



INVERTER PORTABLE GENERATOR

INSTRUCTION MANUAL

Gen.3500A



WARNING: SAVE THIS MANUAL FOR FUTURE REFERENCE

This manual contains important information regarding safety. Operation, maintenance and storage of this product. Before use, read carefully and understand all cautions, warnings, instructions and product



Dear Customer:

We carefully manufactured to give you a dependable operation. However, similar to all mechanical products, your machine will occasionally require adjustments and maintenance. This manual should be read carefully before operating or performing any adjustments on your machine. Please contact **DAISHIN** dealer if technical assistance is required.

Please be advised that unit was designed / manufactured for specific applications. So please do not modify and use the unit for any application other than which it was designed for. If you have any questions regarding any applications, please ask **DAISHIN** dealer before using.

Please read an instruction manual before use.

Safety Messages

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

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

These words mean:

DANGER You will be killed or seriously hurt if you don't follow instructions.

WARNING You can be killed or seriously hurt if you don't follow instructions.

ATTENTION You can be hurt if you don't follow instructions.

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

Damage Prevention Messages

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

NOTICE

This word means:

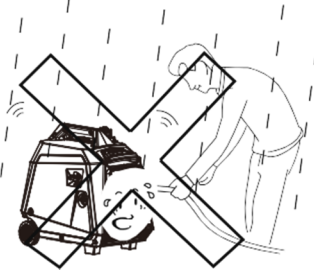
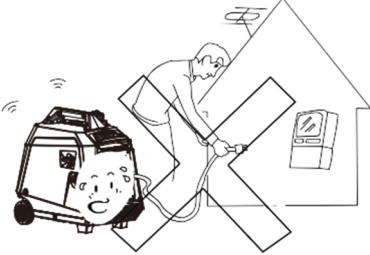
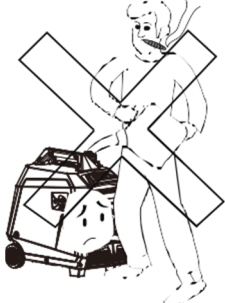
Note: Your generator or other property could be damaged if you don't follow instructions. The purpose of these messages is to help prevent damage to your generator, other property, or the environment.

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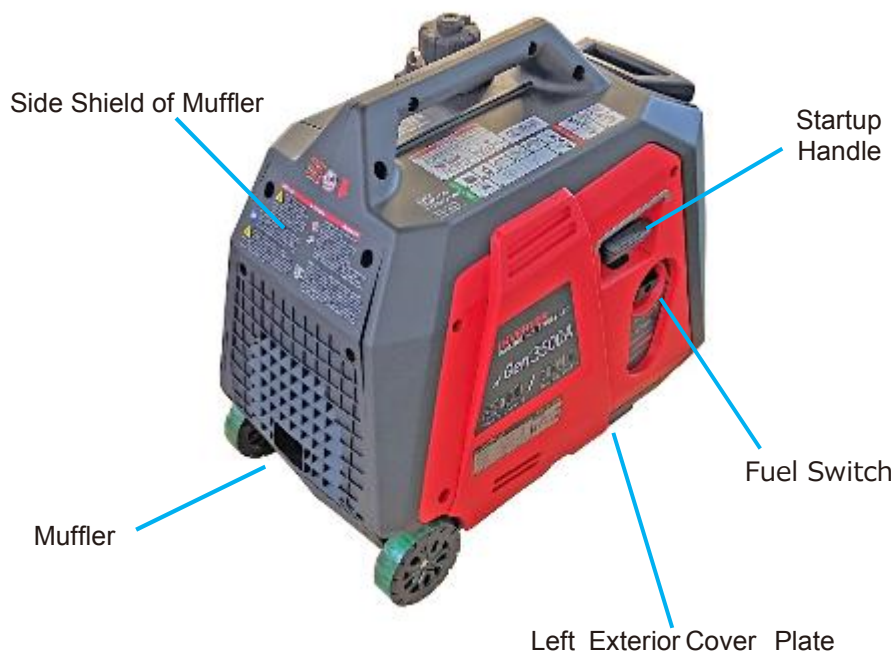
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1. Safety Instructions

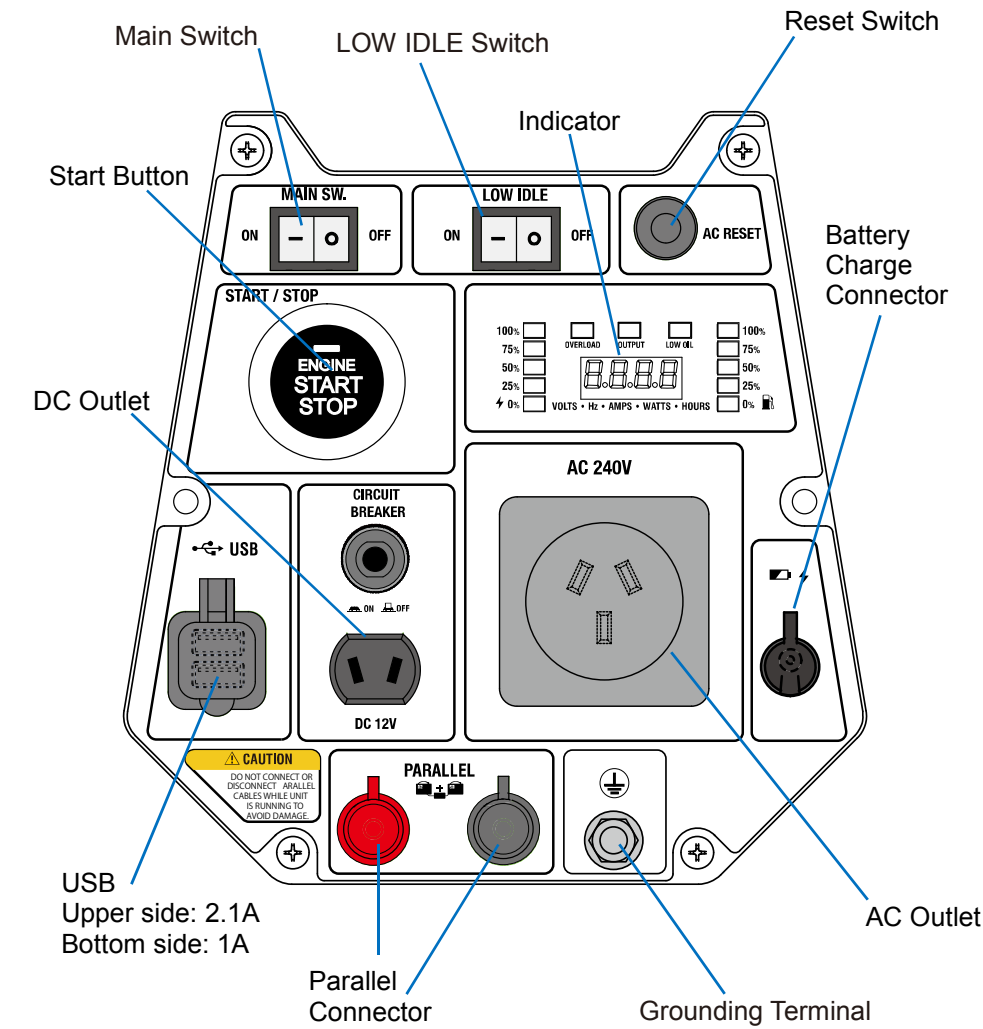
Before operating the generator, it will help you avoid accidents to read and understand the Manual and familiarize yourself with the safe operation procedures of the generator.

