



INVERTER GENERATOR **USER MANUAL**

Model: APG3500is 4-Stroke Engine

Original instructions



www.jdna.com

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- JD North America reserves the right of modification of product and revision of the manual without any notice.
- Take this manual as a part of the generator. If the generator is resold, it is required to take the manual alone with the generator.
- This manual contains how to correctly operate the generator, please read carefully before using the generator. Correct and safe operation will guarantee your safety and extend the working life of generator.
- JD North America will continuously innovate and develop its products both in design and quality, although it is the newest revised manual, maybe the content in this manual might have slight difference from the real product.
- Please contact your retailer if you have any questions or doubts.

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1.SAFETY INFORMATION

To ensure personal and property safety, please carefully read the following information.

OPERATOR ATTENTION

A WARNING

- Read and understand the user manual before operating the generator.
- Do not operate by children without supervision. Pets should keep away the operation area.
- The major repair work should be carried out only by professionally trained person.

CARBON MONOXIDE HAZARDS

M WARNING

- Exhaust contains poisonous carbon monoxide gas.
- Never run the generator inside a home or garage, even if door or window is open. Using

the generator in the ventilated condition.

- Do not use the generator in underground working
- Do not use the generator in potentially explosive atmospheres

ELECTRIC SHOCK HAZARDS

A WARNING

- Do not operate with wet hand.
- Do not expose the generator to rain, moisture or snow.

FIRE AND BURN HAZARDS

A WARNING

- Gasoline is explosive and flammable in the specified conditions, do not smoking, spark and fire source away when refueling and storing.
- Refuel in a well ventilated area with the engine stopped



- The running generator must keep 3 feet (1 m) distance with constructions, flammable materials, and other electrical appliance at least.
- Place the generator on the leveled surface, in order to avoid overturning or spilling fuel.
- Do not touch or store the hot muffler, when the generator is running or before cooling.

CONNECTION NOTES

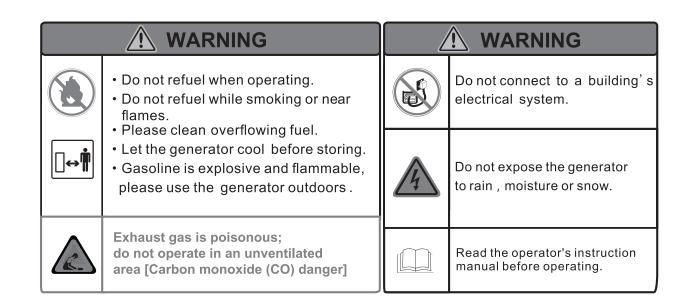
A WARNING

- Do not connect to the building's electrical system, in order to avoid the electric shocks and fires.
- Do not connect the generator in parallel with any other generator.
- This product can be paralleled in multiple units condition.

NOTE

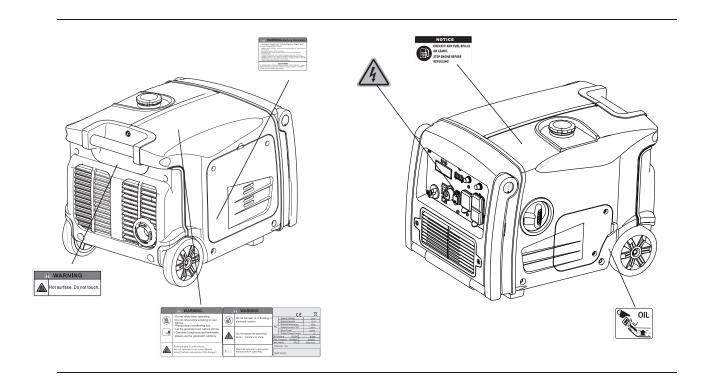
If your model has parallel capability, only connect two of the exact same model generator by the special approved parallel operation kit. (Only for paralleling models provided with parallel sockets).

SAFETY LABEL:

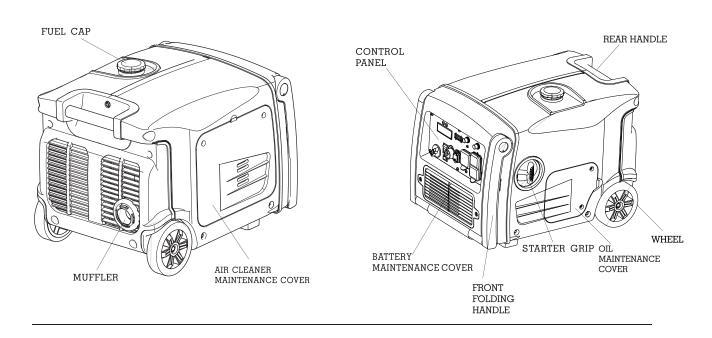


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2. SAFETY LABEL LOCATIONS

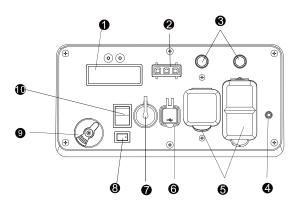


3. COMPONENTS IDENTIFICATION



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3.1) Control Panel

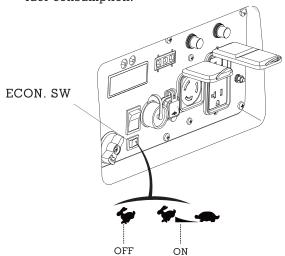


- Hourmeter
- 2 Indicator Lights
- 3 AC Breaker
- 4 Ground Terminal
- **6** AC Receptacles
- **6** USB OUTPUT
- Parallel port
- **8** ECON. SW
- 9 Fuel Switch
- Engine Switch

3.2) ECON. SW (Economy control switch)

"ON"(**%_→**)

- When the economy control switch is turned to "ON" (), the engine keeps running at idle state automatically when the electrical appliance is disconnected, and it will return to the proper speed with the requirement of electrical load.
- The "ON"(is recommended to minimize the fuel consumption.



NOTE

When a high load electrical appliance is connected instantaneously, in order to reduce voltage change, turn the economy control switch to the "OFF" (❤) position.

"OFF" (🎔)

When the economy control switch turns to the "OFF" (*) position engine runs at high speed.

3.3) Reset

- Under the condition of protection, the overload indicator light(red) is on, the "RESET" button can recover the output of the generator, and unnecessary to restart engine overall.
- Press and hold the "RESET" button for one second, until the overload indicator light (red) will be off, and output indicator light (green) will be on.

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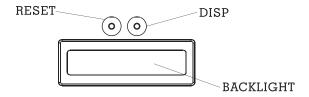
Under the non-overloading condition, the "RESET" is supposed to be ineffective.

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NOTE

- For protection condition, the output indicator light (green) is off, and the overload indicator light (red) is on.
- Every starting the engine the "RESET" button is available within 5 times. Otherwise, you need restart the engine.

3.4) Hour-meter



- Press the "DISP" button to display the voltage/frequency of output, the engine speed and cumulative working time in turn.
- Press the "DISP" button, the back-light of hourmeter will be on, and it will be off without operating the button for 10S.

4. PRE- OPERATION CHECK

A WARNING

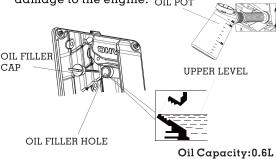
Be sure the generator is on the leveled surface and the generator is stopped.

4.1) Check Oil Level

Remove the oil filler cap, fill the specified amount of the recommended oil, and then tighten the oil filler cap.

