



10887 Commerce Way
Unit A Fontana CA 92337
Phone: 855-888-3598
support@a-ipower.com
www. a-ipower.com



OWNER'S MANUAL & OPERATION INSTRUCTION



5000 Starting Watts
4000 Running Watts

PORTABLE GENERATOR

Visit Our Website at: <http://www.a-ipower.com>
Email Our Technical Support at: support@a-ipower.com

MODEL NUMBER
AP5000

FOR TECHNICAL QUESTIONS, PLEASE CALL 1-855-888-3598

MADE IN CHINA

SAVE THIS MANUAL

This manual contains important information regarding safety, operation, maintenance and troubleshooting. Before use, operation, maintenance, repairs or storage, read the manual and product labels. Failure to do so could result in serious personal injury and/or property damage.

A-POWER Corp
10887 Commerce Way
Unit A Fontana CA 92337
www.a-ipower.com

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WARNING

The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer or birth defects and other reproductive harm.

INTRODUCTION

Thank you for purchasing products from A-iPower. We appreciate your business. This manual contains safety information to make you aware of hazards and risks associated with generator products and how to avoid them. It is important that you read and understand these instructions thoroughly before attempting to start or operate this equipment. **Save this original instruction for future reference.**

If any portion of this manual is not understood, Please call our Customer Service at 1-855-888-3598 for starting, operating and servicing procedures. We also strongly recommend you to instruct any other users who may operate the generator in an emergency.

The Emission Control System within this generator is warranted for standards set by the Environmental Protection Agency (EPA). Every effort has been made to ensure that information in this manual is both accurate and current. However A-iPower Corp. reserves all rights to change, alter, or otherwise to improve the generator and this documentation at any time without prior notice.

SECTION 1 SAFETY RULES



Read this manual carefully and become familiar with your generator. Know its applications, its limitations, and any hazards involved. Failure to follow instructions could result in serious injury or death.

Throughout this publication, and on tags and decals affixed to the generator, DANGER, WARNING, CAUTION and NOTE symbols are used to alert personnel with special instructions about a particular operation that may be hazardous if performed incorrectly, or carelessly. Observe them carefully. Their definitions are as follows:

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



▲ DANGER DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

▲ WARNING WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

▲ CAUTION CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE NOTE provides additional information that is useful for proper use and maintenance of this tool. If a NOTE is indicated, make sure it is fully understood.

Safety Symbols and Meanings

Toxic Fumes	Electrical Shock	Kickback
Fire	Explosion	Hot Surface
Flying Objects	Moving Parts	Owner's Manual

▲ DANGER

Using a generator indoors CAN KILL YOU IN MINUTES. Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.

NEVER use inside a home or garage, EVEN IF doors and windows are open.

Only use OUTSIDE and far away from windows, doors, and vents.

▲ WARNING

A running engine gives off carbon monoxide, an odorless, colorless, poisonous gas. Breathing carbon monoxide could result in death, serious injury, headache, fatigue, dizziness, vomiting, confusion, seizures, nausea or fainting.

- Operate this product **ONLY** outdoors.
- Install a battery operated carbon monoxide alarm near the bedrooms.
- Keep exhaust gas away from entering a confined area through windows, doors, ventilation intakes, or other openings.
- NEVER** operate this product inside any building, carport, porch, mobile equipment, marine applications, or enclosure, even if windows and doors are open.

A-iPOWER WARRANTY REGISTRATION FORM

Register your product by mailing this form to support@a-ipower.com or register online at www.a-ipower.com.

Registering your product is important, it provides protection

- 1) You have record of product purchased
- 2) Customer Service can Better serve you for Warranty related issues
- 3) We can contact you in the unlikely event should notification is necessary
- 4) Always keep copy of your original receipt

Primary Information	Generator Information
Name: _____	Serial #: _____
Phone: _____	Model #: _____
E-mail: _____	
Address: _____	
City, State, Zip code: _____	
Date of purchase: _____	
Where: _____	

*The serial No. can be found on the engine.
PLEASE NOTE: Your generator cannot be registered without model & serial numbers.*

1. THE PRODUCT WAS PURCHASED FOR:

- A. Home back-up
- B. Business back-up
- C. Camping
- D. Tailgating
- E. Rental
- F. Farming/Agriculture
- G. Jobsite/construction
- H. Outdoor activities (Hunting)
- I. Special Events
- J. Battery Charging
- K. Other _____

2. THIS PRODUCT IS A: (select one)

- A. First Time Purchase
- B. Replacement

3. HOW DID YOU FIRST LEARN OF THIS PRODUCT: (select one)

- A. Magazine Ad
- B. Newspaper
- C. Radio
- D. TV
- E. Store Display
- F. Contractor
- G. Trade Show
- H. Direct Mail
- I. From Friend/Relative/Neighbor
- J. Catalog
- K. Internet
- L. Other _____

4. PLEASE RATE YOUR SATISFACTION LEVEL WITH THE FOLLOWING:

	0	1	2	3	4	5
	Completely Satisfied					Not at all Satisfied
Product Value for Price Paid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product Appearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warranty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ease of Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noise Level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. HOW LIKELY ARE YOU TO RECOMMEND A-iPOWER TO FAMILY OR FRIENDS?

	0	1	2	3	4	5
	Extremely Likely					Not likely at all
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Privacy Statement: A-iPower is committed to respecting your privacy and to complying with the regulations regarding the protection of personal data. The survey data we collect is for the purposes of marketing or product support and demographic information about the entire audience registering their products.

WARRANTY

A-POWER LIMITED WARRANTY-2 YEARS RESIDENTIAL AND 1 YEAR COMMERCIAL

Thank you for choosing A-iPower products. To ensure proper registration of your product warranty, please submit your warranty registration along with proof of purchase within 10 days of the date of purchase, this can be done by

a) Completing the Warranty Registration form at the back of this manual and mailing to:

A-POWER CORP
10887 Commerce Way
Unit A Fontana CA 92337

b) Visit us at www.a-ipower.com and click the product registration icon

WARRANTY TERM
A-iPower will provide warranty for any of its products purchased through any authorized A-iPower dealer in North America to the original purchaser and will be warranted against defects in material or workmanship for a period of two (2) years for Consumer use from date of purchase, subject to exclusions noted herein.

Commercial and Rental applications are warranted for a period of one (1) year from date of purchase.

“Consumer Use” – residential household use by a retail consumer

“Commercial Use” – all other use – commercial, business, industrial, or rental purpose

HOW TO OBTAIN WARRANTY SERVICE

Please call our Customer Service Dept.

1855-888-3598 or e-mail to

support@a-ipower.com

Please have

necessary information available – Model

Number, Serial Number, Proof of Purchase

DO NOT RETURN THE PRODUCT TO

THE PLACE OF PURCHASE

A-iPower Customer Service Dept will assist with all product related questions and will help troubleshoot issues and will send any replacement parts as necessary while product is within the warranty

period at no charge. If the issue cannot be resolved then A-iPower Customer Service Dept at its discretion determine and authorize diagnosis and repair through one of its authorized Service Centers. A-iPower Corp at its discretion may choose to provide replace of part, component, or product. Service or replacement of parts at any unauthorized repair facility without prior authorization will not be covered by this warranty.

WARRANTY EXCLUSIONS

This warranty does not cover the following Regular wear and maintenance – this warranty will not cover repair when normal use has exhausted the lifetime of a part(s) or engine

Installation and Maintenance - this warranty does not cover improper or unauthorized assembly, alteration, modification or any other damage resulting from misuse or neglect.

Normal maintenance parts - this warranty does not cover spark plugs, air filters, adjustments, or other related service due to obstructions and other build ups resulting from improper maintenance

Additional exclusions – this warranty does not cover wearable parts such as filters, spark plugs, o-rings, batteries etc. It does not cover any cosmetic defects such as scratches to paint, decals etc. It does not cover any damage resulting from use of non-original manufacturer's parts, use of aftermarket parts. It does not cover any failures due to acts of God and other force majeure events beyond the control of the manufacturer.

WARRANTY LIMITS AND IMPLICATIONS AND CONSEQUENTIAL DAMAGES

A-iPower is not obligated to cover any loss of time, use of product, freight cost, or any other incidental or consequential claim from the use of this product. This warranty is in Lieu of all other warranties, express or implied

This warranty gives you specific legal rights which vary from state to state.