	
Please do not use indoors	Please do not use in humid environment
	
Please do not connect it to household appliances directly	Please do not smoke when refueling
	
Please do not spill when refueling	Please shut down the generator before refueling

2. Components



Control Panel

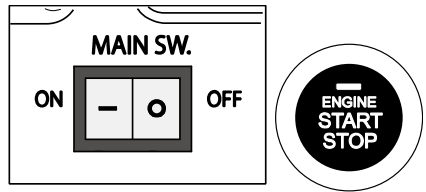


3. Control

Main Switch (Engine Switch)

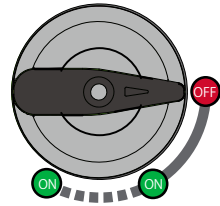
OFF - Ignition circuit is off, the engine stopped running.

ON - Ignition circuit is on, the start the engine.



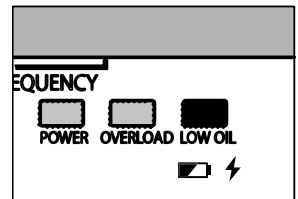
Fuel switch

Generator fuel switch off, engine switch to "OFF", generator cannot operate.



Oil Indicator (red)

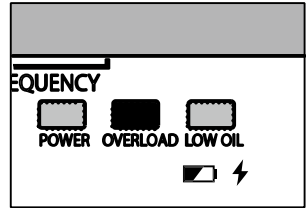
When the oil in the crankcase drops below safety line, oil protection system will automatically shut down the engine, and low oil indicator lights up; the engine can be restarted up only after the oil is filled to oil level.



Tip: In the case of flame-out of the engine or being unable to be started up, turn the combination switch to "RUN" position, and then pull startup handle. If low oil indicator flashes a few seconds, the oil volume is insufficient, fill oil and restart it.

Overload Indicator (red)

When the overload indicator lights up, the generator has detected that the output of connected electrical equipment has been overloaded, causing frequency converter to be overheated or AC voltage to rise. At this moment, AC protector works and stops generating, to protect the generator and connected electrical equipment. AC indicator (green) is off and overload indicator (red) lights up, but the engine will not stop running.



When overload indicator is on and the generator has no output, please take following counter measures:

- ① Switch off electrical equipment connected, and shut down the generator.
- ② Reduce total power of electrical equipment connected to the range of rated output.
- ③ Check whether there is any foreign matter blocking in cooling air inlet, and whether there is any abnormality in related control components. If there is any problem, eliminate it immediately.
- ④ After checking, restart the engine.

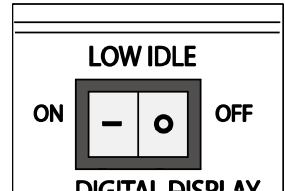
Output Indicator (green)

The AC indicator lights when the engine is started and output normally.

LOW IDLE Switch

"ON"

When energy saving switch is switched to "ON" position engine speed is reduced when the generator is under light load. This feature will reduce fuel consumption and noise.



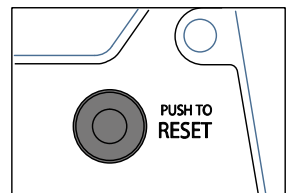
"OFF"

When the energy saving switch is set to the "OFF" position, the engine will run at rated speed, regardless of connected load.

Reset Switch

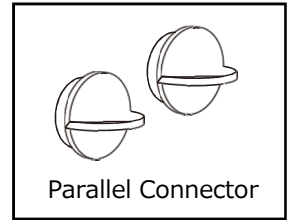
If the inverter is overloaded, the reset breaker will trip. The engine will continue to run, but there will be no output from the inverter.

Unplug the devices and reduce the load. Push in the reset breaker to reset it.



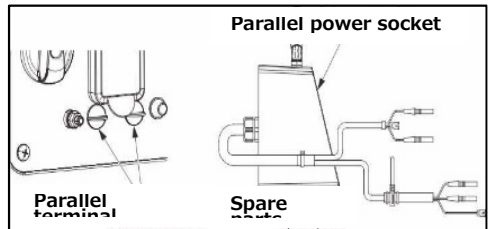
Parallel Connector

To increase AC power output, the connector sockets are used to connect the two same type generator with special paralleling cords. The connector sockets is only used to the communication between the inverters, they cannot be used for AC power output. The special paralleling cords shall be purchase separately, and they shall be approved by certification body.

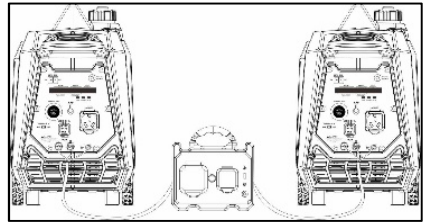


The combination between the generator 2 units) an operate in parallel.