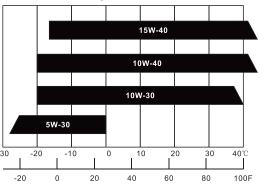
NOTE

Do not tilt the generator when adding engine oil. This could result in overfilling and damage to the engine. OIL POT



IOTE

- Using non-detergent or 2-stroke oil could shorten the engine's working life.
- Using the high quality engine oil with strong detergents.
- Using 4-stroke engine oil, certified to meet or exceed API standards: SG, SF, SE stickiness rating:



NOTE

Carefully use and store the engine oil, avoid getting dirt or dust into the engine oil.

Mixing different kinds of engine oil is prohibited.

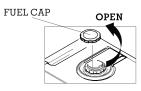
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NOTE

- Before the engine oil reduces below the safety margin, low oil alert system will close the engine automatically. The oil alert indicator light (red) will be on.
- To avoid the inconvenience caused by unexpected stopping, it is still advisable to check the engine oil level regularly.

4.2) Check Fuel Level

Fuel recommend: use unleaded gasoline (Research Octane Number of 91 or higher, Pump Octane Number of 86 or higher)
Never use stale or contaminated gasoline or an oil/gasoline mixture, Avoid getting dirt or water into the fuel tank. Do not use a mixture gasoline containing ethanol or methanol; otherwise, it will seriously damage the engine.





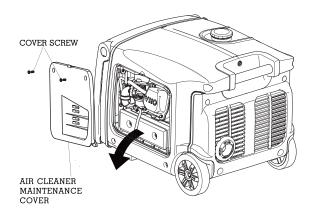
A WARNING

- Gasoline is extremely explosive and flammable.
- Around the refueling area and fuel storage area, prohibit smoking and firing.
- Do not overfill the fuel tank (no fuel above the red upper limit mark). After refueling, make sure the fuel cap is closed properly and securely.
- Do not make fuel spill from fuel tank. (No residual fuel around the neck of tank, before starting engine)
- Avoid contacting with skin or breathing the fuel vapor.
- KEEP OUT OF REACH OF CHILDREN.

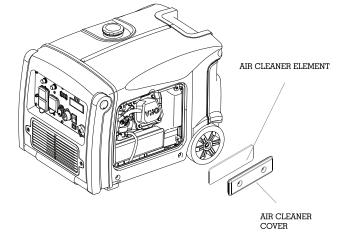
4.3)Check Air Cleaner

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

a. Loosen the air cleaner maintenance cover screws, and remove the cover.



- b. Loosen the air cleaner cover screws, and remove the cover.
- c. Check the element, clean or replace it, if necessary.



NOTE

■ Do not run engine without air Cleaner element, otherwise that makes engine abrasion.

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5. STARTING THE ENGINE

For some models, the generator provides with three types of starting system: recoil start, electric start, remote start. Please operate your generator based on you purchased.

NOTE

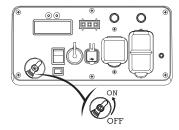
- Before starting engine, disconnect load with AC receptacle.
- Fueling at the first time, refueling, or storing for a long time, the Engine Switch should firstly be opened for ten or twenty seconds, in order to the enough fuel enter into carburetor.

A WARNING

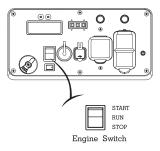
 Never use inside a home or the unventilated condition.

5.1) Recoil start

5.1.1) Turn the fuel switch to the "ON" position.



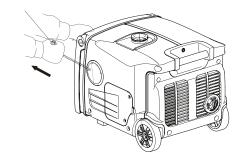
5.1.2) Turn the engine switch to "RUN" position.



NOTE

- Do not pull out the choke knob, when engine is hot or ambient temperature is high.
- 5.1.2) Pull the starter grip slowly until it is engaged, then pull it quickly.

STARTER GRIP



NOTE

- Return the starter grip slowly by hand. Do not make the starter grip spring back quickly.
- 5.1.3) Push the choke knob to the original position, when the engine warms up.

NOTE

- If the generator stops and can not restart, check the oil level firstly.
- If oil indicator light turns on red, and flicker during running, or lights turns on when starting, need to add oil.

5.2) Electric start, remote start

If generator is with electric start, please operate by below steps.

NOTE

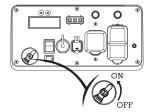
When the engine switch turn to "RUN/REMOTE" position, the engine will enter the stand-by starting mode. Starting the engine within 15min, otherwise, the mode will be ineffective. If the generator re-enters the stand-by starting mode again, the engine switch should be return to "STOP", and then turn to "RUN/REMOTE".

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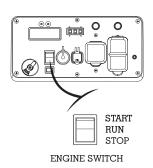
CAUTION

For equipping with electrical starting system of the generator, if the generator does not equip with the battery or the battery wares out, the generator can not be start by any starting mode.

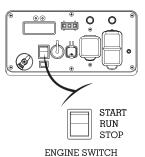
5.2.1) Turn the fuel switch to the "ON" position.



5.2.2) Turn the engine switch to "RUN" position.



- 5.2.3) Choose one of the starting modes to start the engine.
- a) Electric start
 Turn the engine switch to "START" position,
 and then let the engine switch return to
 "RUN" position.



NOTE

■ Engine switch should not stay "START" position more than 1 seconds during starting.

b) Remote start

Press "START" () button of the controller once. **NOTE**

- The controller operate distance less than 8m without any obstacles, or less than 3m with one obstacle.
- The battery of controller can be used for 2 years. If the battery wares out, replace α new one.

Caution

Every generator delivers one controller with generator. If the controller miss, contact your dealer to purchase and decode a new one.

NOTE

- If the generator stops and can not restart, check the oil level firstly.
- If the oil alert indicator light (red) is on during the generator running, it need to add oil.

Carburetor Modification for High Altitude Operation

At high altitude, the standard carburetor air-fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting.

If the generator operates at high altitude, change the main-nozzle or adjust the idling-screw of carburetor.

If the generator always operates at altitude above 1,000 meters, contact with an authorized servicing to modify the carburetor.

Generator output power should be modified according to the altitude and ambient temperature. The correction factor refers to 13–1.

▲ WARNING

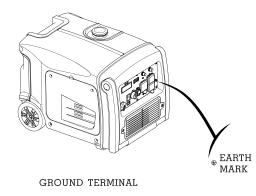
• If the carburetor has been modified for high altitude operation, the air-fuel mixture will be too lean for low altitude use. Operation at low altitude may cause the engine to overheat and result in serious engine damage. The carburetor needs return to original specifications.

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6. GENERATOR USE

A WARNING

- Be sure to ground the generator when the connected electrical appliance is grounded.
- Do not connect to the building's electrical system, in order to avoid the electric shocks and fires.



MWARNING

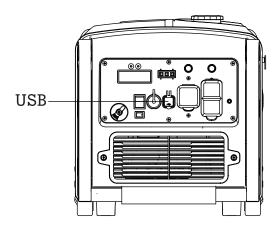
- For continuous operation, do not exceed the rated out-put power of generator.
- Do not make parallel connection with other generators.
- Do not connect an extension to the exhaust pipe.
- When an extension cable is required, be sure to use a tough rubber sheathed flexible cable (according to IEC245 or equivalent standards). The maxmin length of the extension cable: 60m for cable of 1.5mm²; 100m for cable of 2.5mm².
- Keep away from other electric cables or wires.

NOTE

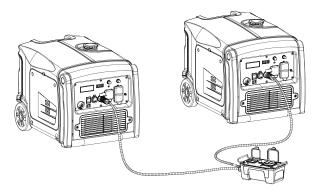
- The USB receptacle can be used while the AC power is in use. If use both at same time, be sure not to exceed the total power for AC and USB. (AC:2.8kVA, USB:5V)
- Most of motor appliances require more than their rated wattage, when starting.

6.1) USB Ports

■ A total of 3.1A is available at 5.0V. A single port can draw the full 3.1A or it will be distributed as needed. For example, a 1A device will only draw 1A.