▲ WARNING

The engine exhaust from this product, certain components in this product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

▲ WARNING

This generator does not meet U.S. Coast Guard Regulation 33CFR-183 and can not be used on marine applications. Incorrect use of the appropriate U.S. Coast Guard approved generator could result in death or serious injury and/or property damage.

▲ WARNING

Starter cord kickback (rapid retraction) will pull hand and arm toward engine faster than you can let go which could cause broken bones, fractures, bruises, or sprains resulting in serious injury.

When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.

NEVER start or stop engine with electrical devices plugged in and turned on.

▲ WARNING

Fuel and its vapors are extremely flammable and explosive which could cause burns, fire or explosion resulting in death, serious injury and/or property damage.

WHEN ADDING OR DRAINING FUEL

Turn generator engine OFF and let it cool at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.

Fill or drain fuel tank outdoors.

DO NOT overfill tank, Allow space for fuel expansion.

If fuel spills, wait until it evaporates before starting engine.

Keep fuel away from sparks, open flames, pilot light, heat, and other ignition sources.

Check fuel lines, tank, cap and fittings frequently for cracks or leaks. Replace if necessary.

DO NOT light a cigarette or smoke.

▲ WARNING

WHEN STARTING EQUIPMENT

Ensure spark plug, muffler, fuel cap, and air cleaner are in place.

DO NOT crank engine with spark plug removed.

WHEN OPERATING EQUIPMENT

- DO NOT operate this product inside any building, carport, porch, mobile equipment, marine applications, or enclosure.
- DO NOT tip engine or equipment at angle which cause fuel to spill.
- DO NOT stop engine by moving choke control to “OFF” position.

WHEN TRANSPORTING, OR REPAIRING EQUIPMENT

- Transport/move/repair with fuel tank EMPTY or with fuel valve OFF.
- DO NOT tip engine or equipment at angle which cause fuel to spill.
- Disconnect spark plug wire.

WHEN STORING FUEL OR EQUIPMENT WITH FUEL IN TANK

- Store away from furnaces, stoves, water heaters, clothes dryers, or other appliances that have light or other ignition source because they could ignite fuel vapors.

▲ WARNING



Generator voltage could cause electrical shock or burn resulting in death or serious injury.

- Use approved transfer equipment to prevent back feed by isolating generator from electric utility workers.

When using generator for backup power, notify utility company.

- Use a ground fault circuit interrupter in any damp or highly conductive area, such as metal decking or steel work.
- DO NOT touch bare wires or receptacles.

DO NOT use generator with electrical cords which are worn, frayed, bare or otherwise damaged.

DO NOT operate generator in the rain or wet weather.

- DO NOT handle generator or electrical cords while standing in water, while barefoot, or while hands or feet are wet.

DO NOT allow unqualified persons or children to operate or service generator.

⚠ WARNING Exhaust heat/gases could ignite combustibles, structures or damage fuel tank causing a fire, resulting in death, serious injury and/or property damage. Contact with muffler area could cause burns resulting in serious injury.

- DO NOT touch hot parts and AVOID hot exhaust gases.
- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5m) of clearance on all sides of generator including overhead.
- It is violation of California Public Resource Code, Section 4442, to use or operate the engine on any first - covered, brush - covered, or grass - covered land unless the exhaust system is equipped with a spark arrester, as defined in Section 4442, maintained in effective working order. Other states or federal jurisdictions may have similar laws.

Contact the original equipment manufacturer, retailer, or dealer to obtain a spark arrester designed for the exhaust system installed on this engine.

- Replacement parts must be the same and installed in the same position as the original parts.

⚠ WARNING Unintentional sparking could cause fire or electric shock resulting in death or serious injury.

WHEN ADJUSTING OR MAKING REPAIRS TO YOUR GENERATOR

- Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact spark plug.

WHEN TESTING FOR ENGINE SPARK

- Use approved spark plug tester.
- DO NOT check for spark with spark plug removed.

⚠ WARNING Starter and other rotating parts could entangle hands, hair, clothing, or accessories resulting in serious injury.

- NEVER operate generator without protective housing or covers.
- DO NOT wear loose clothing, jewelry or anything that could be caught in the starter or other rotating parts.
- Tie up long hair and remove jewelry.

⚠ CAUTION Excessively high operating speeds could result in minor injury and/or generator damage.

- Excessively low speeds impose a heavy load.
- DO NOT tamper with governor spring, links or other parts to increase engine speeds. Generator supplies correct rated frequency and voltage when running at governed speed.
- DO NOT modify generator in any way.

NOTE Exceeding generators wattage/ amperage capacity could damage generator and/or electrical devices connected to it.

- DO NOT exceed the generator's wattage/ amperage capacity. See Don't Overload Generator in the Operation section.
- Start generator and let engine stabilize before connecting electrical loads.
- Turn electrical loads OFF and disconnect from generator before stopping generator.

NOTE Improper treatment of generator could damage it and shorten its life.

- Use generator only for intended uses.
- If you have questions about intended use, please call our Customer Service at 1-855-888-3598.
- Operate generator only on level surfaces.
- DO NOT expose generator to excessive moisture, dust, dirt, or corrosive vapor.
- DO NOT insert any object through cooling slots.
- If connected devices overheat, to turn them off and disconnect them from generator.
- or electrical output is lost.
- or equipment sparks, smokes, or emits flames.
- or unit vibrates excessively.

to turn them off and disconnect them from generator.

maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of A-IPOWER.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts will be grounds for disallowing a warranty claim. A-IPOWER will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

(11) A-IPOWER issuing the warranty shall provide any documents that describe that manufacturer's warranty procedures or policies within five working days of request by the Air Resources Board.

(d) Emission Warranty Parts List for exhaust (for all displacements).

(1) Fuel Metering System

(i) Carburetor and internal parts (and/or pressure regulator or fuel injection system).

(ii) Air/fuel ratio feedback and control system.

(iii) Cold start enrichment system.

(2) Air Induction System

(i) Controlled hot air intake system.

(ii) Intake manifold.

(iii) Air filter.

(3) Ignition System

(i) Spark Plugs.

(ii) Magneto or electronic ignition system.

(iii) Spark advance/retard system.

(4) Exhaust Gas Recirculation (EGR) System

(i) EGR valve body, and carburetor spacer if applicable.

(ii) EGR rate feedback and control system.

(5) Air Injection System

(i) Air pump or pulse valve.

(ii) Valves affecting distribution of flow.

(iii) Distribution manifold.

(6) Catalyst or Thermal Reactor System

(i) Catalytic converter.

(ii) Thermal reactor.

(iii) Exhaust manifold.

(7) Particulate Controls

(i) Traps, filters, precipitators, and any other device used to capture particulate emissions.

(8) Miscellaneous Items Used in Above Systems

(i) Electronic controls.

(ii) Vacuum, temperature, and time sensitive valves and switches.

(e) Emission Warranty Parts List for Evap less than or equal to 80cc.

(i) Fuel Tank.

(f) Emission Warranty Parts List for Evap greater than 80cc.

(1) Fuel Metering System

(i) Fuel Tank.

(2) Miscellaneous Items Used in Above Systems

(i) Fuel caps, valves, canisters, filters, vapor, hoses, clamps, connectors, belts, and and assemblies.

A-iPower will furnish with each new engine/equipment written instructions for the maintenance and use of the engine/equipment by the owner.

A-iPower's only liability shall be the repair or replacement of part(s) as stated above in no event shall A-iPower be liable for any incidental or consequential damages.

DEFECTS WARRANTY REQUIREMENTS:

(a) The warranty period begins on the date the engine/equipment is delivered to an ultimate purchaser.

(b) General Emissions Warranty Coverage. A-IPOWER warrants to the ultimate purchaser and each subsequent owner that the engine/equipment is:

(1) Designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; and

(2) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.

(c) The warranty on emissions-related parts will be interpreted as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the warranty period defined in Subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by A-IPOWER according to Subsection (4) below. Any such part repaired or replaced under the warranty must be warranted for the remaining warranty period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions required by subsection (d) must be warranted for the warranty period defined in Subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under

warranty must be warranted for the remaining warranty period.