1. Connect cables of the parallel kit to the parallel running terminal and ground terminal of the generator.



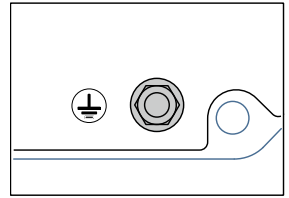
2. When the electrical equipment connected by the parallel kit is grounded, the parallel kit must also be grounded.
3. Start each generator in turn according to the "Starting the Generator".



4. Make sure that the connected electrical switch is off and plug into the socket of the parallel kit.
5. Turn on the electrical switch. During normal operation, the output light (green) of both generators will continue to light up.

Ground Terminal

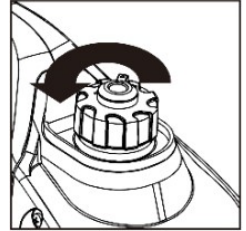
The ground terminal is used to externally ground the generator.



Fuel tank cap

Remove fuel cap by unscrewing it counterclockwise.

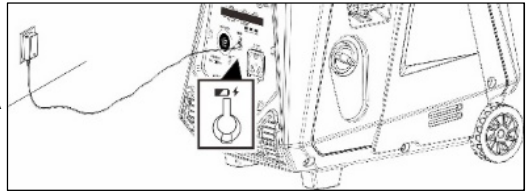
(Actual prevail)



Battery Charging

Keep the generator battery fully charged and ready to use to avoid the need to use the recoil starter to start the generator manually.

The battery shipped with the generator has been fully charged. A battery may lose some charge when not in use for prolonged periods of time.



ATTENTION

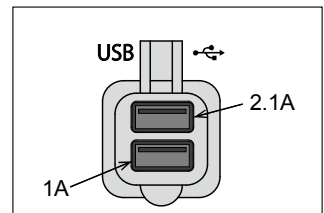
Once the generator is started, it will immediately charge the battery.

When the generator is not running, the attached charger can charge the battery.

Charge in a dry place. The charging time should not exceed 30-40 minutes.

USB

5V 2.1A, 1A.



4. Before starting the generator

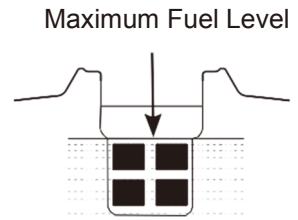
Fuel

DANGER

- Fuel is flammable and toxic, please read the Safety Instruction carefully before refueling.
- Do not fuel too full, otherwise fuel will spill after fuel tank is warmed.
- After refueling, confirm that the fuel tank cap has been tightened.

ATTENTION

- After refueling, dry gasoline residue with a clean and soft cloth in time to avoid damaging plastic enclosure.
- Unleaded gasoline must be used, as leaded gasoline can seriously damage internal parts of the generator.
- Remove fuel tank cap, and add gasoline to red horizontal indicating line oil level.



Fuel tank capacity: 5.8L

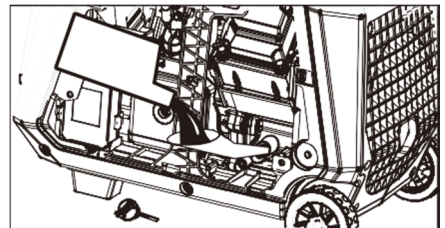
Oil

No oil is filled into this generator when being delivered. Do not start up the generator without filing sufficient oil.

1. Please place the generator onto a horizontal plane surface.
2. Loosen the screw on the right exterior cover and remove the right exterior cover.
3. Unscrew oil dipstick.
4. Fill in **0.45L oil (SAE 10W/30 oil is recommended, of which the grade is API standard Type SE or higher).**



The oil level should be between the ruler grids, tie best state is tie middle of the upper.



5. After filling the oil, remember to install and tighten the oil ruler.
6. Reinstall the right exterior cover and tighten the screw.

ATTENTION

Your generator was functionally tested in the factory and may contain minimum residual oil. Additional oil is required to operate the unit. Do not overfill.

ATTENTION

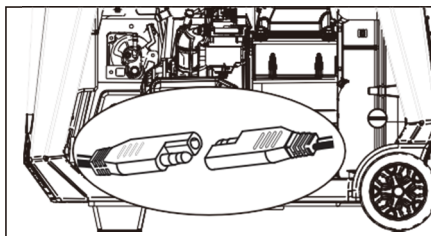
The recommended oil type for typical use is 10W-30 automotive oil. However, using the listed conventional oils shown in the "Recommended Engine Oil Type" chart may be used for typical use including the first 5 hours of the break-in run time period of the engine. If running generator in extreme temperatures, refer to the "Recommended Engine Oil Type" chart.

Recommended Engine Oil Type	
10W-30	10W-40
5W-30	5W-30
5W-30	Full
°C	-20 0 20 40 60 80 100
°F	-28.9 -17.8 -6.7 4.4 15.6 26.7
Ambient Temperature	

Connecting the Battery

1. Loosen the screw on the right exterior cover and remove the right exterior cover.

2. A quick-connect battery plug is pre-installed on the battery. Remove the cable tie securing the plugs, align colors, and then push firmly to connect them.



Note:

The generator is equipped with a battery charging feature. Once the engine is running, a small current will slowly recharge the battery.

Pre-use Inspection

WARNING

Even if the generator is not in service, its important component may suddenly fails. Before the generator is started up, if any of following components is unable to work properly, please inspect and repair carefully.

Tip:

The condition of the generator shall be inspected before using every time.

Pre-Operation Inspection

Fuel

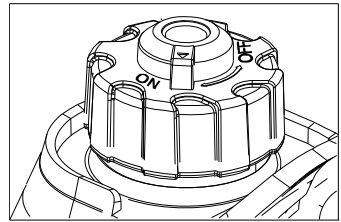
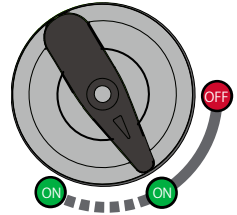
- Check fuel level in fuel tank of the generator, and fuel it if necessary.