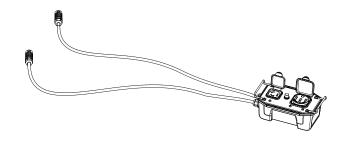


6.2 Running generators in parallel



 Only connect in parallel with an JD North APG3500is or APG3500is with the approved cable (sold separately).
 Attempting to connect other brands or models will void your warranty and could cause boily injury.

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■ this socket allows two approved JD North America inverter generators to be connected for additional power. the parallel cable is an optional accessory,please contact your dealer,visit us on www.jdna.com or call 888-896-6881 to purchase.

NOTE

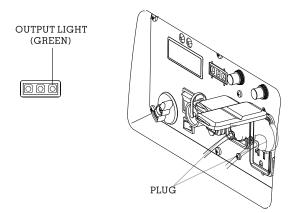
 While using the AC power, you can use that DC power at the same time.

6.3) AC applications

- 6.3.1) Start engine and make sure the output indicator light (green) is on.
- 6.3.2) Confirm all electrical appliances are switched off, and connect the appliance plugs to the generator receptacles.

NOTE

■ To obtain the best working and longest working life of the generator, a new generator is supposed to run for 20 hours at 50% rated load.



NOTE

Confirm all electrical appliances are in good working condition before connecting them to the generator. If an electrical appliance becomes abnormal, sluggish, or stops suddenly, shut off the generator engine immediately, and disconnect the appliance.

6.4) Output and Overload Indicator

In normal operating, output indicator light (green) will remain on.

If the generator is overload (over 2.8kVA), or the connected appliance is short-circuit, the output indicator light (green) is off, and overload indicator light (red) is on. The AC output will be switched off, but engine is still running.

If the overload indicator light (red) is on, disconnect the electrical appliances firstly, then stop the engine, and start it again. If the overload indicator light (red) is OFF and the output indicator light (green) is ON, reconnect the electrical appliances. Otherwise stop the engine and check the generator.



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6.5) Oil alert system

The oil alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase falls below a safe limit, the oil alert system will automatically shut down the engine (the engine switch remains in the "On" or "RUN/REMOTO" position).

If the oil alert system shuts down the engine, the oil alert indicator light (red) will be on. Check the engine oil level.

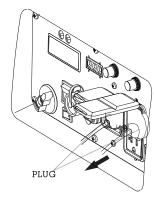


7. STOPPING THE ENGINE

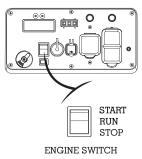
Recoil start

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

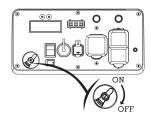
7.1) Switch off the connected electrical appliances, and pull out their plugs.



7.2) Turn the engine switch to the "OFF" position.



7.3) Turn the fuel switch to the "OFF" position.

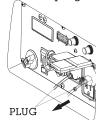


<<22>>

Electric start

To stop the engine in an emergency, turn the engine switch to the "STOP" position immediately.

7.4) Switch off the connected electrical appliances, and pull out their plugs.

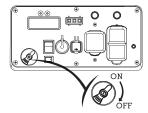


7.5) Turn the engine switch to the "STOP" position, or press the "STOP" () button of the controller.



NOTE

- The controller operate distance less than 8m without any obstacles, or less than 3m with one obstacle.
- 7.6) Turn the fuel switch to the "OFF" position.



8. MAINTENANCE

The purpose of the maintenance and adjustment schedule is to keep the generator in the beset operating condition.

A WARNING

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

Use genuine JD Noreh America or equivalent quality components to replace the wear components.

Maintenance Schedule

	ular Servia od (3)	ce	\setminus	Each use	First month or	Every 3 months	Every 6 months	
	Item			use	or 10 hrs.	or 50 hrs.	or 100 hrs.	or 300 hrs.
Eng	gine	Check level		•				
oil	oil	Change			•		•	
Air		Check		•				
cle	cleaner	Clean				⊙ +(1)		
Spo	ark plug	Check-adju	st				•	

Spark plug	Replace					•
Spark arrester					0	
Valve Clearance	Check-adjust					• +(2)
Combustion Chamber	Clean	After every 300 hrs(2)				
Fuel tank& filter	Clean	Every year(2)				
Fuel line	Check	Every 2 years (Replace if necessary)(2)				

NOTE

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

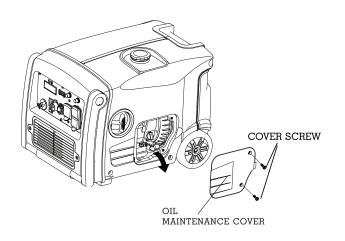
8.1) Change Oil

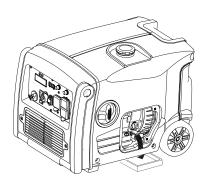
Drain the oil rapidly and completely while the engine is still warm.

- 8.1.1) Loosen screws of the oil maintenance cover, and remove the cover.
- 8.1.2)Remove the oil dipstick and the bottom rubber.

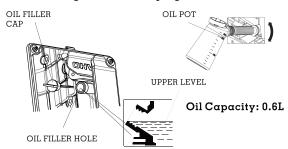
<<24>> ENGINE SWITCH

- 8.1.3)Place oil collection pan under oil drain plug.
- 8.1.4)Remove the oil drain plug, and drain oil into the oil collection pan completely.
- 8.1.5) Reinstall the oil drain plug.





Tighten oil drain plug with 25-30 N.m



- 8.1.6) Refill the recommended oil, and check the oil level.
- 8.1.7)Reinstall the oil dipstick and tight it.

 After oil change, wash your hands with soap.

NOTE

For conforming to the environment requirement, the used oil will be put into a sealed container and then be transported to the service station for recycler. Do not throw it into the trash or pour it on the ground.

8.2) Air Cleaner Service

A dirty air cleaner will restrict air flow into the carburetor. Clean and maintain the air cleaner regularly, especially in the extremely dusty areas.

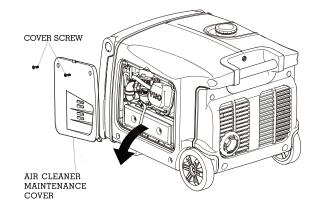
A WARNING

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

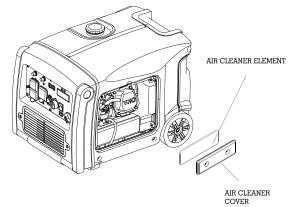
OTE

Never run the generator without air cleaner, otherwise that result in engine abrasion rapidly.

8.2.1) Loosen three screws of the air cleaner maintenance cover, and remove the cover.



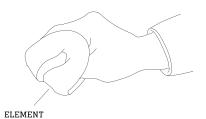
8.2.2)Loosen the air cleaner cover screws and remove the cover.



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- 8.2.3) Take out the air cleaner element, and clean it with non-flammable or high flash point solvent, then dry it.
- 8.2.4) Soak the air cleaner element in the clean engine oil, and squeeze out the redundant



- 8.2.5) Reinstall the air cleaner element and cover.
- 8.2.6) Reinstall the maintenance cover, and tighten the screws.

8.3) Spark Plug Service

Recommendation spark plug: F7RTC Check the spark plug gap and clean the carbon deposition at the bottom of the spark plug.

8.3.1) Remove the spark plug cap.



- 8.3.2) Take off the spark plug with the spark plug spanner.
- 8.3.3) Visual inspection the spark plug. Change a new one if its insulator cracked or chipped. Clean it with a wire brush if the spark plug is reused.