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions required by subsection (d) must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by A-IPOWER according to Subsection (4) below. Any such part repaired or replaced under warranty must be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty must be performed at no charge to the owner at a warranty station.

(5) Notwithstanding the provisions of Subsection (4) above, warranty services or repairs must be provided at all A-IPOWER distribution centers that are franchised to service the subject engine/equipment.

(6) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a warranty station.

(7) A-IPOWER is liable for damages to other engine/equipment components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the emissions warranty period defined in Subsection (b)(2), A-IPOWER must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty

SECTION 2 — SET UP

2.1 UNPACKING

- Set the carton on a rigid, flat surface.
- Remove everything from carton except generator.
- Open carton completely by cutting each corner from top to bottom.
- Leave generator on carton to install wheel kit.

2.1.1 PACKING CONTENTS

Wheel kit	2- 7 in wheel 2- axle pin 2- pin 4- washer
Handle Assy	1- handle bar 1- block 1- handle grip 3- bolt 3- nut
Support Leg	1- support leg 2- flange bolt (M8x16) 2- nut (M8)
Other	1- engine oil 0.6 Quart 1- spark plug socket 1- extension bar 1- high altitude kit

When open the box, please check the parts and accessories firstly. Make sure you have all the listed items included prior to assembly. If items are damaged or missing, call our Customer Service at 1-855-888-3598.

2.2 ASSEMBLY

The generator requires some assembly prior to using it.

2.2.1 INSTALL THE SUPPORT LEG

The wheels are designed to greatly improve the portability of the generator.

NOTE The wheels are Not intended for over-the-road use.

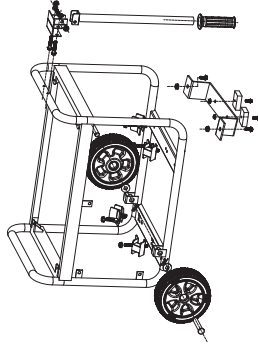
Refer to Figure to install the support leg as shown. Unscrew nut (M8) on leg support, install bolt through the generator frame, secure the bolt tightly with wrench(not included).

2.2.2 INSTALL THE WHEEL KIT

- Refer to Figure to install wheels as shown.
- Slide the axle through the wheel hub, then insert the flat washer.
 - Slide the axle through the frame brackets.
 - Bend the cotter pin tabs outward to lock the pin in place.

2.2.3 INSTALL THE HANDLE ASSY

- Unscrew nuts on the block, fix the block on the frame, tighten the bolt.
- Put the handle grip on handle.
- Unscrew nut on the handle, fix the handle on the block and tighten the bolt.



2.2.4 ADJUST SHOCK-ABSORBING SEAT

IMPORTANT: Before operating the generator the shock-absorbing seat (cushion) must be adjusted for proper clearance (figure 1). Loosen the lock nut and adjust the shock-absorbing seat so there is a 3mm gap between the top of the seat and the bottom of the motor bracket (figure 2). Re-tighten the lock nut.

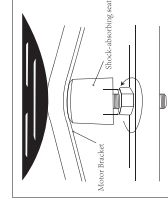


Figure 1

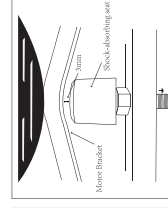


Figure 2

SECTION 12 — WARRANTIES

CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board, the United States Environmental Protection Agency and A-IPOWER, are pleased to explain the emission control system warranty on your 2019–2020 model year small off-road engine/equipment. In the United States and California, new small off-road engine/equipment must be designed, built and equipped to meet the State's stringent anti smog standards. A-IPOWER must warrant the emission control system on your small off-road engine/equipment for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine/equipment.

Your emission control system may include parts such as the carburetor or fuel injection system, the ignition system, catalytic converter, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, belts, and other associated emission-related components. For engines less than or equal to 80 cc, only the fuel tank is subject to the evaporative emission control warranty requirements of this section (California only).

Where a warrantable condition exists, A-IPOWER will repair your small off-road engine/equipment at no cost to you including diagnosis, parts and labor.

SECTION 3 — FEATURES AND CONTROLS



Read this Owner's Manual and safety rules before operating your generator. Compare the illustrations with your generator, to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.

GENERATOR



1. **Fuel Tank** - 4 gallon (15 L) capacity fuel tank.
2. **Choke Lever** - Controls choke valve. Used when starting a cold engine.
3. **Air Filter** - Protects the engine by filtering dust and debris from the intake air.
4. **Fuel Valve** - Used to turn fuel supply on and off to engine.
5. **Recoil Starter** - Used to manually start the engine.
6. **Oil Filler Cap** - Check and fill engine oil level.
7. **Control Panel** - See "Power Panel" section on Page 8.

NOTE We are always working to improve our products. Therefore, final product may vary from images shown. A-IPOWER reserves the right to change features, specifications without notice for further improvements of products.

MANUFACTURER'S WARRANTY COVERAGE:

This Emissions Control System is warranted for two years. If any emission-related part on your engine/equipment is defective, the part will be repaired or replaced by A-IPOWER.

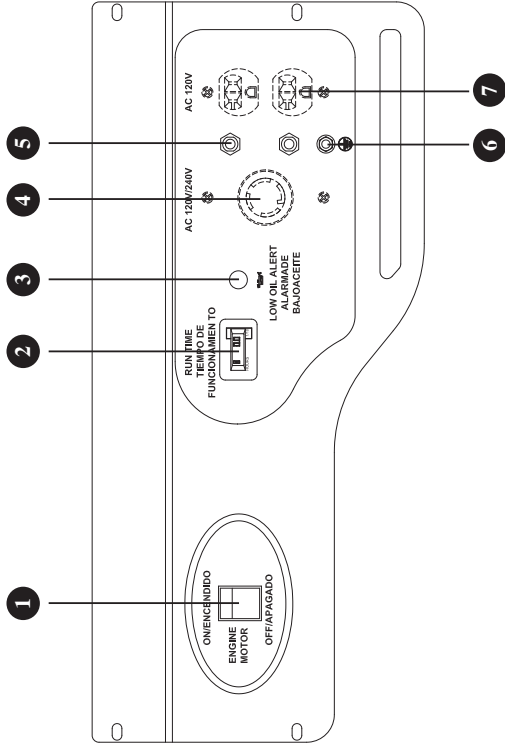
OWNER'S WARRANTY RESPONSIBILITIES:

As the small off-road engine/equipment owner, you are responsible for the performance of the required maintenance listed in your owner's manual. A-IPOWER recommends that you retain all receipts covering maintenance on your small off-road engine/equipment, but A-IPOWER cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine/equipment owner, you should however be aware that A-IPOWER may deny you warranty coverage if your small off-road engine/equipment or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