Oil

- Check oil level of the generator, and fill oil if necessary.
- Check whether there is oil leaking.
Abnormal conditions during operation
- Check operating condition of the generator.
- If there is any need, please do not hesitate to consult your dealer.

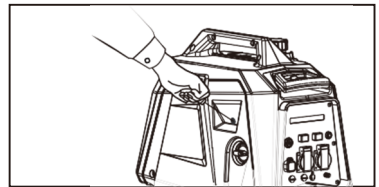
5. Operation

1. Make sure the generator is on a solid, flat, level surface.
2. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in or turned on.
3. Press LOW IDLE to "OFF".
4. Press Main Switch (Engine Switch) to "ON".
5. Turn the fuel switch to "ON".
6. Turn the fuel tank cover ventilation knob to "ON"



Choose the Starting Method

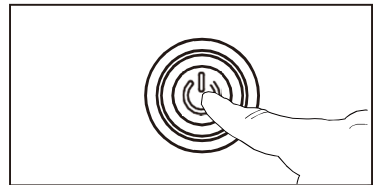
- a. Recoil Start: Firmly grasp and pull the recoil handle slowly until you feel increased resistance, then pull rapidly.



Tip:

When pulling the hand starter, hold the generator carrying handle firmly, to prevent the generator from overturning.

- b. Button Start: Press the start button down for 1-3 seconds, then release, to start the generator.



6. Plug in devices.

Parallel Operation

The parallel connection ports allow you to connect two generators to increase the total available electrical power. Follow the instructions included with your parallel connection kit for proper installation and operation.

Overload Indicator

Note:

The OVERLOAD light may turn on for a few seconds as a large device starts. This is normal for loads approaching the capacity of this generator.

1. The total combined load through the outlets on the generator must not exceed the running power of the unit.
2. If the OVERLOAD light turns on and the generator stops producing power, it has been overloaded.
3. Turn off and disconnect all electrical devices and stop the engine. Compare device requirements to generator rating and reduce the total wattage of connected devices if necessary. Move anything that may be limiting generator ventilation away.
4. Check if any circuit breakers have tripped and make sure that ALL circuit breakers are reset before starting the generator again.
5. Restart the engine and reconnect devices while being careful to not overload the generator.

Low Oil Indicator

1. If the engine oil level is too low, the LOW OIL light turns on and the engine will automatically shut off.
2. The engine cannot be restarted until the proper amount of oil has been added. Add the appropriate type of oil until the oil level is at the proper level. SAE 10W-30 oil is recommended for general use.

ATTENTION

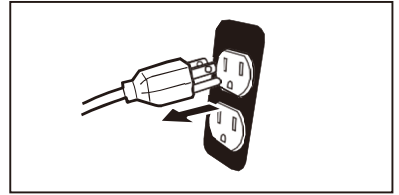
Do not run the engine with too little oil. Engine will shut off if engine oil level is too low.

Low Idle

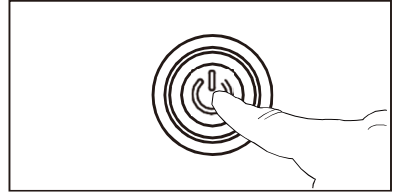
1. Turn on a Low Idle Switch to limit noise and fuel consumption with a light generator load.
2. Turn off the low idle mode to run the engine at full speed under the following conditions:
 - Starting the generator.
 - If the load exceeds 50%, it is recommended to turn off the low idle mode.

6. Stopping the Generator

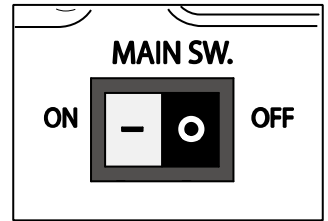
1. Turn off and unplug all connected electrical loads. Never start or stop the generator with electrical devices plugged in or turned on.



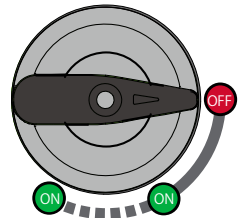
2. Button Stop: Press the button to turn off the generator.



3. Press Main Switch (Engine Switch) to "OFF".



4. Turn the fuel switch to "OFF".



Remove or consume all untreated gasoline if you plan to store the generator longer than 3 months.

7. Using the Generator

Service environment of the generator

- Applicable temperature: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$
- Applicable humidity: below 95%
- Applicable altitude: regions below 1,500 m (It shall be used by reducing power in regions above 1,000 m)

Standard atmospheric condition

- Ambient temperature T_r : 298k (25°C)
- Relative air humidity Φ_r : 30%
- Absolute atmospheric pressure P_r : 100kPa

When actual environmental condition is inconsistent with the condition of output power of the generator set:

- Every 5°C of increase in ambient temperature will reduce the power of generator by about 2%
- Every 30% of increase in relative humidity of air will reduce the power of generator by about 1.5%
- Every 300 m rising of ASL will reduce the power the generator by about 4.5%

Generator wiring

When the generator is connected to household power source as a backup power supply, the connection shall be carried out by a professional electrician or a person familiar with electricity.

After connecting the load to the generator, check carefully whether electrical connection is safe and reliable. Improper electrical connection may cause generator damage, burning or fire.

Avoid connecting this generator to commercial power outlet.

When extending the cable, be sure not to exceed its length.