- 8.3.4) Measure the spark plug gap with a feeler gauge. The normal value: 0.6-0.7 mm (0.024-0.028in). Adjust the gap by bend one of the electrode carefully.
- 8.3.5) Reinstall the spark plug carefully, by hand, to avoid cross-threading. A new spark plug should be tightened 1/2 turn with a spanner. A used Spark plug should be tightened 1/8 to 1/4 turn with spanner.

- 8.3.6) Reinstall the spark plug cap
- 8.3.7) Reinstall the spark plug maintenance cover.

NOTE

- The spark plug must be securely tightened. Tightening in wrong way will cause spark plug hot, even damage the engine.
- Never use a spark plug with an improper heat

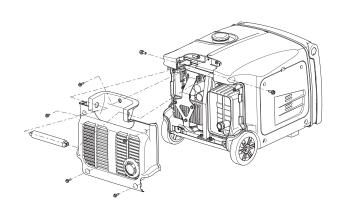
8.4) Spark Arrester Maintenance

A WARNING

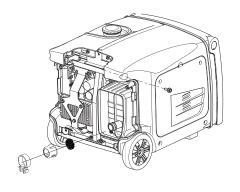
The spark arrester must be maintained every 100h service.

8.4.1) Remove the screws, and remove the muffler guard.

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8.4.2)Take off the spark arrester from the muffler after the engine cool down.



8.4.3)Use a brush to remove carbon deposits from the spark arrester . If the spark arrester is wear, replace it.



8.4.4)Reinstall the spark arrester and muffler guard.

8.5 Replace battery and fuse

For some models, equip with electrical starting system and starting battery. If the battery does not deliver, purchase it from your dealer.

Battery specifications

Voltage	Capacity	Dimension
		$L \leq 138mm$
12 V	7Ah	$W \leq 66mm$
		H≤88mm

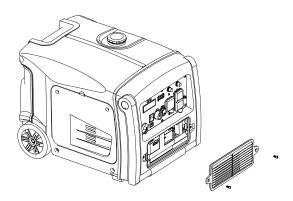
NOTE

- When the engine is running, the battery will be charge by the charging system of generator.
- The battery shall be charge for storage a long period. For using other charging system, the charging current less than 0.15c amperes (c: battery rated capacity).

Replace the battery procedure

- 8.5.1) Loosen the screws of the battery maintenance cover, remove the cover.
- 8.5.2) Unhook the battery belt.
- 8.5.3) Remove the black cable from battery negative(-) terminal, and then remove the red cable from battery positive(+) terminal.
- 8.5.4) Remove the battery from battery tray, and replace a new one.
- 8.5.5) Reconnect red cable to battery positive(+) terminal, and reconnect black cable to battery negative(+) terminal.

8.5.6) Hook the battery belt, and reinstall the cover.



<<30>>

9.TRANSPORTING/STORING

Avoid fuel spilling during transporting or temporary storing, the engine switch should turn to "OFF" position, and the generator should place in normal operating position.

A WARNING

Transporting Generator:

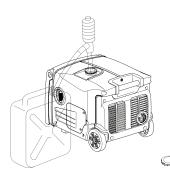
- Do not overfill the fuel tank. (No residual fuel on the neck of tank)
- Do not use the generator on the transport vehicle. The generator should be used under a good ventilated condition.
- Avoid exposing directly in the sunshine when the generator place in the enclosed transport vehicle for a long time. The high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Drain off the fuel, when the generator is transported on rough road.

Storing for a long period:

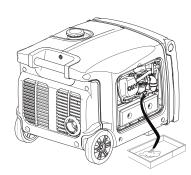
- 9.1) Make sure the storage area without excessive humidity and dust.
- 9.2) Drain off the fuel.

A WARNING

- Keep away from smoking, flames and spark, gasoline is explosive and flammable in the specified condition.
- a. Drain off the gasoline in the fuel tank, storing into the suitable container.

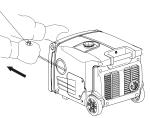


b. Turn the fuel switch to "ON" position, and loosen the carburetor drain screw to discharge gasoline inside of carburetor.



- c. Take off the spark plug cap, pull the starter grip three or four times, discharge the gasoline from the fuel lines.
- d. Turn the fuel switch to "OFF" position, and tighten the drain screw of carburetor.
- e. Reinstall the spark plug cap.

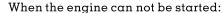
STARTER GRIP

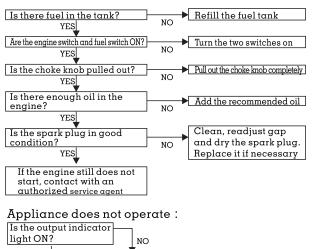


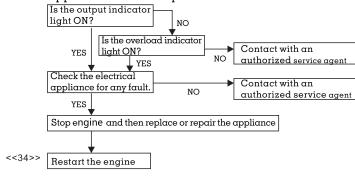
- 9.3) Change new oil while engine is still warm from operation.
- 9.4) Remove the spark plug, and pour a tablespoon of clean engine oil(10~20ml)into the cylinder. Revolve the engine several times to distribute the oil, and reinstall the spark plug.
- 9.5) Pull the starter grip slowly until feel resistance. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. In this position, it helps to protect the engine from internal corrosion.

<<32>>

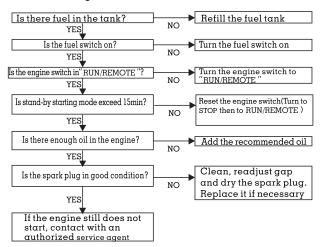
10.TROUBLESHOOTING







When the engine can not be started:



11. TECHNICAL SPECIFICATIONS

	Specifications	Parameters	
	Model	DJ170F	
	Туре	4-stroke, overhead valve, single cylinder, forced-air cooling	
	Engine Displacement	212cm ³	
	Bore*Stroke	70.0mm*55.0mm	
NO	Compression Ratio	8.5:1	
ENGINE	Rated Speed	4.0/3600min ⁻¹	
1.3	Ignition System	Full transistor	
	Start System	Recoil starter&Recoil&Electric	
	Fuel Type	Gasoline without lead	
	Oil Capacity	0.60L	
	Oil Model	SE 15W-30	
	Model	APG3500is	
Ω	Rated Frequency	60Hz	
ENE	Rated Voltage	120V	
:RA	Rated Current	23.3A	
GENERATOR	Rated Speed	3600min ⁻¹	
	Rated Output Power	2.8kVA	
	Max. Output Power	3.5kVA	

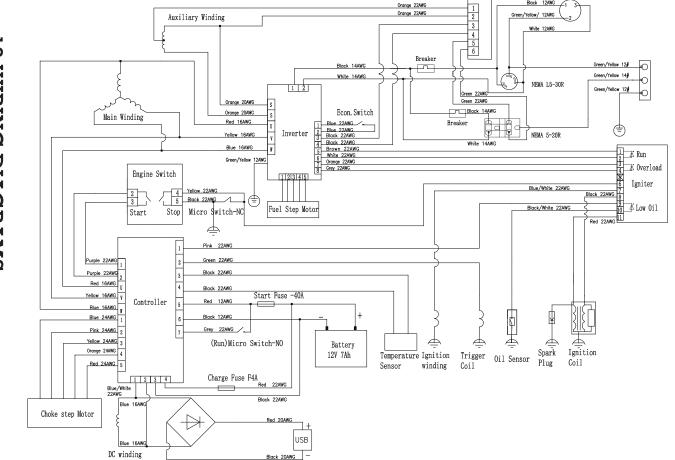
	USB	5V 1A/2.1A
0	Fuel Tank Volume	7.8L
OTHER	Continuous Running Time	7.0h
	Fuel Consumption	≤420g/kW.h
SPE	Working Ambient Temperature	-20°C~40°C
CI	Max. Altitude	1000m
CIFICATION	* Noise L _{wA}	96dB/4m
AT	• • Noise L _{pA}	54~59dB/7m
Q	Dimensions (L*W*H)	540mm*405mm*420mm
SI	Net Weight	42kg

Noise level is measured when the ECON.SW is turned to "ON" (*--)

- $^*~:~L_{_{\rm wA}}$ shows the guaranteed sound power tested by 2000/14/EC.
- * * : The noise level in "dB/7m" is the arithmetic mean value of sound press level ($L_{\rm pA}$) in four directions measured 7 meters away from the generator.