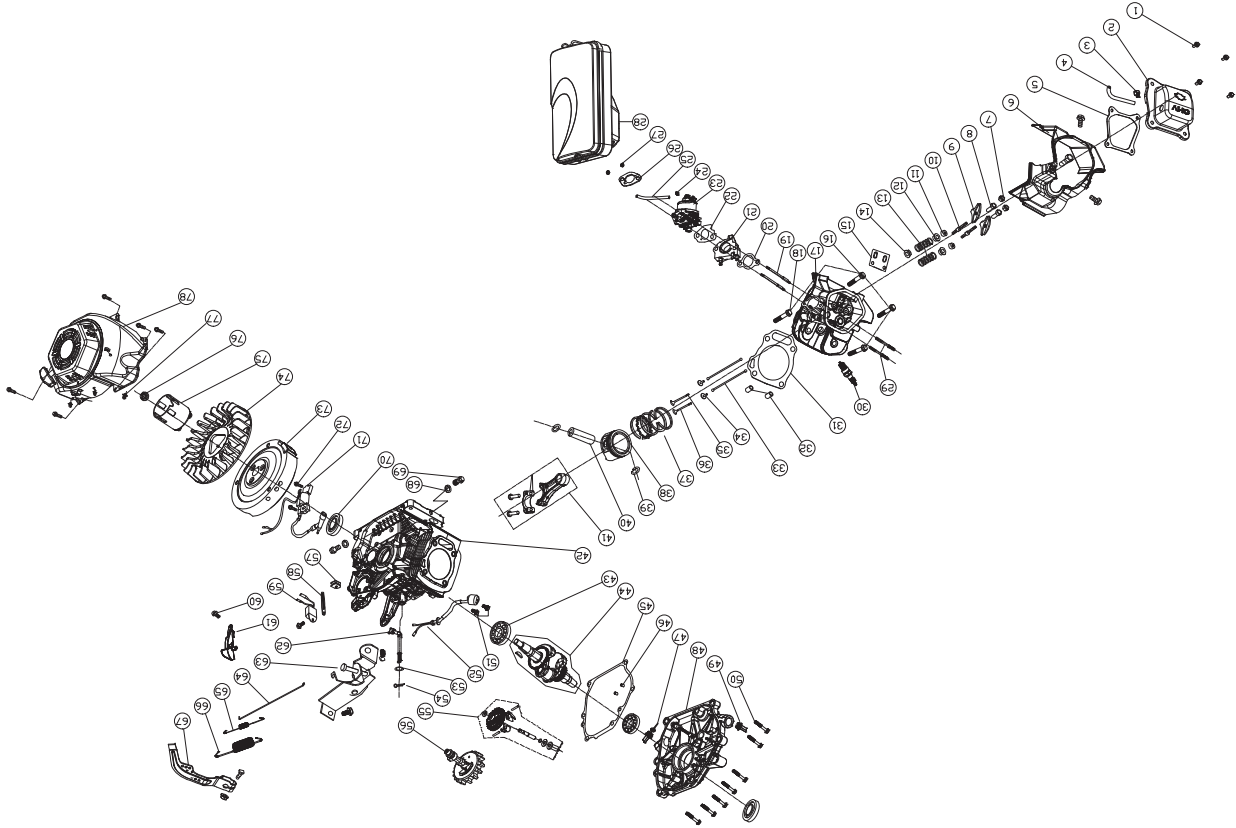
You are responsible for presenting your small off-road engine/equipment to A-IPOWER distribution center as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact Senci Power USA Inc at 1-855-888-3598 or support@a-ipower.com.

CONTROL PANEL



- 1. Engine Switch** - Set this switch to ON before starting engine. Set switch to OFF to shut off engine.
- 2. Hour Meter** - Monitor run time and schedule maintenance intervals
- 3. Low Oil Alarm** - Alarm when low oil is detected
- 4. 120/240 VAC 30A L14-30R Twist-lock Receptacle** - Used to supply electrical power for the operation of 120V AC and/or 240VAC, 30A, single phase 60Hz electrical loads.
- 5. Circuit Breaker** - The circuit breaker protects the generator against electrical overloads. The rating of the breaker and the load it protects are marked near the breaker. Should any of the Circuit Breakers trip, the generator will stop the electricity output. If this happens, unplug all loads from the generator. Allow the generator to cool down. Then, press the tripped Circuit Breaker, restart the engine, and re-attach loads.
- 6. Ground Terminal** - Prior to each use, set up the ground wire (not included) connection to the Grounding Terminal to properly ground the Generator.
- 7. 120V 20A 5-20R** - Used to supply electrical power for the operation of 120V AC, 20A, single phase 60HZ electrical loads.

ENGINE DIAGRAM



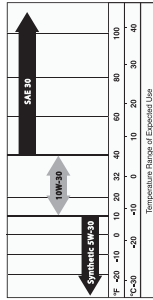
SECTION 4 — PREPARATION BEFORE OPERATION

4.1 ADDING ENGINE OIL

All oil should meet minimum American Petroleum Institute (API) Service Class SJ, SL or better. Use no special additives. Select the oil's viscosity grade according to the expected operating temperature (also see chart).

The SAE Viscosity Chart

Above 40°F, use SAE 30
Between 40°F to 10°F, use 10W-30
Below 10°F, use synthetic 5W-30



NOTE Improper treatment of generator could damage it and shorten its life. DO NOT attempt to crank or start the engine before it has been properly serviced with the recommended oil. This could result in an engine failure.

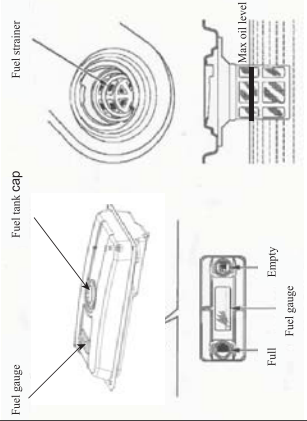
- Clean area around oil fill and remove oil fill cap and dipstick. Wipe dipstick clean.
- Slowly fill engine with oil through the oil filter open until it reaches the full mark on the dipstick. Stop filling occasionally to check oil level. Be careful do not over fill.
- Install oil fill cap and finger tighten securely.
- Check engine oil level before starting each time thereafter.

4.2 ADDING FUEL

DANGER Never fill tank indoors. Never fill fuel tank when engine is running or hot. Turn generator engine OFF and allow engine to cool entirely before filling fuel tank. Avoid spilling gasoline on HOT engine. Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources. DO NOT light a cigarette or smoke when filling the fuel tank. Fuel is highly FLAMMABLE and its vapors are EXPLOSIVE.

- Use regular UNLEAD gasoline with the generator engine. Do not use any fuel with more than 10% added ethanol, and never use E85 fuel.
- Do not mix oil with gasoline.
- Install fuel cap and wipe up any spilled gasoline.

CAUTION Do not overfill the fuel tank. Allow space for fuel expansion. IF the fuel tank is overfilled, fuel can overflow onto a HOT engine and cause FIRE or EXPLOSION. If fuel spills, wait until it evaporates before starting engine. Check fuel lines, tank, cap and fittings frequently for cracks or leaks. Replace if necessary.



IMPORTANT: It is important to prevent gum deposits from forming in fuel system parts such as the carburetor, fuel hose or tank during storage. Alcohol-blended fuels (called gasohol), ethanol or methanol) can attract moisture, which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system. So the fuel should be emptied before storage of 30 days or longer. See the "Storage" section. Never use engine or carburetor cleaner products in the fuel tank as permanent damage may occur.

4.3 GROUNDING THE GENERATOR

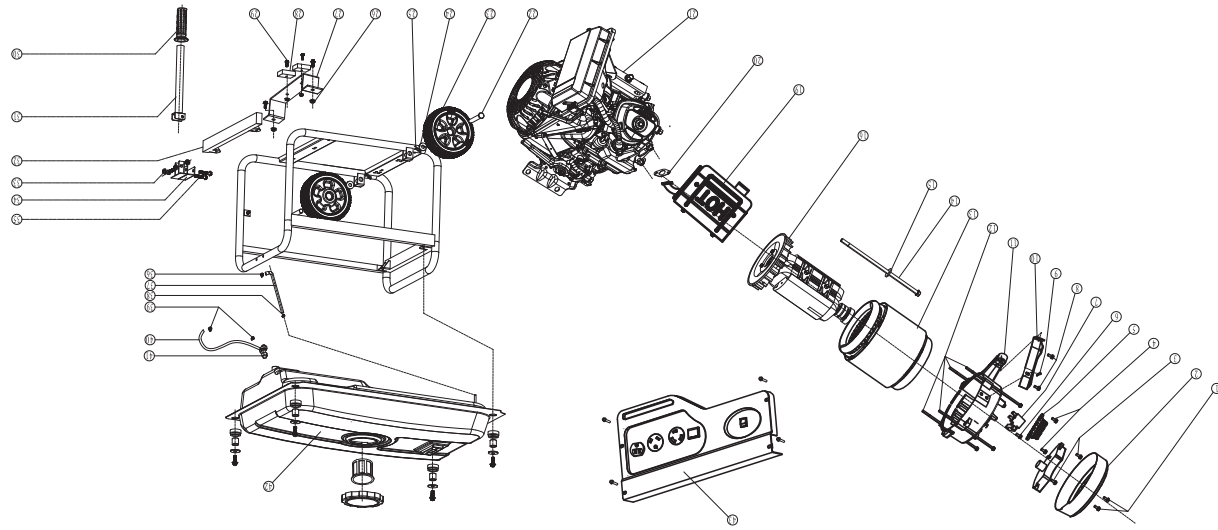
The national Electrical Code requires that the frame and external electrically conductive part of this generator be properly connected to an approved earth ground.