① 60m cross-section area is 1.5mm^2

② 100m cross-section area is 2.5mm^2

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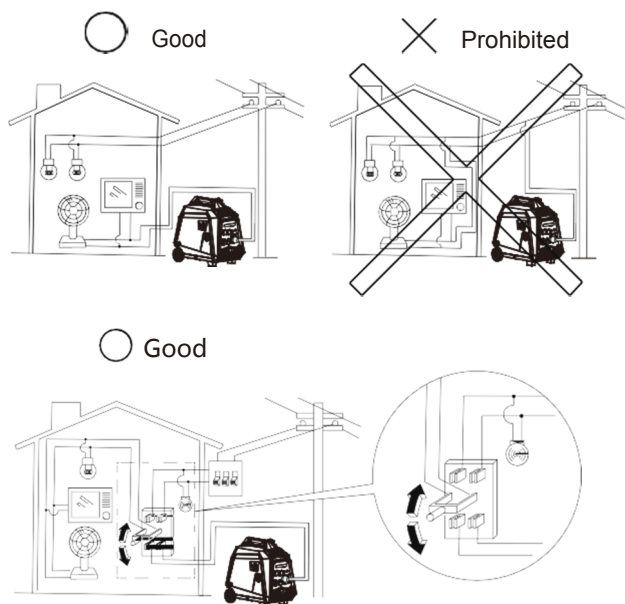
Avoid connecting this generator to commercial power outlet.

When extending the cable, be sure not to exceed its length.

① 60m cross-section area is 1.5mm^2

② 100m cross-section area is 2.5mm^2

The appearance of extension cable shall be protected by a layer of tough and elastic rubber cover (IEC25) or other substitutes.



Connection of AC power

All electrical equipment shall be disconnected before inserting the plug.

Make sure that all electrical equipment, including wires and plugs, are in good condition before connecting to the generator.

Make sure that all loads driven by the generator are within rated load range;

Make sure that load current is within rated current range of rated socket.

Tip:

Make sure that the generator set is grounded, and if electrical equipment requires grounding, the generator set must be grounded.

Connection of AC power

WARNING

All electrical equipment In order to prevent any damage to the shall be disconnected before inserting the plug.

ATTENTION

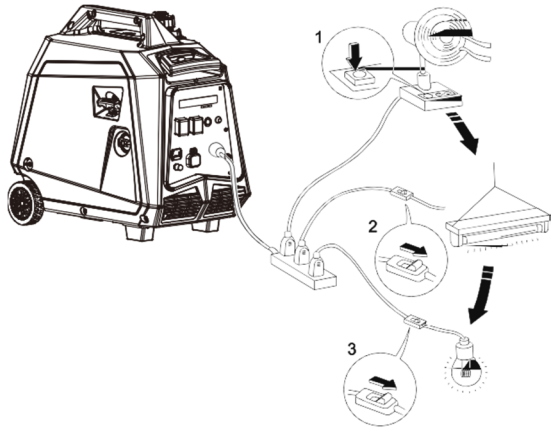
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- Make sure that all loads driven by the generator are within rated load range.
- Make sure that load current is within rated current range of rated socket.

Tip: Make sure that the generator set is grounded, and if electrical equipment requires grounding, the generator set must be grounded.

- ① Start up the engine;
- ② Turn energy-saving switch to “ON”
- ③ Insert the plug into AC outlet.
- ④ Make sure that AC indicator is lit up.
- ⑤ Switch on electrical equipment.

Tip:

Before increasing engine speed, low idle switch must be switched to “OFF”. If the generator set supplies power to multi loads or electrical equipment, start from large to small according to the size of each electrical equipment.



Range of Application

Before using the generator, please make sure that total load is within rated load range of the generator, otherwise the generator may be damaged.

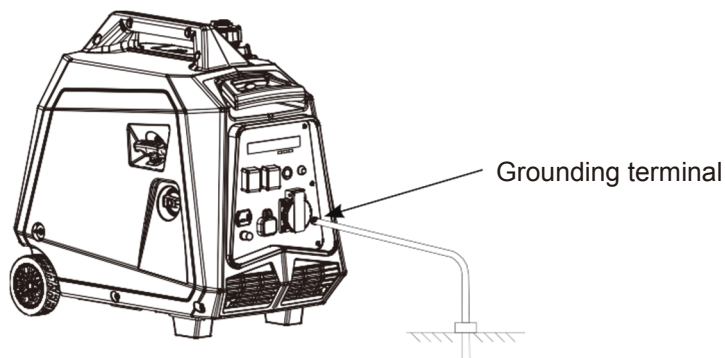
Tip:

- AC and DC can be used at the same time, but total power amount shall not exceed rated output power.
- When total power exceeds rated power, overload indicator will light up.

Generator grounding

In order to prevent any damage to the generator caused by electric shock or improper electrical application, it is recommended that the generator is grounded with good conductor with insulating sheath.

- ① Please use grounding wire with sufficient electrical energy capacity.
- ② Connect one end of grounding wire reliable to grounding bolt on control panel of the generator set.
- ③ Insert grounding body (iron rod with a diameter of 5 ~ 10mm) 200mm below into the earth and lead it out with conductor.
- ④ Connect the other end of the grounding wire reliable to the led wire of grounding body.



8. Wattage Information

To prolong the life of the generator and attached devices, use care when adding electrical loads to the generator. There should be nothing connected to the generator outlets before starting the engine. The correct and safe way to manage generator power is to sequentially add loads as follows:

1. With nothing connected to the generator, start the engine as described in this manual.
2. Plug in and turn on the first load, preferably the largest load you have.
3. Permit the generator output to stabilize (engine runs smoothly and attached device operates properly).
4. Plug in and turn on the next load.
5. Again, permit the generator to stabilize.
6. Repeat steps 4 and 5 for each additional load.

AC			
Power Factor	1	0.8~0.95	0.4~0.75 (Efficiency 0.85)
Output Power	3200W	2560W	1280W

Tip:

- Total power amount shall not exceed rated output power.
- When total power exceeds rated power, overload indicator will light up.

9. Service and Maintenance

Good maintenance and service is the best guarantee for safe, economical and reliable operation. It also contributes to environmental protection. In order to keep the generator in good condition, you must inspect and maintain it regularly. The maintenance schedule is as follows:

Maintenance cycle		Each	First in 1 month or 20 hours	Then every three months or every 50 hours	100 hours per year or use
Item					
Engine oil	Check-fill	√			
	Replace		√	√	
Gearbox gear Oil (if any)	Check oil	√			
	Replace		√	√	
Air cleaner element	Inspection	√			
	Clean		√		
	Replace			√	
Settling cup (if any)	Clean				√
Spark plug	Clean-adjust				√*
Spark eliminator	Clean			√	
Idle speed (if any)**	Check-adjust				√
Valve clearance**	Check-adjust				√
Fuel tank and fuel filter***	Clean				√
Fuel line	Inspection	Every two years (Please replace if necessary)			
Cylinder head, piston	Remove carbon deposit**	Displacement < 225cc, every 125 hours; displacement capacity ≥ 225cc, every 250 hours.			
* These items shall be replaced if necessary.					
** These items shall be maintained by the dealer authorized by the Company, unless the user has proper tools and maintenance ability.					

