### Honda EU65is

### **OWNER'S MANUAL**

**Original instructions** 

### **MANUEL DE L'UTILISATEUR**

Notice originale

### **BEDIENUNGSANLEITUNG**

Originalbetriebsanleitung

### MANUAL DE EXPLICACIONES

Manual original



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 EU65is generator.

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.

No part of this publication may be reproduced without written permission.

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:

**AWARNING** 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.

### **AWARNING**

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.

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#### IMPORTANT SAFETY INFORMATION

Honda generators are designed for use with electrical equipment that has suitable power requirements. Other uses can result in injury to the operator or damage to the generator and other property.

Most injuries or property damage can be prevented if you follow all

Most injuries or property damage can be prevented if you follow all instructions in this manual and on the generator. The most common hazards are discussed below, along with the best way to protect yourself and others.

Never attempt to modify the generator. It can cause an accident as well as damage to the generator and appliances.

- Do not connect an extension to the muffler.
- Do not modify the intake system.
- Do not adjust the governor.
- Do not remove the control panel or do not change the wiring of the control panel.

### **Operator Responsibility**

Know how to stop the generator quickly in case of emergency. Understand the use of all generator controls, output receptacles, and connections.

Be sure that anyone who operates the generator receives proper instruction. Do not let children operate the generator without parental supervision.

Be sure to observe the instructions in this manual for how to use the generator and maintenance information. Ignoring or improperly following the instructions can cause an accident such as an electric shock, and the condition of the exhaust gas may deteriorate.

Obey all applicable laws and regulations where the generator is used.

Gasoline and Oil is toxic. Follow the instructions provided by each manufacturer before use.

Place the generator on a firm level place before operation.

Do not operate the generator with any cover removed. You may get your hand or foot caught in the generator and it may cause accident.

Consult your authorized Honda dealer for disassembly and service of the generator that are not covered in this manual.

### Carbon Monoxide Hazards

Exhaust contains poisonous carbon monoxide, a colorless, odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death

If you run the generator in an area that is confined, or even partially enclosed area, the air you breathe could contain a dangerous amount of exhaust gas.

Never run your generator inside a garage, house, or near open windows or doors.

#### Flectric Shock Hazards

The generator produces enough electric power to cause a serious shock or electrocution if misused.

Using a generator 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 dry.

If the generator is stored outdoors, unprotected from the weather, check all of the electrical components on the control panel before each use. Moisture or ice can cause a malfunction or short circuit in electrical components that could result in electrocution.

If you get an electric shock, consult a doctor and have medical treatment immediately.

### Fire and Burn Hazards

Do not use the generator in areas with a high risk of fire.

The exhaust system gets hot enough to ignite some materials.

- Keep the generator at least 1 meter (3 feet) away from buildings and other equipment during operation.
- Do not enclose the generator in any structure.
- Keep flammable materials away from the generator.

Some parts of the internal combustion engine are hot and may cause burns. Pay attention to the warnings on the generator.

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.

Do not pour the water directly on the generator to put out the fire when it occurs. Use an appropriate fire extinguisher specially designed for electric fire or oil fire.

If you inhale fumes produced by an accidental fire with the generator, consult a doctor and have medical treatment immediately.

### **Refuel With Care**

Gasoline is extremely flammable, and gasoline vapor can explode. Allow the engine to cool if the generator has been in operation.

Refuel only outdoors in a well ventilated area with the engine off.

Do not refuel during operation.

Do not overfill the fuel tank.

Never smoke near gasoline, and keep other flames and sparks away.

Always store gasoline in an approved container.

Make sure that any spilled fuel has been wiped up before starting the engine.

### **Explosion proof**

This generator is not complaint with explosion proof.

### **Disposal**

To protect the environment, do not dispose of the used generator, battery, engine oil, etc. carelessly by leaving them in the waste. Observe the local laws or regulations or consult your authorized Honda generator dealer to dispose of these parts.

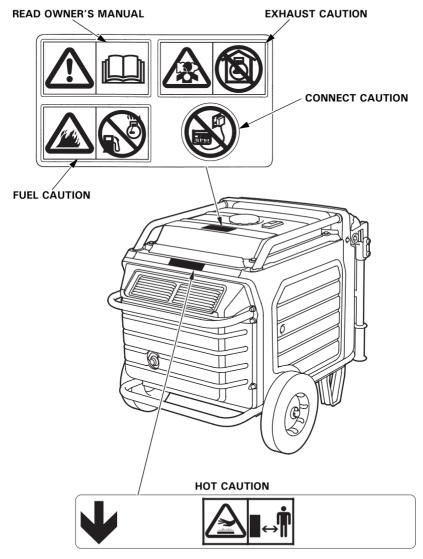
Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

An improperly disposed battery can hurt the environment. Always confirm local regulations for battery disposal. Contact your servicing dealer for a replacement.

### 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 servicing dealer for a replacement.





 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 contains poisonous carbon monoxide, a colorless, odorless gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death.

- If you run the generator in an area that is confined, or even partially enclosed area, the air you breathe could contain a dangerous amount of exhaust gas.
- Never run your generator inside a garage, house or near open windows or doors.



 Improper connections to a building's electrical system can allow 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 the generator may explode, burn, or cause fires when utility power is restored. Consult the utility company or a qualified electrician prior to making any power connections.



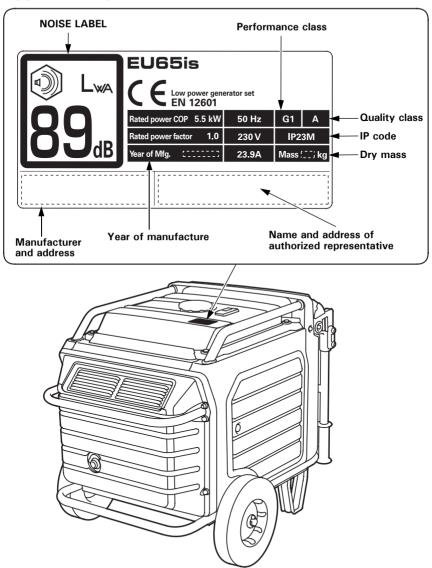
• Gasoline is highly flammable and explosive. Turn the engine off and let it cool before refueling.



A hot exhaust system can cause serious burns. Avoid contact if the engine has been running.

### • CE mark and noise label locations

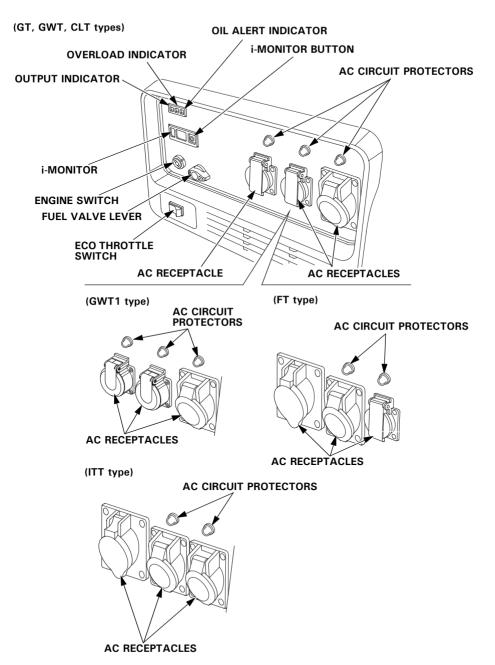
#### NOISE LABEL AND CE MARK

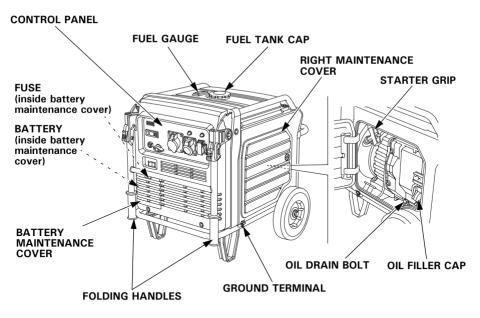


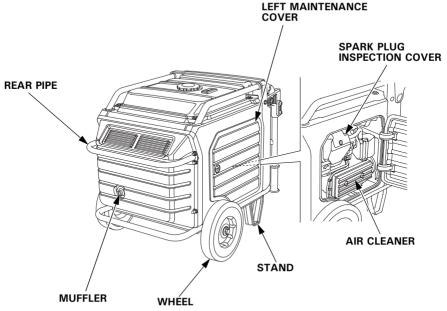
Name and address of manufacturer and authorized representative are written in the "EC Declaration of Conformity" CONTENT OUTLINE in this Owner's Manual.