Local electrical codes may also require proper grounding of the unit. For that purpose, connecting a No. 10 AWG (American Wire Gauge) stranded copper wire to the grounding lug and to an earth-driven copper or brass grounding rod (electrode) provides adequate protection against electrical shock. However, local codes may vary widely. Consult with a local electrician for grounding requirement in the area.

ENGINE PARTS LIST

Part	Description	Qty	Part	Description	Qty
1	Bolt, Flange	14	41	Connector Rod Assy	1
2	Cylinder Head Assy	1	42	Crankcase Assy	1
3	Clamp	1	43	Bearing	2
4	Exhaust Pipe	1	44	Crankshaft Assy	1
5	Gasket, Cylinder Cap	1	45	Gasket, Crankcase Cover	1
6	Shroud	1	46	Dowel Pin	2
7	Regulating Nut,	2	47	Dipstick	1
8	Rockshaft	2	48	Crankcase Cover Assy	1
9	Rocker Arm	2	49		1
10	Bolt, Rockshaft	2	50	Bolt, Flange	7
11	Rotor, Exhaust Valve	2	51	Bolt, Flange	2
12	Spring Retainer, Exhaust Valve	2	52	Engine Oil Sensor	1
13	Valve Spring	2	53	Gasket, Rod	1
14	Oil Shield	1	54	Clip, Dowel Pin	1
15	Plate, Push Rod Guide	1	55	Regulating Gear Assy	1
16	Bolt, Flange	2	56	Cam Shaft Assy	1
17	Cylinder Head Assy	1	57	Crankcase Plug	1
18	Bolt, Flange	2	58	Clamp	1
19	Bolt, Stud, Intake	2	59	Oil Alarming	1
20	Gasket, Intake Valve	1	60	Bolt, Flange	1
21	Connector, Carburetor	1	61	Air Deflector, Side	1
22	Gasket, Carburetor	1	62	Adjusting Rod	1
23	Carburetor Assy	1	63	Regulating Control Assy	1
24	Clamp	1	64	Regulating Rocker Rod	1
25	Fuel Tube	0.35m	65	Adjusting Spring	1
26	Gasket, Air Cleaner	1	66	Reset Spring	1
27	Nut, Flange	2	67	Adjusting Arm	1
28	Air Cleaner Assy	1	68	Aluminum Gasket	2
29	Bolt, Stud, Exhaust	2	69	Drain Bolt	2
30	Sparking Plug	1	70	Oil Seal	2
31	Gasket, Cylinder Head	1	71	Ignition Coil Assy	1
32	Dowel Pin	2	72	Bolt, Flange	2
33	Push Rod	2	73	Flywheel Assy	1
34	Valve Lifter	2	74	Cooling Fan	1
35	Intake Valve	1	75	Starting Cup	1
36	Exhaust Valve	1	76	Nut, Flange	1
37	Ring Set, Piston	1	77	Clamp	1
38	Piston	1	78	Starter Assy, Recoil	1
39	Clip, Piston Pin	2			
40	Piston Pin	1			

GENERAL DIAGRAM



Proper grounding of the generator will help prevent electrical shock in the event of ground fault condition in the generator or in connected electrical devices. Proper grounding also helps dissipate static electricity, which often builds up in ungrounded devices.

4.4 WATTAGE REFERENCE GUIDE

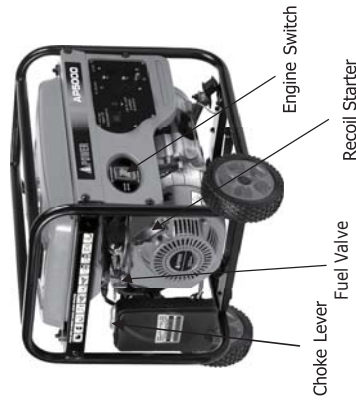
Wattage Reference Guide		Running* (Rated) Watts	Additional Starting (Surge) Watts
Essentials			
Light Bulb - 75 watt		75	—
Furnace Fan Blower - 1/2 HP		800	2350
Sump Pump - 1/3 HP		800	1300
Refrigerator/Freezer		700	2200
Water Well Pump - 1/2 HP		1000	2100
Heating/Cooling			
Window AC - 10,000 BTU		1200	3600
Humidifier - 13 Gal		175	—
Central AC - 24,000 BTU		3800	11400
Kitchen			
Microwave Oven - 1000 Watt		1000	—
Coffee Maker		1000	—
Electric Stove - 8" Element		2100	—
Toaster		850	—
Family Room			
DVD/CD Player		100	—
VCR		100	—
Stereo Receiver		450	—
Color Television - 27 in		500	—
Personal Computer w/17 in monitor		800	—
Other			
Security System		500	—
AM/FM Clock Radio		100	—
Garage Door Opener - 1/2 HP		875	2350
Electric Water Heater		4700	11700
DIY/Job Site			
Quartz Halogen Work Light		1000	—
Airless Sprayer - 1/3 HP		600	1200
Reciprocating Saw		960	—
Electric Drill - 1/2 HP, 5.4 Amps		600	900
Circular Saw - 7-1/4 in		1400	2300
Miter Saw - 10 in		1800	1800
Table Planer - 6 in		1800	1800
Table Saw/Radial Arm Saw - 10 in		2000	2000
Air Compressor - 1 HP		1600	4500

SECTION 5 — OPERATION

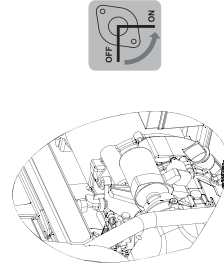
5.1 STARTING THE ENGINE

▲ WARNING Never start or stop engine with electrical devices plugged into the receptacles AND devices turned on.

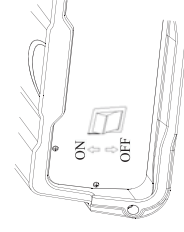
Unplug all electrical loads from the unit's receptacles before starting the engine. Make sure the unit is in a level position.



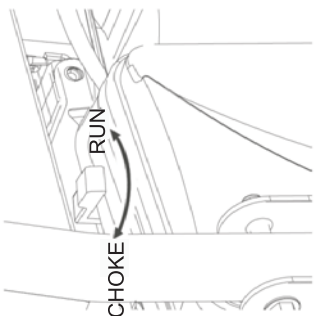
Turn Fuel Valve to ON position.



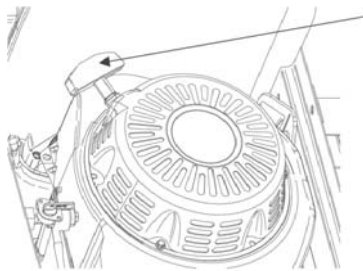
Turn engine switch to ON position.



Move engine choke lever to the CHOKE position.



Firmly grasp the recoil handle and pull slowly until increased resistance is felt. Pull rapidly up and away.



Recoil Starter

When engine starts, move choke lever to 1/2-CHOKE position until engine runs smoothly and then fully into RUN position. If engine falters, move choke back out to 1/2-CHOKE position until engine runs smoothly and then fully into RUN position.

NOTE If engine starts, but does not continue to run, move choke lever to the CHOKE position and repeat starting instructions.

WARNING Starter cord kickback (rapid retraction) will pull hand and arm toward engine faster than you can let go which could cause broken bones, fractures, bruises, or sprains resulting in serious injury.
When starting engine, pull cord slowly until resistance is felt and then pull rapidly to avoid kickback.
Never start or stop engine with electrical devices plugged in and turned on.

NOTE If engine fails to start after 3 pulls, or if unit shut down during operation, make sure unit is on a level surface and check for proper oil level in crankcase. This unit may be equipped with a low oil protection device. If so, oil must be checked at proper level for engine to start and run.

WARNING Exhaust heat/ gases could ignite combustible, structures or damage fuel tank causing a fire, resulting in death, serious injury and/or property damage. Contact with muffler area could cause burn resulting in serious injury.
DO NOT touch hot part and AVOID hot exhaust gases.