- If it often works under high temperature or high load, oil shall be changed every 25 hours.
- If it often works in dusty or harsh environment, air cleaner element shall be cleaned every 10 hours. If necessary, the air cleaner element shall be replaced every 25 hours.
- It shall be maintained on spot-inspection or on regularly scheduled inspections.
- If maintenance cycle time has elapsed, perform the maintenance as soon as possible as per the table above.

ATTENTION

- If it often works under high temperature or high load, oil shall be changed every 25 hours.
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WARNING

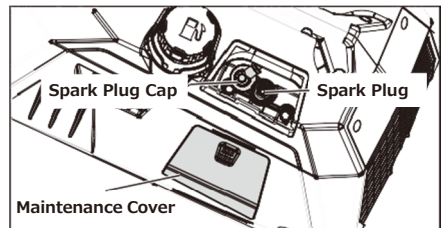
Please shut down the engine first before performing any maintenance. The engine shall be placed in a horizontal position. In order to prevent the engine from starting up, separate spark plug cap shall be separated from spark plug.

Do not use it indoors or use it in a tunnel, cave or other places ventilated poorly. Make sure that work area is well ventilated. Exhaust gas from the engine contains toxic gases, carbon oxides, and the inhalation can cause shock, loss of consciousness, and even death.

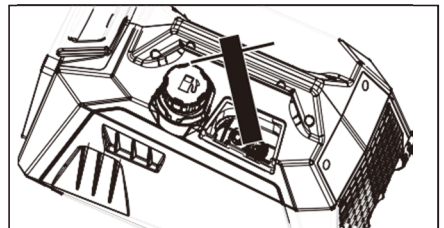
Spark Plug Inspection

Spark plug is an important part of the generator, which must be inspected regularly.

1. Remove spark plug maintenance cover and spark plug cap of the generator.



2. Insert the screwdriver into the sleeve, to screw it counterclockwise, and then remove the spark plug.



3. Check whether there is discoloration, and remove carbon deposits. Check whether there is little pale to moderate brown on ceramic cores around center electrode of the spark plug.

4. Check the model of spark plug and clearance.

0.7~0.8mm



**Standard spark plug model: A5RTC Spark
Plug gap: 0.7-0.8mm**

Tip: The spark plug clearance is required to be measured by line thickness gauge, which shall be adjusted if necessary.

5. When installing a new spark plug, adjust the plug's gap to the specification on the Specifications Chart. Do not pry against the center electrode, the spark plug can be damaged.
6. Apply anti-seize material to Spark Plug threads. Install the new spark plug or the cleaned spark plug into the engine.

Spark cold torque: 12.5 N · m

Tip:

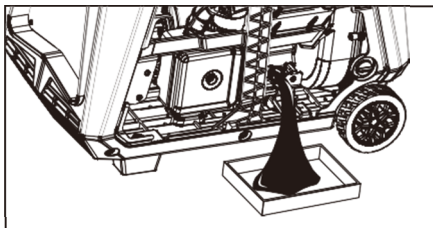
If there is no torque wrench when installing the spark plug, a better estimation method is to screw it 1/4-1/2 turns by force after screwing it in place, but the spark plug shall be screwed to specified torque as soon as possible.

Replacement of Oil

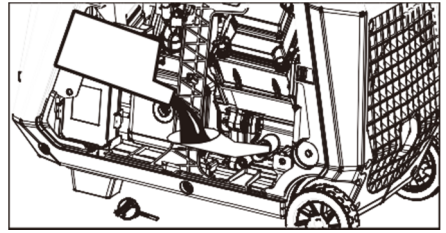
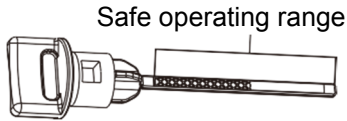
WARNING

Do not drain the oil immediately after turning off the generator.
During operation, the oil is very hot and can cause serious burns.

1. Place the generator on a horizontal plane and start the generator for several minutes to increase its temperature, then stop the generator.
2. Loosen the screw on the right exterior cover and remove the right exterior cover.
3. Unscrew oil dipstick.
4. Place an oil pan under the engine, tilt the generator to quickly pour out oil.



5. Fill in 0.45L oil (SAE 10W/30 oil is recommended, of which the grade is API standard Type SE or higher).



The oil level should be between the ruler grids, the best state is the middle of the upper.

ATTENTION

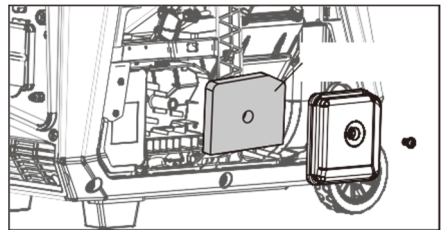
When filling oil, do not tilt the generator frequently to prevent damage to the power by filling too much oil.

6. Tighten the oil dipstick and clean up spilled oil.
7. Reinstall the right exterior cover and tighten the screw.

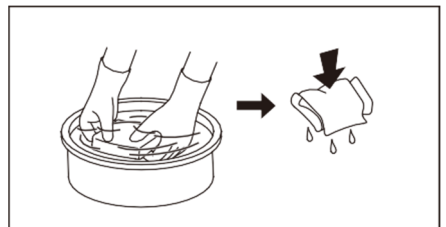
Air Filter

Dirty air cleaner may prevent air from flowing into the carburetor. In order to prevent failure of the carburetor, please maintain air cleaner regularly. If being used in a dusty environment, it shall be maintained frequently.

