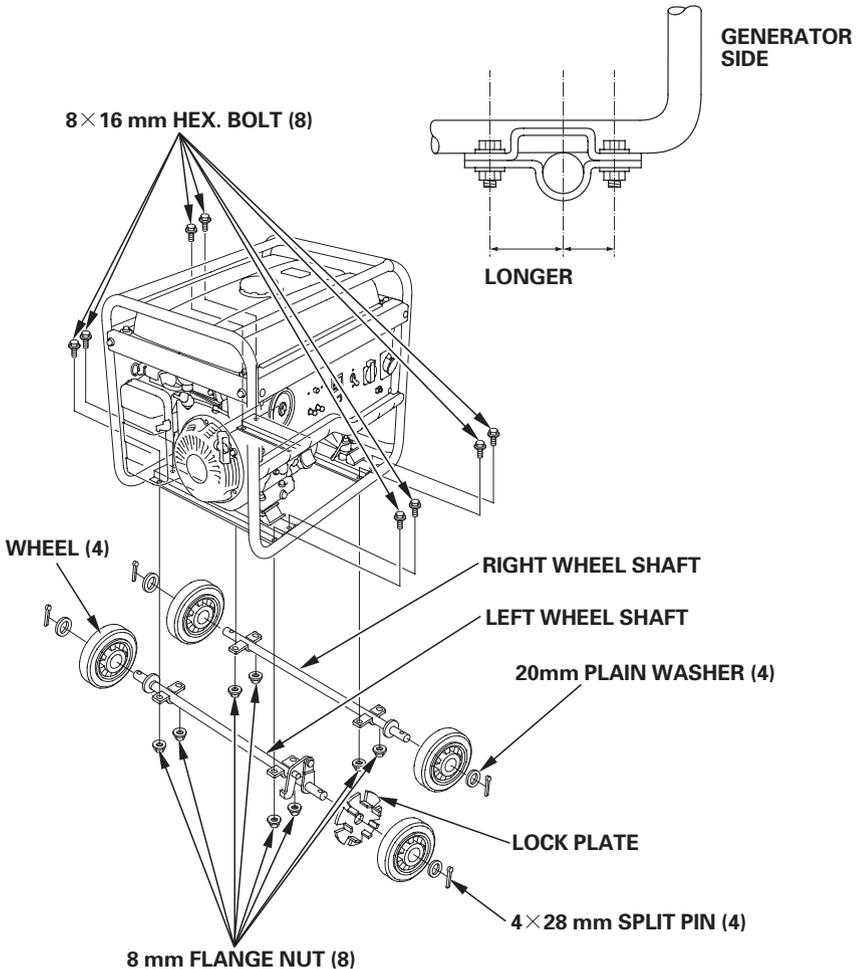
1. Install the lock plate and four wheels on the wheel shaft using the washers and cotter pins.

NOTE:

Install the left wheel shaft on the left side nearest the engine.