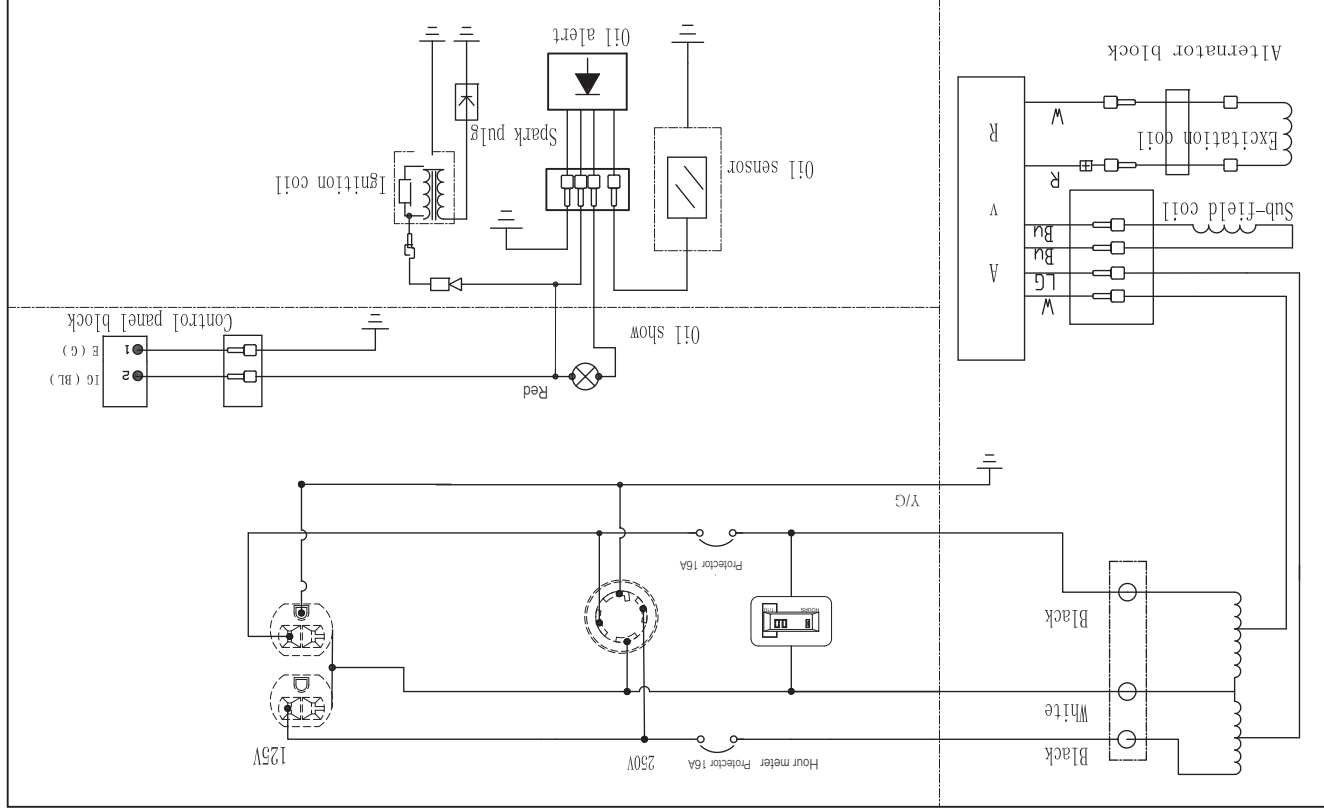
Allow equipment to cool before touching. Keep at least 5 feet (152 cm) of clearance on all sides of generator including overhead.
Contact the original equipment manufacturer, retailer, or dealer to obtain a spark arrester designed for the exhaust system installed on this engine.
Replacement parts must be the same and installed in the same position as the original parts.

SECTION 11 — PARTS LIST AND DIAGRAM

GENERAL PARTS LIST

Part	Description	QTY	Part	Description	QTY
1	Bolt, Flange	2	34	Shock Absorbing Mount	4
2	Motor Cover, Rear	1	35	Nut, Flange	4
3	Bolt, Flange	2	36	Clamp	2
4	Motor Bracket	2	37	Breather Tube	1
5	Bolt, Flange	1	38	Clamp	1
6	Motor Bracket	1	39	Clamp	1
7	Carbon Brush	1	40	Breather Tube	1
8	Bolt, Flange	2	41	Fuel Valve	1
9	Bolt, Flange	1	42	Fuel Tank Assy	1
10	Air Deflector, Down	1	43	Control Pannel Assy	1
11	Motor Bracket	1			
12	Hexagon Blot	4			
13	Stator	1			
14	Bolt, Flange	1			
15	Washer, Plain	1			
16	Rotor	1			
19	Muffler Assy	1			
20	Wahser, Muffler	1			
21	Gasoline Engine	2			
22	Washer, Plain	4			
23	Wheel Assy	2			
24	Axle	2			
25	Clip, Dowel Pin	1			
26	Support Assy	1			
27	Support Assy	1			
28	Support Rubber	2			
29	Bolt, Flange	4			
30	Handle girp	1			
31	Handle	1			
32	Fuel tank barre	1			
33	Nut, Flange	4			

SECTION 10 — DIAGRAM



AP5000

IMPORTANT: Do not overload the generator. Also, do not overload individual panel receptacles. These outlets are protected against overload with push-to-reset-type circuit breakers. If amperage rating of any circuit breaker is exceeded, that breaker opens and electrical output to that receptacle is lost.

5.2 CONNECTING ELECTRICAL LOADS

- Let engine run stable and warm up for a few minutes after starting.
- Plug in and turn on the desired 120 and/or 240 Volt AC, single phase, 60 Hz electrical loads.
- Add up the rated watts (or amps) of all loads to be connected at one time. This total should not be greater than (a) the rated wattage/ampere capacity of the generator or (b) circuit breaker rating of the receptacle supplying the power.

NOTE DO NOT connect 240 Volt loads to the 120 Volt duplex receptacles, and do not do vice versa also. DO NOT connect 3 phase loads to the generator. DO NOT connect 50 Hz loads to the generator.

NOTE Start generator and let engine stabilize before connecting electrical loads.

- Connect electrical loads in OFF position then turn ON for operation.
- Turn electrical loads OFF and disconnect from generator before stopping generator.
- DO NOT overload Generator Capacity

NOTE Exceeding generators wattage/ampere capacity could damage generator and/or electrical devices connected. DO NOT exceed the generator's wattage/ampere capacity.

- Overloading a generator in excess of its rated wattage capacity can result in damage to the generator and to connected electrical devices. Observe the following to prevent overloading the unit:
 - Add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator's wattage capacity.
- The rated wattage of lights can be taken from light bulbs. The rated wattage of tools, appliances and motors can usually be found on a data label

NOTE

or decal affixed to be the device. If the appliance, tool or motor does not give wattage, multiply volts times ampere rating to determine watts:

$$\text{Volts} \times \text{Amps} = \text{Watts}$$

Some electric motors, such as induction types, require about three times more watts of power for starting than for running. This surge of power lasts only a few seconds when starting such motors. Make sure to allow for high starting wattage when selecting electrical devices to connect to the generator:

- Figure the watts needed to start the largest motor.
- Add to that figure the running watts of all other connected loads.

The "WATTAGE REFERENCE GUIDE" on Page 10 helps to determine how many items the generator can operate at one time.

5.3 STOPPING THE ENGINE

- Shut off all loads then unplug the electrical cables from generator panel receptacles. Never start or stop the engine with electrical devices plugged in and turned on.
- Let engine run at no-load for several minutes to stabilize the internal temperatures of engine and generator.
- Move Engine switch to OFF position.
- Close fuel valve.

5.4 LOW OIL LEVEL SHUT DOWN SYSTEM

The engine is equipped with a low oil level sensor that shuts down the engine automatically when the oil level drops below a specified level. If the engine shuts down by itself and the fuel tank has enough gasoline, check engine oil level.

5.5 HIGH ALTITUDE OPERATION

At high altitudes over 3,000 feet, the engine carburetor and any other parts that control the fuel-air ratio will be affected, which will decrease performance, increase fuel consumption and increase emission. Proper operation can be ensured by installing an altitude kit by a qualified mechanic when use at altitude higher than 3,000 feet. Refer to the altitude kit and operation instruction (provided) when needed.

SECTION 6 — MAINTENANCE

6.1 MAINTENANCE SCHEDULE

Follow the calendar intervals shown below. More frequent service is required when operating in adverse conditions.