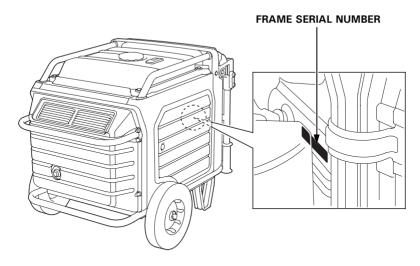
### 3. COMPONENT IDENTIFICATION

### **CONTROL PANEL**









Record the frame serial number in the space below. You will need this serial number when ordering parts.

Frame serial number:		

### Eco Throttle

#### ON:

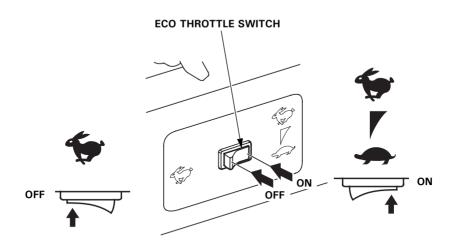
Engine speed is kept at idle automatically when the electrical appliance is disconnected and it returns to the proper speed by the electrical load when electrical appliance is connected. This position is recommended to minimize the fuel consumption while in operation.

#### NOTE:

- When high electrical load appliances is connected simultaneously, turn the Eco Throttle switch to the OFF position to reduce voltage changes.
- Eco Throttle system does not operate sufficiently if the electrical appliance requires the momentary electric power.

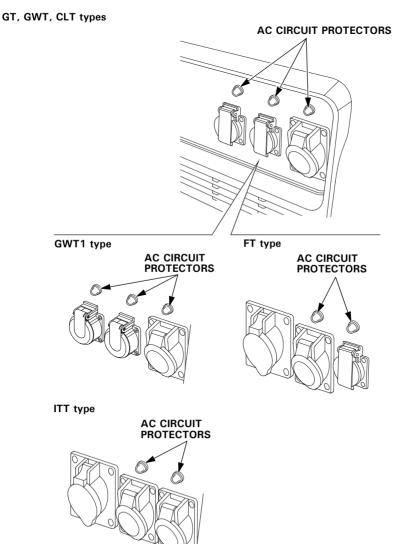
#### OFF:

Eco Throttle system does not operate. Engine speed is kept in the range on the Engine speed (with eco throttle off) in the "SPECIFICATION" page.

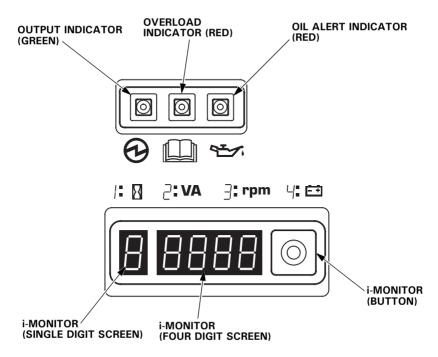


### **AC Circuit Protectors**

The AC circuit protectors will automatically switch OFF if there is a short circuit or a significant overload of the generator at each receptacle. If an AC circuit protector switches OFF automatically, check that the appliance is working properly and does not exceed the rated load capacity of the circuit before resetting the AC circuit protector ON.



### Indicators and i-Monitor



### **Output Indicator**

The output indicator (green) is illuminated when the generator is operating normally. It indicates that the generator is producing electrical power at the receptacles.

### Overload Indicator

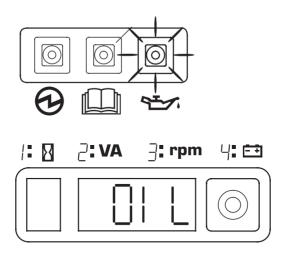
If the generator is overloaded, or if there is a short circuit in a connected appliance, or if the inverter is overheated, the overload indicator (red) will go ON. When the generator is operating overloaded, the overload indicator (red) will stay ON, and after about five seconds, current to the connected appliance(s) will shut off, and the output indicator (green) will go OFF.

### Oil Alert system

The Oil Alert system is designed to prevent the 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 indicator comes on and the Oil Alert system automatically will stop the engine (the engine switch will remain in the ON position).

The i-Monitor display will show "OIL" on the screen and the Oil Alert indicator will illuminate.

If the engine stops or the Oil Alert indicator comes on when you turn the engine switch to the START position or pull the starter grip, check the engine oil level (see page 24) before troubleshooting in other areas. Even when the oil is added to the engine, the generator will not restart until the Oil Alert indicator is reset. To reset the Oil Alert indicator, turn the engine switch to the OFF position, add the proper amount of oil (see page 24), and then turn the engine switch back to the ON position.



#### i-Monitor

The i-Monitor is a user interface that allows the operator to view (when the generator is running) total operating time in hours, generator output, engine RPM, battery voltage, and error messages. The different display modes are selected by pressing the i-Monitor button.

### i-Monitor at Start Up

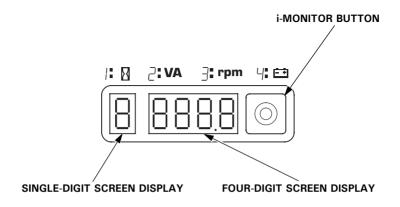
During start up, the i-Monitor display and all three indicators will simultaneously blink once. The condition of the i-Monitor display and all three indicators can be checked with the aid of an observer. Once the generator is running, the Output indicator (green) and the i-Monitor display will remain lit.

### Backlight blinks

When turning the engine switch to the ON position with having not start the engine over 30 seconds, display starts to blink. Please start the engine or turn the engine switch to the OFF position.

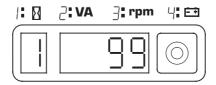
### i-Monitor Display

The i-Monitor display is divided into two screens. The single-digit screen display the i-Monitor mode which is represented by a number 1 through 4. The four-digit screen displays the four mode values total operating hours, power output, engine RPM and battery Voltage or any activated error messages.



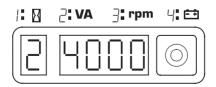
### i-Monitor Display Mode 1-Total Operating Hours

This mode displays the total operating hours of the generator. When the generator is running, the total operating time accumulates. If the total operating time is less than one hour, the numeric display will be "0." When the operating time is one hour or greater, the display will be "1" or "2" and so on. Base the generator's maintenance schedule on the accumulated time displayed.



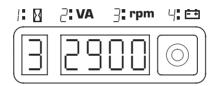
### i-Monitor Display Mode 2-Power Output

This mode displays an approximate generator output on the display screen. The output is expressed in VA (volt amperes). The output value is not an exact measurement and should be regarded as a reference only. Power output will not display until a load is connected to the generator.



### i-Monitor Display Mode 3-Engine RPM

When the i-Monitor is in this mode, the engine's speed, expressed in revolutions-per-minute (RPM), is displayed.



# i-Monitor Display Mode 4-Battery Voltage This mode displays the battery condition, expressed in Volts DC.



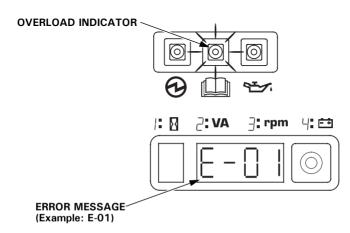
### i-Monitor Low Battery Message

If the engine switch is turned to the START position and "batt" is shown on the i-Monitor display, the battery voltage is too low to operate the engine's electric starter. Use the recoil starter to start the generator. Have the battery recharged and checked (see pages 50 thru. 52).



### i-Monitor System Error Messages

If the generator has a system malfunction, it will show an error message on the i-Monitor display. If an error message displays, contact your servicing dealer.



### **Folding Handle**

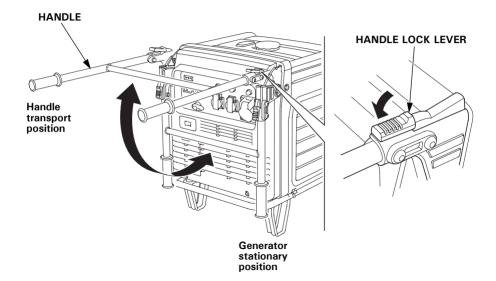
The foldable handle is intended for ease of transportation and should be folded when the generator is stationary. Do not rest objects on the extended handle

### To Extend The Handle

Lift the handle upward. The handle lock levers will lock and secure the handle into place.

### To Fold The Handle

- 1. Press handle lock levers downward.
- 2 Lower the handle



#### Maintenance Covers

Open and close the maintenance cover for maintenance of the your generator.