2. Install the wheel shaft assembly on the generator using eight 8 × 16 mm hex. bolts and 8 mm flange nuts.

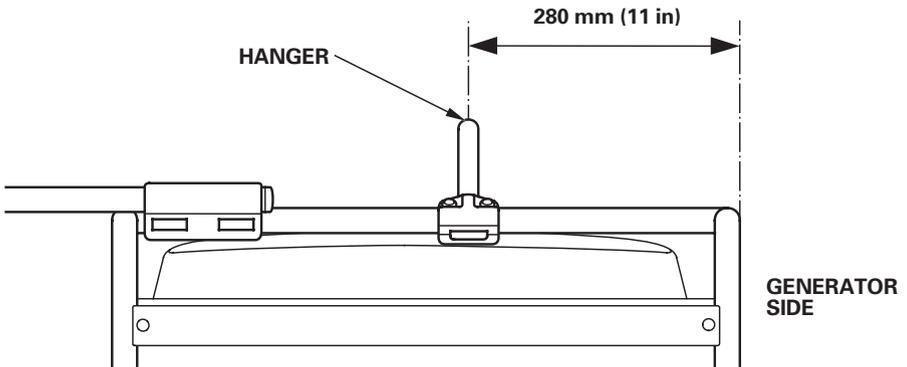
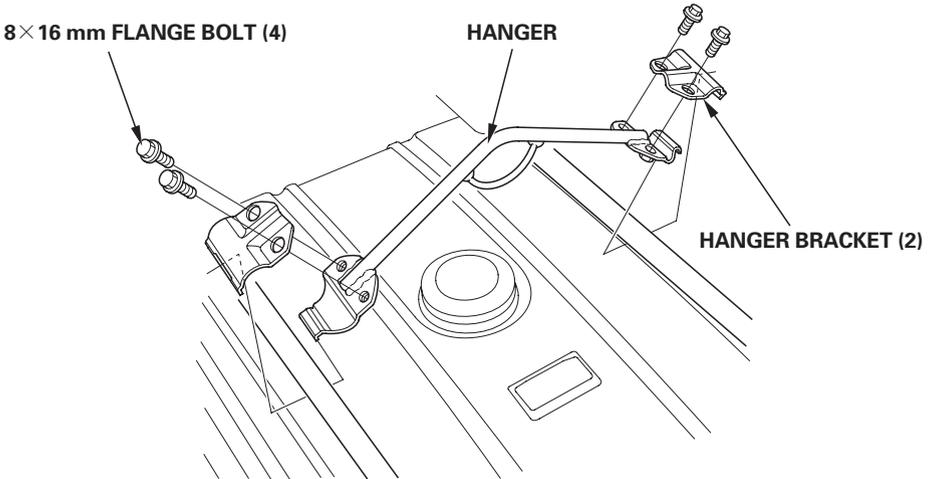
TORQUE: 24–29 N·m (2.4–3.0 kgf·m , 17–22 lbf·ft)



Hanger Kit Installation

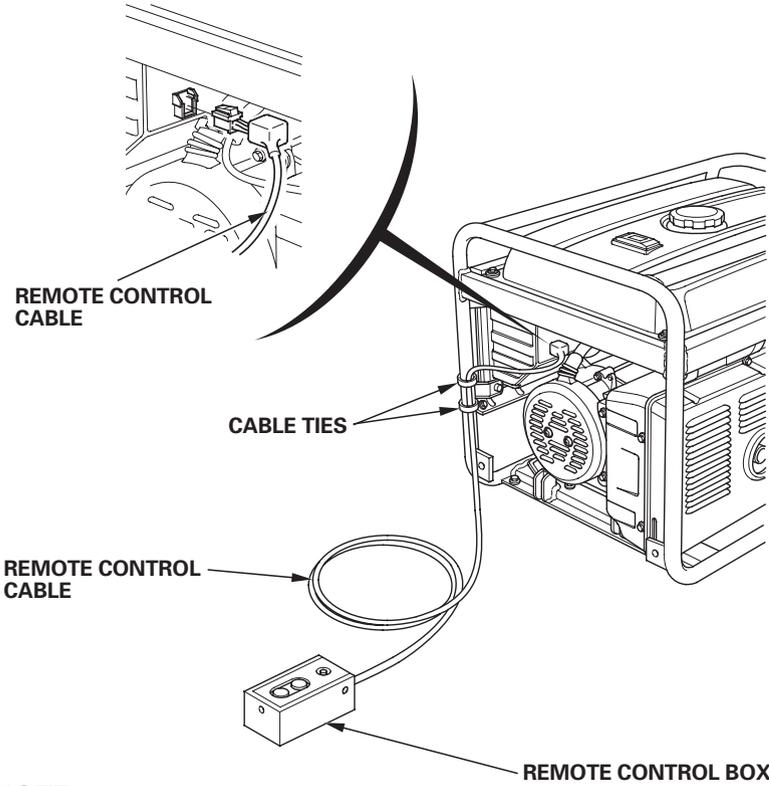
1. Position the hanger at the generator's balance point as shown below.
2. Fit the end tabs of the hanger through the bracket slots, and bolt the brackets to the hanger and tighten securely.