First 5 Hours
• Change engine oil
Every 8 Hours or Daily
• Clean debris
• Check engine oil level
Every 25 Hours or Yearly
• Clean engine air filter
Every 50 Hours or Yearly
• Change engine oil
Yearly
• Replace engine air filter
• Service fuel valve
• Service spark plug
• Inspect muffler and spark arrester
• Clean cooling system

6.2 GENERAL RECOMMENDATIONS

The warranty of the generator does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the generator as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain the generator.

All adjustments in the “MAINTENANCE” section should be made at least once each season. Follow the requirements in the “Maintenance Schedule”.

NOTE Once a year replace the spark plug and replace the air filter. A new spark plug and clean air filter assure proper fuel-air mixture and help the engine run better and last longer.

6.2.1 GENERATOR MAINTENANCE

Generator maintenance consists of keeping the unit clean and dry. Operate and store the unit in a clean dry environment where it will not be exposed to excessive dust, dirt, moisture or any corrosive vapors. Cooling air slots in the generator must not become clogged with snow, leaves, or any other foreign material. Check the cleanliness of the generator frequently and clean when dust, dirt, oil, moisture or other foreign substances are visible on its exterior surface.

CAUTION Never insert any object or tool through the air cooling slots, even if the engine is not running.

NOTE DO NOT use a garden hose to clean generator. Water can enter the engine fuel system and cause problem. In addition, if water enters the generator through cooling air slots, some water will be retained in voids and crevices of the rotor and stator winding insulation. Water and dirt buildup on the generator internal windings will eventually decrease the insulation resistance of these windings.

6.2.2 TO CLEAN THE GENERATOR

- Use a damp cloth to wipe exterior surfaces clean.
- A soft, bristle brush may be used to loosen caked on dirt, oil etc.
- A vacuum cleaner may be used to pick up loose dirt and debris.
- Low pressure air (not to exceed 25 psi) may be used to blow away dirt. Inspect cooling air slots and openings on the generator. These openings must be kept clean and unobstructed.

6.2.3 ENGINE MAINTENANCE

DANGER When working on the generator, always disconnect spark plug wire from spark plug and keep wire away from spark plug.

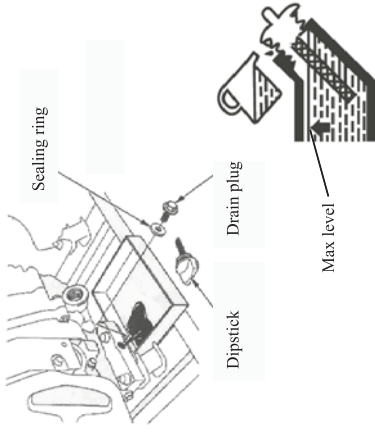
SECTION 9 — PARAMETER

Specification

Model Number	AP5000
Starting Watts	5000
Running Watts	4000
AC Load	120/240V
Frequency	60Hz
Running VAC Amperage	17.0A
Phase	Single
IP Class	21
Power Factor	1.0
Receptacle	ONE - 120/240V AC 30A NEMA L14-30R TWO - 120V AC 20A NEMA 5-20R
Displacement	223cc / 7.5hp
Starting Method	Manual
Cooling System	Horizontal Single Cylinder 4 Stroke OHV
Fuel Tank Capacity	4G, (15L)
Engine Oil Capacity	0.6Qt. (0.6L)
Run time @ 50% Load (Hrs)	11 Hrs
Run time @ 100% Load (Hrs)	7.5 Hrs
Noise Level	68 dBA at 23ft (7m)

6.2.4 CHANGING ENGINE OIL

Change engine oil after the first five hours of operation, then every 50 hours thereafter. If running this unit under dirty or dusty conditions, or in extremely hot weather, to change the oil more often.



CAUTION Hot oil may cause burns. Allow engine to cool before draining oil. Avoid prolonged or repeated skin exposure with used oil. Thoroughly wash exposed areas with soap.

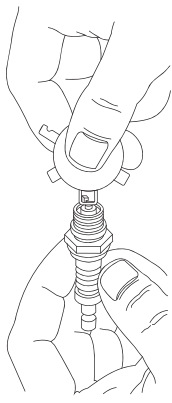
Use the following instructions to change the oil while the engine is still warm:

- Clean area around oil drain plug.
- Remove oil drain plug from engine and oil fill plug to drain oil completely into a suitable container.
- When oil has completely drained, install oil drain plug and tighten securely.
- Fill engine with recommended oil. (See "Before Starting the Generator" for oil recommendations).
- Wipe up any spilled oil.
- Dispose of used oil at a proper collection center.

6.2.5 SPARK PLUG MAINTENANCE

Use spark plug F6TC, F7TC, BPR4ES or Champion RN14YC. Replace the plug once each year. This will help the engine start easier and run better.

- Stop the engine and pull the spark plug wire off of the spark plug.
- Clean the area around the spark plug and remove it from the cylinder head.
- Set the spark plug's gap to 0.70-0.80 mm (0.028-0.031 in.). Install the correctly gapped spark plug into the cylinder head and torque to 15 ft/lbs.

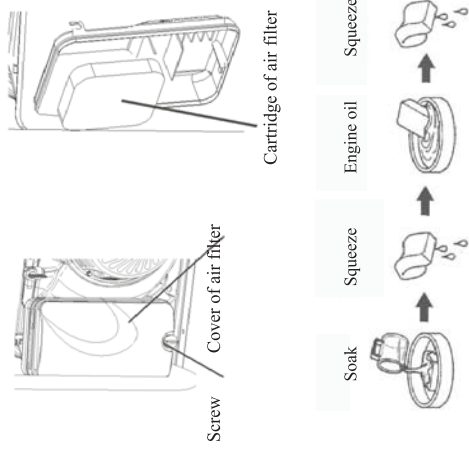


6.2.6 SPARK ARRESTER

- Shut off generator and allow the engine and muffler to cool down completely before servicing spark arrester (located on the back of the muffler).
- Remove the clamp and spark arrester screen.
- Clean the spark arrester screen with a small wire brush.
- Replace the spark arrester if it is damaged.
- Installation of the spark arrester screen is the reverse of the removal.

6.3 AIR FILTER MAINTENANCE

- The engine will not run properly and may be damaged if using a dirty air filter. Replace the air filter once a year. Clean or replace more often if operating under dusty conditions.
- Remove air filter cover.
 - Wash in soapy water. Squeeze filter dry in clean cloth (DO NOT TWIST).
 - May drop a bit of engine-oil to avoid ice blocked during winter season.
 - Clean air filter cover before re-installing it.