Open the maintenance cover, too, to use the recoil starter when the battery is discharged. Be sure to close the maintenance cover while the generator is running.

### Open the right maintenance cover for:

• Engine oil inspection/replacement

### Open the left maintenance cover for:

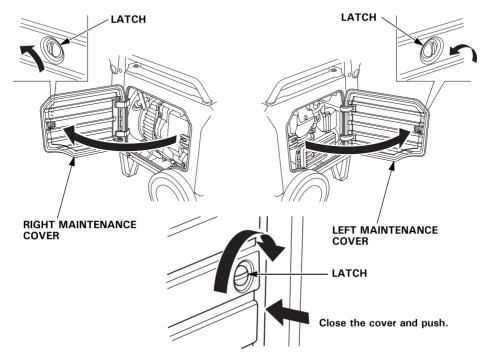
- Spark plug inspection/replacement
- Air cleaner inspection/cleaning
- Sediment cup cleaning

### To open:

Turn the latch 90° to unlock and open the maintenance cover.

### To close:

Turn the latch 90° to lock while pushing the cover.



### CAUTION:

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

1. Check the engine oil level.

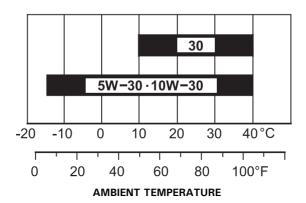
### **CAUTION:**

Using non detergent oil or 2-stroke engine oil could shorten the engine's service life.

Use high-detergent, premium quality 4-stroke engine oil, certified to meet or exceed U.S. automobile manufacturer's requirements for API service category SE or later (or equivalent).

Select the appropriate viscosity for the average temperature in your area

Read the instruction on the oil container before use.



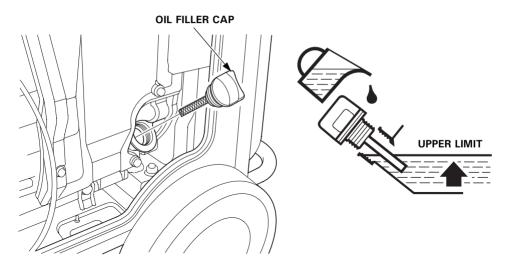
- (1) Open the right maintenance cover.
- (2) Remove the oil filler cap.
- (3) Check the oil level. If it is below the upper limit, fill with the recommended oil to the upper limit.
- (4) Reinstall the oil filler cap securely.

#### 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.



### 2 Check the fuel level

If the fuel level is low, remove the fuel tank cap and refill. Do not overfill.

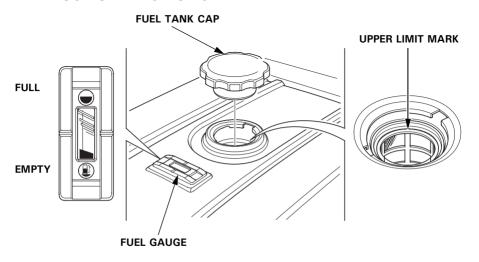
After refueling, tighten the fuel tank cap securely.

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.

### **AW**ARNING

- 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 above the upper limit mark). After refueling, make sure the fuel filler 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.



### NOTF:

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

In worst cases, gasoline can be contaminated within 30 days. 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 (see page 25).
- Use fresh and clean gasoline.
- To slow deterioration, keep gasoline in a certified fuel container.
- If long storage (more than 30 days) is foreseen, drain fuel tank and carburetor (see page 55).

### **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 more than 5% methanol (methyl or wood alcohol) and that does not also contain co-solvents and corrosion inhibitors for methanol.

#### NOTF:

- Fuel system damage or engine performance problems resulting from the use of gasoline that contains more alcohol than recommended is not covered under the warranty.
- Before buying gasoline from an unfamiliar station, first determine if the gasoline contains alcohol, if it does, find out the type and percentage of alcohol used.
  - If you notice any undesirable operating symptoms while using a particular gasoline. Switch to a gasoline that you know contains less than the recommended amount of alcohol.

### 3 Check the air cleaner

Open the left maintenance cover.

Loosen the cover screws and remove the air cleaner cover.

Remove the air cleaner element from the air cleaner cover.

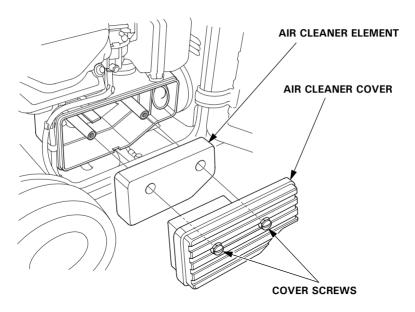
Check the air cleaner element to be sure it is clean and in good condition.

If the air cleaner element is dirty, clean it as described on page 42.

Replace the air cleaner element if it is damaged.

Reinstall the air cleaner element in the air cleaner cover and then install them and secure the cover screws.

Close the left maintenance cover.



### **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.

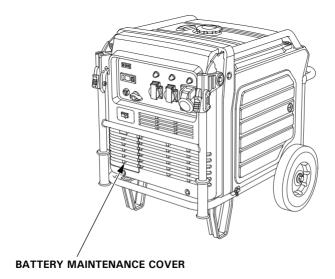
### 5. STARTING THE ENGINE

### CAUTION:

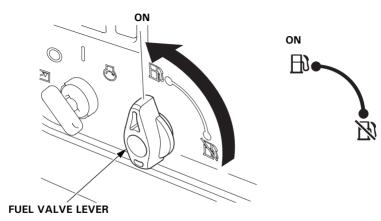
When starting the generator after adding fuel for the first time, after long-term storage, or after running out of fuel, turn the fuel valve lever to the ON position, then wait for 10 to 20 seconds before starting the engine.

Before starting the engine disconnect any load from the AC receptacle.

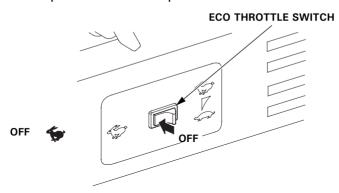
Never operate the generator without the battery maintenance cover in place, as poor engine and generator performance will result.



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

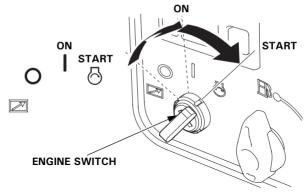


2. Make sure the Eco Throttle switch is in the OFF position, or more time will be required for warm-up.



3. Turn the engine switch to the START position and hold it there until the engine starts.

Use the recoil starter when the battery voltage is too low to turn the starter motor (see page 30).



### **CAUTION:**

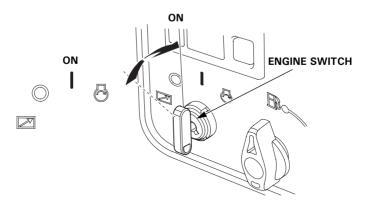
Do not use the starter motor for more than 5 seconds. If the engine fails to start, release the key, and wait at least 10 seconds before operating the starter motor again.

### NOTE:

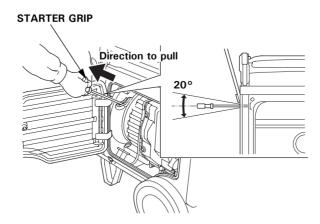
When the speed of the starter motor drops after a period of time, it is an indication that the battery should be recharged.

4. After the engine starts, let the engine switch return to the ON position.

- Use the recoil starter when the battery voltage is too low to turn the starter motor.
  - a. Turn the engine switch to the ON position.

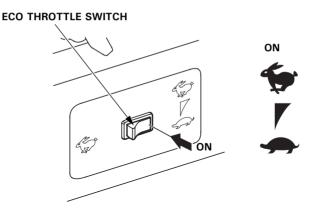


- b. Open the right maintenance cover by turning its latch counterclockwise.
- c. Pull the starter grip lightly until you feel resistance, then pull briskly in the direction of the arrow as shown below.



### CAUTION:

- The starter grip can be drawn back very quickly before you release it. This may pull your hand forcefully toward the engine and cause an injury.
- Do not exceed 20 degrees from horizontal when pulling the starter grip.
- Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.
- Do not let the starter rope rub against the generator body, or the rope will wear out prematurely.
- d. Close the right maintenance cover by turning its latch clockwise.
- 5. If you wish to use the Eco Throttle system, turn the Eco Throttle switch to the ON position after the engine has warmed up for 2 or 3 minutes.



### • 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 meters (5,000 feet) above sea level, have your servicing 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 horsepower 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.