TORQUE: 24–29 N·m (2.4–3.0 kgf·m , 17–22 lbf·ft)



[CXS type]
Remote Control Kit

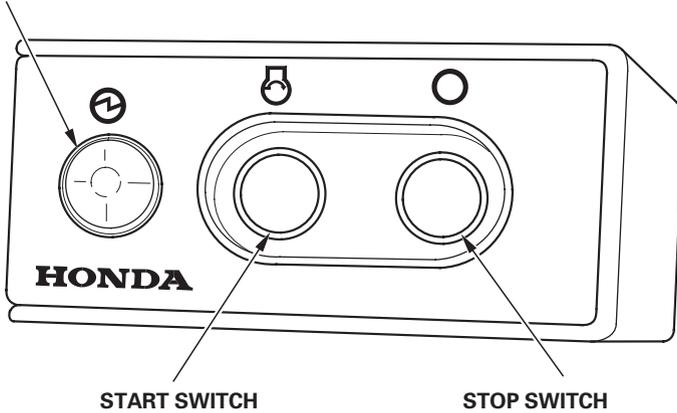
1. Remove the blind 6-P connector from the back of the control panel.
2. Connect the remote control cable to the back of the control panel and remote control box.
3. Install the two cable ties as shown.



NOTE:

- Connect the blind connector when not using the remote control.
- Engine will not start unless the blind connector is connected.

PILOT LAMP



Starting the engine with remote control

1. Turn the fuel valve to the ON position.
2. Turn the engine switch to the ON position.
3. Press the start switch until the pilot lamp comes on.

Stopping the engine with remote control

1. Press the stop switch.
2. Turn the engine switch to the OFF position.
3. Turn the fuel valve lever to the OFF position.

13. WIRING DIAGRAM

ACOR	AC Output Receptacle
AC, NF	AC Noise Filter
ATS	Auto Throttle Solenoid
ATSw	Auto Throttle Switch
ATU	Auto Throttle Unit
AVR	Auto Voltage Regulator
BAT	Battery
CB	Circuit Breaker
CBxB	Control Box Block
ChC	Charge Coil
CP	Circuit Protector
D	Diode
DC, D	DC Diode
DC, NF	DC Noise Filter
DC, T	DC Terminal
DC, W	DC Winding
EgB	Engine Block
EgCU	Engine Control Unit
EgSw	Engine Switch
F	Fuse
ExW	Exciter Winding
FW	Field Winding
FCS	Fuel Cut Solenoid
GeB	Generator Block
GT	Ground Terminal
IgC	Ignition Coil
MW	Main Winding
OAU	Oil Alert Unit
OLSw	Oil Level Switch
RCB	Remote Control Block
RCC	Remote Control Cable
S	Starter
SP	Spark Plug
SSw	Start Switch
STSw	Stop Switch
SV	Solenoid Valve
T	Thermistor
VM	Volt Meter
VSSw	Voltage Selector Switch