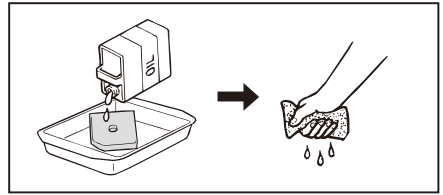
1. Loosen the screw on the right exterior cover and remove the right exterior cover.
2. Remove screws, to remove cover plate of air cleaner.
3. Remove foam cleaner element.



4. Clean the components with cleaning agent. After cleaning, wrap the components in a cloth and screw them dry.



5. Drip a few drops of oil to foam filter element and squeeze off excess oil. The foam cleaner element shall be wet, but there shall not be oil dripping.



ATTENTION

Be sure not to twist the foam cleaner element forcibly to avoid damage.

6. Put foam cleaner element into air cleaner.

Tip:

Make sure that the surface of foam cleaner element is in close contact with air cleaner, and there shall be no gap leaking air.

7. Reassemble empty air cleaner cap back to original position, and tighten screws.
8. Assemble right exterior cover plate and tighten the screw.

ATTENTION

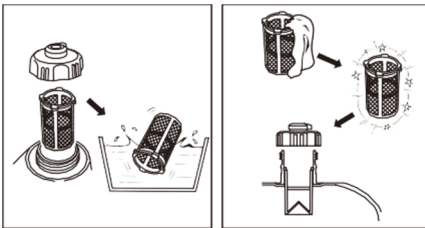
Be sure not to start the engine before air cleaner is assembled, because it will generate excessive toxic gas and wear the cylinder.

Fuel Filter Screen

WARNING

Be sure not to open fuel tank of the generator in a place where smoking or with flame.

1. Remove fuel tank cap and fuel tank filter screen.
2. Clean fuel tank filter screen with gasoline.
3. Wipe filter screen dry, and put it back into fuel tank.
4. Reassemble fuel tank cap.



ATTENTION

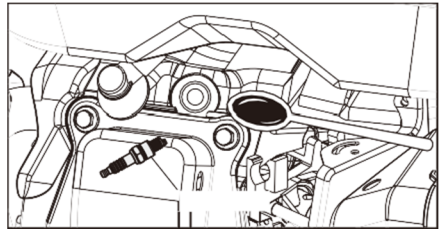
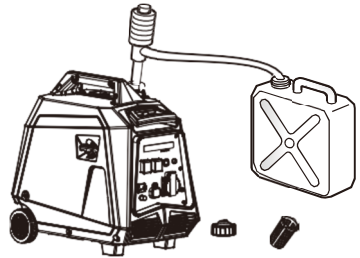
Be sure to screw fuel tank cap tight.

10. Storage and Transport

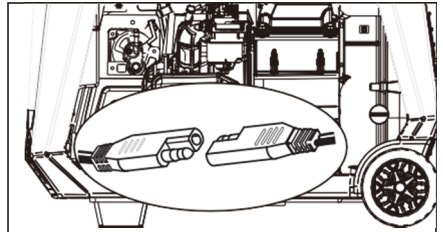
Generator Storage

If it is stored long-term, in order to prevent aging, you shall take some storage measures.

1. Turn off the generator.
2. Open fuel tank cap, to take out fuel filter screen. Pump all fuel in fuel tank into special fuel tank, and then reassemble fuel tank cap back.
3. Unscrew oil dipstick, and drain oil in the crankcase off. Fill new oil to upper oil limit, and then assemble oil dipstick.
4. Remove the spark plug and pour 5-10ml of clean oil into the combustion chamber. Turn the crankshaft a few times to distribute the oil, then reassemble the spark plug.



5. Gently pull startup handle until you feel resistance, allowing both inlet valve and exhaust valve to be closed.



6. Disconnect the battery cable.

7. Place the generator set in a clean and dry area.

Generator Transport

- When the generator set is transported, it shall be ensured that there is no fuel spilling.
- Do not fill excessive fuel into fuel tank.
- Do not run the generator, and avoid direct sunlight.
- Do not transport the generator set on rough road for long time.