The generator produces enough electric power to cause a serious shock or electrocution if misused.

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

To ground the terminal of the generator, use a copper wire with same or larger diameter than the cord of the connected appliance.

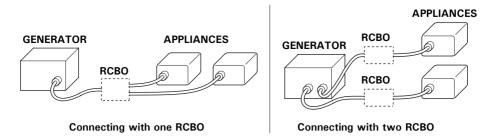


Use extension cord set with ground conductor when connecting an appliance with ground conductor.

To identify the Ground pin in the plug, see RECEPTACLE page 76.

Connect a RCBO (Residual current circuit breaker with overload protection) of 30 mA ground fault detection and cut-off of less than 0.4 seconds at more than 30 A of output current, if you are using two or more appliance.

Follow the instructions provided by each RCBO manufacturer before use.



### **AWARNING**

Improper connections to a building's electrical system can allow 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 the generator may explode, burn, or cause fires when utility power is restored. Consult the utility company or a qualified electrician prior to making any power connections.

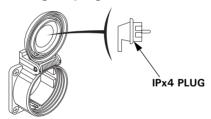
### CAUTION:

- Do not exceed the current limit specified for any one receptacle.
- 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 (200 feet) for cables of 1.5 mm<sup>2</sup> (0.0023 in<sup>2</sup>) and 100 m (330 feet) for cables of 2.5 mm<sup>2</sup> (0.0039 in<sup>2</sup>). 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.

### **▲WARNING**

### **GWT1 Type**

When connecting an angled plug, be sure to use only a IPx4 plug.



#### NOTE:

 Most appliance motors require more than their rated wattage for startup. Make sure the electrical rating of the tool or appliance does not exceed the maximum power rating of the generator.
 Maximum power is:

6.5 kVA

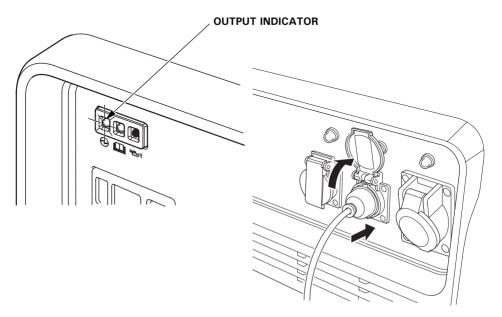
• For continuous operation, do not exceed the rated power. Rated power is:

5.5 kVA

• In either case, the total power requirements (VA) of all appliances connected must be considered.

### AC applications

- 1. Start the engine and make sure the green Output indicator comes on.
- 2. Confirm that the appliance to be used is switched off, and plug in the appliance.



#### **CAUTION:**

- Substantial overloading that continuously lights the Overload indicator (red) may damage the generator. Marginal overloading that temporarily lights the Overload indicator (red) may shorten the service life of the generator.
- Be sure that all appliances are in good working order before connecting them to the generator. Electrical equipment (including lines and plug connections) should not be defective. 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.

### **Output and Overload Indicators**

The Output indicator (green) will remain on during normal operating conditions.

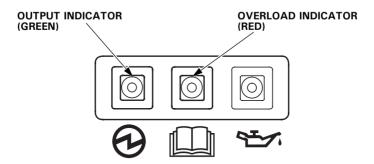
If the generator is overloaded (see page 34), or if there is a short in the connected appliance, the Output indicator (green) will go OFF, the overload indicator (red) will go ON and current to the connected appliance will be shut off.

Stop the engine if the Overload indicator (red) comes on and investigate the overload source.

#### NOTE:

The Overload indicator (red) also lights in the following cases:

- When the inverter is overheated; the current to the connected appliance will be shut off. Check to see if the air intake is obstructed.
- Before connecting an appliance to the generator, check that it is in good order, and that its electrical rating does not exceed that of the generator. Then connect the power cord of the appliance, and start the engine.



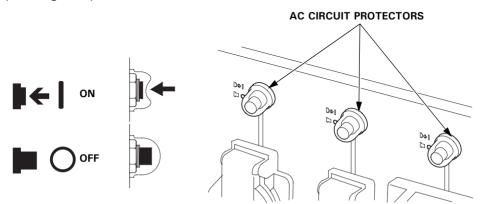
#### NOTE:

When an electric motor is started, both the Overload indicator (red) and the Output indicator (green) may go on simultaneously. This is normal if the Overload indicator (red) goes off after about five (5) seconds. If the Overload indicator (red) stays on, consult your Honda generator dealer.

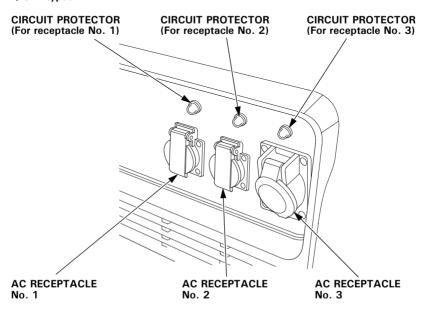
#### AC Circuit Protector

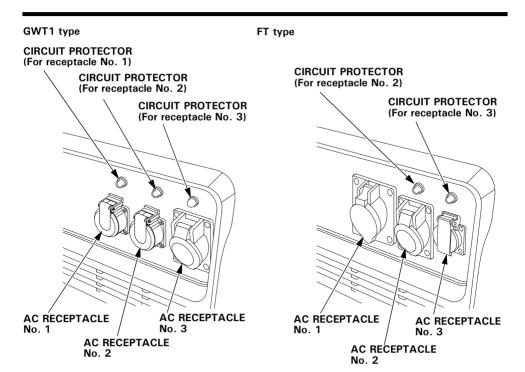
The AC circuit protectors will automatically switch OFF (push button comes out) if there is a short circuit or a significant overload of the generator at receptacle.

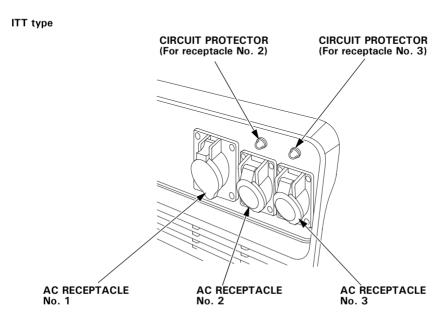
If an AC circuit protector switches OFF automatically, check that the appliance is working properly and does not exceed the rated load capacity of the circuit before resetting the AC circuit protector ON (pushing the push button in).



GT, GWT, CLT types



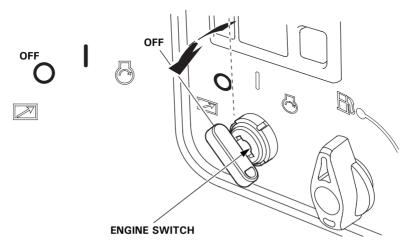




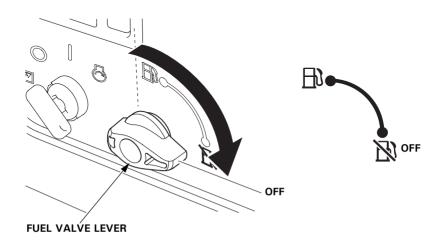
To stop the engine in an emergency, turn the engine switch to the OFF position.

#### IN NORMAL USE:

- 1. Switch off the connected equipment and pull off the inserted plug.
- 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.

#### **AWARNING**

Make sure the engine is off before you begin any maintenance or repairs. This will eliminate several potential hazards:

- Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation whenever you operate the engine.
- Burns from hot parts. Let the engine and exhaust system cool before touching.
- Injury from moving parts. Do not run the engine unless instructed to

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 maintenance.

#### CAUTION:

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

#### Maintenance Schedule

						-
REGULAR SERVICE PERIOD (1)		Each	First	Every 3	Every 6	Every year
Perform at every indicated month		use	month	months	months	or
or operating ho whichever com			or	or	or	300 hrs.
Item	3551.		20 hrs.	50 hrs.	100 hrs.	
Engine oil	Check level	0				
	Change		0		0	
Air cleaner	Check	0				
	Clean			o (2)		
Sediment cup	Clean				0	
Spark plug	Check-adjust				0	
	Replace					0
Spark arrester	Clean				0	
Valve Clearance	Check-adjust					o (3)
Combustion	Clean	After every 1,000 Hrs. (3)				
chamber						
Fuel tank & filter	Clean				o (3)	
Fuel tube	Check	Every 2 years (Replace if necessary) (3)		(3)		

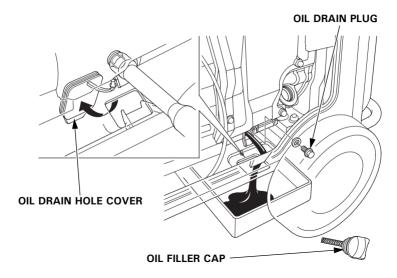
#### NOTE:

- (1) For commercial use, log hours of operation to determine proper maintenance intervals.
- (2) Service more frequently when used in dusty areas.
- (3) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures.