The noise level may vary in different environments.





13. CONSUMER INFORMATION

Consumer Service Information

Service dealers are trained professionally. They should be able to answer any questions you have. If the dealer does not solve your problems, please discuss them with the manager of the dealer. Most of your problems are solved in this way.

If you are dissatisfied with the decision of the manager of the dealer, contact with the Customer Relations Department of JD North America Technology Co., Ltd.

You can Email or call:



www.jdna.com

When you email or call, please give us the information:

Model and serial number

Date of purchase

Detailed description of the problems

Dealer contact information and yours: name, address, and telephone number

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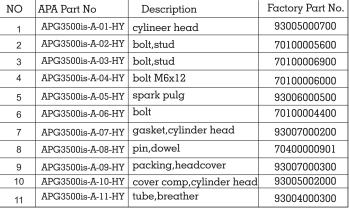
Parallel Port

PARTS LISTING

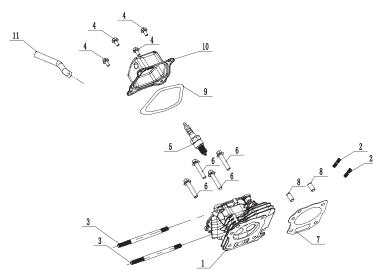
PART NO PART NAME PART NO



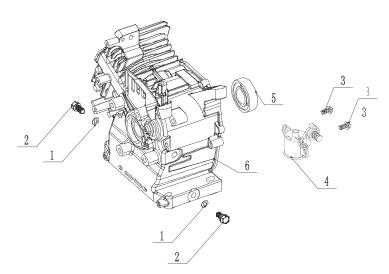




Cylineer head assembly



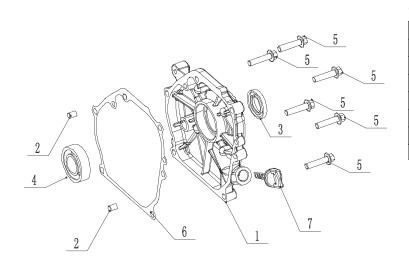
<<38>>



Engine biock assembly

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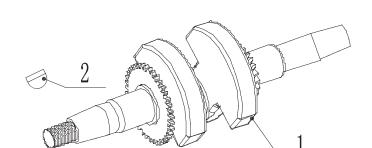
	NO	APA Part No	Description	Factory Part No.
	1	APG3500is-B-01-HY	washer,drain plug	70600004300
	2	APG3500is-B-02-HY	bolt, drain piug	70100007000
	3	APG3500is-B-03-HY	bolt	70100005400
	4	APG3500is-B-04-HY	switch assembly,oil level	93006000400
ĺ	5	APG3500is-B-05-HY	ball bearing	70900000400
	6	APG3500is-B-06-HY	crankcase	93005003300
l				

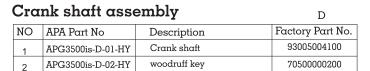


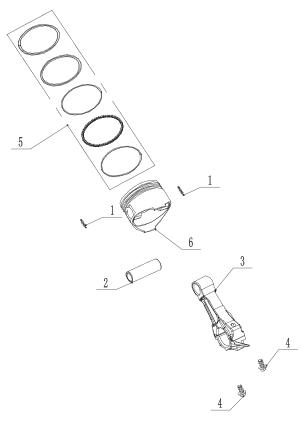
Crank case assembly

ranر	ık case assei	C	
NO	APA Part No	Description	Factory Part No.
1	APG3500is-C-01-HY	cover assembly, crank case	93005000600
2	APG3500is-C-02-HY	dowel pin,casecover	70400001001
3	APG3500is-C-03-HY	oil seal	71000000600
4	APG3500is-C-04-HY	Ball bearing	70900000400
5	APG3500is-C-05-HY	Bolt	70100006800
6	APG3500is-C-06-HY	Seal, crankcover	93007001100
7	APG3500is-C-07-HY	Diostick	93003000100

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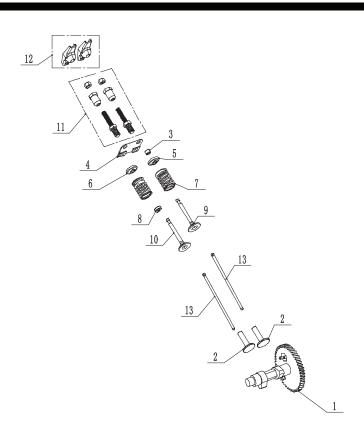
Piston&rings rod assembly

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NO	APA Part No	Description	Factory Part No.
1	APG3500is-E-01-HY	clip,piston	93005000500
2	APG3500is-E-02-HY	Pin,piston	93005000400
3	APG3500is-E-03-HY	Connecting rod	93005004200
4	APG3500is-E-04-HY	Collar fiange bolt M7x32(black)	70100007901
5	APG3500is-E-05-HY	Scraper ring set,piston	93005000200
6	APG3500is-E-06-HY	Piston	93005000100

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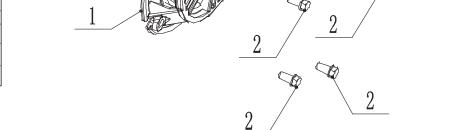
Valves assembly

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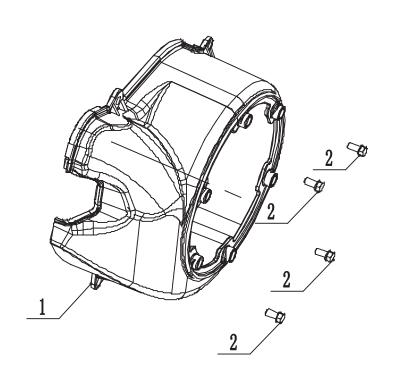
NO	APA Part No	Description	Factory Part No.
1	APG3500is-F-01-HY	Camshaft assy	93005001800
2	APG3500is-F-02-HY	Lifter,valve	93005001700
3	APG3500is-F-03-HY	Rotator	93005001500
4	APG3500is-F-04-HY	Plate,push rod guide	93005001400
5	APG3500is-F-05-HY	Seat,valve spring,ex	93005001300
6	APG3500is-F-06-HY	Seat,valve spring,in	93005001200
7	APG3500is-F-07-HY	Spring,valve	93005001100
8	APG3500is-F-08-HY	Returner,intake valve	93005001000
9	APG3500is-F-09-HY	Valve exhaust	93005000900
10	APG3500is-F-10-HY	Valve,intake	93005000800
11	APG3500is-F-11-HY	Rocker fastening bolt assembly	70100006600
12	APG3500is-F-12-HY	Rocker	93005002200
13	APG3500is-F-13-HY	Rod, push	93005001900



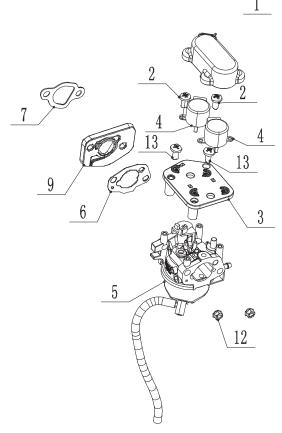
NO	APA Part No	Description	Factory Part No.
1	APG3500is-G-01-HY	Recoil starter	93003001300
2	APG3500is-G-02-HY	bolts, flange M6x12	70100000200