Bl	BLACK
Y	YELLOW
Bu	BLUE
G	GREEN
R	RED
W	WHITE
Br	BROWN
O	ORANGE
Lb	LIGHT BLUE
Lg	LIGHT GREEN
P	PINK
Gr	GRAY

ENGINE SWITCH

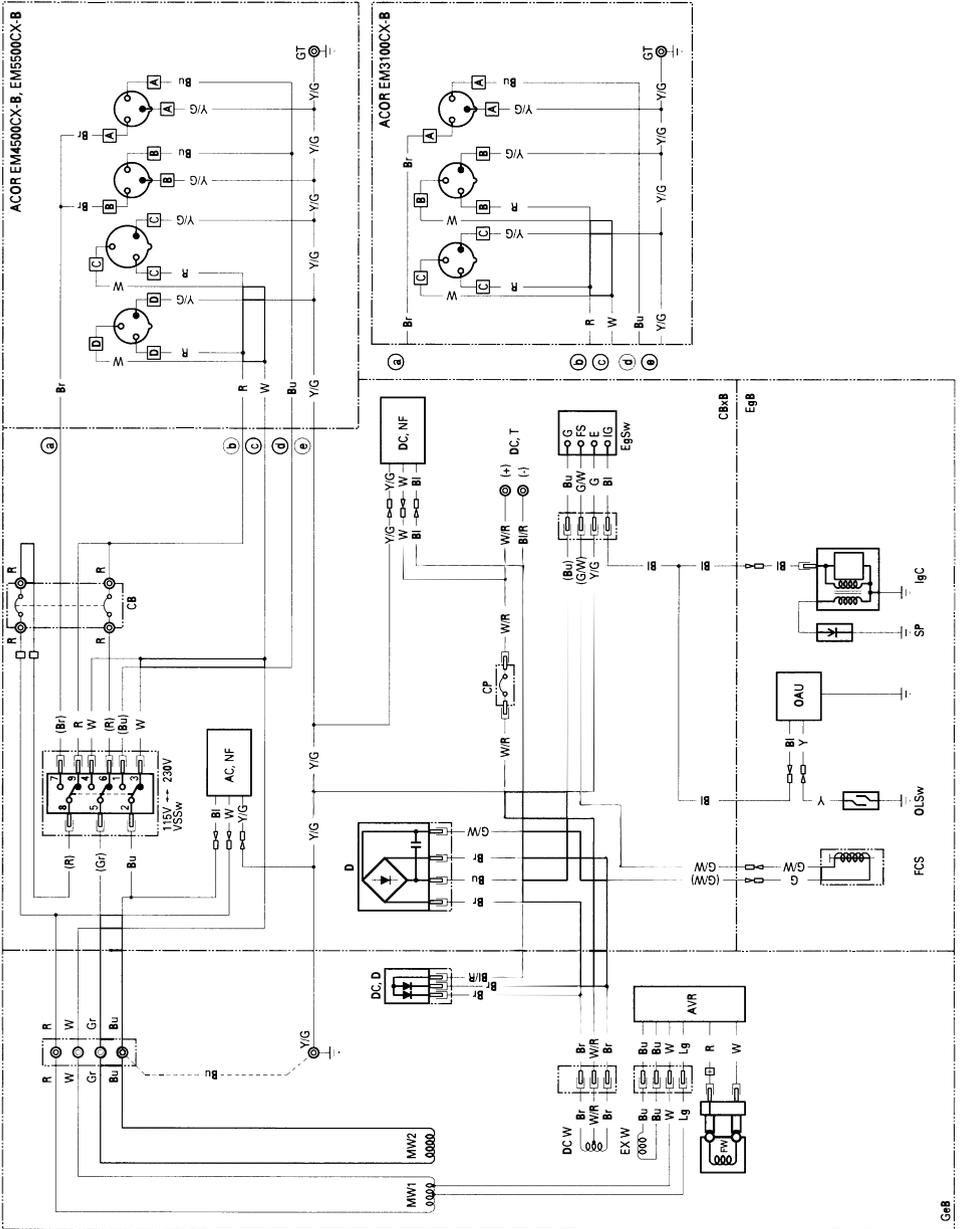
EM3100CX·EM4500CX·EM5500CX

	IG	E	FS	G
OFF	○	○	○	○
ON				

EM4500CXS·EM5500CXS

	IG	E	LO	BAT	ST	FS	G
OFF	○	○				○	○
ON			○	○			
START			○	○	○		

EM3100CX·EM4500CX·EM5500CX (B Type)