#### 1 CHANGING OIL

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

- 1. Open the right maintenance cover and remove the oil drain hole cover.
- 2. Remove the oil filler cap and oil drain plug to drain the oil.
- 3. Install the oil drain plug, and tighten it securely.
- 4. Refill with the recommended oil (see page 23) and check the oil level.
- 5. Wipe off all the spilled oil from the generator.
- 6. Reinstall the oil drain hole cover and close the right maintenance cover.



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.

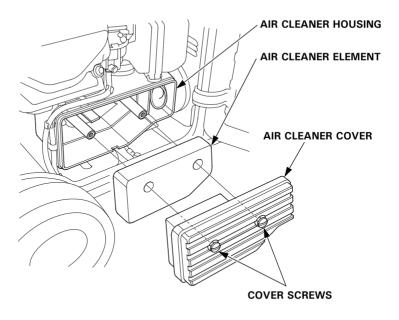
### **AWARNING**

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

#### CAUTION:

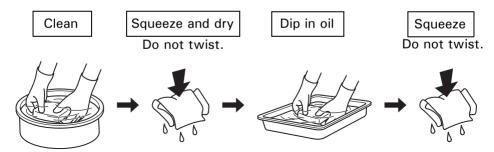
Never run the generator without the air cleaner. Rapid engine wear may result.

- 1. Open the left maintenance cover.
- 2. Loosen the cover screws and remove the air cleaner cover.



3. Remove the air cleaner element.

4. Clean in warm soapy water, rinse and allow to dry to thoroughly. Or clean in high flash point solvent and allow to dry. Dip the element in clean engine oil and squeeze out all the excess. The engine will smoke during initial startup if too much oil is left in the foam.



- 5. Wipe dirt from the air cleaner housing and cover using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the carburetor.
- 6. Install the air cleaner element to the air cleaner housing and reinstall the air cleaner cover and secure the cover screws.
- 7. Close the left maintenance cover.

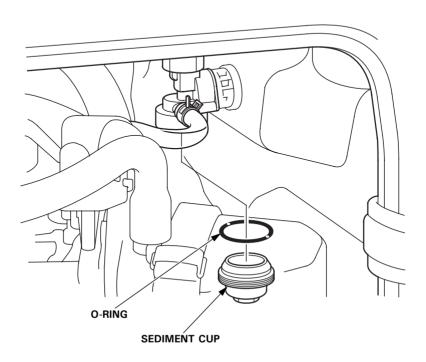
#### 3. FUEL SEDIMENT CUP SERVICE

### **AWARNING**

Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in the area. You can be burned or seriously injured when handling fuel. Stop the engine and keep heat, sparks, and flame away. Handle fuel only outdoors.

Wipe up spills immediately.

- 1. Turn the engine switch to the OFF position.
- 2. Turn the fuel valve lever to the OFF position.
- 3. Open the left maintenance cover.
- 4. Remove the sediment cup by turning it counterclockwise.
- 5. Wash the sediment cup in non-flammable solvent, and dry it thoroughly.
- 6. Reinstall the new O-ring and sediment cup.
- 7. Close the left maintenance cover.

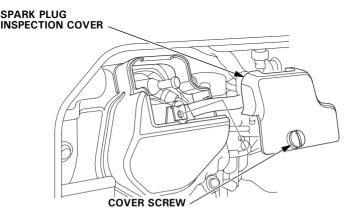


#### 4 SPARK PLUG SERVICE

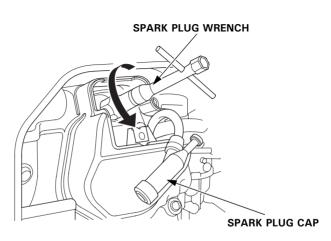
# RECOMMENDED SPARK PLUG: BPR6ES (NGK) W20EPR-U (DENSO)

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

- 1. Open the left maintenance cover.
- 2. Loosen the cover screw and remove the spark plug inspection cover.



- 3. Disconnect the spark plug cap, and remove any dirt from around the spark plug area.
- 4. Remove the spark plug with a spark plug wrench.

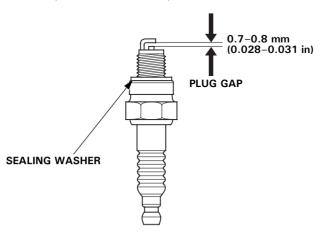


- 5. Visually inspect the spark plug. Discard it if the insulator is cracked, chipped, or fouled. Clean the spark plug with a wire brush if it is to be reused.
- 6. Measure the plug gap with a feeler gauge.

Correct as necessary by carefully bending the side electrode.

The gap should be:

0.7-0.8 mm (0.028-0.031 in)



- 7. Install the spark plug carefully by hand, to avoid cross-threading.
- 8. After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer. If a used plug is being reinstalled, it should only require 1/8 to 1/4 turn after being seated.

#### **CAUTION:**

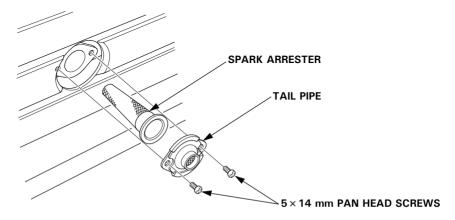
- The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the generator.
- Never use a spark plug with an improper heat range.
- Reinstall the spark plug inspection cover and tighten the cover screw.
   Close the left maintenance cover.

#### **5. SPARK ARRESTER CLEANING**

### **▲WARNING**

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

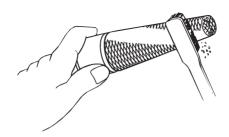
1. Remove the two  $5 \times 14$  mm pan head screws, and remove the tail pipe and spark arrester.



2. Use a brush to remove carbon deposits from the spark arrester screen.

Be careful to avoid damaging the screen.

The spark arrester must be free of breaks and holes. Replace the spark arrester if it is damaged.

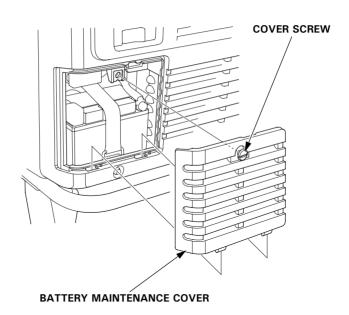


3. Install the spark arrester in the reverse order of removal.

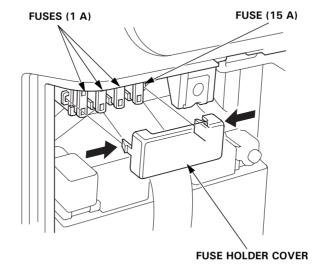
#### **6 FUSE REPLACEMENT**

In the event of fuse failure, locate the cause of failure and repair it before you continue operation. If the fuse continues to fail, discontinue generator use and consult an authorized Honda generator dealer.

- 1. Turn the engine switch to the OFF position and remove the key before checking or replacing the fuse.
- 2. Lift the handle upward. The handle lock levers will lock and secure the handle into place.
- 3. Loosen the cover screw and remove the battery maintenance cover.



- 4. Remove the fuse holder cover and pull the fuse out.
- 5. Replace the fuse with a fuse of the same type and rating. **Specified fuse:** 1 A, 15 A



### **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.
- 6. Install the fuse holder cover and the battery maintenance cover in the reverse order of removal.

Never operate the generator without the battery maintenance cover in place, as poor engine and generator performance will result.