<<44>>



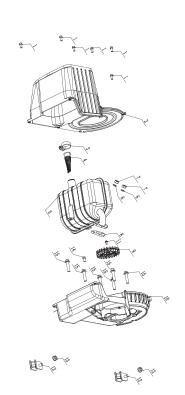
Fan	cover assem	H	
NO	APA Part No	Description	Factory Part No.
1	APG3500is-H-01-HY	Fan cover	93003001400
2	APG3500is-H-02-HY	bolt M6x12	70100006000



Cark	Carbureter assembly				
NO	APA Part No	Description	Factory Part No.		
1	APG3500is-I-01-HY	Stepper motor protective cover	93013000500		
2	APG3500is-I-02-HY	Cross r	90300004500		
3	APG3500is-I-03-HY	cylinder head	93013000400		
4	APG3500is-I-04-HY	spark pulg m14X12	97006000700		
5	APG3500is-I-05-HY	bolt,stud	93025003000		
6	APG3500is-I-06-HY	bolt,stud	93007000500		
7	APG3500is-I-07-HY	bolt	93007000400		
8	APG3500is-I-08-HY	shroud	93003001200		
9	APG3500is-I-09-HY	packing,headcover	70200002500		
10	APG3500is-I-10-HY	cover cimp,cylinder head	70300004500		

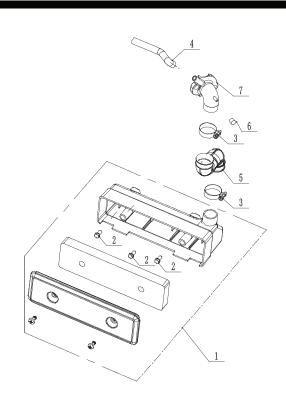
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<<47>>



Muffler assembly

			J
NO	APA Part No	Description	Factory Part No.
1	APG3500is-J-01-HY	Bolts,flange M6x12	70100000200
2	APG3500is-J-02-HY	Silencer housings muffer outer cove	63013000400
3	APG3500is-J-03-HY	Clip	93005003700
4	APG3500is-J-04-HY	Spark collector	93005004300
5	APG3500is-J-05-HY	Muffler assy	93005002900
6	APG3500is-J-06-HY	Spring washer	70600001700
7	APG3500is-J-07-HY	Nut	70200002400
8	APG3500is-J-08-HY	Gasket,exhaust	93007000600
9	APG3500is-J-09-HY	The centrifugal fan	93005003500
10	APG3500is-J-10-HY	Muffer inner cover	63015001600
11	APG3500is-J-11-HY	Bolt	70100006700
12	APG3500is-J-12-HY	Damper	63014000400
13	APG3500is-J-13-HY	Hexagon flange nuts	70200000900
14	APG3500is-J-14-HY	Bolts,flange M6x12	70100000200
15	APG3500is-J-15-HY	Bolts,flange M6x20	70100001100



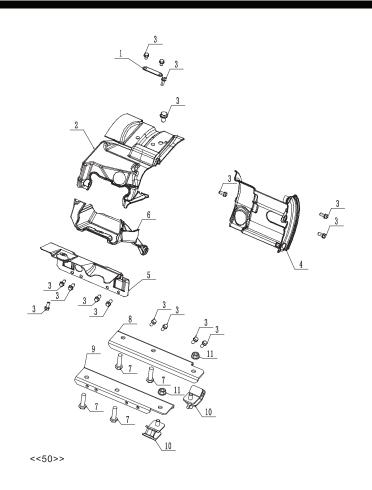
Air cleaner assy

K

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NO	APA Part No	Description	Factory Part No.			
1	APG3500is-K-01-HY	Air cleaner assy	93003000600			
2	APG3500is-K-02-HY	Bolt M6x12	70100006000			
3	APG3500is-K-03-HY	Clip	93005003400			
4	APG3500is-K-04-HY	Tube,Breather	93004000300			
5	APG3500is-K-05-HY	S joint pipe	93004000200			
6	APG3500is-K-06-HY	Connector plug on the air filter	93004000100			
7	APG3500is-K-07-HY	The air filter adapter	93013000700			

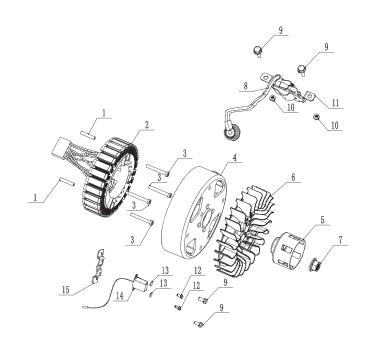
<<48>>

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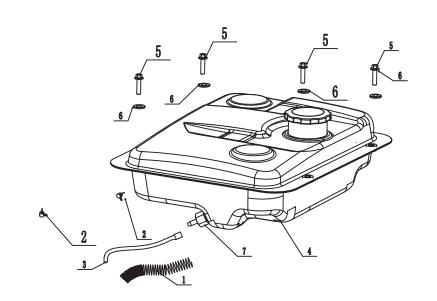
Mounting bracket air flow housing

NO	APA Part No	Description	Factory Part No.
1	APG3500is-L-01-HY	Clamper cord	93005002800
2	APG3500is-L-02-HY	Cylinder head wind shield	93005002500
3	APG3500is-L-03-HY	Bolt M6x12	70100006000
4	APG3500is-L-04-HY	Rear wind gide cover	93003000900
5	APG3500is-L-05-HY	Air filter holder	93005003100
6	APG3500is-L-06-HY	Under the cylinder head cover	93005002600
7	APG3500is-L-07-HY	Bolts,flange M6x35	70100004700
8	APG3500is-L-08-HY	Engine assembly right plate	63015001800
9	APG3500is-L-09-HY	Engine assembly left plate	63015001700
10	APG3500is-L-10-HY	damper	63014000400
11	APG3500is-L-11-HY	Hexagon flange nuts	70200000900



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NO	APA Part No	Description	Factory Part No.
1	APG3500is-M-01-HY	Dowel	70400001101
2	APG3500is-M-02-HY	Stator,magneto	63181000100
3	APG3500is-M-03-HY	Inner hexagon screw	70300005600
4	APG3500is-M-04-HY	Rotor,magneto	63081000200
5	APG3500is-M-05-HY	Starting cup	93005002300
6	APG3500is-M-06-HY	Fan,recoil starter	93003000200
7	APG3500is-M-07-HY	Nut	70200001800
8	APG3500is-M-08-HY	Ignitor	93006000200
9	APG3500is-M-09-HY	Bole M6x12	70100006000
10	APG3500is-M-10-HY	Nut	70200002500
11	APG3500is-M-11-HY	Ignitor support plate	93005002700
12	APG3500is-M-12-HY	Cross recrssed pan head screws	70300004500
13	APG3500is-M-13-HY	4 spring washers	70600002200
14	APG3500is-M-14-HY	Trigger	93006000300
15	APG3500is-M-15-HY	Ignition trigger block	93005002400