Problem	Possible Causes	Probable Solutions
Engine misfires	<ol style="list-style-type: none"> 1. Spark plug cap loose. 2. Incorrect spark plug gap or damaged spark plug. 3. Defective spark plug cap. 4. Old or low quality gasoline. 5. Incorrect compression. 	<ol style="list-style-type: none"> 1. Check wire connections. 2. Re-gap or replace spark plug. 3. Replace spark plug cap. 4. Use only fresh 87+ octane stabilizer-treated unleaded gasoline. Do not use gasoline with more than 10% ethanol (E15, E20, E85, etc.). 5. Diagnose and repair compression. (Use Engine will not start: COMPRESSION RELATED section.)
Engine stops suddenly	<ol style="list-style-type: none"> 1. Fuel tank empty or full of impure or low quality gasoline. 2. Low oil shutdown. 3. Defective fuel tank cap creating vacuum, preventing proper fuel flow. 4. Faulty magneto. 5. Disconnected or improperly connected spark plug cap. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane stabilizer-treated unleaded gasoline. Do not use gasoline with more than 10% ethanol (E15, E20, E85, etc.). 2. Fill engine oil to proper level. Check engine oil before EVERY use. 3. Test/replace fuel tank cap. 4. Have qualified technician service magneto. 5. Secure spark plug cap.
Engine stops when under heavy load	<ol style="list-style-type: none"> 1. Dirty air filter 2. Engine running cold. 	<ol style="list-style-type: none"> 1. Clean or replace element. 2. Allow engine to warm up prior to operating equipment.
Engine knocks	<ol style="list-style-type: none"> 1. Old or low quality gasoline. 2. Engine overloaded. 3. Incorrect spark timing, deposit buildup, worn engine, or other mechanical problems. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane stabilizer-treated unleaded gasoline. Do not use gasoline with more than 10% ethanol (E15, E20, E85, etc.). 2. Do not exceed equipment's load rating. 3. Have qualified technician diagnose and service engine.
Engine backfires	<ol style="list-style-type: none"> 1. Impure or low quality gasoline. 2. Engine too cold. 3. Intake valve stuck or overheated engine. 4. Incorrect timing. 	<ol style="list-style-type: none"> 1. Fill fuel tank with fresh 87+ octane stabilizer-treated unleaded gasoline. Do not use gasoline with more than 10% ethanol (E15, E20, E85, etc.). 2. Use cold weather fuel and oil additives to prevent backfiring. 3. Have qualified technician diagnose and service engine. 4. Check engine timing.
Generator shuts down during operation	<ol style="list-style-type: none"> 1. Out of fuel. 2. Low oil level. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. Fill crankcase to the proper level. Place generator on a flat, level surface.
Generator cannot supply enough power or overheating	<ol style="list-style-type: none"> 1. Generator is overloaded. 2. Insufficient ventilation. 	<ol style="list-style-type: none"> 1. Review load and adjust, see "xx". 2. Check for air restriction. Move to a well ventilated area.
No AC output	<ol style="list-style-type: none"> 1. Cable not properly connected. 2. Circuit breaker is open. 3. Faulty brush assembly. 4. Faulty AVR. 5. Loose wiring. 6. Other. 	<ol style="list-style-type: none"> 1. Check all connections. 2. Reset circuit breaker. 3. Replace brush assembly. 4. Replace AVR. 5. Inspect and tighten wiring connections. 6. Contact Customer Service at 1-855-888-3598.
Generator gallops	<ol style="list-style-type: none"> 1. Engine governor defective. 	<ol style="list-style-type: none"> 1. Contact Customer Service at 1-855-888-3598.
Repeated circuit breaker tripping	<ol style="list-style-type: none"> 1. Overload. 2. Faulty cords or device. 	<ol style="list-style-type: none"> 1. Review load and adjust. See "Wattage Reference Guide" on Page 10. 2. Check for damaged, bare or frayed wires. Replace defective device.

6.4 VALVE CLEARANCE

After the first 50 hours of operation, check the valve clearance in the engine and adjust if necessary.

Valve Clearance

- Intake: 0.10-0.15mm (0.004-0.006 in)
- Exhaust: 0.15-0.20mm (0.006-0.008 in)

Important: If feeling uncomfortable about doing this procedure or the proper tools are not available, please take the generator to the nearest service center to have the valve clearance adjusted. This is a very important step to ensure longest life for the engine.

SECTION 7 — STORAGE

7.1 GENERAL

The generator should be started at least once every seven days and be allowed to run at least 30 minutes. If this cannot be done and the unit must be stored for more than 30 days, use the following information as a guide to prepare it for storage.

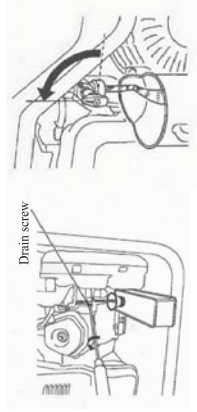
▲ DANGER NEVER store engine with fuel in tank indoors or in enclosed, poorly ventilated areas where fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or other gas appliance.

▲ CAUTION Avoid spray from spark plug holes when cranking engine.

▲ DANGER Drain fuel into approved container outdoors, away from open flame. Be sure engine is cool. Do not smoke.

7.2 LONG TERM SHORTAGE INSTRUCTIONS

It is important to avoid gum deposits from forming in essential fuel system parts such as the carburetor, fuel hose or tank during storage. Also, experience indicates that alcohol-blended fuels (called gasohol, ethanol or methanol) can attract moisture, which leads to separation and formation of acids storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer, as follows:



- Remove all gasoline from the fuel tank.
- Start and run engine until engine stops from lack of fuel.
- While engine is still warm, drain oil from crankcase. Refill with recommended grade.
- Remove spark plugs and pour about 1/2 ounce (15 ml) of engine oil into the cylinders. Cover spark plug hole with rag. Pull the recoil starter a couple times to lubricate the piston rings and cylinder bore.

7.3 OTHER STORAGE TIPS

- Do not store gasoline from one season to another.
- Replace the gasoline can if it starts to rust. Rust and/or dirt in the gasoline will cause problems with the carburetor and fuel system.
- If possible, store the unit indoors and cover it to give protection from dust and dirt. **BE SURE TO EMPTY THE FUEL TANK.**
- If it is not practical to empty the fuel tank and the unit is to be stored for some time, use a commercially available fuel stabilizer added to the gasoline to increase the life of the gasoline.
- Cover the unit with a suitable protective cover that does not retain moisture.

▲ DANGER NEVER cover the generator while engine and exhaust area are warm.

- Install and tighten spark plugs. Do not connect spark plug wires.
- Clean the generator outer surfaces. Check that cooling air slots and openings on generator are open and unobstructed.
- Store the unit in clean, dry place.

SECTION 8 — TROUBLESHOOTING

Problem	Possible Causes	Probable Solutions
Engine will not start	<p>FUEL RELATED:</p> <ol style="list-style-type: none"> No fuel in tank or fuel valve is in "OFF" position. Low quality, stale, dirty or deteriorated gasoline. Choke not in START position, cold engine. Carburetor not primed. Dirty fuel passageways. Carburetor needle stuck. Fuel can be smelted in the air. Too much fuel in chamber. This can be caused by the carburetor needle sticking. Intake valve stuck open or closed. Clogged Fuel Filter. 	<p>FUEL RELATED:</p> <ol style="list-style-type: none"> Fill fuel tank with fresh 87+ octane unleaded stabilizer-treated gasoline and turn fuel valve to "ON" position. Do not use gasoline with more than 10% ethanol (E15, E20, E85, etc.). Drain fuel tank and carburetor; fill with fresh fuel. Move Choke to START position. Pull on Starter Handle to prime. Clean out passageways using fuel additive. Heavy deposits may require further cleaning. Gently tap side of carburetor float chamber with screwdriver handle. 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. Call customer service: 1-855-888-3598. Replace Fuel Filter.
	<p>IGNITION (SPARK) RELATED:</p> <ol style="list-style-type: none"> Spark plug cap not connected securely. Spark plug electrode wet or dirty. Incorrect spark plug gap. Spark plug cap broken. Incorrect spark timing or faulty ignition system. 	<p>IGNITION (SPARK) RELATED:</p> <ol style="list-style-type: none"> Connect spark plug cap properly. Clean spark plug. Correct spark plug gap. Replace spark plug cap. Have qualified technician diagnose/repair ignition system.
	<p>COMPRESSION RELATED:</p> <ol style="list-style-type: none"> Cylinder not lubricated. Problem after long storage periods. Loose or broken spark plug. (Hissing noise will occur when trying to start.) Loose cylinder head or damaged head gasket. (Hissing noise will occur when trying to start.) Engine valves or tappets mis-adjusted or stuck. 	<p>COMPRESSION RELATED:</p> <ol style="list-style-type: none"> Pour tablespoon of oil into spark plug hole. Crank engine a few times and try to start again. Tighten spark plug. If that does not work, replace spark plug. If problem persists, may have head gasket problem, see #3. Tighten head. If that does not remedy problem, replace head gasket. Have qualified technician adjust/repair valves and tappets.
	<p>ENGINE OIL RELATED:</p> <ol style="list-style-type: none"> Low engine oil. Engine mounted on slope, triggering low oil shutdown. 	<p>ENGINE OIL RELATED:</p> <ol style="list-style-type: none"> Fill engine oil to proper level. Check engine oil before EVERY use. Operate engine on level surface. Check engine oil level.
Engine "hums" or falters	<ol style="list-style-type: none"> Carburetor is running too rich or too lean. Clogged or dirty fuel filter. 	<ol style="list-style-type: none"> Call Customer Service: 1-855-888-3598. Clean or replace fuel filter.
Engine lacks power	<ol style="list-style-type: none"> Cylinder pressure is low. Dirty air filter. 	<ol style="list-style-type: none"> Call Customer Service: 1-855-888-3598. Clean or replace fuel filter.