#### 7 BATTERY REMOVAL/INSTALLATION

### **▲WARNING**

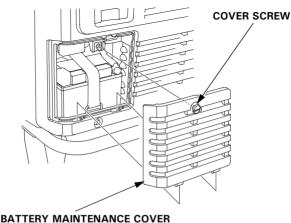
- Batteries produce explosive gases: If ignited, and explosion can cause serious injury or blindness. Provide adequate ventilation when charging.
- CHEMICAL HAZARD: Battery electrolyte contains sulfuric acid. Contact with eves or skin, even through clothing, may cause severe burns. Wear a face shield 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**

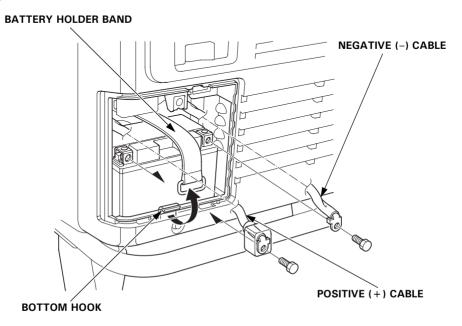
- External: Flush thoroughly with water.
- Internal: Drink large quantities of water or milk. Follow with milk of magnesia or vegetable oil, and call a physician immediately.
- KEEP OUT OF REACH OF CHILDREN.

#### Removal:

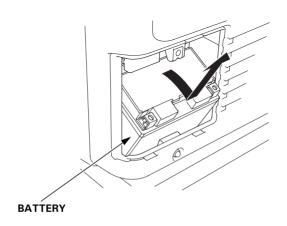
- 1. Turn the engine switch to the OFF position.
- 2. Lift the handle upward. The handle lock levers will lock and secure the handle into place.
- 3. Loosen the cover screw and remove the battery maintenance cover.



- 4. Remove the negative (-) cable from the battery negative (-) terminal, and then remove the positive (+) cable from the battery positive (+) terminal.
- 5. Unhook the battery holder band from the bottom hook of the generator.



6. Remove the battery from the battery tray.



#### Installation:

- 1. Make sure that the engine switch is turned OFF.
- 2.Install the battery. Connect the battery positive (+) cable to the battery positive (+) terminal, then the battery negative (-) cable to the battery negative (-) terminal. Tighten the bolts and nuts securely.
- 3. Install the battery holder band.
- 4. Install the battery maintenance cover, and tighten the cover screw. Never operate the generator without the battery maintenance cover in place, as poor engine and generator performance will result.

#### CAUTION:

When disconnecting the battery cable, be sure to disconnect at the battery negative (-) terminal first. To connect, connect at the positive (+) terminal first, then at the negative (-) terminal. Never dis/ connect the battery cable in the reverse order, or it causes a short circuit when a tool contacts the terminals.

### Charging:

The battery is rated at 11.2 Ah (ampere hours). Charging current should equal 10% of the battery's ampere hour rating. A battery charger should be used that can be adjusted to deliver 1.1 amps.

### **▲W**ARNING

The battery gives off explosive gasses; keep sparks, flames and cigarettes away from the battery while charging. Provide adequate ventilation when charging.

- The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.
  - If electrolyte gets on your skin, flush with water.
  - If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician immediately.
- Electrolyte is poisonous.
  - If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician.
- 1. Connect the battery charger following the manufacturer's instructions.
- 2. Charge the battery.
- 3. Clean the outside of the battery and the battery tray compartment with a solution of baking soda and water.



This symbol on the battery means that this product must not be treated as household waste.

#### NOTE:

An improperly disposed of battery can be harmful to the environment and human health.

Always confirm local regulations for battery disposal.

### 9. TRANSPORTING/STORAGE

To prevent fuel spillage when transporting or during temporary storage, the generator should be secured upright in its normal operating position, with the engine switch OFF.

The fuel valve lever should be turned OFF.

### **AWARNING**

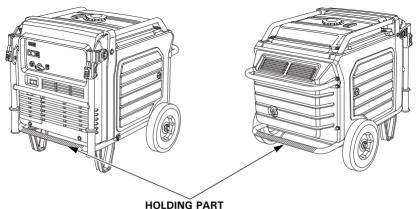
When transporting the generator:

- 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.

#### CAUTION:

- Use a hoist and attach it on the hanger (optional parts) of your generator to lift it up for transportation.
- When you are to lift up your generator with your assistants by hands, take care not to lift it up by holding the handle or rear bar of the generator. Be sure to lift up the generator by holding the holding part (shaded areas in the figure below).

According to EUROPEAN STANDARD EN 12601: 2010 Carrying the generating set is considered that a 140 kg set should be provided with the means of carrying by 4 persons.



Before storing the unit for an extended period:

- 1. Be sure the storage area is free of excessive humidity and dust.
- 2. Drain the fuel.

#### **AWARNING**

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.

#### NOTF:

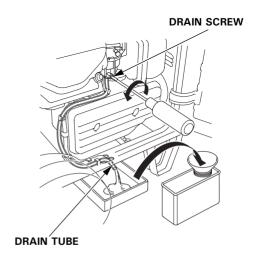
Gasoline spoils very quickly depending on factors such as light exposure, temperature and time.

In worst cases, gasoline can be contaminated within 30 days. 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.

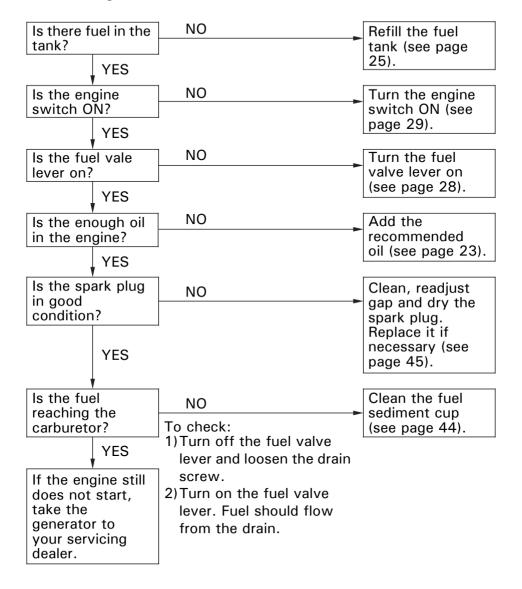
To avoid this please strictly follow these recommendations:

- Only use specified gasoline (see page 25).
- Use fresh and clean gasoline.
- To slow deterioration, keep gasoline in a certified fuel container.
- If long storage (more than 30 days) is foreseen, drain fuel tank and carburetor.
- a. Open the left maintenance cover and place a suitable container under the drain tube.
- b. Turn the fuel valve lever to the ON position. Loosen the drain screw and drain the gasoline from the carburetor and fuel tank.

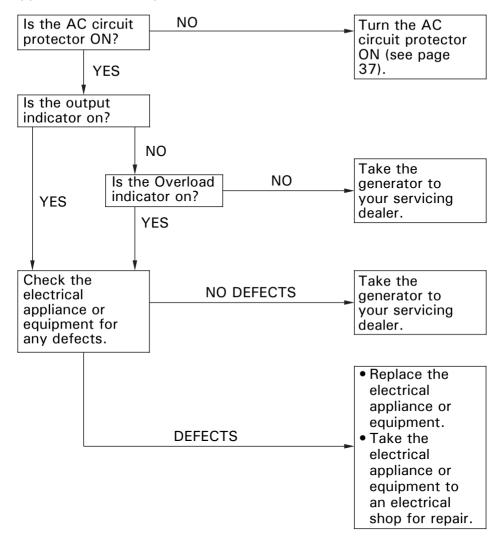


- c. After all the fuel has drained, tighten the drain screw securely and turn the fuel valve to the OFF position.
- d. Remove the sediment cup, and empty it and reinstall.
- 3. Change the engine oil (see page 41).
- 4. Remove the spark plug and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug.
- 5. 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.
- 6. Remove the battery maintenance cover and disconnect the battery negative (-) terminal (see pages 50 and 51). Cover the battery cable negative terminal with vinyl tape.
  - Once a month, recharge the battery.
- 7. Store the generator in clean area.