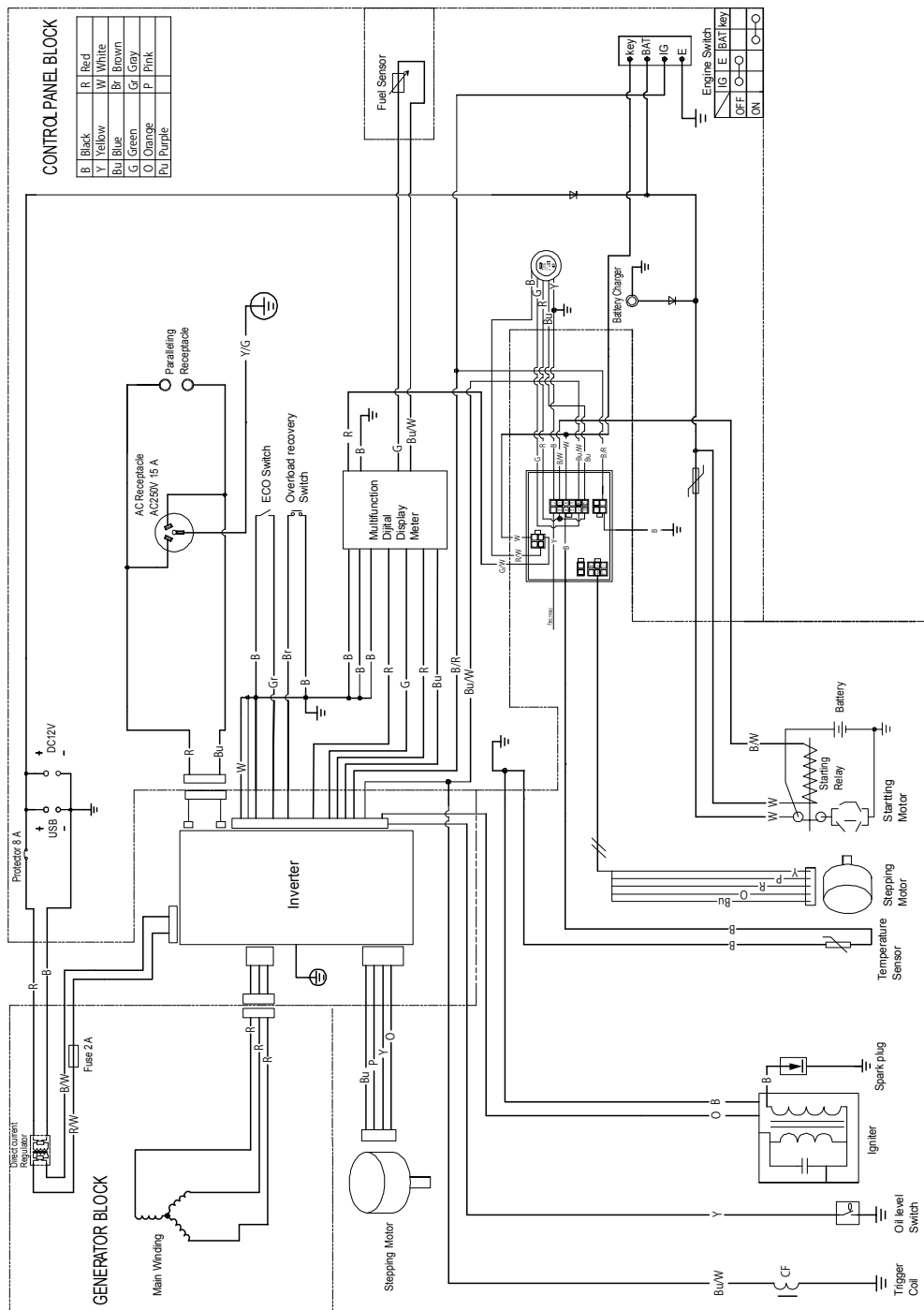
11. Troubleshooting

Problem	Possible Causes	Probable Solutions
Engine will not start	FUEL RELATED 1. No fuel in tank or fuel valve closed. 2. Choke not in START position, cold engine. 3. Carburetor not primed. 4. Dirty fuel passageways. 5. Too much fuel in chamber. This can be caused by the carburetor needle sticking.	FUEL RELATED 1. Fill fuel tank with fresh unleaded gasoline and open fuel valve. Do not use gasoline with more than 10% ethanol (E15, E20, E85, etc.) 2. Move Choke to START position. 3. Pull on Starter Handle to prime. 4. Clean out passageways using fuel additive Heavy deposits may require further cleaning. 5. Turn Choke to RUN position. Remove spark plug and pull the start handle several times to air out the chamber Reinstall spark plug and set Choke to START position.
	ENGINE OIL RELATED 1. Low engine oil. 2. Engine mounted on slope, triggering low oil shutdown.	ENGINE OIL RELATED 1. Fill engine oil to proper level. Check engine oil before EVERY use. 2. Operate engine on level surface. Check engine oil level.
	IGNITION (SPARK) RELATED 1. Spark plug cap not connected securely. 2. Spark plug electrode wet or dirty. 3. Incorrect spark plug gap. 4. Spark plug cap broken. 5. Incorrect spark timing or faulty ignition system.	IGNITION (SPARK) RELATED 1. Connect spark plug cap properly. 2. Clean spark plug. 3. Correct spark plug gap. 4. Replace spark plug cap. 5. Have qualified technician diagnose/ repair ignition system.

Problem	Possible Causes	Probable Solutions
Engine misfires	1. Spark plug cap loose. 2. Incorrect spark plug gap or damaged spark plug. 3. Defective spark plug cap.	1. Check cap and wire connections. 2. Re-gap or replace spark plug. 3. Replace spark plug cap.
Engine stops suddenly	1. Carbon Monoxide level high. Red light on Carbon Monoxide Sensor illuminates. 2. CO Sensor Alarm flashes yellow shortly after starting. 3. CO Sensor Alarm flashes yellow after longer period of operation. 4. Low oil shutdown. 5. Fuel tank empty or full of impure or low quality gasoline. 6. Disconnected or improperly connected spark plug cap.	1. Leave area immediately and allow area to ventilate thoroughly. Only operate generator outside. 2. Carbon monoxide Sensor needs. Do not use the Generator until the sensor is working properly. 3. Make sure to operate generator within rated temperature; maintain minimum ft. clearance from all sides. 4. Fill engine oil to proper level. Check engine oil before EVERY use. 5. Fill fuel tank with fresh unleaded gasoline. Do not use gasoline with more than 10% ethanol. (E15, E20, E85, etc.) 6. Secure spark plug cap.
Attached device doesn't have power	1. Device not plugged in properly. 2. Circuit Breaker tripped.	1. Turn off and unplug the device. Then plug it back in again and turn on. 2. Turn off and unplug device, reset Circuit Breaker, plug in device and turn on.

12. Specification

Engine	Engine Model	HG160
	Engine Type	Single Cylinder, Four Stroke, Air Cooled, Overhead Valve
	Displacement(cc)	145
	Gas Distribution Mode	OHV
	Cooling Mode	Forced Cold Air
	Output Power(kW/r/min)	3.8/4850
	Starting Mode	Manual Recoil Starting / Electric Starting
	Fuel Tank Capacity(L)	5.8
	Type and Grade of Fuel	Unleaded Gasoline for Vehicles
	Oil Capacity(L)	0.45
	Lubricating Oil Model	SAE 10W/30
	Lubrication Way	Splash Lubrication
Generator	Noise dB(7m) 20% Load	62
	Rated Power(kW)	3.0
	Max Power(kW)	3.3
	Rated Voltage(V)	240
	Rated Frequency(Hz)	50
	Power Factor	1
	Number of Phase	Single phase
	DC Output	12V/8.3A
Dimensions(mm)		570*340*550
Net Weight(kg)		24.5





DAISHIN INDUSTRIES LTD.

1520-1, FUNATSUKE, YORO – CHO,

YORO – GUN, GIFU 503-1382 JAPAN

PHONE: 81-(0)584-36-0501

FAX: 81-(0)584-36-0504

URL: <http://www.daishin-japan.co.jp>

MAIL: overseas@daishin-japan.co.jp