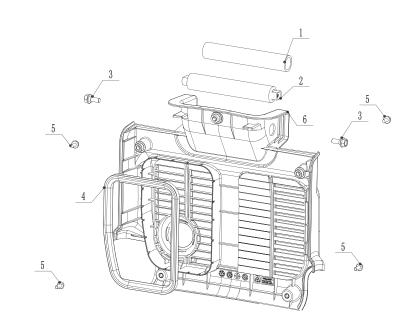
<<51>>



Fuel tank assembly

N

NO	APA Part No	Description	Factory Part No.
1	APG3500is-N-01-HY	Protective spring, tube	63265000500
2	APG3500is-N-02-HY	Clip,spring	63265000600
3	APG3500is-N-03-HY	Outlet tube	63B14000100
4	APG3500is-N-04-HY	Tank	63B15000500
5	APG3500is-N-05-HY	Bolts,flange	70100004300
6	APG3500is-N-06-HY	Washer	70600003100
7	APG3500is-N-07-HY	The tubing connector	63815002200

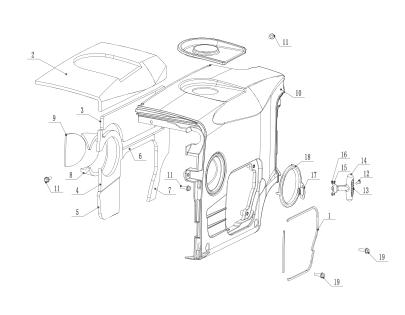


Exhaust cover assembly

C

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NO	APA Part No	Description	Factory Part No.		
1	APG3500is-O-01-HY	Rear handle set	63B14000600		
2	APG3500is-O-02-HY	Pulling handle,rear	63B15001000		
3	APG3500is-O-03-HY	Bolts,flange	70100010701		
4	APG3500is-O-04-HY	Cover strips, muffler	63014001000		
5	APG3500is-O-05-HY	Bolts,flange	70100001700		
6	APG3500is-R-06-HY	Back caps	63B33000800		

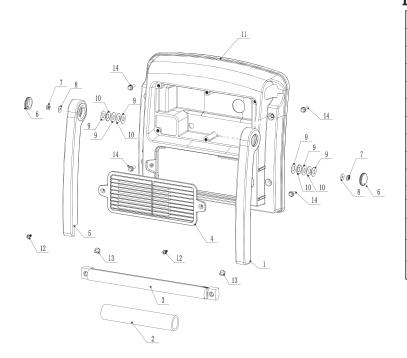
<<52>>



Cover right assembly

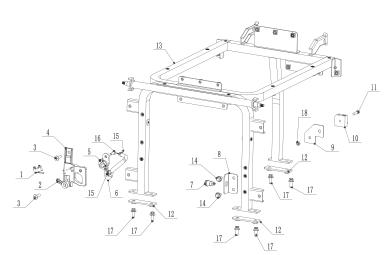
P Par Par

NO	APA Part No	Description	Factory Part No.
1	APG3500is-P-01-HY	Spong 5x5	61017000300
2	APG3500is-P-02-HY	Soundproof cotton, l, right cover	63B17001400
3	APG3500is-P-03-HY	Soundproof cotton,2,right cover	63B17001500
4	APG3500is-P-04-HY	Soundproof cotton,3,right cover	63B17001600
5	APG3500is-P-05-HY	Soundproof cotton,4,right cover	63B17001700
6	APG3500is-P-06-HY	Soundproof cotton,5,right cover	63B17001800
7	APG3500is-P-07-HY	Soundproof cotton,6,right cover	63B17001900
8	APG3500is-P-08-HY	Soundproof cotton,3,left cover	62057002100
9	APG3500is-P-09-HY	Soundproof cotton,4,left cover	62057004500
10	APG3500is-P-10-HY	Cover,right	63B83000200
11	APG3500is-P-11-HY	Bolts,flange	70100002000
12	APG3500is-P-12-HY	Screw,tapping	70300000100
13	APG3500is-P-13-HY	Handle cover	62323000400
14	APG3500is-P-14-HY	Pull handle	62013001400
15	APG3500is-P-15-HY	Rivet	70800000100
16	APG3500is-P-16-HY	Flat gasket	70600001300
17	APG3500is-P-17-HY	Locating board,recoil	62015000600
18	APG3500is-P-18-HY	Decorative box,recoil	62055000200
19	APG3500is-P-19-HY	Bolts,flange	70100003000

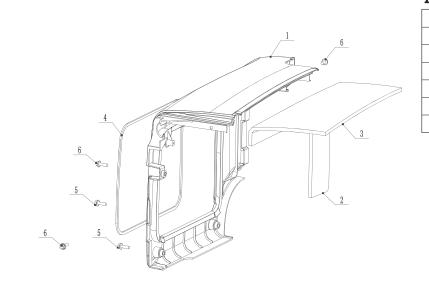


1	Front cover assembly Q					
	NO	APA Part No	Description	Factory Part No.		
	1	APG3500is-Q-01-HY	Pull bar girde,right	63013001300		
	2	APG3500is-Q-02-HY	Recoil handle rudder	63014001200		
	3	APG3500is-Q-03-HY	Pull bar girde	63013001600		
	4	APG3500is-Q-04-HY	Battery maintenance cover	63013001200		
	5	APG3500is-Q-05-HY	Pull bar girde,left	63013001400		
	6	APG3500is-Q-06-HY	Rubber plug,bolt	63014000900		
	7	APG3500is-Q-07-HY	Nut,flange	70200000300		
	8	APG3500is-Q-08-HY	Washer	70600003100		
	9	APG3500is-Q-09-HY	Washer	70600004000		
	10	APG3500is-Q-10-HY	Saddle washer 12	70600004401		
	11	APG3500is-Q-11-HY	Front cover	63013001100		
	12	APG3500is-Q-12-HY	Screw,unloosening	70300000800		
	13	APG3500is-Q-13-HY	Bolts,flange	70100000200		
	14	APG3500is-Q-14-HY	Bolts,flange	70100001700		

<<54>>



Cha	ssis assembl	У	R
NO	APA Part No	Description	Factory Part No.
1	APG3500is-R-01-HY	Micro-switch components	63296001000
2	APG3500is-R-02-HY	Micro-switch dial tube	63293000200
3	APG3500is-R-03-HY	Screw,cross pan head	70300009600
4	APG3500is-R-04-HY	Mounting plate,oil switch	63293000100
5	APG3500is-R-05-HY	Fuel cock	63265001500
6	APG3500is-R-06-HY	Fuel supply pipe	63B14000800
7	APG3500is-R-07-HY	Metal button holder	63366000400
8	APG3500is-R-08-HY	Remote control button holder	63185000300
9	APG3500is-R-09-HY	Heatsink of bridge rectifier	63055000600
10	APG3500is-R-10-HY	bridge rectifier	61016001700
11	APG3500is-R-11-HY	Bolts,cross pan head	70300002000
12	APG3500is-R-12-HY	Press plate	63015000800
13	APG3500is-R-13-HY	Chassis	63B25000300
14	APG3500is-R-14-HY	Bolts,flange	70100000200
15	APG3500is-R-15-HY	Clip,spring	63265000600
16	APG3500is-R-16-HY	Screw,cross pan head	70300002300
17	APG3500is-R-17-HY	Bolts,flange	70100002000
18	APG3500is-R-18-HY	Nut,hexagon	70200000200

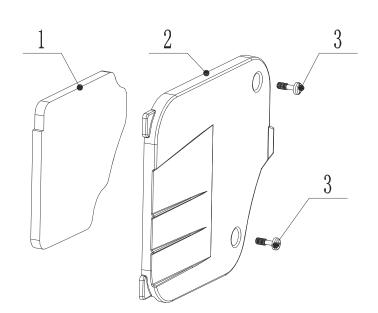


Left cover assembly

	21, 22, 21, 22, 21, 21, 21, 21, 21, 21,				
NO	APA Part No	Description	Factory Part No.		
1	APG3500is-S-01-HY	Left cover	63B83000400		
2	APG3500is-S-02-HY	Soundproof cotton,2,left cover	63B17002300		
3	APG3500is-S-03-HY	Soundproof cotton, l, left cover	63B17002200		
4	APG3500is-S-04-HY	Spong 5x5	61017000300		
5	APG3500is-S-05-HY	Bolts,flange	70100003000		
6	APG3500is-S-06-HY	Bolts,flange	70100002000		