### When the engine will not start:



### Appliance does not operate:



# **Dimensions and Weight**

Model	EU65is	
Description code	EASJ	
Length	850 mm (33.5 in)	
[extended handle]	[1,195 mm (47.0 in)]	
Width	666 mm (26.2 in)	
Height	699 mm (27.5 in)	
[extended handle]	[716 mm (28.2 in)]	
Dry mass [weight]	117.8 kg (259.7 lbs)	

# **Engine**

Model	GX390	
Engine type	4-stroke, overhead valve,	
	single cylinder	
Displacement	389 cm <sup>3</sup> (23.7 cu-in)	
Bore × Stroke	88.0 × 64.0 mm (3.5 in × 2.5 in)	
Compression ratio	8.2:1	
Engine speed	2,400-3,600 rpm	
	3,300–3,600 rpm (with Eco throttle OFF)	
Cooling system	Forced air	
Ignition system	Full transistorized ignition	
Oil capacity	1.1 L (1.2 US qt, 1.0 lmp qt)	
Fuel tank capacity	16.5 L (4.36 US gal, 3.63 lmp gal)	
Spark plug	BPR6ES (NGK)	
	W20EPR-U (DENSO)	
Battery	12 V 11.2 AH/10 HR	

### Generator

Model		EU65is		
Type		GT, GWT, GWT1, FT, ITT, CLT		
	Rated Voltage	230 V		
Rated Ampere	Rated Frequency	50 Hz		
	Rated Ampere	23.9 A		
	Rated Output	5.5 kVA		
	Max Output	6.5 kVA		

#### Noise

Model	EU65is	
Туре	GT, GWT, GWT1, FT, ITT, CLT	
Sound pressure level at the	75 dB (A)	
workstation	(with Eco throttle ON)	
(2006/42/EC)		
Microphone point		
CONTROL PANEL  1.60 m		
Uncertainty	3 dB (A)	
Measured sound power level	86 dB (A)	
(2000/14/EC, 2005/88/EC)	(with Eco throttle ON)	
Uncertainty	3 dB (A)	
Guaranteed sound power level	89 dB (A)	
(2000/14/EC, 2005/88/EC)	(with Eco throttle ON)	

"the figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of work-force include the characteristics of the work room, the other sources of noise, etc. i.e. the number of machines and other adjacent processes, and the length of time for which an operator is exposed to the noise. Also the permissible exposure level can vary from country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk".

### NOTE:

Specifications are subject to change without notice.

### 12. INSTALLATION OF KIT PARTS

### SAFETY

### The Importance of Proper Assembly

Proper assembly is essential to operator safety and the reliability of the machine. Any error or oversight made by the person assembling and servicing a unit can easily result in faulty operation, damage to the machine, or injury to the operator.

### **▲W**ARNING

Improper assembly can cause an unsafe condition that can lead to serious injury or death.

Follow the procedures and precautions in the assembly instructions carefully.

Some of the most important safety precautions are given on page 62. However, we cannot warn you of every conceivable hazard that can arise in performing this assembly. Only you can decide whether or not you should perform a given task.

### **▲WARNING**

Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

### **Important Safety Precautions**

removed.

pra eq	actices and that you are wearing appropriate clothing and safety uipment. When performing this assembly, be especially careful of a following:
	Read the instructions before you begin, and be sure you have the tools and skills required to perform the tasks safely.
	ake sure the engine is off before you begin any maintenance or pairs. This will help eliminate several potential hazards:
	Carbon monoxide poisoning from engine exhaust.  Operate outside away from open windows or doors.
	Burns from hot parts.  Let the engine and exhaust system cool before touching.
	Injury from moving parts.  Do not run the engine unless the instruction tells you to do so.  Even then, keep your hands, fingers, and clothing away. Do not run the engine when any protective guard or shield is

• To reduce the possibility of a fire or explosion, be careful when working around gasoline or batteries. Use only a nonflammable solvent, not gasoline, to clean parts. Keep all cigarettes, sparks, and flames away from all fuel related parts.

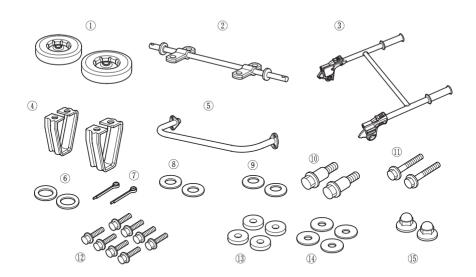
### STANDARD KIT PARTS

### Loose Parts

Check all loose parts against the following list. Contact your dealer if any of the loose parts shown below are not included with your generator.

Ref. No.	Description	Qty.
1	Wheel	2
2	Axle	1
3	Handle assembly.	1
4	Stand	2
5	Rear pipe	1
6	20 mm Washer	2
7	4.0 × 28 mm Cotter pin	2
8	12 mm Washer	2

Ref. No.	Description	Qty.
9	Spring Washer	2
10	Handle holder bolt	2
11	6 × 30 mm Flange bolt	2
12	8 × 25 mm Flange bolt	8
13	8  mm Washer (t = 6 mm)	4
14	8 mm Washer ( $t = 2.3 \text{ mm}$ )	4
15	6 mm Cap nut	2



### Wheel Kit Installation

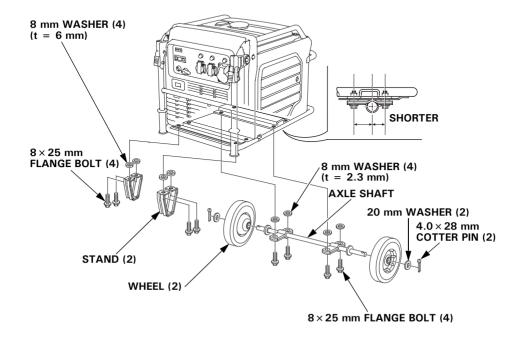
Do not operate the generator without the wheel kit installed. The wheel kit provides a clearance between the ground and the generator air intake

#### NOTE:

If the wheel kit is not installed, it may be possible for dirt and debris to be drawn into the generator air intake, possibly causing generator damage. Always operate the generator with the wheel kit installed.

- 1.Install the two wheels on the axle shaft using the 20 mm washers and  $4.0 \times 28$  mm cotter pins.
- 2. Install the axle assembly on the generator using four  $8 \times 25$  mm flange bolts and four 8 mm washers (t = 2.3 mm).
- 3. Install the two stands on the under frame using four  $8 \times 25$  mm flange bolts and four 8 mm washers (t = 6 mm).

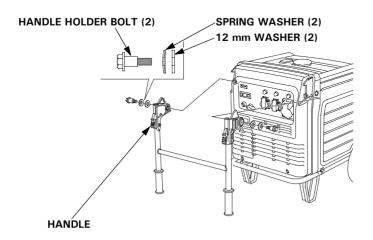
**TORQUE**: 24–29 N·m (2.4–3.0 kgf·m, 17–22 lbf·ft)



#### Handle Installation

Install the handle assembly on the generator upper frame using the 12 mm washers, spring washers and handle holder bolts.

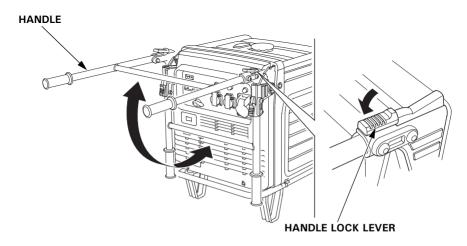
**TORQUE**: 20–23 N·m (2.0–2.3 kgf·m, 14–17 lbf·ft)



Operation must be checked after attaching the handle.

#### To extend handle:

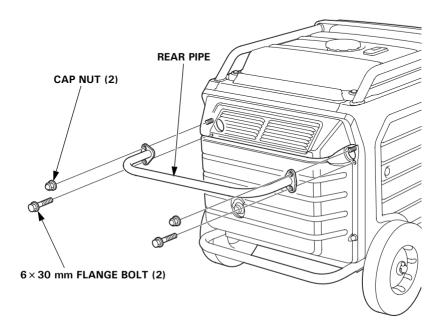
Raise the handle to the horizontal position. The handle will click into place when locked.



## **Rear Pipe Installation**

Install the rear pipe on the generator frame using the two  $6 \times 30$  mm flange bolts and two cap nuts.

**TORQUE**: 9–13 N·m (0.9–1.3 kgf·m, 6.5–9 lbf·ft)

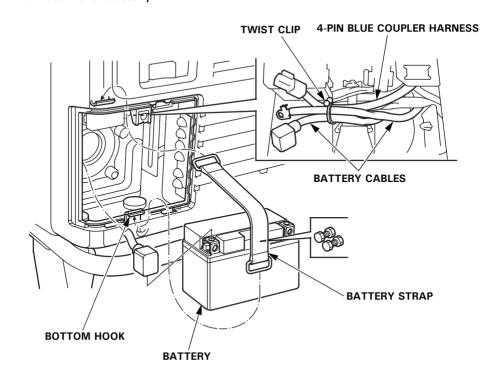


### **Battery**

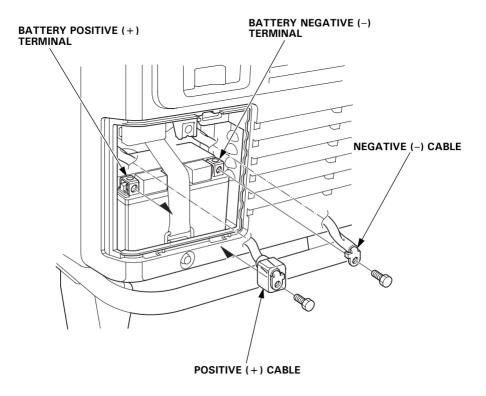
**WARNING:** Battery posts, terminals, and related accessories contain lead and lead compounds. **Wash hands after handling.** 

The battery is disconnected and strapped into the battery tray for shipment.