14. MAJOR Honda DISTRIBUTOR ADDRESSES

For European

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
Honda (U.K.) Limited	470 London Road, Slough, Berkshire, SL38QY, United Kingdom	Tel: 01753-590-590 Fax: 01753-590-000
Honda Europe Power Equipment S.A.	Pole 45 Rue des Chataigniers 45140 Ormes France	Tel: 2-38-65-06-00 Fax: 2-38-65-06-02
Honda Motor Europe (North) GmbH.	Spredlinger, Landstraße 166 D-63069 Offenbach/Main Germany	Tel: 069-83-09-0 Fax: 069-83-09-519
Honda Belgium H.V.	Wijngaardveld 1, 9300 Aalst Belgium	Tel: 053-725-111 Fax: 053-725-100
Honda Italia Industriale S.P.A.	Via della Cecchignola, 5/7 00143 ROMA	Tel: 06-54928-1 Fax: 06-54928-400
Honda (Suisse) S.A.	Route des Moulières 10 Case postale Ch 1214 Vernier-Geneve, Switzerland	Tel: 022-341-22-00 Fax: 022-341-09-72
Honda Nederland B.V.	Capronilaan 1 1119 NN Schiphol-Rijk Netherlands	Tel: 020-7070000 Fax: 020-7070001
Honda Austria G.M.B.H.	Honda Strasse 1 A-2351 Wiener Neudorf Austria	Tel: 223-66-900 Fax: 223-66-4130
Honda Power Equipment Sweden AB	Västkustvägen 17 202 15 Malmö, Sweden	Tel: 040-600 23 00 Fax: 040-600 23 19
Honda Produtos De Força, Portugal, S.A.	Lugar da Abrunheira S. Pedro de Penaferrim 2710 Sintra, Portugal	Tel: 351-1-9150374 Fax: 351-1-9111021
Berema A/S	Berghagan 5, Langhus Box 454, 1401 Ski Norway	Tel: 64-86-05-00 Fax: 64-86-05-49

For European (continued)

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
OY Brandt AB	Tuupakantie 4 SF-01740, Vantaa Finland	Tel: 90-895-501 Fax: 90-878-5276
TIMA PRODUCTS A/S	Tårnfalkevej 16, Postboks 511 DK 2650 Hvidovre Denmark	Tel: 31-49-17-00 Fax: 36-77-16-30
Greens	Políg. Industrial Congost 08530, La Garriga (Barcelona), Spain	Tel: 93-871-84-50 Fax: 93-871-81-80
Automocion Canarias S.A. (AUCASA)	Apartado de Correos, num 206 Santa Cruz de Tenerife Canary Island	Tel: 922-61-13-50 Fax: 922-61-13-44
The Associated Motors Company Ltd.	148, Rue D'Argens, Msida Malta	Tel: 356-333001 Fax: 356-340473
Two Wheels Ltd.	Crosslands Business Park, Ballymount Road, Dublin 12, Ireland	Tel: 4602111 Fax: 4566539
General Automotive Co., S.A.	P.O. Box 1200, 101 73 Athens Greece	Tel: 346-5321 Fax: 346-7329
BG Technik s.r.o	Radlická 117/520 158 01 Praha 5 Czech Republic	Tel: 2-5694 573 Fax: 2-5694 571
Aries Power Equipment Ltd.	01-493 Warszawa, ul Wroclawska 25a Poland	Tel: 22-685 17 06 Fax: 22-685 16 03
MO. TOR. PEDO Ltd.	2040 Buda-rs, Kamaraerdei-t 3. Hungary	Tel: 23-444-971 Fax: 23-444-972

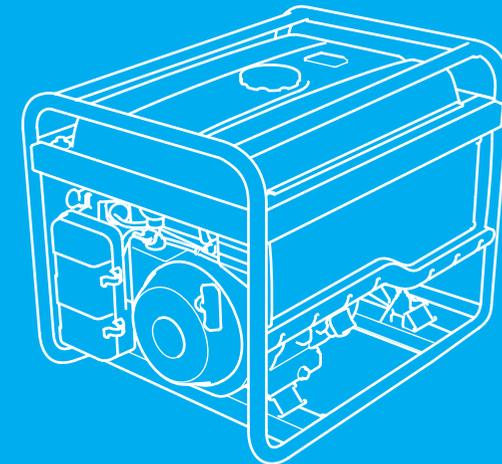
For Australian

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
Honda Australia Motorcycle and Power Equipment Pty. Ltd	1954-1956 Hume Highway Campbellfield Victoria 3061	Tel: (03) 9270 1111 Fax: (03) 9270 1133

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