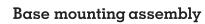
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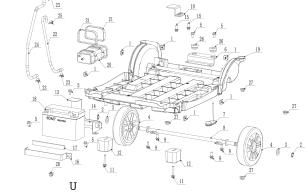
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Oil maintenance cover assembly

NO	APA Part No	Description	Factory Part No.
1	APG3500is-T-01-HY	Oil maintenance cover insulation cotton	63B17002100
2	APG3500is-T-02-HY	Oil maintenance cover	63B83000800
3	APG3500is-T-03-HY	Screw,unloosening	70300000800



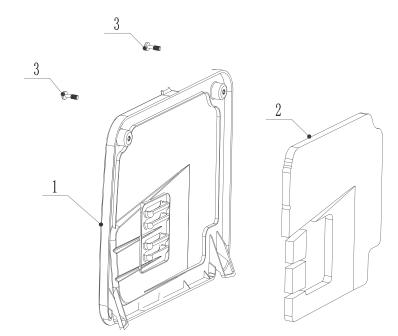


NO	APA Part No	Description	Factory Part No.
1	APG3500is-U-01-HY	Nut,square	70200000501
2	APG3500is-U-02-HY	Circlip	70600003900
3	APG3500is-U-03-HY	Washer 12	70600004501
4	APG3500is-U-04-HY	Wheel	63013000300
5	APG3500is-U-05-HY	Screw,cross pan head	70300003900
6	APG3500is-U-06-HY	Lower bracket,inverter	63015000300
7	APG3500is-U-07-HY	Oil drainage plug	63014000100
8	APG3500is-U-08-HY	Wheel axle	63015000100
9	APG3500is-U-09-HY	Screw,cross pan head	70300002300
10	APG3500is-U-10-HY	Stop plate	63015000200
11	APG3500is-U-11-HY	Bolts,cross pan head	70300007500
12	APG3500is-U-12-HY	Rubber feet,whole machine	63296001000
13	APG3500is-U-13-HY	Battery tray	63293000200
14	APG3500is-U-14-HY	Sponge,battery rack	70300009600

NO	APA Part No	Description	Factory Part No.
15	APG3500is-U-15-HY	Bolts,flange	63293000100
16	APG3500is-U-16-HY	Binder plate,battery	63265001500
17	APG3500is-U-17-HY	Sponge,battery rack binder plate	63B14000800
18	APG3500is-U-18-HY	Battery	63366000400
19	APG3500is-U-19-HY	Base,mounting	63185000300
20	APG3500is-U-20-HY	Carbon canister assembly	63055000600
21	APG3500is-U-21-HY	Cable ties	61016001700
22	APG3500is-U-22-HY	Vapor line of carbon canister	70300002000
23	APG3500is-U-23-HY	Clip,spring	63015000800
24	APG3500is-U-24-HY	Vent line of fuel tank	63B25000300
25	APG3500is-U-25-HY	Clip,spring	70100000200
26	APG3500is-U-26-HY	Rubber,fuel tank	63265000600
27	APG3500is-U-27-HY	Nut,flange	70300002300
28	APG3500is-U-28-HY	Bolts,flange	70100002000

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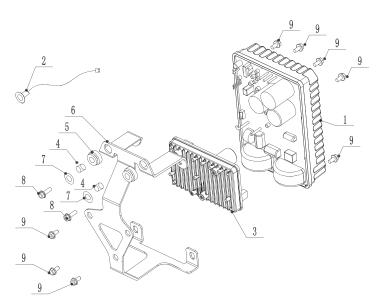


Air cleanner maintenance

Cover assembly

NO APA Part No Description Fac

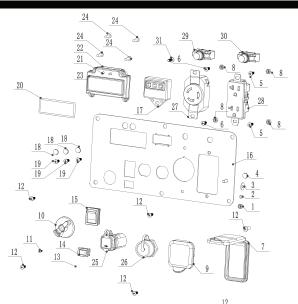
NO	APA Part No	Description	Factory Part No.
1	APG3500is-V-01-HY	Air cleanner maintenance cover	63B83000600
2	APG3500is-V-02-HY	Air cleanner maintenance cover spong	63B17002000
3	APG3500is-V-03-HY	Screw,unloosening	70300000800



Inverter assembly

miverier assembly			VV
NO	APA Part No	Description	Factory Part No.
1	APG3500is-W-01-HY	Inverter assembly	63292000200
2	APG3500is-W-02-HY	Temperature sensor	80033010394
3	APG3500is-W-03-HY	Magneto controller	63186002600
4	APG3500is-W-04-HY	Fule tank bushing	67015002200
5	APG3500is-W-05-HY	Rubber,fuel tank	67014000700
6	APG3500is-W-06-HY	Bracket,sencondary controller	63265000700
7	APG3500is-W-07-HY	Washer	70600003100
7	APG3500is-W-08-HY	Bolts,flange	70100004300
7	APG3500is-W-09-HY	Bolts,flanger	70100002900

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Electical plate assey assembly $\stackrel{12}{\longrightarrow}_{\hspace*{-0.5em}\circ}$

NO	APA Part No	Description	Factory Part No.
1	APG3500is-Y-01-HY	Nut,hexagon	70200000200
2	APG3500is-Y-02-HY	Washer,spring	70600000800
3	APG3500is-Y-03-HY	Washer	70600000500
4	APG3500is-Y-04-HY	Washer,serrated	70600000600
5	APG3500is-Y-05-HY	Screw,cross pan head	70300007400
6	APG3500is-Y-06-HY	Screw,cross pan head	70300003200

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NO	APA Part No	Description	Factory Part No.
7	APG3500is-Y-07-HY	AC duplex socket	67044000100
8	APG3500is-Y-08-HY	Nut,hexagon	70200001000
9	APG3500is-Y-09-HY	AC locking socket	67044000200
10	APG3500is-Y-10-HY	Knod,fule cock	61013002200
11	APG3500is-Y-11-HY	Screw,cross pan head	70300002100
12	APG3500is-Y-12-HY	Screw,cross pan head	70300002200
13	APG3500is-Y-13-HY	Waterproof cap	61013003400
14	APG3500is-Y-14-HY	ECON. switch	61016000900
15	APG3500is-Y-15-HY	Rocker switch	63296000200
16	APG3500is-Y-16-HY	Electical plate assey	63465000100
17	APG3500is-Y-17-HY	Lgnition assey	63016001400
18	APG3500is-Y-18-HY	Washer,serrated	70600000900
19	APG3500is-Y-19-HY	Screw,cross pan head	70300001300
20	APG3500is-Y-20-HY	Soundproof cotton, display	64017002500
21	APG3500is-Y-21-HY	Display	61076000700
22	APG3500is-Y-22-HY	Display installation box lower cover	64013000900
23	APG3500is-Y-23-HY	Display installation box upper coverr	64013000800
24	APG3500is-Y-24-HY	Screw,cross pan head	70300006400
25	APG3500is-Y-25-HY	USB socket	62536000200
26	APG3500is-Y-26-HY	Aviation socket assembly	63296000700
27	APG3500is-Y-27-HY	AC anti-oof socket	67016000200
28	APG3500is-Y-28-HY	AC duplex socket	67046001200
29	APG3500is-Y-29-HY	Overload protection	63186000500
30	APG3500is-Y-30-HY	Overload protection	63316000300
31	APG3500is-Y-31-HY	Screw,cross pan head	70300002300