- 1. Remove the battery maintenance cover (see page 50).
- 2. Remove the battery strap from the bottom hook, and then remove the battery.
- 3.Only remove the battery cables from the twist clip.
  Make sure that the 4-pin blue coupler harness is secured with the twist clip.
  Reinstall the battery.



- 4. Remove the protective cover from the battery positive (+) terminal, connect the positive (+) cable to the battery positive (+) terminal.
- 5. Connect the negative (-) cable to the battery negative (-) terminal.
- 6. Secure the battery by hooking the strap onto the bottom hook of the generator.

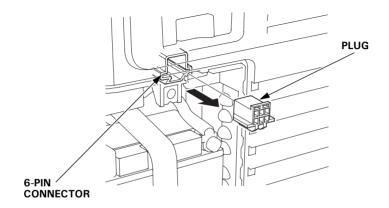


#### OPTIONAL KIT PARTS

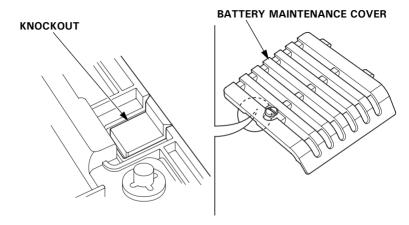
#### Remote Control Kit

Using the remote control in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in malfunction. Keep the remote control dry. (degree of protection: IP3X)

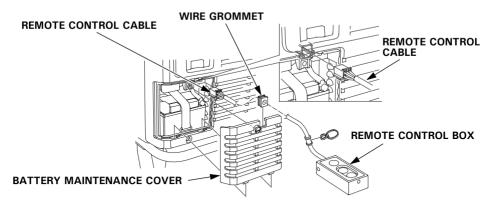
- 1. Remove the battery maintenance cover (see page 50).
- 2. Remove the plug from the 6-pin connector.



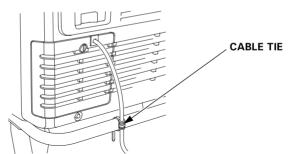
3. View the back of the battery maintenance cover and locate the knockout near the top center of the cover. Carefully remove the knockout.



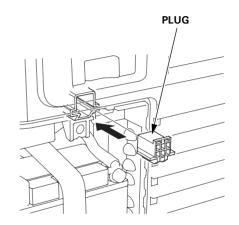
- 4. Pass the remote control cable through the supplied wire grommet, and fit the grommet into the battery maintenance cover knockout.
- 5. Plug the remote control cable into the 6-pin connector.
- 6. Install the battery maintenance cover and tighten the cover screw.



7. To avoid accidentally unplugging the remote control cable, secure the cable to the generator frame with a cable tie as shown.

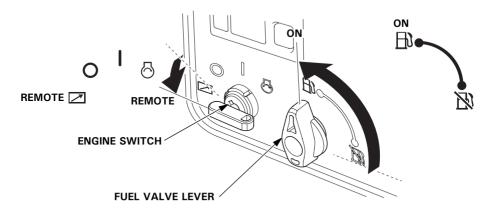


- Never operate the generator without the battery maintenance cover in place, as poor engine and generator performance will result.
- When the remote control is not being used, replace it with the plug on the connector.



### Starting the engine with remote control:

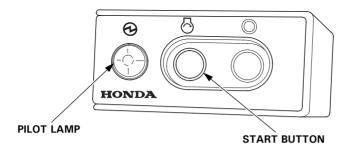
- 1. Turn the fuel valve lever to the ON position.
- 2. Turn the engine switch to the REMOTE (far left) position.



3. Press and hold the start button until the engine pilot lamp illuminates. The start button will automatically be disabled after the engine starts.

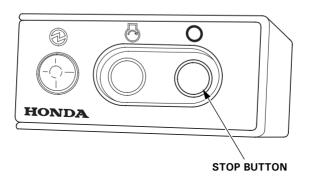
#### CAUTION:

Do not use the starter motor for more than 5 seconds. If the engine fails to start, release the start button, and wait at least 10 seconds before operating the starter motor again.

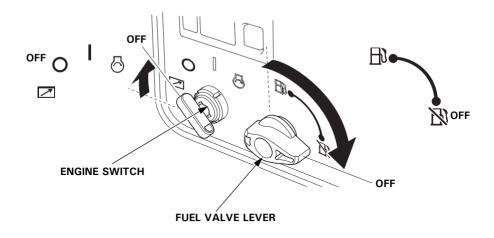


# Stopping the engine:

1. Press the stop button.



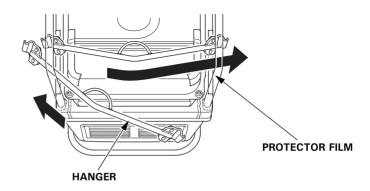
- 2. Turn the engine switch to the OFF position.
- 3. Turn the fuel valve lever to the OFF position.



### Hanger Kit

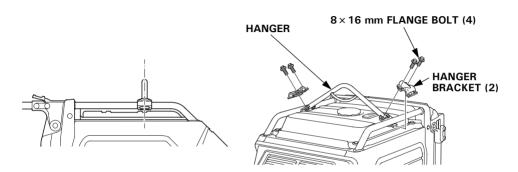
Protect the fuel tank and frame pipe with the protector films during installation of the hanger.

- 1. Insert the bracket installation part at one end of the hanger into the clearance between the frame pipe and fuel tank.
- 2. Slide the hanger and insert another bracket installation part of the hanger into the gap between the frame pipe and fuel tank on the other side.



3. Slide the hanger along the frame pipe to align the center of the hanger with the recessed part on the rear side of the fuel tank. Install the hanger brackets on both ends of the hanger and tighten the  $8\times16$  mm flange bolts securely.

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



# 13. WIRING DIAGRAM

### **WIRING DIAGRAM**

(See inside back cover)

### **ABBREVIATIONS**

Symbol	Port name	Symbol	Part name
ACCP	Part name AC Circuit Protector	SP	Spark Plug
ACCR	AC Output Receptacle	SSw	Stop Button
BAT	Battery	StM	Starter Motor
CCM	Choke Control Motor	StSw	Start Button
CPB	Control Panel Block	SW	
_			Slave Winding Throttle Control Motor
D	Diode	TCM	
EcoSw	Eco Throttle Switch	WTM	White Tape Mark
EgB	Engine Block	WIDE CO	OLOB CODE
ESw	Engine Switch	WIKE CO	DLOR CODE
ETS	Engine Temperature Sensor	DI	DI A OK
FrB	Frame Block	BI	BLACK
FuB	Fuse Box	Y	YELLOW
(F)	FT Type	Bu	BLUE
Ge	Generator	G	GREEN
GeB	Generator Block	R	RED
GCU	Generator Control Unit	W	WHITE
GT	Ground Terminal	Br	BROWN
(G, GW)	GT, GWT, GWT1, CLT Types	0	ORANGE
IgC	Ignition Coil	Lb	LIGHT BLUE
IgPG	Ignition Pulse Generator	Lg	LIGHT GREEN
IU	Inverter Unit	Р	PINK
IUB	Inverter Unit Block	Gr	GRAY
(IT)	ITT Type		
MW	Master Winding		
OAL	Oil Alert Indicator		
OI	Overload Indicator		
OLSw	Oil Level Switch		
OP	Optional		
PL	Output Indicator		
RCB	Remote Control Block		
RcBX	Remote Control Box		
RTM	Red Tape Mark		

### **SWITCH CONNECTIONS**

### **ENGINE SWITCH**

	Е	IG	ST	SUB	ACC	BAT	REM
REMOTE							
				0—		<u> </u>	—о
OFF							
0	0—	<b>—</b> 0					
ON							
					0—	<b>-</b> 0	
START							
口			0-	0	0	—о	
$\bigcirc$							

### **ECO THROTTLE SWITCH**

	COM (-)	SW
ON		
•		
-		
OFF		
5	0	—о

### **RECEPTACLE**

Type	Shape	Plug
FT		GROUND PIN
GT, GWT, CLT		GROUND PIN
GWT1		GROUND PIN
GT, GWT, GWT1, FT, ITT, CLT		GROUND PIN